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In this issue

August is Women's Month and *Precast* acknowledges the remarkable achievements notched up by females in our industry, three of whom are included in this issue: Chryso Southern Africa's research and development manager Mpume Mabaso-Mlalazi, Elani Vogel, senior forensics manager of Loxton Forensics and Odette Potgieter, MDA Attorneys director. Each of them offers expert advice and insights regarding crucial issues. We also wish to pay tribute to the hundreds of other women entering the sector and doing magnificent work in a previously male-dominated domain. May they go from strength to strength!

This is a time of disruption and protest in our country, much of it ugly, irrational and distinctly un-African in its targeting of defenceless individuals. Behind it lie the real issues, which are dysfunction in government, neglected infrastructure, power and water problems, and unemployment (caused not by foreigners, but by home-grown corruption leading to economic crisis).

Nevertheless, our industry is doing all it can – and doing it well – to forge ahead. In truth, our sector is as resilient and tough as the concrete it deals with. For that reason, we are confident that better times and exciting horizons lie ahead.


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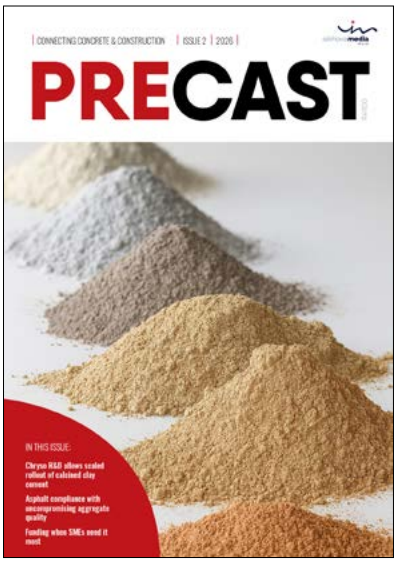

ON THE COVER

While South Africa has access to traditional supplementary cementitious materials (SCMs) such as fly-ash and slag, most African countries need to rely on natural clay deposits to reduce the clinker in cement.

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CORROSION INSTITUTE SOUTHERN AFRICA

Different clay materials can behave very differently during processing, making consistency and process control an ongoing challenge.

CHRYSO R&D ALLOWS SCALED ROLL-OUT OF CALCINED CLAY CEMENT

Abundant deposits of clay across Africa make limestone calcined clay cement (LC^3) a popular lower-carbon option for the continent – and Chryso Southern Africa is finding innovative solutions to the challenges posed by clay variability.

While South Africa has access to traditional supplementary cementitious materials (SCMs) such as fly-ash and slag, most African countries need to rely on natural clay deposits to reduce the clinker in cement, according to Chryso Southern Africa's research and development manager Mpume Mabaso-Mlalazi. This is driven by the cement industry's commitment to decarbonise production by reducing the proportion of carbon-intensive clinker in cement.

"LC^3 has the potential to transform cement production across Africa," says Mabaso-Mlalazi. "However, this requires that we manage the variability and performance of clay holistically – from raw material selection through to final concrete."

She highlights that Chryso has invested heavily in research and development into LC^3 solutions, analysing over 30 calcined clays to characterise variability in mineralogy, fineness, reactivity and water demand. The company has developed advanced testing methodologies, including a proprietary clay test to assess polymer intercalation and its impact on admixture efficiency.

"Clays have a high affinity for water, but we don't want excess water in concrete because it compromises strength," she explains. "Managing that balance therefore becomes critical to the application and scalability of LC^3."

This challenge is closely linked to rheology, or how the material flows, and ultimately impacts both workability and strength development. In addition, interactions between clay particles and chemical admixtures – particularly superplasticisers – can reduce admixture efficiency.

"Where clay absorbs the admixture, much higher dosages may be needed to achieve the same effect," explains Mabaso-Mlalazi. "This has cost

> **"Industry's now transitioning from research to industrial deployment, so the need for practical, scalable solutions is becoming increasingly urgent."**

implications for producers, so it should be avoided."

Leveraging this insight, Chryso designs tailored polymer chemistries and specialised product ranges to stabilise performance, control rheology and optimise strength development. Its work bridges laboratory research and industrial application, enabling customised, cost-effective solutions that support consistent, scalable adoption of LC³ across diverse raw material conditions.

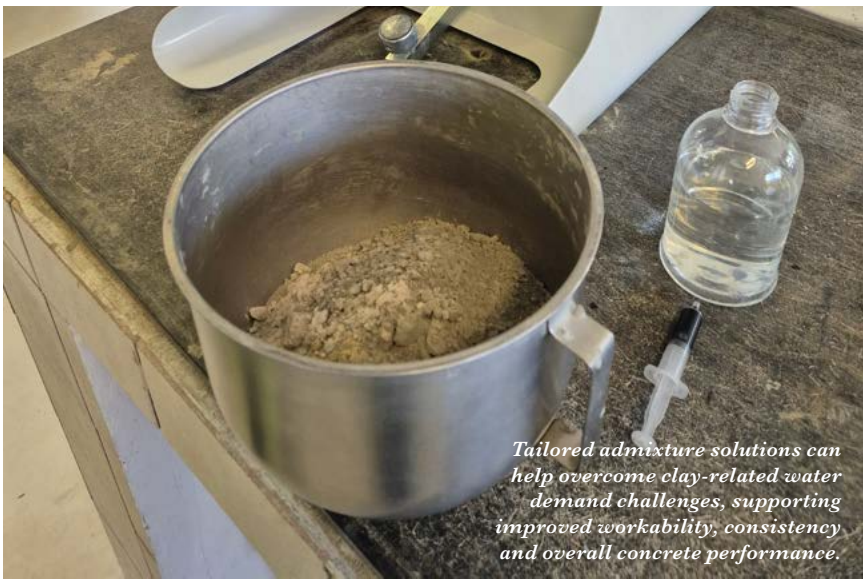
"Industry's now transitioning from research to industrial deployment, so the need for practical, scalable solutions is becoming increasingly urgent," says Mabaso-Mlalazi. "This was highlighted once again at the International Conference on Calcined Clays for Sustainable Concrete [ICCCSC 2026] held earlier this year in Cape Town, which called for more collaboration and real-world implementation support."

Chryso Southern Africa is well positioned to meet this need, combining global R&D expertise with local application knowledge, she argues. By addressing the technical complexities of LC³ – particularly its variability, rheology and admixture interaction – the company is enabling producers to adopt low-clinker systems with confidence.

"By doing this, Chryso is not only supporting decarbonisation targets, but also helping to build a more resilient and sustainable construction ecosystem for Africa," says Mabaso-Mlalazi. "We make the technology easier to use, more reliable and more affordable, which will ultimately enable the scaling up of LC³." ■

Mpume Mabaso-Mlalazi, research and development manager at Chryso Southern Africa.

The Chryso Clear Test quantifies clay-admixture interactions to support optimal concrete mix design and improved performance consistency.



Tailored admixture solutions can help overcome clay-related water demand challenges, supporting improved workability, consistency and overall concrete performance.

Correct aggregate grading and strength are essential to creating a stable asphalt matrix capable of withstanding heavy traffic loads.

ASPHALT COMPLIANCE WITH **UNCOMPROMISING AGGREGATE QUALITY**

To give asphalt the durability and performance that national road-builders require, the quality and specification of aggregates must never be compromised.

This is particularly important as South Africa invests in road infrastructure to support economic growth. According to AfriSam's construction materials executive: sales and product technical Amit Dawneerangen, meeting COTO standards for aggregate in asphalt begins with meticulous quarry management.

"Having our wide network of well-located quarries with suitable rock is just the starting point for sustainable delivery of quality aggregate," Dawneerangen explains. "Natural variations in rock require that quarrying is carefully conducted to extract competent and consistent material from the deposit."

Pre-blasting functions therefore include careful mapping and testing to ensure that material is suitable before it is mined, crushed and screened. Aggregate grading, shape, strength and cleanliness all influence how well a road resists deformation, cracking and long-term wear, he points out.

"Asphalt is far more sensitive to aggregate quality than many other applications," he says. "This is reflected in the stringent specifications imposed, particularly under Committee of Transport Officials standards. It's impossible to substitute lower-quality materials and still achieve the required performance."

Parameters such as aggregate crushing value, 10% fines aggregate crushing test and polished stone value are measured to ensure compliance. This helps asphalt withstand traffic loading, resist abrasion and maintain skid-resistance. If aggregates lack sufficient strength or durability, they degrade under load, leading to rutting, ravelling and structural failure.

