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60 years, oh wow!

There are not many publications today that can celebrate 60 years in print, and I am immensely proud that for just over two decades, I have been part of this particular publication. I really would like to take a moment and acknowledge our advertisers and the industry we serve as a whole. Thank you for your support.

Times have changed, and I recall around 2009 my initial attempt to convert from print to digital – some thought it was an excellent idea and others were none too pleased. Paper it would appear is the way to go, as I reflect on the way forwards for the next five years. Costs aside, there is a bigger dilemma - and no it is not the post office although trying to post out the publication when there are no stamps to be procured is somewhat frustrating - and I guess a push for digital, but not the underlying cause for concern.

Railways Africa, by my definition, is a trade, technical and business-to-business magazine. It is without a doubt a niche publication, all be it that there are many aspects to this particular industry. My biggest concern is how the publication or brand is consumed.

An odd turn of phrase perhaps, but relevant: our various channels and the convergence between print and digital (what goes into the publication what goes online). There is no point reading something you have already read (and you will find a few in this issue). If you can get it online, why subscribe to the print issue?

The online move was to make it short and quick to read and in print lengthy more in-depth and graphic– but costly.

Then, of course, technology has thrown a few more curve balls to those of us in the publishing industry – Facebook, Twitter, Google+, Instagram, digital publications, Apps, etc. And we have not mentioned the fact that we need to feed that monster called a website and weekly e-mailer. Those of you who look after the marketing and communications of your businesses are faced with similar issues. Yes, of course, we have as Railways Africa have just about every platform covered, with the exception of a Smartphone App, all in an effort to reach our audience. Our audience today is well versed in the online world and very comfortable with technology.

So my dilemma is about what goes where and in what format, the written word or video - keeping in mind we are not a breaking news organisation. So, the strategy going forward from this issue, which of course will adapt and change as we journey through, is not about breaking news, but about keeping you informed. Giving you more detail, so as to find the opportunities to pursue and make informed decisions in all aspects that lead to rail. And just to draw the picture: mining, trade, investment, logistics, ports, infrastructure and so the list goes on. You can read it in our print magazine or our digital magazine, the website or on any of our online channels – in many words or the "nutshell" version.

Till the next issue.

Phillippa Dean

Phillippa Dean
Railways Africa - Editor

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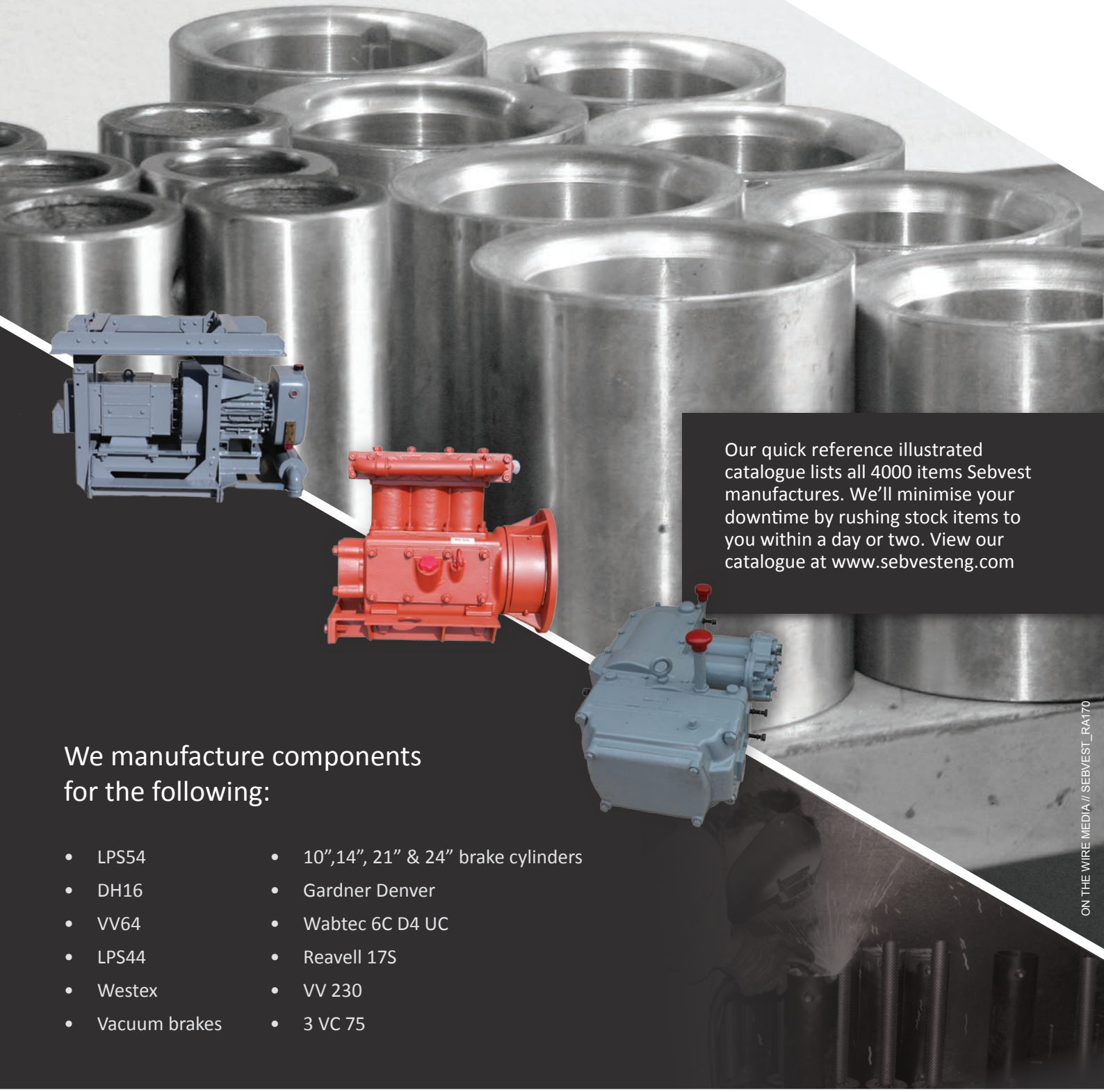

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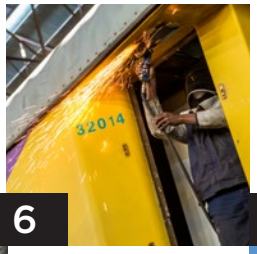

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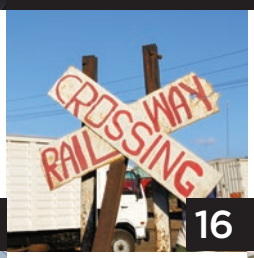

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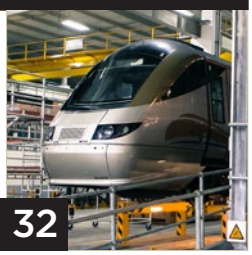

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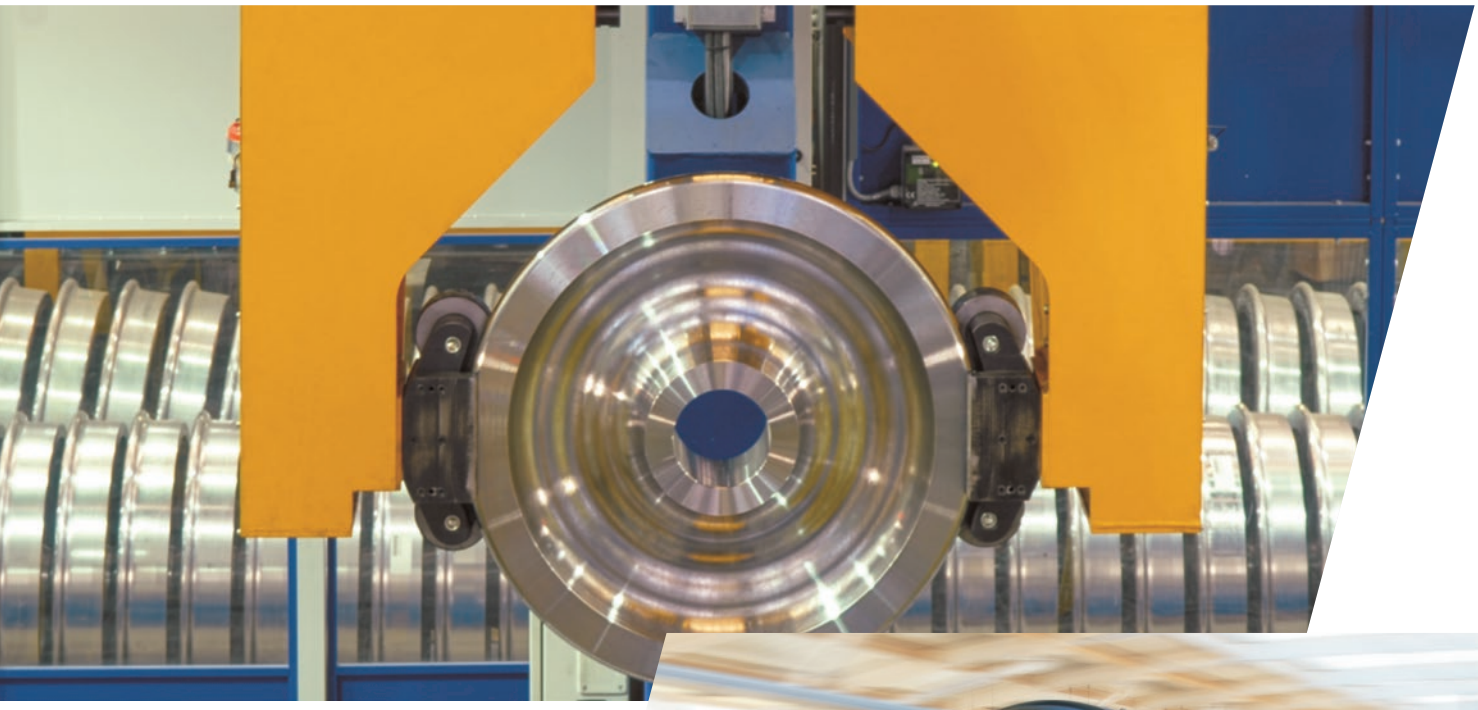

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Keeping South African passengers on-track

Rolling Stock Repair Services and Wictra Holdings: South African Companies of Distinction

Wictra Holdings (Pty) Ltd is a family run operation specialising in the repair, refurbishment and modernisation of rolling stock for the South African Passenger Rail industry. Rolling Stock Repair Services was founded in 1996, in East London, and was initially a small operation specialising in the rehabilitation of rolling stock for the Eastern Cape region. Since these humble beginnings, the company has grown to become a serious player in the rail industry. The second company, Wictra Holdings, was subsequently founded in 1998, with branches in Johannesburg and Cape Town. Currently, the two companies, Rolling Stock Repair Services and Wictra Holdings, are responsible for the repair, refurbishment and modernisation of most of the PRASA main-line Shosholoza Meyl passenger trains as well as 5M2A commuter trains.

Group chief executive officer and founder of both Rolling Stock Repair Services and Wictra Holdings, Wicus Pretorius, is a life-long railway man. Shortly after graduating from the University of Pretoria with a degree in mechanical engineering in 1972, Pretorius started his career at the then South African Railways and Harbours (SAR&H), now Transnet, at the mechanical workshops, Koedoespoort in Pretoria. During his tenure at SAR&H, Pretorius worked his way up through the ranks, and by 1978 was heavily involved in the mechanical design, tender adjudication, purchasing and commissioning of the class 7E electric locomotives for coal exports through the Richards Bay Harbour. These were the first 25kV AC locomotives to enter into service in South Africa and represented cutting-edge technology at the time.

By the early 1980s, Pretorius had graduated into the management structures of Transnet and held positions including assistant regional manager in Port Elizabeth, Cape Midlands region as well as port director, Port Elizabeth. In 1988, Pretorius was appointed as regional manager for Kimberley and in 1989 promoted to CEO of PX, the parcel distribution business.

"In my first operational development, I decided that I should involve my managers so that I could share ownership of the company, as I believe in this as a business strategy. We, therefore, started smaller companies, with my managers as shareholders, so that instead of outsourcing the manufacturing of smaller components, these small companies could manufacture components for Wictra Holdings,"

~ Wicus Pretorius, Group Chief Executive Officer and founder of Rolling Stock Repair Services and Wictra Holdings.

He resigned from Transnet in 1996 and joined forces with Eddie Carton, then CEO of Nustart. With the support of his family, Pretorius and Carton started a small-scale operation in East London called Rolling Stock Repair Services. The small company quickly grew a reputation for quality and competent repair and refurbishment of the 5M2A plain trailers. The SAR&H class 5M2 and class 5M2A are electric multiple unit trainsets, which are utilised in commuter rail services. The original class 5M2 trainsets were built by Metro Cammell between 1958 and 1960 and the class 5M2A built to the same design by Union Carriage and Wagon from 1962 to 1985.

In 1998, Pretorius went on to start a small business in Cape Town, which was the beginning of Wictra Holdings as the company is known today. The company provided repair and restoration on not only the 5M2A plain coaches, but also 5M2A motor coaches, including repairs to traction and propulsion systems. Opportunities soon arose to offer the same services in Johannesburg, and the company opened a second branch to serve the Gauteng area.

In the years that followed, the demand for repair services on 5M2As were augmented by the Shosholoza Meyl long haul passenger trains operated by Metrorail. These trains were in need of repair and the company adapted their services to accommodate the refurbishment of these trainsets. Wictra Holdings now employs in excess of 400 people between their Cape Town and Johannesburg operations. The company has repaired more than 1,500 motor coaches and plain trailer coaches for PRASA and has successfully delivered on the full refurbishment of all Shosholoza Meyl type coaches.

Service Offerings

Wictra Holdings has, arguably, become the industry leaders in the commuter rolling stock repair and refurbishment business in South Africa. They have achieved this by remaining committed to the primary service upon which the company was founded, which remains the refurbishment and repair of rolling stock for rail operators. In the early years, the company became known for their competence with the 5M2A type motor coaches that have served as the backbone of passenger rail services in South Africa since the 1970s. Wicus Pretorius' business philosophy of producing coaches of uncompromising quality at reasonable prices, on schedule, has ensured that the company is the industry leader. As the need for more specialised repair services grew, so did the company's capabilities.

Wictra Holdings offers three basic levels of repair for ageing rolling stock. The first is a condition-based repair service, which involves assessing the condition of the coach as it comes in and repairing on a needs basis. The second level of repair is more comprehensive and provides for a full general overhaul of the rolling stock. It is this level of repair and refurbishment that was applied to the 5M2A motor coaches, and results in trainsets being returned to operation in almost as new condition. Finally, the company offers a complete rebuild of rolling stock. This is the most comprehensive refurbishment service possible, and involves stripping the entire coach down and remanufacturing all components, including roof, sides and the complete interior of the coach. Wictra Holdings has developed their business model to ensure that as much of the manufacturing process as possible occurs in-house. All new parts are locally manufactured either by the company or by subsidiaries that are independently operated.

SOUTH AFRICA'S LEADING ROLLING STOCK REFURBISHER

Wictra Holdings is a formidable 50% black owned railway engineering company.

Since 1996, we have been providing Southern Africa with the expertise and facilities to deliver the highest quality refurbished rolling stock on the continent.

Wictra Holdings have state of the art repair facilities in both Cape Town (Brackenfell) and Boksburg (Dunswart). SABS ISO 9002 quality listings are retained at both facilities.

In addition, the company is a certified Level 4 BBBEE contributor. The company has repaired in excess of 1500 motor coaches and plain trailer coaches for the Passenger Rail Agency of South Africa.

Our 400 employees arguably have the highest combined railway engineering expertise in the industry and are well equipped to deal with any challenge.

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"The company has reached a point where we have competencies that enable us to start doing our own development. We intend to keep developing more specialised capability, and develop the skills needed to manufacture."

~ Thinus Pretorius, Operating Officer of Wictra Holdings.

Wictra Holdings successfully refurbished the entire fleet of Shosholoza Meyl type coaches, including kitchen cars, dining cars, sleeper coaches, sitters and baggage vans. The company has been instrumental in the modernisation of the PRASA and Metrorail fleets, including the upgrading of constituents utilised in the interior of coaches to more fire retardant materials. Wictra has also removed all the aluminium from coach fittings and replaced them with cheaper materials. This has contributed to a decline in the vandalism of coaches, which in turn reduces delays in passenger services as a result of vandalised coaches being out of commission. The company has developed fibreglass fittings for the roofs of motor coaches to reduce corrosion.

Corporate Journey

Since the company's inception in 1996, Wicus Pretorius has remained committed to a growth strategy that focuses on empowering employees while remaining responsive to the dynamic demands of the rail industry in South Africa. The business has a strong corporate governance record, while remaining true to the family-run business ethos at its foundation.

Pretorius explains that after establishing Wictra Holdings, the need arose for locally manufactured components. He decided to develop a supply chain for the company by integrating sub-suppliers into the main group to ensure better control and value.

"In my first operational development, I decided that I should involve my managers so that I could share ownership of the company, as I believe in this as a business strategy. We, therefore, started smaller companies, with my managers as shareholders, so that instead of outsourcing the manufacturing of smaller components, these small companies could manufacture components for Wictra Holdings," Pretorius explains.

The first of these micro-enterprises was called Crimson Sunrise, which manufactured electrical components for the refurbishment process, which was followed by a second company called Ginger Ice. Once these small enterprises reached maturity they were re-incorporated into the Wictra Holdings stable, ensuring that the in-house capability of the company continues to grow.

In 2000, with the advent of broad-based black economic empowerment (BBBEE) requirements and stringent tendering processes for government contracts, Pretorius realised the limitations of remaining a closed corporation and embarked upon a search for suitable BBBEE partners. In 2002, this process culminated in the formation of Wictra Holdings (Pty) Ltd as a fully-fledged black economic empowered company. Omega Scientific Research (Pty) Ltd, which is a 100% BEE company, obtained 50% shareholding in Wictra Holdings (Pty) Ltd. The CEO of Omega Scientific Research, Dr I K Amuah, is the chairman of Wictra Holdings.

As Group CEO, Pretorius has remained very close to the day-to-day operations of Wictra Holdings and has involved his sons in the company's development. Stef Pretorius, his eldest son, has been involved with the company for many years and is the group procurement manager for Wictra Holdings. His other son, Thinus Pretorius, has worked for more than 10 years in the Cape Town division, and has gained experience in multiple dimensions of the business, from overseeing the refurbishment of the Shosholoza Meryl coaches to the financial management of the company. In January 2016, Thinus was appointed as chief operating officer of Wictra Holdings and is committed to retaining the vision and mission of the company.

As a business strategy specialist, Thinus understands the need to be responsive and proactive in his development plans for the firm. With the introduction of Gibela's new X'Trapolis Mega trains for commuter service, Thinus states that Wictra is one of the tendering agents for the local manufacturing of components for the rolling stock. Wictra Holdings is therefore intimately aware of the enormity of the task that Gibela has undertaken, and feels that a business case still exists for the maintenance of current rolling stock. Thinus adds that the change over from the existing rolling stock to the new fleet will not be instantaneous, and therefore repair and refurbishment of existing rolling stock will be required for at least the next eight years.

