

**CRUSHING AND SCREENING:** A look inside FLS's polyurethane revolution

RECYCLING

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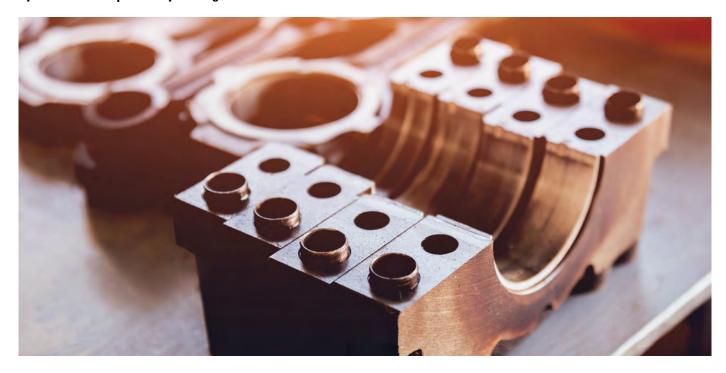
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# SA'S MANUFACTURING SLOWDOWN — WHAT IT MEANS FOR CAPITAL EQUIPMENT

South Africa's manufacturing industry has been losing ground for more than a decade, and the consequences stretch far beyond factory floors. One of the hardest-hit sectors is capital equipment - the machinery, tools and systems that keep industry moving.



s local manufacturing contracts, investment in new equipment naturally declines. Fewer factories are being built or expanded, and those that remain often delay upgrades to stretch out the life of existing machinery. This means less demand for everything from CNC machines to process lines, and lower volumes for both local producers and importers of equipment.

South Africa does have areas of strength - mining equipment, rail components and automotive systems but without a strong domestic market to

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sustain production, local OEMs struggle to achieve scale. This leaves the country increasingly reliant on imports, which can slow down technology adoption and push up costs.

Another concern is the skills base. Capital equipment doesn't run itself; it requires technicians and specialists to install, maintain and service complex systems. As the manufacturing base shrinks, so too does the pool of skilled support staff. That makes investing in new technology riskier for businesses already under pressure.

The ripple effects are felt in finance as well. Banks are cautious to fund high-value equipment purchases in a contracting sector, while leasing and rental firms report lower utilisation rates. Meanwhile, South Africa's export competitiveness in areas like pumps, conveyors and mining gear is eroded without a thriving local industry to drive innovation.

For companies in the capital equipment space, the current climate calls for flexibility. Many are shifting their focus to after-market services, refurbishment

and maintenance rather than relying solely on new equipment sales. Others are diversifying into adjacent sectors such as renewable energy, where government investment in solar and wind infrastructure is driving new demand for specialised machinery.

At the same time, there are pockets of opportunity in industries where demand remains strong. The food and beverage sector, for instance, continues to invest in packaging and processing equipment to meet changing consumer needs. Similarly, the push for localisation in the automotive industry is creating space for suppliers who can provide cost-competitive tooling and components.

The health of the capital equipment sector is tightly tied to the fortunes of manufacturing. Without a reversal of the current decline, the country risks losing not just jobs and factories, but also the ability to develop and sustain the heavy machinery that underpins broader industrial growth. With smart positioning and a willingness to innovate, equipment makers and suppliers can still find growth paths in a challenging environment.





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# ATLAS PLANT HIRE'S ADAPTIVE APPROACH TO PROVIDE COMPRESSED AIR SOLUTIONS FOR EVERY INDUSTRY

Juanita Pienaar spoke with Jordan Vevers, National Marketing Manager & IMS Compliance & Systems Coordinator at Atlas Plant Hire, about the company's evolving role in supplying compressed air solutions to South Africa's leading industries.



With a strong focus on mining, quarrying, civil construction, and drilling, the company's extensive compressor fleet and responsive service capabilities ensure uninterrupted operations even in the most challenging environments.

#### Supporting diverse industries with tailored solutions

As industries across Southern Africa continue to demand reliable, efficient, and robust compressed air solutions, Atlas Plant Hire has positioned itself as a leader in portable air and energy systems. With a strong focus on mining, quarrying, civil construction, and drilling, the company's extensive compressor fleet and responsive service capabilities ensure uninterrupted operations even in the most challenging environments.

"Our expertise extends across a variety of Portable Air Solutions designed to meet the demands of civil and heavy industry," says Vevers. "We provide clean air and dry air packages, fully equipped engine rebuild centres, state-of-theart workshops, and a highly proactive product support and field service team. These capabilities ensure our customers' projects and sites operate efficiently and without interruption."

#### Portable air solutions for heavy-duty applications

For applications where mobility, power, and endurance are essential, particularly in remote or off-grid locations, Atlas Plant





"We don't just supply equipment; we engineer solutions that enable our clients to achieve operational excellence, safely and sustainably."

Jordan Vevers, National Marketing Manager & IMS Compliance & Systems Coordinator at Atlas Plant Hire. Hire's diesel-driven portable compressors form the backbone of its offering.

"Our diesel compressors are built

"Our diesel compressors are built for mobility and robust performance in remote, off-grid environments," explains Vevers. "They power everything from pneumatic drilling rigs and blasting operations to ventilation systems, making them ideal for harsh and dusty terrains."

Electric compressors, by contrast, are well-suited for urban and industrial settings where noise, emissions, and energy efficiency are critical. "These units offer quieter operation and reduced environmental impact, which is essential in manufacturing plants or food processing facilities," Vevers adds.

Atlas also offers high-pressure compressor units capable of supporting demanding operations such as pipeline testing, deep drilling, and rock excavation. "These specialised units deliver the concentrated air power required for precision applications," says Vevers.

#### **Customised air treatment solutions**

Modern industrial processes require more than just compressed air; they require clean, dry, and contaminant-free air to maintain product quality and protect equipment. Atlas Plant Hire addresses this with its range of aftercoolers, air dryers, filtration units, and clean air packages.

"Compressed air often contains moisture, oil vapour, and particulates that can damage sensitive machinery or contaminate end products," says Vevers. "Our filtration and drying systems remove these impurities to ensure the air meets the strict quality standards required for industries such as food & beverage, pharmaceuticals, and electronics manufacturing."



As industries across Southern Africa continue to demand reliable, efficient, and robust compressed air solutions, Atlas Plant Hire has positioned itself as a leader in portable air and energy systems.