Nithia Pillay, AfriSam's regional product technical manager for construction materials, points out that compliance is not only about meeting minimum thresholds, but about delivering uniformity over time. This demands multiple checks and balances to ensure the right material is

AfriSam's Ulco facility reflects the company's commitment to delivering consistently high-quality aggregates through advanced processing methods and rigorous quality control systems.

consistently delivered into the product stream.

"Non-conforming materials introduce significant risk into asphalt production," says Pillay. "Excess fines or dust contamination, for example, can compromise binder adhesion and mix stability. Similarly, weak or poorly shaped aggregates can fracture under compaction or traffic, undermining the integrity of the pavement structure."

AfriSam addresses these requirements through a combination of technical expertise, investment and rigorous quality assurance, with upstream quality control supported by advanced processing capabilities.

"We invest regularly in modern crushing and screening technologies, including mobile equipment to give us greater flexibility," he says. "This allows us to meet increasingly complex and stringent asphalt specifications in the volumes that customers require."

He notes that collaborative quality assurance adds significantly to confidence across the value chain. AfriSam works closely with asphalt producers through shared testing protocols, pre-approved stockpiles and certified test certificates that confirm compliance before materials leave the quarry. AfriSam quarries conduct quarterly external SANAS-accredited testing of inherent material properties for all required parameters, ensuring that compliance information is not more than three months old.

"We often test in collaboration with our customers using split samples," says Pillay. "By the time the material's dispatched, it's already been approved, giving confidence in its quality throughout the process."

As road-building across SA extends into regions not always well served by established quarries, Dawneerangen emphasises that AfriSam's investment in mobile plant is helping ensure that quality aggregate is available to asphalt producers.

"It isn't always easy to source the right product nearby when building roads in remote areas," he explains. "Our wide network of fixed plants is now being augmented by mobile equipment, giving us flexible capacity to boost production while still meeting the stringent asphalt standards and specifications required." ■

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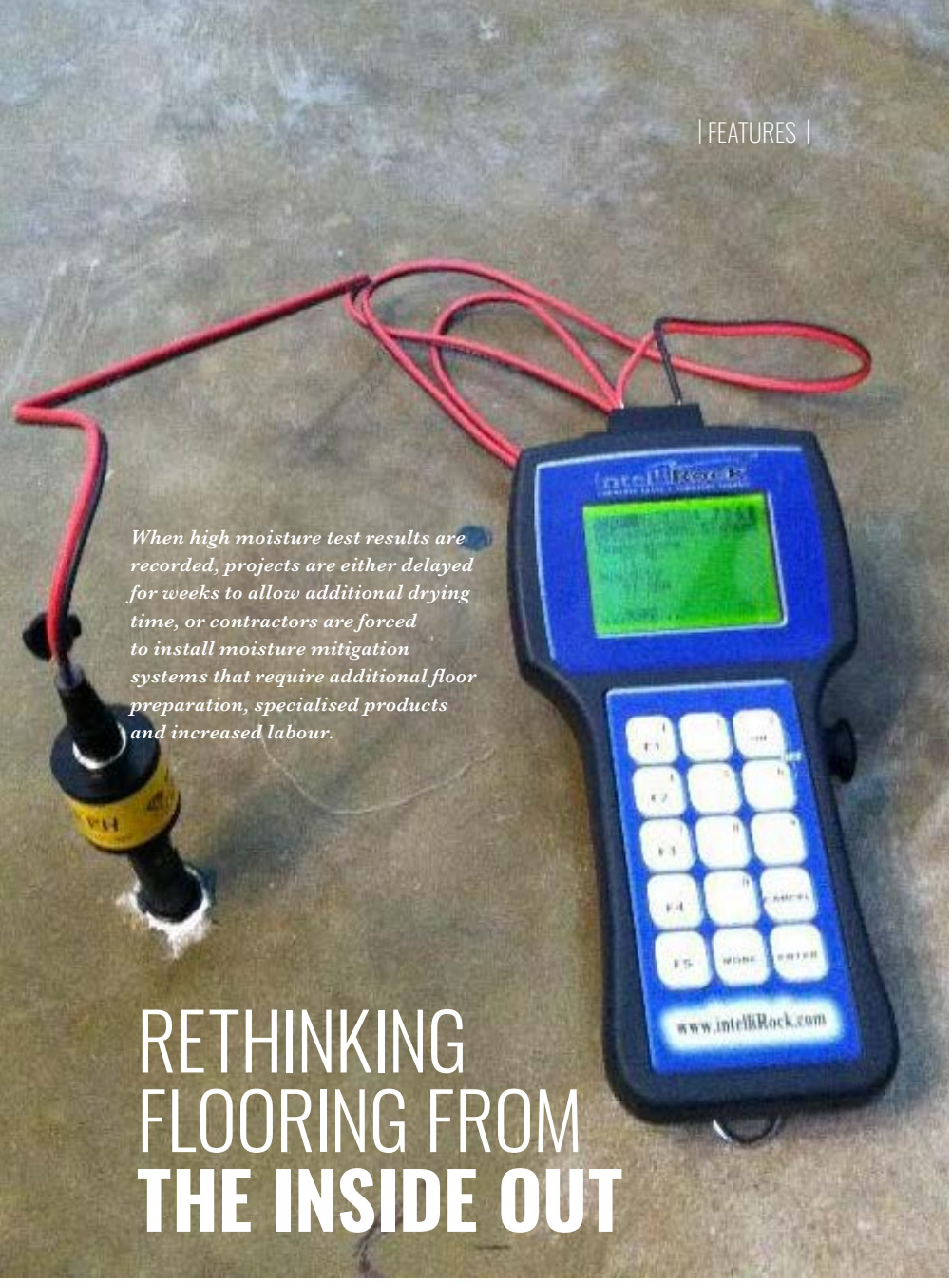


When high moisture test results are recorded, projects are either delayed for weeks to allow additional drying time, or contractors are forced to install moisture mitigation systems that require additional floor preparation, specialised products and increased labour.

RETHINKING FLOORING FROM **THE INSIDE OUT**

By Carl White, MD: Spraylock Africa

I have spent much of my work focused on one persistent issue in construction: excess moisture movement through concrete slabs and its impact on flooring performance. In practice, it remains one of the biggest risks to flooring systems, often leading to failures such as buckling, cupping, warping, blistering, bubbling and delamination.

When high-moisture test results are recorded, the consequences are immediate and costly. Projects are either delayed for weeks to allow additional drying time, or contractors are forced to install moisture mitigation systems that require additional floor preparation, specialised products and increased labour. Either option has a direct impact on cost and programme. As we all know, time is money.

It also poses a health risk. The SA National Department of Health identifies damp indoor environments as a major contributor to poor indoor air quality. Excess moisture encourages the growth of mould, fungi, bacteria and dust mites, all of which are linked to asthma and other respiratory illnesses, as well as allergic reactions.

Understanding where the problem begins

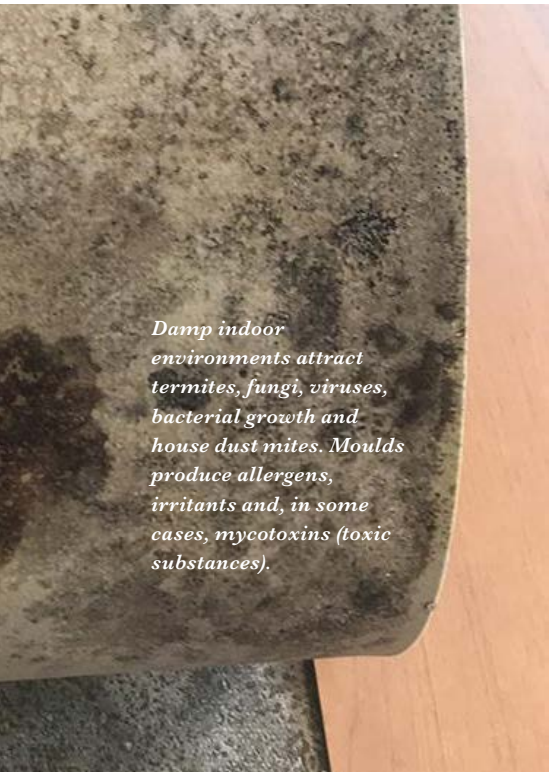
In most buildings, particularly multi-storey developments, concrete slabs-on-grade are finished with a range of flooring systems selected for function, durability and aesthetics. These typically include carpet, luxury vinyl tile, vinyl composition tile, epoxy coatings and painted finishes. These systems are widely used across commercial, educational, medical, retail and residential environments due to their versatility and ability to perform under high-traffic conditions. However, the performance of these finishes ultimately depends on what happens beneath them.

