INFRASTRUCTURE

New opportunities for funding set to resolve backlogs, aid delivery
SOUTH AFRICA DESERVES WORLD-CLASS INFRASTRUCTURE.

Our country is on a multibillion-rand development drive to meet the demands of a growing economy and population.

From KwaZulu-Natal to the Eastern Cape, Gauteng to Limpopo and anywhere in between, SANRAL’s world-class road infrastructure development projects support the goals of South Africa’s National Development Plan. Each and every one of our projects helps to address poverty, unemployment, income equality, while supporting the broader goals of national and regional development, transformation and empowerment.

To us, a road is not just a road. It is how we link South Africa to the future.

SANRAL. Beyond Roads.
SA faces service delivery backlogs

Policy uncertainty and skills shortages have caused major delays in the country’s infrastructure delivery

SA, like many African countries, is being affected by slow economic growth, which has resulted in a lack of funding and investment in infrastructure development. The SA Institute of Civil Engineering’s 2017 Infrastructure Report Card gave SA’s infrastructure an overall D+ grading, indicating that infrastructure is at risk of failure. SA’s infrastructure is not coping with demand and is poorly maintained.

Fixed capital investment into infrastructure, particularly where it requires large civils-type involvement, has traditionally been a part of the kick-start to any economic growth cycle. However, says Jurie Swart, CEO of African Infrastructure Investment Managers (AIIM), one of Africa’s largest and most experienced infrastructure-focused private equity fund managers, it’s hard to see where that investment is going to come from in the current environment.

Limited technical skills
One of the reasons cited for SA’s poor infrastructure delivery is the public sector’s lack of capacity and limited technical skills and expertise for infrastructure projects.

According to Consulting Engineers SA (Cesa) CEO Chris Campbell, there is a dire shortage of engineers at a municipal level. “Only 55 out of 278 municipalities have engineers leading their technical divisions, despite the fact that budget in most cases has been allocated for their appointment.”

He says while initiatives have been launched to help train engineering graduates for the role of municipal engineers, these recruits have experienced huge frustration in the public sector with little or no mentorship, while experienced engineers have all too often been disempowered or wrongly accused of maladministration and left the public sector due to frustration.

Cesa has offered to assist the government with engineering skills and improve governance within municipalities, though the government has yet to accept this offer, says Campbell. “The private sector has the capacity – and the will – to assist the public sector with appropriate engineering skills with compensation based on measurable outcomes and following the principles of good governance. There is a wealth of expertise on how to effectively deliver on infrastructure projects within the private sector and help unblock the public sector’s project pipeline.”

Procurement
One of the many reasons for the blocked pipeline is an inherent conflict between government supply chain management regulations and the infrastructure contracting process. Campbell says supply chain regulations are predicated on a maximum period of three years. Infrastructure projects, however, typically take more than three years to complete. Once the three-year threshold has been reached, service provider contracts are terminated even when the work is incomplete — often not through the consultant’s fault but due to budget constraints and delays on the part of the client. If a new service provider is appointed it is usually at a higher price. “This must surely be considered wasteful expenditure,” says Campbell.

He says the problems start with the public sector’s procurement process: tender documents are typically poorly conceived, with the result that companies bid on projects with the incorrect technical scope of works.

What it means:
Good governance, expert skills, partnerships between public and private sector are required to unlock funding, aid delivery
special report infrastructure

service. Public sector bid documents and project contracts are not standardised, which adds to the overall cost for companies wanting to provide consulting engineering services, he says. Added to this, tenders are frequently cancelled after bids have been submitted, which places additional strain on engineering and construction firms.

"There is little cognisance paid to the cost of compiling a bid, which could otherwise be invested in providing actual project solutions as opposed to the onerous and costly process of open tendering for professional engineering services," says Campbell.

"The first 18 months of this three-year contract are lost to environmental impact assessments. That leaves just 18 months for the preliminary design, detailed design and construction supervision. And as there is generally no rollover budget, projects frequently get delayed due to a lack of funds."

The public sector’s infrastructure procurement is a counter-intuitive process, says Campbell: procurement for complex infrastructure required to last for up to five decades and requiring experienced professional engineering skills is made on the basis of low-cost appointments of service providers. "Infrastructure is not an off-the-shelf purchase," he says. "It can’t be procured by choosing the cheapest price. You need innovative solutions that take the entire life cycle of the asset into consideration, using the professional expertise of experienced consulting engineers. Appointing the cheapest service providers is likely to result in a much more expensive solution in the long term. Quality tends to come at a price."

The challenge facing construction and engineering companies in the current environment is twofold, says Campbell: on the one hand a shortage of projects means companies have less ability to retain staff and pay market-related salaries. On the other hand, and notwithstanding a competitive bidding process, it’s not uncommon in the current environment to find companies having to concede to substantial discounting in order to remain a potential bid recipient.

"It’s not a sustainable situation, he says. "Somewhere along the line the quality of service has to give."

The situation is also affecting the ability of engineering firms to take on new recruits in a training capacity, which means a host of unemployed graduates are struggling to find employment while more and more mid-tier engineers are taking up opportunities internationally.

**Policy certainty and transparent procurement**

In any country, the perception that there is corruption or mismanagement of procurement processes is an obstacle to attracting private sector investment into infrastructure, says Andre Wepener, head of power and infrastructure finance at Investec: "There is significant private sector liquidity available to fund infrastructure. However, there needs to be policy certainty and the procurement process needs to be transparent and perceived to be free of corruption. SA proved that this is possible through its highly acclaimed Renewable Energy Independent Power Producer Procurement Programme, which has successfully incorporated public and private partnerships. We now need to replicate this process into projects in other sectors such as water and sanitation, transportation, telecommunications and social infrastructure."

**Solutions**

In order to address the infrastructure delivery backlog, Swart says the government should continue to focus on creating an enabling environment through policies that crowd the private sector into large infrastructure projects.

Critically, he says, the construction mafia phenomenon needs to be dealt with far more urgently, given that it is paralysing the ability of the already constrained construction sector to execute projects. Other quick fixes that the government could adopt to ensure better value for money for infrastructure delivery are to centralise large infrastructure spend and support agencies that deliver.

SA has not supported and celebrated successful delivery agents in the past, says Swart, pointing out that the SA National Roads Agency has traditionally been an effective delivery agent. "The Gauteng Freeway Improvement Project became the stick for its back and a distraction, which took precedence over all its good work, with very little political support at a critical time," he says.

While the government is aware that it needs to overcome the funding gap at state-owned enterprises such as Eskom, and has some credible plans in place, simple economics dictate that it can’t resolve the issue until the economy is on a firmer footing, he says.

Cesa has called for the appointment of a technically competent chief director for infrastructure delivery to the National Treasury’s chief procurement office to ensure technically informed decisions are made to enable the efficient delivery of sustainable infrastructure. The association has also called for better alignment between the regulatory environment and providers of infrastructure.

Furthermore, municipalities need to recruit appropriately skilled personnel capable of accelerating municipal infrastructure and service delivery. "It’s not uncommon to find municipalities with no technical capacity, leading to budgets not being spent and returned to the National Treasury, with service delivery suffering," says Campbell, adding that Cesa has offered to partner entities providing support to municipalities to increase technical capacity.

Cesa has long advocated for better governance processes that would make it impossible for one person to be both player and referee. "The money is not in project management but in design and site supervision, and because no company should have their commercial opportunities limited, their roles should rotate in order to give each player the opportunity to play the oversight role," he says.

Siyanda Mflathelwa, a transactional lawyer at Deneys Reitz, says SA’s infrastructure finance division, says she is encouraged by the current regime’s attitude towards partnering the private sector. "President Cyril Ramaphosa seems to understand that public-private partnerships are the most efficient way to procure infrastructure projects."

However, she says, the trust deficit between the public and private sectors needs to be overcome so that the government can effectively work with the private sector to realise infrastructure projects.

