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Gbenga Odimayo, CEO of AfriFindInvest





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# Editor's Note

Welcome to the September issue. In our cover story, we focus on the stark reality of insufficient capital investment for Africa's increasingly rapid urbanisation over the past four decades. This has left a worrying lack of so-called 'infill' development near city centres to better connect firms and households. Economist Moin Siddiqi explores the issues and solutions for African policymakers to follow, pages 16-18.

The construction of the Azura-Edo Plant, Nigeria's first large-scale project-financed independent power project (IPP), has been hailed a success and now is delivering 10 per cent of the nation's on-grid power. Will Azura now pave the way for other private sector power purchase agreements in Nigeria and beyond?, see page 26.

Elsewhere in this issue, China is cementing its hold on the continent after research by Baker McKenzie and IJGlobal indicates that the nation provided 50 per cent of finance for large power deals including Mambila Hydropower Plant in Nigeria and Lamu Coal-Fired Power Plant in Kenya, page 48.

Finally, we look at the rise of the African millennial and how businesses need to adapt to understand these unique loyal customers in order to give them the service they demand.

**Samantha Payne, Editor**

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## IFC champions ‘record’ Egypt investment

International Finance Corporation (IFC), part of the World Bank Group, said it had committed US\$1.2bn in Egypt during the recent 2018 fiscal year — a record for IFC investment in the country.

It represents more than a quarter of the total money committed by the organisation over the past decade.

Total IFC investments in Egypt over the last 12 years add up to around US\$4bn.

Half of the money during the past year was aimed at the energy sector. Projects included a landmark investment of US\$653mn in the Benban solar park.

Located near Aswan, it will be the world’s largest solar array once completed, providing eco-friendly electricity to 350,000 people in upper Egypt.

The project forms part of a larger IFC effort to support the development of Egypt’s private sector. It says its money is helping to create jobs, improve local infrastructure, and boost economic growth, noted Walid Labadi, IFC country manager for Egypt.

“A vibrant private sector is the key to creating jobs and spurring economic growth in Egypt,” he said. “Our investments have been geared towards addressing the challenges facing the private sector — such as power shortages, burdensome regulations, gender inequality and difficulty in accessing financing. By tackling those issues, we can help lay the foundation for long-term growth and prosperity.”

During the fiscal year, which ended on June 30, IFC also issued its first local currency loan in the country providing the equivalent of US\$15mn in Egyptian pounds for a polymer and construction related company. The loan is to support the country’s building sector, which employs 12 per cent of Egyptian workers. Local currency financing is considered important for sectors that underpin development: infrastructure, housing, and smaller businesses.

IFC also extended a US\$75mn Islamic financing package to Almarai, a regional dairy and juice producer with operations in Egypt, to enhance food safety and create jobs along the agricultural supply chain.



Image Credit: Adobe Stock

**Total IFC investments in Egypt over the last 12 years amount to around US\$4bn.**

## MOROCCO TO GET BLOCKCHAIN WIND FARM

Blockchain company, Soluna, is planning to build a 900MW wind farm to power a computing centre in Dakhla in the Morocco-administered Western Sahara.

Work on an initial off-grid phase will start in 2019 and be completed within a year, according to its chief executive John Belizaire. The wind farm could later link up to the national grid.

Soluna plans to develop the wind site in a modular fashion, known as pods, across its 37,000 ares site. Each pod comprises 12MW of power generation, an associated storage system, and a 6MW cryptocurrency mining or Blockchain computing centre.

The US\$100mn first phase will consist of three pods, or the equivalent of 36MW of energy production capacity, and 18MW of computing facilities.

Soluna says its full site can accommodate approximately 75 pods, based on current turbine technology.

Bitcoin is earned or ‘mined’ by using a computer to help process the uncrackable ‘blockchains’ or digital transaction records that underpin the currency. It requires huge computing capacity and uses vast quantities of electricity.

According to Digiconomist, a cryptocurrency analysis platform, bitcoin mining uses approximately 71 terawatt hours (TWh) per year of electricity, equivalent to almost 10 per cent of China’s annual energy usage.

Soluna is backed by a private equity group, Brookstone, but is likely to also seek private equity and large institutional investors, Belizaire said.

Speaking in an interview with Reuters, he said the company would not make cryptocurrency transactions in Morocco where financial authorities have warned against their use.

The government wants to convert 52 per cent of the energy production to renewable power by 2030.

## EGYPT GAS PIPELINE DEAL NEARS COMPLETION

A deal that could open up pipeline gas imports into Egypt from Israel is edging closer. Two companies developing Israel’s largest natural gas fields — Israel’s Delek Drilling and US-based Noble Energy, together with Egyptian partner, East Gas — are said to have finalised details to gain control over a gas pipeline to Egypt, according to Bloomberg. It could pave the way for a US\$15bn export contract.

Under the proposed deal, the partners would purchase a 37 per cent stake in Eastern Mediterranean Gas (EMG), which operates an undersea pipeline to Sinai.

The pipeline originally carried Egyptian gas to Israel under a controversial export deal.

The deal fell through when local supplies dried up and political unrest engulfed Egypt during the Arab Spring of 2011. Egypt’s own gas sector has since undergone a renaissance, following massive new offshore discoveries and heightened production.

## ► BRIEFS



Image Credit: Adobe Stock

**Sonatrach’s new leadership team includes eight vice presidents.**

### Sonatrach reshuffle

Algeria’s Sonatrach has a new-look leadership team, picked by its US-trained CEO Abdelmoumen Ould Kaddour. He was put in charge of overhauling the state oil firm last year to restore confidence. His new team includes eight vice presidents named from within the firm, although the appointments still need to be validated by a presidential decree. Kaddour aims to make Sonatrach one of the top five national oil companies by 2030.



Image Credit: Adobe Stock

**The Middle East Oil Refinery Company will expand its operation to 160,000 barrels per day by 2020.**

### EGPC funds boost

The African Export-Import Bank has disbursed US\$200mn to the Egyptian General Petroleum Corporation (EGPC) to support its investment in the Middle East Oil Refinery Company. The refinery is working to expand its production capacity to 160,000 barrels per day by 2020. The investment is also aimed at supporting EGPC’s expansion plan which plans to become a regional hub for exporting oil products to the Middle East region and the rest of Africa.



# IT FITS, BUT WILL IT DO THE JOB?



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## Hapag-Lloyd invests in growing East African market

Hapag-Lloyd is continuing to focus on the growing sea transport market in East Africa. With annual growth rates of approximately six per cent, the region tops the list on the African continent. Kenya, in particular, is developing with significantly rising import and export figures as well as massive investments in public infrastructure.



Hapag-Lloyd launched its first dedicated service to East Africa in April.

In April 2018 Hapag-Lloyd launched the East Africa Service (EAS), its first dedicated service to East Africa. The weekly service sails from Jeddah to Mombasa, and from there to Dar es Salaam, in Tanzania, and directly back to Jeddah. After a successful start this service will be expanded in September with a weekly connection to and from Nhava Sheva, Mundra, Khor Fakkan, Jebel Ali, Mombasa and Dar es Salaam. The so-called EAS2 will replace the current EAS service and directly link the Arabian Gulf and the West Coast of India with East Africa.

Hapag-Lloyd offers inland transportation to and from East African hinterland locations of Bujumbura (Burundi), Kigali (Rwanda), Lubumbashi (Democratic Republic of Congo), Lusaka (Zambia) and Kampala (Uganda).

“I am delighted that our East Africa Service from and to Kenya is developing so positively. After only four months in operation, we have significantly expanded our business with overall vessel utilization beyond our expectations,” said Dheeraj Bhatia, managing director Africa, Middle East and Indian Subcontinent for Hapag-Lloyd AG. “With our upcoming new EAS2 service we will be able to offer even better connections from and to East Africa. All in all we are experiencing growing client demand which demonstrates the economic potential of Kenya.”

The GDP of Kenya has grown significantly in the last two years, rising by an average of approximately six per cent. Kenya primarily exports coffee and tea, as well as vegetables, fruits and textiles. The main imports are vehicles, spare parts, yarns, machines and electronic goods.

### DHL AND ETHIOPIAN AIRLINES JOIN FORCES

DHL Global Forwarding, the leading international provider of air, sea and road freight services, and Ethiopian Airlines, the largest aviation group in Africa, have signed a new agreement to form joint venture company DHL-Ethiopian Airlines Logistics Services, to build the leading cargo logistics provider JV company in Africa; the company will be based in Ethiopia and do business in the entire continent of Africa, enhancing Ethiopia's logistics infrastructure and connections.

“With its GDP growth, Africa is stepping into the spotlight as production hub. Recent moves to open up the economy will continue to boost Ethiopia's position as the fastest-growing economy in Africa, and under Pramod's leadership, the company will be able to provide a scalable and durable logistics infrastructure to safely handle the sensitive needs of its core industries”, said Amadou Diallo, CEO, DHL Global Forwarding Middle East and Africa,

### INDIA GIVES US\$10MN BOOST TO ATI

During its 18th Annual General Meeting in Nairobi, the African Trade Insurance Agency announced the government of India's investment. The US\$10mn shareholding positions India as the first non-African government to join into membership of the pan-African and multilateral investment and credit insurer. ATI also announced the decision by the General Assembly to pay dividends for the first time since inception to shareholders.

The Export Credit Guarantee Corporation of India (ECGC) will represent the government's shareholding in ATI. ECGC posted US\$99bn in exposures and insures 32 per cent of India's exports. The company has operated in Africa since the 1960s with plans to deepen its engagement in Africa.

“India's membership in ATI is a landmark development for a symbiotic relationship between the two fastest growing regions in the world,” noted Geetha Muralidhar, chairman and managing director. “It is indeed a proud moment to be the first non-African state shareholder of ATI. This partnership will not only give a fillip to the bilateral trade but also will contribute towards development of projects and enhance capacities and skills.”

The partnership is expected to help ECGC leverage its capacity to support even greater volumes of Indian imports into Africa. For ATI, India's investment enables it to provide much needed capacity to the continent.

Lenders are bound by regulations that prevent them from lending significant amounts to sub-investment grade sovereigns, which is the case for most African countries. Institutions such as ATI that offer investment insurance can help to mitigate the risks, thereby bringing added lending and investment capacity to African markets.

“We're delighted to welcome India to the ATI family,” said George Otieno, ATI's CEO.

## ► BRIEFS

### Farm-Tech Expo set for September



The Farm-Tech Expo Kenya will offer farmers the opportunity to showcase innovations.

The Kenya Agricultural and Livestock Research Organisation will host Farm-Tech Expo Kenya in September 12-13, one of the largest agricultural events in the country.

The two day expo, organised by Spintelligent in partnership with KALRO, will provide farmers, agro-industry players, service providers and other stakeholders in the agriculture sector the opportunity to showcase their innovations and technologies as well as engage in networking.

### Solar systems to be built in Eritrea



The two solar hybrid systems will be constructed in Areza and Maidma.

Eritrea is planning to build two solar hybrid systems, worth US\$6.56mn, in Areza and Maidma where there is no access to the national grid, according to reports.

“Photovoltaics are the cheapest form of power on the planet. Particularly in Eritrea, it's blessed with an abundance of sunshine,” says Daniel Davies, director of Hybrid Power Systems at Solarcentury. The project, which is being carried out by Solarcentury, is due for completion later this year.





# Youth employment is Africa's big challenge

The Food and Agriculture Organisation of the United Nations speaks on ICT and youth employment on the continent, calling for the urbanisation of rural areas in years to come to be equipped with education, health and IT access.

Image Credit: Adobe Stock

In sub-Saharan Africa, more than 60 per cent of a 1.2 billion population are under the age of 25. Supporting them in obtaining decent jobs, especially in rural areas, is one of the great challenges we are facing in pursuit of a Zero Hunger world and the achievement of the Sustainable Development Goals.

The Food and Agriculture Organisation of the United Nations (FAO) has rolled out projects from Benin to Zanzibar that increase the engagement, entrepreneurship and employment opportunities for young people. African governments are on board, having pledged in the 2014 Malabo Declaration to adopt an accelerated and inclusive agricultural growth model, placing high priority on youth participation.

The main driver for improved youth employment is access — to capital, credit, training, tenure, natural resources and, in particular, Information and Communication Technologies (ICT). In fact, the Internet offers concrete hopes for innovation and prosperity, which, when applied to agriculture, may free the sector of its stigma — drudgery and poor income prospects — to make it more attractive for young people.

While the ways to prioritise youth, even by implementing preferential policies, will vary from place to place, we can all learn from every success story.

FAO worked with the Nigerian government on developing its Youth Employment in Agriculture Programme, which has already offered training to more than 7,000 rural youth as well as provided starter packs to create their own agribusinesses. The programme is also mobilising public investments that will ultimately benefit more than 700,000 rural young people over the next five years.

FAO has further contributed to Senegal's Rural Youth Employment Policy — which aims to foster the creation of more than 100,000 jobs per year — by helping set up a series of small rural hubs where youth can learn about farming, food processing and marketing. The government was also able to launch a National Observatory of Rural Employment, a dynamic online hub allowing rural youth, producers and development partners to monitor the national labour market and get information and data regarding agricultural products and trends.

In Guinea-Bissau, FAO found that introducing pilot programmes for aquaculture was a way to give local youth — many of whom had tried to migrate to cities — an important role with multiple benefits, producing additional income, better nutrition and fertiliser for cassava farmers. Now the initiative is expanding by building hatcheries, creating more jobs and a value chain that can be scaled up.

FAO is also a strong supporter of the increasingly important Rwanda Youth in Agribusiness Forum, which plays a critical advocacy role for its members and facilitates the inclusion of youth in the country's economic and social transformation.

Nevertheless, we cannot expect that such a high number of young people entering the labour market every year (nearly 10 million) will find employment in the traditional agricultural sectors. We need to explore all segments related to rural activities. For that, we need to promote a new kind of rural transformation: an urbanisation of rural areas equipped with basic services such as education, health, electricity, internet access and so on.

The urbanisation of rural areas also means the adoption of a territorial approach focused on strengthening the physical, economic, social and political links between small urban centres and their surrounding rural areas. Infrastructure investments, especially in roads and storage capacity, would help to connect producers, agro-industrial processors, and other segments of the value chains. This can create a lot of jobs and opportunities for youth.

The African continent is also home to a large number of family farmers with very small sized plots cut off from markets. It is very important that these people be

organised into cooperatives or other forms of association. Otherwise, it will be impossible to integrate them into modern agrifood chains. Cooperatives and other associations are the only way for providing family farmers with technical assistance, capacity building, financial resources and access to modern technologies.

Farmers have for some time benefited from ICT to access price and weather information. Emerging uses range from weather-based crop insurance and traceable certification for specialty markets to high-resolution soil maps and tractor rentals for smallholders. Crop disease management is another promising ICT frontier. FAO has developed a new app allowing smallholders to detect Fall Armyworm, an invasive species that poses a grave risk to maize, a major staple crop in Africa. Nutrition, biodiversity and climate challenges all point to an increased potential of digitally-leveraged applications with positive impacts on rural employment.

Information technology can be a strong multiplier in the effort to achieve the transformation needed in rural areas. Rural youth in Africa have plenty of hopes and dreams with enormous opportunities across the continent to realise them. Efforts of all stakeholders in this direction are definitely a big part of a sustainable future. ■

## ECA launches Zambia STEPS Profile and Country Profiles for Southern Africa

The ECA has announced it has rolled out the Zambia STEPS Profile and country profiles for Botswana, Lesotho, Namibia and Zimbabwe in Lusaka. The Secretary to Treasury (Zimbabwe) together with the chairman of the bureau of 23rd Intergovernmental Committee of Experts (ICE) of Southern Africa, Willard L. Manungo, acting director, Central Statistical Office, Zambia Goodson Sinyenga and ECA's Southern Africa regional director and Said Adejumbi launched the profiles.

The five profiles review socio-economic developments in the mentioned countries, level of regional integration, and performance including gender equality and empowerment. Furthermore, they explore a theme of economic relevance and present major policy options and recommendations for member states.