For applications where mobility, power, and endurance are essential, particularly in remote or off-grid locations, Atlas Plant Hire's diesel-driven portable compressors form the backbone of its offering.



In sectors where downtime is not an option, Atlas Plant Hire's commitment to 24-hour technical support and preventative maintenance is critical.









#### Around-the-clock support for mission-critical operations

In sectors where downtime is not an option, Atlas Plant Hire's commitment to 24-hour technical support and preventative maintenance is critical.

"Our field service teams are on standby around the clock to ensure production continuity and uptime for mission-critical operations," Vevers says. "This level of support is particularly valued in industries like mining and petrochemicals, where interruptions can result in significant operational and financial losses."

With a national footprint and strategically located branches, Atlas provides rapid deployment and servicing capabilities to keep projects running smoothly.

#### **Innovation and sustainability**

Atlas Plant Hire continues to innovate with an eye on sustainability. "We're expanding our fleet with the latest low-emission diesel compressors and exploring hybrid and electric technologies to help clients reduce their environmental footprint," says Vevers.

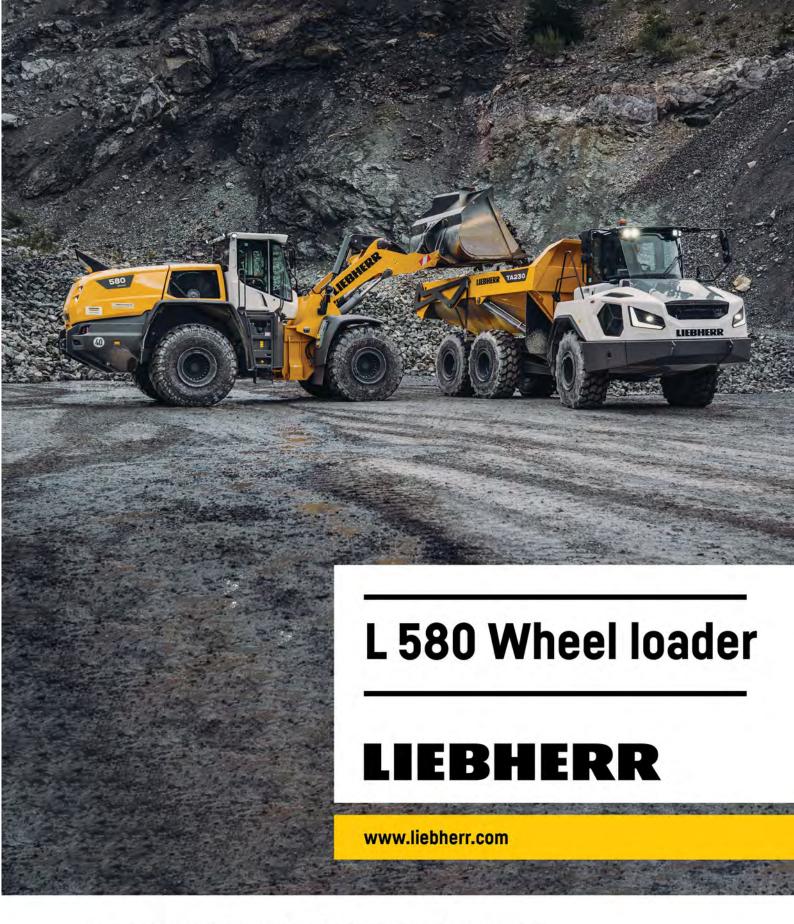
These efforts support industries transitioning to cleaner operations without compromising on performance. "We work closely with clients to recommend compressor solutions that balance productivity with environmental responsibility," Vevers notes.

#### The Atlas advantage

By combining technical expertise, a versatile fleet, and responsive service delivery, Atlas Plant Hire has earned its reputation as a trusted partner across Southern Africa's industries.

"We don't just supply equipment; we engineer solutions that enable our clients to achieve operational excellence, safely and sustainably," Vevers concludes.

From heavy-duty pneumatic applications in mining to clean air systems in pharmaceuticals, Atlas Plant Hire's adaptive approach ensures that businesses have the compressed air solutions they need to succeed. •



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# A LOOK INSIDE FLS's POLYURETHANE REVOLUTION

Capital Equipment News' Juanita Pienaar spoke with Warren Walker, Head of Global Polyurethane Manufacturing at FLS, and Brad Shepherd, Global Director Service Line – Screen, Trommel, Feeder, and Sizer Consumables at FLS, to learn more about the company's latest facility upgrades, innovations in polyurethane technology, and the broader implications for productivity, sustainability, and customer outcomes.



"This is a step change. We've spent around three and a half years developing this product. We tested a vast range of polymer formulations before landing on the one that gave us the best results."

Brad Shepherd, Director Service Line – Screen and Feeder Consumables at FLS.

#### **Investing in innovation**

FLS's Delmas facility, located in Mpumalanga, South Africa, has become a key global hub for the company's polyurethane manufacturing operations. The recent launch of its upgraded plant signals not just a milestone for FLS but also for the industry at large. "This is the first of five global facilities to complete the upgrades, and we're proud to kick off the launch here," says Warren Walker.

The expansion significantly increases the site's production capacity, enabling it



"We've added a latest-generation polyurethane machine and invested in new tooling, pouring stations, post-curing ovens, and CNC capabilities. It's a complete end-to-end expansion,"

Warren Walker, Head of Global Manufacturing – Polyurethane Operations at FLS.



FLS manufactures NexGen media, trommel and screen panels with expert precision to ensure consistent quality and high performance.

to meet growing global demand for nextgeneration polyurethane screen media and flotation consumables. "We've added a latest-generation polyurethane machine and invested in new tooling, pouring stations, post-curing ovens, and CNC capabilities. It's a complete end-to-end expansion," Walker explains.

The site now boasts a fourfold increase in production capacity, allowing FLS to deliver faster, higher-volume output without compromising quality. "All our investments are aimed at increasing throughput while maintaining or improving our precision and consistency," Walker adds.

#### A step change in material science

At the heart of this transformation is a breakthrough polyurethane material known simply as "NexGen." This new formulation delivers vastly superior performance in high-impact and abrasive screening environments.

Brad Shepherd is unequivocal about its impact: "This is a step change. We've spent around three and a half years developing this product. We tested a vast range of polymer formulations before landing on the

#### QUICK

#### TAKE

FLS's Delmas facility, located in Mpumalanga, South Africa, has become a key global hub for the company's polyurethane manufacturing operations.



