

### IN THIS ISSUE

- Turbulent times buoy investment in gold
- **Goldstone Resource is back in the trenches**
- Michelin in the driver's seat
- Volvo CE unveils brand new lineup of articulated haulers
- FUCHS LUBRICANTS SOUTH AFRICA doubles sales volume

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# CONTENTS



### **COMMODITIES OUTLOOK**

6 Turbulent times buoy investment in gold

### GOLD

- **9** Global gold demand hits new high as prices soar in 2024
- 10 Goldstone Resource is back in the trenches

### **MINING INDABA REVIEW**

- 12 Michelin in the driver's seat
- 14 Regulatory and administration streamlining essential to grow mining
- 15 Mintek report underscores SA's critical minerals potential
- **16** Fast-evolving mining standards being embraced in DRC, China
- **18** Indaba highlights collaboration as key to future-proofing African mining

### **MINING EQUIPMENT**

- 22 Addressing crushing needs for entry-level operations
- 24 Integrated crushing, screening sets Sandvik apart
- 26 Weir's wear reduction technology cuts energy costs in pumping
- 28 Volvo Construction Equipment unveils brand new lineup of articulated haulers
- 30 Multotec opens test work and showroom facility
- 32 FUCHS LUBRICANTS SOUTH AFRICA doubles sales volume

### REGULARS

### MINING NEWS

- 4 Fluor JV awarded EPCM contract for BHP's Olympic Dam project Moolmans secures R10.6 bn contract for Gamsberg Mine Roan commences high grade copper production
- 5 Leadership changes at Komatsu Africa Holdings Orezone plans to accelerate Stage II of Hard Rock Expansion Sibanye-Stillwater's Neal Froneman to retire



### ON THE COVER

The mining industry requires reliable equipment to make mining easier, safer, and more productive.









### **SUPPLY CHAIN NEWS**

- 38 Two Babcock branches attain Volvo Certified Rebuild certification Ericsson and Comsol highlight Ericsson Private 5G at African Mining Indaba Bobcat to premier new 1-2 t mini excavators at Bauma 2025
- **39** The new era of pump wear technology
- 40 New FLS NexGen polyurethane changes the game in screen media

### COLUMNS

- 34 BBE Group: Emerging technologies for mine ventilation and cooling
- 36 NSDV: Driving Beneficiation: A win-win approach

# **COMMENT**



Nelendhre Moodley.

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# **Under pressure** *Pressure pushin' down on me*

Pressin' down on you...

hese lines from British rock band, Queen's song, Under Pressure, resonate with the majority of South Africans, more so now as government, in its bid to balance its spending, is eyeing new avenues to supplement its coffers.

The South African economy remains under immense pressure, with economic growth sitting at less than 1%. The rest of Africa is expected to average economic growth rates of 4,3% in 2025, more than four times those of Mzanzi. In January, PwC South Africa forecasted economic growth for South Africa to be between 0.5% (downside scenario) and 1.3% (upside scenario) in 2025, with the range reflecting the many uncertainties for the year ahead. KPMG pegged economic growth for 2025 at 1,5%.

According to Stats SA, South Africa's economy narrowly avoided a technical recession in the final quarter of 2024, registering a modest 0.6% growth.

For the continent, the African Development Bank has projected an annual economic growth rate of 4.3 percent, up from 3.7 percent last year, with East Africa forecasted to be

the most buoyant region. This year, Africa will be the second-fastest-growing region globally.

Following US President, Donald Trump's determination to impose trade tariffs on most trading partners, the sentiment for South Africa looks rather grim.

Trump wants to implement a 25% additional tariff on imports from Canada and Mexico and a 10% additional tariff on imports from China. Both Canada and China have reacted strongly to the tariff imposition, with Beijing retaliating with tariffs of up to 15% on a wide range of US farm exports and Canada, with 25% tariffs on \$20.7 billion worth of US imports.

The US is a significant trading partner for South Africa with thousands of exports qualifying for duty-free access under AGOA.

US total goods trade with South Africa was \$20.5 billion in 2024 with US goods exports to South Africa in 2024 being \$5.8 billion, down 18.3 percent (\$1.3 billion) from 2023. US goods imports from South Africa in 2024 were \$14.7 billion, up 4.9 percent (\$679.4 million) from 2023.

How will Trump's aggressive stance play out given that retaliations from the US's trading partners are coming in fast and furiously? Will he retract or tone down the belligerence, or add fuel to the fire? Importantly, how is South Africa going to respond to the array of challenges from the US – are we going to beg for better or play the tit for tat game? No matter the path taken, South Africans are sure to feel the pinch.

### In this edition

Modern Mining had the opportunity to catch up with a host of clients at the Investing in African Mining Indaba, held in Cape Town recently, interviewing

How will Trump's aggressive stance play out given that retaliations from the US's trading partners are coming in fast and furiously? Will he retract or tone down the belligerence, or add fuel to the fire? several clients, including the World Gold Council's Chief Market Strategist, John Reade, who shared insight into how turbulent times are buoying investment in gold (pg 6). Trump's blinkered focus on making America great again seems

to be creating frenemies and shaking up the hornet's nest. His fiery behaviour in response to the Ukraine/ Russian war, which aside from rocking global markets, has been having a positive influence on the gold market. In the runup to Trump's tariff deadline, gold soared to a record \$2 955 an ounce on 24 February.

Modern Mining also caught up with Goldstone Resources's CEO, Emma Priestley, who advised that after many project challenges, its flagship Homase gold project, was on-track to ramp up gold production to name-plate capacity of 48 000 tons per month (pg 10).

Tyre manufacturer, Michelin, which accounts for an estimated 35% of market share for surface mining and underground mining operations in sub-Saharan Africa, highlighted products set for release into the African market later this year, including its Michelin XDR 4 SPEED ENERGY (pg 12). ■

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### Fluor JV awarded EPCM contract for BHP's Olympic Dam project

NYSE-listed Fluor Corporation's Mining & Metals business was recently awarded a joint venture contract with Hatch to perform engineering, procurement and construction management (EPCM) for BHP's proposed Olympic Dam Smelter & Refinery Expansion Project in South Australia, which remains subject to Final Investment Decision by BHP. "We are excited to support BHP on their growth plans to increase production of refined copper cathode in South Australia," said Harish Jammula, President of Fluor's Mining & Metals business. "Accelerated expansion of the downstream processing sector is increasingly important to secure local supply of mined materials, become independent of overseas supply and drive sustainable production technologies." The contract will be



Fluor JV awarded EPCM contract for BHP's Olympic Dam project.

executed in stages as BHP progresses towards a final investment decision on the smelter and refinery expansion, currently expected in the first half of 2027, and through to subsequent construction. ■



# Moolmans secures R10.6 bn contract for Gamsberg Mine

Aveng's mining subsidiary, Moolmans, has secured a 60-month, R10.6 billion contract with Black Mountain Mining, jointly owned by Vedanta and Exxaro Resources, for the Gamsberg Mine in the Northern Cape. Moolmans will significantly increase contracted volumes, supporting Black Mountain Mining's growth strategy. A dedicated team will oversee the ramp-up to full operations by 1 April 2025. Equipment has been redeployed from completed projects, with new machinery commissioned in partnership with key OEMs. The contract enables a R1.3 billion fleet renewal programme, funded through project cashflows. The project will create 342 direct new jobs, bringing the site workforce to 690. Aveng CEO Scott Cummins stated: "This contract underscores Moolmans' expertise and strong client relationships. We are proud to support Gamsberg's growth while boosting employment and economic benefits in the Northern Cape."



# Roan commences high grade copper production

Jubilee, a diversified metals producer with operations in South Africa and Zambia, has announced an operational update at its Zambian copper business. The company has now successfully commenced with the processing of the new high-grade copper feed material at its Roan concentrator facility. The material feed grade is in-line with management expectations with current feed assays exceeding 1.6% Cu, approximately double the grade of material previously processed at Roan and forms part of Roan's accelerated production plan to recoup part of the lost production over a short period of time. The increased feed grades are expected to have a marked increase in the production of copper units from Roan which holds a processing capacity of 45 000 tonnes per month. ■



### **Orezone plans to** accelerate Stage II of Hard Rock Expansion

TSX-listed Orezone Gold is advancing several transformational initiatives to (1) accelerate production growth and exploration at its Bomboré Gold Mine, and (2) further enhance the company's capital markets profile. These initiatives include:

Plans to accelerate Stage II of the Bomboré hard rock expansion by two years to achieve an optimised gold production profile of 220 000-250 000 ozpa by late 2026. Subject to final board approval, the Stage II hard rock expansion would commence in H2-2025 and follow the current Stage I expansion, which is scheduled to achieve first gold in Q4-2025. Stage I is forecasted to increase gold production to 170,000-185,000 ounces in 2026.

An expanded exploration programme designed (1) to accelerate exploration of multiple higher-grade centers of mineralisation, and (2) to illustrate the broader size and scale of the Bomboré mineralised system, given the average reserve pit depth of less than 40 metres.

Intention to dual list on the Australian Securities Exchange (ASX) to further enhance the company's capital markets profile through access to an incremental pool of institutional investors including specialist mining focused funds.

Patrick Downey, CEO stated, "Orezone is excited to be advancing these transformational initiatives during this period of record high gold prices. We believe that an acceleration of the Stage II hard rock expansion to an overall production profile of 220,000-250,000 ounces per year will serve to maximise free cash flow in the coming years, positioning Orezone with a cornerstone asset from which to diversify and grow its production base. This strategic goal will be complemented by our plans to list on the ASX, which is expected to enhance the company's trading liquidity and promote better access to investment capital." ■

### Leadership changes **at Komatsu Africa Holdings**

Komatsu Africa Holdings (KAfH) recently announced leadership changes that will take effect on 1 April 2025. After an illustrious career in Komatsu, MD Mike Blom has been appointed as chairman of the company. Succeeding him as MD of Komatsu Africa Holdings, is Wicus Burger. Burger was previously the MD of Komatsu Namibia and has been working for Komatsu North America for the past 5 years. He has gained valuable knowledge and experience during this time and will add great value to the business in Southern Africa. Yusuke Shimazaki has been appointed Deputy MD of Komatsu Africa



Komatsu MD, Mike Blom, has been appointed as chairman of the company.

Holdings. He will play a key role in the transition of the senior leadership roles.

### Sibanye-Stillwater's Neal Froneman to retire

**Dual-listed Sibanye-Stillwater** has announced that Neal Froneman will retire as CEO and executive director of the Group, effective 30 September 2025. Richard Stewart, currently Chief Regional Officer: Southern Africa region (CRO SA region), will succeed Neal as CEO and executive director, and will be appointed as CEO designate and executive director from 1 March 2025, while continuing his CRO: SA region responsibilities. Since joining the Group in 2014, Stewart has been a key member of its senior leadership team, responsible for jointly charting and implementing the Group's strategy. Vincent Maphai, Chair of the Sibanye-Stillwater Board commented: "Neal has led the Sibanye-Stillwater Group since 2013, guiding the initial turnaround of the three mature, challenging gold mines that the Group inherited from Gold Fields. From the significantly



Neal Froneman to retire in September 2025.

more profitable and stable base that was established, he subsequently drove the strategic growth and diversification of the Group into what it is today - a multinational mining and metals processing company with a diverse portfolio of operations, projects and investments across five continents."