According to the ECA, the STEPS Profile for Zambia focuses more on the issue of structural transformation with key elements of production, employment, and society. ECA's Southern Africa regional director, Said Adejumbi, informed the meeting that since 2015 ECA has been publishing Country Profiles (CPs), working alongside the National Statistical Offices in member States, ministries of Finance and Economic Development, Central Banks and other relevant national, regional and international data sources and institutions. He highlighted that policy makers in these countries should address the main recommendations made in the profiles. For instance, for the Zambia profile, Adejumbi noted, "Areas of agriculture, manufacturing, tourism, and technology are critical areas that Zambia could develop and leverage for economic diversification and transformation.

He added, "In addition, in order to maximise the benefits of the copper sector to the economy, the issue of beneficiation and value addition needs to be addressed. The revenue and economic activities generated from the copper sector will be significantly enhanced if value addition and processing of copper derivatives is undertaken here in Zambia."

The launch was organised in partnership with the Zambia Central Statistical Office and was attended by government representatives, academics, students, representatives of industry, cooperating partners, COMESA, SADC, and representatives of the Botswana, Lesotho, Namibia and Zimbabwe Embassies and High Commissions.



Image Credit: AdobeStock

**Adejumbi told the meeting that Zambia's agricultural sector has untapped potential.**

## RENEWABLE ENERGY PROJECTS IN SOUTH AFRICA

Vantage GreenX Note II has provided \$2.6mn of funding to a combination of six solar and wind energy projects. Part of Round 4 of the South African Renewable Energy Independent Power Producer REIPP procurement programme, the projects have a combine capacity of 433 MW.

The Green X funding has provided four projects launched by BioTherm Energy and two projects rolled out by OMLACSA and ACED. The four BioTherm projects are the 86MW Konkoonies II solar PV project (northern Cape), the 45 MW Aggenys solar PV project (Northern Cape), the 120 MW Golden Valley wind project (Eastern Cape) and the 32MW Excelsior wind project (Western Cape). The two OMLACSA projects are the 75 MW Droogfontein II solar PV project (Northern Cape) and the 75 MW Zeerust solar PV project (North West).

Alastair Campbell, managing director of Vantage GreenX, said: "It is with great pleasure that we announce that we have supported these six projects. Each of these projects has strong, experienced sponsors and solid project fundamentals. Together they represent a geographically diverse portfolio of assets. Despite the difficulties experienced by stakeholders in the industry over the last two years, we hope that the conclusion of this round of projects represents a watershed moment for the South African renewable energy industry and provides forward momentum to the sustainability of the domestic energy sector as a whole."

The US\$1.4mn GreenX Note is invested across eight solar and wind projects located in the South African provinces of the Eastern Cape, Northern Cape and Limpopo. The completion of the six GreenX Note II transactions takes the total number of investments made by GreenX to fourteen across the two funds.

## SOUTH AFRICA HOSTS EVENT CELEBRATING MA SISULU

A discussion event, taking place 21 October 2018, marks the centenary of Nontisikelelo Albertina Sisulu and will highlight the legacy she left behind for South Africans today.

Some of the discussions will seek to harness and replicate the strength and energy in tackling the issues facing women today and finding new solutions. Attendees will also enjoy musical performances by UJ's Female Vocal Ensemble, which will strengthen Ma Sisulu's belief that women are empowered through education.

There will be an "entrance fee" of a packet of sanitary towels for the Tambo Foundation's Nkantolo Education Programme. The move aims to keep girl learners in school.

Panel members at the event include: Thenjiwe Mtintso, Geraldine Fraser-Moleketi, Thandeka Gqubule, Nomtuse Mbere and Thuto Thipe.

## ► BRIEFS

### Kia's Green Light Project



Image Credit: AdobeStock

The project is expected to improve the quality of life of local communities.

At a ceremony held at Lilongwe, the capital of Malawi, on 1 August, Kia Motors handed over two 'Green Light Project' schools to local communities in Malawi and Mozambique. The event was attended by residents, teachers, students and local community leaders. The project provides "the opportunity to build better lives through improved access to healthcare, education and vocational training," says Kia's CSR management team leader Kyehwan Roh.

### The changing face of agriculture in Africa



Image Credit: AdobeStock

The use of intelligent technology in the farming sector is on the rise.

Africa's agricultural landscape is rapidly changing, with the introduction of new farming technologies, there has been a rise in agricultural productivity. In a keynote speech delivered at the 2018 Agricultural and Applied Economics Association Annual Meeting in Washington, Akinwumi Adesina, President of the African Development Bank Group, highlighted: "The challenge is a lack of supportive policies to ensure that they are scaled up to reach millions of farmers."





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## DP World to build logistics hub in Mali

DP World has signed a 20-year concession with an automatic 20-year extension with the Republic of Mali to build and operate a 1,000-hectare modern logistics hub outside of Bamako, the capital city. The multimodal logistics platform, Mali Logistics Hub (MLH), will have inland container depots (ICD) and Container Freight Stations (CFS) to facilitate the import and export of goods.

The Mali Logistics Hub will be located on the main road corridor from Dakar, Senegal to Bamako and close to the Dakar-Bamako rail line, and will be capable of handling 300,000 TEU, four million tons of bulk and general cargo. The first phase of the project, with an estimated initial investment of US\$50mn, will support the growth of the Malian economy by streamlining the import and export of goods. Construction is expected to start in 2019 and will take approximately 18 months to complete.

The Mali logistics hub will significantly reduce processing times for products entering the Malian market as part of efforts to reduce obstacles to trade and economic development. DP World will also implement its online paperless facilitation platform to accelerate the movement of goods as part of the agreement.

DP World chairman and CEO Sultan Ahmed Bin Sulayem, said, "The Malian market is expected to grow over the next two decades and is driven by robust economic and population growth. Thus, the Mali Logistics Hub is much needed and will provide the country with a logistics platform that aims to facilitate the import and export of goods via the Port of Dakar, which is operated by DP World."

Republic of Mali Minister of Equipment and Transport Moulaye Ahmed Boubacar said, "We are excited to partner with DP World on this project. The Mali Logistics Hub will dramatically improve the cost and time of trade for Mali. The project will provide us with a first-class logistics facility comparable to global standards and will be the largest in terms of capacity."



The signing of the concession agreement.

Image Credit: DP World

## NEW CLOUD-BASED MICROFINANCE SOLUTION

Oradian, a financial inclusion company serving financial institutions in remote communities, and the Association of Non Bank Microfinance Institutions of Nigeria (ANMFIN) have launched a strategic partnership with a view to boosting financial inclusion throughout Nigeria.

The partnership will enable ANMFIN to promote access to financial services for Nigerian clients on a larger scale by using ANMFIN Cloud Express, a core banking system specially built for ANMFIN and its microfinance institution (MFI) members. ANMFIN Cloud Express, powered by Instafin, is a cloud-based toolset that enables smaller Nigerian microfinance institutions (MFIs) to benefit from a cloud-based solution.

Princess Adesola Ogunleye, the president of ANMFIN, said, "We are extremely pleased to partner with Oradian. Together we align our shared vision and leverage the success delivered to date. The partnership will enable all of our MFIs to move to Oradian's cloud-based solution, helping our members to save time and money through more efficient, digitised processes – no more manual input of data. We and our members are very excited to improve administrative process, reduce high operational costs and offer digital financial services across the country."

Antonio Separovic, CEO of Oradian added, "Nigeria was Oradian's first market when we started Oradian six years ago and we remain committed to solving the financial inclusion challenge here. This is a long-term partnership that is an important step towards this goal."

With a cost and a system tailored for the needs of smaller MFIs, Oradian's partnership with ANMFIN enables more financial institutions to take advantage of technology to become more efficient, grow and reach more unbanked individuals in rural communities.

## INCREASED BUDGET FOR NIGERIA TRANSPORT

Nigeria's transport sector is set to benefit from increased spending under the newly ratified federal budget, according to an Oxford Business Group report. Around N251.4bn (US\$697.2m) was allocated to the Ministry of Transportation in the 2018 budget, a 30.4 per cent increase over 2017. Of this, N162.3bn (US\$450.2m) will go towards a series of new and ongoing rail projects, including the 1,100-km Lagos-Kano standard-gauge rail line, linking the country from north to south; the Lagos-Calabar connection, easing travel from east to west; and the new, 2,000-km standard-gauge route linking Port Harcourt in the south-east with Maiduguri in the north-east. An additional N344bn (US\$954.2m) is allocated to the Ministry of Power, Works & Housing for around 70 new road projects. Major projects include the fourth phase of the Second Niger Bridge project, which links the cities of Asaba and Onitsha across the Niger River; and the construction of the Lagos-Shagamu-Ibadan and Enugu-Port-Harcourt dual carriageways.

## ► BRIEFS



Image Credit: iStock/Adrian Stock

The mobile app has had one million downloads.

### Mobile app success

Paylater, the mobile app providing Nigerian consumers with access to credit, has reached one million downloads. With more than 800,000 registered users, across every Nigerian state, Paylater has loaned over US\$17mn to Nigerian consumers in 2018 so far. The technology platform has supplemented that loan growth with strong early adoption of its bill payments and investment features. The Paylater app is available for download on the Google Play Store.

### Energy summit for Ghana

EnergyNet will host the third Regional Energy Co-operation Summit (RECS): West in Ghana from 26-28 September 2018, exploring business opportunities in the WAPP



Image Credit: iStock/Flickr

The event will explore opportunities in the regional electricity market.

regional electricity market and the impact that anchor energy projects will have on regional energy development. RECS: WEST is held with the official endorsement and participation of Honourable Boakye Agyarko, Minister for Energy and will cover power, petroleum and financing infrastructures.



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# Upcoming Events Calendar 2018

## SEPTEMBER

10 - 14

### ELECTRA MINING

Johannesburg, South Africa  
www.electramining.co.za

10 - 14

### POWER WEEK AFRICA

Johannesburg, South Africa  
www.power-week.com

13 - 14

### FUTURE ENERGY UGANDA

Kampala, Uganda  
www.future-energy-uganda.com

16 - 18

### GHANA TRADE SHOW

Accra, Ghana  
www.growexh.com

18 - 20

### PROPAK WEST AFRICA

Lagos, Nigeria  
www.propakwestafrica.com

18 - 21

### CONSTRUCT EGYPT

Cairo, Egypt  
www.thebig5constructegypt.com

20 - 21

### AFRICA PROPERTY SUMMIT

Johannesburg, South Africa  
www.apisummit.co.za

25 - 27

### POWER NIGERIA

Lagos, Nigeria  
www.power-nigeria.com

## OCTOBER

3 - 4

### EAST AFRICA ALTERNATIVE INVESTMENT CONFERENCE

Nairobi, Kenya  
www.aidembs.com

9 - 10

### INFRASTRUCTURE AFRICA

Johannesburg, South Africa  
www.infrastructure-africa.com

11 - 13

### NIGERIA BUILDEXPO

Lagos, Nigeria  
www.nigeriabuildexpo.net

15 - 17

### NIGERIA MINING WEEK

Abuja, Nigeria  
www.nigeriaminingweek.com

## NOVEMBER

5 - 6

### AFRICAN PORTS EVOLUTION

Lagos, Nigeria  
www.portsevolution.com

5 - 9

### AFRICA OIL WEEK

Cape Town, South Africa  
www.africa-oilweek.com

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- \* Vibration studies, Transformer Oil
- \* Seismic Qualification
- \* Relays, Energy meters and Smart Meters
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# Connecting investors to diverse opportunities

Gbenga Odimayo, founder and CEO of AfriFindInvest, speaks about the growing opportunities in Africa and how he has tapped into the vast potential of its markets.

## How did 'AfriFindInvest' (AFI) begin?

It started from my professional experience working with African private clients in Geneva, when I realised a number of the wealth creators were really job creators generating opportunities in their own home markets. I realised then, the real opportunity was for inward investment in Africa. I then decided to pivot and work closer with businesses with the potential to deliver local impact. This meant working as a market entry consultant, helping investors to find entry points into Africa, as well as working with entrepreneurs in African countries to secure funding and investment for their projects.

## What were the obstacles in setting up AFI?

I set up AFI in response to the ever-growing interest and global demand for investment opportunities in Africa, while our prospective clients faced three main obstacles. The first was to overcome the lack of information, which is a big deterrent for entrance into the Africa market, the second was access to local networks as a basis of partnerships, and the third and most important challenge, was limited access to capital which was an irremovable barrier for entrepreneurs in Africa. I was motivated by the challenge of aligning demand with supply across our platform.

## How does your platform work within itself?

It's a hybrid model which consists of a consultative and also a digital platform, which we are rolling out next year. The consultative model is based on identifying an early-stage opportunity or an early phase project in Africa, aligning it with an

investor in or beyond our network and connecting the two across a bespoke platform. The digital side is user driven and brings greater speed, visibility and access to funding opportunities across African markets.

## Do you think it will cut red tape for investors?

I think so; African communities like the personal approach in terms of doing business, which is why our entry points are qualified across the consultative model. This means I will be acting as a facilitator and there's a certain degree of legwork, the reward being lasting relationships. Whereas the digital platform itself is an enabler which allows for example, an already qualified investor or investee to engage by exposing them to perspectives, partnerships as well as the proprietary network. It's about more than building another platform. We're building trust within our ecosystem and that's what cuts through the red tape.

## What would you say are the major market points?

A number of market opportunities are already set in motion, if you consider the macro picture; four out of six of the world's fastest growing economies have come from Africa this year. Foreign investment is enhanced by opportunities coming through the improved operating environment in Africa. Political stability is another element, now that a number of countries are benefiting from democratic dividends which go beyond just reputation, to support an enabling environment for businesses to grow.

The present scenario in which the African continent has the fastest growing middle class in the world is a real driver of today's market



Gbenga Odimayo

Image Credit: AfriFindInvest

and opportunities by the consultative platform basis to identify and qualify opportunities on a digital model to scale funding opportunities.

## Can you provide examples of underperforming industries that you would like to revamp?

It's perhaps only the tip of the iceberg, but I'll highlight energy's relationship to food production. Agriculture has been neglected over decades across a number of countries in Africa, which is part and parcel of the resource curse. People don't diversify once you have that 'cash cow' so agriculture is a vital opportunity, we are looking to re-position through initiatives leveraging technology's impact on crop yields among other core important elements of the landscape. The second related industry is around power and energy and will refer to deregulation, which is already seeing the tradition of power outages now being partially offset by off-grid solutions such as solar, which are receiving significant investment from international stakeholders as well as policy support domestically in Africa.

## Do you think you will want to take advantage of the opportunities within the renewable sector?

We have a number of interesting projects and interested investors in solar PV, hydro power projects as well as other clean energy solutions. Renewable energy is a very attractive sector and, as we are very much a demand driven platform, I'm beginning to understand what the long-term opportunity means to investors and investees in Africa. This merely confirms progress in what AFI set out to do. ■

opportunities. In the future, the doubling of the population by 2050, means there's this great potential to tap into an underutilised labour market, which offers challenges as well as opportunities. If we additionally consider what is beneath Africa's soil, we realise 30 per cent of the world's natural resources reside on the continent. I especially want to highlight digital transformation which is opening new opportunities for those that were previously excluded from the growth story, and is now telling the story of inclusion in a number of industries, as enabled via mobile. These are the likely beneficiaries of growing momentum in intra-African trade.

## Who are your major clients?

We work with private investors such as angels and institutional investors, ie. venture capitalists, impact investors, those in private equity and institutions around the world who are looking to unlock the investment value chain in African markets, principally early stage opportunities and larger scale projects raising capital. We also work closely with entrepreneurs and seek out those who have scalable projects and are leveraging proven models to solve big problems. We are reducing the time and distance between the investor



Artist impression of Coral South FLNG.

# Financing world's first Coral FLNG in Mozambique

Paul Eardley-Taylor, head of Oil & Gas Southern Africa, Standard Bank explains how the world's first FLNG financing project — the largest-ever venture of this type for Africa — came to fruition.

Standard Bank, with an on-the-ground presence in 20 African countries, has an established oil and gas practice which serves relationships and executes transactions across the upstream, midstream and downstream sectors.

Africa started early in LNG, with Algeria exporting its first cargo to the UK in 1964. But, until 2017, despite its established position in upstream oil and gas, Africa had operational plants in only four countries: Algeria, Angola, Equatorial Guinea and Nigeria, with two plants in Egypt idle due to insufficient gas supplies.

