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African Review
of BUSINESS and TECHNOLOGY

55 YEARS
SERVING BUSINESS IN AFRICA SINCE 1964

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"The first phase of Rovuma LNG has the potential to transform the Mozambican economy"

Dele Kuti, head of oil and gas for Standard Bank Group

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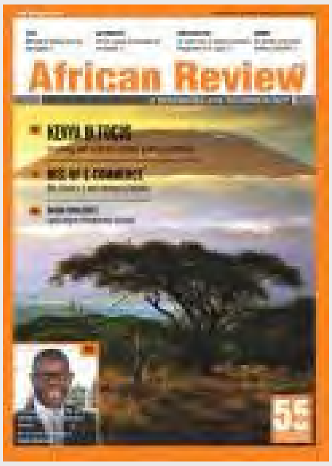

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Editor's Note

Welcome to our May issue. It was lovely to see so many of you at bauma Munich last month. We've featured some highlights of the show – including the world's biggest vibro hammer, page 38.

Our cover story is on Kenya, one of Africa's top 10 fastest economies. It has a predicted 6.1 per cent GDP growth this year, largely thanks to its stable macroeconomic environment promoting private sector investment into the country and allowing multiple sectors to flourish especially, construction and finance, page 26.

Elsewhere in the issue, we examine Deloitte's latest report on construction trends across the continent where it seems the transport sector is leading the way in creating demand for projects, page 40.

Our economist, Moin Siddiqi provides an in-depth report on fintech and e-commerce in Africa, and how tech start-ups raised investment worth US$33.4mn, page 20.

Finally, African Utility Week/POWERGEN Africa will be taking place on 14-16 May in Cape Town and will be acting as a vital discussion platform for many issues including how to tackle the ongoing drought in the Eastern Cape, page 12.

Samantha Payne, *Editor*

Contents

ECA urges countries to increase taxes in order to reach development goals

Image Credit: Flickr/World Bank

Tax in focus: lawmakers across Africa have been called on to find new ways to raise revenue.

Africa needs to build a more resilient economy in order to meet its development goals over the next few decades, according to experts speaking at the Economic Commission for Africa.

The week-long event took place in Marrakech, Morocco, with policy makers emphasising the need to fast-track the digitalisation of their economies in order to improve efficiencies, create jobs and modernise systems. Through digitalisation, economies would be able to raise taxes and increase transparency, hailing better governance as a result. For example, an increase of 12-20 per cent in tax collection has the potential to raise up to US$400bn, which would play a substantial role in bridging Africa's US$600bn financing gap. Many discussions placed emphasis on why African countries should take full advantage of the opportunities offered as a result of digitisation in order to accelerate growth to double digits by 2030, with growth expected to increase from 3.2 per cent this year to 3.4 per cent in 2020.

On the topic, the ECA's flagship publication – *Economic Report on Africa 2019* – detailed, "Digital identification can broaden the tax base by helping taxpayers meet their tax obligations.

"By improving tax assessments and administration, it enhances the government's capacity to mobilise additional resources. Digital ID systems yield gains in efficiency and convenience that could result in savings to taxpayers and government of up to US$50bn a year by 2020."

This report, which was released during the conference, revealed debt levels remain high in African countries. This is largely due to an increase in borrowing in order to ease financial pressures.

Another key topic during the conference was the emergence of the African Continental Free Trade Area (AfCTA), which would require 22 countries to ratify the agreement.

"The AfCTA is a great opportunity to accelerate what has been done bilaterally with some African countries. This will help bring growth to a higher level in a co-development approach," said Mohamed Benchaaboun, minister of economy and finance in Morocco.

FULL SPEED AHEAD FOR SME-BASED EQUITY FUND

In an attempt to support growth of capital investments, The European Investment Bank (EIB) has signed a US$15mn commitment with the SPE African Industrialisation Fund (AIFI) – a private equity fund targeting investments in SMES across North Africa.

With the help of EIB, the fund plans to contribute to the private sector across the region, with specific focus on Egypt, Morocco and Tunisia. Likewise, the fund's portfolio companies are expected to strengthen trade between north and sub-Saharan African countries, creating over 1,000 new jobs in the process.

Fund manager SPE Capital Partners intends to adopts a hand-on approach to the fund, seeking to acquire equity stakes in enterprises with the most promising growth potential in sectors including education, healthcare, manufacturing and other services which may meet their investment needs. In keeping with these plans, the fund's first closing reached a total of US$80mn.

USAID INVESTS IN EGYPTIAN UNIVERSITY PARTNERSHIPS

Striving to stimulate economic growth across Egypt, US Agency for International Development (USAID) administrator Mark Green has announced a US$90mn investment in three leading universities across the country, with specific reference to the country's innovation and sustainability.

As a result of this investment, these universities – Ain Shams, Cairo and Alexandria – will partner with three American universities in order to create Centers of Excellence in the fields of energy, water and agriculture.

While Ain Shams will partner with the Massachusetts Institute of Technology to create a Centre of Excellence in Energy, New York's Cornell will partner with Cairo University to focus on agriculture. Likewise, the American University in Cairo will partner-up with Alexandria to launch a Center of Excellence in Water.

These partnerships intend to increase the capacity of Egypt's higher-education institutions and create linkages between research and the public and private sectors, while simultaneously driving innovation and competitiveness within these three sectors. The partnerships also intend to forge relationships between Egyptian and American researchers and experts within their respective fields, and reduce unemployment throughout Egypt.

USAID's investment will also lead to the updating of the country's university curricula and teaching methods in order to better cater to the needs of the local industry, as well as establishing undergraduate and graduate-level scholarships for students with high financial needs and implementing exchange programmes to establish cross-border learning between the two countries.

This brings America's investment in Egypt's economic development to a total of US$30bn since 1978.

BRIEFS

Image Credit: Flickr/World Bank

Africa's digitalisation will lead to more opportunities for businesses.

GVP hails digital development

Speaking at the fifth Crans Montana Forum in Dakhla, Morocco, Global Vice Group CEO James Claude maintained Africa needs to improve cross-border cooperation in order to further its digital transformation. On the topic, he explained, "Businesses, universities and young entrepreneurs are increasingly contributing to the digital economy. Governments now need to work towards helping these private sector players to grow their solutions more rapidly and affect real change."

Image Credit: Adobe Stock

South Sudan is thought to house around 845,000 migrants.

Border control in South Sudan

South Sudan is working to finalise a migration policy which plans to enhance the country's capacity to manage its borders, The policy, which has been developed in collaboration with the International Organisation for Migration (IOM), also intends to protect the rights of the 845,000 migrants currently hosted within the country, according to the United Nations International Migration Board. Many migrants use South Sudan as a transit country en route to North Africa.


VOLVO
PURE DIGGING MACHINE

Kenya's Meru County to benefit from UN-Habitat's finance & economic development

UN-Habitat has committed to supporting the County Government of Meru in Kenya with a grant for collaboration on Municipal Finance, financed by the Swedish Development Agency SIDA. The initial focus of this grant will be the implementation of Meru County's "My Town, my Business" initiative, an innovative endeavor to promote proactive and responsible citizenship for improved revenue collection and service delivery.

At a meeting held at the U-Habitat headquarters in Gigiri, the Governor of Meru County, Kirait Murungi pointed out that increasing the own source revenue of the County will require the government to more directly showcase how taxes are being used for improved service delivery and for citizens to take ownership of their surroundings and fulfil their collective responsibilities.

This initiative comes at a crucial time, when Meru is under pressure to increase its own source revenue. The cost of Meru's devolved functions was estimated to be the 12th largest in the country, and yet it receives one of the lowest per capita contributions from the Central Government. While own-source revenue can help fill this gap, the County Government has struggled to reach its own revenue targets and only collected US$5.5mn of the targeted US$7.7mn in the financial year 2016/2017. With a yearly pro capita tax revenue of USD 4.07 million (2016/2017), the County Government is eager to collaborate with UN-Habitat and benefit from its global expertise to increase the resources it has available to invest in the development of the County.

UN-Habitat encourages Meru County to increase its own source revenue.

Image Credit: UN Habitat

The project foresees UN-Habitat providing a team of municipal finance experts to analyse the tax design and tax collection processes of the county and come up with comprehensive and actionable recommendations for quick improvements in revenue. The insights which emerge from this collaboration will then be used to inform the "My Town, my Business" initiative and transform it into a flagship programme for replication in other parts of Kenya.

This initiative will be implemented by the Urban Economy and Finance Branch at UN-Habitat, which works globally on Municipal Finance, Local Economic Development and Youth and is currently launching several similar projects in other Kenyan counties.

Governor Murungi led the Meru delegation which also included Jeremiah Lenya M'Iringo, the county executive committee member for Lands, Physical Planning, Urban Development and Public Works and David Kinoti Arithi, the municipal director of Planning.

UN-Habitat was represented by the director of the Regional Office for Africa, Naison Mutizwa-Mangiza and the coordinator of the Urban Economy and Finance Branch, Marco Kamiya.

KENYA TO SIGN DEAL FOR US$3BN NAIROBI-MOMBASA ROAD

Kenya has signed a US$3bn deal with the USA to build a four-lane dual carriageway from Nairobi to Mombasa.

Kyle McCarter, US Ambassador to Kenya, announced that the construction of the 473km road will begin after June at the Jomo Kenyatta International Airport (JKIA), along the existing Nairobi-Mombasa highway, covering seven counties until it reaches the Changamewe roundabout in Mombasa.

The deal comes after Bechtel Corporation, the US-based private construction firm, won the contract for the deal following President's Uhuru Kenyatta's discussions with President Donald Trump during his visit last year, according to local media reports.

The four lanes are capable of supporting speeds of up to 120 kilometres per hour, expected to reduce travelling time between Mombasa and Nairobi from 10 to four hours.

"The route will improve the connectivity, efficiency, and safety of the road between Nairobi and the seaport of Mombasa," said Kenya National Highways Authority (KeNHA) director general Peter Mundinia.

It is expected to promote trade and movement in Kenya and other countries.

The Kenyan government is now expected to enter talks with Bechtel Corporation over the financing model, which is expected to cost taxpayers up to US$5bn over 25 years.

Treasury Secretary Henry Rotich said, "Bechtel team will be coming from 9 July to have a detailed discussion with us [treasury] and other agencies. They have already done some work and we have agreed to continue that discussion," said Rotich.

"We will commence detailed discussion on how the financing approach will be undertaken under that project. We will be discussing modalities, financing structuring and the details for us to be clear on how to undertake this project."

BRIEFS

IMF supports Somalia's debt relief efforts

Image Credit: Adobe Stock

IMF assures the prime minister of Somalia of its support.

Christine Lagarde, managing director of the International Monetary Fund (IMF), said she was pleased to meet with Hassan Ali Khaire, Prime Minister of Somalia in Washington last month. She said, "Continued strong performance, together with support from international partners, will pave the way for Somalia to receive debt relief in the near future. In this regard, I assured the prime minister of the IMF's full support for Somalia's efforts."

HP seizes 33,000 illicit items

Image Credit: Adobe Stock

HP's ACF team, alongside local African authorities, have conducted two highly successful operations to stop the trade of counterfeit cartridges for HP printers across Uganda and Mozambique.

In September and October 2018, HP's ACF team and local authorities raided several premises in Mozambique and Uganda.


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Attracting Perfection - Globally

Zambia's first mini-grid expands access to energy for hundreds of households

Image Credit: Engie

Chitandika will benefit enormously from electrification.

ENGIE has inaugurated its first PowerCorner mini-grid in the Zambian village of Chitandika. Chitandika, located in the East of Zambia, counts 378 households (1,500 inhabitants) who were deprived access to electricity.

It is an off-grid renewable energy solution which will provide energy to households, a health centre and two schools. The mini-grid will benefit other industries, such as agriculture as the energy will be used for water-pumping, as well as enabling power tools to be used for carpentry and construction. Welding equipment will also be more effective as a result of the mini-grid and it is expected that business opportunities will arise.

ENGIE has successfully developed its own approach to mini-grids for the electrification of villages in Tanzania in addition to Zambia with a total of 13 mini-grids in operation and construction. ENGIE is pursuing its goal to develop 2,000 mini-grids by 2025in Africa. The plan is to enabe 2.5 million people, entrepreneurs, SMEs and local businesses to access renewable, reliable and cost-effective energy.

As part of its decentralised energy developments, ENGIE is also expanding Fenix, its solar home system business. Since the launch of its operations in Zambia in October 2017, Fenix has reached 70,000 customers in the country, supplying 350,000 people with clean lighting and power. On a iwder African level, Fenix has sold more than 400,000 solar home systems across Uganda, Zambia, Nigeria, the Ivory Coast and Benin, serving more than 2 million people.

Isabelle Kocher, CEO of ENGIE, said: "At ENGIE, we believe that universal access to electricity is possible in the foreseeable future thanks to a smart combination of national grid extensions, mini-grids and solar home systems, depending on the local characteristics of energy demand."

POWER CONFERENCE COMING TO CAPE TOWN

Africa's energy conference, Africa Oil & Power, is set to take place in Cape Town from 9-11 October, in partnership with South Africa's Department of Energy.

The three-day event, which has gained a reputation as the continent's only conference to fully integrate the power sector with oil and gas, intends to address issues in relation to Africa's development. These issues include innovation in the power sector, the role of gas-to-power in lighting Africa and the use of oil and gas in further developing South Africa's economy.

"We are very honoured to have been selected by the Government of South Africa as their official partner," said Guillaume Doane, the CEO of Africa Oil & Power. "This is the most exciting time in the history of South Africa's energy sector. AOP will be the meeting place for Africa's top government officials, global investors and leading executives to get deals done and continue moving the continent forward," he continued.

HANERGY SETS SIGHTS ON SOUTH AFRICAN EXPANSION

Exhibiting at the 22nd edition of the Solar Show Africa in Johannesburg, Hanergy Thin Film Power Group – the largest thin-film solar power solution company – showcased its latest range of solar-power products during the company's first ever appearance at the event.

The show welcomes more than 8,000 attendees and a plethora of solar solution providers, with exhibitors showcasing products at the two-day event including Trina Solar, Jinko Solar and JA Solar.

During the company's appearance at the Solar Show, Hanergy is expected to carry out a series of expansion plans across South Africa, with several projects already being launched across the region.

Among the company's range of products was Hantile (a pioneering rooftop solution), Hanbrick, Humbrella (a solar-powered umbrella), Hanpack, Hanpaper, Solibro Slide-In mounting system and GSE & MiaSolé Flex modules – all created in an attempt to improve conversion efficiency.

"We're extremely delighted to have exhibited our revolutionary energy solutions for the first time at The Solar Show Africa 2019 which is undoubtedly one of the Africa's leading exhibitions for solar industry and its partners," remarked Pan Xiang, sales director of Hanergy South Africa.

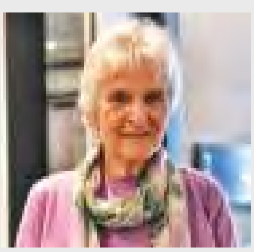
"We believe, not only has the prestigious exhibition and conference presented Hanergy with a platform to showcase our promising solar solutions for Africa market, but our participation has also ensued unique networking opportunities allowing us to solidify our current relationships and build new ones to expand in Africa market."

He continued, "We have explored multiple partnerships with a number of national and international companies. Hopefully, we'll soon be able to announce the partnerships with number of companies in days to come."

BRIEFS

A title fit for a King

Image Credit: WWF



King taught for almost 40 years.

Recognised for her contributions to global river management, Dr Jackie King has been named 2019 Stockholm Prize Laureate. King established herself as a leading aquatic ecologist, lecturing and supervising postgraduates at the University of Cape Town for almost 40 years. She has led several scientific teams working on river flow management across the globe, including the Nile, Mekong, Indus and Okavango and is a member of the WWF South Africa board.

