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REAL ECONOMY NEWS

Gigafactory Prospects

SA has potential to be real player in the battery energy storage system market

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Tailings Webinar

Advancing tailings innovation and responsible land rehabilitation

8th April 2026 at 14:00

- How effectively are tailings retreatment projects driving growth and economic opportunities in South Africa?
- How can safety, risk management and long-term stewardship of tailings and rehabilitated land be strengthened?
- What regulatory, financial, technical or social barriers are slowing rehabilitation progress in South Africa?
- In what ways does effective land rehabilitation improve environmental quality, public health and socioeconomic conditions for nearby communities?
- What indicators demonstrate successful rehabilitation outcomes linked to tailings operations?
- What role do collaboration, technology and transparent reporting play in ensuring sustainable post-mining land use?
- How does responsible tailings management and land rehabilitation influence project bankability, investor confidence and long-term asset value?

Confirmed panel members:

Charles MacRobert
University of Stellenbosch (facilitator)

Jaco Schoeman
DRDGOLD

Henry Gouws
Ergo

Danie Otto
SLR Consulting

To register, scan the QR code or email: shannon@creamermedia.co.za

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UPFRONT

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PUSH PAUSE

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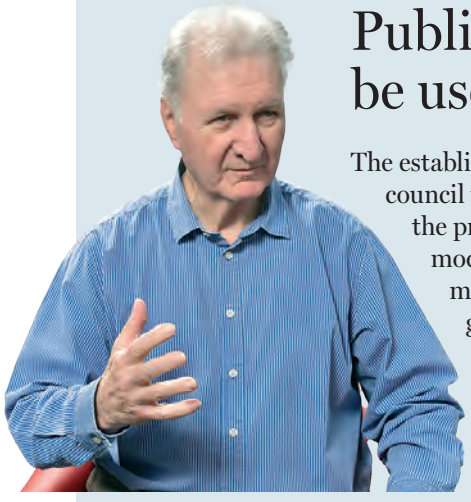

Public-private transport council must be used to remove freight obstacles fast

Martin Creamer | Publishing Editor

The establishment of a permanent transport council to bring together government and the private sector across all the transport modes of land, air and sea is an excellent move. Transport must be made to generate economic growth. While there are many logistics challenges that need to be tackled, one that has quick collaboration potential is the joint provision of a freight solution for manganese ore. This very valuable South African resource should never ever have to take to the road. With the Kalahari manganese field 1 000 km from any port, rail and port logistics that keep South Africa's manganese globally competitive are a must. State-owned Transnet has shown that it cannot provide the required efficiency on its own and the offer of the private sector to assist must be taken up for the good of the people of South Africa.

Scan to listen to Martin Creamer on SAfm

SOLAR MILESTONE: The Mooi Plaats Solar PV project, in the Northern Cape, entered into commercial operations last month. The facility has been built by Envusa Energy, a venture jointly owned by Anglo American and EDF power solutions. The electricity is being wheeled through the national grid under contracts with Valterra Platinum, De Beers and Kumba Iron Ore. Mooi Plaats is the first of three Envusa projects to enter into commercial operations, with two 140 MW projects to follow this year.

ENERGY POLICY

Time to get serious

THE DISCUSSION ON THE FUTURE of South Africa's domestic oil refinery fleet is a long and complicated one. It has naturally flared again because of the security of supply concerns associated with recent disruptions to shipping in the Strait of Hormuz.

This has brought to the fore how little domestic crude refining capacity actually remains in place, with only Natref and the Astron refinery still operational in a fleet that, at one point, had a nameplate of over 700 000 bl/d when the coal- and gas-to-liquids refineries are included.

Both the Sapref (180 000 bl/d) and Engen (135 000 bl/d) refineries in KwaZulu-Natal are closed, dramatically reducing the crude refining footprint, while the gas-to-liquids refinery in Mossel Bay (45 000 bl/d) is mothballed, owing to a failure to secure a new gas resource. Sasol's coal-to-liquids refinery, which has a nameplate of about 150 000 bl/d, continues to produce fuel, but environmental pressures will grow as gas supply from Mozambique tapers.

Hence, the immediate security-of-supply issue is not the level of strategic crude stocks, but the reliability and source of final product and whether South Africa has adequate storage buffers in place for periods of disruption. This, given that domestic sources are only able to meet about one-third of demand. Assurances have been given, but a public that has lived through electricity loadshedding and now regular water cuts remains sceptical.

PUSH PAUSE

The first time I see a jogger smiling, I'll consider it.

The recent supply threats have, thus, reignited calls from some for domestic refining capacity to be expanded and modernised. Such calls are to be expected, but tend to gloss over the reasons why such investments have failed to materialise in the past, as well as whether such projects are the best strategic option for affordable security of supply and energy sovereignty.

Many of these debates have been regularly canvassed, with the answers from proponents of new refining capacity having failed to move the fiscal authorities, whose consent will be required, as such a move hinges on taxpayer support. Even arguments in favour of the incentives needed for refineries to introduce cleaner fuels were rejected, notwithstanding an energy policy that is officially supportive of sustaining and cleaning domestic refining capacity.

This raises the real issue, which is the confused state of the country's energy policy. South Africa still does not have a clear energy vision, which means that its actions are typically reactive and, at times, contradictory.

It has not answered the question about energy sovereignty and what this implies in an era that will be increasingly defined by the electrification of energy services, including mobility, and where the cheapest form of new electricity arises from solar and wind rather than coal.

How should South Africa play to its resources strengths in such a world? And how can it do so in a way that is growth- and job-supportive and fully alive to the fact that geopolitical instability is now the new normal?

It's surely time to become serious in answering these questions.

Terence Creamer | Editor

EXTREME HIKES: South Africa is far away geographically from the war that has disrupted shipping through the key oil and gas chokepoint between Iran and Oman known as the Strait of Hormuz. Yet the affordability consequences are being felt closely by every South African. Much attention will now be given to how the fuel hikes spill over into the rest of the economy and how the monetary authorities respond to these inflationary pressures.

FACTSINFIGURES

8.4

The renewable-energy capacity in terrawatts forecast to be installed worldwide by 2031, from 4.1 TW in 2025, according to market intelligence and consulting company GlobalData.

26.3

The volume in million tons of iron-ore that Brazilian mining company Vale produced from materials previously classified as waste or tailings in 2025. This is more than double the 12.7-million tons produced a year earlier.

Although, structurally, gold production in South Africa is on the decline, high prices ensure that mines will do their best to optimise production.

MINERALS COUNCIL SOUTH AFRICA ACTING CHIEF ECONOMIST **BONGANI MOTSA**

AN

CEMENT

Recovery Momentum

PPC says 'more to come' from turnaround even if market remains subdued

TERENCE CREAMER | CREAMER MEDIA EDITOR

PPC CEO **Matias Cardarelli** says there is "more to come" from the cement producer's operational and financial turnaround regardless of whether market conditions, which have remained subdued during the first two years of the group's recovery, improve on the back of promised infrastructure spending.

The company announced a strong performance for the ten months to January 31 during its Capital Markets Day on March 18, with the highlight being the rise in its earnings before interest, taxes, depreciation and amortisation (Ebitda) margin to 19.4%.

PPC's margin stood at 16.6% in the comparable period last year, and was at 12% when the turnaround was initiated.

The group's Ebitda was 22% higher period-on-period, while revenue increased by 4%, mostly driven by the increase in PPC's Zimbabwe operations, while revenue from South Africa and Botswana remained largely unchanged.

Cardarelli said that internal rather than external factors had underpinned its recent earnings and margin recovery and that cost and price discipline would remain priorities for the coming three financial years, with any possible recovery in the construction market regarded as an additional advantage.

PPC's 2027 financial year is expected to be a year of consolidation ahead of another "step change" in 2028, when its modern R3-billion RK3 investment at its Riebeeck plant, in the Western Cape, will start fully contributing.

By that date, its Ebitda margin was targeted to be above 21% and the group's installed clinker capacity would have been renewed, which Cardarelli viewed as a key competitive advantage in a market where many other clinker assets were considered to be old.

"Technology upgrade is no longer optional . . . businesses that under-invest are at risk, while the ones that are investing are the ones who will remain as the main players in the sector in the years to come," he said in a presentation to investors.

The relative age of the fleet and its proximity to key areas of demand would also enable PPC to respond to any possible infrastructure market growth, with government having indicated that it intended shifting the composition of spending towards infrastructure, while also crowding in private capital.

MATIAS CARDARELLI
Internal rather than external factors have underpinned PPC's recent earnings and margin recovery

PPC said a 6% increase in clinker production was possible simply by implementing its plant performance improvement plan, which had already spurred a 10% year-on-year rise in output.

Through the group's 'Awaken the Giant' strategy, various other structural, cultural and personnel changes had been implemented, alongside major changes to logistics and procurement.

There had been a particularly keen focus on margin over volume, with Cardarelli describing "chasing market share by irresponsibly dropping prices" as value-destructive and overly reliant on favourable market dynamics to ensure sustainability.

"We follow the exact opposite strategy, with a contribution-margin focus. The external challenges are still there; they remain unchanged, [but] ...our strategy is designed to create value despite these headwinds, not to wait for them to disappear or to change."

He also expressed optimism about the prospects for an ongoing strong contribution from PPC Zimbabwe, which delivered a substantial increase in total dividends declared and paid out $36-million, or R595-million, in the current period, up from $8-million (R142-million) in the comparable period.

"There is more to come, and our confidence is grounded in fundamentals, not optimism," Cardarelli told investors.

ELECTRICITY

Storage Prospect

Anthem already mulling addition of batteries at 475 MW Notsi PV project

TERENCE CREAMER | CREAMER MEDIA EDITOR

Anthem CEO **James Cumming** says there is a "high probability" of a battery energy storage system (BESS) being integrated into its massive 475 MWac (620 MWdc) Notsi solar PV project in the Free State, with the site having already been permitted to include BESS.

The South African independent power producer started construction on the R9-billion project in March following financial close, which was concluded on the back of 20-year-plus offtake agreements with electricity traders Discovery Green and NOA.

Cumming tells *Engineering News & Mining Weekly* that it has been standard practice for some time for Anthem to apply for BESS authorisations when seeking environmental and other approvals for new PV or wind developments, even though it has not yet implemented any hybrid renewables-plus-BESS projects.

He also indicates that Notsi is unlikely to be the first Anthem project to integrate BESS, with talks under way with existing offtakers which have shown an interest in using BESS at its existing solar and wind facilities to help match their demand profiles, as well as a willingness to adjust their power purchase agreements to accommodate such matching.

Nevertheless, Cumming is confident that BESS will also be added to the Notsi project, but probably only after it enters into commercial operation following a 26-month construction period.

"We will build the project as a standalone PV site and then, at the appropriate time, approach Eskom as the first step to ensure we're in agreement with them on how we can interact with the grid should BESS be added."

"We will then work with the traders, Discovery Green and NOA, on the use case so as to understand what kind of sizing of batteries would be optimal."

Describing the integration of BESS as the "logical thing to do" as battery prices fall, Cumming believes batteries will become an integral part of its portfolio in future.

Besides allowing it to shift load from large-scale projects such as Notsi, BESS will enable it to offer ancillary services to the grid operator, avoid curtailment, and meet emerging balanced-responsible-party obligations that are required for participation in the South African Wholesale Electricity Market.

For the immediate term, however, Anthem's focus is on completing the Notsi project itself, which will cover an area spanning 1 000 ha and involve the installation of more than 860 000 solar panels.

A China Energy Engineering Corporation–Northwest Electric Power Design Institute JV has been appointed as the engineering, procurement, and construction contractor, and construction crews are being mobilised while detailed designs are being finalised.

The project has been made possible, Cumming confirms, by the emergence of well-capitalised traders that are able to provide Anthem and its funders with the demand certainty they need to proceed with such a large-scale development.

JAMES CUMMING
BESS will be added to the Notsi project, but probably only after it starts commercial operation

"In this case, we have two sophisticated and experienced trading businesses with well-developed sales teams that have secured offtake through innovative product offerings, which enables us to focus on doing what we do best, which is developing projects that are big enough to deliver a highly competitive levelised cost of energy, while also amortising the grid connection upgrades required."

The scarcity of grid in South Africa has increased the cost of connections significantly, which Anthem is mitigating in the case of Notsi by having a project that is large enough to absorb the full cost and initial capacity of the Main Transmission Substation (MTS) being self-built by Anthem and handed over to Eskom to ensure that the electricity can be wheeled through the grid.

"What we've done is to effectively utilise the entirety of the 500 MVA transformer that we're going to install at the Artemis MTS to help amortise the grid-connection cost while making the electricity as affordable as possible for our customers, Discovery Green and NOA," Cumming explains.

The role of the traders, he adds, is to place those electrons with final customers so that the project can proceed, with this having already been achieved.

"It's a fantastic thing for the market, as it's definitely helping to bring more renewables online at scale than would have been the case had it not been for the advent of traders," he adds, while also stressing that Anthem remains interested in and supportive of future public procurement opportunities, having played a significant role in the public bid windows in the past.

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INFRASTRUCTURE

Critical Networks

Infrastructure Indaba underscores importance of rail and water systems

TASNEEM BULBULIA | CREAMER MEDIA SENIOR DEPUTY EDITOR ONLINE

The importance of rail and water for South Africa's economic growth was emphasised on the second day of industry organisation Consulting Engineers South Africa's (Cesa's) Infrastructure Indaba 2026, held at the Durban International Convention Centre last month.

"A central message at this year's indaba was that South Africa's infrastructure decisions must be integrated, forward-looking and grounded in local realities, ensuring that investment in infrastructure is matched by serious attention to the water systems that ultimately underpin economic activity and community wellbeing," Cesa CEO **Chris Campbell** highlighted.

uMngeni local municipality Mayor **Chris Pappas** discussed issues around linking national infrastructure to local economic realities.

"While infrastructure is often aligned to national priorities, the critical link to local economic needs is frequently overlooked, limiting its true impact. Rural-to-urban migration is not a future challenge – it is a structural reality we must address now. When properly planned and managed, this shift presents significant opportunities for economic growth and infrastructure optimisation," he stressed.

Rail

Speaking during a session titled 'Building Tomorrow's Infrastructure', Transnet Rail Infrastructure Manager (TRIM) CE **Moshe Motlohi** said that opening up South Africa's rail network to new operators would unlock much-needed capacity and take pressure off South Africa's road network.

He further outlined how new train operating companies would be introduced on 41 routes across six corridors.

"Through our Open Access Process, these new entrants expect to move about 25-million tons of cargo from road back onto rail," he stated.

Motlohi warned that "deteriorating levels of asset reliability and availability result in safety risks, train delays, cancelled train slots, volume loss and eventual permanent capacity loss", adding that current affordable funding levels fell short of what is needed to maintain and renew the network over the next five years.

Delegates heard that public reform is beginning to crowd in private capital.

Private rail company TRAXTION in December announced a R3.4-billion rolling stock investment programme to support this reform agenda.

The programme, comprising R1.8-billion in locomotives and R1.6-billion in wagons, is said to be the largest private freight rail investment in South Africa's history in terms of fleet size and value, targeting a minimum 60% local content and projecting the creation of 662 direct jobs during manufacturing, assembly and deployment.

The added TRAXTION capacity is expected to address about 5% of the national freight rail capacity shortfall.

TRIM also recently issued requests for proposals for leases at sidings such as Ngagane, near Newcastle, and Krugersdorp and Klaserie, near Hoedspruit.

Motlohi stressed that operational recovery would not be possible without addressing security risks that had plagued the network since the Covid-19 lockdown period, when the Railway Safety Regulator experienced record levels of theft and vandalism of key assets such as rail lines, signalling components and overhead traction equipment.

TRIM is intensifying a layered security strategy built around five core pillars: 'deter, detect, delay, defend and deny'.

This includes a more visible security presence, enhanced surveillance to identify potential threats early, measures to physically slow intrusions and protect critical assets, and personnel and stricter controls denying unauthorised access to the network.

IRON BEAST
A powerful locomotive thunders down the tracks, a testament to raw engineering might and unstoppable momentum

Water

Water specialists at the Infrastructure Indaba warned that economic aspirations would remain at risk if South Africa's water systems continued to deteriorate.

"When we talk infrastructure that enables economic growth, we often think about energy or transport. But, in reality, water is the foundation," uMngeni-uThukela Water process engineer **Megan Schalkwyk** said.

She cautioned that a significant portion of water infrastructure was failing or underperforming owing to inadequate maintenance, pointing to the 2022 Green Drop report, which showed that nearly 40% of wastewater treatment works were in a critical state and almost two-thirds were at high or critical risk.

As a water utility, uMngeni-uThukela Water is already experiencing the effects of declining raw water quality, which makes treatment more complex, costly and unreliable for households and industry.

Nonrevenue water has also become a critical issue, with losses from leaks, theft and operational inefficiencies undermining supply security and municipal finances.

Schalkwyk highlighted that water security was not just dependent on building more infrastructure, but about "planning better, maintaining what we have, diversifying our sources and working together more effectively".

Makhaotse, Narasimulu and Associates MD **Sagren Narasimulu** highlighted that South Africa's freshwater storage remained a structural vulnerability in the face of climate variability.

"Our challenges are not new, but their impact is becoming increasingly pronounced as urban growth and climate change become more prevalent," he said.

Meanwhile, Construction Industry Development Board construction industry performance director **Ishmail Cassiem** outlined the organisation's Building Information Modelling (BIM) roadmap, noting low adoption rates and plans for an annex and a National BIM Committee to boost implementation.