In explaining his vision for Wictra Holdings, Thinus states that: "The company has reached a point where we have competencies that enable us to start doing our own development." Thinus adds that: "We intend to keep developing more specialised capability, and develop the skills needed to manufacture." According to the ambitious chief operating officer, the company hopes to develop into an original equipment manufacturer that can compete in the international arena. "To this end, the company is focusing on internal systems, upgrading work processes, optimisation, and automation" Thinus concludes.

Condition Based Maintenance as an Effective Cost-Saving Strategy

Rail infrastructure is a large and costly investment and to realise the benefits, effective maintenance is required. The correct maintenance intervention must be utilised to detect and rectify track condition degradations. The objective of maintenance is to prolong the lifecycle of the track by lowering the track geometry deterioration rate.

A track deterioration curve and the significance of maintenance on track life are represented by Figure 1

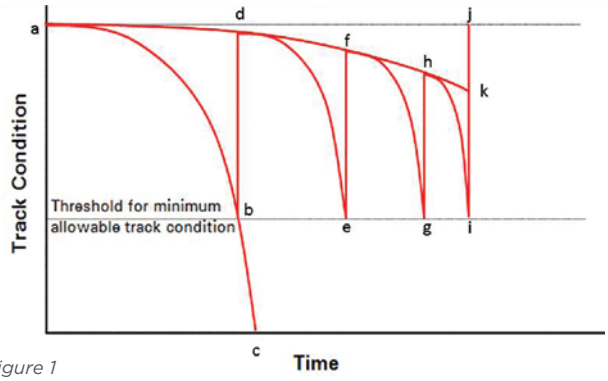

Figure 1

The curve 'ac' represents the deterioration rate of the track if no maintenance was done. The condition of the track deteriorated at an uneconomically rapid rate, to a point where it is unsafe for further use. However, for the safe passage of traffic, the track cannot be allowed to deteriorate beyond a predetermined threshold for minimum allowable track condition. When the track condition gets to the threshold of minimum allowable track condition, maintenance intervention is required to improve the condition of the track as depicted by the line 'bd'. The process continues with each maintenance input ('ef'; 'gh'; 'ij') until the interval between maintenance interventions becomes uneconomically short which will then require complete track rehabilitation. This has now produced curve 'ak' which is much longer than curve 'ac'. The life of the track has therefore been extended.

Research has proved that correct maintenance tactics have to be employed to prolong the lifecycle of the track at a reasonable cost. A strategy of condition based maintenance will achieve the longest life from the track at the lowest possible lifecycle cost.

Condition based maintenance refers to maintenance that is carried out based on the condition of the track. For this to be achieved, the condition of the track must constantly be measured and recorded.

General standards have been developed to assist in the process of defining work priorities as far as condition based maintenance is concerned. This standard is based on the following principles:

The A-standard is the acceptable grade and after completion of work the track must comply with this. The track that reaches the B-standard requires work to restore it to the A-standard. When the condition of the track exceeds the C-standard, safety becomes a risk and repair work must be given the highest priority to prevent further deterioration.

The monitoring and recording process is done by infrastructure geometry measuring vehicles, which calculates the track geometry parameters and provides data for detailed analysis and prioritises maintenance.

An effective railway system is of strategic importance to any country. Therefore, employing condition based maintenance will ensure that rail infrastructure is reliable, available, maintainable and safe; meeting the demands of a modern, dynamic and efficient railway.

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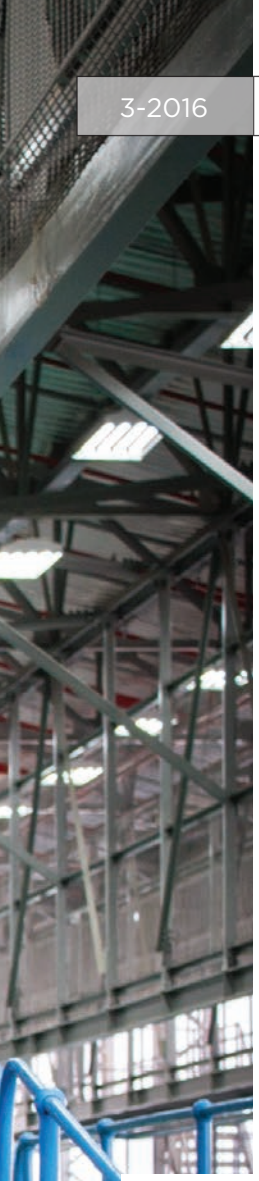

Photo: Nicole Barnes

Gibela champions local manufacturers in the X'Trapolis Mega train project

Gibela is a South African joint venture that brings together French train manufacturer Alstom and local businesses in what has become known as the Gibela Consortium. The company's name is derived from the Nguni word meaning "go aboard" and speaks to the consortium's vision to bring a railway revolution to South African commuters. In 2013, the Passenger Rail Agency of South Africa (PRASA) awarded Gibela a contract to replace the rail operator's ageing rolling stock with a modern fleet.

In terms of the contract between Gibela and PRASA, the company is to build and deliver 600 trains made up of 3,600 coaches to South Africa's Metro rail networks. The first twenty trains are currently being built at Alstom's manufacturing facility in Brazil, while the balance of 580 trains are to be built at a brand new manufacturing facility in Ekurhuleni, on Johannesburg's East Rand.

The contract, which constitutes the largest infrastructure investment project currently in progress in the country, not only mandates the delivery of a modern railways system for the South African public but also has clearly defined development goals. In delivering the rolling stock, Gibela is mandated to create jobs in the local economy, support transformation in the form of Black Economic Empowerment, and achieve 85% local content in the trainsets. The company has remained consistently committed to these goals in the two years since the contract was awarded.

Train manufacturing facility deal empowers local business

In early June, at a media briefing held at the Trencon offices, Gibela announced that they had awarded a R400 million contract for the construction of the main site buildings of the Dunnottar train manufacturing facility. The company with the winning bid is a joint venture (JV) comprising local construction companies Trencon and Black Jills.

Gibela CEO Marc Granger indicated that seven entities were considered in the final round of the bidding process. The Trencon (70%) and Black Jills (30%) JV achieved the required Construction Industry Development Board (CIDB) scores, and both companies have a strong track record for delivering on construction projects in the country, ensuring the entity has the capability to deliver. While the big players in the construction industry in the country were more than able to deliver on the project, Gibela selected the JV between Trencon and Black Jills, as the companies represent smaller enterprises, which are 100% black owned.

Marc Granger of CEO Gibela; Lebo Leshabane, MD of Black Jills; Yavani Singh-Ninan, Special Projects Director Trencon Construction, Thumbu Mahlangu of Ekurhuleni Municipality City Planning and Economic Development.

Granger explains: "The award of the contract reflects Gibela's commitment to transformation in South Africa. All tenders were adjudicated on the basis of empowerment credentials, price and most importantly, contribution to economic development, a critical component of the overall rolling stock project."

Managing Director of Black Jills, Lebo Leshabane highlighted the impact that the project will have both on her company and on the community as a whole. At a media briefing announcing the award of the contract, Leshabane stated: "As a South African woman, it is an honour to be a part of the development of this ultra-modern manufacturing facility, which is the first of its kind on the continent. This project is going to bring jobs to our people,

> "As a South African woman, it is an honour to be a part of the development of this ultra-modern manufacturing facility, which is the first of its kind on the continent. This project is going to bring jobs to our people, both during and post construction. As a medium-sized enterprise, this is the opportunity of a lifetime."
>
> ~ Lebo Leshabane, Black Jills Managing Director

both during and post construction. As a medium-sized enterprise, this is the opportunity of a lifetime."

The JV has already initiated construction on the site at Dunnottar, in the Ekurhuleni municipal district, east of Johannesburg. The gross building area of the factory covers 53,000m^2 and comprises the main factory and five manufacturing buildings, including the training centre, a central complex of two buildings and utility buildings for operational purposes. The construction project will result in 1,900 limited duration positions, and while these jobs do not constitute permanent employment opportunities, the project will lead to critical skills development for those working on the construction site. The construction and equipping of the main manufacturing facility is due for completion in November 2017.

Local suppliers reap the rewards

In accordance with the local economic development aspects of the rolling stock project, Gibela has remained focused on achieving the local content goals set by PRASA.

To this end, the consortium has included local manufacturers of components for the train build from inception.
As set out in the contract between PRASA and Gibela, the first twenty of the X'Trapolis Mega trains are manufactured at Alstom's facility in Brazil. The rationale behind this, Granger explains, is twofold. Firstly it allows for the fast tracking of the delivery of new rolling stock while the local Dunnottar manufacturing facility is under construction. Secondly, this approach allows for a period of training and skills transfer for South African service providers who will be delivering on the local manufacture of 580 trainsets, beginning in 2017.

While Gibela is contractually obligated to use locally manufactured parts in the 580 trains scheduled for assembly in the country, there was no such clause dictating South African manufactured components for the trains constructed abroad. Gibela, however, in a strategic move, has involved 32 small and medium local equipment manufacturers in the supply of components for the trains under construction at the Brazil facility. For each train that has been built in Brazil, 22% of procurement spend has been on components manufactured in South Africa. Granger states that: "Gibela, together with our Board Members and partners, made the strategic decision, at the beginning of the project, to involve local suppliers in the first part of the journey, to manufacture and build parts for the trains. Our motivation was to start to experiment and involve local suppliers in order for them to get used to the stringent processes and standards required for the project."

On 9 June, Gibela invited the 32 local suppliers, who have contributed components for the construction of the X'Trapolis Mega trains currently undergoing testing at Wolmerton Station, Pretoria to an unveiling of the new rolling stock.

CEO of Siyahamba Engineering, Julius Motshopi, whose company has been awarded a contract for the supply of cabin doors for the new rolling stock, acknowledges Gibela for the enormous contribution the company has made with regard to providing the international expertise needed to implement

"Gibela, together with our Board Members and partners, made the strategic decision, at the beginning of the project, to involve local suppliers in the first part of the journey, to manufacture and build parts for the trains. Our motivation was to start to experiment and involve local suppliers in order for them to get used to the stringent processes and standards required for the project."

~ Marc Granger, Gibela CEO

the manufacturing processes necessary to meet Gibela's stringent standards. "Gibela brought in a specialist from the UK to work with us to help us industrialise and organise ourselves," he states, adding "We have gone through a steep learning curve and developed a good working relationship in the process."

LED Lighting SA, a Cape Town based medium-sized company, has been tasked with supplying Gibela with one of the world's first set of exterior LED lights to comply with international rail standards. CEO Andrew Glenday commented: "There's much more of a buzz in South Africa around rail and I believe that well-structured investment in our local rail business will be repaid many times over through export, employment, skills development and in national pride."

The Gibela manufacturing facility currently under construction is expected to come on line in November 2017 and is projected to reach full production capacity by 2019. For targets to be met, the facility will need to produce two cars per day or 62 trains per year. According to Granger, manufacturing at this rate will require 10,000 parts to be on site every day. This will involve approximately 250 suppliers, delivering locally manufactured components efficiently and consistently for the duration of the project. To this end, Gibela plans to construct a supplier's park adjacent to their manufacturing facility, which will house suppliers to the project.

The net result of the localisation programme being implemented by Gibela is not only in capital investment and job creation for the immediate future, but will grow South Africa's skills base for years to come.

"By producing quality components such as these, local suppliers will, in addition to being able to service Gibela and the South African rail sector as a whole, be able to compete in global markets, opening up real potential for significant exports and resultant foreign exchange earnings for South Africa. We are starting to make very substantial progress in rejuvenating our local rail manufacturing industry's capabilities and capacity," Granger concludes.

Photo: Nicole Barnes

Complete list of local suppliers that have contributed to the X'Trapolis Mega train build at Alstom's manufacturing facility in Brazil.

SUPPLIER	COMPONENT
SIYAHAMBA	Cabin doors and cabin interiors including partition walls
BOOYCO	Saloon heaters and driver foot rest
ILVA	Air-tank reservoirs
KAMA	Horns
PROFIBRE	Passenger seats and longitudinal benches
KARE	Battery box
FNB	Batteries
DENEL	Baseboard ducts
GLOBAL COMPOSITE	Luggage racks, equipped ceilings, cab and saloon air ducts
DELBERG	Handbar and PMR brackets
RADEL	Passenger and cab lighting
GIBS	Insulation
CRESTINFO	Door external fairing and extract air duct in cubical
LASER JUNCTION	Brackets and cap foot step
LASER JUNCTION – GENERAL PROFILING MATLA STEEL	Coupler push back
LASER JUNCTION - SPE	Tool Box
JANDINOX	Equipment support
BUZAS	Obstacle deflector
COLUMBUS - MACSTEEL	Stainless steel
ARCELOR MITTAL SA - MACSTEEL	Carbon steel
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Supply chain collaboration in the African context

According to leading academics in the logistics management sector, a supply chain can be defined as "the network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer.[1]" In applying this definition to supply chains on the African continent, the problem becomes the lack of integration between the linkages that make a supply chain functional. The disconnects are broad and varied and range from geographical obstacles, failing infrastructure, lack of technology and poor supply chain management across territories.

The African Development Bank (AfDB), among other development agencies, has highlighted economic integration as critical to the future of the African continent. In 2015, the AfDB published their Regional Integration Policy and Strategy, which outlines the organisation's strategic framework for economic integration across the continent. The document states that: "Regional economic integration aims to create larger, more attractive markets, link landlocked countries to international markets and support intra-African trade." This policy is being implemented through investment in transport corridors.

The World Bank defines transport corridors as having two equally important and interdependent facets[2]. The first are the physical aspects of the corridor, which encompass a collection of routes, constructed from the transport networks of adjoining countries. The second is the 'soft' infrastructure of the corridor, which includes the operationalisation of logistics across the system, including the mechanisms that allow for seamless movement of goods across borders and the overall management of the corridor to ensure economic viability.

The World Bank measures the efficacy of a transport corridor across various dimensions, including transit times, cost to customer, reliability and predictability of the service as well as the flexibility of services offered on multimodal routes. The capacity of the transport corridor needs to respond to the demands of customers. Infrastructure development needs to be cohesive, focussing on the harmonisation of capacity through the logistical supply chain.

The establishment and effective management of corridors is, therefore, a rigorous and demanding process. Despite investment in transport corridors from global development agencies over the past decade, African supply chains continue to under-deliver. In 2010, the World Bank, in partnership with the International Bank for Reconstruction and Development, sponsored an extensive research project into the current state of infrastructure on the African continent. According to the book that was published as a result of this study, Africa continues to struggle[3].

"Africa is failing to get the full development potential even from its existing infrastructure networks. Administrative and regulatory failures create bottlenecks and prevent infrastructure assets from delivering the services they are supposed to. These problems are particularly evident in transport, where high-impact reforms are urgently needed."

The authors, Foster & Briceño-Garmendia, point out that among these reforms, reliable interconnection services are key. Currently, locomotives from one country are not allowed to travel on another country's network due to operators not being able to provide breakdown services for locomotives that do not belong to them. As a result of this policy, freight in the corridor needs to wait at border crossings to be handed over between operators, which causes extensive delays. At the time of publication in 2010, a journey of 3,000km from Kolwezi on the border of the Democratic Republic of Congo (DCR) to the port of Durban in South Africa took 38 days. This included nine days of travel time and 29 days associated with loading and interchange of freight.

"This delay partly reflects the lack of reliable, well-maintained locomotives, but it also reflects the absence of clear contractual incentives to service traffic from a neighbouring country's network. Reducing such delays would require a total rethinking of contractual relationships and access rights linking the railways along the corridor. It would also likely require a regional clearinghouse to ensure transparency and fairness in reciprocal track access rights." Foster et al. point out.

It is challenging to allocate sole responsibility for the provision of the strategic overhaul of a system to one stakeholder in a transport corridor, as conflicting interests and contractual bias poses a risk to the process. It is for this reason that independent, private consulting organisations are best suited to the conceptualisation, development, and operationalisation of integration strategies in this environment.

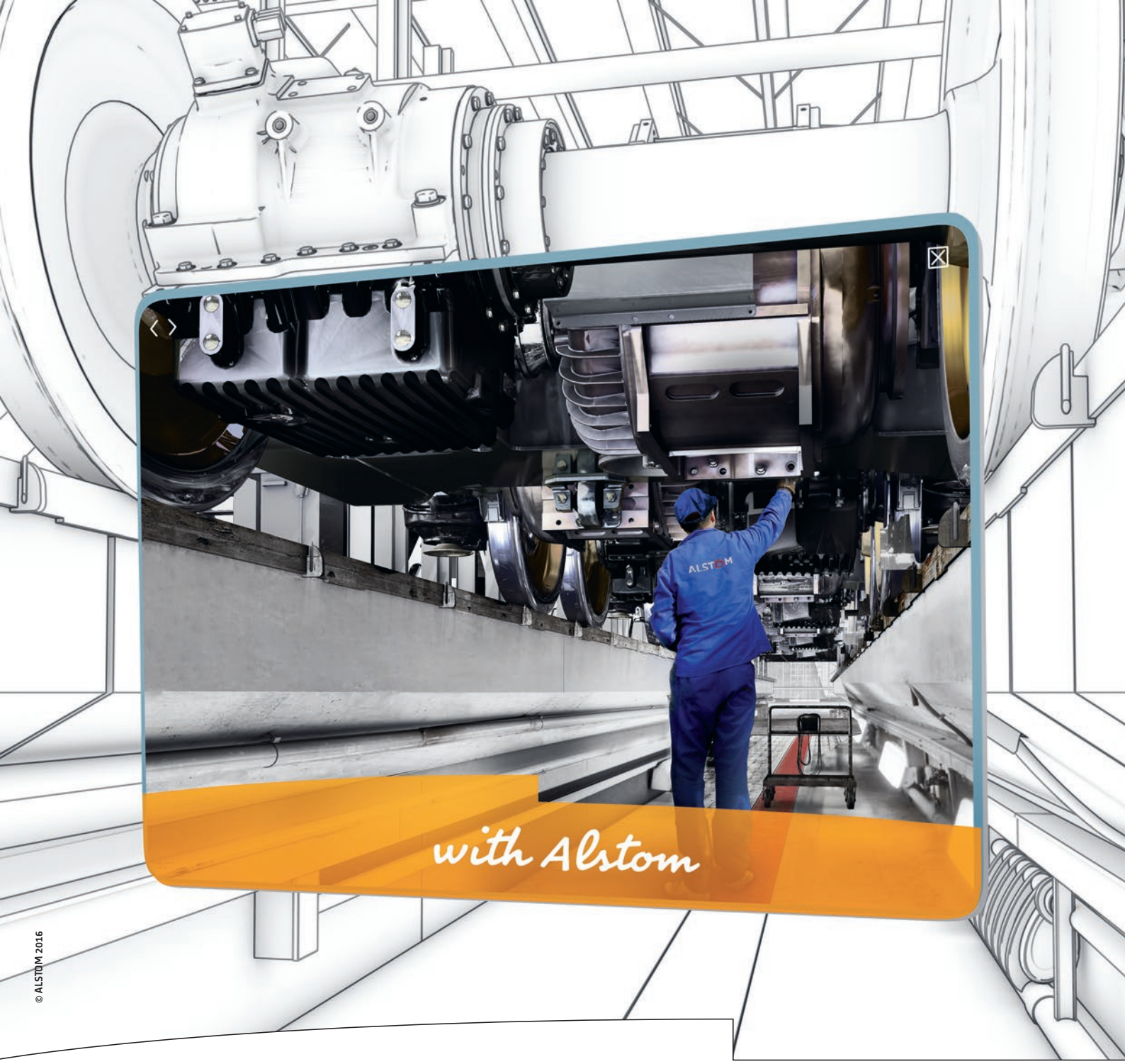
The South African-based firm, Letsema Consulting, has proven themselves to be both highly efficient and well positioned to take on this role in the sub-Saharan region, with aspirations of extending their services to East Africa in the near future.