The breakthrough polyurethane material known simply as "NexGen" delivers vastly superior performance in high-impact and abrasive screening environments.

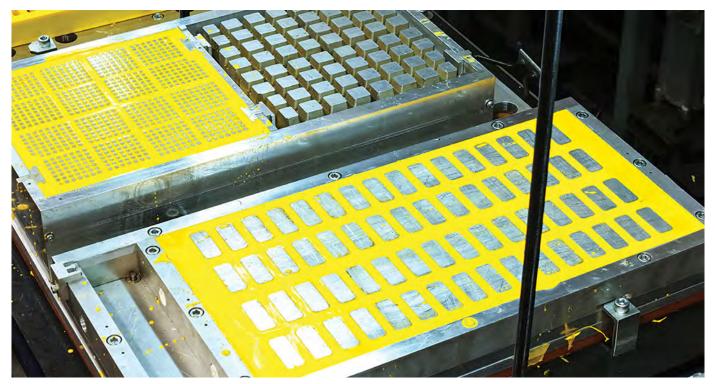


The post-curing ovens are designed to accommodate larger components with precise thermal control, essential for curing the new three-component polyurethane system.

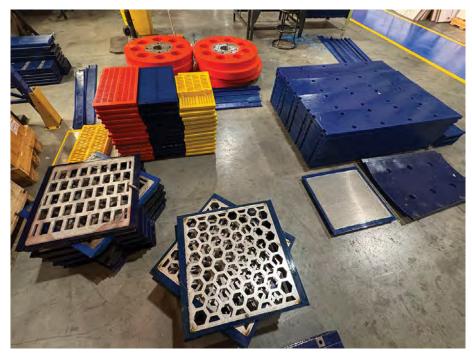


The upgrades in Delmas are just the beginning of a larger global rollout.





NexGen polyurethane screen media from FLS is durable, reliable and engineered to deliver efficient high performance screening even in the toughest operating conditions.



Precision-crafted polyurethane products are manufactured at FLS's Delmas operations, ensuring consistent quality and performance across a wide range of screening applications.



If a customer needs a trial with a specific aperture, we can machine the tooling and cast the panel in a short turnaround time.

one that gave us the best results."

According to Shepherd, the material allows for thinner ligaments, allowing for greater open area, whilst improving wear resistance - key factors in improving screening efficiency and reducing downtime. "You can reduce panel thickness from 100 mm to 60 mm while maintaining or even increasing lifespan," he says. "That's huge for safety and ergonomics - these panels are lighter, easier to handle, and safer to install."

He continues: "It's not about what the product is; it's about what it does. Less weight, less energy, better efficiency - everything adds up."

#### Automation meets agility

FLS's plant layout is a showcase of modular efficiency and advanced automation. The polyurethane machines are mounted on moveable trolleys for quick reconfiguration. The pouring stations are automated, with temperature-controlled heating pads that can be individually activated to conserve energy. "This gives us tremendous flexibility and lowers our power consumption," Walker notes.

Even the curing process has been optimised. "Our post-curing ovens are designed to accommodate larger components with precise thermal control, essential for curing the new three-component polyurethane system," he explains.

This emphasis on automation also ensures scalability. "With the same workforce, we've quadrupled our capacity.



Precision-crafted polyurethane products are manufactured at FLS's Delmas operations, ensuring consistent quality and performance across a wide range of screening applications.



With the same workforce, we've quadrupled our capacity. That's the power of design efficiency and innovation.

That's the power of design efficiency and innovation," Walker says.

#### **Customer-centric engineering**

One of the hallmarks of FLS's approach is its unwavering focus on customer needs. From rapid prototyping using a five-axis CNC centre to creating retrofit kits for older flotation systems, the goal is clear: deliver fast, flexible, and effective solutions.

"If a customer needs a trial with a specific aperture, we can machine the tooling and cast the panel in a short turnaround time," says Walker.

Shepherd echoes this sentiment. "We've modularised our low-stress trommel panel design so thoroughly that we can go from problem to solution in 48 hours. Thirteen different diameters each with three lengths are already standardised. This means less waiting, faster testing, and a quicker path to value."

#### **Beyond FLS equipment**

One of the standout advantages of the

new consumables range is that they're not tied to FLS equipment. "We're unconstrained by install base," says Shepherd. "Our screen media and trommel solutions can be retrofitted to non-FLS machines. That's a real game-changer."

This open compatibility dramatically increases the addressable market, especially in regions where capital projects are few and far between. "Waiting for new equipment sales to drive consumables adoption would take decades," he adds. "We're not waiting."

#### **Empowering the community**

FLS's Delmas facility isn't just about machines and materials - it's also about people. With 70% of its blue-collar workforce hired from the local community, the company plays a vital role in job creation and local development. "We've got 90 people in manufacturing and another 60 on-site at any given time, including contractors and support functions," says Walker.

The facility also hosts a dedicated training hub. "We've partnered with a training academy to deliver a full three-year programme in welding and boilermaking for six local apprentices," Walker says. "It's part of our commitment to skills development and upliftment."

#### Sustainability as a standard

Sustainability is deeply embedded in FLS's strategy. The Delmas site has already installed 300 kW of solar panels, with plans to increase that by a further 500 kW. "We're aligning with our global MissionZero programme to reduce emissions and increase renewable energy usage," Walker explains. The newly installed spray booth is another example. "It's fully enclosed, which reduces VOC emissions and allows us to maintain consistent quality regardless of humidity," Walker notes.

#### This is just the beginning

Both Walker and Shepherd are optimistic about what lies ahead. The upgrades in Delmas are just the beginning of a larger global rollout. "We're setting a new benchmark here," says Walker. "This is about making world-class products in Africa, for Africa and beyond."

Shepherd concludes, "It's more than manufacturing - it's about solving real customer problems, pushing boundaries in material science, and making a meaningful difference across the mining and mineral processing industry. We're just getting started."



# MSHEQ LEADS THE SHIFT FROM COMPLIANCE TO A CULTURE OF CARE

Juanita Pienaar spoke with Charné Vosloo, Managing Director of MSHEQ Health and Safety Services, about the company's innovative approach to transforming safety culture in high-risk industries. Through the integration of emotional intelligence, human-centred design, and advanced technologies, MSHEQ is redefining what it means to keep workers safe.