Gold production from Africa is anticipated to be lower in 2025, compared to last year.



Chief Market Strategist at the World Gold Council.

# Turbulent times buoy investment in gold

By Nelendhre Moodley

Underpinned by turbulent times, the gold market is coining it, so to speak. *Modern Mining* recently caught up with John Reade, Chief Market Strategist at the World Gold Council, to chat about how tempestuous global events are influencing the fundamentals for gold in 2025.

renetic policy announcements from the new US administration on tariffs and political turmoil from gold producing areas in Africa including, the Democratic Republic of Congo (DRC), Burkina Faso and more recently, policy changes to mining regulations for foreign companies operating in Mali, have heightened global market uncertainty and seen investors turn to gold as a safe-haven asset.

According to Reade, who spoke to *Modern Mining* on the sidelines of the Investing in African Mining Indaba 2025, risk and uncertainty have increased following Donald Trump's victory. Since taking office, Trump's stance on key issues has instigated a higher level of uncertainty, which is having a positive impact on the price of gold.

"Donald Trump is threatening to institute import tariffs on a wide range of countries, which is causing significant volatility across all markets. The threat of broad-based tariffs has affected the gold market, particularly the relationship between the gold market in London and the gold market in New York. In fact, there have been shipments of more than 430 tons of gold into New York between December 2024 and January this year, with traders continuing to purchase more bullion. By importing more gold in the immediate and short-term, traders are mitigating the expected higher gold price. As it is, we expect Central Banks to continue buying large amounts of gold," says Reade, who explains that with the United States administration being so



Supply fundamentals influencing the

### gold market in 2025

Although mine production hit an all-time high in 2024 – this on the back of sky-rocketing gold prices and robust demand, industry experts expect to encounter a supply shortfall in 2025.

"Given the interruptions to production in countries such as Mali, we anticipate gold production from Africa to be lower in 2025 compared to last year."

Reade cites the political turmoil impacting production in the Sahel region as the biggest new factor influencing the gold market. "Gold production interruptions are expected to continue until negotiations can be concluded between governments and mining companies in the Sahel region. It is difficult to predict by how much production will be affected, but it is also difficult to believe there will be no impacts on production."

Aside from policy changes to the mining decree from the Malian government, frictions in Burkina Faso and instability in the Democratic Republic of Congo continue to impact gold production.

Mali is the second largest gold producer, after Ghana, with South Africa in third place and Burkina Faso in 4<sup>th</sup> position. The DRC is also a significant gold producer, producing 42 t in 2024.

### Canada - a new gold producing region?

According to Reade, with Canada regarded as a safe investment jurisdiction and a country that is highly prospective for gold discoveries, the world's second-largest country by total area is fast building its gold inventory and making its mark in the gold mining industry. Last year alone, several new gold mines and expansion initiatives came onstream in Canada with more new mines scheduled to

different from any seen before, the WGC's ability to make forecasts and predictions "is lower than I can remember".

These events continue to influence the price of gold, with Reade noting that from the beginning of 2025 up to the first week in February, gold experienced five all-time highs, "boosting the price that African gold mining companies are getting for their sales of gold".

Interestingly, industry pundits are forecasting the gold price to breach the \$3,000 an ounce mark by the end of this year.

However, Reade notes that as an observer of the gold market, the precious metal is already trading close to \$3,000 an ounce - being only 3 or 4% away from that level.

"The market expects gold to trade up to \$3 000 an ounce at some point this year; however, if we are going to sustain that price we will need to see strength from the fundamental side of the gold market. So, either more investment demand or more Central Bank demand."



Higher gold prices negatively impacted jewellery demand last year.

commence production in the next few years.

Investors are seeking more stable jurisdictions to invest in and, with Canada emerging as the new 'hotspot' gold destination, investors are flocking to capitalise on new project developments in the country. Further to this, Australia is also entrenching its place as a key gold mining jurisdiction, says Reade.

### Gold demand trends in 2024

Discussing gold demand trends for 2024, Reade highlights a strong end to 2024 with robust demand for gold from Central Banks.

"Earlier in 2024, in 2025, Reade cautions: "Industry we expected Central should not expect the same gains Bank demand to close for gold in 2025 as achieved in in at perhaps 800 tons. However, owing to a strong showing from Central Banks, gold breached the 1000-ton mark for three years in a row - a really positive factor in the gold market. However, higher gold prices negatively impacted jewellery demand last year, specifically, a weakness in demand from Chinese consumers, which seems to be more than just about price. In fact, average global jewellery demand was down 11% in 2024 with Chinese

jewellery demand, usually the biggest market, down 29%. This reflects not only the high prices, but also the weak consumer sentiment in the Chinese economy."

According to Reade, for the past two years the Chinese economy has not been growing as fast as it normally does, which has further subdued demand in the Chinese property market. "The weaker economic growth has affected sentiment from all types of buyers in the country, with jewellery demand being the most affected."

Interestingly, given that investors are short on investment choices, appetite for gold has increased substantially in China.

"Another positive change that arose in gold demand last year was a 25% increase in global investment demand, which was driven largely by improved ETF flows. ETF investors sold gold in 2021, 2022 and 2023 and for the first half of 2024, but changed stance to becoming purchasers of the precious metal in the second half of the year."

Although gold is

anticipated to reach new highs

Looking ahead, Reade expects high gold prices to continue to weigh on jewellery demand, while investment demand is expected to continue to soar. "The ETF buying that we saw in the second half of 2024 is also expected to continue."

Although gold is anticipated to reach new highs in 2025, Reade cautions: "Industry should not expect the same gains for gold in 2025 as achieved in 2024. Gold's annual return reached 26% last year - this

unusually high return on gold is unlikely to be repeated in 2025. We are modestly positive about gold's performance this year, but it seems unlikely that we will achieve returns in 2025 to match 2024," concludes Reade.

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# **Global gold demand** hits new high as prices soar in 2024

The World Gold Council's Q4 and Full Year 2024 Gold Demand Trends report revealed that total annual gold demand (including OTC) hit a new, record high of 4 974 t, driven by strong, sustained central bank buying and growth in investment demand. The combination of record high gold prices, and volumes resulted in the highest ever total value of demand at \$382 bn.



Central banks continued to buy gold at pace in 2024.



High prices dampened demand in the jewellery sector.

entral banks continued to buy gold at pace in 2024, with purchases exceeding 1 000 t for the third year in a row. Buying ramped up significantly in Q4, reaching 333 t and bringing the annual total for central banks to 1 045 t. Global investment demand increased 25% year-on-year to 1 180 t – a fouryear high – driven by a revival in gold ETF demand in the second half of 2024. Global gold ETFs added 19 t in Q4 2024, marking two consecutive quarters of inflows for the asset class. Bar and coin demand stayed largely in line with 2023 volumes at 1 186 t in 2024.

Unsurprisingly, high prices dampened demand in the jewellery sector, with annual consumption decreasing by 11% to 1 877 t. The decline was driven largely by weakness in China (down 24% year-onyear), though Indian demand remained resilient, dropping just 2% in 2024, in a record high price environment.

The technology sector saw its strongest quarter since Q4 2021, with demand reaching 84 t. A modest rise in gold volumes used in artificial intelligence (AI) and electronics contributed to a 7% year-on-year increase, netting at 326t.

Total gold supply increased 1% yearon-year, reaching a new record high of 4,794t. Growth in both mine production and recycling contributed to the increase in total gold supply.

Louise Street, Senior Markets Analyst at the World Gold Council, commented: "Gold once again dominated headlines in 2024, with prices reaching 40 record highs last year. Yet, the demand trajectory of 2024 was far from linear, with central banks posting strong demand in Q1 before moderating through the middle of the year and finishing with a strong Q4. Likewise, the second half of the year saw a notable resurgence from Western investors which, combined with remarkable growth in Asian flows, brought global gold ETF flows into positive territory in the third and fourth quarters. This was fuelled by the start of rate cutting cycles by many central banks and heightened global uncertainties, including the US presidential election and escalating tensions in the Middle East. In 2025, we expect central banks to remain in the driving seat and gold ETF investors to join the fray, especially if we see lower, albeit volatile interest rates. On the other hand, jewellery weakness will likely continue as high gold prices and soft economic growth squeeze consumer spending power. Geopolitical and macroeconomic uncertainty should be prevalent themes this year, supporting demand for gold as store of wealth and hedge against risk."

# Goldstone Resource is **back in the trenches**

By Nelendhre Moodley

Gold miner, Goldstone Resources begins 2025 upbeat and looking forward to being back in the mining trenches as it ramps up gold production to name-plate capacity of 48 000 tons per month at its flagship Homase gold project in Ghana, says CEO, Emma Priestley.



he AIM quoted gold producer and explorer, is advancing its Homase gold project, located in the prolific Ashanti Gold Belt in Ghana. The Homase mine, formerly operated by AngloGold Ashanti, lies some 20 km along strike from the Obuasi Gold Mine, one of the world's major gold mines with a total historical and current resource in excess of 70 moz Au. AngloGold Ashanti ceased mining the Homase mine when the gold price collapsed to \$275/oz in 2003.

Since bringing its flagship asset into production in 2022, Goldstone Resources has encountered a series of plant and financial challenges, which saw the miner return to the drawing board.

Speaking to *Modern Mining* on the sidelines of the Investing in African Mining Indaba 2025, Priestley explains that following its initial gold pour in January 2022, the company faced plant challenges, with the dry plant and the heap leach processing plants experiencing efficiency issues.

Following a tough two years, in December last year the company was able, finally, to shake off its legacy issues and begin afresh.

Since then, the miner has revised its plant and operations and is now achieving optimal levels of productivity.

Goldstone Resources is currently ramping up production at its Homase open pit mine whilst advancing exploration and development initiatives at the historic high-grade Akrokeri mine. The company is leveraging its assets to increase near-term cash flow while unlocking substantial exploration upside.

"Since November last year, we have been ramping up production and stockpiling material. We will continue to ramp up to steady-state production of 48 000 tons per month. This was accomplished in Q1 2025, and Goldstone continues to maintain a steady state."

According to Priestley, the current orebody at Homase mine hosts a JORC compliant mineral resource of 602 000 ounces of gold with an average gold grade of 1.77 g/t, within which 116 000 ounces of gold at 2.24 g/t are in the measured resource category. The JORC Resource within the 4.4km Homase Trend is being mined above a depth of 240m. The resource is also open at depth.