Continues on page 18

1 Christopher, M. (1992) *Logistics and Supply Chain Management*, Pitman Publishing, London,

2 Arnold, J. (2005) *The World Bank: Best Practices in Corridor Management*, Trade Logistics Group

3 Foster, V & Briceño-Garmendia, C (2010) *Africa's Infrastructure A Time for Transformation*; Agence Française de Développement and the World Bank, Washington, USA



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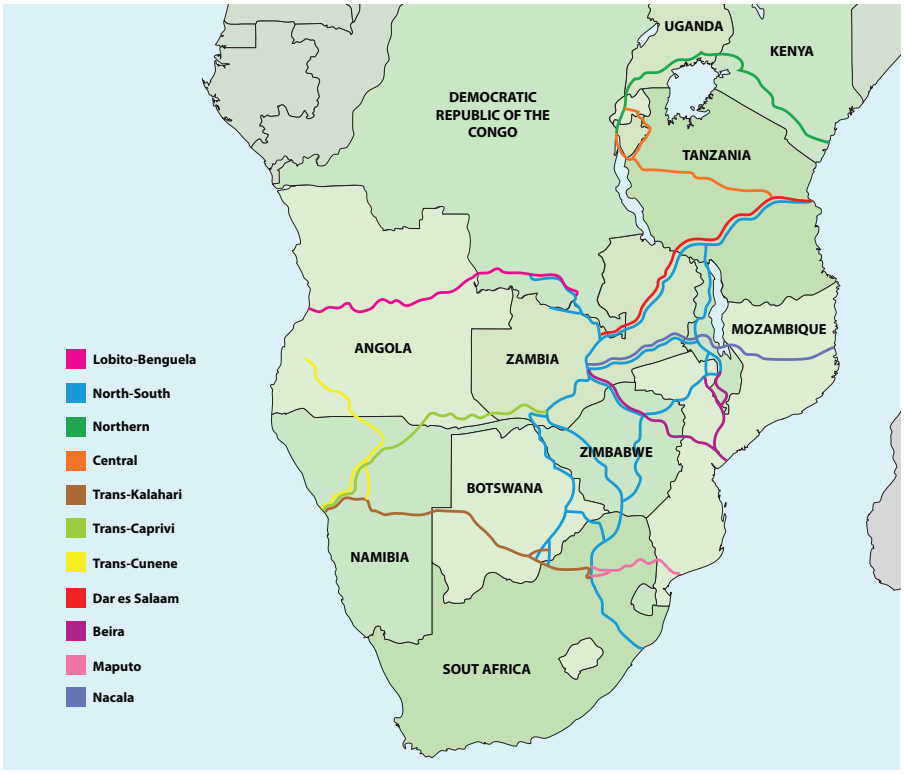

"Africa is failing to get the full development potential even from its existing infrastructure networks. Administrative and regulatory failures create bottlenecks and prevent infrastructure assets from delivering the services they are supposed to. These problems are particularly evident in transport, where high-impact reforms are urgently needed."

~ Foster, V & Briceño-Garmendia, C (2010) Africa's Infrastructure A Time for Transformation; Agence Française de Développement and the World Bank, Washington, USA

Letsema Consulting in transport corridor management

Letsema Consulting was established in 1996, as one of the first black-owned management consulting firms in South Africa. Since inception, the company has provided business consulting services to clients in the energy, transportation and logistics, defence, government and private sectors.

Photo: Eugene Armer

In 2009, Letsema was approached to develop a solution that would effectively manage the interface between rail and port services in the Richard's Bay area. Letsema, in close consultation with all stakeholders, established a centre where the rail operator and port operator were able to manage the port-rail interface from one site. This strategy proved highly effective, resulting in major improvements in the turnaround times of rail wagons at the Richards Bay port.

Inspired by the success achieved in the Richards Bay project, Letsema was requested to apply the same principle to the Maputo Transport Corridor in 2012. Unlike the Richards Bay project, the Maputo Corridor involved multiple stakeholders including various mines, rail, port and terminal operators. Swaziland and Zimbabwe also use the port of Maputo to export goods, and therefore the national operators of these countries also needed to be accommodated. According to Christian Engelbrecht, who has been involved in the transport and logistics division of Letsema for some years, the greater the number of stakeholders in a supply chain, the more challenging the integration of services becomes.

One has to deal with competing rail operators, bureaucracies of multiple nation-states, border crossings and infrastructural imbalances, all of which make the implementation of efficient logistical solutions difficult.

The objectives of the Maputo Corridor project, as proposed by Letsema, were multifaceted. Firstly, the company identified the need to ensure that the investment plans for the corridor were aligned throughout the value chain. The consultancy group prioritised the need to remove the technical barriers to the safe and uninterrupted movement of trains through the corridor. This was achieved by securing agreement between stakeholders on the same rules-based approach to service delivery, including service design and scheduling of trains, as well as maintenance strategies and safety standards. As in the Richards Bay project, these goals were achieved through the establishment of a joint operating centre (JOC) in Maputo.

The greatest advantage of establishing a JOC is the ability to increases efficiencies through real-time, meticulous planning of the flow of cargo in the corridor. Once established, harmonisation of processes and systems through the implementation of standard operating procedures (SOPs) for all stakeholders becomes possible. The implementation of a JOC in Maputo has a positive effect on many aspects of service delivery in the corridor. Rail volumes of bulk cargo more than doubled in 2012, as a result of the efficiency improvements achieved through the implementation of the Maputo JOC. Benefits to customers include a reduction in costs and transit times as well as increased reliability and predictability of the service.

Implementation of transport corridor integration strategy in East Africa

The Logistics Innovation for Trade (LIFT) is a development finance instrument that provides grant finance for innovative business projects proposed by the private sector, operating in the transport and logistics sector

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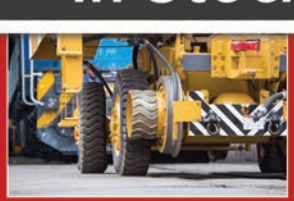


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of the East African Community (EAC). Representatives of the LIFT organisation have seen the potential in the model that Letsema Consulting implemented in the Maputo Corridor, and have realised that a similar project could transform supply chain logistics in East Africa. Letsema was commissioned in January 2016 to commence the East Africa Joint Operating Centre project.

The proposed route will extend the 483km between Nairobi, Kenya to the port of Mombasa, Kenya, which is a critical portion of the Northern Transport Corridor in the region. According to Engelbrecht, the route may extend to Kampala, Uganda some 1,146km from Mombasa in the future. At present nearly 98% of all freight is moved by road along the Northern Corridor. This results in massive congestion on the roads, deteriorating road infrastructure and high levels of emission related pollution. The rail service between Nairobi and Mombasa needs to improve their tariff and transit time offering to customers in order to capture a larger part of the market. Railways are predominantly only used for long haul services between Kampala and Mombasa.

In line with the agreement reached between LIFT and Letsema Consulting, in partnership with Transnova (Pty) Ltd, the company plans to implement a project to establish a JOC in Mombasa. The project will be multi-modal, managing transport of containers and bulk cargo, both on rail and road between Nairobi and Mombasa, as well as operations at the Port of Mombasa. The JOC will be supported by a control tower information system, which will house a Logistics Operating Control (LOC) software system backbone. The control tower and accompanying software will provide real-time information regarding the sequencing, scheduling, routeing, tracking and selection of containers for inbound and outbound logistics for all stakeholders within the container movement supply chain. Operational and tactical decision making will, therefore, be based on reliable, real-time information.

The control tower will enable shorter lead times for all transport companies by increasing visibility of ocean import and export with associated road and rail freight scheduling. The systems will enhance the tracing and tracking of cargo, thereby improving the visibility factor for customers wanting to know where in the supply chain their payloads are located. Effective visibility on the corridor will allow for informed decision-making, which will be supported by sophisticated data analytics and a system de-bottlenecking process.

Project implementation is structured using a phased approach. Letsema Consulting has identified five key milestones to be achieved. The first is obtaining a memorandum of understanding (MoU), signed between stakeholders in the system, as currently, Engelbrecht reports, they have a number of players ready to support the project. Engelbrecht expects finalisation of the first phase to be concluded shortly. The second milestone to be achieved will be to create a business plan for the JOC and control tower. There are a number of models that could be followed, from full privatisation, on the one hand, to state-owned entity on the other. Letsema Consulting will strategize with all relevant stakeholders to establish the best business model to ensure sustainability and good governance for the entity. Phase two has not come on line as yet, but Engelbrecht states that talks are in progress.

Phase three will encompass the blue print design of the JOC and control tower, phase four will focus on the establishment of structures, processes and human resource factors with the final stage aiming for a 25% reduction in turnaround times during pilot testing of the system. It is unclear at this time what the time frames are for the delivery of the completed project, but Letsema Consulting, together with Transnova, remain confident that impetus will increase once all stakeholders are on-board.

Based on results seen on the Maputo corridor in Southern Africa, the East Africa Joint Operating Centre and Control Tower is expected to reduce rail transit times by up to 60% in the Northern Corridor and turnaround times of wagons in the port of Mombasa by 50%. The savings achieved through the Control Tower software implementation has seen total supply chain savings of 7-15% for containerised goods transported by truck in comparable projects.

According to Nirojan Poovendran, an associate partner at Letsema Consulting: “The roll out of the JOC concept will be the first of its kind in East Africa. The proposed JOC in Mombasa will be integrated with a control tower concept which has the tracking, computing and recording capabilities to provide real-time information to the Joint Operating Centre and record all cargo movements.” Poovendran explains. “It will improve transport efficiencies on the Northern Corridor of East Africa,” he concludes.

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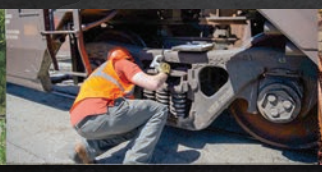

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The railway system in the Democratic Republic of Congo – One of the most important infrastructure projects in Africa

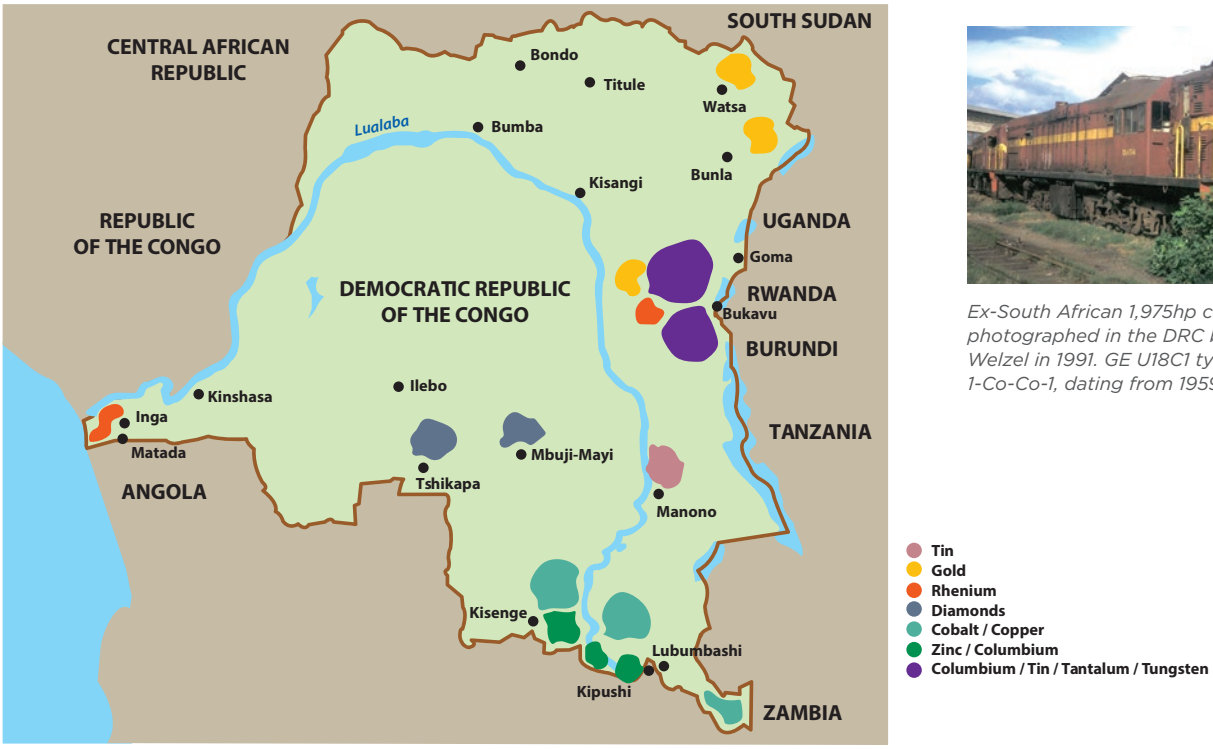
Submitted by evagor gmbh

Since the inception of colonisation, and by extension industrialisation, of the African continent two centuries ago, Africa's economy has been based on its abundance of raw materials. As far back as the 1800s, the greatest challenge in the Central African Region has been successful extraction and transportation of the region's vast mineral wealth. Henery Morton Stanley, one of the most renowned and prolific British explorers of Central Africa, stated in 1876: "The Congo is nothing without a railway."

In the modern world economy, Africa's natural resources have again come to the fore as a major driver of global markets, which has resulted in a second "Scramble for Africa". However, as in the past, there are many obstacles still to overcome, chief among them, high energy and transport cost in the region. In answer to this challenge, there have been a number of improvements in policy frameworks and infrastructure in the region. States in the region have realised that the future lies in the development of sustainable infrastructure with secure electricity and water supply as well as a reliable rail and road network. If this is achieved, the opportunity for the 'African Lions' to follow in the footsteps of the 'Asian Tigers' certainly exists.

According to the Africa Economic Report[1], The Democratic Republic of the Congo (DRC) is one of the ten fastest-growing economies globally, with an increase in GDP of around 7 - 9% year-on-year since 2012. Due to a number of factors, including regional conflict and political instability, much of the infrastructure in the DRC has been neglected for the past few decades. The country's government has however recognised the need for increased investment in the sector, and currently, there are a number of infrastructure development projects in the country that are counted among the largest in the world. In addition to a large-scale overhaul of the railway system, the Inga Hydropower Plant, which is projected to produce 44,000 MW, will be coming on line soon, with plans to invest in power plants to produce the 110,000 MW needed to run the country in the near future. On the commodity front, the world's largest gold, iron and hydrocarbon deposits, which have been discovered in the region, are ready for investment.

Since the continent gained its independence from a colonial past in the 1960s and 1970s, African States have had the opportunity to develop on their own trajectory. Plans for Africa imposed by colonial powers in the past have however remained relevant to the continent's current development plans. Cecil Rhodes saw the need for a Pan-African transport system in the 1900s, and while this has never been achieved, the strategic benefits of a single transport system that connects north to south and east to west remains key to the effective mobilisation of the continent's wealth.



Ex-South African 1,975hp class 32 loco photographed in the DRC by Martin Welzel in 1991. GE U18C1 type, 1-Co-Co-1, dating from 1959.

1 *Africa Progress Report (2015) Power, People, Planet: seizing Africa's energy and climate opportunities: http://app-cdn.acwupload.co.uk/wp-content/uploads/2015/06/APP_REPORT_2015_FINAL_low1.pdf*

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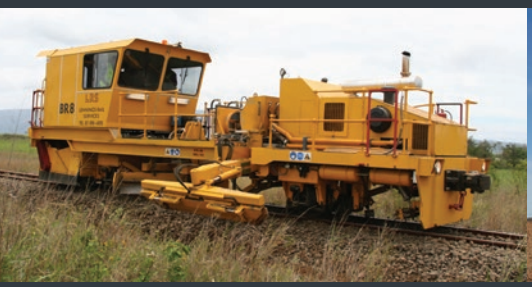

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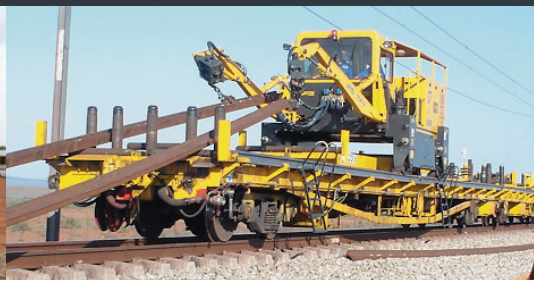

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A train locomotives stationed in Kalemie station when they officially released in November 2015

Development in the Democratic Republic of the Congo

The DRC is situated right in the heart of the African continent and shares its borders with nine neighbouring states, including Zambia, Tanzania, Burundi, Rwanda, Uganda, Sudan, The Central African Republic, The Republic of Congo and Angola. The country spans a staggering 2.3 million square kilometres and supports a population of around 80 million. Currently, the DRC ranks fifth in the world for its wealth in natural resources, with approximately 20% of the territory in the country having been comprehensively surveyed.

The country's capital city, Kinshasa, supports 12 million people and is the third most densely populated city on the continent. Other central economic hubs include the cities of Lubumbashi in the south and Kisangani to the north. The country's mineral wealth is scattered throughout the territory, with gold in the north; columbium, tin, tantalum and tungsten in the east; cobalt and copper in the south; and diamonds in the central regions. These mineral rich ores are extracted and need to be transported as bulk freight through neighbouring states to ports for export, or to the industrial centres of the country for processing.

Over the past 15 years, billions of US dollars have been spent on surveying territories in the DRC for new raw materials. Many of these projects have been successful, and mining has begun in some areas of the country. The challenge of transporting commodities out of the region remains. Much of the raw minerals mined throughout the DRC are transported to the south of the country, where they are transported via road to South Africa. This is prohibitively costly and leaves a significant portion of the raw materials mined in stockpiles.

The first railway lines were constructed in the DRC in the late 1800s, during colonial rule. Cross-border railway projects linking then German East Africa, now Tanzania and the Belgian Congo included a railway ferry to ensure effective mobility of freight in the area. By June 1960, when the DRC became an independent state, there was approximately 3,600km of modernised, electric railway infrastructure in the country, which was on par with systems in Europe at the time. As a result of political instability, regional conflict and the resultant economic difficulties during the 1990s, the existing infrastructure deteriorated, and investment in the modernisation and expansion of the railway system was impossible.