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ENERGY MINERALS

Spike Ahead

Coal prices poised for increase as LNG surges on the back of Iran war

MARLENY ARNOLDI | CREAMER MEDIA SENIOR DEPUTY EDITOR ONLINE

Coal miners are poised to benefit from rising prices for the commodity as a result of the Iran war, says Bloomberg Intelligence.

Analysts at the market research firm say if the Iran war disrupts liquefied natural gas (LNG) supplies for several more weeks, coal prices could rise to between $165/t and $185/t.

Even at a $135/t spot price, Glencore's earnings for the year would gain 10% from thermal coal and 12% from other commodities, while Yancoal and New Hope's earnings could rise about 60% before fuel hikes.

Bloomberg Intelligence says thermal coal prices are, however, unlikely to respond to the current LNG disruption in the same way as in 2022 when coal rallied alongside gas as both markets faced simultaneous supply shocks – including sanctions on Russian coal and weather-related disruption in Australia.

"The scope for additional gas-to-coal switching is also more limited. European coal capacity has declined since 2022, while North Asian utilities are constrained by existing LNG contract structures and operational limits on coal plants.

"Additionally, many Asian power systems already rely heavily on coal. The conditions that drove the extraordinary coal rally in 2022 are largely absent," explains Bloomberg Intelligence senior industry analyst **Alon Olsha**.

Sustained LNG tightness can nonetheless push coal to higher price levels. Using typical efficiencies, Olsha says LNG prices can be translated into an implied "coal parity" price – the level at which gas and coal generation costs are equal.

In practice, coal rarely trades all the way to this parity because switching capacity is limited by plant availability, contracts and policy constraints.

Olsha says amore realistic approach is, therefore, to assume coal captures only part of the parity gap.

"The LNG disruption would likely need to persist for at least several weeks, and probably around one to two months, before coal demand responds meaningfully."

The Iran conflict has already boosted the Newcastle coal price by 20% as higher LNG prices accelerate fuel switching by Asian power utilities.

Bloomberg Intelligence projects that if spot Newcastle prices hold at about $134/t, New Hope and Yancoal's 12-month forward consensus earnings have about 60% upside, giving them maximum leverage in the coal peer group.

For Glencore, spot commodity prices could lift earnings by 21%, with almost half coming from thermal coal.

Energy trading would likely boost earnings further, with scope to monetise dislocations in crude, LNG and coal, as seen during the 2022 Russia-Ukraine shock.

Meanwhile, Bloomberg Intelligence says the coal freight spike is not yet reflected in export shipments.

High-frequency shipment data have yet to show a clear pickup in physical coal flows, despite the sharp rise in Panamax rates and Newcastle prices since the Iran conflict began.

Bloomberg Intelligence's data for both Newcastle and Samarinda suggest exports have remained subdued in recent days, with no cargoes recorded as loading at Samarinda on six of the ten days leading up to March 9. This suggests that recent price and freight moves reflect precautionary buying, logistics disruption or tightening vessel availability, rather than a material increase in coal shipments so far.

PRICE SHOCK
The Iran conflict has already boosted the Newcastle coal price by 20% as higher LNG prices accelerate fuel switching by Asian power utilities

Still, given the relatively short voyage times from Australia and Indonesia to Northeast Asia, any sustained shift towards coal could translate into higher loading activity within a few weeks, once procurement decisions filter through the supply chain.

Bloomberg Intelligence further points out that the sharp rise in Panamax freight rates on Indonesian and Australian coal routes – alongside the increase in Newcastle prices to around $135/t from $115/t since the conflict began – suggests utilities are stepping up spot coal procurement as LNG prices surge and gas-to-coal switching economics improve.

Yet sharply higher bunker costs are also adding inertia to the freight market, tightening vessel availability around Indonesian anchorages.

Olsha explains that for the freight rally to translate into sustained upward pressure on coal prices, it would need to be accompanied by clear signs of stronger physical demand, such as rising vessel lineups at Indonesian and Australian ports, higher coal imports into key Asian markets and utilities increasing spot coal purchases in response to persistently elevated LNG prices.

European Turn

Gas-to-coal switching is becoming more affordable in Asia and Europe, Bloomberg Intelligence says.

The disruption to Qatari LNG supply has sharply lifted spot LNG prices and widened regional spreads, raising the incentive for gas-to-coal switching in parts of Asia and Europe.

In practice, the response is likely to be uneven, with price-sensitive South Asian buyers having already begun curtailing gas demand or switching fuels, while North Asian markets such as Japan and Korea typically adjust more gradually owing to contractual LNG supply and operational constraints.

Simultaneously, Asia's need to secure replacement cargoes might pull LNG away from Europe, tightening the Atlantic basin where additional pipeline supply is limited, potentially prompting coal switching there as well.

If the disruption proves short-lived, prices should normalise, but a prolonged outage would increase coal burn across regions.

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GOLD

Maiden Pour

West Wits pours first Qala Shallows gold at Sibanye-Stillwater's Ezulwini plant

MARTIN CREAMER | CREAMER MEDIA PUBLISHING EDITOR

First blast October, first pour March. It's just go, go, go for Australia-listed West Wits Mining as it streaks ahead at a time of sky-high gold prices.

The highly impressive and safe manner in which the metallurgical team at the Sibanye-Stillwater Ezulwini gold smelting plant went about processing and pouring of first gold from Qala Shallows on March 17 was a pleasure to behold.

"It's really great to host the West Wits team," Sibanye-Stillwater VP and head of surface operating and processing operations **Ayanda Shabalala** said at the event attended by West Wits chairperson **Michael Quinert** and West Wits CEO **Rudi Deysel.**

"We start off with the processing of about 10% of West Wits material and that goes up over the next three years to about 80%.

"We're looking forward to a very fruitful relationship between ourselves as Sibanye and West Wits," added Shabalala, at the event that *Engineering News & Mining Weekly* attended.

Ezulwini, which means 'in heaven', has the capacity to process 130 000 t a month.

West Wits' Qala Shallows is expected to contribute more than $1.15-billion to the South African economy over its 17-year life, supported by a steady-state production profile of 70 000 oz/y for 12 years.

The latest compliant mineral resource estimate of the Witwatersrand Basin project (WBP) of Sydney-listed West Wits Mining is up 2.2-million ounces. The project is situated a mere 15 km west of Johannesburg.

"We want to be your strategic partner, because South Africa is blessed with still a lot of resources that haven't been exploited, which I think the world's starting to see. We've got 17 years life-of-mine on this project, and we can see it going much longer, 25 to 30 years – and why build a new plant when there's a perfectly good plant here, which is what attracted us to the whole idea of being a strategic partner with Sibanye-Stillwater," said Quinert.

The smelt house visit placed major emphasis on safety protocols, with Shabalala expressing the hope that the partnership enhances safety, as a key value, and also innovation.

"We need to look at what else can we do together, how best we can improve production, both from a tonnage point of view as well as from an efficiency point of view. So, I'm excited. If you're saying you want to grow and actually supply more, we'll say supply more, even starting now.

"Together we can extract some synergies, that can add value, create employment; create value for the communities, the employees, the shareholders; I'm really looking forward to a long-term relationship that creates win, win outcomes for everyone," added Shabalala.

Deysel took the opportunity to invite the Ezulwini team to visit Qala Shallows "because I think we share absolutely the same view on how we want to operate. I actually would like you guys to come and visit our little mine, which has started up and which is growing."

ASX-listed West Wits Mining has started a scoping study under its Project 200 initiative within the broader WBP. Project 200 is a strategic growth initiative aimed at assessing the potential to scale WBP towards an aspirational target of 200 000 oz/y gold production.

The new Qala Shallows gold mine is not only a milestone for West Wits Mining but also for South Africa's mining industry, the South African economy, and the communities that will share in the opportunities created here, Minerals Council South Africa CEO **Mzila Mthenjane** highlighted at the official opening of the mine.

"Gold is woven into the fabric of South Africa's life story. From the discovery of gold on the Witwatersrand in 1886, which transformed Johannesburg into the City of Gold, to today's modern operations, mining has been central to our nation's development," added Mthenjane, whose council continues to play a vital role in ensuring that the legacy of mining – and particularly gold – remains a driver of growth and shared prosperity for generations to come.

GOLD

Glittering Upside

Many more 'great' gold opportunities in SA, West Wits chair says at first gold pour

MARTIN CREAMER | CREAMER MEDIA PUBLISHING EDITOR

Many more "great" opportunities exist in South Africa for gold mine development, West Wits Mining chair **Michael Quinert** emphasised on March 17 when the first gold pour from his new virgin rock Qala Shallows gold mine took place at Sibanye-Stillwater's Ezulwini gold processing plant.

Quinert said it was "fantastic" for a company of the stature of Sibanye-Stillwater to lay on a gold processing plant for West Wits.

Quinert was speaking to *Engineering News & Mining Weekly* in a video interview at Ezulwini.

What's more, Qala's relative 800-m shallowness also translates into lower costs.

"Who would have thought we'd find a seven-million-ounce resource, basically at surface. If we were in Australia, people would be doing back flips. So, we're very pleased to come here.

"We're really committed to the country, and we think there's a big future for South African mining."

Qala is staffed overwhelmingly by South Africans and West Wits is considering a listing on the Johannesburg Stock Exchange.

Engineering News & Mining Weekly: **Qala means 'it's just the beginning' and Shallows points to it being pretty shallow.**

Quinert: That's what we're trying to broadcast because most people think of South African mining being deep, everything's called deep, but this is shallow.

We're starting at level two. So, it means it's more straightforward. Our costs are better, and it shows there are some fantastic orebodies still here ready to be exploited.

So, what'll you do next?

Well, we're looking to expand the project. You know, it's only the beginning. This is a 17-year life-of-mine producing a steady state 70 000 oz. But we think we can take this all the way to 200 000 oz.

There's a massive resource there on the Jorc statement now, of seven-million ounces. It's all at good grades, so we've got to do the work and the feasibility on expanding it. But we think Qala is a great start.

Give us a bit of history of how this all came about.

I came here as a lawyer, of all things, in the early 2000s to work on some projects for some clients that ended up being the Ergo plant, which DRDGOLD are now owning. And it also ended up being some of the assets that Pan African are mining on the West Rand.

This company, West Wits, was really a spin-off of some of the assets that came out of that project. I was asked, would I be chairman, and I said, yes, great, thinking that as chairman, I can sit around and do what I want, but no, it's been a lot of work, but it's been worthwhile.

And here we are, after all this time now, pouring gold on this fantastic day on the West Rand.

The situation here at Ezulwini is quite impressive.

I think it's fantastic to be with a company of the stature of Sibanye-Stillwater and to take a small mining company like us on.

We've had some great relationship building with them, and they're very keen to see the project work and we do believe that this can be a catalyst for starting overseas investment into South Africa to exploit these wonderful assets.

Australian investors are going to West Africa, East Africa, places that have far less to offer in terms of stability, opportunity and resources and the people here, the skills you have here in South Africa.

I mean, you basically run mining in all of Africa, so why not come here and use your skills locally and so we're

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MICHAEL QUINERT
Qala's relative 800 m shallowness also translates into lower costs

MINING RENEWABLES

Sun Powered

Northern Cape sun providing 240 MW of power to platinum, diamond, iron-ore mines

MARTIN CREAMER | CREAMER MEDIA PUBLISHING EDITOR

The Mooi Plaats solar photovoltaic project has begun commercial operation. The project supports 240 MW of green energy to South African platinum, diamond and iron-ore mines.

This achievement is described as marking another advancement in the growing portfolio of renewable assets in South Africa of Envusa Energy, a venture owned jointly by Anglo American and EDF power solutions.

Located in the sunny Northern Cape, the Mooi Plaats project is delivering clean renewable energy into South Africa's national electricity grid in support of platinum group metals (PGM) mining company Valterra Platinum, diamond mining company De Beers, and iron-ore mining company Kumba Iron Ore, amid the broader transformation of this country's energy landscape.

The project is the first of three to reach commercial operation this year, with two 140 MW projects on the way, Envusa and Anglo American South Africa chair **Nolitha Fakude** outlined in a release to *Engineering News & Mining Weekly* on March 18.

"Mooi Plaats is not only a source of low carbon power – it's an enabler of new socio-economic opportunities and stronger national energy security," Fakude explained.

Mooi Plaats benefits from excellent renewable energy resources and a strong Eskom grid connection and is the first project in the Envusa portfolio that will aggregate the energy from the Koruson 2 cluster. It will allocate energy on demand and utilise the portfolio wheeling concept developed and implemented in collaboration with South Africa's State-owned electricity utility Eskom.

EDF CEO **Tristan de Drouas** pointed out that Mooi Plaats' commercial commencement demonstrates the momentum that is building within the EDF-Anglo partnership.

"We're deploying world-class renewable energy projects and aggregation capability that contributes directly to South Africa's energy transition," De Drouas stated.

Envusa is creating more than 1 300 project-related jobs and investing R20-million into local socio-economic development projects for the Inxuba Yethemba Middleburg community, which is also an ownership participant through the Winds of Change Community Trust.

Partnering Envusa is Pele Green Energy, whose CEO **Gqi Raoleka** emphasised the shared commitment of the partnership to South Africa and its developing communities. "Beyond delivering 240 MW of clean energy, this project demonstrates how the energy transition can strengthen energy security, support decarbonisation and create meaningful socio-economic impact for host communities," Raoleka stated.

Anglo chief project and development officer **Alison Atkinson** spoke of each milestone of the Envusa rollout bringing South Africa closer to a cleaner and more inclusive energy system.

"The project contributes to early tariff relief, strengthens grid resilience, and supports the development of local economic opportunities," Atkinson noted.

Emission Reduction

Mooi Plaats is expected to supply 15% of the electricity demand of Valterra and mitigate 500 000 t of carbon emissions a year.

With grid electricity currently accounting for 87% of Vaterra's total emissions, the renewable supply would, Valterra reported in a separate release, would help to reduce the Johannesburg Stock Exchange-listed company's Scope 1 and 2 emissions by 30% by 2030.

As all Envusa Koruson 2 projects come online, Valterra would meet a third of its electricity needs by adding 480 MW of renewable energy to its operations.

Approximately 80% of electricity generated through the Koruson 2 programme is allocated to Valterra and savings from the programme are estimated at 10% below current tariffs in 2026.

Valterra mines, smelts and refines PGMs and associated co-products amid its integrated value chain supported by marketing hubs in London, Singapore and Shanghai.

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looking forward to building that relationship with our South African friends. None of these things are down to one person.

There's a huge team that sits behind what we've done, of consultants, but I can proudly say for you guys that there's only two Australians now in this whole company of over 250 people.

They're all South Africans, and all our consultants, all our engineers, everyone's South African. So, while we're an Australian company to raise capital, we're very much a South Africa-focused company.

Finally, any chance of listing on the Johannesburg Stock Exchange?

It's on the cards. I'm meeting people, but that'll be news to come further. I'll give you the scoop when it happens.

To watch a video in which West Wits' gold pour at Ezulwini is covered by *Engineering News & Mining Weekly*'s Martin Creamer, scan the barcode or visit www.miningweekly.com.

AN

ARTICIFIAL INTELLIGENCE

Next-Gen Coding

Start-up bets on building 'humanity's last app' to automate software development

NATASHA ODENDAAL | CREAMER MEDIA SENIOR DEPUTY EDITOR

Autonomous enterprise software development company Ageiro is building what it calls "humanity's last app", aimed at resolving friction points in traditional software development and automating the entire software development lifecycle.

This will also mitigate software development talent shortages by enabling employees to build and manage AI solutions.

Founded by CEO **Paulo Matos**, chief engineer and technology officer **Carlos de Matos** and a team of technologists, the company aims to become a global platform of choice for the next generation of creators and enterprises.

I responds to faster, reliable and cost-efficient development and AI grounded in enterprise data intelligence.

With traditional development slow, resource intensive and heavily focused on maintenance rather than innovation, Ageiro aims to deliver production-ready software faster, amid ongoing debate about AI's real-world impact.

Further, there is much conversation around AI and whether it has delivered on transformative expectations, including practical use cases.

"Has it actually created that productivity and efficiency uptick expected?" he questions, noting that while AI tools are widely accessible, they do not always translate into better decisions or outcomes. Generic AI tools and applications lack understanding of structure, relationships and governance within enterprise data, and are designed for broad, general use.

"[Ageiro] was born out of the observations ... of friction points that were embedded in the system over many years – not from an organisational point of view, but from a historical software development point of view," Matos tells *Engineering News & Mining Weekly*.

Since its launch in July last year, the company, registered in the UK, has established a global footprint, operating across the Europe, the Middle East and Africa region and with a presence in the United Arab Emirates, South Africa and North America.

Its vision: to build humanity's last app.

Matos says the platform represents a major shift in how software is developed, offering "enterprise autonomy with enterprise discipline" as organisations seek faster development cycles and AI-driven productivity gains.

To deliver on this, Ageiro raised $3-million in December to accelerate the development of the agentic AI platform that will ultimately convert business intent directly into production-ready software.

It also enables the company to expand its go-to-market operations and launch its key products, ARK and SCALE, which is a focus for the first two quarters of this year following the completion of several proof-of-concepts among its existing global network.

"ARK is heavily focused on the engineering space, specifically architecture, engineering and construction (AEC), and SCALE is focused on the autonomous software development lifecycle, as a building block for any other product that either us or our customers wish to launch and to build out."

