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APRIL 2026
ISSUE 58

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WE ARE IN IT TOGETHER

I get my weather information from Vox, which always ends with "Whatever the weather, we are in it together." This statement sums up the emerging themes in this issue. To paraphrase Tatenda Mapeto: nothing happens in a vacuum.

FUTURE21 is perhaps the most literal expression of that idea. Forestry South Africa, two South African universities, two Scandinavian universities, and two local biodiversity organisations are partnering on a multidisciplinary, EU-funded project to reframe the future of forestry education — preparing learners of all ages for today's complex work environment and the one coming next. This is what cross-border, cross-disciplinary, cross-hemisphere collaboration looks like. Congratulations to NMU and Tatenda for driving this crucial project.

The John Deere cover story explains how intelligent forestry machines match performance to the task at hand. But technology only delivers value when the person operating it understands what the data is telling them. Information is powerful when used to stay one step ahead in operations, maintenance planning, and decision-making. The forester, operator, and machine are in it together, too.

David Marks, our prolific correspondent, is adept at researching what he calls "engineered timber curiosities." This month, he turns his attention to the Morgan motor car, which is retro in design, still custom hand-built with an ash timber frame, yet emphatically a modern vehicle. (I had to pause at a salesperson's description of the model range. Did you know a manual car is now called an analogue car?) The Morgan is a useful mirror for our industry: rooted in history, still finding new ways to remain relevant.

We also feature the SASDEA conference. Each time I attend an industry gathering, it is clear that the real competitive advantage lies in shared knowledge. SASDEA exists because the saw doctors understand that. So do the partners behind FUTURE21, the engineers behind John Deere's intelligent machines, and the artisans at Morgan who still pass their skills from hand to hand.

Whatever the weather, the best in this industry have always known we are in it together.



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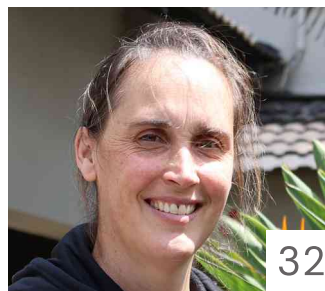
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NMU leads global project to prepare graduates for real-world decision-making

Dr Tatenda Mapeto of the Department of Forestry in Nelson Mandela University's Natural Resource Science and Management Cluster is leading Future21, the EU-funded project to reshape how universities prepare students for work in the sustainability-driven economy.

By Joy Crane



The NMU Campus in George.

Future21: Multidisciplinary Socio-Ecological Education in South Africa for Sustainability sees seven organisations from South Africa, Finland and Norway collaborating to redesign teaching and learning methodologies around real-world socio-ecological challenges.

REIMAGINING EDUCATION

It marks a significant shift toward embedding sustainability across disciplines and equipping graduates with the systems-thinking skills required to navigate complex environmental, economic, and social pressures.

Future21 focuses on integrating socio-ecological systems thinking into curricula, teaching methodologies and institutional practices. This includes developing new learning materials,

revising existing modules and promoting interdisciplinary collaboration among staff and students.

Socio-economic challenges cannot be solved within a single discipline. "Climate change, food security, water scarcity and biodiversity loss are interconnected issues. Our teaching needs to reflect that interconnectedness", Mapeto explains.

"We want to ensure that graduates are academically prepared and capable of working across disciplines to address complex sustainability challenges".

PROJECT PARTNERS

The Future21 project brings together a diverse group of academic institutions, industry leaders and environmental organisations, all

working toward a shared vision of sustainable forestry, climate resilience and skills development.

The collaboration reflects both local and international expertise, with partners contributing knowledge in forestry science, conservation, community engagement and applied research.

At the centre of the initiative is NMU's George Campus, home to one of South Africa's leading forestry education programmes. NMU has a long-standing reputation in forestry training and research, particularly in sustainable plantation management, wood technology and environmental stewardship.

Through Future21, the university aims to strengthen innovation in forestry while preparing students and young professionals for the changing demands of the green economy.

The project's industry partner, **Forestry South Africa (FSA)**, represents the country's commercial forestry sector and plays a key role in promoting sustainable forest management practices. FSA works closely with growers, processors and policymakers to support economic growth, environmental responsibility and transformation within the forestry industry.

Its involvement in Future21 ensures that the project remains closely aligned with the practical needs of the sector and future employment opportunities.

Another South African academic partner is **University of Mpumalanga**

(UMP), an institution situated in one of the country's major forestry regions. UMP has developed strong forestry and agricultural programmes focused on sustainable land use, biodiversity conservation and rural development. The university's participation broadens the project's national reach and encourages collaboration between forestry students and researchers across provinces.

The international dimension of Future21 is strengthened by the involvement of the **Inland Norway University of Applied Sciences**, which contributes expertise in sustainable forestry, climate-smart resource management and applied environmental research. Norway is internationally recognised for balancing forestry production with conservation, and the partnership creates opportunities for knowledge exchange, student collaboration and shared research initiatives between South Africa and Scandinavia.

Also contributing international expertise is **Häme University of Applied Sciences (HAMK)**, a Finnish institution known for its strong focus on bioeconomy, circular economy practices and sustainable natural resource management. Finland has one of the world's most advanced forestry sectors, and HAMK's involvement offers valuable insight into innovation, technology and environmentally responsible forestry practices suited to future global challenges.

The environmental and community conservation perspective within Future21 is supported by the **Garden Route Biosphere Reserve**. Located in the Southern Cape, the biosphere reserve promotes sustainable development that balances environmental protection with the needs of local communities. Its work includes biodiversity conservation, environmental education and fostering partnerships that support resilient landscapes and livelihoods.

The project also includes the **Kruger to Canyons Biosphere Reserve**, one of Africa's largest biosphere reserves. Spanning a vast and ecologically important area in



Dr Tatenda Mapeto explaining the FUTURE21 project.

Mpumalanga, the organisation focuses on conservation, sustainable resource use and community upliftment. Its participation highlights the project's emphasis on integrating forestry practices with broader environmental and social sustainability goals.

Together, the seven partners bring a combination of academic research, industry knowledge and conservation expertise to the Future21 project, creating a platform for innovation and international cooperation in the forestry sector.

PROBLEM SOLVING

Students enrolled in Future21-aligned programmes will experience something fundamentally different from a traditional university course.

"Rather than completing assignments within the boundaries of a single discipline, they will engage with real problems that require drawing simultaneously on ecology, social science, policy, economics, and business thinking", she says.

"They will work alongside mentors from industry, government, and civil society who navigate these intersections every day. They will encounter the complexity, ambiguity, and competing interests that characterise real decisions rather than the controlled certainty of textbook scenarios."

LOCAL IMPACT

The project is supported by €800 000 (about R16 million) in

funding from the European Union's Erasmus+ programme.

Mapeto emphasises that while the funding and partnerships are international, the project's foundation is firmly rooted in South African realities. "We are working to ensure that global sustainability frameworks are adapted in ways that make sense for local communities and ecosystems".

By combining international expertise with local knowledge, the initiative aims to strengthen institutional capacity and contribute to national and continental conversations on sustainable development.

The collaboration is organised around work packages, the first of which asks partners to review and adapt the curricula. There will be workshops, symposiums, and real-world student challenges.

UNIVERSITIES IN ECOSYSTEMS

For the Nelson Mandela and Mpumalanga universities, the initiative strengthens their position as leaders in natural resource science and sustainability education areas central to the economic and environmental future of the Southern Cape, Eastern Cape and Mpumalanga forestry regions.

By including the Kruger to Canyons and Garden Route Biosphere Reserves, the project extends its reach into socio-environmental systems. Mapeto believes the partnerships formed will live on beyond Future21, "because education cannot happen in a vacuum". here will be workshops, symposiums, and real-world student challenges.

Universities as leaders

For the Nelson Mandela and Mpumalanga universities, the initiative strengthens their position as leaders in natural resource science and sustainability education areas central to the economic and environmental future of the Garden Route, Eastern Cape and Mpumalanga biospheres.

Mapeto believes the partnerships formed will live on beyond Future2, "because education cannot happen in a vacuum". 🌱

Why FUTURE21? The global education challenge and a local solution

Disciplinary depth matters. A forester must know how to manage tree production systems, and an ecologist must understand species interactions. Can graduates afford to wait until the postgraduate level to integrate socio-ecological systems (SES) thinking into their disciplines?

By Dr Tatenda Mapeto

Most graduates enter the workforce with only an undergraduate qualification, while employers and their industries increasingly expect them to be professionals who can engage and solve problems across disciplines and sectors from day one.

The World Economic Forum's 2025 report on the future of jobs states that environmental stewardship is now a rapidly growing skill globally. Thirty-nine per cent of current skills will be obsolete by 2030, and demand for green, cross-sectoral competencies is outpacing what education systems currently deliver.

The literature points to global gaps. But we needed to understand our own context. In 2024, FUTURE21 conducted a needs analysis across NMU and the University of Mpumalanga, involving lecturers, students, and industry stakeholders.