An ex-South African class 35 diesel, now owned and operated by Société Nationale des Chemins de fer Congolais (SNCC – the state railway in the Democratic Republic of Congo). Photo: C van Wyk.

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In July 2003, the conflict in the area came to an end with the signing in of the Transitional Government of the Democratic Republic of the Congo. Since the transition to democratic rule, the government has made strides in rehabilitating the country's failing infrastructure. In 2011, the government of the DRC signed a contract with the People's Republic of China to construct a major railway line for the country. The contract was subsequently rescinded as a result of pressure from other international players. While this may have been a setback for the region initially, it has opened up opportunities for other countries in the territory to initiate development projects. Neighbouring countries such as Angola and Tanzania have engaged with Chinese investors to develop their railway infrastructure. This will contribute towards trans-national transport corridors across central Africa, with the aim of developing the regional economy and improving standards of living for the local populous.

Since 2011, the government of the DRC has developed their own independent transport plan, which provides for the expansion and construction of several thousand kilometres of railway. The project aims to create critical connections with neighbouring countries, which will provide the logistical infrastructure needed to fully realise the potential of the affected economies. The DRC railway project could provide the region with the affordable, reliable, and environmentally friendly transport solution the Pan African supply chain corridors have been lacking.

The DRC Railway Project

As a result of the topography of the region, the construction of railway infrastructure in the DRC has been challenging in the past. The existing 3,600km of railway lines dating back to 1885 were constructed by hand, a time consuming and high-risk exercise. Modern construction methodology and advancing engineering will, however, enable faster progress and better working conditions on the project. The abundance of wetlands and mountainous terrain along the proposed route will require a number of specialised structures to be designed and built, including bridges and tunnels. The base network will cover all provinces in the country, with subsidiaries planned across the territory to enable both freight and passenger services. The first phase of the project is largely focused on providing the infrastructure needed to develop the mining sector, with 1,000km of access roads to major mining investments planned.

Several German and international companies have been involved in guiding the conceptualisation and design of the project. The specialised German railway engineering company Stukton, under its parent company Harress Pickel Consulting (HPC) AG of Augsburg, with its experience in railway projects, has been instrumental in developing the initial concept. The investment consulting and project development specialist company evagor gmbh, based in Leipzig, has taken the lead in this project's development and structure establishment. evagor gmbh has consulted with a number of German and international planning companies and several partners from the international supply industry as well as possible operators who are supported by strong international financing partners. The complex project structure is based on the experience of each of the specialised companies involved and will require more than 150 suppliers.

The project planning process has focused on a number of strategic guidelines to ensure the sustainability of the project. This includes compatibility with neighbouring country's infrastructure, security issues, effective communication systems, efficiency of the service and an integrated environmental impact plan. With the conceptualisation phase of the project close to completion, an extensive feasibility study will be carried out. The feasibility study will be divided into sections, with different zones being assigned to large teams from the multitude of project planning specialists involved in the project. It is hoped that this will fast track what is otherwise an enormous task. The feasibility study will employ the most advanced technologies available to the sector, including satellite-based technology.

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Investment opportunities in the DRC

The timing of the railway development project in the DRC could not be better for potential investors. Preliminary studies into the financial viability of mega infrastructure projects in the region have all been positive. With the advent of the global economic recession, investment opportunities on other continents remain low, which has resulted in growing interest in infrastructure projects in previously untapped markets. The DRC is ideally situated, from a geographical point of view, to allow investors inroads into the whole African market. In addition, the central African region remains one of the most abundant in unexploited natural resources.

Regional conflict has severely undermined the potential of this market for some time, but as can be seen from examples such as the reunification of Germany and the development of Asia, investment in infrastructure drives a region's economic growth. By improving the living standards of the general populous across a territory, the drivers of conflict are often quenched.

The integration of an operator in the project is a guarantee for investors, as well for the government and all users. The efficient management of schedules, prices and the reliability of the service are also of great importance and have been considered in the project plan. The project also promises all stakeholders that the railway line will not only use the most advanced technology available but that the technology will be efficiently handled upon completion. While the skills needed to operate a state-of-the-art railway system do not currently exist in the Congo, an extensive training programme and a permanent vocational school for all major occupations in the rail sector has been included in the project plan. The project has the potential to deliver more than 100 000 direct job opportunities, with added indirect job creation arising out of the settlement and creation of new business along the transport corridor. Projections state that the effects of the project will be comparable the economic recovery phase of industrialisation in countries such as Britain or Germany in the 19th and 20th centuries.

This project provides an opportunity for international investors from the developed world to engage seriously and with concrete results in the development of Africa, and most specifically the DRC, which is in line with international, European Union and specifically German policy. Projects of this nature that rely solely on foreign aid and grants are often unsuccessful as a result of ignorance of African policy and false expectations. However, this can be corrected with in-depth knowledge and local understanding. As a result of the DRC's wealth in natural resources, financial support is not what is most needed. What the developing country is most in need of is knowledge, expertise, education and political support. Politicians and officials need to create the stable and secure environment required to reassure investors, so as to encourage further investment in the country. Only with the involvement of the private sector can the DRC develop as a modern and democratic country.

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The one-stop-shop logistics solution - a challenge for Southern Africa

The concept of well-integrated, intermodal transport networks for the efficient and effective movement of goods through global supply chains is not new. Development agencies including the World Bank the African Development Bank (AfDB) and the New Partnership for Africa's Development (NEPAD) continue to stress the need for efficient supply chains on the continent to unlock Africa's growth potential. While the concept of an integrated, multi-modal transport network, that bridges the divide between sea, rail and road logistics makes both economic and developmental sense, the implementation of such a system remains fraught with difficulty.

Norman Gombera, an expert in transport economics, presents a somewhat bleak picture of the current state of inter-modal integration in the Southern African region. In a presentation at the Southern African Rail Association (SARA) conference held in Johannesburg in May, Gombera elucidated the possible reasons behind the lack of integration between sea, road and rail in the region.

While road, rail and port facilities are largely operational in the SADC region, it remains the responsibility of the customer to interact with each mode of transport independently. Operators functioning within the three primary modes of transport needed for bulk freight haulage work in tandem along transport corridors, however, rather than developing a collaborative relationship, competition seems to dominate breeding mistrust between stakeholders. Often the needs of the customer are subordinate to the bureaucratic processes involved in moving freight between road and rail and eventually to the port. According to Gombera, because no alternatives exist, the customer is met with a 'take it or leave it' attitude by port, road and rail operators in many instances.

Port facilities, road networks and railway services are seen as of strategic importance by governments in the SADC region, but the management of these services have remained within public owned enterprises and developed along a critical needs framework, and therefore lacks service orientation. Additionally, road, railways and port operations have historically been managed by different government agencies. In South Africa, for example, while the various agencies that oversee diverse modes of transport including The South African Road Agency, the Ports Regulator and the Passenger Rail Agency of South Africa, fall under the Department of Transport. Transnet Freight Rail (TFR), operates under the Department of Public Enterprise, these agencies tend to work in silos.

There is no cohesive process that a customer can follow to ensure that cargo is able to move between modes and it is difficult to get information about payloads in transit, as no single platform exists that covers road, rail and port networks.

Lack of integration not only dominates inter-modal transport but is also a problem with cross-border haulage within the SADC region. Currently, there is very little harmonisation in transport policies between countries. Delays at border points remain a challenge and customs procedures continue to be arduous in many instances.

A one-stop-shop logistics solution for SADC

With the fall in commodity prices and the global economic downturn, customers utilising bulk freight services in the SADC region need to pay close attention to their operating costs to remain viable. A one-stop-shop logistics solution that allows customers a single point of entry to bulk haulage services would go a long way in answering this challenge. Such a venture would reduce logistical costs both for operators as well as for clients, thereby contributing to trade competitiveness in the region. By creating linkages between the stakeholders in a transport corridor, duplication of documentation could be eliminated and effective management of capacity of the logistics chain could result in better just-in-time delivery of goods.

While Gombera is very clear on the challenges around the effective implementation of a one-stop-shop logistics solution for the region, he does offer some recommendations regarding how this could be achieved. With the advent of information systems technology, the tools needed to create a platform to track and manage payloads in transit exists and is already being used extensively by trucking companies and port authorities. One, therefore, simply needs to integrate this big data into a shared information system, which can be accessed by all stakeholders in a transport corridor. This will allow the customer to track their payloads in real-time, allowing for more effective logistical planning as well as allowing operators to

make better-informed decisions about capacity and inform operators what the customer's demands actually are.

The introduction of public-private partnerships into rail, road and port infrastructure and management has already shifted thinking with regard to managing services with financial sustainability and profit making in mind, which creates an environment where customer-centeredness is of greater importance. Regional governments and inter-regional bodies such as SARA have a significant role to play. Countries in the region need to harmonise trade policy and develop reciprocal trade agreements to benefit the region as a whole. Ventures such as joint operating centres supported by SARA are instrumental in paving the way for the development of a holistic one-stop-shop experience for customers utilising bulk freight transport systems in the region.

LEADERSHIP SHAKE-UP AT TFR

Transnet Freight Rail announced in a press release in May that they have finalised the leadership team that they hope will lead the company on a new strategic trajectory. Mr Siyabonga Gama was appointed to the position of group chief executive. He will be heading up the Transnet group executive committee, which comprises of the following appointments:

- Mr Garry Pita – group chief financial officer (executive director)
- Mr Mlamuli Buthelezi – chief operating officer
- Ms Disebo Moephuli – chief corporate and regulatory officer
- Ms Nonkululeko Sishi – chief human resources officer
- Mr Krishna Reddy – chief capital officer
- Mr Thamsanqa Jiyane – chief advanced manufacturing officer
- Ms Makano Mosidi – chief information officer

"In short," Gama stated, "we are reshaping the core of our business along with our aspirations and strategic thrusts of being agile, admired, digital and united." He goes on to add that: "It is heartening to note that this exercise demonstrates once more the wealth of extraordinary leadership talent we can choose from among our colleagues." Gama also notes that the appointed executive committee, with the exception of the two executive directors, is split equally across the gender line, in alignment with the organisations transformation goals.

Mr Ravi Nair, who has been acting chief executive at Transnet Freight Rail, has been confirmed to the position as chief executive. In terms of the new model, Mr Nair, Mr Karl Socikwa of Port Terminals, Ms Sharla Chetty of Pipelines, Mr Richard Vallihu of the Ports Authority and Mr Thabo Lebelo of Property will now report to the chief operating officer, Mr Buthelezi.

Public Private Partnerships: a new solution to an old problem?

As documented by the African Development Bank (AfDB), Africa's infrastructure gap is enormous and poses a severe threat to development and the achievement of the Millennium Development Goals (MDG) for the continent[1]. In the past, infrastructure projects were carried out by the public sector with capital expenditure covered by budgetary provision or sovereign borrowing. This model has however had to be reviewed due to country's borrowing capacity being reduced as a result of rising national debt, inefficiencies in the public sector due to capacity and resource constraints and competition from the private sector. The answer to this challenge seems, increasingly, to be public private partnerships (PPP), which allow private enterprises the opportunity to partner with government in mega infrastructure developments for profit.

Increasingly, African countries are coming to realise the benefits that railway infrastructure could offer in unlocking the continent's economic growth. Unfortunately, while the long-term benefits of an effective railway system are beyond dispute, the initial capital investment required for mega infrastructure projects in railways are beyond the capacity of developing economies. A classic catch-22 dynamic therefore emerges, where developing economies need railway infrastructure to promote the trade that will develop their economy, but governments do not have the capital required to build and maintain the infrastructure that will boost trade.

In line with the developing interest in PPPs, the World Bank Group (WBG) has established the Public-Private-Partnerships in Infrastructure Resource Centre (PPPIRC), which is a platform that provides both governments and private enterprise easy access to the legal materials, research documents, frameworks and guidelines to plan, design and structure infrastructure projects using a PPP framework.

According to the PPPIRC, the benefits of PPP agreements are far reaching and include making private sector technology and innovation available to the public service environment, which improves operational efficiency. The fact that remuneration is closely linked to performance in most PPPs means that projects are more likely to be delivered on time, within budget, and service levels will be maintained. PPPs also develop local private sector capabilities through joint ventures with large international companies. Job creation and skills development in a region can have long-term positive effects on an economy. Finally, governments are able to manage the financing of infrastructure over time rather then as a lump sum investment.

There are, however, some drawbacks that need to be considered when financing a project using a PPP framework. Development and bidding costs in PPP projects are likely to be greater than for traditional government procurement processes. It therefore becomes incumbent on the government agencies involved to do a very careful cost-benefit analysis before committing to a PPP agreement. While private sector involvement may make it easier to get financing for a project, debt comes at a cost and this debt will either need to be financed by the government or passed on to customers in a user-pays model. Finally, it is sometimes difficult to get buy-in from the public on PPP projects. When an existing public-sector work force exists, there may be labour issues that result from government employees fearing job losses or being handed over to a private company. Where increased tariffs are required to make a project viable, the public needs to be educated and consulted so as to prevent boycotts and sabotage. It is therefore important to get buy-in from the political constituency, which the project aims to serve, before implementing public service projects using PPP agreements.

PPPs in the African Railways Industry

There are several railway projects currently operating under PPP agreements in Southern Africa. The first of these was developed by a concession company called the New Limpopo Bridge (Pty) Ltd (NLB). The project represents a successful PPP-based project between NLPI Limited, a Mauritius registered holding company that focuses on infrastructure related investments in the Southern African region, and the Zimbabwean government. NLPI specialises in private sector investments using the build-operate-transfer model (BOT), whereby the company develops, finances, builds, manages and operates a project over a number of years at their own cost, before transferring the project back to the local or regional government. The PPP provided for the construction of the Alfred Beit Road Bridge over the Limpopo River between Musina in South Africa and Beitbridge in Zimbabwe. The NLB project was initiated in 1994, with a concession to operate for 20 years, on a user pays model. The bridge, including the right to collect tolling revenue, was successfully handed over to the Zimbabwean government on 17 June 2014.

The NLB project was followed by the establishment of the Beitbridge Bulawayo Railway (Pty) Ltd (BBR). This venture, also funded by NLPI, currently operates the 350km railway line that serves as a critical link between South Africa and Zimbabwe. BBR was inaugurated in July 1999 and holds a concession on the line for thirty years from inception. The independent operator is therefore obligated to relinquish operations of the line in 2029.

Speaking at the Southern African Railways Association (SARA) conference in Johannesburg in May, Tembiwe Moyo, CEO at BBR spoke to some of the lessons learned during both the NLB and BBR projects. Among these she highlighted the fact that PPP agreements are by their very nature highly adaptable to the

> "Sub-Saharan Africa urgently requires a policy and guideline framework to guide the inclusion of the private sector, not only in the rail industry development but all other public sector services"
>
> ~ Tembiwe Moyo, CEO at BBR

Gautrain Depot in Midrand. Photo Craig Dean

environments in which they are being implemented. "It is not one-size fits all" she states, adding that the agreement needs to be customised to the project in question.

Secondly, she identifies strong financial backing as a keystone in the successful implementation of infrastructure development under PPP agreements. "BBR and NLB would have folded without shareholder support," she explains, adding that it is important to structure a project in such a way that financial dependency on the government agency involved be kept to a minimum. Moyo emphasises the need for a well-structured legal framework to support partners in the PPP. According to the CEO, the regulatory framework must ensure that all divisions of the operational structures are well coordinated. This requires that all stakeholders are clear on the regulatory requirements, policies and procedures to follow. "This will avoid bureaucratic bungling and inconsistencies in the application of rules and regulations," she states.

Finally, Moyo speaks about managing relationships both between stakeholders in the PPP as well as with the public that the project aims serve: "In many cases we found ourselves under attack as the general public fears exploitation by the private sector and fellow operators treat you as competition instead of complimentary."

In making recommendations for the effective implementation of infrastructure development using the PPP model, Moyo expressed the need for policy and framework support from development agencies:

"Sub-Saharan Africa urgently requires a policy and guideline framework to guide the inclusion of the private sector, not only in the rail industry development but all other public sector services," she said. "This is widely advocated by experts elsewhere and our own economic blueprints" she added, stating that development organisations such as SARA, SADC and COMESA should spearhead these efforts.

Future opportunities for investment

The number of infrastructure development projects underway in Africa that will rely on PPP models for financing is growing exponentially.

The Kenya Standard Gauge Railway (SGR) project currently under way, will rely heavily on the successful establishment of PPP agreements. According to Kenyan cabinet minister M Kamau: "The nature and portfolio of roads infrastructure projects in Kenya demands that we adapt a paradigm shift in the manner projects have hitherto been financed. In this regard, the ministry will welcome alternative project financing options, such as the Public Private Partnerships (PPPs) and Annuities.[2]" Currently, 90% of the funding for this project will be coming from China.

In South Africa, a PPP agreement between the Gauteng Provincial Government and the Bombela Concession Company delivered the world class Gautrain project, a rapid transit train which operates between Johannesburg and Pretoria. Relations between the Gauteng Provincial Government and partners in the Bombela Concessions Company have been strained, with several court cases currently underway. Budgetary disputes and arbitration between stakeholders has however not prevented expansion plans for the project, which are due to be announced in July. In South Africa, the Passenger Rail Agency of South Africa has embarked upon a project to replace their aging rolling stock with 600 new trainsets through a PPP agreement, resulting in the development of the Gibela Consortium.

In addition, Swaziland Railways and Transnet have completed a feasibility study into a rail-link

Continues on page 36

Construction of the Kenya Standard Gauge Railway (SGR). Photo: Kenya Railways - https://www.facebook.com/Kenya-Railways-248578828508174/

[1] Africa Infrastructure Knowledge Program (2013) *An Integrated Approach to Statistics Department Infrastructure Provision in Africa*; Statistics Department Infrastructure Provision in Africa; http://www.afdb.org/en/topics-and-sectors/sectors/infrastructure/knowledge-products/ (Accessed 19 May 2016)

[2] Kenya Ministry of Transport and Infrastructure: *Uchukuzi*; 1:2014 http://www.transport.go.ke/downloads/transport%20newsletter%20.pdf

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South African Rail Company Offers Fully Accredited Training

African Rail and Traction Services (AR&TS) (Pty) Ltd, has an established training facility, offering novice training as well as annual recertification of qualified locomotive drivers and shunters. In addition, the training facility offers driver conversion training, where the locomotive specification has changed. The training offered by AR&TS is fully accredited by the South African Transport Education Training Authority (TETA) for the training and assessment of locomotive drivers and shunters.

The training and assessment services offered is used by the mining industry as well as other key customers who manage independent railway operations and sidings in the course of their business. The facility not only services South African business but accommodates customers from the SADC region as well. Depending on the requirements, this service can be provided onsite at the customer's premises.

Training Courses Offered

AR&TS offers novice training for both shunters and locomotive drivers. The shunting course includes three weeks of theoretical instruction and eighty hours of practical training with a qualified shunter. The course covers three unit standards including US14638, US230402 and US230417.

The course offering for novice locomotive drivers includes a full month of theoretical tuition and 120 hours of practical training with a suitably qualified locomotive driver and covers all the relevant unit standards including US14638, US230402, US230417, US230407, US264338 and US256195.

