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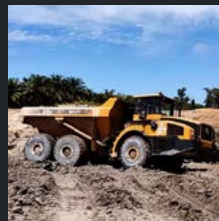
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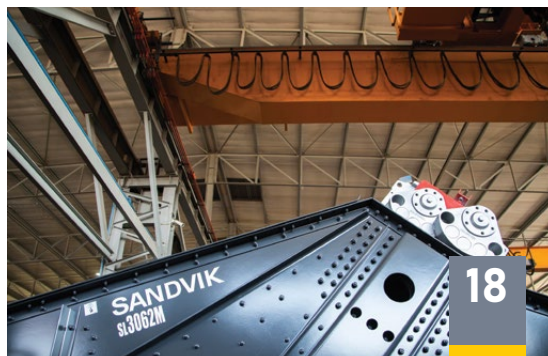
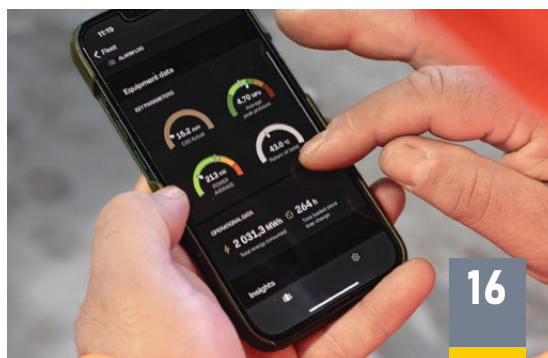
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ON THE COVER

The South African mining industry is a significant contributor to the country's GDP, accounting for roughly 6.2% to GDP.



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Power play: the race to secure critical minerals

The imperative to secure strategic minerals is being played out on the global arena with the Trump administration looking to Africa for its supply of critical metals. Apart from its recent deal with Ukraine for priority access to Ukrainian critical minerals and other natural resources, the US is looking to advance a potential multi-billion-dollar investment programme with the DRC, which is rich in lithium, copper and cobalt.

Critical minerals, such as nickel, graphite, manganese, cobalt, copper and lithium, currently occupy a key role in global economic and geopolitical competition. Demand for critical minerals is projected to rise steeply over the next few years, driven by increased demand for renewable energy and electric vehicles.

As it stands, China has a monopoly in global critical mineral supply chains, particularly in refining and processing. The East Asian country controls a hefty share of global production and processing capacity for minerals like lithium, cobalt, nickel, natural graphite, and rare earth elements. This control gives China substantial leverage in global trade and creates vulnerability for countries like the US.

Following the US trade tariff tit for tat, China has placed restrictions targeting seven rare earths – including dysprosium and terbium (heavy rare earth elements) crucial for electric vehicles, wind turbines, fighter jets and missile systems. China holds global dominance of rare earth refining (around 90%) and a monopoly on heavy rare earth processing (98%).

So where does South Africa stand in the supply conundrum and can it use its availability of key critical minerals to ink deals that benefit the country? The good news is that the economic powerhouse of Africa holds reserves of key critical minerals, including Platinum Group Metals (PGMs) - 88% global market share, manganese - 80% global market share, and a significant share of chromium and vermiculite. Interestingly, South Africa's definition of critical minerals extends to coal and uranium, given their importance for energy generation.

For more insight into critical minerals, register for the 3rd annual London Indaba, which has set the stage for high-stakes conversations on mining, critical minerals and investment in the continent's future. Taking place on 24 and 25 June 2025 in London, the event “promises compelling dialogue on the evolving mining landscape, investor strategies and the continent's pivotal role in the future of global critical mineral supply”. According

to the event organisers, the agenda highlights how Africa's resources are being scrutinised, not only for their commercial potential but also for their critical relevance to climate goals, geopolitical shifts and sustainable development. “Africa has moved from the margins to the mainstream of the global mining conversation. The minerals essential to the world's

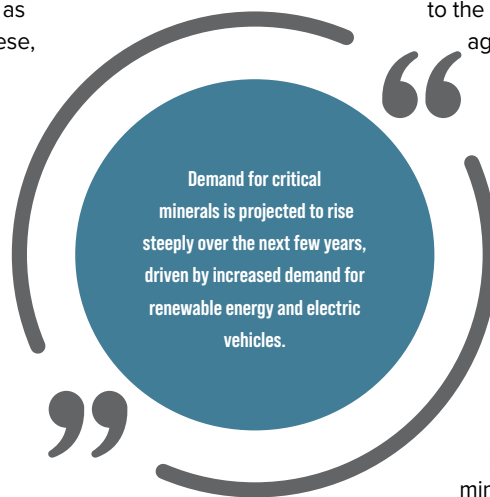
transition, whether copper, cobalt or PGMs, are found here, and the decisions we make today will shape not just our continent's future, but the trajectory of industries and economies around the world,” said industry stalwart, Bernard Swanepoel.

Meanwhile, in line with Barrick's vision of being the “world's most valued gold and copper company”, the gold major recently announced its intention to change its name from Barrick Gold Corporation to Barrick Mining Corporation, signalling its intention of amping up its importance in the copper space.

On the topic of copper, this edition's commodities outlook is on Quicklime. Quicklime aids in metals extraction from ores. In flotation processes for copper, gold, and other valuable minerals, quicklime helps maintain optimal pH levels, improving recovery rates. It is also vital in smelting and refining, as well as in controlling slag chemistry during steel production.

Also of note is the crushing and screening feature, which shares insights from Sandvik Rock Processing (pg 16), Pilot Crushtec (pg 18), Weir (pg 20), Tru-Trac (pg 24), Multotec (pg 28) and ELB Equipment (pg 30).

Our regular columnist, Dr Ross Harvey, has some interesting insights to share in his column: The VAT furore and its implications for mining (pg 36). ■





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Driving efficiency and sustainability



Joe Creed elected as Caterpillar's next CEO

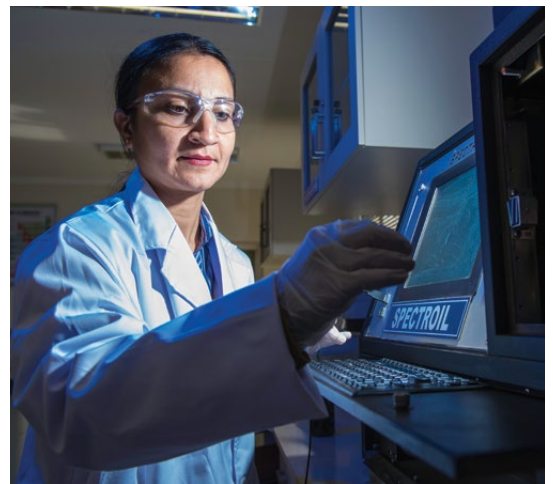
After eight years as CEO and nearly 45 years of service, Caterpillar Inc. Chairman and CEO D. James Umpleby III will become Executive Chairman of the Board effective May 1. Chief Operating Officer, Joseph E. Creed, a 28-year Caterpillar veteran, will succeed him as CEO and join the Board of Directors May 1. After assuming the role of CEO on January 1, 2017, Umpleby led the development and execution of a new strategy for long-term profitable growth, creating significant shareholder value. In 2024, Caterpillar achieved record full-year adjusted profit per share, which increased more than sixfold during Umpleby's tenure as CEO. ■



Joe Creed (right) to replace James Umpleby (left) as Caterpillar's CEO.

BME's Dr Rakhi Pathak appointed to board of ISEE Australia

The International Society of Explosives Engineers (ISEE) in Australia has appointed Dr Rakhi Pathak, Global Manager for Strategic Partnerships at BME, as a board director. Dr Pathak has been an integral part of BME since June 2009, providing dual support to both BME Australia-Asia and BME Global as a Senior Product Manager and Regional Project Manager. She was appointed to her current position last year. Dr Pathak has contributed actively to driving BME's growth strategy in Canada and Australia-Asia, as well as overseeing projects related to company's formulations, regulations, production capacity and cost optimisation. In her role as Global Manager for Strategic Partnerships, Dr Pathak's responsibilities include leading co-development product projects and other strategic partnerships globally. ■



Dr Rakhi Pathak - BME's global product manager.

Khanye Colliery becomes South Africa's first Bettercoal Producer

Canyon Coal's Khanye Colliery will implement a robust Continuous Improvement Plan (CIP) in the coming four years as part of the Bettercoal programme, enhancing the mine's sustainability efforts. Khanye Colliery is currently the only mine that holds

the Bettercoal Producer status in South Africa. The Bettercoal programme is an internationally recognised standard to promote responsible practices in the global coal supply chain. This milestone marks significant progress for Canyon Coal's longstanding partnership with

the organisation. Canyon Coal COO Jarmi Steyn hopes Khanye Colliery will set a positive example for other coal mines in SA to consider taking part in the initiative. "The coal industry's existence, in the long term, depends on the strength of our sustainability efforts, highlighting the importance of participating in programmes like Bettercoal. This partnership is about enhancing accountability and responsible practices in the sector," says Steyn. Located in Bronkhorstspuit, Gauteng, Khanye Colliery initiated the process to become a Bettercoal producer in 2022 by signing a letter of commitment, followed by site assessments in 2023. The process involved comprehensive assessments based on the three ESG pillars: Environment, Social, and Governance. ■



Khanye Colliery is currently the only mine that holds the Bettercoal Producer status in South Africa.

Blanket Mine record Q1 gold production sets strong foundation for 2025



Blanket Mine gold production for Q1, 2025 has set a new first quarter production record.

AIM listed Caledonia Mining Corporation has announced that Blanket Mine gold production for the quarter ended March 31, 2025 has set a new first quarter production record. Quarterly gold production of 18 671 ounces, exceeded 17 050 ounces produced in the first quarter of 2024 (Q1 2024). Blanket remains on track to achieve gold production guidance of 74 000-78 000 ounces this year.

Commenting on the results, CEO Mark Learmonth, said: "This achievement reflects continued operational improvements and the dedication of our team on the ground. The significant increase in both tonnes milled and the surface stockpile provide a strong foundation for the remainder of the year. This is an excellent start and with a strong gold price we are well positioned to generate healthy cash flows and to continue investing in our growth projects." ■

Barrick Gold plans name change to Barrick Mining Corporation



Barrick's vision is to be the world's most valued gold and copper company.

Gold miner, Barrick Gold Corporation, plans to change its name to Barrick Mining Corporation. In line with its name change, the company also plans to change its ticker symbol for the Barrick common shares listed on the New York Stock Exchange from 'GOLD' to 'B', to become effective at the start of trading on May 9, 2025. "Barrick's vision is to be the world's most valued gold and copper exploration, development and mining company. Along with our world-class portfolio of six Tier One gold mines, we are building a substantial copper business which will be a meaningful contributor to growing our production volumes in the coming years and beyond," says Barrick's CEO Mark Bristow. " ■

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Africa in focus

With African critical minerals taking centre stage in the global energy transition, the 3rd annual London Indaba is set to be one of the most important industry gatherings of the year. Taking place on 24 and 25 June 2025 at the InterContinental Park Lane, London, the event promises compelling dialogue on the evolving mining landscape, investor strategies and the continent's pivotal role in the future of global critical mineral supply. Chaired by industry stalwart Bernard Swanepoel, the London

Indaba will gather a powerhouse lineup of speakers, from mining CEOs and chairpersons to policymakers, analysts and investors. "Africa has moved from the margins to the mainstream of the global mining conversation. The minerals essential to the world's transition, whether it's copper, cobalt or PGMs, are found here, and the decisions we make today will shape not just our continent's future, but the trajectory of industries and economies around the world," said Bernard Swanepoel. ■



Bernard Swanepoel, chairman, London Indaba.



