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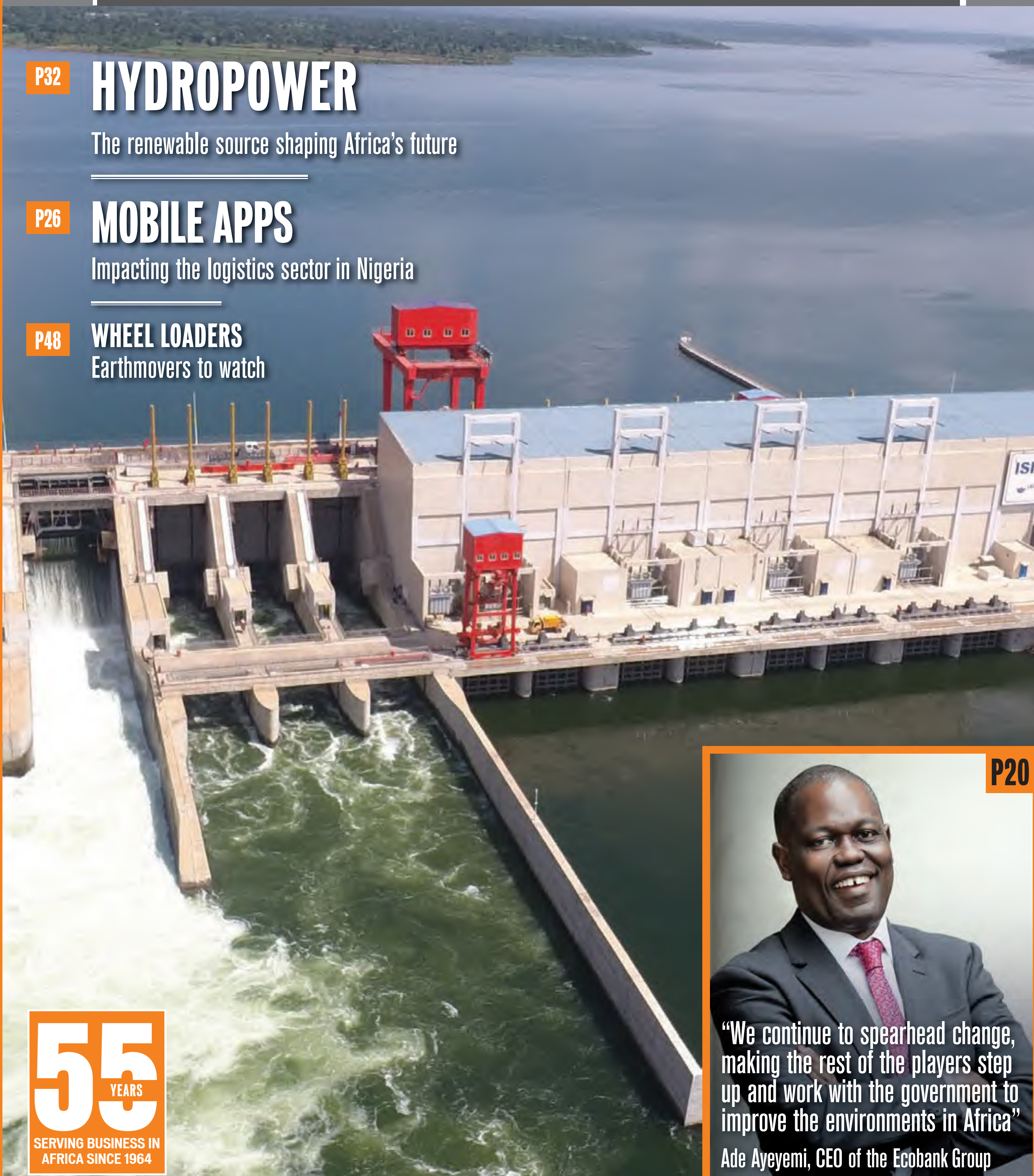

55 YEARS
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P20

"We continue to spearhead change, making the rest of the players step up and work with the government to improve the environments in Africa"

Ade Ayeyemi, CEO of the Ecobank Group

Cover picture: Isimba Dam in Uganda
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Cover Inset: Ade Ayeyemi, CEO of Ecobank Group
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Editor's Note

Welcome to the November issue. Our cover story looks at the dynamic potential of hydropower to play a significant part in sub-Saharan Africa's energy mix. According to the International Hydropower Association, the continent has the greatest hydroelectric generating capacity in the world, but only 11 per cent is being fulfilled. However, projects such as the Great Renaissance Dam in Ethiopia and Uganda's Isimba Dam are seeking to change this reality, for more see page 32.

Tanzania is pushing forward with its agenda to become a middle-income country by 2025, despite policies implemented to prevent foreign investment in certain sectors. However, exciting projects such as the Standard Gauge Railway and the Julius Nyerere International Airport Terminal 3 are underway to help meet the urgent demand for infrastructure, page 24.

Elsewhere in the edition, the genset market warms to Chinese competitors but major international brands remain in the market, providing stand-by power to the region's industries, page 36.

Finally, we take a look at some of the latest major wheel loaders available in the marketplace, page 48.

Samantha Payne, *Editor*

Contents

Intercontinental trade blocs are shifting the balance of power: Africa Risk-Reward Index

The fourth edition of the Africa Risk-Reward Index has been released, exploring the huge potential significance of the introduction of the African Continental Free Trade Area (AfCFTA) in late May, while raising some concerns about its implementation. It analyses the significant progress made by regional blocs such as the strengthening East African Community (EAC).

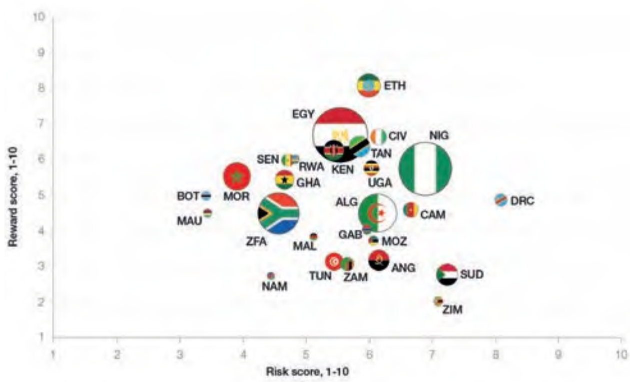

Image Credit: Control Risks Group Holdings Ltd

The index offers investors a comparative snapshot of market opportunities and risks across Africa.

According to Jacques Nel, chief economist Southern and East Africa of Oxford Economics, "The current edition of the index shows a slight increase in reward scores for some of the continent's largest economies, including Nigeria, Angola, and Egypt, as the economic recoveries in these giants gain traction. However, the highest reward potential remains centred in the East Africa region, with expanding services and infrastructure development boosting demand and improving business environments."

The comprehensive paper tackles common misinterpretations of the external influences affecting African economies. Africa is no longer an even battlefield for US and Chinese players as commonly thought. Current US-Africa totals US$39bn, while China-Africa represents more than US$200bn, and EU-Africa trade is now more than US$300bn. The research also notes a surge of interest in Africa from smaller geopolitical players such as Russia, the Gulf states, Turkey, and India.

Barnaby Fletcher, associate director at Control Risks, said, "The standard narrative of US-China rivalry in Africa had always looked like an over-simplification, but is certainly outdated now. China's engagement with Africa is undergoing a fundamental shift, the USA is playing catch-up, and a host of other countries are seeking to expand their influence in an increasingly multipolar landscape."

HONEYWELL AWARDED CONTRACT IN ALGERIA

Sonatrach Total Entreprise Polymères (STEP) has selected Honeywell UOP's C3 Oleflex technology to produce 565,000 metric tonnes per year of polymer-grade propylene for a proposed plant in Arzew, Algeria. In addition to technology licensing, Honeywell is providing the basic engineering design, services, equipment, catalysts and adsorbents for the plant. When completed, it will represent UOP's second C3 Oleflex unit in North Africa, following an earlier award in Egypt.

Bryan Glover, vice-president and general manager of Honeywell UOP's Petrochemicals and Refining Technologies business, said, "The Oleflex technology will enable STEP to convert domestically produced propane into propylene, a primary component in a wide variety of plastic products rapidly growing in demand in the region. STEP will further convert the propylene into polypropylene plastic to supply customers in Algeria, along the Mediterranean, and in other markets like Europe."

EGYPT TO LEAD AFRICA IN CONSTRUCTION GROWTH

Construction in the Middle East and North Africa (MENA) region has been relatively sluggish and is forecast to grow at 3.3 per cent in 2019, according to a report from data and analytics company GlobalData.

The report, *Global Construction Outlook to 2023-Q3 2019 Update*, revealed that after a lacklustre 2019, construction growth in the region is forecast to steadily improve in the next four years, to reach 4.9 per cent by 2022-2023. One of the region's brightest spots will be Egypt, where GlobalData predicts that construction will expand by an annual average of 11.3 per cent between 2019 and 2023.

"Egypt's economy is forecast to expand at a relatively rapid rate over the next two years, driven by sustained growth in natural gas production and a recovery in tourism. Delivering an ambitious renewable energy programme is a priority for the government. Construction activity is also being driven by Cairo's urban development programme, which could involve building 23 new cities," said Yasmine Ghozzi, economist at GlobalData. The pace of growth in sub-Saharan Africa will be particularly strong, averaging six per cent a year in 2019–2023, Global Data said.

According to the report, construction activity in Nigeria will accelerate steadily, supported by government efforts to revitalise the economy by focusing on developing the country's infrastructure. Ethiopia will be Africa's star performer, with its construction industry continuing to improve in line with the country's economic expansion, but the pace of expansion will ease back to single-digits, the report revealed.

According to GlobalData, Saudi Arabia remains the largest regional construction market in the Middle East, despite a contraction in construction in the kingdom in recent years.

BRIEFS

Morocco forms energy access coalition with Ethiopia

Image Credit: Maroc.ma

The aim is to ensure access to affordable, reliable and sustainable energy for all.

Morocco has announced the creation of a coalition for sustainable energy access, jointly led by the country and Ethiopia, focusing on universal access to energy through the massive use of clean energy. The announcement was made by Mustapha Bakkoury, CEO of the Moroccan Sustainable Energy Agency (MASEN), as part of the Climate Action Summit, in the presence of Lalla Hasnaa, chairperson of the Mohammed VI Foundation for Environment Protection.

AfDB approves US$31.3mn grants in Sudan

Image Credit: Water Alternatives/Flickr

The project will tackle gender disparities.

The African Development Bank Group (AfDB) has approved a US$30mn grant from the African Development Fund (ADF) and a US$1.3mn grant from the Rural Water Supply and Sanitation Initiative Trust Fund to upgrade water and sanitation facilities in the North and South Kordofan states of Sudan.

The project will enhance the reliability of water and sanitation services and improve the public health system to benefit 435,000 people.


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TOUGH AND VERSATILE

Uganda trade minister addresses UIOGS on local content and diversification

Amelia Kyambadde, Uganda's minister for trade, industry and cooperation, stressed the importance of meeting and exceeding local content requirements and diversifying the economy beyond oil and gas when she addressed the Uganda International Oil & Gas Summit (UIOGS) in Kampala.

"We have local content policy to protect the upcoming industries, to protect procurement, to give opportunities to local producers," she said.

However, she emphasised that it is important for local producers, suppliers and service companies across all industries to "produce quality products" to appeal to businesses investing in Uganda.

Image Credit: UNCTAD/Wikimedia Commons

H.E. Amelia Kyambadde, Minister of Trade, Industry and Co-Operatives, Uganda.

In regard to Uganda's bid to revitalise its oil and gas industry, Ms Kyambadde said public expectations are high and include hopes for hydrocarbon development as a catalyst for social and economic transformation, a reduction in the national debt and job creation. At the same time, she said the public was concerned about Uganda falling victim to the "resource curse" and she said it was important that revenues were managed responsibly.

Looking at the broader economic picture, Ms Kyambadde said regional cooperation was important if the oil and gas industry was going to succeed in Uganda. She said it was vital that there is "harmonisation of framework in the region", such as standards for oil and gas production. In particular, Ms Kyambadde said she was keen to collaborate with Kenya and Tanzania.

"We need regional consensus, we need to normalise methods and policies for the management of industry and ensure certification, recognition of our oil and gas, and think outside the borders," she said. "We need to ensure benchmarks with other oil-producing countries to share knowledge, to share information, to share expertise."

She called for more "aggressive infrastructure development," such as the 1,440km pipeline between Uganda and Tanzania, called for rail projects to be fast-tracked with standard gauge tracks across neighbouring countries, and pointed out the opportunities in the marine transport sector because "we have a lake between us".

As well as regional harmonisation of relevant regulations, Ms Kyambadde said meeting international standards was important.

"We have to comply with national and international standards under WTO rules. We cannot operate in isolation, we need to co-exist," she told delegates. She added that it was important for Uganda to join important international bodies, such as OPEC.

In conclusion, she told the conference it was important to "fight bureaucratic and corrupt tendencies, not just in Uganda but globally."

At UIOGS, Paolo Pascuzzi, director, turbomachinery and process solutions for BHGE's sub-Saharan African operations, echoed Ms Kyambadde's sentiments in regard to local content. He said the Ugandan refinery project, in which BHGE is a consortium member, aims to "provide an environmentally friendly refinery, maximise local content and create jobs in Uganda".

HOTEL COMPANY ENTERS TANZANIA MARKET

Aleph Hospitality has entered the Tanzanian market with the signing of a management agreement to operate two boutique resorts, the Moja Tuu and Hakuna Majiwe, in Zanzibar.

The new management contracts, scheduled to take effect in October, mark Aleph Hospitality's continued expansion in Africa, with its portfolio now stretching across five countries on the continent.

Speaking at the African Hotel Investment Forum (AHIF), Bani Haddad, founder and managing director of Aleph Hospitality, commented, said, "Our entry into the Tanzanian market solidifies the company's already-rapid African expansion, coming just days after the signing of an agreement for the first Marriott International property in Kisumu, Kenya.

"In addition to this growth of our branded hotel portfolio, we are thrilled to be adding two more independent hotels to our fold and providing our in-depth knowledge of international best practices and operating standards to unlock the potential of these beachfront properties. We have proven highly successful at turning around existing operations and look forward to driving maximum returns for the hotels' owner."

Amit B. Ladwa, owner of both Tanzanian hotels, said, "We have long sought an independent management partner who can bring world-class operational expertise and extensive regional knowledge to our assets. Aleph Hospitality is highly experienced, flexible and agile, and we are looking forward to seeing our hotels thrive with our new partner on board."

Located in Kiwengwa, on the north east coast of Zanzibar and a 60-minute drive from Abeid Amani Karume International Airport, Moja Tuu is a 35-key upper upscale beach resort, including 10 luxury beachfront villas, each with private infinity pool.

BRIEFS

Image Credit: Adobe Stock

The ride-hailing and car-sharing service could be rolled out to other African countries.

Volkswagen trialling 'Uber-like' service in Rwanda

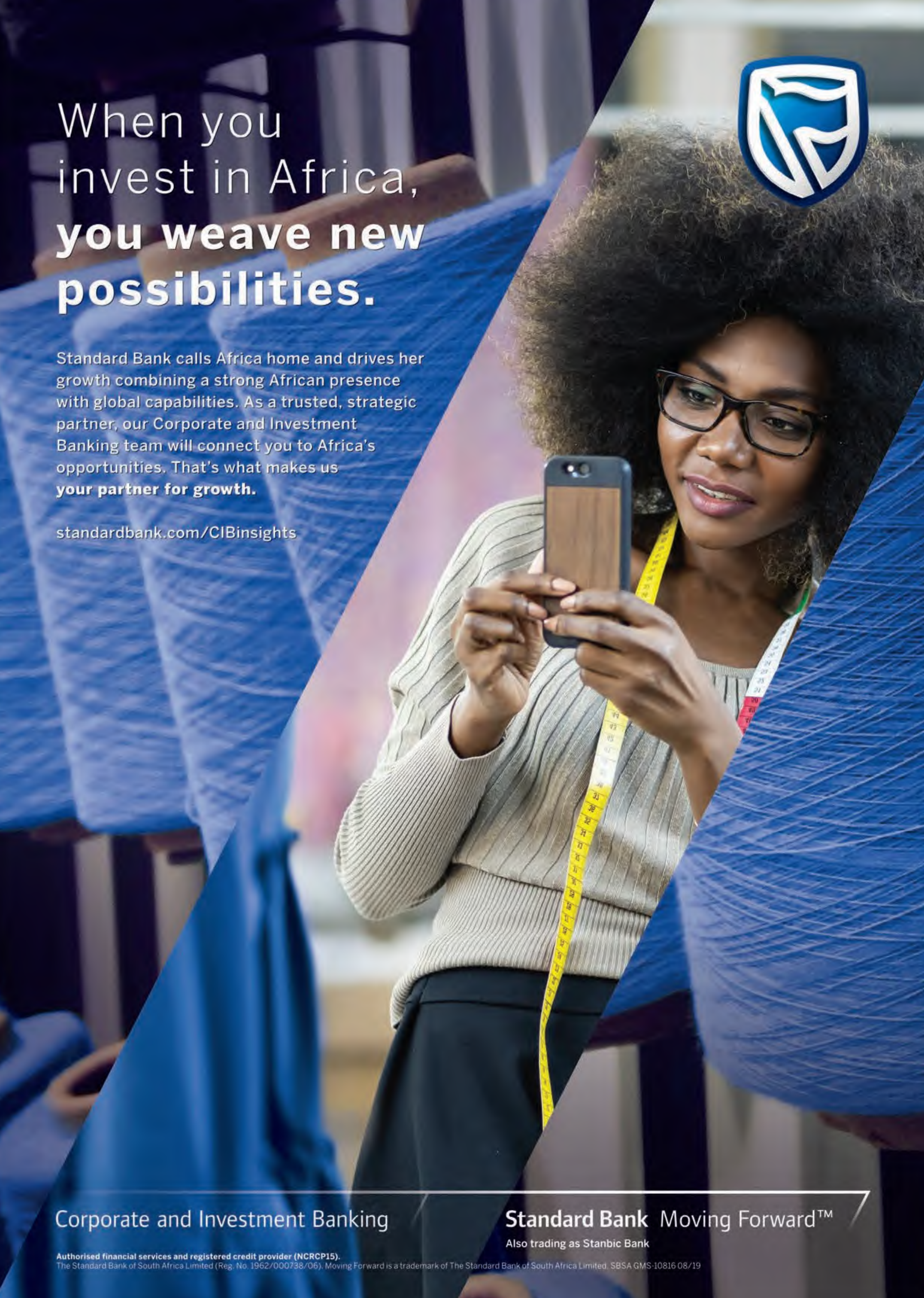
Volkswagen is hoping its Uber-like ride-hailing pilot service in Rwanda will help it enter into Africa's automotive market, say media reports. CEO Thomas Schafer calls it an "industrial experiment" that could be rolled out in Ghana and Ethiopia if it is successful. It follows a US$20mn production facility which opened in the country in 2018. Volkswagen joins other major carmakers investing in the continent.

Image Credit: Denis Barthel/Wikimedia Commons

Eliud Kipchoge running in the Berlin Marathon in 2015.

Kenyan runner makes history

Eliud Kipchoge set a new marathon world record in Vienna on 12 October, completing the 26.2 miles in 1 hour, 59 minutes and 40.2 seconds.
The Olympic champion and world record holder was supported by pacemakers and a green laser to maintain his 13mph speed. However, the race was not an open event, so it will not be an official world record. The runner's coach, Patrick Sang, said, "I'm sure someone down the road will want to try to break this one, but history has been made."



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Zimbabwe to host Africa Regional Forum on Sustainable Development in February


Image Credit: Damien Farrell/Flickr

Rural areas, which were affected by weather events, will be in focus at ARFSD in February.

Zimbabwe has confirmed that it will host the 6th Africa Regional Forum on Sustainable Development (ARFSD) which will be held in Victoria Falls from 24-27 February, 2020.

The country's labour, public service and social welfare minister, Sekai Nzenza, said Zimbabwe is proud to host the ARFSD, adding the event is a great opportunity for the country to showcase itself and its transitional stabilisation programme, whose major focus is re-engagement following years of isolation, among other important factors.

"This is a very good opportunity for Zimbabwe in the re-engagement drive. The development of economic growth and Vision 2030, where we see the country becoming an upper middle class economy by 2030, is very important to us," the minister said.

She said the climate change agenda in particular was one of Zimbabwe's major focuses on the SDGs following this year's drought and Cyclone Idai that destroyed infrastructure worth more than US$1bn in three southern African nations during the rainy season.

Ms Nzenza added that the forum is coming to Zimbabwe at the right time "where we want to really focus on the SDGs".

Oliver Chinganya, director of the ECA's African Centre for Statistics and officer in charge of the Technology, Climate Change and Natural Resources Management Division commented: "The ARFSD is very important as it helps us take stock of where the continent is in terms of implementing the SDGs."

"Presently we are not doing very well. We are lacking in many areas. There are a lot of holes, especially when you look at data, be it on poverty or climate change," said Mr Chinganya. "So the 2020 Forum needs to spur ambitious actions to help us deliver on all the goals as Africa."

MALAWI AIRPORT UPGRADED WITH JAPAN'S AID

Three new terminal buildings have been opened and a radar surveillance system installed at Malawi's Kamuzu International Airport (KIA), increasing the airport's capacity. The additions were constructed by Japan's Official Development Assistance (ODA). This latest work follows on from a 1982 project in which ODA built the original airport. Since then, the airport has struggled to accommodate the number of in- and outbound passengers. The upgrades have increased passenger handling capacity from 50 to 500 people per hour, as well as improving safety. Renovations on the original terminal building are ongoing. Concurrently, ODA is involved in an ongoing technical cooperation project at KIA which aims to continue long-term support of the installed equipment, and provision of training to airport staff in the fields of radar air navigation and radar equipment maintenance. Japanese companies involved in the project included Gyros Corporation, Marubeni Protechs Corporation and NEC Corporation.

ZAMBIA CHAMBER URGES SWIFT AFCFTA STRATEGY

Chabuka Kabwesha, president of the Zambia Chamber of Commerce and Industry (ZACCI) has called for the country's government to expedite the implementation of the African Continental Free Trade Area (AfCFTA) so that Zambian businesses can start benefiting from the continent-wide market.

Speaking at the validation meeting for Zambia's AfCTFA implementation strategy in Lusaka, he said "the private sector supports Zambia's planned ratification of the AfCFTA," observing that the services sector and sectoral linkages through the national and regional value chains will equally grow in scale and demand, particularly the SMEs.

Addressing the same event, the Economic Commission for Africa's (ECA) regional director for Southern Africa, said Adejumobi noted that with the fast pace with which the AfCFTA project is moving, there is need to keep the momentum and for Zambia to ratify the AfCFTA.

"With Zambia's national implementation strategy in place and multi-stakeholder engagements ongoing, we hope that Zambia will reach a national consensus and the AfCFTA will be ratified," Mr Adejumobi said.

Meanwhile, he cautioned that the AfCFTA National Strategy should not be turned into "another document" but should be a "guiding compass" to ensure that Zambia becomes a significant player in the evolving regional economy and market of Africa.

However, Mr Adejumobi added that there are concerns around ratifying the AfCFTA, "The AfCFTA has come with a lot of expectations, aspirations, and opportunities, but also some concerns and fears about the unknown – about whether we are ready. Part of the concern is about the ability of local industries to compete within a liberalised regional market and about jobs associated with it and possible reduction in government revenue."

BRIEFS

Image Credit: Hilton

A milestone deal for Hilton.

Hilton hits 100-hotel milestone

The Hilton hotel group announced a deal at the African Hotel Investment Forum, held in Addis Ababa, to open the Hampton by Hilton Sandton Grayston. This will be the 100th hotel for Hilton in Africa. A franchise agreement has been signed with Afrirent Pty through its Indalo Hotels & Leisure subsidiary, a Black Economic Empowerment third party operating company. The hotel, to be built in Sandton, Johannesburg, will have 158 rooms. It is slated to open in mid-2021.


Image Credit: Africa Oil & Power

Mtho Xulu at Africa Oil & Power.

SACCI calls for cooperation

Mtho Xulu, president of the South African Chamber of Commerce and Industry, has called for governments to facilitate greater collaboration between the public and private sector, particularly in regard to funding small- to medium-sized businesses, including oil and gas companies. Speaking at a panel on project finance for the African continent at Africa Oil & Power, he added that governments need to ensure cost-effective, sustainable energy infrastructure is developed.

Good deal-making is what will shape the future of Russia-Africa relations

Russia's return to Africa has been the subject of wide media coverage, governmental concerns and civil society reactions in recent weeks, especially as Sochi geared up to host the first ever Russia-Africa Summit on 23-24 October. Most commentators have come from Europe and North America to voice concerns over Russia's dodgy arm deals in Africa, political meddling with unstable African regimes, and its overall challenging of the status quo on the continent. The problem is, when these comments are not outright hypocritical, they are missing a major point: competition is good for business, which is just what Africa needs right now.

