PANELS & FURNITURE ASIA

FOR PANEL MANUFACTURING, FURNITURE MANUFACTURING & FLOORING

www.panelsfurnitureasia.com

MARCH/APRIL 2025

BETTER BALANCE

Sustainability

Environmental regulations are getting stricter, while the cost of CO_2 emissions is increasing. CEBRO helps you find the right balance between economic and sustainability goals. In addition, Dieffenbacher Energy offers you a wide range of advanced solutions for efficient and sustainable power and heat generation.

CEBRO

cebro.dieffenbacher.com

DIEFFENBACHER

MOVE FORWARD. TOGETHER.

VISIT US AT **INDIAWOOD**
MARCH 6–9, 2025

INDO WOOD EXPO

INDONESIA FORESTRY AND
WOODWORKING MACHINERY EXPO

GRAND CITY CONVEX SURABAYA

19-21 JUNE 2025

INDONESIA - SURABAYA
EMERGING HUB FOR FURNITURE MANUFACTURING

Presented by

HIMKI INDONESIAN FURNITURE AND CRAFTS INDUSTRY ASSOCIATION

ORGANISER FOR INDONESIA INTERNATIONAL FURNITURE EXPO (IFEX)

PABLO PUBLISHING & EXHIBITION PTE LTD

Official Media:

PANELS FURNITURE ASIA

WOOD IN ARCHITECTURE

亚洲板材家具

FOR SALES ENQUIRIES

INTERNATIONAL

williampang@pabloasia.com

+65 9621 4283 / +65 6266 5512

WECHAT CONTACT

CHINA

Rain Ma
pablobeijing@163.com
182 1755 3837
WECHAT CONTACT

Ellen Gao
hare30@126.com
139 1092 3635
WECHAT CONTACT

VIETNAM

Ms. Nguyễn Thị Nam (Bella)
Sales Manager
namnguyen@pabloasia.com
(+84)901 358 642

www.indowoodexpo.com

Nanxing

CNC 6-Sided Drilling Optimization

Update on changes and improvements with CNC 6-Sided Drilling

NEW Drilling Family

ND7-Series
Industrial level double workstation

ND6-Series
Industrial level single workstation

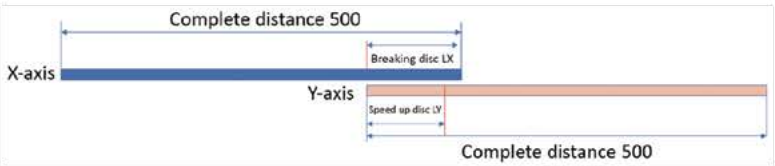
ND5-Series
Entry level single workstation

Leapfrog 2.0

CNC System Upgrade New version

HIGHLIGHT

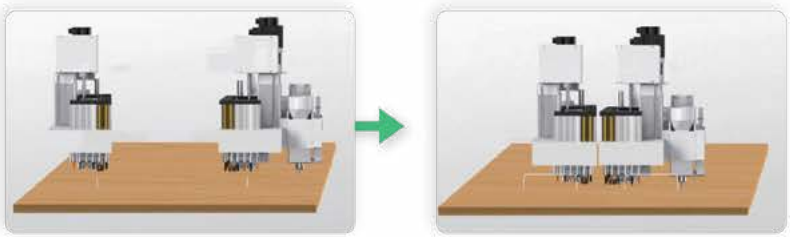
When the drill is withdrawn, the workpiece moves synchronously with the drill. The old algorithm requires one action to be completed before the next action can be executed. This means that the use of the new algorithm Leapfrog 2.0 can improve efficiency more than 20% without changing the hardware.



Efficiency

20%+

New algorithm model maximizes efficiency



The new jump processing algorithm saves the drilling package movement time during the processing, achieves the best production state, and improves processing efficiency.

What news in upgrade?

Nanxing CNC 6-Sided drilling machines

ND7-Series

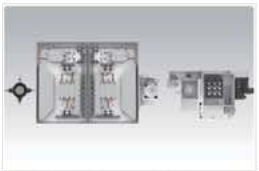
Industrial level double workstation

HIGHLIGHT

- The minimum spacing of the double drilling block is 64mm, and the applicability rate is increased by 5%.
- The layout of the drilling block is upgraded, and the efficiency is increased by 10% when drilling three-in-one.
- Pre-positioning of the workpiece feeding can save 5% of the time.

ND6-Series

Industrial level single workstation



ND612DC TSchematic diagram of top and bottomprocessing unit

Automatic tool changing spindle+8-slot automatic tool changer

ND5-Series

Entry level single workstation

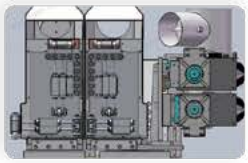
HIGHLIGHT

- Quick swithching of dual spindles.
- Symmetrical drill block.
- Six-sided drilling, upper and bottom grovving, milling.

More Upgrade

Safety device, Control computer, Drilling block Layout, Improve in Spindle...

Spindle pressing plate & dust hood improve



Drilling block Layout Upgrade-Fast mini fix processing

We offer more

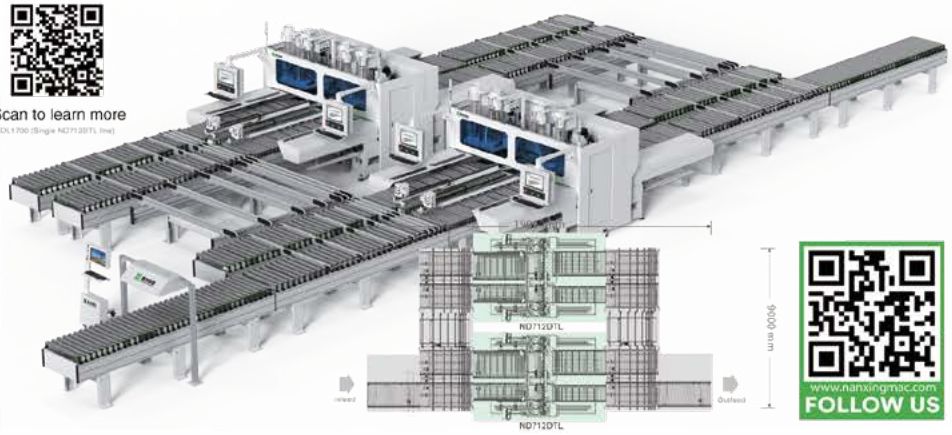
Nanxing CNC 6-Sided Drilling Machine Line

Up to 900 pcs/h Double ND712DTL line

Scan to learn more

*ND1700 (Single ND712DTL line)

- Higher efficiency, up to 900 pcs/h for each shift;
- Modular design of such work cell is easy to link to sorting system or edge banding work station to build Industrial 4.0 production line.



@NanxingMachinery

Contents

Issue 2 / Panels & Furniture Asia
March / April 2025

Wood You Believe It? Innovations, Insights, and What's Next for the Timber Industry!

Hello, everyone! Can you believe we're almost through the first quarter of 2025 already? Time sure flies when there's so much happening in the world of wood, sustainability, and innovation.

As COP16 wraps up with mixed results, the need to meet global biodiversity targets is more urgent than ever. In this issue, we hear from Matteo Mascolo, lead of the Forest Stewardship Council (FSC), who reflects on the progress made, the setbacks encountered, and the crucial steps we must take to keep the momentum going (p 19).

We're also diving into the incredible work being done by the International Wood Products Association (IWPA). Executive Director Ashley Amidon shares how the association is leading the way in promoting sustainability, providing essential resources, and advocating for responsible trade practices (p 24).

Over in Taiwan, Ian Chang gives us a closer look at the challenges currently facing the woodworking industry, along with his vision for how to steer the sector through these uncertain times (p 28). Meanwhile, Globus is shaking things up with their commitment to quality and sustainability, using cutting-edge technology to reduce waste and improve production efficiency (p 34).

In the world of recycling, TOMRA is leading the charge with deep learning technology that's revolutionising the industry. We speak with Dr. Volker Rehrmann and Jose Matas to get their take on how this advancement is pushing the boundaries of efficiency and sustainability (p 37).

And finally, let's talk about Mass Engineered Timber (MET). As this innovative building material grows in popularity, we've got insights from Gijs van Seggelen and Andrej Holc who are here to debunk myths and highlight the future potential of MET in construction (p 52).

We're also counting down to LIGNA 2025 — an event we can't wait to attend! We'll be there to explore the latest trends and innovations in woodworking and timber, and we hope to see all of you there too. It's going to be an exciting year ahead!

So, grab a cup of coffee, sit back, and enjoy this exciting issue. You won't want to miss it!

Happy reading!

William Pang
PUBLISHER

PABLO SINGAPORE

William Pang • *Publisher*
williampang@pabloasia.com

Natalie Tham • Assistant *Editor*
natalietham@pabloasia.com

Pang YanJun
• *Business Development Manager*
yanjun@pabloasia.com

Goh Meng Yong • *Graphic Designer*
mengyong@pabloasia.com

Shu Ai Ling • *Circulation Manager*
ailing@pabloasia.com

PABLO BEIJING

Ellen Gao • *General Manager*
pablobeijing@163.com

PABLO SHANGHAI

Daisy Wang • *Editor*
pabloshanghai@163.net

Pablo Publishing & Exhibition Pte Ltd (Head Office)
10 Woodlands Square, #02-41 Solo 1, Singapore 737714 • Tel: +65 6266 5512 • Email: info@pabloasia.com
Company Registration No: 200001473N • Singapore • MICA (P) No: 040/12/2024
Pablo (Beijing) • Tel : +86 10 6509 7728 • Email : pablobeijing@163.com
Pablo (Shanghai) • Tel : +86 21 5238 9737 / 36 • Email : pabloshanghai@163.net

let's connect!
@panelsfurnitureasia

Scan to subscribe to PFA's enewsletter

PB PLANTS

MDF PLANTS

OSB PLANTS

PELLET PLANTS

ENGINEERING, MACHINERY AND COMPLETE PLANTS FOR WOOD BASED PRODUCTS.

IMALPAL group is a leading and flexible manufacturer of equipment and engineering for plants and complete lines for the production of OSB, MDF, PB panels, wood fibre insulation board, pressed pallets, pallet blocks and special production lines for pellets.

IMAL IMALPALGROUP · PAL IMALPALGROUP · GLOBUS IMALPALGROUP · PSP Machinery IMALPALGROUP · ITALSORT HANDLING & SORTING IMALPALGROUP · UNIBELT HANDLING SYSTEMS IMALPALGROUP

Tapping into best practices, shaping the future: Siempelkamp joins the Maschinenraum

In Jan, the Siempelkamp Group became the first company in 2025 to join the Maschinenraum ecosystem. The technology supplier for machine and plant engineering aims to benefit from the exchange within the network for family businesses to address key transformation challenges.

Martin Scherrer, CEO, Siempelkamp Group

The company is strategically advancing megatrends such as sustainability, change management, and digitalisation. It is also focusing on implementing new technologies and mitigating the effects of the skilled labour shortage by positioning itself as an attractive employer.

The diversity of business areas and increasing regulatory requirements make sustainability strategies particularly complex. At the same time, the company views this as an opportunity to set new standards. Addressing high energy costs in casting technology and increasing the use of digital technologies and artificial intelligence are also key challenges that Siempelkamp is tackling through research and innovation.

Maschinenraum is an alliance of almost 80 family-owned businesses, university partners, and other innovators working together on the transformation of German SMEs.

Siempelkamp seeks to gain insights from other family-owned companies while sharing its own experiences. The exchange on sustainable business models and transformation is considered an important foundation for future developments.

Martin Scherrer, CEO of the Siempelkamp Group, stated: "The Siempelkamp Group is currently shaping its transformation across multiple areas. To maintain our high standards, we aim to look beyond our own industry and learn from best practice examples. We also want to contribute our own experiences and insights. Maschinenraum provides ideal conditions for this exchange."

Tobias Rappers, managing director of Maschinenraum, described Siempelkamp's membership as a valuable addition. "With Siempelkamp, we are welcoming a company that brings significant value to our network through its extensive industry expertise and decades of experience. Siempelkamp exemplifies the challenges faced by many medium-sized companies today, balancing the development of established business areas with the creation of future-oriented, sustainable solutions. I am confident that the exchange within Maschinenraum will provide new impetus – not only for Siempelkamp but for all members of our network.". P

Andritz opens new system for Wisewoods in Thailand

(Image: Andritz)

Andritz is an international technology group that provides a wide range of plants, equipment, systems, and services for various industries. With a strong focus on sustainability and technological excellence, the company supports customers in achieving their environmental goals, operating in over 80 countries worldwide.

Andritz has started up a second pressurised refining system at the Wisewoods mill in Phetchaburi, Thailand. The new system processes rubberwood fibres for the production of medium-density fibreboard (MDF), increasing the mill's production capacity and enhancing operational efficiency.

At the core of the system, which has a capacity of 30 tonnes per hour, is a high-efficiency pressurised refiner designed to improve fibre quality while reducing overall energy consumption. In addition, Andritz supplied a plug-screw feeder to optimise dewatering before the refining process, ensuring effective pre-steaming and lowering specific energy usage.

The implementation of this system further strengthens the collaboration between Wisewoods and Andritz. It also reinforces Andritz's role as a global supplier in the panelboard industry, providing advanced solutions that support efficiency and sustainability.

Wisewoods manufactures MDF products for markets across the Middle East and Asia. The company focuses on producing high-quality wood panels that meet industry standards and customer requirements. P

TOMRA strengthens wood segment with key appointment of Alexandre Clairembault

TOMRA Recycling has strengthened its wood segment with the appointment of Alexandre Clairembault as segment area manager for wood.

A specialist in the wood sector for more than 20 years, Clairembault is responsible for developing TOMRA's market in the wood domain across Europe, working in collaboration with local sales teams. He is based at TOMRA's French office in Salon-de-Provence. He joins TOMRA's established wood team, which includes the wood segment director, waste wood application specialists, and key service account managers.

Clairembault has extensive experience in the wood industry, covering all stages from raw materials to finished products. His previous roles include sales area manager for Egger in France, national director for France at Sonae Arauco and Kronospan, and sales director for Menuiseries Combes in 2023. He has also held sales positions at La Boutique du Menuisier – SGS Diffusion, SOGAL France, and Design Parquet. His international experience includes working with major groups such as Sonae Arauco in Porto, Portugal, and Kronospan SL in Spain.

TOMRA Recycling was the first provider of sensor-based sorting solutions with a dedicated team for the wood segment. The company aims to advance waste wood recycling through its sorting technology and process improvement consulting.

TOMRA's wood recycling solutions include X-TRACT and its deep learning add-on GAINnext for the AUTOSORT machine. Introduced in 2014, X-TRACT is a high-throughput sorting solution that separates waste wood from complex mixed streams. Using dual energy x-ray transmission (XRT), the system detects and separates wood from impurities such as inert materials, metals, plastic, and glass based on atomic density.

In 2022, TOMRA introduced its deep learning solution GAINnext, an artificial intelligence-based system that identifies objects by their shape, size, and visual characteristics, enabling differentiation between various types of wood and wood composites. The combination of X-TRACT and GAINnext allows wood processors and recyclers to efficiently produce high-quality, high-purity mono-fractions of non-processed wood (Wood A), clean processed wood (Wood B), and MDF.

Jose Matas, segment director for wood at TOMRA Recycling, said: "We are delighted to welcome Alexandre to our wood segment. TOMRA has a long history of providing expert solutions and advanced sorting technology to the wood industry. Alexandre's extensive experience positions him well to drive our European expansion, capitalising on the growing demand for circular wood waste solutions and strengthening our local teams."

Clairembault added: "I am excited to join TOMRA Recycling at such a pivotal moment. The push for cost efficiency and recycled content makes TOMRA's wood sorting technology crucial for accessing valuable materials and building a truly circular wood economy. My understanding of the wood panel industry will help recyclers and manufacturers optimise their operations while reducing environmental impact. I look forward to contributing to decarbonising this sector and turning discarded wood waste into valuable resources through TOMRA's advanced solutions." P

Woodgrain Completes Kelleher Corporation Acquisition

Woodgrain, a millwork and building products company, has completed the asset purchase of Kelleher Corporation. The acquisition includes distribution locations in Sacramento, Ontario, Carneros and Blackpoint, California, as well as Honolulu, Hawaii. It also includes a manufacturing location in Bear Valley, Oregon, and an office in San Rafael, California.