Goldstone Resources is currently mining near surface oxides which are pegged at 1.1 grams a ton but remains upbeat that as it continues to mine at depth, it will unlock higher grades that are reflective of its neighbour, AngloGold Ashanti's Obuasi Gold Mine. Priestley firmly believes that the Homase orebody is an extension of the Obuasi orebody, which has grades of around 8 g/t.

This year the gold producer's objective is to restart exploration drilling as it seeks to identify more areas of oxide



containing material to extend the life of mine. This will be in two zones along strike. Aside from this, the company plans to commence drilling in the deeper zones beneath the oxide cap into the fresh ore, the sulphides, with the intention of improving confidence in the grade and increasing the resource. A drill programme like this will help to take the project up the value curve.

"While our eye remains firmly on improving and maintaining production in the oxides, the prize for the company is accessing the highergrade sulphide zone. We have historic records from former owner Ashanti-Goldfields proving that the sulphide ore is predominantly non-refractory. Whilst this is key to the company, we will also continue to unlock value from mining near surface oxides and focus on reviewing our mining operations as methods may need adapting."

According to Priestley, the strategy for the next two-to-three years remains firmly focused on following in the footsteps of its peers and growing the company from its current base as a junior



miner to becoming a medium-sized player in the gold space.

### Akrokeri mine

Goldstone Resources Akrokeri mine, located between the Obuasi Gold Mine and the Homase Mine, is an old historical mine, consisting of a four-metre-wide quartz intrusion, which averaged 50 grams a ton, near surface, when it was mined by old timers decades ago.

"The granite outcropping of the Akrokeri mine has a completely different geology from the Homase mine. What is really thrilling about this intrusion is the down-dip to the Ashanti fissure wherein sits further high-grade ore."

Given that the Akrokeri mine is a massive exploration project, the immediate focus for Goldstone Resources is to ramp up gold production at the Homase mine and, in about six months time, initiate an intense drilling programme that will lift the JORC resource from the current 602 000 ounces.

### Why should investors consider Goldstone Resources

"Aside from offering one of the cheapest gold stocks currently on the stock market, once we start developing the high-grade Akrokeri project, we transition from being a single asset company to having two key assets in the best postcode in the gold mining industry - the Ashanti gold belt - one of the world's most favourable mining jurisdictions. Our projects are located close to five major gold mining companies on Ghana's Ashanti Gold Belt and we are just 15 km from the Obuasi Gold Mine. From our Homase open-pit mine, we are already processing on-surface gold oxide material at a depth of between 40-50 metres. Within a short space of time, we will achieve name-plate capacity and, in the not-sodistant future, will unlock even greater gold potential from the Akrokeri Mine," concludes Priestley.

### Goldstone Resources assets

- GoldStone has

   successfully restarted
   the Homase open-pit
   mine, achieving its
   first gold pour in
   January 2022. This
   marked its move to
   become a gold producing entity, with
   the mine targeting
   significant production
   growth in 2025
   onwards.
- The nearby Akrokeri
   Mine is currently
   being advanced
   towards production.
   Historically, this
   mine produced
   approximately 75 000
   ounces of gold at
   a recovered grade
   of 24g/t Au before
   its closure in 1909.
   Unlocking its potential
   could significantly
   boost Goldstone's
   resource base.
- The projects lie near AngloGold Ashanti's Obuasi Mine, one of the largest gold deposits in Africa, providing access to well-developed infrastructure and world-class geology.

# Michelin - in the driver's seat

By Nelendhre Moodley

Tyre specialist Michelin has a strong presence on the African continent, where it accounts for an estimated 35% of market share for surface mining and underground mining operations in sub-Saharan Africa. It also has an extensive existing portfolio with additional products set for release into the African market later this year, including its Michelin XDR 4 SPEED ENERGY™ tyre, Ashutosh Jha – Mining Marketing Vice President Africa, India and Midde East at Michelin – tells *Modern Mining*.



Mining Marketing Vice President Africa, India and Midde East at Michelin, Ashutosh Jha.

he French tyre manufacturer has a comprehensive portfolio of tyres suited to mining operations, including products for haulers, loaders, dozers, excavators, and autonomous vehicles.

Speaking to *Modern Mining* on the sidelines of the Investing in African Mining Indaba 2025, Jha said that Michelin is poised to be at the cutting edge of delivering the latest tyre related innovations.

"Michelin is driven to deliver innovative solutions that enhance the mining sector's aspirations for a safer, smarter and more sustainable industry. The mining equipment segment of business is evolving at speed with industry looking towards autonomous vehicles becoming the norm in the not-too-distant future. As such, Michelin is collaborating with its technology partners to advance this agenda." According to Jha, Michelin was the first tyre manufacturer to introduce the Tire Pressure Monitoring System (TPMS) in earth moving vehicles – this it did in 2006. "We continue to push the boundaries in services and solutions."

Monitoring and maintaining tyre pressure and temperature helps enhance safety and improve performance and savings at mining operations.

Discussing the offers in TPMS, Jha highlights MICHELIN MEMS 4 and MICHELIN MEMS LITE, as value-oriented innovations for improved safety and savings for mining operations. The solutions offer advanced digital monitoring systems that can provide real-time data on tyre pressure, temperature, and performance, even in the most challenging of mining environments.

Further to this, the tyre specialist recently introduced the Michelin XDR 4 SPEED ENERGY "The first energy-efficient tyre, constructed to reduce fuel consumption and lower  $CO_2$  emissions through an innovative design and energy-saving rubber compound". Launched at MINExpo 24, this tyre will gradually be deployed in developed and emerging markets across the world.

"The composition of the material and design used in the manufacture of low resistance tyres offers reduced deformation and lower heat generation to enable tyres to run cooler, thus allowing more energy to be directed to propelling the truck," he explains.

According to Jha, the Michelin XDR 4 SPEED ENERGY tyre is currently being prepared to pilot in Africa – this ahead of the product being rolled out across the continent in future.

### **MICHELIN BETTER HAUL ROAD solution**

The tyre specialist also introduced MICHELIN BETTER HAUL ROAD, a digital solution for monitoring the condition of haul roads.

The technology helps to identify and prevent safety hazards, reduce haul truck downtime, and improve overall operational efficiency at the mine site.

The adoption of MICHELIN BETTER HAUL ROAD equips mining teams with essential information to avoid safety hazards and prevent truck downtime.

Another area of intense focus and ongoing research is related to how best to handle tyres when they reach their end of life.

"Given the underlying need to promote sustainability, Michelin continues to focus on

helping to reduce waste at mine sites, such as identifying opportunities for reusing tyres that have reached their end of life - an issue pertinent not only for tyre manufacturers but for the industry. At Michelin, we work with partners in the ecosystem to identify solutions for end-of-life tyres, especially solutions related to extending the use of component parts of an old tyre, such as re-using individual components in renewable energy materials or in the production of a new tyre." Michelin and mining

According to Jha, Michelin has "a very specific ambition around people, planet and profit, and remains focused on improving the lives of consumers through investment in communities, technologies, and innovations that lower the carbon footprint and increase safety, all while improving profitability, especially at mining operations.

"The company's approach for the mining sector is Michelin Better Mining ((MBM), which targets three key areas: safety, smart technology and sustainability – encompassing the entire mining ecosystem. Moreover, we continue to create ways for using the ocean of available data for greater understanding of man and machine and harnessing this insight to improve tyre performance and longevity, amongst others."

> Michelin is firmly committed to joining forces with its mining customers to transform the industry, not just at its own operations, but also as related to the products, services, and support it delivers.

"We have a core interest in improving the lives of communities and continue with a number of developments in this area. We have several initiatives targeting the well-being of communities around mines, not just in Africa, but across the world."

#### Mining Indaba

The tyre manufacturer sponsored the session Leveraging Data & AI for Workforce Optimisation at Investing In African Mining Indaba 2025. Michelin's Hein Venter, Mining Sales

Director was part of the session which discussed:

- What are the key benefits of using data and AI for workforce optimisation in today's business environment?
- The importance of data literacy and analytics skills in optimising workforce management, improving safety, and enhancing productivity.
- How can data-driven and Al-powered tools and technologies transform the mining industry? ■

Michelin has a comprehensive portfolio of tyres suited to mining operations, including products for haulers, loaders, dozers, excavators, and autonomous vehicles.

prepared to pilot in Africa - this ahead of the product being rolled out across the continent in future.

The Michelin XDR 4 SPEED

**ENERGY tyre is currently being** 

MINING INDABA REVIEW

# Regulatory and administration streamlining essential to grow SA's mining industry

South Africa must expedite the processes of granting licences for mineral and prospecting rights as well as have inter-departmental alignment to remove obstacles curtailing the growth of the mining industry, says Mzila Mthenjane, CEO of the Minerals Council South Africa.



Mzila Mthenjane, CEO of the Minerals Council South Africa.

e are in an investment competition globally. We need to be able to work together as industry, government, organised labour and civil society in the right combinations to enable the speed we need to grow the mining industry," says Mthenjane.

"It is all about speed and how quickly companies can embark on exploration, prove up a viable reserve, and to be clear in terms of stable, predictable and business-friendly regulations to develop a new mine. As the Minerals Council, we work with junior companies that make up half our membership, and we spend a lot of time navigating the legislative environment, which is hugely frustrating for junior companies and investors. Unfortunately, this frustration has seen the withdrawal of some investors in some instances," he says.

For sustainable transformation to bring in new entrants, women and youth, the mining industry must grow through the development of new mines to tap into known and yet-to-be-discovered mineral deposits.

The Minerals Council has held talks with the Department of Mineral and Petroleum Resources about the backlog of unprocessed mineral right applications, the development and implementation of a modern, transparent mining cadastre to efficiently manage mineral and prospecting rights, and the review of the Mineral and Petroleum Resources Development Act the regulator is undertaking.

The department has indicated that it will release its review of the Act before the end of March this year and implement the cadastre by the middle of 2025.

In a globally competitive exploration and mining environment, South Africa needs a regulatory and operating environment that is conducive to attracting local and foreign investment in exploration, mine development and spending on existing mines to increase production and/or extend their lives and create further employment and local development opportunities.

The Minerals Council supports beneficiation where it makes sense and reiterates that the mining industry cannot be coerced into beneficiation through punitive taxes or bans of mineral exports.

"Given where we are as a country, it is critical and urgent that we work towards economic growth. It won't happen by stakeholders operating alone. The government can't do it alone and business cannot do it alone either. Cooperation, trust, a shared vision of a prosperous future of inclusive economic growth, job creation and making the most of our natural endowments in a sensible, business-friendly way will realise that goal," Mthenjane says. ■

# **Mintek report underscores** SA's critical minerals potential, spurs gigafactory investment

The Mintek report

highlighted the concerning decline

in mineral exploration investment,

falling from R6.2 billion in 2008 to

R1.2 billion in 2023.