First, Russia's presence in the continent cannot be summarised into sensationalism. It is complex and needs to be put back into context. Its modern relations with African governments and institutions started building up in post-independence Africa, the time when the Soviet Union offered critical diplomatic and military support to young African nations in need of it. This assistance was multi-form and much needed for countries seeking fast development following harsh independence wars and conflicts. "The Soviet Union provided significant economic assistance, including infrastructure, agricultural development, security cooperation, and health sector cooperation," wrote Paul Stronski of the Carnegie's Russia and Eurasia Program this week. Consequently, Putin's vision for Africa is resuming and building up on a co-operation that started in the second half of the 20th century and was only put on hold by the collapse of the Soviet Union in 1991.

Energy companies

In short, while arriving late to the party, Russia is no stranger to the African playground. Beyond military cooperation, its state-owned natural resources companies have already made inroads into the continent, and could be a game changer for many African countries in need of investment and electricity. Major Russia energy companies

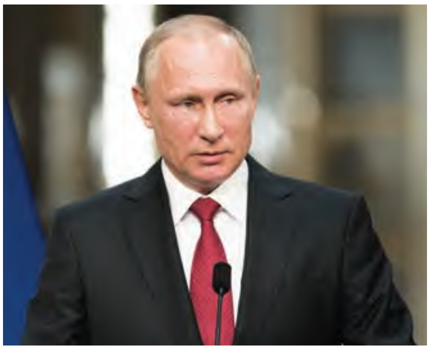


Image Credit: African Energy Chamber

Vladimir Putin, Russian President.

such as Gazprom, Lukoil, Rostec and Rosatom are already present in Algeria, Angola, Egypt, Nigeria, Cameroon, Equatorial Guinea or Uganda, while mining and minerals ones such as Nordgold or Rusal are developing world-class mines in Guinea and Zimbabwe. On a global stage, Russia's involvement in OPEC has also sent strong signals that it is committed to market stability and global energy co-operation, which ultimately benefit African producers.

"Russia's influence is increasing through strategic investments in natural resources, and such investments are welcomed by African governments and companies. They bring in vital Russian capital and know-how to the continent which is seeking to diversify its investors basket and attract much needed investment into its energy industry," said Nj Ayuk, executive chairman at the African Energy Chamber and CEO of the Centurion Law Group. "The African Energy Chamber is supporting such efforts and has seen a definite uptick in Russian companies' interests for the continent. We predict a lot of deals to be signed during and after the Sochi Summit for Russian energy companies to develop African resources and do business in Africa. This will be especially beneficial as Africa develops gas-based economies," he added.

Among the most recent agreements are for instance the MoU between Atlas Oranto Petroleum and Rosneft in 2018, under which the pan-African E&P company agreed to explore the joint-development of its assets across Africa with the Russian state-owned giant. Another one is the signing of several agreements between Russia and Mozambique this summer, involving again state-owned Rosneft but also Nordgold. In Central Africa, Gazprom is also lifting gas from Cameroon's the FLNG Hilli Episeyo, the world's first converted FLNG vessel.

As such investments and activity picks up, the real game changer will be Africa's ability to make deals that work for its people and its economies. Deal-making is what will shape the future of Russia-Africa relations and will tell whether Russia's renewed influence in the continent is good or bad for its people. Rightly so, the ability and capacity of African governments to make better deals with investors is becoming central to the global business narrative on Africa.

Contract negotiations is in fact the major element missing from the current debate on Russia's increasing influence in Africa. There is no doubt Africa is welcoming Russia's interest for doing business on the continent, not only because it comes without the conditionality of actors such as the IMF and the World Bank, but also because Africa needs critical energy investment and a giant oil producer like Russia has good technology and know-how to export. The only thing is, sub-Saharan Africa has seen several regulatory developments in the near future, with a particular focus on local content regulations across energy markets. Jobs creation, domestic capacity building and the growth of a strong base of local energy companies is high up on the African agenda. If African governments are able to negotiate contracts that deliver on these expectations and Russian companies are committed to seeing the continent grow, then the future is bright for Russia in Africa.

By the African Energy Chamber

BRIEFS

Lecture to address impact of global security on AfCFTA

Image Credit: Adobe Stock

Afreximbank held its 3rd annual Babacar Ndiaye Lecture.

The African Export-Import Bank (Afreximbank) hosted its third annual Babacar Ndiaye Lecture under the theme 'Trading Under Emerging Global Security Realities: Implications for a Successful AfCFTA' during a Washington, DC event on 19 October. General William E. 'Kip' Ward, inaugural commander of the United States Africa Command, delivered the lecture, which looked at the security environment for the implementation of the African Continental Free Trade Area.

CDC bolsters lending to African businesses

Image Credit: Adobe Stock

Local businesses will be supported by this risk sharing facility from Absa Group and CDC Group.

CDC Group, the UK's development finance institution and impact investor, has announced a US$75mn risk sharing facility with Absa Group. "We believe supporting local businesses is critical to the growth and development of the region where there is a shortfall in available trade capital. This facility will make a valuable contribution towards alleviating the challenge of managing trade finance risk appetite," says CEO Absa Corporate and Investment Charles Russon.

MAN Energy Solutions stabilising power supply in Gambia

Image Credit: MAN Energy Solutions

MAN Energy Solutions is supplying two MAN 9L51/60 engines for a newly built power plant in Brikama, Gambia.

MAN Energy Solutions is supplying two MAN 9L51/60 engines for a newly built power plant in Gambia. The plant, which is operated by local energy provider NAWEC (National Water & Electricity Company), will feed a total of 18 megawatts (MW) of electrical output into the national grid, consequently stabilising the energy supply of the West African country.

The power plant is being built in Brikama, the second-largest city in Gambia.

"As in many African countries, a reliable energy supply is one of the most urgent challenges in Gambia. Only just under half the population has a reliable access to electricity. With the power plant in Brikama, we are now increasing the country's generation capacity by roughly 20 per cent," says Waldemar Wiesner, head of region MEA (Middle-East Africa), Power Plant Sales, at MAN Energy Solutions.

With an area of only around 11,000sq km, Gambia is the smallest country on the African continent, and its overall generation capacity of 100MW still falls short of the demand of the 2.1 million inhabitants. "To safeguard the population's energy supply, NAWEC trusts the generation technology provided by MAN Energy Solutions for what is already the fourth time. After completing the new plant in Brikama, MAN is providing a total of 42MW across the country, which is a third of the country's total capacity," adds Wiesner.

MAN Energy Solutions is currently involved in many power plant projects in Africa and has offices in Egypt, South Africa, Senegal, Kenya, Namibia and Nigeria.

"MAN Energy Solutions can look back on a long history of success in Africa. For more than half a century, we have actively carried out power plant projects in more than 30 African countries and have achieved a power generation capacity of more than 3.2 GW," added Wiesner. "In addition to the power plant in Gambia we are currently building further plants in Benin, Burkina Faso, Guinea, Nigeria and the Sudan, proving the reliability of our power plant solutions in providing the population with a stable energy supply."

GROWTH IN FINTECH ATTRACTS CYBERCRIMINALS

Africa's Fintech ecosystem has surged 60 per cent in the last two years according to reports.

The Fintech firms have grown to 491 from 301 in 2017, with US$132.8mn raised in 2018, making last year the sector's best year yet thanks to the boom in mobile financial services and payment technologies.

The development of mobile technology has paved the way for Africa's Fintech revolution where South Africa, Nigeria and Kenya account for 65.2 per cent of Africa's Fintech start-ups.

"Such Fintechs have had a significant impact on financial services of these countries and these solutions are reaching more Kenyans than ever before," said Bethwel Opil, enterprise sales manager at Kaspersky in Africa. But, this emerging Fintech space is becoming an increasing target for cybercriminals.

He added, "There are a number of businesses that are using cryptocurrency and mobile money as payment methods and cybercriminals are embracing this trend, using sophisticated techniques to access funds."

DUAL-PURPOSE BANK CARD FOR GHANAIANS

Ghana continues to roll out initiatives that provide Ghanaians with secure and convenient digital financial services through a unique partnership between Thales and Paycode, that will launch a single card with two applications (EMV & Biometric).

The dual function card will combine Gemalto's PURE EMV white label payment solution with Paycode's Universal Electronic Payment System (UEPS) application, offering Ghanaians the combined security of EMV and the biometric technology.The card will offer cardholders a secure and affordable means of receiving and making payments.

It will also provide beneficiaries of the Government of Ghana's Social Intervention programmes the opportunity to access both funds on their e-zwich cards and in their bank accounts simultaneously; creating financial productivity and empowerment.

The biometric functionality of the card supports the government of Ghana's agenda of eliminating payroll duplications for all government payments. By using the card as a payment option, government payment beneficiaries have access to all banking services in Ghana.

The partnership between GhIPSS, Paycode and Thales will further boost the efficiency of Ghana government's social intervention programmes and f transform the lives of its beneficiaries. The dual functionality card is expected to be issued by banks.

GhIPSS, a subsidiary of Ghana's central bank, already uses Gemalto's PURE white label payment application for its gh-link EMV domestic card scheme.

"Boosting financial inclusion through the development of digital payment systems, is an integral part of GhIPSS's mandate. The card is a novelty that will incentivise Ghanaians to prefer and use cards instead of cash whenever there is the opportunity," said Archie Hesse, CEO for GhIPSS.

BRIEFS

IMF staff conclude visit to Guinea-Bissau

Image Credit: Adobe Stock

Guinea-Bissau has been warned by the IMF to tackle corruption.

At the request of Guinea-Bissau's authorities, an IMF mission, led by Concha Verdugo-Yepes, visited Bissau from September 18 to October 1, to carry out a preliminary diagnostic of weaknesses in fiscal governance, market regulation, anti-money laundering and anti-corruption policies. Verdugo-Yepes said, "Guinea-Bissau faces problems of weak governance and corruption, which need to be addressed to allow it to realise its economic potential."

AFC supports Nigeria's mining industry

Image Credit: Adobe Stock

Nigeria's minerals such as sapphires must be exploited sustainably.

"The main message I'd like to share with the delegates at Nigeria Mining Week is that Nigeria is open for business and is ready to make the most of its mineral wealth," said Begna Gebreyes, senior vice president: Investments, at the Africa Finance Corporation (AFC).

He told delegates at Nigeria Mining Week from 14-16 October that mineral wealth must be exploited in a way that is "inclusive and sustainable", adding that in-country beneficiation is important.

Senegal launches its first Oil & Power Conference after big offshore discoveries

Senegal has launched its first ever Oil & Power Conference and Exhibition in May next year.

Organised by Africa Oil & Power and supported by the Government of Senegal, Cos-Petrogaz, Petrosen and Senelec, the conference will herald a new era of investment in one of West Africa's leading business destinations, on the back of world-class offshore oil and gas discoveries and several dynamic energy projects that have been put in motion.

The conference will be a vehicle to promote the new deepwater licensing round, which was announced this week at the Africa Oil & Power Conference in Cape Town and for public-private partnerships spanning the value chain.

Image Credit: Africa Oil & Power Conference

Senegal has positioned itself as one of Africa's most attractive energy markets due to its offshore potential.

Showing no signs of slowing down, Senegal is emerging as a key player in the global energy sector. Led by H.E Macky Sall, President of the Republic, the West African nation is a shining example of how African countries can benefit from leveraging their hydrocarbon potential to drive greater economic growth.

Guillaume Doane, CEO of Africa Oil & Power said, "Senegal has quickly cemented its position as one of Africa's hottest energy markets on the back of big offshore discoveries, game-changing projects and one of the most competitive business climates in the region."

As part of the Emerging Senegal Plan launched by the president to make Senegal an emerging country by 2035, the energy sector has been established as a key pillar to drive economic growth and social inclusion. Senegal Oil & Power 2019 will support the presidential vision by designing the event's narrative around triggering the next local and international investment wave across the energy value chain.

With several world-class oil and gas discoveries, Senegal has built an excellent reputation globally in the energy industry. Through a new licensing round and investment drive, we are eager to capitalise on Senegal's strong track record to attract new operators and exploration," said Mamadou Faye, managing director of Petrosen.

DANGOTE UPSKILLS YOUTH THROUGH PROGRAMME

About 200 young people from the Ibeju-Lekki community in Lagos State have graduated from various skills acquisition programme organised by Dangote Petroleum Refinery, as a way of transforming society and providing employment opportunities for the youth.

The programme was put together by Dangote Petroleum Refinery and facilitated by the National Directorate of Employment (NDE) and the Nigerian Content Development and Management Board (NCDMB).

The skills acquisition programme, which cut across a wide range of vocational skills such as plumbing, welding, iron bending, auto mechanics and electrical works, marked the successful completion of the first batch trainees. Dangote group executive director, Strategy, Capital Projects and Portfolio Development, Devakumar Edwin said the initiative was a demonstration of Dangote Refinery's commitment toward capacity-building and youth empowerment in the country.

WAITEX TO BRING LATEST TECHNOLOGIES TO GHANA

While Ghana's expanding crude oil production has buoyed the economy, it remains one of the largest exporters of gold in the world with gold accounting for more than 90 per cent of mining sector revenue. Cocoa also remains an important commodity to the country's economy, despite the increasing exports of oil, gold and bauxite.

But it is not just Ghana's resources that are driving economic growth. The government has launched programmes and initiatives aimed at increasing its industrial capacity and output, so as to diversify the economy and prevent an over-reliance on the commodity markets, designed to strengthen investment for manufacturing and to increase manufactured exports.

As a forum for trading, business networking, learning and product sourcing, the West African Industrial Trade Exhibition (WAITEX) will be taking place in Ghana from 21-23 April 2020 at the Dome in the Trade Fair Grounds in Accra. WAITEX has been designed to support companies and individuals involved in the mining, light and heavy industrial, automation, packaging, and occupational health and safety sectors, by creating a networking environment for firms.

WAITEX is supported by the Ghana Investment Promotion Council, Ghana Institute of Engineering and the Occupation Safety & Health Association.

"WAITEX will become a major driver in supporting the Governments "One district, one factory policy," says George Pearson, regional director at Afrocet Montgomery. "The show is an ideal trade platform that will bring buyers and sellers together, with the view of growing business and supporting Ghana's aspiration of developing factories and industries which will move the country towards greater industrialisation."

WAITEX 2020 is run by Specialised Exhibitions Montgomery and Afrocet Montgomery.

BRIEFS

Conde wants to run for third term

Image Credit: Adobe Stock

The Guinea President seeks third term in office.

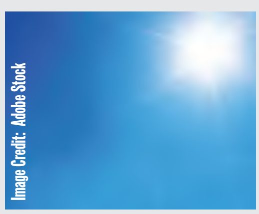
Alpha Conde is seeking an extension to his legal mandate as President of Guinea, according to media reports.

Conde's second and final five-year term is due to expire in 2020. In September, he asked his government to change the constitution, sparking protests that the 81-year-old may wants to continue in his post.

At least five people have been killed in Guinea during demonstrations to oppose this amendment.

Renewables winners of WAFCCEF contest

Image Credit: Adobe Stock



The First WATT Renewables project will ease the transition towards green energy.

First WATT Renewables were winners of the 4th West African Forum for Climate and Clean Energy Financing (WAFCCEF) contest, on 26 September in Abidjan and co-organised by the African Development Bank. It runs its project through an 'SPV', or 'Special Purpose Vehicle' set up to isolate financial risk, with a 'take-or-pay' model, that is, an indexed electricity-purchase agreement in dollars. Energy will be provided as a service to the buyer, who makes flat-rate monthly payments.

Upcoming Events Calendar 2019

NOVEMBER

4 - 8

AFRICA OIL WEEK
Cape Town, South Africa
www.africa-oilweek.com/Home

5 - 8

ECOMONDO (THE GREEN TECHNOLOGY EXPO)
Rimini, Italy
en.ecomondo.com

12 - 13

FUTURE ENERGY NIGERIA
Lagos, Nigeria
www.future-energy-nigeria.com

12 - 14

POWER GEN EUROPE
Paris, France
www.powergeneurope.com

12 - 14

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

20 - 23

BEST5 ALGERIA
Alger, Algeria
www.best5algeria.com

21 - 27

9TH ANNUAL GHANA SUMMIT 2019
Accra, Ghana
www.cwcghana.com

26-29

THE 5TH GECF SUMMIT
Malabo, Equatorial Guinea
www.yearofenergy2019.com/gecf_summit

28

TM FINANCE AFRICA
London, UK
www.tmtfinance.com/world-congress/africa

DECEMBER

2 - 3

4TH REGIONAL ENERGY SUMMIT: WEST AFRICA
Dakar, Senegal
www.RES-West.com

FEBRUARY

3 - 6

MINING INDABA
Cape Town, Africa
www.miningindaba.com

MARCH

10 - 14

CONEXPO-CON/AGG
Las Vegas, America
www.conexpoconagg.com

COMMERCIAL FEATURE

Leaving no trace: white non-marking solid tyres to be showcased at bauma CONEXPO Africa 2021

APEXWAY tyres are suitable for industrial vehicles.

Image Credit: APEXWAY

White non-marking solid tyres do not only serve aesthetic purposes but they minimise the room for error when it comes to some of the products that are being produced in specialised areas. APEXWAY has crafted industrial solid tyres for industrial vehicles, which operate in hazardous fields such as scrap yards, slag steel mills, glass works, dumping sites, waste sites and loading fields.

Due to the special compound of the non-marking white tyres, which includes silica and less carbon, less residue is being produced and most importantly, no black carbon residue and marks will be found on the ground. This can be extremely problematic for certain sectors, particularly glass works, pharmaceutical warehouses and companies working with nutrition, as carbon dust contamination can effect the quality of the product. White non-marking tyres produce 'invisible dust', which can be cleaned easier and faster.

Another area where non-marking tyres excel is in the rental fleet market. This offers the customers a broader variety of usage areas, in particular in clean internal environments, such as convention centres, domes and public areas.

Another major benefit of the non-marking tyre is the ability to offer a much lower rolling resistance. This allows the user to be more fuel efficient, which results in lower fuel consumption, which not only has cost reduction benefits but at the same time environmental benefits.

One major deterioration factor is UV radiation. Black tyres absorb UV radiation at a faster rate and also much more than non-marking white tyres do. This leads to heat build up and will make the black tyre age faster, which in turn affects the quality.

When it comes to performance, the white non-marking tires do not lag behind the normal black tires. Even though they wear out 25 per cent faster than the normal tires, they add a lot of benefits to the user.

With only a few clients in Africa, Apexway looks to further expand our cooperation's on the continent and will try to achieve this by also exhibiting at the Bauma CONEXPO Africa 2021 in Johannesburg.

AFRICAN CARRIERS POST FASTEST GROWTH AMID USA-CHINA TRADE WAR

Image Credit: Adobe Stock

Air freight volumes grew by 17.1 per cent year-on-year.

African carriers posted the fastest growth of any region in August, with an increase in demand of eight per cent compared to the same period last year, according to the latest IATA analysis.

This continues the upwards trend in FTKs that has been evident since mid-2018 and makes Africa the strongest performer than any other global region for the sixth consecutive month.

Capacity has grown by 17.1 per cent year-on-year due to strong trade and investment linkages with Asia, underpinning a double-digit increase in air freight volumes between the two regions over the past year. China also recently confirmed a further US$60bn investment into the continent.

In contrast, North American, European and Asian Pacific carriers saw their freight volumes decline by 3.9 per cent, due to the ongoing trade war between USA and China.

"The impact of the US-China trade war on air freight volumes was the clearest yet in August. Year-on-year demand fell by 3.9 per cent. Not since the global financial crisis in 2008 has demand fallen for 10 consecutive months. This is deeply concerning. And with no signs of a détente on trade, we can expect the tough business environment for air cargo to continue. Trade generates prosperity. Trade wars don't. That's something governments should not forget," said Alexandre de Juniac, IATA's director general and CEO.

METSO HAS SIGNED TWO REVOLVING CREDIT FACILITIES FOR METSO OUTOTEC & NELES

Image Credit: Metso

The Metso Outotec transaction and the creation of Neles will benefit from two credit facilities.

Metso Corporation has signed two revolving credit facilities as part of the planned Metso Outotec transaction and creation of Neles.

The new EUR 600mn (US$668mn) multi-currency revolving credit facility agreement was signed with a syndicate of 10 banks.

This new facility is part of the preparations for the planned Metso Outotec transaction while it also refinances Metso's existing EUR 500 (US$557mn) million revolving credit facility. The facility will transfer to Metso Outotec at the completion of the contemplated combination of Outotec and the Metso Minerals Business.

The new facility is to be used for the general corporate purposes of the Metso Group and later, following the transfer to Metso Outotec, for general corporate purposes of the combined company. The facility has a tenor of five years, with two one-year extension options, dependent on the approval of the lenders.

Nordea acted as coordinating bookrunner and mandated lead arranger. The other mandated lead arrangers were BBVA, BNP Paribas, Citi, Commerzbank AG, HSBC, OP Corporate Bank plc, Scotiabank (Ireland) Designated Activity Company, SEB and Standard Chartered Bank.

In addition to the above, Metso Corporation has signed a new EUR 200mn multi-currency revolving credit facility agreement for future Neles Corporation with a syndicate of four banks. The new facility will be used for general corporate purposes of the Neles Group and will become available at the completion of the contemplated partial demerger of Metso Corporation. The facility has a tenor of three years, with two one-year extension options dependent on the approval of the lenders.

CÔTE D'IVOIRE AND KENYA NAMED RISING STARS OF GLOBAL TRADE

Image Credit: Adobe Stock

Côte d'Ivoire is positioning itself as a West African trading hub.

Côte d'Ivoire is the market that has most rapidly improved its trade growth potential over the past decade, according to new research from Standard Chartered Bank. The Trade20 index, which identifies the 20 rising stars of trade, places African markets Côte d'Ivoire in the top spot, and Kenya at number three.

The Trade20 index determines each market's trade growth potential by analysing changes within the last decade across a wide range of variables, grouped into three equally-weighted pillars: economic dynamism, trade readiness and export diversity.

The study examines 66 markets around the world. It finds that while existing trade powers like China and India continue to rapidly improve their trade potential, African economies are making particularly strong progress from a relatively low starting point.

Kenya is consolidating its position as the trading hub of East Africa, while Côte d'Ivoire is cementing its position as a West African trading hub. Ghana also performs well in the index, placing just outside the top 10.

The major findings of the Trade20 index for African markets are: Côte d'Ivoire and Kenya have significantly improved their trade readiness, demonstrating that investments in infrastructure and business environment improvements are paying off. Côte d'Ivoire and Ghana also fare well for economic dynamism, with Côte d'Ivoire enjoying GDP and export growth, and Ghana seeing an influx of FDI.

Saif Malik, regional co-head, Global Banking, AME, Standard Chartered, said, "Home to some of the world's fastest-growing economies, Africa has the potential to become a much bigger player on the global trade stage. Already connected with the trading powers in Asia, particularly China, through the Belt & Road project, and with the launch of the African Continental Free Trade Area, we see numerous growth opportunities for trade and investment in the years ahead."

“Thank you very much. It is a prize given to Africa, given to Ethiopia and I can imagine how the rest of Africa's leaders will take it positively to work on [the] peace-building process on our continent.”

ABIY AHMED
Ethiopian Prime Minister on being awarded the Nobel Prize

“African governments have on average not managed to translate GDP growth into economic opportunities for citizens. Progress since 2014 runs behind the rapidly growing working age population.”

THE IBRAHIM INDEX OF AFRICAN GOVERNANCE SURVEY
The Mo Ibrahim Foundation

“This is the first smartphone manufacturer in Africa. We are actually the first who are doing manufacturing. We are making the motherboards, we are making the sub-boards during the entire process. There are more than 1,000 pieces per phone.”

ASHISH THAKKAR
CEO of Mara Group

“I'm aware of the pain being experienced by the poor and the marginalised. Getting the economy working again from being dead will require time, patience, unity of purpose and perseverance.”

EMMERSON MNANGAGWA
Zimbabwean President

“My ministry worked successfully with the six federal member states to develop an equitable and transparent framework for development, focused on the greater good of Somalia and all its people, while ensuring that we are highly competitive internationally to attract investment by delivering returns that are consistent with the risks and rewards of developing our offshore industry.”

HON ABDIRASHID MOHAMED AHMED
Minister of Petroleum and Mineral Resources for Somalia

“In the last year and a few months, we've made tremendous progress in turning our country around. We have stemmed that bleeding [and] we are now ready to open a new chapter.”

CYRIL RAMAPHOSA
South African President

“As we continuously strive to promote development and integration of African power systems through the interconnection of networks, we also ensure that the pooling of energy resources is a win-win approach for the entire market. We are therefore pleased to partner with RES: West in Senegal which will provide a vital platform in bringing together African power utilities and stakeholders to making power more accessible, affordable and reliable for the African peoples.”

ABEL DIDIER
Director General, APUA

“Our goal is to control our production [in Côte d'Ivoire]. If you produce too much, the price will go down.”