"Our work in high-risk industries made one thing clear: safety isn't just procedural, it's deeply personal."

Charné Vosloo, Managing Director of MSHEQ Health and Safety Services.

#### **Making safety personal**

For Vosloo, safety has always been more than a checklist. "Our work in high-risk industries made one thing clear: safety isn't just procedural, it's deeply personal," she says. "We saw too many training programmes that failed to connect with the people on the ground. So, we began incorporating emotional intelligence and human-centred design to shift safety from something people had to do, to something they care about."

When workers feel "seen, heard, and understood," they take ownership of their role in maintaining safety, and that ownership changes everything.

#### From insight to measurable outcomes

This human-centred approach is delivering tangible results. "We've seen a direct correlation between emotionally







intelligent training and reduced incident rates," Vosloo explains. "Workers become more aware, proactive, and confident in identifying hazards or stopping unsafe behaviour."

By ensuring training is "accessible, relevant, and memorable," MSHEQ has improved compliance, shortened onboarding times, and significantly increased near-miss reporting. In industries such as construction, mining, and manufacturing, these outcomes can make the difference between prevention and tragedy.





When workers feel seen, heard, and understood, they take ownership of their role in maintaining safety, and that ownership changes everything.



As a proudly female-led and female-staffed business, MSHEQ is challenging traditional perceptions in the safety and industrial sectors.



Transforming safety culture requires moving away from a purely compliance-driven mindset.



MSHEQ is exploring Al-driven hazard prediction tools, immersive mixed-reality environments, and gamified learning journeys.









#### Immersive learning with virtual reality

One of the company's most effective tools is its virtual reality (VR) training. These simulations place employees in realistic, high-risk scenarios - from working at heights to managing confined space emergencies - without exposing them to actual danger.

"Instead of theory alone, they experience the consequences of decisions in a safe, controlled environment," Vosloo says. "People remember what they've felt and done, not just what they've read. It also builds muscle memory and quickens instinctive decision-making under pressure."

#### Industrial theatre that resonates

Complementing the VR experience is ISENZO, MSHEQ's industrial theatre production. This training method blends humour, emotion, and impactful messaging to leave a lasting impression on its audiences.

"The response has been phenomenal," says Vosloo. "Workers see themselves in the characters, and that creates a mirror for reflection and real behaviour change. Many have shared that it's the first time they've felt the importance of safety, not just heard it."

Clients praise ISENZO for "bringing humanity back into compliance" and for



being "disruptive in all the right ways."

#### Speaking the language of industry

When training those who operate heavy or complex equipment, MSHEQ focuses on relevance. "We speak their language, literally and figuratively," Vosloo notes. "Our facilitators often come from industry backgrounds and understand the pressures on site."

Training combines visuals, simulations, and hands-on practice tailored to the specific machinery and hazards of each role. Storytelling, case studies, and localised content ensure that workers not only understand the rules but also feel responsible for applying them.

#### From paperwork to people

Transforming safety culture requires moving away from a purely compliance-driven mindset. "We move safety from the clipboard to the heart," Vosloo says. Leadership engagement, workshops, and emotionally resonant tools like VR and theatre foster open dialogue, reward proactive behaviour, and encourage leaders to model the culture they want to see.

"When safety becomes about people, not paperwork, engagement naturally follows," she adds.

#### **Focusing on critical risks**

For industries where capital equipment poses high risks, MSHEQ provides scenario-based training in key danger areas such as working at height, mobile equipment operation, and confined spaces.

"These high-risk areas are a core focus for us," says Vosloo. "We simulate decision points like choosing the right fall protection, inspecting mobile machinery, or following lockout/tagout procedures before confined space entry."

The training also promotes hazard anticipation and the confidence to speak up in dynamic or unpredictable environments.

#### Women leading in safety

As a proudly female-led and female-staffed business, MSHEQ is challenging traditional perceptions in the safety and industrial sectors. "We don't just bring diversity; we bring fire," says Vosloo. "Our leadership in a traditionally male-dominated field is reshaping perceptions. Safety leadership isn't about gender, it's about impact."

Through mentorship and visibility, MSHEQ is opening pathways for more women to succeed in industrial roles, both on site and in leadership.

#### Proven success in the field

MSHEQ's approach is delivering results. One mining client recorded a 40% increase in near-miss reporting within three months of implementing VR-based training. In another case, a warehouse team prevented a serious incident after recognising a scenario from the ISENZO production and taking early corrective action.

"These are the wins that drive us - real lives, real outcomes," Vosloo says.

#### Innovation on the horizon

Looking ahead, MSHEQ is exploring Aldriven hazard prediction tools, immersive mixed-reality environments, and gamified learning journeys. The company is also expanding its focus to include mental health and leadership development as part of its safety culture programmes.

"Our next frontier is integration: connecting the emotional, behavioural, and technological to elevate safety in ways the industry hasn't seen before. Watch this space," says Vosloo.

Through innovation, empathy, and an unwavering commitment to workers, MSHEQ is proving that the most effective safety programmes are the ones people care about. •



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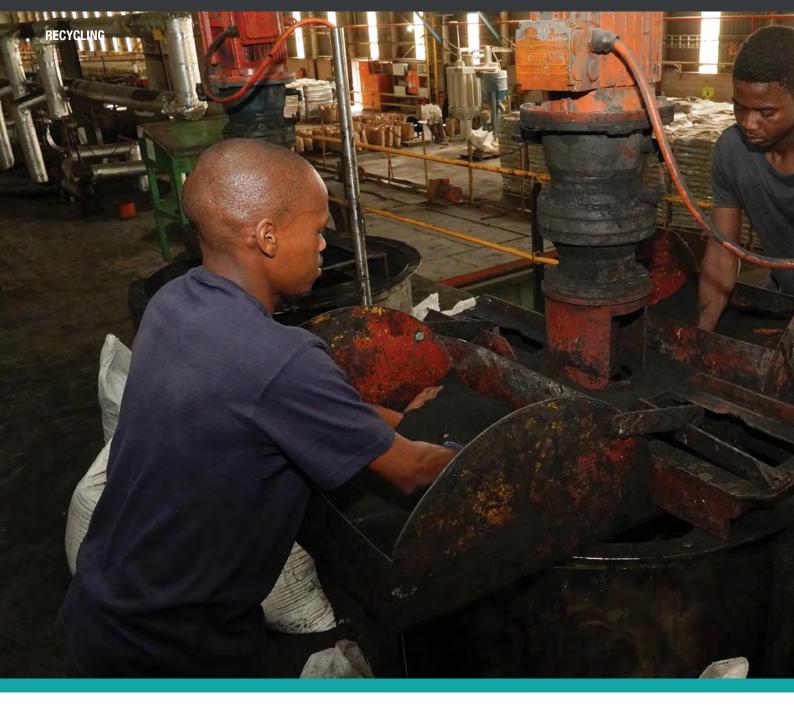