MTN ventures onto WhatsApp

Image Credit: Adobe Stock

MTN Chat hopes to improve customer service.

MTN South Africa has paired up with Clickatell – a global customer engagement company – to launch MTN Chat. With a focus on enhancing customer interaction, the app will allow clients to interact with telecommunications experts via WhatsApp, which is used by more than 1.5bn people in 180 countries each month. "It is imperative companies focus on improving their self-service experiences to retain and grow customers," said Clickatell founder Pieter de Villiers.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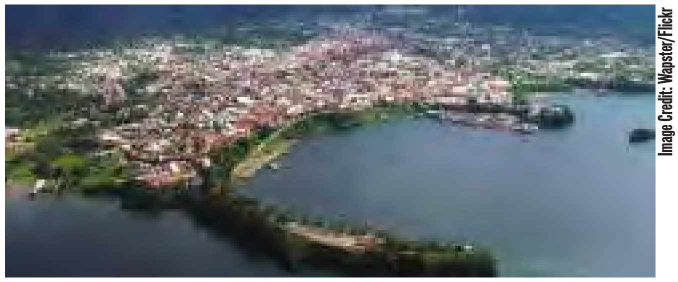
Pan-African focus at the APPO Cape VII opening ceremony in Equatorial Guinea



Malabo mayor Maria Coloma Edjang Mbengono said the Equatorial Guinea oil and gas industry led to business opportunities.

The mayor of Malabo, Maria Coloma Edjang Mbengono said that the Equatorial Guinea oil and gas industry has led to business opportunities in the tourism and agriculture sectors.

Speaking at the seventh edition of the APPO Cape VII conference for the African Petroleum Producers Organisation (APPO) she set the tone for the pan-African focus by saying commercial opportunities should be shared across African countries.

Mahaman Laouan Gaya, secretary-general for APPO, said the conference should be a “platform for cooperation ... sharing of knowledge and skills”, and highlighted the importance of the 18 APPO member nations which are collectively responsible for at least 20 per cent of the world's oil production. He called for "the highest authorities" of Africa's countries to work together to overcome energy poverty and ensure energy security.

“APPO is a significant partner in the world of energy,” Mr Gaya said. “We have to be ambitious for Africa ... The potential is there [for] very big surprises in the oil sector.”

Mohammed Sanusi Barkindo, secretary-general of OPEC, then addressed the conference, praising the contribution Equatorial Guinea has made to OPEC since it attained full membership in May 2017, as well as hailing the country’s president for his “fortitude, bravery and vision”.

With Equatorial Guinea’s Year of Energy 2019 initiative, Mr Barkindo maintained the development of the country’s oil and gas was an important step in “intra-African cooperation [and] pan-African alliance building.”

NIGERIAN MINISTER OFFERS PETROLEUM BILL UPDATE

Dr Emmanuel Ibe Kachikwu, Nigeria’s minister of state for petroleum updated delegates at APPO Cape VII in Equatorial Guinea on the progress of the Petroleum Industry Bill (PIB).

Dr Kachikwu confirmed that the bill was with the president and could receive assent by June, when the ninth assembly of the Nigerian parliament convenes. However, if the president sends the bill back for further amendments, it will again become unclear as to when the PIB will be passed into law.

The minister was asked about the progress of refinery development in Nigeria, maintaining the Dangote refinery is scheduled to go onstream in 2021. As well as the development of private sector refineries, Dr Kachikwu said it was important the four refineries became operational again.

In regard to the OPEC production cuts, the minister said Nigeria is “committed as a country” to the cuts because of the stability this has brought to oil prices, particularly when there are “factors outside our control”.

African Development Bank approves US$15mn investment for InfraCredit

The board of the African Development Bank has approved a US$15mn investment package to Infrastructure Credit Guarantee Company (InfraCredit), to support infrastructure financing via the domestic debt capital markets in Nigeria.

The investment package to InfraCredit is comprised of a subordinated loan of US$10mn and a risk sharing facility of up to US$5mn. This intervention will promote local currency infrastructure financing, and further development of the domestic capital market.

InfraCredit is a specialised infrastructure credit guarantee company, established to enhance local currency debt instruments, mainly bonds, to finance eligible infrastructure projects in Nigeria. This is intended to uplift the credit rating of such bonds, allowing institutional investors to include them in their portfolios.

InfraCredit was founded by the Nigerian Sovereign Investment Authority (NSIA) in collaboration with GuarantCo (part of the Private Infrastructure Development Group). These initial investors have been joined by the Africa Finance Corporation (AFC) and KfW, the German Development Bank.

The African Development Bank's investment in InfraCredit will catalyse local institutional

InfraCredit finances infrastructure projects in Nigeria.

Image Credit: Adobe Stock

investor funds, including pension funds, into financing long-term infrastructure projects through the local bond markets. The investment boosts InfraCredit's qualifying capital base through the subordinated loan, and improves its capacity to expand its guarantee business through the proposed risk sharing arrangement.

Through this intervention, the AfDB is helping to stimulate local currency financing across diverse infrastructure transactions, improving economic diversification and competitiveness, promoting more equitable growth and strengthening local value chains and financial markets in Nigeria. InfraCredit's operations will catalyse infrastructure investments in critical sectors such as renewable energy, housing, transportation, agricultural infrastructure, and telecommunications, which are critical for the country's economic development. These align with the AfDB's "High 5" areas of focus for Africa.

Stefan Nalletamby, the bank's director of the Financial Sector Development said, "The bank's support will strengthen the capital base of InfraCredit, underpinning the expansion of the company's core business of guaranteeing of bonds issued to fund infrastructure projects. This adds to the bank's existing initiatives to mobilise domestic institutional savings and stimulate non-sovereign local debt capital market development in Nigeria. This ultimately helps to increase private sector financing for critical infrastructure projects in major sectors including energy, agriculture, water, health and education, through local capital markets."

The transaction will result in the enhancement of the scope and impact of the bank's interventions alongside private sector financing, especially from pension funds and co-investment partners. InfraCredit aims to support up to US$1.25bn in infrastructure financing over the next few years, by involving the private sector in infrastructure financing, essential to Nigeria's economic resilience.

Upcoming Events Calendar 2019

MAY

13 - 14

MOZAMBIQUE PORTS AND RAIL EVOLUTION FORUM
Maputo, Mozambique
www.transportevolutionmz.com

14 - 15

EAST AFRICA COM
Nairobi, Kenya
tmt.knect365.com/eastafricacom/

14 - 16

AFRICAN UTILITY WEEK
Cape Town, South Africa
www.african-utility-week.com

POWERGEN AFRICA/DISTRIBUTECH
Cape Town, South Africa
www.powergenafrica.com

JUNE

11 - 13

AFRICAN CONSTRUCTION EXPO
Johannesburg, South Africa
www.africanconstructionexpo.com

11 - 14

AFRICAN ENERGY FORUM
Lisbon, Portugal
www.africa-energy-forum.com

19 - 20

AFRICA RAIL
Johannesburg, South Africa
www.terrapinn.com/exhibition/africa-rail

JULY

9 - 11

IFAT AFRICA
Johannesburg, South Africa
www.ifat-africa.com

SEPTEMBER

9 - 12

WORLD ENERGY COUNCIL
Abu Dhabi, UAE
www.wec24.org

17 - 19

PROPAK WEST AFRICA
Lagos, Nigeria
www.propakwestafrica.com

NOVEMBER

5 - 8

ECOMONDO
Rimini, Italy
en.ecomondo.com

12 - 14

AFRICACOM
Cape Town, South Africa
tmt.knect365.com/africacom

Water remains major focus at African Utility Week and POWERGEN Africa

Water is one of the major topics and discussion points at the annual African Utility Week and POWERGEN Africa in Cape Town on 14-16 May. The conference will bring together experts from public and private sectors to support municipalities as they become more responsive and efficient in their water practices.

Part of this knowledge exchange are the technical site visits taking place on 17 May, including at The Beverage Company bottling plant.

The plant reduced its waste water by more than 60 per cent, saving more than 90 million litres of municipal water since January 2017.

"Delegates will see the bottling plant and the water saving projects that were implemented which helped us reduce our waste water and save millions of litres of municipal water," said David Putterill, a company spokesman. "They will also see our alternative water supply project that we have initiated to reduce our dependence on the municipal water supply by installing our own boreholes and reverse osmosis plant."

African Utility Week and POWERGEN Africa's water conference will cover the following themes: tackling the escalating drought threat/ embarking on climate change resilience; managing water conservation resources in light of the on-going drought in the Eastern Cape; water technology innovation platform in Africa – demonstrating, applying and commercialising the required technology; water metering and monitoring; water treatment advancements; water sector funding and incentives and meeting municipal demand.

Image Credit: Adobe Stock

Tackling the ongoing drought in the Eastern Cape will be one of the topics of discussion at African Utility Week and POWERGEN Africa's conference in May.

"The greatest challenge facing global water security is global transformation. The world is changing as we look on and this is happening at a very fast pace and impacting heavily on available natural resources, including fresh water," said Paul Yillia, guest research scholar for the Water Programme, International Institute for Applied Systems Analysis, Austria, who will be speaking again at the event.

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NAS TO LAUNCH GROUND HANDLING AND CARGO SERVICES IN MOZAMBIQUE


Image Credit: Araceli Arroyo/Flickr

The aim is to boost Mozambique's growing aviation sector.

National Aviation Services (NAS) has announced plans to provide comprehensive ground handling and cargo services in Mozambique from July 2019.

This covers ramp, passenger and engineering services and includes check-in, boarding, ramp handling, maintenance and cleaning as well as import and export cargo handling and storage, for scheduled and ad hoc airlines at all airports in Mozambique.

Hassan El Houry, group CEO of NAS said, "Airline traffic is growing steadily in Mozambique. Coupled with the developing oil and gas, and mining sectors, there is a huge demand for air transport related goods and services for both cargo and passenger operations."

BUILDING ENERGY TO DEVELOP TWO SOLAR PROJECTS IN ZAMBIA

Building Energy SpA, global renewable energy solution provider, will develop two 20MW ac solar projects in Bulemu, located in Kabwe District, Zambia, which are set to generate 50 GWh each per year.

The company has been appointed preferred bidder in the GET FiT tender launched by the government of the Republic of Zambia and KfW to facilitate private sector investment in the country.

GET FiT programme is a partnership between the Zambian Ministry of Energy and the German Development Bank, KfW, implemented by the GET FiT Secretariat in order to develop small and medium-scale renewable energy Independent Power Projects (IPPs) in Zambia.

IFC INVESTS US$100MN TO BOLSTER EGYPTIAN ECONOMY

IFC, a member of the World Bank Group, has announced to provide up to US$100mn to the Middle East Glass Manufacturing Company (MEG), aiming to support the firm's capital expenditure programme and boost Egypt's manufacturing sector.

IFC's debt financing package is expected to help MEG ramp up production of its containers, which are used by a variety of companies, from beverage makers to pharmaceutical firms.

As manufacturers are major sources of skilled jobs in Egypt and have important linkages with businesses, both large and small, across the country, the move is set to help MEG expand its local and international footprint, and create jobs.

In the fiscal year 2018, IFC invested US$1.5bn in Egypt's private sector.

Making borders matter less

Interoperability and the changing African consumer

Why should where you are limit what you can do? This was the question that kept me awake when I founded MFS Africa nearly a decade ago. Why does someone in Benin, my home country, face such limited options when it comes to engaging with the global economy, compared to someone sitting in Paris or New York? Over the course of our journey to enable simple and relevant financial services for mobile users, we have realised a few realities about what today's African consumer wants, and I think it is time to update the conventional wisdom.

The face of Africa's typical consumer is changing

A decade ago, we tended to imagine the typical African consumer as an older, rural woman. She might work as a seamstress or a market woman, doing business locally. Perhaps unsurprisingly, the closed-loop, domestic-only mobile money systems developed more than ten years ago catered to that type of customer. But today's African consumer is young, urban and globally connected: she is a digital native, using her phone to follow Liverpool on Champion's League, and to watch music videos from Solange and Sauti Sol. She chats to friends across the continent and beyond over social media. Borders do not matter to her when it comes to entertainment and communication – why should they limit her financial freedom?

Interoperability of digital financial services is more important than ever before, says Dare Okoudjou.

Consumers care about the service, not the platform

Historically, the relationship between banks and mobile money or fintech has been painted as combative. The reality is that there is more opportunity for synergy if you take a customer-centric approach. MFS Africa's partnership with Ecobank is a prime example of this – enabling banking customers to transact seamlessly to mobile wallet users, wherever they are. Forward-looking banks realise that the future is mobile first, and that they can delight their customers by providing a wide array of payment options.

The line between the "diaspora" and "local" is more blurred than ever

We used to think about the diaspora and remittances in terms of "north" and "south" – London to Lagos, Paris to Dakar. But in reality, nearly as much money is sent in remittances between countries of the so-called global south as is received by those countries from the industrialised north *(World Bank Migration and Remittances Factbook 2016)*. The reality is that more than 70 per cent of sub-Saharan migration is to other African countries (*Africa's Youth: Jobs or Migration?" 2019 Ibrahim Report, Mo Ibrahim Foundation*).

A businessman who splits his time between Lagos, Accra and Johannesburg wants to access the same range of financial services in each location, and should not accept that his ability to make a payment to his daughter's school would depend on which country he happens to be in when they are due. This interconnected pan-African reality makes interoperability of digital financial services even more pressing.

"Interoperability of digital financial services" may sound like a jargon-packed phrase, but let me put it in simple, human terms: when my brother in Ouagadougou sends money to our mother in Porto-Novo, it does not matter which network he sends from, or whether he uses a bank or mobile money network. All he needs is our mother's phone number. When he travels to Nairobi for business, he can withdraw cash from his own account from a local M-Pesa agent. When he wants to pay his driver in Accra, a mobile payment takes mere seconds.

By offering our partners a "one-stop" shop to reach more than 180 million mobile wallets and tens of millions of bank accounts across the continent through a single API, we make interoperability a reality. Cross-border, cross-currency and cross-network person-to-person and person-to-business payments, and financial services for a continent that is aspirational and globally connected.

Today, MFS Africa forms the foundation for digitised financial services in Africa to grow. We are making borders matter less for people across the continent, and around the world. It is my strong belief that where you are should not limit what you can do – we are on our way to making that a reality for Africa, starting with financial freedom. ■

By Dare Okoudjou, founder and CEO of MFS Africa

> "MFS Africa forms the foundation for digitised financial services in Africa to grow"
>
> **DARE OKOUDJOU, FOUNDER AND CEO OF MFS AFRICA**

Standard Bank study outlines Rovuma LNG's potential to transform Mozambique

From US$15bn to US$18bn GDP boost is set to place Mozambique on higher growth path.

Standard Bank has made public the findings of an independent macroeconomic study demonstrating the potential for the first phase of Area 4's Rovuma liquefied natural gas (LNG) project to transform Mozambique.

Once developed, the 15.2 million tons per annum project, expected to attract between US$27bn and US$32bn in investment, will monetise 2.6 billion cubic feet per day of Mozambique's offshore LNG resources, add US$15bn to US$18bn per annum to Mozambique's GDP and drive Mozambique towards being, in time, the world's fourth largest producer of LNG.

"The first phase of Rovuma LNG has the potential to transform the Mozambican economy and turn the province of Cabo Delgado into one of the world's fastest growing regions, with every prospect of developing supporting industrial and agricultural value chains," said Dele Kuti, head of oil and gas for Standard Bank Group.

The successful development of Rovuma LNG could place Mozambique in pole position to become a long-term leading supplier of LNG to some of the world's largest economies, including China, as they deepen fuel-switching policies aimed at replacing coal with cleaner gas as an energy source.