The core issue is moisture movement through the concrete slab to the interface between the concrete and the applied adhesives, coatings or flooring systems. Moisture may originate from within the slab itself as part of the natural hydration process, or from external sources beneath or adjacent to the slab.

Concrete must retain moisture to continue hydrating and developing strength and durability. However, premature attempts to force a slab to "dry out" can compromise long-term performance. In conditioned environments such as HVAC-controlled buildings, trapped moisture may later migrate to the surface, resulting in adhesive re-emulsification, flooring bond failure and coating deterioration.

Moisture pathways in slabs-on-grade

For slabs-on-grade construction, moisture may originate from the ground beneath the slab, migrate through the base material and move upwards through the concrete itself. This is often compounded by poor drainage conditions or other site-related



Damp indoor environments attract termites, fungi, viruses, bacterial growth and house dust mites. Moulds produce allergens, irritants and, in some cases, mycotoxins (toxic substances).

moisture issues.

Additional moisture intrusion can also occur from adjacent sources such as malfunctioning water stops, wind-driven rain, plumbing leaks or other environmental exposures.

Within the building environment, temperature and humidity differentials can further contribute to condensation at the slab and flooring interface. Even routine cleaning practices can introduce surface moisture that interferes with adhesive performance. One practical field method of assessment is the plastic sheet test, where the slab is dried with forced air for approximately 24 hours and then covered with plastic for 72 hours to observe condensation beneath the sheet.

The science of curing *vs* drying

It is important to understand that curing and drying are two distinct processes.

Curing involves retaining moisture within the slab so that cementitious materials can continue their hydration reaction, enabling the concrete to develop strength and durability. Drying, on the other hand, refers to reducing moisture content to acceptable levels prior to installing adhesives, coatings or flooring systems. Proper balance between these processes is essential for both concrete performance and successful flooring installation.

Within concrete, mix water exists in several forms during hydration and drying. Bleed water rises to the surface and exits during the initial setting phase. Evaporable water remains within the slab after setting and gradually leaves over time, typically one to 60 days or longer, depending on conditions and slab thickness. Non-evaporable water, or bound water, becomes chemically incorporated into the cement matrix. Reaction water is consumed during hydration and directly contributes to strength and durability.

Drying behaviour is strongly influenced by the water-to-cement (w/b) ratio. Higher ratios introduce more excess water, leading to extended drying times and increased moisture-related risks. In 100mm slabs, mixes with a w/b ratio of 0,60 exhibit the highest initial moisture vapour transmission rates, followed by 0,50 and 0,40 mixes. Drying rates decrease significantly over time as moisture migrates out of the slab. Lower w/b ratio concretes generally reach acceptable moisture levels more quickly. These findings are based on testing conducted at 50% relative humidity and 23°C, with no external moisture sources present.

When drying is no longer enough

When moisture test results exceed acceptable thresholds, there are typically two options. The first is to wait for additional drying time, which can significantly delay construction programmes. The second option is to install a moisture mitigation system, which may reduce delays, but introduces additional floor preparation requirements, specialised products, increased labour and higher overall costs. In both cases, the impact on project time and budget is substantial.

The underlying reason for this challenge is that concrete is inherently permeable. It is mixed with more water than is required for initial hydration to allow it to be placed, compacted and finished. As it cures and dries, excess water exits through interconnected bleed channels, capillaries and pores within the cement matrix. These pathways remain within hardened concrete and can later act as routes for moisture and contaminant movement.

A shift towards nano-engineered solutions

This is where post-set spray-applied colloidal silica presents a significant advancement. It is an engineered nanotechnology designed to reduce permeability and improve long-term slab performance.

When applied within 24 hours of placement, it can provide curing benefits comparable with traditional 28-day moist curing, particularly in terms of compressive strength development and reduced drying shrinkage. Colloidal silica is silicon dioxide in nano-scale form. Its extremely small particle size allows it to penetrate deeply into the interconnected pore structure of concrete, where it interacts within the cement matrix.

Once applied, it fills the capillary void system after formation, refining and densifying the internal structure. The reaction products formed are compatible with those naturally present in concrete, supporting long-term durability. It can be applied to both new and existing concrete and is designed as a one-time treatment intended to last for the service life of the slab.

As particle size decreases from conventional to high-performance and nano-engineered concrete systems, specific surface area increases dramatically. This increase enhances chemical interaction within the cement matrix, improving strength development, durability and overall performance at a fundamental level.

Applied within 24 hours of placement, post-set spray-applied colloidal silica fills the capillary void structure as it forms, permanently limiting excessive moisture movement while still supporting internal curing. In effect, it delivers many of the benefits associated with 28-day moist curing through a single application designed to last for the life of the concrete.

This SCP technology has now been used on more than 50 million square metres of new and existing slabs globally. ■

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Danie Hattingh, spokesperson for business at the BIBC.

BUILDING INDUSTRY FACES ESCALATING COMPLIANCE ENFORCEMENT

A major multi-disciplinary compliance operation at a Cape Town CBD construction site has sent a clear warning to the building industry: enforcement pressure is intensifying and non-compliance is increasingly being treated as a serious business risk.

The operation, conducted on 20 May 2026 at a building site on Lower Long Street in the Cape Town CBD, brought together the Building Industry Bargaining Council (BIBC – Cape of Good Hope) and officials from the Department of Employment and Labour (DoEL), the Department of Home Affairs (DHA), Immigration Services, the SAPS, Metro Police and the Traffic Department.

The main contractor on the site was Tri-Star Construction (Pty) Ltd. According to BIBC site inspection records, there were approximately 200 employees on site, roughly half of whom were subsequently identified as foreign nationals. These employees were then removed from the site for formal verification by the DHA. It has since been confirmed that 79 of these employees were undocumented foreign nationals.

The inspection, co-ordinated by Luthando Nkuzo, principal inspector at the DoEL, formed part of a broader multi-disciplinary inspection and enforcement operation, focusing on labour laws, health and safety and wider regulatory compliance within the construction sector.

Work on the site was temporarily suspended while officials conducted employment, documentation and immigration inspections, resulting in multiple arrests linked to undocumented foreign nationals identified during the operation.

Deputy Minister of Employment and Labour Jomo Sibiya explained to the workers, who had been instructed to gather at designated evacuation points, that the inspection formed part of broader labour compliance enforcement efforts.

For the BIBC, the operation reflects a significant shift towards co-ordinated enforcement across the Western Cape building industry.

> **"Large projects often involve multiple layers of contractors, creating opportunities to bypass labour obligations and registration requirements."**

"These inspections are about far more than undocumented workers," says Danie Hattingh, spokesperson for business at the BIBC. "They're about strengthening accountability in an industry increasingly challenged by sub-contracting abuses and regulatory non-compliance."

Hattingh says that sites involving multiple sub-contractors and labour brokers pose significant compliance and safety risks where oversight is weak.

"Large projects often involve multiple layers of contractors, creating opportunities to bypass labour obligations and registration requirements," he explains. "Integrated operations enable regulators and enforcement agencies to respond far more effectively."

As the recognised bargaining council for the Greater Cape Peninsula building sector, the BIBC exercised its mandate by verifying contractor and sub-contractor registration and compliance with collective agreements governing wages, working conditions, benefit contributions and employer registration obligations. Failure to comply often results in labour exploitation and unfair competition within the sector.

"Non-compliance doesn't only affect workers," says Hattingh. "It also undermines compliant employers who're forced to compete against companies cutting costs by operating outside the law."

Authorities have increasingly identified the construction sector as high-risk for labour exploitation, undocumented employment and regulatory avoidance, particularly on large developments with extensive sub-contracted and foreign-national workforces.

The Lower Long Street inspection follows two similar multi-agency operations conducted in Table View in November 2025, co-ordinated by Vincent Domingo, principal inspector at the DoEL, targeting undocumented labour and employment law violations. Tailor Made Construction (Pty) Ltd and Balwin Properties (Pty) Ltd were the main contractors on the sites inspected.

In the first instance on the Thorpe Garage site, 28 employees were verified by the DHA as being undocumented foreign nationals. On the Suikerbos Lifestyle Estate complex, the volume of foreign nationals on site was so excessive that the operation could not be completed on the same day.

"The main contractor on the site was Tri-Star Construction (Pty) Ltd. According to BIBC site inspection records, there were approximately 200 employees on site, roughly half of whom were subsequently identified as foreign nationals. These employees were then removed from the site for formal verification by the DHA. It has since been confirmed that 79 of these employees were undocumented foreign nationals."

"The message to contractors and developers is becoming increasingly clear," cautions Hattingh. "Compliance with labour legislation, bargaining council agreements, immigration requirements and occupational health and safety standards is no longer optional."