THE FINDINGS CONFIRMED THE URGENCY:

- **Curriculum Gap:** 75% of lecturers report that modules with socio-ecological components need significant revision or redevelopment to become competency-based.
- **Skills Mismatch:** 31% of students struggle with time management; 15% with academic communication; foundational skills remain unaddressed.
- **Limited Collaboration:** Only 42% of staff report institutional support for industry partnerships; universities and sectors remain disconnected.
- **Access Barriers:** Most



Dr Tatenda Mapeto explaining the FUTURE21 project.

sustainability qualifications are available only at the MSc/PhD level, leaving a critical gap for graduates and working professionals.

Future21: Multidisciplinary Socio-Ecological Education in South Africa for Sustainability is a consortium of seven organisations from South Africa, Finland and Norway collaborating to redesign teaching and learning methodologies for real-world socio-ecological challenges. The project is supported by €800 000 (about R16 million) in funding from the European Union's Erasmus+ programme.

There are seven members of the consortium:

- Nelson Mandela University (NMU) – lead institution.
- Forestry South Africa (FSA) – industry partner
- University of Mpumalanga (UMP) – Academic institution
- Inland Norway University of Applied Science (INN) – Norway
- Häme University of Applied Sciences (HAMK) – Finland
- Garden Route Biosphere Reserve (GRBR) – Southern Cape

- Kruger to Canyons Biosphere Reserve (K2C) – Mpumalanga

The project's general objective is to strengthen the capacity of higher education institutions to support inclusive, multidisciplinary education that produces employable graduates with a stewardship approach to sustainable SES.

WORK PACKAGES

It is structured into five work packages (WPs). WP1 is project management and coordination led by NMU and HAMK.

- WP2: Redesigning what we teach by building curricula from the ground up that are competency-based, multidisciplinary, and shaped by industry and societal needs.
- WP3: Transforming how we teach. New curricula mean little without educators who can bring them to life. This is where we invest in our people: equipping lecturers with modern pedagogical tools, SES expertise, and the confidence to teach differently.
- WP4: Building bridges beyond campus. Our needs analysis showed that only 42% of staff feel supported in working with industry. Education cannot happen in isolation. FUTURE21 deliberately connects universities with the forestry sector, biosphere reserves, government, and civil society to create a collaborative learning ecosystem.
- WP5: Sharing the story, proving the impact.

Everything we build matters only if it reaches the people who need it and if we can prove it works. Our European partners lead this effort, ensuring FUTURE21's lessons travel well beyond the consortium.

Dr Tatenda Mapeto is the leader of the Future21 project. She is a lecturer in NMU's Department of Forestry, which is housed in the university's Natural Resource Science and Management Cluster. 🌳



Future21 launch symposium describes a complex world

The opening ceremony and first symposium of the *Future21: Multidisciplinary Socio-Ecological Education in South Africa for Sustainability* project at NMU on 20 April, explained the project's objectives and outlined topics that chart a new approach to forestry education.

The three-year project (2026 – 2029) is supported by €800 000 (about R16 million) in funding from the European Union's Erasmus+ programme.

There are seven members of the consortium:

- Nelson Mandela University (NMU)
- Forestry South Africa (industry partner)
- University of Mpumalanga (Academic institution)
- Inland Norway University of Applied Science (Norway)
- Häme University of Applied Sciences (Finland)
- Garden Route Biosphere Reserve (Southern Cape)
- Kruger to Canyons Biosphere Reserve (Mpumalanga).

NMU's George Campus (formerly known as Saasveld) is the coordinating hub of the Future21 project. The project leader, Dr Tatenda Mapeto, is a lecturer in NMU's Department of Forestry, which is housed in the university's Natural Resource Science and Management Cluster.

Mapeto chaired the symposium and introduced the speakers and the discussion on socio-ecological sustainability and the future of natural resource systems, the role of forestry and the impact of market forces.



The launch of FUTURE21 at NMU. Photo courtesy of the George Herald.

- Dr Kaluke Mawila, NMU Campus Principal: Welcome
- Prof Christa Grobler, Dean: Perspective from the Science Faculty
- Prof Syden Mishi, Deputy Dean: Perspective from the Faculty of Business and Economic Sciences
- Margaret Mokhuane, EU Representative in South Africa: The role of the European Union
- Alderman Browen Johnson: The George Municipality and sustainability
- Tebogo Mathiane, Department of Forestry, Fisheries and the Environment (DFFE)
- Ben Durham, Department of Science, Technology and Innovation (DSTi)
- Prof Albert Van Jaarsveld: Global perspectives on sustainability
- Prof Michal Brink of CMO: The future role of certification in forestry
- Dr George Sekonya: Socio-ecological systems
- Dr Leo Long: Bridging sustainable production and consumption
- Prof Wendy Terblanche: Sustainability reporting – Quo vadis?
- Prof Magnar Hesjadale, Inland Norway University: A Nordic perspective on sustainable socio-ecological systems
- Dr Bianca Currie, Garden Route Biosphere Reserve: Panel discussion moderator. 🌳

The state of forests in East and Southern Africa

The Centre for International Forestry Research (CIFOR) and World Agroforestry (ICRAF) have published a 189-page report on *The State of the Forests 2025: The Forests of the East and Southern Africa*. It provides a comprehensive, evidence-based assessment of the status, trends and governance of forests across Ethiopia, Kenya, Mozambique, Tanzania and Uganda.

This State of the Forest Report provides an evidence-based assessment of forest conditions and dynamics across East and Southern Africa, drawing on geospatial analyses, national forest inventories, and regional monitoring frameworks. It aims to inform policy, resource allocation and programme interventions at national and regional levels by providing actionable

insights to support decision-makers in developing adaptive, inclusive, and science-based forest management strategies.

It evaluates changes in forest cover, degradation trends, and biomass loss, while identifying the proximate and underlying drivers, including agricultural expansion, charcoal production, logging, and climate variability.

The world continues to advance towards sustainable energy targets; however, the pace of progress is insufficient to achieve Sustainable Development Goal (SDG) seven on access to affordable, reliable and modern energy services by 2030. If trends continue, about one billion people living in sub-Saharan Africa will still be without access to clean cooking solutions in 2030.

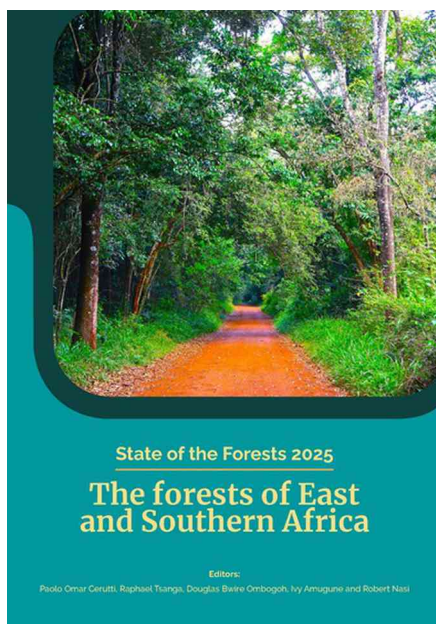


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Hence, improved renewable energy solutions are needed, including upgrading of wood fuel production and use.

The report reviews the implementation status of national forest policies, REDD+ (Reducing emissions from deforestation and forest degradation and enhancement of forest carbon stocks) strategies, and restoration initiatives such as AFR100.

It examines their alignment with global commitments, including the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, and the Sustainable Development Goals' targets. Special attention is given to the role of decentralised governance and community-based forest management.

The report explores key dimensions shaping the region's forest landscapes, including forest typologies and ownership regimes; timber production and markets; legal and policy frameworks; community forestry; sustainable wood-fuel management; the wild meat trade; women's rights and participation; and forest monitoring, data management, and sharing.

CIFOR published the booklet in the context of the EU-funded East and Southern Africa Forest Observatory (OFESA), implemented from 2020 to 2024. CIFOR partnered with the Regional Centre for Mapping of



Bush clearing residues ready for conversion into FSC certified charcoal in Namibia.

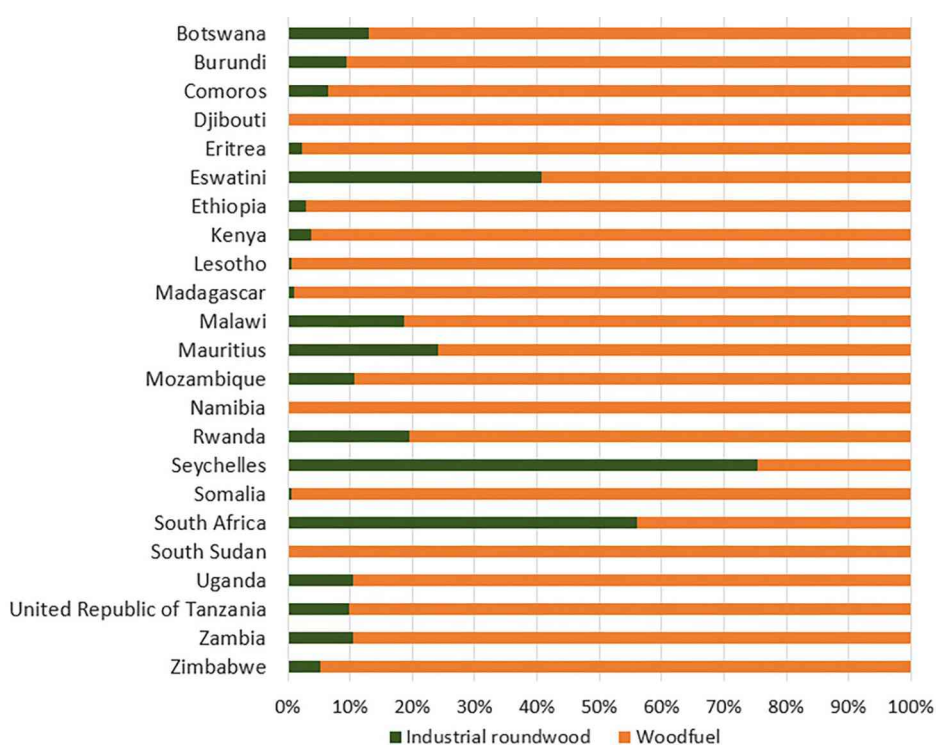
Resources for Development (RCMRD) to implement OFESA in Kenya, Uganda, Tanzania, Ethiopia and Mozambique.