This position is rapidly changing, with multiple onshore and Floating LNG (FLNG) projects under development, as well as Floating Storage Regasification Units (FSRUs) in operation and under development. One of the most exciting of these is Coral FLNG.

Coral FLNG, with a debt size of US\$4.7bn, marks Africa's largest-ever project financing and the world's first FLNG project financing. The project is led and operated by ENI with a 25 per cent holding, ExxonMobil farmed into Area 4 block last year with 25 per cent, all taken from ENI. The remaining stakes are held by CNPC (20 per cent), Kogas (10 per cent), Galp Energia (10 per cent) and ENH (10 per cent).

Within the transaction financing,

Standard Bank was the largest single commercial lender; Onshore Account Bank and Security Trustee; and was the only African lender to the project. The bulk of the financing was contributed by export credit agencies (ECAs) including BPI, KEXIM, Ksure, Sace and Sinosure (ECAs being a mainstay of global LNG financing).

Coral South is a field located within Area 4, which includes the Coral North and Mamba fields. Coral South is separate from the other fields and furthest from the shore. This distance is a major reason why the relatively new FLNG technology was chosen for development. Coral FLNG is only the fourth FLNG project globally after Petronas's Satu, Shell's Prelude and Cameroon's Hilli Episeyo (none project financed). A consortium consisting of TechnipFMC, JGC and Samsung Heavy Industries was selected as EPCIC contractors. The FLNG ship is under construction in South Korea and scheduled to reach the Mozambican shores around 2021 to

ensure commissioning in mid-2022. Coral FLNG will produce 3.4 MTPA output to be exclusively sold to BP. The upstream part of the project is 100 per cent equity funded and the liquefaction part project financed through \$US4.7bn on a 60:40 debt equity ratio.

The project used multi-sourced project financing from five export credit agencies and 16 banks. Due to the scale of LNG projects (and their multi-sourced participation), project financing is typically used to fund LNG liquefaction projects. The ring-fenced nature of project financing means a very secure offtake is required to ensure the project can service its debt.

For Coral FLNG, BP will take 100 per cent of output but noting the project (and therefore the lenders) will naturally take the performance risk of the Coral South field. The Area 4 shareholders are generally seen as strong entities, able to provide the customary completion support seen in LNG debt financings. The

“Coral FLNG, with a debt size of US\$4.7bn, marks Africa's largest-ever project financing”

PAUL EARDLEY-TAYLOR, OIL AND GAS SOUTHERN AFRICA, STANDARD BANK



Image Credit: Standard Bank

Paul Eardley-Taylor.

government of Mozambique showed commitment to the project by establishing the necessary regulatory regimes and timely project approvals. Underlying all the Rovuma Basin's current and future LNG export projects is the 2014 Decree Law, which was passed following the completion and public dissemination of a macroeconomic study for area one prepared by Standard Bank. It is a great achievement for Mozambique that it was able to execute the Coral FLNG project even during an ongoing sovereign default.

As well as being an important standalone project, the significance of Coral is that its documentation is likely to be a major influence on the pending onshore LNG financings of Area 1 and 4, which together may require the raising of US\$30bn debt in 2019 as part of US\$50bn of final investments, which will transform Mozambique into a leading LNG player. ■



# Making cities a better place to work and live

Economist Moin Siddiqi gives a comprehensive overview of the consequences of Africa's fast rate of urbanisation at the expense of building connective infrastructures.

According to projections, Africa's total population will reach the two billion mark around 2050, with 1.2 billion people living in cities, compared to an estimated 500 million in 2017. The most populous cities are growing rapidly by 4 per cent annually, which creates significant development and environmental challenges.

The fact remains that demographic expansion of sub-Saharan Africa (SSA) is not being matched by an urbanisation of capital, which is evident in the lack of public amenities and affordable housing, especially outside the city centre. Capital investment in SSA for the past four decades has averaged about one-fifth of GDP – compared to 40 per cent of GDP in East Asia (World Bank data). Across the SSA region, housing stocks lag urbanisation by nine years. African cities are unable to absorb hefty increases in population effectively due to poor urban development and budgetary constraints for new residential and commercial buildings.

“What is lacking is new construction referred to as ‘infill’ development near city centres to connect households”

MOIN SIDDIQI

## Typology of African cities by population (2017)

Very large cities (4-10 million-plus)	Large cities (3-4 million)	Intermediate cities (1-3 million)
Lagos (Nigeria) 22	Cape Town (SA) 3.81	Nairobi (Kenya) 2.75
Kinshasa (Congo DRC) 11.58	Durban (SA) 3.67	Accra (Ghana) 2.27
Johannesburg (South Africa) 10.0	Kano (Nigeria) 3.62	Douala (Cameroon) 2.4
Khartoum (Sudan) 7.0	Abuja (Nigeria) 3.61	Kampala (Uganda) 2.34
Addis Ababa (Ethiopia) 6.6	Ibadan (Nigeria) 3.56	Lusaka (Zambia) 2.18
Dar es Salaam (Tanzania) 6.04	Pretoria (SA) 3.52	Maputo (Mozambique) 1.76
Luanda (Angola) 5.5		Conakry (Guinea) 1.66
Abidjan (Côte d'Ivoire) 4.7		Harare (Zimbabwe) 1.54

Sources: UN World Urbanisation Prospects; World Population Review; Worldometers.

Thus, Africa is fast urbanising, but without connective infrastructures like in other developing regions with similar urbanisation levels. To build cities that are liveable, connected and affordable, city leaders and planners should address structural deficiencies that misallocate land, fragment development and limit productivity. The World Bank advised, “African cities must also become kinder to residents, offering services, amenities. All of this requires reforming urban land markets and urban regulations and coordinating early infrastructure investment.”

### Urban dysfunction

Major cities, such as Dar es Salaam, lack economic density (i.e. heavy concentration of capital investment) around urban core, which enables residents to live decently and affordably near workplaces. It also prevents urban productivity gains when firms enjoy close proximity to

customers/suppliers and labour market pooling. The typical African city displays ‘lower exposure’ (i.e. people are spatially dispersed over a wider area) and ‘high fragmentation’ (i.e. discontinuities between subgroups within some larger population). Hence, households and firms are scattered, not clustered enough to promote ‘scale economies’.

Urban neighbourhoods are often grossly crowded, disconnected and not dense with capital stocks. The United Nations reports 60 per cent of SSA's urban population lives in shanty districts and informal dwellings with scarce amenities – much higher than one-third seen elsewhere. Compared to other regions, higher costs of obtaining construction permits and property registration have resulted in the growth of [unplanned] informal settlements, near city centres. On average in SSA, it takes 59 days and 7.8 per cent of property value to register a



property, while getting construction permits requires 147 days and 15 procedures.

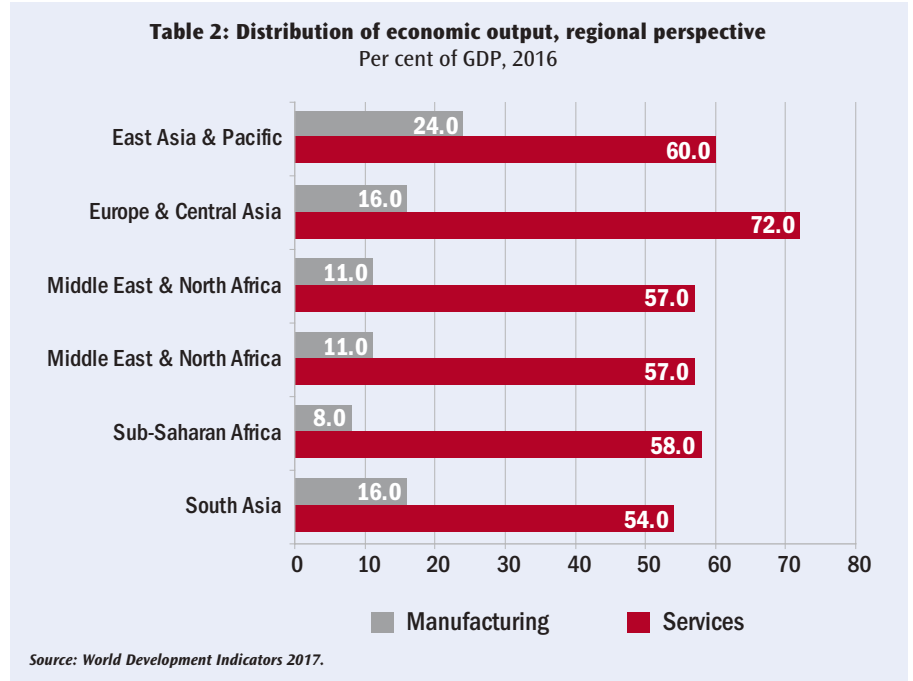
African cities are among the most expensive in the world, for businesses and residents. Consumers face high price premiums for housing, transport, food items, communication, restaurants and hotels. Overall, city dwellers pay 20-31 per cent more for goods and services in African countries than peer developing economies. Higher urban costs are driven by low economic density, poor connectivity and spatial fragmentation, increasing travel times for dwellers.

Higher spatial densities help reduce costs, especially transport. In Nairobi, the average journey-to-work time is reportedly the longest for 15 global cities surveyed. Paved roads comprise far lower shares of urban land compared to other cities. Africa's urban roads are also disproportionately clustered near the centre. At worst, severe overcrowding and inadequate drainage and sanitation facilities cause infectious diseases such as malaria, dengue and diarrhoea.

**Consumption cities**

Local urban economies are mostly services rather than manufacturing based. The latter's share of GDP fell from 11 per cent in 2005 to 8 per cent in 2016 (the lowest in developing world). By contrast, share of services sector rose from 48- to 58 per cent over 2005-16. The World Bank 2015 figures for manufacturing value added in SSA at US\$144.77bn fell well below US\$744.47bn and US\$399.61bn, respectively, in South America and South Asia.

A typical SSA city is dominated by nontradables sector: food and beverages, construction (mostly cement), retail and wholesale and other service activities, which does not benefit from economies of specialisation like a value-added manufacturing sector. Demand for non-tradables derives from personal incomes, resource rents, tax revenues



and foreign remittances. Resource-rich economies, notably Nigeria, South Africa and Angola fuel buoyant services demand. The World Bank echoed, "Countries that depend heavily on natural resource exports tend to sprout urban economies dominated by non-tradable services (consumption cities)." This trend known as the 'Dutch Disease' crowds out industrial activities and leads to increased imports of consumer items.

**Urban economy**

To compete with thriving urban markets elsewhere, African cities need to integrate into regional-and-global supply chains by producing higher-productivity tradable goods, along with building clusters of commercial and residential structures, where people and firms are connected

to economic opportunity with efficient transport systems. During early 1990s, London and New York became manufacturing hubs because factories were built there to access customers and transport services. The 1980s evidence from East Asia also indicated a correlation between rapid urbanisation and industrialisation.

Productivity gains are closely tied to urbanisation through 'agglomeration' economies, which play a major role in boosting the viability of many successful cities. "Firms located near each other can share suppliers, lowering input costs. Dense labour markets reduce search costs, giving firms a larger pool of workers to choose from. And spatial proximity makes it easier for workers to share information and learn from each other." Agglomeration economies reduce

transport (shipping) costs for goods when suppliers are close to their customers.

The projected impact of urbanisation is colossal. In the coming decades, Africa's younger demographic profile requires investments in buildings and public amenities: sewerage, drainage, waste disposal, street lighting, piped water, paved roads, coupled with policing, healthcare and schools, among other services. The SSA region needs about US\$100bn/year for infrastructure development (World Bank). In principle, cities should benefit businesses and households through increased connectivity and economic density, thus attracting new investments.

In sum, much of urban growth in Africa has occurred through either 'expansion' or 'leapfrog' development. The former enlarges city's physical structures at the edge of the consolidated urban area, whereas the latter entails developing satellite areas — parcels of newly built land not overlapping existing development. But construction under both methods is less likely to foster economic connections. What is lacking is



Dar es Salaam's bus transit system.

Image Credit: World Bank Photo Collection/Flickr

new construction referred to as 'infill' development near the city centres to better

connect households and firms within the city.

Cities are engines of industrialisation, job creation, skills upgrading and small-to-medium-sized enterprises, among other goals. Shrewd urban development that shapes the city for decades, if not centuries, is vital to long-term prosperity of Africa, which is projected by the International Energy Agency to account for one-third of the global increase in urbanisation from 2011-2050. ■

*Part two of city feature will discuss "Redevelopment of Africa's urban structures in a well-planned fashion".*

### Bus Rapid Transit: Major indicators per region

Region	Passenger counts daily	Number of cities	Length (km)
Africa	488,178	4	117
Asia	9,301,472	43	1,593
Europe	1,613,580	44	875
Latin America	20,573,856	55	1,790
Northern America	912,598	18	526
Oceania	436,200	4	96
Worldwide Total	33,325,884	168	4,998

Source: brtdata.org; July 2018

## BUS RAPID TRANSIT SYSTEMS

Efficient transport systems improve intra-city mobility and reduce commuting costs, which in turn, foster land use changes and economic growth as the city moves to a "new equilibrium of urban land use patterns. The modes of transport systems vary with population and job densities within a city.

Upgrading logistics and designing routes and bus stops improve connectivity in places with low densities, while higher density requires other options: bus rapid transit (BRT) corridors, light-rail trains including urban trams and subways.

Presently, four SSA cities, Cape Town, Dar es Salaam, Johannesburg and Lagos operate BRT systems that run on 104 km of exclusive bus lanes. Evidence shows that commuting time in Lagos fell by an average of 25 minutes along a 22 km corridor and wait time cut from 45 to 10 minutes since the introduction of the BRT in 2008. Tanzania's BRT is planned as a large-scale system of 137-km of high-frequency corridors being constructed in six sequential stages.

"The BRT is another great example of how strategic government investments can lead to private sector investments and great outcomes for the people," World Bank's President Yong Kim said. Other benefits of BRT are reductions in pollution and improved road safety. In Lagos, the BRT project has reduced CO<sub>2</sub> emissions and greenhouse gas emissions by 13 and 20 per cent respectively. Also, policy to improve local air quality can be supported by safer non-motorised travel, such as cycle lanes and better footpaths.

## SOUTH KOREA: URBANISATION MODEL

Models of successful urbanisation from other regions offer examples to African policymakers. In South Korea, comprehensive urban plans, with guidelines for mandatory 20 year visions were established for downtown building projects, followed by integration of separate laws regulating urban and non-urban areas. In 2000, metropolitan city-regional planning (between the city and the country) was instituted. Korea executed large-scale apartment construction schemes to address low urban housing stocks. Simultaneously, multiple transport models were devised to include urban highways and pavement projects as well as network of expressways. The country's railways benefit from urban subway lines alongside traditional railroads and high-speed rail (bullet trains) that have shrunk Korea into a half-day travel zone.



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# Africa's agricultural warehousing potential

Food warehousing and logistics: a growth market as new investment targets an expanded role in agricultural production, Martin Clark reports.

Investors are showing renewed interest in Africa's food logistics sector as attempts are made to elevate overall agricultural commodities trade.

Despite the emergence over the past 20-plus years of overnight fresh produce delivered from African farms direct to European supermarkets, experts believe the continent's agricultural potential has barely been touched.

Africa has been a net importer of agricultural products for some decades, mostly characterised by a small number of primary commodities, such as cocoa, tea and coffee.

The goal is to reverse that and restore the continent as a net agricultural exporter.

This would mean a greater need for storage and warehousing facilities, and a much-improved logistics chain generally.

## New joint venture

It is not hard to find examples of how Africa's agricultural sector is evolving, bringing with it high profile investors.

US Nasdaq-listed S&W Seed Company recently teamed up with AGT Foods Africa, a subsidiary of Canadian-based AGT Food and Ingredients, to form a new joint venture SeedVision SA registered in South Africa.

The new company will leverage AGT Foods Africa's production and processing facilities to produce S&W's hybrid sunflower, grain sorghum and forage sorghum for sale by SeedVision across the African continent, as well as in the Middle East and Europe.

AGT Foods Africa will utilise its production resources in South Africa, Zambia and Tanzania, and its seed cleaning and warehousing facilities at Krugersdorp, South Africa.