Kelleher Corporation specialises in the distribution of moulding, lumber and doors, serving customers in California, Nevada and Hawaii. The acquisition strengthens Woodgrain's presence in these key markets and is expected to enhance service offerings, increase product availability and maintain a commitment to quality.

Todd Dame, president of Woodgrain's distribution division, said, "We are pleased to welcome the talented Kelleher associates into Woodgrain and look forward to working with the Kelleher team as we expand our distribution network."

Woodgrain is a family-owned millwork and building products company with locations throughout the United States and Chile. With more than 70 years of craftsmanship and service, it is a producer of moulding, doors, windows and lumber, as well as a distributor of specialty building products. Headquartered in Fruitland, Idaho, Woodgrain operates over 50 manufacturing and warehouse facilities in the United States and South America. P

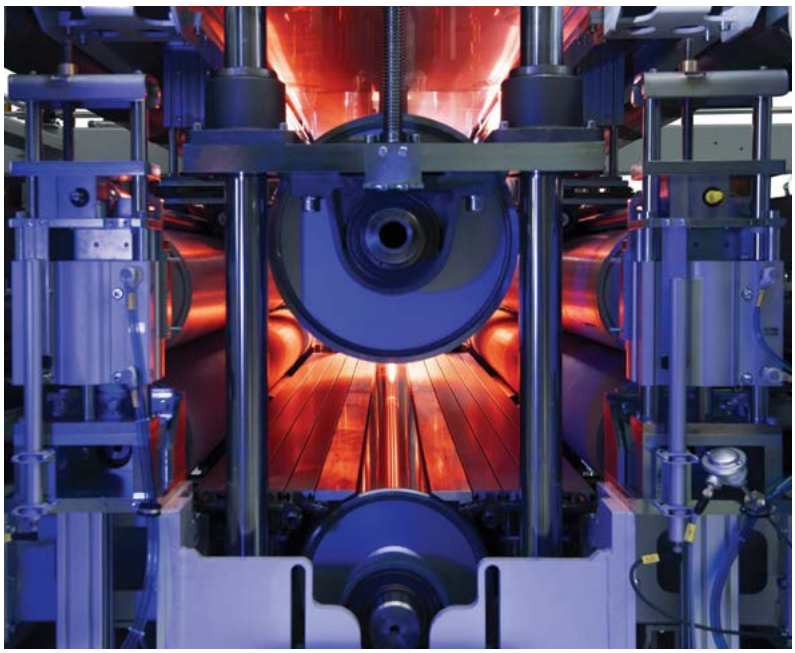
Kelleher
A WOODGRAIN COMPANY

Innovative applications for IPCO composite processing systems

IPCO, a manufacturer of processing systems for composite materials, will use JEC World 2025 to present various applications for its double belt press systems, precision scattering lines, and continuous film casting process.

The company is a globally active engineering group supplying systems for the production of composite materials used in the automotive, aerospace, flooring, construction, non-woven, textile, and recycling industries.

These include ThermoPress multi-stage double belt presses, which are available with PTFE and steel belts. They can be configured to handle a range of applications, from low-pressure consolidation to high-pressure, high-temperature processes involving thermoset and thermoplastic materials. IPCO ScatterPro systems enable precise scattering of powders, granulates, or fibres, while its thin film casting lines use Venturi drying technology to produce high-quality films, tapes, and membranes.



IPCO ThermoPress double belt press TB

ENERGY STORAGE AND EV COMPONENTS

IPCO systems are used in the development of materials supporting the transition to electric vehicles. These include separators or membranes for lithium-ion batteries, fuel cells, and solid-state batteries, as well as advanced composite materials for lightweight EV components.

For battery technologies, IPCO's film casting system enhances the casting process, allowing for the production of film and tape products with exceptionally narrow tolerances. Scattering systems and double belt presses are used for manufacturing battery casings, bodywork and underbody parts, insulation, and interior panels.

SUSTAINABLE LEATHER ALTERNATIVE

A new plant-based alternative to leather, used in the automobile, fashion, footwear, and upholstery industries, is produced using IPCO's double belt press technology. MIRUM, a sustainable leather-like material developed by US manufacturer NRW, is manufactured using an IPCO ThermoPress CB, a double belt press that combines the cost-efficiency of PTFE belts with the high pressure of steel belt modules.

HIGH-VOLUME WASTE RECYCLING

The recent launch of IPCO's ScatterPro FX has improved the ability to process high-volume waste streams, including synthetic and natural fibres, production trim waste, glass fibre waste, and decommissioned wind turbine blades. This system can handle dissimilar products such as wood, foam, glass, and plastic without separation and can create a web or batt up to 100mm thick.

NEW PRODUCTIVITY CENTRE

IPCO is investing in a new productivity centre at its German headquarters in Fellbach, near Stuttgart. The facility will provide customers with the opportunity to conduct process testing, product development, and small-scale batch production using the full range of ThermoPress double belt presses and ScatterPro precision scattering lines, along with associated upstream equipment. The centre will also feature a dedicated metrology laboratory. P

SMARTECH named "Smart Manufacturing Company of the Year" at 2025 IoT Breakthrough Awards

SMARTECH, a global leader in AI-powered industrial solutions, has been named "Smart Manufacturing Company of the Year" at the prestigious 2025 IoT Breakthrough Awards. This recognition underscores SMARTECH's pioneering role in advancing autonomous manufacturing through AI and IoT-driven innovation.

The IoT Breakthrough Awards program celebrates the world's most innovative companies, technologies, and products transforming the Internet of Things (IoT) ecosystem. With thousands of nominations across categories such as Industrial IoT, Smart Cities, and AI-driven automation, the awards highlight groundbreaking contributions shaping the future of digital transformation.

REVOLUTIONISING MANUFACTURING WITH AI/ML TECHNOLOGIES

SMARTECH's proprietary AI/ML-powered autonomous manufacturing technology seamlessly integrates real-time IoT data with advanced analytics, enabling manufacturers to optimise production processes for increased efficiency and reduced downtime, enhance precision and quality control through real-time decision-making, and drive sustainability and resource efficiency with intelligent automation.

"This award reinforces SMARTECH's position as a key player in shaping the future of smart manufacturing," said Hanoch Magid, CEO of SMARTECH. "Our AI-driven solutions empower manufacturers to stay competitive in a rapidly evolving industry by unlocking new levels of efficiency, productivity, and sustainability."

"Our mission at SMARTECH is to revolutionise traditional manufacturing through AI and IoT innovations," added Nathalie Vaknin, vice-president of marketing at SMARTECH. "This recognition underscores our commitment to empowering manufacturers with smarter, more sustainable production solutions." P

SCM and Timberlab announce new collaboration for supply chain innovation

Timberlab, a leading US company specialising in sustainable timber solutions, has confirmed its partnership with SCM, the renowned Italian manufacturer of woodworking machinery and systems. As part of this collaboration, SCM will supply two cutting-edge technologies for Timberlab's new plant in Millersburg, Oregon — an initiative set to become a landmark in cross-laminated timber (CLT) production.

Timberlab has confirmed its partnership with SCM, a leading Italian manufacturer of woodworking machinery and systems, to enhance its new CLT production plant in Millersburg, Oregon. As part of this collaboration, SCM will supply a state-of-the-art CELASCHI XL profiling machine and double-end tenoner, capable of processing panels over 18 meters long at a rate of one every 15 minutes.

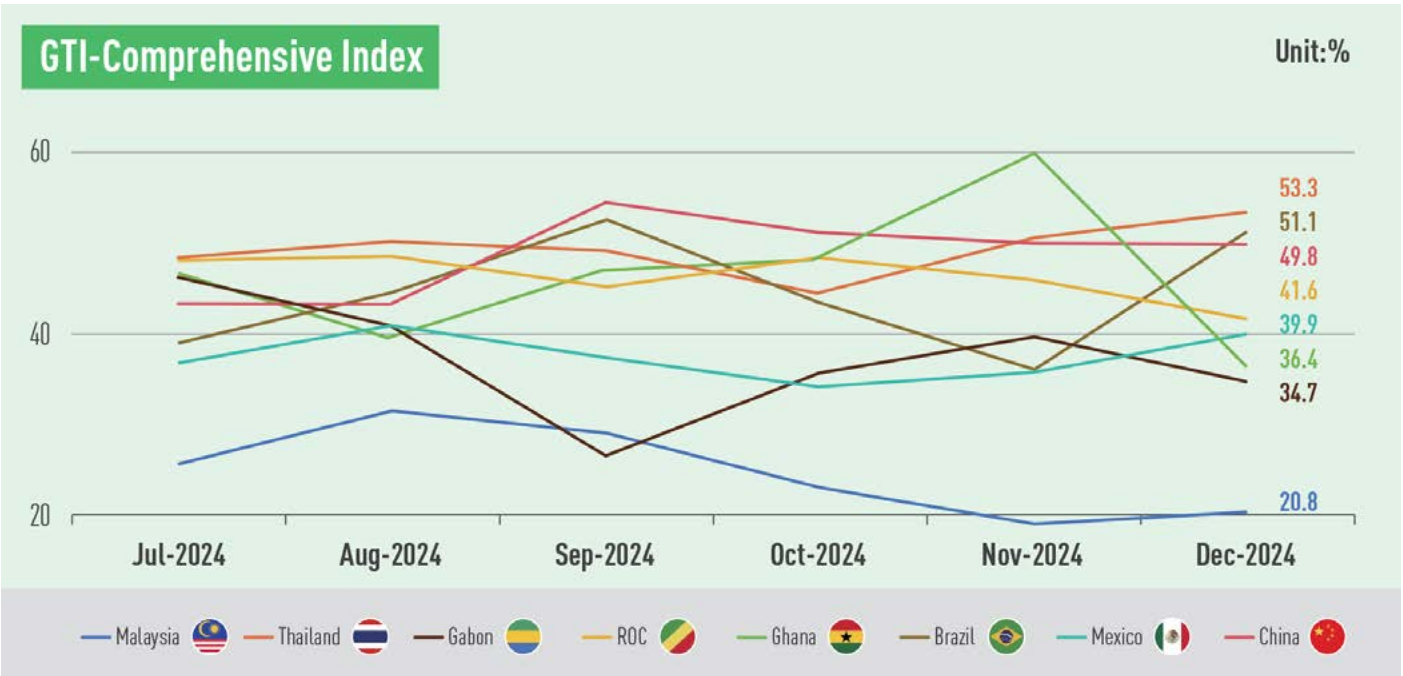
Additionally, Timberlab will integrate SCM's AREA XL 5-axis CNC machining center, featuring a mobile gantry structure and pendulum processing, specifically designed for the industrial production of large-format CLT panels (up to 60' x 11.5'). Both cutting-edge technologies are optimised for seamless integration into high-productivity manufacturing lines, marking a significant milestone in sustainable timber innovation.

"Partnering with SCM on innovative solutions for Timberlab has been the right choice," said Jeffrey Tuma, manufacturing executive at Timberlab. "SCM's willingness to try new things and solve for cost-effective solutions to enhance safety and quality in our production process, is greatly appreciated. The entire team at SCM has been great to work with in our journey to manufacturing excellence in mass timber." Tuma added further.

With the integration of these two state-of-the-art SCM solutions, Timberlab is set to achieve exceptional processing efficiency and precision at its new Millersburg, Oregon facility. The plant is poised to become one of the largest CLT production sites in North America, with an anticipated output of 100,000 cubic m of CLT panels. This milestone collaboration underscores Timberlab's commitment to advancing sustainable timber solutions through cutting-edge technology and high-productivity manufacturing.

The partnership between Timberlab and SCM does not start with this new project. Since 2023 the U.S. company has had 6-axis OIKOS X and OIKOS XL CNC machining centers for the production of large format glulam beams and columns. Decisive in the confirmation of this partnership were both the significant benefits obtained with these technologies and the reliability and efficiency of sales and service support received from SCM. P

Global Timber Index Launches Sub-Index for Market Expectation



OVERVIEW

In Dec 2024, the Global Timber Index (GTI) launched a new sub-index, the Market Expectation Index, which tracks and monitors the confidence levels of leading timber enterprises in GTI pilot countries regarding the trends of their countries' timber and wooden products markets over the next six months. With this addition, the GTI now encompasses 12 sub-indices, providing a more comprehensive reflection of the production and business trends of the timber sectors in pilot countries.

GTIs for Thailand (53.3%) and Brazil (51.1%) were above the critical value of 50% in December, thus indicating an upward trend in their timber sectors. However, GTIs for China (49.8%), Republic of the Congo (41.6%), Mexico (39.9%), Ghana (36.4%), Gabon (34.7%), and Malaysia (20.3%) were below the critical value, suggesting that the global timber market remained sluggish with significant downside risks.

This month, the volume of harvesting declined in all GTI-producing countries, particularly in Malaysia, Brazil, Gabon, and Mexico. Moreover, the declines in the four countries had persisted for several months, signalling a significant reduction in the supply of logs from these countries. The declines could be attributed to several factors, including lacklustre demand (particularly in markets such as Europe and China) and a slowdown in renovation activities during holiday periods.

Encouragingly, some timber markets were showing positive signs. For example, domestic market demand in Thailand grew significantly compared to the previous month; for Brazil and China, the volume of export orders increased; and for Mexico, the export market ended months of contraction.

The GTI reports on significant indications of progress towards sustainable forest management in the pilot countries. In December, for example, Indonesian Ministry of Environment and Forestry launched the Legality and Sustainability Verification System (SVLK) Plus with enhanced traceability features, so as to ensure that every exported wood product can be traced to its origin. Also, Malaysia achieved its goal of planting 100 million trees between 2021 and 2025, well ahead of schedule. To date, Malaysia has

The GTI now encompasses 12 sub-indices, providing a more comprehensive reflection of the production and business trends of the timber sectors in pilot countries (Image: ITTO)

recorded a forest cover of 18 million hectares, or 54.58% of the country's total land area.

MALAYSIA

As of Oct 2024, 40 forest management units covering a total area of 6.52 million hectares were certified under the Malaysian Timber Certification Scheme (MTCS) while 370 timber companies received the Chain of Custody certificate, allowing them to display the Programme for the Endorsement of Forest Certification logo on MTCS-certified timber exports, according to Malaysia's Ministry of Plantation and Commodities. On 10 Dec, Malaysia achieved its goal of planting 100 million trees between 2021 and 2025, well ahead of schedule. To date, Malaysia has recorded a forest cover of 18 million hectares, or 54.58% of the country's total land area. On 17 Dec, Malaysia was re-elected as chair of the Coalition on Sustainable Timber. Comprising forestry and timber industry associations from nine countries (Bolivia, Brazil, Ecuador, Ghana, Indonesia, Malaysia, Nigeria, Paraguay, and Peru), the coalition is dedicated to actively responding to European Union Deforestation Regulation (EUDR).

In Dec, the GTI-Malaysia index registered 20.3%, an increase of 1.5% from the previous month, was below the critical value (50%) for 26 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-Malaysia index shrank from last month.

As for the eleven sub-indexes, the purchase price index was above the critical value of 50%, the inventory index of finished products was at the critical value, while the remaining nine indexes were all below the critical value. Compared to the previous month, the indexes for new orders, inventory of finished products, purchase quantity, and purchase price increased by 5.0-15.0%; the indexes for export orders, existing orders, employees, and delivery time were unchanged from the previous month; and the indexes for harvesting, production and inventory of main raw materials declined by 5.5-14.3%.

THAILAND

On 24 Dec, the Department of Business Development of Thailand said that a total of 884 foreign companies were approved to invest in the country in the first 11 months of 2024, representing a 44% year-on-year increase. The total investment by these companies exceeded 213.96 billion baht (approximately US$6.26bn), reflecting a 118% year-on-year growth.

(Image: Unsplash)

(Image: Unsplash)

The Department of Marine and Coastal Resources (DMCR) said that privately owned virgin mangrove forests would soon be exempt from land tax to mitigate the problems of mangrove lands being transformed into agricultural land. Under the Land and Building Tax Act 2019, any property classified as vacant land or not being used properly must be taxed at a higher rate than areas used for agriculture. As a result, DMCR often finds landowners turning their mangrove lands into agricultural land to avoid high taxes. Recently, the director general of the Royal Forest Department presided over a meeting to clarify the roles, responsibilities, and operational areas of 408 forest protection units nationwide, and establish guidelines for relevant agencies to manage forest resources and handle seized timber.

In Dec, the GTI-Thailand index registered 53.3%, an increase of 3% from the previous month, was above the critical value (50%) for 2 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-Thailand index expanded from last month. This month, Thailand's timber sector saw an increase in both production and orders, particularly a significant growth in domestic demand.