A comprehensive report by Mintek, presented by CEO Dr. Molefi Motuku, took centre stage at the South Africa Investment Forum at the 2025 Investing in African Mining Indaba, highlighting South Africa's vast potential in the critical minerals sector. The report's findings, coupled with the announcement of Giga-Africa 1, a landmark battery gigafactory project, underscored the country's strategic move towards a mineral-driven manufacturing economy.

r. Motuku's presentation detailed South Africa's world-leading reserves of key critical minerals, including Platinum Group Metals (PGMs) - 88% global market share, manganese - 80% global market share, and chromium and vermiculite, which also share impressive market ratios.

He emphasised the need to leverage these resources, estimated to be worth over \$2.5 trillion, to drive economic growth and industrial development. "South Africa is uniquely positioned to benefit from the global energy transition," stated Dr. Motuku, "but we must act strategically to develop the necessary infrastructure and downstream industries."

The Mintek report also highlighted the concerning decline in mineral exploration investment, falling from R6.2 billion in 2008 to R1.2 billion in 2023. This represents a significant drop from over 5% of the global exploration budget to below 1%, emphasising the urgent need for policy interventions and investment incentives to revitalise this crucial sector.

Following the Mintek presentation, a panel discussion featuring key government officials and industry leaders explored an integrated approach to growing the mining industry. The panel included Gwede Mantashe, Minister of Mineral and Petroleum Resources, Dr. Nobuhle Nkabane, Minister of Higher Education, Mzila Mthenjane, CEO, Mineral Council of South Africa, and Bernard Swanepoel, Executive Chairman, Manganese Metal Company.

Minister Mantashe emphasised the government's commitment to creating a conducive environment for investment. "We are working to streamline regulations and provide the necessary support to attract both local and international investors," he stated. Dr. Nkabane highlighted the importance of skills development and education to support the growing critical minerals sector. "We need to invest in training and education to ensure that we have the skilled workforce required to meet the demands of this rapidly evolving industry," she said.



South Africa has world-leading reserves of key critical minerals, including Platinum Group Metals, manganese, chromium and vermiculite.

Mzila Mthenjane, representing the mining industry, stressed the need for collaboration between government, industry, and communities. "We need to work together to ensure that the benefits of mining are shared equitably and that we develop a sustainable and responsible mining sector," he stated. Bernard Swanepoel echoed this sentiment, adding, "The development of

> downstream industries is crucial to maximising the value of our mineral resources and creating long-term economic opportunities." The announcement of Giga-Africa 1, a joint venture between Megamillion and Chinese battery expert Dr. Henry Mao, served as a tangible example of the growing investor

interest in South Africa's critical minerals sector. The gigafactory, with a planned capacity of 32GWh, will focus on the

roduction of lithium-ion batteries, key components for electric vehicles and renewable energy storage. "Our vision of manufacturing lithium-ion cells and electrodes on African soil is finally becoming a reality," stated Megamillion CEO Nechan Naicker.

These developments represent a decisive shift towards a more diversified South African mining sector, poised to capitalise on the global demand for green energy technologies. ■



CEO Dr. Molefi Motuku.

# Fast-evolving mining standards being embraced in DRC, China

As expected, the recently initiated Consolidated Mining Standard Initiative (CMSI) stimulated discussion at this year's Investing in African Mining Indaba in Cape Town - with SRK Consulting's professional teams from Africa and China on hand to offer their insights.

Dominique Sambwa, chairman of SRK Congo.



Vis Reddy - Chairman of SRK Consulting South Africa

ccording to Dominique Sambwa, chairman of SRK Congo, mining players in the Democratic Republic of Congo (DRC) are responding to the fast-evolving environmental, social and governance (ESG) landscape.

"Having moved quite quickly from a statecontrolled mining industry to one that encouraged private investment, the DRC has been developing its local legislation," said Sambwa. "At the same time, larger global companies operating in the DRC have been driving global standards – and the prospect of a consolidated mining standard in the future is raising considerable interest."

### **DRC-China-SA collaboration**

He noted that the presence of many China-based mining companies in the DRC had led to concerted collaboration between SRK teams in China, the DRC and South Africa since 2022 – helping Chinese clients to comply with local legislation and global standards.

Frank Li, principal geologist in SRK's Beijing practice, travels extensively to the DRC as part of this collaboration. Li explained that SRK's role in the DRC has expanded well beyond its technical services and into international standards compliance.

"Many of our clients find themselves in a situation where their financiers want them to comply with one standard, while their supply chain might prefer another," he said.

Standards in mining are constantly evolving, whether they relate to tailings management, ESG or resource and reserve reporting.

### Unified mining standard

The work of the CMSI, he said, is therefore an exciting development – as many companies would favour a more streamlined focus on a single set of requirements. The CMSI aims to bring together the best aspects of four well-established standards: the Copper Mark; the Mining Association of Canada's Towards Sustainable Mining (TSM) standard; the World Gold Council's Responsible Gold Mining Principles; and the ICMM's Mining Principles. The intention is to arrive at one global standard that reduces complexity and clarifies responsible practices for mining companies of all sizes, and across all locations and commodities.

"SRK is fully supportive of this direction, and is engaging closely with the process of developing the CMSI, to ensure that we are fully up to date with this new standard as it evolves – up to the point where it is published and can be applied," said Li. "We are also ideally positioned to assist companies in transitioning to this new standard, as we have already worked extensively with clients across the range of other mining standards and regulatory compliance."

### Focus on ESG

Anne Gimonet, principal consultant in ESG and land contamination in SRK China, noted the



steady movement towards greater transparency in ESG disclosure in many countries, including China. In 2024 alone, for instance there were two groundbreaking shifts affecting Chinese listed companies. The country's three major stock exchanges announced new sustainability reporting guidelines on topics like carbon emissions and pollution control; these will kick in as early as 2026. More recently, China released a new set of reporting standards for general industry, including mining, for compliance by 2030.

"The major listed mining companies in China are therefore alive to the evolving ESG requirements and standards, and are preparing to comply with these," said Gimonet. "It is also clear that these national standards are being aligned to international benchmarks in the mining sector."

While it may be early days for many mining companies' engagement with the CMSI itself, she emphasised that Chinese clients operating in countries like the DRC were very interested in the new Australasian Joint Ore Reserves Committee (JORC) Code of 2025 – especially with its ESG component. This code regulates how exploration results, mineral resources and ore reserves are publicly reported in the mining industry; a revised version expected to be finalised and implemented this year.



Mining players in the Democratic Republic of Congo (DRC) are responding to the fast-evolving environmental, social and governance (ESG) landscape.

### Preparing the way

"In preparation for the new consolidated standard, SRK has been actively engaging in the CMSI consultation process – including the workshops being held regularly," she explained. "We will therefore be ready when our clients are, to help them make the transition. It is also very useful that we have been involved in all the existing mining standards that are in effect globally, so we understand the themes and linkages to the new unified standard."

Gimonet said the new standard will be applied at facility level rather than corporate, allowing companies to begin the enrolment process with just one of their facilities. Its granular approach with a three-tier performance structure facilitates an entry at a basic level, with gradual movement towards the higher levels.

"The compliance process is also streamlined by the use of an equivalency assessment for companies that are already certified with the TSM or Copper Mark, for example," she said. "This makes it possible to recognise the progress that companies have achieved to date, so they do not have to start from scratch."

#### Standards always evolving

SRK South Africa chairman Vis Reddy – who is also the Africa lead for SRK Global – highlighted that standards in mining were constantly evolving, whether they related to tailings management, ESG or resource and reserve reporting.

"Mining companies therefore have to be regularly revisiting their policies and systems, and growing their capabilities as the bar is raised further," said Reddy. "Companies like SRK stand ready, with our depth of knowledge and experience, to help clients navigate through these complexities."

It is expected that the broad adoption of the new unified standard would give it the widest coverage of any voluntary mining standard to date. It is likely to be embraced by almost 100 mining companies across about 600 facilities in around 60 countries.



# Indaba highlights collaboration as key to future-proofing African mining

Sustainability was high on the agenda as miners met in Cape Town for the Investing in African Mining Indaba last month, but what will be required to actually meet the ambitious targets the sector has set for itself?

or a start, there will need to be even more collaboration across the mining ecosystem, according to Deon Swart, Chief Operating Officer of BME. In particular, mines are looking to reduce their carbon emissions in line with climate change goals – and this responsibility falls on every player in the value chain.

"The increasing number of mining suppliers and service providers at the Indaba confirms the value of this forum in facilitating engagement and collaboration," said Swart. "As mines embrace digital and other technologies to drive ESG priorities and operational efficiency across the production cycle, they look to their supply partners to provide ever-more complex solutions."

This has made it vital for supply chain participants to engage with each other on a formal basis, to put mining on track for a smart and more sustainable future. He said the benefits of artificial intelligence, for instance, were based on effective data collection in every mine-related activity – and the detailed analysis of data to produce useful information, reports and recommendations.

"Our high-level team and exhibition presence at the Indaba allowed us to do more than reinforce what we offer the sector; it also gave us the opportunity to engage with prospective partners to enhance our value proposition," he said. "The event highlights the value of mining to Africa and facilitates the industry's development through productive collaboration."

Highlighting BME's technology contribution at the Indaba was Nishen Hariparsad, BME's General Manager for Technology and Marketing, who was a panelist in a conference session discussing technology and sustainability.





"There is growing acknowledgement in the sector that technologies need to focus not only on enhancing an operation's bottom line, but should be responsive to all aspects of the mining ecosystem," said Hariparsad. "This requires a redefinition of value by mining service providers, so that we can provide solutions with positive impacts across the value chain – from the mining process to the environment and communities."

### **ESG** progress

Swart noted that mining's progress in terms of ESG expectations had already been significant, making mining more inclusive contributing across the value chain by broadening procurement, developing skills, and building local communities and economies.

He highlighted that technology partners were also called upon to develop solutions to ESG targets related to carbon emissions – a key focus for global sustainability efforts. In this regard, BME is forging continuous innovations to make mining processes more energy-efficient.

"In countries like South Africa especially, where grid electricity is mainly coal-fired, the reduction of energy consumption is a direct path to lowering carbon footprints," he explained. "Among our innovations in electronic initiation technology, therefore, are strategies for mines to achieve significant energy savings while meeting stringent environmental standards."

Also contributing to the Indaba this year was Glen Heinrich, Executive: Strategy, Capital Allocation and M&A at BME's holding company Omnia. In a discussion on sustainable investment in mining development, Heinrich underscored how collaboration was essential to advancing sustainability across the sector.

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# Astron energy refinery plays a key role in **supporting SA economy**

The Astron Energy Refinery in Cape Town plays a key role in ensuring security of supply for South Africa, as well as supporting important sectors of the economy, including mining.



stron Energy, through its majority shareholder Glencore PLC, has made significant investments in its 100 000 barrels per day Refinery as part of the company's commitment to South Africa, its people and the economy. The systematic restart of its Refinery was completed in 2023, and the facility is now operating at full capacity, producing the full spectrum of products including petrol, diesel, jet fuel and low sulphur marine fuel, among others.