OFESA aimed to address the main barriers to accessing reliable data to inform landscape management and to strengthen monitoring systems in the participating countries. In doing so, it aimed to help these countries improve and implement a monitoring

system to assist them in reporting on their climate obligations. 🌳

REFERENCE

Cerutti PO, Tsanga R, Ombogoh DB, Amugune I, Nasi R, eds. 2025. *State of the Forests 2025: The forests of East and Southern Africa*. Bogor, Indonesia: CIFOR; Nairobi, Kenya: ICRAF.
<https://doi.org/10.5716/cifor-icraf/BK.46390>



Proportions of industrial roundwood and woodfuel by country, 2023.
 Source FAO 2025 on p90 of the book.

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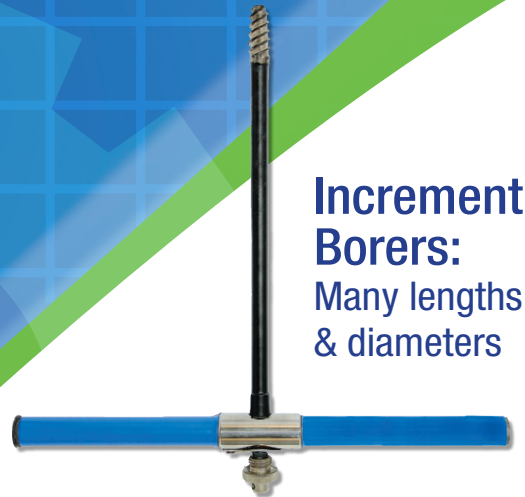


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John Deere 2144G: Built for the way forestry actually works

Forestry does not wait. Production targets don't pause, terrain doesn't get easier, and downtime is never convenient. For contractors across Africa, every decision comes down to one question: Will this machine keep working when I need it most?



Safety is a priority and the top of the line cab is ROPS, FOPS and OPS certified.

That's exactly where the John Deere 2144G Tracked Harvester finds its place. It is a machine built around the realities of forestry: long hours, demanding environments, and the constant pressure to produce more with less.

From the moment it enters the operation, the 2144G feels purpose-built. It's not a modified solution trying to fit into forestry; it was designed for it. Whether working through dense eucalyptus stands in

KwaZulu-Natal or handling pine in Mpumalanga, the machine adapts to the environment, not the other way around.

INTELLIGENT POWER

A big part of that confidence comes from how the machine delivers power. The 2144G doesn't overwhelm the job with brute force because it works intelligently. Operators can match performance to the task at hand, whether processing smaller timber or

pushing for maximum output on larger stems. Over time, that balance makes a real difference. Fuel lasts longer, wear is reduced, and the machine maintains consistent performance throughout the shift.

UPTIME IS EVERYTHING

The 2144G is equipped with features designed for rugged forestry applications, delivering uptime, efficiency, and lower operating costs. It's built to keep going through long



The John Deere 2144G tracked swing harvester is ideal for fast-growing, high-yield plantations.

days, changing conditions, and the kind of environments that test both machines and operators. Features such as high-capacity fuel systems, protected cooling components, and debris management systems are why the machine is still working when others are parked.

PRECISION FORESTRY

Every 2144G comes factory-fitted with JDLink, which changes the way contractors manage their operations. Instead of reacting to problems, you start anticipating them. The machine communicates. It shares performance data, fuel usage, location, and even early warning signs before something goes wrong.

In a forestry environment, where machines often operate far from workshops or support teams, that information becomes incredibly

powerful. It allows the contractor and the dealer to stay one step ahead by diagnosing issues remotely, planning maintenance more effectively, and ultimately reducing costly downtime.

SUPPORT IS CRITICAL

That's where John Deere's local dealer network plays a critical role. With a large dealer footprint around the country, contractors aren't left figuring things out on their own. There's a team that understands local conditions, knows the pressures of forestry work, and is equipped to respond quickly when it matters most.

Whether it's parts availability, technical expertise, or simply having someone on the ground who understands your operation, that support becomes part of the machine's overall value and keeps your business moving.

THE OPERATOR

Forestry shifts are long, repetitive, and demanding. Fatigue is real and affects productivity and safety. The 2144G places the operator in an environment designed to reduce strain and improve focus. Comfortable seating, intuitive controls, and clear visibility all contribute to something simple yet powerful: an operator who can perform consistently from the first hour to the last.

CONSISTENCY DRIVES OUTPUT

When forestry contractors buy a machine, they are investing in productivity. They demand reliability they can rely on, efficiency that improves margins, and support that keeps them moving forward. That's what the John Deere 2144G delivers. 🌲

New textbook on silviculture technology lauded

Nelson Mandela University (NMU) recently celebrated the launch of *Understanding Silviculture Technology: Plantation Forestry in the Southern Hemisphere*, a textbook authored by Dr Muedanyi Ramantswana, Prof Saulo Guerra, and Prof Jose Mauro da Silva.

The event was held at NMU's George Campus and was attended by forestry growers, higher-education lecturers and representatives, and other sector stakeholders. Ramantswana says the book is significant because it is one of the first textbooks to focus on and compare silvicultural technologies in the Southern Hemisphere.

Based on country-specific surveys in South Africa and Brazil, the authors developed a resource for teaching and forest practitioners that explains the development and application of technologies in nurseries, regeneration, and stand tending.

It offers practical descriptions of current and future technologies, along with discussions of challenges and opportunities throughout the forest value chain in South Africa and Brazil.

Guerra and Ramantswana first met in 2018, and the book is the result of their focus on technology and innovation in silviculture. It strengthened collaboration among NMU, Brazil's São Paulo State University (UNESP), and the Institute of Forestry Research and Studies (IPEF).

Speakers at the launch highlighted the book's academic and industry value. Mlungi Thusi, the George Campus librarian, encouraged continued academic publishing and underscored the library's role in preserving knowledge for future generations. Tiaan Pool, Head of the NMU's Forestry Department, praised the achievement and remarked on the book's importance as a teaching tool.

On behalf of the local forestry industry, Dr Ronald Heath, Forestry



Tiaan Poole, head of NMU's forestry department, welcomed the new textbook.

South Africa's Director: Research and Protection, commended the authors and their institutions for their commitment to international collaboration and knowledge-sharing

through research and publications. Hard copies of the book can be ordered from the authors or this link: [Understanding Silviculture Technology](#) – Routledge. 📖



Dr Muedanyi Ramantswana signing copies of the book at the official launch event.



Prof Saulo Guerra signing copies of the book.



Representatives of the forestry industry and academics attended the launch at NMU's George Campus.

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PAMSA Master's in Engineering Bursary Programme applications close soon

The Paper and Allied Manufacturers of South Africa (PAMSA) 2027–2028 Master's in Engineering Bursary Programme application process closes on 12 June 2026.

Open to final-year students studying a BSc or BEng degree in Chemical Engineering, the programme offers a two-year bursary valued at R320,000. The money covers tuition, accommodation, study materials and living expenses. Successful candidates will study full-time at leading South African institutions, including North-West University, Stellenbosch University, the University of Pretoria and the University of the Witwatersrand.

PAMSA's initiative has been equipping young chemical engineering students for more than a decade, and its industry-relevant research has helped the South African pulp and paper sector further contribute to the circular bioeconomy and develop more resource-efficient processes.

"Students on this programme work at the forefront of innovation in an industry that transforms renewable wood fibre and recycled materials into everyday essentials such as printing paper, packaging, tissue and wood fibre-based materials", says Jane Molony, PAMSA's Executive Director.

INDUSTRY RESEARCH PROJECTS

"Over the course of two years, students engage in research projects that align with industry priorities, covering areas such as process optimisation, energy and water efficiency, waste-to-value innovation, and the development of bio-based materials and fuels," explains Molony. Many of the programme's graduates

go on to become engineers-in-training at PAMSA's member companies, gaining valuable practical experience and career opportunities.

WHO SHOULD APPLY?

The programme is only open to final-year students and recent graduates with a BSc or BEng in Chemical Engineering.

