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OCTOBER - DECEMBER 2026



**PAGE 16. BEYOND THE SOURCE:
HOW MINES CAN INVESTIGATE
DOWNSTREAM PROCESS IMPACTS**



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ACHIEVE UNMATCHED PRECISION IN COAL MINING: UNLOCK THE POTENTIAL OF SEAMLESS INTEGRATION AND AUTOMATION WITH VEGA SENSORS FOR SUPERIOR PERFORMANCE AND EFFICIENCY.

South Africa's coal mining industry is a large contributor to the economy. With approximately 35 billion tons of proven coal reserves, the country ranks eighth globally and accounting for roughly 3% of the world's total coal reserves. In 2023, this sector generated revenues totalling 654 billion South African rand (approximately 34.8 billion U.S. dollars). The industry not only significantly contributes to the national GDP but also employs thousands, underscoring the necessity for efficient and uninterrupted operations.

In coal mining operations, block shoot systems play a significant role in material handling, enabling the controlled transport of coal between various processing stages. Accurate level measurement within these systems is vital to reduce the risks of overflows, blockages, and equipment malfunctions. Traditional measurement technologies—such as capacitive probes and microwave sensors—often face challenges in the taxing environment of coal mines. Factors such as dust accumulation, magnetic interference from machinery, and physical disruptions from falling rocks can lead to measurement inaccuracies or sensor failures. These issues may result in operational delays, increased maintenance costs, and safety concerns, emphasizing the need for more durable measurement solutions.

Reliable Performance

The VEGAPULS 6X operates on radar technology, transmitting radio waves and measuring the reflected signals to determine the distance to the material surface. Unlike capacitive probes, which are susceptible to damage from rocks or microwave sensors affected by magnetic fields, this non-contact radar sensor remains unaffected by physical impacts and electromagnetic interference. Its design ensures uninterrupted operation even in the dusty, magnet-laden environment of coal mines.

By providing continuous, real-time data on coal levels, the VEGAPULS 6X enables efficient monitoring and control of the block shoot system. This real-time insight helps prevent blockages and overflows, ensuring smooth operations. The sensor's non-contact measurement approach is particularly advantageous in dusty environments, as it eliminates direct contact with coal,

reducing wear and tear and enhancing long-term reliability.

When integrated with the 841 controllers, the VEGAPULS 6X functions as an automated switch, activating or deactivating based on preset material levels. This automation streamlines operations, reduces the need for manual intervention, and enhances overall efficiency.

Case Study: Enhancing Efficiency in a South African Coal Mine

A South African coal mine faced frequent operational interruptions due to unreliable level measurements in its block shoot system. The existing capacitive probes and microwave sensors were prone to failures caused by dust accumulation and magnetic interference, leading to blockages and overflows. These issues resulted in costly downtime and increased maintenance efforts.

Upon implementing the VEGAPULS 6X radar sensor paired with 841 controllers, the mine experienced a significant improvement in operational efficiency. The robust performance of the radar sensor ensured accurate and reliable level measurements unaffected by the harsh environmental conditions. The real-time data provided by the sensor allowed for proactive management of coal levels, preventing blockages and overflows. The automation facilitated by the 841 controllers reduced the need for manual monitoring and intervention, leading to smoother operations and reduced labour costs.

In the environment of coal mining, the reliability and accuracy of measurement instruments are essential for maintaining efficient and safe operations.

VEGA's VEGAPULS 6X radar sensor, when combined with the 841 controllers, provides a solution to the challenges encountered in block shoot systems. This technology delivers precise, real-time level measurements and facilitates integration into automated systems, which can enhance productivity, reduce operational interruptions, and potentially increase the profitability of coal mining operations.

As South Africa continues to utilise its considerable coal reserves, the incorporation of advanced technologies such as the VEGAPULS 6X can play a role in optimising mining processes and supporting the industry's significance in the economy.

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ELIZABETH BAY: THE MINE THAT WON'T STAY DEAD

Dutch investor Kenzoll Capital is the latest to bet on the diamond field south of Lüderitz, which has outlived its original mine plan, two owners and at least four restarts. This time the pitch reaches beyond diamonds.

There has rarely been much doubt that diamonds remain at Elizabeth Bay. For more than three decades the harder question has been whether they can be recovered profitably from a mine that has repeatedly needed fresh capital, redesigned processing and new owners to stay alive.

That question has returned. Kenzoll Capital, a Dutch private equity and special situations investor, is partnering with MSF Commercials to revive the Sperrgebiet Diamond Mine (SDM), formerly Elizabeth Bay, south of Lüderitz. Kenzoll has already committed more than US\$10 million to Namibia and says its investment could eventually reach US\$50 million. The money is meant to restore diamond production and fund exploration of SDM's licences for heavy mineral sands and critical metals.

The attraction is considerable. SDM says its licences cover 245,364 hectares inside Namibia's restricted diamond mining area. It reports diamond resources of 10.5 million carats, made up of 6.3 million carats onshore and 4.2 million carats offshore.