YVES BRAHIMA KONE
Head of the Coffee and Cocoa Council (CCC)

AFRICAN REVIEW / ON THE WEB

A selection of product innovations and recent service developments for African business
Full information can be found on www.africanreview.com

ANGOLA'S PRESIDENT MEETS ENI CEO CLAUDIO DESCALZI

The Agroinvestment summit will facilitate discussions, learning and networking opportunities.

Angola's president João Gonçalves Lourenço has met Eni CEO Claudio Descalzi in Luanda to discuss new community development initiatives that would contribute to the carbon neutrality of Eni's activities in the country.

The two also discussed Eni's recent exploration successes, as well as the activities in downstream and renewables areas.

Descalzi described to President Lourenço Eni's integrated "Local Development Programme" (LDP) model, which aims to provide local communities with efficient and sustainable access to energy resources while helping tackle climate change.

This cooperation model supports local community development and reduction of inequalities while at the same time contributing to the compensation of CO_2 emissions generated by the company's projects.

This cooperation model focuses on a set of areas of intervention such as access to energy (improved cooking, solar panels), economic diversification (good agriculture, sustainable supply chain of natural resources), access to water and sanitation, access to health and education services, and sustainable forest management.

Following an initial assessment, Eni identified significant potential for the development of these projects in Cabinda, northern Angola, a region where Eni holds an exploration license.

Eni will promote LDPs within all the oil contracts it operates in Angola, applying an internationally recognised approach in line with the strategies to fight climate change and with the UN 2030 Agenda and Sustainable Development Goals (SDGs).

Descalzi also described to President Lourenço the potential of Eni's recent exploratory successes in Block 15/06. During an intense exploration campaign launched by Eni in mid-2018, an additional potential of oil resources amounting to more than two billion barrels of oil in place was found.

The company will ensure its rapid start-up: as early as December 2019, just eight months after discovery, the Agogo field is expected to go into production. Its location, around 15 km from the N'Goma FPSO in block 15/06, will allow maximising synergies with existing facilities, ensuring a record time-to-market and a low break-even price.

AGROINVESTMENT SUMMIT TO RETURN TO LONDON FOR ITS SECOND YEAR

Angola's president meets Eni CEO Claudio Descalzi

African Farming's 2nd Edition Agroinvestment Summit is all set to be held from 2-3 December at the Tower Hotel, London.

The summit presents a unique blend of exceptional expertise, incisive analysis and visionary strategies of industry leaders and policymakers.

Building on the success of the previous year, the summit will organise a forum for meaningful discourse that helps create synergies and provide practical solutions to boost the development of the ever-evolving African agro-sector.

The summit will create a cohesive platform for trade and investment opportunities, attracting major investors and buyers from around the globe.

The agenda will include a variety of discussions on topics such as deployment of agro-machinery in Africa and technology via OEM partnerships, local assembly investment, challenges and opportunities in West Africa, funding for development and value addition, harnessing, processing and packaging via private and public partnerships for sufficiency and exports, improvement of rural infrastructure that will support agroinvestment in Africa – solutions and challenges, cross-border trading and increasing productivity and output.

The comprehensive two-day event aims to:

- Facilitate investment and financing opportunities across the agricultural value chain in the continent.
- Provide impactful presentations, panel discussions and interactive sessions to promote debate and discussion about investment challenges and topical issues including innovative technologies, sustainability and financing.
- Help create business collaborations and partnerships that shape the future of African farming.

For more information visit
www.agroinvestmentsummit.com/2019-london-summit

ECA, AUC PLEDGE FULL SUPPORT TO ZIMBABWE ON AFCFTA IMPLEMENTATION

The success in implementing the AfCFTA strategy depends on the implementation of important policy documents.

(ECA) and the African Union Commission (AUC) have assured Zimbabwe of continued technical support in assisting the country in its efforts to develop a national strategy to benefit from the African Continental Free Trade Area (AfCFTA).

In remarks during the opening session of a two-day validation workshop on Zimbabwe's National AfCFTA Strategy, Batanai Chikwene, ECA programme manager, said the organisation was willing and prepared to support the government and people of Zimbabwe in their economic development process.

"The ECA through the UN system in Zimbabwe will continue to support the government of Zimbabwe in its economic transformation and development agenda," he said, adding the national strategy being reviewed for validation was a product of thorough research and consultation, and provided vital and far-reaching recommendations on the way forward for Zimbabwe in implementing the AfCFTA.

The success in implementing the AfCFTA strategy, which is aligned to major regional initiatives, depends on the implementation of important policy documents on which the strategy is anchored, added Chikwene.

The draft identifies six strategic objectives for the country. This included developing an efficient common national approach to continental and regional integration, expanding exports of goods and services and widening access into African markets.

Maintaining positive narrative is critical

For more than two decades Isaac Kwaku Fokuo Jr, founder of Botho Emerging Markets Group (Botho) has been advising both the public and private sectors on the nuances of emerging growth markets.


Image Credit: Botho

Isaac Kwaku Fokuo Jr.

Botho Emerging Markets Group (Botho) is jointly headquartered in Nairobi, Kenya, and Dubai, United Arab Emirates (UAE). Why did you choose to open an office in the UAE?

Botho has been increasing the movement of capital and investment from other emerging markets into Africa. Opening the second office in Dubai was influenced by several things. First, we identified a knowledge gap among Arab business leaders of the opportunities available in Africa. We realised that, with an office in Dubai, we'll be strategically placed and easily reachable to potential investors to initiate conversations on business between the two regions.

In the two years that we have been in Dubai, we have seen the significance of these conversations in demystifying the opportunities in Africa, debunking perceptions and eventually directing investment to African countries.

Additionally, the UAE has established itself as a business hub among Arab countries. Dubai is centrally located between three continents; Africa, Europe, and Asia, therefore, traveling to other parts of the world from Dubai is very easy.

There are direct flights from Nairobi, you can arrive early in the morning, have meetings and take a flight out of Dubai back to Nairobi, on the same day.

At least 85 per cent of the world's population is from emerging markets, with shifting global relations these markets are fostering. How should these regions conduct business amongst each other?

I believe increased collaboration between emerging markets and reduced reliance on developed nations is a positive thing that over time could change global investment and trade relations. Emerging markets understand the weaker bargaining position most of them end up in when doing business with many developed nations, and by working with each other the playground is leveled and countries can reach more economic and pragmatic agreements.

What should investors focus on to enable them to accurately assess the opportunities?

I recently read an article by Paulo Gomes arguing that investors looking to enter the African market should look beyond our GDP. I agree with this statement. I believe that simply assessing the viability of any African country as an investment destination simply based on its GDP will lead to a lot of missed opportunities. This author gave a very good example with Nigeria as a case study to show how the scarcity of data and lack of sufficient funding to fill this data gap had led to the underestimation of Nigeria's GDP by almost 50 per cent.

Some of the main things that investors should pay attention to include the many government reforms that are constantly being enacted to encourage and protect foreign investments. Rwanda for example, offers very attractive investment incentives such as a seven-year tax holiday for sectors such as manufacturing, health, energy, and others. Many other African countries have also set up Special Economic Zones that offer low production costs, additional government support, and in most cases very appealing tax incentives. These are all things one would miss if they only focus on a country's GDP.

What sector in Africa will have potential in the future and what is the basis of your prediction?

There are many sectors in sub-Saharan Africa whose potential is growing and would be attractive to investors from the GCC region. The two I would highlight are agriculture and power and renewable energy. Forecasts by the World Bank show that Africa's agribusiness will be worth US$1 trillion by 2030, currently, this market is valued at US$300bn. This growth is influenced by the increasing use of technology in agriculture and favourable climate conditions. Sixty per cent of the world's uncultivated land is also in Africa, which demonstrates the huge untapped potential.

In the last few years, many investors and companies have been testing out green energy models in the continent. In July, Kenya launched Africa's biggest wind power plant which is also Kenya's single largest private investment, valued at US$0.7bn. The plant will save Kenya up to US$120mn on fuel.

Your company's mission is redefining and redirecting Africa's positioning among emerging markets. What strategies have you adopted to achieve this, and what are some of your achievements?

I am a strong believer that everything starts with a narrative. What picture are we as Africans presenting of our continent and the opportunities it holds for investors, business leaders, and entrepreneurs? This imagery influences business decisions and initiates some of these conversations that result in investment and beneficial partnerships.

One of our main strategies in maintaining a positive narrative of the continent is by painting an optimistic picture of the untapped potential it holds. We know the opportunities, and by offering strategic guidance on how to navigate many emerging markets we have made many positive strides towards realising our mission.One of our main achievements has been changing the perception of Africa among foreign investors and attracting significant levels of interest and investment to the continent. We have done a lot of groundwork to demystify the economic landscape in the continent and demonstrate the potential in the many unexplored opportunities this market holds to different investors and business leaders.

We have also hosted various high-level business events in both Dubai and Nairobi to discuss the opportunities in emerging markets. These events are always oversubscribed — an indication of the relevance and level of interest in investing in emerging markets. We believe that we continue to play a critical role in directing investment to emerging markets. ■

For more than a decade, Botho Emerging Markets Group has been a leader in guiding Fortune 500 companies, governments, development institutions, small businesses, and non-profits in navigating the world's fastest growing markets.

Image Credit: Adobe Stock

How to do business in Nigeria

Rob May, CEO of Association of Business Executives (ABE) shares his insights on how to do business successfully in Nigeria.

Nigeria is a country at a crossroads. Despite the country's fiscal deficit, high unemployment and uncertainty around petrol prices combining to create an atmosphere of economic instability, there is hope on the horizon.

The IMF predicts that Nigeria could become the ninth largest economy in the world by 2050, if it mobilises its 200 million-strong population into a nation of entrepreneurs and consumers. With a growing middle class and talent pool of entrepreneurial, ambitious and well-educated people, there are many budding entrepreneurs keen to make their businesses thrive and create social enterprises that support their local community.

Whether you're a Nigerian national or entrepreneur from overseas, here are some of the key factors to consider when doing business in Nigeria.

Back to basics

Go back to the drawing board to identify any gaps in the market or opportunities to take advantage of and assess whether there's a genuine need for your product or service.

This research will then inform a clear business plan, outlining the business' objectives, strategies, sales, marketing, financial forecasts, potential problems, set out goals and measure progress. It is estimated that more than 85 per cent of small business owners in Nigeria operate without business plans, so by not having one, you're ending any chance of securing a bank loan, which will be critical during the early days.

Choose the right business model

Nigeria has traditionally relied heavily on foreign investment and institutional employers to create jobs, but the government is keen to encourage more diverse business models, allowing entrepreneurs and SMEs to succeed, which could spark a real shift in the nature of the country's economy.

After years of military rule, the country is also embracing new liberalism and democracy by creating more social enterprises to positively impact local communities through employment, generating consumerism and value for the Nigerian economy.

Build your network

Financial experts Stanbic IBTC claim that more than 80 per cent of Nigerian start-ups fail within their first five years, so early networking with the right local connections and building business knowledge will help to access training, explore ideas with other people, test the demand and meet potential investors.

Be tax and legally aware

Being very clear about the local tax arrangements, incentives and regulations in Nigeria is imperative, as there are a number of taxes and levies imposed on people, goods and services, including Companies Income Tax (CIT), Personal Income Tax (PIT), Value Added Tax (VAT), Transfer Pricing (TP), minimum tax and local income tax.

It's also a legal requirement that all businesses must be registered with the Registrar-General of the Corporate Affairs Commission (Registrar of Companies) in Abuja or Lagos – you'll also need to register your business as a Private Limited Company (LTD), Public Limited Company (PLC), Company limited by guarantee (not for profit) or Unlimited Company.

Protect with a patent

If you've invented a product, don't forget to get a patent to protect the design., i.e. otherwise, years of hard work will be wasted. You can use a patent to take legal action against anyone who makes, uses, sells or imports your product without your permission.

Understand the culture

There are more than 500 ethnic groups and more than 500 languages spoken in Nigeria, so make an effort to understand someone's culture before you meet them to approach them appropriately.

Develop local talent from the start

Once you're ready to grow your team, hire the best local talent and upskill other workers who show potential to start creating a committed and productive workforce, keeping workers in Nigeria and helping to boost the country's economic growth.

Understand the bigger picture

A successful entrepreneur will need a good knowledge and understanding of international trade, and the ability to think globally. It's vital to understand the import and export markets, build relationships with partner organisations, and develop strong leadership and management skills to grow a business that creates actual wealth and jobs.

Educate yourself

Passion, creativity and drive aren't enough, as a successful entrepreneur also needs to learn – or at least access – the core business skills to make their start-up grow.

You'll wear many hats as an entrepreneur, so focus on building your skills around strategic thinking, creativity, understanding and predicting customer behaviour, resilience, marketing, time management and efficiency, which will help create a successful business venture.

This is why we've partnered with the United Nations Educational, Scientific and Cultural Organisation (UNESCO) Read and Earn Federation – to help revolutionise Nigeria's future. Over the next decade, we'll be supporting 1.2 million young entrepreneurs in Nigeria by giving them access to a world-class online programme, which will develop the core skills they need to set up their own businesses, helping them to diversify and grow the Nigerian economy. They can then use these building blocks to create a tangible business plan, which they can then use to launch their businesses.

Nigeria is poised for change – and, as this latest project demonstrates, it's already moving in the right direction. Entrepreneurs should be excited about Nigeria's future by helping the country to take its place in the global economy and make a difference to its people. ■

How businesses can protect themselves through automation

By Andrew Sordam, Oracle Vice President for sub-Saharan Africa.

There is no question that Africa is considered a land of opportunity in the technology space. At last year's meeting of the National Council on Communication Technology (NCCT), Nigeria's Minister of Communications, Adebayo Shittu, claimed that the industry attracted US$40bn in foreign direct investment during 2018, up from US$32bn in 2015. Reflecting the economic importance of digital transformation, the governments of many African countries are placing greater emphasis on their modernisation programmes, with Kenya's Big Four Agenda arguably the most high profile. Within Kenya, a predicted US$1.9mn will be spent on ICT infrastructure, software and services this year, to underpin a healthy Digital Age economy. That's according to the International Data Corporation's (IDC) Kenya Enterprise ICT Market 2019 Outlook.

These powerful driving forces are being paired with Africa's accelerating population growth and consumer spending. As well as in the public sector, change is speeding up across all industries. Companies that fail to innovate, risk falling behind in a highly competitive environment where mergers and acquisitions are becoming ever more common. These M&A moves are being used to solidify the market position, meet growing demand and generally futureproof organisations.

As a result, one of the best things business decision-makers can do is embrace the new generation of digital technologies – in particular, automation, as soon as possible to remain on equal footing with these future-minded enterprises.


Image Credit: Oracle

Andrew Sordam.

Automation is not the enemy. Quite the opposite

Discussions around intelligent automation, or autonomous systems, often lead to terms like "Artificial Intelligence (AI)," "machine learning," "Blockchain" and "Internet of Things (IoT)" being thrown around. Some of these concepts are more advanced in their level of system self-thinking and analysis than others. In Africa, we see a full range of adoptions – often combining machine learning and automatic action. For example, in agriculture, IoT sensors keep farmers up to date with the condition of crops even in their furthest fields.

At Oracle, we are hearing from many business leaders who want to automate data management across their whole organisation, so that they can focus more on business innovation, taking advantage of real-time insights extracted from the information they have. They want to be empowered to operate more efficiently, act swiftly and deliver service excellence. As these same businesses evolve and grow, autonomous systems – which are typically cloud-based, and therefore highly scalable – are especially beneficial, seamlessly integrating front and back end in complex operational ecosystems.

Of course, there are claims that automation will lead to job losses, as one of the technology's greatest benefits is handling and streamlining processes that would have previously required hefty manpower and time investment. What we are finding, however, is a growing investment in people who understand and can effectively tap the benefits of AI. Driving this crucial investment, it turns out, are start-ups in all regions in sub-Saharan Africa. Not only are these companies increasingly exploring the potential of new technologies, but also cultivating the skills base to support them.

Meanwhile, recognising that AI will transform the workplace and the nature of jobs themselves, progressive CIOs and managers are encouraging the shift to automation. They see it as a liberation from repetitive operational tasks like software administration and security updates for example, enabling the IT team to function as advisors and drive innovation in their area of expertise. For them, greater adoption of emerging technologies is a way for employees to move up their company's internal value chain, not be excluded from it.

There are other advantages to embedding automation into critical business systems and processes. Solutions that exist on the highest tier of automation, such as the cloud-based Oracle Autonomous Database, go beyond making recommendations (themselves beneficial, of course) to function like a smart, self-driving, self-securing and self-repairing system. Such a self-managed approach reduces risk and elevates compliance levels regarding data protection and system security, and by taking over certain tasks can even help minimise the skills gap in the organisation. And when these automation services are cloud-based, without the need for on-premise infrastructure, cost-savings are amplified.

When used strategically as part of a well-thought-out digital transformation plan, automation has a place at every organisation, public or private, and in all areas of business, from finance to marketing. Every single enterprise will benefit from technology that enables a real-time feel of its data or takes over tedious operational tasks.

At Oracle, we see how many established organisations in Africa are embracing emerging technologies to re-sharpen their competitive edge amid massive market change. In fact, these adoption rates are as high as in Europe. After three decades on the continent, we are especially excited to see where autonomous systems are going to take African business, and local economies, within the next two years. ■

Ade Ayeyemi, CEO of the Ecobank Group.

Making banking accessible for all

In 2015, he became CEO of the Ecobank Group. Four years on, Ade Ayeyemi talks to *African Review* about how he remains committed to delivering the vision of the banking group's founding fathers in creating a better Africa.

Before joining the Ecobank Group, Ade Ayeyemi was the first African to be CEO for Citigroup, sub-Saharan Africa – a position in which he stayed in for 27 years. Since then he has been at the helm of Ecobank, steadying the business amid past turmoil and propelling it as a frontrunner in digital banking. It now has the largest African footprint, compared to any other bank in the world. It successfully launched the Ecobank Mobile app – now serving almost 10 million customers, a feat credited to Ayeyemi in changing banking in Africa.

SMEs are at the heart of the bank's consumer banking business and a critical engine for economic growth across the continent.

He said, "We believe that SMEs as they mature, in terms of their economic profile, are the businesses that will become the suppliers to the larger companies and as we connect them together, SMEs will benefit from having that 'technology transfer' and by having markets which they can supply to. It is important that we can create jobs to make sure that they have a market to sell to, because if they are not economically viable then they won't survive and be a critical part of the economy. It is incumbent on banks like ourselves and other institutions to ensure that we provide support to SMEs."

AfCFTA

Ayeyemi said he believes in the African Continental Free Trade Agreement (AfCFTA) and if it is implemented well, it could increase manufacturing across the region. But he warns that AfCFTA will only be successful if both political leaders and private entities are determined to make it happen.

"It is important to identify the winners and losers and put policies and remedies in place to mitigate the division. We will do everything we can to offer proper advocacy, but signing an agreement is one step but there will be no point when someone is buying something from Accra and they think it is being supplied from Nungua, with no means of paying each other. So, we as bankers and private sector players need to make those payment processes easy and work with institutions such as the Agricultural Development Bank, Afreximbank

> "There is a whole range of what we do that we feel very proud of and enforces the need for growth and support on the continent"

and the bigger banks across the continent to see how we can create a private infrastructure that allows an exchange of goods and services through a viable payment system. It's a lot of work over the next few months, but we should realise the journey does not end with the ratification of the countries. The journey of creating economic opportunity across the continent has to be a much longer process."

When asked whether any news of Ecobank's participation in loan syndications and big-tickets projects would be announced in the near future, Ayeyemi remained tight-lipped on imminent schemes but insisted financing of government projects would always be necessary to ensure completion of projects and development of the countries.

"Be rest assured, we are from the continent and will continue to support the governments to make sure that things are done without delay. We continue to spearhead change in areas, making the rest of the players step up and work with the government to ultimately improve the environments in Africa," Ayeyemi said.

"There's always the need as a responsible corporate citizen to do some sort of intervention. The Ecobank Foundation ensures those interventions are done from time to time. Also whether it is the financing of government or intermediating flows into the continent through remittances, we make sure that we can bring state-of-the-art technology and products to the marketplace, as well as provide training to people and our partners.

"On top of our presence in 33 countries, representative offices in two other countries on the continent, we also have a bank in France which allows us to have access to global payments. Therefore, this makes us the primary partner as a bank for the United Nations as they try to transfer flows of money to support activities in African countries. There is a whole range of what we do that we feel very proud of and enforces the need for growth and support on the continent."

> "It's incumbent on banks like ourselves and other institutions to ensure that we provide support to SMEs"

Earlier this year, Ecobank partnered with NGO Terre des Hommes to offer digital financial services to some of the most vulnerable children in Togo – those under the age of 18 who work or live on the streets. Through the Safe Savings (SaVa) Project a number of children on the street have been given a new, secure means to collect and bank their hard-earned income, improving their security situation as well as their own saving habits.

"Children on the streets are often subject to abuse, neglect, exploitation, and need our protection. By offering them a reliable and secure saving mechanism we hope we can help them protect their livelihoods and build a better future," he said.

Ecobank Mobile app

The strategy behind the launch of the Ecobank Mobile app in 2016 was to make the same app available to as many countries as possible.

"The idea was not to have an app for Nigeria or Ghana, but to create a distinctive Ecobank app with four languages (English, Portuguese, French and Spanish) connecting 33 countries," Ayeyemi explains. "It is the same app that operates whatever the location. The propagation across multiple countries becomes easier to execute and the central design enables us to service it properly. The approval from the various regulators gives us the authority to open accounts for people using just a mobile phone without coming into a branch. That's why we believe we have so many customers to date, and one of the reasons why we believe we will have more customers coming rapidly to us in the future," adding that they do not differentiate between markets on whether they are big enough to adopt new mobile technology or can use new payment systems", allowing the bank to bring financial inclusion to everyone.

Last year alone, Ecobank managed to increase its number of customers by five million to 19 million, (with mobile transactions growing from 27 million to 32 million and amounting to US$1,510mn in value).

Having risen to the sixth largest bank (by assets) in Africa over the last ten years, it wants to make sure that it can leverage its scale by ensuring that it continues to manufacture products centrally and sell/distribute them across the continent. To do this, he says, the bank has data centres in two locations; Lagos and Accra, and a private cloud that connects all the countries where the bank is operating.

"What this does is that it gives us a lot of flexibility because we are able to have products created in one place, which are then used elsewhere in Africa," he explained, adding that the bank has just finished upgrading its core banking application. "The fact that we enable payments across 33 countries, provide instant confirmation and ease of use are just some of the reasons why customers are drawn to us.

"But we realise we can't do everything as a platform, so we are happy to allow other people and Fintechs put their products on top of our platform. We don't want to be the sole creator of that value, we want to be able to share in the value created on the continent."

The bank's other popular digital solutions include the KYC-lite Xpress account for the unbanked and the Rapidtransfer App for cross-border remittances to Africa.

"The idea that brick-and-mortar as the only way to deliver banking services is no longer the current route. We have to have mobility at the core of banking services," he added.

He stated that Ecobank was fully compliant with Basle II, (international standard requiring financial institutions to maintain enough cash reserves to cover risks incurred by operations) which was implemented by the regulator, the Central Bank of West Africa that supervises all the Francophone countries.

Finally, Ecobank Transnational Incorporated had a successful US$500mn Eurobond issuance last June in London. "We have done what we think we needed to do now and are very happy with the aftermarket response, in the way the bond rallied properly, but we will only be tapping into further markets if we need to. We want to continue demonstrating to investors the value that the firm brings." ■

www.ecobank.com

BIOGRAPHY

* Born in Nigeria
* First African to become CEO of Citigroup sub-Saharan Africa where he worked for 27 years.
* He studied accounting at the University of Ife, now Obafemi Awolowo University, Ile-Ife, Nigeria, where he earned a bachelor of science degree with first class honours.
* His stand-out achievement is working as CEO of the Ecobank Group and realising the vision of its founders. Under his leadership, it was recognised as Best Retail Bank in Africa at the African Banker Awards, this is amongst other notable awards.
* Married with two children.
* Interests: Business strategy, economics, process engineering and technology.

Small steps towards making a big difference

Nicholas Best, group commercial director for the Latitude hotel group, talks to Georgia Lewis about developing a successful Ugandan hospitality business for an important niche in the African market.

The poolside view of the Latitude 0° Hotel.

Image Credit: Latitude Group

With builders, electricians, plumbers, decorators and cleaners busily working around us as our interview took place on a tour of the hotel, the determination of Nicholas Best for Latitude 0º in Kampala to open in time for October was obvious – and the hotel did open on 1 October, as planned. Latitude 0º will be the third hotel for the Latitude group, following on from the openings of Latitude 15 in Lusaka and Latitude 13 in Lilongwe.

As well as the boutique hotel businesses, the group has what Best described as "a business model within a business model" with The Works, which offers spaces for working and meeting in premises which are attached to the hotels but still separate to the guest spaces.