According to the BIBC, joint enforcement operations are expected to increase throughout 2026 as co-operation between regulators deepens, strengthening accountability and protecting lawful employment practices. Since June, nationwide protests – some of them involving violence, looting and intimidation – staged by the March for March anti-immigrant movement have heightened tensions among South African companies and labourers, with government issuing repeated warnings about contravening work permit documentation and regulations.

Industry stakeholders increasingly recognise that non-compliance fuels wage suppression, worker exploitation, unfair competition and reduced industry sustainability. Against this backdrop, Hattingh says employment documentation, worker registration and compliance verification have become critical risk areas for contractors and developers.

"We're seeing a much stronger enforcement environment emerging," he says. "Contractors who fail to comply with labour and regulatory obligations should expect increasing levels of monitoring and enforcement action."

Hattingh believes the increased enforcement focus will ultimately strengthen the industry. "These operations are about protecting the integrity and sustainability of the building sector. A stronger culture of compliance benefits workers, responsible employers and the entire industry," he says. ■

COPING WITH DISRUPTIONS FROM MARCH FOR MARCH

With the March for March movement threatening weekly demonstrations around the country relating to the employment of undocumented foreign nationals, construction law specialist MDA Attorneys cautions that construction sites are vulnerable because they are generally more visible and physically open than most workplaces. They are located in communities and involve a layered workforce mix of main contractors, sub-contractors, labour brokers and temporary staff working side by side.

"If sites are disrupted, contractors could be looking at delays, blocked access, damaged property, long delays and costly disputes like those we saw in previous disruptions during the July 2021 unrest in KZN and Gauteng and ongoing construction mafia activity," says Odette Potgieter, MDA Attorneys director.

"Contractors needed to establish whether they could claim extra time or costs from employers and insurers, and whether *force majeure* clauses covering events beyond their control were applicable. Contractors who had clear procedures, proper records

and contract compliance got through it in far better shape and a key element was giving the right notices, in time, to support claims," she adds.

What contractors should do now

- Check that employment and contractor records are complete and up to date.
- Confirm that sub-contractors have taken responsibility for their own compliance, in writing.
- Make sure that staff know who is legally allowed to demand to see documents or access the work site. Establish clear site protocols with one person appointed to handle any engagement with outside groups.
- Brief security teams on what to do and who to call if something happens.
- Start keeping detailed records now: site diaries, photos, correspondence, programme updates and delivery records.
- Engage with clients.

If disruption does happen

Depending on the contract, contractors may have the right to extra time, compensation or even pausing the work altogether, but only if the right steps are followed, often within tight deadlines. Most standard construction contracts set strict timelines and procedures, so missing deadlines can mean losing a valid claim altogether. Keeping clear records, early engagement with clients and keeping stakeholders updated as events unfold puts contractors in a far stronger position. ■

> "If sites are disrupted, contractors could be looking at delays, blocked access, damaged property, long delays and costly disputes like those we saw in previous disruptions during the July 2021 unrest in KZN and Gauteng and ongoing construction mafia activity."

ENGINEERING RESILIENCE INTO AFRICA'S ENERGY FUTURE

By Mpho Ramphao, MD: Water at Zutari

Africa's energy transition is often discussed in terms of generation capacity, investment pipelines and megawatts added to the grid. While these metrics matter, they only tell part of the story. The real challenge facing the continent is not simply producing more electricity. It is building resilient, integrated infrastructure systems that can support long-term economic and social development in increasingly complex environmental conditions.

Across Africa, countries are under pressure to expand access to affordable and reliable energy while simultaneously responding to climate volatility, rapid urbanisation, industrialisation and growing infrastructure demands. In this context, infrastructure projects can no longer be viewed as isolated engineering exercises. They must be designed as long-term development enablers.

This is particularly true in the energy sector. Hydropower remains one of the most important renewable energy opportunities available to many African countries. When designed responsibly and strategically, it offers stable baseload power, reduced dependence on imported fossil fuels and the potential to unlock economic growth across multiple sectors. However, modern hydropower infrastructure also demands a

The project will increase Burundi's installed generation capacity from 60MW to 1 095MW.

far more integrated approach than it did even a decade ago.

Resilience at the core of infrastructure delivery

Today resilience must sit at the core of infrastructure delivery. That means engineering projects which can withstand changing climatic conditions, accommodate future demand and operate sustainably over decades. It means accounting for sedimentation, flood risk, seismic activity and environmental impacts from the earliest design stages. It also means recognising that infrastructure is ultimately about people and the communities, businesses, schools, hospitals and industries that depend on reliable access to energy.

The Jiji and Mulembwe hydropower scheme in Burundi demonstrate what this integrated approach can look like in practice. Together, the two hydropower plants will add 49,5MW of renewable energy capacity to Burundi's national grid, increasing the country's installed generation capacity from 60MW to 109,5MW. Supported through funding partnerships involving the World Bank, the European Union, the African Development Bank and the European Investment Bank, the approximately $320 million development represents one of the country's most significant recent infrastructure investments.

Zutari was responsible for the detailed design and construction drawings for both schemes, including the dams, tunnels, penstocks, powerhouses, permanent access roads and supporting infrastructure. The project comprised a 32,5MW plant on the Jiji River and a 17MW plant on the Mulembwe River, each incorporating desilting structures, low-pressure pipelines, 1,1km transfer tunnels and power stations housing three horizontal Pelton turbines. After a construction period of six years, both plants were successfully commissioned in 2025 and are now connected to the Burundi grid, providing reliable renewable energy.

However, the significance of the projects extends well beyond the megawatts produced. From the outset, resilience and long-term sustainability formed part of the engineering approach. Extensive hydrological, sedimentation, geotechnical and seismic studies informed the design process, helping ensure that the infrastructure could operate effectively within the realities of the local environment. The project also incorporated climate-related safety considerations into flood modelling to account for the increasing uncertainty associated with future rainfall patterns and extreme weather events.

Climate adaptation embedded in engineering

This kind of forward-looking design philosophy is becoming increasingly important across Africa. Infrastructure built today must be capable of performing under conditions that may look very different in 20 or 30 years' time. Climate adaptation can no longer be treated as a secondary consideration or compliance requirement; it must be embedded within the engineering process itself.

> "Equally important is the recognition that energy infrastructure does not operate in isolation. Large-scale infrastructure projects often require supporting ecosystems that enable long-term operational success and community benefit. In Burundi, this included not only the dams, tunnels, penstocks and powerhouses associated with the hydropower schemes, but also permanent access roads, housing and support infrastructure. These elements are sometimes viewed as secondary components, yet they are essential to creating infrastructure systems which are functional, maintainable and socially sustainable."

Equally important is the recognition that energy infrastructure does not operate in isolation. Large-scale infrastructure projects often require supporting ecosystems that enable long-term operational success and community benefit. In Burundi, this included not only the dams, tunnels,

The Jiji and Mulembwe hydropower project incorporates advanced water infrastructure and Pelton turbine technology.

penstocks and powerhouses associated with the hydropower schemes, but also permanent access roads, housing and support infrastructure. These elements are sometimes viewed as secondary components, yet they are essential to creating infrastructure systems which are functional, maintainable and socially sustainable.

For engineering partners working across Africa, this demands multi-disciplinary collaboration on an unprecedented scale. Engineers, environmental specialists, hydrologists, planners, project managers and community stakeholders must increasingly work together to deliver infrastructure that is technically sound, socially responsive and economically viable.

Immense renewable energy potential in Africa

The continent's infrastructure future will depend on this kind of integrated thinking. Africa possesses immense renewable energy potential, but unlocking it will require more than financing and technical capability alone. It will require partnerships built on shared developmental objectives, strong local understanding and a commitment to infrastructure that creates lasting human value.

Importantly, projects such as Jiji and Mulembwe also demonstrate how infrastructure investment can contribute to broader national development priorities. Reliable electricity supply supports industrial productivity, improves healthcare and education outcomes, enables digital connectivity and creates conditions for economic participation and job creation. Energy infrastructure therefore becomes not only an engineering asset, but a catalyst for inclusive growth.

As African countries continue navigating the energy transition, the focus must remain on infrastructure which is resilient, adaptable and people-centred. Success will not be measured solely by the scale of generation delivered, but by the long-term impact infrastructure has on communities, economies and national development trajectories. Engineering has a critical role to play in shaping that future: not simply by building assets, but by helping create systems that allow societies to thrive sustainably over generations. ■

> "Today resilience must sit at the core of infrastructure delivery. That means engineering projects which can withstand changing climatic conditions, accommodate future demand and operate sustainably over decades. It means accounting for sedimentation, flood risk, seismic activity and environmental impacts from the earliest design stages."