The Rovuma LNG project's first phase is targeting a final investment decision this year.

Depending on capex scenarios, Rovuma LNG Phase 1, in addition to GDP growth, is expected to, "increase annual gross national product by US$10bn to US$14bn, while contributing US$4bn to US$5bn per annum in government revenues over the next 25 years,"

Image Credit: Standard Bank

Paul Eardley-Taylor, head of oil and gas, Southern Africa, Standard Bank.

Image Credit: Standard Bank

Dele Kuti, head of oil and gas for Standard Bank Group.

according to Paul Eardley-Taylor, Head of Oil and Gas, Southern Africa, for Standard Bank.

Rovuma LNG is also expected to increase Mozambique's projected real growth rate from 4 per cent to between 4.8 per cent and 5.4 per cent (depending on scenario).

From an employment perspective, it is anticipated that Rovuma LNG will employ approximately 20,500 construction workers and 1,300 operational workers from across the region. The project's activities are also expected to create many more additional employment opportunities from various value chain and reinvestment activities associated with the support, supply and profits arising from the commercial operation of Rovuma LNG.

Global supply potential aside, Rovuma LNG will form the nucleus of what will be, in time, a substantial domestic gas industry in Mozambique. This industry is also expected to have broader regional supply potential.

"It is anticipated that the development of a domestic gas industry in Mozambique will help the government achieve its vision of having a domestic gas sector running parallel to its LNG export capability. This will drive broader national development and social transformation, especially with regard to domestic small and medium-sized enterprise formation," says Eardley-Taylor.

> "The development of a domestic gas industry in Mozambique will help the government achieve its vision of having a domestic gas sector"
>
> **PAUL EARDLEY-TAYLOR, HEAD OF OIL AND GAS, SOUTHERN AFRICA FOR STANDARD BANK**

The macroeconomic study follows on from the 2014 macroeconomic study prepared for Mozambique LNG (owned by Area 1), with Conningarth Economists assisting on both studies respectively.

"As an African bank that sees Africa as our home, Standard Bank is committed to driving the continent's growth by using the bank's presence, insights and expertise to develop the continent's resources to their full potential in the interests of African citizens," says Kuti.

The public launch of the study at the Standard Bank Incubator in Maputo and open invitation for comment emphasises the transparent and inclusive nature of the independent research.

"It demonstrates how Standard Bank has worked with data provided by all Area 4 partners to produce an independent study that reflects the full local, national and global economic and human development potential of Rovuma LNG," says Eardley-Taylor.

On a cautionary note, the study calculates that any delays to Rovuma LNG would have a negative economic impact upon achieving the targets currently projected. To mitigate this risk, the Rovuma LNG study makes several recommendations. ■

The study is available in English at corporateandinvestment.standardbank.com/CIB/Sectors/Oil-and-gas

Making international money transfers easier across Africa

Fintech start-up Kaoshi hopes its new mobile app, in partnership with banks in Africa, will help people make international money transfers more efficiently without incurring exorbitant fees, according to its founder Chukwunonso Arinze.

Image credit: Kaoshi

When the oil price collapsed in 2015, many African countries' federal reserves of US dollars were depleted. Tight regulation on forex came in, making banks and money transfer companies such as Western Union and MoneyGram unable to process all forex transactions on behalf of customers. Retail international money transfers became expensive and difficult.

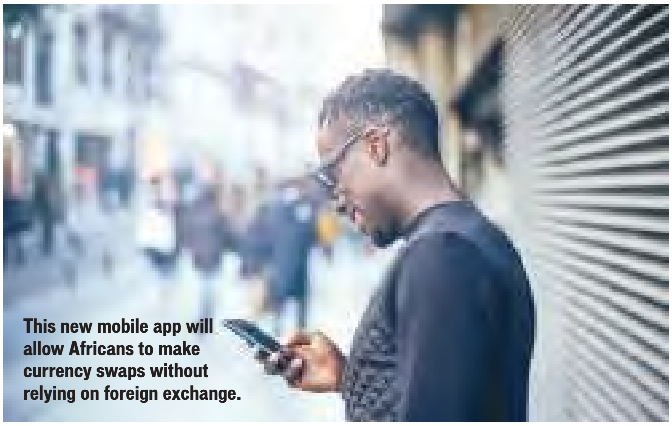
On the other hand, Africa is still the most expensive region in the world to send money to. African immigrants deal with high remittance fees and unfavourable exchange rates. While there are many fintech that send money to Africa at cheaper prices than Western Union, it is still four to eight times more expensive to send US$500 to Nigeria than to India or Mexico.

Thus, Africans and African immigrants are resorting to informal transfer systems such as peer to peer currency swaps. Take for example, Joy, a mother in Ghana, who wants to send US$500 to her son, Kwame, in the USA. She calls her friend living in America and requests that her friend give US$500 to her son, while she would pay the equivalent amount in Ghanaian currency to her friend's mother living in Ghana. No money crosses the border. No money transfer fees nor hustle for access to scarce and tightly regulated forex. Africans are using WhatsApp and Facebook groups to do these 'currency swaps', but these informal methods are very risky and disorganised as they rely on trust.

> "There is a strong demand to send money out of Africa for different purposes"

Enter Kaoshi: Bringing bank level security, organisation, and the efficacy of the informal currency swaps, all in one platform. The platform will be integrated into the internet/mobile banking menu of African banks. Africans will post their money sending requests, so that African diaspora can see these offers, match them, and swap their currencies in a safe and secure manner. For the first time in Africa this new mobile app will allow Africans to make currency swaps without relying on foreign exchange (US dollars or UK pounds). Meanwhile, on the foreign side, Kaoshi validates the corresponding money swaps. The app consolidates the fragmented informal currency swap process under one secure platform. Entries on the Kaoshi platform are simultaneously broadcasted across all banks on the African continent, which allows for a large and liquid online currency swap marketplace.

Chukwunonso Arinze, founder of Kaoshi, said, “What is even more exciting is that for the first time ever, we can now have a direct currency swap between two African countries, without the need for an intermediary foreign currency like the US dollar or pound. For example, you'll be able to make payments directly from Nigerian Naira to Ghanaian Cedis. We plan to make the app available to all African banks.



This new mobile app will allow Africans to make currency swaps without relying on foreign exchange.

Image Credit: Adobe Stock

“There is a strong demand to send money out of Africa for different purposes such as small company imports from eBay and Amazon, individuals paying for online subscriptions, medical expenses, or student tuition and upkeep. Nigerians spend more than a billion dollars annually on foreign medical expenses and there are more than 500,000 African students studying abroad,” he further explained.

Currently, the company is in talks with many banks (one is based in Ghana, but its name is still confidential). “We want to get at least one bank in Ghana and Nigeria, followed by Kenya and South Africa to pilot this innovation. After the pilot is concluded, then we will scale Kaoshi across multiple banks in each of these countries. Banks want to adopt Kaoshi because they will capture the informal remittance market they have been shut out from due to the limitations explained. With this app they can provide a significantly cheaper and convenient transfer service to their customers, while African diaspora will be able to send money to Africa for as low as a dollar,” he added.

Arinze added, “I always like to emphasize Kaoshi's bigger vision. We are not a remittance company. We don't take money from people. Rather, we have created a financial technology solution to a huge problem that has plagued not just the African continent, but other emerging and developing economies as well; a problem the banks have not been able to solve for so long.” ■

Spearheading financial inclusion and development

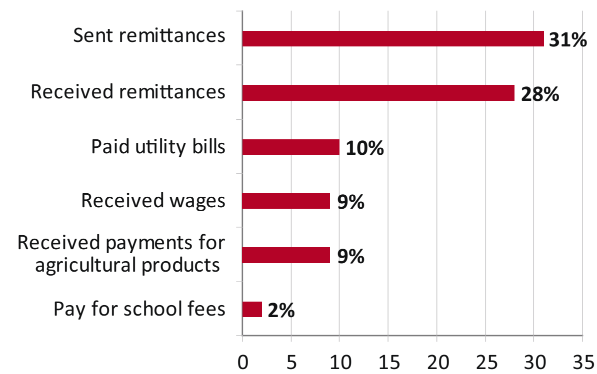
Financial technology (fintech) is a major innovation shaping the structure of the financial industry across the world. Resident economist Moin Siddiqi reports.

Fintech injects 'disruptive' technologies that create efficiency gains by reducing the costs of services, provide opportunities for new entrants (non-banks), expand access to new segments of the market and customers, while affecting the competitiveness of existing banks, insurance/pension providers, money, forex bureaus and capital markets. "Such innovation includes transforming all aspects of delivery of core functions of the financial sector such as settling payments, facilitating borrowing and saving, risk sharing and allocating capital," stated the IMF in its report: *'FinTech in sub-Saharan Africa Countries: A Game Changer?'*

Referring to Africa, the report said, "Today, FinTech is emerging as a technological enabler in the region, improving financial inclusion and serving as a catalyst for innovation in other sectors, such as agriculture and infrastructure." Technology is pivotal to integrating sub-Saharan Africa (SSA), both regionally and globally. It helps raise productivity of workers and firms in a continent still heavily reliant upon extractives and agriculture. Fintech, "if exploited well, could prove key to this structural transformation," it added.

The growth of disruptive technologies such as big data and artificial intelligence, distributed ledger technology (DLT), cryptography, blockchains, smart contracts and mobile Internet access provide basis for new financial products/services. Fintech firms deploy these innovations to collate/analyse vast databases, install robust security systems for safer electronic transactions, and link their customers through multiple platform channels on a real-time basis. For instance, DLT increases the traceability/reliability of data stored in the ledger. As blockchains are difficult to hack, DLT is effective against cyber-attacks.

Uses of mobile money in SSA (per cent)



Source: Global Findex.

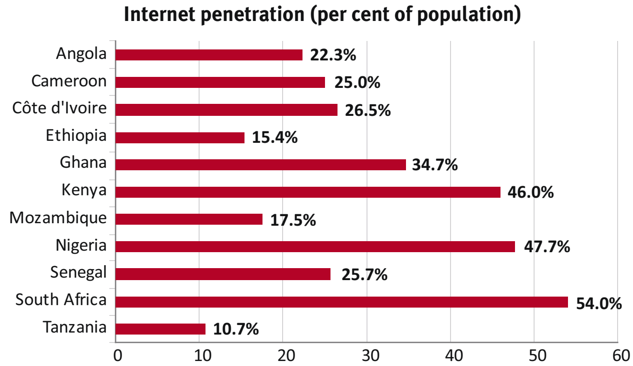
Financial deepening

The use of mobile 'e-money' in Africa has skyrocketed over the past decade, making the region (led by East Africa) global leader in mobile money innovation, adoption and usage, with 40 out of 45 sub-Saharan African (SSA) countries actively using fintech. 'e-money' is a digital medium of exchange stored in mobile money accounts and is accessible through cellphones. Most fintech firms use their own balance sheet for the provision of credit and other services. Thus, mobile money balances are fully backed by funds deposited by a e-money service provider in a commercial bank. Fintech firms are regulated by the respective country's central bank.

The rapid success of e-money in Africa reflects inadequate financial market infrastructure (branches, automatic teller machines). Poor or absent Internet connections in some areas generate a huge unfulfilled demand for payment services in a highly populated continent of 1.25 billion people. In fact, SSA boasts the highest e-money accounts per capita (both registered and active accounts), e-money outlets and volume of e-money transactions in the world.

There are now more mobile money agents in Africa than bank accounts or ATMs. The Global System for Mobile Communications (GSM) Association defines a mobile agent as a person or business contracted to process mobile transactions for users. They earn fees by providing frontline digital services and teaching new users how to complete transactions on their phone.

Internet penetration (per cent of population)



Source: Internet Society (2017).

More revealingly, SSA is the only region where almost one-fifth of gross domestic product (GDP) in transactions occurs via e-money. This compares with less than two per cent (average) for other regions. Mobile money accounts have exceeded traditional bank accounts in big economies, notably South Africa, Tanzania and Kenya. Major operators are Safaricom and Vodacom (both owned by UK's Vodafone), MTN Money (South Africa) and Orange Money (France). Safaricom has a market share of 70 per cent in Kenya (More than 21 million users); in Tanzania, Vodacom accounts nearly half of market's share.

The East Africa Community (EAC) five: Burundi, Kenya, Rwanda, Tanzania and Uganda have national identification systems, which facilitate faster mobile payment adoption rates and enable more secure transactions in the EAC-bloc. According to the IMF Financial Access Survey, Kenya reported the highest use of e-money with 53 transactions (per 1,000 adults) in 2016.

Surge of e-commerce

Innovations are enabling Africans (even those in rural areas) to move up the financial services value chain. Fintech has proved a game-changer in SSA by transforming service delivery, with greater efficiency. Recognising this, fintech firms are courting foreign investors; last year, African tech startups raised investment worth US$334.5mn, with Nigeria, South Africa and Kenya being the principal recipients, according to the African Startups Funding Report 2018.

Wide ranges of services are now accessible to millions at a fingertip, thanks to near-universal availability of mobile across SSA. Fintech providers are leveraging economies of density (i.e. large customer base) and reliable networks to expand their portfolio of services, including remittances, insurance premiums (Lesotho), pension payments (Ghana), investing in government securities (Kenya), or stock markets, paying utility bills and receiving wages, as well as buying goods and services online. Some providers even allow households to borrow electricity on monthly instalments, thus avoiding a blackout.

Fintech has opened access to services beyond those offered by conventional banks and moneychangers. Orange Money offers a Visa payment and withdrawal card in Botswana, Cameroon and Côte d'Ivoire. The latter and MTN Group have formed a joint venture, Mowali (mobile wallet interoperability), which facilitates interoperable payments across Africa.

UK-based SimbaPay delivers money via existing e-money wallet services in Ghana, Kenya, Nigeria and Uganda, using its SimbaPay app. The latter, and Kenya Family Bank, have introduced an instant payment service from East Africa to China, enabling users to remit money to China through Kenya's Safaricom's M-Pesa or Family Bank's PesaPay app.

Recently, Safaricom secured a deal with 'AliExpress.com' owned by Chinese e-commerce giant Alibaba Group. This will allow M-Pesa users to do online shopping on one of many Alibaba's platforms.

"The move especially targets microtraders in Kenya who source goods and other supplies from manufacturers in China," Safaricom said in a statement. "As our customers get more digital, they want to shop in a more digital kind of a format, that's why we are seeing e-commerce growing," said chief customer officer, Sylvia Mulinge. Also, Safaricom's M-Shwari service offers access to savings accounts and instant micro-credit products.

Mobile money indicators by regions, 2017

	Accounts per 1,000 adults	Mobile money outlets per 100,000 adults	Transactions per 1,000 adults	Transactions per cent of GDP
Sub-Saharan Africa (SSA)	245	210	16,500	20
Asia	150	90	4,500	7
Latin America	125	30	2,000	1
Europe	125	20	4,000	3
Middle East & North Africa	50	45	2,000	2

Source: IMF Financial Access Survey.

As of first-quarter 2017, there were more than 420 million mobile cellular subscribers in SSA, equivalent to a penetration rate of 43 per cent (GSMA Intelligence 2017).

South African payments firm, Wizzit provides micro-finance products to more than seven million people in 13 SSA countries since it was formed in 2004 in partnership with the World Bank Group. Its customers can obtain micro-loans via cellphones for either private or business use. Another South African micro-lender, GetBucks offers short-term personal loans and other financial services via the Internet, cellphones using a platform called FinCloud.

Zoona, Zambian-based mobile payments company with a customer base of 2 million people has processed more than US$2bn in transactions since it launched in 2009. It has built a distribution network of Zoona Agents in 10 countries (mostly in southern Africa) to convert electronic value to cash and vice versa, in high-traffic areas such as bus stations, markets and shopping centres. Zoona offers the service 'Sunga Pockets' where users can store money in an accessible electronic account.