The group was founded by business partners James Lightfoot and Nicholas Brown after James and his wife Suzie successfully relaunched a hospitality business in Lake Malawi. The next step was to buy the former Japanese ambassadorial residence in Lilongwe in 2012, which was turned into Latitude 13, a nine-room boutique hotel with fine dining restaurant. The main clientele were business people and representatives of NGOs and it proved so popular that the building next door has been purchased to add more guest rooms and facilities.

"We started too small," Best said with a laugh, but the success led the company's management to wonder about expansion. "But we asked, could this work in other countries?"

Following on from the success in Lilongwe, Latitude 15 opened in Lusaka. Again, a former ambassadorial residence was purchased, and the hotel opened with 18 rooms in September 2014, and has proved equally successful.

"Everyone wanted to be seen at Latitude," Best said of the large numbers drawn to the hotels when they opened. The popularity has not waned and he said the hotels have become "hubs for networking … this is something a little bit bigger than we first thought."

"We have a great product to sell, we are pushing the boundaries and we are very true to the sustainability philosophy," Best said.

Latitude 0º, the latest hotel, has 47 rooms and, like 13 and 15, will have part of the property dedicated to a branch of The Works, where companies will be able to use office space and hot-desking will be available for people living and working in Kampala, as well as hotel guests on business trips.

The Works concept started as a side business in the Lusaka hotel and has been rolled out across all properties.

"Originally we launched a private members' club but that didn't quite take off in Lusaka," Best told African Review. This led to the company rethinking the concept and turning it into working, socialising and networking spaces that do not disturb the hotel guests and The Works was born.

Best said that one of the advantages of starting out small is that the business model can be easily tweaked if an idea does not work out, or it can be adjusted to work in different African markets, depending on customer needs and demands. The Works, which started in the Lusaka hotel, has attracted a range of businesses and organisations who use the spaces on a long-term basis, as well as being used by hotel guests as a space to work away from their room.

"Last year, The Works' vibe came together and we went from 40 per cent occupancy to 90 per cent occupancy by the end of 2018," Best said. "We have a different mix of characters in there, such as investment organisations, the American Chamber of Commerce, NGOs and consultants with a female empowerment project."

He said that another advantage of the diverse organisations using The Works is the collaborations that have taken place which otherwise may not have happened. For example, he said that corporate clients which were keen to improve the CSR activities were easily able to work with NGOs on worthwhile projects.

Against the backdrop of the Africa Hotel Investment Forum, which was held last month in Addis Ababa, the Latitude group's bespoke approach to each market in which it operates is in stark contrast to the spate of large-scale announcements made by international hotel chains at the event. These included the Marriott announcing 40 new hotels for Africa by 2023; Radisson signing off on 11 new hotels this year; Accor's three-property deal including expansion into the Democratic Republic of Congo; and the Hilton group reaching its 100-hotel milestone in Africa.

Best is quick to point out that while large hotel chains have their place in the African hotel market, the Latitude group aims to provide an alternative to the chain experience of similar decor and food across all properties. The unique selling points include individual decor for each room and throughout the hotel, which has been sourced from across Africa by Suzie via her business Kutundu, and creating a more personal environment where guests and staff can interact. Best said that the unique artworks across the hotels, which are created by African artists and often made from recycled materials, serve as talking points and most customer feedback forms mention staff by name when asked about examples of good service during their stays.

As well as aiming for the business and NGO demographics, Best said that the Latitude properties are attracting a certain sector of the African tourism market as well – intrepid tourists who need somewhere to stay before embarking on safari holidays. Best said that unlike more established markets such as Kenya and South Africa, going on safari in a country such as Uganda, Malawi or Zambia is "not a soft-landing holiday [and] not a cheap holiday – it's an African adventure that is a once-in-a-lifetime holiday" and these sort of travellers seek something "a little different" from chain hotels. Additionally, with many flights to these destinations landing late at night or in the early hours of the morning, he said travel agents have often convinced their clients to stay in a hotel in a city to rest before embarking on the safari.

When asked what the future holds for the Latitude group, Best added that they are "are always looking for other opportunities across the continent".

"We are well into the design and planning phases of Latitude 9 Degrees, in Meskel Square, Addis Ababa, and also Latitude 20 Degrees in Pamplemousses, Mauritius," he said. "Initial indicators are that both of these will be open during the course of 2021." ■

The boardroom in the work space part of the Kampala hotel.

Image Credit: Latitude Group

Bridging Tanzania's infrastructure funding gap

The IMF slashed Tanzania's growth forecast to 4 per cent from 6-7 per cent in April, however since then, there have been positive announcements despite concerns from foreign investors. By Samantha Payne and Georgia Lewis.

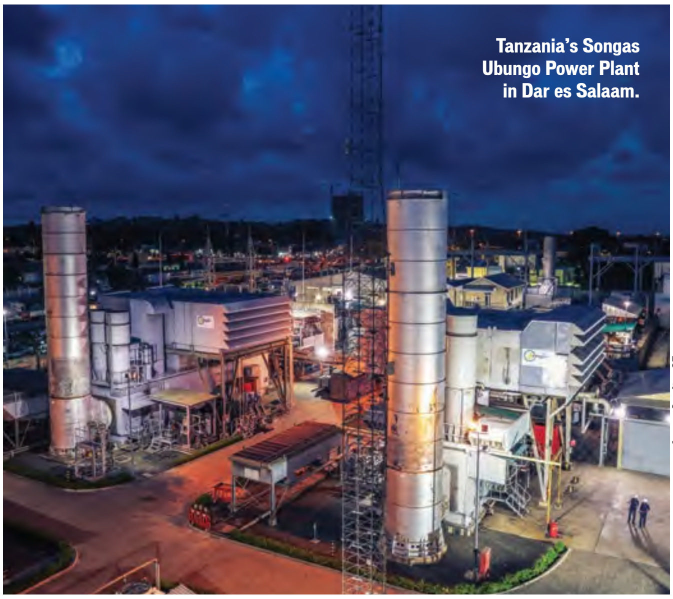
The Tanzanian government is committed to driving its industrialisation agenda despite attempts to block the IMF's economic forecast earlier this year, indicating the true state of the East African nation's economy.

Once cited as one of the fastest growing economies in East Africa, President John Magufuli, nicknamed the bulldozer, has earned a reputation for implementing policies stifling foreign investment and trade, especially in certain sectors, such as mining and telecoms, where his administration wants fairer returns on profit made by large multinational firms. This happened with Acacia Mining Ltd., where the firm was forced to compromise and pay US$300mn in tax-related fines, and give the government an equal share in profits from its mines.

As *African Review* went to press, the government reportedly rejected stringent demands from the Chinese investor behind the US$10bn Bagamoyo port, offering them a 33-year lease. It banned any tax holidays and said the investor would be subject to taxes set by the Tanzania Revenue Authority. Critics said this could upset the Belt and Road project and hopes of Tanzania becoming a trade hub.

In September, foreign investors expressed concerns over policy restrictions at a recent European Union Business Group (EUBG) meeting. The EU is Tanzania's second export destination and third largest trading partner, apart from China, Japan and India.

Speaking during the 5th anniversary of the group in Dar es Salaam in September, EUBG chairman Jesper Sorensen said, "If there are serious concerns that require some changes in laws, policies or regulations, the government cannot remain quiet."



Tanzania's Songas Ubungo Power Plant in Dar es Salaam.

Image Credit: GE

The government has also p
But it is not all bleak, the government this year has committed more than TSh12.2 trn (US$5.3bn) towards major development projects such as the Standard Gauge Railway, Julius Nyerere International Airport Terminal 3 and the Uganda-Tanzania Crude Oil Pipeline, (UTCOP), aligned with its Five Year Development Plan to promote economic growth and become a middle-income country by 2025.

In other developments, in June 2019 Geita Gold Mining (GGML), one of the largest corporates in the country, and one of the biggest mines in the AngloGold Ashanti portfolio, borrowed Tsh264bn (US$115mn) from Nedbank – dubbed as a first-of-its-kind syndicated Tanzanian shillings mining transaction – to expand its underground operations.

Tanzanian banks have traditionally had limited interaction with the large global mines that operate in the country and typically procure financing elsewhere.

But in 2018 the Tanzanian government introduced new local content regulations that sought to achieve broad-based participation of indigenous enterprises in the mining sector including the provision of financial services.

"Nedbank CIB is proud to have facilitated another first for the continent in securing this deal. We are more steadfast in our commitment to unlocking value across the continent and it is our belief that the collaboration with local stakeholders will benefit the local community and economy in the long-term," said Witness Kamera at Nedbank CIB.

There are around 40 local and foreign private commercial banks registered with the central bank (Bank of Tanzania). These include Standard Chartered Bank, Citigroup, Barclays Bank and Stanbic Bank, which is part of the Standard Bank Group, Africa's largest bank by assets.

Standbic Bank Tanzania, also committed its support to the country this year by providing TSh177bn, (US$76mn) in funding to various infrastructure development projects in the country. Offering finance and financial expertise to the private and public sector in Tanzania is a major focus for the bank.

Stanbic Tanzania chief executive Ken Cockeril said, "Infrastructure development is the cornerstone for sustainable long-term economic growth and competitiveness. With that in mind, we are proud to be at the forefront of bridging the infrastructure funding gap to accelerate socio-economic transformation in Tanzania."

There is an urgent demand for infrastructure to be built to meet the soaring population rate, which is projected to reach 67 million people by 2025 and 77 million by 2030.

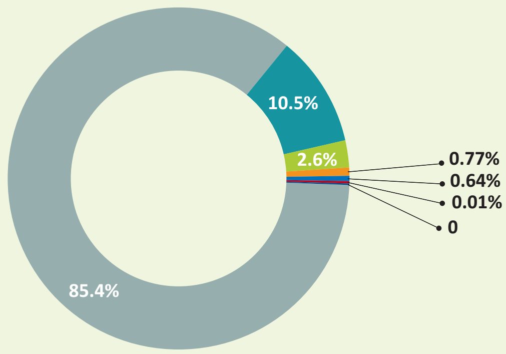
Power surge

Over in the energy sector, Tanzania has an installed generation capacity of 1,583MW, composed of hydro 561MW, natural gas, 527MW and liquid fuel, 495MW.

By 2025, the government is hoping to increase its generation capacity to 10,000MW, where hydro will supply 2,090MW, natural gas 4,469MW, liquid fuel will decrease to 438MW and coal (2,900MW) and wind and solar and geothermal providing 500MW.

Tanzania Electric Supply Company Limited (TANESCO) is implementing the Electricity Supply Industry Reform Strategy and Roadmap 2014 – 2025 (ESIR), to unbundle themselves into separate generation, transmission and distribution entities which will remove its monopoly over the sector and attract more private investment.

In September GE and Songas teamed up and completed upgrades to the entire GE fleet of three LM6000PA and one LM6000PC gas turbines at the Songas Ubungo Power Plant in Dar es Salaam, Tanzania.



Source: www.lexology.com

These technology upgrades will increase the power plant's efficiency and reliability, and in the words of Songas' managing director Nigel Whittaker, "continues to contribute to the economic development of the country, making a significant difference to the lives of Tanzanians."

Tanzania is constructing the Stigler's Gorge Hydroelectric Power Plant, a 2,100MW hydroelectric dam across the Rufiji River in the Selous Game Reserve.

Interestingly, around 78 per cent of Tanzanians depend on traditional biomass as their primary energy source. But the country is estimated to have more than 55 trn cu ft of gas reserves. Oil and gas exploration has been underway since 1952 and according to reports, the global oilfield services industry would generate US$290bn by 2019 due to the growing demand for energy.

Oil and gas

The development of the Uganda-Tanzania Crude Oil Pipeline is an example of the importance of regional cooperation between Uganda and Tanzania.

Alex Nyombi, director of development and production for the Petroleum Authority of Uganda (PAU) said the decision on the pipeline route was important for economic progress of both countries. However, work has been temporarily suspended on the pipeline while the Total-Tullow impasse was under negotiation.

In regard to the impasse, Ugandan president, Yoweri Museveni told delegates at the Uganda International Oil & Gas Summit that he is confident of a resolution and will meet oil company leaders at the UN General Assembly. A dispute over taxation was the main stumbling block.

President Museveni told the conference that he had "already squeezed oil companies quite reasonably" in regard to taxation.

James Mataragio, MD of the Tanzanian Petroleum Development Corporation, agreed with Nyongi, in regard to UTCOP as "the greatest part [of the pipeline] is in Tanzania". ■

TANZANIA

- Principal exports: gold, coffee, cashew nuts and cotton.
- Tanzania is a member of tthe EAC and SADC.
- The World Bank ranked it at 67 globally in its 2018 Logistics Performance Survey.
- Dar es Salaam handles 4.1 million tonnes of dry cargo and six million tonnes of bulk liquid cargo annually, serving landlocked countries such as Malawi, Zambia, the DRC.

Kwik Delivery service for the B2B market was launched in Lagos in June.

Image Credit: Kwik Delivery

Disrupting Africa's logistics sector

The advent of e-logistics is having an impact in Nigeria and elsewhere, improving efficiencies to reduce the overall cost of transport and cargo services.

It may not be building the roads, bridges and other infrastructure Africa so desperately needs, but new technology is playing its part in closing some of the logistics gaps on the continent.

While the industry may be world class in locations such as South Africa, much of the region's supply chain remains disjointed and uneven, especially in poorer countries or those in the landlocked interior.

It is a major problem: in eastern Africa, for instance, the relative cost of moving goods is one of the highest in the world, leading to up to 75 per cent of a product's cost going to logistics compared to just six per cent in the USA.

In Nigeria, technology is helping to bring people and businesses closer together by streamlining access and availability to freight and logistics services.

Those active in this segment, like start-up Kobo360 – a tech-enabled e-logistics platform that connects the supply of trucks with the demand for transportation services by cargo owners – are having a disruptive effective on the market.

And the new company has some heavyweight backers.

At the end of last year, the International Finance Corporation (IFC), the World Bank's private finance arm, unveiled a US$6mn equity investment in the Nigerian freight logistics operator, joining others including Silicon Valley investors WTI, YCombinator, and African institutional investors Cardinal Stone Partners, Chandaria Capital and TLcom.

Africa expansion

More recently, global investment bank Goldman Sachs led a US$20mn fundraising for Kobo360, with a further US$10mn in working capital financing from Nigerian commercial banks.

The funds are to be used to upgrade the firm's tech platform and expand to 10 new markets.

The firm currently operates in Togo, Ghana and Kenya, as well as its home Nigeria market, connecting more than 10,000 drivers and trucks using its app – an impressive launchpad for a company only founded in 2017.

Kobo360 co-founder Obi Ozor says that in just two years the firm has moved more than 5,000mkg of freight, aggregated a fleet of more than 10,000 vehicles, serviced thousands of SMEs and partnered with more than 80 global logistics partners.

Its client list includes blue chip names like Unilever, Honeywell, DHL and Dangote.

He told Forbes in an interview that despite the sophistication of the app it is the driver fleet that remains the beating heart of the business.

"For example, drivers running trips on the Kobo360 platform are already increasing their monthly earnings by 40 per cent. In addition to this, we also provide access to up to US$5,000 monthly working capital, insurance products and discounted petrol," he said.

Trade flows

There are other reasons for optimism too, such as developments in the African Continental Free Trade Agreement (AfCFTA) which have brought a fresh wave of enthusiasm and the potential for greater cross-border trade.

The Kobo360 app has evolved as it has grown, accommodating local languages such as Hausa, Pidgin, Swahili, Twi and French, as the service rolls out across new territories overseas.

According to Ozor, while the new trade agreement sets up the potential for expanded regional trade, there are still the realities of Africa's weak infrastructure and poor supply chain to contend with.

"But that's where we come in: from location-based technologies to temperature-controlled storage, we're investing in tech that gives businesses the necessary transparency and peace of mind over their cargo," he said in the interview.

The company is building a blockchain-enabled platform, its Global Logistics Operating System, to bring together the technology needed to make this a reality.

Courier services

But there are plenty of others competing in this field and looking to leverage technology to improve the flow of goods across Nigeria and Africa.

Launched in Lagos in June, Kwik Delivery is an on-demand delivery platform focusing on the rich and diverse business-to-business (B2B) market.

It is the brainchild of Africa Delivery Technologies, a French-Nigerian joint venture, offering an on-demand parcel delivery service for local businesses.

Within two months of start-up it had more than 2,000 verified users from automotive giant Mitsubishi to construction group SPIE.

The company has just released its Application Programming Interface (API) to allow users and customers to embed the tech seamlessly into their own business, thereby further streamlining delivery services.

It means any merchant with an e-commerce platform or just a POS (point of sale) can now integrate the on-demand service into its own tech platform.

"Thanks to this API, merchants and companies from all industrial sectors in need of rapid on-demand deliveries will be able to fully automate implementation of our last-mile, urban delivery solution and integrate it with e-procurement or e-commerce platforms," said Olivier Decrock, co-founder of Africa Delivery Technologies.

Long-haul services

The advent of B2B courier and parcel delivery services comes in the wake of the boom in passenger transport bike-hailing start-ups across Lagos such as Max, Gokada and ORide, as well as big hitters such as Uber.

> "Our mission in Nigeria is to create a more efficient logistics experience for cargo owners"

It underscores the take-up and big potential of new mobile-based technologies and also Nigeria's tremendous entrepreneurship – as well as the latent demand for such services.

It is not only Nigerian firms active either. Lori Systems, a Kenyan logistics start-up, recently launched its platform in Nigeria, seeking to overhaul the country's long-haul cargo transport sector.

Its tech tools allow for better tracking, working with high-quality, verified transporters, ultimately saving costs through greater end-to-end coordination.

For transporter partners, Lori optimises truck and asset utilisation for on-boarded trucks by up to five times through access to its pool of cargo owners and with quicker turnaround times and through proactive loading and off-loading activities. It said in a statement on 30 September that it had been working on a pilot project with some of the country's top cargo companies such as Flour Mills Nigeria and Olam, noting that Nigeria, as Africa's largest single market, faces major challenges such as congested ports and a general shortage of transport options.

"Our mission in Nigeria is to create a more efficient logistics experience for cargo owners who are burdened with the task of moving their goods across the country," said Uche Ogboi, Lori's chief operating officer.

"We have successfully created a digital platform to enable the movement of goods through a transparent supply chain management system that is affordable, reliable and flexible." ■

By Martin Clark

Volga-Dnepr Group aids emergency laboratory Ebola delivery

Volga-Dnepr Group assisted in the M rieux Foundation's efforts to control the Ebola virus disease epidemic in the Democratic Republic of the Congo by undertaking a special cargo flight carrying mobile bio-medical laboratories.

One of their fleet of twelve AN124-100 aircraft was especially positioned in Lyon-Saint Exupery airport (France) on 8 October for the urgent needs of the Merieux Foundation and its logistics partner Bioport Logistique, France.

The emergency cargo flight carried three 40ft "plug and play" mobile container laboratories built in the Rhone-Alpes region of France belonging to the Merieux Foundation as well as a mobile laboratory truck belonging to the Praesens Foundation of Belgium.

The cargo was transported to Kigali, Rwanda by the unique capabilities of Volga-Dnepr's AN124 before being transferred overland to Goma, DRC where the government National Institute for Biomedical research will operate the life-saving laboratories.

Image Credit: Volga-Dnepr Group

Volga-Dnepr cargo plane transported bio-medical laboratories to Kigali, Rwanda before being transported overland to the DRC.

The DRC has been struggling to contain the spread of the Ebola epidemic in recent times and the charter flight was a race against the clock to improve the Ebola diagnostic capacities in Goma.

Stuart Smith, global director Humanitarian, Volga-Dnepr Group, said, "We take great pride in being able to assist with such critical humanitarian air cargo deliveries. We have worked closely with our colleagues at Bioport Logistique over the last month to ensure that this urgent and life-saving delivery could take place. The laboratories need to be treated with special care throughout the loading, unloading and delivery process. Our technical teams were able to perform a site visit to ensure that the laboratories were prepared for air transport. Volga-Dnepr Group operates probably the world's most unique fleet of cargo aircraft and is well placed to meet the global needs of government, NGOs and foundations in the response to natural disasters and health crises."

Volga-Dnepr Group and partner airlines operates a combined fleet of nearly 50 all-cargo aircraft including the world's largest commercial fleet of ramp-loading Antonov124 and Ilyushin76-TD-90VD aircrafts. The group has responded to many of the world's recent natural disasters and crises including recent air cargo assistance in Mozambique, Afghanistan, Indonesia and Guam.

TRUCKERS IN SOUTH AFRICA SHOW OPTIMISM WITH NEW PRODUCT LAUNCHES

Domestic and export sales of trucks and buses in South Africa remain stagnant in an environment of tight trading conditions, but several local manufacturers are still optimistic about the future as they announced new models and plans to increase sales volumes at the Futuroad truck and bus expo in Johannesburg. Futuroad, the successor to the Johannesburg International Truck and Bus Show was co-located for the second time with Automechanika Johannesburg at Expo Centre, Nasrec from 18-21 September.

UD Trucks, Daewoo Trucks, Tata Motors, Powerstar, and Volvo all attended the show. The first four companies announced new and additional models while Volvo, which is currently the top seller in the South African extra-heavy truck market, announced important changes and upgrades that will be introduced in the first quarter of 2020.

Jacques Michel, global marketing head of UD Trucks, was on hand to introduce the all-new Quon extra-heavy range, which is the fourth new UD model to be launched in South Africa in the past five years, following the introduction of the Croner, Quester and Kuzer. He said that South Africa is the third biggest market in the world for UD trucks.

The Quon is the first truck range in SA to have fuel-efficient Euro 5 engines as standard. It is fitted with the GH11 11-litre power unit developing 460 hp which is matched to the new ESCOT-VI electronically controlled automatic transmission.

New or upgraded active and passive safety equipment includes disc brakes, collision-mitigating braking, a lane departure warning system, driver alert support, adaptive cruise control, a retarder, electronic braking system and stability control.

Features

Other advanced features in the Quon are LED lights, extensive rust prevention measures and sealed hob bearings as well as UD Telematics.

There are eight models in the new Quon range, all 6x4 with a GVM of 26,000 kg and a choice of steel or air suspension.

Daewoo, the Korean truck manufacturer, which is owned by Tata, of India, launched an new extra heavy truck, the Maximus KL3TX at Futuroad. Daewoo has been in South Africa for 15 years but will now concentrate only on the extra-heavy segment of the market so there is no conflict between Daewoo and Tata models. The current vehicle parc of Daewoo trucks in South Africa is estimated at about 6,000 units.

The Maximus uses the tried and trusted combination of a 480 hp Cummins engine, which produces 2 509 N.m of torque with either an Eaton or ZF AMT transmission and an Eaton rear axle.

Daewoo sales in South Africa are expected to reach 200 in 2019, with a target of 500-600 units a year in the future. These trucks are sold in 11 other African countries and locally assembled in South Africa and Kenya.

Len Brand, the CEO of Tata Africa, who has been involved with the turnaround of Tata in Southern Africa for the past three years, says his team is now focusing on after-sales backup through its 91 2S (service and spare parts) outlets in South Africa and a further 60 in Africa.

He added that the company was well advanced in setting up its own financial arm to assist customers buying Tata and Daewoo products and a pilot operation in Tanzania is already proving successful.


DAILY
BUSINESS
INSTINCT

First gas genset engine from MAN Engines

At PowerGen International 2019, MAN Engines will be presenting a gas genset engine in the 500 kW class for the first time.

The MAN E3262 LE252 is a completely new engine development based on the E3262 gas engine platform launched in 2012.

MAN Engines says it is the market leader in gas engines from 50 to 550kW in Germany and, with its engines for cogeneration plants, has played a key role in shaping the energy revolution with CHP (combined heat and power) applications. MAN Engines head of power Günther Zibes, says, "With our new gas genset engine, we are responding to rising international market demands for power-only generation. That also includes the increased use of biogas in tropical countries. The E3262 gas genset engine offers an environmentally friendly alternative to diesel gensets, as no particulate emissions are produced in natural gas operating mode."

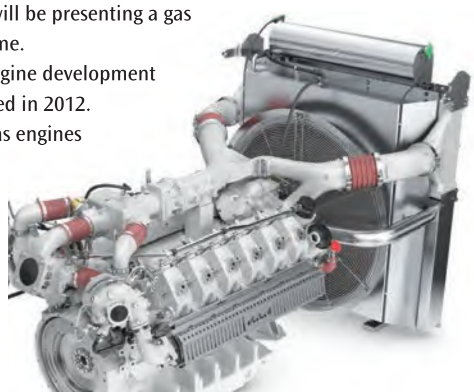


Image Credit: MAN Engines

The E3262 LE252 gas genset engine.

The genset can be used, with no change in output, for all applications from emergency standby power (ESP) and prime running power (PRP) to continuous operation (COP). Using the optional 250 mg NOx emissions variant, the addition of a low-cost oxidizing catalytic converter enables compliance even with the stringent EU-wide MCP Directive.

The E3262 LE252 is designed as a gas-powered V12 four-stroke SI engine with a capacity of 25.8 litres. The gas genset engine is a lean-burn gasoline engine featuring twin turbochargers (Lambda > 1), which provides better loading than a single turbocharged engine. The gas genset engine generates up to 500 kWel at 1500 rpm (50 Hz) and 1800 rpm (60 Hz).