LOCALISATION

Gigafactory Prospects

SA has potential to be real player in the battery energy storage system market

REBECCA CAMPBELL | CREAMER MEDIA SENIOR DEPUTY EDITOR

MARKET OPPORTUNITY
There is a rapidly growing market for BESS in Southern Africa

South Africa has the potential to develop at least one, and maybe as many as three, internationally competitive gigafactories for the manufacture of lithium iron phosphate (LFP) battery cells. This is the conclusion of a recent report undertaken for the non-profit and public benefit Localisation Support Fund (LSF) by Ernst & Young Advisory Services (EY-Parthenon). The biggest market will be the local manufacture of battery energy storage systems (BESS).

BESS has a key role to play in mainstreaming the large-scale use of solar and wind power. Most obviously, it provides a guaranteed amount of electricity for a known amount of time, when renewable energy sources are not functioning – at night, for solar, or in calm conditions, for wind. The renewables-plus-BESS combination provides a valuable option for major mining and industrial projects and operations, where grid electricity is unavailable, unreliable, or too expensive.

But BESS also helps with grid stability. "BESS swiftly addresses grid challenges like under-voltages, overloads, and reactive power deficits by injecting or absorbing power," explains Eskom Distribution, on its website. "It effectively alleviates network congestion during peak periods, significantly reducing technical losses." It further reduces technical losses that are a side effect of long-distance electricity transmission. "BESS offers rapid power output adjustments critical for grid stability, responding to supply and demand fluctuations, minimising outages, and ensuring reliable power delivery."

It is also most beneficial during periods of low electricity demand, again alleviating grid issues, including instability. Without BESS, in low-demand periods the output of renewable energy facilities might have to be curtailed, which would waste energy. BESS is a more economically viable option. "BESS [also] contributes ancillary services such as frequency regulation, voltage support, and reactive power control, enhancing grid reliability and power quality."

And there is a rapidly growing market for BESS in Southern Africa. The EY-Parthenon report for the LSF forecasts that the region will need 55 GWh of BESS capacity by 2034, which works out at a compound annual growth rate of some 30%. This demand will be mainly driven by increasing demand for BESS infrastructure for renewable energy integration with the grid, and for grid stabilisation. (For comparison, global demand is expected to grow from 1.6 TWh in 2024 to 4.9 TWh by 2034, a CAGR of 12%.)

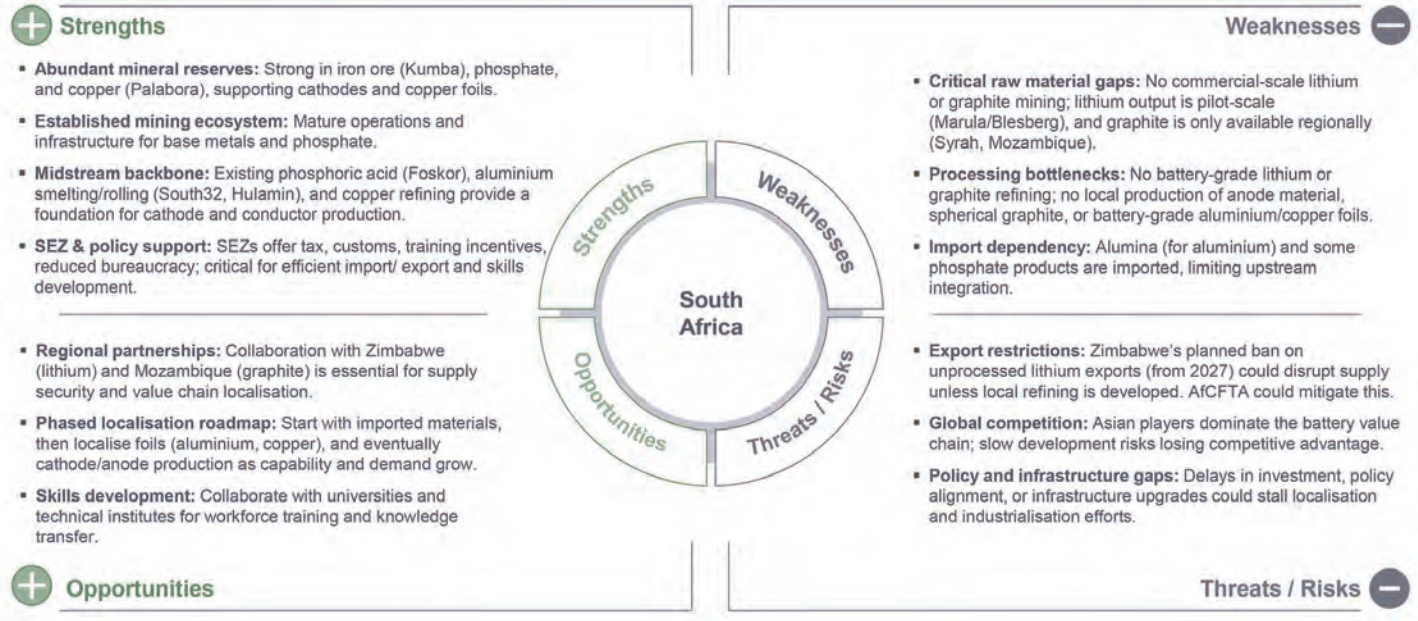
In the longer-term, however, there is also the potential for locally made LFP battery cells to be used in the manufacture of battery electric vehicles (BEVs). This, the report describes as a "second demand wave". Commercial BEVs, such as buses and trucks, are likely to be an earlier opportunity than BEV cars. LFP chemistry is preferred for commercial BEV applications, and operators prefer options which have local technical support. For BEV cars, cost competitiveness and scale are essential factors in the adoption of technology. However, government supports the transition to electric vehicles and retains a 150% tax deduction for investment in their production.

Resources, Challenges & Enablers

LFP battery cells use lithium ferrophosphate as their cathode material, the anode being made of graphitic carbon with a metal backing. To improve electrical conductivity, the LFP particles are "doped" with metals like aluminium, niobium and zirconium, or coated with carbon nanotubes or other conductive materials.

South Africa has a "structurally distinctive foundation" for the production of LFP battery cells – the country has large reserves of copper, iron-ore and phosphates. These are core elements required in LFP cell chemistry. South Africa smelts aluminium and is a major producer of zirconium, although only a minor producer of niobium. Taking advantage of the country's mineral resources and locally refining and beneficiating the LFP precursor materials could result in landed costs of between $68/kWh and $72/kWh by 2030, which could be up to 40% less than global import prices.

There are gaps upstream in the value chain, regarding mineral processing and the manufacture of battery cell components. These can be overcome through the reinforcement of local



SWOT SNAPSHOT
The strengths, weaknesses, opportunities and threats in South Africa's LFP battery value chain

and regional supply partnerships. In fact, such partnerships are essential to create long-term resilient supply chains. These, in turn, can be enabled by the implementation of the African Continental Free Trade Area and by initiatives such as the Lobito Corridor (which links the mines of Zambian and southern Democratic Republic of Congo Copperbelt to the Angolan port of Lobito). These initiatives will also allow for the reduction of transport costs and the aggregating of demand.

There are already local companies that assemble lithium batteries, which has created local expertise. This provides a solid base for battery assembly and integration.

By global standards, South Africa still has competitive energy and water prices. And the same goes for labour costs, when these are measured using the unit labour cost (ULC) metric. ULC measures wages relative to productivity, and not in absolute terms. In ULC terms, South African labour costs are lower than those in Germany, China, Brazil and Nigeria. However, they are higher than India, Indonesia and Hungary. South Africa is on a par with Thailand. On a ULC index, with South Africa as the benchmark of 100, Nigeria comes in at 367.2, followed by Brazil (292.0), China (202.5), Germany (106.0) and Thailand (100.6), as less competitive than, or on a par with, South Africa. More competitive than South Africa are Hungary (78.5), Indonesia (66.6) and India (56.8). These results emphasise the importance of technology and productivity, noted the report.

There are also investment incentives available. These can include grants, tax allowances and financial incentives. The report assumes that the gigafactory or factories would be built in one or more of the country's Special Economic Zones (SEZs). These incentives could include Corporate Income Tax (S12R) and Accelerated Building Allowance (S12S). However, these have to be individually approved by the Finance Minister and there are no fixed timelines for the approval process.

Nevertheless, these incentives, plus the energy, water and labour costs, augmented with World Trade Organisation-compliant policy and tariff scenarios, have the effect of closing the cost gap between South African production and East Asian battery cell production. The result would be a competitively priced South African product within the Southern African market.

"The LSF-commissioned study indicates that a 5-10 GWh LFP gigafactory in South Africa is technically and commercially feasible under the scenarios assessed, with enough demand to support a number of local manufacturers and anchor a new battery value chain over the next decade," sums up EY-Parthenon Partner **Heather Orton**.

Location, Location, Location

As already mentioned, the gigafactory will have to be set up in an SEZ. The study examined five SEZs, using a framework composed of weighted criteria that encompassed the depth of the available incentives, the available space, the readiness of the infrastructure, water security, the reliability of the electrical grid, the proximity to ports and the availability of talent. The SEZ that came out on top was Atlantis, in the north of metropolitan Cape Town, in the Western Cape province, with the Coega Industrial Development Zone, near Gqeberha (Port Elizabeth) in the Eastern Cape province, coming second.

The Atlantis SEZ is in first place for two main reasons. First, it lies close to the country's densest grouping of battery pack assemblers and integrators. This would give the gigafactory an immediate anchor customer base. Second, it also provides unparalleled access to renewable energy, given the development of such power projects in the Western Cape. This would allow the gigafactory to be a green manufacturing plant from the get-go.

Coega ranks second because it has an established record of attracting large-scale automotive and metals industries investment. It also has direct access to the deep-water port of Ngqura.

Both SEZs provide competitive SEZ tax incentives, optimised permitting processes and infrastructure on the scale required to allow a gigafactory to operate. Nevertheless, some upgrades will be required for either (or both) of these locations to host the gigafactory.

There are very obvious job creation and skills development elements to such a project. Assuming the gigafactory has a production capacity of 5 GWh, the study found it would create more than 560 direct jobs. These would be concentrated in engineering, equipment operation, maintenance and quality assurance. There would also be multiplier effects along both the upstream (minerals processing) and downstream (systems integration) value chains. The result would be a significant contribution to government's objective of creating 25 000 jobs in the green economy by 2030.

The study also highlights that the country's skills development infrastructure has a

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AIRPORT INFRASTRUCTURE

Airport Revamp

ACSA to spend R11.3bn on new runway, terminal upgrades at Cape Town Airport

IRMA VENTER | CREAMER MEDIA SENIOR DEPUTY EDITOR

Airports Company South Africa (ACSA) will spent an estimated R11.3-billion to upgrade and expand Cape Town International Airport (CTIA).

The infrastructure programme forms part of the State-owned entity's long-term capital investment strategy aimed at strengthening capacity, modernising ageing infrastructure and supporting projected passenger growth, says ACSA spokesperson **Ofentse Dijoe**.

The programme at CTIA includes developments across landside facilities, terminal infrastructure and airfield operations.

The landside infrastructure programme will see the expansion of the car rental precinct at a cost of R205-million to accommodate additional operators and increased vehicle capacity, in a project that will take 30 months to complete once the contractors have been appointed.

The terminal infrastructure programme will include construction of a new domestic arrivals terminal; extension of the existing domestic departures terminal, including three additional passenger loading bridges with contact stands and expanded lounge facilities; and upgrades within the international terminal aimed at improving the passenger experience, with a particular focus on addressing capacity pressure points.

The airfield infrastructure rollout will see the construction of a new Code F-compliant runway with associated airfield services; two new Code F aircraft contact stands; the reconfiguration of an existing Code E aircraft stand to accommodate Code F aircraft; and three new narrow-body Code C aircraft stands.

Code F refers to the giants of the sky with a wingspan of between 69 m and 79 m, such as the Airbus A-380-800 or Boeing 747-8, which means that the airports operator is readying CTIA to receive some rather large visitors from abroad.

The ACSA capital expenditure (capex) programme will also see the construction of a new perimeter fence to strengthen airfield security.

"These developments are all intended to enhance operational resilience, increase passenger processing capacity and support the long-term growth trajectory of CTIA," says Dijoe.

"Current projections indicate continued growth in both domestic and international travel at CTIA. The planned infrastructure interventions are intended to ensure the airport can accommodate these forecasted volumes efficiently."

CTIA recorded a record-breaking 11.1-million two-way passengers (domestic and international) in 2025.

Domestic Terminal

Dijoe says the domestic arrivals facility was not fully replaced during ACSA's T2010 airport remodelling programme that started in 2006, and has since reached capacity.

The new terminal will provide additional baggage reclaim belts, expanded ablution facilities, improved passenger circulation and reduced walking distances, as well as expanded meet-and-greet areas.

Other key enhancements will include three additional passenger loading bridges to reduce bussing during adverse weather conditions; increased lounge capacity; modernised ablution facilities; and expanded retail and food offerings.

Domestic terminal interventions are estimated to carry a R 2.7-billion price tag and take 85 months to complete once contractors have been appointed.

International Terminal

The planned upgrades to the international terminal will focus on addressing the most pressing operational pinch points, such as the current capacity constraints within the arrivals and departures areas.

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READY FOR TAKE-OFF
The construction of a new runway is a key strategic intervention within the capex programme

AUTO SECTOR

Diversification Drive

Metair targets growth beyond components amid local manufacturing concerns

IRMA VENTER | CREAMER MEDIA SENIOR DEPUTY EDITOR

Seventy-seven-year-old Metair may have its roots in component manufacturing, but its future growth could depend on growing its aftermarket parts and retail business.

Announcing the JSE-listed group's financial results for the year ended December 31 in March, CEO **Paul O'Flaherty** said the six businesses in Metair's automotive component manufacturing division remained a fundamental part of the group.

It was, however, important to "deconcentrate risk" and to have "a more balanced" portfolio as South Africa's vehicle manufacturing sector continued to face headwinds, linked largely to a rapidly growing cohort of budget vehicle imports from China and India.

The aftermarket parts and retail division currently earns 30% of Metair's revenue.

"We need to get that to 40% as quick as we can," said O'Flaherty.

"We are at a crossroads in the [South African] automotive industry," he noted.

He said Metair supported strong intervention by government to boost local vehicle and component manufacturing. If South African-assembled vehicles' local content kept shrinking, it could harm a large part of the country's manufacturing base.

While local vehicle assembly is currently stable, the sector is set to face severe pressure from this year.

A rampant Morocco last year eclipsed South Africa as Africa's largest vehicle manufacturer.

Metair earlier this month reported a healthy set of results, marred by a R431-million fine imposed on the company's Romanian battery subsidiary, Rombat, in December.

Rombat is one of several European battery manufacturers fined by the European Commission for contravening EU competition law.

O'Flaherty said Metair lodged an appeal to the EU ruling on February 27.

The company questions the size of the fine in relation to Rombat's market share, as well as Metair's parental liability, as the due diligence reports ahead of the 2012 acquisition did not raise any red flags.

The appeal process could take some time to conclude, warned O'Flaherty.

Meanwhile, Rombat had provided fully for the financial effect of the fine.

Metair reported two sets of numbers – one inclusive of the fine, and one without.

Excluding the effects of the EU fine, revenue from continuing operations increased by 57% to R17.9-billion for the year.

Under the same circumstances, earnings before interest and taxes (Ebit) increased by 99% to R1.09-billion.

While component maker Hesto provided a boost to results, parts retailer AutoZone remained a loss-making business.

The Ebit margin improved to 6.1%, up from 4.8% in the prior year.

Headline earnings per share (HEPS) from continuing operations, excluding the Rombat fine, increased by 82% to 191c a share.

Including the Rombat fine, however, HEPS from continuing operations swung to a loss of 21c a share.

In the component manufacturing division, revenue grew by 66% to R11.8-billion and Ebit by 148% to R923-million.

The aftermarket parts and retail division grew revenue by 42% to R6.1-billion, while Ebit decreased by 8% to R246-million, owing mainly to the inclusion of AutoZone.

O'Flaherty said AutoZone was six to nine months behind the targets set out in its recovery plan. He remained confident, however, that the business could be turned around.

PAUL O'FLAHERTY
Metair supported strong intervention by government to boost the local vehicle and component manufacturing industry

TRADE@WORK

Riaan de Lange

Extra! Newsprint in the news

Factually, it should be "Extra! Extra! Read all about it!!!" – which originated in the mid-nineteenth century in the US when newspaper hawkers shouted about urgent breaking news. The addition and repetition of the word 'extra' was to accentuate that it was a special or limited-run newspaper edition that was printed outside regular hours to report major events.

I vividly recall, as a student, watching a late-night movie show at one of the 11 movie theatres of the now-defunct Sterland, in Arcadia, Pretoria, and, upon leaving after pumpkin hour, buying the early edition of The Sunday Times. Later that morning – much, much later – an updated edition would be available, with either a different front page or a cover wrap page called 'Extra'.

Once you finished reading, you could decide whether this was an 'extra' or whether you had read it before. Whether you had read it before would depend on whether the Government Gazette was your favourite or regular reading material.

In the Government Gazette of March 19, the International Trade Administration Commission of South Africa (Itac) extended an invitation to comment on an application by the South African Pulp and Paper Industries, better known by its acronym, Sappi, for an increase in the 'general' rate of customs duty on newsprint, in rolls or sheets, from free of duty to 5% ad valorem. The deadline for the submission of comment is April 16.

Yes, 'newsprint' – and this begs the question: When last did you read an actual newspaper rather than in digital format? A secondary question is: Why only a 5% increase? To answer these questions definitively, you would need to know the binding rate for newsprint.

To ensure that we are on the same page – pun intended! – what is newsprint? It is a low-cost, non-archival and highly recyclable paper primarily made from wood pulp, designed for high-speed printing presses and used for short-term applications, owing to its tendency to yellow and become brittle over time. If you are of a certain age, you may have eaten the best fish and chips wrapped in an old newspaper.