As for the twelve sub-indexes, five indexes (production, new orders, export orders, purchase price, and delivery time) were above the critical value of 50%, one index (market expectation) was at the critical value, while the remaining six indexes (harvesting, existing orders, inventory of finished products, purchase quantity, inventory of main raw materials, and employees) were below the critical value.

Compared to the previous month, the indexes for new orders, export orders, existing orders, purchase price, inventory of main raw materials, and delivery time increased by 1.7-19.2%; the index for purchase quantity was unchanged from the previous month; and the indexes for harvesting,

(Image: istockphoto)

production, inventory of finished products, and employees declined by 3.8-15.4%.

CHINA

Starting from 1 Dec 2024, the Chinese government extends zero-tariff treatment to 100% of tariff lines for products originating from all the least developed countries that maintain diplomatic relations with China, to expand unilateral opening to the least developed countries. Latest data from Chinese customs reveals that in Nov 2024, China's cumulative wood imports reached 4.68 million cubic m, marking a 14% decline compared to the same period last year; the import value totalled $910m, representing a year-on-year decline of 10%; by category, the import volume of logs stood at 2.84 million cubic m, registering a 10% year-on-year decrease, while sawnwood imports totalled 1.84 million cubic m, reflecting a 19% drop.

Currently, China sees strong momentum in large-scale equipment renewals and trade-in programs for consumer goods. In Nov, retail sales of furniture increased by 36% year-on-year, indicating a robust release of domestic furniture demand.

In Dec, the GTI-China index registered 49.8%, an increase of 0.1% from the previous month, was below the critical value (50%) for 2 consecutive months, indicating that the business prosperity of the superior timber enterprises represented by the GTI-China index shrank from the previous month. This month, the overall production volume of China's timber sector was relatively stable. On the demand side, the volume of export orders continued to grow, however, the domestic orders declined compared to the previous month.

As for the twelve sub-indexes, four indexes (export orders, inventory of finished products, inventory of main raw materials, and delivery time) were above the critical value of 50%, one index (production) was at the critical value, while the remaining seven indexes (new orders, existing orders, purchase quantity, purchase price, import, employees, and market expectation) were all below the critical value. Compared to the previous month, the indexes for production, export orders, inventory of finished products, purchase quantity, inventory of main raw materials, and delivery time increased by 0.1-7.4%, and the indexes for new orders, existing orders, import, purchase price, and employees declined by 1.2-5.7%.

This article takes excerpts from the GTI Report in Dec. This report was prepared by GGSC, with support of ITTO and IPIM, and Focal Points of Indonesia, Malaysia, Thailand, Gabon, Republic of Congo, Ghana, Brazil, Mexico and China. P

COP16: The Mixed Bag for FSC – What's Next for Global Biodiversity?

As COP16 wraps up with mixed results, Matteo Mascolo, EU affairs and engagement lead at the Forest Stewardship Council (FSC) reflects on the progress, setbacks, and crucial steps needed to meet global biodiversity targets.

The lush landscape of Deramakot Forest Reserve, a model for sustainable forest management and biodiversity conservation

WHAT IS FSC'S OUTLOOK AFTER COP16?

"We had mixed feelings," said Matteo Mascolo, the lead of Forest Stewardship Council's (FSC) EU Affairs and Engagement, reflecting on COP16. Held from 21 Oct to 1 Nov 2024 in Cali, Colombia, COP16 was intended to review the progress of countries toward the biodiversity goals set by the Kunming-Montreal Global Biodiversity Framework (GBF). But despite the high hopes, key negotiations were left unresolved, leaving important decisions, such as how to fund the Global Biodiversity Framework, stalled.

Adopted by COP15 in 2022, the GBF outlines four global goals for 2050 and 23 targets for 2030, aiming for urgent action on biodiversity. These include ensuring ecosystem integrity, promoting sustainable biodiversity management, fairly distributing benefits from genetic resources, and putting adequate systems in place to achieve the framework's targets.

"The momentum at COP16 was undeniable, and we were able to focus on tangible steps to implement the framework," Mascolo continued. "But, as many would agree, it was disappointing that negotiations ended without a conclusion. We still have a long road ahead."

"The good news is that continued negotiations in Rome this February led to concrete agreements on funding and implementation," Mascolo added, offering hope for future progress.

FINANCIAL GAP: A $200BN CHALLENGE

A major challenge remains: the financial gap needed to achieve the GBF targets, which Mascolo estimates to be around $200 billion. While the Global Biodiversity Fund has garnered more resources, the gap is still significant.

"This gap is real," Mascolo emphasised. "We've seen some funding come through, but it's not enough. If we don't close this gap, we risk missing our biodiversity goals."

A HISTORIC MOMENT FOR INDIGENOUS COMMUNITIES

One of the key outcomes of COP16 was the historic decision to establish a permanent subsidiary body to advance the participation of Indigenous peoples and local communities in the Convention on Biological Diversity's work. For FSC, this decision is a milestone.

"For us, this is deeply resonant," Mascolo explained. "FSC has always been a multi-stakeholder platform, with members spanning economic, environmental, and social sectors. Since the beginning, we have been supported by Indigenous Peoples through our Permanent Indigenous Peoples' Committee (PIPC). FSC ensures that Indigenous voices are no longer sidelined in critical biodiversity discussions."

This decision marks a significant step in ensuring that Indigenous communities have a seat at the table when biodiversity policies are made—a crucial win for the future of forest governance.

WHAT'S NEXT: COP30 AND THE URGENCY OF ACTION

Looking ahead, Mascolo stressed the importance of maintaining momentum as countries work toward achieving the 2030 targets. With 119 out of 196 countries submitting National Biodiversity Targets, the progress has been varied, and many nations are still revising their biodiversity strategies.

"There's a long way to go, but there's also a sign of willingness from the parties to implement the targets," Mascolo noted. "The real question is: What can we do now to ensure we meet these goals by 2030?"

The next critical moment is COP30, scheduled for 10–21 Nov 2025 in Brazil. Mascolo believes that COP30 will be one of the most important COPs ever, especially for for forests and climate.

"We are already planning to attend with a delegation," Mascolo said. "COP30 will be a pivotal climate COP, and while we can't separate climate

Sustainably harvested timber at Deramakot Forest Reserve, where responsible forestry practices balance economic needs with environmental conservation

from biodiversity, forests will be at the heart of the discussions."

FSC'S STANCE ON THE 12-MONTH DELAY OF THE EUDR

Another major topic of discussion has been the European Union's Deforestation Regulation (EUDR), which has been postponed by 12 months to give businesses and authorities more time to prepare.

Mascolo's message on this delay is clear: it doesn't mean slowing down. "The delay does not mean delaying action," he said. "We urge all stakeholders to begin preparing now. Time will pass quickly, and alignment is key to ensuring that when the EUDR comes into effect, it delivers maximum impact."

FSC sees the delay as an opportunity to further refine and test its technological solutions to ensure compliance with the regulation. "This is an ideal time to simulate the implementation of the EUDR and test our solutions as if the regulation were already in effect," Mascolo noted.

To support businesses, FSC has launched an early adopter programme, allowing companies and certificate bodies to test solutions in different geographical areas. The goal is to receive feedback and refine the solutions to make sure they're robust by the time the EUDR is implemented.


1


2

THE ROLE OF CERTIFICATION BODIES IN ACHIEVING SUSTAINABILITY

Robust certification processes will be crucial in supporting the implementation of the EUDR and other relevant legislation. "Legislation and certification can work hand in hand," Mascolo explained. "We need to integrate both to achieve sustainability goals."

Certification bodies that quickly align with FSC's Regulatory Module will help companies meet the necessary standards. "Some bodies are already accredited, and we encourage others to follow suit," Mascolo urged. "This is not just good business — it's essential for protecting biodiversity and mitigating climate change."

FSC'S FINAL WORD: ACCOUNTABILITY AND ACTION

"At a time of uncertainty, accountability and action are paramount," Mascolo concluded. "The EUDR is just one step. While we may face challenges, we must act now. Our real mission is a deforestation-free future, where sustainable forest stewardship is the norm, not the exception." P

Images: FSC

LEGEND

1 *Matteo Mascolo, FSC's EU Affairs and Engagement Lead, shares insights on COP16 outcomes and the path forward for sustainable forestry and biodiversity*

2 *Rubber tapping in action: Latex flows from a carefully scored rubber tree into a collection cup, showcasing sustainable harvesting practices*

Sustainable by Design: How Interior Architects and Designers are Shaping the Future

Interior architects and designers do more than create spaces: they craft experiences, evoke emotions, and shape the way people interact with their environment. But what if their designs could also help protect the planet?

Every piece of wooden furniture has a story that begins in a forest

As key decision-makers in the furniture industry, interior architects and designers have an indisputable influence on both market trends and material choices. Sustainability begins at the design phase — research suggests that up to 90% of a product's environmental impact is determined during this stage.

Whether it is choosing raw materials, sourcing products, or integrating them into spaces, the selections of interior architects and designers render an enduring environmental impact. By embedding sustainable choices into their designs, they contribute to the long-term health of forests and ecosystems while responding to the growing consumer demand for sustainable products.

PEFC: PARTNERING FOR A SUSTAINABLE FUTURE

Every piece of wooden furniture has a story that begins in a forest. The choices are endless – from Scandinavian birch to Canadian oak and tropical teak. Wood can be harvested sustainably when managed responsibly. So, how can designers be certain that they are choosing the right materials?

Committed to promoting the responsible sourcing of wooden furniture, the Programme for the Endorsement of Forest Certification (PEFC) works closely with interior architects and designers. Through its fourth-year partnership with the ASEAN Furniture Industry Council (AFIC) and its eight-member associations, PEFC provides the industry with the knowledge and tools needed to make informed, sustainable choices.

PEFC's "Forests are Home" campaign connects the origins of wooden furniture to the homes it furnishes, reinforcing that sustainability is more than just an added feature: it is intrinsic to good design. By opting for PEFC-certified wood, designers can be certain that they are making ethical choices that benefit both their projects and the environment.

WHY PEFC-CERTIFIED WOOD MATTERS

For interior architects and designers, choosing PEFC-certified materials is about more than corporate social responsibility. It enhances the value of their projects by ensuring the following:

LEGEND

1 *PEFC-certified wood gives designers the confidence that their materials are sourced ethically*

2 *Participants at the ASEAN Youth Furniture Exchange 2024*

- Preservation of biodiversity and forest ecosystems
- Reduction of carbon dioxide emissions by maintaining forests as carbon sinks
- Fair treatment of forest workers and independent forest owners through enhanced safety, training, and market access
- Economic opportunities for marginalised communities that rely on forests

By selecting PEFC-certified wood, designers can be confident that their materials are sourced ethically, benefitting both the environment and marginalised communities.

THE ASEAN FURNITURE DESIGN AWARD 2025: SHOWCASING SUSTAINABILITY IN DESIGN

The ASEAN Furniture Design Award (AFDA) 2025 is a key platform promoting sustainable design. This prestigious competition recognises innovative furniture design that embraces sustainability, craftsmanship, and cultural influences.

As a proud sponsor, PEFC advocates for the use of certified sustainable wood, reinforcing the importance of ethical sourcing in the furniture industry.

AFDA 2025 operates under the theme "ESG Renewable Material" (Environment, Social, Governance) and aims to:

- Promote knowledge exchange between students, professional designers, and manufacturers
- Showcase the global creative potential of Thai students and beyond
- Advance sustainability in international trade through design as a form of soft power
- Support economic growth, with the furniture industry as a key driver

AFDA 2025 prioritises sustainability, with 30% of judging points allocated to environmental and community responsibility. Key criteria include:

- Use of PEFC-certified wood or other sustainable, recyclable materials
- Design that minimizes energy and resource consumption
- Adherence to good governance principles
- Transparent and responsible production processes

Winning designs from the competition will be exhibited and evaluated at STYLE BANGKOK 2025, which will take place from 3-6 Apr 2025, offering global exposure to designers committed to sustainability.

DESIGN DECISIONS SHAPE THE FUTURE

Designers influence material selection, supply chain choices, product longevity, and recyclability: decisions that shape both industry standards and environmental outcomes.

By choosing PEFC-certified wood, designers align their creativity with sustainability goals, ensuring their work is both aesthetically compelling and environmentally responsible. Every decision made today contributes to a future where sustainability and innovation go hand in hand. P

Images: PEFC

Wood You Believe It?
IWPA Leads the Charge for Sustainable Trade

The International Wood Products Association (IWPA) plays a crucial role in shaping the future of the wood industry by offering vital resources, promoting sustainability, and advocating for responsible trade practices. Executive director Ashley Amidon discusses with *Panels & Furniture Asia* the association's efforts to address global challenges and create opportunities for the industry.

One of the leading trade associations for the international wood products industry in North America, the International Wood Products Association (IWPA) represents wood and wood products being imported into the North American market. With members from around the globe, IWPA's network can be broken down into three key categories: North American importers of record (ranging from small businesses to large integrated supply chains that sell directly to consumers), industry supporters from both domestic and international entities, and overseas members spanning over 25 countries — from trade associations and manufacturing facility owners to concession holders. Currently, IWPA serves 185 member companies.

IWPA Executive Director Ashley Amidon discusses the association's role in supporting sustainable trade and industry compliance

Given its established reputation, what can prospective companies expect from membership? How is the association addressing illegal trade and promoting sustainability in the global supply chain? And what are Amidon's predictions for the wood and flooring market in the coming year? We dive into these burning questions head-first with Amidon.

LEVERAGING THE POWER OF IWPA'S NETWORK TO OVERCOME INDUSTRY CHALLENGES

"There's something we call casework, which I believe is pretty unique to IWPA," said Amidon. "A member might reach out to us with a problem regarding their shipment — say it's stuck at the port of Savannah — and they don't know what's going wrong. We can connect them with others at different ports, make calls, and try to move the shipment. Or we can direct them to the right people who can assist."

While these requests for assistance aren't frequent, Amidon emphasised that in times of crisis, IWPA's network is an invaluable resource. A membership with IWPA helps businesses not only save money but also tap into a wealth of connections built over decades.

EMPOWERING MEMBERS WITH INDUSTRY EDUCATION

IWPA's mission goes beyond simply supporting the wood trade — it's also dedicated to equipping businesses with the tools they need to thrive. This was evident in 2015 when the association recognized a critical gap in industry education around US regulations, particularly the Lacey Act, which requires imported plant products to comply with both US laws and those of their country of origin.

"Recognising this need, we began offering educational courses on the Lacey Act," Amidon said. Starting with in-person training focused on practical application, the programme expanded to online courses to accommodate busy professionals, while also offering beginner-friendly content. This inclusive approach has fostered an environment of open dialogue and shared learning.

A notable highlight was a federal grant from the US government, which allowed IWPA to offer free Lacey Act training. Over 1,000 participants from around the world took part. While the grant has ended, the initiative helped broaden IWPA's impact and strengthened compliance across the industry. In addition to these courses, IWPA hosts webinars — around 15 annually — that are free for members.

Industry professionals engage in hands-on learning during the IWPA's in-person compliance course, gaining practical insights into U.S. regulations like the Lacey Act

ONE-STOP RESOURCE FOR MEMBERS

One of the most popular benefits among IWPA members is its weekly e-newsletter. "The newsletter serves as a one-stop resource," Amidon explains, "where we share essential information like upcoming webinars, environmental reports, regulatory changes, and political news."

"It's so easy to get lost trying to track down information from different sources. Our goal is to provide everything in one email, saving members time and keeping them up to date on all the news they need."

IWPA's newsletter is highly valued among members, ensuring they stay informed and ahead of industry changes. Membership is open to any company involved in the trade, with easy access through their website.

IWPA'S ACTIVE ROLE IN FORMALDEHYDE REGULATIONS

IWPA has also been at the forefront of formaldehyde regulations, particularly in Canada and the US.

Amidon recalled: "In Canada, a formaldehyde regulation was passed a few years ago, but they quickly realised some adjustments were necessary. About a year ago, Canada began amending the regulation and aligned with US standards under the Toxic Substances Control Act (TSCA). IWPA was deeply involved in this process, even hiring a Canadian lobbyist with expertise in formaldehyde."

"Thanks to our collaboration with Health Canada, the final regulation, which was completed in Nov 2023, strikes a balance between the needs of the industry and government requirements. It's a regulation we can work with."

Meanwhile, in the US, the Environmental Protection Agency (EPA) has begun revisiting formaldehyde regulations, frustrating some in the industry. "We're still awaiting word from the EPA on next steps," Amidon said, "and we're closely monitoring the situation, especially considering the potential changes in regulatory approaches with the new administration."