Optimisation of the engine for natural gas and special gas/biogas gives operators flexibility, as they can use it to suit the fuel planned for a specific project. The mechanical efficiency is 40.1 per cent in the natural gas variant in 50 Hertz operation, and 40 per cent in the special gas variant. At 60 Hertz, this corresponds to 37.9 per cent in the natural gas variant, and 36.4 per cent in the special gas variant.

MAN Engines offers the E3262 LE252 gas genset engine with an enhanced standard supply package featuring a complete cooling system. It consists of a front-mounted cooler, thermostats, generator, pressure fan and mechanically driven coolant pump.

ENERGY SUMMIT IN SENEGAL TO PULL INVESTORS

In partnership with the Association of Power Utilities of Africa (APUA), RES: West on 2-3 December will bring together over 300 investors, project leaders and utilities stakeholders to present the latest developments on achieving universal power access within West Africa.

"As we continuously strive to promote development and integration of African power systems through the interconnection of networks, we also ensure that the pooling of energy resources is a win-win approach for the entire market. We are therefore pleased to partner with RES: West in Senegal which will provide a vital platform in bringing together African power utilities and stakeholders to making power more accessible, affordable and reliable for the African peoples," said Abel Didier Tella, director general, APUA.

In addition to Abel Didier Tella, speakers H.E. Honourable Bachir Ismael Ouedraogo, Minister of Energy, Burkina Faso, H.E. Hon. Boubacar Mbodji, special adviser to the President, Government of Senegal.

WARTSILA AND Q POWER OY AGREE TO DEVELOP FUELS

The technology group Wärtsilä and Q Power Oy, a Finnish pioneer in biomethanisation, have signed a cooperation agreement to accelerate the development and commercialisation of renewable fuels.

The companies will work closely together to further develop the market and to find business opportunities for biomethanisation and synthetic fuels globally.

The first target of the cooperation is to showcase a mobile demonstration plant at the Finnish pavilion at Expo 2020 Dubai between October 2020 and April 2021.

The World Expo is expected to attract 25 million visits, bringing high visibility to the new concept and the possibilities of synthetic fuels.

Q Power's patented biomethanisation concept helps in the transition towards renewable fuels, which are produced by taking CO2 from the atmosphere or industrial processes and combining it with hydrogen. Biomethanisation is a Power-to-X technology for producing synthetic methane. Synthetic methane and other synthetic fuels are essential steps on the path to decarbonising the energy, transportation and industrial sectors and helping humankind move towards a 100 per cent renewable energy future.

"This is a perfect example of Wärtsilä's ambitious vision of a 100 per cent renewable energy future and demonstrates the concrete actions we want to take to develop smart technologies for sustainable societies. We are extremely happy and eager to work with Q Power to develop technology and concepts that help the world take concrete steps on the path towards 100 per cent renewables," said Jaakko Eskola, President & CEO, Wärtsilä Corporation. The collaboration with Q Power is a continuation of Wärtsilä's way of working with start-ups and collaborating with other energy players to develop technologies.

BRIEFS

Solar plant commissioned in Namibia

Image Credit: CRONIMET Minig Power Solutions

The rooftop photovoltaic system was completed in eight weeks.

The 1130 kWp rooftop photovoltaic system at Wernhil Park shopping centre in Windhoek, Namibia, entered commercial operation in the first week of October. CRONIMET Mining Power Solutions completed the project within eight weeks and four weeks before the scheduled handover date. It will avoid 2,144 tons of CO_2 per year.

Power plant starts in Tanzania

Image Credit: Adobe Stock

Katavi will be able to contribute to the economy when the transmission line is completed.

The Tanzanian government has given the go ahead for the construction of the Tabora-Katavi power transmission line, with the laying of the foundation stone. The US$59mn Tabora-Katavi power line will supply 130MW to the region, which currently consumes between 5 and 6MW. "Once Katavi is connected to the national grid the region can contribute to the national economy as regional residents can start up industries whenever they wish to," said President John Magufuli.

Africa's energy industry to gather at ADIPEC 2019 to set agenda for 2020

Image Credit: African Energy Chamber

ADIPEC is being organised on the back of tremendous growth in investment and cooperation between the UAE and Africa this year.

African energy officials and the public and private sectors will gather at ADIPEC in Abu Dhabi on 11-14 November to set the industry agenda for 2020. Taking the lead in representing Africa at the world's largest oil and gas event, the African Energy Chamber (AEC) has signed an agreement with ADIPEC and officially endorses the conference and exhibition and invites all its partners to join the African delegation participating in ADIPEC.

Gabriel Mbaga Obiang Lima, minister of mines and hydrocarbons of Equatorial Guinea, said, "The good news for Equatorial Guinea and many African countries is, we have the resources. African countries have some much-untapped reservoirs of oil and natural gas that have regrettably been underexplored.

"We need to attract investment in our oil and gas industry, explore, supply the market and also develop our countries. ADIPEC is a great place to meet potential investors. We have a unique relationship with the UAE through OPEC and the GECF."

Nj Ayuk, executive chairman at the AEC and CEO of the Centurion Law Group, commented, "We need to have Africa better represented within global investment shows like ADIPEC where major deals and contracts are being discussed. The conference's focus on technology and the oil and gas sector 4.0 is especially relevant for Africa as the continent seeks to fully embrace digitalisation and the latest technologies to leapfrog into next-generation energy initiatives and developments."

As interest for Africa picks up from Middle Eastern markets and global companies, ADIPEC offers the perfect stage to promote additional opportunities for such deals across African oil jurisdictions. The conference will see the official launch of "Billions At Play: The Future of African Energy and Doing Deals", the book by the AEC chairman that paves the way for the development of Africa's energy sector.

USTDA AWARDS WIND PLANT STUDY IN KENYA

The US Trade and Development Agency has awarded a grant to Kenya's Craftskills Energy Limited for a feasibility study to develop a 50-megawatt wind power plant with integrated battery storage capacity in Kenya. Thomas R. Hardy, USTDA acting director, said, "This project has both the structure and the smarts to succeed. Craftskills has quality partners and already implemented other major wind power projects in Kenya. USTDA believes the US companies will be very competitive in the supply of the project's major components."

In addition to a wind resource assessment and plant design, the study will explore a battery energy storage solution that will enhance the capacity of the power plant and stabilise the intermittency of wind power to the grid. The result would be more power delivered more reliably to Kenyan consumers at a competitive cost. The US firm Delphos International will execute the study.

DAYSTAR INSTALLS 100TH SOLAR POWER IN NIGERIA

With the implementation of the solar energy system at a branch of Unity Bank in Bauchi, Nigeria, Daystar Power has installed its 100th solar power system since the company was founded in 2017.

This corresponds to an increase of 733 per cent in the number of installed systems compared to the previous year and a twenty-fold increase in the total installed capacity from 291 kW in September 2018 to 5.6 MW in September 2019. By shifting the supply of electricity from diesel generators to environmentally friendly solar hybrid solutions, the West African solar company has been able to reduce C02 emissions by more than 360 metric tonnes.

Overall, Daystar's power solutions consistently save its customers 20-30 per cent of power costs while at the same time reducing noise and air pollution.

The company works with West Africa's leading banks, including Ecobank, Wema Bank, Unity Bank and Access Bank.

In addition to banking and manufacturing, customers in agriculture as well as education and health sector have shown strong interest in converting to renewable energy sources, adding to Daystar's client base. Besides Nigeria, systems have also been installed in Ghana, where the company opened a subsidiary in April this year.

Christian Wessels, founder and executive at the company, said, "With our full-service offerings, we cover not only installing the photovoltaic systems but also providing maintenance in the long-term to ensure long-term operations - a rapidly growing demand of businesses and institutions in West Africa. I therefore assume that we can double the amount of installed systems to 200 by the end of this year."

The Isimba Dam in Uganda.

Image Credit: UEGCL

Hydropower in sub-Saharan Africa

The African Development Bank (AfDB) says it's 'getting out of coal' and placing its eggs largely in the renewables basket; hydroelectric power will play a big part in those aims across the whole of Africa. Tim Guest reports.

The AfDB is eyeing up sub-Saharan Africa's potential 350GW of hydropower in its move to roll out a US$500mn scheme in 2020 to promote renewables and move away from fossil fuel. Certainly, hydroelectric energy is set to help Africa turn its back on coal and generate electricity for the 600-million-or-so people in sub-Saharan Africa (57 per cent of the population) still without power.* But these bold aims are not without their issues.

The International Hydropower Association (IHA) knows to an extent what is going on with hydro in that region, so let's take a look through their eyes at latest hydroelectric developments in sub-Saharan Africa.

The here and now

In May, the 2019 World Hydropower Congress, organised by the IHA, took place in Paris. One VIP attendee, executive director of the International Energy Agency (IEA), Dr Fatih Birol, warned that despite its promise, globally, investment in the renewable sector has slowed. "Hydropower – why are we so keen?" asked Birol. "Because of its potential, especially in Africa. Today, in sub-Saharan Africa, two out of three people have no access to electricity. Morally, it is a shame for all of us. We think hydropower can provide a lot of benefits to our societies, ranging from electricity access in emerging economies, reduction of CO_2 emissions, reduction of air pollution, and we can nicely integrate it with solar and wind." He said the IEA plans to dedicate its next renewable energy report to hydropower.

The congress theme was: 'The Power of Water in a Sustainable, Interconnected World' and emphasised hydropower's role helping to deliver the Sustainable Development Goals (SDGs) set out in the Paris Agreement on climate change. IHA president, Ken Adams, said the spirit of IHA to engage in dialogue with stakeholders from different countries, sectors and backgrounds, was crucial for the planet as it faces unprecedented stress. Building consensus for a more sustainable future will help achieve the SDGs.

Hydropower in sub-Saharan Africa

According to the IHA, Africa has the greatest potential of hydroelectric generating capacity in the world, although only about 11 per cent of that untapped potential is currently being realised. The continent's hydropower installed capacity, underpinned by some major projects, is set to grow by about 4,700MW over the next few years. Let's take a look at some of those major projects in a brief, around-Africa look-see.

One of the most ambitious energy plans of all African nations has been set by Ethiopia, with 2025 as its target date by which all citizens are to have access to electricity. Hydropower, particularly from the Great Renaissance Dam, is set to contribute 6,350MW of the 17,300MW needed by 2025 to achieve the nation's aims.

Down in the southwest, in Angola, April 2018 saw the filling of the Lauca Project's reservoir and two further turbines being installed giving this, the largest hydropower plant in the country, a 1,336MW installed capacity; fully operational it will generate 2,070MW. The country's other plant at Caculo Cabaça, set to generate 2,172MW, will be fully commissioned in 2022 and together these two plants will deliver close to 33 per cent of Angola's 2025 target of 9.9GW, which is intended to achieve 60 per cent electrification. The government is undertaking an environmental assessment to evaluate if its 18GW hydropower potential ideas, by 2025, will be environmentally acceptable.

Newly operational in Cameroon is the 200MW Memve'ele project, with the 420MW Nachtigal project, which the IHA says is the largest independent hydropower project in sub-Saharan

Africa, following close on its heels after a financial close in 2018.

In the DRC, the 150MW Zongo II hydropower project, inaugurated mid- 2018, added 100MW of installed capacity to the 50MW being generated since 2017. Increased installed capacity of the country's Mwadingusha hydropower plant from 22MW to 32MW followed latest modernisation and further work on three remaining turbines is set for completion by end 2019, taking installed capacity to 71MW. The country's 11MW Azambi hydropower plant was also commissioned last year. Not to be left behind in the hydroelectric upsurge, the Nkula hydropower station in Malawi has recently been rehabilitated having been commissioned in 1966. The rejuvenated hydropower station has added 30 years to it operational life and output capacity has increased from 24MW to 36MW.

AFRICA CAPACITY BY COUNTRY* 2018

Rank	Country	Total installed capacity (MW)
1	Ethiopia	3,822
2	South Africa	3,595
3	Angola	3,083
4	Egypt	2,876
5	Democratic Republic of the Congo	2,704
6	Zambia	2,397
7	Mozambique	2,191
8	Nigeria	2,064
9	Sudan	1,923
10	Morocco	1,770

****including pumped storage***

Source: IHA's Hydropower Status Report 2019

Uganda's Isimba Hydroelectric Dam had technical commissioning tests earlier this year and the country's Karuma project is due to be commissioned by end 2019. Together, the two will double Uganda's total hydropower from 764MW today to 1,552MW installed capacity.

Big happenings are underway in Mozambique, where an extension for the Cahora Bassa hydroelectric power station was issued by the government, giving national company, Hidroelectrica Cahora Bassa, a new 15-year concession. Hydroelectrica Cahora Bassa and national utility Electricidade de Moçambique will also integrate to develop the Mpanda Nkuwa Hydroelectric Power Plant to be located about 60km downstream of Cahora Bassa Dam on the Zambezi. And in Zimbabwe, the March 2018 commissioning of the Kariba South Bank expansion project has now added 150MW of installed capacity to the national grid helping to significantly reduce the country's power supply deficit.

Climate Change and Future Demand

The IHA has just launched a new publication, Hydropower Sector – Climate Resilience Guide. Though positive about hydropower's potential to be part of the climate change solution, IHA chief executive Richard Taylor also said the publication added caution; hydropower facilities are not immune to changing climate; the guide offers guidance to help project operators and developers identify, assess and manage climate risks to enhance the resilience of proposed and existing hydropower projects.

Developing hydropower is certainly a long-term task. Whether quantities of water available today to drive turbines will hold out until 'tomorrow' in a climate-changing world, has yet to be seen. And with the AfDB saying demand for electricity across Africa will quadruple by 2040, fossil fuel reliance is unlikely to disappear soon. ■

**Source: IEA's World Energy Outlook 2018*

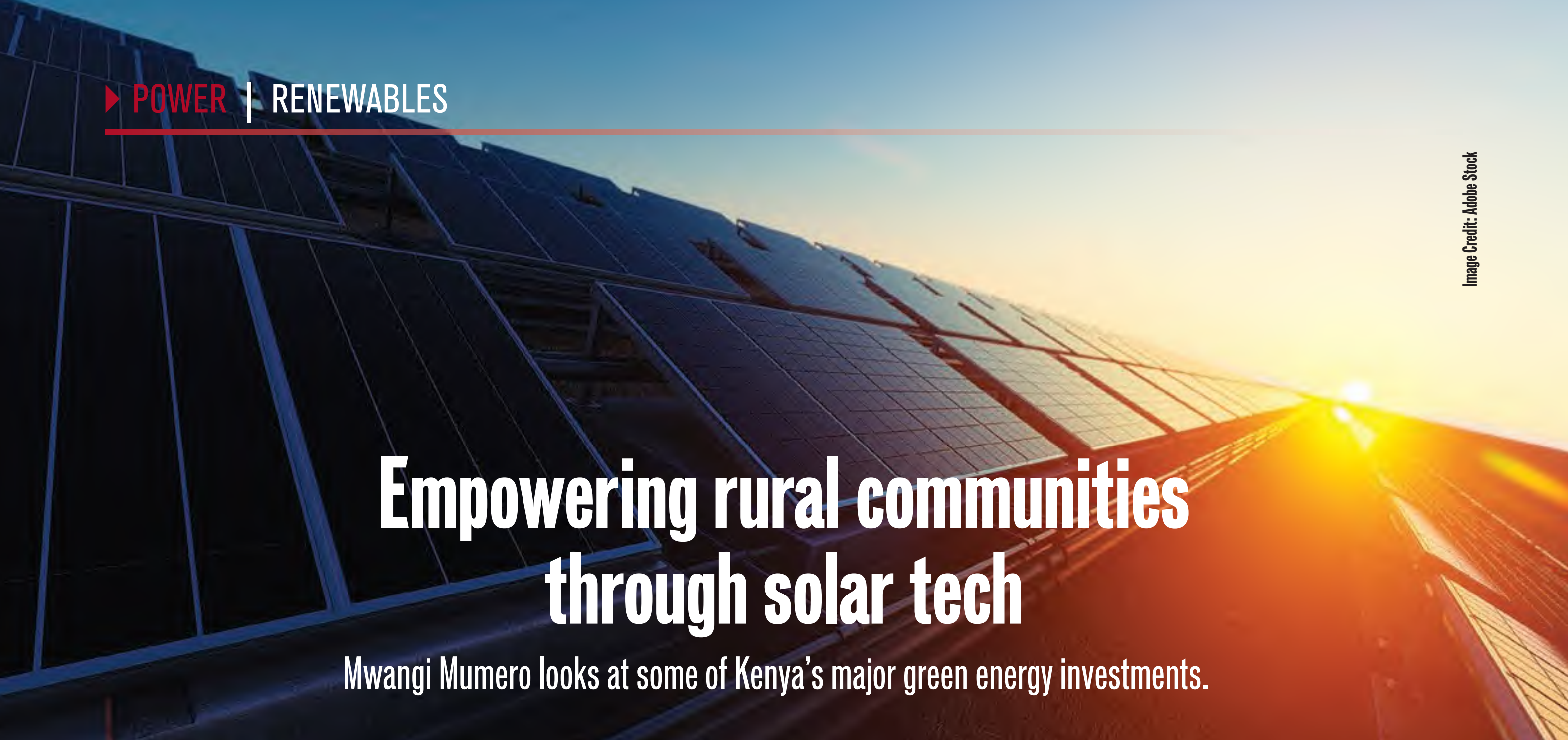


Image Credit: Adobe Stock

Empowering rural communities through solar tech

Mwangi Mumero looks at some of Kenya's major green energy investments.

Kenya continues to attract huge investments in green energy as it shifts its reliance from thermal energy to cheaper renewable sources, such as geothermal, solar and wind energy.

In 2018, the country attracted US$1.4bn in investments, according to the United Nations Environmental Programme (UNEP), the highest such investments in Middle East and Africa.

Recent data indicates that reliance on thermal power has dropped from 24.5 per cent in December 2017 to just 9.6 per cent this year.

On the other hand, geothermal accounted for 44.6 per cent with hydro power at 29.8 per cent, according to data from the Energy Regulatory Authority.

By mid-2019, renewable energy sources accounted for 87 per cent of Kenya's energy mix.

The UNEP report indicated that the US$1.4bn investment was split evenly with US$486mn slated for geothermal, US$476mn for wind and US$467mn for solar power development.

The 83MW KenGen Olkaria I Unit 6 geothermal plant attracted the largest deal at US$366mn. On the hand, Actis Kipevu wind farm at the Kenyan coast attracted US$333mn in investment.

Overall, increased investments boosts Kenya's quest for cheap and affordable power moving away from expensive thermal priced at Ksh 15 per kWh compared to wind at Ksh 8 per KWh.

In the middle of this year, the US$680mn Lake Turkana Wind power was inaugurated by Kenya's President Uhuru Kenyatta.

The 365 turbine wind farm is delivering 310MW of renewable energy to the national grid.

The Lake Turkana Wind Power station is owned by a consortium of seven investors that include Vestas, Aldwych Turkana Limited, KP&P Africa B.V, Danish Climate Fund, KLP Norfund Investment of Norway and FinnFund from Finland.

Currently Africa's largest wind farm, the power station will boost green energy production in the country and help the nation's dynamic 2018/19 economic growth estimated at 5.7 per cent, according to the World Bank.

Its power output – 15 per cent of the national installed capacity – is connected to the national grid through a 428km power line from the power farm, located near the Ethiopian border, to a Suswa township, near Lake Naivasha, about 80km west of capital city Nairobi.

"Without doubt, Kenya is on course to become Africa's largest renewable energy source. We have raised the bar as we unveil the single largest wind farm," observed President Kenyatta during the inauguration of the project.

According to the UNEP report that tracked global trends in renewable energy investments, Kenya overtook Egypt, United Arab Emirates, Jordan and Rwanda to join the top six ranking. However, the country trailed South Africa and Morocco at US$4.1bn and US$3.1bn respectively.

Kenya also earned UNEP recognition for increased installation of small-scale solar systems.

A number of investments on small solar systems dot the countryside especially in far flung off-grid regions.

Dubbed the largest solar project in East and Central Africa, the 45.6 MW Garissa plant, in north Eastern Kenya has helped to cut dependency on thermal power in an area that has been off-grid for decades.

Located near the Somali border, Garissa Town receives more than 300 days of sunshine as the region lies in arid and semi-arid region.

The Garissa solar plant is owned by the government through the Rural Electrification and Renewable Energy Corporation (REREC).

The firm plans to set up 147 small solar plants in off-grid towns, with the aim of lighting up the majority of homes. The target towns include off-grid towns of Mandera, Garissa, Turkana, Wajir, Lamu and Tana River.

Private investors have also shown increased interest in solar energy production.

Early this year, InfraCo Africa, part of the Private Infrastruture Development Group (PIDG), signed a US$2.2mn with Gigawatt Global for the development of Samburu Solar and Transmara Solar projects.

Each plant will generate 10MW of clean reliable electricity.

"Through the Samburu and Transmara projects, this alliance will demonstrate how solar can act as an essential cornerstone to empower rural and under-served populations," said Josef Abramowitz, CEO of Gigawatt Global.

Similarly, four global lenders are investing US$150mn in two solar plants near Eldoret town in northern Rift valley. The firms include the European Investment Bank (EIB), the Dutch Entrepreneurial Bank, Denmark Frontier Energy, DL Group of Companies and Paramount Bank.

A Spanish contractor Grupotec, is carrying out the construction and the two plants are expected to be operational by mid next year.

Solar experts reckon that Kenya, like most African nations, has a high potential to generate solar energy given high radiation levels from the sun throughout the year.

"One of the key policies that accelerate the pace of investments in renewable energy was the Feed-in-Tariff (FiT) policy. It allowed power producers to sell renewable energy generated electricity to an off-taker at a pre-determined tariff for a given period of time-guaranteeing investors their profits margins. It also stabilised prices," noted Tina Nduta, from Extractives and Energy Network Africa.

Even with these reforms, other studies have indicated gaps in Kenya's energy sector investments.

According to a recent World Economic Forum (WEF) Global Competitiveness Report, Kenya can has reached 65 per cent electrification rate. Yet about 30 per cent of Kenyans still did not have electricity by 2018.

Long power lines meant low efficiency, with the report noting that nearly 20 per cent of electricity is lost during transmission.

Despite this, these challenges present room for further growth and investment. ■

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Africa’s genset market warms to new competition

Chinese players are competing for a slice of Africa’s lucrative genset market, but long-established brands remain strong.

Image Credit: Power Systems Squared

High demand for power continues to be a prosperous market for genset makers.

Africa’s major industries – from mining and oil and gas, to construction and manufacturing – continue to provide a ready source of work for genset providers.

While major international players such as Caterpillar, Perkins and Aggreko are thriving, in recent years it has become a more competitive market with the arrival of leading players from China tracking opportunities in high-demand territories like Nigeria.

The strong presence of Chinese firms at leading business events, such as September’s big ‘Power Nigeria’ expo, underscores the shift.

They include the likes of Green Power Utility International (GPU) which had a presence at the Lagos event to reaffirm its commitment to the market.

A subsidiary of Chinese heavyweight, Jinan Diesel Engine Co. Ltd (JDEC), the company is already a well-known gas and diesel manufacturer in Nigeria, supplying individual generators and providing turnkey multi-engine power plants with full service and support.

GPU has set up 14 power plants already with a total capacity of over 100 megawatts (MW). It has also set up service bases across strategic industrial zones in Nigeria and has sold more than 100 engines in the last six years to major clients from both the private and public sector.

These include industrial firms such as Crown Flour Mills, where GPU has provided genset power services to both its Warri facility in Delta State, and at Tincan in Lagos State.

Its diesel genset range offers power solutions to both homes and industry from 13.5kVA to 5000kVA.

Its ambitions are also underscored by its powerful parent company, itself a part of the vast state-backed China National Petroleum Corporation (CNPC) oil conglomerate.

JDEC has established itself as a major player in Africa with successfully completed projects not only in Nigeria, but also in Chad, Niger, Tunisia, Sudan.

The group says it is keen to further expand its footprint across the continent. This could build on its existing profile in the oil and gas industry, especially in some of Africa’s emerging markets.

In Niger, JDEC has established a power plant for an oil field in a desert area, with six 1200kW gas generators, used as the main source of power, plus a single 800kW diesel unit. It is also operating five units of 1000kW, 6.3kV diesel generators in Chad, one of Africa’s better known oil territories.

> “Due to growing power demand in Nigeria, our objective is to expand our production”
>
> **COMPANY SPOKESMAN FROM INDORAMA**

Wahgnion mine

China’s advances in Africa’s genset market have been undertaken in close collaboration with expert partners, however.

One UK-based specialist, Power Systems Squared (PS^2) recently teamed up with E-GEN, the exclusive distributor for CNPC’s Jichai brand in the UK.

Jichai is currently one of the world’s largest engine manufacturers.

The deal will focus on the sale and installation of its engines into the UK, but PS^2 brings with it a wealth of additional experience as a long-established player in Western and Southern Africa’s power industry, where it works with other big names.