In addition to the novice training courses offered, AR&TS offers recertification as well as driver conversion services for both locomotive drivers and shunters, which consists of both a theoretical and practical assessment that is completed over a three to five day period.

Training material is supplied for all courses and is accessible for both students and their employers. Upon successful completion of the training, locomotive drivers and shunters who pass both the theoretical and practical assessment are issued with a certificate as well as a license, which is valid for one year.

AR&TS is a company of Surtees Group Holdings (Pty) Ltd, which is a South African based company specialising in the sales and rentals of locomotives, trackmobiles and other rolling stock. The company also offers repair and reconditioning of rolling stock at their Pretoria West based workshop. In addition, the company has the capability to provide a full-spectrum of railway solutions, including the operation and control of an entire rail system, ranging from the maintenance of a client's own locomotives and rolling stock to the control and transport of their products as well as maintenance of railway tracks and signalling systems.

Continued from page 33

that will connect the Lothair junction in Mpumalanga with Sidvokodvo Junction in Phuzumoya West, Swaziland. The project is currently in the detailed planning phase and initiation of construction is awaiting the successful negotiation of the PPP agreements that will finance the project. Wilson Mogoba from Transnet Group Planning, speaking at the SARA conference, explained: "The construction is going to be funded through PPPs and until we combine the requirements of all the interested parties, we cannot not be certain of when construction is going to begin." The development of rail infrastructure in the Democratic Republic of Congo (DRC) will likely follow the PPP model and legislative changes recently tabled in the Nigerian parliament have made private sector funding of public works projects possible for the first time, supporting a case for investment opportunities in Nigeria as well.

The landscape is therefore clear: infrastructure development in Africa will increasingly rely on the establishment of mutually beneficial contracts between private investors and public entities. Many of the projects successfully implemented under PPP agreements offer future investors the opportunity to learn from mistakes made. International and regional development agencies such as the World Bank continue to play a role in establishing the policy framework and support structures necessary to assist both governments and private investors to build best practice for successful negotiation of PPP agreements. Finally, project developers, particularly in the transport sector, need to keep in mind the needs and concerns of end users.

(One needs to look no further than South Africa's contentious e-toll implementation through Sanral to recognise the critical role of public buy-in).

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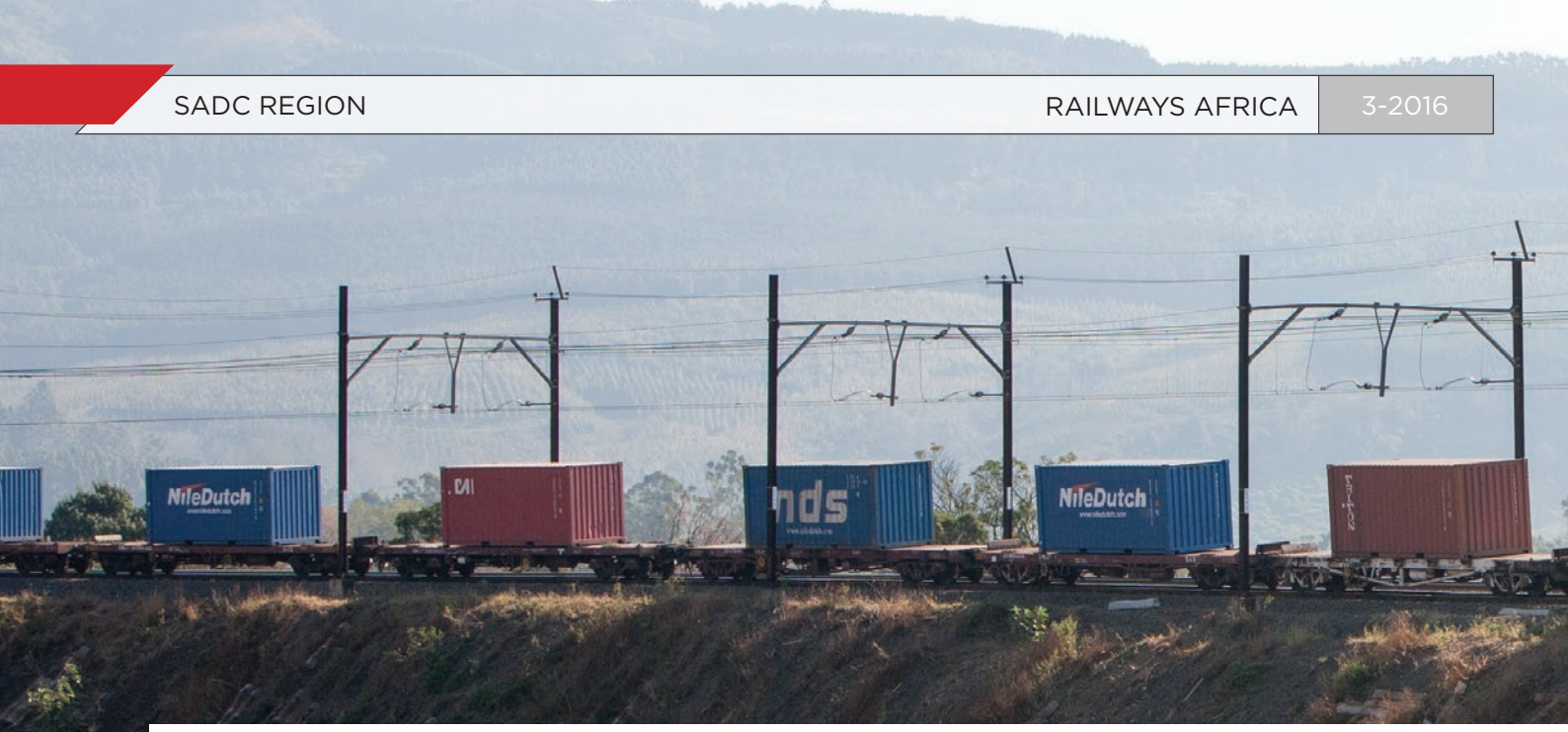

Bridging the gap between rail operators and their customers in the SADC region

The idea that Africa is the 'Last Frontier' for industrial expansion in the global economic arena is a concept that has received much attention at international development forums recently. As a natural extension of this narrative, the challenges facing the continent often come to the fore. Outside of the ever-present energy crisis, the need for cheap, reliable and environmentally friendly transport networks across Africa continues to dominate.

Railway infrastructure on the sub-continent is largely a legacy of colonial times, and in the past 20 years, the governments of independent African states in the SADC region have largely neglected rail in favour of road infrastructure. The effects of this policy are evident in massively congested highways and border points, as well as in the ever increasing carbon emissions in the region.

One also has to consider some of the less obvious implications of the high volume of trucks operating in the SADC region. In a study conducted in 2014[1], it was found that 26% of long distance truck drivers tested HIV positive in South Africa, in comparison to 11.2% in the general population[2]. In the study, drivers report low levels of condom use while engaging in transactional sexual relationships while in transit. As a result of the high mobility of this population, truck drivers are implicated in the spread of HIV between South Africa, Zimbabwe and Mozambique. Over the past ten years, the focus has been on driver education and behaviour modification programmes to affect change, however infection rates continue to rise.

Interestingly, Delany et al (2014) note that HIV prevalence increases with the number of days spent in transit, with the highest HIV rates recorded among drivers who spend two to four weeks on the road. The answer therefore may be an intermodal approach. Haulage over distances that would require drivers to spend extended periods in transit should be accomplished by rail, with truck drivers enabling the first and last mile. If freight was transported over long distances by rail rather than road, one could reasonably expect a decline in HIV prevalence in these high-risk populations. According to Craig Mynhardt, a logistics supply chain expert working in the region: "there needs to be a paradigm shift by all stakeholders to move goods back onto rail." The logic of this argument is widely agreed upon by stakeholders in the logistics environment. Mynhardt points out that rail should be the primary and first choice of transport of bulk commodities across the African continent. This will relieve pressure on road infrastructure, reduce congestion at the border points and ports as well as improve carbon emissions arising from the transportation of commodities.

If the shift from road to rail is going to be achieved, rail operators need to be more responsive to their customer's needs. Currently, road transportation enjoys a competitive edge over rail for a number of reasons. Commodities transported by road enjoy the benefit of a single load and off-load point while customers using railways need to get their payloads to the railway lines, which results in additional handling

requirements at point loading and discharge. The visibility factor, or the ability to track cargo in real-time, also favours the trucking industry. Control tower technology and fleet management solutions mean that a customer can-see exactly where their payloads are situated along the national and trans-border highways, allowing for better planning. The railway industry is lagging behind in this regard. Road transportation also enjoys greater confidence in the market, as railways are often perceived as unreliable and high risk.

In his presentation at the recent SARA conference in Johannesburg, Mynhardt challenged rail operators to adjust their service offerings to bridge the gap between road and railways. He highlighted several important points, which he suggests would have a dramatic effect on the uptake of rail services by the private sector. The first of which was customer service. As a state-owned enterprise, railway operators did not encounter healthy competition in the past, which seemed to foster an attitude, in Mynhartd's words: of "you get what you get." However, as business has moved their payloads onto other land-based modes in the past 20 years, the rail industry has suffered serious decline. Rail operators in the region need to make a dramatic shift from the monopoly-type thinking which dominated in the past to a more client centred, competitive approach.

Secondly, Mynhardt points out that rail rates should be more competitive than road freight. This is not always the case, especially in areas such as the Democratic Republic of the Congo (DRC), where as much as 95% of all freight is moved by trucks as the Rift Valley Railway service offering appears uncompetitive.

In addition, factors of reliability and consistency need to be addressed. Private enterprise requires transit times to be equal to or faster from point of load to point of discharge.

If one considers that freight trains are be able to pass seamlessly through border points (at least this should be the case), without having to take congestion into account, this is a very achievable goal. Effective logistics management relies on having accurate real-time information regarding the location and expected departure and arrival times of freight. The rail industry needs to utilise the available technology that will make visibility on rail comparable to visibility on road.

Finally, issues of safety need to be addressed. Customers need to be confident that their payloads will arrive in the same condition that they left in. This is especially important for high-value commodities such as mining and agricultural products. The rail industry also needs to ensure that they comply with all relevant safe handling and operating procedures, which will foster customer's confidence in their ability to get the job done well.

1 Delany-Moretlwe S, Bello B, Kinross P, Oliff M, Chersich M, Kleinschmidt I, Rees H. (2014) HIV prevalence and risk in long-distance truck drivers in South Africa: a national cross-sectional survey http://www.ncbi.nlm.nih.gov/pubmed/24352131

2 Statistics South Africa (2015) Mid -Year Estimates https://www.statssa.gov.za/publications/P0302/P03022015.pdf

First of 16 SA-manufactured locomotives delivered to Ivory Coast

When you need locomotives for African operating conditions, you want a locomotive manufacturer that is in Africa and manufacturing locomotives for African conditions.

Such a company is Pretoria-based Grindrod Locomotives, who have recently delivered the first six of an order of 16 locomotives for use in West Africa. The order is valued at R450 million.

Robert Spoon, CEO of Grindrod Locomotives states that: "Our service solution is based on locomotives that are fuel efficient, simple to operate and cost effective to maintain – spare parts are readily available from reputable, major suppliers.

"We believe that this model, coupled with our flexible approach and competitive pricing, won us the contract with Unicaf SA, the procurement entity of Bolloré Transport & Logistics, for five diesel electric AC main-line locomotives for Sitarail concession in Ivory Coast and Burkina Faso, and another five for Camrail concession in Cameroon, as well as six DC shunting locomotives for Sitarail."

Grindrod Locomotives called on sister company Vanguard, an abnormal load specialist, to transport four shunter and two main-line locomotives from Pretoria to the Port of Richards Bay. Explains Robbie Boshoff, Project Engineer, "Grindrod Locomotives used their overhead crane to hoist the locomotives onto our 13-axle goose-neck multi-axle trailers at their Pretoria site. We did three trips to the Port of Richards Bay, a total of 850km per trip, with a police escort. We were pleased that each trip took only two days. The locomotives were loaded onto the ship by the ship's crane."

"We look forward to expanding our footprint further in Africa and have identified opportunities to supply locomotives in other continents. The locomotives would be re-designed to accommodate standard and broad gauge track style," concluded Spoon.

Grindrod offers integrated rail solutions in five focus areas: rail operations; locomotive engineering; sales and maintenance; signalling and train control systems; railway track construction and maintenance; rolling stock leasing and finance.

The technical specifications of the locomotives are:

	GL30SCM AC main-line	GS7S3M shunting
Power	2461kW gross	700HP
	2240kW traction	
Tractive effort – continuous	425kN at 15km/h	170kN
Tractive effort – starting	500kN	210kN
Braking effort	260kN	Not applicable
Rail gauge	1000mm	1000mm
Total mass	104 tonnes	54 tonnes
Axle load	17 tonnes	18 tonnes
Maximum speed	100km/h	72km/h
Wheel diameter	914mm	914mm
Length	20.3m	8.8m
Height over rail level	3.95m	3.69m
Width maximum	2.85m	2.85m

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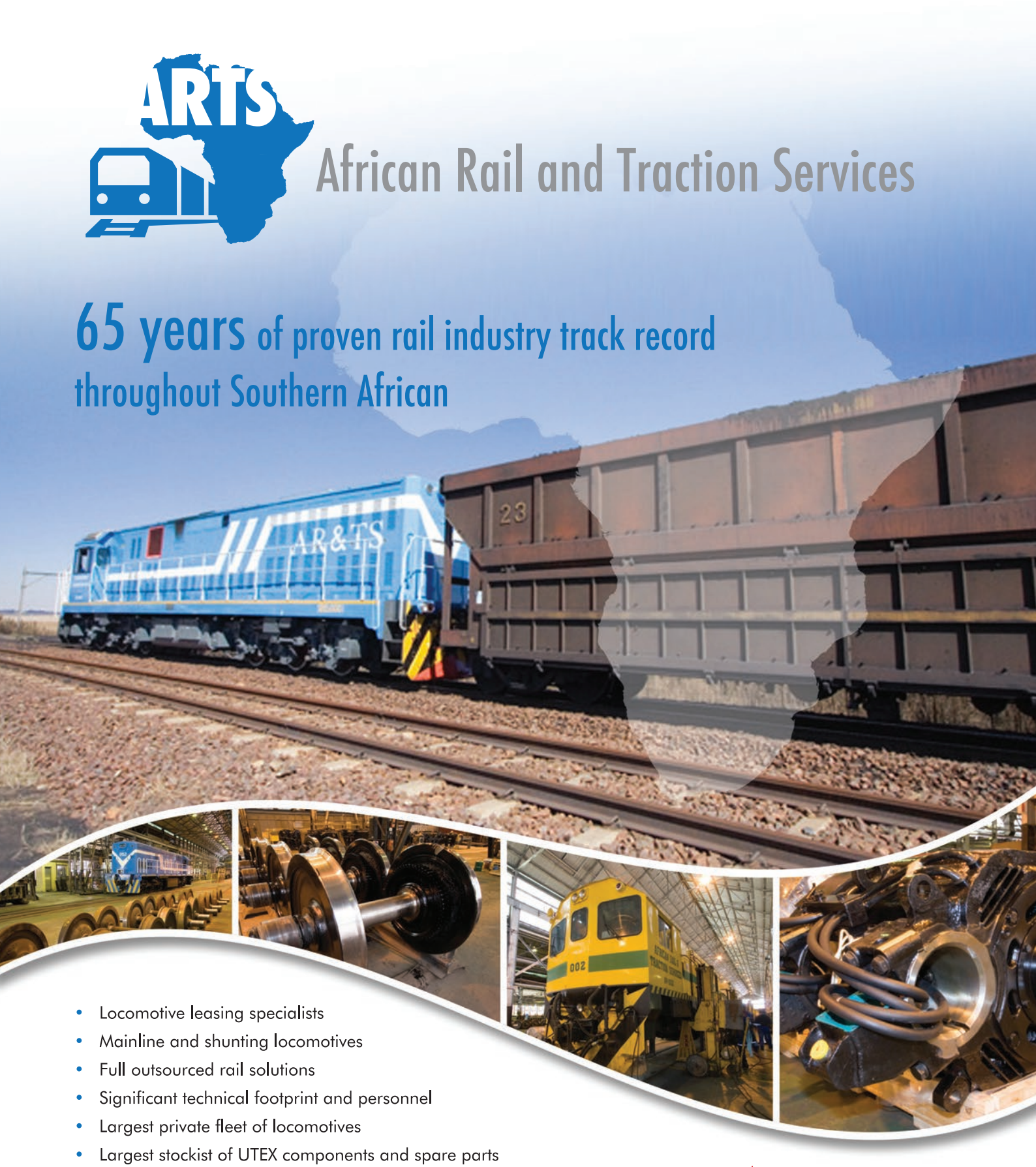

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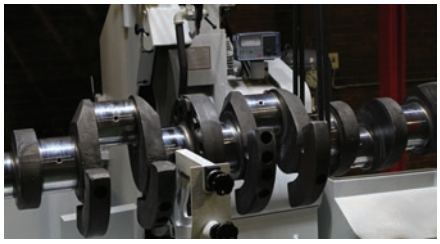
Metric Automotive Engineering **Keeps Engines On Track**

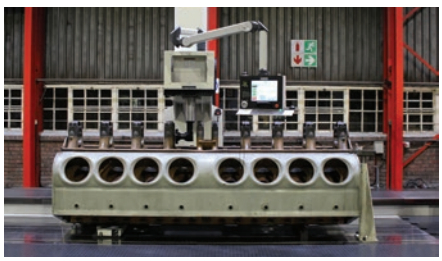
Ongoing technician training at Metric Automotive Engineering allows the company to stay abreast of the latest developments in the sector.

Metric Automotive Engineering has invested in a crankshaft grinder that can handle lengths up to 4.7 metres and weights up to 5 tonnes.

> "I can say confidently that we are the only company in Africa, apart from the OEM, that is able to machine all of these components correctly"
>
> ~ Andrew Yorke, Operations Director



A close up view of the crankshaft grinding head.



The CNC machining centre is capable of lineboring, surfacing and blue-printing blocks over six metres in length.

Metric Automotive Engineering is well known in the country's earthmoving, quarrying and mining industries, and now South Africa's public and private railway operators have also started turning to the specialist to remanufacture diesel engine components.

This development sees the company restore faith in South Africa's ability to provide a comprehensive and quality remanufacturing service that is comparable to those offered by leading international players who also service this key South African industry.

Andrew Yorke, operations director of Metric Automotive Engineering, says that it is the company's ability to remanufacture to exact original equipment manufacturers' (OEM) specifications, or even exceed these standards, which has enabled it to grow its presence in existing and new markets.

A key competitive edge for Metric Automotive Engineering over the years has been its ongoing investment in the dedicated equipment needed to provide a thorough and quality remanufacturing service.

"Our machining line features dedicated equipment, as opposed to general machinery that has been converted to remanufacture costly diesel components found in the railway industry. This is essential as our customers want their remanufactured components to perform according to the original specification and have the same lifespan," he says.