Elizabeth Bay's history, however, shows that diamonds in the ground have never guaranteed an easy mining operation.

Diamond mining at Elizabeth Bay dates to 1911, only a few years after the first stones were found near Lüderitz in 1908. Its modern chapter began when Consolidated Diamond Mines (CDM), the predecessor of Namdeb, developed the deposit as an open-pit operation.

The modern mine was commissioned in 1991 with an expected life of about ten years. The resource was then estimated at roughly 38 million tonnes grading 6.6 carats per 100 tonnes, containing more than 2.5 million carats. Planned output was around 250,000 carats a year.

The mine did not close at the turn of the century. It ran for almost two more decades, but keeping it going demanded ever more investment and repeated changes to how its ore

was treated.

The biggest intervention came in the mid-2000s. Namdeb spent about N\$445 million on a new liberation plant because the original processing circuit could not efficiently treat all the remaining material. The new facility was designed for wet, cemented and clay-rich ore, as well as large diamond-bearing boulders. Namdeb expected it to unlock approximately 1.9 million additional carats.

The investment extended the mine's life, but the economics stayed tight. They worsened during the global financial crisis, and Namdeb placed Elizabeth Bay on care and maintenance in 2009. A further technical and economic redesign followed, aimed at finding a cheaper way to mine what was left.

The result was the Elizabeth Bay Optimisation Project, and production resumed in November 2011. The redesigned operation was expected to last only a few more years. It lasted much longer.

By 2017 the mine was still producing around 200,000 carats annually and employed about 160 people. Namdeb, however, was again asking whether the remaining diamonds could be recovered economically within its own operating structure.

In February 2018 the company announced it would look for a buyer, arguing that an operator with a different cost structure might extract value that Namdeb could not. Production stopped that September, after difficulties with both the processing plant and the performance of the resource.

By then Elizabeth Bay had far outlived the assumptions behind its development. A mine planned for roughly ten years had run for almost three decades and produced more than four million carats between 1991 and 2018.

An operation expected to last ten years survived almost three decades, and still has not settled the question of whether it pays.

The next attempt came through a change of ownership. Namdeb selected a member of the Namibian-owned Lewcor Group as buyer in 2019, and the transaction was completed in October 2020 for approximately N\$120 million. The operation was renamed Sperrgebiet Diamond Mine. Lewcor became majority shareholder alongside MSF Commercials, David Sheehama and an employee trust.

The new owners planned to refurbish the plant and restart production in 2021. Their thesis was that a smaller operator with a leaner cost base could succeed where Namdeb had struggled.

The restart took longer than planned. Production resumed in September 2022, after four years of inactivity, with initial output targeted at around 240,000 carats a year and potential growth to about 360,000 carats. The revival lasted about six months.

Production stopped again in March 2023. Figures that later emerged in court proceedings showed that roughly 692,000 tonnes had been processed during the restart period, while diamond output came in 83% below a target of 96,618 carats.

Financial pressure followed quickly. NamPower disconnected the mine's electricity supply in May 2023, and disputes involving shareholders and mining equipment ended up in court.

The episode showed that a change of ownership and a different cost structure had not resolved Elizabeth Bay's underlying technical and economic problems.

Kenzoll's arrival is another attempt to solve a problem that has followed the operation through several generations of mine planning. This time, however, the strategy extends beyond diamonds.

Alongside the 10.5 million carats of reported diamond resources, the partners intend to investigate heavy mineral sands and critical metals across the full 245,364-hectare licence area. Kenzoll says these commodities have not previously been explored there.

If the exploration succeeds, Elizabeth Bay could gain

something none of its earlier operators had: a wider mineral business that does not depend on diamonds alone.

Kenzoll chief executive Corné Melissen said diamonds would be the starting point for a broader investment.

"Elizabeth Bay has spent most of the past eight years out of action and we're committed to getting the mine producing again, providing jobs and economic value to an area that has relied heavily on diamonds for over a century," Melissen said. "This partnership is part of our long-term commitment and investment in Namibia, with diamonds as the starting point and critical minerals to follow."

SDM director Conan Mlunga said the partnership would combine international capital with local expertise to restore the operation and develop opportunities beyond diamonds.

The timing is difficult. Weaker global demand is weighing on Namibia's diamond earnings. Figures cited by the partners show diamond exports falling from N\$5.1 billion in the fourth quarter of 2022 to N\$1.7 billion in the first quarter of 2025, a drop of about two-thirds.

Key details of the new restart plan also remain undisclosed:

- A firm production date
- Expected annual output
- Operating costs
- Employment numbers
- How much of the potential US\$50 million will be needed specifically to restart diamond production

Those numbers will matter. Elizabeth Bay has already been redesigned, recapitalised, restarted and sold to owners with a different cost structure, and it has still struggled to stay in production.

Kenzoll and its partners are now attempting another reinvention, armed with fresh capital, 10.5 million carats of reported resources and ambitions in critical minerals. Whether this reinvention lasts longer than the others will depend on the details they have yet to publish.