This has typically meant installing large islanded heavy fuel oil (HFO) and distillate fuelled engines for off-grid applications such as gold mines.

The company recently completed the Wahgnion 21 MWe installation in Burkina Faso.

This site now relies on six 3.6 MWe CAT HFO engines plus three 1000 kWe high speed black-start CAT engines.

The Wahgnion mine, located 510km southwest of Ouagadougou, is a project by Canada's Teranga Gold Corporation.

The availability of power undoubtedly played a major part in the smooth opening of the facility, which saw first gold pouring this August, two months ahead of schedule.

The Canadian gold miner, which only achieved financial close on the project in 2018, is also considering a possible future interconnection with the Burkina Faso national electricity supplier Sonnabel network going forward.

Over the last 15 years, PS², based in Guildford, has designed, installed and operated multiple projects for remote mine sites generating hundreds of megawatts worth of critical energy.

Robust demand

Despite the in-roads made by China and other international players in recent times, major brands like Caterpillar remain very strong, especially in the provision of large-scale power plants to remote sites like mining installations and oil and gas fields.

Another well-established UK provider in this segment is Aggreko, which has likewise enjoyed robust growth in Africa through the years.

Its Power Solutions Industrial division saw revenue growth in Africa increase by 29 per cent in the first six months of 2019, driven by Nigeria and industrial projects in the Democratic Republic of Congo (DRC).

The demand for this electricity is, as ever, driven not just by new projects and generally rising demand in the continent, but also by Africa's woefully inadequate grid-based power infrastructure.

Aggreko's Power Solutions Utility division similarly reported a strong order intake for the utility sector with a 60MW project in Gabon and a 60MW project in Senegal.

Another company that is supporting major industrial sites that require their own power supply is GE Power which recently upgraded the first two of six 6B gas turbines for Nigeria's Indorama Eleme Petrochemicals Limited in Rivers State.

The upgrade has boosted the plant's output by 15 per cent per gas turbine.

"The growth in production is directly proportional to an increase in power needs and operational costs," said a senior management official at Indorama. "Due to growing power demand in Nigeria, our objective is to expand our production. GE's technology will help us mitigate costs while ensuring there is enough power to support increased production at a lower cost."

Once again, at the root of the problem is high demand and inadequate grid-based supply, a perennial problem facing all Nigerians.

Until this can be resolved, the outlook for genset makers remains upbeat. ■

By Martin Clark

DECADES OF INNOVATION DRIVING WEG PRODUCT EFFICIENCY

Africa has embraced the innovation that drives WEG products and services, with customers seeing value in constant technological improvement.

Siegfried Kreutzfeld, CEO of the South African based Zest WEG Group, explains WEG is quick to introduce its products into the African market, sometimes before launching abroad.

"We pride ourselves on the significant investment we, as WEG, make in research and development," Kreutzfeld said. "About 2.6 per cent of our net revenue is ploughed back into continuous product improvement as well as new development."

The result of this intense commitment to innovation is that 43,7 per cent of all WEG products sold in 2018 were launched in the last five years. Another indicator is that Brazil-

Image Credit: Zest WEG Group

A view of the WEG variable speed drive assembly line.

based WEG Group holds 174 patents that are used on its products.

Significantly, this has placed WEG among the thousand most innovative companies in the world, ranked by The Global Innovation 1000 of 2014. This world ranking evaluates the total R&D investments of each company, including the strategy, purpose and success of these investments.

"More than 35 years ago, we led the way in South Africa by introducing reliable high performance motors into the mining sector," he said. "Today, we have a solid market share on the continent based on the trust we have built with our customers. This relationship makes it easier to introduce and test new WEG technologies in Africa."

While improving its products, WEG monitors how they perform in the field, Kreutzfeld notes. "An indicator of the confidence we've in WEG technology is that we provide a five year warranty on WEG motors," he added.

SIEMENS' GEARLESS DRIVE TECH POWERS CONVEYOUR

Siemens Gamesa has pledged its further commitment to the growth of clean energy in Egypt through the construction of the 250MW West Bakr Wind project, which is owned by the renewable power generation company Lekela. Siemens Gamesa will install 96 SG 2.6-114 turbines through a turnkey EPC contract and will provide long term maintenance through a 15-year service agreement.

Alfonso Faubel, SGRE Onshore CEO, said, "We are proud to have been selected to contribute to the ambitious goals in renewable energy the government has set for the coming years. Our aim is to support the government to deliver long term and lasting impact for our communities, environmentally, economically and socially."

The first wind turbines will be delivered in mid-2020 and the project is set to be fully operational in 2021. The Power Purchase Agreement and Network Connection Contract was signed by Lekela with the Egyptian Electricity Transmission Company and the New and Renewable Energy Company Authority earlier this year. The West Bakr Wind project, situated 30km north-west of Ras el Ghareb, in the Gulf of Suez, will produce more than 1,000 GWh per year, powering more than 350,000 homes and saving around 550,000 tonnes of CO2 emissions annually.

All civil and most electrical and logistical work will be handled by local subcontractors and the majority of the wind turbine towers will be produced in Egypt. In total, 70 per cent of the project construction scope will be delivered by local subcontractors, which will also help bolster the local economy.

University upgrade calls for Trafo solutions

Dry-type transformer specialist Trafo Power Solutions has supplied four purpose-designed units to the University of Witwatersrand (Wits) as part of the institution's electrical infrastructure upgrades on its Braamfontein and Parktown campuses.

According to Trafo Power Solutions managing director David Claassen, Wits decided to replace the original oil-cooled transformers with the dry-type, cast-resin transformers. These are safer and more environmentally-friendly due to the absence of oil in the system.

"The high safety factor associated with dry-type transformers has an impact on flexibility and cost," said Claassen.

"The user can be more flexible in terms of where the units are installed, as they can be placed indoors, in basements or in other confined spaces for convenience. This also means the cost of building special infrastructure for outside installations – a requirement of oil-cooled transformers – can be avoided."

He highlights that Trafo Power Solutions was closely involved from the proposal stage in this project, providing the necessary application engineering to ensure the appropriate design for the generator company responsible.

"As specialists in transformer technology, our expertise is not just in the product that we are installing but also in understanding the bigger picture – the infrastructure requirements as a whole," he says. "Any successful installation is a close collaboration between Trafo Power Solutions, the engineering company, the consultants and the contractors to ensure that the final result is fit for purpose and serves the customer's need."

With the growing installed base of dry-type transformers in the global marketplace, the price differential between this design and that of conventional transformers has become insignificant. This has opened the door for users to take advantage of the numerous benefits of dry-type transformers, he added.

Image Credit: Trafo Power Solutions

One of the 2500kVA, 11kV/420V dry type transformers supplied to Wits by Trafo Power Solutions.

MAN ENERGY SOLUTIONS TO DELIVER GAS TURBINE GENERATORS TO NIGERIA

MAN Energy Solutions has been awarded a contract to supply three MAN gas turbine generator packages to BelemaOil Producing Limited (BPL) in Nigeria.

MAN's power generation technology achieves an important milestone with the first

MGT gas turbine heat and power systems to be installed in Africa. Three packages with the proven single-shaft MGT6000 gas turbine technology will deliver around 20MW to a power plant, which supplies heat and power to BPL oil & gas facilities 30 miles southwest of Port Harcourt in Nigeria. The order for MAN was placed by American EPC and equipment exporter Combustion Associates Inc. (CAI).

Together with Exterran Corporation, the company is responsible for the engineering, manufacturing and installation of the project.

"We have seen the exceptional quality and performance of MAN MGT6000 gas turbines and are confident in placing our first order for them. This is the beginning of a long-term partnership between CAI and MAN and we plan to work together on other power projects in Africa, which is CAI's major market," said Mukund Kavia, CAI chairman.

"We are honored to collaborate with CAI on this important power generation project in Nigeria. This latest contract award and the recently commissioned MGT gas turbines trains in China prove that the benefits of MAN's technology solution are being recognised by the market," said Sebastian Könning, project manager sales for gas turbines at MAN Energy Solutions.

The MAN turbine technology will deliver around 20MW of power, using Dry Low Emission technology and natural gas as a low-emission fuel. The system also features a specifically modified intake air-cooling in order to guarantee a flawless operation despite the high temperatures on site. The set-up comprising


Image Credit: MAN Energy Solutions

MAN's MGT6000 gas turbine.

three gas turbines trains enables a flexible load profile for the operator.

Dr. Sven-Hendrik Wiers, vice president Gas Turbines at MAN Energy Solutions, said, "Both low emissions and high efficiency are becoming increasingly important for gas turbines in the market. With the state-of-the-art MGT technology, our company is able to fulfill these demands and provide a gas turbine family optimised for decentral, flexible and at the same time highly-efficient power generation solution with minimum emissions."

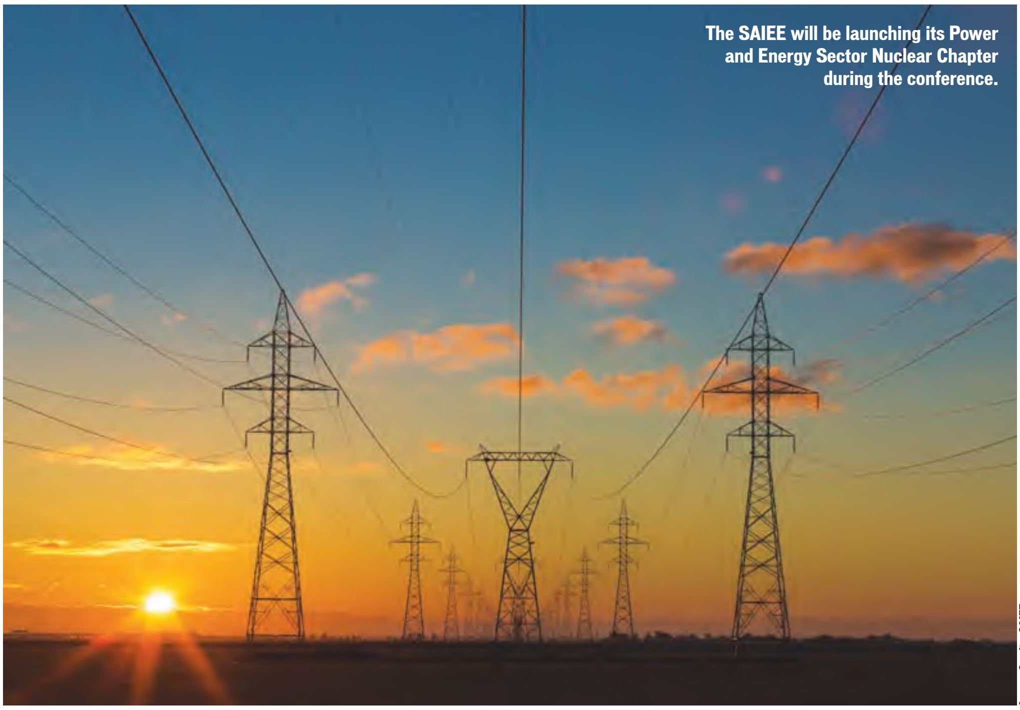
All trains are equipped with an ATU Box (Analytics Telemetrie Unit), which is connected to the new digital platform MAN CEON. The system collects and evaluates operating and sensor data and enables the customer to monitor the machine's operation around the clock and easily request advice for remote support.

MAN Energy Solutions was able to meet the customer need for fast deployment – the delivery of the machines are planned for November 2019. All gas turbines are manufactured in Oberhausen (Germany) and the packaging is done at MAN's Chinese workshop in Changzhou.

CAI's order continues the successful story of MAN's gas turbine business beyond the Chinese market, where recently four gas turbine generator packages have been put into operation in cogeneration plants. The Combined Heat and Power processes (CHP) replace the former coal-based plants, resulting in a significant emission reduction.

Engineering a sustainable energy future

There is very little we can do without engineers in a rapidly changing world. In fact, most of the change we are seeing is being driven by engineers. They bring innovative ideas, that make a positive impact on the world, to life.



The SAIEE will be launching its Power and Energy Sector Nuclear Chapter during the conference.

Image Credit: SAIEE

Engineers make things happen and in a knowledge economy, engineers will become increasingly important.

Whether you read African Union's Agenda 2063 or South Africa's National Development Plan, sustainability is a major energy objective as we look towards the future. How we reach this objective is going to depend largely on engineers. They are going to be responsible for designing and building the solutions were are going to need.

The South African Institute of Electrical Engineers (SAIEE) will be hosting the SAIEE National Conference from 27-29 November in Johannesburg. The solutions-driven conference will, among other, focus on Africa's energy future and how we need to engineer it.

Award-winning business journalist Bruce Whitfield will facilitate a high-level panel on South Africa's power crisis with an esteemed panel of experts. He will be joined by the Deputy Minister of Namibia's Department of Energy, Kornelia Shilungu; the Former Head of Nuclear Energy at Eskom, Dave Nicholls; Thomas Garner from the Independent Power Producers Association; and representatives from Eskom and Council for Scientific and Industrial Research. The panel will look at the current status of the country's crisis and the necessary industry reforms that will help to change the tide towards a better energy future.

Accelerating the transformation of the Energy Supply Industry (ESI) will be in the spotlight with an emphasis on sustainable and renewable energy sources such as solar, wind and hydropower. In addition, delegates can power up on the latest trends and innovations, including the challenges and opportunities that the Fourth Industrial Revolution (4IR) will hold for Africa in the future.

Special satellite sessions dedicated to nuclear will be held during the conference. These sessions will take stock of South Africa's experiences in nuclear science, engineering and technology. The Nuclear Energy Corporation of South Africa (NECSA), the South African Institute of Physics (SAIP), Eskom, University of the Witwatersrand (Wits), North-West University (NWU) and the University of Johannesburg (UJ) will lead presentations and discussions in these sessions.

The SAIEE will be launching it's Power and Energy Sector Nuclear Chapter during the conference. The Chapter will be aimed at promoting scientific growth and achieving its vision of integrating and developing South Africa's nuclear capabilities towards fulfilling the energy objectives of the National Development Plan.

One of the major drivers of the conference is empowerment and change. The SAIEE national conference is bringing together a number of thought-leaders to help inspire a way forward and spark the pioneering spirit of Africans. It is time for us to not just be consumers of innovation, but creators.

We know that the high demand for engineers will continue to increase and, especially in Africa, we need to do more to encourage young people to pursue STEM (Science, Technology, Engineering and Mathematics) careers. We need to do more to empower entrepreneurs who have the specialised skills that we need. We also need to empower our engineers to do what they do best – make things happen. ■

> "The SAIEE national conference is bringing together a number of thought-leaders to help inspire a way forward"

Be part of Engineering an Africa for the Future and register for the 2019 SAIEE National Conference. Visit www.saiee-conference.co.za for more information, including the draft programme. You can follow #SAIEE2019 on Facebook, Twitter and LinkedIN for the latest updates on the conference.

The high quality of Africa's resources make it ideal for exploration and production.

Image Credit: Adobe Stock

How global energy dynamics are shaping the outlook for African exploration

Africa is a continent rich in energy resources, but poor in supply. For most Africans, energy is either unaffordable, unreliable or inaccessible. Boris Ivanov, founder and MD of GPB Global Resources B.V explains further.

Despite having 15 per cent of the world's population, the continent still only consumes 3 per cent of the world's energy, and population growth is likely to outpace even large investment into that economic area. Given that the primary purpose of energy is to promote a better quality of life and improve economic opportunities, the energy sector has so far failed to meet the needs and aspirations of African citizens.

Global energy markets are however undergoing a period of extraordinary change. While the changed supply picture is defined by the recent rise of American shale production, the gradual recovery of the oil price and the rise of exploration for the first time since the 2008 recession could shape a positive outlook for Africa's oil ambitions and its future energy landscape.

The recent dynamics of the global energy market is one of several years of oversupply and increasing demand amidst a weakening global economy. Against the backdrop of these long-term factors, there is also the reduction in investment in major new projects during the economic downturn to consider and the recent events developing in Saudi Arabia, which are still yet to be felt. It's what many experts and consultants now think may lead the market into a long-awaited supply crunch. This will require oil companies to increase production or rely on dwindling reserves. As the FT notes, some companies would need to raise investment into new production by as much as 20 per cent to avoid a supply crunch. A challenge that is further exasperated by the transition many companies are keen to make towards a cleaner energy portfolio.

The historical volatility of the market should therefore be considered as growth continues to move away from developed countries. There is often an overconfidence in the supply side of global energy, because the general public, and even writers who cover the industry, underestimate how much time is needed to address an under-supplied market. People outside the industry itself frequently overlook the reality that upstream development can take years, even in areas with vast potential.

In the meantime, a host of new finds on the continent continues to stimulate debate about Africa's emergence as a big oil and gas player. The scale of the discoveries in Kenya and Uganda had left Total, Tullow, and CNOOC considering investment in a multibillion-dollar pipeline on the east coast, although talks have recently been suspended over a tax dispute. Kenya did sell its first ever shipment of oil last month for US$12mn, but full oil production isn't expected to start until 2022, with a new oil pipeline planned to be built next year. After work stalled in Uganda, Wood Mackenzie's Jon Lawrence told the FT that he believed there is "an over-optimism in the market both about the ease and time needed to develop east Africa's big discoveries."

Investing in local infrastructure and creating an appealing fiscal and regulatory regime that align with the long-term interests of private companies are not overnight ventures. This ability to execute across the entire value chain requires good governance and will remain the biggest challenge to the development of Africa's energy market. Yet hosts of new finds across Ghana, Senegal, and South Africa to name a few, as well as the major energy producers Angola and Nigeria, continue to eagerly present the case. Huge Chinese investment has now found its way into Niger and Chad.

The case is further strengthened by the abundant renewable energy that African countries have the potential to harness. An International Energy report has even suggested that by 2040 renewables could provide more than 40 per cent of Africa's power. Foreign investment into the continent and subsequent economic growth could provide a model that allows the region to remain a committed exporter to global markets without neglecting the energy requirements of the region itself.

> "There is an over-optimism in the market about the ease and time needed to develop east Africa's big discoveries"
>
> **JON LAWRENCE, WOOD MACKENZIE**

Also, the new emission standards to be announced by the International Maritime Organisation in 2020 are likely to spark a demand for IMO-compliant products, curb the use of ships and disproportionately affect Middle Eastern crude oil, which is high in sulphur. Comparatively, the high quality of Africa's resources and its strategic location between all the major energy import markets of Europe, America, and Asia make it prime for exploration and production.

This has already attracted the supermajors to the African shores. BP has begun exploration off the coast of Côte d'Ivoire where Tullow has been granted a licence, while ExxonMobil has entered Ghana, Namibia and set up an offshore site in Mauritania. After nine years of presence in Africa, we have visited 48 of the 54 countries. In our experience from operating across the continent, we've found reliable partners who have the knowledge, strategic vision, and appetite for foreign investment that can develop growth. If a supply crunch does emerge and keeps prices high, the rationale to invest in exploration and production will shape the outlook for Africa's energy market. ■

TWO TCP GAS LIFT JUMPERS DELIVERED TO WEST AFRICA

Airborne Oil & Gas has secured a contract with Addax Petroleum which will see the firm delivering two gas lift jumpers in West Africa. This will result in its thermoplastic composite pipeline (TCP) products becoming a permanent application in the region for the first time.

The Netherlands headquartered business will supply two, 180m-long TCP Jumpers to support the Sinopec subsidiary's operations in the Okwori field, off the coast of Nigeria, within an eight-week timeframe.

This is the first time one of its TCP technologies has been ordered through its newly launched "jumper on demand" service which sees long lengths of its jumpers being manufactured, prepared with dedicated end-fittings and held in stock. This allows for a significantly improved turnaround of pipe supply, termination and installation in any location.

Image Credit: Airborne Oil & Gas

A TCP Jumper being prepared by Airborne Oil & Gas for deployment in West Africa.

The scope of work marks the second order for its TCP products in Nigeria this year. The first was for a TCP Jumper Spool which is expected to be deployed by a supermajor in the region later in the year.

TCP is a non-conductive, non-corrosive flexible pipe that can be installed subsea easily through subsea pallet or off the back of a vessel from a reel, avoiding expensive metrology and reducing the project throughput time. Airborne Oil & Gas' TCP products can be (re)terminated in the field in a matter of hours, providing flexibility and de-risking the project schedule.

Addax technical advisor, Tony Kirkby, said, "The flexibility and ease of re-termination makes TCP a great product for gas lift and other applications within Addax in Nigeria. It allows us to cut pipe to length and install quickly, thereby ensuring that production is maintained with minimum disruption."

1ST HIGH PRESSURE & OIL-FREE COMPRESSOR

With the integration of the former HAUG Kompressoren AG, Sauer Compressors has significantly extended its portfolio to include solutions by the industry's leading expert in oil-free air and gas compression. The HAUG.Sirius NanoLoc is the first compressor that combines high pressure with oil-free compression.

Both the crankcase and the compressor stages operate without any oil. This ensures highest gas and process purity. Therefore, the compressors are an ideal choice for sensitive applications such as industrial gases, medical applications and bio technology, as well as the chemical, pharmaceutical and food industries.

With its hermetically gas-tight construction, the HAUG.Sirius NanoLoc achieves extremely low leakage rates of <0.001 mbar l/s and enables 4-stage compression of almost any gas. The compressor delivers a flow rate of max. 66 Nm^3/h and a final pressure of up to 450 barg with an inlet pressure of up to 30 barg. Depending on the configuration, it comes with a motor power of 11-30 kW. In addition, the HAUG.Sirius NanoLoc is ideally suited for booster applications of gases such as helium, natural gas or hydrogen.

The well-proven magnetic coupling drive adds to the machine's exceptional gas-tightness both at standstill and during operation. The technology is a core feature of the HAUG.Sirius series. Due to the newly developed and unique NanoLoc® piston design's friction-free sealing, wear and friction losses in the cylinders have been reduced significantly. Likewise, all the compressor's components are designed for a particularly long service life.

In-wheel motors for autonomous driving

Aptera Motors, maker of the world's most efficient passenger vehicles, has teamed with Elaphe Propulsion Technologies on a volume production vehicle powered by in-wheel motors.

In-wheel-motor technology affords Aptera advantages that would be impossible with other propulsion systems: enhanced aerodynamics, lighter overall vehicle weight and much-improved handling, resulting in industry-leading mileage and safety.

In combination with Aptera's already low-drag aerodynamics and lightweight construction, Elaphe's compact, high-torque in-wheel motors enable sub 100Wh-per-mile energy usage – lower by a factor of four than that of the average electric vehicle. Precise torque vectoring maximises aerodynamics by allowing small steering changes to be made at speed without having to physically turn the wheels, leaving airflow around Aptera's front suspension undisturbed. Vector steering control likewise eases slow-speed turning without the need for bulky power steering.

Finally, the system ensures optimal driving and parking performance in even the most difficult of conditions, including ice and snow.

The effectiveness of Elaphe's direct-drive, in-wheel propulsion motors has been demonstrated in the Smart Fortwo, the BMW X6 SUV, the Audi R8, a PSA Groupe urban mobility vehicle and 40 other vehicle platforms, including public transportation. In recent track testing, Elaphe achieved a sub 3.5 sec 0-100 km/h acceleration time – the fastest ever recorded for such an application.

"Elaphe is a perfect match for Aptera," said the company's CEO, Gorazd Lampi. "We provide the packaging versatility and turning needed to enable Aptera's industry-best efficiencies. Our technology integrates seamlessly with their co-pilot autonomous driving solution, providing feedback data, unprecedented responsiveness and enhanced vehicle control in any driving condition. Having tested Aptera's first vehicles back in 2010, it's great to finally collaborate."

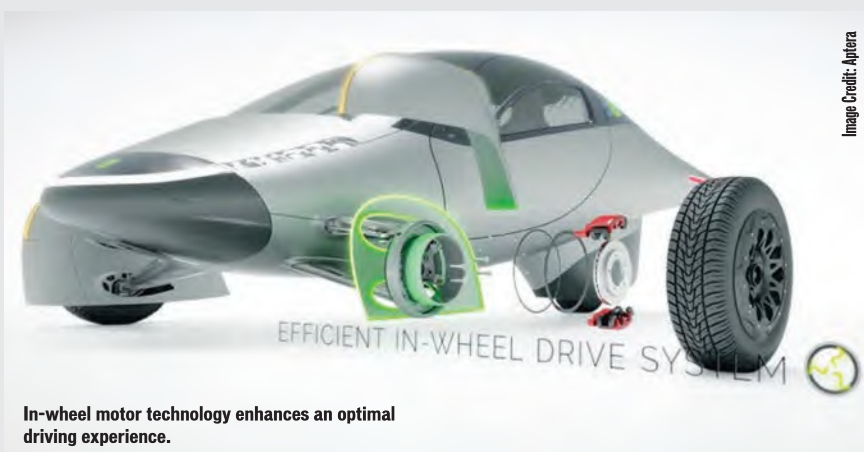


Image Credit: Aptera

In-wheel motor technology enhances an optimal driving experience.