Image Credit: Adobe Stock

Financial services are accessible to millions thanks to the mobile app revolution.

Zoona has formed a partnership with non-profit making US-based Kiva Microfunds that allow people in rich world to lend money via the Internet to entrepreneurs in some 81 developing nations. The entrepreneurs are vetted by Kiva and over time the loans are repaid. Lenders (donors) have the option of keeping their money within the system to help more 'start-ups' or exit once they are satisfied with the borrower's progress. Since 2005, Kiva has provided US$1.3bn in soft loans, with a repayment rate of 96.8 per cent.

> "There are now more mobile money agents in Africa than bank accounts or ATMs"
>
> **MOIN SIDDIQI**

Online public services

Fintech tools are also applied in sectors, such as infrastructure, health, education and agriculture, which promote sustainable development. M-Kopa Solar in Kenya seeks to increase rural electrification by selling solar home systems on a payment plan, with an initial deposit followed by daily payments over 12-months; after repayments, customers own the product outright. In Rwanda, Zipline uses drones guided by cellphone-based location services to deliver essential medical products to rural health clinics. Vula Mobile (medical diagnosis app) in South Africa connects health workers with medical specialists.

In education, Uganda-based Fundi Bots provides online training in schools and communities and Kytabu has improved access to textbooks and audio books in Kenya. While in Liberia, mobile payments to workers help maintain social services in areas periodically cut-off during the rainy season.

Digital services have tangible benefits upon African farmers. Tigo Kilimo SMS-based application in Tanzania sends up-to-date weather and agronomic information to farmers' cellphones, helping them to decide when/which crops to grow and where to sell crops and receive digital payments and receipts. ■

Expanding into Zimbabwe and beyond

African Review catches up with Kal Tire's vice president of Southern Africa, John Martin, on expanding its business operations in the region.

Image Credit: Kal Tire

On site in Mozambique, a Kal Tire team member performs a tyre inspection.

Kal Tire has been operating in Southern Africa for more than 10 years. Their initial footprint in the region started in Tanzania, South Africa and Zambia, followed shortly afterwards with a presence in Botswana and, most recently, Zimbabwe.

What's the motivation behind Kal Tire's expansion plans in Southern Africa?

The primary motivation behind our expansion plans throughout southern Africa, is in principle, driven by the Foreign Direct Investment going into the mining industry within the region. Positive changes to the mining legislation in Zimbabwe are generating interest and activity from foreign national companies, into investing in mining operations that have for many years been far too risky. Similar levels of international interest and investment in Botswana, is helping to create a buoyant mining market in the region. We are aligning ourselves with the investment plans of our global customers who are investing in the region. It makes sense therefore to expand our service footprint to support this expansion.

So, where are your business operations based in southern Africa?

South Africa remains our biggest footprint in the southern African region, with more than half the total number of team members in the region being employed in South Africa. Additionally, we have expansion plans in the Northern Cape which are well under way, with the establishment of new infrastructure and services, to minimise logistical costs to and from the Gauteng region. Our Zambian footprint serves the mining operations in and around the copper belt, as well as the customer base in the Southern DRC. Mozambique has been operating for more than five years, with expansion plans to our service infrastructure to enable Kal Tire to serve locally based contractors. Similarly, the Botswana operation will soon be expanded to include all existing and new mining projects. Zimbabwe remains an attractive opportunity for expansion.

Last year you opened operations in Zimbabwe, tell us more about that.

A more sustainable business model was required to support our Zimbabwean customers, with onsite services and support. The onsite team of 18 team members are all Zimbabwean nationals, making this company a truly local employer. We still have a relatively small footprint in Zimbabwe, but we are well positioned to support new investments into the mining operations in any of the commodities planned for exploitation.

What type of tyres services do you offer customers?

Kal Tire is well known for providing integrated services to our mining customers, related to everything around the wheel. As part of this service, we design our offering to ensure the customer enjoys the best total cost of ownership for significant investment made into tyres and rims. We additionally offer high levels of automation and innovation with TPMS systems, as well as a world class Tyre Operations Management System (TOMS) that allows for real time decision making and a management solution that integrates with other machines maintenance systems. At the heart of the Kal Tire service offering, is to maximise the uptime of the mine's primary production units, while protecting the investment in tyres by maximising their lifetime. We are able to assist the customer to extract the maximum possible life of the tyre, which may include the possibility of repairing severely injured tyres, and re-treading used tyres with casings that are still reusable.

What are the top brands that you offer your clients?

Kal Tire is an independent multi-brand service provider. We are therefore not limited in our brand offering to our customers. The selection of products used on any mining operation, will be supported by vast quantities of test data proving that the product being used provides the operation with the lowest cost of ownership for that specific application. It is rare that


Kal Tire performs repair services on tyres allowing them to return to service.

Image Credit: Kal Tire

one product performs well in all mining operations, therefore it is necessary to have multiple brands available to all customers, to continuously improve on tyre performances. While the well-known Tier 1 brands perform well in most applications, the Chinese manufactured products also have a place in the market as they are continuously improving their relative performance.

What benefits do you bring to customers?

There is always tremendous value to customers when a service provider delivers a consistent level of performance of measurable value to the client. To do this, Kal Tire offers a set of global standards that includes a standardised training program for all team members around the world, with proven standardised processes. Therefore, the performance standards our customers enjoy in all geographies, is as a result of common training standards and quality. Likewise, our safety program, Journey to Zero, is consistently applied the world over, as it is integrated into our Learning Management System. Customers can therefore benefit from a consistent performance from our services, by being resolute in serving the customer the Kal Tire Way, everywhere.

What do you think of the Mining Charter in South Africa?

The charter has as its main objective to provide a regulatory framework within which the mining business should be able grow and develop the underlying skills and support structures for the industry. The mining industry by its nature, provides significant growth and development opportunities for many rural communities, who would otherwise need to look to urbanisation to survive. Therefore, the structure of the Charter remains critically important to find the balance between promoting local development and ownership, while still attracting the needed levels of FDI that is required into the mining market. The charter has very positive parts to it, however I am aware of the concerns within the industry, which I believe the Minerals Council is currently challenging

> "South Africa remains our biggest footprint in the southern African region"
>
> JOHN MARTIN, KAL TIRE'S VICE PRESIDENT OF SOUTHERN AFRICA

Anything else? Any other markets that Kal Tire has its eye on in the future?

At Kal Tire Southern Africa, we are very optimistic about the mining market in and around the region. The South Africa mining market will likely remain slightly flat into the near future, but will show growth opportunities when business confidence returns to the markets. Ongoing investment into other Southern African countries will continue to boost the region as a whole, however we remain hopeful that South Africa will too be able to attract the essential FDI. The Democratic Republic of Congo remains a challenging market to operate in, the investment into extracting the vast volumes of copper and cobalt reserves, will continue to grow. Kal Tire is well positioned to support our customer base in the DRC via the bordering countries of Zambia and Tanzania. ■

Uganda firms up orders for two Airbus A330neo aircraft

Uganda Airlines, the national carrier of Uganda, has firmed up its order for two A330-800 airliners – the latest version of the most popular A330 widebody airliner.

Fitted with the new Airspace by Airbus cabin, the A330neo will bring a range of benefits to Uganda Airlines and its customers, offering unrivalled efficiencies combined with the most modern cabin.

Uganda Airlines plans to use the A330-800 to build its medium and long-haul network with the aircraft offering cutting-edge technology along with more efficient operations

Image Credit: Airbus

Two A330-800 airliners are due to be purchased by Uganda Airlines.

Launched in July 2014, the A330neo family is the new generation A330, comprising two versions: the A330-800 and A330-900 sharing 99 per cent commonality. It builds on the proven economics, versatility and reliability of the A330 family, while reducing fuel consumption by about 25 per cent per seat versus previous generation competitors and increasing range by up to 1,500 nm compared to the majority of A330s in operation. The A330neo is powered by Rolls-Royce's latest-generation Trent 7000 engines and features a new wing with increased span and new A350 XWB-inspired Sharklets. The cabin provides the comfort of the new Airspace amenities including state-of-the-art passenger inflight entertainment and Wifi connectivity systems, among others.

REGIONAL INTEGRATION REMAINS LOW, SAYS ARII

The African Continental Free Trade Area (AfCFTA) marks a momentous milestone for Africa, but preliminary findings of the upcoming 2019 African Regional Integration Index, released at the ongoing Conference of Ministers in Morocco on 23 March, indicate that regional integration in Africa remains low.

The Index, known as ARII, was set up to monitor and evaluate the status of economic integration among African countries and provides a basis for member states to track their progress.

The findings reveal that the Southern African Development Community (SADC) is the most integrated region in terms of trade, with South Africa as the most integrated country on the continent.

In the five areas that were analysed – trade integration, regional infrastructure, productive integration, free movement of people and macroeconomic integration – South Africa topped the ranking; with South Sudan as the least integrated mainly because of its modest performance in regional infrastructure and financial integration.

Meanwhile, integration in services, contributed more than 53 per cent of the continent's GDP, but ratification of the protocol on the free movement of people has been slow, despite the 2016 launch of the Common Electronic Biometric African Passport, and the AU Protocol on Free Movement of Persons. The continent's large infrastructure deficit remains a major hindrance to intra-regional trade.

"It is up to Africans themselves to ensure that the initiative benefits them through hard work and efficient implementation of the mechanisms of the CFTA," says David Luke, co-ordinator of the African Trade Policy Centre, Regional Integration and Trade Division of Economic Commission of Africa (ECA).

"WOMEN MUST HAVE ACCESS TO FINANCE"

Access to finance by women in Africa is critical if the continent is to meet the sustainable development goals (SDGs), according to the Economic Commission for Africa's (ECA) Deputy Executive Secretary, Giovanie Biha.

Speaking at an event on 16 April to discuss the African Women Leadership Fund (AWLF) in Marrakesh, Morocco, ahead of the fifth Africa Regional Forum on Sustainable Development (ARFSD), Biha said adopting the right actions to integrate gender equality in Africa's economies will result in financial inclusion, guarantee women's economic empowerment and achievement of the SDGs, thereby helping change the face of the continent.

In ECA's Women's Report (2013), failure to integrate gender equality and women's empowerment into national economies has cost African countries a combined US$95bn in lost productivity annually.

"This is an indicator that financial exclusion of women is not an option for our continent," said Ms. Biha, adding the African Women Leadership Fund was an impact fund that aims to accelerate the emergence of African women fund managers, who in turn, will invest in and develop African women-led businesses and micro-businesses.

Over the next decade the fund is expected to have made an investment of up to US$500mn in African owned and women-led companies. The fund is anchored on six pillars. This includes providing African women entrepreneurs access to sustainable capital, providing African co-operatives access to sustainable capital, lowering barriers to entry for capable women; asset managers focused on investing in women-owned companies, and giving technical assistance to increase the fund management learning curve and support growth.

BRIEFS

Africa offers highest returns on DFI

Image Credit: Adobe Stock

Africa promises an increase in household consumption of 3.8 per cent each year.

The African continent is one of the few regions that offer the highest returns on direct foreign investment, according to the Overseas Private Investment Corporation and United Nations Conference on Trade and Development.

The world's fastest urbanising region promises an increase in household consumption (3.8 per cent per a year to reach US$2.1 trn by 2025), business expenditure, and manufacturing output (from US$500bn to US$930bn in 2025, respectively).

AfDB holds business seminar

Image Credit: Adobe Stock

The AfDB held a seminar to promote business opportunities on the continent.

The African Development Bank (AfDB) held a Business Opportunity Seminar on strengthening and fostering the engagement of the business sector and stakeholders to support investment in infrastructure and human development projects. Valerie Dabady, the bank's manager for Resource Mobilisation and Partnerships, said the institution's capacity to link public-sector needs with private sector expertise, technology and resources was unrivalled on the continent.

Kenya reaches Africa's top 10 of fastest growing economies

Kenya is making significant progress in its goals to prioritise food security, housing, universal healthcare and manufacturing, according to the World Bank. Samantha Payne reports.

Image Credit: DPO Group

Eran Feinstein, CEO of DPO Group.

Kenya is one of Africa's top 10 fastest growing economies, with a 6.1 per cent GDP growth predicted this year, according to the IMF.

A recovery in the agricultural sector after a challenging 2017, better business sentiment, strong remittance flows, management of public debt and expenditure and fiscal controls are among the reasons cited by the World Bank behind the country's stablised economic growth.

"The bank lauds the government for embarking on needed fiscal consolidation to safeguard macroeconomic stability and help crowd in private sector investment," said Carlos Felipe Jaramillo, World Bank country director for Kenya, in a press statement.

Also, since President Uhuru Kenyatta's announcement of the "Big 4" development agenda, which prioritises food security, housing, universal health coverage and manufacturing, the World Bank says Kenya has made progress in instituting policies promoting private sector engagement in these areas, such as in affordable housing. "While progress is being made to advance the "Big 4", given the ambitious nature of these objectives, it calls for accelerating the pace of structural reforms, particularly in areas that helps crowd in the private sector to advance the 'Big 4'," said Allen Dennis, World Bank senior economist and lead author of the Kenya Economic Update, including advancing the goals of food security and nutrition.

The government is under increasing pressure to keep to its pledge of ending drought-related

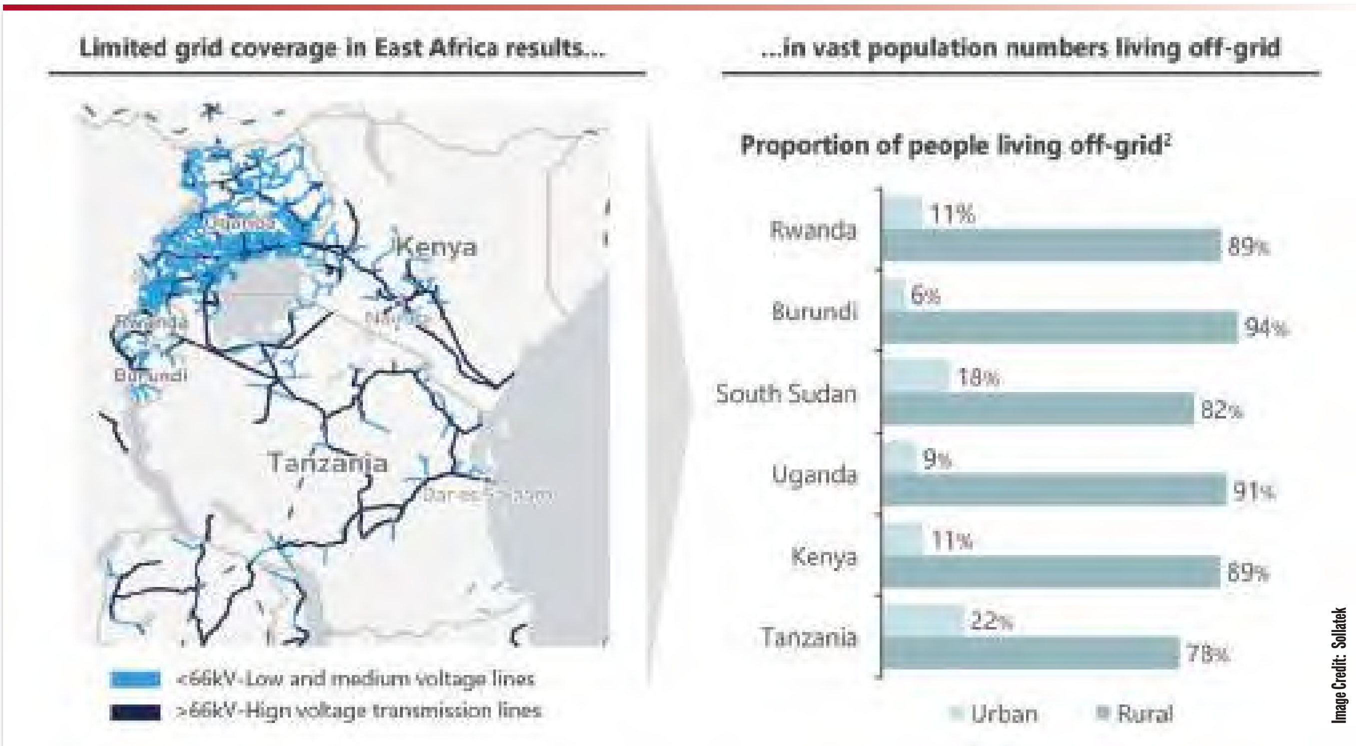


Image Credit: Sollatek

food emergencies by 2022, especially in light of the recent drought in the northeastern part of the country, where there are unclear reports of the number of deaths so far, and come up with more forward-thinking policies to combat food shortages, instead of blaming climate change as the sole cause of incidents. Kenya, like many African countries, suffers from high and volatile food prices which pose major challenges to food security.