Applicants must demonstrate strong academic performance, with a minimum average of 60% in their final year, and must have completed, or be on track to complete, their studies within five years. In addition, candidates should be committed to pursuing full-time study and be motivated to contribute to research that supports industry needs and advances the circular bioeconomy.

Apply here.

QINISO NGIBA

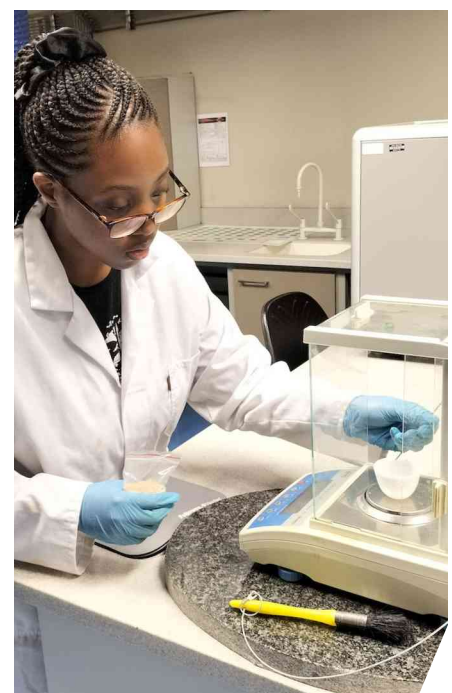
Qiniso Ngiba, a process engineer and graduate of the 2020–2021 master's programme at Stellenbosch University, researched the conversion of lignin from waste pulping liquors into slow-release nitrogen fertilisers and soil-conditioning materials, thereby supporting a more sustainable use of forestry resources.

LERATO TAU

Lerato Tau, a master's student at the University of Pretoria, is using thermogravimetric analysis (TGA) to understand better how paper materials respond to heat. By tracking how materials lose weight as temperatures rise, her research reveals their composition and thermal stability. This faster, safer method



Qiniso Ngiba.



Lerato Tau.



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Kelly Campbell.

delivers results in hours rather than days, offering practical benefits for the papermaking industry. She is graduating this year.

KELLY CAMPBELL

Kelly Campbell, a chemical engineering graduate completing her MEng at Stellenbosch University, is exploring how food waste can be converted into ethanol through



Chris du Toit.



Sonja Boshoff.

fermentation. Her research aims to divert organic waste from landfills while producing a high-value product with applications in the chemical and transport sectors.

CHRIS DU TOIT

Chris du Toit is a chemical engineer in training at Sappi's Saiccor mill. His work focuses on process improvement, combining proactive trend monitoring to identify optimisation opportunities with root cause investigations to resolve operational challenges.

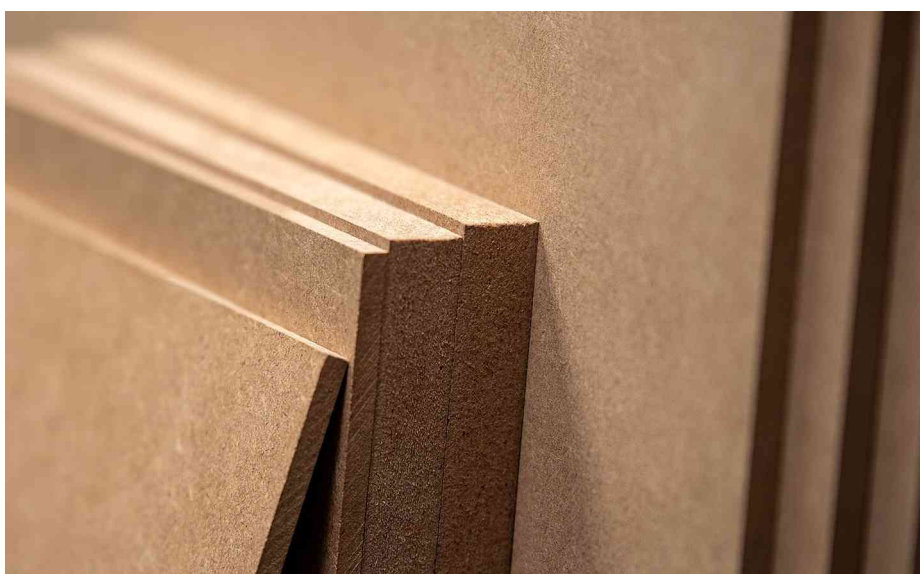
Working within multidisciplinary teams, he contributes to the design of more efficient systems.

SONJA BOSHOFF

Process engineer Sonja Boshoff, a Stellenbosch University graduate, played a key role in early research that led to a bioethanol production project using paper sludge. Now part of the process team at Mpack's Felixton Mill, she continues to advance waste-to-energy solutions that support a more sustainable and innovative paper industry. 🌱

First-of-its-kind system now recycling fibreboard for Unilin in France

The world's first fibre board recycling plant using the Dieffenbacher Fiber2Fiber process is now operational and integrated into the production process at Unilin's MDF plant in Bazeilles, France.



New particleboard made from recycled fibres at the Unilin factory in France.

The novel system is the result of the two companies' collaboration on the project.

"This innovation allows us to integrate recycled fibres into decorative products such as our Master Oak MDF collection, without compromising on quality," says Jan Gallet, General Manager MDF at Unilin.

"Now everyone can see the capabilities of our unique Fiber2Fiber process," says Michael Rupp, Head of the Recycling Business Unit at Dieffenbacher.

"Through the development of Fiber2Fiber, we have achieved what was once considered impossible: making fibreboards recyclable on an industrial scale. This innovation supports the circular economy and sets new standards for sustainable production in the industry," he adds.

Fiber2Fiber uses a steam-based process to recover fibres from waste fibre boards. In the Dieffenbacher

FiberXtractor, waste is processed in a closed autoclave using high-pressure steam. When the pressure is rapidly released, the steam causes the fibre board structure to burst apart, separating the fibres without damaging their original structure. These fibres are immediately reintegrated into the production of new boards, demonstrating the process's economic and technical viability.

One of the most significant advantages of the Fiber2Fiber process is its ability to handle both internal production waste and post-consumer materials.

Post-consumer waste presents challenges because the boards include contaminants such as sand, silicate and coatings. These must be removed before reintroducing the fibres into the production process.

Dieffenbacher's unique sifter technology ensures that only clean



Fibres from waste fibreboard material recycled at Unilin's new Dieffenbacher Fiber2Fiber plant.

fibre fractions are used. The integrated production lines offer flexibility and scalability to meet the needs of different manufacturers and their final products.

"Our Fiber2Fiber process stands out for several reasons," explains Jean-Christophe Zimmermann, Head of Sales of Dieffenbacher Recycling Business Unit.

"First, it recycles high-quality fibres that are indistinguishable from those derived from virgin wood. Second, it effectively removes contaminants and coatings, making the recycled fibres suitable for a wide range of applications. Thirdly, the process is robust and tolerant of impurities, ensuring consistent output even with variable input materials. These advantages, among others, make Fiber2Fiber the first choice for recycling wood fibre boards," says Zimmermann. 🌱

Louis du Plessis will be missed

Louis du Plessis, the CEO of NewSaw and Southern Cross Forestry Developments, passed away in April after a five-month battle with a brain tumour. He was highly regarded in the Southern African sawmilling and forestry industries and the company's principal partners for his passionate leadership and for growing the family business.

By Joy Crane

Industry doyen Henri du Plessis founded New Century Sawmill Solutions, a timber-processing and sawmill-engineering company, in the late 1990s. "When Louis was appointed CEO of the family business in 2003, it was relaunched as NewSaw and under his guidance, it grew into a leading turnkey supplier", Henri commented.

Wynand, Louis' older brother, is the new CEO. He is no stranger to the industry, as he has served as the Financial Manager since its inception and has attended industry events.

The Executive Director of Sawmilling SA, Roy Southey, said, "Louis and the expertise that he brought to our industry will be sorely missed. I will personally miss his infectious enthusiasm and great sense of humour.

In a personal tribute, the Molloy family in Eswatini described Louis as "More than a supplier. He was a bridge builder. He connected people, opened doors, and literally took us places".

The Molloy family's post online reads, "I had the privilege of travelling with Louis on business trips that somehow always became something more. Whether it was navigating supplier floors in Europe or the humidity of Brazil, Louis had a way of turning work into an adventure and a stranger into a friend. The space he leaves behind is a measure of the man he was".

I agree with these sentiments. Louis' energy and genuine warmth towards the people he worked with were infectious. I spent a morning with Louis at Ligna 2023 in Germany and was treated to a whirlwind tour of two halls to meet the company's suppliers.



Louis du Plessis of NewSaw.

They all clearly respected him and were pleased to have their photo taken with him. Louis will be missed. 🌲

IN THE NEXT ISSUE

Don't miss the **Focus on Forestry** feature in Issue 59 of WoodBiz Africa / SA Forestry





Knowledgeable and quality conscious artisans have applied their trade for over 100 years. Pic credit Morgan Motor Cars.