Africa needs to decentralise its grid to improve distribution problems

Grid modernisation, specifically the deployment of microgrids in rural areas, provides a promising strategy.

Electrification is an on-going and foundational investment, and a necessary one to realise all modern-day development objectives. Despite bullish policies, the fact remains that more than 640 million Africans lack access to electricity. The effect of this is apparent. It impedes economic growth; it inhibits the advancements of self-reliant local communities, and it threatens national security. African governments are rethinking their electrification plans. Grid modernisation, specifically the deployment of microgrids in rural areas, provides a promising strategy.

The centralised utility model is not adequately serving Africa's needs

Attempting to replicate the centralised utility models implemented in the USA and Europe has not succeeded in improving energy access across the continent. Despite this, it seems many governments and utilities wrongly maintain the position that the expansion of the traditional grid infrastructure is the solution. In areas where communities have access to the central grid, they still have to supplement the intermittency of the power with diesel generators. On the flip side, the utilities are financially strained because they are unable to collect revenues from their customers. The low rate of revenue collection is due to the unsustainable tariffs the providers impose on customers as a result of the political pressure exerted on them. This results in the utilities being unable to finance upgrades in infrastructure, further exacerbating the issues.

Those who favor the expansion of the central grid as the most effective means of increasing rates of electrification face the challenge of reconciling two contradicting positions. The first position is that increasing access requires lowering tariffs. The second position is that lowering tariffs will intensify the financial stress utilities are currently under. Neither of these positions is sustainable. The incorporation of microgrids into a hybrid system of electrification is the best solution.

Grid modernisation and microgrids

Microgrids are small-scale power grids that run on a combination of solar, wind, or biomass or fossil fuels to provide reliable power. They operate either independently from the main grid or can be synched to it at the same voltage to shift the energy and respond to peaks and troughs in supply and demand. This ensures there is no interruption in power supply, allowing communities to be more energy independent by cutting costs and providing reliable energy access.


Image Credit: Africa Energy Chamber

Anastasia Walsh.

Productive use of energy is critical

The off-grid solar lighting market is thriving thanks to the falling prices of renewable energy equipment. The solar lighting market has been bolstered by widespread deployment of pay-as-you-go (PAYGO) payment systems that utilise mobile-money technology. These solar devices provide sufficient generation for low consumption needs like household lighting and the use of small household appliances. Despite its attractiveness to householders, off-grid solar lighting is currently not scalable. The deployment of microgrids will be necessary to provide the adequate output required to power commercial businesses, hospitals, schools. Demand for electricity from small industry and business, which is classified as the productive use of energy will determine the success of microgrids; without this demand, the deployment of microgrids will not be financially viable. Ensuring the productive use of energy enhances the economic and social development impacts of microgrids and rural electrification in the wider context.

Leading the way: Kenya and Nigeria

Africa is forecast to be the world's fastest-growing market for microgrids at a Compound Annual Growth Rate of 27 per cent, representing 1,145MW by 2027, with Kenya and Nigeria leading the way.

With strong renewable energy and microgrid policies, Kenya has doubled its energy access rates since 2014. To reach its goal of 100 per cent electrification by 2030, Kenya should implement a hybrid-decentralised system. This entails a combination of traditional utility distribution and the deployment of an extensive network of microgrids. The use of mobile money in the region, if harnessed correctly, will provide the best means of collecting payment of energy bills. Nigeria similarly has ambitions to drastically increase their generating capacity by 2030 with 30 per cent of that planned to be from renewable sources. Microgrids are expected to provide 5.3GW of this increased generation capacity.

Nation-specific policies

To improve energy access, African nations should consider incorporating the following into their policies: First, targeting rural populations for distributed energy via microgrids; then implementing low-cost and low-barrier permitting and licensing rules with standardised quality control and operating requirements; and finally ensuring that electrification strategies are financially viable.

Decentralised/ hybrid solutions such as microgrids are the most cost-effective solution. The PAYGO business model provides an efficient means for project developed to collect revenues from their investments. Despite the tendency to paint all sub-Saharan countries with the same brush, as it relates to electrification rates, this is especially inappropriate. When it comes to implementing electrification and grid modernisation strategies, policymakers should consider their countries unique geography, natural resources, climate, population density, and power demand patterns. ■

By Anastasia Walsh, international energy

Doosan Bobcat announces the opening of its headquarters in the EMEA region

Doosan Bobcat EMEA has announced the opening of its headquarters for the EMEA region (Europe, Middle East and Africa), marking a further expansion into the Czech Republic.

As part of its Dob ĭš campus, the newly erected building houses the company's management and other employees and complements the production plant and the training and innovation centre, where Bobcat machines are created for Europe and the rest of the world.

Image Credit: Doosan Bobcat

Doosan Bobcat EMEA's new headquarters in the Czech Republic.

This year alone, the company's investments in Dob ĭš will reach EUR 20mn (US$22mn).

In 2018, Doosan Bobcat's revenue for the EMEA region amounted to EUR 765mn (US$843m), with the Dob ĭš factory producing a record 17,206 machines. This year, the company plans to increase production by 20 per cent and break through the barrier of 20,000 machines for the first time.

Bobcat's history dates back 60 years and has become synonymous with skid steer loaders in most of the world. It has been operating in the Czech Republic since 2001. A major development came in 2007 with the construction of a new production plant for loaders and mini-excavators and the takeover by the global Doosan Group. In addition to the new production capacities, Doosan Bobcat has also built an extensive training centre and an innovation centre. The development of the campus is crowned by the opening of the company's EMEA headquarters, which moved from Waterloo, Belgium, to Dob ĭš.

Worth EUR 10 million, (US$11mn), the three-storey headquarters building covers a surface area of 1,561m2 and will offer more than 3,370m2 of office space for 200 employees.

Gustavo Otero, president of Doosan Bobcat EMEA, said, "With the opening of the headquarters in Dob ĭš, we are completing an investment which – thanks to the concentration of development, production and management of the company in one place – is of socio-economic importance for the whole region and exceptional within our industry. During Doosan Bobcat's operations in the Czech Republic, we have invested approximately EUR120mn, increased production five-fold, and more than tripled the number of employees. In the future, we expect a further recruitment of blue-collar professionals and expert positions in development."

NIGERIA SIGNS DEAL FOR ABUJA-ITAKPE RAILWAY

Nigeria has awarded a US$3.9bn contract to the China Railway Construction Corporation Limited (CRCC) for the construction of the Abuja-Itakpe railway, according to local media reports.

"The signing ceremony that we had today is the first Public Private Partnership (PPP) railway agreement for Abuja-Itakpe or Abuja-Baru-Itakpe and Lokoja. Part of the agreement is that CRCC will provide us with a performance bond from their bank before we give a sovereign guarantee for them to be able to borrow the 75 per cent," said Transport Minister Rotimi Amaechi.

The agreement will include the construction of the Warri Port, which the CRCC will operate alongside the railway. CRCC will hand over the facility to Nigeria which has a 15 per cent share, under the 30 year PPP agreement."The entire railway for now in Nigeria is constructed 100 per cent by CRCC. I think that the good working relationship we've had with CRCC is the reason we haven't been able to engage other companies."

AFDB APPROVES LOAN FOR 'GREAT NORTH ROAD' PLAN

The Board of Directors of the African Development Bank (AfDB) Group has approved loans of around US$229mn to fund the expansion of a highway that links major economic hubs in Kenya.

The approval was granted at a meeting held at the bank's headquarters in Abidjan on 26 September.

The total project cost is US$282mn, of which US$195mn (69 per cent) will be financed by the group, while 12 per cent will come from the Africa Growing Together Fund set up by the bank and the People's Bank of China in 2014. The remaining 19 per cent will be financed by the Kenyan government.

The five-year project will convert the 84km Kenol–Sagana–Marua Road in central and eastern Kenya from a two-way single carriageway into a dual bypass and is due for completion in 2025.

The new road will enhance traffic flow between the port city of Mombasa and major centres like Nairobi. It will also ease transport between Nairobi and the Mount Kenya region; and ultimately Ethiopia.

The current Kenol–Sagana–Marua Road is situated along the "Great North Road", also known as the A2, which forms part of the 800km stretch between Nairobi and Moyale and runs across the five counties of Muranga, Kirinyaga, Machakos, Embu and Nyeri.

Kenol–Sagana–Marua Road is also part of the Trans-Africa Highway, commonly known as the Cape to Cairo route.

According to a project report, the beneficiaries include producers, manufacturers and traders, who will save time and money, thanks to improved access.

AfDB said in a statement, "Building a 21st century road must take into account climate change, which often leads to road runoff, flooding and erosion. In order to counter these phenomena, trees will be planted in the surrounding area."

BRIEFS

Image Credit: Crane & Hoist Equipment

Safe lifting plans are key to a safe work area.

Safety for cranes is critical

Safely deploying tower cranes on construction sites is critical to raise the pace of the project through higher productivity, however any non-compliance with the numerous safety regulations will have the opposite effect, said Brenden Crous, MD of Potain distributor Crane & Hoist Equipment SA."Erecting tower cranes requires experienced crews who undertake the risks related to this activity. One of our main priorities is to control the risks associated with working at height," he said.

Image Credit: Terex Trucks

The TA300 articulated hauler has a new transmission, improving efficiency.

Terex TA300 draws crowds

The Matermaco Group exhibited Terex Trucks upgraded TA300 articulated hauler on their stand A2 at Matexpo, the construction equipment fair in Belgium, in September.

The 28-tonne (30.9 ton) TA300 incorporates a new transmission that leads to a 5 per cent improvement in fuel efficiency and allows operators to be more productive, achieving faster cycle times, lower cost per tonne and reduced carbon emissions.


LIEBHERR
920


LIEBHERR


550


754

Image Credit: Adobe Stock

African construction sector set for rapid growth

Africa has the potential to become an important region in the global construction sector over the next five years. Deblina Roy reports.

There will be a steady acceleration in construction activity in Nigeria over the forecast period to 2022, supported by government efforts to revitalise the economy, by focusing on developing the country's infrastructure.

According to GlobalData, a data and analytics firm, investment in transport (road, bridges and railway) infrastructure in Africa is set for rapid growth from US$47.1bn in 2019 to US$69bn in 2020. The company's latest report, 'African Transport Networks' reveals that growth in transport construction in Africa is being driven by increasing investment in railway projects. Spending will be led by Nigeria, Kenya and Egypt where transport investment will increase from US$7.6bn, US$9.5bn and US$5.6bn, respectively, in 2019 to US$9.8bn, US$8.5bn and US$7.5bn in 2020.

While tracking the 448 large-scale transport projects across Africa worth US$430.3bn in the public and private sectors at all stages from announcement to execution, the firm noted that when completed in their entirety, the tracked projects will total more than 110,000km in length (54,110km for roads, 55,345km for railway and 599km for bridges) of which 75,297km will be newly constructed, 29,197km will be upgraded and 5,561km will have an element of both construction and upgrade, crisscrossing the African continent.

Commenting about the challenges faced by the African construction sector, Yasmine Ghozzi, an economist at GlobalData, said, "Africa's lack of infrastructure is a serious obstacle to growth and development, resulting in a low level of intra-African trade and trade with other regions. The continent accounts for 12 per cent of the world population, but generates a mere one per cent of global GDP and only two per cent of world trade."

A report by Research and Markets showed that with total expenditure on South African construction works and related activities amounting to more than R430.2bn (US$29bn) in 2018, the South African construction sector is of great strategic importance to the continent.

According to the report, the protracted economic downturn and reduced levels of public infrastructure investment have exacted a heavy toll on contractors, including most of the industry's major players, compelling some to focus on different markets and others to file for business rescue. The decline of the industry has been exacerbated by the marked increase in land invasions, acts of violence and extortionist activity on construction sites.

The construction sector employs more than eight per cent of the country's labour force and construction output accounts for around four per cent of gross domestic product (GDP). However, the sector is under pressure as spending on infrastructure declined and the local economy failed to grow and concerns mounted about the expropriation of land without compensation.

According to GlobalData, sub-Saharan Africa will have the fastest growing construction industry among all major regions in the world over the next five years growing on average by a compound annual growth rate (CAGR) of 6.6 per cent a year, from 2018 to 2022.

East Africa

In East Africa, the northern and central transport corridors serve nine countries: Tanzania, Kenya, Rwanda, Burundi, Ethiopia, the Democratic Republic of Congo, South Sudan, Sudan and Djibouti.

According to GlobalData, the northern corridor needs US$1.87bn in financing to make it fully functional, while the central corridor needs an investment of US$1.67bn to revamp the infrastructure and make it fully functional.

In Western Africa, the Abidjan-Lagos Corridor is an essential link in the Dakar-Lagos Corridor, which is part of the trans-African highway of the Economic Community of West African States (ECOWAS) region, whose development is one of the 16 priority continental infrastructure projects identified on the continent's scale.

Major construction projects

The Government of the Democratic Republic of Congo has obtained a grant from the African Development Fund (ADF) and Transition Support Fund (TSF) in various currencies to finance the cost of the Priority Air Safety Project Phase II(PPSAII). A portion of the sums awarded under this grant will be used for the construction works of a control tower/engineering block, construction and equipment of a power plant and construction of a fire station and its annexes at the Mbuji-Mayi National Airport.

The Ministry for Roads and Highways, Ghana, has inaugurated the Tema Community Three Junction road, aiming to ease vehicular traffic flow in the Harbour area.

Togo is expected to receive US$33.7mn loan from the West African Development Bank (BOAD) to fund a road project.

Hydropower

As Ethiopia has targeted energy access for all its citizens to increase power access from 4,566MW to more than 17,300MW by 2025, the country is aiming to build and develop new hydropower, wind, geothermal and biomass projects. The Great Ethiopian Renaissance Dam (GERD), expected to reach 6,350MW, was around two-thirds completed by the end of 2018. The government's Growth and Transformation Plan (GTP) outlines a 15-year strategy with three five-year phases to transform Ethiopia from a developing country to a middle-income country by 2025.

The Mozambique government has issued an extension for the Cahora Bassa hydroelectric power station, providing for a new concession period of 15 years in favour of national company Hidroelectrica Cahora Bassa. The Mpanda Nkuwa plant will be located about 60km downstream of the Cahora Bassa Dam on the Zambezi River, and tenders have been launched for the selection of the transition adviser and project director.

Burundi's second vice-president Joseph Butore inaugurated the construction of two hydroelectric plants in Jiji and Murembwe. Jiji and Murembewe Hydroelectric dams are located in Songa Commune, Bururi Province. ■

Building a world-class data centre in Botswana

The Orange Botswana Data Centre is scheduled for completion in the last quarter of 2019, expected to cover 81 per cent of the population with 2G network capability, 62 per cent with 3G and 45 per cent with 4G.

Construction of the new Data Centre for Orange Botswana is well underway, with this fast-track construction project being undertaken by Concor Buildings set to deliver the Tier III Data Centre before the end of 2019.

The Orange Botswana facility, situated in the Botswana Innovation Hub and Technology Park in Gaborone, will be a central point of connectivity for national and international networking and will provide data services to customers in the region.

Brian Carter, operations director at Concor Buildings, says that with an established track record of delivering quality projects including the recently completed Energy Centre at Bank of Botswana, the company offered the requisite expertise and access to resources including skilled local personnel.

Concor has been active in Botswana for more than 50 years and constructed many buildings in Gaborone and Francistown. This includes I-Towers 1 and 2, the De Beers Global Sightholder Sales Complex, the Bank of Botswana Cash Handling Centre and the FNB Head Office as well as infrastructure for Debswana's Jwaneng Diamond Mine.

The data centre comprises two plant yards, built on either side of the main data hall, to provide concurrently maintainable and fully redundant electrical and mechanical systems to the data centre. The main MEP plant supplying the data hall and other auxiliary facilities are due for installation.

The data centre itself comprises data space – live and future – with electrical rooms on either side facilitating the feeding of the data centre from two sources. Services within the centre include access control, an integrated fire monitoring and alarm system with fire suppression, data trays, air conditioning units, plumbing and drainage and the complete low voltage and medium voltage electrical installation.

The plant yards which feed the electrical rooms are equipped with standby diesel generators, diesel storage tanks and air-cooled outdoor condensers.

External works include the construction of a guard house, parking with carports, bulk diesel and transformer yards, paving, landscaping and perimeter fencing.

Carter says that allowance has been made for future phased expansion in data space and electrical rooms as well in vertical extension.

"While the structure is a standard concrete frame with brick fill, the external walls are cavity walls with an internal vapour barrier. This construction will significantly reduce the building's mechanical and electrical loads making it more energy efficient and ensuring a stable environment for the data hall," he says.

In line with Concor Buildings' operating strategy, Major Incident Prevention (MIP) and Visible Felt Leadership (VFL) programmes are in place on the project. Ongoing safety awareness and risk assessment is further facilitated by a full-time safety officer on the project.

Areas that have received special focus include working at height and activities which need to be conducted in and around the open exterior services excavations on site. These include data sleeves, electrical sleeves, diesel sleeves, fire and plumbing installations and manholes. In addition to this, access to finishes below the 1.2m access floor need to take priority.

While the use of local labour was not a prerequisite on the project, 95 per cent of the onsite people, including employees and subcontractors, are local. Carter says ongoing skills development forms a part of Concor's commitment to the country and the company's sustainability model.

The Orange Botswana Data Centre is scheduled for completion in the last quarter of 2019. The centre is expected to cover 81 per cent of the population with 2G network capability, 62 per cent with 3G and 45 per cent with 4G. ■

The Orange Botswana Data Centre will be a central point of connectivity for national and international networking.

Image Credit: Concor Buildings

Work in progress on the main entrance to the Orange Data Centre in Botswana.

Image Credit: Concor Buildings.

Liebherr wheel loaders

LIEBHERR L500 SERIES

When buying a Liebherr wheel loader, not only do you require a long-lived, high-end product but you also wish to enter into a reliable long-term service partnership. Our service dealership across Africa, Kanu Equipment, offers well trained technicians, state-of-the-art diagnostic software and well equipped workshops for optimum service and quick replacement part provision. This guarantees rapid support ensuring minimal downtime. The models are L524, L538, L550, L566 and L580.

MAXIMUM OPERATOR COMFORT AND PERFECT VISIBILITY FOR MAXIMUM PRODUCTIVITY

The roomy, ergonomic operator's cab offers perfect conditions for comfortable and productive work. The generous glass surfaces of the cab offers exceptional and unobstructed all-round visibility of the machine and working area. This promotes efficiency and optimal productivity. The optional rear space camera enhances safety.

LOW MAINTENANCE AND OPERATING COSTS

Thanks to careful design, taking into account operational requirements, Liebherr wheel loaders offer exceptional accessibility for easy maintenance. This reduces the time taken to perform general services and maintenance. The drive-concept is highly fuel efficient and is unique to this class of product. This reduces operating costs and environmental impact at no matter what the operating conditions.

EFFICIENT MONITORING TECHNOLOGY

Liebherr's data transmission and positioning system (Lidat) facilitates efficient management, monitoring and control of the entire fleet park. Offering comprehensive deployment documentation, quicker overload detection for longer service life and greater planning efficiency.

SINGLE CONTROL LEVER FOR INCREASED SAFETY

The Liebherr control lever allows all working and manoeuvring operations to be performed with a high degree of precision and sensitivity. This means accurate and safe handling, while the left hand always remains on the steering wheel.

POWERFUL AIR-CONDITIONING

Exceptional cooling output in the hottest of conditions allows for greater operator comfort, ensuring higher productivity.

NEW CAT 920K COMPACT WHEEL LOADER

The new 920K compact wheel loader, with a net-power rating of 74 kW (100 HP), reflects significant product enhancements that contribute to high productivity, versatility, operator convenience/safety and serviceability. New features allow operators to tailor machine performance to individual preferences for added operating efficiency, and a choice of auxiliary-hydraulic systems expands the use of work tools for added utility.

The 920K is designed for high tipping loads, enhancing stability when handling heavy loads and various work tools. The 920K features Cat optimised Z-bar loader linkage, designed to provide the parallel-lift capability of IT (Integrated Tool Carrier™) linkage, as well as the breakout force and aggressive digging capability of conventional Z-bar linkage.

The 920K is specifically designed to efficiently handle a range of work tools. Quick-coupler options (including the IT coupler) and screw-to-connect fittings facilitate tool changes. The IT coupler is compatible with legacy Cat work tools and works with a range of attachments, including Cat Performance Series buckets, pallet forks, and brooms.

SDLG L958F

The L958F is a general-purpose loader with high breakout force and high tipping load designed for heavy duty applications. Powered by a Deutz Tier III engine with a rated power of 162 kW at 2,000 rpm, the 5.5 t rated L958F has a maximum bucket capacity of 5.1 m^3 and a maximum dumping height of 3,470 mm. The L958F also features a load-sensing fully hydraulic steering system, which is light, quick and energy-saving.

TELESCOPIC LOADERS LAUNCHED FOR WASTE AND RECYCLING MARKETS

Bobcat has launched the new Waste Expert range of telescopic loaders, introducing a material handling solution for the waste and recycling markets.

A prototype waste machine (based on the TL43.80HF model) shown by Bobcat at the Bauma exhibition was warmly received.

As a result, Bobcat has decided to offer four of the company's current productivity and high-flow telescopic loaders, namely the TL35.70, TL34.65HF, TL38.70HF and TL43.80HF, as new Waste Expert machines, all powered by Bobcat Stage IV 74.5 or 97 kW (100 or 130 HP) engines. These new waste telescopic loaders offer lifting capacities from 3.4 to 4.3 tonne and lifting heights from 6.5 to 8 m.

Bobcat telescopic loaders are well proven in the market as sturdy, efficient and easy-to-operate machines and these are essential features for working in the intensive industrial applications found in the waste management and materials recycling industries.


Image Credit: Bobcat

TL43.80HF model of telescopic loaders.

The company says the new machines are more robust, with heavy-duty Dana Spicer axles and reinforced protection, making them the toughest on the market. They incorporate an extra large boom head, a high tensile steel boom, boom cushioning and protected hydraulic rams under and inside the boom.

Olivier Traccucci, Bobcat Telehandler senior product manager, said, "Waste and recycling businesses need versatile machines that can handle large tasks, manoeuvre well in tight spaces and provide maximum efficiency in full safety throughout the working day. With the toughest design on the market, impressive bucket breakout forces, efficient cooling systems, a low centre of gravity and a long wheel base to enhance stability and lift capacity, our telescopic loaders are suited for the waste and recycling."

NEW CRUSHER WEAR PARTS INTRODUCED

Metso has expanded its crusher wear part offering by launching a new range of OEM crusher liners. Available now for selected markets from September 2019, the new Metso O-Series offers the right balance between performance, affordability and reliability.

"Our customers rely on Metso wear solutions to ensure smooth crushing operations. The specific requirements of the business and process vary greatly from one market and application to another, calling for increased flexibility in terms of operating expenses too.

The Metso O-Series is said to offer a value-priced alternative that is ideal when you need to focus on optimising daily operations, while our premium crusher wears range ensures additional durability, performance and maximum return on investment," said Olli Heinonen, head of O-Series development at Metso.

The Metso O-Series complements Metso's existing wear part offering, enabling the right balance between performance, affordability, secured fit and function for Metso crushers. Utilising the know-how from hundreds of applications combined with extensive experience in developing crushing wear parts, the Metso O-Series range is now available for Metso Nordberg® HP Series™ and GP Series™ cone crushers as well as C Series™ jaw crushers.

"The Metso O-Series was created in close cooperation and dialogue with our customers to especially meet the business requirements in rapidly developing markets. We are excited about this range and the new opportunities to help our customers get better control of their operations without compromising on quality," he said.

Showing the way to local manufacturing

As South Africa looks to revitalise its manufacturing sector in the ongoing quest to create decent jobs, it could take more than a few salutary lessons from home-grown market leader Andrew Mentis (Pty) Ltd, trading as Mentis Sales.

Now the leading supplier of steel grating on the African continent, Andrew Mentis started modestly as a precision engineering works in 1950 by the man after whom the company was named. With its founder's ingenuity and tireless pursuit of quality, the business grew even beyond the country's borders, and now has a significant footprint in Australia and New Zealand.

"Our recipe for success today continues to build on the philosophy of our founder, which includes specialised engineering expertise, innovation, high-quality products and constant investment in the latest technologies," said Lance Quinlan, national technical sales consultant at Andrew Mentis.

The company's unique Rectagrid grating, which it began manufacturing in 1967, remains the leading grating in South Africa. As early as the 1970s, the company invested R1 million in specialised Austrian-built equipment to achieve the quality it sought – giving the business the world's most modern fusion-welding equipment for grating.

"Now more than ever, South African manufacturers need to compete on the global stage, so we need entrepreneurs to follow in the footsteps of our founder Andrew Mentis, who can harness the combined power of skills and technology," said Quinlan. "This needs to be a national focus in the country's efforts to keep local manufacturing vibrant and create jobs in which people can grow their skill-levels."

Andrew Mentis makes a wide range of expanded metal building products and meshes. This includes Interlink tubular, solid and angle iron hand-railing and Die-Line safety walkways.