**CRIMINAL ELEMENTS**

**Construction mafia disrupts infrastructure projects**

A concerning trend that started in 2016 is the proliferation of what has been dubbed the "construction mafia". This involves the appearance of a business forum on site, which demands a 30% stake in the business. In most instances the 30% constitutes a "protection fee" to stop other similar forums from arriving on site and demanding a similar fee.

The SA Forum of Civil Engineering Contractors says more than 180 projects — the majority of which are state-sponsored infrastructure projects — have been either disrupted or halted completely as a result. Among the worst hit have been a number of projects for the SA National Roads Agency. These include the R1.6bn Mntutu Bridge Project. A Saldanha Bay oil storage project, valued at R4.2bn, had to be halted in March this year.

Neither law enforcement nor any government agency has managed to effectively stamp out or even curb what frequently results in violence and destruction of property.
Here’s a cruel dilemma for any government. You’ve got a couple of billion dollars. Do you build a new road link between two key towns? Or do you build social housing countrywide for communities who desperately need it.

If you’ve got your eye on short-term electoral gains, you’ll go for the housing; if you’re taking a longer view on economic growth, you’ll choose the road – not because housing doesn’t matter, but because you’ve got a different investment focus.

The African Development Bank (ADB) writes in its 2018 African Economic Outlook: “Elections and political considerations can shift the composition of public spending towards ‘more visible’ current expenditures instead of capital expenditures. A major infrastructure project can easily take more than five years from inception to commissioning. So, governments might prefer not to undertake such projects in one or two years since they won’t be able to show outcomes ahead of the next election.”

One can only watch with envy as the likes of the United Arab Emirates, China and Switzerland routinely embark on bold infrastructure projects with time horizons measured in decades.

As the ADB acknowledges, the long-term impact of infrastructure on economic growth and inclusive social development is well documented. A road isn’t just a stretch of asphalt – just ask Johannesburg motorists and businesses inconvenienced by the current closure of a section of the N2 highway for repairs. It’s an economic artery that connects people, reduces travel times, and allows goods and services to flow.

Airports aren’t just for the rich. They facilitate trade and tourism. They generate substantial economic activity, as the warehouses, factories and offices on the way to O.R. Tambo airport show. In Europe, low-cost airlines like Ryanair and Easyjet have transformed the local economies around smaller regional airports, turning them into business and tourism hubs.

The magic of infrastructure is that it reduces the cost of doing business; and that helps to drive economic growth, expansion, jobs and tax revenues. These benefits are long-term, something easily overlooked in the immediate euphoria of the construction phase. For example, a 2015 study by KPMG found that the R27-billion Gautrain project had contributed R20 billion to provincial GDP over the six years it took to build. Construction sustained 121 000 jobs and increased government revenue by R5 billion. But that was only the start.

Today, fully integrated into the local economy, Gautrain is inevitably factored into corporate business plans. It is undoubtedly a factor in the continued frenetic expansion not just of Sandton, but also Rosebank.

The TRAC N4 toll road linking Maputo with Emalahleni is another example of infrastructure’s long-term spinoffs. Nelspruit and surrounding areas have experienced significant growth on the back of the increased trade and business efficiencies the road has brought.

Infrastructure feasibility studies are necessarily imperfect. They can never predict with certainty the economic benefits decades into the future; indeed, these may even be underestimated.

Take Dubai. In the 1970s, the small Gulf state invested heavily in diversification projects so bold they invited ridicule – a drydock that could handle the world’s largest ships, a mammoth aluminium smelter and a 66-berth seaport. “In hindsight, Sheik Rashid’s ideas were the best use of Dubai’s small oil revenues,” writes Jim Crane, in his seminal book, City of Gold. “The more [they] poured into ports, industry and airports, the faster the economy grew. State spending triggered a larger torrent of private investment.”

As a businessman, President Ramaphosa understands all this. His biggest challenge isn’t the why, but the how; how to get the relevant government departments cleaned up, skilled up and talking to each other so that infrastructure projects can move off the drawing board, where they can languish for years. An executed pipeline of bankable infrastructure projects would rapidly restore investor confidence.

There’s an estimated $100 trillion of public and private money under management worldwide, potentially looking for a home. If you get the right projects together at the right rates of return, with transparency and certainty of outcome, the money will flow. Can South Africa rise to the challenge of laying the infrastructural foundations for its economic future?

David Jones is an infrastructure finance transactor at RMB
The existing funding gap provides room for more players to develop new strategies that will attract investment.

● Africa’s infrastructure funding gap — the difference between what is invested early each year versus what is required to be invested each year — is estimated to be more than $30bn a year. A variety of research, including from the World Bank, shows that increased infrastructure development could have a positive impact on the continent’s economic growth trajectory.

However, most African nations, including SA, are not able to afford higher infrastructure spend. This funding gap is an ideal opportunity for private-public partnerships (PPPs) to provide long-term funding for African infrastructure, which should boost long-term growth on the continent, says Nazimeera Moola, co-head of SA & Africa Fixed Income at Investec Asset Management.

PPPs have started to gain traction not only in SA, but also on the continent. "The Emerging Africa Infrastructure Fund (EAIF), a $750m fund managed by Investec Asset Management, currently funds 42 projects across Africa, all of which are run by the private sector," says Moola, adding that one of the most successful countries in this space is Uganda, where the GET IT programme has provided a template for renewable PPPs.

Somaliland and Mali have also successfully used PPPs. "The EAIF has, for example, helped to finance the Tibone power plant in Somaliland, a 96MW power station which provides electricity to 15 million people," she says.

New players are starting to enter this space. The government of Uganda has identified 45 key infrastructure projects worth $2bn that will be rolled out over the next few years. More than 60% of these projects will be financed through PPPs.

Institutional investors, particularly pension funds which have a long investment horizon, are ideally suited to invest in infrastructure projects. However, pension funds in Africa are still relatively small, says Moola.

"Of those countries with reasonably sized pension funds, Namibia and Botswana are trying to channel their funds into infrastructure projects in their countries. However, the flow of projects in those countries has been slow.

Projects have been more plentiful in Nigeria and Kenya, where pension funds are relatively new and therefore risk-averse, requiring more liquidity — which infrastructure investing does not offer. In SA, institutional investors, and specifically pension funds, have historically supported SAx infrastructure programmes through state-owned enterprises’ debt, says Alastair Herbertson, a director at Investec Asset Management."

"There will be a number of opportunities for investors. Should the government decide to partner the private sector to develop the new infrastructure required for growth, particularly in corporate debt and equity, which will be required to grow capacity in the local market," he says.

A long-term investment Infrastructure projects are not a short-term investment; typically requiring investors to be invested for between 15 and 20 years. This means they are frequently not considered by commercial banks, which have a much shorter investment horizon.

"Of those countries with reasonably sized pension funds, Namibia and Botswana are trying to channel their funds into infrastructure projects in their countries. However, the flow of projects in those countries has been slow.

Projects have been more plentiful in Nigeria and Kenya, where pension funds are relatively new and therefore risk-averse, requiring more liquidity — which infrastructure investing does not offer. In SA, institutional investors, and specifically pension funds, have historically supported SAx infrastructure programmes through state-owned enterprises’ debt, says Alastair Herbertson, a director at Investec Asset Management."

"There will be a number of opportunities for investors. Should the government decide to partner the private sector to develop the new infrastructure required for growth, particularly in corporate debt and equity, which will be required to grow capacity in the local market," he says.

A long-term investment Infrastructure projects are not a short-term investment; typically requiring investors to be invested for between 15 and 20 years. This means they are frequently not considered by commercial banks, which have a much shorter investment horizon.

Similarly, says Moola, the mandates of pension and insurance funds in developed markets typically exclude investment in sub-investment grade debt, which means these funds are also not in a position to access infrastructure investment opportunities in many countries.

In order to attract private sector financing into infrastructure, projects need to be commercially and financially viable at initiation, says Moola. "The availability of reasonably priced debt is a key determinant of commercial viability. However, tough economic circumstances have also brought challenges that must be carefully considered with all new projects."