The surprising engineering inside a Morgan motor car

In the May 2024 issue of WoodBiz Africa, I wrote an article about the extraordinary engineering of the De Havilland Mosquito. This World War II British fighter-bomber proved that timber, when laminated into thin, curved shells, can become an exceptionally stiff structural material.

By David Marks of MEWA in Darling, Western Cape

The Mosquito's fuselage behaved less like a wooden frame and more like a smooth and stiff structural skin, distributing loads across its entire surface. Since authoring the article, I have done deeper research into the application of timber engineering and geometry in unlikely places and encountered the small British sports car manufacturer, Morgan Motor Company.

A timber car frame made by coach builders sounds like something between horse-drawn carriages and steam engines, very charming perhaps, but mechanically obsolete!

MORGAN MOTOR COMPANY

And yet, in a quiet factory in the English town of Malvern, the Morgan

Motor Company has been building sought-after sports cars using a structural frame made from ash timber for more than a century.

Think about it. The modern automotive industry is obsessed with aluminium alloys, carbon fibre and electronics, and timber is used in high-end models as a decorative veneer or dashboard trim!

As someone who works daily with timber structures and spends a good portion of his time thinking about geometry rather than spreadsheets, I find the Morgan story fascinating. Not because it is nostalgic, but because it demonstrates something engineers often forget, namely that material discovered by artisans a hundred years ago may be the solution.

The ash frame inside a Morgan motor

car is a very carefully designed structural system that performs several engineering tasks remarkably well and, in some situations, outperforms metal! Let's take a closer look at the engineering behaviour of ash timber.

WHY ASH?

For centuries, ash has been one of the most valued timbers for mechanical applications because of its consistent mechanical properties: high tensile strength, excellent shock resistance, and unparalleled elasticity. Unlike brittle or softer timbers, ash can bend slightly under load and then return to its original shape without cracking or compromising its structural integrity. A century ago, this ability to flex without failing made ash



A Morgan Plus Six Model body takes shape. Pic credit Morgan Motor Cars.

the preferred material for cart shafts, wagon frames, tool handles and early railway carriage construction.

When the Morgan Motor Company began producing lightweight sports cars in 1910, the engineers continued using the structural material they understood best: ash timber.

The ash structure forms the body frame, not the chassis, of Morgan cars. It is the skeleton onto which the aluminium body panels are attached. Think of it as the car's architectural framework: the door apertures, roof rails, wheel arches, and body shape all depend on this timber structure.

ELASTIC TIMBER

One of the most interesting mechanical properties of ash is its ability to bend and recover. Road surfaces are not smooth, and the suspension system transmits vibration that travels constantly through a car's body structure. The fibres of ash are long and continuous, so when a load is applied, the timber flexes and returns to its original shape.

A completely rigid material tends to concentrate stress, whereas a slightly flexible material distributes it. Ash happens to sit in that perfect spot between stiffness and elasticity.

STEAM-BENDING

Another advantage of ash is its ability to be steam-bent. When ash is exposed to steam, the lignin within



Ash components for the Morgan Midsummer Supersport car. Pic credit Morgan Motor Cars.

the timber softens, allowing the fibres to move slightly relative to one another. After steam-bending a section, the timber retains the new shape as it cools and dries. This means complex curves can be formed without cutting the fibres. No multiple hybrid laminates, no kerfing.

Why does that matter? Because when we cut the fibres, we weaken the timber and would have to re-strengthen it with laminates and adhesive. Bending does not weaken the timber. For a structure that relies on continuity of strength, this is extremely important!

Many of the characteristic curves in a Morgan body frame, such as the wheel arches, the door frames and

scuttle rails, are created using steam bending. The result is a structure made from continuous curved members rather than short straight pieces joined together.

GEOMETRY DOES THE WORK

Engineers like to think we solve problems with mathematics. In truth, geometry often solves them first! If you look closely at the Morgan body frame, you will see curved ribs forming the wheel arches, angled pillars around the door openings, continuous rails running along the roof and the scuttle and cross members tying the structure together. It is a carefully arranged network of curves and triangles.



Morgan sports cars are powered by BMW motors.

Each piece contributes to the overall load path. The forces entering the structure do not travel along a single beam; instead, they spread through the entire network. In structural engineering terms, the frame behaves like a distributed space frame. The key difference is that instead of welded steel tubes, the members are ash timber.

This is wonderful "old school" engineering. No skills are lost over time; the artisans embrace their traditional techniques, refining them and passing them on to the next generation of Morgan car builders.

ALUMINIUM JOINS THE PARTY

The ash frame does not work on its own. Once the aluminium body panels are attached, the structural behaviour changes again! The panels are bonded and fixed to the timber frame, which allows the aluminium skin to act as a stressed surface, carrying loads in tension across the body.

Aircraft engineers would recognise the concept immediately. The combination of frame and skin creates a form of semi-monocoque structure. In other words, the shape of the body itself contributes to the stiffness of the whole assembly, just like the Da Havilland Mosquito.

This combination dramatically increases torsional rigidity while keeping the car's weight low.

BUMPY ROADS

In Africa, we are used to bumpy, potholed roads. But do you ever consider what happens when a wheel hits a bump?

The suspension compresses, and a force travels into the chassis. In most modern vehicles, that force travels through a

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The aluminium body work is attached to the wooden frame in the Morgan factory. Pic credit Morgan Motor Company.

rigid metal structure, leading to sharp stress concentrations and vibration. Shock absorbers and rubber grommets absorb some of the shock, so we don't feel it as much while we drive.

In the Morgan structure, something slightly different happens. When the load reaches the body frame, it begins to spread out; part of it travels into the wheel arch rib, part travels into the door pillar, and part travels along the scuttle rail. The ash members flex slightly, and the aluminium skin goes into tension.

Instead of a single concentrated shock, the force becomes a distributed wave moving through the structure. The timber then releases the stored energy gradually as it returns to its original shape. The effect is subtle but extremely important; the structure absorbs vibration naturally, distributes it and returns to normal. No damage done and a continued smooth drive.

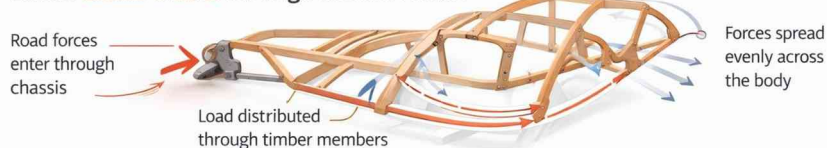
DECADES OF DURABILITY

One of the most remarkable aspects of the Morgan ash frame is its

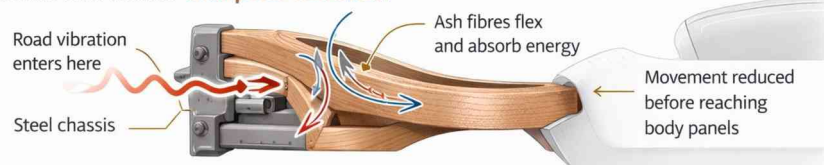
1. Geometry of the Morgan Ash Frame



2. How Loads Travel Through the Ash Frame



3. How Ash Timber Dampens Vibration



The geometry of the Morgan Ash frame. Supplied by D. Marks.

longevity. Many Morgan cars built before World War II are still in regular use today. Their timber frames have endured decades of vibration, exposure to the elements, and mechanical stress. How is that possible?

The answer lies in a combination of factors: the use of properly seasoned

timber, the very intelligent use of geometry, even load distribution through the frame, and the natural fatigue resistance of ash timber.

Timber, when used correctly, does not suffer from fatigue in the same way as metal does. Small cracks that would propagate through a steel component often stop when they

encounter the cellular structure of wood. Ash is known for its resistance to fatigue failure.

CRAFTSMANSHIP MATTERS

Despite the engineering advantages, building a timber body frame is not easy. Each frame is made from dozens of individual ash components selected, cut, shaped, and assembled by skilled artisans.

Steam bending and joint preparation require experience and precision. The final structure needs to be accurate enough to accept aluminium body panels that will define the car's finished shape.

Morgan cars are made and customised to order; it is not a mass-production factory!

In a digital world dominated by automation, it might seem surprising that Morgan has continued with this approach. But from an engineering perspective, it makes sense.

The ash frame offers an excellent strength-to-weight performance, natural vibration damping, very high fatigue resistance, ease of repairs and compatibility with aluminium body skins. Replacing it with a purely metal structure would not necessarily improve the vehicle; in fact, it might make it heavier and harsher to drive.



David Marks of MEWA.

LESSONS FOR TIMBER ENGINEERING

For those of us working with timber structures, the Morgan example is a useful reminder that timber is often underestimated as an engineering material, yet when used intelligently, it can perform in demanding structural environments.

Timber structures require engineers to think geometrically rather than purely numerically. Engineers must understand the science behind the materials they choose. The Morgan body frame demonstrates this beautifully. Every model is based on an understanding of wood science, namely, fibre direction, moisture stability, the engineering of joint behaviour, and, most importantly, the geometric load paths.

LAST THOUGHTS

Modern engineers often assume that the latest technologies automatically produce better solutions! Don't get me wrong. Carbon fibre, advanced alloys and digital simulation tools certainly have their place. But occasionally, older materials, used intelligently, still do the job perfectly!