> Protection against low-priced imported newsprint is critical to maintaining Sappi's Ngodwana Mill's operations

The answers can be found in Sappi's reasoning – which Itac calls 'motivation' – for the tariff application. Four motivations are offered. In the first instance, globally, the newsprint market has been in prolonged decline, driven primarily by digital migration, which has reduced demand for paper publications. Despite this trend, newsprint remains an important medium in developing countries such as South Africa, where electronic connectivity is not universal.

Secondly, amid global overcapacity and rising low-priced imports, Sappi's Ngodwana Mill (PM2 machine) has sustained persistent financial losses. Without the requested tariff intervention, the continued viability of South African newsprint manufacturing is at significant risk.

Thirdly, protection against low-priced imported newsprint is critical to maintaining the PM2 machine operations, safeguarding associated employment, and supporting the national economy. The PM2 machine is the only operational newsprint facility in South Africa and the Southern African Customs Union region.

Finally, therefore, this application seeks to ensure the long-term viability of newsprint manufacturing by the PM2 machine, while allowing Sappi to expand into alternative packaging products.

How long will it be before Sappi knows the outcome of the Itac investigation? That depends on who you ask. Itac states in its 'Tariff Investigations' booklet: "The commission carries out its investigations speedily and with rigour. The timelines have been revised to ensure speedy delivery of the instruments. It now takes the commission generally four months for sectors in distress and six months for normal investigations."

This is the polar opposite to what *Engineering News & Mining Weekly* reported on September 23, 2025: "Tariff investigations now taking 27 months on average to complete, the report shows". So, depending on your glass content persuasion, the outcome of Sappi's application will be available on August 16, or October 16 this year, or July 16, 2028, not accounting for the Trade, Industry and Competition Minister's sign-off time.

As for the four motivations, will 5% really cut the mustard? It warrants repeating that **Adam Smith** argued that customs duties should be used only for revenue generation, not as a tool for economic manipulation.

● *This economic and trade-focused column is written by Riaan de Lange, author of Customs & Excises in One Lesson: The Shortest and Surest Way to Understand Basic Customs & Excises, published by Wolters Kluwer Law. His first column appeared on February 2, 2001. The views expressed here are his own.*

AN

AFRICA BEAT

Martin Zhuwakinyu

Afcon victory taken off the pitch

It may be just a football decision, but the ramifications are being felt far beyond the pitch. I'm referring, of course, to the Confederation of African Football (CAF) appeals board decision to strip Senegal of its 2026 Africa Cup of Nations (Afcon) title, punishing the team for temporarily walking out of its final against Morocco, and crown the North African nation as champion.

The decision is already causing ruptures between the two nations, which are united not only by their citizens' fervent love of football but also by commercial, cultural and religious bonds, with Senegal and Morocco both being majority-Muslim.

Tijaniyyah, a Sufi Muslim order, is widely followed in the two countries, and extensive cultural exchanges include student programmes, migration and joint festivals.

Morocco is a leading investor in Senegal, mainly in finance, agriculture and energy. In banking, the Moroccan presence is anchored by Attijariwafa Bank, BMCE Bank and Banque Centrale Populaire, while AMIFA and Wafa are highly recognisable brands in the microfinance and life assurance sectors.

According to a recent media report, Moroccan foreign direct investment in Senegal, which stood at $105-million in 2017 and $116-million in 2018, rose to $413-million in 2019, the latest year for which figures are available.

On the trade front, Senegal's exports to Morocco in 2024 – dominated by horticultural products, fresh fish, canned tuna and sardines, peanut paste, and nuts – totalled 24.7-billion CFA francs. Its imports from the North African nation, mostly manufactured goods and consumer products, totalled 147-billion CFA francs.

This is how the Afcon saga unfolded: on January 18, as the two titans of African football battled it out for continental glory, Morocco was controversially awarded a penalty, which Senegal's players felt resulted from a bad refereeing decision, prompting their walkout. Play resumed after 14 minutes, the penalty was missed, and Senegal went on to win the match 1-0 after extra time, lifting the Afcon trophy for the second time.

> Football is a game meant to bring joy, excitement and a sense of community, not rancour, resentment or division

I must admit, I don't quite understand why Morocco football officials felt so aggrieved that they made a beeline for CAF's appeals board, which ruled on March 17 that Senegal forfeited the final by leaving the field of play without the referee's permission and awarded Morocco a 3-0 default win.

Senegal's football governing body is utterly unhappy with this decision and has instructed its lawyers to take the matter to the Court of Arbitration for Sport in Lausanne, Switzerland. So, while the curtain may have drawn on the 2025/26 iteration of Afcon, we may still hear about the tournament's last match for a very long time to come, given that the wheels of justice – even when the dispute concerns only sports – grind slowly.

Reverberations from that ill-tempered match are also being felt far away from arbitration tribunals. As international media reported after news of the CAF appeals board's decision broke, feelings between Senegalese and Moroccan citizens are hardening.

Referring to Moroccans, a student in Dakar, the Senegalese capital, told Al Jazeera: "When everything goes well, they call us their brothers. But when things don't go their way, they start being nasty."

Against the backdrop of such sentiment, Morocco's embassy in Dakar called on Moroccans living in Senegal to "demonstrate restraint, vigilance and a sense of responsibility".

Over in Casablanca, Morocco, a home appliances trader had this to say: "Honestly, my views towards Senegalese and sub-Saharan Africans changed after this ... We used to feel sympathy and help them because they were migrants who had struggled to get here.

"Where there was once sympathy and compassion, now I will treat them as they have treated us."

But some Moroccans – and I hope they are an overwhelming majority – don't share this view. One said: "We would have preferred it to stay with Senegal because it doesn't feel right otherwise."

But at the end of the day this is only football, the beautiful game that is meant to bring joy, excitement and a sense of community, not rancour, resentment or division. Controversial rulings, refereeing mistakes or administrative decisions may spark debate, frustration or even anger, but they should never overshadow the spirit of the sport.

● *Dr Zhuwakinyu, who holds a PhD in communication (media studies) from the University of South Africa, is Creamer Media senior deputy editor – martinz@engineeringnews.co.za*

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critical role to play in the creation of such a gigafactory or factories. It recommends early engagement with the relevant Sector Education and Training Authorities (SETAs), namely the Manufacturing, Engineering and Related Services SETA and the Chemical Industries SETA, to ensure the supply of skilled workers.

Partnerships & Markets

It further cites the need for collaboration and partnerships with the Council for Scientific and Industrial Research and South African universities. This is necessary to ensure the development of the electrochemical and advanced manufacturing capabilities required by the LFP battery cell manufacturing sector. An aim should be the development of modular and scalable technology platforms that would allow flexibility in upgrading programmes and integration with new battery chemistries that could be developed in the future. Additionally, there is a need to develop local standards and testing facilities for storage batteries, which will require support from the South African Bureau of Standards and the National Regulator for Compulsory Specifications (NRCS).

Moreover, the study stresses the necessity of creating partnerships with established international battery cell producers. These are essential, as they will allow rapid technology transfer and access to world-class research and development as well as to proven manufacturing processes. In turn, these would reduce risk and accelerate the achievement of commercial scale production. South Africa's status, as a jurisdiction with a transparent legal framework, a record of developing large industrial projects, and a solid intellectual property regime, makes very feasible the attracting of the quality of technical partner necessary for the project.

Partnerships will also accelerate market access. The African market should be prioritised. This should include sector-specific partnerships within the region, such as with mining, telecommunications, agricultural and even utility companies, for off-grid or back-up power applications.

Setting up the gigafactory could take three years. The needed infrastructure upgrades at the Atlantis SEZ would take about the same time. Legislative approval could take 12 months. The project would have to adhere to all environmental, social and governance regulations and obtain the required approvals. Some customers might need specific certifications, while batteries for automotive applications could need homologation by the NRCS for the parts that will have to be imported.

Conclusion

"South Africa does not need to be a passive consumer of the global energy transition," affirms LSF CEO **Irshaad Kathrada**. "This feasibility study makes a compelling case that we have the minerals, the location, the industrial base, and the policy framework to be a manufacturer and exporter of the technologies that will power the transition. The market is here. The demand signal is clear and growing. What is needed now is coordinated commitment from government, industry, and capital to translate that opportunity into production capacity. The LSF looks forward to working with all stakeholders to take this forward."

• From page 20
The interventions aim to improve passenger processing flow, circulation and passenger amenities.

International terminal capex is estimated at R853-million, and should take 60 months to complete once contractors have been appointed.

New Runway & Airfield Developments

The construction of a new runway is a key strategic intervention within the programme, says Dijoe.

It is also the most costly item on ACSA's shopping list.

"ACSA has taken the strategic decision to construct a new runway rather than continue ongoing rehabilitation of the existing runway as it approaches the latter stages of its operational lifespan," says Dijoe.

"The current runway alignment limits the airport's ability to expand terminal infrastructure eastwards.

"The new planned runway will be positioned approximately 210 m east of the current alignment and reoriented by approximately 11°."

The new runway will be constructed largely on greenfield land located to the east of the current runway alignment.

A new perimeter will be established once the runway infrastructure has been completed and incorporated into the operational airfield.

Dijoe says the realignment allows ACSA to ensure long-term runway availability and to unlock space for future terminal expansion and additional aircraft parking stands.

The three new narrow-body Code C stands will support projected growth in domestic air travel, while the addition and reconfiguration of wide-body stands should improve apron capacity and aircraft parking flexibility.

The new realigned runway will cost around R6.2-billion and should take 24 months to complete once contractors have been appointed.

Construction of the new wide- and narrow-body aprons will cost roughly R850-million and take 19 months to complete.

Perimeter Fence

The construction of a new perimeter fence forms part of the broader programme to strengthen airfield security, regulatory compliance and controlled access to operational areas, says Dijoe.

The fence will be erected at a cost of around R513-million and take 24 months to wrap up once contractors have been appointed.

First Tender

"In total, the estimated capital spend is R11.3-billion," says Dijoe. "All of these figures represent current planning estimates and remain subject to final procurement outcomes."

All works will be carefully sequenced to minimise disruption to passengers, airline partners and ensure operational continuity, he adds.

The first construction tender is planned to be issued by June, with award anticipated by December – subject to procurement processes.

Consultancy tenders for the domestic terminal additions have already been awarded, with the remaining consultant appointments to follow from June onwards.

Subject to final regulatory approvals and procurement processes, construction of the domestic terminal expansion is currently anticipated to start in April next year.

But, What About the Winelands Airport?

Cape Town is set to host two major airports soon, with a private consortium continuing its plans to build the new Cape Winelands Airport.

Situated just north of Durbanville, the airport precinct is scheduled to open in 2028, with construction anticipated to begin at the end of the year.

Is the CTIA upgrade an effort to counter competition from this development?

"ACSA's focus remains on ensuring that CTIA continues to invest in infrastructure that supports passenger growth, connectivity and regional economic activity within the broader Western Cape aviation and tourism ecosystem," says Dijoe.

"Gauteng is an example of how two airports [OR Tambo International Airport and Lanseria International Airport] can coexist and complement each other.

"There are benefits for the Western Cape having two airports that can offer an option when flights need to be diverted due to inclement weather."

PEOPLEINCAMERA

SOUTH AFRICA AND the UK have agreed to deepen collaboration across some of the world's fastest-advancing fields. This follows a successful high-level visit to the UK by Science, Technology and Innovation Minister Blade Nzimande. During his three-day programme, Nzimande met with the UK Minister for Science, Innovation, Research and Nuclear Lord Patrick Vallance, the Foreign, Commonwealth and Development Office chief scientific adviser Professor Sir John Edmunds, and UK Research and Innovation chief executive Sir Ian Chapman. The countries have agreed to deepen scientific cooperation, with a strong focus on space science through the Square Kilometre Array Observatory and joint initiatives in AI, climate science, and health innovation.

RESEARCH PROJECTS BY local young scientists that address real-world challenges in education systems, aviation engineering and AI were on display at this year's International Festival of Engineering Science and Technology in Tunisia from March 23 to 29. The three participants, all medal winners at last year's Eskom Expo for Young Scientists International Science Fair, were Diya Zacaria, a Grade 11 learner at The High School for Girls Potchefstroom; Nathan Moolman (pictured), a Grade 11 learner from Leeuwenhof Akademie in Johannesburg; and Nicolaas Steenkamp, a Grade 10 learner from Stellenbosch High School.

THE ENERGY AND Water Sector Education and Training Authority (EWSETA) participated in the Africa Energy Indaba 2026, highlighting how skills development and enterprise support contribute to the Just Energy Transition. EWSETA also sponsored several small-, medium-sized and microenterprises (SMMEs) as part of the Energy Industry Support Programme – implemented in partnership with the Council for Scientific and Industrial Research. By helping these SMMEs attend the Indaba, EWSETA helped them to present their technologies, connect with potential clients and engage with government and industry. Pictured are EWSETA and SME representatives at the Indaba.

PUSH PAUSE

Flattery is like cologne water, to be smelt, not swallowed.

ONTHEMOVE

RICHARD MCDONALD

Digby Wells Environmental announced that **Richard McDonald**, currently CFO, has been appointed CEO, effective June 1, 2026. McDonald has more than 20 years' experience delivering growth, transformation and operational excellence across Africa, with strong depth in finance, governance, international expansion and mergers and acquisitions.

DONAVON KOEN

Prescient Fund Services announced the promotion of **Donavon Koen** to Operations head. Koen has been with Prescient for seven years, most recently serving as Fund Accounting head. In his new role, Koen will oversee Fund Accounting, Alternative Administration, Trades, and Data Management.

OIL COMPANY ENGEN celebrated ten young Steelpoort, Limpopo residents who successfully completed information and communication technology (ICT) qualifications through the Engen Global Citizen Development Programme at a graduation ceremony held on March 12. The ceremony marked the culmination of a 12-month ICT skills development programme aimed at equipping unemployed youth from surrounding communities with in-demand digital and technical skills. The graduates completed nationally recognised qualifications in IT Technical Support (NQF Level 4).

By Sheila Barradas | Senior Deputy Editor

Lady Herial gold project

Name of the Project
Lady Herial gold project.
Location
The shallow, high-grade gold deposit is located within the Kambalda district of Western Australia.
Project Owner/s
Minerals resources exploration company Lunnon Metals.
Project Description
Lunnon Metals published a feasibility study confirming the technical and economic viability of the project in January 2026. The study confirmed robust project economics and supports development of the operation. The study also confirmed an initial proved ore reserve of 268 250 t at 1.89 g/t gold, containing about 16 270 oz of gold. The project comprises a short-life openpit mining operation targeting a low strip-ratio orebody. Mining will be undertaken using conventional openpit methods, with ore transported for processing at the St Ives gold processing facility under an ore purchase agreement. The forecast mine life is eight to ten months.
Potential Job Creation
Not stated.
Net Present Value/Internal Rate of Return
The feasibility study says the net present value is not considered a key measure because of the project's very short life. The project is characterised as one of very low sensitivity.
Capital Expenditure
Not separately disclosed.
Planned Start/End Date
The project is expected to be completed within 12 months from the date of the feasibility study.
Latest Developments
None stated.
Key Contracts, Suppliers and Consultants
Hampton Civil and Mining (preferred mining contractor); St Ives Gold Mining Company (processing and haulage); and Goldfields Technical Services (technical services).
Contact Details for Project Information
Lunnon Metals, tel +61 8 6424 8848 or email info@lunnonmetals.com.au.

Lingen battery energy storage system

Name of the Project
Lingen battery energy storage system (BESS).
Location
On a site in Lingen, Lower Saxony, in Germany, where acrylic fibres were produced until 2021.
Project Owner/s
Multinational energy company RWE.
Project Description
RWE has started building the largest BESS in Lower Saxony.
The project involves building a 400 MW battery storage system on the former premises of Dralon, north-east of the Emsland gas-fired power plant. The planned facility will be able to deliver its maximum output for at least two hours a day. This corresponds to a storage capacity of at least 800 MWh. The battery park will house more than 200 lithium-ion battery units, more than 100 inverters and more than 50 medium- and two high-voltage transformers, as well as two switch panels. It will be connected to the electricity grid through the Hilgenberg substation, which transmission system operator Amprion is building less than 50 m away. The facility will absorb or feed in power within a few milliseconds, depending on demand. Before the foundations for the new battery park can be laid, an 8.5 ha site in the southern part of the industrial area must be prepared for construction.
Potential Job Creation
Not disclosed.
Capital Expenditure
Not disclosed.
Planned Start/End Date
The facility is scheduled to go into operation in 2028.
Latest Developments
RWE made the decision to invest in the facility in January 2026.
Key Contracts, Suppliers and Consultants
None stated.
Contact Details for Project Information
RWE Generation group communications and energy policy, tel +49 201 5179 5008 or email communications@rwe.com.

Tonn Nua offshore wind project

Name of the Project
Tonn Nua offshore wind project.
Location
The Tonn Nua site spans 306 km^2, off the coast of County Waterford, in Ireland.
Project Owner/s
A joint venture between ESB and Ørsted.
Project Description
Ireland's contract for difference (CfD) is to support the development of a 900 MW fixed-bottom offshore wind farm at the site. The project has been awarded under Ireland's contract for difference mechanism – a primarily government-backed, auction-based scheme under the country's Renewable Electricity Support Scheme, designed to provide long-term price stability for renewable-energy generators. It fixes the price (strike price) for green electricity, ensuring revenue certainty for developers and mitigating costs for consumers when market prices are high. Ireland's transmission system operator EirGrid will build the transmission assets – offshore and onshore substations and export cables.
Potential Job Creation
Not stated.
Capital Expenditure
Not stated.
Planned Start/End Date
A final investment decision is expected in about 2031 and first power in the mid-2030s.
Latest Developments
The next step for the project is to obtain a Maritime Area Consent and Marine Usage Licence from the Irish Maritime Area Regulatory Authority to start surveying and assessment ahead of submitting a planning application for the development.
Key Contracts, Suppliers and Consultants
EirGrid (transmission assets).
Contact Details for Project Information
Ørsted, tel +44 20 7811 5200 or email ReceptionLDN@orsted.com.