"These primarily include finding private sector sponsors still willing and able to bring projects to fruition; where offtake agreements are required, securing the revenue streams that will fund the projects; and retaining affordability for end-users of the newly built infrastructure," she says.

Goussard, reviewing benchmarks that could attract more investment

SA Infrastructure Fund

In September 2018 President Cyril Ramaphosa announced the establishment of a public-private infrastructure fund to be partly capitalised by government. The objectives of the SA Infrastructure Fund are to consolidate and co-ordinate infrastructure investments across municipal, provincial and national government and to ensure infrastructure spending is less fragmented and makes more efficient and effective use of resources.

The fund is run by a dedicated executive team within the presidency with project design and management and engineering expertise. Industry Insight senior economist David Metelerkamp says the fund is a good idea and a step in the right direction, but its success will hinge on the private sector’s appetite to invest in local infrastructure projects. He predicts, however, that there will be only limited interest from the private sector given the risks associated with entering into PPPs with the government.

Benchmarks index

One of the main constraints to infrastructure investment from the perspective of institutional investors is the lack of a benchmark, says Heleen Goussard, head of Alternative Investments at RisCura. While infrastructure performance indices which evaluate the risk-return profile of investing in infrastructure as an asset class are common in the rest of the world, Africa has so far had no benchmark for investment managers to base their decisions on.

RisCura plans to change that with the launch of the continent’s first infrastructure performance index later this year. The index will use an internal rate of return (IRR) as its metric. IRR is typically defined as the rate of return that equates the present value of an investment’s expected gains with the present value of its costs. Projects will be valued each quarter and will need to have commercial investors in order to be included in the benchmark. The index will differentiate between green and brownfield projects given their vastly different risk profiles.

Goussard says the index has the support of the African Sovereign Wealth and Pension Fund Leaders Forum, the World Pensions Council, the Council of Retirement Funds of SA, as well as official organisations including New Partnership for Africa’s Development, the AU, and the Association of Bilateral European Development Finance Institutions among others.

Africa’s infrastructure investors have long enjoyed high risk-adjusted returns over the long term, says Goussard, adding that the default rate is generally low and the returns attractive and in excess of risk. "Investing in African infrastructure presents an exciting opportunity to generate alpha, though, without historical data and benchmarks, it’s not easy to evaluate the value of the investment," he adds.

While the investment case for infrastructure assets is well understood and supported by expected infrastructure investors, a benchmark will be of a valuable tool to facilitate the participation of global investors into this asset class, says Herbertson. Furthermore, it will clarify the expected risk and returns for investors who are currently presented with a daunting array of infrastructure opportunities, offering a range of experiences, from sovereign debt portfolios to private equity-like funds.

"These primarily include finding private sector sponsors still willing and able to bring projects to fruition; where offtake agreements are required, securing the revenue streams that will fund the projects; and retaining affordability for end-users of the newly built infrastructure," she says.

SA Infrastructure Fund

In September 2018 President Cyril Ramaphosa announced the establishment of a public-private infrastructure fund to be partly capitalised by government. The objectives of the SA Infrastructure Fund are to consolidate and co-ordinate infrastructure investments across municipal, provincial and national government and to ensure infrastructure spending is less fragmented and makes more efficient and effective use of resources.

The fund is run by a dedicated executive team within the presidency with project design and management and engineering expertise. Industry Insight senior economist David Metelerkamp says the fund is a good idea and a step in the right direction, but its success will hinge on the private sector’s appetite to invest in local infrastructure projects. He predicts, however, that there will be only limited interest from the private sector given the risks associated with entering into PPPs with the government.

Benchmarks index

One of the main constraints to infrastructure investment from the perspective of institutional investors is the lack of a benchmark, says Heleen Goussard, head of Alternative Investments at RisCura. While infrastructure performance indices which evaluate the risk-return profile of investing in infrastructure as an asset class are common in the rest of the world, Africa has so far had no benchmark for investment managers to base their decisions on.

RisCura plans to change that with the launch of the continent’s first infrastructure performance index later this year. The index will use an internal rate of return (IRR) as its metric. IRR is typically defined as the rate of return that equates the present value of an investment’s expected gains with the present value of its costs. Projects will be valued each quarter and will need to have commercial investors in order to be included in the benchmark. The index will differentiate between green and brownfield projects given their vastly different risk profiles.

Goussard says the index has the support of the African Sovereign Wealth and Pension Fund Leaders Forum, the World Pensions Council, the Council of Retirement Funds of SA, as well as official organisations including New Partnership for Africa’s Development, the AU, and the Association of Bilateral European Development Finance Institutions among others.

Africa’s infrastructure investors have long enjoyed high risk-adjusted returns over the long term, says Goussard, adding that the default rate is generally low and the returns attractive and in excess of risk. "Investing in African infrastructure presents an exciting opportunity to generate alpha, though, without historical data and benchmarks, it’s not easy to evaluate the value of the investment," he adds.

While the investment case for infrastructure assets is well understood and supported by expected infrastructure investors, a benchmark will be of a valuable tool to facilitate the participation of global investors into this asset class, says Herbertson. Furthermore, it will clarify the expected risk and returns for investors who are currently presented with a daunting array of infrastructure opportunities, offering a range of experiences, from sovereign debt portfolios to private equity-like funds.

In April 2019, WorleyParsons and Jacobs’ Energy, Chemicals and Resources division, two global leaders in engineering, technical and professional services, came together under a new name, Worley. Our customers now have access to a wide network of highly capable people around the globe to help them meet the world’s changing energy, chemicals and resources needs.

In April 2019, WorleyParsons and Jacobs’ Energy, Chemicals and Resources division, two global leaders in engineering, technical and professional services, came together under a new name, Worley. Our customers now have access to a wide network of highly capable people around the globe to help them meet the world’s changing energy, chemicals and resources needs.
CONSTRUCTION

More woes for SA’s beleaguered industry

Sector continues to face headwinds as job losses mount

The construction industry has been hard hit by a number of factors, and in 2018 faced one of its worst years ever. Cyclical in nature, the industry is negatively affected by economic downturns, political uncertainty, and poor business confidence. The value of construction projects awarded have declined in recent years, and the sector has also been affected by reduced spend from embattled state-owned enterprises, affecting a number of larger listed construction groups negatively.

Construction firm Basil Read was the first casualty when it filed for business rescue in 2018. It was followed by Group Five, which filed for bankruptcy protection in March after its creditors pulled funding. The group, which a decade ago had a market capitalisation of more than R5bn and at one stage employed about 8,000 people, had its shares suspended on the JSE after 45 years of trading.

Aveng’s construction division is also struggling. The listed group embarked on a strategy to become an international infrastructure and resources group in early 2018 and implemented a plan to create a more sustainable organisation which has a long-term capital structure. As well as improving the performance of its core assets, it has been disposing of noncore assets, including its engineering and construction arm Grinaker LTA and Trident Steel.

The former has had a tough past year, reporting a loss of R162m as a result of underperformance on major building projects, slippage on certain road contracts and an underrecovery of overhead costs due to a lack of new work. Management reports a limited order book for Grinaker-LTA and subdued prospects to acquire new work. As such it’s in the process of “right-sizing” businesses within the group.

Civil engineering and construction firm Stefanutti Stocks, meanwhile, is exploring a variety of funding options as it faces short-term liquidity pressure as a result of delayed payments from a number of clients, including the government. The company’s revenue declined by 5% to R9.9bn in the past financial year.

According to Statistics SA, quarterly employment figures for the last quarter of 2018 showed a sharp drop in employment figures in the sector. In total the construction sector shed about 20,000 people in the last quarter of 2018 and employed 90,000 less people at end-December compared to the same period in 2016. Basil Read let go of around 1,000 people, while Group Five plans to reduce its headcount by about 3,000 people.