Astron Energy CEO, Thabiet Booley said: "As the only crude oil Refinery in the south-west of South Africa, it is a significant contributor in ensuring security of supply to South Africa."

"It also enables us to support key sectors of the economy such as mining, where we are a key enabler, through our commercial offering which includes the supply of fuel and lubricants for a wide range of uses across the sector."

Astron Energy is a fuel company with a significant presence and socio-economic impact in South Africa. Besides its crude oil Refinery in Milnerton in Cape Town, it also operates a network of over 800 retail sites in South Africa, a lubricants manufacturing plant in Durban, and a supply network from 15 terminals across Southern Africa.

Astron Energy has been a presence at the annual Mining Indaba in Cape Town over the years and was again present for MI25 which took place in February.

According to Axola Myendeki, General Manager: Commercial & Industrial at Astron Energy, the company was continually looking at ways to unlock value for customers in the mining sector to ensure greater efficiencies and to realise untapped potential.

"We are focused on establishing win-win partnerships to ensure the long-term sustainability of the mining industry



Astron Energy Refinery supports important sectors of the economy, including mining.

through a fully integrated fuel, lubricants and renewables solution," he said.

This approach extends to the company's relationship with communities where it has a presence.

Astron Energy's stated purpose is Securing our Future Together and the company understands that its own long-term sustainability and success is intricately tied to the wellbeing of its host communities around its facilities.

"We know the continued success and sustainable growth of our company is intrinsically linked to the success of the country in which we operate," Booley said.

The Refinery supports several thousand direct and indirect jobs, as well as small businesses through empowerment programmes such as the Astron Energy Development Fund (AEDF) which seeks to create sustainable and meaningful change and prosperity for micro, small and medium-sized enterprise (SMME) in the company's sphere of operations.

The company also invests significantly in youth empowerment programmes, with a strong focus on STEAM (Science, Technology, Arts and Maths), Coding and Robotics and other skills needed for the future.

Booley said Astron Energy's vision is to be a leading African energy company, enabling growth, enriching lives, and delivering shared value to consumers, customers and communities.

# Your **trusted** line, now even **more complete**.

WG20 S is the perfect combination of the efficiency of helical gears and the cost-effectiveness of worm gears. Additionally, it offers versatility and a high transmission ratio in a single gear unit, it is compact, and has a modern and functional design. A comprehensive solution that carries the trust and quality of WEG, already recognised in the WG20 geared motor line.

MADES











Driving efficiency and sustainability





# Addressing crushing needs for entry-level operations

With the introduction of the new DynamiTrac MJ100 modular jaw crusher, Pilot Crushtec International is providing products to a growing segment of the market. Ideal for capacities between 40 and 100 tonnes per hour (tph), the machine addresses crushing needs for entry level to intermediate sized mining operations.

In the past few years,

we have seen a growing number of

start-up mining companies coming

to the fore. This trend is prevalent

across southern Africa, with the

exception of South Africa.

mid growing demand for small-scale modular plants, particularly in southern Africa, the arrival of the DynamiTrac MJ100 modular jaw crusher offers new cost-effective crushing capabilities to small-scale lowproduction mining operations.

"In the past few years, we have seen a growing number of start-up mining companies coming to the fore. This trend is prevalent across southern Africa, with the exception of South Africa. Without the big financial muscle, these start-ups are looking for cost-effective and reliable comminution solutions – a stepping stone to get them to the next level of their business operations," says Wayne Warren, Africa Sales Manager at Pilot Crushtec.

On the smaller end of its Pilot Modular crushing offering (5 to 30 tph), Pilot Crushtec can offer the Pilot Modular MG1335 granulator jaw crusher, which can take a feed size up to 300 mm. This is complemented by the Pilot Modular MSC110 cone crusher and the Pilot Modular IC50 impact crusher, as well as the proven VS100 vertical shaft impactor (VSI). The larger end of the offering starts with the well-known Metso C96 jaw crusher, with a rated capacity of 120 tph. "Having previously offered Pilot Modular solutions in the smaller 5 to 30 tph capacity range and at the large end of the crushing scale – 150 tph and above – the DynamiTrac MJ100, with a capacity of 40 to 100 tph, offers

new capabilities allowing us to offer a comprehensive modular solution for crushing needs in the sub-100 tph operation," explains Charl Marais, Sales Manager South Africa at Pilot Crushtec.

In addition to the larger crushing capacity, the DynamiTrac MJ100 can take a feed size of up to 400 mm, a significant upgrade to the Pilot Modular MG1335 granulator jaw crusher's 300 mm. With a crusher feed opening of 700 mm x 500 mm, the DynamiTrac MJ100 has a closed side setting (CSS) range of 30 to 110 mm. The machine has a 2 m<sup>3</sup> heaped hopper capacity and a feed height of 2,5 m.

The DynamiTrac MJ100, says Warren, is ideal for applications where cost efficiency is a major consideration. Targeted applications are mainly slag and recycling. In addition, the machine also fits the bill for small-scale chrome and gold plants, where it can be deployed for material preparation before being processed at a mill or a leaching plant.



The DynamiTrac J100S is dual powered and can be run off grid power or via the on-board genset for efficient and flexible operations.



The compact jaw features a 700 by 500 feed opening, capable of handling up to 400 mm sized feed material.



The DynamiTrac J100S control panel is easily understood and makes operations simple for operators to control.



The DynamiTrac J100S features a vibrating grizzly feeder to bypass fines that can either be stockpiled or bypass the jaw and be fed onto the screen for sizing.

Low capital together with low operational costs constitute a major attribute of the DynamiTrac MJ100, which speaks directly to start-up mining operations with limited resources. The machine is foot-mounted allowing rapid deployment and set up without the need for extensive civil works common to stationary plants. This feature allows customers to commence operations sooner and start generating revenue without the prolonged wait.

The hydraulic CSS allows for fine adjustments to the crushing force through precise control of the hydraulic pressure, enabling adaptation to different material sizes. With reduced transportation costs in mind, the DynamiTrac MJ100 weighs in at 11 800 kg and measures 6 m  $\times$  2,3 m  $\times$  2,4 m. This compact design eliminates the need for costly lowbed trucking.

To provide even more flexibility to start-up mining customers, the DynamiTrac MJ100 comes to market together with its mobile counterpart – the DynamiTrac J100 – which includes the same jaw crusher but is tracked, completely mobile and features an overhanging screen. Apart from its mobility, the DynamiTrac J100 is a self-sustaining electrically driven compact jaw crusher that comes with an on-board generator and can also be plugged into mains electricity. The option of a hanging, double-deck screen (J100S) further maximises its versatility.

Francois Marais, Sales and Marketing Director at Pilot Crushtec, says the arrival of the DynamiTrac MJ100 and the DynamiTrac J100 highlights Pilot Crushtec's commitment to developing solutions that expressly address customer needs. For the past 35 years, he explains, the company has built a reputation for its quality of product and outstanding service levels. Pilot Crushtec's engineering prowess has already seen over 300 Pilot Modular plants placed into operation across applications.

"In today's dynamic business environment, our Pilot Modular solutions have become indispensable assets for both mines and their aggregate counterparts. Their unmatched flexibility, reliability and cost effectiveness make them essential tools for achieving operational excellence, especially for start-up mining companies. The addition of the DynamiTrac MJ100 and the DynamiTrac J100 allows us to expand our product footprint. The range will benefit from the same level of support to which our customers have become accustomed," concludes Marais. ■



Tarynn Yatras, Vice President of Sales Area Africa at Sandvik Rock Processing.



# Integrated crushing, screening sets Sandvik apart

With its comprehensive solutions from crushers to screens and screening media, Sandvik Rock Processing brings capabilities across the flowsheet to ensure optimal equipment performance. On-site audits can generate the necessary insights to achieve effective integration across the crushing and screening process.

roduction efficiency in crushing and screening demands equipment that is meticulously selected and optimised for its duty, but it also calls for precise integration between all the elements of the plant. Tarynn Yatras, Vice President of Sales Area Africa at Sandvik Rock Processing, spoke to Modern Mining about what allows the company to design, install and maintain highly productive and reliable equipment.

"Our capabilities across the value chain in crushing, screening and screening media are based on a detailed understanding of each phase of the process, so we can pinpoint opportunities for improvement."

Yatras highlights the importance of being able to carefully analyse the performance of crushers and screens in relation to each other, rather than only focus on the behaviour of each. She points to the company's technical auditing capability, based on a wide range of offerings, which can unlock value in both throughput and recoveries.

"In a recent site visit, for instance, we were able to analyse a challenge that a customer was experiencing with screen panels clogging or blinding," she explains. "Their initial response, to replace the screens with mesh, was leading to considerable loss of valuable product; we were able to resolve the issue and increase recoveries by offering screening media suitable for the application."

The expertise and equipment range for providing integrated solutions is a key enabler for Sandvik Rock Processing in its partnership with customers. Enhancing this capability is the company's in-house Plant Designer simulation, a software tool that can be applied in both greenfields and brownfields applications, according to Frengelina Mabotja, Business Line Manager Screening Solutions at Sandvik Rock Processing.

Plant Designer allows the preparation of flowsheets from concept level or pre-feasibility stage, giving mines or engineering, procurement and construction (EPC) companies considerable agility in planning their projects.

"With the current and future demand for commodities looking strong, especially for critical minerals that feed the energy transition, mining projects in Africa are looking for the ability to ramp up quickly when necessary – and to be responsive to market changes," says Mabotja. "Customers are also looking for innovations that will drive their productivity as market demand increases."

She points to the growing contribution of automation in the efficiency of crushing and screening equipment, where

customers in Africa have not been slow in embracing technology. In fact, one of two global pilot projects for Sandvik Rock Processing's latest remote monitoring technology is being conducted in Southern Africa.

"Our next generation vibrating screens – the SK range – are out in the market, designed to meet the highest standards of safety and productivity," she says. "These units deliver the lowest total cost of ownership through ensuring that customers achieve maximum uptime and reliability."

On the crushing side, the most recent innovations have been encapsulated in the Sandvik 800 Series cone crushers – released at the end of 2023. According to PC Kruger, Business Line Manager for Crushing Solutions at Sandvik Rock Processing, this exciting range has been designed from the ground up with smart functionality and a number of reliability enhancements.

"The range comes standard with automation and digital features that allow it to be easily integrated into a connected system," says Kruger. The first units have already been installed in Africa, including a replacement of an older Sandvik crusher to radically enhance throughput for a mining customer. Importantly, the necessary skills transfer was conducted to allow a local team to successfully conduct the installation."

This new range is equipped with the hydraulic Hydroset system which provides safety and setting-adjustment functions. This optimises crusher performance by integrating a level of automation, where parameters are automatically set to an optimal range. Also, an electric dump valve which acts immediately ensures that hazardous objects like a steel ball from a mill can be released from the crusher before causing damage.