Saudi Arabia rare earth processing facility

Name of the Project
Saudi Arabia rare earth processing facility.
Location
Saudi Arabia.
Project Owner/s
Critical Metals Corp and Tariq Abdel Hadi Abdullah Al-Qahtani & Brothers Company have signed a nonbinding term sheet for the establishment of a 50:50 joint venture to develop a rare earth processing facility. The parties are progressing discussions to finalise technical, commercial and regulatory arrangements.
Project Description
The project JV aims to develop, finance, build and operate a large-scale rare earth processing facility. The proposed facility is intended to process rare earth concentrate into separated rare earth oxides, metals and downstream products, including magnet-grade materials for use in advanced manufacturing, as well as aerospace and defence-related applications.
The project is designed to form part of an integrated mine-to-processing supply chain, linking concentrate production from Critical Metals' Tanbreez rare earth project, in Greenland, with downstream processing capacity, in Saudi Arabia, under long-term offtake arrangements.
Potential Job Creation
None stated.
Net Present Value/Internal Rate of Return
None stated.
Capital Expenditure
Capital expenditure for the proposed facility is estimated at up to $1.5-billion.
Planned Start/End Date
None stated.
Latest Developments
None stated.
Key Contracts, Suppliers and Consultants
None stated.
Contact Details for Project Information
Critical Metals Corp,
website: www.criticalmetalscorp.com.

Tataouine solar power project

Name of the Project
Tataouine solar power project.
Location
Tataouine, Tunisia.
Project Owner/s
Renewable-energy solutions provider Scatec.
Scatec was awarded a 25-year power purchase agreement with Tunisian State utility Société Tunisienne de l'Electricité et du Gaz in January 2026.
Project Description
The project will support Tunisia's ambitious renewable-energy targets and enhance the country's energy security and entails the construction of a 120 MW solar power plant.
Potential Job Creation
Not stated.
Capital Expenditure
€80-million, which will be financed by a combination of nonrecourse debt and equity. Scatec is further in dialogue with selected

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financial institutions for debt financing of the project.

Planned Start/End Date
Financial close is expected in the first half of 2027.

Latest Developments
None stated.

Key Contracts, Suppliers and Consultants
Scatec (designated engineering, procurement and construction (EPC), with an EPC scope of about 80% of capital expenditure, and will provide Asset Management (AM), and Operations & Maintenance (O&M) services once the plant is operational.

Contact Details for Project Information
Scatec, tel +47 480 85 500 or email post@scatec.com.

Bald Mountain Redbird 2 project

Name of the Project
Bald Mountain Redbird 2 project.

Location
Bald Mountain mine, Nevada, US (Redbird pit and satellite pits).

Project Owner/s
Kinross Gold Corporation.

Project Description
Redbird 2 comprises Phase 2 of the Redbird pit, together with five satellite pits (Poker, Casino, Bida, Galaxy and Saga), intended to extend Bald Mountain's openpit heap-leach operations.

Redbird and the satellite pits add a combined 643 000 oz of gold production, with about 155 000 oz/y of gold expected, extending Bald Mountain's mine life to early 2032.

The project leverages existing infrastructure, equipment and workforce at Bald Mountain. Redbird is planned as the next anchor pit while concurrent satellite pits support the production profile and economies of scale.

Processing is planned on the existing heap-leach facilities: Redbird 2 ore on the Bald Mountain heap-leach pad and satellite pit ore on the Mooney heap-leach pad.

The mine plan centres on laybacks of previously mined pits, with peak mining rates of about 229 000 t/d and an average processed grade of about 0.5 g/t gold.

Potential Job Creation
Not stated.

Net Present Value/Internal Rate of Return
At $4 300/oz gold, Kinross has reported an after-tax net present value, at a 5% discount rate, of $1-billion and an internal rate of return of 58%, with a payback of 1.7 years.

Capital Expenditure
Initial project capital costs are estimated at $490-million over three years, primarily for waste stripping, heap-leach pad expansions and process infrastructure enhancements, including the installation of a sulphidisation, acidification, recycling and thickening, or SART, plant.

Planned Start/End Date
First production is expected in 2028.

Latest Developments
On January 15, 2026, Kinross announced it is proceeding with construction. The company stated that permitting is well advanced, with the Redbird pit, three of the five satellite pits and both heap-leach facilities fully permitted, allowing for project ramp-up in 2026.

Key Contracts, Suppliers and Consultants
Not stated

Contact Details for Project Information
Kinross Gold Corporation, tel +1 416 365 5123 or email info@kinross.com

Kettle River–Curlew project

Name of the Project
Kettle River–Curlew (Curlew) project.

Location
Washington state, US.

Project Owner/s
Kinross Gold Corporation.

Project Description
The project is a high-grade, underground gold mine, located about 40 km north-west of Kinross' 100%-owned Kettle River mill and tailings facilities.

The mill has, historically, produced 2.8-million ounces of gold. In 2017, the operation was moved to care and maintenance.

Curlew is designed to leverage existing regional infrastructure by restarting the 1 800 t/d Kettle River mill to process Curlew mineralisation.

The project includes the refurbishment of the processing plant and the installation of a new tailings dewatering plant to convert to dry stack tailings.

Kinross expects Curlew to produce an estimated 938 000 oz of gold over an initial 11-year mine life from 2028 to 2038, averaging an estimated 100 000 oz/y of gold for the first five full years and 85 000 oz/y of gold over the life-of-mine.

Methods will include longitudinal and transverse longhole open stoping with cemented and uncemented rockfill (bottom-up).

Initially, Kinross expects to use a mining contractor for capital.

Scope includes mill refurbishment and dry-stack tailings conversion through a dewatering plant.

Potential Job Creation
Not stated in the press release.

Net Present Value/Internal Rate of Return
At $4 300/oz gold, the project has an after-tax net present value, at a 5% discount rate, of $1.2-billion and an internal rate of return of 44%, with a payback of two years.

Capital Expenditure
Initial project capital costs are estimated at $485-million over three years.

Planned Start/End Date
First production expected in 2028.

Latest Developments
On January 15, 2026, Kinross announced that it is proceeding with construction.

The company stated that early works were complete and expected to award major mining and construction contracts in early 2026.

All significant permits have been received, except a state-level permit pertaining to tailings height increase, expected in 2026.

Key Contracts, Suppliers and Consultants
None disclosed.

Contact Details for Project Information
Kinross Gold Corporation, tel +1 416 365 5123 or email info@kinross.com

COMING UP

- A revised feasibility study on Australia-listed Theta Gold Mines' TGME gold mine project, in South Africa, has outlined a high-margin, long-life operation based on a 6.1-million-ounce gold resource. This positions the company as a potential future midtier producer in one of South Africa's premier gold regions.
- Global data centre provider Vantage Data Centers' Port Washington (Lighthouse) Data Center Campus, in Wisconsin, in the US, will include four single-storey data centres totalling 902 MW across 232 257 m². The project is expected to take two yours to complete.

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Senegal project advances ahead of formal investment

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MOVING FORWARD
Ahead of its feasibility study, Fortuna Mining is advancing early works at its Diamba Sud gold project to derisk the project

Canadian precious metals producer Fortuna Mining is advancing its Diamba Sud gold project, in Senegal, with plans to release a feasibility study in the second quarter of this year and early works already under way, serving as key milestones in the company's target of producing more than 500 000 oz/y of gold.

The updated mineral resource estimate (MRE) for Diamba Sud, published in January this year, will inform the project's feasibility study, ahead of a formal investment decision to be taken by mid-year, says Fortuna Mining president and CEO **Jorge Ganoza**.

"We are graduating from a preliminary economic assessment [PEA] to a full feasibility study, and doing so with a larger and more confidently defined resource than we had at the time of the PEA in October [2025]," he says.

The preliminary assessment already contains many elements that need to be considered at feasibility level, such as process design and ancillary facilities, thereby fast-tracking the project's formal investment decision.

Demonstrating its confidence in the project's economics and technical viability, Fortuna has allocated $100-million to Diamba Sud this year, of which $60-million is allocated for early works. Aligned to this, camp facilities and ancillary infrastructure are currently underway, explains Ganoza.

The company is also in the later stages of finalising detailed design and advancing feed studies to identify critical path equipment, such as a semi-autogenous grinding mill and power generators, to facilitate placing purchase orders ahead of time.

"One concern in the current environment of elevated gold prices is that supply chains for mining equipment can come under stress. Placing orders early for items we identify as 'critical path' is therefore critical in keeping the project on a reasonable timeline without delays," says Ganoza.

Fortuna estimates pre-production capital expenditure for Diamba Sud at about $280-million to $300-million, accounting for added complexity and a longer build timeline associated with constructing in a country without a mature mining services cluster.

With over $700-million in available liquidity and a net cash position of about $400-million, Ganoza asserts that Fortuna is well-positioned to fund Diamba Sud's development entirely from internal resources, with no requirement for project finance or external debt.

In terms of in-country mining services, Ganoza explains that Senegal has seen significantly less mining construction activity than fellow West African country Côte d'Ivoire, where Fortuna's flagship Séguéla mine was built for $170-million, benefitting from the country's more developed contractor base.

The Resource

Fortuna's updated MRE for Diamba Sud reflects significant resource growth, with indi-

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Project on track to achieve first gold pour this year

Aligning with its target of achieving a first gold pour at its Koné project, in Côte d'Ivoire, in the fourth quarter of this year, gold exploration and development company Montage Gold has made significant progress in construction activities at the site.

The Koné gold project currently hosts nine gold deposits which include the Koné deposit alongside satellite deposits – Gbongogo Main, Gbongogo South, Koban North, Sissédougou, Yere North, Lokolo Main, Sena and Diouma North.

The project hosts a total indicated resource of 261-million tonnes grading 0.62 g/t gold, containing 5.12-million ounces of gold.

This includes the Koné deposit, which accounts for 245-million tonnes grading 0.57 g/t for 4.46-million ounces of gold, alongside its satellite deposits that contribute a combined 16-million tonnes grading 1.38 g/t for 720 000 oz of gold.

Construction activities at the Koné project's process plant continue to progress on budget, with over 7.2-million hours worked to date and a number of key milestones achieved several months early, says Montage president and chief development officer **Peder Olsen**.

Capital of about $545-million has been committed to date, representing about 63% of the total upfront capital expenditure, with prices in line with expectations.

In terms of production infrastructure, carbon-in-leach (CIL) tank construction for the Koné project has progressed rapidly, with the erection of 14 CIL tanks.

Following the completion of foundations, the pre-leach and tailings thickener areas are undergoing slab and kerb construction.

All tanks on train one have been completed and hydro-tested, while the tanks on train two are either complete or entering final stages of testing.

The oxide sizer construction is also close to completion, about four months ahead of schedule, with final electrical works currently taking place.

Reagent foundations have been completed with concrete pours for the oxide startup expected to have been completed by the end of January.

Civil works on the ball mill have also been completed, with all the concrete for this plant having already been poured.

Focus has subsequently shifted to the installation of structural steel, piperacks and grid mesh ahead of the ball mill installation, which has been delivered to site.

Piperack installation in the mill classification area has largely been completed, whilst piperack installation in the CIL trains remains ongoing in parallel to CIL tank completion, all of which Montage reports are ahead of schedule.

The completion of the oxide sizer and delivery of the ball mill shell positions Montage to target a first gold pour through an oxide circuit startup in the fourth quarter of this year, says Montage CEO **Martino De Ciccio**.

Olsen adds that the company has also started pipework installation alongside the construction and internal fit-out of a 225 kV substation and the assembly of transmission line towers.

Significant progress has also been made towards establishing

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cated mineral resources totalling 1.25-million ounces of gold, representing a 73%, or 530 000 oz, lift from the prior estimate, with a total indicated resource of 26-million tonnes averaging 1.5 g/t gold.

A key highlight of the MRE is the first-time indicated resource estimation at the Southern Arc deposit, comprising of six-million tonnes, averaging 1.91 g/t gold and containing 367 000 oz.

This establishes Southern Arc as the largest deposit discovered to date at Diamba Sud.

The deposit remains open at depth and along strike to both the southwest and northeast.

Ganoza notes that whilst Southern Arc is an "exciting discovery", it is one of several deposits within a largely underexplored property package that presents significant potential for further discoveries.

The updated MRE incorporates results from 44 additional reverse circulation and diamond drill holes totalling 7 518 m.

"With most drilling across the project area being shallower than 200 m, and ongoing drilling continuing to intersect mineralisation beyond current resource envelopes, the potential for further resource growth remains substantial," states Ganoza.

"We are exploring first for what makes the most sense, which is near-surface mineralisation, and pursuing lateral extents, which remain open, rather than targeting deep mineralisation immediately," he notes, adding that it is expected for some deposits to extend significantly beyond the current 200 m depth limit.

Alongside its Diamba Sud project, a key component of Fortuna's strategy to produce over 500 000 oz/y of gold is the expansion of its Séguéla gold mine, which has grown from its original nameplate capacity of 1.25-million tonnes of ore a year to its current capacity of 1.75-million tonnes of ore a year, through mill expansion and optimisation.

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the tailings storage facility, with the dam wall completed three months ahead of schedule.

Further, the concrete vault walls of the gold room were also poured, and the gold safe was installed with roof works currently ongoing.

Foundations for ancillary buildings in the process plant have also been completed. "In parallel, we continue to make rapid progress on the hard-rock comminution circuit, which remains on budget and well on schedule for completion in [the second quarter of 2027]," says Olsen.

In particular, the circuit's earthworks are underway, with structural fill and concrete placement ongoing at the primary crusher.

Alongside its construction efforts, Montage is also making progress on executing its operational-readiness plan for the Koné project, with the mobilisation of high calibre operating teams and mining equipment scheduled to occur over the coming quarters, says Olsen.

Concurrent to its construction activities, Montage is continuing to unlock value through its exploration programme with about 115 000 m drilled in 2025, compared to its initial budget of 90 000 m and in addition to 56 000 m of pre-production drilling conducted at the Koné and Gbongogo Main deposits.

The initial 2026 drill programme totals $16-million, comprising of 90 000 m of drilling at the Koné project and 9 000 m at the recently awarded Wendé advanced greenfield property.

Montage was granted the Wendé permit in December 2025, covering an area of about 107 km². Historical workings on the property highlight a significant 7 km² gold-in-soil anomaly with assays grading over 100 parts per billion.

"We are continuing to enjoy significant exploration success at the Koné project given the discovery of higher-grade satellites, with notably the Petit Yao discovery announced late last year," says De Ciccio.

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Gold project targets construction this year

Following the publication of a robust prefeasibility study (PFS) in January, West Africa-focused gold producer Thor Explorations expects to start construction at its Senegal-based Douta gold project this year with the aim of achieving first gold in 2028, alongside ongoing exploration.

Located within the Birimian rocks of the Kéniéba inlier in eastern Senegal, the Douta project comprises a northeast-trending mining lease application covering 58 km², along with the Douta-West and Bousankhoba exploration permits.

To consolidate ownership, Thor signed a binding sale and purchase agreement with joint venture partner Birima Resources to acquire the remaining 30% of the Douta-West permit in January.

"This acquisition positions us to own the entire Douta project, consisting of the Douta and Douta-West licences, on a 100% equity basis and allows for an efficient development process and full exposure to the project economics prior to the government of Senegal's 10% free carried interest," says Thor Explorations president and CEO **Segun Lawson**.

The PFS is based on five openpit gold deposits feeding a central gold processing facility.

The deposits will be mined by conventional openpit operations and mining is scheduled to start at the end of 2027, with plant commissioning and ramp up during the first quarter of 2028.

However, this timeline is contingent on the finalisation of Thor's mining convention with Senegal's government, which the company expects to complete in the first half of this year.

The project's environmental and social impact assessment (ESIA) was approved in January, serving as a key milestone.

"The results confirm Douta as a high quality gold project with strong economics, a short payback period and long-term leverage to the gold price through its significant indicated resource base," he adds.

In addition to finalising the mining convention, Thor's next steps include starting detailed design, finalising financing packages, ordering long-lead items and continued evaluation and refinement of the metallurgical recoveries of the oxide, transitional and refractory ores.

Douta as a Project

The Douta project envisages a 12.6-year life-of-mine (LoM), comprising of the Oxide Ore Phase – which focuses on the recovery of cyanide-soluble gold, and the Primary Ore Phase – which focuses on the recovery of gold hosted in sulphides and silicates.

The Oxide Ore Phase will produce about 413 000 oz in the first four years, during which the project will have an average yearly gold production of over 111 000 oz at an all-inclusive sustaining cost of $1 469/oz in the first three years, says Lawson.

The Oxide Ore Phase currently spans four years of mining and processing oxide and transitional ores through a conventional carbon-in-leach (CIL) circuit, which consists of crushing, milling and gravity recovery of free gold, followed by leaching of gravity tailings, elution and gold smelting, and tailings disposal.