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Architect: Premo Consulting

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FUNDING WHEN SMEs NEED IT MOST

South Africa's construction sector generates 130 000 jobs per quarter and is heading into a R1 trillion infrastructure cycle, but the businesses delivering the work still struggle to access the construction finance they need to mobilise projects from day one.

Lula is a dedicated SME funding platform offering easy and convenient funding of up to R20 million within 24 hours. Its cash flow facility operates as a line of credit, without monthly accounting or administrative fees – clients only pay for what they use. The platform's fixed-term funding provides a lump sum with a repayment period of three, six, nine or 12 months, with no penalties for early repayment.

Speaking at the 14th edition of Big 5 Construct SA, Clinton Thomas, head of product at Lula, brought this reality to light.

"The cash flow problem facing construction SMEs isn't a symptom of poor management; it's baked into the project cycle itself. The business wins the tender, orders the materials and starts the work, but payment only arrives months later. This is the reality of construction financing in SA, where contractors often need access to working capital long before they can invoice or receive payment. Instead of bottlenecks, SMEs need finance that gets them on site with the right materials at the right time."

For many SMEs, access to tender finance in the weeks between award and mobilisation is the difference between delivering on time and losing the contract entirely. Small contractors fall behind because the funding they need arrives after the costs they need to cover, impacting service delivery, timelines and liquidity. With the South African construction market expected to reach R160,65 billion in 2026 at a 4,8% annual growth rate, and the public-sector infrastructure spend forecast anticipated to reach R1,06 trillion over the 2026-2029 medium-term expenditure framework, SMEs need better cash flow support.

The data Lula brought to the Big

> "What construction SMEs need is working capital that moves at the speed of a project, not a bank's credit committee. They should be supported by a different approach to underwriting that bypasses conventional credit assessments built around static financial snapshots and instead focuses on real-time transaction data."

5 Construct SA stage also challenged a widespread assumption about the sector. Construction SMEs are in demand, but their growth depends on funding the gap between a project being awarded and the income it eventually generates.

Construction accounts for 15% of Lula's total book exposure and the company has issued over 16 000 advances to more than 4 000 companies at an average of R370 000. Around 37% of the advances within the construction sector exceed R250 000 and nearly 10% are more than R1 million.

At the end of Q2 2025, nearly 96 000 government invoices older than 30 days – a combined value of R12,4 billion – remained unpaid, while private-sector payment cycles can stretch upwards of 150 days. This constricted flow of cash has been disrupting project delivery for years and, with construction firms forming a significant slice of SA's SME base, it is easy to see how liquidity has become a systemic bottleneck. Currently, more than two-thirds of SMEs expect to require additional financing within six months to fund working capital and 40% are relying primarily on self-funding.

There are multiple cost categories sitting inside this gap: upfront materials, weekly wages and sub-contractor fees, equipment, fuel and transport, supplier deposits, retention periods and the compounding pressure of running multiple live projects simultaneously. For many businesses, access to a building material loan or other forms of short-term construction finance can determine whether a project starts on time or falls behind schedule with consequences that extend into other contracts, supplier relationships, reputation and the ability to bid competitively for the next opportunity.

When capital is structured around the friction points experienced by the SME, then it ensures that they have the liquidity they need to put materials on site before invoicing. This ensures that companies can mobilise immediately and deliver on time despite payment delays. Modern solutions are more sensitive to the needs and pain points of a sector set to boom by providing frictionless access to the right resources.

"What construction SMEs need is working capital that moves at the speed of a project, not a bank's credit committee. They should be supported by a different approach to underwriting that bypasses conventional credit assessments built around static financial snapshots and instead focuses on real-time transaction data," explained Thomas. Lula's model makes funding decisions that reflect how an SME actually trades across the frequency, consistency and pattern of its inflows." ■

For further information, visit: www.lula.co.za.

> **"The Big 5 Construct SA stage also challenged a widespread assumption about the sector. Construction SMEs are in demand, but their growth depends on funding the gap between a project being awarded and the income it eventually generates."**

WHY CAPITAL-HOLDERS SHOULD FUND SA'S AFFORDABLE HOUSING

Bureaucratic inefficiencies, restrictions on debt enforcement and misdirected blame are driving private capital away from what could be a lucrative housing market, says Renier Kriek, MD of innovative home loan provider Sentinel Homes.

"Unless government changes its policies and practices, investors and consumers will remain locked out of South Africa's gap market," he says.

If such changes do not happen, market players could lose out on trillions of rands in investment returns.

The market as it stands

SA continues to face a severe housing shortage. Speaking at the Innovative Building Technologies Summit in February this year, President Ramaphosa declared a backlog of 2,5 million-3 million homes.

The country's housing market is divided into three main segments:

- The RDP/low-income segment, comprising households earning R3 500 or less per month, makes up about 40% of the market.
- The gap market, with households earning R3 501-R25 000 per month and house prices ranging from R351 000-R700 000, is roughly 30% of the market.
- The affluent segment, consisting of households with income over R25 000 per month and homes valued above R700 000, accounts for the remaining 30% of the market.

2026 research from the Centre for Affordable Housing Finance indicates that the gap market is now the hardest hit by the crisis. The shortage is prevalent in both the owned property and rental accommodation segments.

Failed financing

The exact value of the gap market is unknown. However, 3 million homes priced from R351 000-R700 000 suggests a market value of R1 trillion-R2 trillion in units sold alone.

These optimistic estimates do not account for subsequent rental income or secondary income, such as interest on mortgages or the dividend or trading value of property stocks. Yet, despite enormous demand and incredible earning potential, the flow of private capital into this segment remains muted.

To put this in perspective, the SA home loans book comprises about 1,6 million accounts, but using census data, there are about 18 million households in the country.

There is no chance of addressing this severe dearth of housing finance unless it becomes a key area of policy concern for government, as well as private-market actors.

According to the National Credit Regulator's *Consumer Credit Market Report* for the second quarter, published in June 2025, 70,2% of mortgages granted over that period went to R700 00- plus properties. In contrast, gap market mortgage grants were just under 20%.

In addition, new developments that could bring much-needed stock into the gap market are severely lacking. Lastly, the introduction of Basel IV into the banking system threatens to increase the cost of home loans.

Therefore, an arbitrage opportunity exists for non-banking institutes, who are not subject to these requirements, to leverage new regulatory inefficiencies to turn a profit.

"The gap market should be no less profitable than any other, so the lack of capital allocation tells us that there's some impediment holding investment back," says Kriek.

Flawed market design

He attributes the problem to market design flaws that create enough risk to dissuade investors from committing capital.

These include:

- **Bureaucratic inefficiencies:** Red tape and corruption that increase the time and cost of releasing land, housing scheme approvals and other concerns have

forced developers to favour projects in the more affluent market.

- **Enforcement restrictions:** The inability to swiftly foreclose on bond-holders or evict tenants in arrears has made lenders and landlords hesitant to service the gap market, where delinquency is statistically higher than in the upper market. Court backlogs and extended processes such as debt reviews only compound the problem. Welcome relief is provided to this problem by the proposed amendments to the Prevention of Illegal Eviction From and Unlawful Occupation of Land, Act 19 of 1998 (PIE Act), which governs evictions and was published for comment by the minister in April this year. These will exclude delinquent tenants from the operation of PIE and revert their handling to the position before 2003, if it survives into the final version of the Bill.
- **Misdirected blame:** Instead of recognising weaknesses in its own systems, government has consistently directed blame for lack of investment in affordable housing towards commercial entities, such as banks (claims of institutional racism and other aspersions) and short-term rentals, like Airbnb and traditional BnB providers.

Overall, government's ideological approach to what is perceived as fairness and equality in housing enforcement has the unintended consequence of chasing investors away – the easier it is to recover deployed capital from delinquent tenants or borrowers, the more capital will be deployed.

It may seem callous to evict tenants or foreclose on bond-holders who are financially distressed. However, current laws and practices cause capital-holders to avoid the risks inherent in them, leaving the gap market underserved.

"By protecting a relatively small minority of delinquents, government's denying the majority their constitutional right to access to adequate housing," says Kriek.

What needs to happen

Government's role is to design the market in a way that encourages capital allocation. It is obvious from the lack of investment in gap market housing development that the existing approach has failed not only consumers, but investors too.

"It's high time that investors publicly recognised what a huge opportunity cost this is for them – they're losing unrealised returns every day because the market's broken," says Kriek.