PALADIN KEEPS LANGER HEINRICH RUNNING THROUGH NOVEMBER KILN REPLACEMENT

Only the product-drying circuit will be affected as the Namibian miner works to restore recoveries; FY2027 guidance of 5.1 to 5.6 million pounds is unchanged.

Paladin Energy will keep its Langer Heinrich uranium mine in Namibia operating during a planned kiln shutdown in the second half of November, as it seeks to lift production and recovery rates after a difficult September 2026 quarter.

The outage will mainly affect the kiln used to dry uranium concentrate before packaging. The rest of the processing plant will keep running, allowing the Australian producer to build up in-process inventory to support output once the kiln returns to service.

"The shutdown is scheduled for the back half of November. It's mainly around the kiln, which is used to dry the product before we can drum it. The rest of the plant will still be operational. So we'll be building inventory during that time," Chief Operating Officer Scott Barber told analysts on the company's earnings call.

The replacement kiln is being shipped from Western Australia. It will be inspected and tested on arrival before installation in November, Barber said.

The work follows a September quarter in which Langer Heinrich produced 1 million pounds of uranium and sold 1.16 million pounds at an average realised price of US\$79.40 per pound. Unit production costs rose to US\$61.60 per pound as recoveries slipped to 85%, from 90% in the previous quarter.

Paladin blamed the weaker recoveries partly on finer, more weathered ore from the upper mining benches, although performance improved towards the end of September. The company held its FY2027 production guidance at 5.1 million to 5.6 million pounds. It expects costs to fall to US\$44 to US\$48 per pound over the financial year, with stronger output and lower unit costs in the second half as mining moves into higher-grade, more competent ore.

RECONAFRICA SPUDS HORIZONTAL SIDETRACK AT KAVANGO WEST 1X, TARGETING FRACTURE SYSTEM IN UPPER HUTTENBERG

Open-hole lateral of up to 1,000 m is planned in Namibia's Kavango Basin, with flow testing to follow immediately and results expected before year-end.

ReconAfrica has begun drilling a horizontal sidetrack at its Kavango West 1X (KW1X) well in Namibia, after receiving the final regulatory approvals.

The company removed the production casing to a vertical depth of 2,289 m, where an open-hole whipstock was set to deflect the wellbore. Drilling of the sidetrack is scheduled to take about one month.

The well is designed to deliver a horizontal section of up to 1,000 m in the upper Huttenberg formation, positioned to intersect natural fractures across the Kavango structure. It will be completed open hole, without casing or cement, a configuration intended to maximise flow rates from the fracture system.

BW Energy holds a 20% working interest in the project, while the National Petroleum Corporation of Namibia (NAMCOR) holds a 10% carried interest.

Flow testing will start immediately after completion, once the wellbore has been swabbed to clear drilling muds and cuttings and before any acid wash.

The test is designed to establish sustained flow rates, reservoir pressure response, and the liquid yield and composition of the production stream. Fluid and gas samples will be collected for laboratory analysis. Testing could take up to one month. ReconAfrica expects to disclose results before the end of the year.



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ANDRADA POSTS FIRST INTERIM PROFIT AS UIS TIN REVENUE JUMPS 80%

Higher prices and stronger output at the Namibian mine lift earnings to £2.5 million ahead of a fully funded expansion targeting up to 1,900 tonnes of contained tin a year.

Andrada Mining has returned to profit, reporting a £2.5 million (about N\$58 million) after-tax profit for the six months to 31 August 2026, against a £3 million loss a year earlier. Higher tin prices and increased production at its Uis mine in Namibia lifted revenue by 80%.

The AIM-listed company, which released its results on 21 October, said revenue rose to £20.6 million from £11.4 million, while gross profit more than quadrupled to £8.3 million from £1.9 million. It is Andrada's first interim group profit after tax.

Chief executive Anthony Viljoen called the results a turning point, noting that the improvement came before the planned expansion at Uis. "These results mark a significant turning point for Andrada, with strong operational performance at Uis translating into a step-change in profitability and cash generation," he said. Andrada's effective tin price climbed 57% to US\$52,131 per tonne, from US\$33,154. Contained tin production rose 13% to 576 tonnes, while concentrate output increased 11% to 955 tonnes.

The plant processed 538,810 tonnes of ore, up from 527,583 tonnes, with the average throughput rate improving from 143 to 153 tonnes per hour. Recovery rose from 71% to 73% and average feed grade from 0.137% to 0.149% tin. Gross margin widened to 40.3% from 16.4%. Operating profit reached £4.7 million, compared with a £0.9 million loss, and adjusted EBITDA rose to £4.5 million from £1.7 million. Cash generated from operations was £4.9 million, more than in the whole of the previous financial year.

Andrada is now implementing a crushing and ore-sorting programme intended to lift annual concentrate production by roughly 50% to 70%, to between 2,500 and 3,000 tonnes. That equates to 1,500 to 1,900 tonnes of contained tin a year, against 1,036 tonnes in the year to February 2026.