Maize remains the food staple among the urban and rural poor in Kenya but nothing is being done to help the discrepancy in its price between markets. The report entitled: *Spatial Price Transmission Under Different Policy Regimes: A Case of Maize Markets in Kenya*, examined a number of markets and concluded that "the policies implemented to mitigate high food prices resulted in market distortion," and urged the government "to review the ban on importing GMO foodstuffs to help Kenya access cheap maize during the drought period, irrespective of the source".

Power sector

There is a lot of optimism surrounding the power sector, seen as critical in transforming Kenya into an industrialised middle-income nation.

According to a USAID Kenya and East Africa report entitled: *Development of Kenya's Power Sector 2015-2020 Power*, the sector is committed to delivering 2,700 MW of new generation capacity by 2020 as well as incorporating on- and off-grid solutions to deliver universal electricity access.

Country	IMF 2019 Growth Projection
Libya	10.8%
Ethiopia	8.5%
Rwanda	7.8%
Ghana	7.6%
Ivory Coast	7%
Senegal	6.7%
Tanzania	6.6%
Benin	6%
Uganda	6%
Kenya	6.1%

Source: IMF

It stated that around 30 per cent of Kenya's installed capacity is owned and operated by Independent Power Producers (IPPs) across 15 plants while 70 per cent capacity is owned and operated by state-owned firm KenGen.

In terms of transmission, the report highlights that KETRACO is in the process of constructing 4,500km new lines and introducing Kenya's first high-voltage 400 kV and 500 kV DC lines as well as three major regional interconnectors to Ethiopia, Uganda, and Tanzania.

Siemens recently announced further steps towards building an interconnector between Kenya and Ethiopia. The roughly 1,000 kilometres-long transmission will transmit hydroelectricity from Ethiopia to Kenya and will be one of the largest infrastructure projects in Africa.

Kenya's installed capacity also consists of 70 per cent renewable sources with potential for further expansion in this area, the USAID report added, and found that according to the Ministry of Energy and Petroleum (MoEP), Kenya has the potential to produce 10,000 MW of geothermal power from the Rift Valley Basin and the United Nations Environment Program (UNEP) estimates that Kenya's wind capacity could be as high as 3,000MW.

One of the most successful off-grid renewables companies in the region is Sollatek. It has enabled 3.8 million Kenyans to have access to clean and affordable energy in rural areas – where 89 per cent of the population live off-grid – and has created many employment opportunities in the country.

Natalie Balk, head of projects and partnerships at Sollatek, said, "There's a huge difference between the amount of people living in rural and urban areas and whether they have access to energy. This means people living in rural areas will be at a disadvantage to access healthcare, education, jobs and economy because of a lack of access to energy. So we are seeing whether we can become the substitute or the main energy provider where the grid is lacking."

Over the last ten years the Sollatek team has sold more than 800,000 lanterns and solar home systems to underserved counties, which has been supported by the Lendahand's Energise Africa platform.

Balk added, "Solar energy can step in and reduce the cost that they are spending on consumables, such as biokerosene and charcoal. With a constant renewable source of energy for them, whether it's for phone charging, lighting or another productive use."

Construction

Kenya has the biggest number of projects in East Africa with 41 projects in 2017-2018, which are valued at US$38.2mn, according to Deloitte's latest construction trends report. Among the major construction projects underway is the Kshs 1.4 trillion (US$14bn) Konza Technology City to be built outside Nairobi and the near completion of the first phase of the Standard Gauge Railway from Nairobi to Naivasha, valued at US$6.2bn. It will extend to Uganda, Rwanda, South Sudan, and Ethiopia

According to China Communications Construction Company (CCCC), 80 per cent of the railway project has reportedly been completed and looks to be finalised by June, so long as compensation talks over the Ngong section are resolved.

Kamau Njuguna, a director at the East Africa Chamber of Commerce and Industry, told local media sources, “Naivasha will be a few minutes train ride from Nairobi and this will ensure a stream of domestic and foreign tourists to enjoy all that Naivasha has to offer. Horticulture farmers would also have quicker and cheaper transport for their produce via the Internal Container Depot to JKIA. This means fresh produce gets to local and international markets faster thus enabling these businesses to grow faster and employ more people.”

Technology

One of the most important changes has been the proliferation of mobile payment services in Kenya. According to the Financial Access (FinAccess) Household Survey 2019, these are giving more than 80 per cent of Kenya’s population affordable and convenient access to essential financial services. Eran Feinstein, CEO of DPO Group, a leading payment service provider, said, “This number is telling because 41 per cent of Kenyans have bank accounts. This low take up of bank accounts is sadly quite typical of almost every other African country.

“In Africa, as well as making payments by card, our own customers can access popular mobile money services that turn mobile phones into wallets. Their mobile phone account works exactly like a bank account for virtual currency, enabling people to pay things like rent or utilities and send money to others.

“It’s not just individuals who are benefiting from mobile payment services. Payment processing technology is giving thousands of companies the chance to expand their sales substantially, including transacting with other countries in different currencies. Via DPO, for the first time, customers can now pay for services across borders with many different mobile money options, opening up new realms of commercial possibilities for businesses and individuals. The technology is financially inclusive because it is easy to use and affordable for businesses of all sizes. Newer smaller businesses can also benefit from affordable digital enablement and mobile commerce.

“If we look at the data from our services, only two to three years ago, most online payments on our platform were made by foreigners for leisure and travel. Nowadays we are seeing many millions of home-grown transactions being made, and across virtually every industry. Transaction values across our platform have increased 500-fold over the last three years.” ■

> “We are seeing whether we can become the substitute or the main energy provider where the grid is lacking”
>
> **NATALIE BALK, HEAD OF PROJECTS AND PARTNERSHIPS AT SOLLATEK**

Africa's renewable energy on the march again in 2018

Image Credit: Adobe Stock

In 2018, Africa's renewable energy capacity reached 46,269MW.

The decade-long trend of strong growth in renewable energy capacity continued in 2018 with global additions of 171 gigawatts (GW), according to data released by the International Renewable Energy Agency (IRENA).

The annual increase of 7.9 per cent was bolstered by new additions from solar and wind energy, which accounted for 84 per cent of the growth. A third of global power capacity is now based on renewable energy, and the trend is no more evident than in Africa.

IRENA's annual Renewable Capacity Statistics 2019, the most comprehensive, up-to-date figures on renewable energy capacity, indicates growth in all regions of the world, although at varying speeds.

Africa's 8.4 per cent growth put it in third place just behind Asia.

Nearly two-thirds of all new power generation capacity added in 2018 was from renewables, led by emerging and developing economies.

In 2018, Africa's renewable energy capacity reached 46,269MW, up from 42,677MW the year before.

It continues a decade-long march in the continent. Ten years ago, in 2009, Africa's total renewable energy capacity stood at just 26,097 MW. In the same period, global renewable capacity has more than doubled from 1,136,226MW in 2009 to 2,350,755MW in 2018.

"Through its compelling business case, renewable energy has established itself as the technology of choice for new power generation capacity," said IRENA director general Adnan Z. Amin.

"The strong growth in 2018 continues the remarkable trend of the last five years, which reflects an ongoing shift towards renewable power as the driver of global energy transformation."

The IRENA data reveals some stark differences among African countries, however.

South Africa, Egypt, Ethiopia, Zambia, Morocco, Mozambique, Nigeria, Kenya, Ghana, Angola and the Democratic Republic of Congo all have renewable energy capacity in excess of 1,000MW.

South Africa leads the field with 6,065MW, followed by Egypt with 4,813MW.

Other nations, including oil exporter Chad and Gambia, barely register anything in terms of renewables capacity. But the roll-out of renewables capacity in Africa and across the globe does not seem to have materially affected conventional energy production.

DELIVERING 5 PER CENT FUEL REDUCTION

Volvo Penta says its Stage V engines have proven extremely promising in field-tests, boasting fuel consumption reductions of up to 5 per cent compared with Stage IV enginese. This not only reduces CO2 output but also the total cost of ownership.

"We are keen to demonstrate to our customers that Volvo Penta is continuing to lead the way when it comes to engine and power systems innovation, most recently with EU Stage V," says Johan Inden, president of Region Europe at Volvo Penta. "We are already seeing evidence that our customers understand this. Over the last three years, the Volvo Penta Industrial segment has increased its annual sales by an average of 33 per cent."

The range offers power from 105 to 585 kW (143-796 hp), enabling customers to meet the demands of even the toughest applications.

SIEMENS & ETHIOPIA MOU IN ENERGY COLLABORATION

Siemens has signed a MOU with Ethiopia in support of the nation's energy and infrastructure sectors.

The German industrial engineering giant is working on the interconnector project, now being built between Kenya and Ethiopia.

In a statement, the company said the MoU addresses the country's energy and infrastructure sectors and includes financing initiatives and creating opportunities for local job creation.

Much of Ethiopia's energy hopes are linked to the construction of the mighty Grand Ethiopian Renaissance Dam project.

The dam and hydro plant, being built at a cost of more than US$4bn, will have a potential capacity of over 6,000MW and turn Ethiopia into a regional energy powerhouse.

Neighbouring states including Kenya hope to benefit from the scheme, via the cross-border interconnector and other projects linked to the dam's construction.

"Siemens can make a significant contribution to Ethiopia's development," said Joe Kaeser, chief executive for Siemens AG. "We will apply our vast experience and proven technologies as well as training and education capabilities to shape the future of Ethiopia and its people. One of theprojects affirming our strong commitment in the region is the East Africa Interconnector."

The 1,000-kilometre transmission line will transmit environmentally friendly hydroelectricity from Ethiopia to Kenya. This project supports 200 jobs in Ethiopia aand is one of the largest electrical infrastructure underway projects in East Africa.

Sabine Dall'Omo, Siemens chief executive for Southern and Eastern Africa said the primary goal of the MoU is to commit to a long-term partnership with Ethiopia to develop fast track solutions that will enable the government to stabilise and expand its existing grid infrastructure.

BRIEFS

Kanonkop electrification

The City of Cape Town announced the electrification of Kanonkop on 11 April, following the connection of homes to the grid. Streetlights were switched on after the project had previously been halted due to vandalism. The connection of more homes will be rolled out over the next 12 months in three phases, said the City's Mayoral Committee Member for Urban Management, Alderman Grant Twigg. "The rest of the houses will be electrified as soon as possible," he said.

Image Credit: City of Cape Town

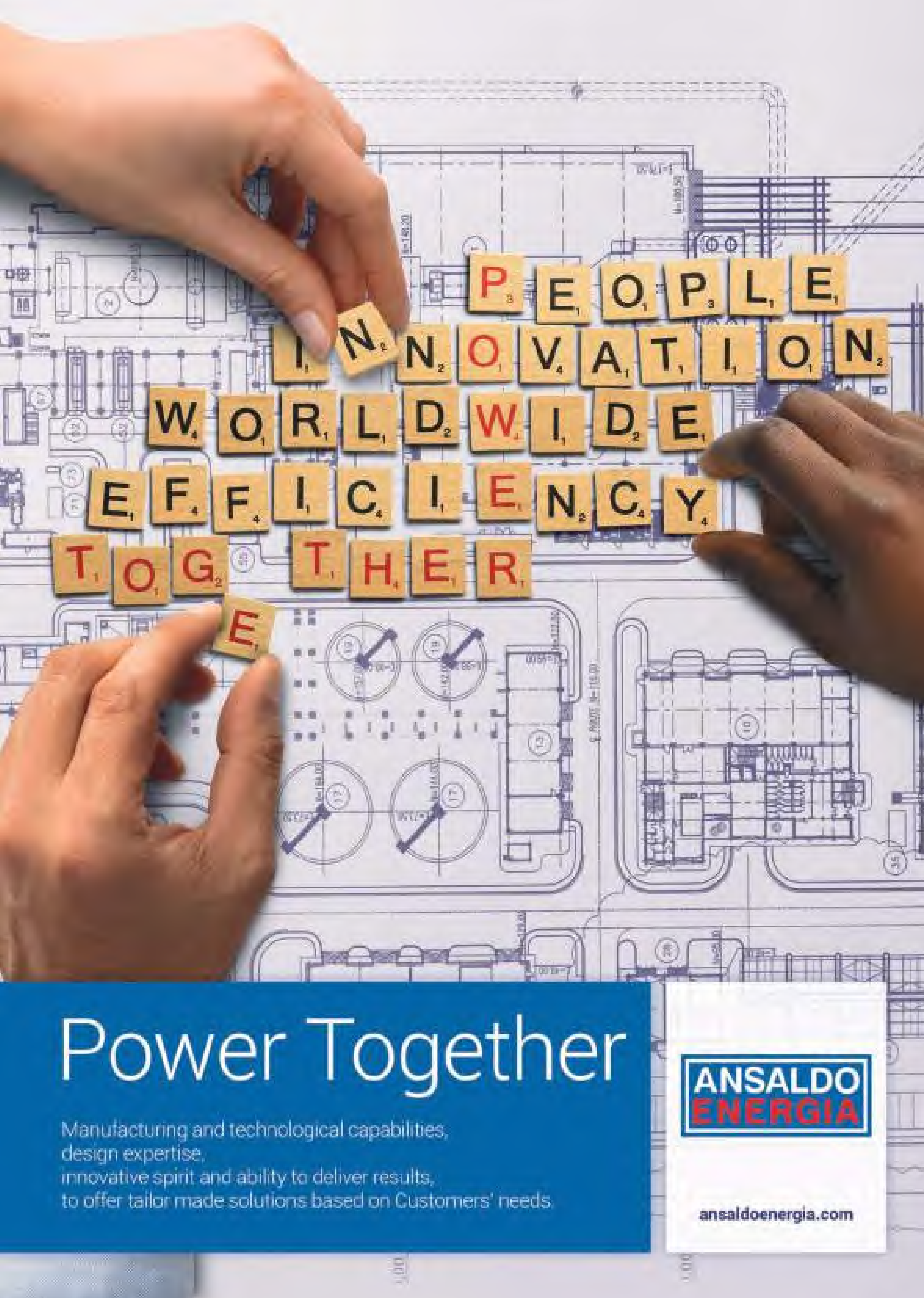
Homes in Kanonkop have been connected to the grid.

Aeroderivative's for Africa

GE Power has released a whitepaper on cheaper, cleaner, faster gas turbine technology for Africa. It says aeroderivative gas turbines provide lower emissions and a much smaller footprint, thereby ensuring cleaner power. "Going forward, there is a need to adopt such technologies that will make access to power sustainable," said Elisee Sezan, head of GE's Gas Power Systems business, sub-Saharan Africa. GE's first turbine in Africa was commissioned in the 1950s.