SUSTAINABILITY: IWPA'S COMMITMENT TO LEGAL AND SUSTAINABLE WOOD TRADE

"Sustainability is the heart of what we do," Amidon asserted. IWPA's diverse membership includes large corporations and multi-generational family businesses are committed to responsibly managing their operations to ensure that forests are preserved for future generations.

"Even though our members may be competitors, they are all deeply dedicated to improving the industry as a whole. We emphasise knowledge-sharing because, in the end, a rising tide lifts all boats," Amidon added.

A key example is the Lacey Act, which mandates that all timber traded into the US be legally sourced. IWPA's mission is clear: help every player in the supply chain understand that legality is not optional. The association provides the tools necessary for members to build compliance systems that save money and foster long-term sustainability.

"We need to do a better job of showcasing what we're doing for

legality and sustainability—not just among ourselves, but also to consumers and regulators," Amidon said.

FORECASTING THE WOOD AND FLOORING MARKET

Despite challenges like high interest rates and low consumer confidence, certain sectors of the wood industry remain strong. "Remodeling products, especially flooring and cabinets, are seeing consistent demand," said Amidon. "We're optimistic that once consumer confidence rebounds, housing markets will begin to climb again."

South East Asia, particularly Vietnam, continues to be a major player in exports to the US. While trade uncertainty surrounding tariffs is a concern, the trend for Southeast Asian wood products remains strong.

"We are paying close attention to any potential tariff changes," Amidon added, emphasising the need to keep members updated on these developments.

CHALLENGES FOR SOUTHEAST ASIAN WOOD MANUFACTURERS ENTERING THE U.S. MARKET

One of the biggest hurdles Southeast Asian wood manufacturers face when entering the US market is a lack of understanding of compliance regulations like the Lacey Act. US businesses often require extensive details about their suppliers' sourcing practices.

"Building trust in the supply chain is crucial," said Amidon. "If suppliers can't provide the level of transparency needed, it's often a dealbreaker. U.S. traders need to be confident that their partners are following the regulations, which may feel intrusive to those unfamiliar with the process."

SUSTAINABLE TRADE: THE KEY TO PROTECTING FORESTS

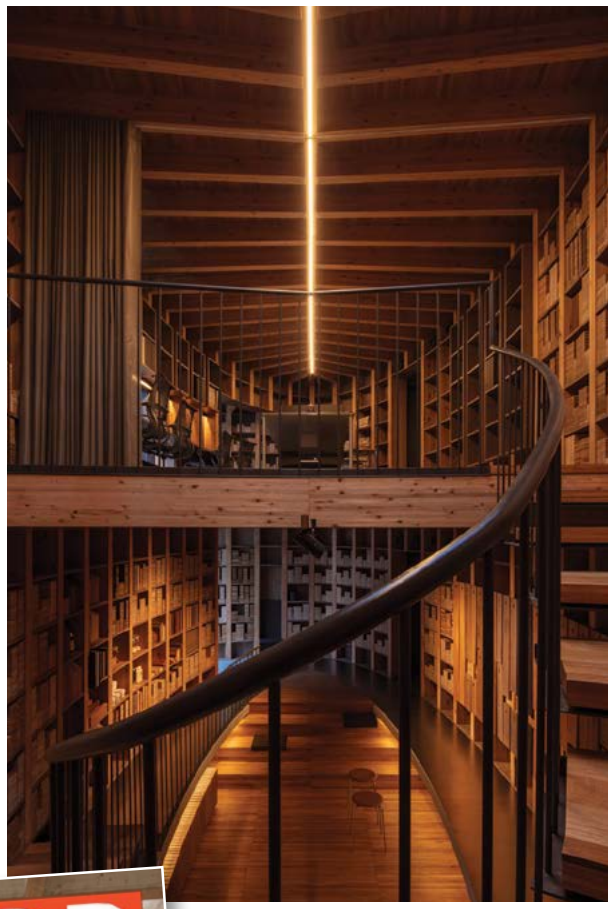
Amidon's dedication to IWPA's mission is personal: "I've worked at IWPA before and returned because I'm passionate about the industry. Our goal is to protect the environment, and the way to do that is through legal, sustainable trade. We need to ensure that forests are logged in a way that preserves them for future generations." P

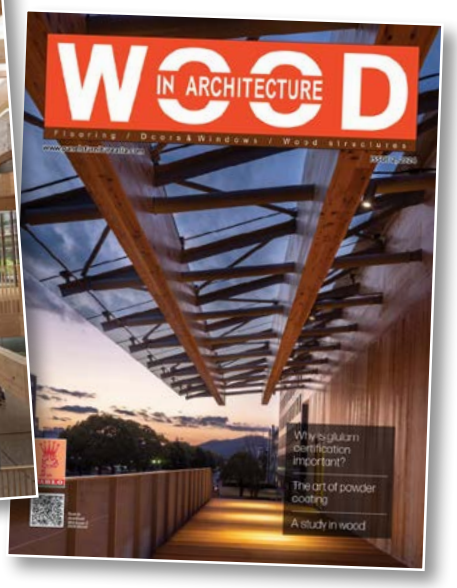
LEGEND

1 *IWPA at the Violin Society of America*
2 *The dedicated IWPA staff works tirelessly behind the scenes to support members and advance sustainable practices in the wood products industry*

ARCHITECTURE UNLIKE ANY OTHER!

Find out what's hot in timber architecture now: Successful ideas, trends, and perspectives.





@wood.ia

Facebook.com/panelsfurnitureasia

Linkedin.com/company/panelsfurnitureasia

Ian Chang Becomes Newly Appointed Chairman of Taiwanese Woodworking Machinery Association

In this as-told interview, Ian Chang shares with us the challenges that the Taiwanese woodworking industry is currently facing, his vision for his tenure as chairman of the association and how he intends to navigate a murky business environment in the woodworking industry.

Established in 1982, TWMA has a history of over forty years and currently consists of approximately 220 member companies. Thanks to the concerted efforts of past chairman and board teams, we have built a strong foundation. However, given fluctuations in the global economy, each chairman faces unique challenges and undertakes specific missions during their term.

TWMA was established in 1982 and currently consists of approximately 220 member companies

In recent years, following the COVID-19 pandemic, the world's economic and political climate has faced many compounding uncertainties, especially in light of US President Donald Trump's re-election in 2024, which will see the imposition of tariffs on the US's neighbours, and the renegation of many economic agreements. These factors will contribute to greater uncertainty in the world's economic outlook.

Crucially, Taiwan's woodworking machinery industry faces stiff competition from that of other countries, which boast improved and advanced machinery. As a result, Taiwan's woodworking machinery industry has not been as agile and active compared to its early years.

In light of the onslaught of global threats to the industry, I believe that the association should be mature and pragmatic about these challenges. We should embrace these challenges with optimism, arming ourselves with the confidence that they can be mitigated.

In my opinion, the most urgent problem we are currently facing is the lack of competitiveness by lower-end machinery products. Only the higher-end products by members of the TWMA possess competitiveness. This issue is not limited to Taiwan but the global woodworking machinery industry as a whole.

To ensure the sustained growth of Taiwan's woodworking machinery sector, there is a need to invest continuously in research and development, innovating advanced products to create a competitive advantage in niche markets while simultaneously increasing entry

barriers for potential competitors. This is all the more important when we consider the increasingly fierce competition in neighbouring Asian markets.

Regular product development should be undertaken by every company. If we look at the track records of various companies, the trend that emerges is that it is not possible for any company to keep its processes and products stagnant.

It goes without saying that product development during this time of economic uncertainty will not be easy, and in fact, largely difficult to do so. Before kickstarting product development, we must first observe how people are enacting these changes in the industry.

With that in mind, I plan to adopt a sales expansion model in the next three years, where we will rally our members and manufacturers in our organisation to participate in regional and international trade shows and exhibitions. To that end, we strive to enhance Taiwan's presence at these key woodworking machinery shows. It is my hope that this process will give the members of the association ideas or knowledge of industry trends to enhance their chances at product development.

Additionally, I would like to encourage young or second-generation members to adopt a more proactive and positive approach to business management, emulating the attitudes of the previous generation who founded the business, and carrying forward the passion to advance the woodworking machinery industry development. In the meantime, I sincerely urge senior members to generously share their valuable experiences and lessons learned while starting a business to help younger members achieve rapid progress and growth.

Ian Chang becomes the newly appointed chairman of Taiwanese Woodworking Machinery Association

Looking ahead, I will actively seek resources from the Taiwanese government and related machinery corporate bodies. We aim to assist member companies in learning their strengths and weaknesses and in enhancing their new product development capabilities. We will strengthen connections with worldwide industry associations, organise delegations of member companies and encourage youth to explore markets for product upgrades, transformation, and OEM collaborations opportunities. I will try my best to cooperate with the government's corporate bodies to establish good relationships, so that we may tap on their resources when the need arises. Moreover, Taiwan possesses excellent micro processing plants, which I intend to welcome to our association to learn from.

Of course, the ideas that I have mentioned cannot be implemented without a collective determination to succeed and overcome these challenges together. Through spurring mutual sharing of ideas and information, I hope to encourage product development.

By working together, reassessing the challenges we face, setting priorities, and expanding our action plans, I believe we can navigate the current climate and pave the way for a new era of growth and prosperity for Taiwan's woodworking machinery industry. P

Deep Cleaning in Continuous Operation: New Sword Brush with Microfilament Technology

A compact design allows easy integration into various processing lines

Dust particles are a constant challenge in furniture production, as they can damage surfaces and, if not removed efficiently before each individual processing step, result in rejects. Chips and particles are typically removed by hand or using compressed air. However, these methods are insufficient as particles are merely displaced rather than eliminated, failing to provide consistently high cleaning quality. Wandres has developed the new Combi Sword Brush Una U, which utilises microfilament technology to enhance cleaning efficiency. The microfilaments create a large contact area with dust particles, allowing them to adhere to the filaments and be reliably removed from surfaces without the need for cleaning agents. This method eliminates the requirement for cleaning and anti-static agents, reducing both operating costs and environmental impact. Due to their thin diameter, the filaments penetrate fine surface structures, achieving a deep-cleaning effect. The integrated pressure buffer allows individual filaments to adapt to surface contours, ensuring consistent cleaning quality. The Sword Brush is specifically designed for integration into existing production lines, and its compact design facilitates easy retrofitting.

Martin Tritschler, head of sales at Wandres micro-cleaning, explained: "Mass production of furniture boards and panels generates considerable dust and particles through drilling, sawing, and milling. These can damage surfaces during stacking and transport or impair subsequent production steps. If particles become embedded in the surface, this can lead to production downtime and quality issues."

Industrial environments requiring high production speeds and flawless results need efficient cleaning solutions to remove various types of particles and chips. Methods such as compressed air cleaning and manual dust removal are available, but they have limitations. Manual procedures are time-consuming and result in high labour costs, while compressed air processes are expensive to operate and ineffective in removing fine dust that adheres strongly to surfaces. "Manual cleaning effectiveness varies depending on the performance of the individual employee, while compressed air cleaning can disperse particles into the production environment," Tritschler adds.

The Combi Sword Brushes can be easily integrated into industrial processing lines. They are designed to adjust to varying particle loads in continuous operation, ensuring consistently high cleaning effectiveness.

LARGE CONTACT AREA AND CONSTANT CLEANING PERFORMANCE

At the core of the Una U product range are special microfilaments. Compared to conventional brushes, these fine-structured filaments reliably collect even tiny dust particles and direct them into the extraction system. The pressure buffer ensures that the filaments remain upright on the surface without bending, optimising particle removal. This mechanism allows the system to adapt to different surfaces. "Because the brush is pressed onto the panel with constant pressure, a consistent cleaning performance is ensured across the entire contact surface," said Tritschler.

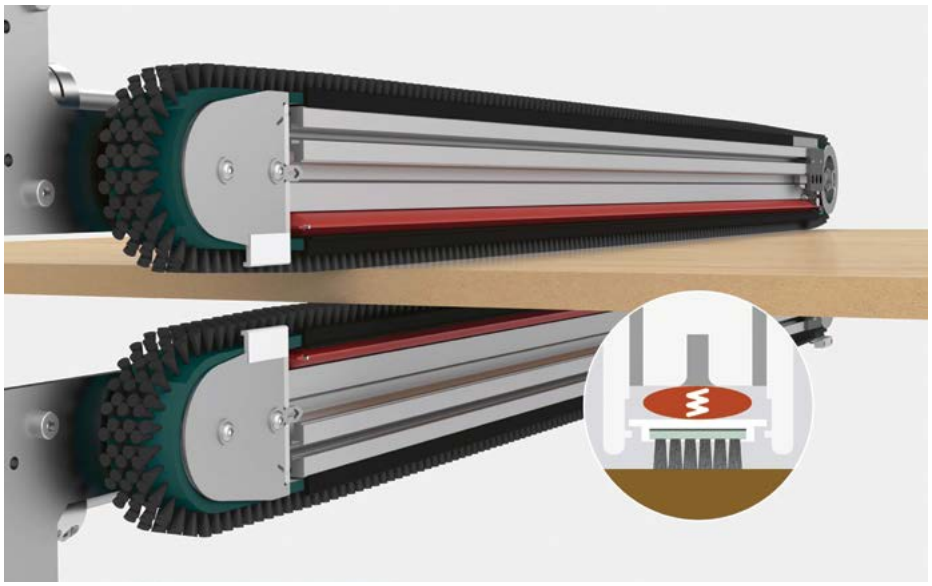
The brush regenerates itself automatically through a continuous self-cleaning function, ensuring consistent results around the clock. Particles are removed mechanically via a roto rack and pneumatically through a self-cleaning nozzle before being directed towards the suction unit. For particularly high particle volumes, the cleaning performance can be enhanced by combining air and wiping technology. An air pre-cleaning stage at the infeed of the brush removes large quantities of particles directly, preventing them from settling on the floor and keeping the working environment clean.

COMPACT DESIGN FOR EASY INTEGRATION

Wandres has also focused on resource efficiency in product development.

"Low resource consumption and minimal maintenance and assembly times are key factors in an industrial environment," Tritschler explained. The Combi Sword Brush Una U does not require additional cleaning agents. However, for specific surfaces or applications, such as before applying a topcoat, the Ingromat system may be used. In this case, filaments with a slightly larger diameter are permanently coated with a microfilm of the Ingromat cleaning and antistatic agent. Micro-moistening ensures that dust particles adhere to the filaments while minimising cleaning agent use, keeping the surface dry.

Due to its small footprint, the brush system integrates easily into existing production lines. It is available in different nominal widths to match the roller conveyor width on site. "Furniture panel production always generates chips and dust. It was therefore important to provide customers with a cleaning solution that integrates seamlessly into production processes without disrupting or slowing them down. At the same time, a reliable cleaning result is guaranteed in continuous operation, regardless of panel design, surface quality, or production speed," summarises Tritschler. P



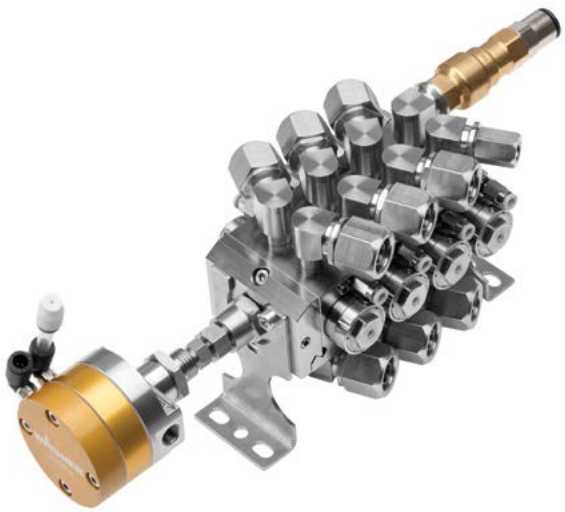
LEGEND

1 *The pressure buffer ensures that the filaments stand vertically on the surface. This provides for consistently high cleaning results.*

2 *The Combi Sword Brush Una U with the optional suction channel at the infeed ensures flawless surface cleaning without the need of cleaning agents, even when dust loads are high.*

Frequent Colour Changes in Liquid Coating Made Easy

The latest version of the WAGNER colour change block offers versatile configuration options, making it ideal for a wide range of low-pressure applications in robotic and automated systems.



Frequent colour changes are essential in liquid coating processes, and colour change blocks are crucial when multiple colours are used in an automated liquid coating system.