The programme is partly funded by N\$98 million from Bank Windhoek and the Development Bank of Namibia, secured in August. The new crushing circuit is being shipped from China and India, and the ore sorters are being prepared for shipment by Intagrey.

The sorters will reject lower-grade material before it reaches the concentrator, allowing the existing plant to handle richer feed without a proportionate increase in capacity. Andrada expects this to improve efficiency, raise output and reduce the applicable royalty band, while

spreading fixed costs over more payable tin.

Costs have risen ahead of the ramp-up. All-in sustaining costs increased to US\$31,555 per tonne of contained tin from US\$24,808, driven by extra waste stripping to expose ore.

The stripping ratio rose to 4.4, from 2.7 for the previous full year, and the additional stripping will continue until the end of February 2027. Fuel costs also rose, and a marketing fee is now payable to Thaisarco.

Direct C1 operating costs were stable at US\$17,842 per tonne, against US\$17,468. Royalties to Orion rose to US\$4,517 per tonne of contained tin from US\$3,054, taking the total from £0.9 million to £2 million on higher prices.

Cash stood at £15.6 million at the end of August, up from £8.9 million in February. The company raised about £8.1 million in equity and drew £6.7 million in bank borrowings, lifting total debt to £23.8 million from £19.8 million. Investing outflows totalled £7.7 million, including £6.5 million on property, plant and equipment.

Andrada said no further funding is expected to be needed over the next 12 months for planned capital and exploration spending.

Commodity hedging contributed a net gain of £1.72 million, made up of a £3.47 million gain on open swap positions less £1.75 million in realised losses. Without it, the company said, operating profit would still have been about £3 million.

At Lithium Ridge, work with Chilean producer SQM has extended the mineralised strike length from six to nine kilometres. The first-phase programme of about 16,500 metres across 143 diamond holes has identified lithium alongside tin and tantalum. Results released on 6 October included up to 2.11% lithium oxide over roughly five metres. Remaining core is being analysed as work continues towards a mineral resource.

At Brandberg West, a tungsten, copper and tin project with partner BWCAM, the Namibian Competition Commission gave unconditional approval to the earn-in agreement in August. Ore-sorting tests on historical material rejected about 90% of mass while recovering up to 91% of tungsten and 94% of tin, lifting tungsten grade from 0.24% to 1.45%. Bulk sampling and further metallurgical work are planned.

"The priority now is to convert our funded investment programme and strategic partnerships into higher production, measurable project progress and sustainable shareholder value," Viljoen said.

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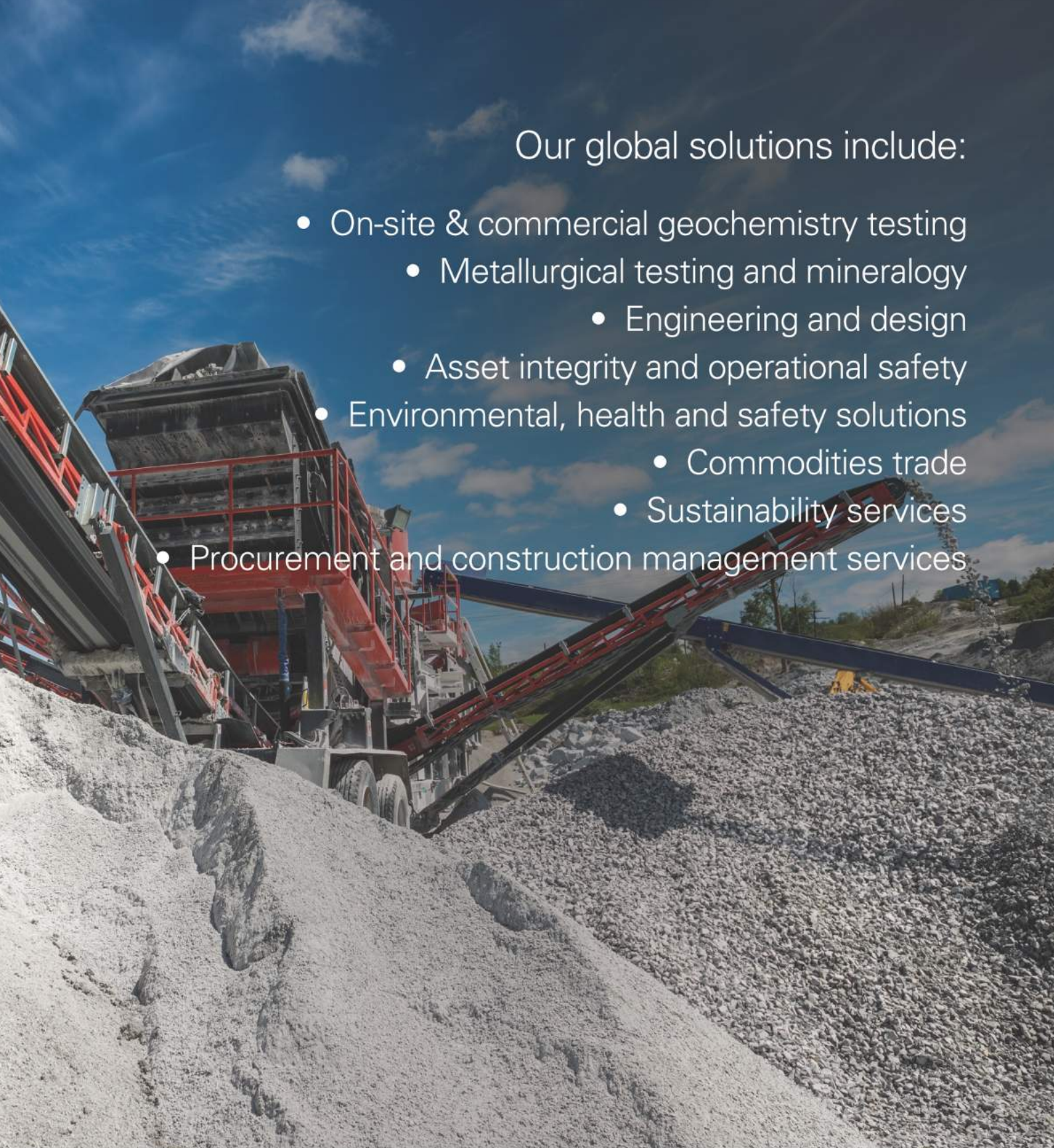
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GREEN METALS REFINING (GMR) CLEARS ENVIRONMENTAL HURDLE FOR WALVIS BAY MANGANESE REFINERY AND N\$1.03BN ACID PLANT