Of the larger construction firms, one company that has bucked the trend is Wilson Bayly Holmes-Ovcon (WBH), which is benefiting from a conservative management strategy, little debt, good cashflow and the fact that it diversified beyond SA, picking up projects in Australia and in the rest of Africa. It is the biggest construction firm on the JSE, with a market capitalisation of R7bn. Despite reporting a loss on an Australian contract to build and upgrade roads in Melbourne, locally the company continued to grow with total revenue up by more than 11% in the latter half of 2018.

The common denominator among companies that have managed to avoid contracting is diversification. Murray & Roberts escaped largely unscathed after selling off its construction and civil division in 2017 to a 100% black-owned holding company. The former Murray & Roberts Construction has since been rebranded as Concor. Murray & Roberts now focuses on oil and gas, power and water, and underground mining. “It’s a move that has paid off handsomely for the firm, and its share price has grown 47% in the past three years.

Building materials supplier Afrimat diversified into an open-pit mining company when it acquired an iron ore mine near Sishen in 2016. The company started to see a decline in the profitability of its construction business in early 2018. This diversification has allowed its share price to rise 140% in the past five years.

As government projects have become smaller, it has opened the doors for smaller players to be more competitive, says Afrimat CEO Andries van Heerden. In order to be sustainable, he says, construction companies need to have strong strategic capabilities and become more efficient.

Van Heerden is optimistic that the sector will have some recovery in the year ahead. The company, in partnership with economist Roelof Botha, manages the Afrimat construction index. “Though the figures for the first quarter of 2019 are not yet available, I expect to see some positive signs,” he says. “A number of midtier privately owned construction companies are starting to see signs of a slow recovery.”

Andries van Heerden: Strong strategies ensure survival in tough times
TWENTY YEARS OF DEVELOPING THE INFRASTRUCTURE THAT HAS ENABLED THEIR CLIENTS TO DEVELOP THE WEALTH OF THE REGION

Semane celebrated its 20th anniversary late last year. Twenty years is no trivial achievement in the mining and public infrastructure environment. Semane celebrated in many ways, not least with a small change in name – from Semane Consulting Engineers to Semane Engineering Solutions – and with a big move from its offices in Joburg’s CBD to its smart new home in Parktown.

“The change in our name is an important detail,” says CEO Joe Araujo, “It reflects just how client-focused Semane has become.”

Chairman Joel Mokgohla agrees. “Our clients do the heroic. They know the challenges and complexities of developing infrastructure projects. They invest many millions and many months, even years, to realise their vision. When they push the button, they take a leap of faith. It matters a great deal to them that, with our twenty years of experience, we understand their challenges – often better than they do.”

“We take our role as a trusted advisor seriously,” confirms Joe Araujo. “When I look back on what has made Semane successful it becomes evident to me – more so than it was at the time, in the thick of it. From the outset, the twin strands of our DNA have been our technical expertise, on one hand, and, on the other, we understand that our clients truly value peace of mind.”

Both gentlemen have been key to Semane from Day One.

“In 1997, Anglo American embarked on a major re-structuring initiative,” says Joe Araujo. “They wanted to do away with their detail technical capabilities and focus on core business. They gave me the opportunity to set up a new, stand-alone civil engineering consulting company.”

“Joe didn’t hesitate,” laughs Joel Mokgohla. “He accepted the challenge immediately.”

A year later, on 28th September 1998, having identified, convinced, and coerced six key players, including Joel Mokgohla, Semane opened for business.

**What ensured that Semane would be successful?**

“The solidity of our technical expertise,” replies Peter Sharland, Head of the Structural Engineering Department and one of the Founding Six. “We take the quality of our work seriously – we have to as professional engineers.”

“Reliable outputs,” says Joe Araujo, using one of Semane’s key phrases. “Because we are risk-averse, our clients get reliable outputs. The likelihood of their design solution being totally compliant is very high.”

“Ingenuity is crucial too,” adds Peter. “Being ingenious and innovative can have significant long-term benefits for a client. Going the extra mile during the design and tender phase – putting in the necessary thought – has often yielded a solution that has made a client’s operations more efficient – or it has resulted in significant cost-savings for them.”

**Going forward?**

“Every successful company needs to keep its eyes wide open,” says Joel Mokgohla. “It needs to keep examining the business environment – and itself. After the euphoria of the 2010 Soccer World Cup, South Africa’s civil engineering sector went into a downturn. Coupled with this, was Anglo’s turnaround in its procurement policy. We had to dig deep. We had to survive and be ready for the upswing. In hindsight, it was this difficult period that matured Semane. We emerged as a robust company with enviable credentials. Today, I’m proud of our portfolio of clients. It has both breadth and depth: Seriti, BHP, Rio Tinto, as well as our enduring relationships with Anglo.”

In 2016 Semane appointed a Business Growth advisor to facilitate a two-year growth programme that is currently being developed and implemented.

“Growth is vital,” says Peter. “Human beings do not thrive if they remain static – nor do companies. Every company has a choice; to use its strengths simply to defend its territory – or to use them to explore new territory. Being static is regression, and regression is never an option.

“We are always busy – and we are always busy renewing ourselves. We use our strengths and ‘the new’ becomes the source of growth and its rewards.”

**Nowhere is that truer than in infrastructure development.**

“Governmental infrastructure development, for example,” says Joe.

“It will become very important to the future prosperity of sub-Saharan Africa. That means new areas of expertise in South Africa – and it means exploring new opportunities in the rest of Africa.”

“We have put a lot of effort into getting our ISO certification,” concludes Chairman Joel Mokgohla. “And a similar amount of effort into becoming a technically-enviable, majority Black-owned business. We are poised for the future.”
New operating model set to aid DBSA’s strategy to deliver Powering up: The DBSA provides much-needed electricity to houses in the Mbizana local municipality in the Eastern Cape 

In the past two years the Development Bank of Southern Africa (DBSA) has transitioned to a new operating model which aims to ensure it can more effectively meet its mandates to deliver developmental impact in SA and the rest of the continent. As a development finance institution, the DBSA contributes to the infrastructure development value chain by providing project preparation, project funding, as well as project implementation and maintenance services, in a bid to offer holistic end-to-end infrastructure solutions. The process of repositioning the bank began more than a year ago with a re-evaluation of its strategy, role and purpose; given the rapid rate of change both locally and globally and also included a re-framing this year to reflect this repositioning. The bank has long held the view that development must be an inclusive process which improves the quality of people’s lives. The repositioning, however, highlighted the importance of thinking more carefully about the impact of the infrastructure projects it finances and, more specifically, how these projects affect the communities they serve. In addition, it supports regionally integral to the DBSA’s strategy has been particularly successful in SA’s renewable energy programme. 

The DBSA’s primary purpose is to promote economic development and growth and to fund infrastructure: It achieves this by expanding access to developmental finance and implementing sustainable development solutions, which improve the quality of life of citizens through the provision of services through funded infrastructure: In addition, it supports regional integration by supporting the development goals of the region. All the bank’s initiatives and projects are guided by the need to provide “additionality”, and pushing the resolution, which chief investment officer Paul Currie describes as added-value: “The bank is very cognisant of the need

Bank’s evolution beefs up its mandate

The bank’s efforts in financing renewable energy programmes have not gone unnoticed in the global arena. Earlier this year the DBSA was presented with the African Renewable Energy Programme Award by London based Project Finance International in recognition of its successful financial closure and implementation of several projects it financed in round four of the REIPPPP. Though loan disbursements in 2017/2018 financial year were lower than planned, Dlamini says he is encouraged by a higher level of project approvals and improved financial commitments. The bank has benefited from a significant improvement in its overall equity position in the past five years and Dlamini says it is in a much more visible and sustainable situation than in previous years. It’s also beginning to ramp up its developmental impact despite operating in a challenging local and regional environment. Locally many municipalities have been in a state of paralysis and failing to fund infrastructure tenders, slowing down the delivery of projects. The Sadc region has suffered from a similarly challenging environment, which has also constrained the delivery of infrastructure. However, there appears to be a gradual turnaround, says Dlamini, with several projects coming through in recent months, some even in larger than expected loan disbursements in the next few years. Over the next five to six years it expects that about R11 trillion worth of infrastructure investments are likely to occur, collectively funded by government, the DBSA, other development finance institutions and the private sector. This, he says, is necessary to contribute to GDP growth in SA of about 2.5%.