Common applications include coatings in the wood and furniture industry, such as in flatbed machines that require a broad range of colours, as well as in the automotive sector, where they are used for coating both interior and exterior components.

The latest version of the WAGNER colour change block offers versatile configuration options, making it ideal for a wide range of low-pressure applications in robotic and automated systems.

FAST COLOUR CHANGE AND LOW CONSUMPTION OF FLUSHING AGENT

Automated coating systems require high cycle rates, making fast and reliable colour changes essential to minimise operational interruptions. The WAGNER colour change block ensures this by allowing the desired application medium to be easily selected via a pneumatically controlled valve. Its dead space-free inner geometry minimises flushing time and reduces the consumption of flushing agent, speeding up colour changes.

The configuration with multiple output channels offers additional time savings: while one colour is being applied, the other channel can be flushed, and a second colour can be applied simultaneously.

GREAT ADVANTAGES, COMPACTLY INSTALLED

The WAGNER colour change block stands out with its individual configuration options, including a compact double valve block with one output channel and up to 24 valves, a multi-channel block with up to 8 output and 24 input channels, and a 2K mixing block. Its modular design allows flexible arrangement of multiple valve blocks and numerous connection options (e.g. for gear pumps or material pressure regulators), making it adaptable to a wide range of requirements. It offers greater flexibility than comparable products on the market. Depending on the material, needle or diaphragm valves can be used to extend service life, even with abrasive materials.

Thanks to its size and modular design, the colour change block integrates seamlessly into various automated systems, such as robot arms, linear axis installations, or 2K systems. Maintenance tasks, like hose replacement, are simple and accessible, and upgrading or replacing valves or valve blocks can be done without special tools.

WAGNER provides a unique service through its web shop, WAGNER365, where customers can use an online configurator to customise the colour change block according to their needs and order it directly. P

AkzoNovel Introduces New Word Coating **with 20% Bio-Based Content**

(Image: AkzoNobel)

Scientists at AkzoNobel have developed a new waterborne wood coating containing 20% bio-based content, increasing the use of renewable raw materials without compromising performance.

Introduced by the company's Sikkens Wood Coatings business, RUBBOL WF 3350 is a sprayable opaque coating that reflects AkzoNobel's commitment to developing more sustainable products while maintaining high levels of quality and durability.

"By using bio-based raw materials, the company aims to reduce its environmental impact and contribute to a more circular economy in the wood coatings industry. This also supports customers in achieving their sustainability goals," said Tessa Slagter, sustainable innovation manager at AkzoNobel.

Jim Kavanagh, director of AkzoNobel's industrial coatings business, noted that the new product contains bio-based materials while maintaining the high-performance standards of equivalent coatings. It ensures lasting beauty and value, even in harsh weather conditions. He added that it marks progress in coatings technology, highlighting the company's research and development capabilities and commitment to sustainable innovation.

Developed and manufactured at AkzoNobel's Malmö site in Sweden, RUBBOL WF 3350 is suitable for both interior and exterior use. It is also supported by the Sikkens Wood Coatings Extralife warranty programme, offering end-users added confidence in its longevity and performance. This aligns with the increasing use of wood as a key material in building design.

The product's bio-based content has been verified by external C-14 testing using ASTM International's standard methods (ASTM D6866, Method B). The bio-based content in the product consists of renewable materials derived from plants.

Beyond wood coatings, AkzoNobel is incorporating bio-based content into other areas of its portfolio. The company supplies bio-based paint to KIA Motors for the interior of its EV9 electric SUV. In China, it has launched the Angel edition of the Dulux Anndru series, an innovative wall paint composed of 48% bio-based ingredients that helps improve indoor air quality. P

(Image: AkzoNobel)

Top of the Game with Globus: Prioritising Quality and Innovation in Panel Production

In a competitive market, Globus stands out by championing quality over quantity. With cutting-edge technology and strategic collaborations, the company enhances wood panel production while minimising waste and energy consumption. From revolutionary mill designs to a dedicated test centre, read on to find out how Globus is reshaping the industry to ensure long-term profitability and sustainability.

QUALITY OVER QUANTITY: GLOBUS CEO

"Quality without compromising quantity: this has always been my guiding principle," said Fabio Paron, CEO of Globus. The company, an innovator in the wood size reduction industry, designs and develops advanced systems to optimise the entire production process, enhancing the final product quality while minimising waste and energy consumption.

SYNERGY WITHIN IMALPAL GROUP

For years, Globus has been part of the IMALPAL Group, a consortium of three major corporations — IMAL, PAL, and GLOBUS — household names in engineering, machinery, and plants for the wood-based panel and recycling industries for over five decades. With its synergy with other group companies, such as IMAL, a specialist in resin application, pressing, quality control, and laboratory machines for panel certification, and PAL, a leader in screening and cleaning, Globus operates in a highly specialised industrial market.

"It is precisely the high specialisation of the three companies that makes our group a global benchmark," said Fabio Paron.

Globus' facilities

This collaboration allows the group to offer comprehensive solutions that maximise efficiency, reduce operational costs, and ensure outstanding performance for production plants.

Today, the IMALPAL Group is a key player in wood-based panel preparation, pressed wood packaging products, pellet and energy production, recycled wood processing, and waste treatment. Additionally, with quality control systems and certified laboratories, wood panel manufacturers can rely on constant monitoring, ensuring consistently high standards over time.

PANEL QUALITY BEGINS IN THE PREPARATION PHASE

"A high-quality panel is not made in the press but during the material preparation stage," emphasised Paron. The flaking, screening, and gluing phases are what determine the final product's performance — this is where the technological synergy

between Globus and the other group companies comes into play. If the flakes preparation is not optimal, even the best press cannot guarantee an excellent result. That is why the most quality-focused manufacturers invest in high-quality flaking and precise wood particle selection, ensuring an optimal final panel quality while reducing raw material consumption.

THE EVOLUTION OF GLOBUS MILLS: AN "AGAINST-THE-FLOW" INNOVATION

To optimise production processes and reduce waste, Globus has embraced an innovative approach to its mills from the very beginning, going against market trends. While many competitors still try to increase throughput by adding more and more knives, Globus has consistently designed flakers with a precise number of knives, ensuring the correct cutting geometry.

The result? The same production capacity, but with significantly higher product quality.

This choice allows for the optimisation of the knife angle, as an incorrect cutting angle leads to poor-quality flakes, excessive dust production, and significantly higher energy consumption.

"We did not invent the ideal cutting angle for wood — it is a principle that has been known for thousands of years," Fabio Paron said. "Ancient woodworkers carefully studied angles to achieve the best results. What is surprising is seeing some competitors increase the number of knives without considering the consequences. To compensate, they keep increasing the cutting angle. The result? More dust, flakes that look like toothpicks — similar to what a hammer mill produces — and ultimately, a lower-quality panel that requires more glue to meet quality standards."

In China, where machine performance is closely scrutinised, the Globus flaker has earned the nickname "Globus Super Flaker" for its ability to produce exceptionally flat and uniform flakes. This spontaneous recognition by local manufacturers is a testament to the value of Globus technology in the highly competitive Chinese market, where quality has become a decisive factor in machinery selection.

SLPB: SUPER LIGHT PARTICLE BOARD AND RAW MATERIAL SAVINGS

Globus' innovation extends beyond mill design, redefining the quality of the final product. The Super Light Particle Board (SLPB) offers manufacturers the opportunity to reduce raw material usage while enhancing the mechanical performance of the panel.

Thanks to precise flaking management and material distribution, this approach allows for a significant reduction in wood consumption, lower glue and energy usage, and improved overall production efficiency. The adoption of SLPB is increasingly becoming a strategic solution for the industry, not only for reducing production costs but also due to the growing focus on sustainability. The use of flatter, more uniform flakes enhance adhesion, minimises waste, and ensures a lighter panel with superior mechanical performance.

This is an advanced technology designed for manufacturers seeking a good balance between innovation, efficiency, and environmental responsibility.

Quality-focused manufacturers invest in high-quality flaking

THE ASIAN MARKET AND THE SEARCH FOR THE RIGHT BALANCE BETWEEN QUALITY AND COST

In recent years, the Asian market has shown a growing tendency to reduce budgets allocated to production plants, with panel manufacturers looking for ways to contain initial costs. While this strategy may seem advantageous in the short term, in panel production, real value is built during the material preparation phase — an essential factor in achieving a high-quality product.

What is happening in China presents an interesting paradox: while many Asian manufacturers purchase Chinese machinery to lower initial costs, the leading Chinese producers are increasingly investing in Italian technology. Industry experts understand that, in the long run, the quality of material preparation is what ultimately determines the profitability of the panel.

Since 2018, Globus has sold 170 machines in China — 116 of which were sold between 2022 and 2024 alone. This significant number confirms that the most advanced Chinese manufacturers are choosing Globus to enhance the quality of their panels and improve the efficiency of their production plants. This is not just a market trend but a strategic shift: those who prioritise quality can no longer base their choices solely on the initial investment cost. Instead, they must consider the long-term sustainability and profitability of their facilities.

EXISTING PLANTS: WHY REPLACE OBSOLETE FLAKERS?

Another key factor driving Globus' growth in Asia and beyond is the revamping of existing plants, where many companies are progressively replacing outdated flakers with more advanced and efficient solutions. The main reason for manufacturers upgrading their machinery? A return on investment.

Adopting a new Globus flaker allows manufacturers to optimise energy and glue consumption thanks to more efficient processing and flatter, more uniform flakes, while also improving the quality of the finished panel. A more controlled flake allows for a more homogeneous resin dosage, reducing waste and increasing the stability of the production process. This translates into less scrap, fewer reworks, and consistent quality control of the final product — factors that result in immediate savings and a more competitive production.

For this reason, the Globus flaker has earned the nickname "Globus Super Flaker" in China, a spontaneous recognition from customers who have seen a significant improvement in flake quality and production process stability after replacing their old machines with Globus solutions.

GLOBUS TEST CENTER: INNOVATION TAILORED FOR EVERY CUSTOMER

In addition to technological and engineering excellence, Globus offers its customers an exclusive service: the Test Centre, a cutting-edge facility equipped with the latest equipment, where panel manufacturers can test the performance of machines using their own raw materials. Here, it is possible to evaluate the quality of the product and optimise processing parameters based on specific needs.

Within the Test Centre, there is an advanced analysis laboratory that allows for precise tests on grain size, flake quality, and the impact of various machine configurations. This approach enables customers to obtain real data on the material's behaviour before purchasing the machine, minimising risks and ensuring maximum efficiency from the first plant startup.

Additionally, one of Globus' facilities features a pilot plant with a prototype mill designed to test new solutions and further improve milling performance. This innovation will be officially presented at Ligna in Hannover, May 2025, a key event for the industry. By doing so, Globus intends to offer customers a concrete opportunity to see first-hand the technical features of the new Globus machine in person.

This project represents another step forward in the search for increasingly efficient, reliable, and sustainable solutions. P

Images: Globus

The biggest PB flaker plant in the world with 3300 m³/d of flakes

Deep Learning: The New Face in the Recycling Industry

Earlier this year, EVP and head of TOMRA Recycling Dr Volker Rehrmann shared that deep learning will continue to shape the recycling industry. The advanced technology is set to tackle increasingly complex sorting tasks and expand into new segments, unlocking new levels of efficiency and sustainability in the recycling industry. We spoke to Jose Matas, segment director of wood at TOMRA Recycling, to find out more about how TOMRA is leading the charge, and how the industry will continue to evolve.

GAINnext identifies objects by their shape, size, and other visual characteristics

Sensor-based sorting systems like TOMRA's GAINnext offer object recognition through the use of full-colour cameras that identifies the types of objects based on shape, size, dimensions and more. GAINnext utilises deep learning technology to identify hard-to-classify objects, reducing the need for manual sorting.

According to TOMRA, recyclers profit from increased efficiency and higher purity levels by automating complex tasks that cannot be achieved with traditional optical waste sorting equipment.

At what stage of development is deep learning in the field of recycling at the moment? How has it evolved over the years?

Jose Matas: At TOMRA, we believe that deep learning will drive material circularity. Other sorting systems separate materials by type, colour, or density. Our deep learning system uses object recognition via RGB cameras. Our experts train the network with thousands to millions of images to the point where it can distinguish visual characteristics, such as a material's shape or a specific feature like a bottle cap.

In 2019, when we launched the industry's first deep-learning technology, now known as GAINnext, it could only solve one problem: the purification of PE streams by removing silicone cartridges. Over the years, our experts have trained it to tackle increasingly complex sorting tasks that usually require human intelligence. We have applied this solution to different areas, including paper, aluminum packaging, and wood sorting.

What are the benefits of using deep learning in sorting, and how has Tomra's GAINnext revolutionised sorting?

Matas: Such advanced technologies significantly improve the sorting and classification of recyclable materials and help increase the efficiency and automation of plants. They are poised to increase sorting granularity, which is indispensable for a genuine circular economy. Additionally, these technologies are unlocking completely new applications that were previously unsolvable.

Take our wood sorting applications as an example: in 2022, GAINnext was the first solution on the market that enabled the sorting of natural wood (wood A) from processed wood (wood B).

Today, it is also able to recover MDF. Now, we can clean and sort construction as well as demolish waste wood. These are very challenging tasks due to the material's identical type.

Once considered impossible, they are now possible.

Deep learning technology is especially powerful when combined with other sensors. By combining it, for example, with NIR systems or adding a deep learning sorting step to an x-ray sorting step, we achieve even higher sorting accuracy and efficiency, further advancing the capabilities of our sorting processes.

How does TOMRA intend to scale up GAINnext?

Matas: We will continue to expand our GAINnext ecosystem in the future, enabling it to solve even more complex sorting tasks in different areas. Over a hundred of our solutions have already

LEGEND

1 *From local accessibility to economical benefits, the use of recycled wood offers numerous advantages*

2 *Jose Matas, segment director of wood at TOMRA Recycling*

1

2

been installed worldwide, and we are now seeing more and more customers implementing our deep learning solution on larger-scale processes.

With our internal knowledge and experience, we are well-positioned to scale up GAINnext with increased speed. GAINnext has been developed completely in-house by our R&D teams and AI experts.

How will the European Packaging and Packaging Waste Regulation (PPWR) influence innovations in recycling technologies?

Matas: The PPWR will be a critical focus in 2025 due to its far-reaching impact on the industry. The PPWR includes provisions related to wood recycling, setting specific recycling targets for wood packaging: 25% by 2025 and 30% by 2030. Additionally, the PPWR emphasises the importance of recyclability and reusability, encouraging the use of sustainable materials like wood.

We expect these targets to drive innovations in eco-design and recycling technologies, including advanced mechanical recycling, as reaching these targets requires consistently high-quality recovered materials. Sorting is a crucial step in this process; it is key to feeding as many materials as possible back into the cycle. We need sophisticated solutions like GAINnext to help us achieve the highest possible sorting granularity and we need to act with urgency to reach these targets.

What may prevent companies from adopting the use of these deep learning technologies? What are some pressing concerns or considerations and how may they be addressed?

Matas: The adoption of deep learning technologies in the wood recycling industry offers significant potential, but it also comes with challenges that may prevent companies from fully embracing these solutions. One of the primary concerns is the complexity of developing and deploying deep learning models, which requires specialised expertise and a robust infrastructure.

Developing reliable neural networks capable of distinguishing materials in real-time is far from a plug-and-play process. It involves continuous training, data collection, and validation by highly qualified professionals in fields such as AI, data science, and material recognition.

For most companies operating in the recycling sector, building this kind of expertise in-house is neither feasible nor cost-effective, which is why we believe that partnering with global solutions providers like TOMRA is a more practical approach.

Through investing heavily in AI-driven solutions over the past few decades, we've accumulated considerable experience in this field, and we've used this knowledge not only to advise companies on the best suitable technologies, but also to offer customers a tailor-made solution that fits exactly their needs. P

Images: TOMRA

Knock-Down, Stand Out: Builders' Choice Crafts Its Success

For **Ivan Madrigal**, chief executive officer and owner of Houston-based Builders' Choice, believing in his vision has proven to be a model for success. Rather than remaining a retailer, the company now manufactures its own high-quality cabinets.

Custom-built cabinetry with warm wood tones enhances the heart of this home

A VISION FOR CHANGE

Builders' Choice recently underwent a significant transformation. With the construction of a factory, the company transitioned from being a cabinet distributor to an established manufacturer of high-quality knock-down cabinets. Since 1999, Builders' Choice had been operating out of a warehouse, supplying face-frame cabinets to builders — a common business model in North America. As the industry increasingly moves toward vertical integration, many companies seek to establish their own production sites. Builders' Choice made this transition while also innovating its product to differentiate itself in the market.