Environmental Clearance Certificate covers both projects, but a final investment decision is still pending as feasibility work continues.

Green Metals Refining (GMR) has secured environmental approval for its planned manganese refinery and sulphuric acid plant at Farm 58 in Walvis Bay, clearing a key regulatory hurdle ahead of construction. The company has yet to make a final investment decision.

The Ministry of Environment, Forestry and Tourism issued an Environmental Clearance Certificate (ECC) on 9 October 2026, following assessment of the Environmental Impact Assessment and Environmental Management Plan for both projects.

GMR founder and Chief Executive Derk Hartman said the approval had reduced regulatory risk. "With the Environmental Clearance Certificate in hand for both the manganese refinery and the sulphuric acid plant, GMR has significantly de-risked the projects. This approval is a strong endorsement of our responsible development strategy and our commitment to Namibia's long-term industrialisation," he said.

The projects aim to establish local production of battery-grade manganese chemicals and sulphuric acid, reducing Namibia's reliance on imported industrial chemicals while supporting the mining and mineral processing sectors.

GMR has previously announced plans to invest N\$1.03 billion (US\$59 million) in the sulphuric acid plant, which is expected to produce 175,000 tonnes of acid a year initially. A scoping study by Namibia-based Creo Engineering Solutions indicates capacity could rise to 720,000 tonnes annually at full build-out.

The plant would supply the proposed manganese refinery and other industrial customers, particularly mining

operations in copper, uranium, rare earths and fertiliser. It could also generate surplus baseload electricity and process steam for industrial use.

Hartman has argued that Namibia's dependence on imported acid creates a commercial opening. "Namibia is currently a net importer of sulphuric acid, with demand expected to grow due to expanding copper, uranium, rare earth and fertiliser projects. It is expected to deliver a solid return on investment (pretax IRR of 20%) based on an initial capital cost of US\$59 million," he said in September 2025.

GMR has completed advanced metallurgical testwork for the refinery's pre-feasibility study and is running a tender to appoint an engineering firm for the acid plant's feasibility study.

The company said it engaged environmental specialists, regulators, government ministries and interested and affected parties during the assessment. Hartman thanked the specialists involved and acknowledged support from the Ministry of Industries, Mines and Energy and the Ministry of Environment, Forestry and Tourism.

GMR is developing the projects through three wholly owned Namibian subsidiaries. Green Metals Refining Namibia (Pty) Ltd is responsible for the refinery, Kudu Chemicals (Pty) Ltd for the acid plant, and Foxtrot Industrial Developments (Pty) Ltd will provide infrastructure and shared services, with scope to accommodate other industrial users.

The projects form part of efforts to expand Namibia's beneficiation capacity by producing higher-value products locally rather than relying mainly on raw material exports.

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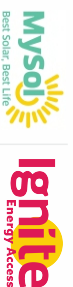
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BEYOND THE SOURCE: HOW MINES CAN INVESTIGATE DOWNSTREAM PROCESS IMPACTS

Mining companies are increasingly recognising that decisions made upstream can influence performance much further downstream. The challenge is determining whether those impacts are occurring within a particular operation, where they originate and how they can be measured in a technically credible way, says Hendrik Botha, Global Portfolio Manager: Explosives & IS at AECI Mining. In the following sections, AECI outlines a structured approach that mines can use to investigate potential impacts across the mining value chain.