AGT Foods Africa's warehousing facilities at Krugersdorp.

AGT boss Murad Al-Katib said Africa represents a large untapped market for its products and to help meet global food production needs.

He said, "This new joint venture allows us to extend our major processing and distribution assets in southern Africa to grow opportunities for more targeted agricultural production of these important crops in the region."

AGT is one of the largest suppliers of value-added pulses, staple foods and food ingredients in the world, while S&W provides expertise in agricultural breeding, production and processing for the alfalfa, sunflower, sorghum species, and stevia industries.

## Foreign investment

Increased interest in Africa's agricultural sector is bringing with it investment from major players.

Export Trading Group (ETG), the largest independent agricultural-

commodity supply chain manager in Africa, announced at the end of 2017 that it had agreed to introduce Japan's Mitsui & Co as a strategic minority investor.

The deal brings with it an investment worth US\$265mn.

Founded in 1967, ETG has 6,600 employees across 36 countries globally and operates 71 processing plants and more than 300 warehouses.

The company originates crops such as pulses, sesame and raw cashew nuts from smallholder farmers across Africa, aggregating, processing and distributing them across its network around the world.

ETG also maintains depots for containerised cargo at strategic ports, including Dar es Salaam, Mombasa, Beira and Durban.

The group's pan-African warehousing capacity stands at more than 1.8 million MT across 23 different countries.

Investment in cold storage facilities is also on the rise.

Shipping giant Maersk recently introduced containerised cold storage facilities for Kenyan agricultural exporters.

The move paves the way for more exports of avocados and other fruits across major markets in Europe and the Middle East, the company says.

## Commodities market

While there are signs of a revival in Africa's agricultural sector, and in exports, the continent still relies on vast quantities of imports.

Main ports such as Mombasa are handling huge levels of foodstuff imports, including crops such as wheat and maize, as well as fertiliser products and other farming inputs.

Still, agriculture accounts for about 15 per cent of Africa's total GDP, and is the main source of income for about 90 per cent of rural populations.

It also accounts for approximately 20 per cent of total export value.

But there is ample scope for more.

A recent AfDB report highlights the need to create a better functioning agricultural market one that includes millions of smallholder farms across the continent to boost local trade and enhance production.

The report, Africa's Agricultural Commodity Exchanges, Warehouse Receipt Systems and New Standards, says ensuring market inclusion for all, even the smallest farms, is a prerequisite for driving long-term growth. It says the sector is underperforming.

This is attributable to a lack of investment, poor access to markets, limited infrastructure and the high cost of farm inputs. At the same time, Africa's agriculture sector is "rife with opportunities" it notes. ■

“Africa's agricultural sector is rife with opportunities”

AFRICA'S AGRICULTURAL COMMODITY EXCHANGES, WAREHOUSE RECEIPT SYSTEMS AND NEW STANDARDS REPORT



# What are the keys to good warehouse design?

**M**odern businesses seek to continually update and improve their IT Systems and communications to develop in their market place, but this has to be supported by the effective management of their products through the warehouse and customer supply chain.

A series of warehouse equipment installations completed by Stodec Trading over the last few years in Kenya illustrate how good warehouse design and professional installation can provide first class operational support to match development and growth in other parts of a company.

Phase one required Stodec to maximise pallet storage capacity in three existing warehouse buildings.



Image Credit: Stodec

**Stodec can install warehousing to bespoke customer requirements.**

The existing storage method stored one pallet load on top of another, and although the warehouses had headroom, the risk of higher stacks toppling over, as well as a product being crushed at the lower levels limited capacity.

Every selection of goods required other pallets to be moved out of the

way. Staff were always at risk from unstable stacks.

Using Dexion Speedlock Pallet Racking designed to match the space and product, Stodec's design increased capacity by 100 per cent with access to each pallet separately and with safety for both product and staff.

Phase one provided storage for 3,944 pallets and was so successful in providing operational support that three larger new warehouses were built with higher headroom as phase two.

Using a similar design a further 16,700 pallet storage positions have now been provided to the sites in Mombasa.

These ready-assembled installations were shipped from the UK and installed by the local workforce who will be supervised by a Stodec Trading site manager. The installations met fully international SEMA & FEM standards. ■

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# Packaging innovations on show

Propak West Africa is taking place in Lagos, Nigeria from 18-20 September. We take a look at some of the main exhibitors and their products.

## We Makers Polyfilms



Heat transfer labels.

We Makers Polyfilms will be showcasing its innovative labelling solution at Propak West Africa.

Having a state-of-the-art facility and being a specialised manufacturer in labelling, it offers customised solutions to various industries by supplying Multicolor Printed Heat Transfer Labels (HTL), Shrink Labels and InMould Labels (IML) with an excellent quality and at a competitive price.

With Multiple Multi Color World Class Rotogravure Printing Presses and other top of the line converting machines, it is a forerunner in the field of labelling industries and is continuously expanding its capabilities by increasing production capacities as well as product varieties.

## Windmüller & Höscher

Windmüller & Höscher is a global



MIRAFLEX II A series, CI printing press.

leader in flexible packaging machinery headquartered in Germany. At Propak West Africa, it will present its whole value chain: extrusion, printing, converting. Demand is rising in Africa, especially in the paper segment. W&H is the only supplier at the show that covers

the range of flexible packaging, including plastics and paper. It will also showcase its MIRAFLEX II A series, an efficient CI printing press for highest quality requirements.

## Neofyton



A full electric 160t Engel machine.

Neofyton will present the latest technology innovation with Engel's machines. At Propak West Africa, visitors will see a live display of a 4-Cav Container around 155 ml, which will be made on a full electric 160t Engel machine (E-Motion 440-180t). It will be a production never seen before. Neofyton has a leading position in more than six countries in Europe and 25 years of experience in the plastics and rubber industry. With its motto 'partnership to success!' and full service support it says it provides one of the best injection moulding equipment solutions for industries.

## Krones

For the liquid food and beverage industry, Africa is an important growth market. At Propak West Africa, Krones will showcase its knowledge and competence when it comes to the processing, treatment as well as the filling and packaging of water.



Krones' water treatment system, the Hydronic.

## J.S. Machine

J.S. Machine is an international leading corrugating machinery manufacturer in the world, presently covering an area of more than 700,000 sq m of production space. More than 2,500 complete corrugators have been installed with more than 300 installed overseas. J.S. Machine has built up 27 sales companies, 18 offices, and 38 service stations all over the world, including subsidiaries in Istanbul and Moscow. One of its products on display will be the JETS 300 Corrugator. Its specifications include design speed 300m/min, with high efficient production, high board quality, intelligent control and energy-saving.



JETS 300 Corrugator.

## Sato



SATO TH2 labelling system.

Among the items on display at Propak West Africa, will be SATO's Food Safety Solution, making illegible handwritten labels a thing of the past. Designed for use in all food preparation areas, quick service outlets and restaurants, the solution enables users to easily print ingredient and expiry labels with accuracy and efficiency as well as deliver peace of mind for consumers. Anyone can create expiry labels easily using either a SATO TH2 at the push of a button or with a SATO Judo Food Hand Labeller.

SATO is a leader in Auto-ID industry and believes that food safety regulations should be implemented easily and error-free.

## FlexoHub

FlexoHub will be showcasing its products as a leading player in the flexography printing and packaging industry. It operates in Ghana and



Flexo Inks.

surrounding markets such as Nigeria, Côte d'Ivoire, Burkina Faso, Benin and Togo. Its main ambition is to become a central source for many customers in the flexography printing and packaging industry. ■



# J.S Machine: 23 years in Africa

**J**.S. Machine has been in Africa mainland for almost 23 years. This long story began with the first complete corrugator in Egypt in 1995, the first generation WJ150-1800-II corrugator. The machine is still operating well, with a running speed of 100m/min.

The next remarkable project was in Nigeria in 2003, J.S. Machine offered the best machine at that time, the second generation products, WJ200-2200-II corrugator, with design speed of 200m/min and width of 2200mm, and some converting printers. Our chairman, Sun Youyuan met with the client in Beijing to sign the contract.

Afterwards, the market kept growing, with J.S. Machine entering different Africa countries one by



Image Credit: J.S. Machine

**J.S Machine has sold products to 15 countries in Africa.**

one. Another groundbreaking project was in South Africa in 2008, when it sold the WJ250-1800-II

corrugator. It was a J.S. Machine third generation product with cassette single facer, design speed

of 250m/min. Then it installed the same machines in Saudi Arabia in 2011 and Cameroon in 2012.

J.S. Machine launched the fourth generation JETS300/400 corrugators and JSFolder 900/1200 flexo folder gluer in 2012. Saudi Arabia had a JETS300-2500-II Corrugator installed in 2015, establishing the first JETS300 corrugator for this region.

During the past two decades, J.S. Machine has been an established solid agent and service support system in Africa. Products have been sold to 15 countries in Africa, more than 30 corrugators and 50 flexo printers installed there. J.S. Machine continues to look for opportunities for its new technology and products on the continent. ■

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## Completion of world's largest combined cycle power plant in record time

Up to 40 million people in Egypt will benefit from access to electricity, thanks to the completion of the world's largest combined-cycle power plant.

The Beni Suef, Burullus and New Capital power plants will add a total of 14.4GW of power generation capacity to the national grid.

The megaproject is a collaboration between the Egyptian government, Siemens and its consortium partners, Orascom Construction and Elsewedy Electric.

"The completion of the power plant is a significant milestone in the government's strategy to modernise energy infrastructure in Egypt to drive industrial growth and economic progress," said H.E. Dr. Mohamed Shaker, the Egyptian Minister of Electricity and Renewable Energy. "This is also why the plants were built in select locations across the country to serve the growing demand for electricity among households, businesses and industries. This new power infrastructure will serve as the backbone for economic prosperity in Egypt for years to come."

Siemens and the company's consortium partners set a new world record for delivering these projects, in only 27.5 months. A single combined cycle power plant block with a capacity of 1,200 megawatts typically takes approximately 30 months for construction.

The power plants will deliver more electricity to more homes, located in Upper Egypt and Delta Nile and Greater Cairo area, and support the country's focus on industrialisation by providing reliable power supply to energy-intensive industries. For example, the Burullus plant is expected to feed power to cement, oil and gas and petrochemical facilities as well as ongoing infrastructure development projects. The New Capital plant will provide energy to Cairo's new administrative capital, which is home to five million Egyptians, as well as the strategic New Suez Canal Development Zone, while the Beni Suef plant will service homes, businesses and industries in the Upper Egypt area.

"The record-breaking completion of our megaproject in Egypt will not only transform the power landscape in Egypt, but will also serve as a blueprint for building up power infrastructure in the Middle East and all over the world," said Joe Kaeser, president and CEO of Siemens AG.



Image Credit: Siemens

**The New Capital power plant will provide electricity to around five million Egyptians.**

## UGANDA BECOMES FIRST TO SIGN RLSF AGREEMENT

Uganda has become the first African country to sign an agreement with the Regional Liquidity Support Facility (RLSF), a joint initiative of the African Trade Insurance Agency (ATI) and KfW with funding from the German Ministry of Economic Cooperation and Development. Under the programme, RLSF will offer protection to new small and mid-sized renewable energy projects (up to 50MW) in sub-Saharan Africa.

The World Bank estimates that the continent needs to generate annual capacity of 7,000MW, but such a ramp-up in generation capacity cannot be achieved without private sector participation. The RLSF, as a pragmatic option, could therefore become a more widely used solution to solve Africa's energy deficit challenge.

The move reflects Uganda's commitment to ensuring the viability of small and medium-scale renewable energy projects. Speaking during the signing ceremony, Honorable Matia Kasajja, Uganda's Minister of Finance, Planning and Economic Development said, "Uganda has a solid history of supporting our public concession with upwards of US\$500mn spent in the last decade on improvements to the grid. With this agreement, we see RLSF providing a perfect complement to our on-going strategy of accelerating the delivery of clean energy to the national grid."

The RLSF has an initial capacity equivalent to US\$74mn and will protect Independent Power Producers (IPPs) against the risk of delayed payments by public off-takers. This type of guarantee is a common requirement from the banks that fund the projects. Many projects have failed in the past to access funding because this guarantee was not available.

Uganda is seen as an ideal market based on the relatively high number of viable Independent Power Producers (IPPs).

## BBOXX DELIVERS ENERGY TO 12,000 IN TOGO

BBOXX, a next generation utility, has successfully delivered energy access to more than 12,000 Togolese citizens with its smart solar home systems, just six months into its operations in Togo.

In December 2017, BBOXX entered into an innovative partnership with the government of Togo to provide energy access as part of the government's aim to dramatically improve electrification rates in Togo, particularly in rural areas. The mission of "CIZO" which means lighting up in "Guin" language is to bring electricity to more than two million citizens by 2022. It will also provide the adoption of mobile payment solutions across the country, helping to improve the financial inclusion of rural communities.

Mansoor Hamayun, chief executive officer of BBOXX, said, "It is really positive to see the impact BBOXX operations has had in Togo in just half a year. We have big ambitions to expand in the country and sell a further 10,000 units by the end of the year."

## ► BRIEFS

### Phanes launches 2nd Solar Incubator



Image Credit: Adobe Stock

2nd Solar Incubator programme launched by Phanes Group.

Phanes Group, an international end-to-end solar provider in Dubai, has announced the 2nd edition of its Solar Incubator programme, aimed at identifying PV projects in sub-Saharan Africa by providing support to funding and commercial and technical knowledge. Candidates are asked to submit their proposals by 27 September via the Phanes Group's website. Those who are shortlisted will be invited to present their projects at a conference in Kigali, Rwanda in November.

### Lighting up lives of women and children



Image Credit: Adobe Stock

LED lights brighten up community centre in Johannesburg.

Signify, formally Philips Lighting, has installed LED lights to a community centre situated in Lehae, Johannesburg. This initiative is a follow up from 2016, when Signify donated an investment of about 100,000 Euros towards the setting up of a mother and child unit at the centre. Both actions are part of the Signify Foundation whose focus is to improve the lives of the underprivileged. "Our purpose is to transform the lives of women and children in the community," says Thirza de Jong.





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The Azura-Edo power plant will deliver up to 10 per cent of the nation's on-grid power.

Image Credit: Azura Power West Africa Limited

# Setting high standards at Azura-Edo power plant

A Nigerian power plant is setting new standards for construction and private financing. Martin Clark reports.

The new 461MW Azura-Edo power plant near Benin City, Nigeria, is now delivering up to 10 per cent of the nation's on-grid power – a milestone in its own right.

But its construction, close to Nigeria's main trunkline, the Escravos Lagos Pipeline System, just one km away, also set new benchmarks for excellence in speed, financing and safety, providing valuable lessons for the future.

Significantly, this is Nigeria's first large-scale project-financed independent power project (IPP), developed by lead sponsor Azura Power Holdings, an investment holding company for IPPs in Africa. Other co-shareholders include AIIM, ARM and Aldwych International.

But getting the groundwork ready for construction to begin with was quite an accomplishment.

Azura's painstakingly negotiated contractual agreements with stakeholders – from gas supply and transportation to power purchasing have set new market standards for the on-grid electricity supply industry in Nigeria.

It was also the first such project known to provide a weekly public blog that emphasised transparency, performance and delivery over the course of the 28 months of building, and the construction of the plant overcame logistical obstacles to set new benchmarks for speed and on-site safety.

That includes an impressive 4.8 million man-hours of construction without a lost-time incident.

An integral member of the

engineering and construction team was industry heavyweight Siemens.

The turnkey open cycle plant is the fourth gas turbine power plant in Nigeria to be provided by the company.

The Azura-Edo site boasts three Siemens SGT5-2000E gas turbines and three SGen5-100A generators.

More than 600 of these tried and tested turbines already operate around the world, including at Gerugu I, where last year Siemens carried out its biggest service project in West Africa.

## Construction team

Construction on Azura-Edo began in earnest in January 2016.

As well as Siemens, the engineering, procurement and construction (EPC) team comprised civil construction company Julius Berger Nigeria.

Along with the turbines and generators, the scope of supply for Siemens also included transportation and the complete electrical and high-voltage equipment, including switchyard, transmission lines and overhead towers, as well as the extension of the Benin North sub-station.