SCALING UP: A TENFOLD REVENUE GROWTH

Following a change in ownership in 2014, the company was supplying materials for fewer than one thousand homes per year, generating revenue of US$3-4m. Today, more than ten thousand homes are equipped with Builders' Choice cabinets, and revenue has increased more than tenfold to over $45m.

Texas has traditionally favoured face-frame cabinets. The idea of offering European-style cabinets, sold unassembled as flat-pack products and designed for simple assembly by the customer, was initially met with skepticism. Madrigal recalled the early

stages: "We only had a small countertop manufacturing operation and had never built a cabinet before. We faced a lot of opposition. Nobody—neither within our network of suppliers nor among our customers—believed in our vision. We had to prove ourselves repeatedly."

ENGINEERING A NEW APPROACH

In 2021, after another uninspiring tour of a traditional furniture production facility, Madrigal decided to challenge the status quo. "I spent weeks researching connectors, cabinet design, and machinery. I have always been a fan of German engineering, and the woodworking solutions from the Homag Group inspired me to build my own factory."

Madrigal recognised that combining best-in-class manufacturing with thoughtful project design would create a strong business case. However, he needed the right expertise to execute his vision.

STRATEGIC PARTNERSHIPS AND INNOVATION

Builders' Choice partnered with Schuler Consulting for the next phase. "Only Schuler Consulting had the expertise in product design and manufacturing excellence that I needed," said Madrigal. "I wanted to integrate Builders' Choice's intellectual property with innovations from the Homag Group and Schuler's design and engineering capabilities."

Martin Kintscher, regional manager at Schuler Consulting America, recalls: "Ivan Madrigal and his team wanted to build something new by leveraging industry best practices to create an innovative production system." He

LEGEND

1 *A spacious, light-filled kitchen featuring premium wood cabinetry and elegant finishes*
2 *A beautifully designed kitchen featuring Builders' Choice high-quality cabinetry, seamlessly blending style and functionality*
3 *Building the Future: CEO Ivan Madrigal and the Builders' Choice team inside their newly established factory, marking a major milestone in the company's transformation*

explained: "We distilled the requirements from Madrigal's vision and developed a project plan. We then began product design, combining European standards for efficient cabinet construction with new connectors and local market parameters. At the same time, we ensured manufacturability and production efficiency. For me, finding the best solution is like solving a complex mathematical equation. Once all the variables align, everything falls into place."

BUILDING A FACTORY AND A TEAM

As the concept took shape, Builders' Choice moved quickly. Bryan Leavitt, chief financial officer, led project execution. "We wanted to gain control over our supply chain and improve quality to deliver a superior product. The shift from distributor to manufacturer became tangible," said Leavitt. However, it was uncharted territory for the company. "At times, it felt like coaching a sport we had never played before. We had to assemble the right team, put them on the field, and see how they performed. We needed to become better coaches within our management team and find the right players for each position."

Leavitt further noted: "Some team members came and went if the fit was not right, and we learned to accept that. At the same time, people were drawn to what we were building and wanted to be part of it. We offered higher wages to attract the best talent. The factory itself became a magnet for skilled workers."

RACING TO THE FINISH LINE

Builders' Choice launched production at the end of 2023. Madrigal recalled: "I told my team I expected the factory to be operational in two months, even though I had planned for six. This created a sense of urgency, and we achieved a lot in a short time. Our executive team developed new skills, and we built a diverse project team spanning multiple countries. This experience reinforced that we are not limited to regional or internal resources but can leverage international expertise. In the end, the factory exceeded even my highest expectations, which is a testament to our project team and the support we received."

PUSHING BOUNDARIES AND LOOKING AHEAD

Challenges such as permitting, labour safety, and fire regulations were addressed through perseverance. Leavitt had to be creative, adapt priorities, and pivot when necessary.

"It was all worthwhile. With five machine operators, we now produce approximately 50 cabinets per shift, exceeding our labour plan. Within the next month, we aim to produce 100 to 150 cabinets daily. We continue to improve efficiency and scale our operations. Our long-term strategy includes multiple phases of expansion and automation. This is only the first step, but our roadmap for the future is clear."

Reflecting on the project's success, Madrigal stated: "We made the right decision at the right time. We had key moments of validation — when we tested the cabinets, they withstood our team jumping on them without a single screw. When we powered up our new machinery, we proved we could produce a high-quality product. We offer European-style cabinets made from three-quarter-inch particle board, featuring high-quality hardware, soft-close hinges, and drawer slides at a competitive price. Customers appreciate the quality, and their trust in our operations is reflected in our order volume. Additionally, we remained within 3% of our original production cost estimate. Seeing our plan materialise has been incredibly satisfying."

Madrigal concluded: "The ramp-up had its challenges, but overall, it progressed as expected. I am grateful for the support from our suppliers — Schuler, Stiles, and Homag went above and beyond. If I were to do it again, I would aim even higher, secure more funding, and build a larger plant. The next one will definitely be bigger." P

This article was originally published in Möbelfertigung in 2024.


4


5

LEGEND

4 *Thoughtfully designed cabinetry for an efficient, stylish, and inviting culinary space*

5 *Martin Kintscher leads the Schuler Consulting team in America, overseeing project management, factory planning, and customer support, while also focusing on team development and innovation*

VALUE-ADDED PROJECT SOLUTION

ContiPlus® Continuous Press

Features:

- Products: MDF/HDF, PB, OSB, LVL
- New flexible press infeed system
- Hydraulic system at one side of press for easy maintenance
- High control precision for pressure and position
- Accurate control for temperature distribution

DIEFFENBACHER
SWPM

Dieffenbacher Group
Shanghai Wood-Based Panel Machinery Co., Ltd.
Tel: 0086-21-59560405
Email: jie.li@swpm.cn
www.swpm.cn

Spray into the Future: Flexibility and Innovation in Furniture Finishing

Easy FCS: Quick colour changes with zero downtime – the secret to staying ahead in production

The furniture industry faces increasing pressure to keep pace with rapid market changes, new trends, and rising demands. Manufacturers are required to maintain cost-efficiency, enhance sustainability, and safeguard their market share while managing competition. With these challenges, the need for quick adaptability has become critical. High-volume production may need to shift to smaller, more varied batches, requiring flexibility in both operations and equipment to stay profitable.

One area where this flexibility plays a crucial role is in the transition from manual to automated processes. For example, the Prima EVO spray coating machine offers a cost-effective way to make this shift. With a low initial investment and minimal complexity, the machine can operate with one or two operators for loading and unloading, while also integrating into full production lines. It's particularly beneficial for small batch production, where rapid colour changes are necessary. The machine's oscillating arms ensure high flexibility in responding to fast-moving trends in the furniture industry.

The benefits of moving from manual to automated equipment are clear. Firstly, automated systems reduce lacquer consumption by optimising machine settings, which is more consistent than manual application. Secondly, automated processes ensure uniform quality, as machines do not experience fatigue. Thirdly, productivity can increase by up to three times compared to manual methods. Additionally, a patented carriage cleaner system for paint

recovery reduces solvent and paint usage, while also decreasing cleaning time.

The Easy machine, featuring the Fast Colour Switch (FCS) system, addresses the issue of colour changeovers. This system allows for quick colour changes without stopping the production line. Easy's oscillating arms, which can accommodate four, eight, or twelve spraying guns, ensure high productivity and finishing consistency, particularly for companies handling large volumes or frequent colour changes.

iBotic, introduced almost 20 years ago, continues to evolve, maintaining its flexibility and high-performance capabilities. This Cartesian spraying robot is renowned for delivering top-quality finishes on complex shapes and edges. The latest innovation, TIMESKIP, enables colour changes without halting the machine. During the colour change process, one spraying arm is automatically set aside, while the other continues to apply the coating, ensuring zero downtime. This feature has been estimated to add 30 additional hours of production per month.

Cefla Finishing, with decades of experience, continues to support its clients by providing integrated lines and customised solutions. With a global team of researchers, engineers, and technicians, Cefla focuses on improving efficiency, quality, and sustainability. Their expertise ensures that clients receive solutions tailored to their current and future needs. To learn more or schedule a visit, companies can contact Cefla or visit one of their international laboratories in Asia, Europe, or the US. P

1

2

3

LEGEND

1 *Prima EVO: Where flexibility meets efficiency in the fast-paced world of furniture finishing*
2 *Interior of iBotic with timeskip device in action*
3 *Interior PRIMA EVO*

French Oak: Its Heritage, Resources and Modern Uses

Boasting fine grain patterns and rich tones, the timeless French oak has long been a manufacturer's choice for fine furniture making and flooring. Sourced from carefully managed forests in France, the oak not only offers aesthetic appeal but also stands as a symbol of sustainability. Its historical significance and continued relevance ensure that French oak remains as valuable today as it has been for centuries.

(Image: Ducerf Group)

ROOTED IN TRADITION

The use of oak dates back to pre-historic times when it was employed for making tools and rudimentary structures.

Oak gained its notable reputation during the Middle Ages, becoming the material of choice for shipbuilding due to its strength and water resistance. The grandeur of the French navy in past centuries can be attributed to the vast oak forests, which provided the material to construct formidable warships. In cathedrals, oak was used for roofing frameworks, as well as for crafting fine furniture and intricate sculptures.

Following the Forestry Ordinance of 1669, which sought to restore France's forestry heritage after a series of forestry exploitation practices were discovered, rigorous forest management was introduced to meet both military and civil needs while ensuring resource sustainability.

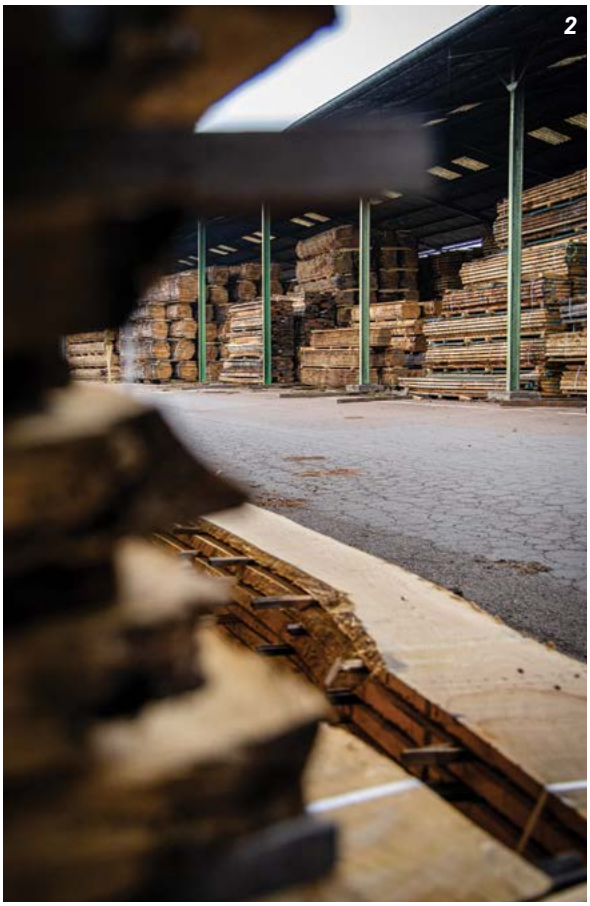
Today, French oak remains at the heart of numerous industries due to its sought-after properties, such as durability, aesthetics, and resilience.

THE STATE OF THE RESOURCE IN FRANCE

Spanning approximately 4.5 million hectares, or nearly 40% of the national forest area, France boasts one of the largest oak resources in Europe, making French oak an iconic and invaluable asset of the country's forests.

Due to the sustainable forest management practices implemented in the 17th century, French forests have grown denser, doubling in size since the 19th century.

However, oak faces significant challenges, including increasing demand — particularly for timber and export purposes — as well as the effects of climate change, which impact natural regeneration and forest health. Industry stakeholders are committed to transitioning towards even more sustainable management practices and enhancing local valorisation of this precious resource.



LEGEND
1 *(Image: Sarah Morvann Photografik)*
2 *(Image: Sarah Morvann Photografik)*

OAK IN CABINETMAKING AND CARPENTRY

Oak is a noble and timeless wood, highly prized for the production of high-end furniture, staircases, and both interior and exterior joinery. Its warm hue, elegant grain, and ability to age gracefully make it a preferred material for both classic and contemporary furnishings. In interior design, oak is frequently used for flooring, providing a touch of authenticity and refinement.

OAK IN CONSTRUCTION AND ARCHITECTURE

In construction, oak is valued for its strength and longevity. It is commonly used in frameworks, particularly in the restoration of historical buildings and in modern constructions seeking a distinctive aesthetic. Its natural resistance to insects and moisture makes it ideal for exposed structures, such as terraces and exterior cladding, as well as structural applications like oak cross-laminated timber (CLT).

OAK IN COOPERING

One of the most emblematic uses of French oak lies in barrel-making for wine and spirits. The wood's organoleptic qualities — its tannins and ability to facilitate subtle exchanges between liquid and air— directly influence the flavour and structure of aged wines and spirits. French coopers export these barrels worldwide, enhancing the prestige of wines and whiskies aged in oak.

ENERGY AND CRAFTSMANSHIP

Maximising the value of oak also extends to by-products of its processing. Oak firewood is highly sought after for its slow combustion and high calorific value. Oak chips are also utilised in artisanal processes, such as food smoking.

MODERN DESIGN AND INNOVATION

Oak is making its way into contemporary design, with artisans and designers exploring its potential to create unique pieces such as lighting fixtures, decorative objects, and even sculptural artworks. This material, which blends tradition with innovation, embodies a new approach to sustainable consumption and local resource valorisation.

ADVANTAGES OF OAK

Oak offers numerous advantages, renowned for its nobility, longevity, and superior qualities. It is robust, durable, and resistant to external aggressions, making it a versatile and long-lasting material. Its slow growth results in exceptional wood density, ideal for high-end applications.

Environmentally, oak plays a crucial role: it effectively captures carbon, contributes to forest biodiversity, and aligns well with circular economy principles – to eliminate waste, circulate materials and conserve resources. P

This article was originally published on Ducerf Group's website.

Ruben Desmet Elected President of the European Producers of Laminate Flooring Association (EPLF)

Speaking to *Panels & Furniture Asia*, newly elected president Ruben Desmet shares with us his top priorities for EPLF, the association's commitment to sustainability and how one can expect the laminate flooring industry to evolve in the coming year.

Prior to being elected president, Desmet has held the position of chairman of the Markets & Image Committee in EPLF since 2019

What are your top priorities for EPLF during your term, and how do you plan to achieve them?

Ruben Desmet: First of all, I would like to pay tribute to the work done by my predecessor Max von Tippelskirch. Under his presidency, he transformed the association by giving it a much more European dimension, in particular by moving its headquarters to Brussels, the seat of the EU institutions. As newly appointed President, I intend to continue steering the association in this direction.

In addition, I come into this position with insight from my previous role in the EPLF board as the chairman of the Markets & Image Committee, a position I've held since 2019. During this time, I have been committed to working on positioning the laminate flooring industry in general and

> **I want to keep strengthening the association's position as a sustainable industry leader.**
>
> ***Ruben Desmet,*** *President of EPLF*

category in particular. We launched the "Made with Wood" campaign that aimed at showcasing the environmentally-friendly "DNA" of the laminate floorings. Because of this, I want to keep strengthening the association's position as a sustainable industry leader.

Similarly, the EPLF has an important role to play in supporting Europe's renovation wave efforts and the European Commission's push for affordable housing. As the EU technologies executive works on the upcoming Affordable Housing Initiative, our members are well-positioned to contribute through innovative and eco-friendly practices. With high-performance water-resistant and

circular production processes, the laminate flooring sector can help ensure that renovation projects meet both environmental and cost-efficiency goals.

To do this, we will continue engaging in dialogue with relevant policymakers and stakeholders from the laminate industry. EPLF will continue engaging with policymakers and stakeholders, emphasising how laminate flooring can enhance energy-efficient building renovations and reduce the environmental impacts of construction. We remain committed to being a model of success and sustainability, showcasing how the sector can drive competitiveness while delivering essential solutions for Europe's housing needs.

Globally, we are seeing uncertainty in terms of international trade, from high tariffs to volatile supply chains. Keeping a customer focus during this time will be crucial, to exceed their expectations and ensure stability in this chaotic period. To achieve these goals, we will work closely with our members to develop strategic initiatives and ramp up our efforts to increase the awareness of laminate floorings and their environmentally-friendly properties.