Perseus Mining proceeds with development of the Nyanzaga Gold Project

ASX-listed Perseus Mining has announced that a Final Investment Decision (FID) has been taken to develop the Nyanzaga Gold Project (NGP) in Tanzania, following an update of the NGP Feasibility Study (FS). Perseus has committed to invest around US\$523 million (including contingency) to develop and prepare for the operation of the mine that is expected to produce first gold in Q1, 2027.

Perseus's CEO Jeff Quartermaine said: "Perseus is excited to proceed with the development of the Nyanzaga Gold Project and is looking forward to working alongside the Government of Tanzania to deliver a world class mining operation. Acquired in May 2024 through the successful takeover of OreCorp, the Nyanzaga Gold Project will be the first major gold mine development in Tanzania in 17 years and represents a major step forward in terms of enhancing Tanzania's reputation as a favourable destination for foreign investment." ■

Surging gold ETFs fuel Q1 demand

The World Gold Council's Q1 2025 Gold Demand Trends report reveals total quarterly gold demand (including OTC) was 1 206 t, a 1% increase year-on-year, in a record high price environment, in which gold surpassed US\$3 000/oz.

The gold ETF revival fuelled a more-than doubling of total investment demand to 552 t, a 170% year-on-year increase and the highest since Q1 2022. ETF inflows accelerated around the world, totalling 226 t in the first quarter as price momentum and tariff policy uncertainty drove investors to gold as a safe haven.

Total bar and coin demand increased 3% y/y, remaining elevated at 325 t during Q1, spurred by a surge of retail investment in China, which posted its second highest quarter on record. Eastern investors drove much of the global demand for bar and coin, offsetting Western weakness as appetite in the US dropped 22% year-on-year, alongside a modest 12 t recovery in Europe, but from a very low base in the same quarter last year.

Central Banks are now entering their 16th consecutive year of net-buying, adding 244 t to global reserves in Q1 amidst ongoing global uncertainty. While this level of demand was 21% lower year-on-year, it remains robust and in line with the quarterly average for the last three years of sustained, strong buying.

Unsurprisingly, jewellery demand was negatively impacted as gold hit 20 all-time price highs in Q1. Volumes reached their lowest point since demand was stifled by the COVID pandemic in 2020. However, the jewellery market remained relatively

resilient, especially in value terms, given extreme price pressures. The first quarter saw a 9% year-on-year increase in consumer spending to US\$35 bn with every market except China seeing an increase in the value of gold jewellery demand.

Total gold supply was relatively flat year-on-year, at 1 206 t in the first quarter as record Q1 mine production was offset by slightly lower recycling. Technology demand was also stationary at 80 t, compared to Q1 2024. Louise Street, Senior Markets Analyst at the World Gold Council, commented: "It's been a bumpy start to the year for global markets as trade turmoil, unpredictable US policy announcements, sustained geopolitical tensions and a return of recessionary fears, have created a highly uncertain environment for investors. In this context, investment demand for gold has paved the way for the highest level of first quarter demand since 2016. Over the past 10 months investors have returned to gold ETFs, ramping up their allocations since Q3 last year, and already in April, Asian inflows have stormed past their Q1 total. However, there is still room for growth, with global gold ETF holdings sitting 10% below their 2020 high. Looking ahead, the broader economic landscape remains difficult to predict, and that uncertainty could provide upside potential for gold. As turbulent times persist, safe haven demand for gold from institutions, individuals and the official sector could climb higher in the months to come." ■



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Quicklime: A cornerstone of modern industry

Quicklime, or calcium oxide (CaO), is a fundamental material with a long history and a diverse range of industrial applications. From mineral processing and steel production to construction water treatment, and agriculture, quicklime plays a vital role in both industrial and environmental processes. Understanding the global quicklime market requires an in-depth examination of its production, key applications, pricing trends, and the companies driving supply.

Production and properties

Quicklime is produced by heating limestone in a lime kiln at temperatures between 900°C and 1,200°C, a process known as calcination. This drives off carbon dioxide, leaving behind highly reactive calcium oxide. The quality of quicklime depends on limestone purity, kiln technology, and energy efficiency. High-purity limestone, with over 95% calcium carbonate, produces better-quality quicklime with fewer impurities. Rotary, shaft, and annular kilns each offer advantages in efficiency and output. As calcination is energy-intensive, modern kilns often use waste heat recovery and alternative fuels to improve efficiency while reducing environmental impact. Emission controls, including gas scrubbing and carbon capture, help minimise CO₂ release.

Quicklime is a white to off-white crystalline solid that is highly caustic and alkaline. It reacts vigorously with water in an exothermic reaction, forming slaked lime and releasing heat. This reactivity makes it valuable in many industrial processes. Because it absorbs moisture from the air, quicklime gradually converts into slaked lime and must be stored in dry, sealed conditions to preserve its reactivity. With a melting point of around 2,572°C, it remains stable at high temperatures, while its strong alkalinity, with a pH of 12 to 13 in solution, makes it highly effective in neutralisation applications.

Essential across several industries

One of quicklime's most important applications is in mineral processing, where it aids in extracting metals from ores. In flotation processes for copper, gold, and other valuable minerals, quicklime helps maintain optimal pH levels, improving recovery rates. It is also vital in smelting and refining, as well as in controlling slag chemistry during steel production. Beyond metallurgy, quicklime plays a crucial role in environmental management in mining operations, neutralising acidic mine drainage, reducing heavy metal contamination, and stabilising tailings, helping to prevent hazardous waste from affecting surrounding ecosystems.

Other industries reliant on quicklime include the construction sector, where it is a key ingredient in cement and mortar, water treatment, where it neutralises acidity and helps remove contaminants, chemical manufacturing, particularly in producing calcium-based compounds, and agriculture, where it improves soil pH and enhances crop yields.

Leading quicklime-producing regions

Quicklime production is concentrated in countries with abundant limestone reserves and strong industrial demand, with China leading the global market, accounting for over half of total production, followed by the United States. Europe also has an established market, benefitting from advanced production technologies and stringent environmental regulations.

Meanwhile, Africa's quicklime industry is undergoing transformation, with South Africa historically being the continent's largest producer, supplying the mining and industrial sectors. However, new production hubs are emerging to reduce reliance on imports. Zambia, for example, is becoming an important player with projects such as Firing Strategic Minerals' Limeco project, which



The high-quality quicklime product produced at the Limeco Plant.



Aggregate kiln feed stockpile.

aims to support the growing demand for quicklime in the Central African Copperbelt.

Market growth and economic prospects

Given its critical role in multiple industries, the global quicklime market has experienced consistent demand growth. In 2022, the market was valued at approximately \$55.9 billion and is projected to expand at a compound annual growth rate (CAGR) of 5.4% from 2023 to 2031, reaching an estimated \$89.8 billion. (Source: Transparent Market Research)

In terms of production volume, the global market stood at nearly 48 million tonnes in 2022 and is expected to maintain a steady CAGR of 4.93% through to 2032. This growth is driven by increasing industrialisation, infrastructure

development, and stricter environmental regulations requiring effective waste treatment solutions.

Pricing dynamics and supply chain dynamics

Despite strong demand, quicklime pricing remains variable due to several influencing factors. Over the past two years, prices have fluctuated between \$160 and \$218 per tonne, primarily due to changes in production costs, raw material availability, energy prices, and transportation expenses. Unlike commodities such as metals, quicklime does not have a publicly traded spot price and is instead priced through long-term contracts between suppliers and industrial end users.

Regional supply-demand imbalances also impact pricing, with high production costs in certain areas leading to increased imports from countries with lower-cost production facilities. For example, in Africa, many mining operations rely on imported quicklime, highlighting the need for local production capacity expansion.

Producers

Africa's quicklime production sector is quite diverse, with a significant number of smaller, local players catering to regional markets. This fragmentation is evident in countries like South Africa, Zambia, and Nigeria, where lime production is frequently tailored to meet specific local demand.

In South Africa, notable producers include SA Lime & Gypsum Industrial Products (Pty) Ltd, which offers a wide range of high-quality industrial lime products; H. Pistorius & Kie, a long-established supplier of agricultural lime; and Cape Lime, a subsidiary of Afrimat Ltd, which specialises in lime products for construction, agriculture, and manufacturing.

Emerging as a key force in Zambia's quicklime industry, Firering Strategic Minerals (LSE: FRG) is advancing its Limeco project to support the country's rapidly growing copper mining sector, which currently principally relies on imported quicklime from South Africa. Having recently commenced operations at the first of eight planned kilns, Limeco aims to achieve a daily production rate of 600–800 tonnes by the first quarter of 2026.

Beyond Africa, SigmaRoc (LSE: SIG) plays a leading role in the European quicklime market, supplying key industrial and construction sectors. With an acquisition-driven growth strategy, the company has built an extensive portfolio of quarries and production facilities, ensuring a strong supply chain across Europe. Other European players include Belgium based Carmeuse and German based Schafer Kalk.

Sustainability and innovation

As the industry continues to expand, sustainability and technological advancements will shape its future. Given quicklime's high energy consumption, reducing carbon emissions and improving efficiency are key priorities. Companies are investing in alternative fuels, carbon capture technologies, and optimised production processes to mitigate environmental impact.

Automation and AI-driven kiln technologies are also enhancing efficiency, reducing waste, and improving product quality. Meanwhile, emerging markets in Africa and Southeast Asia are increasing domestic production to bolster supply chain resilience and reduce reliance on imports.



Birdseye view of the Limeco Plant's kiln feed stockpile.



View of kiln 1, the first fully operational kiln at the Limeco Plant.

Poised for a bright future

As a cornerstone of various industrial processes, quicklime's role in driving modern industry cannot be overstated. With steady growth in market demand and the increasing focus on sustainable production practices, the quicklime industry is poised for a bright future. Innovations in production efficiency, environmental management, and regional supply chain development will shape the industry's trajectory, enabling companies to meet the growing needs of diverse sectors while reducing their ecological footprint. As key producers like Limeco and SigmaRoc continue to expand, the industry is positioning itself to play an even more integral role in the global economy, supporting mineral processing, infrastructure development and environmental sustainability in the years to come. ■

The escalating demand for minerals is abundantly clear — especially green minerals like copper, cobalt, and lithium.



Mining wealth: Building community opportunities from Africa's mineral boom



Mark Evans, a partner at Oliver Wyman.

With the world clamouring for critical minerals to power renewable energy technologies, Africa is on the brink of a green mineral mining boom that could redefine its economic landscape. But this wealth must translate into real benefits for the people and communities residing in the regions where these mines operate.

By Mark Evans, Partner at Oliver Wyman

During the bustling Africa Mining Indaba held in Cape Town this past February, it was evident that Africa's immense mineral wealth is increasingly drawing the attention of industry leaders and investors. The escalating demand for minerals is abundantly clear — especially green minerals like copper, cobalt, and lithium, which are vital for renewable energy technologies today. Africa is uniquely positioned to meet this demand, as it boasts 30% of the world's mineral reserves.

However, more must be done to foster economic and structural transformation within

mineral-producing nations, particularly in the realms of economic diversification and industrialisation ambitions. As part of this, mining operations must view themselves as guests in the communities where they operate to build sustainable operations — but also because the critical truth is that they will eventually depart. Meanwhile, for the residents of these towns, these places are not temporary; they are their homes.