While progress was steady, it was

not without some roadblocks.

For example, to transport the heavy turbines and generators, the team chose to offload them at a small port 60 km from Benin City rather than Lagos Harbour.

This meant the team could avoid miles of poor roads and intense city traffic, but it also meant first testing the port's landing facilities, improving local roads and reinforcing bridges to withstand more weight.

A major part of keeping things ticking over was the involvement of local communities and the provision of jobs, said Gert Landmann, Siemens project manager.

"In Nigeria and perhaps in similar countries in Africa, it's important that you convince the adjacent communities of the benefits that come along with such a project," he said.

"It's a big success to have completed the plant more than eight months ahead of schedule."

## Speed matters

Azura's debt financing for the US\$900mn project was raised from 15 financial partners in nine countries, an unusually high number of lenders and a sign that the Nigerian energy market is still seen as more high risk.

Indeed, despite being one of Africa's largest economies, the country produces surprisingly little power.

Although in 2017 Nigeria had an official available capacity of 6,317MW, Azura Power West Africa Ltd's chief executive Dr David Ladipo says it still only produces around 4,500MW.

The total installed capacity is higher with 12,522MW, but the national grid is relatively small and unstable.

It means many of Nigeria's 198 million people continue to use generators for power as a result.

As the country's first large-scale IPP, raising debt and equity from third-party investors required a great "degree of contractual precision," said Ladipo.

Azura spent six years negotiating rigorous, "template-making" contracts for the IPP before construction even began.

And time is money: At a peak point prior to financial closure and before construction began, Azura calculated the all-in cost of delays at over US\$250,000 per day.

But the agreements made were groundbreaking.

"No one had done a private sector power purchase agreement in Nigeria," said Ladipo. "Azura provided a pathway for others to enter into similar contractual arrangements that will unlock financing for more investments."

Unusually, the company also made its development plan public to aid future industry growth.

It's a success for all – including Nigeria and its energy sector. ■

“It's a big success to have completed the plant more than eight months ahead of schedule”

GERT LANDMANN, SIEMENS PROJECT MANAGER





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ENGIE is to build eight hybrid solar power plants in Gabon.

Image Credit: ENGIE

# Renewable energy developments

From solar plants to hybrid solutions, governments are capitalising on the benefits of renewable energy developments.

**E**ngie has signed a mega agreement with CDC, the Gabonese financial institution Caisse des Dépôts et Consignations, to deploy eight hybrid solar power plants in Gabon, representing a combined capacity of 2.2 MW. It means that solar energy can be used in eight locations that are supplied by oil-fired thermal power stations and save the country one million litres of fuel oil per year, or 2,600 tonnes of CO<sub>2</sub>, and reduce generation costs by 30 per cent.

The hybrid solution, which was developed by ENGIE's subsidiary, Ausar Energy with CDC, the Gabonese Ministry of Energy, and the Gabonese energy and water company, is one of the many exciting solar power developments shaping the continent.

Ausar Energy offers African markets hybrid

solar power plant solutions, with capacities ranging from 50 kW to 2.5 MW.

Over in Nigeria, Daystar Power has been operating three solar power plants in Abuja and Jaji since November 2017, which have a total output of 103.08KW. In Abuja, the solar plant consisted of AEG solar modules on the premises of the armed forces electronic and engineering training school. They largely replace the usual power supply by diesel gensets on the entire training grounds. This means that the training centre, lighting and air conditioning systems can be operated cost-effectively and in an environmentally friendly manner.

In Jaji, there are two other properties supplied with solar energy by Daystar Power: the medical centre and the GTAG training centre, where the

Nigerian army is trained by Bundeswehr (Germany's armed forces) units. Daystar belongs to the venture builder Sunray Ventures.

Christian Wessels, managing director of Sunray Ventures says, "One of the main difficulties affecting Africa's economic development so far is the lack of a comprehensive and stable energy supply. The interruption of cold chains, the undersupply of schools and hospitals with energy and the general unreliability of the energy supply represent an insurmountable hurdle for companies and foreign investors. This supply gap can be systematically closed by feeding solar energy into local networks. With the help of the long-term partnership with Bundeswehr camps in Nigeria, we are securing our investment in the long term. Here we want to point out a path that



can be exemplary for the whole of Africa and should serve as a model for the entire continent.”

**South Africa**

The long-awaited signing earlier this year of power offtake agreements with independent power producers is likely to boost Raubex Infra’s contribution in the renewable energy sector, according to managing director Ean Steenkamp.

“We are looking forward to our increased participation in this exciting sector, making our expertise available to photovoltaic energy projects, concentrated solar power projects and wind energy projects among others,” says Steenkamp.

Raubex Infra had previously been involved in renewable energy projects as part of the government’s Renewable Energy Independent Power Producers Procurement Programme (REIPPPP) in South Africa. Providing a range of infrastructure services from civils and electrical to telecommunications and rail, Raubex Infra specialises in executing turnkey projects. These are often in niche areas with demanding time constraints and technical complexities.

**“ We want to point out a path that can be exemplary for Africa to serve as a model for the continent ”**

**CHRISTIAN WESSELS, MANAGING DIRECTOR OF SUNRAY VENTURES**

Among its recent work in solar power was a contract to drill and cast 28,000 concrete piles for solar field foundations in the Northern Cape. The contract required regular, reinforced and drive piles, and consumed 3,000 m<sup>3</sup> of concrete footing. The company was also responsible for the electrical, instrumentation and control installation on this project. This included almost 15,000 m<sup>3</sup> of civils works and trenching, as well as laying and terminating 211,000 metre of fibre and ethernet cables. Medium voltage and low voltage cables were also laid and terminated.

“Our experience allows us to undertake projects of various sizes in South Africa and across border,” Steenkamp says. A recent project completed in Lesotho was the turnkey installation of a 105 kW rooftop photovoltaic (PV) system. This included mechanical installation of



Raubex Infra constructed a 105 kW rooftop PV system for Vodacom in Lesotho.

Image Credit: Raubex Infra

substructures, modules, cabling, inverters and control systems through to final commissioning.

As an example of a smaller project, Steenkamp says Raubex Infra recently designed, supplied, installed and commissioned a 64 kW ground-mounted PV system in Boksburg, Gauteng.

“Our capabilities and flexibility enable us to meet market requirements, and over the last couple of years we have been extensively involved in civils work including streets, sidewalks, bulk water facilities and telecommunications installations,” he says. ■

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# Second wind power project in Kenya

Kipeto Wind Power Project — second largest in the country — is expected to contribute to the economy and meet the increasing demand for power, which is expected to rise to approximately 15,000MW by 2030.

Lake Turkana Wind Power Project in Kenya, the largest in Africa.

Image Credit: WorleyParsons



**W**orleyParsons has signed a 22-month owner’s engineer contract for the Kipeto Wind Power Project in Kenya, the second largest in the country after the Lake Turkana Wind Power Project. The Kipeto Wind Power Project will comprise 60 wind turbines generating a combined capacity of 100MW of clean, renewable electrical energy that will be fed into the national grid.

The Kipeto Wind Power Project is located in the Kajiado County, south west of Nairobi. As the owner engineer, WorleyParsons will provide invaluable wind power project expertise to Kipeto Energy Limited (KEL), which are responsible for financing, constructing and operating the project; and oversee EPC contractor China Machinery

Engineering Corp (CMEC). The 60 turbines will be manufactured by General Electric.

The Kipeto project comes on the back of WorleyParsons’ successful completion of the Lake Turkana Wind Power Project, the largest in Africa, where the energy and resources company provided overall project management, engineering review and construction management services.

WorleyParsons project director Tim Gaskell says the Kipeto project will draw on its Kenyan wind power expertise gained during the Lake Turkana Wind Power Project, and utilise the same skilled team from the company’s Kenyan and South African operations.

“Our successful execution of the Lake Turkana Wind Power Project and the experience gained played a major role in WorleyParsons having



**Tim Gaskell, project director, WorleyParsons**

“ Our successful execution of the Lake Turkana Wind Power Project played a role in being awarded the Kipeto project ”

**TIM GASKELL, PROJECT DIRECTOR, WORLEYPARSONS**

been awarded the Kipeto project, as we have excellent in-country knowledge and can offer the services of a highly experienced local team. The fact that WorleyParsons already has well established branches in Nairobi and also in Beijing — where CMEC are based — were further advantages,” says Gaskell.

Gaskell says that while Kipeto



Energy Limited awaits financial close and final notice to proceed, WorleyParsons has established a project team on site to begin upfront work. Currently, the team is overseeing the building of 85 houses for the local Masai community who own the land.

This forms part of the agreements between the project and the individual landowners that include the relocation of the affected landowners and their families, 30-year land lease agreements with 25 individual landowners, and way leave agreements with 24 landowners along the transmission line route.

Gaskell says WorleyParsons views close communication with the landowners and the community as integral to the project, and has already liaised extensively with stakeholders to ensure tangible benefits to the local economy as well as contributing to the general welfare of those living within the project area. The Kipeto project will also create opportunities for local suppliers and artisans to provide goods and services to the project, land leases, community upliftment projects, and upgrades to roads.

In addition, ongoing environmental impact assessments will mitigate any impact the project may have on the land, its people and surrounding flora and fauna, says Gaskell.

Once the project is given the green light to proceed with full scope, work will begin on

“ The Kipeto Wind Power Project requires only 17 kilometres of transmission lines ”

**TIM GASKELL, PROJECT DIRECTOR, WORLEYPARSONS**

access roads. These include the new 17-kilometre road to the project site, maintenance on existing roads to the wind farm from the port in Mombasa, and establishing a road network between the wind turbines.

Construction of turbine foundations will follow while the substation and overhead power lines are simultaneously installed. Once the foundations are dug and cast, the turbines will be erected, connected to the substation, and begin feeding into the national power grid.

WorleyParsons’ design review includes overseeing the entire project from geotechnical drilling to determine ground conditions and the design of the foundations, through to project schedule, quality control, electrical and civil engineering design, housing construction, and health and safety.

Gaskell says that although Kipeto has its own unique challenges, such as the soft, muddy clay that covers much of the site, overall the location is more accessible than Lake Turkana as it is relatively close to Nairobi and requires only 17 kilometres of transmission lines.

The Kipeto Wind Power Project is expected to contribute significantly to the Kenyan economy as well as alleviate an increasing demand for power which is anticipated to rise to approximately 15,000MW by 2030. This is according to Kenya Power who will buy the power generated by the project for a period of 20 years and distribute it into the national grid. Kenya Power, listed on the Nairobi Securities Exchange, owns and operates most of the electricity transmission and distribution system in the country, serving more than 6.7 million customers.

Globally, wind energy is fast becoming one of the most popular sources of renewable electricity production. In addition to being a low-carbon source of energy, it also has little or no emissions and does not require large volumes of water, mining, drilling or transportation of fuel. Windmills have been in use since 2000 BC and were first developed in Persia and China. ■



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# Moving closer to energy security in Africa

Chris Weston, CEO, Aggreko, shares his insights about decentralisation and decarbonisation that are set to drive wider electrification across the continent.



Image Credit: Aggreko

Chris Weston, CEO, Aggreko

The African Energy Forum (AEF) is one of the most important events in the African utilities sector. This year, the AEF's 20th anniversary, I had the pleasure of delivering the welcome address, while my colleagues participated in a range of panels.

Reflecting back, this year's forum provided us with an opportunity to look to the past and the future of energy in Africa. Opportunities abound for a very different future, yet significant challenges also remain.

## Bridging the electricity gap

Since 2012, the pace of electrification on the continent has nearly tripled, relative to the previous decade. According to the IEA, in sub-Saharan Africa, electrification surpassed population growth for the first time in 2014.

But big challenges remain, which need to be addressed.

600 million people — roughly 57 per cent of the population — still do not have access to electricity, the largest such concentration of people in the world. This means a lack of power when it is needed most, affecting people's lives, their development and constraining economic growth.

There are already examples of efforts to bridge the electrification gap across the continent. In Rwanda, the Impact Hub in Kigali has launched a nationwide search for new solar energy solutions. In Nigeria, the government has outlined plans to deploy 10,000 new micro-grids.

But this is just scratching the surface — there is much further to go

before we live in a world when electrification is evenly distributed across Africa.

## No decentralisation without decarbonisation

Two trends are converging which look set to drive wider electrification across Africa: decentralisation and decarbonisation.

Decentralisation is an intrinsic characteristic of the African energy market as expanding distribution networks push into ever-more remote areas.

Across the continent we're seeing an increased demand for more localised energy sources — often renewable-based — and microgrids emerging. This in turn means the need for mass-scale power plants to deliver baseload power through national grids, with all their associated transmission costs, is decreasing.

As more customers become independent from the grid in developed markets, the cost of staying on it will increase and the trend will intensify. In Africa though, we'll see customers avoid the grid and associated transmission costs altogether, instead going directly to decentralised solutions. We've witnessed this first-hand as we work with regional organisations across the continent, including our collaboration with Senelec to provide 37 MW of off-grid power to

nine remote sites across Senegal.

Inextricably linked with decentralisation in Africa is the increasing importance of renewables across the continent. As the regulatory environment continues to shift in its favour, and the cost of storage technologies decreases, renewables will really begin to make an impact.

Between 2012 and 2015, around 18 million people used energy produced from renewable sources (particularly large-scale hydropower and geothermal) in sub-Saharan Africa. This is a considerable increase from the 3.5 million people who accessed renewable-based power each year from 2000 to 2012.

Once new renewable sources are built and initial set-up completed, the energy they produce is relatively low cost.

However, a big challenge remains. As renewables are intermittent, using them for baseload power requires reliable storage solutions with mobile, fast-start thermal generation as back-up power to be able to provide power stability. These storage solutions are crucial to the renewables mix, but also remain costly as the technology is still relatively new. As the technology develops over time, the associated costs will eventually begin to fall. This decrease in cost will act as a tipping point, with the potential to revolutionise

the use of renewable energy sources across Africa and the world.

Decentralised or distributed solutions, using small scale thermal generation, are far more cost effective and more capital efficient, than the larger centralised systems. This is a key trend that will develop with — but also fuel — Africa's growth.

## To the future

For energy markets in Africa, the future is arguably more assured and exciting than it has ever been. The trends outlined above, and more, mean it could be a model for the provision of energy in the changing future.

In many African countries there is a genuine greenfield development opportunity, a far cry from the complex, costly upgrades involved in ageing and creaking Western infrastructure.

Conditions are sometimes tough, but this is driving innovation across the region, with a strong competitive element as new ideas are developed and tried at rapid pace.

The AEF was a great example of the types of collaboration that is needed by governments, energy companies and industry leaders alike, to come together to discuss the future direction of energy in Africa and how to tackle it.

It is impossible to predict exactly where this will go next and what energy in Africa will be like in five years, let alone 20. What we can be sure of is that exciting, transformative times lie ahead. ■

“ Since 2012, the pace of electrification on the continent has tripled ”

CHRIS WESTON, CEO, AGGREKO





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## EMERGENCY POWER FOR HOTELS IN BURKINA FASO

HIMOINSA has supplied HYW-35 T5 generator sets, which generate standby power of 37 Kva to guarantee the electricity supply of Hotel Poko in the west of Ouagadougou in Burkina Faso.

The hotel is located in an area where the mains supply is unstable, so it needs an emergency HIMOINSA generator set to be installed to cover any power outage. In this case, the HYW-35 T5 model with a Yanmar engine and a Stamford alternator was chosen.

In the event of a power outage, the generator will start up to supply power to the whole hotel complex and enable both the main building and the outside area to function as normal.

The soundproofed generator set guarantees low noise emissions, which is ideal for urban centres and a feature, says HIMOINSA, that was very much appreciated by the customer.

**HIMOINSA has supplied HYW-35 T5 generator sets for Hotel Poko in Burkina Faso.**



Image Credit: HIMOINSA

The generator set incorporates a 100 litre internal tank, meaning that the generator's running time is long enough that no external

tank is required, thus reducing operation costs. HIMOINSA offers optional larger tanks, with a capacity of 190 and 330 litres, when required.