We are very lucky to have such a wide-reaching membership. Currently, the sales of EPLF members account for approximately 50% of the global market and over 80% of the European market, and we do not take this for granted.

Engaging our current members involves listening to their needs and providing valuable resources and opportunities to support their business growth. We have turned our Statutory Annual General Assembly into a conference during which inspirational speakers are invited to discuss latest trends, innovations, policy updates or simply provide the bigger picture. We also facilitate cooperation through frequent committee meetings. We are launching a sustainability Committee in 2025 as this will be a better vehicle for our ambitions. Our members have a wide range of expertise and each meeting allows us to exchange valuable experiences and build a better understanding of our sector. The engagement of the association with its members is engraved in its mission – EPLF educates by providing information on the product and industry and it promotes the reputation of laminate floorings, it leverages the wealth of expertise of our members and it foster the highest quality for laminate flooring through standardisation.

To attract new members, we are actively promoting the association's role in driving industry-wide progress. This includes emphasising our efforts in sustainability, creation of standards, technological development, and regulatory advocacy. We continue reaching out to manufacturers, suppliers, and innovators who share our commitment to shaping a sustainable and competitive future for the laminate flooring industry.

(Image: istockphoto)

How important is sustainability to EPLF and what actionable steps does EPLF intend to continue its commitment to sustainability?
Desmet: Sustainability is a core value for EPLF and its members as well as a guiding principle in all our initiatives. As an industry, we are committed to improving the entire lifecycle of laminate flooring, from sustainable sourcing and energy-efficient production to product longevity and recyclability. Laminate flooring is a product sustainable by design – by using by-products of other industries, laminate floors contribute to the cascading use of wood. This, in turn, allows for storage and capture of carbon instead of releasing it back into the atmosphere.

In recent years, we have worked more intensively to promote sustainability through reduction of material loss during production and installation. We also noticed that the industry is evolving with new technologies. For example, the current trend towards digital printing also helps to limit waste. In fact, digital printing makes it possible to customise the design of laminate flooring, allowing certain models to be produced in smaller quantities.

Additionally, our members use high-quality processes and raw materials to minimise waste. For example, by developing technologies that optimise the geometric profile and cutting process to produce thinner products, members are able to produce planks that are 7-10 mm instead of 9-14 mm thick products. Thanks to a patented cutting method, it has been possible to achieve around 3% more product width than standard methods. This amounts to substantial material savings of around 3-4% depending on product size.

Reducing resource use, incorporating recycled materials, and developing thinner laminate options without sacrificing durability are all aims set by EPLF.

Desmet anticipates continued investment in water-resistant technology in the laminate flooring industry (Image: istockphoto)

We want to put the message out there that that laminate flooring is not only a stylish and practical choice, but also a responsible one.

How do you foresee the laminate flooring industry evolving in the coming year? Is there anything that people can look forward to, in the area of water-resistant technology?
Desmet: What we have seen from sales is that the industry is staying resilient and starting to recover after a series of intense highs and lows experienced in the last few years. Despite factors like geopolitical disputes, rising inflation and increasing material costs, laminate products are maintaining a strong position in the construction market.

Of course, ongoing conflicts and potential trade wars might pose further challenges, but in the long-term, we are staying focussed on steady growth and innovation. One of the key trends we have been seeing is the ongoing demand for sustainable and customisable flooring options. Consumers want products that combine aesthetics, durability, and environmental responsibility, and our industry is rising to the challenge.

In the area of water-resistant technology, there is much to be excited about. Recent advancements have significantly improved laminate flooring's ability to withstand moisture, and this opens laminate floorings up to uses in areas like kitchens and bathrooms, where moisture resistance is crucial. I anticipate continued investment in this technology, leading to even more robust solutions that enhance both the functionality and lifespan of laminate flooring.

Overall, I am optimistic about the future of our industry. Through continued collaboration, innovation, and a commitment to sustainability, we are well-positioned to meet the evolving needs of consumers and contribute to a greener future. P

Images: EPLF


WE GET WOOD
PANELS & FURNITURE ASIA
FOR PANEL MANUFACTURING, FURNITURE MANUFACTURING & FLOORING
MAY/JUNE 2024
www.panelsfurnitureasia.com
iQ
Your digital Siempelkamp hub.
Manage. Service. Connect.
Intelligent engineering for future generations
Siempelkamp
@panelsfurnitureasia
For more information, please visit www.panelsfurnitureasia.com
Scan to subscribe to PFA's enewsletter

Clearing the Air **about MET**

Mass engineered timber (MET) is a building material that has been increasingly growing in popularity in recent years. From environmental sustainability to construction efficiency, the material makes a strong case for itself. Yet, concerns about its weaknesses remain. In this article, we speak to Gijs van Seggelen of INCLT to hear his response to the misconceptions and myths of MET. Read ahead for insights on the future of MET from both Gijs and Andrej Holc of LEDINEK.

By **Natalie Tham**

INCLT's first CLT unit with 3600 x 1200 x 75 panels, in South Jakarta

Since 2010, Gijs van Seggelen has been working with wood in Indonesia, specialising in interior projects. In 2019, his interest was piqued by cross-laminated timber (CLT) due to its sustainable building properties. The journey was not easy, particularly during the COVID-19 pandemic, when sourcing CLT products proved challenging due to the lack of local availability and the need for imports. Indonesia possessed neither established building codes for CLT nor models to follow, and only a handful of architects were familiar with the material. Nevertheless, building everything from the ground up provided Gijs with a profound understanding of mass-engineered timber, which includes CLT.

He found a partner who shared his belief in the potential of CLT, and together they began experimenting.

"We made our first CLT panel with mixed wood, tape, and a hydraulic press — super basic! Real Indonesian style, with manual labour and a lot of determination!" Gijs said. "I learned by doing, reading online, and following the progress of CLT in Europe." This led to the founding of INCLT, positioning them as pioneers in CLT manufacturing in Indonesia.

"So, I didn't have a background in MET; I learned everything myself," he said.

WHAT ARE SOME COMMON MISCONCEPTIONS ABOUT MET, AND HOW WOULD YOU ADDRESS THEM?

The attitudes that people have towards MET can be starkly different, depending on where they're from, said Gijs. While CLT is valued for its fire safety in Europe, people in Indonesia are more likely to assume that wood is not safe to use due to it being flammable.

However, this perception proved unfounded when Gijs collaborated with ITB (Bandung University) and PUPR (Ministry of Buildings in Indonesia) to perform fire tests. While the oven operator had expected INCLT's product to be incinerated within 12 minutes, the CLT remained standing after an hour. The tests were stopped only because the intense heat had gotten unbearable.

New fire tests in Europe, the United States and Australia are continuing to prove its safety as well, Gijs added.

Another misconception that people have is that MET attracts bugs and mould, Gijs said.

In 2024, signs of mould began surfacing at the Gaia building in Nanyang Technological University in Singapore, Asia's largest wooden building made almost entirely of mass-engineered timber.

While the presence of mould raises concerns about MET, Gijs believes that the problem lies in the inappropriate

1


2


3

LEGEND

1 *Fire tests that Gijs' team performed in Bandung PUPR (Kementerian Pekerjaan Umum dan Perumahan Rakyat) or Indonesia's Ministry of Public Works and Public Housing*

2 *INCLT's work with CLT in Bedugul Bali*

3 *INCLT's assembling team on the Island of Karimunjawa in Java*

use of European wood in a tropical climate. "I believe using local wood types like Acacia will reduce these risks. I hope to work with companies that make "green" mould prevention products," he added.

He has come up with some "basics" that repel these pests. "I call it 'Big Hat and Big Boots'," he said.

"This means good design with a wide roof and raising the wood off the ground. We also use Acacia wood, which is naturally more resistant to termites and other wood-eating bugs. Of course, keep a basic maintenance plan: If you detect an issue, act on it quickly."

Lastly, in response to the view that MET is not strong enough for tall buildings, Gijs replied in the context of Indonesia, where he is based: "We're not building high-rises yet because Indonesia doesn't have the building codes. But I've seen and experienced the technology in Europe, and it's constantly improving. Hybrid buildings, combining different materials like metal with MET, are the future."

WHAT ARE SOME WEAKNESSES OF CLT, AND HOW CAN THEY BE ADDRESSED?

"CLT is promising, but it has weaknesses," Gijs said. "It can be more expensive than steel or concrete, especially where it's not common. But as production increases, costs should go down."

"In terms of fire, while it has some fire resistance, it is still combustible. Building codes are evolving to recognise CLT's fire behaviour and allow for taller timber structures. And like all wood, it can be damaged by moisture. This makes good design, protective coatings, and sealants all the more essential. Furthermore, as CLT construction in Indonesia is still new, there is a lack of experienced professionals in the market. As careful planning and design are crucial, we are currently working with universities to train more students in MET."

Finally, the lack of building codes is the biggest roadblock in this journey, Gijs said. However, as CLT becomes more common, codes "will follow".

However, the potential of CLT becomes clearer to many when Gijs explains cost-savings such as faster construction, less foundational material, less waste, its ability to be used in difficult-to-reach places, and the option to reuse or adjust the panels.

LOOKING AHEAD TO THE FUTURE OF MET

"The future of CLT in Asia is bright," Gijs said. This sentiment is echoed by Andrej Holc of LEDINEK, who believes in the "limitless possibilities" of wood in "building aesthetics" and its "inherent environmental advantages". Holc is a sales engineer and project manager with over twenty years of experience in the field of MET production solutions.

Wood is a strong contender to steel and concrete, Holc said. "With MET the region can now again embrace its wood construction tradition in new ways. This is happening very fast, with national codes are being put in place in Southeast Asia. Impressive reference buildings have been built from imported MET. Researchers are studying it, architects are embracing it, and construction companies follow their path."

There is a need for more research, education, awareness, and new technologies, Gijs said. "With more research, innovation, and collaboration, CLT will play a big role in sustainable building in Asia and beyond," he said. He extends an open invitation to discuss collaborations in order to speed up the developments. P

Images: Gijs van Seggelen

Gadjah Mada University (UGM) in Yogyakarta

Stick Together: The Science and Future of Adhesives

Adhesives are more than just a joining method—they are essential to modern construction, ensuring durability, energy efficiency, and sustainability. Jowat's innovative adhesive solutions are shaping the future of building materials, from timber assemblies to high-performance windows and doors.

Glued timber assemblies benefit from the strength of one-component polyurethane adhesives, ensuring stability and reducing carbon emissions in eco-friendly construction projects.

Adhesives play a crucial role in the durability and energy efficiency of buildings and facilitate the manufacturing of composite materials that meet modern construction challenges.

Modern buildings must meet a wide range of requirements, driving demand for energy-efficient and environmentally friendly construction methods. Many contemporary standards in the construction industry rely on advanced adhesive technologies. These adhesives provide the foundation for future construction.

POLYURETHANE ADHESIVES IN CONSTRUCTION

Polyurethane adhesives (PUR) are widely used in modern construction due to their strength and resistance. Chemical crosslinking creates a multi-dimensional structure, enabling the adhesive to withstand mechanical stress, chemical influences and extreme temperatures.

Jowat's high-performance PUR adhesives is their broad adhesion spectrum, allowing them to join materials such as wood, metal and plastic. This makes them suitable for industrial production of building elements that incorporate multiple material layers. In energy-efficient facade elements, where insulation is crucial, Jowat's PUR adhesives ensure a strong and permanent bond that meets strict building regulations.

GLUED TIMBER ASSEMBLIES

Timber construction is increasing in popularity due to ecological benefits and innovative bonding technologies. Compared to other materials, wood is more environmentally friendly as it stores carbon dioxide and contributes to reducing greenhouse gases. This supports the construction of energy-efficient buildings and reduces carbon emissions over the building's lifespan.

Jowat's Jowapur 681.xx series exemplifies state-of-the-art bonding technology, tailored for different process times while providing enhanced rheological properties for optimal surface wetting. Additionally, the fibre-reinforced formulation minimises movement in the bondline during curing and reduces the risk of glulam layers shifting in the press, ensuring the stability of load-bearing timber assemblies.

WINDOWS

Windows provide protection against the weather while also serving as a

source of light and ventilation. They are typically made from wood, plastic, aluminium or composite materials and must fulfil additional functions such as burglar resistance and thermal insulation. Apart from design and durability, cost-effective production is a key consideration.

ADHESIVES FOR WOOD WINDOWS

A range of adhesives is available for the production of wood windows. For wood windows, Jowat's adhesives offer weather resistance, making them ideal for outdoor applications. Dispersion adhesives based on polyvinyl acetate (PVAc) or emulsion polymer isocyanate (EPI) provide resistance to water and heat, contributing to the durability of wood windows. These adhesives play an essential role in window design, functionality and longevity.

ADHESIVES FOR PLASTIC OR ALUMINIUM WINDOWS

Jowat's adhesives used for plastic or aluminium windows provide high initial strength and a broad adhesion range to ensure proper bonding of PVC and aluminium. These characteristics are essential for the lamination of window profiles, which are becoming more diverse in materials, surface tension variations and production speeds.

ADHESIVES FOR WOOD DOORS

In wood door manufacturing, adhesives provide strong and permanent bonds that withstand daily use. Polyurethane hot melt adhesives are commonly used due to their high initial strength.

A key step in door production is lamination, where a carrier substrate is coated with a surface material for protection or decoration. This process includes profile wrapping, where door frames made from wood-based materials are wrapped with a decorative foil, and flat lamination, where door leaf surfaces are finished with a decorative layer. Adhesives support efficient production in both processes.


1


2

SUSTAINABILITY IN ADHESIVE USE

Sustainability is a major focus in modern construction. Some adhesive technologies incorporate renewable raw materials, improve occupational safety by reducing emissions and lower energy consumption in the bonding process.

For example, Jowacoll GROW 105.85 is a bio-based PVAc dispersion adhesive incorporating renewable raw materials, reducing the industry's reliance on fossil-based ingredients. Additionally, Jowat 406.85, a VOC-free primer for profile wrapping, helps protect the health of both consumers and employees while maintaining high-performance bonding standards.

INDUSTRY COLLABORATION

The adhesive industry is closely connected to the construction sector and participates in various trade associations. These organisations help establish quality standards essential to construction.

As sustainability and climate change challenges grow, adhesive solutions must offer high performance, environmental compatibility and resource efficiency. This is achieved through renewable raw materials and the development of low-emission, energy-efficient systems. Testing and certification procedures ensure that adhesive systems comply with relevant legal regulations and standards. P

LEGEND

1 *Polyurethane hot melt adhesives play a key role in wood door manufacturing, ensuring strong, permanent bonds for high-quality, durable doors*

2 *Modern timber window with precision bonding – a close-up of high-quality adhesive application ensuring durability and strength*

Palm Core: The Latest Sustainable Alternative to Timber

As climate change intensifies and sustainable materials gain traction, IOI Palm Wood is offering Palm Core as an eco-friendly alternative to compliment traditional tropical timber in joinery and interior design. Made from the fibrous core of oil palm trees, Palm Core reduces environmental impact while showcasing unique properties inherent in palm characteristics.

Palm Core is produced from old or unproductive oil palms, that are replanted as part of regular agricultural cycles, with no deforestation required. This repurposes under-utilised biomass into a lightweight, stable, and durable material with excellent insulation properties. Applications currently include door cores, block-boards, and three-layered panels for joinery, furniture, and construction.

A SUSTAINABLE AND CERTIFIABLE RAW MATERIAL SOURCE

A key advantage of Palm Core is that it is made from unused oil palm trunks, which typically reach the end of their productive life after 20 to 35 years and are often left to decay after replanting. Unlike timber, which can take decades to mature, oil palm trees grow relatively quickly, making Palm Core an ideal choice for sustainable manufacturing. Additionally, oil palm plantations are MSPO certified, ensuring responsible sourcing and adherence to environmental standards, giving manufacturers and consumers confidence that they are supporting sustainable practices.

Palm core in blockboard

EXCELLENT STABILITY WITH LOW THICKNESS SWELL

Palm Core, with its natural grain and inherent palm characteristics, is particularly well-suited for joinery and door construction. Its excellent stability resists expansion and contraction, maintaining shape even in fluctuating environmental conditions. This makes it a durable and highly sustainable choice for fixtures and fittings.

NO ADDED FORMALDEHYDE

Palm Core is free from added formaldehyde, a common chemical found in many traditional wood-based products. This enhances its eco-credentials and contributes to healthier indoor air quality, making it an ideal choice for consumers who prioritise sustainability and wellness in their homes and offices.