Sandvik's ever-evolving digital assistant platform SAM is also supporting operational excellence in crushing and screening plants, says Yatras. She emphasises the value of the data that can be collected by SAM, both for customers around Africa and for Sandvik Rock Processing's service and aftermarket teams.

"We have a large installed base all over the continent, and our 'Connect the Crusher' initiative is ramping up the monitoring of this equipment to everyone's benefit," she explains. "Customers can use our digital tools to remotely monitor their equipment performance, and we can also harness the value of this data as a value-add service to customers."

By analysing the performance data using powerful models and algorithms, SAM is able to recommend interventions that can boost productivity, prevent unexpected downtime and



A Sandvik 800i cone crusher on a mine site.



Sandvik's mobile equipment ensures quick setup and relocation, keeping projects on schedule with minimal downtime.

#### enhance machine life.

"Another vital aspect of our service capability is our local presence across Africa, where Sandvik Rock Processing has representation in each country where Sandvik has a corporate legal entity," she explains. "We are continually building in-country technical competence in our crushers and screens, so that our services are responsive to the urgency of customers."

The company's recently appointed service technicians in Tanzania, for instance, have been through its two-year graduate training programme. This focused expertise is supported by the necessary warehousing facilities for components and wear parts, making it quicker to deliver solutions to mining customers.

"Our training initiatives are highly valued by our mining customers, who also collaborate with us to nurture skills for their mines," she says. "This is an essential part of the contribution we make not only to our customers, but to the local economy and the mining industry as a whole."



### Weir's wear reduction technology cuts energy costs in pumping

As part of Weir's mission to support its customers' sustainability efforts, Wear Reduction Technology (WRT®) upgrades have made both WARMAN® and ENVIROTECH® pumps more energy efficient and longer lasting.

ith Weir's large installed base of WARMAN<sup>®</sup> and ENVIROTECH<sup>®</sup> pumps around the world, the most impactful sustainability strategy was to improve the efficiency of equipment already in the field, according to Marnus Koorts, General Manager Original Equipment at Weir. The best place to start was with its renowned WARMAN<sup>®</sup> AH<sup>®</sup> pumps which are used by almost every mine on the planet.

"Our aim was to enhance our current models to deliver superior wear life and energy efficiency," he says. "The WRT component combination does this by allowing upgrades that integrate seamlessly into existing infrastructure without extra capital investment."

Introduced to the African market in 2010, WRT<sup>®</sup> components deliver an energy saving of 3 to 5% to WARMAN<sup>®</sup> AH<sup>®</sup> pump owners and have extended the lifespan of these pumps from 30% to 50%. This has meant direct on-site cost savings and significantly reduced energy consumption from the large number of these pumps in operation worldwide.

At the heart of the WRT<sup>®</sup> component breakthrough is improved hydraulic efficiency, achieved through advances such as the optimised design of the impeller and throatbush. For instance, the WRT<sup>®</sup> impeller features specially developed vanes that guide fluid more efficiently, reducing turbulence and minimising energy loss.

"The design of the WRT impeller improves flow characteristics, compared to older designs with steeper vane angles," he explains.

In another innovation, the new design of the impeller guides fluid more efficiently to mitigate against the creation of eddies. These eddies are swirling circular currents of fluid which form within the pump volute due to turbulent flow, and lead to fluid moving against the main flow, wasting energy and increasing wear on internal components.

"We have also improved efficiency by minimising the surface area of the WRT impeller, by reducing the number of vanes from five to four," he says. "This creates more space for the material to flow while still delivering the same duty."

Critical to the impact that the WRT<sup>®</sup> component upgrade has had on energy efficiency in pumping operations is its enthusiastic uptake by the market. Koorts highlights that Weir's strategy was to make the transition for customers as easy and economical as possible. Being interchangeable with WARMAN<sup>®</sup> pumps' older technology, the WRT<sup>®</sup> components allow customers to switch over without extra capital expenditure – by changing to WRT<sup>®</sup> options when existing parts need to be replaced.

"This has already allowed most of our customer base to adopt the latest energy-efficient options," he says. "In Africa, for instance, all new WARMAN AH pumps sold contain WRT technology and a majority of our existing WARMAN AH pumps have already been converted."

With Africa being home to a large installed base of ENVIROTECH<sup>®</sup> pumps, the WRT<sup>®</sup> component technology has been extended to this popular range. Koorts notes that the company is committed to Africa and to the technologies currently in use.

"For the past two years, therefore, we have been supplying our ENVIROTECH pumps with WRT as standard," he says. "Today, more than half of all our ENVIROTECH pump spares sales are WRT designs."

Underpinning these technical advancements is Weir's local investment in production capacity, which allows the company to cast and machine its pumps and components in South Africa.

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# Volvo Construction Equipment **unveils brand new lineup of articulated haulers**

The inventor of the articulated hauler, Volvo Construction Equipment (Volvo CE), recently unveiled its biggest and boldest articulated hauler launch to date. Delivering superior innovation, the new range is designed to meet the modern-day need for connected solutions, productivity performance, and emission reduction, with the human at the centre.

- Volvo CE's update represents a complete overhaul of its existing articulated hauler lineup, now ranging in size from A25-A60.
- An entirely new model, the A50, has been introduced, increasing customer opportunities in the demanding hauler segment.

### A new range from A25-A60

Volvo CE, the pioneer behind the world's first articulated hauler 'Gravel Charlie' in 1966, recently announced the launch of a new lineup of worldclass articulated haulers, which is set for stepwise introductions on markets globally during 2025.

The updated models mark a significant technological leap forward thanks to key innovations such as a new electronic system and an in-house developed transmission, delivering fuel efficiency improvements of up to 15% depending on model and industrial application. Furthermore, the machines' new stateof-the-art design has been constructed in such a way as to adapt over time to fit future drivetrains.

### A new member of the family, the A50

A highlight of the launch is the all-new A50 model, which expands customer opportunities in the demanding hauler segment. This addition, available in selected markets, underscores Volvo CE's commitment to meeting the evolving needs of its customers by enhancing operational capabilities and offering more choices.

The result is cutting-edge, safe, and productive machines that have been purpose-built to lower total cost of ownership and respond to the challenges of today and tomorrow across the toughest of worksites, especially when combined with Volvo CE's pioneering digital solutions, such as the Haul Assist



Volvo CE's update represents a complete overhaul of its existing articulated hauler lineup, now ranging in size from A25-A60.

with onboard weighing.

Melker Jernberg, President of Volvo CE said: "For nearly 60 years we have been leading the way with our range of articulated haulers and now with the recent launch of a new range of outstanding products, including one completely new model, we prove that there are no limits to our capacity for innovation. "Our customers know

Volvo Construction Equipment unveils brand new lineup of articulated haulers.

to expect a first-class operation when they get into one of our haulers, but that experience has just become even better with a host of cutting-edge features designed with our customers in mind."

### A circular approach

Developed to be among the most fuelefficient hauling solutions on the market, the new models have also been built with a focus on sustainability. This includes the introduction of low carbon emission steel – made from recycled materials and produced using fossil free electricity and biogas – in serial production of haulers manufactured at the Braås site in Sweden. Given steel is a major component in Volvo CE products – and traditionally generates significant carbon emissions – material circularity is another example of Volvo CE taking action across its operations to achieve net zero greenhouse gas emissions by 2040.

### A step towards the future

The launch is part of Volvo CE's most extensive product portfolio overhaul in decades, with over 35% of its range renewed in the past 12 months. It marks a pivotal step in the company's ongoing commitment to innovation and leadership in the construction equipment industry.





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# Multotec opens test work and showroom facility

Multotec recently opened its consolidated research and development and test work facility, designed to improve process flow to efficiently serve the global mineral processing industry. This facility, located in Spartan, outside Johannesburg, now boasts a showroom for an enhanced customer experience.



Faan Bornman, Technology Manager - Processing Equipment, Multotec



Chris Oldewage, Technology Manager - Screening Media, Multotec

he Multotec technology division conducts comprehensive test work for clients who supply material for testing. This service supports the continuous improvement and development of Multotec's equipment range. Multotec's test work services are available to assist the global mineral processing market, tertiary institutions, and both customers and non-customers.

### Range of test work capabilities

"The facility offers test work driven development work completed on spirals, hydrocyclones, tailings, and effluent streams. We also conduct sedimentation and filtration test work with the laboratory and pilot scale centrifuges," explains Faan Bornman, Technology Manager – Process Equipment at Multotec.

"In terms of screening media, we test materials such as rubbers and polyurethanes, different aperture profiles, perforated thicknesses, and wedge wire type of screen equipment. Our facility features a vibrating screen, sieve bend and static drain screens, a trommel screen, and a pump cell for interstage screening," says Chris Oldewage, Technology Manager – Screening Media at Multotec.

Commenting on the main benefits that Multotec's research and test work facilities provide



to customers and the broader mineral processing industry, Bornman says that the test work reduces project risks and provides a solid foundation for the design and optimisation of process facilities.

"It is also about optimising process flows and processing minerals in a more cost-effective way. Through our test work, we confirm throughput rates on existing plants because we test on production-size equipment. Additionally, we test for product and process efficiencies and recoveries. For example, we determine how much mineral with clients can expect to recover from their spiral and cyclone tests," he says.

Furthermore, Bornman notes that the test work can predict specific outputs and improve plant efficiencies for brownfield applications, with Multotec being able to compare its test results with a client's real plant scenario.

#### Enhanced customer experience

The recent expansions to Multotec's showroom and training areas have significantly enhanced the customer experience. The facility now showcases a full spectrum of its equipment in plant size and scale versions. Additionally, more common items such as Multotec's latest range of spirals are also on display.

Bornman says that customers are encouraged



various apertures, and thickness.

Multotec tests screening media materials such as rubber, polyurethane, wedge wire with to visit the consolidated facility, to experience firsthand how the equipment operates and see the production and workshop facilities in action.

Oldewage adds that, from a customer experience perspective, being able to see the equipment often sparks curiosity and a desire to learn more. "Seeing and feeling the equipment offers a much better experience than just hearing about it, which normally makes a huge difference," he says.

Various commodities are supported by these advanced test work facilities, including chrome, coal, copper, gold, iron ore, mineral sands, platinum, lithium and chemical salts, among others. Multotec has also recently conducted environmental focused test work for a company that recovers electronic waste.

### **Tertiary education synergy**

Multotec's commitment to nurturing future potential extends beyond financial support, the company provides work experience to students during the holidays with preference given to its bursary students. "We are happy to help students with their practical work, and it also gives us the opportunity to identify promising talent who could join Multotec in the future. Students are able to gain invaluable experience by helping us get some of our smaller projects off the ground. We also have Master's Degree students who come to work on our equipment," says Bornman.

"The facility is there to serve the industry. It is an opportunity to help customers optimise their processes, ensure efficient operations, and work on better recoveries. It's about innovation and listening to the needs of clients," he concludes.