A sound example of the unique machining capacities on Metric Automotive Engineering's floor includes a purpose-built cylinder block remanufacturing machine. This three-axis computer numerically controlled machining centre is one of only 11 operating worldwide, and Yorke says it provides consistent accuracy levels demanded by Metric Automotive Engineering's customer base. In addition, it has the capacity to handle 6,5 metre long blocks with ease, strengthening the company's service offering to the railway industry.

The company's facility in Johannesburg, Gauteng, is also home to several specialised machines that are able to remanufacture surfaces and bores of large blocks, complementing its dedicated comprehensive block remanufacturing operations.

Yorke also points to the company's dedicated crankshaft grinding machine that is seated on an isolated foundation, eliminating any exposure to vibrations from inside the factory ensuring a quality remanufactured end product. In addition, this machine has the capacity to handle crankshafts of up to 4,8 metre in length and weighing as much five tonne.

He says that this is the newest technology to be introduced to the country in many years, and is operated together with process critical compensators. These compensate for the rotational deflection found when grinding large crankshafts, resulting in improved surface finishes and dimensional tolerances.

This equipment is complemented by the company's 45 year capability in remanufacturing that bolsters its ability to deploy a salvage process that has not been available in the country before to service the South African railway industry.

For example, prominent private and public-sector railway operators are realising the benefits of Metric Automotive Engineering's ability to undertake accurate line bores, which are all certified with laser alignment certificates that negate the need for any welding on a main railway engine.

Not only is welding extremely time consuming, Yorke says that it also induces more stress on essential components as they are subjected to the concentrated excessive heat levels associated with the welding process.

He says the company has also been able to retain its leading position in the remanufacturing sector by investing significantly in ongoing research and development (R&D), providing Metric Automotive Engineering with a comprehensive and in-depth understanding of all OEM's engineering standards.

These OEM specifications are used as the basis upon which Metric Automotive Engineering undertakes all its remanufacturing activities, as well as helping the company stay abreast of the latest developments in diesel engine design and engineering.

This capability has long been acknowledged by all engine manufacturers and their dealers, who have worked closely with Metric Automotive Engineering over the years.

"I can say confidently that we are the only company in Africa, apart from the OEM, that is able to machine all of these components correctly," says Yorke.

The quality of workmanship has been bolstered by the company's skills base with some machine operators boasting more than 25 years of experience in the remanufacturing sector.

Yorke says that apprentices are constantly being trained by these seasoned operators as part of the company's succession strategy that is geared at retaining Metric Automotive Engineering's unique DNA, which is characterised by quality workmanship and enshrined in the company's ISO 9001 accredited policies.

A testament to the confidence that the South African railway industry has in Metric Automotive Engineering's capabilities is its approval by the country's leading carrier, Transnet Freight Rail (TFR), to undertake the remanufacturing of locomotive cylinder heads, crankshafts and cylinder blocks.

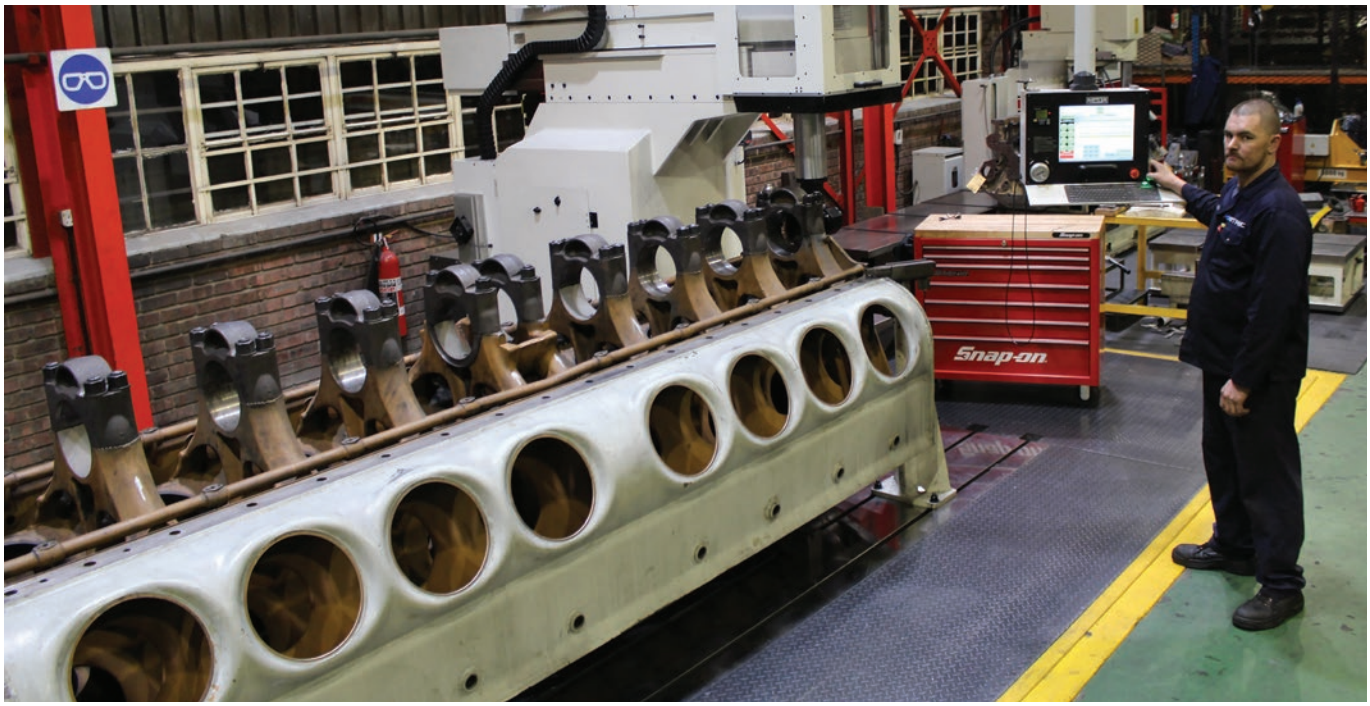
Metric Automotive Engineering underwent a full technical audit to guarantee that it could meet TFR's exacting requirements.

Yorke says this development also reflects the state-owned transporter's proactive and advanced thinking around its remanufacturing requirements, which he says, are in line with those of international railway operators.

However, Yorke is concerned that there are some railway operators in the country that are still relying on outdated remanufacturing processes, that are based on the design and engineering only found in very early diesel engine technology. This is despite the immense strides made in the international remanufacturing industry over the years that sees it use sophisticated technologies and methods that have all been incorporated in Metric Automotive Engineering's facility.

In some instances, decisions to opt for a limited repair service can be attributed to a cost saving exercise by some operators, especially in current challenging economic conditions. Yorke reminds that the long-term costs of a premature engine failure due to sub-standard repair services can be significant, especially for railway operators who cannot afford any downtime.

South Africa's railway network remains a critical component of the South African economy, and Metric Automotive Engineering is playing a valuable role in keeping those massive diesel engines transporting important commodities and goods to their final destination.



The cylinder block machining centre at Metric Automotive Engineering.

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KENYA - HUGE INCREASE EXPECTED IN CARGO HAULAGE USING SGR

Speaking during a consultative meeting with members of the Shippers Council of Eastern Africa, the principal secretary in charge of Transport, Wilson Irungu Nyakera, presented forecasts regarding the soon to be commissioned Nairobi-Malaba Standard Gauge Railway. The standard gauge railway (SGR), which is expected to be complete by December 2018, reportedly, has the potential to significantly reduce the time and cost of rail haulage as well as increase the haulage capacity for the shippers in the region.

The meeting brought together Kenya Railways, Rift Valley Railways, importers and exporters and other industry experts to discuss the operation risks and challenges of open access, which refers to a regulatory framework that allows any qualified train operator to use any railway infrastructure and is charged infrastructure tariffs to operate. The meeting further explored the pricing structure of SGR.

Once completed, the modern, high capacity SGR will carry a trailing load of 4,000 tonnes on each train. The project is expected to increase Kenya's total production capacity by at least 1.5%. In addition, the Kenyan transport ministry expects cargo uptake via rail go from the current 3% to 35%. "The government expects the project to reduce freight costs from $0.20 per tonne per kilometre to $0.08 tonnes per kilometre. It will also increase cargo train speeds by up to 80km/h and passenger trains to 120km/h. Essentially, the rail trip from Mombasa to Nairobi will take only four hours," Nyakera explained.

Gilbert Langat, chief executive at the Shippers Council of Eastern Africa, said, "The cost of moving goods across borders has become increasingly important as the EAC market players continue to position their products in the global market. We are optimistic that our quest to kerb the extra transportation costs that

Photo courtesy Kenya Railways: https://www.facebook.com/Kenya-Railways-248578828508174/

have been impeding regional trade will partly be resolved by SGR.

"Beyond increasing the competitiveness of the region's exports by overly reducing the transportation costs, this new line will play a key role in upping the overall logistics performance in the region," he continued.

According to Kenya Railways MD, Atanas Maina, cargo clearance times have already dropped from eight days in 2011 to four in 2015. "We will be counting on regional importers and exporters to explore business opportunities that can fully utilise the line that the government has heavily invested in," he explained.

The operator reports that more than 75% of civil works have been completed on phase one of the SGR projects with about 200km of track-line having been laid between Emali and Voi. The track laying process is expected to be completed by December 2016, with the first batch of locomotives expected to be delivered in November 2016. Trial tests are scheduled to start shortly before the official launch in June 2017.

Construction of 120km phase 2A from Nairobi to Naivasha is expected to start in September 2016, while the 262km phase 2B from Naivasha through Narok, Bomet, Ahero to Kisumu is at finance identification stage. Phase 2C from Kisumu through Yala, Mumias and ending at Malaba will be 107km long and is also at finance identification stage.

Joram Nyazi, General Manager

RIFT VALLEY RAILWAYS (RVR) APPOINTS NEW GENERAL MANAGER FOR WESTERN LINE

RVR has recently announced the appointment of a new general manager for the western line. Joram Nyazi will be based in Kampala and will oversee the operations and commercial functioning of the railway operator from the western Kenyan section of the Rift Valley to Uganda. Nyazi is an experienced railway manager, who started his career at Spedag Interfreight, where he held the designation of managing director before accepting the senior position at RVR.

The African railway operator has announced that a major infrastructure investment programme, valued at $US300 million, is nearing completion. The aim of the programme is to identify areas of the railway line that are in serious need of rehabilitation and carry out the necessary maintenance to improve safety on the track. Secondly, the operator hopes to add to their rolling stock and locomotive fleet. RVR has also invested in a state-of-the-art cargo tracking system, which will provide real-time tracking of cargo from Uganda to the port of Mombasa. The innovation, it is hoped, will improve the logistical supply chain management in the area and optimise service efficiency.

KENYAN PRESIDENT INSPECTS THE MOMBASA-NAIROBI SGR PROJECT

President Uhuru Kenyatta of Kenya has attended a site visit on the Mombasa-Nairobi section of the Standard Gauge Railway (SGR) project currently underway in the region. He was accompanied by internal security cabinet secretary, Joseph Nkaissery, industrialisation CS, Adan Mohammed, finance CS, Henry Rotich, mining CS, Dan Kazungu and attorney general, Githu Muigai.

Kenya Railways managing director Atanas Maina announced that the project, being implemented by China Road and Bridge Corporation, is 82% complete and that work on the project is running ahead of schedule. The first phase of the project, comprising 427km of track, is due for completion in July 2017, and will cost the country Sh153 billion. The construction of the railway line forms a part of a mega infrastructure development plan, called Vision 2030, being implemented by the Kenyan government in partnership with the People's Republic of China. The Kenyan government has ordered 52 trains to run on the new track, which will be operated by China Communications Construction Company for five years as per the contractual agreement entered into by the two parties.

Commenting on the project President Kenyatta stated that: "The SGR project will contribute to a significant drop in the cost of consumer goods as it will lower the cost of transporting cargo from the port of Mombasa." He remains confident that the infrastructure investment plans undertaken by his administration will result in much needed economic development in the country.

Photo courtesy Kenya Railways: https://www.facebook.com/Kenya-Railways-248578828508174/

TAZARA INITIATES REHABILITATION WORKS FOR COPPER-CARRYING WAGONS AT MPIKA

In a press statement issued by the public relations office of the Tanzania Zambia Railway Authority (TAZARA), the rail operator announced that it has embarked on a rehabilitation programme to restore 200 copper-carrying wagons over a period of ten months at their workshops in Mpika.

The exercise is expected to cost approximately ZMW1.9 million (roughly $US200,000) and is aimed at improving the copper-carrying capacity of TAZARA ahead of expected rises in metal traffic in the region. Out of a current 1,094 wagons in service for the operator, 704 are suited for carrying metals. The project was initiated last month and plans to overhaul at least 20 wagons per month, with the first batch expected currently.

TAZARA workshops, operating under tight financial constraints, have diversified their service offerings in an attempt to bolster the sustainability of their operations. In addition to their core business of manufacturing railway spare parts, the workshops have ventured into furniture refurbishment and manufacturing as well as general fabrication of a wide range of products including nuts and bolts, building supplies, tools and agricultural implements.

PROMISE OF IMPROVED SERVICE BY TAZARA AND SNCC

Following assurances of improved service delivery from the Tanzania-Zambia Railway Authority (TAZARA) and the National Railways Company of Congo (SNCC), the two railway operators have agreed to aggressively market their services to increase the volume of freight between the Port of Dar es Salaam in Tanzania and the Democratic Republic of Congo (DRC).

The two railway operators met in Dar es Salaam on 13 June, followed by a meeting with Dar es Salaam based customers and other stakeholders on 14 June to deliberate on various aspects relating to railway services in Tanzania, Zambia and DRC.

Both TAZARA and SNCC announced that they had posted substantive improvements in their performances, with transit time between Lubumbashi and Dar es Salaam, which was over 40 days in the past to less than 10 days currently. TAZARA alone is moving cargo between Dar es Salaam and New Kapiri-Mposhi in five days. TAZARA announced that the reduction in delays has also has a significant effect on the security of cargo on the line, with incidences of theft currently sitting at zero.

Continues on page 48

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Continued from page 46

These improvements have come as a result of changes in leadership for both railway operators as well as through measures taken by the shareholding governments to stabilise and boost railway operations by injecting both funds and equipment.

Both TAZARA and SNCC expressed regret that despite the abundant volumes of cargo being moved along the Dar es Salaam Transport Corridor covering the DRC, Tanzania and Zambia, the railways' share only represents 2%. This, they state is unacceptably low and they have resolved to collectively pursue strategies that would uplift freight haulage in the next few months.

At the stakeholder's meeting in June, participants noted the efforts that the railways were making to improve their services but also urged them to review their tariff rates because the railways were supposed to offer the cheaper mode of transportation compared to roads.

Stakeholders also urged the railways to streamline their operations to ensure that seamless services were offered to shippers in DRC, Zambia and Tanzania as well as to make wagons readily available to customers whenever required. In this regard, the two railway operators pledged to pool their resources in allocating wagons and address the lack of coordination among the three railway providers (including Zambia Railways Limited, SNCC and TAZARA) operating on the line.

Photo courtesy Kenya Railways: https://www.facebook.com/Kenya-Railways-248578828508174/

TRIPARTITE MEETING BETWEEN TAZARA AND CHINA PROMISES FURTHER INVESTMENT IN THE LINE.

The Tanzania-Zambia Railway Authority (TAZARA) tripartite meeting between the shareholding governments of the United Republic of Tanzania (URT), the Republic of Zambia (GRZ) and their partner, the government of the Peoples Republic of China, was convened from 9 to 12 May at the Julius Nyerere International Convention Centre in Dar es Salaam, Tanzania.

The meeting, which included delegations of technical experts from the three states, considered the report on the feasibility study conducted on TAZARA by the Third Railway Survey and Design Institute (TSDI) of China and discussed the challenges, experiences and future strategies to revitalise TAZARA.

The URT chief secretary ambassador Eng. Kijazi welcomed the respective delegations and commended China's commitment to continue working with Africa. He also encouraged Chinese enterprises to pursue opportunities in developing infrastructure in the region, including railways, roads, electricity transmission lines, irrigation channels among others.

Secretary to the cabinet of GRZ, Dr Msiska, emphasised the fact that revitalising the railroad would significantly reduce the cost of doing business in the region. By moving freight from road to rail, investment in rail infrastructure would reduce pressure on the region's deteriorating roads network, he pointed out. Msiska, therefore, recommended that the railway be linked to the Great Lakes Region and the East African Community via the Mpulungu Port.

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TANZANIA LAUNCHES ITS SECOND FIVE-YEAR DEVELOPMENT PLAN

Tanzanian minister of finance and planning, Dr Philip Mpango, presented the second Five Year Development Plan (FYDP) to the national assembly last week. The FYDP aims to boost industrialisation for the country, with the hopes to elevate the developing economy to a middle-income earner in the region. Dr Mpango announced that the plan would require TZS107 trillion to implement.

"The funds for implementation of the plan will be obtained from two key areas, namely internal revenue collection through tax and non-tax revenue and loans and grants from outside the country," said the minister.

The FYDP highlights three major projects for implementation during this development cycle, including development of coal and iron ore mining the in Mchuchuma and Liganga special investment areas, the development of the Tanzania and China logistics centre in the Kurasini district of Dar es Salam, and the construction of a standard gauge central railway including branches and subsidiaries.

In line with this, China has officially agreed to enter into a partnership with the Tanzanian government to implement the construction of 2,561km of standard gauge line, with the projects flagged to go to tendering soon.

In tandem with these developments, the controller and auditor general of Tanzania under the directorship of Prof Mussa Assad released the country's audit reports for the 2014/2015 financial year. According to these reports TZS1.82 trillion has been spent on development projects, however, much of the Tanzanian GDP is going towards debt repayment, which according to Prof Assad totaled TZS4.60 trillion in the 2014/2015 financial year.

"Including those costs and other expenses such as staff salaries and holidays, the government is left with a small amount of money to finance development projects," explained Prof Assad. Adding to these problems, the audit report for development projects states "Accounting officers and managers of the projects did not adequately manage or supervise projects. As a result, they failed to rectify issues which could improve the financial management and control of resources of projects."

The first FYDP implemented in 2011 is due for completion in June of this year. However, Dr Mpango states that implementation has failed in many respects, and is currently only 60% complete.

While the Tanzanian government has encountered multiple problems in the effective implementation of its development plans, it is hoped that infrastructure development such as the standard gauge rail project will, with China's backing, support the government's ambitions for the industrialisation of the region.

TRADE MARK EAST AFRICA INTERVENTIONS IN UGANDA BEAR FRUIT

Ali Mufuruki, chairman of the board of Trade Mark East Africa (TMEA), a development agency working in the region, announced the remarkable gains the organisation has made in developing trade and investment in the East African region at an event held in Kampala, in May.

According to TMEA, the trade facilitation projects implemented in Uganda by the organisation have resulted in approximately $US50 million in new trade for the country during the 2015/2016 financial year. TMEA launched its Uganda Country Programme (UCP) in 2011 with an approximate budget of $US100 million. Independent researchers initiated an evaluation process in 2015, which has taken six months to complete. Projects audited include the modernisation of customs venture, the electronic cargo tracking system as well as the authorised economic operators project.