ONGOING EXPLORATION
Alongside progressing its Douta gold project through a prefeasibility study, Thor Explorations will continue exploratory work to extend and enhance the life of mine

Following the Oxide Ore Phase, the Primary Ore Phase continues operations for a further 7.8 years, during which fresh ore will be mined and processed through the same CIL circuit but enhanced by a suspension roaster. The suspension roasting process will expose refractory gold particles prior to cyanide leaching.

The Primary Ore Phase circuit will consist of a pre-roasting dewatering stage, pre-roasting product storage silo, suspension roasting, and calcine repulping and regrinding.

During this phase, the plant will treat 2.4-million tonnes a year of fresh, sulphide ore, producing an average of 61 000 oz/y.

At the end of the mine life, the final seven months will see the treatment of an additional 2.3-million tonnes of mixed oxide and transitional ore mined and stockpiled during mining of the sulphide ore – a phase intended to yield 47 000 oz of gold.

Thor intends to fund Douta's construction from its existing balance sheet, supported by strong cash flows from its Segilola gold mine in Nigeria; at the end of 2025, the company held a cash balance of $137-million.

COUPON ON PAGE 16 E717599

Sandvik is shaping the future of rock processing

Rock processing solutions provider Sandvik has long been recognised as a global leader in engineering solutions for the mining and infrastructure sectors. Within the group, the rock processing business area focuses on equipment, tools and services that help operations handle rock and minerals more efficiently. From crushing and screening to breaking and demolition, Sandvik Rock Processing's approach centres on making these processes safer, more productive and increasingly sustainable.

Rather than simply supplying machines, Sandvik Rock Processing aims to give customers practical solutions that make a measurable difference on site. High-performing equipment is supported by maintenance programmes designed to keep plants running longer and with fewer interruptions. The company also brings in digital tools, automation options and technical expertise to ensure that each operation gets the most from its investment.

A growing part of Sandvik Rock Processing's focus is on energy-efficient comminution and new technologies that help reduce environmental impact. By combining innovative design with smart data insights, the company is helping customers lower operating costs while moving toward more sustainable mining and construction practices.

Across Africa, Sandvik Rock Processing works closely with mines and contractors to understand their day-to-day challenges and develop solutions that fit real operating conditions. Guided by its values of customer focus, winning together, curiosity and responsibility, the team continues to push boundaries and support customers as they navigate the future of rock processing.

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SUGAR GROWERS, MILLERS & REFINERS

Producers call for industry rescue through tariff renewal

TRENT ROEBECK | CREAMER MEDIA FEATURES WRITER

UMFOLOZI SUGAR MILL
Government must review and update the dollar-based reference price tariff formula to aid industry recovery

The sugar industry crisis needs to be urgently addressed, as the negative impacts of increased sugar imports will cause collateral damage to the entire industry, says brown sugar producer Umfolozi Sugar Mill (USM).

The company notes that, with sugar imports arriving at "an alarming" and unsustainable rate, local producers are unable to sell their products, which has led to them incurring storage costs.

"We are forced to export more sugar, at a very low world market price, which is way below the cost of production because it is a 'dumped market'. If that trend continues, then nobody can survive. If we don't get an appropriate tariff, the South African sugar industry will shut down," says USM CEO Dr **Adrian Wynne**. The way forward is for government to urgently review and update the dollar-based reference price tariff formula for sugar, says Wynne, as this will increase the sugar import tariff and prevent job losses in the deep rural areas in which the sugar industry operates.

> USM continues to work with the South African Sugar Association which is the sugar industry's principal voice when engaging government

He says USM continues to work with professional sugar industry body the South African Sugar Association which is the sugar industry's principal voice when engaging government.

Wynne notes that a bright future for the sugar industry is obtainable, despite this ongoing crisis, provided an appropriate tariff is forthcoming in the not-too-distant future.

"South African businesses are generally resilient – we make a plan, and that's what we're doing. You do what you can in the areas [under your] control," he concludes.

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Tariff adjustment would facilitate recovery

TRENT ROEBECK | CREAMER MEDIA WRITER

Industry regulatory body South African Sugar Association (SASA) is advocating for the urgent implementation of the key pillars of the Sugarcane Value Chain Master Plan to 2030 – including strategic trade protection through the upward adjustment of the dollar-based reference price to $905. SASA lodged the tariff application with the International Trade Administration Commission of South Africa in October 2024.

This will help to stem the current escalating surge in imported sugar that has cost the industry more than R1.4-billion in lost revenue. This is having a significant impact on all growers and millers, including Tongaat Hulett Limited (THL), which, at the time of writing, was unlikely to meet this month's deadline to reopen its mills. THL was involved in an ongoing court case to determine if the company would be placed in provisional liquidation.

"Deep-sea imports from subsidised countries, such as Brazil and India, have displaced local producers to the tune of more than R1.4-billion during the 2025/26 season, which ended on March 31, 2026. This has a debilitating impact on both growers and millers. This avalanche of sugar imports poses a serious threat to the industry's sustainability," says SASA executive director **Sifiso Mhlaba**.

The high court application for the provisional liquidation of THL also threatened the longevity of the industry, as THL plays an important role in sustaining smaller growers and facilitates profitability and cashflow in the industry, alongside other milling companies and consolidated farming operations.

"Of the industry total of 2-million tonnes of cane delivered by small-scale growers (SSGs) this season, SSGs in the THL catchment area contributed 835 287 t, or 40%. In terms of the registered SSGs who delivered cane in the previous 2024/25 season, SSGs in the THL catchment area accounted for 60.21%."

Mhlaba adds that 15 446 SSGs will be adversely affected by THL's provisional liquidation, in addition to the 2 919 consolidated farming operation beneficiaries, comprising about 46% of the industry in the THL catchment.

The liquidation and ultimate closure of THL, as well as the decline of the sugar industry, would result in a weakened economy, with job losses, diminished livelihoods, food insecurity, and revenue loss for farmers and millers.

"Currently, the industry creates 65 000 direct and 270 000 indirect jobs in KwaZulu-Natal and Mpumalanga. Further, about one-million livelihoods depend on sugarcane growing and milling activities . . . adequate protection against deep-sea imports is critical. Most sugar-producing countries protect themselves against the distorted and dumped market."

He says it is important for government to create an enabling environment for the sugar industry and associated professionals.

SASA will continue to engage with various government departments, professional sugar industry associations and expert organisations to support the farmers, millers and refiners, as well as to ensure an efficient policy framework to encourage production and diversification efforts.

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Diversification, product development key to growth

TRENT ROEBECK | CREAMER MEDIA WRITER

South Africa's sugar industry needs a collaborative effort aimed at diversifying its sugarcane-based product offerings, says rum distillery Sugar Baron. The company is creating value-add in the local value chain using sugar as a derivative for its rum beverages range.

SUGARCANE DIVERSIFICATION
Sugar Baron is diversifying the traditional use of sugarcane by using sugar as a derivative for the company's range of rum beverages

Diversification is important, as the local industry faces the adverse effects of imports, input costs and taxes, says Sugar Baron head distiller **Brad O'Neill**.

"Our goal has been to create a product that not only celebrates the quality of South African sugarcane but also contributes to building a more diversified and resilient industry."

The uptick in imports is reducing the local industry's competitiveness, making the identification of diverse sugarcane-based products a necessity for long-term sustainability.

"By investing in these types of value-added applications, the industry can create additional revenue streams, stimulate rural economies, and strengthen the long-term viability of sugarcane farming," he adds.

These diversification streams include the production of bioethanol, bioplastics, bio-based chemicals and distilled spirits, animal feed, agricultural byproducts as well as electricity using bagasse.

Sugar Baron also has to deal with financial strain because of the current crisis. The company believes that if this trend continues, jobs will be lost, companies will close, and the economy will weaken.

Other challenges – such as rising production costs, climate variability and global price pressures – have a detrimental effect on all players, but particularly on small-scale growers and value-add producers.

Consequently, O'Neill notes that local industry should adopt diversification measures, explore alternative export opportunities and contribute to existing product development for expanding original sugarcane-derived products.

Further, he says an overhaul of the entire sugar industry, including existing policies and regulatory frameworks, is needed to enhance competitiveness, as is the implementation of an appropriate and robust deep-sea import duty, facilitating an enabling environment for local stakeholders without alienating trade partners.

Sugar industry participants must also establish a culture of collaboration to develop the industry, in addition to considering education and training, innovation and product development, as well as significant diversification opportunities.

Sugar Baron is focused on developing new products to expand market access, locally and internationally.

The company also continues to contribute to the initiatives created by government and sugar industry organisations to research and develop the best diversification and product development opportunities for small producers and downstream manufacturers.

"By investing in innovation, diversification and value-added production, the country can position itself as a leader in a range of sugarcane-derived products ," he concludes.

COUPON ON PAGE 16 E717428

Alternative for sugar industry offers revenue diversification

TRENT ROEBECK | CREAMER MEDIA WRITER

TOMAS PERSSON
Bana grass grows and produces yields faster than sugarcane, and can be used as an alternative to sugarcane

The ongoing sugar industry crisis in South Africa is leaving sugarcane growers, millers and refiners with little hope regarding the industry's sustainability. However, sustainable solutions provider Green Power Solutions (GPS) is urging growers to farm Bana grass – a protein-rich crop that can produce animal feed, biomass, green coal pellets and/or biochar for soil health improvement and water retention.

Bana grass, which closely resembles sugarcane in appearance and cultivation methods, but grows and produces yields faster, could possibly be used as an alternative to, or grow in the same field as, sugarcane, enabling sugar growers and farmers to diversify their crop offerings.

The grass could offer some relief amid the effects of imported sugar and associated products bruising local operations – to the point that Tongaat Hulett Limited (THL) is facing provisional liquidation, says GPS executive director **Tomas Persson**.

"With Bana grass one must remove the liquid, which contains most of the protein. After that, there's the press cake, which we used to sell, but we now convert into biochar that can be spread in soils, allowing farmers to obtain twice as big a harvest with half the amount of fertiliser," he explains. Moreover, being a carbon sink it could fetch about $200/t.

Countries such as Australia, Malawi, Mauritius and Hawaii are implementing Bana grass farming and processing as an alternative, or rotational, crop for the sugar industry, owing to declining sugar demand in those countries.

Persson adds that, despite contradictory statements, Bana grass can be the more cost-effective crop, at least while South Africa tries to rebuild its sugar industry.

"The reason that Bana grass is the obvious solution is because it is planted once in a lifetime. All the Bana grass plants come from one plant. Bana grass is a man-made hybrid – Napier Grass and Perl Millet. So, the Bana grass cuttings that you get are 70 years old . . . [while] sugarcane must be replanted every six years . . ." He adds that rescuing the local sugar industry – including THL and its associated mill operations – would possibly require a R40-billion investment from government. This would take a lot of time and might not allow the country to achieve production targets in time for the milling season, which starts this month.

THL's provisional liquidation was expected because the business rescue team was unable to sustain the company's sugar production plants and mills, says Persson, suggesting that if the liquidation does not occur, THL's mills are dysfunctional and cannot return timeously to commercial operation.

Further, sugar imports increased by 400% last year, at half the cost compared to THL's, which denotes a "very dim future" for THL, as well as other companies.

Unlike some sugar organisations, Persson does not believe that a tariff would help to rescue the sugar industry, "unless the tariff is at 100%", although he points out that such a tariff will also cause friction between South Africa and its trading partners.

Therefore, Bana grass could help to supplement the sugar industry, as it can produce protein, animal feed and fertiliser, he says, while encouraging more South African players to adopt it, as "the sugar industry is becoming a redundant industry".

"The biggest sugarcane producer is Brazil, and [it] will continue to produce, and [it] will make it very difficult for the rest of the global industry," he concludes.

COUPON ON PAGE 16 E717404

CONSULTING ENGINEERING

Early involvement vital to fix infrastructure – association

LUMKILE NKOMFE | CREAMER MEDIA WRITER

EARLY COLLABORATION
Engagement at project inception can accelerate delivery, improve quality and strengthen long-term public-private partnerships

Consulting engineers, as key experts, are best positioned to unlock faster, better-quality infrastructure in the water, energy and transport sectors. There is a need for deeper and longer partnerships that ensure consulting engineers are involved from the earliest stages of policy and planning, not just after project approval, asserts industry association Consulting Engineers South Africa CEO **Chris Campbell**.

He says a key strategy for harnessing such public–private partnerships (PPPs) is having integrated project teams – comprising municipal engineers, national agencies, consulting firms and private-sector operators – co-design and co-implement solutions, particularly rehabilitating and maintaining water and road networks.

Other strategies include performance-based contracts, where payments are linked to delivered outcomes, and shared data platforms and digital twins for major assets, thereby ensuring that government, engineers and operators can monitor performance, plan maintenance and take collective investment decisions.

"Such collaboration also helps to build skills and capacity within the public sector, which, in turn, improves the quality of project oversight and reduces the risk of project failure," Campbell says.

Infrastructure Backlog

Amid South Africa's significant infrastructure backlog, the biggest challenges are not a lack of money or capacity, but broken and stalled decision-making and project authorisation systems, compounded by chronic underinvestment in maintenance and engineering skills.

Public-sector procurement and project approval processes are often slow, fragmented and risk-averse. Consequently, projects remain in the planning or design phase

AN

Study to upgrade rural roads completed

Access to reliable roads remains a critical challenge for many rural communities in South Africa, particularly in the Eastern Cape. Addressing this need, multidisciplinary consultancy AVX Engineers has completed a detailed geotechnical investigation and road design study to support the upgrade of gravel access routes into safer, more durable surfaced roads.

AVX Engineers MD **Camagu Xintolo** explains that the report assessed traffic patterns, pavement conditions, geometric alignments, drainage systems and environmental factors, while integrating a community-focused training and skills development programme.

With support from the South African National Roads Agency, detailed assessments of access roads were conducted to identify potential routes for development. Xintolo highlights that the project employed extensive test pits and dynamic cone penetrometer testing across multiple roads to map subgrade strength, layer thicknesses and failure mechanisms, in line with Technical Methods for Highways and Technical Recommendations for Highways.

"This data-driven approach ensured pavement designs were tailored to actual ground conditions, preventing under-design that leads to premature failure or over-design that inflates costs," he says.

Xintolo emphasises that intrusive investigations should be prioritised early in the design phase of any road project, especially where more than 50% of the surface exhibits severe defects.

The study further identified that the project site is located within a moist sub-humid climatic region, with a Thornthwaite Index value between 0 and 20, which has significant implications for material selection.

"Careful consideration must be given to surfacing materials, particularly regarding their sensitivity to temperature fluctuations," he states.

Blocked culverts, overgrown vegetation, informal earth drains and insufficient cross-fall were also identified as primary contributors to continued erosion and rutting.

Proposed interventions included culvert repairs and replacements, stone-pitched drains and adherence to velocity guidelines. This underscores that effective drainage, designed with topographic and hydraulic considerations from the outset, is as critical as the pavement itself in climate-vulnerable regions.

"Even at a modest design speed of 40 km/h, inconsistent horizontal and vertical alignments compromised safety and operational efficiency on this project. As a result, non-compliant curves were realigned, cross-sections optimised with proper side drains and chambers and elevation profiles [were used] to guide improvements," Xintolo highlights.

These measures demonstrate that rural roads benefit from geometry aligned to recognised standards, reducing the risk of accidents and improving operational performance without requiring high-speed design specifications.

Upgrading rural gravel roads delivers benefits that extend well beyond the immediate project footprint.

Xintolo notes that improved connectivity supports agricultural productivity in the region, market access and essential services to the community, driving economic growth.

COUPON ON PAGE 16 E717550

for years without being commissioned, after which it is difficult to ensure consistent funding or maintain the political will to drive execution, Campbell notes.

To fix this, he highlights that government must adopt simplified, faster and rules-based procurement and approval pathways while ringfencing maintenance budgets and strengthening engineering capacity inside municipalities and line departments so that they can manage projects effectively.

PPPs, blended finance models and project banking approaches can also unlock private capital without overburdening the fiscus.

Campbell also notes that the government procurement process is too often viewed as a "selection event" rather than a continuum of project readiness and relationship building, which is why it often feels slow and complicated for consulting engineers and contractors.

Lengthy bidding windows, overlapping evaluations, late-stage legal or political objections, and frequent re-tenders frustrate the sector and discourage firms from bidding on public work altogether.

He says concrete changes to accelerate the process should include shorter, standardised procurement cycles with clear milestones and consequences for missed deadlines; and pre-qualification and panel-based systems for recurring services, such as municipal technical advisory and minor upgrades, so that government can call on consulting engineering firms quickly without having to invite open tenders. It would be imperative, though, that there be transparency on appointments to these panels and the will to spread the project opportunities across as many companies as possible over the three-year period normally pursued. Most often, unfortunately, there is a lack of transparency and companies on these panels often complain about work being assigned repeatedly to a limited number of companies.

Other key changes include a 'technical first, price second' evaluation to stop the "race to the bottom" on fees and to reward quality, risk-aware design, life-cycle costing and mandatory project-readiness checks. These checks, which should be conducted by the client, include confirmation of project feasibility, environmental approvals, which can delay a project from between six and 18 months, and ensuring funding certainty before any tender is advertised, to ensure that projects do not stall after being awarded.

Critical Skills Gap

The sector faces a critical skills gap, with previous data showing about one engineer for every 3 000 South Africans, compared with higher ratios in developed economies.

Campbell adds that many young engineers are leaving the country, as opportunities are not matched by competitive remuneration, meaningful work and professional development, with this situation compounded by other quality-of-life considerations.

"To attract and retain the next generation of engineers, we need structured graduate development programmes inside consulting engineering firms and municipalities, with clear pathways to registration, leadership and innovation, and visible aspirational projects that young engineers can join and see as long-term careers, not short-term gigs."