# MATHE GROUP SETS BENCHMARK FOR AFRICA'S TYRE RECYCLING

Juanita Pienaar spoke with Dr Mehran Zarrebini, CEO of Mathe Group, about the company's expansion plans, the pressing need for sector-wide reform, and why South Africa must act now to unlock the potential of tyre recycling.

#### From market fluctuations to measured growth

When Mathe Group began operations, it faced the same uncertainty many recyclers know too well. "One of the advantages that we had from the early days of starting out was that we were very much focused on valorising the raw material produced," says Dr Zarrebini. "We looked at ways where

we could add value to the recycled tyre material and not only sell this product to external clients."

Early on, demand for recycled products was seasonal and cyclical, making the business vulnerable to fluctuations. The decision to invest in value-added processing proved to be a stabilising force.

Today, Mathe Group processes

approximately 25 tonnes of tyres daily and is working to double that figure. "Our major focus has been on increasing our capacity and increasing the number of tyres recycled from our current 25T per day to a projected 50T per day over a period of time," says Dr Zarrebini. "This involves new equipment, replacement of existing equipment, and reconfiguration of the existing plant and technology we have. By doing so, we aim to be more operationally efficient and competitive."

#### Turning tyres into opportunity

Mathe Group's business model centres on converting end-of-life tyres - a persistent







environmental challenge - into valuable raw materials. "Our operations are built on the principle of transforming end-oflife tyres into valuable raw materials such as rubber granulate, steel, and textile fibre," says Dr Zarrebini.

By diverting thousands of tonnes of waste from landfill each year, the



Mathe Group's business model centres on converting endof-life tyres - a persistent environmental challenge - into valuable raw materials.



By diverting thousands of tonnes of waste from landfill each year, the company reduces greenhouse gas emissions linked to tyre incineration and illegal dumping



South Africa's tyre recycling industry holds huge potential for economic growth, environmental sustainability, and innovation





The first step is to implement a robust national tyre waste management plan.

company reduces greenhouse gas emissions linked to tyre incineration and illegal dumping. Locally, its operations support economic growth by creating manufacturing and recycling jobs in KwaZulu-Natal and beyond. Globally, its products form part of supply chains for sports surfaces, industrial flooring, construction materials, and energy recovery applications.

"This closed-loop approach not only mitigates environmental harm but also drives sustainable industry growth," Dr Zarrebini notes.

#### Lessons from Europe's collaboration model

A major talking point for Dr Zarrebini is the need for stronger collaboration between industry, academia, and government. It is a model he has seen work effectively in Europe, particularly through forums such as the ETRA conference.

"The ETRA conference demonstrates the confluence between industry. academia, and Government," he says. "Besides new applications of utilising tyre-derived material and opportunities that exist for pyrolysis and devulcanisation, it is also interesting to see how policy is shaped by a wellfunctioning alliance of industry, academia, and Government - something that is lacking tremendously in South Africa when it comes to tyre recycling."

In Europe, structured partnerships accelerate innovation, fund research, and shape legislation to support sustainable practices. "To foster this synergy, we need a coordinated national strategy that encourages cofunded research programmes, aligns environmental legislation with industrial capabilities, and creates public-private innovation hubs," says Dr Zarrebini. "By uniting academia's research capacity, government's regulatory and funding frameworks, and business' operational expertise, South Africa can fast-track its transition to a more sustainable and competitive circular economy."

#### Overcoming the funding roadblock

For Mathe Group and the wider sector, accessing funding for expansion remains a



"One of the advantages that we had from the early days of starting out was that we were very much focused on valorising the raw material produced."

Dr Mehran Zarrebini, CEO of Mathe Group.



Dr Mehran Zarrebini, CEO of Mathe Group is pictured at the factory in Hammarsdale. In the foreground is the steel that has been removed from the tyres and in the rear are used tyres waiting to be recycled.



We see our role as a catalyst, helping to shape industry standards, supporting regulatory development, and demonstrating commercially viable models for circular manufacturing in South Africa.



Mehran Zarrebini CEO of Mathe Group is pictured with Cyril Khumalo HR & SHEQ Manager, Sithembiso Sishi Production Manager and Mlungisi Madonsela Production Team Leader (Product inspection).

significant challenge. "One of the greatest challenges is around funding of such a project," Dr Zarrebini says. "We are in discussion with international investors and partners to see how we can jointly set up such an operation. The barriers to entry and friction involved in funding such projects in South Africa are inhibiting, and we see the international market being much more attractive."

He believes the first step is to implement a robust national tyre waste management plan. "What we have seen over the years is a lack of interest in the sector and comprehensive decision making," he says. "We also need comprehensive incentives to ensure the industry becomes and remains sustainable."

#### Building Africa's benchmark recycler

Mathe Group's growth strategy is built on more than just expanding capacity. "Our vision is to position Mathe Group as Africa's benchmark for sustainable tyre recycling and value-added rubber manufacturing," Dr Zarrebini says.

Over the next decade, the company plans to broaden its product range into higher-value applications and invest in advanced recycling technologies to maximise material recovery. But Dr Zarrebini also sees a role for Mathe Group beyond its own operations. "We see

our role as a catalyst, helping to shape industry standards, supporting regulatory development, and demonstrating commercially viable models for circular manufacturing in South Africa," he says.

"By proving that waste can be transformed into high-quality, globally competitive products, we intend to inspire a new generation of green industries that contribute both to environmental protection and economic resilience."