Mining operations generate extensive operational and metallurgical data every day. Consider a mine experiencing a gradual increase in reagent consumption or declining flotation selectivity. The immediate response may be to investigate the flotation circuit itself. A whole-of-value-chain assessment asks a broader question: has anything changed upstream; in the orebody, process water, operational consumables, grinding media or recycled streams, that could be altering the chemistry or physical characteristics of material entering the plant?

The possibility of an upstream influence does not establish causation. It does, however, provide a hypothesis that can be investigated through an integrated, evidence-based assessment.

Ore characteristics are measured, process water is sampled, metallurgical recoveries are monitored and environmental compliance forms part of routine operations. Yet these datasets are often assessed within individual disciplines. Understanding how a trace contaminant enters a system, where it reports, whether it accumulates or recirculates, and whether it influences downstream performance requires these datasets to be considered as an integrated whole.

Upstream operational decisions may alter the chemical, mineralogical or physical characteristics of material reporting to downstream processing stages. Changes that appear insignificant at the point of introduction may become more important when accumulated across high-throughput operations or when they interact with sensitive processes such as flotation, thickening, refining or water treatment.

By the time a change in recovery, reagent consumption, concentrate quality or refining performance becomes visible, the original source may no longer form part of the investigation.

Operations can therefore find themselves responding to a downstream outcome without fully understanding the pathway that produced it. For high-throughput operations, even relatively small changes in contaminant loading can become commercially significant if they influence metal recovery, concentrate quality, downstream treatment cost or SHE performance.

Understanding contaminant behaviour

Trace process-borne contaminants provide a useful example of why a whole-of-value-chain assessment can be important. Their effects are not always direct or immediately visible.

Under certain processing conditions, trace metallic species may alter mineral surface chemistry and affect how minerals respond during flotation. This could influence collector or depressant performance, increase reagent demand or reduce flotation selectivity. Elsewhere in the flowsheet, contaminants may affect solid-liquid separation, contribute to scaling in water circuits or increase impurity loading during refining.

Metallurgists refer to the study of where a substance reports and how it behaves through the process as contaminant deportment. The practical question is not simply whether a contaminant is present, but where it travels, whether it accumulates and whether its behaviour is associated with a measurable change in operational performance.

This distinction is important. Detecting a contaminant at a particular point in the process does not, on its own, establish its source, pathway or operational significance.

A structured investigation framework

A technically credible assessment should follow the material through the mining and processing system, combining sampling and analytical data with operational and metallurgical performance.

1. Identify potential sources and pathways

The first step is to identify where trace contaminants could enter or be redistributed within the system. Potential sources may include orebody mineralogy, process water, operational consumables, grinding media, recycled process streams, maintenance materials and other inputs. Mapping these potential pathways provides the basis for selecting appropriate sampling points across the flowsheet.

2. Establish a baseline

The next step is to establish baseline assays at key stages of the operation.

Sampling should provide sufficient visibility of contaminant concentrations in relevant inputs, process streams, intermediate products, concentrates, tailings and water circuits. The objective is to establish where the material enters the system, how it moves through the operation and where it ultimately reports.

3. Map contaminant deportment

Once sampling data are available, the contaminant's movement through the flowsheet can be mapped.

This helps distinguish between material that passes through the system, material that accumulates within particular streams and material that is recycled or redistributed.

Understanding this behaviour is critical when assessing whether a contaminant could plausibly influence a downstream process.

4. Build a mass balance

A mass-balance approach can then be used to determine whether the available measurements provide a coherent account of the contaminant's movement through the system. This is important because the presence of a substance at one sampling point does not demonstrate its source or operational significance. A mass balance provides a more robust basis for assessing how much material is entering, leaving, accumulating or circulating within the system.

5. Compare with operational performance

Contaminant levels can then be evaluated alongside relevant metallurgical and operational indicators. These may include recovery, grade, reagent consumption, froth stability, concentrate quality, solid-liquid separation, water-treatment performance, refining efficiency, environmental monitoring and occupational exposure.

The objective is to determine whether changes in contaminant concentration or behaviour correspond with measurable changes in process performance. Relationships that appear insignificant within an individual

function may become more meaningful when data are examined across the complete flowsheet and over an appropriate period.

6. Test causality

Correlation should not automatically be treated as causation. Where a relationship is identified, controlled laboratory work, mineralogical analysis, plant trials or more focused sampling may be required to test the proposed mechanism and exclude alternative explanations. In some cases, laboratory-scale work can provide a cost-effective first step by determining whether a contaminant has the potential to influence flotation, smelting or refining behaviour before committing to a longer-term field campaign. Where a credible effect is demonstrated, field sampling and mass balancing can then be used to validate its significance under operating conditions.

From detection to operational significance

The presence of a trace contaminant is only the beginning of the assessment. Its practical significance depends on where it reports, how it behaves under the operation's specific processing conditions and whether it affects performance sufficiently to change the overall value equation.