Building mineral value chains

Africa must focus on enhancing its green minerals



Mining operations must view themselves as guests in the communities where they operate to build sustainable operations.



Mining companies need a long-term plan that emphasises developing local talent who will directly contribute to the industry's success.



It is key to focus on community engagement and capacity building, particularly through the creation of strong local mineral value chains.

supply chains to secure a more substantial share of the industry and solidify its role in the development of green technologies and the broader manufacturing sector. It is crucial to create strategies that benefit people, the economy, and nature throughout this process. This is particularly important because, according to the African Natural Capital Alliance, 62% of GDP across the continent is dependent on nature, and this vital resource could be severely compromised if the mineral rush is mishandled.

To build a sustainable and equitable future in the mining sector, it is key to focus on community engagement and capacity building, particularly through the creation of strong local mineral value chains. Mining companies must recognise that without a skilled workforce, their value chains will falter; therefore, investing in education is essential. This proactive approach mitigates the marginalisation of local residents.

To successfully achieve this, mining companies need a long-term plan that emphasises developing local talent who will directly contribute to the industry's success. Education must align with the workforce needs of the mining operation, ensuring that community members are equipped with relevant skills to thrive in and around the mining sector. Historically, the industry's focus has often been short-sighted, concentrating on immediate extraction needs rather than fostering sustainable community relationships.

Furthermore, as mining is not a permanent endeavour, companies must plan for the future beyond the mine's

operational life. This includes investing in the development of sustainable businesses that not only support the mining operation but also thrive independently afterward. An example could be using the area surrounding the mine for green energy production during its operational phase, thereby redirecting that energy to support local communities or other industries once mining ceases.

Overall, this holistic approach is challenging, and there is no singular solution. But ultimately the success of mining companies hinges on their willingness to build strong partnerships with local communities, ensuring mutual prosperity that benefits both parties in the long run.

However, capitalising on the critical minerals opportunity while advancing social inclusion requires striking a balance: regulatory environments must deliver local economic benefits while also enticing foreign direct investment for overall economic growth. Because ultimately, local initiatives must be supported without deterring the inbound investment that is increasingly necessary.

Africa is mineral rich, that's not news, but that wealth is not yet delivering real value in the form of inclusive growth. The green metals boom undeniably presents an opportunity, and South Africa has already underscored the importance of utilising mineral extraction for inclusive growth and sustainable development in Africa during its G20 Presidency. This moment presents as prime an opportunity as ever to advocate for responsible investment in critical minerals on a global stage. ■



An impressive Sany crusher in operation at a mine in the Limpopo province.

SANY grows green - injects hefty investment into SA market

Chinese equipment supplier, SANY, which has been supplying mining and construction equipment into the continent since 2006, recently outlined its plans to expand into the energy market, in particular, the renewable energy sector. Speaking at a gala dinner, held in Cape Town, on the sidelines of the Investing in African Mining Indaba 2025, Dr. Chen Jia: Deputy General Manager of SANY Silicon Energy Technology Company, detailed the company's microgrid solutions, while Group Vice President, Dr Kim Li, shared insight into progress on its massive new factory, currently under construction in Boksburg.

Underpinned by the global drive for clean energy solutions, the heavy equipment supplier's foray into the renewable energy market allows SANY to expand its microgrid offering to its existing customer base while making a play for new business.

According to Dr Chen, SANY is among a few companies globally able to offer a comprehensive range of energy products, including PV panels, wind turbines, lithium battery storage systems, hydrogen electrolyzers and intelligent electric trucks. "Our extensive product range offers customers reliable and cost-effective integrated green solutions and green transportation options."

Africa and South Africa, in particular, continue to face power challenges and ever-escalating electricity costs. South African's have been quick to make the shift to renewable energy, transforming the energy landscape away from fossil fuel domination. Last year alone, R17.5 billion worth of solar panels were imported, reflecting the country's commitment to sustainable energy sources.

"Over the past five years, the cost of PV panels has fallen by roughly 5%, making it a highly desirable option," explained Dr Chen adding, that as part of its turnkey offering, SANY was on-hand to partner with customers to design, install, maintain and service its green energy solutions.

"We provide a one-stop-shop green energy solutions offering and partner with our customers to deliver fit-for-purpose solutions. We ensure that we provide systems that are reliable, sustainable and economical."

SANY's warehouse ensures renewable energy spare part availability for customers in Africa that have already inked deals for renewable energy projects. The Chinese equipment manufacturer's Southern Africa's parts distribution centre, also in Boksburg, spans an impressive 20 000 m², making it SANY's largest parts warehouse on the African continent. The facility is stocked with about R270-million worth of spare and wearing parts, and an array of equipment, including excavators, trucks, cranes and loaders, is on-hand.

"We also provide flexible financial planning for our microgrid



Sany equipment in operation at a chrome mine.



The SAT40C - Sany articulated dump truck released in December last year.



Customers unlock significant savings when they switch their fleet to the SANY range.



offering, which includes unique arrangements that align with individual customer's financial needs," added Dr Chen.

Aside from its large micro grid offering to large-scale businesses, such as the mining sector, SANY's product range includes portable solutions suited to small-scale electricity users with energy needs of below 100-kilowatt per hour.

"Our range includes small integrated PV storage units capable of generating between one and two kilowatt hours per day. This offering is suited to customers looking for the basics, i.e. lighting up their homes at night."

SANY expands local footprint

The original equipment manufacturer continues to invest heavily in growing its local footprint, currently building its state-of-the-art headquarters in Boksburg, scheduled for completion before year-end.

SANY SA's headquarters development, which broke ground in November 2023, will result in facilities to carry out three primary functions – manufacturing, logistics and training. Considered to be SANY's central Southern Africa hub, the cutting-edge premises will consist of a 12 500 m² floor area that includes a 9 500 m² assembly plant and a

2300 m² administration building. It will also feature a 525 m² staff canteen and a fully equipped gymnasium.

Scheduled to produce 3 000 excavators and other machinery annually, the facility will significantly boost SANY's manufacturing capabilities and logistical efficiency in Southern Africa.

The project targets completion by December 2025. According to Dr Li, SANY's competitive edge lies in its low total cost of ownership on its product life cycle, which is "35% lower than that of American brands".

"Our products are also 15% more cost competitive than those currently in the market, which means that customers, including mining companies, unlock significant savings when they switch their fleet to the SANY range."

In February, SANY handed over a new 125-ton excavator to a South African mining company - the largest excavator supplied into South Africa thus far.

"I am confident that our bigger excavators, such as the 200 t, 260 t and 400 t, will soon enter this country. The client's decision to choose SANY products was based on our value for money offering," said Dr Li. ■

Four SAT40C articulated dump trucks were delivered to client in February 2025.



I am confident that our bigger excavators, such as the 200 t, 260 t and 400 t, will soon enter this country. The client's decision to choose SANY products was based on our value for money offering

Sany South Africa

Heavy equipment manufacturer SANY Equipment's regional headquarters was established in Johannesburg, South Africa, in 2006, strategically positioned to serve South Africa, Zambia, Mozambique, Zimbabwe and beyond.

ESG through Kangra's sustainable development efforts

Environmental, Social, and Governance (ESG) frameworks have become a major catalyst for reshaping industries globally, including the mining sector. Mpfuneni Mulaudzi, Kangra's Sustainable Development Manager, notes that this framework is driven by businesses seeking to ensure responsible practices.



“From the social space, ESG simply refers to the company's relationships with employees, suppliers, customers, and the communities where it operates. It looks at issues like labour practices, human rights, diversity, and community engagement,” Mulaudzi explains. He emphasises that training local community members is crucial to workforce development while continuous community engagement is critical. Kangra prioritises training initiatives to address the skills gap in its host communities, enabling residents to qualify for jobs or take up business opportunities within the mining sector.

“The company follows regulations and policies designed to promote equitable access to mineral resources, enhance the industry's development, and address socio-economic issues within the sector,” Mulaudzi says. When communities are located on or near mineral deposits, relocation becomes necessary. In such instances, Kangra adheres to the standards designed to help companies identify risks and impacts to mitigate and manage them. Kangra successfully

relocated and rehoused 28 families that previously lived close to its mining operations. Their mud and blockhouses were replaced with brick homes with tiled roofs and running water.

Kangra pursues initiatives that align with its CSI strategy, focusing on education, agriculture, and infrastructure development to support the Sustainable Development Goals. Mulaudzi highlights the importance of establishing committees and forums to ensure transparency and accountability and that the community's best interests are prioritised. “By having community representatives, councilors, local municipality and traditional leaders, you'll make sure you are transparent,” he affirms.

This approach fosters trust, ensuring that projects align with community interests and the Integrated Development Plans of the host municipality. Looking at governance, mining companies need to integrate ESG principles into their workforce strategies by creating a safe, fair, and supportive environment for employees, “Kangra has policies in place ensuring that it is business activities comply with legislations such as the Basic Conditions of Employment

Act, Minerals Petroleum Resources Development Act, Skills Development Act and the Labour Relations Act,” says Kangra's Human Resources Manager Buhle Nzuza. Nzuza adds that company policies are in place to ensure the safety and security of employees and guide the business's daily activities.

Kangra's Environmental Superintendent Mahlatse Monareng explains that ESG dictates that environmental systems, policies and procedures are there to ensure regulatory compliance. ESG frameworks also help companies mitigate ecological risks by encouraging sustainable practices, responsible resource extraction, and pollution control. “Kangra ensures that standards like King IV are implemented and that Global Reporting Initiative (GRI) Reporting Standards are followed. There is also a renewed focus on developing emission reduction initiatives,” says Monareng.

Through these holistic ESG initiatives, Kangra exemplifies how mining practices can be conducted sustainably. “We need to make sure that when we are mining, we do it responsibly,” Mulaudzi states. ■



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On-site training empowers mine personnel to conduct routine checks and flag issues early, enhancing the effectiveness of lifecycle management.



can also include on-site training and knowledge sharing to help maintain these standards over the long term. Importantly, the assessment must consider the specific operating environment of the screen and how factors such as seasonal changes may influence its performance.

"Another key factor is the ore grade being fed into the crushing plant which can become more abrasive as geological conditions evolve," he explains. "This often results in operating conditions that differ from those the screen was originally specified for - requiring adjustments to maintain performance."

Through its collaborative hands-on approach, Sandvik Rock Processing starts the assessment with a detailed visual inspection to determine whether the machine's structure and components still meet OEM standards and expectations.

"We then carry out a dynamic - or operational - test to closely assess the machine's mechanical performance," he continues. "Any defects we identify are carefully documented, forming the basis of a report that outlines the corrective steps needed to restore the machine to OEM standards."

McLaggan also points out the importance of understanding the relationship between crushers and screens within the same circuit as their performance can directly impact each other. This makes it essential for OEM specialists to consider the entire circuit during the assessment process.

"Empowering our customers' teams is a key part of our lifecycle management approach," he adds. "We understand the OEM can't be on site every day, but well-trained operators can carry out regular checks. By knowing what to look for, they can act proactively and notify management and the OEM at the first sign of performance issues."

Alternatively, McLaggan highlights the value of service level agreements (SLAs) where Sandvik Rock Processing places a dedicated team on site. These experts take full responsibility for the condition and performance of the screens, providing regular reports and updates.

"This arrangement allows the customer to focus on hitting production targets with confidence that we are there to ensure every screen runs to specification," he explains. "We also manage inventory, ensuring that essential wear parts and components are available exactly when needed to minimise downtime."