Ash timber has been doing that job for Morgan Motor Company for more than a century, and judging by the reception from customers at the January 2026 launch of its showroom in the UAE, cars will continue to leave the Malvern factory for many years to come. 🌲

Reference: <https://media.morgan-motor.com/>



Steam bending a wheel arch. Pic credit Morgan Motor Company.



The ash timber body frame of Morgan cars are hand made by artisan coach builders. Pic credit Morgan Motor Cars.

Saw sharpening is a smart investment that boosts your bottom line

Saw sharpening is often overlooked; however, sharp blades directly improve production efficiency, product quality, and the sawmill's profitability.

The South African sawmilling and woodworking equipment supplier, Nukor, with over six decades of experience in advanced sharpening solutions, has found that customers using its services and investing in the latest saw blade maintenance machines gain:

- Longer tool life
- Better cut quality
- Reduced downtime
- Higher productivity
- Lower overall operating costs.

DIFFERENT BLADE TECHNOLOGIES

Circular and band saw blades require very different sharpening approaches. Circular saws demand high-precision CNC control to maintain complex tooth geometries, while band saw blades rely on consistent profiling across long, continuous lengths.

By offering specialised solutions for each, Nukor ensures you achieve the best possible production performance from every blade. Examples of the specialised solutions include the Vollmer CHC 840 machine, for circular saws and the Kohlbacher Shark 3000 for band saws.

THE VOLLMER CHC 840

The Vollmer CHC 840 automatic machine is designed to maximise the performance and lifespan of carbide-tipped circular saw blades. Nukor says the advantages of investing in the Vollmer include:

- Faster turnaround and higher throughput. With four CNC-controlled axes, the CHC 840 completes all tooth geometries in a single cycle. It eliminates the time



Vollmer's CHC 840 sharpening machine for TCT circular saw blades.

needed for multiple setups and allows more blades to be processed per shift.

- Consistent cut quality. The automated angle adjustment and precision control ensure that every tooth is sharpened to the same standard. The result is cleaner cuts, less rework, and improved finish quality on the final product.
- Reduced downtime and lower maintenance costs. The hydraulic-free design and automatic central lubrication system mean fewer breakdowns, less maintenance, and more uptime, thereby keeping your operation running smoothly.
- Flexibility. Whether you're cutting

wood, aluminium, or plastic, or dealing with specialised tools like chipper segments, the CHC 840 adapts to your needs. It is an all-in-one machine that can handle a wide range of sharpening requirements.

- Easy to operate. The intuitive control system reduces operator dependency and minimises errors, making it easier to maintain consistent results regardless of skill level.
- The bottom line: more blades sharpened, better cutting performance, and longer tool life—without increasing labour or complexity.

Established in 1960 Nukor Group has been bringing the highest quality of Sawmilling to Southern Africa for over 60 years



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The Kohlbacher Shark 3000 CNC profile machine with wet grinding for band saw blades.

THE KOHLBACHER SHARK 3000

The Kohlbacher Shark 3000 is a profile sharpening machine with wet grinding for band saw blades. It delivers repeatable, high-precision sharpening that keeps your mill running efficiently.

- Maximum blade life. With fully programmable tooth profiles and precise CNC control, every blade is sharpened to exact specifications, reducing wear and extending its lifespan.
- Adaptability. From variable tooth pitches to complex tooth patterns, the Shark 3000 lets you tailor your blades to specific materials and cutting conditions, improving performance where it matters most.
- Increased productivity. High material removal rates, automated blade handling, and continuous operation capability mean more blades are sharpened in less time, keeping up with demanding production schedules.
- Consistent results. Absolute encoder technology ensures accuracy even after power interruptions, eliminating setup delays and ensuring repeatable results shift-to-shift.
- Lower operating costs. Efficient grinding, reduced vibration, and integrated wheel maintenance all contribute to lower wear on the machine and tooling, which saves costs over time.



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Sharpening the industry: Saw doctors spotlight rising costs and scarce skills

It has been two years since the last South African Saw Doctors Educational Association (SASDEA) meeting, and sawmill managers and saw doctors travelled from as far afield as Zimbabwe and Eswatini to attend, making it the largest SASDEA gathering in a decade.

By Joy Crane



The turnout at the 2026 SA Saw Doctors Educational Association (SASDEA) Conference was excellent.

Roy Southey, Executive Director of Sawmilling South Africa (SSA), welcomed the sawmill and saw shop managers and remarked that it was the first time in several years to see such a good turnout.

SETTING THE AGENDA

SASDEA's main objective is to train the next generation of saw doctors, share techniques, and preserve knowledge as older specialists retire. It is also a networking space for saw doctors to feel valued, share experiences, solve saw blade maintenance issues and connect across businesses and generations.

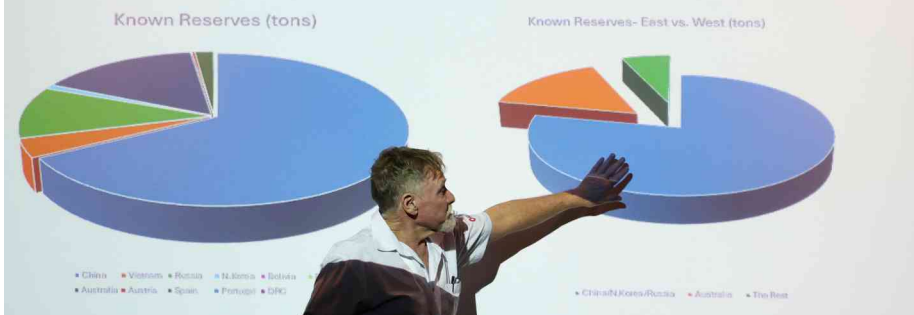
However, the event would fail without supplier participation. They provide operational support by sharing product knowledge, providing examples of good and poor saw shop practices and explaining how to correct and avoid costly mistakes. They also discuss advances in saw blades and maintenance technologies and advise on the best combination of skills, equipment and machines to maximise return on investment.

Robert Welsh of Saw Specialists describes the relationship as one where "Sawmills set the agenda based on their operational risk and needs, while suppliers and training providers provide the tools and knowledge to



Arthur Smal.

More important for us- “known” tungsten reserves



Ian Schwartz.

raise the capacity of the saw shop workers and saw doctors. We all focus on enhancing the quality of the timber products, decreasing costs and increasing efficiencies.”

SILVER AND TUNGSTEN

The meeting was held amid local and global macroeconomic turmoil and persistent geopolitical and trade tensions. While the escalating conflict in the Middle East is driving up oil prices, other conflict-related disruptions are inflating costs for raw materials, particularly chemicals, fertiliser, growing media, tungsten carbide, and silver.

Umicore is the main importer of industrial silver, and the company’s Arthur Smal explained to the SASDEA audience why silver prices have surged. Silver is mined and produced in Mexico and Peru, and both countries are struggling to meet demand. Silver is used in batteries, vehicles, data centres and solar panels. China is the world’s biggest producer of solar panels, and each panel contains 20 to 40 grams of silver. “Globally, by 2050, there will only be enough silver to produce solar panels,” Arthur predicts.

“We need to start using brazing alloys with lower silver content, such as tri-foils. I think 13% silver will work for saw blades; however, we need to start researching the brazing and mechanical properties for saw blades now.”

Ian Schwartz of Ultramat said that in April 2025, the price of tungsten powder was USD39.90/kg. In March 2026, it was USD343/kg, making it 8.6 times more expensive. He presented a historical overview of the world’s

tungsten market to show how conflict influences tungsten prices.

Today, China controls about 67% of the world’s known reserves and banned exports of all tungsten alloy components in January 2025. Prices will not fall while there is war in Eastern Europe and the Middle East. “You need to inform your customers that the price of their circular saw blades will continue to increase.” As with Arthur, Ian said it is essential to start investigating substitutes for tungsten.

SPEAKERS AND THEIR TOPICS

Robert Welsh of Saw Specialists worked with Tracey Beek of SSA to organise the SASDEA event and source speakers who could explain the reasons for the massive increases in the first quarter of 2026, provide feedback on skills development and retention initiatives, and discuss saw shop operations.

- Gerrie van Staden, Deputy Director at the National Artisan Moderation Body (NAMB): Update on the Saw Doctor qualification pilot program.
- Robert Welsh of Saw Specialists: Better care of tungsten carbide tipped (TCT) circular saw blades.
- Tafadzwa Nyanzunda, of the Department of Trade, Industry and Competition (dtic): Timber industrialisation.
- Walter Booyens of SA Sawblades: Resistance.
- Robbie Brockman of Creative Metals: Tensioning.
- Warren Harrison of FIT Tooling: Sawblade coatings.
- Roy Southey of Sawmilling South Africa: Overview of the sawmilling industry.



Roy Southey.

- Arthur Smal of Umicore: Impact of the silver price on the cost of brazing foils / rods and lower silver content solutions.
- Stefan Botha of Tekwani: Cost savings in the saw shop.
- Abel Banda of Tirhani Skills Training: Effective management of a saw shop.
- Lara le Roux and John Barnardo of Pinnacle SA: Introduction to Pinnacle SA.
- Ian Schwartz of Ultramat: Examination of carbide and why it is expensive.