He adds that government, industry and professional bodies must also act tougher on corruption and inefficiency to ensure that young engineers see public infrastructure work as a viable, respected career choice.

Further, the biggest opportunity for the consulting engineering sector is to become the core technical backbone of infrastructure-led economic growth in South Africa, Campbell says.

"If government commits to stable policy, faster procurement and stronger partnerships with the local private sector[. . .] then local consulting engineering and construction companies can take on larger, more complex projects, and play a central role in turning South Africa into the 'one big construction site' we have long talked about," Campbell concludes.

COUPON ON PAGE 16 E717655

Investment in training to improve infrastructure delivery

LUMKILE NKOMFE | CREAMER MEDIA WRITER

Engineering consultancy Lubisi Consulting Engineers is strengthening its digital engineering capabilities through targeted investments in three-dimensional (3D) modelling and building information modelling (BIM) training. The firm highlights this as being key to helping to improve design accuracy, coordination and project delivery across infrastructure projects.

The adoption of advanced engineering software reflects the growing complexity of modern infrastructure projects and the need for faster, more reliable design processes, says Lubisi Consulting Engineers MD **Chalmers Pagiwa**.

"Engineering has advanced significantly over the years and designs have become more complex. Modern software tools allow engineers to drastically reduce the time required to produce drawings and finalise designs for construction while . . . improving accuracy and reducing the risk of human error."

Historically, engineers relied on manual drawing boards to develop designs – a time-consuming process that could take months and was prone to mistakes. Therefore, the increased use of digital modelling tools, such as Autodesk Civil 3D, is enabling engineers to produce detailed infrastructure designs more efficiently, while improving cost management for consulting firms and clients, says Lubisi civil engineer **Memory Silaule**.

The company has invested in specialised training for Silaule, who completed Civil 3D Fundamentals and Stormwater and Sewer courses through industry associations Consulting Engineers South Africa (CESA) and the Engineering Council of South Africa (ECSA) in January. The training forms part of Lubisi's broader strategy to strengthen its design capabilities in areas such as dynamic grading, pipe network planning and corridor modelling.

Silaule, an ECSA candidate engineer and CESA Young Professionals Forum Mpumalanga branch chairperson, says using digital design tools has already improved the firm's ability to collaborate with other project partners.

CHALMERS PAGIWA
Skills development remains critical to the long-term sustainability of the consulting engineering profession

"I experienced this first-hand while working on a design project that required collaboration with two subconsultants. Using software, such as Civil 3D, made the process significantly smoother and allowed me to analyse existing elevations and accurately quantify cut-and-fill volumes, which directly influences project costs," she explains.

Project Coordination

The integration of 3D modelling and BIM is also strengthening project coordination across disciplines, enabling engineers, planners and contractors to share digital models and identify potential design conflicts before construction begins.

Pagiwa notes that these digital tools enable engineers to model real-world site conditions more accurately, thereby improving design feasibility accuracy and reducing the likelihood of costly changes during construction.

The ability to simulate surfaces, stormwater flows and infrastructure corridors in a digital environment enables engineers to better understand how designs interact with ground conditions while identifying potential risks at an early stage.

Further, Silaule says the transition to digital modelling has significantly improved the quality of engineering outputs, with Pagiwa noting that the adoption of digital engineering tools is also helping Lubisi align with global best practices as digitalisation becomes increasingly important across Africa's infrastructure sector.

MEMORY SILAULE
The transition to digital modelling has significantly improved the quality of engineering outputs

By transitioning from manual processes to integrated digital workflows, Lubisi aims to support complex infrastructure projects in sectors such as transport, water and energy, while improving project timelines and reducing coordination costs.

Beyond software investment, Pagiwa emphasises that skills development remains critical to the long-term sustainability of the consulting engineering profession.

He adds that developing young professionals and building in-house talent pipelines are essential to strengthening the sector's capacity to deliver resilient infrastructure while advancing transformation and representation in the profession.

Looking ahead, the firm believes that emerging technologies, such as BIM, digital twins and smart asset management systems, will play an increasingly important role in infrastructure development across Africa.

For local water projects – such as the Driekoppies Dam project in Mpumalanga – Lubisi is applying real-time monitoring, BIM and smart systems to integrate gravity-fed pipelines with Internet-of-Things sensors for leak detection and demand forecasting. This ensures that work complies with UN Sustainable Development Goal 6, which aims to ensure sustainable management of water and sanitation and universal access by 2030.

"These technologies will enable predictive maintenance, real-time monitoring and life-cycle optimisation across sectors, such as transport, water and energy, and by integrating digital modelling with smart infrastructure systems, engineers will be able to design more resilient assets and manage them more efficiently throughout their operational life," Pagiwa concludes.

COUPON ON PAGE 16 E717506

Interdisciplinary framework needed

LUMKILE NKOMFE | CREAMER MEDIA WRITER

Incorporating the practical realities of engineering and infrastructure projects into classroom learning resources can meaningfully augment the engineering and technical skills pipeline and support Africa's infrastructure development, says Maukq and Company founder **Angel Mokgokolo**.

Maukq and Company is developing a framework that connects schools with real engineering projects across numerous sectors.

The initiative aims to address a persistent disconnect between science, technology, engineering and mathematics (STEM) education theoretical classroom learning and the practical realities of consulting engineering projects.

Mokgokolo highlights that the company identified the challenges many educators experience when required to deliver STEM lessons using limited practical teaching resources.

"At the beginning of the year, teachers are given clear guidelines on what must be taught and assessed, but we are not given resources to support those topics, and without practical examples of real infrastructure or engineering systems, learners often struggle to understand how the scientific concepts they study translate into careers in engineering, mining or energy."

To better understand this challenge, Mokgokolo conducted research among Grade 9 learners studying natural sciences and technology in 2025 to determine whether limited exposure to engineering applications influenced their future career aspirations.

While many learners choose science subjects in Grade 10, the research indicated that their eventual career ambitions frequently fall outside the STEM fields, with learners often gravitating towards professions they are familiar with, such as teaching, medicine or law, owing to these careers being visible in their daily lives.

"Engineering and infrastructure development, by contrast, remain largely invisible to learners and they cannot envision themselves working in these industries, [as] they have never been exposed to them," Mokgokolo adds.

Classroom-Industry Nexus

Maukq and Company therefore developed the Engineering Intelligence Hub, a framework designed to translate real engineering projects into teaching and learning resources aligned with South Africa's curriculum.

"Essentially, the Engineering Intelligence Hub takes a real project and brings it into the classroom as a learning resource."

This approach enables learners to understand not only the scientific principles behind infrastructure systems but also the multidisciplinary teams involved in designing and implementing such projects.

The hub collaborates with companies willing to share information about projects they are implementing, and the technical processes and engineering concepts behind these projects are then simplified into classroom resources such as diagrams, charts, visual aids and scaled models.

These materials enable teachers to integrate real-world engineering examples into lessons on topics such as environmental sustainability, mining systems and energy generation.

The framework focuses primarily on sectors already embedded in the national curriculum for Grades 7 to 9, including mining, energy systems and environmental sustainability. However, Mokgokolo says the concept is expanding to additional sectors – such as construction, agriculture and architecture – as industry partnerships grow.

In some cases, industry partners may also support the programme by providing mobile classroom installations or demonstration models that allow learners to visualise engineering infrastructure and systems.

Early feedback from classrooms where the framework has been introduced suggests that learners' perceptions of engineering careers begin to shift once they are exposed to real-world examples.

Educators participating in the programme have also reported greater awareness of the engineering concepts already embedded in the science and technology curriculum.

However, implementation has presented challenges, particularly where schools initially associate STEM initiatives primarily with coding and robotics programmes rather than broader engineering concepts.

Nonetheless, Mokgokolo believes that stronger collaboration among the consulting engineering industry, education sector and communities will be essential to developing Africa's future engineering workforce.

COUPON ON PAGE 16 E717308

DEEP-LEVEL MINING

Ventilation, battery tech at forefront of deeper mining

HALIMA FROST | CREAMER MEDIA SENIOR WRITER

IN-DEMAND TECH
Ventilation-on-demand technologies and battery-electric vehicles are likely to see the fastest current adoption in deep-level mines

As domestic mines modernise and mechanise, certain systems – such as ventilation-on-demand (VoD) technologies and battery-electric vehicles (BEVs) – are likely to see the fastest adoption in deep-level mines, says equipment manufacturer cluster Mining Equipment Manufacturers of South Africa (Memsa) marketing and communications officer **Sue Breckenridge**.

Memsa's sentiment is shared by local mining original-equipment manufacturers (OEMs), with VoD and BEV technologies set to develop even faster than those of fully autonomous systems or digital twins.

"Deep-level mines in South Africa face lofty cooling and ventilation costs, often representing one of the largest energy expenditures," she adds, further noting that, for deep gold and platinum mines operating several kilometres underground, reducing ventilation demand directly lowers operating costs, hence the accelerated adoption of VoD.

VoD enables mine operators to scale ventilation either as and when it is required for certain areas, consequently effecting energy savings, or only when personnel or internal combustion engine vehicles are present there.

VoD systems are increasingly integrated with technologically advanced digital control platforms that optimise ventilation and cooling systems in real time.

Breckenridge adds that BEV demand and use are also gaining traction because such vehicles reduce diesel emissions underground, which, in turn, lowers ventilation requirements and improves worker safety.

"Electrification of underground equipment is seen as a critical step towards more sustainable and cost-efficient mining operations," she says.

As a result of increased demand, South African OEMs are increasingly designing battery-electric load-haul-dump machines and support vehicles suited to narrow-reef and deep-level mining.

Memsa expects that autonomous equipment and digital twins will follow but are likely to scale more gradually in deep-level mines because of operational complexity.

"Industry projections suggest 30% to 40% of mining equipment in Africa could become autonomous by 2040, indicating steady but staged adoption," adds Breckenridge.

Memsa Model

Memsa members consistently face several key barriers when trialling new deep-level mining technologies, including capital costs, the need for upgraded infrastructure and power, as well as energy uncertainty and escalating electricity prices.

Many deep-level mines operate on tight margins and ageing infrastructure, making it difficult to justify large upfront investments in electrification products, automation systems or digital platforms.

"However, this is being addressed by local manufacturers who are developing modular systems and retrofit solutions that can integrate with existing equipment fleets," adds Breckenridge.

In terms of South Africa's grid electricity constraints, many mines are cautious about electrification strategies. If they were to embark on the electrification of equipment, they would most likely lean more towards combining BEV adoption with renewable-power and microgrid solutions to stabilise and guarantee their supply.

OEMs, in turn, are responding with the design of fast-charging and trolley-assist electrification systems, and hybrid electric equipment, in addition to developing energy efficient drivetrain technologies.

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Sequenced approach to achieve renewed gold ounces

HALIMA FROST | CREAMER MEDIA SENIOR WRITER

With a sequenced approach to its R7.9-billion Mponeng mine expansion and life of mine (LoM) extension project, gold and copper miner Harmony is able to ensure that the project's roll out will not impact its current production capacities, investor relations head **Jared Coetzer** tells *Mining Weekly*.

The expansion of the Carletonville, Gauteng-based Mponeng gold mine, which encompasses three modular projects in one, specifically entails increasing the mine's depth from an already record-setting 3.9 km to 4.22 km, and serves to extend the mine's life from a current seven years to 20 years.

"The Mponeng extension project is aimed at mining the Ventersdorp Contact Reef (VCR), the Carbon Leader Reef (CLR) orebodies below existing infrastructure, as well as the TauTona shaft pillar," he outlines.

The LoM extension project will be achieved through the selective extraction of the high-grade VCR areas to the east and west, through independent access points, while eliminating the lower-grade areas at the centre of the orebody.

Further, the three projects combined de-risk the production profile to ensure Harmony avoids the risk of encountering a "gold gap" in its production portfolio.

At the same time, the easily-accessible first two levels of the CLR – levels 124 and 127 east of the Mponeng shaft – will also be mined.

At the VCR east shaft access points, two additional conventional track-bound production levels –129 and 132 – will be made available with a twin decline system, while at VCR west, accesses to production levels 129, 132 and 135, will be made possible with a trackless machinery ramp from level 126.

The ramp will also offer trackless servicing of conventional track-bound levels supplemented with separate chairlift infrastructure to transport employees.

"Servicing infrastructure will essentially be an extension of the current decline methodology, with a mono-train and chairlift in one decline and a conveyor belt system in the other," states Coetzer.

The shaft pillars at TauTona and Savuka mines, which were left unmined by the previous owner until the end of those mines' lives, have two sets of pillars – one on the VCR reef and the other one on the CLR reef, equating to four pillars in total.

A set of extensive studies was launched to investigate the safe extraction of these pillars, after which it was established that only the TauTona pillar could be mined safely with the VCR showing "excellent project metrics", he confirms.

"The TauTona CLR pillar is still being studied and will be reported on in the future," says Coetzer.

In terms of permitting and social licence, he says that because the LoM extension project is a brownfields operation, all environmental approvals have already been obtained, and the near-mine community also supports the project as the extension of Mponeng's LoM will greatly benefit the surrounding community by sustaining jobs, driving local economic activity and funding impactful social investment projects.

Project Capital Requirement, Timeline

Harmony has commissioned underground mining contractor Cementation Africa to undertake the decline shaft infrastructure work to ensure the mine can use trackless mobile machinery.

The overall Mponeng life extension project will be funded on a per shaft level, with a low capital intensity, given the length of the project.

Given the high-grades and strong free cash generation, Mponeng is in a comfortable position to fund this and continue with all capital requirements alongside the extension and still generate positive free cash flows.

In the first half of the 2026 financial year, Mponeng generated almost R5-billion in adjusted free cash flow.

Despite a few delays, first gold from the project is expected in the 2030 financial year, with project completion – including all major capital expenditure complete and all further capital shifting to sustaining activities – expected about a decade from now.

"We have established a centralised project management office to manage the project from a time, budget and quality perspective," notes Coetzer.

For the 2026 financial year ended June 30, 2026, Harmony has allocated R1.3-billion towards the major capital component of the project, in addition to R1-billion going towards the sustaining capital component of the project.

In addition to the LoM extension project, Harmony Gold is also exploring opportunities for another 100 MW renewable energy solar PV plant, similar to the plant already commissioned at its existing 100 MW Moab Khotsong operation, which will match the 20-year life of the mine to that of the PV plant," concludes Coetzer.

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RECORD-SETTING
The Mponeng gold mine expansion project will take the mine from an already impressive 3.9 km to 4.22 km deep – the deepest globally

Mobile air cooling allows for flexible, improved mining

HALIMA FROST | CREAMER MEDIA SENIOR WRITER

BREATH OF FRESH AIR
Having the flexibility to move a skid-mounted air-cooling system as and when it is needed has become a necessity in deep level mining situations

An emerging trend of mines requiring short-term underground cooling solutions that can adapt to changing conditions and provide more targeted temperature control has motivated mine ventilation, cooling and refrigeration experts BBE to develop modular, skid-mounted air-cooling systems designed for rapid deployment and adaptable service in dynamic mines.

These cooling systems are designed to provide air cooling exactly where it is needed while integrating with existing ventilation infrastructure.

Deep mines operate under some of the most technically demanding environments, while increasing heat loads, combined with declining ventilation air volumes, limit the ability of mines to operate safely and profitably, states BBE.

"The challenge is not confined to depth – mines are optimised to target a specific orebody, given a fixed set of technical and economic assumptions, but shifting commodity cycles and a changing world have introduced a requirement for flexibility that many existing mines were not originally designed to accommodate," says BBE Group MD **Andrew Branch** and BBE Group director and specialist engineer **Ross Wilson**.

In this new dynamic environment, underground cooling systems cannot remain static but must adapt to changing mining conditions and evolving production priorities.

Conventional bulk air-cooling systems have historically formed the backbone of mine ventilation strategies. While effective, Branch and Wilson say these fixed installations are inherently rigid, capital-intensive systems with long project lead times, and are generally optimised for predefined production schedules and mine lives.

However, in reality, conditions change constantly, and conventional cooling systems cannot respond with the required agility, leading either to under-cooled hotspots or energy inefficiencies from overcooling already cool areas. "The ideal mine cooling system must be flexible and must not be a constraint to mining," note Branch and Wilson.

Mobile Optionality

BBE's skid-mounted air-cooling system is self-contained and transportable.

Instead of relying solely on bulk air cooling from a central refrigeration plant to cool an entire mine, the targeted cooling of individual, hot mine-ventilation districts can be provided, thereby delivering high positional efficiency by delivering cooling capacity only to the areas that require it.

"This technology is suited to new mine developments where a central cooling system is not yet in place, as well as in existing mines where central cooling plants can be less effective over long distances and additional air cooling is required," highlight Branch and Wilson.

While there is technically no strict depth limitation for deploying skid-mounted or mobile air-cooling systems, BBE has installations reaching as deep as 1 800 m underground, offering clients mobile and quickly attainable deep-level ventilation and cooling solutions.

Optimal performance of the skid-mounted or mobile air-cooling systems is achieved when all associated equipment is installed at the same operating depth.

"We have developed a skid-mounted system that provides about 750 kW of air cooling, representing the highest air-cooling capacity achievable within BBE's skid-mounted design philosophy," says Branch.

While smaller systems may not provide sufficient cooling to meet operational requirements of certain mines, systems with larger air-cooling duties require permanent, custom installations.

He says BBE Group is continuously developing its technology to be as "plug-and-play" as possible – an approach that is key to simplifying installation, reducing commissioning time and enabling mines to get the system operational faster, ultimately improving efficiency and accessibility for deep-level operations.