To address the opportunity costs of the poorly designed market, holders of capital must pressurise government to make positive changes, using every opportunity and instrument available to them.

Fast housing stock delivery and rapid debt enforcement will release capital deployment, leading to a thriving market and ample housing. It is that simple.

"This means that government will have to make unpopular choices, but it must do so or the crisis will only get worse," says Kriek. "We can plainly see that no progress is being made from housing supply expansion data, which shows that SA produces only about 300 000 housing units every decade at the current pace.

"This pales in comparison with the size of the unhoused population, or the size of the housing market in general. Australia, on the other hand, has less than half our population, but produces 200 000 housing units each year – and it still has a housing affordability problem!" ■

NON-SET-ACCELERATING CORROSION INHIBITOR ADMIXTURES

As temperatures climb globally, the Cortec® Corporation encourages contractors and specifying engineers to weigh the importance of selecting non-set-accelerating corrosion inhibitor admixtures for their summer concreting projects. Options such as MCI®-2005 and MCI®-2005 NS make it possible to survive peak construction season without exacerbating the negative effects of hot temperatures on concrete workability.

Hot weather challenges for calcium nitrite admixtures

"During hot seasons, elevated temperatures accelerate cement hydration and increase the rate of heat generation within the mix. This leads to the high possibility of shrinkage and thermal cracking, along with loss of workability and finishing time, ultimately reducing overall durability. Adding calcium nitrites to the mix only amplifies these problems due to the inherent accelerating properties of calcium nitrite, making managing the mix much more challenging," explains Cortec® MCI® technical sales and product manager Ashraf Hasania.

How to minimise corrosion inhibitor set-acceleration during heat waves

In contrast to calcium nitrite inhibitors (CNI), MCI® (Migrating Corrosion Inhibitor™) admixtures do not accelerate – and, in some cases, even delay – concrete set time, making it easier for contractors to work with the mix and minimise negative side-effects of set acceleration.

Avoiding cold joints in a luxury condo parking garage

One example of the advantages of MCI® admixtures comes from a luxury condo project in Toronto, Canada. As the contractor started pouring the parking garage, temperatures hovered

around 38°C. The use of CNI to protect reinforcing steel from corrosion accelerated the set time so much that cold joints began to form, creating potential weak points for the future. At the suggestion of Ontario construction company Form & Build Supply, the contractor decided to switch to MCI®-2005 NS, an MCI® admixture that would not accelerate set time. This allowed it to remove set retarders (used to counter-balance calcium nitrite) and finish the garage with no further early set problems.

Excellent PT mix experience at Midwestern parking garage

In another case, a post-tension (PT) parking ramp being constructed for a multi-use facility in the US Midwest required corrosion inhibitors for protection against the corrosive effects of frequent freeze-thaw cycles and the use of de-icing salts in the region. A recent bad experience with CNI prompted the contractor to try MCI®-2005 NS as an alternative. Still, the contractor was hesitant to start the pour in the middle of a heat wave, with a heat index of 38°C as early as 09:30. Reassured that normal procedures for hot weather pours could be followed, the contractor added 59ml of set retarder along with other materials typically used to combat hot weather set acceleration. It soon found that the MCI®-containing mix was much easier to work with than CNI. A 20cm slump and significantly more bleed water than past CNI mixes promised good finishing and less plastic shrinkage cracking. The whole experience left the general superintendent declaring that it was the best PT mix he had ever worked with and he never wanted to go back to the previous corrosion inhibitor.

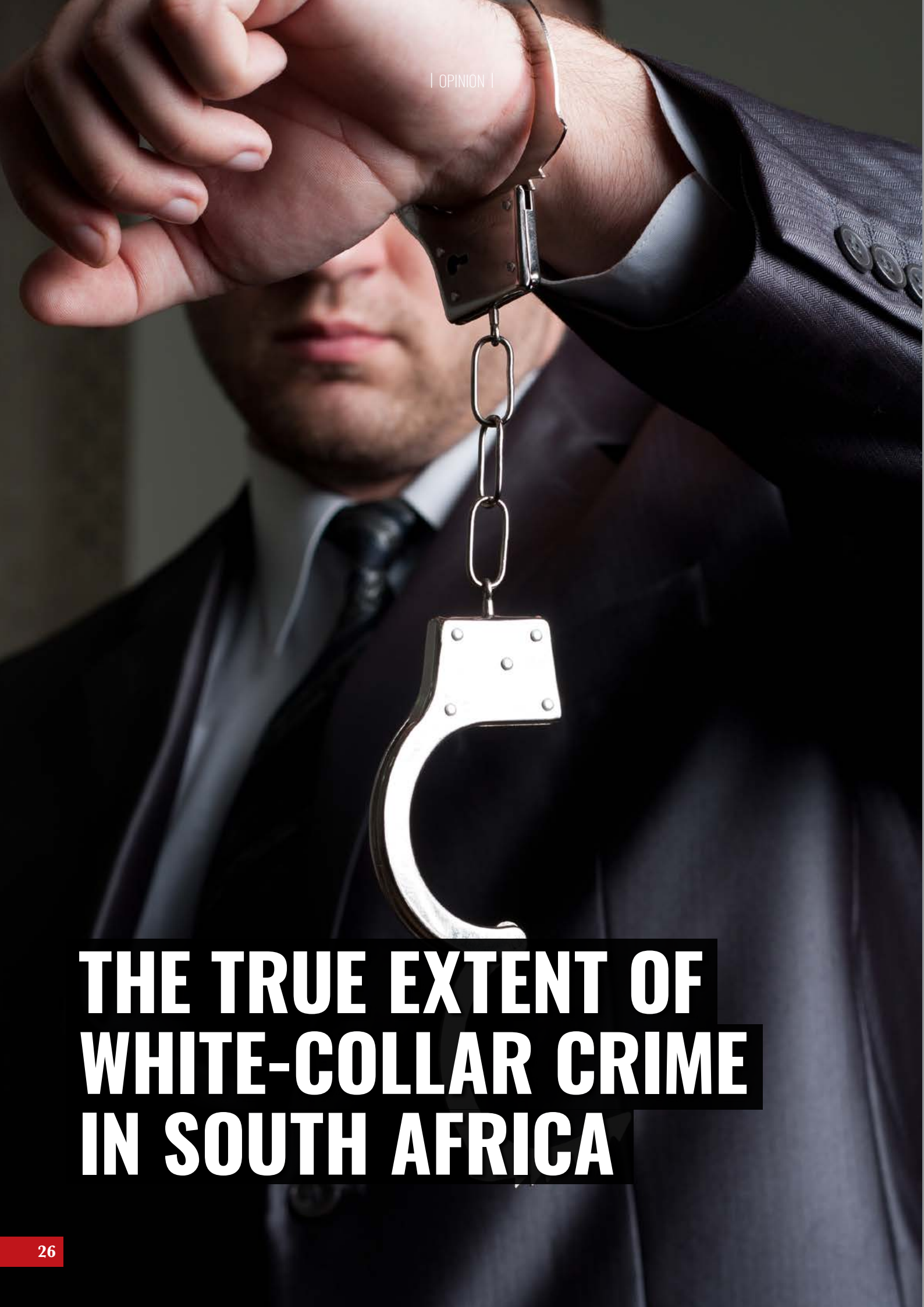
How MCI® concrete admixtures work

MCI® admixtures are considered "mixed" corrosion inhibitors because they adsorb on reinforcing steel to form a protective molecular layer that inhibits both anodic and cathodic corrosion reactions. MCI®-2005 NS is a "normal set" version of MCI® which can be added at the ready-mix plant or mixed into the batch on site at a rate of 1L/m³, independent of the expected chloride threshold rate. MCI®-2005 is similar, but dosed at a fixed rate of 0,6L/m³. It offers set-retarding effects and contains 67% USDA-certified biobased content for those interested in enhanced sustainability.

Preparing for hot weather pours

When it comes to applying corrosion-inhibiting admixtures in hot weather, normal set or set-retarding admixtures that work independently of expected chloride levels offer a clear advantage over set-accelerating admixtures like CNI. ■

> "During hot seasons, elevated temperatures accelerate cement hydration and increase the rate of heat generation within the mix. This leads to the high possibility of shrinkage and thermal cracking, along with loss of workability and finishing time, ultimately reducing overall durability. Adding calcium nitrites to the mix only amplifies these problems due to the inherent accelerating properties of calcium nitrite, making managing the mix much more challenging."



THE TRUE EXTENT OF WHITE-COLLAR CRIME IN SOUTH AFRICA

> "Sometimes matters are resolved quietly through resignations, confidential settlements or disciplinary exits that never reach regulators or law enforcement at all. The result is that a significant portion of commercial crime remains largely invisible outside the organisation where it occurred. This creates a dangerous gap between perceived risk and actual exposure."