TMEA reports that the improvement in transit times between Kampala and ports have resulted in a significant reduction in the cost of trade and an improvement in the supply of commodities such as fuel for the region. Other projects include infrastructure development, support to Ministry of East Africa and the Uganda National Bureau of Standards, support to the elimination of Non-Tariff Barrier projects, among others.

The customs management system implemented by the organisation uses ASYCUDA World Software and has reduced the processing time for imports and exports by 30%. Prior to the implementation of the system, it could take up to 120 hours to clear goods through customs. With the integration of this technology into the system processing times have come down to just 72 hours, TMEA reports.

The Electronic Cargo Tracking system (ECT) continues to deliver an average of 144 hours in time savings for cargo bound for Uganda. The Uganda Revenue Authority (URA) uses ECTs to track about 15,000 containers per annum, which has led to the complete elimination of physical escorts. The system has improved security standards for of goods in transit and has had a positive effect on the performance of staff. The effective implementation of the ECT system has lead to a reduction in transit times from 8 days to 2 days, which translates into a cost savings of $US400 to $US600 per truck, per day.

Frank Matseart, chief executive officer of TMEA, states that: "The overall return on investment for projects with long-term outcomes to-date is 14%. An analysis of the additive trade impact of those few projects that are already returning benefits suggests that TMEA interventions are beginning to induce new trade in Uganda, which is likely to grow. As physical infrastructure projects like Mirama Hills Road and one-stop border posts like Busia, Malaba and Elegu come on line and begin to deliver added time savings, we believe the trade impacts will grow significantly."

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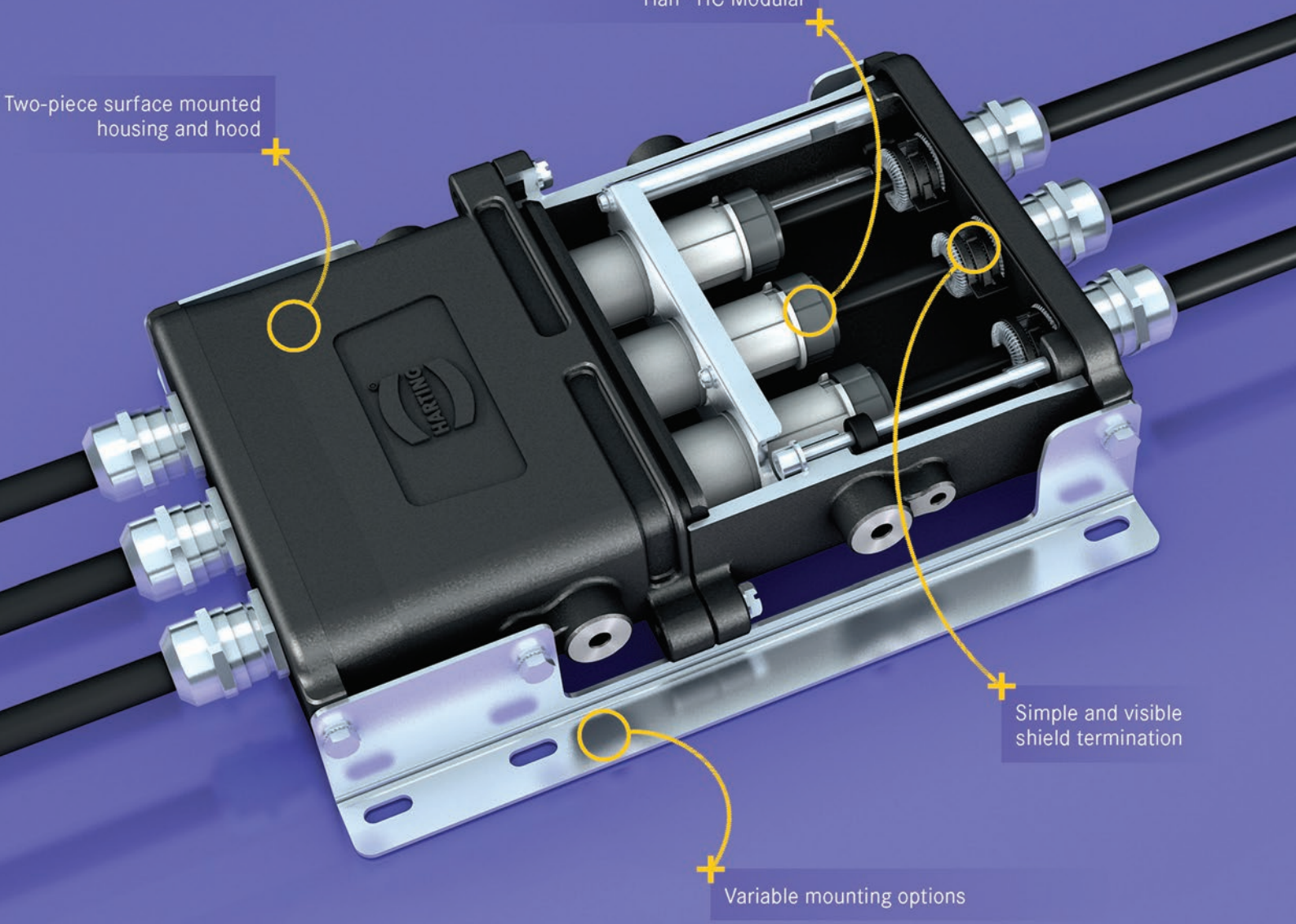

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Local supplier contributes to sustainable operations of railways in South Africa

It is no secret that many African rail companies are experiencing the adverse effects of the current harsh economic climate. It is with this in mind that Timken Bearings is actively engaged in finding means to assist companies in the rail industry to cut down on operational costs, and thereby become more cost effective.

Timken is a global leader in friction management technologies and provides one of the most complete offerings of antifriction bearings in the industry. Timken bearings were first applied to the railroad industry in 1923, though the company has been in operation since 1898. Timken caught the imagination of the American public in 1930 when it collaborated with the American Locomotive Company to build the Timken 'Four Aces'. This was the first locomotive constructed with sealed roller bearings rather than friction bearings. The rolling resistance on this groundbreaking locomotive was so low that three unassisted women were able to pull it at staged public demonstrations.

Since the introduction of Timken bearings into the rail industry, advances made by the company continue to dominate the sector. In 1954, Timken introduced the AP roller bearing, which became the industry standard. This was supplanted in 1994 by the AP-2 bearing. In 2007, the SureFit™ backing ring was developed and in 2008, Timken introduced its Ecoturn seals.

Timken has stayed true to its motto 'Stronger by Design' throughout the more than 90 years since they first started designing products for use in railways. The company is committed to building strong relationships with their end users and have continued to consult with operators in the rail sector throughout the conceptualisation, design and manufacturing of bearings for the industry.

Timken Innovations' bearings continue to set the highest standards for fuel efficiency and durability. The AP-2 bearing is shorter and stiffer than comparable products, which results in less axle flexing. The AP-2 bearing is designed for an axle load of 40 tonnes. With the greatest axle load experienced in South Africa at 28 metric tonnes, on the Orex iron-ore wagons, this allows for a generous margin of tolerance. The AP-2 bearing is designed to run at approximately 10° cooler than its predecessors, which results in fewer failures. This design extends both the bearing and axle life.

Current Standard Class K Timken AP-2, 6 ½ x 9 Bearing Design

A.A.R. Class K AP-2 Bearing Design.

"These lighter bearings reduce the weight of an average wagon by about 100kg," explains Muthan. On a 100 wagon train, the weight reduction achieved by incorporating AP-2 bearings could provide a saving on fuel in excess of 50,000 litres a year, Muthan states. The net result is not only a significant cost saving for rail operators but also a marked reduction in the carbon footprint of rail transportation.

The Surefit™ backing rings, introduced to the market in 2007, is another pioneering innovation from Timken. In the past, when a backing ring failed the whole wheel set would need to be replaced. The trade marked Timken backing rings have addressed this challenge by incorporating a built-in compression ring, which provides positive clamping even when the ring is undersized. It also provides lower and more consistent bearing operating temperatures. The custom designed labyrinth seal on the Surefit™ prevents dirt getting into the bearing. The zero-torque design has the potential to save thousands of litres of fuel annually, while reducing carbon emissions by several tonnes per year.

"When one considers the cost of this backing ring, is a fraction of a percent of the cost of a new wheel set," Muthan explains. In addition, Timken has developed an AAR approved remanufacturing process for the effective maintenance of rail bearings. "Our confidence is such that our remanufactured products have same guarantee as new bearings," Muthan states. This has significant cost saving implications for rail operators. Timken has a remanufacturing facility in Benoni, Gauteng, where bearings can be overhauled and remanufactured within very short turn-around times for customers in the local market.


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Spotlight
SOUTH AFRICA

MINISTER DIPUO PETERS SETS ASIDE R19 BILLION FOR RAIL IN THE 2016/2017-TRANSPORT BUDGET

In her presentation of the 2016/17-transport budget speech in Cape Town in May, minister Dipuo Peters announced her intention to set aside R19 billion for rail transport for the upcoming fiscal year.

In reflecting on the achievements gained by her department in the preceding year, Peters highlighted job creation, improvements in interdepartmental relationships at a governance level and greater cooperation between transport entities and stakeholder communities. She made special mention of the PRASA lead railway modernisation project, stating that: "Our intensive rail modernisation programme provides uncontested evidence of unprecedented potential job opportunities, localisation and industrialisation."

According to the minister, the rail modernisation programme is poised to deliver a R13.5 billion subsidy, in the medium term, for Shosholoza Meyl and Metrorail which will result in 500 million passenger trips in six metro areas, and 700 000 long-distance passengers. She indicated that the project will result in the construction of a train manufacturing factory in Dunnottar, valued at more than R1 billion and is set to provide jobs for about 1,500 people. Safety will also be addressed with the replacement of obsolete signalling and development of new signals at a cost of R13.2 billion. The minister expects the signalling programme to create 762 jobs, excluding the 150 engineers and artisans needed for the project. The minister noted that the Motherland and Greenview-Pienaarspoort rail extensions had created an additional 1,325 jobs.

While the minister used the opportunity to highlight the gains that the rail modernisation programme has achieved, she also chose to acknowledge the serious problems that PRASA continues to tackle. "This ANC Government's good story is in no way told to veil the serious problems of service disruptions, acts of vandalism, violence and criminality against train commuters, the rolling stock and infrastructure," she said. "Interventions to normalise and optimise operations are a constant preoccupation of our department through the Rapid Rail Police of PRASA and the broader security cluster departments."

With regard to safety, the minister stated that: "The Railway Safety Regulator (RSR) is central to the safety

of our people and the environment in the railway industry, and to that end has taken a bold stand to adopt the vision; *"Aspiring to achieve Zero Occurrences"*.

Peters acknowledges that collisions remain a concern for our railways, however, notes that the number of collisions between trains declined by 44% from the previous period.

"Even though technology reviews were introduced with the aim of mitigating risk in the rail network, human error and old technology still compromises the safety of our railways. This has informed the RSR's risk-based strategy, which gives a great deal of attention to human factor risks, which account for more than 71% of all occurrences," she concluded.

DEPARTMENT OF TRADE AND INDUSTRY (DTI) LAUNCHES IPAP - MAJOR EMPHASIS PLACED ON THE RAIL SECTOR

Trade and Industry minister Rob Davies launched the eighth iteration of the Industrial Policy Action Plan (IPAP). During the launch, he stated that the IPAP is a continuous action plan, which focuses on economic restructuring to reindustrialise the South African economy.

"IPAP 2016 again stresses the pressing need for structural change in the economy. It underlines the point that if South Africa was unable to optimise the opportunity to effect structural changes that the commodity boom provided, then doing so now is an even tougher ask," minister Davies said.

He further added that the severe, adverse domestic impact of the global economic recession, and ensuing commodity slump, only serves to underline the urgency for structural change and that the challenges now have to be met under much more adverse conditions. These include very tight fiscal conditions that constrain the extent to which support for the manufacturing sector can be leveraged.

Government and society have moved beyond debating whether or not an industrial policy is needed, he stated. The question, he said, is rather about the manner in which South Africa can achieve stronger policy coherence and programme alignment across government departments and agencies.

Focusing his attention on the rail sector, minister Davies indicated that government has taken steps to rebuild the rail sector's industrial capabilities.

"At present, the supply chain supports 14,000 jobs, and many supply companies have not only rebuilt their fabrication capabilities but developed niche capabilities in high-value and complex systems such as traction and propulsion motors and bogie systems," he said.

Among the highlights of the last IPAP, it was noted on the dti website that local procurement requirements provide a framework for achieving a minimum local content of 55%, rising to 85% in different rolling stock classes. Many domestic tiers one, two and three suppliers have the capability to produce components to the required standard, at competitive prices and within 'just-in-time' manufacturing principles. The local procurement targets involve four original equipment manufacturers (OEMs) in the Transnet, Transnet Freight Rail and PRASA procurement programmes.

The minister highlighted that government is committed to providing a more development-friendly business and investment environment.

This, he said, is another key theme to the IPAP and is demonstrated by the establishment of an Inter-Ministerial Committee to tighten up the intra-governmental coordination required to underpin the new one-stop investment centres. This is also demonstrated by a rapidly expanding partnership between the Companies and Intellectual Property Commission (CIPC) and all the major banks to provide official company registration facilities both within their branches and online.

"You will find that IPAP again presents a set of realistic, achievable, time-bound action programmes, with precise milestones, assigned to a range of departments and agencies. They are both cross-cutting and sector-specific in their focus and their impact is incremental," said minister Davies.

TRANSNET COMMITS TO ENSURE THAT LOCOMOTIVE DEAL MEETS LOCALISATION TARGETS

Transnet has implemented a series of governance, control and monitoring measures to ensure that Original Equipment Manufacturers (OEMs) meet the company's stringent localisation obligations and supplier development commitments, the company announced in a press release. This announcement has come concurrently with the launch of the dti's IPAP 2016, which focuses on both the role of localisation and rail in the reindustrialisation of the South African economy.

Transnet awarded CSR Zhuzhou Electric Locomotive and Bombardier Transportation South Africa contracts for the supply of 599 electric locomotives. General Electric South Africa Technologies and CNR Rolling Stock South Africa (Pty) Ltd will build and supply 465 diesel locomotives. These contracts are worth more than R50 billion and represent South Africa's single biggest infrastructure investment initiative by a corporate to date, the company states. CSR and General Electric will be manufacturing from Transnet Engineering's (TE) facilities in Pretoria while CNR and Bombardier will use TE's facilities in the Durban.

Transnet is continuously monitoring the progress made by all the OEMs who were awarded stakes in the more than R50 billion contract. In addition to the standard governance structures, Transnet has set up a special sub-committee of the executive committee chaired by the group chief executive. The special committee will be attended by executives tasked with the execution of the project, including the group chief financial officer, chief executives of Transnet Freight Rail and Transnet Engineering and heads of procurement, legal and risk departments.

GE Class 44 manufactured at Transnet Engineering's Koedoespoort facility. Photo: Craig Dean

The committee is tasked with providing oversight, identifying risks and approving appropriate mitigation actions for the locomotives build programme. The committee will direct the overall review of the project budget and governance and ensure that all risks are mitigated. This includes overseeing the various OEMs and subcontractors involved in the build programme as well as monitoring contract execution and delivery of local content obligations. They will also

Continues on page 58

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ensure compliance with supplier development commitments and supervise information technology and skills transfer. The committee will be responsible for the management of the delivery schedule and working capital requirements and will ensure that there is adequate programme assurance.

Transnet acknowledges the role that the Department of Trade and Industry (the dti) plays in verification of local content. To this effect, the dti has appointed the South African Bureau of Standards (SABS) as its official verification agency. In terms of its mandate, the SABS can only pronounce on whether local content has been achieved or not once it has completed the validation process and has issued a report. All OEMs have staff working at Transnet's various manufacturing sites. The company is willing and able to facilitate access to information should the department or SABS face any challenges.

At an operational level, the company has developed various monitoring tools for the OEMs to provide regular updates on their performance on localisation. This includes the development of a local content reporting template to update on progress, which was agreed upon with the OEMs. To provide further assurance, Transnet also performs an internal validation process of each of the OEM's performance as part of contract management. The group chief executive, Mr Siyabonga Gama, appointed one of South Africa's big four auditing firms as governance and performance monitors on the project, to ensure the integrity of information and compliance with various aspects of the agreements.

TFR: MANGANESE EXCEEDS 1 MILLION TONNES MILESTONE IN A MONTH

Transnet Freight Rail (TFR) set a new record in monthly volumes for manganese during the month of May, driven by an improvement in operational efficiencies and an upturn in market conditions.

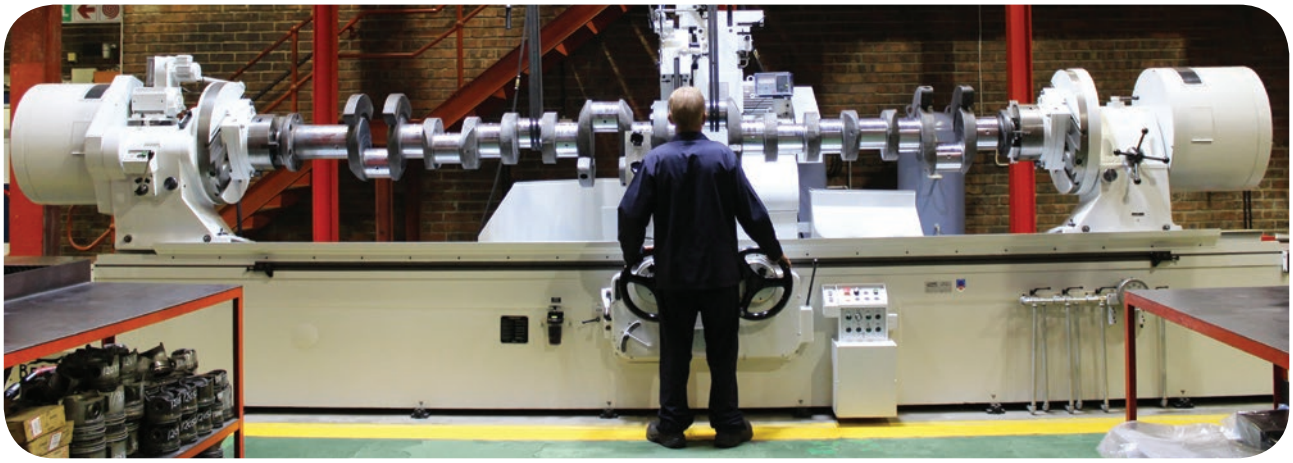
TFR moved a record-breaking 1,053 million tonnes against the previous high of 976,671 tonnes as the company's efforts to boost operational performance, reliability and overall energy efficiency in the rail service begin to pay dividends. The team also achieved a weekly record of 252,131 tonnes.

The record-breaking performance is due to a significant improvement in efficiencies across the channels which were driven by the introduction of new locomotives among other things. The introduction of the new fleet improved traction effort, efficiency and reliability while using fewer locomotives.