## LV ELECTRIC MOTOR RANGE FROM ZEST WEG GROUP

Electric motor applications require a reliable, robust fit-for-purpose product that will give the end user the requisite low total cost of ownership. Fanie Steyn, manager responsible for rotating machines at Zest WEG Group, says it is encouraging that most industries in southern Africa have woken up to the fact that purchasing the standard efficiency motor is not the best long-term option.

As the leading supplier of electric motors in southern Africa, Zest WEG Group offers the most comprehensive range of low voltage electric motors available on the continent.

In previous years, all WEG low voltage electric motors were manufactured at WEG Brazil, but today this major group's manufacturing network extends to four continents. All facilities adhere to stringent quality control processes, are ISO 9001:2015 accredited and motors meet all the requisite international standards and regulations.

"The depth of the WEG low voltage range of electric motors allows us to offer customers the best fit for individual applications, and we are also able to draw from a product line-up of motors that are engineered for specific application requirements," Steyn says.

The WEG low voltage electric motor range starts from 0,18 kW motors that would be used to drive small fans or used in exhaust applications, and goes up to 1,250 kW motors which would drive massive ventilation fans or pumps.

Significantly, Zest WEG Group has such confidence in WEG motors that all the WEG W22 low voltage units now carry a five-year guarantee as standard. Electric motors for specialised applications would include slip ring motors.

## Booyco Electronics meets evolving customer needs

Understanding evolving customer needs as well as the legislative compliance for differing sectors has positioned Booyco Electronics to offer application-specific safety related solutions to customers across a range of industries.

Graeme Jardine, general manager field services at Booyco Electronics, says that the company's safety products portfolio has grown significantly since the company was first established 12 years ago. This market offering is underpinned by a solid field service support system assuring customers of a rapid response across South Africa.

Significantly, the company's market offering, founded on leveraging best practice engineering and manufacturing, has produced a line-up of technologically proficient solutions. Jardine says that in addition to locally manufactured products, the company sources quality equipment where the economic justification for local manufacturing does not exist.

Unpacking the core products, Jardine explains that the company pioneered proximity detection systems in the South Africa underground mining industry, and this offering was extended to surface operations.

Booyco Electronics' fully integrated Proximity Detection System, which provides a safety intervention capability with a data hub, has been well accepted in the mining sector with other industries rapidly incorporating the company's technology into their safety programmes. Jardine says data is transferred between users via Booyco Electronics' Human Machine Interface (BCI unit), with system communication with line managers and engineers using easy to understand icons. The company's BEAMS software is used as a reporting tool to ensure that PDS events can be analysed and used as a change-in-behaviour tool.

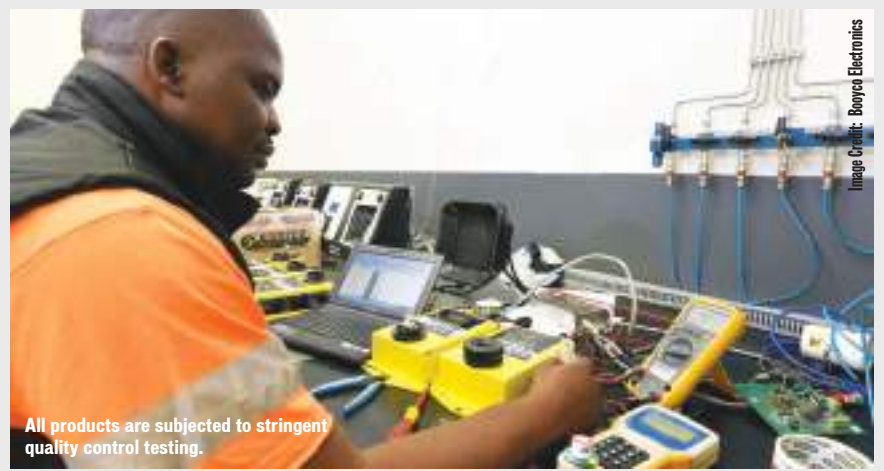


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**All products are subjected to stringent quality control testing.**





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# Using solar energy to power genset batteries

Manufacturing gensets for 25 years, Inmesol offers an alternative solution in case of a power source failure.

A genset must be prepared to start and work, no matter its application or use. With this in mind, the battery, among other factors, is vital as it is responsible for starting the engine of the genset to make it to work.



Who is responsible for keeping the gensets' batteries sufficiently charged to ensure the correct start-up of the engine?  
This task is performed by the battery chargers.

In order for these devices to work as intended, they must be connected by a power source, usually the mains. When this option is not available, there is an economical and effective solution: the use of solar panels to power the chargers that will keep the batteries with enough energy to ensure that there are no start-up failures.



An alternative power source increases the operational versatility of any genset, particularly in the rental sector. This is especially important when service is required in unpredictable conditions, such as construction sites, mines and telecommunications systems — these are often located in remote places where there are no mains.

Two gensets of this type have just been tested and are ready to travel to Australia.



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## Shaping the future of the power sector in Nigeria

The Power Nigeria exhibition and conference, which takes place in the Landmark Centre in Lagos on 25-27 September, is set to once again attract the entire power market value chain, from decision makers and business leaders to experts and trade professionals who will gather to deliberate the latest trends and progression within the country's power sector.

Nigeria has set ambitious goals to double generation capacity from fossil-fuel sources to more than 20GW and to increase hydroelectricity generation capacity to 5.7 GW by 2020, from the current 1.9 GW. In the last 15 years, Nigeria has seen over US\$4bn worth of investments in power generation capacity.

Speaking ahead of the exhibition next month, Sheetij Taneja, exhibition manager at Informa's Industrial Group, recognises the importance of bringing together the industry every year and the potential the power generation investments will have. He says, "It is this type of growth that drives our platform and allows us year after year to bring together a wide range of major stakeholders, from power manufacturers, suppliers, domestic wholesalers and distributors to thousands of visitors from across Nigeria and neighbouring countries, all with decision-making competence."

Lucy Electric, one of Power Nigeria's longest standing exhibitors, will be taking part once again to showcase their latest range of industry leading products to local suppliers.

A spokesman said, "Given the developments in the Nigerian power sector, we will have a range of products to demonstrate at the show to help utilities with enhanced network monitoring, automation and control.

"Last year we launched our first 36kV ring main unit, the Aegis36, which meets the growing demand for a quality switchgear solution across this voltage supporting utilities in West Africa to connect more renewable



Image Credit: Informa Industrial Group

There will be discussions on the latest trends in the sector at Power Nigeria.

energy to the grid. We will also be presenting our industry-leading Gridkey LV/MV monitoring system and associated analytics."

Some of the standout exhibitors this year include Cummins, Polycab, Gil Automations, Beta Transformator and Skipper Seil.

Power Nigeria draws on the strengths of Informa Industrial Group's geographical foothold in the Middle East and Africa through its partner events Electricx in Cairo, Middle East Electricity in Dubai, one of the region's largest power exhibitions, and the launch of Middle East Electricity Saudi on 15-17 October in Riyadh.

Visitor pre-registration can be done via [www.power-nigeria.com](http://www.power-nigeria.com)

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## Bel Air Mine will boost Guinea's yearly exports of 35 million tonnes of Bauxite

Africa Finance Corporation has announced the completion of the Bel Air Mine in Guinea and loading of its first shipment of high grade bauxite to China.

The construction of the mine, which was finished on time and to budget, will have a production capacity of 5.5 million tonnes of bauxite per annum. This will add to Guinea's average yearly exports of 35 million tonnes of bauxite.

Oliver Andrews, executive director and chief investment officer of AFC said, "I am delighted to announce the timely and safe completion of construction of the Bel Air Mine and associated transport infrastructure, including the first sea port to be built offshore West Africa in the last two decades, which brings with it not only employment opportunities but also much-needed connections with international markets that will support sustainable growth for Guinea's mining industry."

The Bel Air Mine in the Boffa region was developed by Alufer Mining and financed as part of an international investment consortium, which included AFC (the sole African private sector financier), Orion Mine Finance, with over US\$2.5bn in assets under management, and Resource Capital Funds, a mining focused equity firm with over US\$2.5bn under management.

The total invested by the consortium was US\$205mn, making it the first and largest foreign investment in Guinea since the 2014 Ebola crisis. During construction, the project employed more than 1,500 people, 85 per cent of which were Guinean nationals and more than half from local communities. This marks a significant milestone for the Corporation, demonstrating its commitment to investing across Africa and providing employment and sustainable economic growth for those who need it most.

Bernie Pryor, CEO of Alufer Mining said, "AFC has been an integral partner in the success of the Bel Air Mine, forming an important component of not only the eventual financing of the project, but also contributing to the sustainable approach to which the project was to be delivered. We look forward to working closely with AFC to deliver substantial returns for all of our stakeholders and creating a positive and lasting legacy for the people of Guinea."



Oliver Andrews, executive director and chief investment officer at AFC.

## BOBCAT TARGETS HEAVY LIFT HANDLING



The new TL43.80HF telehandler for African Markets.

Bobcat has launched a new solution for heavy lift handling applications found in general industry, manufacturing, building materials, warehousing, quarrying and mining with the TL43.80HF telehandler for the Middle Eastern and African markets.

With the new TL43.80HF, Bobcat offers fifteen different rigid frame telehandler models, covering maximum lifting capacities between 2.6 and 4.3 tonne and maximum lifting heights from six to 18 m.

"At Bobcat, for over 60 years, we have been constantly innovating the market, always developing new machines for customers' needs. The new TL43.80HF is no exception to this legacy as it completes our range of telehandlers and ensures customers can benefit from unmatched loading productivity and lift capacity. Bobcat machines are made for tough jobs, while still providing all the agility any application would require," said Olivier Traccucci, Bobcat telehandler senior product manager.

Unlike any other manufacturer on the market, all Bobcat telehandlers are covered by a 3,000 hour warranty as standard.

The very high stability of the TL43.80HF is due to the box welded frame, the low load centre, the long wheel base and the new massive rear counterweight, allowing Bobcat to minimise the overall dimensions of the machine, resulting in a width of only 2.30 m and a length of less than 5 m from the rear to the fork face.

## BROKK LAUNCHES NEXT-GEN DEMOLITION MACHINES

Brokk, the world's leading manufacturer of remote-controlled demolition machines, launched four new machines during INTERMAT Paris 2018.

The new models include: the Brokk 170, Brokk 200, Brokk 300 and the green diesel Brokk 520D machines. Each of the four models comes equipped with Brokk's SmartConcept technology.

Along with the new line, Brokk also introduced new attachments, including BHB hydraulic breakers and three Darda concrete crushers.

"The introduction of these four demolition machines redefines expectations in terms of power-to-weight performance ratio for demolition robots," said Martin Krupicka, president and CEO of Brokk Group. "And this is all made possible by the unique new Brokk SmartConcept technology, which boosts an already world-class line up of demolition machines."

## ► BRIEFS

### Kenya-ACOP road corridor to boost trade



The last section of the road in Ethiopia will be finished in the first half of 2019.

Kenya and Ethiopia have initiated a 895km highway corridor linking Nairobi and Addis Ababa, a move that aims to ease cross-border traffic between the two countries and give a major push for economic integration within Africa. The US\$670mn project has been financed by the African Development Bank. While the Kenyan section of the corridor was completed in 2016, the last part of the road in Ethiopia will be finished during the first half of 2019.

### Welcoming BL&D to Zambia



Lusaka branch of BL&D Plant Hire & Sales.

Screening and crushing industry leader McCloskey International has welcomed equipment dealer BL&D Plant Hire & Sales to its global network of distributors, serving Zambia and Zimbabwe. Representatives of the company were present at CAMINEX 2018 to launch the dealership with a McCloskey C38 on 5-7 June at Kitwe. "Zambia has substantial mining reserves, which will contribute to our economic growth," says Jeremy Badcock, director at BL&D Plant Hire & Sales.



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# Hotel business fuels construction work

A wave of high-end hotel developments, prompted by increased business and tourism traffic across Africa, is fuelling construction activity.



Hilton Tanger City Center Hotel & Residences in Morocco.

Image Credit: 2018 Hilton

Construction firms could receive a welcome boost from the tourism sector.

There's already evidence that hotel brands are taking Africa more seriously, a reflection perhaps of a renewed confidence in the region.

And it's a trend that is set to continue, according to the Knight Frank Hotels Africa 2018 report.

It suggests that international hotel chains such as Marriott, Hilton and others are now focused on markets currently perceived as under supplied.

South Africa has the largest supply, with almost 30 per cent of

the entire continent's chain hotels.

In North Africa, esteemed brands such as Hilton have been raising their game in recent years to capture a growing market that they feel is presently underserved.

Its most recent project, a 150-room hotel in the Moroccan capital, Rabat, was announced in

March, and is scheduled for opening in 2022.

Last year, it installed a permanent development presence to steer its North African work, and has already opened two hotels in Tangier, with three more under construction in Al Houara, Taghazout Bay and Casablanca.

But developments are not confined to the north.

The Knight Frank report suggests that West Africa is the hotel development hotspot right now, with a 35 per cent share of projects under construction, followed by North Africa with 29 per cent.

The eastern Africa region accounts for 26 per cent of pipeline projects in the continent, the report states, pinpointing Nairobi, Dar es Salaam, Zanzibar and Seychelles as major locations for activity.

Knight Frank believes that both global and regional hotel chains are targeting Africa as a growth region

“Africa’s fast-growing cities will need increased numbers of hotel rooms”

THE KNIGHT FRANK REPORT



due to both its relative undersupply of international-quality hotels and the expectation of increased demand for rooms.

Underpinning this, it says, are Africa's long-term economic and demographic growth prospects, which have continued to attract hotel groups' interest despite a slowdown in overall economic growth in recent years.

### Regional expansion

Nonetheless, it points to a good share of work ahead for Africa's construction firms, especially in those areas deemed underserved.

One of the prime movers has been Marriott, which recently made its debut in West Africa after opening its flagship Accra hotel.

This is just the start: in the next five years, the company plans to increase its portfolio in the combined Africa and Middle East

region by 50 per cent, creating 30,000 new jobs.

That translates to 30 new properties and more than 5,000 additional rooms, driving an estimated US\$1.8bn worth of investment and development.

Announcing the plans back in April, Alex Kyriakidis, Marriott International's president and managing director for the region, called it "a really exciting time" for the region's travel and tourism sector.

He says, "With clear and ambitious visions set out by regional governments to grow and invest in the sector, the industry is thriving more than ever."

Others seem to agree. "Africa's fast-growing, economically developing cities will need increased numbers of hotel rooms to accommodate both business travellers and rising tourist demand,"

states the Knight Frank Africa report.

Over the long term, the UN World Tourist Organisation forecasts that international tourist numbers in Africa will grow at one of the fastest rates globally.

In 2016, the continent received 57 million international tourist arrivals, but this is projected to reach 134 million by 2030.

At present, Morocco is the top destination with more than 10 million arrivals, closely followed by South Africa, but future growth is forecast to be strongest in the east, west and central regions of Africa.

In addition to the well-known international hotel operators, several brands operating solely in Africa are actively growing their businesses.

South Africa's Tsogo Sun is keen to expand its own regional footprint.

It has just opened its newest property, Garden Court Kitwe, just outside Kitwe in Zambia, to tap into

the area's business needs.

The 130-room hotel is situated in Zambia's copper region and is just an hour's drive from Ndola International Airport.

Nearby is the Mukuba Mall, while the property adjoins the ECL Business Park.

It brings the number of properties outside of South Africa for the group to twelve, and is the third hotel for the group in Zambia.

Other regional movers include CityBlue, a chain owned by UAE investor Diar Capital, which has opened hotels in four East African countries and has signed pipeline deals in a further eight countries in East and West Africa; Mangalis Hotel Group, a subsidiary of Teyliom International; and Azalai Hotels Group, which has grown from its homeland of Mali. ■

by Martin Clark

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Cat 814K wheel dozer

# Rounding up the best

As projects become more and more complex, governments and investors need to choose the right machinery to get the job done. Here we reveal good quality dozers from two of the best construction machinery giants: Caterpillar and Dressta.