Elani Vogel, senior forensics manager: Loxton Forensics.

Every year, reports of fraud, corruption, procurement irregularities, cybercrime and financial misconduct continue to place pressure on both public and private institutions in South Africa.

Yet many governance professionals, investigators and risk specialists would argue that the real scale of white-collar crime in SA is likely far greater than what official numbers reflect. "One of the biggest reasons is under-reporting," says Elani Vogel, senior forensics manager at Loxton Forensics.

Many organisations choose not to report incidents externally, even after internal investigations confirm serious misconduct. In some cases, leadership fears reputational damage or shareholder concern. In others, organisations want to avoid lengthy legal processes, operational disruption or public scrutiny.

Sometimes matters are resolved quietly through resignations, confidential settlements or disciplinary exits that never reach regulators or law enforcement at all. The result is that a significant portion of commercial crime remains largely invisible outside the organisation where it occurred. This creates a dangerous gap between perceived risk and actual exposure.

When organisations assess white-collar crime only through reported statistics, they may underestimate how deeply governance failures, procurement manipulation, financial misconduct and digital fraud have become embedded across industries.

It also creates the impression that major incidents are isolated exceptions, rather than symptoms of broader systemic pressures that continue to affect organisations operating in increasingly complex environments.

Several factors are contributing to this trend:

Economic pressure continues to intensify across many sectors, placing strain on organisations, employees and operational systems. Digital transformation has created enormous efficiencies, but it has also introduced new vulnerabilities that sophisticated fraud networks are exploiting with increasing speed and precision.

At the same time, governance fatigue can quietly weaken oversight environments, particularly when compliance becomes procedural, rather than investigative in mindset.

Sophistication on the rise

White-collar crime has also become significantly more sophisticated. Fraud schemes increasingly involve digital manipulation, layered supplier relationships, falsified documentation, cyber-enabled deception and co-ordinated activity across multiple individuals or entities.

These are not always opportunistic incidents carried out by isolated actors. In many cases, they are structured schemes designed to exploit governance weaknesses that remain undetected for extended periods.

Perhaps the most concerning consequence of underreporting is the cultural effect it can create inside organisations. When employees see misconduct handled quietly or inconsistently, confidence in accountability structures begins to weaken.

Effects of under-reporting

Over time, this can normalise silence, discourage whistle-blowing and create environments where unethical behaviour is more likely to remain hidden beneath the surface. This is one of the reasons forensic investigations are becoming increasingly important within modern governance frameworks.

Strong investigations do more than establish facts after an incident occurs. They help organisations identify systemic weaknesses, strengthen accountability structures, preserve evidence credibly and demonstrate that misconduct will be addressed transparently and professionally.

Importantly, the goal is not only to react to crises after they emerge. It is to build governance environments where risks can be identified earlier, investigated properly and prevented from escalating into broader organisational failures.

SA's white-collar crime challenge cannot be understood only through the cases that become public. Many of the most significant risks are the ones that remain hidden for years inside systems that appeared stable on the surface. This is why visibility, investigative readiness and strong governance have become so critical in today's environment. ■

Modular classrooms – economical, versatile and quickly available.

BUILDING THE FUTURE OF LEARNING

By Brennan Heugh, rentals and sales executive: Waco Modular

South Africa's private-school sector is experiencing steady growth as increasing numbers of families seek alternative education options. While this growth reflects confidence in the sector, it is also creating new infrastructure pressures, with many schools needing to expand capacity faster than traditional construction methods can accommodate.

According to a World Bank Economic Update, SA will need to accommodate 1,2 million additional scholars by 2030, highlighting a growing gap in educational infrastructure.

This surge in demand is outpacing traditional building timelines, forcing institutions to rethink how quickly they can expand. In response, modular classrooms have shifted from a stop-gap measure to a strategic necessity, offering schools a way to scale at the pace parents now expect.

Modular construction allows schools to deploy fully equipped classrooms in a fraction of the time required for traditional builds. Because most of the work happens off-site, installation causes minimal disruption to teaching and campus operations.

Unmatched pace of modular construction

For example, a modular classroom from an existing rental fleet can typically be delivered and installed in about a week, while newly manufactured units are ready within three to four weeks. This pace is unmatched by traditional bricks-and-mortar construction, which often stretches over several months once design, approvals and site work are factored in.

The speed advantage alone makes modular infrastructure a compelling choice for schools that need additional capacity immediately, rather than months down the line.

Just as importantly, modular solutions ease the financial burden by reducing upfront capital expenditure, particularly through rental models, freeing schools to

direct more of their budgets towards core educational priorities rather than long-term infrastructure commitments.

Instead of locking funds into long-term infrastructure projects, schools can preserve cash flow and channel resources into their core educational offering, while still expanding capacity quickly and effectively, without compromising financial flexibility.

Offering unmatched flexibility

Speed and affordability are only part of the equation. Modular classrooms offer a level of flexibility that permanent structures simply cannot match. They can be expanded, reconfigured, relocated or even stacked into multi-storey formats as campus needs evolve.

This adaptability allows schools to respond quickly to fluctuating enrolment numbers or shifting spatial requirements, without being locked into the constraints of fixed, traditional buildings.

At the same time, modular units are produced in a controlled manufacturing environment governed by rigorous quality-management systems, including ISO 9001 and ISO 14001 certification. This disciplined approach ensures consistent build quality, long-term durability and full compliance with relevant safety and environmental standards. The result is reliable, high-performance infrastructure that schools can trust to deliver over many years.

Brennan Heugh, rentals and sales executive: Waco Modular.

Trusted solution in private education

Modular infrastructure has become a trusted solution within the private education sector, with many schools relying on it year after year to manage growth.

At Hoërskool Menlopark, 13 modular classrooms have been added over the past seven years, with a further two scheduled for installation at the end of the 2026 academic year. King's College currently rents 13 modular classrooms, including three double-storey units, to accommodate rising scholar numbers. Curro Northriding is another long-standing user, with 17 modular classrooms supporting its expanding campus.

These repeat engagements demonstrate the scalability, reliability and long-term value that modular solutions offer schools navigating continuous and often unpredictable demand. More importantly, they show that modular infrastructure is not merely a temporary fix, but a proven long-term strategy for managing growth.

In essence, modular infrastructure allows schools to match classroom capacity directly to real enrolment demand. Instead of committing to permanent builds too early, schools can scale up or down as needed, particularly ahead of new academic years, without locking themselves into long-term structures prematurely. This reduces financial and operational risk, while enabling a far more agile approach to long-term campus planning.

Accommodating growing scholar numbers

Ultimately, modular classrooms offer a fast, dependable way to accommodate growing scholar numbers, with unmatched flexibility to expand, reconfigure or relocate as needs evolve. Rental models further ease financial pressure by reducing capital expenditure and preserving cash flow, while rapid, low-disruption installation keeps teaching uninterrupted.

Backed by proven performance across the education sector, modular solutions have become a practical, future-ready approach for schools seeking to grow without compromising agility or quality. As scholar demand continues to rise, modular construction will play an increasingly important role in helping private schools expand sustainably, efficiently and with confidence. ■

> "South Africa's private-school sector is experiencing steady growth as increasing numbers of families seek alternative education options. While this growth reflects confidence in the sector, it is also creating new infrastructure pressures, with many schools needing to expand capacity faster than traditional construction methods can accommodate."

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FIRST DIRECT-CURRENT INTERCONNECTION BETWEEN EUROPE AND NORTH AFRICA

Terna, the company that manages the Italian national electricity transmission grid, led by Pasqualino Monti and STEG, the Tunisian electricity and gas grid operator, have awarded Hitachi Energy, a global leader in electrification, a contract worth approximately €770 million (about R14 396 397 400) for the construction of the converter stations for the Elmed project, the first electricity interconnection between Italy and Tunisia.

The awarding of the contract for the converter stations marks the completion of the procurement process for the first high-voltage direct current (HVDC) submarine link between Europe and North Africa.

The tender, published in 2023 jointly by Terna and STEG in the *Official Journal of the European Union*, concerned the design, supply and construction of the converter stations for the interconnection, one of the infrastructural projects included in the Mattei Plan for Africa to strengthen economic, energy and geopolitical partnerships between Europe and African countries.

The two infrastructures now awarded will be built respectively in Italy in Partanna, in the province of Trapani and in Mlaabi, in the Menel Temime area of Tunisia. The link, powered by advanced HVDC technology, will have a capacity of 600MW and will extend for about 220km, mostly via submarine cable, reaching a maximum depth of about 800m in the Strait of Sicily.