More than 75% of the fleet on the manganese line, which runs from Hotazel to Port Elizabeth, Saldanha and Durban, is new.

The new locomotives have had a significant impact on operations, including reduced cycle times from 200 to 125 hours and a 45% improvement in reliability.

As part of the company's infrastructure investment programme, Transnet is modernising its fleet in an effort to increase volumes, improve reliability of service and customer satisfaction. Transnet recently took delivery of a hundred new electric locomotives, with 85 of these dedicated to the manganese line.



Grinding of crankshafts with lengths of up to 4.7 metres and weights of up to 5 ton

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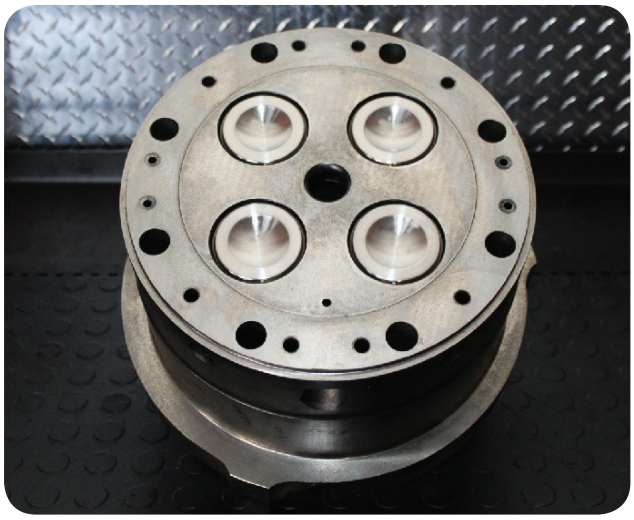
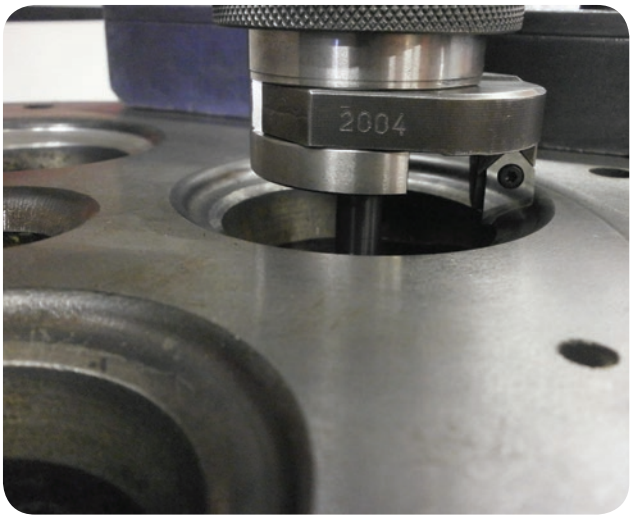
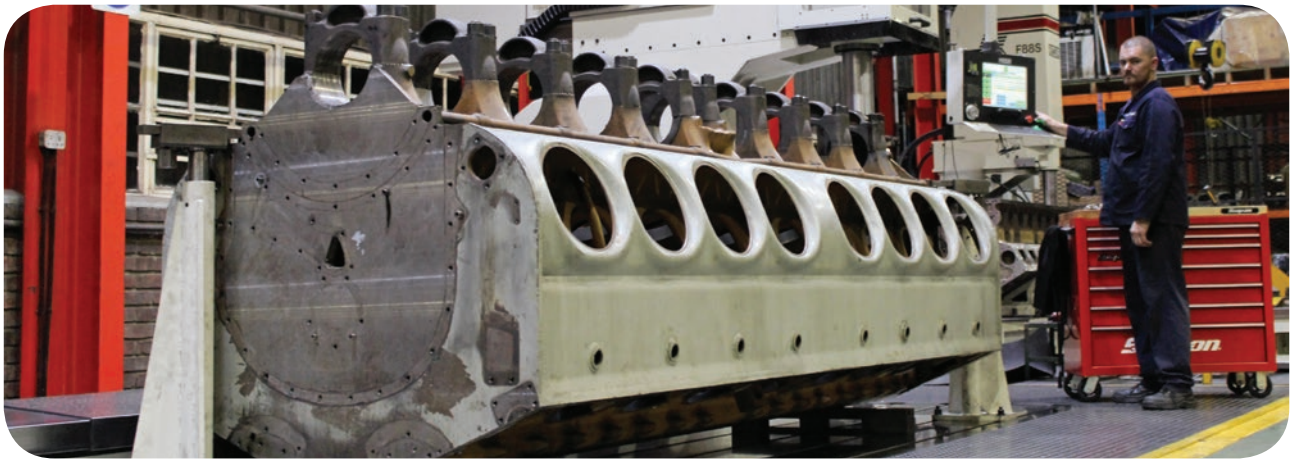




Zero hour cylinder head remanufacturing



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RSR OFFERS TECHNICAL ADVISORY SERVICE FOR RAIL OPERATORS ACROSS THE SADC REGION

Speaking at the Southern African Railways Association (SARA) conference in Johannesburg in May, Mr Mabila Mathebula, a senior researcher at the Railways Safety Regulator (RSR), presented a paper on the concerning standards of operation by railway operators across the SADC region. According to his findings, most railways in the SADC region are operating under what he terms 'degraded conditions', where operators function outside of safety regulations because they do not have the resources, such as functioning signalling, to comply. He hypothesises that informal concessions on safety in favour of continued operation soon become the norm, permanently undermining safety on our railway systems.

RSR vice president and SARA CEO Stephenson Ngubane summed up the value argument with regard to railway safety by stating: "Safety does not cost the railways, lack of safety is what costs us money." According to Ngubane, SARA has made considerable gains in regulating safety standards in the SADC region in recent years. The association has introduced a number of standardised regional safety policies that have been adopted as SADC policies and implemented by all rail operators in the region, which has had a positive effect on safety management across the territory.

However, according to the RSR, there is a need for technical advice and support for rail operators seeking to improve compliance with safety standards at their operations. To this end, RSR has offered to serve in an advisory capacity to all SARA members by creating a safety advisory service for the SADC region.

This announcement was met with resounding support from delegates attending the event with several operators accepting the offer immediately.

EXTENSION PLANS FOR GAUTENG RAPID RAIL SYSTEM TO BE ANNOUNCED SOON

Responding to questions at a meeting of the Transport Portfolio Committee in the Gauteng Legislature in May, Gauteng MEC for Roads and Transport, Dr Ismail Vadi announced that planning for the extensions of the Gauteng rapid rail system will be complete in July 2016.

Vadi stated that the feasibility report on the extension of the Gauteng rapid rail system is nearly complete and proposals on the further development of the rail network will be made public once necessary consultation processes with all spheres of government have taken place.

"The Gautrain Management Agency (GMA) expects to have a complete feasibility study ready for submission and consultation to the National Treasury by the end of July 2016," said Vadi. He also confirmed that the GMA is to acquire 48 additional rail coaches to carry peak period passenger demand over the next 10 years. In addition, the current rolling stock project involves the expansion of the existing depot to maintain additional trains. This will provide the capacity needed to run the trains at shorter headways and provide additional maintenance equipment.

The Gautrain project has been registered under Presidential Strategic Infrastructure Projects (SIP7) with the Presidential Infrastructure Coordinating Committee.

GMA TO ACHIEVE 65% LOCALISATION FOR ITS EXTENSION PLANS

At a media briefing following a meeting of the Transport Portfolio Committee in the Gauteng Legislature in May, Gauteng MEC for Roads and Transport, Dr Ismail Vadi highlighted that the minimum standards set by National Treasury for locally manufactured content will be applied to the procurement and maintenance of the rolling stock needed for the Gautrain extension plan, which is scheduled to be presented to the National Treasury in June.

"We will ensure that the Gautrain Management Agency (GMA) achieves 65% local content of the supply and maintenance contracts as well as the socio-economic development spin-offs for the country in terms of job creation," stated Vadi.

Some of the applicable targets for the sub-components making up the trains are related to the assembly of the locomotives including heat, ventilation and air conditioning as well as motor traction and the electrical and braking systems.

It is expected that the Gautrain rolling stock purchase will enhance the supply chains created by Transnet and PRASA procurements already underway.

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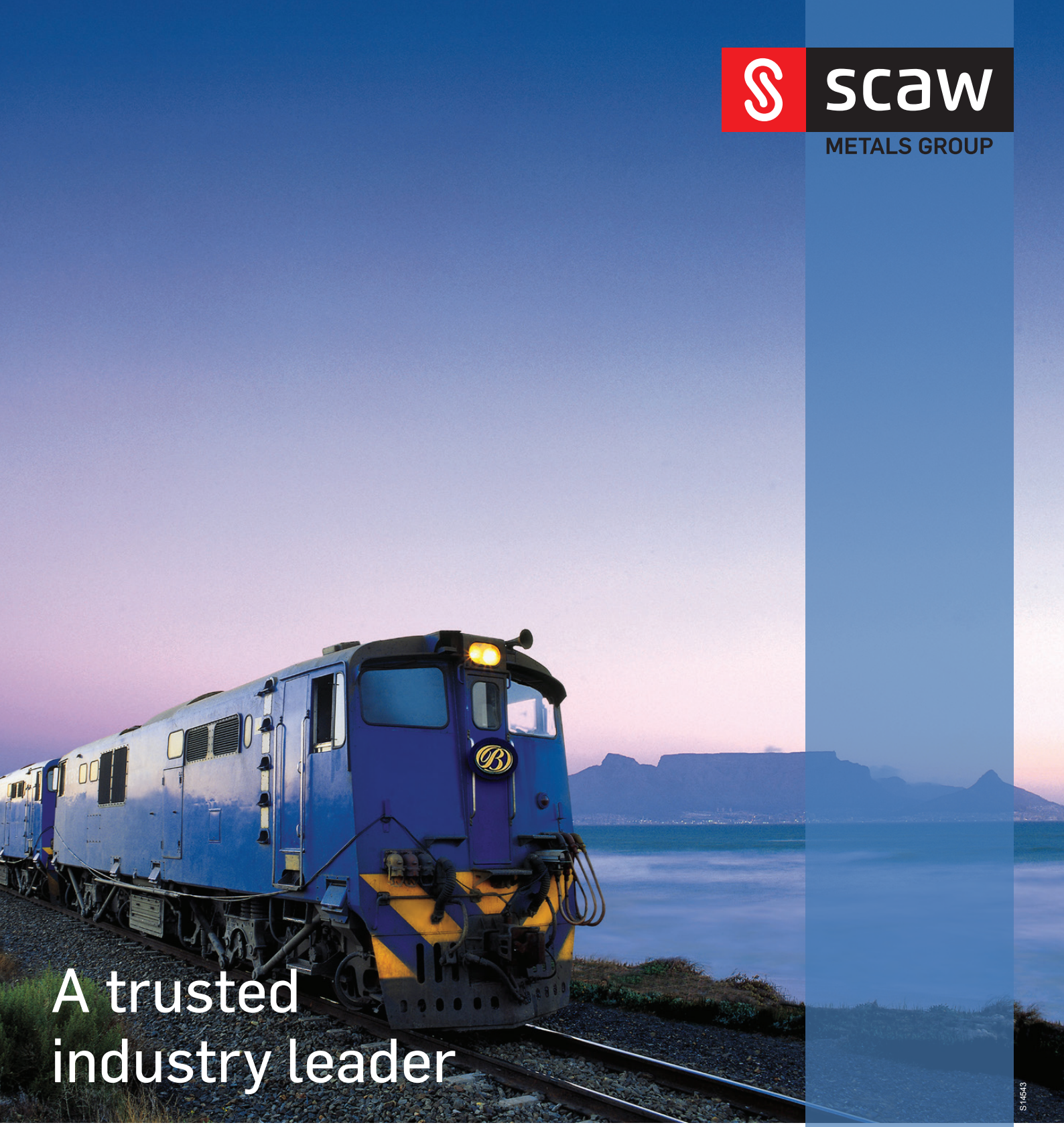

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TRANSNET SUCCESSFULLY DELIVERS WAGONS TO SWAZILAND RAILWAYS

Transnet Engineering (TE) has successfully rolled out the production of fuel tanker wagons and container wagons to Swaziland Railway. The contract between TE and Swaziland Railways for 90 wagons in total was signed on 1 February 2016. TE was able to deliver the first prototypes of a fuel tanker and container wagons in April of this year, well ahead of schedule.

Transnet Engineering Bloemfontein wagon build. Photo Craig Dean

Using a phased delivery approach to supply the 90 wagons, phase one included the delivery of 20 container wagons by the end of March, and phase two required a further batch of 20 by the end of April 2016. In addition, 15 fuel tanker wagons were scheduled for delivery at the end of March, with the second batch of 10 at the end of April, and the third batch of 10 at the end of May. The final batch of 15 were scheduled for the end of June.

The container wagons were manufactured at TE's Bloemfontein plant, while the fuel tanker wagons were produced in Germiston. Both depots successfully delivered the wagons ahead of schedule and within budget.

Speaking at the launch of the new rolling stock in Bloemfontein, Mr Thamsanqa Jiyane, chief executive officer of Transnet Engineering stated that:

"These wagons were designed, manufactured and built by dedicated, capable and agile engineering staff who have produced quality wagons ahead of schedule and within costs. Transnet Engineering, as a renowned Original Equipment Manufacturer with decades of accumulative expertise in the design and manufacturing of wagons, has met and exceeded the expectations of our valued customer – Swaziland Railways."

INTERNATIONAL RAILWAY SUPPLIER LAUNCHES THEIR SOUTH AFRICAN OPERATION

Lucchini RS is a world renowned Italian manufacturer of forged railway products. It has been actively trading forged railway wheels and axles in South Africa over the last 13 years. In support of the South African government's plans for job creation, Lucchini RS has made a commitment to localise wheel machining in South Africa.

The localisation involves the establishment of Lucchini South Africa (Pty) Ltd., created to complete the manufacturing process of blank wheels imported from Italy. These blank wheels will then be machined, inspected and delivered to the end client. In this initial step, it is envisaged that approximately 45 new jobs will be created through this investment, with a product local content of between 30% to 40%. Further expansion of the activity is planned in the future, with a medium term target of approximately 100 employees.

A R120 million is being invested in Lucchini SA, which will be housed in a 10 000m^2 facility located in Germiston to the East of Johannesburg. The investment includes the latest technology in plant and machinery, ordered by Lucchini RS in April 2015 according to the most advanced technical specifications, in accordance to the manufacturing process standardisation strategy of Lucchini RS Group.

Moreover, an extensive training and skills transfer programme is being planned and implemented by Lucchini RS. This training programme is giving the critical skill employees an opportunity to spend three weeks at Lucchini RS in Italy, to attain the necessary competence.

Lucchini RS is the first international forged wheel manufacturer to localise in South Africa. It is for this reason, that the venture has sparked the interest of black South African investors. SafLog Musi Investments and Pilot Investment, both 100% black owned South African companies, are partnering with Lucchini RS in support of this venture. The company is currently BBBEE level 4 and it is targeting a further improvement to level 3.

Lucchini SA is already operational, having been awarded with long-term contracts by its strategic clients. The first product manufactured in South Africa is going to be delivered in September 2016.

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INNOTRANS 2016

The eleventh InnoTrans will take place on the Berlin Exhibition Grounds from 20 to 23 September 2016.

InnoTrans is the world's leading trade fair for rail transport technology and takes place every two years in Berlin. At the last event 2,761 exhibitors from 55 countries presented their rail industry innovations to 133,595 trade visitors who came from 146 countries. The five segments at InnoTrans include Railway Technology, Railway Infrastructure, Public Transport, Interiors and Tunnel Construction.

InnoTrans is organised by Messe Berlin GmbH. More details are available online at www.innotrans.com.

EAST AFRICA RAIL CONFERENCE

Africa Rail, Africa's longest running and most successful railways conference and exhibition launches its East Africa edition. The event is scheduled for the 22 and 23 November and will be held at the Radisson Blu Hotel, Nairobi, Kenya.

East Africa Rail is where railway operators, authorities, government and end-users come together to learn, network and do business.

With over $100 billion being invested in the region, customers are continuously looking to drive revenues, deliver more secure and reliable services, streamline operational efficiencies and invest in new solutions.

EAST & CENTRAL AFRICA'S LEADING TRANSPORT SUMMIT RETURNS TO DAR ES SALAAM TO PROMOTE SUSTAINABLE TRANSPORT NETWORKS IN THE REGION

Regional and international stakeholders for East and Central Africa's transport infrastructure sector will be gathering once again at the 7th East & Central Africa Roads & Rail Infrastructure Summit 2016 to be held on September 27-28. The event will be held at the Hyatt Regency Dar es Salaam, The Kilimanjaro, Dar es Salaam, Tanzania.

This seventh Summit will bring together government authorities, railway operators, highways authorities, major end users and international investors to discuss current projects in the two regions, mobilise investment in this sector, identify bankable projects, promote public-private partnership, fast track key enabling frameworks, and evaluate the latest technical expertise and technologies critical to supporting the booming economies in this rapidly developing corner of Africa.

Roads & Rail 2016 will provide fresh updates on the major infrastructure projects in the East and Central African region including:

- The Mombasa-Nairobi Standard Gauge Railway (SGR) project
- The Dar es Salaam-Isaka- Kigali/Keza-Musongati (DIKKM) Railway project
- The Lamu Port-Southern Sudan-Ethiopia Transport (LAPSSET) Corridor project
- The latest developments on other major projects in the East African Rail Corridor and Central Corridor Tanzania.

GLOBAL AFRICAN INVESTMENT SUMMIT TO TAKE PLACE IN SEPTEMBER

The Global African Investment Summit (TGAIS) - COMESA and government of Rwanda is scheduled to take place on 5 and 6 September, the new Kigali Convention Centre in Rwanda. The theme of the event will centre on "*How the private sector can help realise the aspiration of Africa's largest single common market*".

The programme agenda will closely reflect the ambition of the landmark Tripartite arrangement of the Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC) and Southern Africa Development Community (SADC) which was launched in June 2015. The policy is aimed at driving intra-African trade by creating the continent's largest trading block. The enterprise encompasses 26 countries with a combined GDP of $1.2 trillion and a market of close to 620 million consumers.

"New private-sector participation is undoubtedly the key to unlocking Africa's infrastructure investment aspiration and ensuring that expertise is in place to support the move to regional harmonisation. This summit will provide a timely and essential meeting place for Africa's most senior influencers in government and the private sector to engage with global representatives interested in gaining direct access to the region's current investment opportunities," said COMESA's secretary general, Mr Sindiso Ngwenya.

The 2016 programme agenda, set for release at the end of June, will address the following key elements

- The development of trade and investment corridors in the TFTA region
- The contribution of investment and private sector players in enhancing the physical infrastructure to facilitate the movement of goods and persons
- The creation of an environment that enables harmonisation through policy and regulation.

Held under the high patronage of His Excellency Paul Kagame, President of the Republic of Rwanda, the two-day investment and networking platform will gather 900 senior-level delegates that have a direct interest in African business and investment opportunities including multiple african heads of state, government ministers and senior officials, private sector business leaders, global investors and project developers.

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