Planned maintenance is a key part of



Gavin McLaggan, Performance Development Manager for Sandvik Rock Processing.

Lifecycle management of screens is key to lowest cost per tonne

Many mines and quarries aim to maximise the performance and lifespan of their vibrating screens, but often overlook key factors that stand in the way of achieving these outcomes.

Gavin McLaggan, Performance Development Manager for Sandvik Rock Processing's SK range of vibrating screens, spoke to *Modern Mining* explaining that there are several proactive measures operators can implement to avoid these common pitfalls. By working closely with an OEM partner like Sandvik Rock Processing, screen owners can establish a strong foundation for effective lifecycle management and long-term operational success.

"Mining companies expect their screening equipment to deliver maximum returns, as it's often a mission-critical component in achieving production targets," says McLaggan. "The best starting point for ensuring this performance is a thorough baseline assessment on site."

This initial step allows for a comprehensive gap analysis, highlighting areas for improvement to restore the equipment to OEM machine and performance standards. The process



Sandvik Rock Processing's lifecycle management approach includes managing parts inventory to ensure availability when it is needed most.



Regular inspections and proactive maintenance planning are key to reducing unplanned downtime and lowering the total cost per tonne.



Access to global best practices and proven screening strategies helps Sandvik Rock Processing customers tackle site-specific challenges more effectively.

this lifecycle management strategy. To support this, Sandvik Rock Processing offers supply agreements that help customers plan ahead, ensuring the right parts are on site at the right time.

"Regular inspections allow us to accurately predict wear life and we log this data systematically to simplify and streamline future maintenance interventions," says McLaggan.

He emphasises that one of the major advantages of partnering with the OEM is access to its experience across numerous screening applications both locally and internationally. With a strong focus on reducing total cost of ownership, Sandvik Rock Processing is able to share proven strategies and best practices from around the world with its customers.

"Each mine and quarry has its own unique challenges and conditions," he notes. "But chances are, we have encountered similar situations elsewhere. Our teams regularly share these insights and this cross-pollination of knowledge ultimately benefits our customers."

Technology also plays a vital role in continually improving lifecycle management. McLaggan points to the ACS-s - Sandvik's

next-generation condition monitoring system for vibrating screens and feeders which delivers real-time data on equipment health and performance.

"Our sensors gather data that is analysed through our software platform, allowing us to monitor screen behaviour against critical parameters," he explains. "If the machine moves outside preset tolerances, it is flagged for attention. This data can be sent to the cloud for analysis or integrated into the customer's SCADA system."

Going beyond alerts, Sandvik Rock Processing also advises on potential root causes of issues flagged by the monitoring system. The introduction of wireless vibration sensors has made it even easier to connect screens to monitoring systems and transmit data for proactive analysis.

"At the heart of effective lifecycle management is achieving the lowest cost per tonne over the life of the screen," McLaggan says. "To do this, mines need to pinpoint where most of their screen-related costs are arising, and then focus interventions there to drive down expenses. With the measures I have outlined, we are confident in our ability to help customers achieve this."

He stresses that strong partnerships between OEMs and mines are most effective when governed by clear agreements that define each party's responsibilities.

"For the customer, this approach reduces risk by improving both performance and reliability," he adds. "Not only does it help ensure production targets are met, but it also gives the mine better control over operating costs through structured planning and monitoring."

These agreements also enable the OEM to allocate the right resources and expertise to each site, fully meeting contractual obligations and supporting customer operations.

"As an established OEM, Sandvik Rock Processing draws on deep experience and extensive historical data to get the most out of our screens," McLaggan concludes. "By sharing that knowledge with customers, both through their teams and our dedicated technicians, we help them unlock the full value of our technology through effective lifecycle management." ■



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Why OEM parts prove their value in so many ways

Installing non-genuine, counterfeit or fake parts in crushing and screening equipment is a sure-fire way of introducing unacceptable financial and performance risks to a business that relies on these machines for its success.



Metso crushing and screening plants are built for high performance, reliability and efficiency, ensuring maximum productivity in every operation.

This is according to Francois Marais, Sales and Marketing Director at local Metso distributor Pilot Crushtec. Marais highlights the value that customers gain – in terms of reliability and certainty – from Original Equipment Manufacturers (OEMs).

“Decades of technological development are embedded in OEM offerings, allowing customers to accurately plan their capital and operating expenditure against future production and earnings,” he explains. “The performance and reliability of this high-tech equipment is based on its proven design and precision engineering – which of course includes the various components and wear parts that must be replaced from time to time.”

He says that OEMs like Metso design and manufacture all their own spare parts to ensure that customers achieve optimal results – as they expect when they made their initial capital purchase. The same results cannot be expected when using parts that have not been produced with Metso’s well-known precision, quality systems, material and technological heritage, he points out.

“With our focus on strong and long-term customer relationships, Pilot Crushtec understands what our equipment must deliver in every application,” Marais says. “This means a detailed focus on every technical aspect of our machines – including the performance and longevity of spares.”

Merja Tyyni, Vice President Aftermarket Distribution Management Metso, notes that the copying of products, components and spares is a widespread global phenomenon – tempting procurement personnel to make purchasing decisions based purely on the pricing of individual parts.

“In our relationships with customers, we focus on the whole process through which we deliver value to their operations,” says Tyyni. “It is about the end-product value, where we can supply not only the appropriate capital equipment, but also the follow-up trouble-shooting, repairs and overall technical advice. This all helps to improve the customer’s production efficiency, and creates a strong foundation for their commercial success.”

By contrast, the supplier of non-OEM parts does not have the necessary level of expertise and institutional capability to stand behind and support their product in the way that an OEM does. The result, therefore, is that considerable risk is introduced into the process – with little recourse.

“The responsible OEM approach that we adopt is to always maintain the necessary high level of technical infrastructure to deliver on our promise to customers, and to always be there when they need us,” she explains. “This is built into our pricing as a sustainable and long-term business partner, so that customers know we will always be there for them. In this context, it makes little sense for customers to try and make minor savings on non-genuine parts that could compromise their whole operation.”

Karima Dargaud, Head of Aftermarket Europe, Middle East, Africa and Central Asia Metso, points out that reputable OEMs have built – over decades and even centuries – a comprehensive overview of how their products work and how they create value for customers. This knowledge is then applied to each customer’s specific application to achieve results which are both optimal and predictable.

“For instance, we are able to optimise every application by

balancing the performance demands with the life expectancy of parts and components,” says Dargaud. “This will vary according to factors like abrasiveness of different minerals, but we have insights from our global experience that will help the customer to achieve production targets while keeping maintenance downtime to a minimum.”

Another important factor to consider is the safety implications of using non-genuine parts, not only in the operation of equipment but during the installation and maintenance tasks. With the number of personnel in close proximity to the crushing and screening equipment, there is always a safety risk that OEMs continuously address in their designs.

Marais points to basic features like the mounting brackets or fastening holes on wear parts, where the design and material composition have been fine-tuned by Metso to ensure safe installation and operation.

“There are extreme forces and speeds at play in crushing equipment, which can raise the risk to operators if the wear parts are not completely fit for purpose,” he says. “If the procurement decision is based only on a final purchase price, then safety issues will not be front-of-mind as they should be. I would even argue that a business that buys and fits pirate parts runs the risk of sending a negative message to its operators – that saving money is more important than the safety of crews on site.”

Tynni highlights the many years of research, development and testing that Metso has invested in each aspect of every product range.

“We closely monitor the performance of our products in the field, so that we can continuously mitigate risk and optimise performance through technical improvements in design and manufacturing,” she explains. “From every repair, we can learn something about how to raise the standard of our solutions – and our customers benefit directly from this. However, this whole approach is dangerously undermined when a non-OEM part without clear provenance is placed into a machine.”

She emphasises that fake or counterfeit parts are more likely to need frequent replacement, which adds to the intrinsic risk to maintenance personnel. Perhaps more importantly, the safety risk is raised further by any imperfection in the pirate part that makes it difficult to fit or remove from the equipment.

“When the fit and function of a non-genuine part is not ideal, the technician may try to employ unusual or non-standard methods to fix the problem,” she says. “This is where safety can be seriously compromised, not to mention the detrimental impacts on the machine itself.”

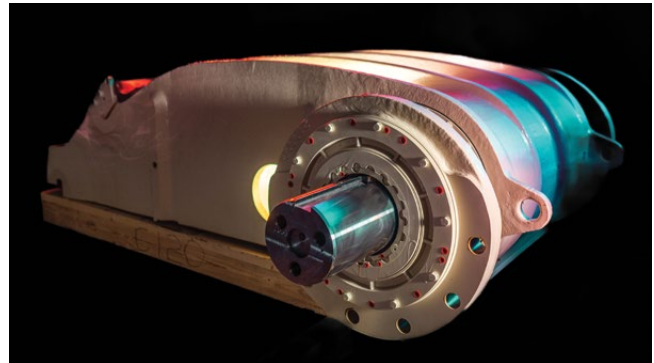
By ensuring reliability, genuine parts underpin the financial success of projects and the long-term reputation of contractors, argues Dargaud.

“These parts are an essential aspect of the support and advice that we provide to our customers, so that they can efficiently meet the deliverables in their contracts,” she explains. “It allows contractors to avoid expensive penalties, for instance, if production targets are not met.”

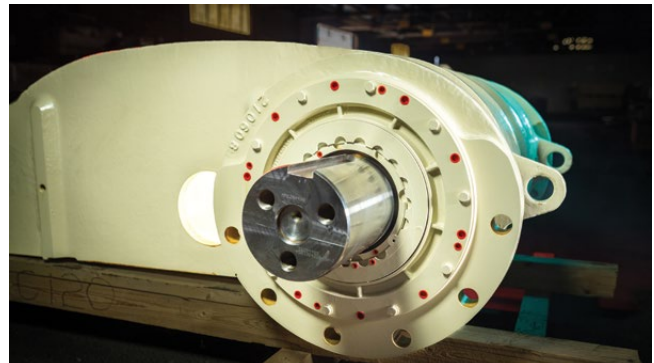
Efficient production includes ensuring the quality of a contractor’s crusher output, so that there is no come-back from the end-customer at a later stage. Failure to meet quality standards could undermine the profitability of a project or the business as a whole – with financial consequences that far outweigh the price differential on pirate parts. ■



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Weir supplies world's largest screen order from expanding Alrode plant

Weir's strategic investment in its Alrode manufacturing plant south of Johannesburg will make it a major player in global screen production, having already won one of the world's largest screen orders currently in production for a mine in Pakistan.



JD Singleton, Weir's Comminution Director for Europe, Middle East and Africa (EMEA).



Bridget Ledwaba, Weir's Managing Director for Africa.

JD Singleton, Weir's Comminution Director for Europe, Middle East and Africa (EMEA), highlights that this is an important step in the company's journey over the past six years to develop large format screens for the mining market. The screens are being supplied to Barrick Gold Corporation's Reko Diq copper-gold project as part of a £53m contract to Weir for fine grinding, separation and tailings solutions.

"Our engineering and manufacturing capability at Alrode has put us in a position to win this large order which includes twelve 4,3 m by 8,5 m double-deck banana screens," says Singleton. "We have also won other significant orders in this screen segment, giving us the impetus to further expand our world class Alrode facility."

He says that Weir – with three major

manufacturing sites in South Africa – has always welcomed the opportunity to invest in the country, and screens remain a core focus of the company's production locally. The Alrode plant is a centre of manufacturing and service excellence for the global group in the sphere of vibrating screens.