# 50 years of mining excellence **by Trollope Group**

As a leading force in opencast mining, Trollope proudly celebrates its 50th anniversary this year. Since its establishment in 1975, the company has built a reputation for delivering reliable solutions with a professional yet approachable and friendly attitude.





pecialising in medium- to large-scale mining operations, Trollope offers a comprehensive range of services, including opencast contract mining, crushing and screening, mine infrastructure development, bulk earthworks, rehabilitation, and plant hire. With one of Africa's largest fleets, the company is dedicated to meeting the industry's diverse requirements while delivering projects with efficiency and accuracy.

Over the years, Trollope has acquired significant experience in extracting a variety of commodities such as coal, platinum, copper, andalusite, gold, phosphate, lithium, uranium, iron ore, manganese, limestone, and diamonds. This versatility has established the company as an adaptable partner capable of managing the unique project complexities that characterise the industry.

Operating in South Africa, Botswana, and Namibia, with recent projects completed in the DRC and Guinea, Trollope is strategically broadening its presence across Africa by venturing into new mineral sectors and regions, while embracing the challenges of operating in remote and demanding areas.

The company recognises Africa's immense potential but is committed to conducting work in a sustainable manner, while carefully considering the needs of the local communities around which it operates.

## FUCHS LUBRICANTS SOUTH AFRICA **doubles** sales volume

An aggressive growth strategy in South Africa and Sub-Saharan Africa over the past decade has resulted in a CAGR of 6% in volume sold since 2015. "The result of this is that sales volume has nearly doubled in this time," said Paul Deppe, managing director of FUCHS LUBRICANTS SOUTH AFRICA and Regional Vice President of sub-Saharan Africa.





Paul Deppe, Managing Director at FUCHS LUBRICANTS SOUTH AFRICA.

aul Deppe was speaking at the official opening of the expanded facility of FUCHS LUBRICANTS SOUTH AFRICA in Isando. "This growth would not have been possible had the FUCHS Group not had the confidence and desire to support its subsidiary in South Africa." More than R650 million has been invested in creating capacity at the South African subsidiary over the past eight years. "It is a huge confidence boost in the country and the FUCHS business in South Africa," said Paul Deppe.

Joining the event from FUCHS SE was Dr. Ralph Rheinboldt, chairman of the South African subsidiary and member of the FUCHS SE Executive Board responsible for EMEA, Dr. Sebastian Heiner member of the FUCHS SE Executive Board and CTO, and Matthias Spethmann, Vice President of EMEA OEM sales.

"FUCHS has marked a significant milestone with the completion of its expanded plant in Isando", said Deppe. The project commenced in 2020 with the purchase of an adjacent site to accommodate the company's growth. This expansion follows the initial investment in a new grease plant commissioned in 2018.

The newly built facility, which now spans 6 ha, doubling its previous size, represents a R500

million investment in "creating capacity" and technological advancement. The project includes a new office complex, warehouse, laboratory, tank farm, oil lubricants blending plant, and state-of-theart filling machines. Completed in December 2024, the expansion has increased production capacity by over 40%.

The development has been a key factor in FUCHS's growth, which now employs nearly 450 people, up from 250 in 2015. No staff redundancies took place during this period, with the company continuing to invest in employee training and upskilling.

FUCHS worked closely with several partners, including global engineering firm DRA Global, the Engineering, Procurement, and Construction Management (EPCM) consultant. Other consultants who contributed significantly were GPD Studio (architect), ILS (warehouse designer), ASP Fire (fire engineer), Stadler & Schaaf (plant automation), and Handson Electrical (electrical engineer).

Among the highlights of the new facilities is the modern office complex, which serves as the head office for South Africa and regional office for Sub-Saharan Africa. It is designed to house 110 people in a sustainable, energy-efficient environment, certified net-zero carbon by the Green Building Council of South Africa.

The new 7 000 m<sup>2</sup> warehouse, four-and-a-half times larger than the previous one, incorporates SAP warehouse management technology supported by integrated scanning systems, and design incorporating narrow and wide aisle racking for flexibility and to maximize space utilisation. The automated fire system conforms to NFPA standards and includes automated spill barriers. In addition, sustainability elements such as rainwater harvesting and a solar PV system will increase total renewable energy supply to 30%.

A critical part of FUCHS's value offering is quality control and product development. With the growth of operations, the laboratory has been renovated and upgraded. The upgraded laboratory supports FUCHS's commitment to quality control and product development.

The expansion of the oil lubricants production capacity includes a new tank farm, blending plant, and filling hall designed for future growth. The tank farm includes capacity for 1 300m<sup>3</sup> of base oil storage, 120m<sup>3</sup> of heated additive storage and 300m<sup>3</sup> of blending capacity.

There are 3 new filling lines, an IBC and drum line, a 20L filling line and Small Pack filling line currently configured to fill 5L and 1L pack sizes. All three lines have a high degree of automation. The IBC and drum line features a diving head piston nozzle to limit foaming and a load cell with level sensors for accurate volume and weight



From left to right: Dr. Ralph Rheinboldt, chairman of the South African subsidiary; Paul Deppe (MD) and Dr. Sebastian Heiner, member of the FUCHS SE Executive Board.

measurement. The 20L line and Small Pack filling line all have a range of quality features such as weight checking, cap sensing, induction sealer sensing, label vision sensing and batch code printing.

"This expansion is set to enhance FUCHS's operational efficiency, quality control, and production capacity, ensuring continued growth and customer satisfaction. The company extends its gratitude to its employees, consultants, and customers for their unwavering support throughout this transformative journey," concluded Deppe.



# Emerging technologies for mine ventilation and cooling

By Wynand Marx, CEO at BBE Group

Emerging technologies for mine ventilation and cooling - striking the right balance between energy efficiency and health and safety



Surface air-cooling systems.



Wynand Marx, CEO at BBE Group.

n South Africa's mining sector, balancing energy efficiency with the health and safety of workers in underground mines is an enduring challenge due to the ventilation and cooling demands of heat, dust, and gases generated by the mining process. Ventilation and cooling systems are high energy consumers and an obvious target for energy reduction and optimisation efforts. At the heart of this balance lies the responsibility and challenge of ensuring a safe and healthy workplace while managing energy costs optimally. New technologies and methodologies offer promising solutions, but the key lies in adopting systems that improve energy efficiency while maintaining the highest standards of health and safety. Addressing health and safety risks interactively and simultaneously with energy saving efforts is essential to responsible mining.

### The energy efficiency challenge

Ventilation systems are essential for maintaining safe and healthy working conditions in underground mines, accounting for between 25% and 50% of total energy consumption. Main fans and refrigeration systems use big electric motors to circulate large quantities of conditioned air through deep and extensive mine workings. Traditionally, these substantial energy consumers operate at maximum capacity regardless of real-time needs, resulting in high energy use, increased operational costs, and a larger carbon footprint.

Emerging technologies such as Ventilation on Demand (VOD) are transforming how mines manage ventilation supply. Using real-time data, VOD systems adjust ventilation according to the specific needs at any given moment, based on factors like the location of workers and machinery. This approach significantly reduces energy consumption and demonstrates how intelligent systems can maintain health and safety while enhancing energy efficiency.

In addition to VoD, transitioning to optimised cooling strategies can lead to significant savings; however, these changes require careful planning. One example is modular underground cooling systems with short lead times, easy transportation and assembly, low capital and operating cost, and the ability to operate with minimal maintenance.

### Prioritising health and safety

Although energy efficiency is a pressing concern, health and safety must remain the priority of mining operations. Poor ventilation can lead to serious long term health issues for workers, including respiratory diseases and risks associated with long-term exposure, such as radiation. The South African mining industry has seen firsthand how neglecting these concerns can result in costly repercussions - not just in terms of regulatory fines but also through diminished workforce morale and productivity. This further reinforces why striking a balance is critical.

By designing, implementing, and operating adequate ventilation and cooling systems, mines can reduce the health impacts that workers face daily. Modelling of mine ventilation networks, for example, enables operators to identify high-risk areas where heat or gas buildup could occur, allowing issues to be addressed before they escalate. This proactive approach not only enhances worker health and safety but also improves operational efficiency by reducing downtime caused by health-related incidents.

### Looking ahead: Balancing innovation with practicality

The future of mine ventilation and cooling in



Modelling of mine ventilation networks enables operators to identify high-risk areas where heat or gas buildup could occur.

Ventilation and cooling systems

are high energy consumers.

South Africa lies in the adoption of technologies and strategies that do more than just reduce energy consumption - they must support a safe, health-conscious work environment. Mines that prioritise both efficiency and health can achieve a competitive advantage, particularly as stakeholders evaluate companies based on their commitment to worker welfare and environmental responsibility.

As the industry moves toward smarter, greener solutions, the true measure of success will be in how well mines strike this balance. Technologies that reduce the environmental footprint are necessary, but only if they are coupled with measures that genuinely protect and enhance the well-being of those on the front lines of the mining industry. In navigating this complex landscape, mines can lead the way in setting new standards



for a safer, more efficient, and more responsible mining sector.















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# Driving Beneficiation: A win-win approach

By Dominic Varrie and Lili Nupen of NSDV



Lili Nupen of NSDV.



outh Africa has incredible potential to stimulate massive economic growth, development, and job creation by promoting local mineral beneficiation. The country should start to harvest this largely untapped opportunity by leveraging the country's mineral wealth through transforming raw minerals into higher-value products locally.

It can not only drive empowerment for historically disadvantaged South Africans (HDSAs) but also foster entrepreneurship in industries that emerge from mineral processing. However, to realise these benefits, South Africa must adopt a balanced approach that encourages local value addition without imposing rigid mandates that could deter investment and ultimately cripple the industry.

### The role of beneficiation

Speaking at the 55th Annual Meeting of the World Economic Forum in Davos, Ramaphosa emphasised South Africa's focus on solidarity, equality, and sustainable development as it assumes the G20 Presidency and prepares to host the summit in Johannesburg on 18-19 November 2025—the first G20 summit in Africa.

Ramaphosa exhibited that this platform would be leveraged to champion local beneficiation, resulting in "an additive rather than an extractive relationship.

"As minerals extraction accelerates to match the needs of the energy transition, the countries and local communities that are endowed with these rich resources must be the ones that benefit most. At the moment they don't benefit much because the benefit flows out of their own countries to other locales in the world," Ramaphosa said.

By processing raw minerals into more valuable products, a country can retain more economic value within its borders, whether through local consumption or export of finished goods. Many countries worldwide have introduced restrictions on the export of unprocessed materials to drive this process, primarily seeking to extract greater revenue and promote socioeconomic development.

While these policies can be beneficial, they often come with unintended consequences. The administrative and financial burdens associated with beneficiation pose a significant hurdle for investors. South Africa's approach must carefully balance the need to boost beneficiation with the realities of its current economic and infrastructural limitations, as well as strategic contractual arrangements that are of value to the country.

### **Challenges faced in South Africa**

Despite its mineral wealth and relatively developed financial infrastructure, South Africa faces considerable barriers in advancing its beneficiation efforts. The country's power and logistics crises have crippled several industries, making local beneficiation difficult without foreign investment.