Image Credit: Adobe Stock

Gas turbines provide lower emissions.


PEOPLE
INNOVATION
WORLDWIDE
EFFICIENCY
TOGETHER
Power Together
Manufacturing and technological capabilities,
design expertise,
innovative spirit and ability to deliver results,
to offer tailor made solutions based on Customers' needs.
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Rolls-Royce and ABB partner up on microgrid tech

Rolls-Royce and ABB will now be offering energy-efficient microgrid solutions for utilities, commercial and industrial establishments.

Rolls-Royce and ABB have announced a global partnership on microgrid technology and advanced automation. Together, the two companies will offer an innovative, energy-efficient microgrid solution for utilities, commercial and industrial entities.

A microgrid is a small scale electric grid that combines power from distributed energy generation sources such as combined heat and power plants, diesel- and gas-powered gensets and renewable sources with batteries. The microgrid provides the overall control to coordinate these resources to meet the requirements of industrial, residential or consumer loads. Microgrids can either function off-grid, or be connected to the main power grid. The ability of microgrids to seamlessly separate themselves from the main grid, in the event of a potential grid fault or emergency, is an increasingly important feature.

Reliable power supply – even during harsh weather conditions and times of peak consumption – is critical for economic growth. Integrating renewable energy is a sustainable solution to support uninterrupted power as well as

Image Credit: Rolls-Royce

encourage clean energy use. Microgrid solutions benefit utilities, industries and commercial sites that are looking for reliable power supply as well as cost and carbon emission reduction. Microgrids enable resilient power supply even with high penetration of intermittent renewable energy sources such as wind and solar. Digital automation and control systems intelligently coordinate distributed energy resources and loads for the microgrid to function efficiently.

Rolls-Royce offers the MTU Onsite Energy brand power system solutions: from mission critical, standby and continuous power to combined generation of heat and power, and microgrids.

"Due to the transformation towards decarbonisation, customers need to pursue sustainable power options that also deliver utmost profitability. For this, we rely primarily on microgrids, which are autonomous energy supply systems that are efficient, reliable, and environmentally friendly," said Andreas Schell, CEO, Rolls-Royce Power Systems. "Combining our integrated MTU diesel and gas genset system technology and our control solutions, with ABB's modular microgrid solution, control capability and remote service, will offer customers the combined strengths of the two world leaders in technology."

"ABB Ability e-mesh can ensure a stable power grid, even with a high share of renewable energy from various sources, working smoothly together with already installed gas or diesel engines," said Massimo Danieli, head of ABB's grid automation business line within the company's Power Grids business. "ABB has a vast number of microgrid installations globally and through our partnership with Rolls-Royce Power Systems, we will further support the growing interest for microgrid solutions globally." ■

ROLLS-ROYCE OFFERS MICROGRID SOLUTIONS FROM MTU ONSITE ENERGY

Rolls-Royce is also offering microgrid solutions from MTU Onsite Energy, meaning mine operators will be offered a sustainable energy supply system that can be operated in remote regions independently of the national grid. The solutions combine renewable energy sources with a battery storage sysetem and both diesel and gas generator sets, in addition to a central controller to ensure that the mine's demand for electricity is made available in a reliable, efficient and environmentally friendly way.

"For mine operators, energy costs, which account on average for 15 per cent of the overall operating costs of mine, are a key factor," explains Lars Kraft, vice president Industrial Business at Rolls-Royce Power Systems. "And with a demand for electric power of 50 to 100 MW per mine, sustainability, efficiency and the reliability of the energy supply are now becoming increasingly important in the industry. We have identified our customers' needs and, with our microgrid systems, are now offering them a solution tailored to their specific requirements," he adds.

Besides diesel and gas generator sets from MTU Onsite Energy, the solutions offered by Rolls-Royce also include battery containers combined with photovoltaic and wind power plants in autonomous power grids. All the components are connected to each other via a smart energy management system, which optimises the way in which the energy is used both technically and commercially. Any excess renewable

Image Credit: Rolls-Royce

A MTU battery container mining microgrid.

energy can be stored in the batteries and then made available whenever it is needed. At the same time, fluctuations in power generated from renewable energy sources due to weather conditions and the time of day are compensated for with reliable diesel and gas generator sets, in addition to battery storage systems. The system is thus designed to provide a stable power supply at all times – even when the demand for electric power is high and when systems are required to operate around the clock.

Reliable power for a wide range of applications

For 100 years, Baudouin has been manufacturing the highest quality diesel engines for marine application. In the challenging environment of a marine operator, reliability and durability are paramount. Baudouin has a reputation for quality, reliability and flexibility. Now, Baudouin is extending its range of products to offer engines for use in power generation and in variable speed industrial applications, such as irrigation and water pumping.

Image Credit: Baudouin

Baudouin's new variable speed engines have been designed for applications such as irrigation.

Baudouin Powerkit engines, for power generation, are designed for operation in some of the most demanding environments – therefore, every product includes 50°C radiators, heavy duty air filters, redundant oil and fuel filtration systems, and one of the highest power density in the industry. The engines have best-in-class single step load acceptance and provide transient response and operational stability allowing for unrivalled power quality, an important feature for prime power applications. That's why PowerKit engines can prove their performance, durability and reliability in every condition – hot, cold, wet or dry, high altitude, sandy or dusty environments.

With R&D centres across the world, Baudouin constantly develops new products while continuously optimising the existing range based on local customer needs and regulatory requirements.

The simple, mechanical engine design and the high tolerance to fuel quality makes Baudouin Powerkit engines extremely easy to operate and maintain. With a Baudouin engine, you are also assured of excellent total cost of ownership, thanks to low fuel consumption, long service intervals and extended mean time between overhauls.

Moreover, Baudouin offers on its range of Powerkit engines, best-in-class warranty, set at two years, unlimited hours, for PRP applications and four years, 800 hours, for ESP applications; a strong statement and a clear sign of the trust that the company has in its own products. This is why power generation professionals across the world trust Baudouin for reliable power supply.

A new range of variable speed engines

The PowerKit range of engines covers 18 to 3125kVA – a range that few engine manufacturers can match. With such an amplitude, the applications are virtually endless; from telecom, to critical protection, to data centres, hospitals and power plants.

In 2019, Baudouin launches a range of variable speed engines from 30 to 1,110kWm, designed for a variety of industrial applications.

The new range of variable speed industrial engines has been perfected for firefighting equipment, water pumps and irrigation systems.

Baudouin engines are available for delivery, globally, within days from order receipt, thanks to vast stock availability in our facilities in France. Our 200 sales and service points worldwide bring our passion wherever our customers operate. ■

Innovation for power generation and water sectors

This year POWERGEN Africa is co-located with African Utility Week and being hosted by Cape Town, where leading authorities in the world of power generation and water will meet for a series of conferences and exhibitions.

From May 14-16, the Cape Town International Convention Center (CTICC) will be home for Sulzer's engineering experts who will be on Stand E8 to discuss products and services related to the power generation sector.

Sulzer is a turnkey service provider for pumps and rotating equipment. Its parts, manufacturing centres, and global network of service centres can provide high quality components quickly to deliver maintenance or overhaul requirements.

Supporting the F-class gas turbine market, including the GE, Siemens and Alstom fleets, Sulzer has experienced personnel dedicated to the support of these vital assets. This includes the in-house manufacture of turbine and compressor blades to the highest specification as well as additive manufacturing for reverse-engineered, precision parts.


Sulzer specialises in equipment for the power generation and water sector.

Image Credit: Shutterstock/chinasong

For generators, motors, pumps and other rotating equipment, Sulzer says its dedicated field service teams can provide local, expert maintenance, rewinds, retrofits and pump services for existing assets. With almost 100 purpose-built facilities throughout the world, including Johannesburg, Sulzer's expertise is never far away. Every service centre has access to facilities including precision coil manufacturing and high-speed balancing resources.

Sulzer also has a comprehensive range of pumps, specifically designed to handle the challenges of the power generation and water sectors. Often purpose-built and always optimised for efficiency, Sulzer's knowledge and expertise in pump manufacturing goes back many generations and can also be used to retrofit existing assets and enhance performance. For large-scale pumping systems, Sulzer has developed an advanced analytics system, known as BLUE BOX. ■

Kohler SDMO units assembled at Clarke Energy's new plant in Nigeria

The first diesel generators off the production line have been sold to a historical Kohler-SDMO distributor in Nigeria.

Image Credit:

The Kohler-SDMO team with the first diesel generators at the new assembly plant in Lagos.

Clarke Energy, working alongside sister company Kohler SDMO, has assembled the first diesel generating set at their new assembly plant in Lagos. The plant has been opened in order to improve the costs and availability of the Kohler-SDMO diesel generating sets in Nigeria, while creating jobs in the country and expanding Clarke Energy's existing local capabilities.

Due to import tax imposed by the government, it was identified that it was essential to set up a local facility to deliver competitiveness and profitability while maintaining the highest standards of manufacturing using technicians trained in the UK and France. The first diesel generators off the production line were Kohler-SDMO J44 and J33 soundproof versions which have been sold to a historical/Kohler-SDMO distributor in Nigeria.

Yiannis Tsantilas, Clarke Energy's new managing director for Nigeria, and David Raison, Africa regional director for Kohler-SDMO commended the Clarke Energy and Kohler-SDMO teams for working together to deliver the first of many diesel generating sets from the production line. Special thanks were given to Wale Onagbola and his production workers, as well as Marc Etevenon, Jean-Etienne Patinec and the rest of the Kohler-SDMO team for their dedication and hard work in making this project a success.

The assembly plant is the first of its type by Clarke Energy in any of the 25 countries in which the company operates in. Clarke Energy has been working in Africa since 1998 when the company was granted the rights to distribute the Jenbacher gas engine product in Nigeria. This new facility demonstrates their continued commitment to international trade in the African continent where Clarke Energy has delivered more than 360MW for a wide range of applications with an emphasis on local service and after-sales support.

This is another successful collaboration with Kohler Power and Clarke Energy teams following Clarke Energy being awarded the official distributorship of Kohler power solutions in Australia, Tanzania, Tunisia and combining team resources in India. Both companies have been working together in unison to share Kohler Power's production expertise, along with Clarke Energy's market-leading country distribution and service support model, which are backed up by application engineering, installation and commissioning teams. ■

CDE launches Intelligent Plant with AI technology

Industry innovator CDE – one of the leading manufacturers of wet processing equipment – is redefining how the modern plant operates through the integration of artificial intelligence (AI) to boost productivity.

Launched at bauma 2019, Intelligent Plant, CDE's pioneering next generation technology, utilises advances in machine learning and the Internet of Things (IoT) to monitor and automate previously manual processes.

Enabling the plant to make smart decisions in real time, the "Intelligent Plant" can boost productivity by up to 40 per cent with a payback period of under six months.

Tom Houston, director of CustomCare at CDE, said, "We are constantly striving for innovations to help customers maximise output with minimum effort. The Intelligent Plant has created thinking plants that reduce downtime, maintenance and fixed costs while increasing yield and revenues for plant owners by almost half – and in some cases even more."

Material overloading can cause considerable disruption to the running of a plant. Overloading can impact plant optimisation resulting in lower yields and the need for greater maintenance. Intelligent Plant uses a series of belt-weighers to accurately establish the amount of material which enters the plant and determine the ratio between sand, aggregates and silt output.

If the plant is running at below optimal utilisation where weightings and output are unbalanced against set targets or failing to maximise on production capacity, the plant will respond to address the issue itself in real time by, for example, adjusting feed rates.

Image Credit: CDE

The world's largest wet processing plant for C&D waste, situated alongside the company's natural sand and aggregates processing plant, at Velde Pukk in Stavanger, Norway.

At the centre of the Intelligent Plant is OptiMax technology, the latest addition to CDE CORE – a range of technology solutions developed to give customers greater control of their plant. CORE uses automation and sensors to monitor productivity, minimise downtime, automate processes and lower operating costs while maximising profitability.

Any CDE plant ordered during or within three weeks of bauma 2019 will receive a free Intelligent Plant upgrade, including a three-year subscription. Existing customers interested in upgrading their plant to an Intelligent Plant are eligible for a 40 per cent discount.

For more information, visit cdeglobal.com.

MANITOWOC UNVEILS BIGGEST POTAIN TOPLESS CRANE AT BAUMA 2019

The new Potain MDT 809 is the largest topless crane ever produced by lifting equipment providers Manitowoc.

While delivering unprecedented lift capacity and reach, the crane also boasts an advanced design that provides reduced operating costs and easier assembly for owners.

Thibaut Le Besnerais, Manitowoc's global product director for tower cranes, said the introduction of the MDT 809 marked another significant development from one of the industry leaders.

"The launch of the MDT 809 is one of the most significant Potain tower crane launches of recent times," he said. "Over the past 10 years we've seen consistent growth in demand for topless cranes, with customers benefiting from their fast assembly and compact design, which makes it easier to get more cranes onto a job site to complete work quicker. Alongside this we've seen an increase in modular construction, with contractors needing to lift heavier loads. It's clear to us that there is strong demand for bigger topless cranes. But we wanted to be sure that any new model we launch not only satisfied demand for greater capacity, but also preserved the easy transport, fast assembly and industry-leading performance our other topless cranes deliver. The MDT 809 provides all that and more."

The new Potain MDT 809 crane is the largest ever produced by Manitowoc.

Image Credit: Manitowoc

HİDROMEK BREAKS GROUND AT BAUMA MUNICH

HİDROMEK presented its brand new H4 Series excavators at bauma Munich 2019.

By changing the diameter of hydraulic cylinders, tubes and bars, the working speed of H4 Series has been increased. The power boost and the maximum hydraulic system pressure have been improved to reach out the required power as well. These improvements have led to the creation of a faster, more productive machine. Earning is more now than ever with H4 Series, which produces more work with less fuel. With the operator in mind, the H4 Series has an electronic system with an increased capacity to find out the condition of the machine and its integration with additional equipment. H4 cabins are designed to offer maximum safety and durability under ROPS & FOPS standards.

The HMK 145 LC SR, with its dynamic lines, is an urban excavator, designed to work with power and precision in urban areas and narrow spaces, aiming to avoid the risk of damage and improving safety in all fields and conditions. HMK 145 LC SR has a short turning radius with its two piece boom type and compact layout, good for construction, landscape, material laying and leveling work in narrow spaces.

Image Credit: HİDROMEK

The inside shot of the cab of a H4 excavator.

See full bauma report in June issue

World's biggest vibro hammer unveiled at bauma

Here are some of the innovative piling solutions showcased at bauma Munich from 7-14 April.

90VM VARIABLE MOMENT VIBRATORY HAMMER

Dieseko Group presented the **PVE 90VM Variable Moment vibratory (VM)** hammer at bauma Munich on 7-14 April. This Variable Moment vibratory (VM) hammer has been developed for the continuous changing market requirements. The market is demanding no vibrations during start and stop while at the same time wanting faster installation of larger diameter tubes. This is the biggest VM vibratory hammer in the world, making installing and extracting of monopiles and large diameter tubes in vibration-sensitive environments possible. PVE has a long track record with this piling technique and, in particular, the high frequency VM-hammers are known for their quality and durability.

Features:

- High torque with four big hydraulic motors.
- Most powerful HF VM.
- Controlled power.
- Integrated X-plate.
- For large diameter tubes: 1,050-2,660mm. Tubes, CAZ, dB/Tr/Qt sheetpiles

Application:

Anywhere where you have to be in control of vibrations: industrial areas, chemical plants and railway stations; urban areas, especially hospitals, old monuments in city centres; and onshore, nearshore works, such as quays; marine, harbour works.