According to Bridget Ledwaba, Weir's Managing Director for Africa, the expansion shows the global company's confidence in South Africa and its direction, and its continued contribution towards the country's industrialisation efforts.

"More local production is always good news for job creation, especially in a sector where employment has been in decline," says Ledwaba. "Over time, our investment in productive capacity will also have a positive impact on the national fiscus in South Africa, as we contribute to value



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Mining technology for a sustainable future



ENDURON Orbital screens feature an all-bolted construction for enhanced reliability and longevity, making them ideal for demanding applications in sand, aggregate and small mining operations.



The expansion at the Alrode facility highlights Weir's confidence in South Africa and its commitment to supporting the country's industrialisation.



ENDURON Elite screens, weighing up to 50 tonnes, are driven by just two exciters thanks to their innovative, energy-efficient design.

creation in the economy as a whole.”

Singleton notes that the units for the Reko Diq mine are from Weir's new range of ENDURON® Elite wet and dry vibrating screens, which were launched last year.

“This design includes our new ETX exciters and bearings – the world's largest – showing that we are bringing technology to the market that is unmatched,” he says.

He points out that the innovative and energy efficient design allows these large machines – weighing up to 50 tonnes – to be driven by just two exciters, compared to the three exciters required by other screening OEMs. The Reko Diq screens will be applied in a closed circuit with three of Weir's market-leading ENDURON® high pressure grinding rolls (HPGRs).

“Our exciters can be run at 16 Hz while maintaining safe operating temperatures, through our approach to casing design which includes fluid flow analysis and passive heat rejection,” he explains. “The advanced sealing system features an O-ring and gasket combination that ensures a superior seal over a wide range of operating conditions.”

There are already two ENDURON® Elite screens in operation in West Africa – measuring 4,3 m by 9,7 m – working in closed circuit with the company's ENDURON® HPGR. They have recently been equipped with Weir's own ENDURON® screen panels, an important value-add aftermarket element to complement the screening products.

“We now have more customers who are converting to our ENDURON screen panels which have been a much-needed addition to the African market,” he says. “Our panels leverage Weir's well-respected institutional knowledge in wear materials. Through our extensive footprint – which places us within 200 km of every mine on the continent – we can give customers a quality solution through their established procurement channels.”

He emphasises how screen panels can now be supplied through the Weir service centres, making life easier for customers.

“With our screen panel offering, we can now offer customers a full screening solution from their existing Weir service centre,” he says.

Last year was a busy time for the screen segment within Weir, he says. In addition to launching the ENDURON® Elite range, it also launched the ENDURON® Orbital range – a circular motion screen for smaller tonnage mining up to about 400 to 500 tonne-per-hour production rates, as well as for aggregate and sand applications.

“These exciter-driven screens boast a completely bolted design, making them efficient and easy to maintain,” he says. “This makes them a strong alternative to traditional linear motion screens.”

He highlights that this niche between the large format and small screen markets has proved to be popular among many junior miners operating across Africa. The all-bolted construction improves reliability by eliminating welding in high stress areas, allowing it to deliver exceptional performance and service life. The wide operating window provides flexibility to change screen settings in line with operating conditions, while individual components can be easily replaced thanks to the modular screen construction.

“Weir's ambition to deliver mining technology for a sustainable future is well demonstrated by how we continue to engineer excellent screening solutions, supported by superior service,” says Singleton. “This is the reason why we serve more mines than any other player in the market.”

In terms of efficiency, he points to the innovative design of the large ENDURON® Elite screen that allows it to be driven by a relatively small exciter motor, conserving energy. However, it is when the screen operates in a circuit with the company's market leading HPGR grinding technology that the real efficiency benefits are felt, he explains.

“Looking at the circuit holistically, our customers can reduce energy consumption by between 25% and 40% with this solution – there is no more efficient comminution circuit on the market,” he says. “This, of course, converts to significant carbon emission savings which is a growing consideration in mining globally.”

Weir can also respond to the specific format of crushing and screening circuits that the customer requires including solutions that are static, wheeled, mobile or modular, says Ledwaba.

“We understand our customers' needs, so we are flexible in our capability to meet their preferences and site-specific conditions, through whichever format is appropriate,” she says. ■

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Tru-Trac's skilled audit team is trusted across 80+ countries to identify root causes and implement actionable solutions.

Maximising plant reliability with Tru-Trac's conveyor system audits

Through its holistic conveyor system audits, Tru-Trac provides customers with a '360-degree' view to each component of their conveyor systems. Benefits of this comprehensive approach abound and include reduced downtime, improved safety, enhanced efficiency and extended equipment lifespan by staying ahead of maintenance issues, and maximising plant reliability.

By providing efficient and reliable ways of transporting materials, conveyor belts are the backbone for industries that rely on bulk material handling, such as mining. However, like any other mechanical systems, conveyor systems require regular, routine and holistic inspections to ensure that operators stay ahead of maintenance issues and optimise the conveyor system's performance.

Tru-Trac's conveyor system audits are holistic in their approach, going well beyond the surface-level

checks provided by traditional conveyor 'inspections' and 'surveys', explains AJ van Eyssen, Field Service Manager at Tru-Trac.

Conveyor audit overview

Unlike inspections, he says, Tru-Trac conveyor audits entail a broader, more comprehensive assessment of a conveyor system, encompassing not just the evaluation of potential problems but also the root causes of the issues at hand as well as the provision of recommendations to get to the bottom of the identified issues.

"Our highly experienced technicians are trained to conduct holistic conveyor system audits that encompass every component of the conveyor system," says Van Eyssen. During this process, data collection is crucial to ensure a comprehensive assessment of system performance, identification of potential issues and informed decision-making for maintenance and optimisation, ultimately leading to an efficient, safe and reliable plant.

"With our proprietary digital Conveyor Audit reporting system, our technicians can send real-time feedback to customers via email. The innovative digital system provides comprehensive insights into the condition and performance of each component in the system, accompanied by photos showing areas of concern, required maintenance and recommendations on how to optimise the entire conveyor system," he explains.

Common issues

Over the years Tru-Trac audits, conducted in over 80 countries across a broad customer base and commodities, have unearthed a number of common issues that affect conveyor systems. While they may be site-, product- and operations-specific, explains Van Eyssen, these problems generally include belt misalignment/mistracking, carryback, off-centre loading and spillages, amongst others.

"Belt misalignment is a big issue in the industry," he says. "This is as a result of the conveyor drifting off-centre, causing belt damage, material spillage, structural damage, excess power consumption and stoppages. That moment when a conveyor belt starts to wander, running into structures, the safety and productivity of the system reduce significantly, while the cost of operation rises."

Because carryback is the material that sticks to the conveyor belt and falls off at the return side, it causes safety risks, environmental harm, cleaning expenses and reduced conveyor system efficiency. "When the material gets stuck on the conveyor belt, it can cause plant damage in the form of seizures, belt misalignment and friction/heat. The need for regular cleaning also presents a major safety risk on site," says Van Eyssen.

Off-centre loading is another common issue that occurs when material is not loaded evenly across the width of the conveyor belt, leading to unbalanced weight distribution, causing the belt to deviate from its intended path. Common effects include spillage, belt mistracking, reduced capacity and more frequent maintenance and repairs.



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The advertisement features a large, complex industrial chute system in a mining environment. The system consists of multiple levels of conveyor belts, chutes, and structural supports, all painted in a bright orange-red color. The background shows a vast, open landscape under a clear blue sky. The text is prominently displayed in the upper right and lower left areas, with the company name 'WEBA' in large, bold letters. The bottom section includes contact information and a small inset image showing workers in safety gear inspecting a chute system.



Tru-Trac's Rip Prevent+ monitoring system uses AI to detect anomalies before they escalate, enhancing safety and reliability.

Spillage in belt conveyors stems from various issues, including belt misalignment, mistracking and poor maintenance of load zone components. "Poor sealing at loading points is another major cause of spillage, which leads to material loss and reduced production. Higher manual cleaning needs not only present unnecessary costs, but also safety concerns," explains Van Eyssen.

Benefits of regular audits

Regular holistic conveyor systems' audits therefore offer insulation against these common conveyor system problems, allowing customers to reduce downtime, improve safety outcomes, enhance operational efficiency and extend conveyor system lifespan.

In an ideal world, operations can get up to ten years out of a conveyor belt depending on application, material and other factors. Due to poor maintenance practices and a lack of operational insights, says Van Eyssen, many operations often do not realise the expected lifespan of a conveyor belt.

"Our regular holistic audits provide companies with data on the health of their conveyor systems. Access to historical data helps with the formulation of predictive maintenance regimes. This helps

identify potential problems before they result in costly breakdowns and unscheduled downtime, thus reducing costs, increasing productivity and maximising plant uptime," he says.

Through these audits, operations can implement timely remedial action. Prioritising safety through hazard awareness is essential for a secure workplace.

Leveraging data from the digital Conveyor Audit reporting system, Tru-Trac audits further help clients with stock control, ensuring that the right products are available at the right time, thus preventing disruptions to production.

Technology to the fore

With the advent of cutting-edge monitoring technology, Tru-Trac audits are evolving at a rapid pace. The integration of the Tru-Trac Rip Prevent+ system, an advanced monitoring technology that analyses data from the conveyor belt using artificial intelligence (AI)-based models and algorithms, presents an exciting prospect for the audit process.

The system's added functionalities beyond rip detection, such as energy efficiency analysis and mass flow calculation, enhance conveyor system availability and provide additional process information. "We are particularly excited about the new gearbox monitoring functionality, which affords real-time monitoring and analysis of gearbox health, offering crucial insights into performance and potential issues," he says.

The arrival of yet another Tru-Trac innovation, the newly-launched intelligent belt scale, which made its debut at bauma 2025, further provides another important technological tool to the auditing process.

"Integrating AI-driven continuous calibration check and real-time load cell monitoring, amongst other functions, the new intelligent belt scale not only accurately measures and detects tonnes per hour but also provides advanced conveyor belt monitoring by integrating AI-driven analytics with traditional belt scales. The future of our Tru-Trac conveyor solutions audits is definitely exciting," concludes Van Eyssen. ■



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Multotec leverages cutting-edge technology to scientifically design mill liners.

Multotec supplies scientifically designed mill liners to mining operations

Metallurgy and process engineering company, Multotec, has successfully supplied scientifically engineered rubber mill and scrubber liners to mining operations across the globe, including the USA, Zambia, Ivory Coast, Botswana, Namibia, and South Africa for various customers in the diamond, PGM, iron ore, zinc, lead, copper, gold, and coal processing industries. The liners were developed using advanced computer simulations to ensure optimal configuration for efficient performance and have been implemented in mills, chutes, and plants.



Ralph Hollenstein, Senior Mechanical Engineer, Multotec.

Multotec demonstrated the power of 3D scanning technology during a mill liner installation at a gold processing facility in Alaska, marking the first time it used this technology to support an installation. This approach enabled precise fitting and optimised liner performance.

Multotec places a strong emphasis on ensuring that its liner design is optimal for the life of the liners and performance. The company also conducts condition monitoring on installed liners to ensure maximised uptime by facilitating proactive maintenance.

Ralph Hollenstein, Senior Mechanical Engineer

at Multotec, notes, "In this case, the client supplied us with 3D scans of the mills, allowing us to design the liners remotely, creating shorter turnaround times and greater accuracy. The liners were then designed, manufactured, and fitted perfectly in the mill."