An integrated investigation can identify potential impacts that may remain hidden when functions are assessed independently. These could include recovery losses, additional reagent consumption, reduced concentrate quality, increased downstream treatment requirements, water-circuit impacts, environmental obligations or occupational exposure considerations.

Importantly, the outcome may also be that no material relationship is found. This remains a valuable result because it enables the operation to eliminate an unsupported hypothesis and focus its technical resources elsewhere.

The objective is therefore not to establish a universal causal link between trace contaminants and downstream performance. It is to provide mining operations with a structured method for determining whether such a relationship exists within their own value chain.

Looking across the value chain

As mining companies pursue stronger recovery, greater process stability and improved sustainability performance, understanding interactions across the mining value chain becomes increasingly important. Integrated sampling, contaminant deportment, mass balancing, metallurgical performance tracking and value-chain cost evaluation provide a basis for moving beyond simply detecting trace contaminants towards understanding their behaviour and operational relevance.

Ultimately, the key questions are not only whether a contaminant is present, but where it reports, how it behaves and whether it changes the overall value equation.

Understanding that pathway allows mines to distinguish between an analytical observation and a genuine business risk and, importantly, to determine where in the value chain the most effective intervention should occur.



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WIA ASSEMBLES TEAM, TARGETS H1 2027 FOR KOKOSEB EARLY WORKS

Wia Gold has begun assembling a team and preparing construction contracts for the US\$475 million Kokoseb gold project in Namibia, as the Australian-listed company targets the start of early works in the first half of 2027.

The company said in its September-quarter activities report that its board had approved execution readiness activities following the completion of the definitive feasibility study in August, marking a shift from project evaluation towards preparations for construction.

Wia is recruiting key personnel to support its Project Director, finalising its construction execution and contracting strategy, and advancing front-end engineering and design ahead of the proposed development.

The owner's team will represent Wia during project implementation, overseeing the coordination of engineering, procurement and construction activities as the company prepares to develop the mine.

Although Wia has confirmed that recruitment is underway, it has not disclosed the number of positions being filled, the identities of the additional personnel or how many jobs will be allocated to Namibians.

The construction preparations include identifying and planning the procurement of equipment with long manufacturing and delivery periods, which could affect the project's overall development schedule.

Engineering work is also continuing on the proposed processing plant, with Wia examining provisions that could accommodate an eventual increase in annual throughput from 5.25 million tonnes to approximately seven million tonnes.

An engineering review by SENET, part of the DRA Global Group, recommended modifications to the initial plant design that would make a future expansion easier to implement.

These include increasing installed power on the semi-autogenous grinding and ball mills from 12 megawatts to 15 megawatts, installing larger thickeners and allowing additional capacity for conveyors, pumps and other processing equipment.

The modifications would cost an estimated US\$9.3 million, representing approximately 2% of the project's estimated US\$475 million pre-production capital requirement.

Wia emphasised that the modifications do not constitute a decision to expand the processing plant, with any future increase in capacity requiring further engineering studies, economic evaluations, regulatory approvals, funding and board approval.

The company has also allocated US\$50 million of the proposed construction budget to strategic water and electricity infrastructure, including US\$34 million for developing a borefield in the Omaruru Alluvial Plains and US\$16 million for upgrading the proposed electricity connection to 132 kilovolts.

These investments are intended to provide sufficient infrastructure capacity for the initial mining operation while

allowing flexibility for possible future expansion.

The definitive feasibility study envisages a 14-year open-pit gold mine producing approximately 1.84 million ounces over its operating life.

Average annual production is estimated at 161,000 ounces during the first five years and 150,000 ounces during the first decade, with a processing plant designed to handle 5.25 million tonnes of ore annually.

The project has a maiden probable ore reserve of 69.8 million tonnes grading 0.87 grams of gold per tonne, containing approximately 1.95 million ounces.

At an assumed gold price of US\$3,600 per ounce, the feasibility study estimates a post-tax net present value of US\$1.21 billion, an internal rate of return of 41% and a capital payback period of 21 months.

While construction preparations are progressing, Wia is working to finalise a proposed US\$360 million senior secured debt facility with Sprott Resource Lending Corporation.

The indicative financing arrangement also provides for Sprott to subscribe US\$15 million in a future equity raising. Wia completed an A\$125 million institutional placement during September and reported cash holdings of A\$229.2 million and no debt at the end of the quarter.

The company expects its existing cash, the completed placement and the proposed Sprott facility to provide sufficient funding to develop Kokoseb through to first gold production.

However, financial close remains subject to due diligence, final documentation, investment committee approval and the granting of the project's mining licence and environmental clearance certificate.

The mining licence application was submitted in October 2025, followed by the Environmental and Social Impact Assessment in March 2026.

Wia expects both approvals before the end of 2026, while environmental assessments for infrastructure outside the proposed mine site are also being prepared.

Alongside construction planning, six diamond drilling rigs remain active at Kokoseb as the company investigates the potential for underground resources beneath the proposed open pit.