## Cat 814K wheel dozer

The Cat 814K wheel dozer from Caterpillar features a new, sound-suppressed cab, efficient power unit and transmission drive, and centralised service station configuration to drive machine uptime and operator productivity to new levels. With its rugged structure designed to achieve multiple life

cycles under the toughest operating conditions, the 814K delivers high production operation in applications such as utility work at mines, heavy civil construction backfilling and grading work, and ground preparation and subbase work on airport and commercial projects. It also offers isolation cab mounting, an air-suspension seat

and reduced operating noise levels to just 71 dB, compared to 78 dB of its predecessor. The 2.84-m<sup>3</sup> (3.72-yd<sup>3</sup>) straight blade delivers high production dozing on stockpile material and general earthmoving projects. Alternatively, the 10.5 m<sup>3</sup> (13.8 yd<sup>3</sup>) coal blade provides precise and productive dozing. The new panel displays critical machine

operating data such as system temperatures, fuel use and machine hours.

## Dressta TD-25 crawler dozer

Dressta is a brand that offers a full line of crawler dozers from 94 hp rating to 536 hp. It has a wide range of products to suit various applications; from oil and gas, roads and highways and mining to forestry and landfill. But the core product that is particularly suited to Africa and the Middle East is the TD-25 crawler dozer; a 330 hp machine, with an operating weight of 42,670kg. This machine is typically suited to road and highway construction projects as well as quarrying and mining operations. It has proved itself very well in the diamond mines of Sierra Leone. It's the real workhorse of Dressta in the African markets. In Algeria, the company had great success with TD-25s and its pipe layers with ENAGEO, one of the country's largest oil exploration companies. It has also enjoyed strong sales in Ethiopia, and dozers have been supporting the major land preparation project for sugar cane plantation. The landfill sector is also a major target segment for development in Africa and the Middle East in the coming years. ■

Image Credit: Caterpillar



Image Credit: Dressta

A Dressta TD25 crawler dozer assists with levelling for geo-seismic survey work in the Sahara.



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# China's grip tightens as its lending trebles

Nigeria and Kenya have been the biggest recipients of Chinese policy lending since 2014, with the power sector attracting the most loans worth US\$17.5bn since 2014.

The value of loans from Chinese lenders to energy and infrastructure projects in Africa almost trebled between 2016 and 2017, from US\$3bn to US\$8.8bn, with policy lenders China Development Bank and China Exim particularly active in helping bridge Africa's infrastructure gap.

Almost half of the total US\$19bn of Chinese outbound loans poured into infrastructure projects in sub-Saharan Africa since 2014 were made last year. Notably, Chinese lenders accounted for more than 40 per cent of all infrastructure finance in sub-Saharan Africa in 2017, and its policy banks made up four fifths of the Development Finance Institutions (DFIs) that lent money in the region.

Chinese commercial and policy bank lending for infrastructure projects in sub-Saharan Africa totalled US\$3.6bn in 2014, US\$3.4bn in 2015 and US\$3bn in 2016, before spiking almost 300 per cent to US\$8.8bn in 2017, driven by a series of large power projects across Africa.



Image Credit: Adobe Stock

## SDLG IS SEARCHING FOR MACHINE OPERATOR WHO WANTS TO IMPROVE SKILLS

No one knows better than construction equipment manufacturer SDLG that it takes skill and know-how to handle machinery in tough African conditions. That's because they're

experts in the field. Now SDLG is sharing its expertise with one lucky African operator – and the company it works for.

With the social campaign #ReliableSkills,

SDLG is searching for a machine operator in Africa that wants to expand and improve their set of operating skills. After two days of expert, onsite training, SDLG will also provide the company that the operator works for with a worksite optimisation plan.

Launched on Facebook in September, the two-month campaign will continue until a lucky African national operator is chosen as the winner. SDLG's two-day skills training programme and their employer's onsite optimisation plan will start off in early 2019.

Magnus Rieger, marketing and communications manager at SDLG explains, "Without skilful operators, tough African worksites would stand still. Those are the kinds of rough and ready situations that SDLG deals with every day. And it's why we build our machines the way we do." Rieger adds, "By sharing our expertise and skills, you can see just how much SDLG is committed to making the daily jobs of our operators and owners more reliable and profitable."



Image Credit: SDLG



## “ The data shows Chinese lending shifting towards African power projects ”

**KIERAN WHYTE, HEAD OF ENERGY, MINING AND INFRASTRUCTURE, BAKER MCKENZIE**

The trends are revealed by research from global law firm Baker McKenzie and IJGlobal, the leading trade publication for infrastructure projects, as leaders from the BRICS bloc – Brazil, Russia, India, China and South Africa – met in Johannesburg on 25-27 July for their annual summit. Data is drawn exclusively from fully financed projects and excludes recent announcements of government funding commitments.

Speaking from the BRICS Energy event, which preceded the BRICS Summit, Kieran Whyte, head of energy, mining and infrastructure at Baker McKenzie in Johannesburg said the rising impact of Chinese policy lending in Africa is increasingly visible.

“Chinese president Xi Jinping’s recent tour of African countries ahead of the summit is proof of the increasing interdependence of the maturing but still fast growing Chinese economy and developing economies in Africa,” says Whyte.

“This is much more sophisticated outbound lending than the cliché about China investing in African minerals and rail to get commodities to China to feed manufacturing – the data clearly shows Chinese lending predominantly shifting towards African power projects,” he says.

Recent examples of large power deals in Africa where at least 50 per cent of the finance was provided by Chinese lenders include: Mambila Hydropower Plant (Nigeria) valued at US\$5.8bn, Lamu Coal-Fired Power Plant (Kenya), a US\$2bn PPP, Medupi Coal-Fired Power Plant (South Africa), worth US\$1.5bn and Kafue Gorge Lower Hydro Power Plant (Zambia) in 2015, worth US\$1.5bn.

Globally, infrastructure deals featuring significant Chinese financing have risen more than threefold since 2012, driven among other things by China’s Belt & Road Initiative (BRI), going from 31 deals in 2012 to 105 deals in 2017. The BRI is a world scale Chinese development strategy that combines the creation of a 21st Century Maritime Silk Road and a Silk Road Economic Belt.

Whyte explains that this shift towards power is because China is comfortable operating in the energy sector and is aware power acts as a catalyst for the growth of other sectors in Africa, providing foundations for long term economic development.

Whyte adds that as one of South Africa’s largest trading partners, China plays an important role in infrastructure investment in that country. At the BRICS Summit Energy event, China pledged to invest US\$4.7bn in South Africa and to grant loans to state-owned enterprises Eskom and Transnet.

The African countries seeing most Chinese lending are Kenya and Nigeria, which alone have swallowed up almost 40 per cent of the US\$19bn of lending to projects in sub-Saharan Africa since 2014. However, Chinese banks have been active lenders to infrastructure projects in 19 different countries in the past four years. Chinese policy lending is also set to widen, with Senegal recently becoming the first West African country to sign up to supporting the BRI.

Since 2014, infrastructure projects in Ethiopia have received US\$1.8bn, Kenyan projects benefitted from US\$4.8bn, Mozambique had US\$1.6bn worth of infrastructure deals and US\$5bn was ploughed into Nigerian projects from Chinese lenders. South African infrastructure projects received US\$2.2bn, and Zambia and Zimbabwe took US\$1.5bn and US\$1.3bn respectively. ■



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# 320, 320 GC, 323: Three Next Generation Cat Excavators

Image Credit: Caterpillar

**T**hree Next Generation 20-ton size class excavators from Caterpillar the 320 GC, 320 and 323 increase operating efficiency, lower fuel and maintenance costs, and improve operator comfort compared to previous models. The new excavators offer combinations of purpose-built features designed to match customers' productivity and cost targets.

The new Cat 320 raises the bar for efficiency with integrated Cat Connect Technology that advances productivity gains. Standard technology combined with lower fuel and maintenance costs deliver low-cost production in medium- to heavy-duty applications.

Designed for low- to medium-duty applications, the new Cat 320 GC combines the right balance of productivity features with reduced fuel consumption and maintenance costs. The result is high reliability and low cost-per-hour performance.

Delivering high production performance, the new Cat 323 boasts standard integrated Cat Connect Technology and the most power and lift capacity in the line. These features combine with lower fuel consumption and reduced maintenance costs to deliver maximum productivity at the lowest cost.

## Technology boosts efficiency by up to 45 per cent

The new Cat 320 and 323 boast the industry's highest level of standard factory-equipped technology to boost productivity. Both models are equipped with integrated Cat Connect Technology, which increases operating efficiency by up to 45 per cent over traditional grading operations.

Offering guidance for depth, slope and horizontal distance to grade, the Cat Grade with 2D system helps operators reach desired grade quickly and accurately. Using the system's E-fence feature enables the machine to work safely under structures or near traffic by preventing any part of the excavator from moving outside operator-defined set points. The standard 2D system can be upgraded to Cat Grade with Advanced 2D or Cat Grade with 3D.

Standard Grade Assist automates boom, stick and bucket movements, so operators stay on grade simply and effortlessly with single-lever digging. Cat Payload on-board weighing, integrated on the Cat 320 and 323 at the factory, delivers precise load targets and increased loading efficiency with on-the-go weighing and real-time payload estimates without swinging to prevent truck over/under-loading. Cat LINK hardware and software connect jobsites to the office and provide customers with machine-critical operating information.

## Fuel savings reaching up to 25 per cent

Durable Cat engines provide duty-matched power ratings from 107 to 117 kW for the three new excavators. The efficient Next Generation machines consume up to 25 per cent less fuel than the previous, corresponding models. New Smart mode operation automatically matches engine and hydraulic power to digging conditions, optimising both fuel consumption and performance. Engine speed is automatically lowered when there is no hydraulic demand to further reduce fuel usage.

## Maintenance costs reduced as much as 15 per cent

Offering extended and more synchronised maintenance intervals, the new Cat excavators do more work at a lower cost and reduce maintenance costs by up to 15 per cent over the previous series. Featuring higher dirt capacity, the new Cat hydraulic return filter boasts a 3,000-hour service life, a 50 per cent increase over previous filters. A new Cat air filter with integrated pre-cleaner and primary and secondary filters extends service life to 1,000 hours, a 100 per cent increase over previous designs, while a new fuel tank cap filter extends service life to 2,000 hours. The three fuel system filters each offer a 500-hour service interval.

## New cab designed to enhance operator performance

All Next Generation Cat Excavator cabs come equipped with standard features such as a keyless push-button start, large standard 203-mm touchscreen monitor with jog dial keys for control and sound-suppressed rollover protective structures (ROPS) to offer the next level of operator comfort, safety and quiet operation. Programmable joystick buttons for response and pattern allow the operator to dial in productivity settings. New advanced viscous mounts reduce cab vibration by up to 50 per cent over previous models to reduce operator fatigue.

Equipped with a choice of comfort, deluxe or premium cab packages, the new spacious cab features a low-profile design and large front, rear and side windows to enhance visibility to the front and side of the excavator. Optional 360-degree visibility combines images from multiple machine-mounted cameras to enhance the operator's sight-lines in all directions. ■

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## Mining Indaba confirms President of Ghana as keynote speaker for 25th anniversary

His Excellency Nana Akufo-Addo, the President of Ghana, will be speaking at the 2019 Investing in African Mining Indaba, which will coincide with its 25th anniversary celebration.

It will be taking over the Cape Town International Convention Centre from 4-7 February for its biggest event yet.

As one of the major mining centres on the African continent, this presents delegates with an excellent opportunity to hear about the future of mining in Ghana and the firm intention of H.E. President Akufo-Addo to ensure that the government is fully committed to promoting the expansion of local and international value chains that would benefit small producers and entrepreneurs from Ghana and the rest of the African continent.

From connecting African mining companies with leading investors to providing a platform for important industry discussions, Mining Indaba has supported the long term growth of mining across the continent.

In 2018 a fresh revamp of branding and direction brought the focus back to Mining Indaba's role as a deal-making forum, with a 15 per cent increase in overall attendance and 47 per cent more mining executives. New elements of the event such as the junior mining showcase and re-developed sustainable development day created platforms designed to explore unique aspects of the mining industry, which was well-received by delegates. Renewed positivity around commodity prices and the mining industry also added to an atmosphere of excitement at the event, which went on to win 'Best large scale event' at the 2018 Conference Awards this summer.

The 25th anniversary in 2019 will build on the hype of last year's success and is expected to feature a host of exciting initiatives to celebrate 25 years of progress in African mining including a themed afterparty, historical timeline wall of past Indabas and a publicly nominated 'Top 25 at 25' competition to showcase the 25 most influential people in mining over the last 25 years.

Harry Chapman, director of content, said, "We are becoming more than just a conference we are here to support your businesses. We have a long-term focus in driving investment into African mining."

Image Credit: The Bloomberg Global Business Forum/Flickr



The President of Ghana, Nana Akufo-Addo, will be addressing delegates at Mining Indaba in 2019.

## BIG DATA ANALYTICS MARKET BOOSTED IN SA

SQream, developer of SQream DB, the leading GPU database for analysing massive data stores, has announced a partnership with Moyo Business Advisory to aid the discovery of new deposits and provide safer mining operations, such as identifying risks like an impending tunnel collapse or deteriorating working conditions.

The partnership with Moyo will provide SQream with a valuable footprint in Africa. "Our partnership with SQream will have far-reaching consequences for the scientific and business communities who rely on the rapid processing and analysis of very large datasets," said Dewald Lindeque, business development director at Moyo Business Advisory. "We look forward to leveraging SQream to better meet our clients' big data needs in their pursuit of faster analytics and more actionable business intelligence."

Ilan Ackerman, VP Sales APAC and Africa for SQream, said, "We are pleased to partner with a firm as reputable and prestigious as Moyo. Together, Moyo and SQream will revolutionise the analytics space in Africa, dramatically enabling Moyo's customers in a variety of industries to access and analyse data from exponentially growing massive data stores to gain near real-time analytical queries to become more agile and competitive."

SQream develops and markets SQream DB, a GPU database designed to enable unparalleled business intelligence from massive data stores. SQream already has a string of US and Asian customers, and formed a partnership with Alibaba Group which invested US\$26.4mn in the company.

Since 2007, MOYO Business Advisory has been the partner of choice for complex organisations looking for an array of solutions from data management and analytics to regulatory compliance and process optimisation.

## USAVE JOINS FORCES WITH BLUPOINT

USAVE Blockchain will be supporting offline internet solution provider, BluPoint as part of its upcoming token sale, to increase access to education and information across African mining communities.

It enables an ethically sourced gold supply chain process from the miner, with connected hardware recording production, through to tracking and fair payments using Blockchain technology. In turn, this allows visibility and accessibility for a wider market to physically trace gold and enables human transformation for mining communities globally.

On 11 July, USAVE announced an Initial Coin Offering (ICO) to power the development of the platform to raise US\$130mn, with the pre-ICO sale set to go live on 17 September. USAVE will allocate one per cent of the funds raised during its sale to BluPoint, to build a turnkey solution for content provision and consumption across the mining communities within two sub-Saharan African countries.

## ► BRIEFS

### Strategies to reinvent mining

Image Credit: Wits School of Mining Engineering



Wits Mining graduate, Tabotabo Talane.

Two graduates from Wits School of Mining Engineering in Johannesburg Tabotabo Talane and Levine Mnisi are embracing the opportunity to seek out long-term solutions for the mining sector after beginning their tenure in the Anglo American Building Leaders and Shaping Talent (BLAST) programme this year.

Talane said, "We are still struggling in our mines to get everyone going in the same direction, so our stakeholder engagement must be reinforced."

### Upbeat mood at DRC Mining Week



The SRK team at the DRC Mining Week.

Engineers and scientists from SRK Consulting's offices in the Democratic Republic of Congo and South Africa were part of the DRC Mining Week in Lubumbashi, sharing information on trends and opportunities in one of Africa's most important mining hubs. Susa Maleba, SRK's DRC country manager noted the upbeat mood at the event, driven by the global interest in cobalt and copper. He highlighted the importance of mining-related skills for the country's development.



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# Botswana keeps second place in diamond production

Botswana maintains her second rank to Russia in rough diamond production by value, which has been kept in place by the two richest diamond mines in the world, Orapa and Jwaneng. Meekaeel Siphambili reports.

Orapa and Jwaneng diamond mines put Botswana second in line after Russia in rough diamond production by value, said Paul Rowley, executive vice-president, Diamond Trading, at the De Beers 2018 interim financial results conference in Gaborone.