Scientific design approach

Multotec adopts a scientific approach in its mill liner design, focusing on process flow and charge trajectories to enhance both performance and durability of the liners. By using advanced modelling techniques, Multotec provides mill operators with precise guidelines to keep the mill



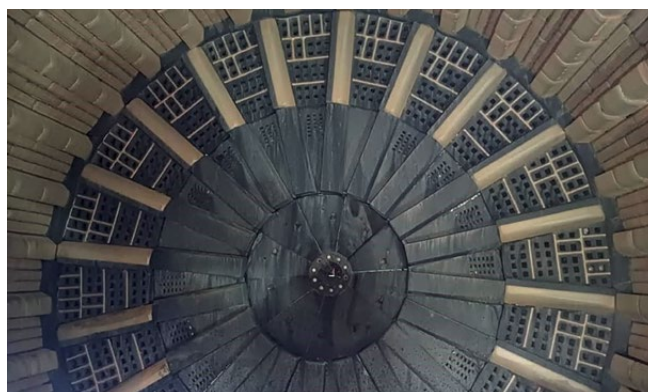
operating in its optimal regime.

As part of the design process, Multotec uses the Discrete Element Method (DEM) to predict the behaviour of the mill charge - comprising ore and grinding media - and the performance of the mill throughout the lifespan of the lifter. DEM is also employed to predict liner wear and the evolution of the liner profile over time.

"This technology enables us to simulate wear on the liners and track how the material interacts with the changing liner profile as it wears down. From these wear simulations, we can identify areas of high wear within the mill and use this information to optimise the liner design – adding material in high-wear zones while reducing material in areas that don't require as much reinforcement," Hollenstein explains.

Multotec's liner optimisation system integrates advanced tools, including MillTraj (a first order simulation tool), DEM (for advanced multiparticle simulation), and 3D scanning technology for mill liners. These tools enable precise condition monitoring, comprehensive management, and effective liner design for enhanced performance.

MillTraj focuses on the trajectory modelling of grinding mill



Multotec takes a holistic approach to the comminution circuit, providing plant audits and condition monitoring to help customers optimise efficiency and performance.

liners and lifters. Its key applications include:

- Simulating lifter designs and configurations to understand their impact on the motion of the grinding charge (balls and material) inside mills.
- Optimising mill liner profiles to improve grinding efficiency and reduce wear.
- Providing insights into the trajectory of grinding media to ensure optimal energy transfer and to avoid damaging the mill shell.

Furthermore, Rocky DEM offers extensive capabilities for simulating particle dynamics across various industrial processes. Its functionalities include:

- Simulating particle dynamics such as collisions, breakage, and flow, for a range of material types.
- Modelling and optimising equipment like mills, crushers, conveyors, and screens to improve performance.
- Conducting wear analysis to predict and mitigate component degradation, ensuring longer equipment life.
- Handling complex particle shapes, providing more accurate simulations for irregular materials.

Advanced 3D laser scanning

Multotec employs advanced 3D laser scanning technology to accurately assess mill liner wear. This data-driven approach allows the company to create precise liner replacement schedules and estimate the remaining lifespan of the mill liners, ensuring efficient relining operations.

"The 3D scanning is a service we provide to our customers for condition monitoring in various countries and across multiple commodities. In some cases, customers use similar scanners to perform the scans themselves. They then send us the scan data, and we then interpret the results and generate detailed reports," says Hollenstein.

Additionally, what sets Multotec apart from its competitors is its focus on the entire comminution circuit as a whole rather than just mill liner design, which ties in with conducting plant audits to assist customers to optimise their efficiency.

"When we work with customers, we don't simply sell them mill liners. We take a more holistic approach by helping them to assess and identify any problem areas and work with the entire plant/milling circuit to resolve those issues. Through plant audits, we gain an understanding of the customer's operational constraints and where they want to improve their operations," says Hollenstein.

Additionally, the company offers ongoing condition monitoring services to further enhance plant performance and efficiency. ■

Solid partnership driving local crushing and screening market

This year, Powerscreen celebrates three decades as a dominant force in crushing and screening in all industries across the country.



ELB Equipment's Heath Dickson and Wakefield Harding.

The manufacturer's longstanding relationship with its sole distributor, ELB Equipment, has been the driving force behind Powerscreen's dominance and it has established itself as a market leader with an estimated 50% to 60% market share in southern Africa and an extensive range of mobile crushing and screening solutions.

Powerscreen remains the top-selling brand of mobile crushing, screening and conveyors in the country. Its products are a mainstay of the local mining and construction industries with ever-growing applications in recycling, agriculture and other industries.

Wakefield Harding, divisional director at ELB Equipment and Heath Dickson, mining product application manager, say the machines are the ideal match for local operations combining worldclass productivity with rugged and durable equipment that is tough enough for harsh African conditions.

In addition, they attribute the success to ELB Equipment expertise with years of experience, deep product knowledge and a team driven by application-focused solutions. "With Powerscreen approaching its 60th anniversary and ELB Equipment celebrating 30 years as the Southern African agent, it is a significant milestone," says Wakefield.

He adds that one of ELB Equipment's key strengths lies in its extensive product range that caters to everyone from startup



operations needing small screens for sand mining, composting or agricultural screening, right up to large-scale mining. This kind of versatility ensures their customers get the right machine for their needs without having to overinvest or compromise.

"We also hold by far the largest stockholding of machines in South Africa. This translates into fast delivery times and minimised downtime. Our inventory and well-organised logistics also mean we can help clients immediately and our team runs like a well-oiled machine in terms of application knowledge as well as scaling new machines, maintaining parts supply throughout the region and providing maintenance and servicing of equipment.

"Our vast regional footprint further strengthens our service capabilities with three parts and service branches in major regions and a total of eight Sales and Service branches across the country. Whether a client is working in Witbank, Cape Town or Port Elizabeth our branches provide consistent, high-quality service wherever it is required."

Recent additions to the Powerscreen line include the Chieftain 1700X triple-deck incline screen and the Premiertrak 450 jaw crusher, which demonstrates Powerscreen's commitment to staying ahead of the game and evolving to meet changing market demands. For instance, the Premiertrak 450 offers a massive jump in crushing capabilities, handling up to 500 Newton-metre crushing strength. The Chieftain 1700X also raises the bar with the unique patented four bearing double or triple deck screenbox and its ability to reverse the direction of the screenbox for difficult screening applications.

With decades of application experience in the screening and crushing market, Heath says that throughout the years it has been service excellence that remains a cornerstone of ELB Equipment's offering.

"We're increasingly selling service agreements with our machines, giving customers peace of mind with predictable costs over 2 000 or 3 000 operational hours and reduces unexpected expenses. Our finance options have also evolved to support client needs as

ELB has a wide variety of mobile crushers, screens and conveyors.



many sales today hinge on offering flexible finance solutions and, as a result, we are geared to provide various options to make acquiring equipment more accessible,” he says.

As a dominant player in crushing and screening in southern Africa and as the company expands its reach into larger mining operations with its new range of LiuGong excavators and dump trucks, the future looks bright. “We’re excited about the doors this opens for us. We’ve laid the groundwork and now it’s time to show the market what we’re truly capable of.”

Despite all the recent developments and successes, Wakefield explains that ELB Equipment’s foundation remains strong. “Our relationship with Powerscreen is a key pillar of our success. We’ve been market leaders for 30 years and our experience and expertise are second to none.

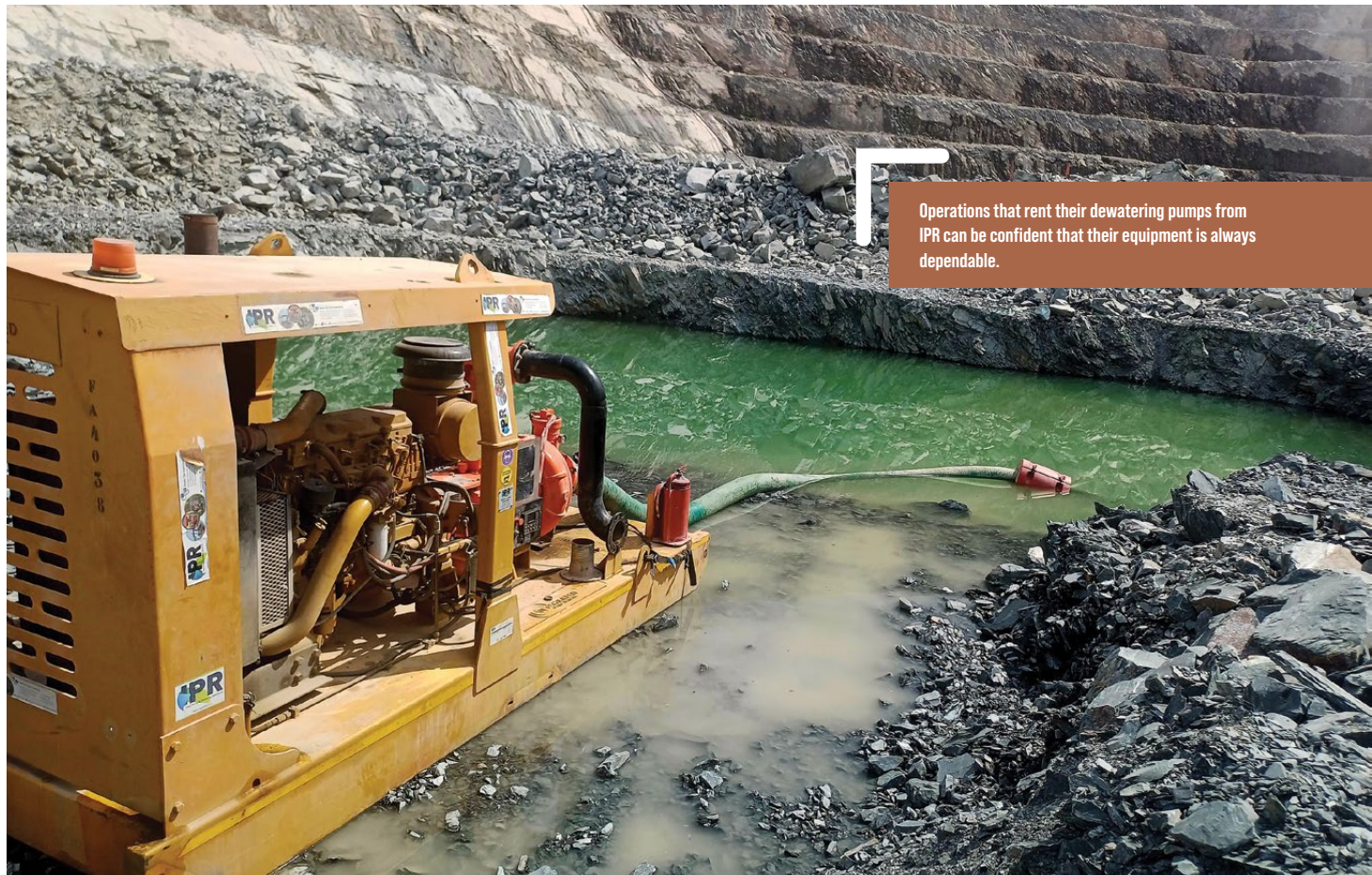
“Our efforts have also been recognised by Powerscreen and we were recently announced as Regional Dealer of the Year. We see this as a testament to our team’s dedication and the strength of our partnership and we look forward to building on this legacy and delivering even greater value to our customers in the years to come,” he says.