The Minerals Council of South Africa has stressed the



Nigeria's new policy only grants mining licenses to companies with local processing plans.

importance of addressing these infrastructure challenges before pushing for further export taxes or restrictive measures. Their stance is that the country should adopt a "carrot" rather than a "stick" approach, offering incentives to encourage beneficiation, while simultaneously removing barriers such as energy constraints. By creating an investor-friendly policy environment, South Africa could reindustrialise and attract both domestic and foreign investments.

### The case for incentives over mandates

Minister of Mineral and Petroleum Resources, Gwede Mantashe, recently proposed measures to promote local beneficiation, including taxing primary mineral exports and providing incentives like tax holidays or electricity tariffs linked to commodity prices.

Given South Africa's already financially and administratively burdensome mining regulatory framework, which poses significant challenges for those interested in capitalising on the country's resources, mandating beneficiation would likely exacerbate these difficulties. Such a requirement would further increase the cost and complexity of doing business, potentially deterring much-needed investment in the mining sector.

### International models of incentivised beneficiation

Looking to international examples, in a comprehensive reform effective 8 July 2024, the Argentine Congress introduced the Promotional Regime for Large Investments (RIGI), designed to provide certainty and legal stability for long-term investments in Argentina.

A key element of this reform is the creation of the RIGI, which offers generous tax, trade, and foreign exchange benefits for 30 years to projects exceeding US\$200 million in sectors such as forestry, tourism, infrastructure, mining, technology, steel, energy, and oil and gas. The government aims for RIGI to attract foreign direct investment (FDI) to export-oriented sectors, which are crucial as Argentina remains excluded from global capital markets. The RIGI has introduced a suite of tax incentives, reduced dividend taxes, and foreign exchange benefits to encourage large-scale investments in sectors like mining and energy.

### The risks of forced beneficiation: lessons from Nigeria and Zimbabwe

Nigeria and Zimbabwe provide examples of how forced beneficiation mandates can create mixed results. Nigeria's new policy only grants mining licenses to companies with local processing plans, while offering incentives like tax waivers and streamlined electricity licenses to attract investment. Zimbabwe, meanwhile, has mandated that lithium miners submit plans for local production of battery-grade lithium, hoping to capitalise on the global demand for clean energy minerals.

However, both countries face challenges in implementing these policies effectively. The risk with such mandates is that they can stifle investment if they are not coupled with robust incentives and adequate infrastructure support, as seen in other parts of Africa.

### Conclusion

South Africa's mineral beneficiation strategy should be rooted in a flexible, incentive-driven approach that recognises the realities of its current economic landscape. By offering targeted incentives—such as certain tax breaks like a "tax holiday" for a certain number of years, reduced tariffs, or subsidised electricity or other innovative mechanisms—while addressing critical infrastructure challenges like energy and logistics, the country can encourage local value addition with a positive impact on host countries without discouraging mining investment.

At the same time, South Africa must carefully assess which minerals and industries are best suited for beneficiation, using a case-by-case evaluation rather than a one-size-fits-all mandate. By learning from international models and focusing on long-term economic benefits, South Africa can create a win-win scenario for its economy, its investors, and its people.

### Two Babcock branches attain Volvo Certified Rebuild certification

Following a rigorous vetting process, Babcock's Bartlett (Gauteng) and Middelburg (Mpumalanga) branches have been officially accredited as Volvo Certified Rebuild Centres. The latest service offering helps customers in southern Africa to optimise the lifecycle of their Volvo articulated haulers, excavators and wheel loaders. Corno de Jager, National Technical Manager at Babcock, says the certification underscores Babcock's commitment to providing cost-effective, sustainable and high-quality solutions to its customers in the mining, construction and heavy equipment industries. Achieving the certification, he adds, is also testament to the expertise and dedication of Babcock teams. "Following the certification, Babcock joins an elite group of only 19 other certified Volvo Rebuild dealers globally, demonstrating that our facilities meet the rigorous standards required for personnel, infrastructure, and processes," says De Jager. Volvo also states that, based on other dealer performance, customer cost of ownership was reduced by 8%. Additionally, Volvo Certified Rebuild, together with Volvo Financial Services, offers customers tailor-made financial support with payment periods of up to 48 months. As capital equipment owners across industries seek innovative

# Bobcat to premier new 1-2 t mini excavators at Bauma 2025

Bauma 2025 will host the world premiere of Bobcat's new, groundbreaking 1-2 t mini excavators and the latest upgrade of the E88 mini excavator, the top-of-the-range model in Europe. Bobcat will also demonstrate how it is bringing its cutting-edge technologies to the jobsite of the future. From the RogueX and RoqueX2 autonomous loader concepts, the TL25.60e electric telehandler concept and electric machines such as the T7X and S7X compact loaders and the E10e and E19e electric mini excavators. "The new 1-2 t mini excavator models build on the successes of the previous generation of machines with well over 34,000 units already retailed. After 3 years of development, the new models, featuring over 500 new components, will be available in the European, Middle Eastern and African (EMEA) markets later this year. The new generation of 1-2 t mini excavators includes the E16, E17z, E19 and E20z models. The line-up offers new levels of performance and features, a fresh look and is designed to meet the specific needs of EMEA customers. Captions: Bobcat: Bobcat T7X Compact Track Loader. 🔳

### Ericsson and Comsol highlight Ericsson Private 5G at African Mining Indaba

Swedish telecommunications company, Ericsson, and Comsol were jointly present at the African Mining Indaba conference held in Cape Town, South Africa, where they engaged with various mining industry stakeholders to explore opportunities for digital transformation and economic growth within the African mining sector. Enterprises in the African mining sector are focused on digitalisation and are leveraging autonomous or remote-controlled vehicles, asset tracking, and connecting workers for safety, communications, and remote assistance. Current connectivity challenges, like hardto-reach coverage areas, network congestion, and Wi-Fi limitations have presented significant challenges in executing on smarter



ways to control their costs and meet their environmental obligations, the Volvo Rebuild Programme offers the best of both worlds. It allows customers to extend the lifespan of their existing equipment at a reduced cost of buying new machinery – a value offering for fleet owners facing economic pressures or wanting to maintain certain production levels without significant capital investment. ■

> operations. In response to these challenges, Ericsson and Comsol showcased the Ericsson Private 5G solutions at the conference to accelerate digital transformation and demonstrate robust and reliable connectivity for the mining industry and beyond. Ericsson Private 5G enables secure, reliable, high-speed 4G and 5G connectivity, powered by its robust dual-mode core and industry-leading radio portfolio. Majda Lahlou Kassi, Vice President and Head of Ericsson West & Southern Africa, says: "Ericsson is committed to empowering the mining industry with advanced connectivity solutions like Ericsson Private 5G that drive digital transformation and achieve enhanced levels of efficiency and innovation. Our instrumental participation at the African Mining Indaba allowed us to engage directly with industry leaders and showcase how our technology can contribute to a more connected and sustainable future in mining in partnership with Comsol."

# Training unlocks performance

KOMATSU 💇



# The new era of pump wear technology

The efficient operation of slurry pumps in the mining industry is critical and pump wear technology is playing an increasingly significant role in monitoring and maintaining pump performance. An innovative solution that is making waves in the industry is the KSB GIW® SLYsight technology. This advanced slurry pump wear monitoring technology is changing the way pump wear is detected and managed and is leading to improved pump performance with longer equipment lifespans. According to KSB Pumps and Valves' Market Area Manager for Mining, Jacques Pretorius, the transportation of abrasive and corrosive mixtures in mining operations is the task of slurry pumps. The nature of this duty inevitably results in wearing of sacrificial components. It is crucial for slurry pump users to manage the results of this wear in relation to maintaining optimum pump efficiency. Although traditional methods



of monitoring and managing pump wear through manual inspections and scheduled maintenance are common, they come with limitations such as time and resource expenditure. "KSB GIW<sup>®</sup> SLYsight utilises custom sensors, in strategic locations, to measure the actual wear rate of a slurry pump's parts including the internal clearance between the suction liner and the impeller - also known as the "nose gap." The data collected by the sensors as the pump runs is shared through periodic reports. Caption: KSB: The KSB GIW<sup>®</sup> SLYsight technology is an advanced slurry pump wear monitoring technology. ■

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- Unmatched drilling speed and reliability

### New FLS NexGen polyurethane changes the game in screen media

After a rigorous three-year testing period, FLS used Electra Mining 2024 to officially launch its NexGen polyurethane, a heavy duty and hard-wearing screen panel for large particle applications. Combining physical properties of rubber and polyurethane elastomers, the NexGen offers excellent wear resistance in highly abrasive applications such as early-stage screens and trommels. As part of its dedication to providing top-tier screening media solutions tailored to meet the rigorous demands of commodity areas, FLS has brought to market its NexGen polyurethane screen media panel. Designed to offer long wear life, the NexGen polyurethane panel is ideally suited for early-stage screens and trommels where high abrasion is the order of the day.

"Due to its extremely durable properties, it lasts longer than rubber or standard polyurethane in high impact applications. In some instances, it has been proven to offer double the screen panel wear life of rubber in these high-abrasion environments," explain



Chris Currie, Service Line Manager at FLS. One of the major benefits of the long wear life is the reduction of costs. Frequent screen panel replacement leads to high maintenance and operating cost, while lowering equipment productivity at the same time. In addition, regular replacement means that screen maintenance personnel have to spend an incredible amount of time on the screen changing panels, increasing the safety risk in the process. "With increased wear life also comes a significant reduction in waste not just in the material itself, but also in the supply chain. Less frequent panel changes mean that there is less energy used, less transport required and less stock needed, which in turn is a huge sustainability tick for our customers," says Currie. In several trials conducted during the test period, the NexGen polyurethane proved to be in a league of its own in terms of wear life. ■

### Optimise your mine with full-service support and expertise for your Joy equipment

Joy Global (Africa), part of the Komatsu Mining Technologies group has a storied history in mining, providing solutions to the Underground Coal Mining industry for more than 100 years.

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### Index to advertisers

BBE	35
BME	19
FLS	8
IDC	IFC
Invincible Valves	OBC
Komatsu	38
KSB	33
Powerbit Rocktools	39
Resources4Africa	IBC
SEW EURODRIVE	29
Vega	3
WEG	21
WEIR	27

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Resources 4 Africa is pleased to announce the 11<sup>th</sup> edition of its annual **Junior Indaba**, a popular meeting place for junior miners which is enjoyed by all for its incisive, informative and frank discussions tackling the challenges and opportunities for exploration and junior mining companies in South Africa and elsewhere in Africa. This year discussions will focus on the role of juniors in meeting the demand for critical metals and minerals, the global outlook for commodities, investors' perspectives on junior mining projects, ESG and energy security considerations and more. We will feature several junior miners who have successfully managed to get their projects off the ground, as well as our regular features - Myth Busters and a showcase of presentations from junior miners across the continent.

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