MOVAX PILING HAMMER

Movax Oy introduced new piling and foundation equipment and solutions at bauma Munich in April such as the **Movax piling hammers**. They are double-acting, impact-type piling hammers used to drive load-bearing piles and assist in sheet pile driving, even in the most difficult soil conditions. They offer optimum solutions to complete a pile installation after reaching refusal with a side grip vibratory pile driver or when load testing is required.

Features:

- High efficiency piling hammer
- Suitable for different soil and site conditions
- Available in different models to meet a wide range of piling needs
- Suitable for a wide range of different type of piles, including precast concrete piles, sheet piles, H-beams, timber piles and tubular steel piles

Application:

Suitable for the following mounting options: excavator stick-mounted, designed to work on a standard excavator with normal auxiliary hydraulics, MOVAX multi-tool piling leader-mounted (excavator-mounted), crane-mounted, available with hydraulic power pack, piling rig-mounted, precise and accurate control of MOVAX Control System.


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Showcasing the best in engine technology

PERKINS

At bauma Munich 2019, Perkins showed five engines from its EU Stage V range designed to meet the new emission standards being phased in from this year for off-highway diesel and mobile electric power engines across the full power range.

Perkins Syncro 3.6-litre engine: offering 100kW (134 hp). Its compact design enables OEMs to optimise machine layout while operators benefit from 3 db less noise.

1706J-E93TA: 6-cylinder, 9.3-litre engine providing 19 per cent more power and improved torque of up to 340KW (456hp) and 2088Nm.

2406J-E13TA: Shown for the first time at bauma Munich. It delivers 430kW (577 hp) and 2635 Nm torque from a 12.5-litre engine.

KOHLER

KOHLER has integrated an Electronic Throttle Body into additional models within the company's highly regarded Command PRO EFI engine lineup. This performance-enhancing technology electronically controls air intake to optimise an engine's power and load response.

It was engineered into the company's 999cc engine for commercial zero-turn radius (ZTR) lawn mowers, but the technology is being added to the company's 694cc and 747cc KOHLER Command PRO EFI models, which are ideal for welders and other utility equipment in industrial markets.

JOHN DEERE

The industrial Stage V lineup from John Deere will offer ratings of 36 to more than 500kW (48 to more than 670 hp) with displacements of 2.9 litres through the 13.6 litres. The latter is designed to meet the future needs of global markets by offering customers increased efficiency, installation flexibility and power in a more compact package. John Deere is expanding its non-EGR engine generator drive line-up for Stage V with the addition of the 4.5L EWS engine, which serves both the 80 kVA and the 100 kVA markets.

CHRYSO TO THE RESCUE AS GOOD SAND BECOMES SCARCE

It is no secret that the quality of sand significantly affects the performance of concrete and the increased scarcity of clean washed filler sand from traditional sources, such as river beds, is a growing concern to South African concrete manufacturers.

The shortage of good quality sand has been driving up the price, and also forcing manufacturers to often make the best of lower quality material. By the same token, projects in remote areas often compel contractors to make use of local materials for their concrete, even if these materials are not ideal.

Hannes Engelbrecht, general manager for inland sales and marketing at CHRYSO Southern Africa, explained the real challenge as a result of this situation is to ensure the concrete produced is of a consistently high quality and it matches the technical specifications demanded by the project.

The CHRYSO Quad range allows customers to manufacture cost optimised concrete.

"We are in an ideal position to assist customers who are faced with this challenge as CHRYSO's high technology admixture solutions address the four major parameters of sand in these situations, namely clay content, fines, absorption and particle shape," he said.

The aptly named CHRYSO Quad range allows customers to manufacture cost optimised concrete, which meets all the most demanding performance criteria. Incorporating CHRYSO's breakthrough clear polymer technology, the range meets the challenges presented by crushed sand including a high clay content and excessive fines.

A good example of how this technology has recently been used is at the remote site of a wind farm in the Eastern Cape. Given the onerous logistics and prohibitive cost of transportation, material from local sources had to be used for the precast elements which were cast on site. CHRYSO provided the solutions to meet the exacting specifications, which included contributing other admixtures to deal with frequent high ambient temperatures.

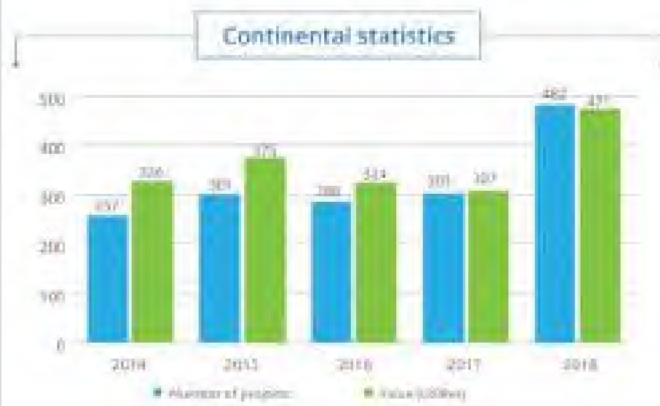
Transport sector fuels project growth across continent

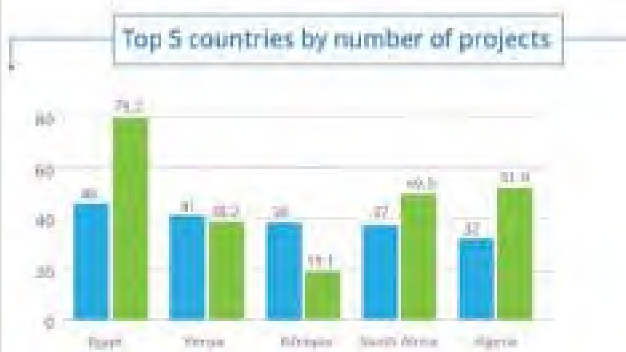
The rate of Africa's economic development, largely depends on the right infrastructure being in place. In *Deloitte's 2018 Africa's Construction Trends* report, it provides an overview of the major projects in progress.

Time is of the essence in Africa to build the right infrastructure to support its growing population. The United Nations estimates the continent's population will have doubled to 2.4 billion by 2050. But the continent is suffering from a crisis in infrastructure investment. According to the African Development Bank, Africa's infrastructure funding needs are estimated at between US$130bn-US$170bn annually.

Major financial players, such as China, estimated to be the single largest financier of African infrastructure, are vital for the completion of major projects to support the growth of economies.

In Deloitte's Africa Construction Trends report, which goes up to 1 June, 2018, shows a comprehensive regional overview of projects across the continent in multiple sectors from oil and gas, energy and power, real estate, and transport.





Source: Deloitte Analysis, 2018

East Africa

The region has the largest number of projects (139), predominately driven by the transport sector (45), followed by energy and power (18) and real estate (17) respectively. The stand-out transport projects in East Africa is, of course, the Standard Gauge Railway project, which will stretch across almost 3,000km, connecting three East African neighbours (Rwanda, Kenya and Uganda). The first phase between Nairobi-Naivasha rail project is close to completion and is worth $US6.2bn.

The Bagamoyo Mega Port, is another major transport project which will be sub-Saharan Africa's largest port, capable of handling 20 million containers per year, valued at US$11bn.

The US$14.5bn Konza Technology Park, dubbed as "African Silicon Savannah", will be located 64km south of Nairobi, with a business district, a university, residential areas and city parks.

West Africa

Similarly, the transport sector leads the biggest number of projects in West Africa with 52 projects. A notable project is the US$12bn Olokola Deep-Sea Port. In total, there were 105 projects in the region, worth US$82.8bn, a 32.9 per cent increase compared to last year thanks to the completion of projects such as Nigeria's US$15bn Engina Gas Field project, Ghana's US$7bn offshore integrated oil and gas project. Nigeria's OML 130 – an oil & gas development – is the region's largest project by value at US$16bn. Dangote's refinery is also one of the nation's top projects in progress, which is scheduled to come onstream in 2021.

Southern Africa

Overall, the number of projects in Southern Africa increased by 10.8 per cent from 2017, the Deloitte report found.

Again, the transport sector accounts for most construction activities with 32.2 per cent, followed by real estate and energy and power with 25. 2 per cent and 10.7 per cent respectively. Prominent projects in the region include the US$13.2bn Medupi and US$15.2bn Kusile power stations in South Africa. Kusile is expected to become the world's largest coal-fired power plant upon completion. Earlier this year, Pravin Gordhan Public enterprises minister, criticised the way in which both stations have been designed and constructed, and were to blame for Eskom's current financial woes.

Central Africa

The mining sector drove the highest number of projects with 38.5 per cent due to the region's reliance on natural resources and extractives, such as bauxite, iron ore, copper and nickel. The transport sector drove the demand for projects (19.2 per cent) which includes Port of Banana, the first deep-sea port in the country. The most valuable project was the Ngaoundal & Minim-Martap bauxite mine in Cameroon, valued at US$6bn. Australian mining company Canyon Resources announced in March that it has "identified a very high-grade bauxite resource of almost 251 million tons within the existing 550-million-ton resource".

North Africa

The region reported a whopping 172.5 per cent increase in the number of projects compared to last year, largely coming from the real estate (34 per cent), transport (30 per cent) and energy and power (16 per cent) sectors. The stand-out project is the 4.8GW El-Dabaa Nuclear Power Plant – Egypt's first nuclear power plant, which aims to provide 50 per cent of the country's power generation capacity to meet the country's demand for electricity and growing population. The construction of the plant, developed by Russian-state firm ROSATOM, is scheduled for 2020, with commissioning expected to begin in 2026. ■

The Volvo EC200D crawler excavator.

Image Credit: Volvo CE

Volvo EC200D: not a drop of fuel wasted

The EC200D crawler excavator from Volvo Construction Equipment has all the hallmarks of Volvo quality and productivity, together with category leading fuel economy.

The EC200D crawler excavator from Volvo Construction Equipment (Volvo CE) is the perfect partner for general purpose applications. From road construction and building projects to agriculture, landscaping and utility work, the EC200D delivers optimum swing speed, excellent combined operation, powerful digging forces and fast cycle times. The latest addition to the D-Series line-up offers outstanding fuel economy, helping customers improve their total cost of ownership and maximise the profitability of their business.

The intelligent feature optimises the hydraulic system to reduce the loss of flow and pressure, without compromising digging power or swing torque. The hydraulics work in harmony with the Volvo D5 engine, delivering high torque at low rpm for the ultimate combination of performance and fuel efficiency. The EC200D's combination of high fuel economy with a design that is perfectly matched to the needs of general construction mean Volvo CE expects the new machine to become a popular choice.

Go with the flow

The operator has the ability to manually control flow to the hydraulics using the integrated work mode system. The operator can choose from a selection of work modes – I (Idle), F (Fine), G (General), H (Heavy) and P (Power max) mode – according to the demands of the task at hand. To reduce waste through idling, the EC200D includes the automatic idling feature. When the machine's controls are inactive for a preset amount of time, engine speed is reduced to idle, helping to reduce fuel consumption – and emissions and running costs.

Control in comfort

Greater control over the machine improves fuel efficiency and cycle times for a more productive and profitable work shift. Most notably, the increased hydraulic flow makes it easier for the operator to improve the machine's controllability; achieving accurate control in grading and combined operations. The operator can expect smoother and easier movement when travelling and lifting simultaneously, as well as better grading quality from the harmonised boom and arm movement.

Harmony and consistency are also evident inside the Volvo Cab. The new I-ECU monitor, for example, displays all necessary information, helping the operator stay confident and in control over the excavator at all times. For effortless adjustment, the controls are ergonomically positioned and integrated into the keypad. Boasting all-around visibility, the spacious Volvo Cab also features an adjustable seat and ample leg room, because a comfortable operator is a productive operator.

Built to last

It's not only these functions that ensure the EC200D is ready to work. The D-Series excavator is durable by design for the ultimate in strength, durability and wear resistance. All components are tested and proven to provide long-lasting performance, good return on investment and high resale value. For optimum machine weight and maximum total cost of ownership, the newly designed boom and arm is the perfect choice for general-purpose applications.

The operator can manually control flow to the hydraulics using the integrated work mode system.

Image Credit: Volvo CE

Easy to inspect

To guarantee a long service life and maximum uptime, regular service inspections are required to spot any potential problems before they arise. The EC200D excavator makes daily service checks quick and easy to carry out, thanks to grouped filters and centralised lubrication points that are conveniently accessed from ground level. Should a technician or operator need to access the superstructure for inspection or maintenance, full-size guard rails help maintain three-point contact at all times, while well-positioned punched anti-slip plates offer a secure footing.

To help promote machine uptime and maximise total cost of ownership, Volvo offers a range of aftermarket services and solutions, tailor-made to individual businesses and operations. A complete solutions provider, Volvo CE is committed to boosting customers' investments and revenues. ■

PLANT EFFICIENCY AT RISK WITHOUT CAREFUL CHUTE DESIGN

The efficiency of crushers, screens, mills and other large equipment in a minerals processing plant can be severely undermined if the chutes at transfer points are not doing a proper job.

Mark Baller, managing director of Weba Chute Systems, highlights that chutes play a vital role in plant reliability and performance. "A well-designed chute ensures that a crusher receives the right material at the correct angle, for example," said Baller. "By the same token, it will load a screen optimally, and will facilitate the correct feed rates into a mill, for best performance and economical power consumption."

He argues that most plant operations are today recognising that chutes are not just basic plate-work. Rather, they need to embody a high level of technical design that creates a fit-for-purpose solution for the particular commodity and application.


Image Credit: Weba Chute Systems

A typical transfer point discharging onto a conveyor.

"After 30 years of continuous improvement in our chute designs, we have worked hard to change the traditional mindset, which assigned chutes a sort of 'step-child' status in the process circuit," he said. "More and more plant managers recognise that no two chute applications are the same, and that careful design must go into developing a solution to their specific operating conditions."

Weba Chute Systems combines a scientific approach with its extensive experience in the field. The result is a customised solution that controls the flow of material, taking into account its physical properties and the surrounding conditions.

"We have seen many plant shutdowns caused by incorrect chute design," Baller said. "Damage can include holes in screen decks or damaged conveyor belts. As well as the repair costs, plants must pay even more dearly for plant downtime."

FLSMIDTH LAUNCHES RAPTOR CONE CRUSHERS

FLSmidth has introduced Raptor R250, R350 and R450 cone crusher models.

This new Raptor cone crusher generation does not need back liner material for the liners and is designed to operate at higher capacities, the company has said.

In addition, the pressure resistance has been increased. This will improve the particle shape during the size reduction, something that can reduce the number of crushing stages and require smaller screen sizes in the plant.

The crushers also incorporate digital connectivity. Using smart technology, these cone crushers are cloud-based. This allows them to provide operational, performance and asset health monitoring metrics, which can be accessed by authorised personnel at any time.

Additionally, automation systems can use this data to optimise crusher performance and feed control, even taking corrective action when force overloads are detected. The end result is that businesses can improve productivity, while also lowering maintenance and monitoring costs.

A company spokesman said, "While every crushing problem is unique, businesses within the aggregate and construction industries all want the same thing from their crushing solutions: safety, ease of maintenance and the highest possible throughput. The FLSmidth Raptor cone crusher line has provided industries with effective crushing solutions that meet these demands; and now, with the introduction of the new Raptor R250, R350 and R450 models, these advantages are further reinforced with advanced smart technologies and machine optimisation software."

thyssenkrupp proving to be dependable partner to the construction machinery industry

Machines for the construction industry are used under the most challenging conditions. For complex construction work on difficult subsoil, solid and durable equipment is required.

thyssenkrupp Schulte, a company of the Materials Services Business Area, maintains it has proven to be a reliable dependable for these extreme requirements.