SAW DOCTOR QUALIFICATION

In his welcoming speech, Roy Southey thanked Dianne Randall for her tireless determination in driving the development of the saw doctor’s occupational qualification, and the SASDEA members who invested their time and energy. They designed the curriculum and developed the learning and assessment materials, including the qualification’s ‘trade test’ now known as the External Integrated Summative Assessment (EISA).

Gerrie van Staden of NAMB explained that the National Artisans Moderation Body (NAMB) is tasked with managing the EISA. The curriculum, learning and assessment materials fall under the Quality Council for Trades and Occupations (QCTO) and the Fibre Processing & Manufacturing Sector Education and Training Authority (FP&MSeta).

Robert Welsh noted that the cumbersome development process



Ian Schwartz and Abel Banda discussing the rising cost of carbide.

began in 2018 and has faced several bureaucratic obstacles. Gerrie said the good news is that the first pilot programme of the EISA tools was completed in March this year, and the second will take place in November.

Part of the pilot process is developing the Acquisition of

Recognition of Prior Learning (ARPL) tools to help fast-track the registration of saw doctor artisans. Gerrie said the new qualification offers "huge opportunities for moving with the times". He said the quality of training and assessments must be high. "All artisans must be registered

on a database; if you are not on the register, then you may become unemployable," he cautioned.

The next step is for the sawmilling industry to establish either one fully equipped saw shop that serves as a dedicated assessment centre, or for businesses to apply for accreditation as assessment centres. There also needs to be registered artisans who are trained and registered as assessors and moderators, and who are attached to the trade test centre for three years.

ROBERT WELSH

Robert was the next speaker. He said a few years ago, the top talking point at SASDEA was narrow versus wide bandsaws. Achieving maximum recovery from every log is the main aim of a sawmill. It is indisputable that the thinner the cutting tool, the higher the recovery from a log and cant.

Apart from recovery, a key requirement is the presentation of the



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Robert Welsh.

timber. There was pushback from industry as they experienced the biggest drawback of bandsaws: wavy cuts. There was a move away from wide-blade to narrow-blade bandsaws.

However, narrow bandsaws have a slower feed rate and crack and break when abused. A wavy cut downgrades the timber as it is a sawing defect that becomes critical after kiln-drying, and more material is lost during planing in the dry mill.

Circular saw multirip machines came into their own. The advantages of circular saw blades include:

- they are more forgiving
- fast and accurate cutting
- dimensionally consistent timber
- reduced within-board variation
- easier to sell kiln-dried lumber in a tough market.

Robert said clients are complaining about the sudden increase in the maintenance costs of circular saw blades and in the prices of custom-made blades since January 2026.

"The increase is not because your suppliers are trying to make a quick buck. There is a much bigger picture to look at, and it is beyond our control. The geopolitical conflicts, particularly in the Middle East, are causing an astronomical increase in the import prices of silver solder, carbide and cobalt. At one point, we had to pay R42,000/kg for silver solder".



Robbie Brockmann.

He discussed the areas where sawmill operational management must improve:

- Look after your blades to improve their longevity
- Train your sawmilling machine operators, supervisors and maintenance teams
- Invest in your saw shop equipment and people.
- Have an action plan for recruiting, training and mentoring new "young blood" saw doctors.
- Know your machines, their limitations and their cutting tools. Generic blades are not a solution.

Robert emphasised that defects are not fixed by simply changing the blades. "By listening, looking and smelling the lumber while the machines are running, you can detect machine faults. Fix the cause of the damage, not the symptoms".

He urged the audience to avoid using shims to achieve the wet target size. "The need for shims indicates a deeper problem with spacers. Either the spacer was out of tolerance, too small, damaged or the saw blade was not levelled correctly".

Robert urged the industry to stop bad sawshop practices because "many sawmills are still not getting the basics right".

The basics include:

- Give employees the correct machines and equipment.
- Give employees the training they



Tafadzwa Nyanzunda.

need to perform their tasks to the best of their abilities.

- Establish stand operating procedures and set ground rules.
- Put checks in place so that everyone knows what to check, when and how to check and who is doing the checking.
- Take care of your blades. Handle and store them so that the tips do not get damaged and the bodies are not dented.
- Cost efficiency is maintained by cleaning, levelling and sharpening blades every day.
- Good communication at all times.

He urged the audience to remember that although they can't control everything, there are things within their control: "Quality and efficiency win in tough markets. Concentrate on identifying your weaknesses and turning them into your strengths. There are saw shops out there that have done it. It takes commitment and is not easy, but you will reap the reward".

TAFADZWA NYANZUNDA

Roy welcomed Tafadzwa and her colleague, July Mokoena, saying they are well-known in the forest products sector. Tafadzwa is the Director of Resource-based Industries in the timber industrialisation division of the dtic.

Tafadzwa said they were attending the SASDEA gathering to engage with



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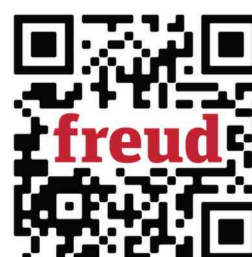
- An extra-strong non-stick surface treatment designed for the most severe and demanding multiripping applications.
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PERMA-SHIELD COATING

- A non-stick coating formulation that provides thermal insulation.
- It protects from corrosion and eliminates resin build-up, reducing downtime for cleaning.



MORE INFO



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Lara le Roux and John Barnado of Pinnacle SA.

as many people and businesses in the furniture, timber, pulp and paper industries as possible. She explained the role of sectors in the dtic and that sawmilling falls within the Agroprocessing sector, which is prioritised in SA's New Industrial Policy.

"The dtic is involved in two master plans in your sector, the Furniture Masterplan and the Forestry Masterplan. Both emphasise public, private and education providers' partnerships to build a wood culture in the country, optimise raw materials and waste, and improve competitiveness and market access," she explained.

Tafadzwa said three concrete examples of the dtic's involvement are the annual furniture design competition, the Wood App skills development website with Stellenbosch University, and the timber construction strategy in conjunction with the York Timber Chair at Pretoria University.

The department is involved in market development and export promotion, including the

harmonisation of timber dimensions and grades. She also explained the dtic's Agroprocessing Support Scheme, which provides capital for equipment and other industrial development incentives. In closing, she said there may be a way to support the establishment of the saw doctors' trade test centre.

WALTER BOOYENS

Walter is a qualified cabinetmaker, the owner of SA Sawblades, and a Freud representative. He opened with a simple yet nuanced principle: the thickness of the material being cut determines the blade size required. Put the wrong blade on the job, and you don't just get a poor cut; you accelerate heat generation, blade wear, and ultimately premature failure.

Every circular saw blade generates heat when cutting. The friction of steel and carbide moving through wood fibre at high speed produces thermal energy. The question is not whether your blade runs hot, but whether it runs too hot, and why.

An incorrectly sized blade, or a poorly maintained or spaced blade,



Walter Booyens.

works harder than it should. As it labours through the cut, pitch and resin accumulate on the blade body, and the gullets become clogged with sawdust. The sticky residue creates friction and heat, causing the steel plate to expand and warp, leading to wobbling and inaccurate cuts.

"Clean your blades regularly, and do not use caustic soda. An ultrasonic bath is preferable".

Walter also focused on carbide tips. Not all carbide is equal. A harder,



Warren Harrison.

denser tip holds its edge longer and produces a cleaner cut, but it must be correctly matched to the timber being processed. The grade of carbide is central to cut quality and blade economy.

ROBBIE BROCKMAN

Robbie Brockman of Creative Metals turned his attention to tensioning, describing it as an aspect of blade performance that many operators take for granted.

Tensioning is the process of introducing controlled internal stresses into the blade body to counteract the centrifugal and thermal forces acting on a spinning blade at operating speed. It stiffens the saw blade by introducing favourable in-plane residual stresses.

A correctly tensioned blade runs flat, true, and stable. An under- or over-tensioned blade will wander, dish, or lean during the cut, with

consequences ranging from poor timber recovery to a dangerous situation for the operator.

Robbie underscored Robert and Walter's message about the critical need for good housekeeping in the saw shop. Poorly maintained saw shops, with surfaces covered in grit, metal filings, or oil, cluttered benches, and blades lying flat or touching each other, create conditions in which problems compound quickly. Blades should be stored vertically and separately, never stacked flat or allowed to knock against each other.

A clean, organised saw shop is not merely about professional pride; it is a direct investment in blade life, cut accuracy and sawmill sustainability.

WARREN HARRISON

Warren of Furniture Installation Technologies (FIT) spoke about the Freud saw blade body coating ranges, which comprise the red Perma-Shield



Stefan Botha.

and the Silver or Black ICE coatings. The two coatings are fundamentally different in their chemistry, mechanism of action, and the conditions for which they are designed. The red blades have a Perma-Shield non-stick coating that envelops the blade body and provides thermal insulation. Compared with an uncoated blade, Perma-Shield resists heat three times longer. The trade-off is that, being a thicker applied coating, it can wear over time and flake off.