#### A call for national commitment

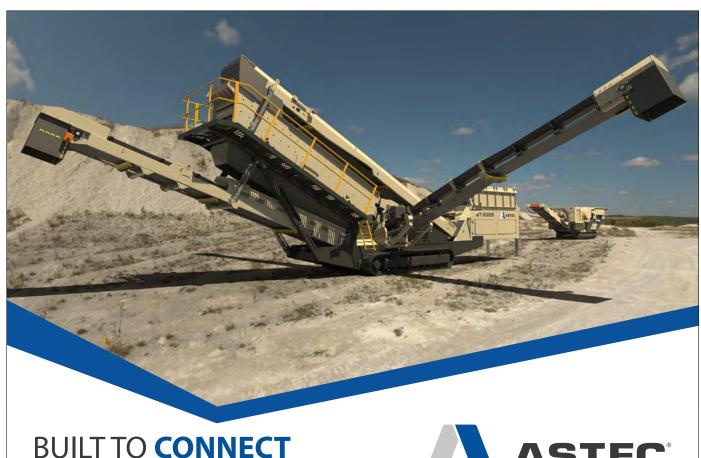
South Africa's tyre recycling industry holds huge potential for economic growth, environmental sustainability, and innovation, but only if the right frameworks are in place. Dr Zarrebini's message is clear: coordinated action is essential.

As the Mathe Group story shows, it is possible to turn one of the world's most problematic waste streams into a resource that delivers measurable benefits for the environment, industry, and communities. With the right policies, partnerships, and investment, the industry could shift from a fragmented operation to a fully integrated pillar of South Africa's economy.

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### SMARTER, SAFER, STRONGER

Juanita Pienaar of *Capital Equipment News* spoke with Jeandré Koen, Managing Director for Netstar Africa (a part of the Altron Group), to uncover how the company is harnessing its decades of telematics expertise to deliver smarter, safer solutions for the heavy-duty industries of mining, construction, and quarrying.

#### Reimagining telematics for tough terrain

With a legacy rooted in vehicle tracking and fleet telematics, Netstar is now bringing its proven technologies into more rugged terrain. The company's evolving suite of solutions is tailored to meet the demanding environments and compliance requirements of industries like mining, construction, and quarrying.

"Our Mining Fleet Solution offers accurate vehicle and asset tracking, operator behaviour monitoring, and practical insights to enhance safety, compliance, and productivity," said Jeandré Koen, Managing Director for Netstar Africa. "Combined with our Health Monitor Solution, which tracks worker vitals to detect fatigue and risks, we provide a powerful, integrated system that supports safer and more efficient

operational environments."

It's this integration of safety, performance, and data-driven control that makes Netstar's offering particularly compelling for site managers looking to boost uptime and reduce liability in high-risk environments.

#### Grounded in South Africa, built for Africa

While Netstar is expanding its footprint internationally, the South African market remains a core focus. The company continues to develop technologies for local industries, shaped by the very environments they operate in.

"Our technology is built and tested in tough local operating conditions whilst delivering innovative solutions," Koen noted. Netstar's ongoing investment in products like real-time health monitoring, collision avoidance systems, and on-site connectivity tools speaks to its commitment to domestic support.

"There will be greater focus on expansion, local innovation, and quality



"Combined with our Health Monitor Solution, which tracks worker vitals to detect fatigue and risks, we provide a powerful, integrated system that supports safer and more efficient operational environments."

Jeandré Koen, Managing Director for Netstar Africa (a part of the Altron Group).

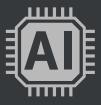




The Mining Fleet Solution offers accurate vehicle and asset tracking, operator behaviour monitoring, and practical insights to enhance safety, compliance, and productivity.



With geofencing, asset tracking, and workforce health dashboards, site managers gain full visibility and control, regardless of size or complexity.



Key trends include Al-based diagnostics, autonomous vehicle integration, biometric fatigue detection, electrification of heavy vehicles, and sophisticated <u>sustainability tracking</u>.



In an industry where every second counts and every life matters, Netstar is proving that smart tech isn't a luxury, it's the new standard.

service delivery throughout the African continent," said the representative. "The new leadership will be able to support both mining and construction better with the launch of new devices such as Health Monitoring in an effort to improve safety regulations within both these industries."

#### From downtime to uptime: Operational insights in real time

Mining and construction fleets face some of the toughest operational challenges in the field: downtime, compliance issues, and ever-present safety risks. Netstar's digital ecosystem is designed to meet these head-on.

Netstar's Global Fleet Bureau enables the company to "respond proactively with bespoke customer standard operating procedures," helping improve driver and pedestrian safety and reduce accidents. "Route optimisation, predictive maintenance, fuel consumption monitoring, and operator scorecards are all accessible through a single SaaS platform," Koen added.

This single-platform approach provides a clear view across fragmented or multi-site operations, enabling strategic decisions at speed. "With geofencing, asset tracking, and workforce health dashboards, site managers gain full visibility and control, regardless of size or complexity."

#### **Telematics beyond trucks**

Netstar's technology goes far beyond traditional fleet tracking. The company supports a broad range of equipment, including yellow metal, plant machinery, and off-highway vehicles, with systems that are as robust as the machines they monitor.

"Our integrated ecosystem delivers user insights, in-vehicle driver displays, and proximity detection with Nanotron sensors for collision avoidance," Koen explained. "Paired with speed sensors that limit speeds in specific geo-locations, it ensures safe operations in even the most remote areas."

The company also offers seamless integration with OEM technologies and on-site systems, giving fleet managers a centralised view of both asset and personnel performance. This not only improves safety and maintenance but also drives productivity on a broader scale.

#### Al at work: Predicting and preventing

Artificial intelligence is playing a growing role in Netstar's telematics offerings. By analysing vast amounts of fleet and operator data, the platform can proactively detect risks and suggest interventions before issues escalate.

"Our Al-powered analytics help predict







Netstar's Global Fleet Bureau enables
the company to respond proactively
with bespoke customer standard
operating procedures.

maintenance needs before failures happen, minimising downtime in remote or highwear environments," Koen shared. These analytics can even anticipate safety risks by identifying high-traffic zones at specific times. "Paired with our Nanotron in-vehicle technologies, pedestrian and visitor units proactively prevent incidents through smart predictive insights."

#### Fuel, fleet, and the future

Efficient resource use is no longer just good practice; it's a strategic advantage. Netstar empowers construction and mining companies to take tighter control of fuel, logistics, and labour performance through real-time data.