Hitachi Energy is responsible for providing the HVDC solution that combines world-leading expertise in HVDC converter valves, its MACH™ digital control platform, power transformers and high-voltage switchgear, as well as system studies, design and engineering, supply, installation supervision and commissioning. The project will leverage its expertise developed through the successful delivery of some of the world's largest and most significant interconnection projects.

Other companies in the consortium, including D'Agostino Costruzioni Generali SpA for the Partanna station and Orascom Construction SAE for the Mlaabi station, will mainly carry out civil works as well as electromechanical installations and auxiliary systems.

Representing a significant step towards greater interoperability between Euro-Mediterranean electricity systems, Elmed fits into a context in which governments and transmission system operators worldwide are accelerating investments in transmission infrastructure, in preparation for a fully electrified system: a system capable of integrating renewable energy sources on a large scale, strengthening cross-border interconnections and increasing energy security.

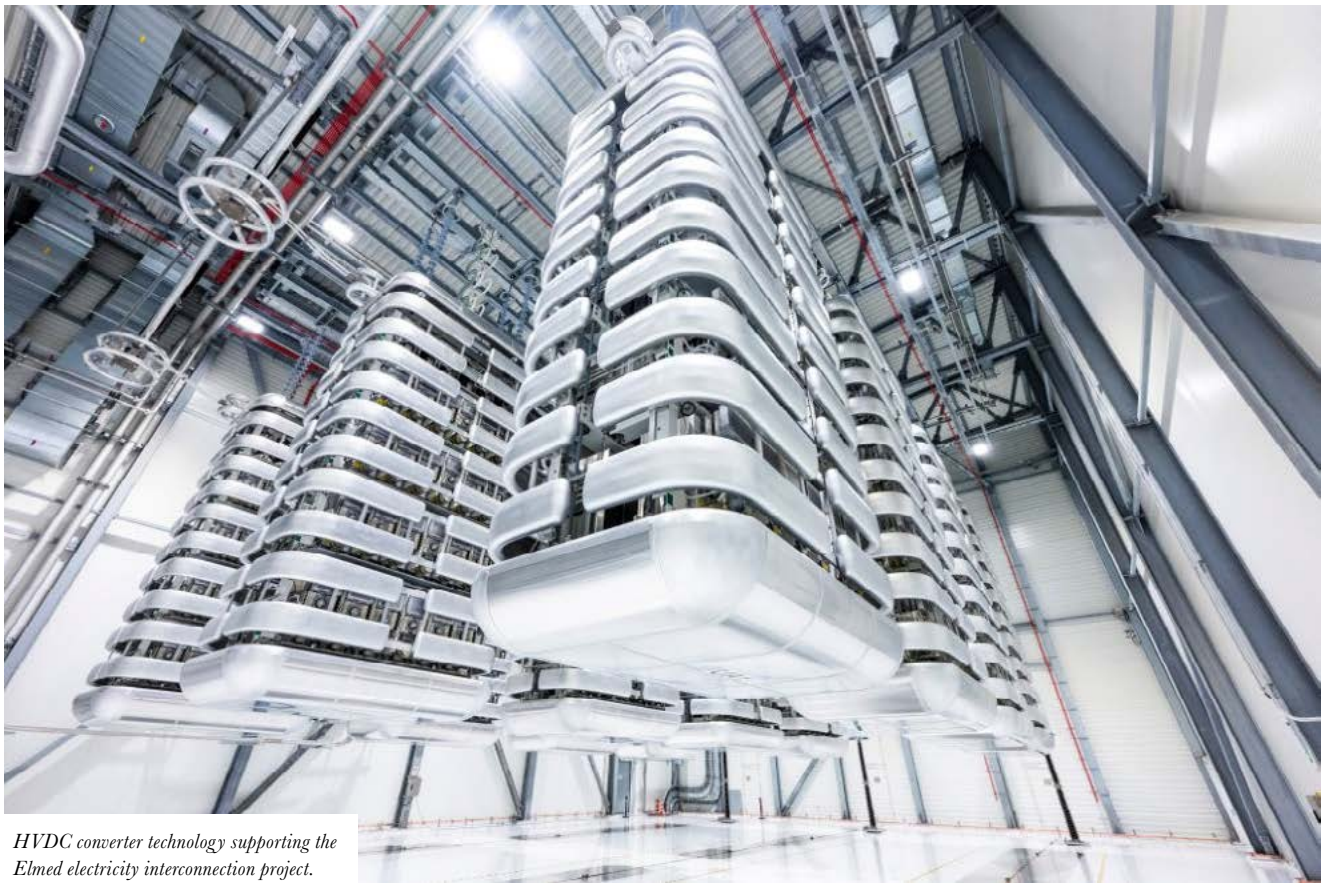
Elmed is a major infrastructure project for strengthening energy security and integrating electricity systems between Europe and North Africa, in line with the objectives of the energy transition and market integration defined by the Integrated National Energy and Climate Plan.

The project, which is strategically important for Tunisia, enjoys the full support of the Tunisian authorities and is part of the national vision aimed at strengthening energy security, promoting the regional integration of electricity markets and supporting the energy transition.

Elmed also strongly supports the dual objective of the European Commission's REPowerEU plan: ending the dependence of the European Union (EU) on fossil fuels and achieving decarbonisation targets, primarily through diversifying energy supplies and developing renewable energy.

Of the total investment for the electricity link (€1,420 million – about R26 545 551), €307 million (about R5 739 518 500) has been allocated by the European Commission through the Connecting Europe Facility (CEF) grant programme managed by CINEA. For the first time, the EU has financed a project involving a non-member country, confirming the importance of the interconnection project.

The project is also supported, on the Tunisian side, by additional European and international financial institutions such as the World Bank, the European Investment Bank, the European Bank for Reconstruction and Development and KfW. ■



HVDC converter technology supporting the Elmed electricity interconnection project.

89TH IMESA CONFERENCE & EXHIBITION

South Africa's infrastructure challenges have never been more pressing. From ageing municipal assets and growing service delivery demands to climate resilience, urbanisation and constrained budgets, the need for innovative, practical and sustainable engineering solutions is a national priority.

Against this backdrop, the 89th IMESA Conference & Exhibition will bring together the country's leading municipal engineering professionals, infrastructure experts, policy-makers, academics and industry partners to learn, share knowledge and network. The event takes place at the Durban International Convention Centre from 28-30 October 2026. Everyone who has an interest in municipal infrastructure engineering is urged to register to attend.

Hosted by the Institute of Municipal Engineering of Southern Africa (IMESA), the conference has become a leading fixture on SA's engineering calendar since its inception nearly nine decades ago. It offers a vital platform for collaboration and problem-solving, which is more important than ever at a time when municipalities face unprecedented pressure to deliver reliable infrastructure and services. This year, the conference will be held under the theme "Blueprints Reimagined Judiciously", which is a call for infrastructure professionals to rethink traditional approaches while balancing innovation with sound engineering judgement and responsible stewardship of public resources.

The IMESA Conference attracts exhibitors, speakers and delegates from around the world. It delivers international insights and best practices while remaining firmly grounded in SA's infrastructure context, says the institute. The compelling 2026 programme offers delegates access to technical presentations, case studies, industry innovations, networking opportunities and discussions focused on the real-world challenges facing municipalities and infrastructure engineers.

A standout feature of IMESA 2026 is its extensive programme of technical tours, offering behind-the-scenes access to some of the region's most significant infrastructure projects. Delegates can choose from site visits to the upgrade of the strategic N3 corridor between Key Ridge and Hammarsdale, Dube TradePort's world-class logistics and manufacturing facilities, the Durban Harbour Tunnel infrastructure system and the innovative Latrine Dehydration and Pasteurisation sanitation technology project which is transforming pit latrine sludge into pathogen-free fertiliser. These tours provide invaluable practical insights into engineering excellence in action.

The conference includes a major industry exhibition showcasing the latest technologies, products, services and solutions supporting municipal engineering, infrastructure design and management, and service delivery. Exhibitors will have the opportunity to engage directly with a highly targeted audience of municipal engineers, infrastructure planners, asset managers, consulting engineers, contractors and public-sector decision-makers, making the exhibition one of the most influential infrastructure-focused business platforms in southern Africa.

For infrastructure engineers and municipal officials committed to building healthy, resilient, sustainable and successful communities, IMESA 2026 is not to be missed. ■

For further information or to register to attend, contact Debbie Anderson on tel: 083 326 3050 or email: marketing@imesa.org.za.

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