Looking ahead, ELB Equipment remains committed to growth and innovation. It has been on an impressive growth path over the past five years and it is not stopping. The company’s new ‘Future Now, Future Next’ strategy is being implemented at all levels and as part of its drive will see the introduction of new equipment and advanced solutions through partnerships with brands like LiuGong and Furukawa alongside Powerscreen’s evolving technology. ■



Full dewatering solution from IPR to keep mines dry and productive

As a major player in the dewatering field, IPR (Integrated Pump Rental) now offers a full pump dewatering solution to surface and underground mines.



Operations that rent their dewatering pumps from IPR can be confident that their equipment is always dependable.

Dewatering has increasingly become a mission critical task for mines as high intensity rainfall events have caused extensive disruption and damage to infrastructure around South Africa. According to IPR Managing Director Lee Vine, the company has identified variable rainfall as a growing risk for its customers – who often find that their own dewatering systems are not sufficiently robust or reliable.

“We are often called in when there is an emergency situation, but many of our customers are now looking for a long-term solution that they can outsource to a specialist like IPR,” says Vine. “This arrangement allows them to focus on their core business of mining, while leaving us to ensure that the on-site dewatering system is correctly specified and performs as required.”

IPR, part of Atlas Copco’s Specialty Rental Division, provides a comprehensive range of dewatering solutions for

mining and quarrying applications, including Atlas Copco electric submersible pumps and Atlas Copco diesel-driven pump sets. The company’s extensive fleet also features Toyo’s heavy-duty slurry pumps and IPR’s own SlurrySucker dredging solution, designed for efficient slurry management.

“Managing mine dewatering, whether underground or on surface, is becoming more complex as rainfall conditions become more variable – which places more demands on mine staff and equipment,” he explains. “With our years of experience in this specialist field, we can specify flexible solutions that accommodate unexpected weather conditions assisting mines to reduce the risk of lost production due to flooding.”

Vine highlights that IPR supplies dewatering pumps and accessories to suit the application, backed up by a trained

We are often called in when there is an emergency situation, but many of our customers are now looking for a long-term solution that they can outsource to a specialist like IPR.

support team who will install, operate and maintain the system. Successful dewatering begins with the correct specification of pumps to meet the head and flow demands, he explains.

“Our professional and competent teams can quickly assess the exact requirements and draw on our extensive inventory of rental pumps to design a site- or application specific solution,” says Vine. “Aligning the pump ratings closely with the required duty is also essential to the smooth running of the equipment – so that unplanned downtime is avoided.”

Where any of the pumping equipment needs attention, the IPR team attends to it so that the mine personnel are not distracted from their core functions. He points out that a mine will often move its own dewatering pumps into applications for which they were not originally intended, placing undue strain on the equipment leading to early failure.

“We can install and support a full and reliable dewatering solution – on the strength of our wide and strategically placed network of branches around the country,” he says. “To be closer to our customers, we now have branches in Kathu, Rustenburg, Cape Town, Durban and Sasolburg.”

IPR Sales Manager Steve du Toit emphasises how the company has built partnerships with customers over time, adapting the dewatering solutions as mines’ conditions change. With the company’s insight into the best available technologies for dewatering, they also develop an in-depth understanding of customers’ sites.

“The ever-changing nature of mining demands constant adjustments to dewatering strategies,” says Du Toit. “Our strong collaboration with customers has earned their trust, allowing us to play a more integral role in their operations.”

He explains the importance of correctly scoping a dewatering solution upfront, so that essential items like pipelines can be most cost effectively planned – not just for immediate applications but for the future mining plan.

“For instance, it makes sense to design a piping system that will remain functional in months and even years to come,” he says, “rather than rushing into an installation that will need to be completely replaced in just a few months.”

Through its sister company Rand Air, IPR also supplies a full range of generator sets for its dewatering pumping solutions as well as lighting towers for illuminating pump installations at night.

Vine concludes: “Our goal has always been to become a total dewatering solution provider, and we have now achieved this through our in-house technical expertise and strategic collaboration within Atlas Copco’s Specialty Rental Division.” ■



For IPR, Atlas Copco diesel driven auto-priming pumps make up an important segment of its market offering.



Atlas Copco submersible pumps offer an efficient and reliable dewatering solution for mines.



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Pumps, valves for tailings **must meet more stringent demands**

Stringent standards and evolving operating conditions in tailings management are driving the demand for safer more reliable tailings pumping solutions, helping mines mitigate compliance risks and maintain smooth production.



Lerato Ramanala, Product Manager at Weir.



Villen Mandree, Product Manager Pump Products at Weir.



Warman AHPP high pressure pumps offer exceptional durability in handling abrasive and dense slurries.

One notable trend in the mining sector, says Villen Mandree, Product Manager Pump Products at Weir, is the increasing length of tailings pipelines.

“While in 2012 the total length of a tailings pipeline in operation was about 8 000 kilometres, this had increased to over 13 000 kilometres by around 2020,” says Mandree. “The main driver is that tailings dams are being placed increasingly further from the plant, as rising tailings volumes go hand-in-hand with the gradual decline in ore grades.”

The decline in ore grades generally leads to higher plant throughput and more waste material. The result, he says, is that mining companies and their OEM partners must continuously improve their methodologies and equipment to transport tailings material over longer distances in a safe and efficient manner. He notes that one of Weir’s key sustainability goals is to deliver innovative technology and solutions to move material using

less energy and water – and to create less waste.

“At Weir, we are firmly aligned with global sustainability goals, focusing on using fewer natural resources and minimising environmental risk through our solutions,” says Mandree. “Our WARMAN high pressure centrifugal pumps and GEHO piston diaphragm pumps are industry leaders in this regard, with their performance further supported by our durable DELTA INDUSTRIAL knife gate valves.”

He says Weir works closely with mining customers and EPC/EPCM companies from the earliest stages of projects, to help design the most effective and sustainable solution.

“The tailings dam itself is just the last stage in the waste removal process. The tailings must first be safely moved across these long distances – where the consequences of any equipment failure are severe,” he explains. “The distance of the pipeline exacerbates the friction losses from the tailings; this demands pressures from our WARMAN pumps up

to 6,900 kilopascals (kPa) while our GEHO piston pumps boast discharge pressures up to 32 000 kPa.”

This high-pressure capability is one of the key factors behind the double-wall design of WARMAN® pumps, which enhances both strength and safety. In the same vein, the range of DELTA INDUSTRIAL™ knife gate valves is engineered to meet up to ASME Class 600 pressure ratings. The bevelled edge gate design allows the gate to crush, cut and expel solids that may be in the slurry stream. “This focus on robust design ensures greater safety for both people and the environment,” says Weir Product Manager Lerato Ramanala.

“Our fully closed body bi-directional DELTA INDUSTRIAL valves are designed to prevent any leakage that could contaminate the environment,” says Ramanala. “This is particularly critical in high pressure applications, where valves are often installed in remote locations and any leakage could go unnoticed for some time.”

Mandree highlights the importance of proper pipeline design, noting that longer pipelines bring added complexity and higher energy demands, as more power is required to overcome increased friction losses.

“Careful design is vital to mitigate issues such as frictional losses, pressure surges and wear,” he explains. “There can also be fluctuations in the density of the slurry feed, as the proportion of water to solids might vary and place different demands on the pump. This needs to be considered in the upfront design of the system and the selection of the pumps and valves.”

Another critical design consideration is the pump starting and stopping sequence, which becomes increasingly complex as pipeline length grows. Valve placement is equally important, adds Ramanala, as strategically positioned valves are essential for maintaining safety and system efficiency over extended distances.

“A well-designed tailings pipeline will position valves strategically away from bends, tees and Y-pieces, where slurry turbulence can increase wear and shorten valve lifespan,” says Ramanala. “We also make sure customers have a choice of actuation options including handwheel, pneumatic, electric, gear and hydraulic systems, to suit their specific operational needs.”

The materials used in both WARMAN® and GEHO® pumps are being constantly reviewed and upgraded, on the strength of the company’s ongoing investment in R&D – including the material sciences, says Mandree.

“By staying close to our customers and the industry, we continuously monitor the challenges mines face with the materials of construction used in their equipment,” says Mandree. “Often, this involves finding or developing advanced materials that offer improved resistance to abrasion and corrosion, and Weir has the benefit of decades of invaluable data to guide these developments.”

Ramanala highlights that different commodities vary in factors such as rheology, PSD and require specific reagents and chemicals in the process plant – which present their own challenges to the materials of construction in the process circuit.

“It is important to have a choice of materials to suit the respective acidity or alkalinity of the material being processed,”

she says. “Likewise, the tailings pipeline needs to be equipped with the appropriate linings and materials, as determined by the chemical nature of the slurry.”

Gland sealing is also vital to the reliable pumping of tailings, as this provides the backpressure to prevent slurry from entering the pump’s shaft – which would cause rapid wear and tear.

Gland service water therefore needs to be clean, to avoid any solid particles degrading the shaft. However, more often than not, gland service water is not clean. To address the challenges posed by dirty service water, Weir developed various materials for the shaft sleeves, glands and packing.

“As water conservation becomes a greater priority in relatively dry countries like South Africa, mines are seeking solutions that minimise gland water usage,” says Mandree. “We offer a range of low-flow and high-flow gland sealing options as well as mechanical seals that reduce water consumption. These advancements align with the industry’s goal of achieving net-zero water usage.”

He points to the experience of Weir’s teams in applying its solutions by considering the customer’s preferences and site conditions.

“As a company that supplies pumps and valves as part of a broader solution, we are able to offer customers a range of options when it comes to tailings pipeline design,” says Mandree. “In some cases, they may need to prioritise asset security by positioning all pumping equipment close to the plant. We can review customer specifications and provide recommendations where needed to ensure the most effective and secure setup.” ■



Non-tax barriers to doing business, especially in mining, are exceedingly high.

The VAT furore and its implications for mining

By Dr Ross Harvey, director of research and programmes at Good Governance Africa (GGA)



Dr Ross Harvey, director of research and programmes at Good Governance Africa (GGA)

As I write, news has just broken that the South African government will withdraw its proposed VAT increase of 0.5 percentage points that was due to occur on 1 May 2025. The Treasury claims that this will result in a R75 billion shortfall for the fiscus.

Background context to this is that the grand coalition governing the country could not agree on the most appropriate means through which to raise the revenue required to avoid a deficit and meet the budget requirements. In the end, the majority party in the coalition – the African National Congress (ANC) – rammed its proposal of a 2-percentage point increase (phased in progressively) home. The second major party to the coalition, the Democratic Alliance (DA), opposed the proposal on both procedural and substantive grounds. In this column, I'll focus solely on the substantive element. Three points will suffice to demonstrate that Treasury has made the right call and that R75 billion can easily be clawed back elsewhere.

First, VAT is already at 15% and in my books that is as high as we can currently push it. Much of the commentary I read prior to the budget vote speech in February indicated that this is quite low for a developing country, and so there was room for increase. The counter argument is that just because your VAT rate is relatively low is not

sufficient grounds on which to increase it. Inflation is growing; quibbles over whether the formal basket of goods that measures price increases is reflective need to be put aside for now, but the point is that prices are increasing, especially for the poor. In an inflationary environment, any tax increase undermines net earnings. For poor households, where inflation is felt most acutely, VAT increases will simply render many citizens closer to the poverty line. Administered prices (especially from Eskom and local municipalities) are increasing faster than wages can keep up with. For over 20 million citizens already dependent on some form of social grant, VAT increases undermine the value of those grants. Government, of course, did have measures in place to shield the poor from the worst effects of a VAT increase, but zero-rating some products entails administrative costs. Any tax imposition costs the government enforcement resources. We do not have any of those, so the simpler we keep our tax system, the better.