The silver or black ICE blades undergo a metallurgical process that bonds a chrome alloy to the blade body at a molecular level, producing an ultra-smooth, harder surface. It is not an applied surface layer and does not wear or peel in the same way. The very smooth blades generate less friction, and any heat generated dissipates into the air rather than into the blade body.

The red blades are ideal for cutting dry timber in the drymill and furniture and panel manufacturing environments. The Black ICE blades are perfect for heavy-duty, high-volume and wet-timber applications.

STEFAN BOTHA

Tekwani's Stefan Botha shared tips and shortcuts for maintaining and joining bandsaw blades. He said that some of his solutions may seem unconventional, but they work.

The takeaway from his input was for saw doctors to know their craft and draw on their experience. Never take things for granted; question

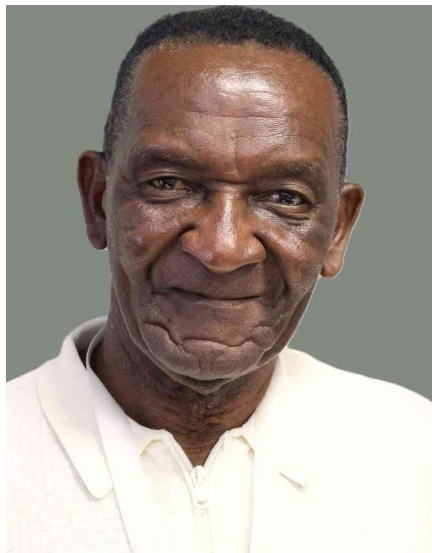
processes, and you will find ways to reduce blade-changing and machine set-up times in the wetmill. "There is always a way to do things differently without compromising quality and safety", he commented.

ABEL BANDA

Abel Banda qualified as a saw doctor in 1997. He is a training facilitator, assessor, and an entertaining and veteran speaker at SASDEA conferences. His experience across all departments in sawmills has taught him that the best way to manage a saw shop is to ensure effective communication among everyone.

"Respect is earned", he said. "It is all about the attitude of individuals and how they impact group dynamics. Saw shop managers must be aware of their leadership style and be empathetic, fair and clear. If your staff don't know exactly what to do, you can't expect them to do it the right way. If you can't handle stress, then go for anger management classes". While this comment earned a laugh, the audience all nodded in agreement.

Abel also gave advice for working with the sawmill's management team: "If you want a new machine or tools for the saw shop, do your homework and be specific. Management listens when you talk rands and cents". 🍷



Abel Banda.



Gerrie van Staden.



The last pic on the last day of the SASDEA conference.

NEWS

SA Saw Doctors elect new committee

The South African Saw Doctors Educational Association (SASDEA) AGM has elected Stefan Botha from Tekwani Sawmill to lead the organisation as it prepares to launch the new qualification amid rising costs due to global geopolitical and trade wars.

The new committee and the areas they represent are, from left: Herman Jordan (Southern Cape), Stefan Botha (Mpumalanga), Robert Welsh (Suppliers), Phillip Tshikhudo (Eastern Cape), and Alfred Mnyandu (KwaZulu-Natal). 🍷



The new SASDEA Committee.

Chinese investment in plywood hub in Pietermaritzburg

Safcol's Corporate Plan 2026/7 to 2028/29 suggests the state-owned enterprise is considering "fibre-supply agreements, joint ventures, or technology-transfer partnerships with new Chinese processors to secure demand and access modern processing capabilities".

By Joy Crane

The document states that Chinese-backed investments are transforming the timber-processing sector in KwaZulu-Natal by establishing the province's first large-scale plywood and veneer factories and significantly reshaping regional fibre markets.

"China is shifting from an import-from-South-Africa model to a process-in-South-Africa model. This move alters competition across the midstream (log sourcing, fibre pricing) and downstream (panels, furniture, engineered wood) segments", Safcol warns.

MSFU WOOD

According to a report in *The Witness* newspaper on 3 July last year, Zoeyol (Pty) Ltd, an importer and distributor of goods from various countries, including China, is positioning Pietermaritzburg as a strategic manufacturing centre via its subsidiary, MSFU Wood.

"The development marks a significant economic boost for the region to establish uMgungundlovu as a manufacturing powerhouse. Umgungundlovu District Municipality Mayor Mzi Zuma applauded the investment and the facilitating role played by the district municipality's economic development agency Umeda (uMgungundlovu Economic Development Agency), in supporting the project", the newspaper said.

"Each of the eight planned processing facilities will bring R50 million in investment and thousands of jobs, significantly boosting economic activity throughout the district", Umeda's General Manager for

project development, James Martin, told *The Witness*.

Martin added that uMgungundlovu District stands on the brink of a new industrial era, "one built on partnership, innovation and local empowerment".

The MSFU Wood Project has a planned output of ~3,000 plywood boards per day (~150,000 per month) and an eight-site expansion programme (*Ed: some reports say ten sites*), totalling approximately R400 million in capital investment and more than 1,000 projected jobs.

EUCALYPTUS

A critical feature of the Zoeyol investment is its plan to source eucalyptus logs locally, thereby replacing earlier practices in which core veneer and logs were exported to China for processing. Safcol says this scale represents "a step-change for a region that historically had no major veneer or plywood mills, despite its large plantation footprint".

Eucalyptus products generated the highest income across all wood categories in 2023, according to Statistics South Africa. Safcol says a

national study forecasts a structural shortfall of more than 10 million cubic metres of roundwood by 2030.

The localisation of Chinese processing capacity is squeezing pulpwood pricing and availability. It is affecting Safcol's eucalyptus segment ($\pm 7.0\%$ of its portfolio) and private growers across KwaZulu-Natal and Mpumalanga, where eucalyptus fibre is in high demand among pulp mills, chip exporters, and now another plywood manufacturer.

"Chinese operators typically deploy low-cost machinery, operate with high capital intensity, and pursue export-oriented business models, allowing them to price panel products aggressively. This dynamic is evident in rising Chinese plywood imports to South Africa (up by ~R59 million in 2023–2024), making China the country's fastest-growing plywood source," the organisation states in its Corporate Plan.

UNDERCUTTING

Local plywood, furniture, and board producers face margin compression as Chinese-made products undercut domestic processors, creating



downstream risks for Safcol's pine (>90.0%) customer base.

Safcol comments, "ELS Timber Products is a niche supplier of curved and value-added timber components, historically benefiting from demand for FSC-certified materials. However, the company is currently facing market pressure from an influx of low-priced plywood from Chinese processing operations in KwaZulu-Natal, leading to overstocked inventories and a temporary slowdown in procurement, including reduced short-term log uptake from Safcol".

ESWATINI ALSO TARGETED

The competitive threat extends beyond South Africa. According to Safcol, Chinese firms have shown increasing interest in Eswatini's

eucalyptus resources, engaging informally despite the country's diplomatic ties with Taiwan. Regional activity, together with China's agreement to fund local timber-processing plants in Mozambique, points to an expanding Chinese footprint across the Southern African fibre belt.

"This raises the likelihood of future competition for fibre, labour, and cross-border markets and could reposition KwaZulu-Natal and Eswatini as a plywood export corridor rather than a raw-log supply zone".

MARKET RISK

For Safcol, the risk lies in "tighter fibre markets, pressure on eucalyptus pricing, weakened domestic customers, and the potential substitution of pine products if

Chinese plywood increasingly captures price-sensitive market share.

"At the same time, "the scale, capital, and export reach of these entrants suggest that strategic partnering or structured supply agreements may offer opportunities to stabilise demand and secure value within evolving regional timber markets".

SAFCOL'S RESPONSE

The Corporate Plan describes this as an opportunity for Safcol to "partner rather than compete with Chinese entrants". The company says it may "explore fibre-supply agreements, joint ventures, or technology-transfer partnerships with new Chinese processors to secure demand and access modern processing capabilities". 🌳

NEWS

Register for VAT — it's not optional

Panel and board manufacturer PG Bison has issued a call to action for businesses across the wood products and furniture supply chain to ensure they are fully tax-compliant and to report those who aren't.

The company, South Africa's largest manufacturer of particleboard, MDF and related products, flagged a specific concern: invoices circulating in the market that appear to omit VAT where it should be charged.

"This gives non-compliant suppliers an unfair price advantage over businesses operating within the law", explains Justin Berry, PG Bison's Executive: Marketing and Demand Creation. "If we do not address the smaller issues, we make it harder to protect what matters most: the country, its people and its future".

The broader issue is illicit trade, which Berry argues harms far beyond a single lost sale. The company estimates that for every direct manufacturing job lost to non-compliance, up to



seven indirect jobs across the value chain, including service providers, contractors, transport and logistics partners, and raw material suppliers, may also be at risk.

"We encourage all stakeholders to do the right thing. This is not about policing others. It is about shared responsibility. It is about protecting local industry, supporting jobs, and

helping to build a fair and sustainable South Africa", says Berry.

PG Bison is working with the Forestry Value Chain Forum, the South African Furniture Initiative (SAFI) and SARS to support action against tax and customs non-compliance.

If you suspect a tax or customs offence, report it anonymously to SARS on 0800 002870. 🌳



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