Recent drilling has reinforced the possibility of additional gold mineralisation at depth, although underground mining does not form part of the current feasibility study's production plan.

The company's updated mineral resource estimate stands at 3.78 million ounces, including an initial underground inferred resource of 560,000 ounces.

Further drilling is planned over the next six to 12 months to assess whether additional underground resources can be established.

Subject to the completion of financing and receipt of the necessary approvals, Wia expects early construction works to begin during the first half of 2027, with first gold production targeted for the fourth quarter of 2028.



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THE REAL TEST OF MINING PARTNERSHIPS IS TURNING AMBITION INTO ECONOMIC VALUE

Leading industry platform Mining Indaba 2027 examines the practical barriers shaping investment, local value creation and industrial development across African mining.

The mining industry is facing a fundamental question: Can governments, investors and mining companies turn ambitious plans into projects that are financed, built and able to deliver lasting economic value?

That question runs through the agenda of the forthcoming Mining Indaba 2027, where industry leaders will examine the forces shaping the future of mining, from capital and policy to infrastructure, technology, local value creation and the supply chains that connect mines to wider economies. Under the theme “Stronger Together: Partnerships in Practice”, Mining Indaba focuses on what happens when partnerships move from discussion to action.

The right partnerships

Laura Nicholson, Industry Director at Mining Indaba, says closing the gap between ambition and delivery will require the different parts of the mining value chain moving closer together.

“Investors and mining companies are watching returns and project timelines,” says Nicholson. “Governments are looking at how to attract investment while securing greater economic value from their mineral resources. Downstream industrial buyers need supply, price, quality and security. All three need to move closer together. Partnership is not about bringing more people into the room. It is about getting the right people to solve the right problems, connecting different parts of the value chain and making something happen.”

But these priorities do not always move at the same speed. One of the biggest tensions facing the industry is the speed at which decisions need to be made. Mining projects can take decades to develop, investors are under pressure to deliver returns within much shorter cycles, while governments are balancing long-term development with political realities. Mining Indaba 2027 will examine how these competing timelines can work together without sacrificing long-term value.

The local upside

The debate around local value creation is equally important. Ntokozo Nzimande, DDG: Mining, Minerals & Petroleum Policy Development at the Department of Mineral Resources and Petroleum, indicates that greater value will not come from policy ambition alone. It depends on creating the conditions for local businesses and industries to grow. “Local value creation succeeds when policy, infrastructure and private capital move in lock step,” says Nzimande.

That means clearer policy, stronger local suppliers, reliable energy and logistics, skills development and access to regional markets. It also means building local capacity in a way that allows businesses to compete on quality, scale and price. The challenge extends into industries that sit downstream of mining. Victoria Backhaus-Jerling, Chief Executive Officer of the African Association of Automotive Manufacturers (AAAM) highlights the scale required to build competitive African manufacturing industries.

“No African country can fully realise the continent's automotive potential in isolation,” says Backhaus-Jerling. “There is a massive upside to be unlocked. African countries import billions in vehicles and components a year, but only a small proportion of that is imported from other African countries.”

For mining, the message is equally relevant. Processing, manufacturing and downstream industrial industries cannot be built through isolated projects. They require markets, infrastructure, skills, investment and trade links that connect across borders.

Government partnerships

The relationship between governments and investors is also changing. Jito Kayumba, Special Assistant to the President of Zambia for Finance and Investment, points to the need to build domestic capacity alongside investment. “A genuine partnership means governments and investors working collaboratively to build domestic capacity over time,” he says.

Mining Indaba 2027 Commodity Focus sessions will highlight the plans by Zambia, which already produces 4% of the world's copper to boost copper production from 800 000Mt to 3 million Mt per year by 2032.

It's an ambition only achievable through partnerships, as governments seek greater local participation and economic value from mining investment, while investors need predictable policy, commercial viability and confidence that projects can deliver returns.

These pressures are reflected across the Mining Indaba 2027 agenda. Discussions at the event will examine whether export restrictions can create competitive domestic industries, how mineral corridors can serve both regional and global markets, and what infrastructure is needed to support industrial value chains.

Other sessions will look at what is required to turn a critical-mineral endowment into a globally competitive industry, how technology can move beyond pilot projects, what is driving copper investment and how the industry should think about mine closures.

An ecosystem of success

The common thread is clear: Ambition alone does not build mines, processing facilities, supply chains or industries. The conditions around them have to work.

Capital needs infrastructure. Local content needs capable suppliers. Processing needs reliable and affordable power. Investment needs policy certainty. Technology needs to move from pilot projects into operations. That is where partnerships face their real test.

Mining Indaba 2027 will bring investors, mining companies, governments, downstream industrial buyers and industry stakeholders together around the decisions that will determine what gets financed, built and delivered. The conversation is moving from what mining could achieve to what needs to change to make those outcomes possible. The event asserts that the real measure of partnership is not agreement. It is what gets delivered.

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