"Netstar manages fuel through CAN Bus data, tracks and boosts operator performance, and simplifies site logistics," Netstar explained. "Real-time data and health analytics allow better resource allocation, planning, and safer operations."

The platform's sustainability benefits are increasingly important, too. "Our solutions promote sustainability by reducing fuel waste, decreasing idle time, and optimising routes and travel time. Environmental data can be tracked and reported for audits to support greener practices."

#### Digital transformation for the worksite

As the mining and construction sectors move toward full digitalisation, Netstar

is poised to be a key enabler of smart worksite evolution. "We provide cloud-based platforms, API integrations, biometric safety tools, and compliance automation," the representative said, "all necessary for creating smart, connected work sites."

South African clients can also look forward to exciting new innovations. "Support for autonomous equipment and deeper integration with site-specific systems are already underway," the representative confirmed, noting that these developments are backed by global investment and local relevance.

#### Looking ahead

According to Netstar, the next 3–5 years will bring sweeping change across the fleet management landscape. Key trends include Al-based diagnostics, autonomous vehicle integration, biometric fatigue detection, electrification of heavy vehicles, and sophisticated sustainability tracking.

"Netstar is prepared to lead this evolution with reliable technology and local expertise," said the representative.

#### A final word to fleet operators

For site managers and operators who've yet to embrace advanced telematics, Netstar's message is clear: the time to act is now.

"If you're not using advanced telematics yet, you're working with limited visibility and unnecessary risk," Koen cautioned. "Netstar gives you data-driven tools that save lives, cut costs, and enhance productivity. With our Mining Fleet and Health Monitor Solutions, now is the perfect time to shift from reactive management to proactive operational control."

In an industry where every second counts and every life matters, Netstar is proving that smart tech isn't a luxury, it's the new standard.

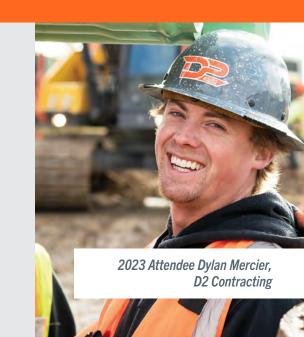




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#### **WEIGHING THE COSTS OF ELECTRIC TRUCKS**

Capital Equipment News' Juanita Pienaar spoke with Anton Falck, Vice President of Hino at Toyota South Africa Motors Avinash Singh, Director Sales & Marketing – EV & Hydrogen Trucks, South Africa Business Unit, SANY Group; and Olaf Petersen, Vice President: Sales and Marketing at Daimler Truck Southern Africa (DTSA) about the total cost of ownership (TCO) of electric trucks in South Africa.

#### A shifting equation in road transport

The electrification of commercial fleets is no longer a distant future. While diesel remains dominant in South Africa's transport sector, global momentum and local trials are demonstrating that electric and hybrid trucks can deliver measurable long-term savings. The challenge lies not only in understanding the upfront costs



"Customers reported that the range exceeded expectations, charging – when properly planned – did not disrupt operations, and the instant torque and regenerative braking of electric trucks were well received."

Olaf Petersen, Vice President: Sales and Marketing at Daimler Truck Southern Africa (DTSA).

but also in accurately assessing total cost of ownership — a calculation that weighs acquisition, energy, maintenance, downtime, resale, and infrastructure.

As Olaf Petersen of DTSA puts it, "While electric trucks may have higher initial costs, they offer lower operating expenses over time due to reduced energy costs. The conversation doesn't stop at the purchase of the truck. We emphasise the Total Cost of Ownership as a key value proposition."

#### Understanding the cost breakdown

For Hino's Anton Falck, the TCO conversation starts with realism. "All the normal TCO cost elements for commercial vehicles still apply," he explains, "however, some are affected in a more positive way due to the new technology systems





"Our EV trucks have demonstrated up to 70% lower TCO in mining side-tipper applications (56T – 80T), with diesel savings in excess of R1-million per truck per year."

Avinash Singh, Director Sales & Marketing – EV & Hydrogen Trucks, South Africa Business Unit, SANY Group.



"All the normal TCO cost elements for commercial vehicles still apply."

Anton Falck, Vice President of Hino at Toyota South Africa Motors

included in electric and hybrid models."

He points out that upfront purchase costs are usually higher because of the advanced drivetrains and control systems required for these vehicles. Maintenance, however, tends to be lower since electric

trucks have fewer moving parts. Even so, he cautions that the lack of a well-developed aftersales network in South Africa could add complexity, with limited service options and longer commutes to reach workshops.

Energy is another crucial factor. Falck notes that electricity can deliver a cheaper cost per kilometre than diesel, particularly if the source is solar power. He adds that the capital investment in solar infrastructure can be balanced out by using it for other electricity needs as well.

When it comes to downtime, electric trucks spend less time in the workshop for maintenance, but charging can create longer periods of inactivity if not carefully managed. Falck stresses that strategic planning of charging schedules is essential to avoid unnecessary idle time and maximise vehicle productivity.

#### **Industry leaders see TCO advantages**

For SANY's Avinash Singh, the equation is already tipping clearly in favour of electric trucks. "Our EV trucks have demonstrated up to 70% lower TCO in mining side-tipper applications (56T – 80T), with diesel savings in excess of R1 million per truck per year. This results in a break-even period of under 18 months compared to equivalent diesel models."

Singh stresses that electricity's lower cost per kilometre, coupled with regenerative braking and fewer moving parts, gives EVs a significant edge. "We are seeing real world diesel savings greater than 70%. This is not counting the savings from diesel theft and

#### QUICK

#### **TAKE**

The electrification of commercial fleets is no longer a distant future.



While electric trucks electric trucks may have higher initial costs, they offer lower operating expenses over time due to reduced energy costs.



All the normal TCO elements for commercial vehicles still apply.



When it comes to downtime, electric trucks spend less time in the workshop for maintenance, but charging can create longer periods of inactivity if not carefully managed.







contamination issues, or the cost of diesel truck idle times, which paint an even better picture for EV trucks."

#### **Overcoming barriers**

Despite the compelling case, challenges remain. Petersen points out that infrastructure is a decisive factor: "The success of battery-electric trucks depends on a multiplication of three factors: product availability, infrastructure, and affordability. If the value of any one of these factors is zero, the entire equation equals zero."