Image Credit: thyssenkrupp

Thyssenkrupp delivered around 350 metric tons of special structural steel to BAUER Maschinen GmbH.

One long-standing customer is BAUER Maschinen GmbH, whose foundation engineering parts such as the masts of the drilling rigs and booms of the cranes use special structural steel. Every year, thyssenkrupp Schulte delivers around 350 metric tons of special structural steel to this customer just-in-time and tailored to requirements.

The decisive factor in the selection of the material is its properties. "We ensure that our partners receive only the finest material. Special structural steel is particularly remarkable for its wear resistance, which makes the equipment extremely resilient and tough," said Christoph Hartmann, regional coordinator for special structural steel at thyssenkrupp Schulte in Munich.

A further factor in the choice of material is its strength which allows the wall thickness of the parts and components to be reduced while at the same time providing high load-bearing capacity. This is an important criterion for the mobility of vehicles weighing several tons each.

Around 90 per cent of the material is from the XAR family and the high-strength N-AXTRA fine-grained structural steel produced by thyssenkrupp Steel Europe. In total, thyssenkrupp Schulte supplies its customers with around 50,000 tons of special structural steel yearly.

thyssenkrupp Schulte GmbH is the materials partner for steel, stainless steel and nonferrous metals.

Newmont Ghana named most compliant taxpayer

Newmont Ghana has been awarded the Most Compliant Taxpayer for 2018 at the annual Ghana Revenue Authority (GRA) Staff and Stakeholders Awards Ceremony in Accra.

The award recognised Newmont's significant contribution to Ghana's domestic tax revenue mobilisation and for being a good source of employment to many Ghanaians.

In a citation accompanying the Award, the GRA described Newmont's compliance level in 2018 as "overwhelming;" adding that "you are one of the companies that consistently files annual returns for all employees. Your contributions to tax revenue and employment generation have won the admiration of the GRA."

Image Credit: Newmont Ghana

Left to right: Kwame Addo-Kufuor, vice president, Government Relations and Strategic Development, Newmont Africa, Tula Zeng – interim regional chief financial officer, Newmont Africa, Jerry Adusei – senior tax manager, Newmont Ghana.

In 2018, Newmont Ghana paid a total of GH 783mn (US$151mn) in taxes and forestry levy to the government of Ghana through the GRA and Forestry Commission.

In 2017, Newmont was awarded Ghana's Overall Best Taxpayer, for consistently meeting its financial obligations to the government of Ghana, compliance with Ghana's tax laws and willingness to support the GRA's tax collection and compliance improvement initiatives.

"We will continue to support the GRA's tax administration efforts and believe through the ongoing collaboration with the government of Ghana, our regulators and host communities, Newmont Ghana will operate sustainably, create value and improve lives", said Tula Zeng, interim regional chief financial Officer, Newmont Africa.

Newmont says it is committed to operating ethically and respecting the law while creating long term value for all stakeholders. ■

Liebherr makes improvements to ultra-class mining trucks

USA-based Liebherr Mining Equipment Newport News Co. has made enhancements to its ultra-class mining trucks in the drive for continuous improvement to its product line of mining trucks and excavators. Safety, productivity, and performance are at the core of these new features.

Image Credit: Liebherr

The T 264 mining truck.

The latest product upgrade for the T 264 mining truck provides a higher payload capacity of 240 tonnes/265 tons. To maintain performance and increase productivity, the T 264 offers multiple engine options with power ratings up to 2,013 kW/2,700 HP. The upgrade features a new front wheel design and upgraded braking system; and upgraded wheel motors and rear gear ratio boosting torque and acceleration.

Existing T 282 C and T 284 mining trucks can be retrofitted for increased payload and production capacity. Now capable of hauling additional payload to reach a total capacity of 375 tonnes/413 tons, this improvement will allow for maximisation of productivity, with the added benefit of enhanced compatibility with Liebherr's R 9800 mining excavators in a five pass match.

Liebherr provides customers with a choice of engine options. Tier 4 solutions are designed to reduce emissions and satisfy global requirements (established by the EPA for all new mining and construction equipment). This practical consideration is an example of Liebherr's commitments to customer satisfaction and environmental sustainability. Tier 4 final is already available on the T 264 and the T 284.

The new Liebherr Mining Data (LMD) online portal offers real-time insights and data regarding performance and availability of mining trucks. This OEM solution software offers a single dashboard for improved fleet management of Liebherr Mining Trucks, so that customers can track KPIs and generate custom reports.

LMD now comes standard with all new Liebherr ultra-class mining trucks, and the hardware kit is available as a retrofit for the T 282 C generation mining trucks.

Benefits of LMD include detailed application analysis and optimisation, increased safety, reliability, and machine uptime, with reduced maintenance, repair time, and cost through actionable insights.

KWIKSPACE DELIVERS QUICK SOLUTIONS FOR MINE SECURITY IN NAMIBIA

Kwikspace, one of Africa's largest manufacturers of prefabricated, modular buildings, was approached by a long-standing client for a solution that could be used as guard houses on a Namibian mine.

For this project, Kwikspace provided five non-standard mobile modular buildings with specified electric and paint works. These are being used as guard houses at various look-out points within the mining operation.

Implemented as prefabricated, pre-assembled buildings to client-specific requirements, Kwikspace alternative building solutions are delivered to sites throughout Africa, quickly and cost-effectively. Products are manufactured according to ISO 9001:2008 and OSHAS 18001:2007 standards and have a minimum life of 20 years.

Set-up of modular buildings can occur simultaneously with the site and foundation work, meaning projects can be completed 30-50 per cent per cent sooner than traditional construction.

AURY POISED FOR EXPANSION DRIVE

Aury plans a concerted expansion drive in the African mining industry once it is firmly entrenched in South Africa, according to Xiaoming Yuan, chairman of Aury Africa and vice-president of holding company of Dadi Engineering Development Group (DEDG).

"We are fully ready to bring all of our unique services and products to South Africa. We also look forward to strengthening our relationship with existing clients, and bringing new South African mining companies onboard to ensure their operations are significantly more efficient and environment-friendly," Yuan said.

He underlined the company's many decades of in-depth knowledge in smart technology, as well as its knowledge and understanding of the mining industry. Here he highlighted DEDG's dry sorting technology and 'smart' plant concept. The 'smart' plant concept utilises automated control and sensor technology to monitor vital parameters to boost operational efficiency on a proactive, real-time basis. These range from pump pressure to conveyor-belt speeds. All software and hardware in this regard is proprietary, and has been developed specifically by DEDG for the mining industry.

Yuan was confident that Aury Africa will be able to replicate the success of subsidiaries Aury Tianjin and Aury Australia. "What I believe we need to do to achieve this is develop structures that are similar to those in place in China and Australia, which possess highly skilled and experienced individuals with a comprehensive knowledge of our equipment and products."

A significant achievement for Aury Africa was its Broad-Based Black Economic Empowerment (B-BBEE) agreement with 100 per cent black-owned local services company Nkomose Consulting Engineers & Projects, which has resulted in a Level 2 B-BBEE accreditation.

BRIEFS

Image Credit: Firestone

The 72 carat yellow makeable diamond.

Firestone recovers diamond

Firestone Diamonds has announced the recovery of a 72 carat yellow, makeable diamond from its Liqhobong Mine in Lesotho. It was recovered, along with a 22 carat makeable white stone, followed by an 11 carat fancy light-pink stone. They will go on sale in May 2019. This is the second c.70 carat stone recovered from the operation this year, following the 70 carat white makeable which was sold in the March auction at a record price for a Liqhobong diamond.

Image Credit: chiakto/Adobe Stock

UCM is the only producing coal mine in the state.

Contract win for BME USA

Blasting specialist BME USA has been awarded a contract by Usibelli Coal Mine (UCM) in Alaska to supply explosive products and accessories. Part of the South Africa-based explosives leader BME, the USA business was established in Denver, Colorado last year. According to Glenn Watt, BME's senior director for sales and marketing in North America, the supply contract with UCM is for one year, with an option to extend for two more years.

Mining dump trucks transporting platinum ore for processing.

Image Credit: Adobe Stock

Platinum prospects under the microscope

Industry experts at Investing in African Mining Indaba in Cape Town were mostly upbeat about the outlook for the platinum mining sector in Africa and worldwide in 2019.

It has not been the easiest of times for the platinum industry, like much of the mining sector, but that might be about to change as supply and demand levels even out and investors return.

And that spells good news for the South African mining industry and for thousands of workers.

Trevor Raymond, director of research at the World Platinum Investment Council, described the last 12 months or so as "momentous" in the years since the organisation has been touting platinum investments. It all indicates an upturn in interest in the sector.

"We've managed to grow significantly the number of investment funds that can seriously consider owning platinum as an investment," he told attendees at the main auditorium at Investing in African Mining Indaba in Cape Town earlier this year.

"However, understandably, those investors are pretty cautious given the continued fall in the platinum price and the significant negative sentiment that has surrounded the platinum industry."

Importantly, though, there is a sense that things are changing. "More and more of those investors are suggesting that sentiment has changed," he continued.

According to Raymond, this was linked to the fact that the normal demand growth signals that investors look to, may have been overlooked in the platinum segment.

There are a number of factors at play that bode well for an uptick in demand. These include new regulations for diesel cars in Europe, while huge new investment has gone into fuel cells and battery technology to grow this side of the market.

At the same time, production is some way behind a few years earlier – not just in Africa, but global mining of platinum is far below 2015 levels.

"What's been happening is there have been some tight margins, some tough cost reductions and some tough decisions [plus] significantly lower capital expenditure but there are still some consolidations and closures as we speak," he added.

There is a consensus view in the investment community too that sentiment may have improved.

Similarly, Charl Malan, senior analyst and portfolio manager at VanEck in New York, said that going forward, supply is likely to be the most important factor to focus on.

The view from the mining industry, again, echoes what is emerging to be an overall upbeat sentiment.

Chris Griffith, chief executive of Anglo American Platinum, noted that over a number of years now, supply has either been the same or been reduced.

He told the conference that even with the big reductions Anglo Platinum had made (about 400,000 ounces), that has been offset by increases in productivity over recent times.

"But even with those massive improvements in productivity we've been unable to get back to what we were producing before," he noted.

But with flat production in South Africa, and indeed the rest of the world, do not expect to see major spikes in output anytime soon.

This is borne out by the figures, with capital spend in platinum mining in South Africa roughly a third of what it was a decade ago.

> "We've managed to grow the number of investment funds that can consider owning platinum as an investment"
>
> **TREVOR RAYMOND, DIRECTOR OF RESEARCH AT THE WORLD PLATINUM INVESTMENT COUNCIL**

There is also a strong correlation, when it comes to supply and demand trends, between all the platinum group metals, Nico Muller, chief executive of Impala Platinum, pointed out.

It suggests a market in deficit for all the three metals (platinum, palladium and rhodium) combined, underpins a rise in the basket price and bodes well for 2019 from an investor's perceptive.

The last few years, however, have provided an opportunity for the industry to reposition itself, which could mean a leaner, fitter industry going forward.

"When prices are high, people are complacent, and consequently, do not take difficult decisions," said Steve Phiri, chief executive of Royal Bafokeng Platinum.

"As a result, when the platinum price went down – and for a long time now – we, as producers, took difficult decisions to mine quality and substitute quantity and become more efficient."

That meant reducing production in order to maintain good margins. It also meant halting major projects in order to wait for a change in the market and economic landscape.

This means when the market turns again, there could well be a squeeze in supply.

"But that puts a pressure on future supply," Phiri added. ■

BKT focus on OTR and port applications

Spotech is an innovative device that is able to provide exact information about an equipment position via satellite.

Image Credit: BKT

Left to right: A BTK worker using SPOTECH and Piero Torassa BKT engineer carrying out a spot check.

Monitoring tools have been developed for the purpose of transforming subjective sensations on equipment performance into objective comparative data. However, every step can be improved. This is why BKT has developed SPOTECH, an innovative device able to provide exact information on the equipment position traced by satellite. The company said the objective is a kinematic motion analysis. The system, indeed, comprises a triaxial accelerometer positioned on the equipment in order to record latitudinal, longitudinal, and vertical movements as well as the forces involved in addition to speed, cycle duration and other useful parameters for increasing the customer's job efficiency in the earthmoving and port sector.

All information obtained by SPOTECH enables the creation of a real study on tyre usage, according to their effects and impacts on the piece of equipment it is fitted on.

In the field of OTR, for which this device has been originally designed, equipment generally performs repeated cycles. This enables to assess the TKPH value, i.e. a dumper's strength by analysing the weight that is transported on the average and the distance in kilometres per hour. A higher TKPH index means that a tyre is not suitable for the application in use, whereas it is perfect if the result is lower. The BKT experts can assist users by offering suggestions to correctly interpret the data and to intervene, if necessary, with corrective actions on the tyres.

There are, however, differences in regard to port applications. At a port yard, there are never repeated cycles. Hence, it is a more complex task finding a constant value to be measured. In this instance, the use of a GoPro camera becomes essential. It can be installed on the equipment registering videos from the operator's prospective being synchronised with the data recorded by the device, and enquiring, for instance, how many containers are on the move every hour, the average speed per hour, or the average distance travelled with or without load.

"In this type of operation many things come to light on the field. In Germany, we have cooperated with some users, who have explicitly requested our analyses, since other companies offering this type of service in the end did not provide that kind of feedback customers really needed," said Piero Torassa, BKT engineer. "The user is definitely interested in having such data at hand in order to objectively understand, which might be their improvement areas." ■

> "The user is interested in having such data at hand to objectively understand, which might be their improvement areas"
>
> **PIERO TORASSA, BKT ENGINEER**

Ecomondo: the great platform of the international green economy

The Italian Exhibition Group's expo is an unique European reference point for enterprises and institutions in the transition towards a green economy offering prospects of development.

With a new edition, under the banner of renewal and internationality, Ecomondo and Key Energy – the reference exhibitions in Europe for the industrial and technological innovation of the circular economy (23rd edition) and renewable energies in the Mediterranean area (13th edition) organised by Italian Exhibition Group (IEG) – will open its doors from 5-8 November in Italy at the Rimini Expo Centre.

The 2019 edition will present itself to the sector's industry and trade members with new visuals that, with the appearance of a geode, will represent the four main elements of earth, water, air and innovation. Through this, the edition will communicate the major message of the expos which through time have been able to strengthen their leadership in Europe in the circular economy and renewable energies: the creation and diffusion of models of eco-sustainable development for planning a better world.


Image Credit: Ecomondo

One of the focuses of the Ecomondo's 2019 edition will be waste and resources.

The previous edition reported a rise of 4 per cent in professional attendees, as well as positive results as far as international visitors were concerned, who accounted for 10 per cent of the total (trade/industry members from 115 countries: 70 per cent from Europe and 9 per cent from the Mediterranean basin, but also important participation from China and the Russian Federation.

The Ecomondo expo has always stood out for its highly innovative and international nature, starting from the format that brings together all the sectors of the circular economy on a single platform from the recovery of material and energy to sustainable development. More specifically, water, waste and resources, bioeconomy, smart cities and energy.

The focus of Ecomondo's 2019 edition will concentrate on some of the sector's priority issues, among which there will definitely have to be an increase in the number of global waste management enterprises, the involvement of new enterprises operating with a circular approach, boosting the bioeconomy supply chain with focuses on organic issues and integrated biorefineries, Ecodesign and new materials, Industry 4.0 IOT/ITC, transport with low emission, energy efficiency, development of area utilities, and the section on remediation of contaminated sites and land requalification.

Ecomondo and Key Energy form the great business platform par excellence of the international green economy. The 2019 edition will also maintain a great commitment by the expos on both the international and national front, with around fifty appointments for the sector in which the two expos are vital players, along with a delegation of innovative Italian companies.

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