The bank is particularly proud of the DBSA’s achievements in the past few years, which include building and repairing damaged schools across the country, the rehabilitation of a number of health facilities and the reopening of a number of government buildings across the country. The bank, says Dlamini, prides itself on its sound procurement systems and strong governance structures, and has long adopted best practice models. “We need to understand what goes beyond best practice and align the bank and our delivery accordingly,” he says. In addition to a sustained focus on governance, a key focus of the bank is on innovation and culture: to ensure that it fosters the organisational capacity and capability to respond to the rapidly changing world in which disruption and change are constants. Dlamini recognises the need to provide a sense of pride in all the bank’s stakeholders, including employees, shareholders and the people of SA. “I’m determined that the DBSA will set a positive example,” he says.

The DBSA’s primary purpose is to promote economic development and growth and to fund infrastructure: It achieves this by expanding access to developmental finance and implementing sustainable development solutions, which improve the quality of life of citizens through the provision of services through funded infrastructure: In addition, it supports regional integration by supporting the development goals of the region. All the bank’s initiatives and projects are guided by the need to provide “additionality”, and pushing the resolution, which chief investment officer Paul Currie describes as added-value: “The bank is very cognisant of the need
to continually evolve its offering in order to be of value to the chang-
ing needs of society.

Rather than competing with the funding offered by commercial banks, the DBSA has chosen to provide additionality that accelerates the development of infrastructures that supports long-term
infrastructure development. “When this can be achieved through col-
caboration between the public and private sectors, opportunities for
catalytic change, job creation and economic growth over the next
to 10 years will be realized,” says Carie. The bank recognises that
innovation is integral to its sustainability. Carie says part of
the DBSA’s mandate is to test market models and take risks. “Added value
implies additional risk, be it technical or credit risk. As such, a High
Impact Investment Portfolio has been established, which prioritised
development impact over financial returns. We accept that this will
require the bank to take risks while ensuring it remains sustain-
able and does not exceed its financial
sustainability,” he says.

As part of this portfolio, a num-
ber of new products focused on the
development position – aligned to the National Develop-
ment Plan and supporting sustain-
able development goals – have
recently come into play. They include the Climate Finance Facil-
ty, a debt facility that addresses
market constraints in the private
section and places a catalytic role
through a blended finance approach to increase climate relav-
ed investments. Potentially the first green bond concept adopted for
developing countries, the Climate
Finance Facility will co fund pro-
jects and businesses that mitigate
to adapt to climate change. The
capital for these will be raised,” says Carie. Another new product is
the Embedded Generation Investment Programme (EGIP), which consists of a credit support mechanism that
will develop a model for funding
embedded generation renewable
energy projects in SA. Established with R500m worth of funding from the
Green Climate Fund and R600m from the DBSA, the pro-
gramme intends to crowd in addi-
tional funding from local financial
institutions. The key objective of the EGIP says Carie, is to improve the viability and bankability of the
initial projects so that they reach
critical mass. DBSA, as the imple-
menting entity, will be responsible
for programme implementation and management, as well as over-
all portfolio management, evalua-
tion and monitoring. The portfolio further supports disruptive tech-
ologies and focuses on enterprise
development and small business
projects in sectors where the market
is not served. It focuses primarily on emerging business
sectors with existing benchmarks that the bank traditionally supports, includ-
ing energy, water transportation, ICT, health and education.

In addition, the portfolio pro-
vides “nano loans” for individual
businesses to support community
partners to provide the skills
required for the future world of
work. Over the next three years the
bank intends to establish 3D Development Labs or “D Labs” to
provide the youth with the skills of
the future. “The bank is acutely aware of the technological transi-
tion that needs to place both in SA and across the continent to enable us to maximise our poten-
tial in the face of the fourth indus-
trial evolution,” says Carie.

A successful technological tran-
sition, he says, will have the potential to unlock untapped human potential and make a material difference to
underserved communities.

The project is about expanding
new entrants to the market,” he
says.

Mhle says one of the most
successful projects the bank has
been involved in is the Renewable
Energy Independent Power Pro-
duction Programme (REIPPPP). In the most recent round, round four, the DBSA pro-
vided funding for senior debt.
BBEE, which comprises equity
partners and community trusts
valued at R500m.

“There remains significant pri-
ate sector appetite for renewable
energy investment,” says Mhle, adding that the bank is working on an
embedded generation invest-
ment programme.

The bank’s mandate extends
beyond SA’s borders and covers
infrastructure conditional grants; to prepare projects for implemen-
tation. This often results in better
budgetary allocations of conditional
grants. Through these nonlending
initiatives, the DBSA is involved in
about 38 projects in municipalities.
Vivekanandan says the bank
hopes to reach financial close in the
next few months on an exciting
new project to roll out more hos-
pitals in underserved areas in a partner-
ship with a black-owned private company. The department of
health in the province of KwaZulu
Natal is underwriting the deal.

The bank traditionally supports, includ-
ing energy, water transporta-
tion, ICT and health agencies. But
programmes have historically been
heavily reliant on financial
grants from the National Treasury. However, as the economy has
turned increasingly constrained, so too have the grants, thus requir-
ing municipalities to internally gen-
erate revenue from their own cus-
tomer base.

Carie says, “The programme
serves municipalities.”

The establishment of the Infra-
structure Delivery Division (IDD) in
2013 was therefore a significant milestone in achieving the objective
of assisting state organs in realizing the implementation and manage-
ment of development projects and pro-
grammes. Government depart-
ments and municipalities utilise the services of the DBSA by entering

**special report dbsa**

**Formidable teams build capacity for new projects**

**The bank’s frontline deal origination and transacting teams**
turn deals into economic and social development tools

**The Development Bank**

of Southern Africa (DBSA)’s frontline
deal origination and transacting teams
are set up to look at new business development and convert
bank’s pipeline into investment projects. The purpose is to build a healthy
project pipeline for the bank and unlock.

R60bn worth of infras-
tucture investment each year as
part of its strategy to promote eco-
omic and social development. Both teams are responsible for
deal origination, deal structuring,
infrastructure investment and
work in concert to provide the
bank’s full suite of infrastructure
planning, project preparation,
financial structuring as well as

**INFRASTRUCTURE DELIVERY DIVISION**

**A vital tool to help state organs**

The division has been a key
partner in facilitating delivery

Thursday July 18, 2019

Thursday July 18, 2019

Chuvan Rambukwana DDS enhances the state’s capacity to deliver on infrastructure

Vivekanandan Bank provides technical support and end-to-end infrastructure solutions

Mohun Vivekanandan Bank provides technical support and end-to-end infrastructure solutions

**BUSINESS MODEL**

**Formidable teams build capacity for new projects**

**The bank’s frontline deal origination and transacting teams**
turn deals into economic and social development tools

**The Development Bank of Southern Africa (DBSA)’s frontline**
deal origination and transacting teams are set up to look at new business development and convert bank’s pipeline into investment projects. The purpose is to build a healthy project pipeline for the bank and unlock R60bn worth of infrastructure investment each year as part of its strategy to promote economic and social development. Both teams are responsible for deal origination, deal structuring, infrastructure investment and work in concert to provide the bank’s full suite of infrastructure planning, project preparation, financial structuring as well as implementation and maintenance services to clients and investment partners. Acting as a link between international capital and local public and private sector funding, the bank has formed close relationships with institutional investors, commercial banks and other development finance institutions and agencies around the world, including the World Bank and the African Development Bank. SA municipalities and state- owned entities (SOEs) are the bank’s primary clients. In the past five years, the bank has engaged in new business development and programmes, both lending and nonlending support, have been rolled out specifically for municipalities, says DBSA group executive for infrastructure Carie. The DBSA, unlike a commercial bank, aims to generate a development impact return rather than a commercial rate of return. As such, it offers municipalities a unique value proposition throughout the entire project life cycle and extends offers assistance with project planning, project preparation, funding, implementation and maintenance support. The nonlending support pro-
grammes are intended to help
municipalities to become financially sustainable over time. unlock

**This project is about expanding**

new entrants to the market,” he

Mhle says one of the most
successful projects the bank has
been involved in is the Renewable
Energy Independent Power Pro-
duction Programme (REIPPPP). In the most recent round, round four, the DBSA pro-
vided funding for senior debt.
BBEE, which comprises equity
partners and community trusts
valued at R500m.