Second, personal income tax and company

tax levels are already very high. The government rightly understood that it could not squeeze wage earners for higher taxes. South African employees already pay for medical aid, private security and education over and above taxes. And a very small portion of total taxpayers provide the majority of overall tax revenue, and personal income tax provides the lion's share of the country's tax revenue. In countries with comparable tax rates, those services are adequately provided by the state. Similarly, corporate income tax in South Africa is high. Non-tax barriers to doing business, especially in mining, are also exceedingly high. Work that Mining Dialogues 360 and Good Governance Africa did with the Minerals Council shows that mining investment (in exploration and production expansion) into South Africa has effectively been net zero for the last two decades. Even if the corporate tax rate were brought lower, it's not clear that would be sufficient to re-incentivise investment inflows. If companies feel like they are going to have jump through extensive administrative hoops, they simply invest their capital elsewhere.

Third, and this is the crux of the matter, raising VAT before dealing with irregular and wasteful expenditure is irresponsible. If all three levels of government and our state-owned enterprises had squeaky clean expenditure records, citizens might be able to stomach the necessity of a VAT hike. A glance through various reports from the auditor general since 2019 reveals a startling picture. Unauthorised expenditure from 2019 to 2023 equates to roughly R35 billion. Irregular expenditure by government departments over that time amounted to R50.65 billion, while state-owned enterprises (SOEs) were guilty of R69.35 billion in the same category. Those categories might sometimes be technically forgivable if the expenditure can later be shown to have been worth the breach of regularity or authorisation. However, fruitless and wasteful expenditure is a proper indictment, and this amounts to at least R1.48 billion from 2018 to 2023 by government, and over R2 billion for just the audited SOEs. Total material irregularities from 2019 to 2023 amounted to roughly R14.34 billion.

In the final analysis, the DA's point that economic reforms are far more fundamental to South Africa's future than tax changes is correct. Ensuring proper accountability for wasteful expenditure is a necessary if insufficient condition on which to hang any future tax increases. South Africans could stomach it if they could pay less for education, health and security, not to mention rates and electricity. Moreover, making South Africa an attractive place to do business, especially for junior miners, should be a far greater priority than fiddling around the edges with VAT while the country



Making South Africa an attractive place to do business, especially for junior miners, should be a far greater priority than fiddling around the edges with VAT.



burns. This entirely unnecessary rift within the grand coalition – combined with Trump's tariff hits – created a perfect storm and sent markets reeling. South Africa cannot afford this. Establishing a sound set of economic and foreign policies respectively will more than earn the country the R75 billion hole in the fiscus that we currently face.

For any economist, the question is how to optimise tax revenue. There is clearly a point beyond which raising taxes lowers the overall revenue intake, either because those being squeezed leave the country or because they find innovative ways of avoiding tax. Economists differ over where that point is, or how to quantitatively evaluate it, but the models are all pretty clear that economic reforms that induce growth in job-creating sectors are the first prize. ■

Administered prices (especially from Eskom and local municipalities) are increasing faster than wages can keep up with.

Africa is an early adopter of rail-running conveyors from FLS

As the mining sector looks for energy efficient solutions that reduce carbon emissions, a mine in Africa will be among the first to install a Rail-Running Conveyor (RRC) technology, commercialised by full flowsheet provider FLS in collaboration with the University of Newcastle, Australia. “Designed to dramatically reduce energy consumption, improve safety and cut capital and operating expenditure, Rail-Running Conveyors are a gamechanger for mines which must rely on extended conveying distances to move material,” says Martin Lurie, FLS Global Product Line Manager for Rail-Running Conveyors (RRC). Any mine that carries substantial tonnages over more than 500 to 1 000 m can achieve far higher efficiencies using this technology.

“The first full-scale operational system will be commissioned in southern Africa in mid-2025,” he says. “It is designed to carry 5 000 mtp of copper ore over a 3,25 km run, and is expected to save around \$1 million each year in power costs when compared to a conventional



Rail-Running Conveyors are a gamechanger for mines.

trough conveyor.”

A second system, destined for the same mining customer at a mine in the Americas, has also been under construction and will carry around 13 000 mtp, also delivering significant

power savings and safety improvements. Lurie describes the customer as visionary in looking ahead to the technologies that will empower the future of mining, and also as an indispensable partner in bringing the RRC to full-scale maturity. ■

Traxtion is meeting rail needs through innovation and sustainability

Traxtion is making significant strides in adapting and expanding its locomotive rebuild and overhaul services to meet the growing demand across the continent. The increasing pace of rail reform, and the need for more rolling stock, has galvanised the company into

accelerating its service capabilities at its Rosslyn Rail Services Hub in Pretoria, South Africa.

Building on the current offerings of the Rail Services Hub where up to 14 locomotives can be rebuilt at any time, Traxtion has added a 2500 m² facility

which houses the company's parts store. The Hub already accommodates a wheel shop, paint booth, and the TETA-accredited training centre – which produces diesel electrical fitter artisans annually.

One of Traxtion's focus points is a fully stocked parts store which allows them to offer customers a one-stop shop for all locomotive and wagon parts. This means a quicker turnaround time for customers who are already time constrained. Through the Rail Services Hub, the company can also refurbish rolling stock parts and components, again cutting down on costs to clients.

Traxtion has committed itself to a groundbreaking project, taking four scrapped UC20 locomotive carcasses and rebuilding them to fully functioning 2000HP locomotives for a client in the Democratic Republic of Congo.

The initiative was completed at a fraction of the cost of an OEM locomotive and done in less than half the time it takes for a new locomotive to be built. ■



Traxtion locomotive at Rosslyn Hub.

J221 overlay extends life of Warman Pump shaft sleeves at Mogalakwena

When Anglo American Platinum's Mogalakwena mine in the Limpopo province wanted to extend the wear life of shaft sleeves in its Warman® pumps, Weir suggested the application of the J221 premium wear-resistant overlay hardened shaft sleeve. Testing was conducted on a Warman® MCR® 450 slurry pump at the North Concentrator to improve sleeve and packing wear life under conditions of contaminated or sub-optimal flush water. The J221 shaft sleeve's trial performance was exceptional, lasting 14 240 hours under conditions of both regular operations and extensive pump sliming. This was an almost 10-fold improvement on the standard shaft sleeve. The solution has led to savings in both downtime and spare parts. Following the successful results, LeRoux Esterhuyse, Engineering Manager at the Mogalakwena North Concentrator,



The Warman AH 20/18 pump is designed for heavy duty applications.

reported: "Excited about the trial performance of the hardened shaft sleeve; let us roll it over to all primary and secondary mill discharge Warman pumps." The J221 sleeves have since been implemented across all primary and secondary mill discharge pumps at Mogalakwena. ■

Transnacional invests in Liebherr LG 1750

Brazilian crane company Transnacional is ramping up its crane fleet with a used LG 1750 lattice boom mobile crane from Liebherr, thereby expanding its portfolio of crane services and capacity. To meet market and customer demands, as well as to ensure versatile use, the 8-axle model was selected. Following an in-depth market analysis and in light of growing demand for large cranes, the crane company chose to invest in the 750-tonner.

"The demand for large cranes over 500 tonnes has long since been an issue for us. Our customers were increasingly asking for powerful machinery for complex projects such as in wind energy," explains Napoleão Luna, Transnacional's MD. "Following comprehensive technical and economic considerations, we chose the LG 1750 as it offers reliability, safety and exceptional performance. This crane now means we are able to offer our customers first-class solutions in new sectors", adds Napoleão. ■

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Bearings International fosters dynamic customer partnerships

Bearings International (Bi) has, since 1958, consistently set the benchmarks in innovation and excellence as a leading distributor of bearings, power transmission and interconnected mechanical consumables that sustainably facilitate and optimise operations for mining and

industrial customers across Southern Africa. This is effectively achieved through the organisation's continuous commitment to reinforcing powerful partnerships with customers within its key focus segments - mining, industry, FMCG (Fast Moving Consumer Goods) and agriculture. Christian Chipamaunga, Bi General Manager: Key Accounts Sales | Automotive, highlights the significance of building solid long-term customer relationships: "Bi customers rely on our product, technology

and service solutions to support operations across their regional footprint. Continuously seeking ways to innovate and streamline our processes and services is crucial to ensuring business sustainability. A great example of this is our recent introduction of Tech-Top (Alpha) IE3 motors to support customers in complying with the new MEPS regulations." He adds that the continued extension of annual renewable national contracts by their customers is testament to the trust they place in Bi. ■

Integrated Fire Technology branches out to Steelpoort

Integrated Fire Technology (IFT), a Gigi Group company, recently opened a sales and service office, including an inaugural workshop, in Steelpoort, Limpopo Province. "Having outgrown our initial container office located on site of one of largest customers in the Steelpoort area, a chrome mine, from which we operated for the past seven years, and in response to the significant growth of our customer base and service technician capacity in the Steelpoort area, we took the strategic decision to open a larger service and sales office," explains IFT Managing Director, John Russell.

"Steelpoort is one of the most important mining districts in South Africa and with the mining sector constituting one of our core business segments, it was strategically essential to establish local branch presence

and on-the-ground resources," emphasises Russell. "This presents us with a more centralised platform in the area, placing us closer to our customers and enabling us to amplify our services and response times. Our objectives are to meet current service demands while being future-ready to accommodate the dynamic needs of our rapidly growing customer base across the region," affirms Russell.

Officially opening its doors on 30 January 2025, the IFT Steelpoort Branch brings the full range of premium water-mist, aerosol and foam fire suppression systems to cater to the needs of customers in various industrial sectors, with a primary focus on mining and forestry. "Due to the exceptional capabilities and proven effectiveness of our reliable Fogmaker Water Mist Suppression system, this solution is the leading choice for mobile equipment in mining and forestry operations," attests Russell. "We are also



seeing a notable increase in demand for our AF-X Aerosol and Q-Tec Foam Suppression systems alongside our variety of fixed fire installation offerings."

In addition to Limpopo Province, the IFT Steelpoort Branch also extends its product and service offering to the respective mining and forestry industries in northern and eastern Mpumalanga. The Branch will also cater to customers in Swaziland and southern Mozambique's forestry sectors where they already have a small footprint. ■

TLT-Turbo Africa ventilation refined

TLT-Turbo Africa stands at the forefront of mine ventilation innovation, offering turnkey solutions that deliver unmatched efficiency, cost-effectiveness, and reliability. As a subsidiary of the global fan OEM, TLT-Turbo GmbH, with over 150 years of engineering expertise, TLT-Turbo Africa is uniquely positioned to address the demands of the African mining sector.

Their ventilation systems are engineered for optimal performance, with advanced aerodynamic and acoustic modelling enhancing efficiency while minimising energy use and environmental impact. Key features such as variable pitch, variable speed, and inlet guide vane flow control ensure precision airflow management and significant energy savings.

TLT-Turbo Africa's offerings are not only efficient but also built for rapid deployment and long-term reliability. Smart control systems enable real-time monitoring and adjustments, increasing operational uptime and reducing maintenance costs. By combining innovation with practicality, TLT-Turbo Africa delivers mine ventilation solutions that reduce CO₂ emissions, lower operational costs, and ensure continuous, dependable airflow under the most demanding conditions.

From concept to commissioning, their speed of execution and mindfulness streamline project delivery, making them a trusted partner in achieving sustainable mining operations. TLT-Turbo Africa redefines mine ventilation: efficient, fast, cost-effective, and built to last.



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