Image Credit: Andrew Mentis

Excellent non-slip characteristics are one of the advantages the Mentis Die-Line range of safety walkways.

BOMAG SHOWS THE FUTURE OF ROAD CONSTRUCTION

During the Innovation Days 2019, Bomag showcased its complete product range from the 58kg tamper to the 58-ton refuse compactor to more than 1,300 guests at its parent plant in Boppard.

In addition to existing Bomag machines, the company's focus was on assistance systems and service solutions "that will make the construction site of the future possible in the first place".

"The Innovation Days are an important event for us to present the latest developments in road construction to our customers. We are consistently continuing along the path we showcased at bauma 2019," said Ralf Junker, President of Bomag, about the significance of the Innovation Days.

"In our demo and traning centre, we also got the chance to show our visitors the products we presented at bauma in greater detail and live in action. This allows us to demonstrate the entire construction cycle from stabilising and compacting to asphalting and repairing under real conditions."

Image Credit: Bomag

This year's Innovation Days Bomag showed that the company has a solution for every construction site situation.

Bomag has developed two digital tools for optimising construction site processes, which visitors were able to experience live at the Innovation Days: the Android app Bomap for continuous compaction control, and the Asphalt Pro software for planning and optimising building site processes.

The company says Bomap is the solution for the digital earthworks and asphalt construction site with which work results can be documented locally in real time. It documents the passes on rollers from any manufacturer.

Asphalt Pro covers the entire planning, analysis, and documentation process for road construction projects. During the planning phase already, the expected machine use and material requirements are determined precisely.

Economical finishing plaster sets new level

MetaCote is a new, smoother and more economic finishing plaster that promises to take the South African market by storm.

According to Gavin Coulson, managing director of Metadynamics, the innovative product sets a new benchmark for smoothness and consistency. It is a high purity product, containing 95 per cent synthetic gypsum.

"MetaCote is a locally developed, high-strength gypsum plaster used for basecoat and finishing plaster," says Coulson. "In our trials, users have been particularly impressed by its smoothness and longer workability. It has certainly exceeded their expectations."

He says it is ideal as a multi-purpose plaster for internal applications onto brickwork, concrete blocks and dry walling. It is also a perfect finishing plaster for sand-cement base coats. Layers can be finished from 3mm to 6mm in thickness.

"We are sure our competitive pricing will make MetaCote an attractive option for the larger contractors and for smaller and emerging contractors," he said. "We are equally confident that the product will satisfy the end-consumer who wants a superior finish to their structures. It will at the same time add value to the businesses of contractors and subcontractors."

It will be available at major building material retail outlets in 25kg and 40kg bags for easy mobility.

Coulson emphasises the environmental benefit inherent in Metacote. It comprises synthetic gypsum, rather than natural gypsum which has to be mined. South Africa's natural gypsum deposits are located in the Northern Cape which adds transportation costs to the carbon footprint when this is used. The synthetic gypsum used in MetaCote, by contrast, is sourced as a by-product from phosphate fertiliser manufacture.

Image Credit: Metacote

MetaCote is a new, smoother and more economic finishing plaster that promises to take the South African market by storm.

SPLIT ELASTIC COUPLINGS FOR LOW-SPEED APPLICATIONS

The Ringfeder-Henfel-Henflex HDFB split elastic couplings, available from leading supplier Bearings International (BI), are ideal for the most demanding applications in mining, ports, and steel factories. The HDFB couplings are suitable for all low-speed, high-torque applications where minimal equipment downtime is essential.

Developed under the modern concepts of application engineering and advanced 3D project and Finite Element Analysis (FEA) techniques, the HDFB split elastic couplings allow efficient torque transmission through the compression of its flexible elements, which absorb shocks and vibrations from the drive and driven machine, besides compensating angular, radial and axial misalignments.

The couplings feature EM-GJS-450-10 ductile cast iron and polyurethane flexible elements. They can operate within a temperature range of 30°C to 85°C. Advantages include a long lifespan and simple, fast, and low-cost maintenance.

Due to the simple construction, installation is fast and safe. The couplings are available in many sizes, for applications up to 600mm, and a torque capacity from 96.700Nm up to 1 147.600Nm.

Features include radial mounting and dismounting, on-site maintenance, reduced operating costs, no need for special tools, no need for drive or driven machine displacement, alignment preservation, lubrication-free, and interchangeability, according to BI Product manager Hilton Woest.


Image Credit: Adobe Stock

The World Bank approved US$350mn loan facility to improve water supply and sanitation in Tanzania.

Tanzania water investments

Mwangi Mumero reports on government and private investor efforts to supply clean water to the people of Tanzania.

With a population of 57 million, Tanzania continues to grapple with under-supply of water and sanitation services.

According to the World Bank, more than half the population of the country has access to an improved water source at about 79 per cent in urban areas and 60 per cent in rural areas.

Rainfall is unevenly distributed in Tanzania, with some regions receiving 3,000mm of rain annually. Others receive less than 600mm.

During the dry seasons, even the largest rivers dry up, causing serious water pressure on limited springs, boreholes and wells.

According to FAO projections, population growth is expected to cause water stress that will be on average per capita water resources less than 1,500 m^3 by 2025.

With this glaring gap in supply, development partners, donors and non-governmental organisations have in recent years been investing in developing water supply in rural and urban areas.

Take for instance, the 650 residents of Sangara village, Babati district in northern Tanzania. The region has benefited from a US$100,000 water project implemented by WaterAid, Habitat for Humanity, Babati District Council and the Unit Trust of Tanzania.

The project, which has 3.4km of infrastructure, produces 352,800 litres of water per day, an equivalent of 14,700 litres per hour, supplying pipes in households and trading centres using a pre-paid payment module.

"This project aims to sensitise innovators and attract private sectors to invest in sustainable and reliable clean and safe water service in rural areas", observed Abel Dugange, WaterAid director for Tanzania.

According to Tanzania government minister for water services Professor Makame Mbarawa, a total of 482 water projects are to be completed in the 2019/20 financial year.

The government is expected to spend US$276mn, with US$266mn being spent to finance the water projects with the rest going to recurrent and other expenditures.

With most of the funding for water projects coming from government and development partners, officials have decried the low interest in Public Private Partnerships (PPP) from the private sector.

"Despite all the current regulations, investor appetite in the water sector is not promising. To improve the situation, the government continues to improve the PPP system," observed Prof Mbarawa.

Development partners have been the biggest investors in the water sector in Tanzania.

Last year, the World Bank, through the International Development Association (IDA) approved a US$350mn for the improvement of water supply and sanitation in rural Tanzania.

The funding is expected to connect more than three million households in rural areas to safe water supply while another four million will go to improve sanitation.

According to the World Bank, only 11 per cent of rural residents have access to improved toilets with only 50 per cent of public schools in rural areas having the required number. Only 43 per cent have functional hand washing stations.

"There is a strong relationship between water and sanitation access and improved child health education, which is critical for productivity and learning, particularly for girls whose completion rates are lagging," noted Bella Bird, World Bank country director for Tanzania, Malawi, Burundi and Somalia.

Meanwhile, the bank had earlier approved a US$225mn loan to improve water and sanitation services in Dar es Salaam, the capital city, which has an estimated population of 4.4 million.

According to Ms Bird, many Dar es Salaam residents spend considerable time collecting water which takes away time from productive activities.

"The funding will lessen the city residents' burden while contributing to increased competitiveness and productivity as a critical and vibrant commercial hub," said Ms Bird

According to Dar es Salaam Water Sewerage Authority (DAWASA), the current production of water in the capital and the Coast region stands at 502 million litres daily against a demand of 545 million litres.

Meanwhile, a private investor, Msufini Tanzania Limited (MTL) is constructing a chemical plant that will produce materials for disinfection of water in Dar es Salaam.

The plant will produce 2,500 tonnes of chlorine and sodium hydroxide on monthly basis, boosting the efforts to supply clean water for consumption.

MTL is a joint venture between Junco Tanzania Limited and a Malaysian oil and gas services company, Serba Dinamik Holdings Berhad.

Tanzania has received a US$281mn loan from China to implement a water project in Mtwara, in southeastern Tanzania.

With its completion, the project will supply the Mtwara region with 120 million litres of water daily from River Ruvuma – enough to cater for industrial and domestic users. Currently, the region only receives 60 million litres.

A low- interest loan from the European Investment Bank and the French Development Agency is funding a water project in Misungwi region, near Mwanza.

Construction work is being carried out by the China Civil Engineering Construction Corporation and upon completion, the project is expected to benefit more than 50,000 people.

Another Chinese company STECOL is involved in construction works at the Zanzibar water supply project. It involves the construction of high-level elevated tanks, a 68.64 long water supply lines and other ancillary facilities. Two tanks – a 1,000 cu/m and a 2,000 cu/m – are underway.

Zanzibar

In Zanzibar, the island archipelago, the African Development Bank, through its Rural Water Supply and Sanitation Initiative (RWSSI) program is undertaking a five-year water and sanitation improvement.

Through this programme, 76 per cent of the Zanzibar islanders – the vast majority of who live in rural area – have access to safe water.

The African Development Bank has invested US$54mn into the project that has supported the construction of nine rural water supply schemes in the regions of Unguja and Pemba.

So far, 64 boreholes and 24 rainwater harvesting points that now serve rural villages have been completed.

At least 125,000 school children have benefited from this project.

Last year, a US$226mn water project was launched in Arusha, northern Tanzania. Funded by the African Development Bank (AfDB), the project involved construction of 56 wells for clean water production.

According to Luth Koya, the director general for the Arusha Urban Water Supply and Sanitation Authority, the wells will have a capacity to produce 2 million litres of water per day against the Arusha City Council demand daily of 940,000 litres.

For instance, one well at Kimnyaka village has the capacity to produce 400,000 litres per hour- meeting the demand of local people. On its part, India has signed a line of credit of US$92mn for further improvement of water supply in Zanzibar.

Prime Minister Narendra Modi announced in July 2016 that his country would consider additional financing of US$500mn for other projects across Tanzania.

The government of India has given a US$1.14bn loan for the implementation of water supply projects in 26 towns in the country.

According to the water ministry, the government is hiring a consultant to conduct a feasibility study on selected towns on where the projects will be implemented.

Among other large projects funded by Delhi include the water supply project from Lake Victoria to Tabora in north-western Tanzania and to neighbouring regions of Nzega and Igunga, at a cost of US$ 263mn.

On its part, the USA, through the United States Agency for International Development (USAID) is implementing a US$48 mn water project in rural Tanzania.

The Water Resources Integration Development Initiative (WARIDI) initiative will involve 16 water project in the 2017/2018 period and a further 34 projects in the 2019/21 period.The 16 initial projects will benefit more than 160,000 people, according to officials.

The focus area will be on the Wami-Ruvu and Rufiji Water Basins of Tanzania.

By 2021, WARIDI will construct dozens of water systems and train hundreds of local owners to operate them, bringing up to 520,000 people access to basic drinking services.

The activity will also reach 750,000 people with improved sanitation services and practices. ■


Image Credit: Dave Stanley/Flickr

Water privatisation in Dar es Salaam began in 2003. Since then, water users in the city have faced soaring bills and mass disconnections, according to ActionAid UK.

Two new sizes of the Nokian Mine King E-4 tyre for drill rigs and utility vehicle available

The Nokian Mine King E-4 underground mining tyre is one of the of the most specialised products of its kind, according to its producers, and it is now available for a wider range of mining vehicles.

Designed in collaboration with the end-users as well as one of the leading drill rig manufacturers, it has a carefully balanced set of features to match the challenges set by underground mining environment.

The underground mining sets special demands on the tyres. Not only is the environment physically demanding with its sharp, slippery stones, but the limited machine size in tight spaces and high safety demands must be taken into consideration.

When a tyre is designed from ground up for these demanding conditions, it complements the machine, enabling safer and more efficient work.

The Nokian Mine King E-4 tyre.

"One of the starting points for designing the Nokian Mine King E-4 tire was the compact size combined with a good load capacity", says Eva-Leena Varpe, product manager at Nokian Tyres. "This way, the tyre actually helped to optimise the size of a new drill rig model, enabling a more efficient use of space."

Besides drill rigs, the Nokian Mine King E-4 tire lends itself well to other underground uses.

"The tyre has features that will benefit any utility vehicle", Varpe adds. "Grip, safety, puncture resistance, long operating life – we have carefully listened to the needs of the mining industry and created a product to match."

The tyre's sturdy structure enables an operating pressure of up to 10 bars, which improves the load-capacity. The sharp shoulders and large contact area improve the grip on slippery, wet stones.

Another important feature is the cut-and puncture-resistance. According to Varpe, it is a sum of two parts. "You could say that half of the durability comes from the tyre design with thick, sturdy pattern and good self-cleaning properties", she explains.

The initial size for Nokian Mine King E-4 was 14.00-20, but in the fall of 2019 the range will be complemented by the sizes 12.00-20 and 14.00-24. This makes it possible to have the same tyres with the known, predictable features in most of the underground machinery, for example.

CARBON CALCULATOR DETERMINES FUEL SAVINGS WHEN RETREADING

Kal Tire has announced the certification of its new carbon calculator that is able to determine fuel and carbon emissions saved by retreading earthmover tyres compared to buying new.

With that, the company is launching its Maple Program, which quantifies a customer's environmental impact as they grow their fleet with retreads.

"We have long claimed that our retread products are beneficial to the environment, but now we are able to quantify those benefits and recognise customers for opting to retread earthmover tyres," says Darren Flint, vice president, European and West African operations, Kal Tire's Mining Tire Group. "Retreading reduces a tyre's operating cost per hour, and it has become increasingly important to customers to reduce their impact on the environment. We look forward to providing customers with actual data on the environmental savings they achieve."

TECH START-UPS INVITED TO PITCH AT MINING INDABA

Unearthed and Investing in African Mining Indaba have partnered to offer three groundbreaking technology companies the opportunity to raise their profile across the global mining sector by pitching their industry collaboration project at Startups Unearthed Africa, at Mining Indaba on 5 February 2020 in Cape Town.

Startups Unearthed Africa aims to shine the light on partnerships between startups and industry operators or service providers that have delivered value to the resources sector.

Applications are open to any technology company based, or operating, within the African continent, with a case study to share that showcases the adoption of an innovative mining technology solution.

The three successful applicants will access the prospect of presenting to 750 investors and dealmakers.

In addition to awarding three pitching spots, each partnership will receive one full complimentary pass to Mining Indaba that runs for four days from Monday 3 to Thursday 6 February. Finalists will receive recognition and exposure through Unearthed media channels to the mining industry.

Industry Lead – Crowdsourcing at Unearthed, Holly Bridgwater will moderate the session showcasing the top three transformative mining technology case studies.

"We are inviting startups to present with their industry partners on a problem or project that they have worked on together. We want to highlight where resources sector leaders and startups are working together to solve key problems for the mining industry, and show others how it's done," Bridgwater said.

Investing in African Mining Indaba senior conference producer Catriona McDavid said the conference strives to provide a platform for organisations who are affecting change across the mining industry.

BRIEFS

Powerscreen to launch Premiertrak 330

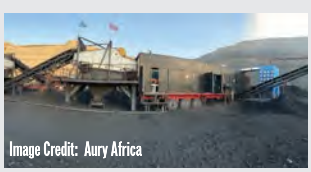
Powerscreen, a global leader in the crushing and screening industry is due to launch the most recent addition to their jaw crushing range – the Powerscreen Premiertrak 330.

The Powerscreen® Premiertrak ™ 330.

The new Premiertrak 330 is fitted with a simple large fixed hopper, manufactured from an 8mm wear plate, improving set-up time, reducing pegging and increasing the life of wear parts. Product manager, Neil Robinson said, "The Premiertrak 330 is a solid addition to the range."

Aury sets up in Mozambique

The growing coal-mining industry in Mozambique has seen the successful establishment of Aury Africa Mozambique Lda in Tete, Aury Africa managing director Sydney Parkhouse reveals.



Aury Africa sees Mozambique as key to expanding in the region.

Establishing a strong presence in the country is an important part of Aury Africa extending its footprint on the continent. "The growing demand requires local expertise to be developed by those with the necessary skills," Parkhouse stresses. The firm also has operations in South Africa.


"No Man is rich enough to buy back his Past"
LAGOS IRISH PUB

Maximising natural resources in mines and quarries

Water use restrictions and permitting challenges continue to increase, making it harder for operations to find ways to stay profitable while using fewer resources. As a result, aggregates and mining operations are moving toward new technology to conserve natural resources while increasing long-term savings and ROI. Here's how:

REDUCE WATER USE

One way the industry has adapted to conserve water is through the use of settling ponds. Advanced washing systems, when paired with a settling pond, can reduce water consumption by as much as 75 per cent over traditional washing systems. This allows operations to cut their water use and limit their water treatment requirements and necessary equipment. It makes an advanced washing system more favourable as governments push aggregate producers to use new technology to meet new restrictions.

Plus, some new washing systems can pump water at very high pressures – as high as 2,000 psi – through spray nozzles at 211 gpm in a matter of seconds. That is a huge benefit to operations running under strict restrictions. The equipment's high-pressure jets effectively remove fines and dirt from deep crevices, such as marine limestone or porous rock. The advanced washing systems can be used to wash prescreened materials, which have small fines sticking to the larger particles. This is accomplished by washing the material initially and conducting a final rinse over a vibrating screen.

CUT ENERGY CONSUMPTIONS

Producers can save as much as 15 per cent in energy costs by switching to new washing systems. Part of this is due to the speed at which the new washers complete a cycle. On average, alternative washing methods, such as log washers, retain materials for three minutes or more while materials stay in a high-pressure washing drum for just seconds.

Before washing the stones.

The stones after washing.

SALVAGE WASTE MATERIALS

Best of all, advanced washing systems can restore value from what might have previously been deemed waste — reducing waste streams and breathing new life into vital resources, while putting more money in the producer's pocket.

Advanced washing systems can do a lot to reduce an operation's environmental footprint, as well as help improve profits. Work with a manufacturer to determine the best fit for each site and its unique characteristics.

By Duncan High, division manager of processing equipment technology, Haver & Boecker.

DELIVERING TECHNICAL EXCELLENCE AT PILANESBERG PLATINUM MINE

Located on the Western Limb of South Africa's Bushveld Complex, the Pilanesberg Platinum Mine recently celebrated 10 years of production excellence which it attributes largely to the technical excellence delivered by its outsourced contractors. Critical to this operation is the upfront dry processing requirement which Raubex Group subsidiary SPH Kundalila has been providing to the mine for the last nine years.

As the mine's longest standing contractor, SPH Kundalila's primary contract entails managing all of the mine's primary crushing requirements. This includes crushing all ROM material from the mine before it is transported to the concentrator. "With our 260 people on site, 75 per cent from the local Bakgatla tribe, we operate four 63 t mobile crushing machines on the outskirts of the pit which have a combined design capacity of 380,000 tpm," said SPH Kundalila production manager Walter Eriksen.

A nine-year relationship, which has seen the company's contract expand more recently, can be attributed to the trust and partnership the company has built with Pilanesberg Platinum Mine but also its high level technical skills set.

"Our crushers have been replaced over the years as the mine's production requirements have grown. Throughout this process we have maintained our machines' high availability thanks to an in-depth knowledge and understanding of the mine's production requirements. To ensure our performance further, we have established on-site technical support infrastructure including a workshop and plus 40 workshop crew. This facility enables us to conduct preventative maintenance equipment routines as well as full services and minor repairs which results in minimal downtime," Eriksen added.

Pilanesberg Platinum Mine has celebrated 10 years of production excellence.

Image Credit: SPH Kundalila

Standing out with the MB-R500 drum cutter

Since spring, a MB Crusher drum cutter MB-R500 has been working in creating the Aldilonda walkway in Corsica. A road that goes around the citadel's ramparts on the seafront. It is a complex and unique site, which is full of technical constraints, but the MB-R500 has been selected chosen to overcome all of these obstacles. With its compact size it was mounted on a Bobcat E85 excavator. It is the smallest model of the MB's line of drum cutters but extremely versatile as it can be fully accessorised. A dust suppressor, drum cover, and a cutting depth adjustment are few of the accessories that can be added in order to customise the unit to the specifics of any job site.

Grinding away the rocks going around the ramparts of the citadel, the location has not represented any complications for the MB-R500. Indeed the access is small and very complicated but the drum cutter makes it possible, and is now successfully shaping the footbridge, which is scheduled to be opened in the first quarter of 2020.

The MB-R500 drum cutter.

Image Credit: MB Crusher

ORE SORTING TECH OPENS UP GOLDEN OPPORTUNITY

Vista Gold Corporation has integrated TOMRA sorting technology in a bid to extract gold from the ore at the Mt Todd project in Australia.

The gold project developer acquired Mt Todd in 2006 and is one of the nation's biggest undeveloped gold resource. It is known for having hard ore and this has presented challenges for Vista Gold over the years.

"We had a desire to find a way to only be spending money to process the rock that had gold in it," explained Fred Earnest, president and CEO of Vista Gold. "We started looking for ways that we could get rid of the non-mineralised host rock prior to the grinding circuit. The company looked at different technologies to address the issues at the Mt Todd project and contacted TOMRA Sorting Mining to find out about its sensor-based sorting technology."

TOMRA invited the Vista Gold team to visit their testing facility in Germany with a sample from the project to see first-hand what could be achieved. The test was an eye opener for Earnest. He said,"When we saw the product sorted and rejected, and when we were able to pick it up and look at it, we realised that this was not just a dream, this was real technology being applied at a production rate to our rock. We realised that this technology would work for us at Mt Todd and that we needed to evaluate it more seriously."

Following extensive testing, Vista Gold has integrated TOMRA's two-stage sorting solution in its flow sheet at Mt Todd: the system sorts 20 tonnes per hour, using X-Ray Transmission (XRT) technology to remove particles with sulphide minerals and subsequently lasers to remove particles containing quartz and calcite.

Nigerian maritime industry: Coastal expansion and economic benefits

Dr Akinseye Olatokunbo Aluko, deputy programme leader in oil and gas management at the University of East London on how Nigeria needs to upgrade its ports to boost its maritime industry.

Looking at the international maritime activities, it is a well-known fact that the international maritime and foreign trade has grown significantly in contributing to the global Gross Domestic Product (GDP) and has efficiently defined the purpose of globalisation in a dynamic global business environment.

All of this has also changed the business dynamics within the international maritime community; giving nations the motives of preparing their economy for future trade availability and focusing resources towards uncontrollable maritime technological revolution.

World renowned maritime nations such as Norway, USA, Denmark, Panama and Nicaragua are thinking strategically in creating a significant future for an effective international trade and a more efficient global maritime economy.

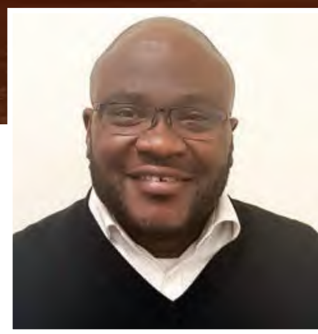
These nations are expanding their navigation of coastal areas to be able to meet up with future international maritime economy and trade demands.

Nigeria has been recognised globally as a reputable maritime nation with more than 8,000km of navigable inland and intra-coastal channels as well as its fresh water lakes. However, it is struggling to strengthen its maritime sector with modern maritime architectures that will contribute to the country's GDP.

Nigerian seaports are a significant example. These are relatively small for all modern vessels to load or discharge liquefied products and bulk cargos within Nigerian territorial waters. In support of this, the sea depth of the Nigerian waterways is not deep enough for the navigation of these ultra-modern vessels.

Without arguing further, it's a clear factor that if these setbacks are not urgently corrected; it will continue to reduce the level of involvement of the Nigerian maritime industry in the participation of vast international trade and major global economic participation. The Nigerian government should learn from Panama, UEA and other maritime nations by contributing to the development of major maritime activities within the international seaborne trade. The country's economic GDP will also benefit enormously from the expansion of its navigable coastal areas for effective maritime competitiveness and significant trade participation of larger future vessels in the country.

In a 2017/18 research carried by out by the Nigerian Port Authority (NPA), it was mentioned that the country loses US$7bn annually in revenue to the inefficiencies within the weak infrastructure of the Nigerian seaports. However, this same report also recorded Proxy of US$840mn was made in revenue in 2017. It was also opined that, a total number of 10,000 direct new jobs was recorded within the maritime port sector. In addition, the Nigerian maritime industry recorded another 800,000 new jobs with an increasing volume of 1.3 million shipment of non-oil products. All these positive attributes are the success factor to the 2.1 per cent increase to the National GDP.



Dr Akinseye Aluko.

Furthermore, creating a more competitive and enabling infrastructural environment such as with digital logistics, may enhance their incentives for expansion.

In addition, this aspect of the maritime revolution will further help boost the economic situation of major landlocked countries within the West African region, such as Mali, Niger, Burkina Faso and Chad. This coastal line expansion will further enhance the logistics process and the quick turnaround and passage of large vessels within the Nigerian territorial waters. ■

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