“There remains significant pri-
ate sector appetite for renewable
energy investment,” says Mhle, adding that the bank is working on an
embedded generation invest-
ment programme.

The bank’s mandate extends
beyond SA’s borders and covers
infrastructure conditional grants; to prepare projects for implemen-
tation. This often results in better
budgetary allocations of conditional
grants. Through these nonlending
initiatives, the DBSA is involved in
about 38 projects in municipalities.
Vivekanandan says the bank
hopes to reach financial close in the
next few months on an exciting
new project to roll out more hos-
pitals in underserved areas in a partner-
ship with a black-owned private company. The department of
health in the province of KwaZulu
Natal is underwriting the deal.

The bank traditionally supports, includ-
ing energy, water transporta-
tion, ICT and health agencies. But
programmes have historically been
heavily reliant on financial
grants from the National Treasury. However, as the economy has
turned increasingly constrained, so too have the grants, thus requir-
ing municipalities to internally gen-
erate revenue from their own cus-
tomer base.

Carie says, “The programme
serves municipalities.”

The establishment of the Infra-
structure Delivery Division (IDD) in
2013 was therefore a significant milestone in achieving the objective
of assisting state organs in realizing the implementation and manage-
ment of development projects and pro-
grammes. Government depart-
ments and municipalities utilise the services of the DBSA by entering
The division has been a key player in unlocking infrastructure development funding by assisting in making projects bankable.

The division only makes commitments to make contributions towards the costs of infrastructure projects, not to pay for projects in full. However, the DBSA manages its success not only in terms of the number of infrastructure projects delivered but also the positive impact these projects have on beneficiaries and the quality of service.

Procurement is a key enabler to get projects started on the ground and to ensure that the desired development impact is achieved. The division has recently strengthened its controls around governance, particularly in areas pertaining to procurement, contracting, payments and contract management, says Ramphele.

In order to maximise access to opportunities for contractors and SMEs, the bank’s approach is to break down large projects into smaller projects, which are then allocated to a mix of seasoned contractors and local emerging contractors.

He concedes that there are inherent risks in this approach, including the tendency of main contractors to not pay subcontractors. The division aims to manage infrastructure projects valued at more than R1bn within the next two years. In the current financial year it’s aiming to deliver infrastructure projects valued at a total of R3bn and deepen developmental impact by prioritising small job creation and opportunities for SMEs.

The DBSA has embraced innovation and is exploring cutting-edge technology equipment and programmes to improve infrastructure delivery. "We are confident that in order to remain relevant, we need to adopt Building Information Modelling technology, which is why we are focusing on developing our design and innovation lab capability," says Ramphele. "We’re also committed to providing infrastructure delivery solutions on behalf of government and build the capacity of the state to manage projects independently."

The division is involved in a number of programmes. The bank’s Student Housing Infrastructure Programme aims to address the acute backlog of student housing in the higher education sector by rolling out a total of 300,000 student beds at 26 universities and 57 TVET colleges over a 10-year period. Bankable student housing projects are being developed by catalysing and mobilising third-party funding.

The first phase of the project is currently under way, including seven universities with their immediate student housing needs through a contractural “balance sheet” funding model supported by a credit enhancement facility. A total of R8bn was allocated towards project preparation funding. The second phase of the project will include the establishment of a Project Management Office to provide capacity in poor and underserviced rural universities and develop a funding platform to mobilise funding from other potential funders.

One of the most successful public-private partnerships to date in SA is the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP). The DBSA, through its PPU, has been integrally involved in the REIPPPP programme, providing administrative support to the Independent Power Producer Procurement Programme (IPPPP) office. In 2010 the DBSA provided an R800m recoverable grant to establish the IPPPP office. The bank has since committed over R4bn towards the IPPPPP.

“Where possible we try to explicate successful programmes such as the REIPPPP, or else-where,” says Ramphele. “The bank is currently involved in rolling out a similar programme in Mauritius.”

The Mauritian Renewable Energy Agency programme, he says, aims to ensure the island nation meets its target of achieving 35% renewable energy by 2025. The Third Parties Fund programme is a CICOM facility provided for by the EU, which is aimed at unlocking infrastructure projects in the energy, transport, water and sanitation, housing and student accommodation sectors in SA and the SADC region. It funds project preparation, capital grants, interest rate subsidies and guarantees.

Green Climate Fund

The Green Climate Fund aims to crowd-in private investment by targeting commercially viable technologies that don’t currently attract market rate capital at scale. The fund supports infrastructure projects that mitigate or adapt to climate change, such as increasing energy efficiency, water, sustainable transport and waste management. The facility is funded through a R10bn DFSA investment and a 50% Green Climate Fund investment of R57m.

A knowledge management investment programme forms part of the Green Climate Fund and supports early-stage public renewable energy projects that are too small to attract funding.

The objective of this programme is to establish a track record for embedded generation projects to ensure they reach financial close. The programme is currently involved in a credit support programme for renewable energy projects in Africa and crowds in funding from commercial banks. The programme is funded jointly by a R10bn investment from the DBSA and a Green Climate Fund investment of R57m.
One of the few areas of infrastructure development to show signs of growth is the renewable energy sector with the Renewable Energy Independent Power Pro-ducer Procurement Programme (REIPPPP), regarded as one of the most ambitious and successful public-private partnerships the country has ever undertaken. However, policy uncertainty is negatively affecting investor confidence.

To date the REIPPPP has attracted more than R200bn in private sector investment, 24% of which is foreign direct investment. There remains appetite for renewable energy investment, says David Metelerkamp, a senior economist at Industry Insight. “It’s the one segment within the civil engineering market that we expect to grow in the next few years. Costs are coming down and, given the instability of the national energy supply, there is a market for alternative energy sources,” he says.

SA is at a key stage of the national energy transition and has abundant wind and solar resources to strengthen the country’s power mix. “There is clear evidence that renewable power costs are competitive with those of new coal,” says Mercia Grimbeek, chair of the SA Wind Energy Association (Sawea). The wind sector has demonstrated that it can be a key jobs driver and significant contributor to SA’s energy security, she says. “To date there has been a total of R80.6bn invested into wind projects, of which R13.3bn has been foreign investment, while an additional R92m has been spent on the economic development of beneficiary communities. Black South Africans own an average of 30% of SA’s wind projects.”

In February, public enterprises minister Pravin Gordhan caused consternation when he mentioned a proposal to renegotiate contracts with companies awarded contracts in the first two rounds of renewable energy procurement. Both Sawea and the SA Photovoltaic Industry Association (Sapvia) released strong objections to this idea, arguing that this would be a breach of contract and would destroy investor confidence.

Sawea pointed out that investor confidence in any public-private programme is contingent on the government’s consistent, assured application of procurement law. Sapvia argued that predictability, consistency, lower risk and policy certainty were required to stimulate and grow the economy, and that a one-dimensional negotiation would not create value.

“Renewable energy projects have proven that they provide substantive economic value for our struggling economy – they attract much-needed investment, drive down costs with their continually decreasing tariffs, create new jobs, mitigate climate change effects and add significant economic value to local economies and communities that are struggling to survive,” it said.