DTSA has focused on customer trials

and flexible acquisition models, including leases and "truck-as-a-service" solutions. "We actively engage with stakeholders to advocate for supportive policies and investment in charging networks," Petersen adds, underlining the importance of government incentives and regulatory shifts.

Falck concurs that policy plays a central role: "Policy shifts where consideration is given to reduced import duties and manufacturing incentives on EVs could lower TCO. The growth of private charging infrastructure remains essential for commercial EVs, especially for long-haul routes."

#### **Customer success stories**

Hino's hybrid programme in South Africa provides tangible evidence. The first three Hino 300 Hybrids introduced in 2023 were placed with Namlog Logistics for parts delivery out of Toyota Africa's Ekurhuleni centre. "A back-to-back comparison between a Hino 300 Hybrid and a normal 300-Series diesel over 100–200 km trips in Gauteng showed a saving of about 20% in favour of the Hybrid," says Falck.

Drivers also reported seamless performance: "There was no difference between the two trucks in terms of driving them." Moreover, the dual drivetrain doubled service intervals, creating a 50% saving on maintenance cost per kilometre.

SANY has had a similar market reception. "The capital cost of our EV truck tractor is only slightly higher than the equivalent diesel truck," Singh notes. "Our TCO offers a payback period of around 18 months which has been very well received by the local market. It makes a diesel truck in the same application totally uncompetitive to run." One recent example is a landmark deal with Sekhukhune Logistics, where SANY supplied 30 units — further proof of strong customer confidence in both the performance and financial value of the technology.

#### Addressing misconceptions

Across all brands, misconceptions persist. Falck observes that many fleet operators still expect EVs to have "a very similar purchase price to the equivalent ICE unit





The narrative in South Africa has been that EV trucks require a 'green premium' of around four to five times the cost. This is not the case with SANY. Thanks to our intelligent manufacturing facilities, we can manufacture an EV truck in around six minutes which gives us a cost advantage that allows us to bring this technology to market at a diesel-beating TCO.

and zero maintenance cost," both of which are inaccurate.

Singh highlights another misconception: "The narrative in South Africa has been that EV trucks require a 'green premium' of around four to five times the cost. This is not the case with SANY. Thanks to our intelligent manufacturing facilities, we can manufacture an EV truck in around six minutes which gives us a cost advantage that allows us to bring this technology to market at a diesel-beating TCO."

Petersen adds that range anxiety and charging logistics initially worried drivers, but trial feedback has been positive: "Customers reported that the range exceeded expectations, charging — when properly planned — did not disrupt operations, and the instant torque and regenerative braking of electric trucks were well received."

#### The rise of hydrogen

Battery-electric is the clear leader today, but hydrogen is already on the horizon. Singh explains: "Hydrogen technology is promising for long-haul applications, but in South Africa, the cost of hydrogen production and infrastructure is still high. Today, battery-electric offers the most compelling TCO advantage, while hydrogen will become more competitive as green hydrogen production scales."

Hino, too, is pursuing a multi-powertrain strategy globally, with hydrogen, hybrid, and battery-electric solutions in development.

#### Next steps for the industry

Looking five to ten years forward, Singh sees battery costs continuing to decline while diesel prices rise. "EV adoption will accelerate. Hydrogen will also gain traction as infrastructure develops, but battery-electric will dominate in the near term."

Falck advises fleet operators to stay pragmatic: "Pilot a few units first. Urban routes may favour hybrids now, while longer routes on EVs may need to await infrastructure improvements. Consider long-term TCO and not just the list price."

For Petersen, the future hinges on collaboration. "Infrastructure development cannot be the responsibility of a single party. It requires cooperation between government, fleet operators, utilities, and OEMs."

Electric trucks are no longer experimental in South Africa; they are proving their worth in controlled applications, particularly in urban deliveries and mining operations. While infrastructure, upfront costs, and resale uncertainties remain hurdles, the real-world TCO data is building a compelling case for adoption.

As Falck notes, diesel will remain part of the mix for some time, but the industry is already adjusting to a new era. With hybrids, battery-electric, and hydrogen technologies evolving rapidly, the question for fleet operators is not whether electrification makes sense — but when.

# MAXIMISE ROI AND PERFORMANCE WITH STRATEGIC ASSET LIFECYCLE MANAGEMENT

Asset Lifecycle Management (ALM) is a structured approach to managing an asset from conception to retirement - encompassing planning, acquisition, deployment, operation, maintenance and eventual disposal or replacement.



ahdli Adams, Senior Key Account
Manager at FM Solutions Technical, explains: "The objective of
ALM is to extract maximum value,
performance and return on investment
from an organisation's assets, while keeping costs and risks under control."

To fully realise the benefits of an asset management strategy, organisations must assess the type and criticality, and the risks posed by underperforming or failing assets, and the broader impact of frequent repairs or replacements on their operations.

When developing an asset management plan, Adams advises companies to consider five core principles:

**Planning and Design -** Identifying the need, type, and specifications of an asset, aligned with the facility's overall design and operational intent.

**Acquisition and Installation -** Procuring the asset through the appropriate processes, followed by correct installation and commissioning.

#### **Operations and Maintenance**

Documentation - Often overlooked, these manuals are essential to optimal lifecycle management. They include standard operating procedures, certificates of compliance and critical maintenance guidelines.

**Operation and Maintenance -** Ensuring the asset performs within defined parameters through regular preventative and occasional reactive maintenance.

**Responsible Disposal -** Timely replacement of assets that are no longer cost-effective to maintain, ensuring environmentally sound disposal or recycling where applicable.

Implementing an ALM plan delivers measurable value by ensuring every stage of an asset's life is managed to maximise reliability and efficiency. Careful planning and management minimises downtime, optimises performance and enhances operational productivity. By incorporating predictive and preventative maintenance,

organisations can extend asset lifespans, avoid unnecessary replacements, and reduce overall costs.

A robust Computer Aided Facilities Management (CAFM) system further enhances ALM by delivering critical data insights that enable informed decision-making, more accurate budgeting and better resource allocation. "We leverage our CAFM software to manage the asset lifecycle strategically, enhancing performance, improving reliability and reducing operational costs," says Adams.

Well-maintained assets not only improve facility performance but also support broader organisational objectives. "Technical maintenance should never be treated as an isolated service. Developing and executing a comprehensive ALM plan allows organisations to unlock efficiencies, reduce costs, and ensure their assets consistently deliver value - both operationally and financially," he concludes. •



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