GOOD INSULATION PROPERTIES, INCLUDING FIRE RESISTANCE

Palm Core offers both thermal and acoustic insulation benefits, along with natural fire resistance — a crucial feature for safety-conscious manufacturers and consumers. Palm Core can thus be safely used for a wide range of applications, from furniture to construction materials.

LIGHTWEIGHT AND COMPETITIVELY PRICED

Palm Core's lightweight nature simplifies assembly, handling, and logistics while reducing the carbon footprint of manufacturing and shipping. Being lightweight, it reduces the overall carbon footprint of manufacturing and shipping. Despite these advantages, Palm Core remains competitively priced, offering long-term value and durability compared to timber.

ADDRESSING PERCEIVED WEAKNESSES

While Palm Core offers its strengths and benefits, no material is without its perceived weaknesses. One perceived drawback is its screw-holding ability. This can be addressed with "Confirmat" (Euro) screws or the chemical anchoring of fittings, both of which ensure secure fastening in furniture pieces.

IOI Palm Wood's logo

Furthermore, while Palm Core may initially appear pricier than traditional wood products, its sustainability and long-term value render it a cost-effective option. By engaging in discussions with customers to assess their specific needs, tailored pricing solutions can help align the material's benefits with cost-effective use.

To address concerns related to insect and fungus infestation, all Palm Core material undergo heat sterilisation, thermal modification, and a surface treatment. This process minimises the risk of borers, beetles, and termites, ensuring that Palm Core remains structurally sound for years to come.

PARTNERING WITH OUR BUSINESS & PRODUCT DEVELOPMENT TEAM

At IOI Palm Wood, we believe that the full potential of Palm Core is best realised through collaboration. Our Team is open for opportunities with internal designers, furniture manufacturers, door manufacturers, distributors, and customers to develop effective and customised solutions. We support you in material selection, pricing strategies, and technical solutions to help bring your projects to life.

Palm Core is more than just a material — it symbolises a step towards a more sustainable, responsible and innovative manufacturing ecosystem. By choosing Palm Core, you're not only investing in high-performance materials but also contributing to the mitigation of climate change and other environmental challenges. P

Images: IOI Palm Wood

Inspiring the next "material revolution" by creating sustainable and high-performance materials from oil palm waste, **Peter Fitch**, together with IOI, have set up IOI Palm Wood to commercialise this untapped potential.

Indo Wood Expo 2025: East Java's Premier Forestry & Woodworking Trade Show

Indo Wood Expo 2025 is set to be the premier event for Indonesia's woodworking and furniture industries, bringing together key players from across the region and beyond. Taking place in Surabaya, East Java, this event promises to showcase the latest innovations, trends, and technologies in woodworking and manufacturing, solidifying Indonesia's position as a global leader in the export of high-quality wood products. The event promises to be a dynamic showcase of the latest innovations, trends, and technologies in woodworking and manufacturing.

GLOBAL APPEAL & INDUSTRY POSITIONING

As one of South East Asia's most significant trade shows, Indo Wood Expo 2025 will highlight Indonesia's competitive edge in the global woodworking market. The expo will attract international exhibitors, speakers, and buyers, offering valuable networking opportunities with industry leaders from around the world. This growing global recognition of Indonesia's role in the woodworking sector is further reinforced by strategic partnerships with global associations and extensive media coverage. Indo Wood Expo is positioning itself as the go-to platform for innovation and collaboration within the woodworking industry.

MARKET INSIGHTS & FUTURE TRENDS

Indo Wood Expo 2025 will provide invaluable market insights into Indonesia's forestry exports, which are projected to play an increasingly significant role in the global wood market. With the demand for sustainable, eco-friendly products on the rise, the expo will showcase cutting-edge innovations in green materials and sustainable manufacturing practices. Looking

ahead, attendees can expect forecasts and trends that reveal exciting growth opportunities in Asia and beyond, ensuring they stay ahead of market demands and technological advancements.

Indonesia's forestry sector continues to flourish, with exports reaching US$8.22 billion as of August 2024. The furniture and crafts segment alone contributed $2.5bn, highlighting the sector's immense contribution to the national economy. Despite this impressive growth, East Java — one of Indonesia's most dynamic furniture manufacturing hubs — has remained underserved by major trade shows, making Indo Wood Expo 2025 even more significant for industry professionals.

SURABAYA: A STRATEGIC LOCATION FOR INDUSTRY GROWTH

Surabaya, the capital of East Java and Indonesia's second-largest city, boasts the second-highest concentration of furniture factories in the country. Its strategic location offers direct access to key production centers while minimizing transportation costs, making it an ideal destination for industry expansion. The city's lower wages and development costs have also fueled a manufacturing boom, attracting investors and businesses. Additionally, government incentives, such as tax breaks, subsidies, and a significant IDR3.33bn investment, are driving advancements in woodworking and furniture manufacturing, ensuring long-term growth and innovation in the sector.

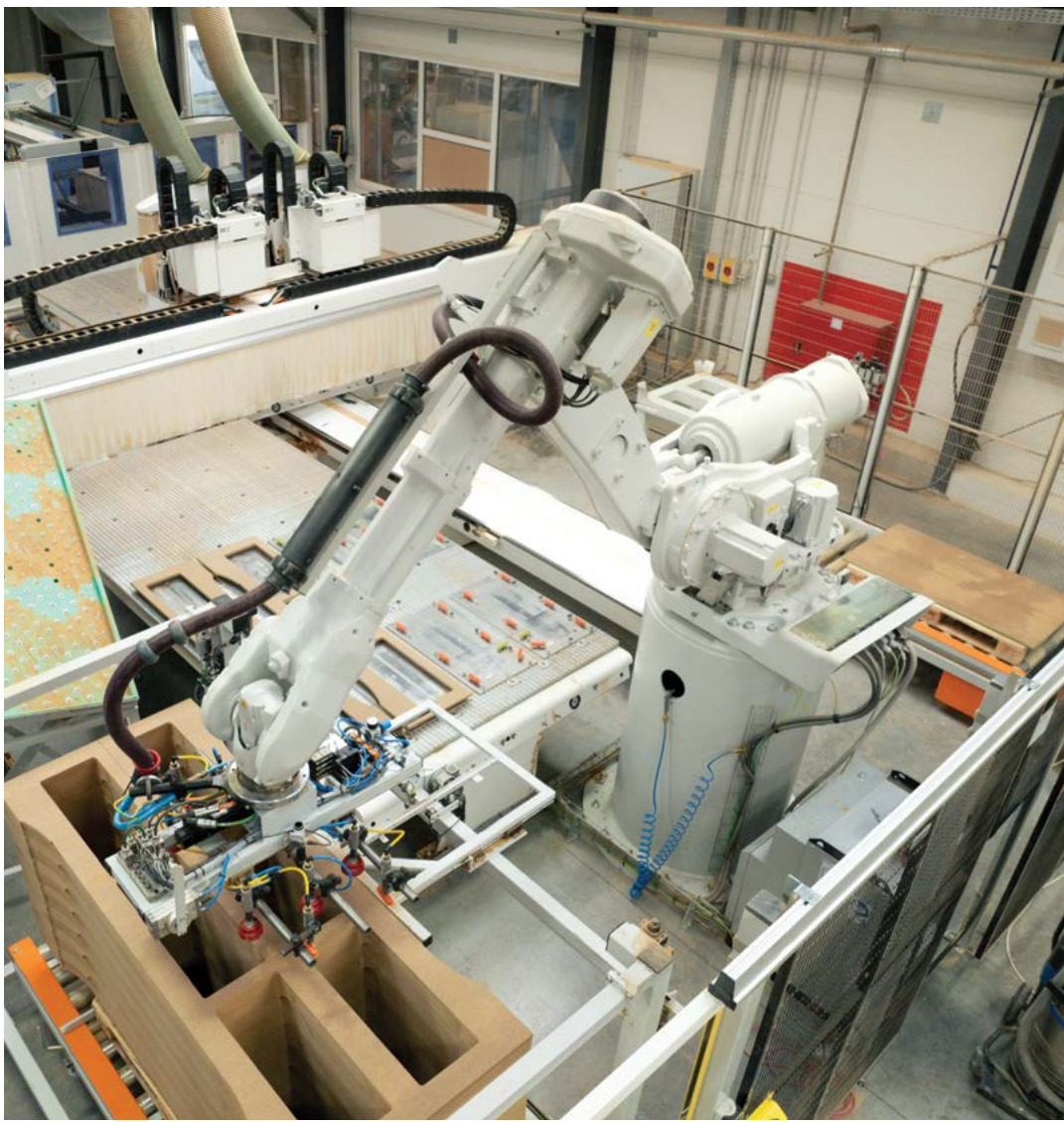
THEMATIC FOCUS & DIFFERENTIATION

The event will be structured around four key themes to guide industry professionals through the latest advancements:

- **Smart Manufacturing:** The integration of automation and digital tools in woodworking will be a major highlight, offering insights into the future of manufacturing processes.
- **Sustainability & Green Materials:** As sustainability becomes a global priority, Indo Wood Expo will showcase the latest eco-friendly products and technologies.
- **Innovation in Design & Customisation:** Featuring cutting-edge design trends and custom woodworking solutions, this segment will appeal to designers and manufacturers alike.
- **Export & Market Expansion Opportunities:** With a focus on international trade, this segment will highlight Indonesia's expanding presence in the global market and offer strategies for successful market entry.

Visitors will have the opportunity to experience live demonstrations, participate in interactive workshops, networking with industry leaders, and more. This is more than just an exhibition — it is a vital platform for shaping the future of the woodworking industry and exploring new business opportunities.

Early registration is highly encouraged at this transformative event. To get ready for the event and receive the latest updates, visit https://indowoodexpo.com/, where you'll find comprehensive information about the show and much more. Don't miss this opportunity to be part of Indo Wood Expo 2025, where innovation, sustainability, and global networking converge to drive the woodworking industry forward. P



Events Calendar 2025-2026

2025

MARCH

March, 01 – 04
Malaysian International Furniture Fair 2025
Kuala Lumpur, Malaysia

March, 05 – 07
Hawa Expo
Ho Chi Minh City, Vietnam

March, 05 – 08
VIFA Expo
Ho Chi Minh City, Vietnam

March, 06 – 09
IndiaWood
New Delhi, India

March, 18 – 21
China International Furniture Fair Guangzhou (Phase 1)
Guangzhou, China

March, 28 – 31
China International Furniture Fair Guangzhou (Phase 2)
Guangzhou, China

March, 28 – 31
Interzum Guangzhou
Guangzhou, China

APRIL

April, 22 - 24
DOMOTEX Middle East
Dubai

April, 14 – 16
Dubai WoodShow
Dubai, United Arab Emirates

MAY

May 08 – 11
Qingdao International Furniture Fair
Qingdao, China

May 20 – 23
interzum
Cologne, Germany

May 27 – 30
Xylexpo
Milan, Italy

May, 26 – 28
DOMOTEX asia/CHINAFLOOR
Shanghai, China

May, 26 – 30
LIGNA
Hannover, Germany

May, 27 – 29
INDEX 2025
Dubai, UAE

JUNE

Jun, 19 – 21
Indo Wood Expo
Surabaya, Indonesia

AUGUST

August, 29 – 31
Korean International Furniture & Interior Fair
Seoul, South Korea

SEPTEMBER

September, 09 – 12
China International Furniture Fair Shanghai
Shanghai, China

September, 10 – 13
FMC 2025
Shanghai, China

September, 24 – 27
IFMAC & WOODMAC
Jakarta, Indonesia

OCTOBER

October, 01 – 03
2025 NHLA Annual Convention & Exhibit Showcase
Texas, US

NOVEMBER

November, 13 – 14
Southeast Asia Woodworking Summit 2025
Bangkok, Thailand

November, 19 – 22
VietnamWood
Ho Chi Minh City, Vietnam

2026

JANUARY

January, 19 – 22
DOMOTEX
Hannover, Germany

MARCH

March, 04 – 07
Hawa Expo
Ho Chi Minh City, Vietnam

March, 24 – 27
Holz-Handwerk 2026
Nuremberg, Germany

Professional Wood Based Panel Producing Solution Provider

Customized According to Customer Needs

Fast Responsed Servicing

Efficiency Capacity Reliability

YALIAN
亚联机械

Contacts:
Tel: 4009007011
Email: int-sells@yalian.info
Web: www.yalian.info

Index of **Advertisers**

Panels & Furniture Asia (Issue 2) - March/April 2025

Scan to download eBook
PFA March/April 2025

HIPOINT

MASTER PIECES FROM TAIWAN
FOR BOTH SOLIDWOOD & PANEL INDUSTRIES

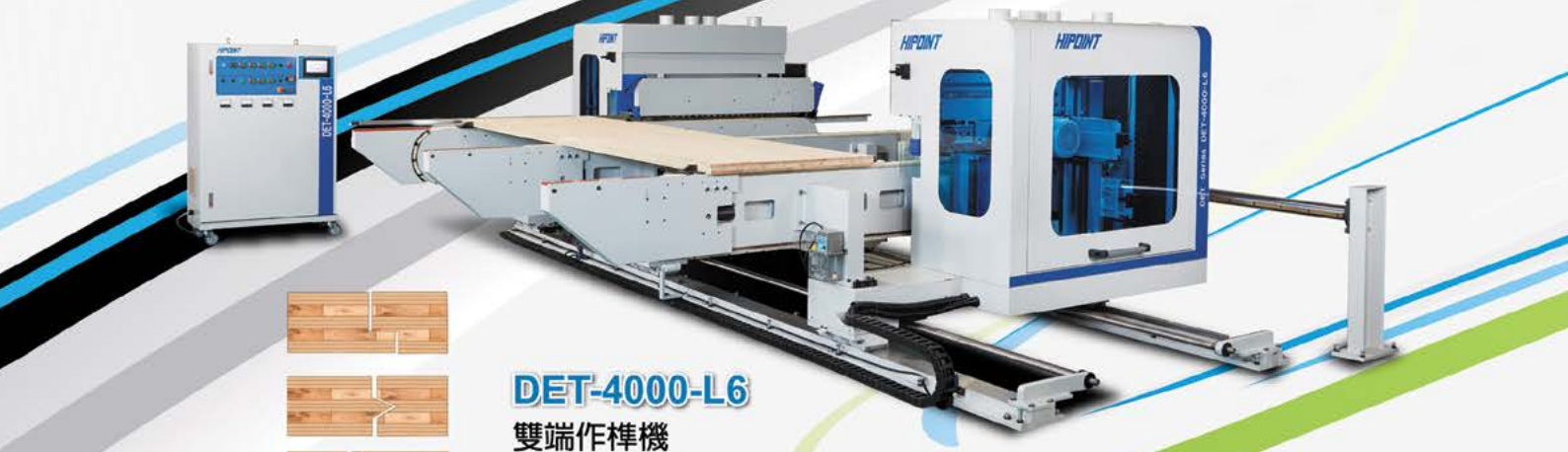
CE
APPROVED/認證合格

SBM-1300-H6

自動雙端切鑽銑機
Double Sided Cutting Boring and Milling Machine

適用實木傢俱,長條形工件元件、
廚櫃工件元件、 實木門工件元件、
地板元件高精度定長、
銑公母榫鑽孔、端面銑形

Designed For Solid Wood Furniture/ Door/flooring Production,
Kitchen Cabinet, and Functiona For High Precision Sizing , Boring, Milling .



DET-4000-L6

雙端作榫機
Double End Tenoner

CLT 專用雙端作榫機，適用於地板、頂棚及壁板等；最大加工寬度可至 6000 mm 或更寬。
Special machine for **CLT** material such as flooring, ceiling and wall panel
max. working width up to 6000 mm or more.

L-CLASS

SD-700A

自動貼邊修邊機 Auto. Edge Banding Machine

PVC 及美耐板及木薄片的邊緣成型 (softforming) 的加工，厚度可達 0.4-1.2 mm。
For PVC melamine and veneer edge banding (softforming) job. Edging thickness: 0.4-1.2 mm.

Canadian wood.
Versatile and durable.

Gỗ Canada.
Đa dụng và bền bỉ.

WESTERN HEMLOCK GỖ ĐỘC CẦN BỜ TÂY

TRY CANADIAN WOOD
HÃY DÙNG THỬ GỖ CANADA

canadianwood.com.vn
+84 (0)274 380 3609

A range of high-quality certified lumber from sustainably managed forests of British Columbia, Canada.
Các loại gỗ xẻ chất lượng cao được chứng nhận từ nguồn rừng trồng được quản lý bền vững của tỉnh bang British Columbia, Canada.

Canadian Wood