Despite the fact that the then energy minister Jeff Radebe later announced that the government had no intention of renegotiating the power purchase agreements for projects procured in 2011 and 2012, investor confidence took a knock. According to Sapvia board member Richard Doyle, Gordhan’s remarks added to the policy uncertainty already associated with the ongoing delays to the publication of the Integrated Resource Plan (IRP). The latest draft IRP update excludes new nuclear power in any of the scenarios proposed. It envisages an overall reduction in coal-generated energy by 2030, with an energy mix consisting of 34,000MW of coal, representing 46% of installed capacity; 11,930MW of gas, representing 16% of installed capacity; 11,442MW of wind, representing 15% of installed capacity; 7,958MW of photovoltaic (PV or solar), representing 17% of installed capacity; and 4,696MW of hydropower, representing 6% of installed capacity.

“This suggests that the government has embraced renewables, which has gained traction in other parts of the world as countries recognise this economically sound means to combat climate change and provide increased job opportunities in the energy sector,” says Grimbeek.

Doyle says he is optimistic about the state of the renewable energy sector. He believes the sector will grow through a process of grid deflection if a conducive regulatory framework is not provided.

The industry’s greatest challenge, says Doyle, is that regulatory matters need to be settled, though this can only happen once there is certainty over Eskom and its debts. Eskom’s unbundling raises key questions including how its generation assets will be managed, while the second more pressing issue relates to the National Treasury’s ability to provide guarantees to underpin subsequent REIPPPP bid windows, he says.
TRANSPARENCY promotes legitimate governance

Improving economic growth and employment opportunities

Book your ticket now for the 11th premier corporate governance conference. Proudly brought to you by CSSA, the home of good governance.

26 & 27 September 2019
Montecasino, Johannesburg
MC: Jeremy Maggs

Speakers

Saray Khumalo
Financial Executive, MMI Holdings

Stephen Sadie
CEO, Chartered Secretaries Southern Africa

Trevor Manuel
Chairperson, Old Mutual Limited, Former Minister of Finance

Gregory Prinsloo
Sales and Business Development Director, South Africa – Diligent

2019 CONFERENCE COSTS (includes VAT)

<table>
<thead>
<tr>
<th></th>
<th>CSSA Members and CSSA Students</th>
<th>Non-members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early bird rate*</td>
<td>R5 700 pp</td>
<td>R7 400 pp</td>
</tr>
<tr>
<td>Rate</td>
<td>R6 700 pp</td>
<td>R8 400 pp</td>
</tr>
<tr>
<td>Group bookings</td>
<td>A group discount of 10% will be offered for groups of 5 or more</td>
<td></td>
</tr>
</tbody>
</table>

* Early bird rate if payment is made before 31 July 2019.
SA struggles to keep taps on
Poor management of infrastructure and lack of policy to attract investment in new technologies hamper conservation efforts

The National Water Resource Strategy noted that we had allocated 50% of all water available, with some water management areas re-allocated by up to 12%. This means appropriate management of the country’s water resources and infrastructure needs to be a priority. There is little doubt that water – like energy – is an economic enabler. Poultry producer Astral Foods’ water woes in the Leloko municipality have been well-publicised in recent months. Astral’s chicken facility has been plagued by water supply issues as a result of a determination in the municipal water infrastructure, costing the company about R6m in lost revenue and job cuts.

The absence of water security – the guarantee of a given volume of water at a known pressure, on a specific quality and price at a defined place and time – is an economic disaster, says Anthony Turton, professor of Water Management at the University of Free State. The latter organisation has been established to catalyse the execution capacity in the public sector. The Water Chamber noted that we had allocated 50% of all water available, with some water management areas re-allocated by up to 12%. This means appropriate management of the country’s water resources and infrastructure needs to be a priority.

At the Leloko municipality they have been well-publicised in recent months. Astral’s chicken facility has been plagued by water supply issues as a result of a determination in the municipal water infrastructure, costing the company about R6m in lost revenue and job cuts.

The absence of water security – the guarantee of a given volume of water at a known pressure, on a specific quality and price at a defined place and time – is an economic disaster, says Anthony Turton, professor of Water Management at the University of Free State. The latter organisation has been established to catalyse the execution capacity in the public sector. The Water Chamber noted that we had allocated 50% of all water available, with some water management areas re-allocated by up to 12%. This means appropriate management of the country’s water resources and infrastructure needs to be a priority.

The Water Chamber has campaigned for the establishment of an independent water regulator. A water regulator, says Le Roy, would decide on independent volumetric allocations on a decentralised basis, manage the quality of water resources, and act as the custodian of bulk water supplies. The regulator would also be responsible for pricing regulations. “Water prices in countries such as the UK, for example, are decreasing as a result of advances in technology. However, in SA, water is becoming increasingly expensive as supply chain inefficiencies are being marked up and passed on to the consumer. The cost of water in SA is hardly conducive to attracting investment,” says Le Roy.

SA needs to establish a clear policy that aligns all relevant players around the need to recycle, reuse and restore water resources, says Turton. “This policy must clearly articulate that water is a flux moving in time and space, and therefore our future lies in these specific areas of focus: rehabilitating more than 800 sewage works in order to allow water recovery from waste; removing salt where appropriate; the conjunctive use of surface and groundwater resources; and the use of ground water for strategic storage in managed aquifer recharge programmes.”

“Many experts feel that the only way of preserving water in SA is to adopt a system of water rationing and water restrictions,” says Turton. “Demand for water services resources and infrastructure needs to be a priority.”

The Water Chamber has campaigned for the establishment of an independent water regulator. A water regulator, says Le Roy, would decide on independent volumetric allocations on a decentralised basis, manage the quality of water resources, and act as the custodian of bulk water supplies. The regulator would also be responsible for pricing regulations. “Water prices in countries such as the UK, for example, are decreasing as a result of advances in technology. However, in SA, water is becoming increasingly expensive as supply chain inefficiencies are being marked up and passed on to the consumer. The cost of water in SA is hardly conducive to attracting investment,” says Le Roy.

SA needs to establish a clear policy that aligns all relevant players around the need to recycle, reuse and restore water resources, says Turton. “This policy must clearly articulate that water is a flux moving in time and space, and therefore our future lies in these specific areas of focus: rehabilitating more than 800 sewage works in order to allow water recovery from waste; removing salt where appropriate; the conjunctive use of surface and groundwater resources; and the use of ground water for strategic storage in managed aquifer recharge programmes.”

“Many experts feel that the only way of preserving water in SA is to adopt a system of water rationing and water restrictions,” says Turton. “Demand for water services resources and infrastructure needs to be a priority.”
special report infrastructure

TRANSPORT

Industry faces a myriad issues that stifle delivery

Though the sector has had a number of successful projects, a series of challenges continues to hamper growth

● SA’s transport infrastructure network, including roads, rail networks, aviation and maritime transportation, is one of its most important assets and an important part of a well-functioning economy.

However, SA is not planning and implementing transport projects to get the most out of either current or future opportunities, says Herbert Phahlane, director of transport and transportation at WSP Commercial Civils, Africa. “What we need is a long-term vision that encapsulates how people will live, work and play into the future,” he says.

While a number of transport infrastructure projects are in the pipeline, or being implemented, he says this is without conducting any kind of impact assessment process to understand if these projects are in fact the right projects, whether they will increase transport capacity and ultimately positively affect economic growth.

Transport infrastructure projects, says Phahlane, need to be considered in the context of what will benefit people, communities, trade and industry. “Once these priorities are factored in we will be in a better position to design a transport network that meets future needs as well as potentially leapfrogs current implementation constraints and get ahead of the demand curve.”

Major transport infrastructure projects must be integrated with provincial and municipal development, and better co-ordination is required between those that control primary, large-scale infrastructure and those that manage secondary and tertiary-related infrastructure.

Phahlane believes there is scope for engagement and collaboration between the private and public sectors, given that the bulk of the professional skills required to deliver on transport and major infrastructural projects emanate from the private sector.