A Complex Environment

Underground mine environments are challenging, with heat rejection typically representing the most complex aspect of any air-cooling system, say Branch and Wilson.

BBE mitigates this challenge through a detailed understanding of a mine's ventilation system, careful upfront planning and by designing solutions that require less on-site construction.

As mining production priorities change, BBE's solution allows for cooling capacity to be moved without permanent mine infrastructure changes.

"This aligns with the dynamic nature of modern mining, where flexibility is essential to increase output during high-commodity-price cycles without committing capital that will not be required during a period of low commodity prices," they note.

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"While fully autonomous ultradeep mines are still emerging, several pilot projects demonstrate the trajectory of technology deployment," notes Breckenridge.

Battery-electric machinery is increasingly being tested across African mining operations, the pilot projects of which are helping OEMs to adapt equipment to the adverse mining conditions.

Further, Breckenridge says digital twin platforms are being used to simulate mining operations, optimise processes and test system changes before implementation, consequently helping to reduce risk and improve productivity.

"Industry data suggests digital twin technologies are already being piloted or implemented across a significant share of mining operations globally, with adoption expected to deepen and expand across entire value chains over the next decade," she concludes.

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STAINLESS STEEL

Sector faces 'historic' crisis amid deindustrialisation

LYNNE DAVIES | CREAMER MEDIA REPORTER

REDESIGNING POLICIES
The stainless steel industry believes that the current government policies are not aligned with industrial priorities and should be redesigned

Following a decline in manufacturing capacity and competitiveness across virtually all sectors of the South African economy, the metals and engineering sector is facing a crisis of "historic proportions", says industry body the Southern African Stainless Steel Development Association (Sassda) executive director **Michel Basson**.

Years of low capital expenditure, declining demand and policy gaps have accelerated deindustrialisation and eroded the country's productive base. Consequently, the stainless steel sector is subject to a negative trend of retrenchment, resulting in small- and medium-sized enterprises finding it increasingly difficult to survive.

"This is concerning, since the value addition in the supply chain takes place through conversion in these companies," Basson notes.

Further, the industry does not believe that current government policies are aligned with industrial priorities, with stakeholders calling for their redesign to place greater emphasis on the protection of the local sector.

Import regulations, including duties, should be enforced to prevent the dumping of low-quality and subsidised products in South Africa, avers Basson, adding that in many cases, adequate rules are already in place, but are not enforced.

Simultaneously, with the African Continental Free Trade Area increasingly prominent, a structured national approach to penetrate and capture African markets should be driven by the private sector and government.

This would create increased demand for South African products and increase production volumes, which could, in turn, improve overall competitiveness.

"Many in the industry believe that specific and targeted incentives should be available to support manufacturing in selected sectors. This will encourage competitiveness through improved technology, skills development and investment," he elaborates.

Improved Outlook

Basson notes that, since 2025, when South African industry had little confidence that uninterrupted energy supply would become a reality – in addition to mistrust in political leadership and capacity, resulting in the economy appearing weak – the outlook improved.

While the world remains in geopolitical turmoil, State-owned power utility Eskom now has surplus energy, albeit at a very high cost to customers.

"The Government of National Unity appears to be making progress, interest rates have declined, the rand has strengthened and the economic forecast for the country is slowly improving," he says.

However, these improvements do not make the current conditions for the steel industry any easier, with the stainless steel subsector being unable to escape the effects of continuing deindustrialisation, structural barriers, low demand and slow economic growth.

As such, Sassda initiated a strategic process for the stainless steel industry at the end of 2025, which began with a stakeholder consultation session in January 2026, offering "valuable" direction for the future.

"Our strategic session determined that responsibility for localisation does not rest only with the government. Partnerships between government, industry and labour are essential to rebuild the industry and restore global competitiveness," Basson adds.

The stainless steel subsector believes that major retailers could show stronger and more tangible commitment to local products.

Basson says government can support this through regulations that ensure local content, offering potential incentives to procure local goods and the mounting of a national "Buy South Africa" campaign.

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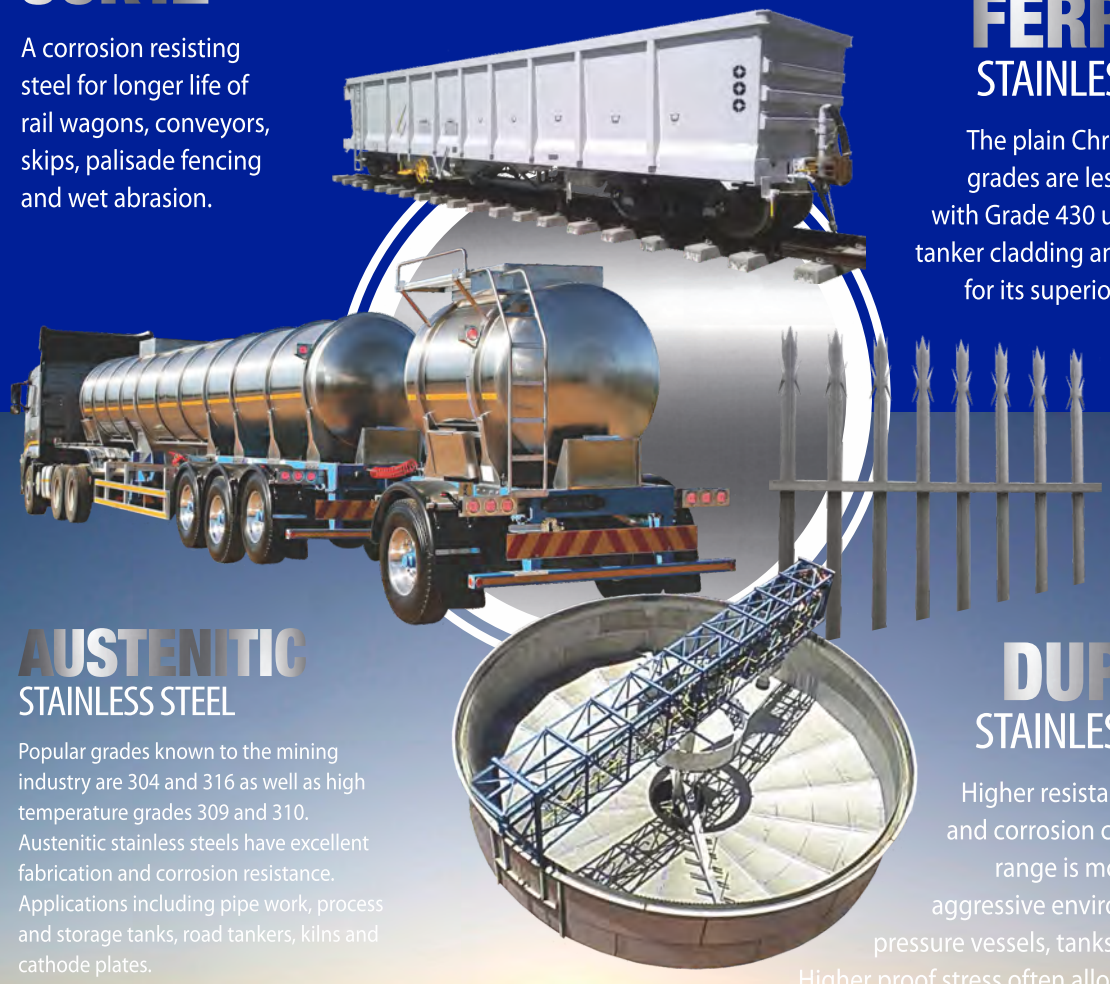

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Upgrade enhances stainless steel melt shop reliability

RECOVERING THERMAL ENERGY
The implementation of a waste-heat-recovery-ready system has allowed for the recovery of thermal energy for future industrial applications

Following a comprehensive upgrade by metallurgical engineering company Primetals Technologies, stainless, electrical and specialty steel supplier Aperam's stainless steel melt shop in Genk, Belgium, is operating with enhanced reliability.

The project included a revamp of the existing 130 t argon oxygen decarburisation (AOD) converter and the installation of an additional, new 130 t AOD resulting in significant improvements in efficiency, flexibility and operator safety.

Additionally, the implementation of "state-of-the-art primary and secondary dedusting systems", along with waste heat recovery technology, ensured that the melt shop would meet emission and efficiency standards.

The second AOD converter gives Aperam greater flexibility, allowing for optimised treatment times and the development of advanced steel grades.

Moreover, with the new AOD converter, Aperam can also use more cost-effective raw materials, optimising production costs.

Primetals Technologies also equipped both converters with its patented Vaicon Autofix, an automated AOD converter suspension system. Traditionally, plant personnel manually operate the locking elements that connect the converter vessel to the trunnion ring; the Vaicon Autofix eliminates the need for manual intervention throughout vessel exchanges, improving safety and reducing exchanges times and boosting overall plant availability.

Primetals Technologies also installed the Vaicon Damper, a vibration-reduction system that addresses strong bath movements. This system also reduces vibrations by more than 50%, lessening wear on equipment and foundations.

Emission Reduction

For the new AOD converter, Primetals Technologies supplied and implemented a waste-heat-recovery-ready system that cools off-gas from the converter using a two-stage heat exchanger.

The recovered thermal energy, available as hot water, can be used for future industrial applications, such as power generation or district heating. This system will help to reduce carbon emissions, supporting Aperam's leadership in sustainable steel and alloy production.

"The completion of this major upgrade marks a new chapter for Aperam Genk. With the second AOD converter and advanced environmental technologies now in place, we can operate with greater flexibility, produce more sophisticated grades and further reduce our environmental footprint," Aperam Genk steel plant manager **Sofie Vantilt** states.

Additionally, she notes that this investment is fully aligned with Aperam's vision to be the leading value creator in a circular economy.

Enhancing Process Control

To ensure improved process control and plant availability, the melt shop features an extensive automation solution, including basic automation, process automation and optimisation and the Asset-Life Expert (ALEX) condition monitoring system.

The AOD optimiser, a process control and optimisation system, enhances efficiency and metallurgical precision in stainless steel production.

The AOD converters must handle great variability in process conditions as a result of diverse charging mixes, large mass build-up and the production of a range of specialty stainless steel grades. Therefore, the AOD optimiser uses hybrid process models based on first-principle calculations and dynamic control algorithms.

Moreover, the ALEX system is a centralised condition monitoring solution with a Web-based user interface which provides a clear overview of the plant's status and actionable recommendations, enabling fast, informed decision-making. According to Vantilt, the ALEX is both scalable and adaptable, allowing users to integrate operational and maintenance expertise, as well as customise the system for specific plant requirements.

To further ensure that the system remains aligned with evolving operational and maintenance needs, Aperam has signed a service contract for the condition-monitoring system.

Primetals Technologies' scope of supply also includes transfer cars, a semi-automatic ladle transfer crane and an extension of the existing materials handling system.

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Significant Opportunities

In the stainless steel value chain, more than 20 000 t of finished stainless steel goods are imported, with the majority of these imports being hollowware products such as sinks and tableware.

These products compete directly with local manufacturers and, in many cases, are low-quality dumped items.

"This imported 20 000 t represents the potential to create up to 30 000 jobs in the direct and indirect value chain. This is significant," Basson states.

If imported goods are further analysed, the largest finished goods subcategory by volume is hollowware and tableware at about 23 624 t in 2025 – averaging 2 362 t a month – with this category dominating the finished goods import profile.

This was followed by welded tubing, with 4 894 t, and fasteners, with 3 869 t.

Basson concludes that the sector "does have the added advantage that many specialised products can be manufactured only from stainless steel and must be used in food and beverage processing, medical and healthcare applications, pharmaceuticals and various industrial applications".

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Scrap recovery aids competitiveness

LYNNE DAVIES | CREAMER MEDIA REPORTER

Central to the sustainability and competitiveness of South Africa's stainless steel value chain, scrap recovery helps to reduce production costs, lower carbon emissions and ensure that the industry remains aligned with global circular economy practices, says industry body Metal Recyclers Association of South Africa (MRA-SA).

The stainless steel recycling sector is a cornerstone of South Africa's circular economy objectives, precisely because stainless steel has a long life-cycle and near-infinite recyclability, MRA-SA member **Bernard Maguire** explains.

Further, by keeping valuable metals – such as nickel, chromium and molybdenum – in circulation, the sector also reduces waste and strengthens industrial resilience.

Moreover, the global volatility in nickel and electricity costs has made scrap recovery even more critical to the country's stainless steel industry, as rising input costs push producers to rely more heavily on scrap for cheaper, locally available feedstock.

High electricity tariffs, however, restrict recycling activity by raising processing costs, shaping the flow and competitiveness of scrap in the value chain.

Maguire adds that the balance between these forces will determine whether South Africa's stainless steel value chain can remain competitive and sustainable.

Reduced Local Demand

With international competition from low-cost stainless steel producers in China and India squeezing South Africa's industry, the country's scrap recycling sector becomes ever more central to overall competitiveness.

"Cheap imports reduce demand for locally produced stainless steel, so they also increase the importance of scrap recovery as a cost stabiliser and sustainability differentiator," Maguire points out.

Logistics constraints and infrastructure inefficiencies, however, are a major bottleneck for the stainless steel recycling industry, directly affecting the movement, processing and export of scrap.

These challenges weaken competitiveness by raising costs and limit the sector's ability to fully leverage scrap recovery as a sustainability advantage, he says, adding that "addressing logistics and infrastructure challenges is essential if stainless steel scrap is to fulfil its role as a driver of sustainability and competitiveness".

CRITICAL RECOVERY
Global volatility in nickel and electricity costs have made scrap recovery even more critical in South Africa's stainless steel industry

LOW-CARBON PRODUCTION
By integrating renewable energy into recycling, South Africa can cut emissions, reduce energy use and position its stainless steel industry as a leader in low-carbon production

The stainless steel recycling sector can also play a decisive role in lowering the industry's carbon footprint by reducing overall energy demand, lowering emissions and aligning production with global "green steel" standards.

As such, by increasing recovery and integrating renewable energy into recycling, South Africa can reduce emissions and reduce energy consumption, in addition to positioning the stainless steel industry as a leader in low-carbon production.

Mechanisms such as the EU Carbon Border Adjustment Mechanism could also have far-reaching implications for South Africa's stainless steel and scrap metal industries, reshaping trade flows, competitiveness and strategies.

"For South Africa, this means stainless steel recycling is not just an environmental strategy – it is competitive necessity," Maguire states.

Scaling up scrap recovery and aligning with low-carbon practices can enable the industry to protect export markets and strengthen its role in the global stainless steel value chain.

To further strengthen the stainless steel recycling ecosystem requires smart policy interventions, industry collaboration and targeted investment priorities, Maguire notes.

Such measures, which include advancing sustainability goals, will ensure that the sector remains globally competitive.

"South Africa's stainless steel recycling ecosystem can become a global leader if policy clarity, industry collaboration and investment in technology and infrastructure are prioritised. Scrap recovery is not just about sustainability, it is the foundation of competitiveness in a carbon-constrained global market," he concludes.

COUPON ON PAGE 16 E717514

Conrad Engelbrecht

Mine Support Products

 MZ

Full Name: Conrad Engelbrecht

Position and Company Name: MD of Mine Support Products

Main Activity of the Company: Mine Support Products is involved in the design and manufacturing of underground roof support products

Date and Place of Birth: December 1, 1967, Vereeniging

Schools and Tertiary Education: I matriculated at Dr Malan in Meyerton, Gauteng, and earned a BCom degree at the University of Johannesburg, an Honours degree at the University of South Africa, and an MBA at the North West University

First Job: Articled clerk at an accounting firm, in 1989

Size of First Pay Packet: R1 250 a month

Career Path to Date: I spent five years in auditing at Ernst & Young, before moving to the Reunert group, where I was finance manager for five years. I then joined the Dorbyl group in 1996, serving as finance manager in a number of group companies, before being appointed the MD of Mine Support Products in 2013

Value of Assets under Your Control: R300-million

Number of People under Your Leadership: 100

Management Style: Collaborative

Personal Best Achievement: Being responsible for a greenfield project to establish a wind turbine tower manufacturing facility in the Coega Development Zone, in the Eastern Cape

Person Who Has Had the Biggest Influence on Your Life: My father

Person Who Has Had the Biggest Influence on Your Career: A former MD at the DCD Dorbyl group

Person You Would Most Like to Meet: Leonard Cohen

Businessperson Who Has Impressed You Most: Elon Musk – for all his forward/disruptive thinking

Philosophy of Life: Create memories whenever you can

Biggest Ever Opportunity: To have had the means and ability to learn

Biggest Ever Disappointment: Not being able to play any musical instrument

Hope for the Future: Abundant opportunities for all the young people in South Africa

Favourite Reading: Any good story

Favourite TV Programme: *Landman*

Favourite Food/Drink: Italian food

Favourite Music: Rock and alternative music

Favourite Sport: Golf

Hobbies: Hunting and fishing

Car: Ford Ranger

Pets: A cat and a dog

Miscellaneous Dislikes: People sticking to the right lane on the highway

Married: To Nelia

Children: Carmen, 21; Christopher, 16

Clubs: Serengeti Golf Club

My philosophy of life is:
Create memories whenever you can

Source: Bloomberg

Elon Musk

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- Moving from linear production models to circular manufacturing methods
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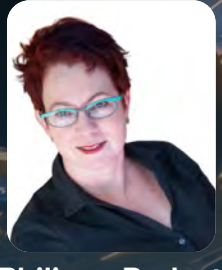
- Adopting digitisation and cutting-edge technologies

Confirmed panel members:

Dr Saul Levin
TIPS
(facilitator)



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