While there is widespread acknowledgment of the need to expand all areas of public transport, these expansions will only be effective if they are integrated into the larger regional and cross-regional transport networks.

“The true value of our transport networks will only be realised if we plan, construct and maintain our infrastructure with a vision of the societal resilience that will continue to build and support the economy for future generations. It’s not a quick fix,” he says, adding that it will require partners who are not averse to taking a strong and forward-looking approach to planning, designing and engineering an effective legacy.

Road network

In late 2018 then transport minister Blade Nzimande announced a R3.5bn stimulus project intended to improve the country’s transport infrastructure, the bulk of the budget to be spent on road construction and maintenance.

The SA National Roads Agency (Sanral) says it already has “shovel-ready projects” with a value of more than R2bn, many of which have already started. In the past few years the roads agency has had to delay a number of projects due to lack of funds. It’s been looking for funding from development finance institutions to get stalled projects off the ground. Of concern is the fact that Sanral’s high levels of debt and weak liquidity profile have resulted in a below investment grade rating by Moody’s Investor Services.

The agency’s flagship project is the upgrading of the N2 Wild Coast road, built between East London and Port Edward, and includes the construction of two mega bridges across the Mtentu and Msikaba gorges. The R1.6bn contract to build the Mtentu Bridge was awarded to a joint venture partnership between local construction company Aveng and European engineering firm Strabeg International.

In February 2019 Aveng announced that it was terminating its contract with Sanral to build the bridge and declared a force majeure as a result of continued violent community protest and threats to its staff at the project.

Aveng and Strabeg are embroiled in a legal battle with Sanral to prevent the latter from calling its performance and retention bonds on the project. For its part, Sanral has disputed the fact that the site was unsafe and has accused Aveng-Strabeg of breach of contract. While Sanral won the first round of the legal case, Aveng says it intends to appeal this decision.

Sanral insists the bridge will be built, though the legal process will need to unfold before a new contractor can be appointed.

The contract to build the Msikaba Bridge, valued at R1.65bn, went to tender twice before a contractor was appointed. The contract was eventually awarded to Concor Mota-Engil, a joint venture between civil engineering group Concor and Mota-Engil, an international construction firm.

Another Sanral project, the N2 Wild Coast project, was recently the subject of a high court appeal from a group opposed to the project. The appeal, however, was rejected, with the court giving Sanral the go-ahead to proceed with construction of the road, which the roads agency says will bring a number of benefits to communities and local businesses. The upgrade forms part of the government’s plan to accelerate economic growth in the Eastern Cape and KwaZulu-Natal.

Despite these projects, there is a huge backlog in SA’s transport infrastructure, says Industry Insight senior economist David Metelkerkamp. “As the population grows and as urbanisation increases, the building of new roads and maintaining and upgrading of older roads should increase to keep up. But over the past few years this hasn’t happened.”

The number of road projects that have come out to tender have declined significantly over the past four to five years, he says, as has...
Celebrating 10 years of Serious Social Investing – this year will examine how one makes meaningful impact last longer, through concepts such as impact investing, philanthropy, creating shared value through partnerships and collaboration, scaling and meaningful measurement & evaluation.

Date: 6 August 2019  
Time: 08h30 for 09h00am to 16h00pm  
Venue: GIBS, 26 Melville Road, Illovo, Johannesburg

Cocktail function hosted by Anglo American

Book your seat on www.serioussocialinvesting.co.za

#SSIConference - the premier showcase of Corporate Social Investment on the continent.
the value of road tenders awarded, which have declined by 25.5% in 2017 and 28.9% in 2018, according to Industry Insight figures.

“In the past 12 to 18 months Sanral has reported teething issues around its new procurement policy and, though this was supposed to have been resolved, we have continued to see very few tenders for road projects coming out — and few road tenders being awarded so far this year — which leads us to believe that the issues have not been resolved,” says Metelerkamp.

“While infrastructure spend was supposed to increase by an average of 14% over the next three years, in reality there has been a decrease in road-related construction in the year to date.”

**Ports making efforts to be more efficient**

Transnet’s business model is increasingly including the private sector in its operations. The parastatal has put agreements in place where Agri Bulk Services runs agricultural terminals at Richards Bay and Durban ports. Another private sector partnership is resulting in an edible oil terminal at Maydon Wharf.

SA’s ports still have some way to go in terms of efficiency, consistency, productivity and reducing the cost of doing business, said Nozipho Sithole, chief executive of Transport Port Terminals at a Transport Forum special interest group meeting earlier this year.

She said efforts are being made to improve operational efficiencies at SA ports.

**Paying the price for poor maintenance**

Timeous maintenance can significantly extend the lifespan of a road. However, the cost escalates exponentially when roads are not timeously or correctly maintained, requiring more expensive rehabilitation rather than maintenance.

In an attempt to reduce the cost of road maintenance, one innovative municipality announced earlier this year that it would be piloting the first plastic road project in the country. Kouga Municipality in the Eastern Cape estimates that the backlog in road repairs is more than R500m.

Innovation: In an attempt to reduce the cost of road maintenance, one municipality announced earlier this year that it would be piloting the first plastic road project in the country.

Kouga Municipality in the Eastern Cape estimates that the backlog in road repairs is more than R500m.

Vyper the price for poor maintenance

Timeous maintenance can significantly extend the lifespan of a road. However, the cost escalates exponentially when roads are not timeously or correctly maintained, requiring more expensive rehabilitation rather than maintenance.

In an attempt to reduce the cost of road maintenance, one innovative municipality announced earlier this year that it would be piloting the first plastic road project in the country. Kouga Municipality in the Eastern Cape estimates that the backlog in road repairs is more than R500m. It announced in March that it was partnering a Scottish company, MacRebur, to trial a plastic road made from recycled plastic materials broken down into pellets.

The product is already being successfully used in a number of countries including Australia, the UK, US, Turkey, Bahrain, Russia and Canada, among others, with positive feedback, says MacRebur’s SA representative Gareth Nel.

“Independent testing has revealed that the products do enhance the performance of asphalt manufactured using standard bitumen. In the UK, where the product was developed, they have had surfaces down over three years now meeting all required testing periods to be able to market the product into the UK and EU,” he says.

Traditional road construction uses a mix containing bitumen, a product refined from petroleum. MacRebur’s product reduces the amount of bitumen required in road construction and combines it with plastic pellets made from recycled plastic compounds. The resulting road is stronger, more resistant to deformation and ruts, which ultimately increases the lifespan of the road. “The real cost savings come from not having to perform costly road maintenance,” says Nel.

While the pilot project is using imported pellets, Nel says there are plans to produce the plastic pellets locally using local plastic waste. Once the necessary approvals are in place, and the company has commitment from the necessary stakeholders, it will establish manufacturing facilities in SA. Not only will this create jobs, says Nel, but it will also provide for an opportunity to export to other African countries. There is a strong environmental motivator for this product, given that it removes plastic and releases no micro plastics into the environment once it is mixed with asphalt. “With our products the plastics used in the manufacturing of asphalt will never become plastic again,” says Nel.

**Special report compiled by Lynette Dicey**

**Cover picture: 123RF**

**Advertising executive: Nigel Twidale**
When you’re expanding your horizons, we’ll help you stay on track.

Our Corporate and Investment Banking team is dedicated to using our deep expertise to find the optimal offering to meet your business’s unique needs. We don’t just understand your business, we value it. That’s what makes us your partner for growth.

standardbank.com/CIIBInsights
At the DBSA, infrastructure development is about more than just financing bricks and mortar. It is about improving people’s lives and integrating Africa’s economies. We offer expertise and infrastructure solutions, ranging from planning, project preparation, financing, delivery and maintenance. Through solid partnerships with our clients and stakeholders, we promote sustainable development impact in South Africa and across the continent.

**We are DBSA. Building Africa’s Prosperity.**

To partner on this journey or to find out more about us, **visit www.dbsa.org**