In Botswana, (Debswana the 50-50 joint venture between the government of Botswana and De Beers) production increased by 9 per cent to 12.1 million carats (H1 2017: 11.1 million carats) in response to stronger market conditions. Jwaneng and Orapa mines deliver more than 90 per cent by value of the nation's diamond output. Jwaneng is ranked number one and by value is itself estimated to produce 15 per cent of the world's diamonds.

Production at Jwaneng was two per cent higher owing to a 10 per cent increase in plant throughput. Its other important mine at Orapa, saw a 16 per cent rise in output, which was driven by the continued ramp-up of Plant 1, the successful restart of the Damtshaa operation and commissioning of the Letlhakane tailings plant. In June 2017, Jwaneng processed its first ore from Cut-8, which is now the mine's main source of ore.

Paul Rowley said De Beers maintained a solid financial performance in the first half of 2018 in most of its mines worldwide, reflecting strong underlying demand and supported by a continued focus on enhanced operational performance.

In Namibia, Namdeb Holdings a 50/50 joint venture between the government of Namibia and De Beers production increased by 21 per cent to 1.0 million carats (H1 2017: 0.9 million carats). Production from the marine operation was two



Image Credit: Adobe Stock

De Beers announced the launch of Lightbox Jewelry, offering consumers high-quality at lower prices.

per cent higher following improved availability of the Mafuta crawler vessel and technology-led optimisation of the drill fleet. Production at the land operations found at the town of Oranjemund and at satellite mines near Lüderitz and along the Orange River, increased by 99 per cent to 0.3 million carats (H1 2017: 0.2 million carats), driven by access to consistently higher grades.

In South Africa (De Beers Consolidated Mines), production declined by 16 per cent to 2.1 million carats (H1 2017: 2.5 million carats). The reduction was primarily due to a period of suspended production at Venetia following a fatal incident, as well as geotechnical issues at Voorspoed restricting access to the resource. Construction continued on

the Venetia Underground Project, which is expected to become the mine's principal source of production from 2023.

## GemFair programme

In April, De Beers announced the launch of GemFair, a pilot programme to create a secure and transparent route to market for ethically sourced artisanal and small-scale mined (ASM) diamonds. GemFair will use dedicated technology to record ASM production at mine sites that meet demonstrable ethical standards, with the aim of purchasing rough diamonds from approved locations. This will help to improve working conditions and livelihoods for those working in the sector. If successful, the technology used in GemFair will

be integrated with the TracrTM blockchain platform.

De Beers announced in May the launch of Lightbox Jewelry that will begin selling a brand of laboratory-grown diamond jewellery in the US from September 2018, offering consumers high-quality, fashion jewellery designs at lower prices.

## Firestone Diamonds

Meanwhile, Firestone Diamonds saw record production in the fourth quarter at its Lihobong Diamond Mine in Lesotho.

Recoveries were 36.8 per cent higher than quarter three at 263,512 carats, resulting in a full year total of 835,832 carats. A total of 261,985 carats were sold in the quarter, realising revenue of US\$18.6mn at an average value of US\$71 per carat mainly due to a larger proportion of run of mine diamonds and fewer valuable stones recovered.

Paul Bosma, chief executive officer, said, "The fourth quarter saw record production. We were able to access the high grade blocks in the mine plan and thanks to excellent operational performance we were able to achieve record carat recoveries. The increased volume translated in an improved cash position at the end of the financial year.

"As always, the average dollar per carat achieved is highly sensitive to the incidence of special stones, of which, we saw a lower incidence in this particular quarter. However, we continue to have grounds for optimism given the parts of the orebody we plan to exploit over the next 12 months. We completed a structural and geotechnical assessment of the pit and the outputs are being used to rerun our life of mine plan. We look forward to updating the market during the first half of 2019." ■

“ De Beers maintained a solid financial performance in the first half of 2018 in its mines worldwide ”

PAUL ROWLEY, EXECUTIVE VICE-PRESIDENT,  
DIAMOND TRADING



# Electra Mining Africa: five days, five themes

Taking place from 10-14 September at the Expo Centre in Nasrec, Johannesburg, more than 850 leading players in the mining, manufacturing, electrical and power industries are looking forward to engaging with visitors and sharing information on their latest innovations.

“There will be an exciting line-up of new products and services, live demonstrations and free-to-attend seminars at this year’s Electra Mining Africa and visitors will benefit from the insight and information they will gain,” said Gary Corin, managing director of Specialised Exhibitions Montgomery, organisers of the show. “New technologies and innovation are influencing the way we do business and it’s imperative that those in the industry keep up-to-date with these trends.”

New at this year’s show, each day will focus on a different theme. “The first day, for example, focuses on the future of skills development,” said Charlene Hefer, Electra Mining Africa’s event director. “We are launching an artisans training area in Hall 8 where we are going to focus on all the different training



New products and innovation on display at Electra Mining Africa 2016.

Image Credit: Specialised Exhibitions Montgomery

“ There will be an exciting line-up of new products at Electra Mining Africa ”

**GARY CORIN MANAGING DIRECTOR OF SPECIALISED EXHIBITIONS MONTGOMERY**

options that are available to artisans. We’re going to have competitions there and demonstrations. We really want to encourage the youth to go into these fields as well and this is a great showcase.”

The Artisans Training Centre has been developed in partnership with the Artisan Training Institute and

the South African Capital Equipment Export Council (SACEEC).

Hefer explained that on the second day, they will focus on the new products that are being launched at Electra Mining Africa.

“Day three is our proudly South African day,” added Hefer. “We want to celebrate that we are proudly South African and that we’ve been

doing business here for 46 years and that we’ve got more than 80 per cent of local companies showcasing their products at the show. On the Thursday, we will put the spotlight on safety and on the last day, Friday, we will celebrate our diversity.”

Hosted by the South African Institution of Mechanical Engineering (SAIMECHE), daily free-to-attend seminars will be presented by expert speakers and the content will be aligned to the show’s ‘five days, five themes’ topics.

An overview of Industry 4.0 in the automation industry will be presented by Rob Burns, area sales manager Process Automation sub-Saharan Africa at Pepperl+Fuchs.

Talking about the Mandela Mining Precinct and the revitalising and modernising of South Africa’s mining sector will be Navin Singh, director of the Mining Precinct and the manager for Mining R&D at the CSIR, together with Freddy Muguri, board chairman at MEMSA. Delegates will be given insight to this exciting public-private partnership that is looking to ensure the longevity of the South African mining industry. ■

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## KEEPING MINING OPERATIONS COMPETITIVE

Cost-effective crushing is vital to the competitiveness of mining and quarrying operations, and experienced experts can ensure the right amount of the required product, while reducing the risk of operational downtime. Dewald Janse van Rensburg, managing director of B&E International, says it is essential to consider the comminution and sizing operations as an integrated process.

“We have been hands-on in crushing and screening for more than 45 years, and so we can bring our detailed insights into every aspect of design, manufacture and operation,” says Janse van Rensburg.

He notes the importance of focusing their designs on the precise nature and volume of output that the customer requires in a specific timeframe. To do this, a good understanding of the source material is also required, such as the size of the rock entering the process, its abrasiveness and its hardness.

For instance, the hardness of the material may well reduce the throughput that can be achieved through the crushing circuit and high silica levels and other abrasiveness factors will influence wear levels, so operators need to be aware that maintenance interventions may be more frequent under these conditions.

“Our engagement with the customer can start much earlier in the process, with the identification and approval of a quarry site for aggregate production, for example,” he says. “We can test the stone available and advise on blast design and practices.”

Janse van Rensburg highlights that each customer’s application will be specific, so it is crucial to design and manufacture crushing plants with appropriately sized and staged equipment as well as the right screening and other infrastructure to suit the purpose.

## Cost of chutes needed before any decision

The increased focus on reducing capital budgets by the mining sector is not necessarily going to pay in the long term, according to Mark Baller, managing director of Weba Chute Systems, who says that miners would do well to assess the operating cost of an item before making ill-informed decisions.

“The focus should be on the payback period of a capital item and not only on the actual cost of the purchase,” he says. Baller says this is particularly true when it comes to transfer points, however he is also quick to point out that in many instances the cost of operating chute systems within a plant is largely unknown by the end-user.

Activities that should be allocated to chute maintenance or repair are often hidden in other cost items. As an example, Ballers says that where excessive spillage occurs these clean-ups could be allocated to conveyor system costs purely because the reporting and allocating system does not allow for the transfer points as a separate item.

“This lack of base knowledge is a major stumbling block to reducing operating costs on a plant. When the existing costs of operating chute systems is unknown you cannot measure anything against this. It is therefore difficult to motivate or justify the capital expenditure for an engineered transfer point solution and we often find that cheaper fabricated chutes are procured,” he says.

Unfortunately, not selecting a correctly engineered transfer point often only becomes apparent much later down the line when the inherent problems with the cheaper option start causing major unscheduled downtime. It is at this stage, Baller says, that plant operators start to consider the real impact of the original purchasing decision.

Weba Chute Systems believes that to bring total operational costs down plant operators need to adjust how they view operational and maintenance budgets. “We are encouraging plant operators to allocate costs associated with transfer points and chute systems correctly as only once this has been done will accurate costs be available for these items,” he adds.



The Weba Chute System is designed to address the numerous issues plants face with material movement.

Image Credit: Weba Chute Systems

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Image Credit: Adobe Stock

# Newer sectors to emerge as economies diversify

Deblina Roy talks to Patrick Gutmann, managing director, corporate and institutional banking at BACB, a UK bank with 40 years of experience in Africa, on the most promising sectors in the next five years.

## What are the five major challenges in doing business in Africa?

The challenges faced when doing business in Africa will differ depending on the particular country in question and the sector in which the business is conducted. That being said however, there are a few overarching challenges which inevitably will be encountered when conducting business across the African continent.

The lack of a reliable and stable infrastructure is often a challenge faced by businesses across Africa. This includes areas such as roads, seaports and airports, but also includes the infrastructure associated with telecommunications, technology and power & energy. The physical infrastructure continues to be a challenge in many parts of Africa and is often a major barrier to creating more efficient and cost effective intra Africa trade activities. Although there has been continued investment in telecommunications and technology infrastructure in many African countries, there has also been a significant increase in demand and usage of this infrastructure. A reliable, consistent and stable communications and Internet environment is a critical ingredient to conducting business in today's marketplace and the access to this can at times be difficult in certain parts of the continent and hence results in inefficiencies and potentially additional costs which

businesses otherwise would not need to incur. Finally, unreliable and inconsistent power supply continues to plague parts of the continent, which adds complexity and costs to anyone running a business or looking to establish a business.

Having access to on the ground information, knowledge and experience is invaluable and critical to a successful business venture.

## What are the top five most promising sectors that will see high growth in the next five years in Africa?

Clearly a number of the established sectors, such as mining and minerals, oil and gas, tourism, financial services, infrastructure and agriculture will continue to play an important part in many of the African countries. These 'traditional' sectors will continue to provide opportunities to companies and investors looking for growth, given their importance to a number of economies; their size and scale in many markets; and the continued demand for the outputs both by neighbouring African countries as well as by countries outside of the African continent.

Beyond these more traditional sectors, there are a number of vital sectors that are either underserved or still in its early days, but which are poised for significant growth. These include sectors such as education, healthcare, power and energy,

technology and telecommunications, manufacturing, and retail & fast moving consumer goods. A growing middle class and an increase in disposable income levels will drive investment and focus on vital sectors such as education, healthcare, telecommunications, retail and FMCG. As more and more governments are looking to drive diversification of their economy, there will be an increased focus on 'newer' sectors such as manufacturing, technology, renewable energies, and certain parts of the services sector. The power & energy sector is traditionally an underserved sector and will be vitally important as the population continues to grow across the continents and as governments keep pushing an agenda of diversification within its economy.

Overarching all of this, is a growing need for support of the SME (small & medium sized enterprises) sector, which fundamentally is the driving force behind Africa's strong growth figures and continued growth trend. The SME sector, although representing about 90 per cent of all businesses in Africa continues to be underserved and struggles to gain the necessary access to financing, markets, and support to grow into larger enterprises.

## What makes trading with Africa more appealing for businesses?

Africa continues to be an attractive investment destination, with strong

forecasted GDP growth for 2018 and 2019. According to the World Bank, growth for sub-Saharan Africa in 2018 is expected at 3.1 per cent with a slightly higher growth of 3.6 per cent forecasted for 2019. If the big three sub-Saharan Africa economies of Nigeria, Angola and South Africa are excluded, the forecasted growth is expected to be at five per cent. Furthermore, according to the World Bank, Africa is expected to have six of the top 10 fastest growing economies in 2018.

## Do you think that private companies should adhere to more CSR for the region's development?

CSR is an integral part of running a successful company and fundamentally the institutional view on CSR and the importance placed on it should transcend across all activities undertaken by the company regardless of the location. Through a strong CSR focus, a company can clearly have a positive social, environmental and economic impact in the country in which they operate, and this should absolutely form part of any international firm's presence in an African market. For many African countries, a strong corporate CSR engagement can significantly assist in addressing key social and environmental issues and often times is a more integrated and longer term approach as opposed to the traditional donor flows. ■

# Understanding the African millennial

Mike Higley, vice president operations, FedEx Express sub-Saharan Africa, shares what small business owners need to keep in mind to attract millennial customers to ensure their companies thrive.



**M**illennials have been under the microscope for a number of years now, with many organisations carrying out extensive research about this generation, their needs and how businesses can meet their demands. This has led to various stereotypes about the characteristics and behaviours of a group of millions of people born over a 20 year period.

But as the largest consumer group in the world today, it is impossible to ignore the impact this generation has already had and will continue to have for decades.

Their impact will be particularly keenly felt in Africa, where millennials have overtaken their predecessors – the Baby Boomers as the largest demographic. What makes this so important is the fact that Africa’s youth are driven by different concerns and realities than their global counterparts.

“This makes it critical for businesses operating in Africa to understand the unique challenges and opportunities of the continent’s millennial customers, and their buying behaviour in order to be able to build meaningful relationships with them and give them the level of service they demand,” says Mike Higley, vice president Operations, FedEx Express sub-Saharan Africa. He shares the five insights for small

business owners to keep in mind to attract millennial consumers.

## Be tech savvy

Improved access to the Internet, greater mobile penetration and increasingly easy-to-use and navigatable online experiences make consumers, especially African millennials, more likely to shop online. According to the PayPal and Ipsos third annual cross-border commerce report, South Africa’s online spend is forecasted to grow to more than R53bn in 2018. In 2016, 43 per cent of adults in South Africa shopped cross-border. The US is the most popular cross-border online shopping destination for South African online shoppers, followed by China and the UK. Within that landscape, mobile is playing an increasingly critical role. Sub-Saharan Africa accounts for nearly a tenth of the current global mobile subscriber base and is forecast to grow faster than every other region over the next five years. Businesses that want to remain competitive will need to invest in their online and mobile commerce offerings to attract millennial customers.

## Millennials communicate through social media

Social media has completely

changed how young Africans interact with companies. Immediate access to information and brands has changed the relationship between businesses and customers, as well as the way customers approach buying products. The continued growth of social media with 191 million active social media users across the continent (172 million of whom access social media through their mobile) has meant that peer reviews and referrals online carry more weight than traditional advertising.

## Millennials expect a personalised customer experience

In fact, they demand it and if they are not getting it, they will move their business elsewhere. With the wealth of information that they make available about themselves, their values and preferences online and through social media, they expect brands and businesses to not only know what they want, but to provide it. And the results of a bespoke approach speak for themselves: brands that create personalised experiences see revenue increase by six to 10 per cent.

Small businesses have an advantage in this area, as there is opportunity to build meaningful relationships with customers.

## Millennials want to co-create products to meet needs

In the same way that they want to feel personally important to the business they are supporting, African millennials prefer to buy from brands that emphasise unique offerings that allow them to express themselves over mass-market alternatives. Co-creation is more than just a buzzword; 40 per cent of millennials want to have a say or play an active role in co-creating the products that they spend their money on. By involving them in the process, businesses can drive both customer satisfaction and loyalty.

## African millennials are loyal

Research by Accenture indicates that millennials differ from other generations when it comes to loyalty, and South African and other African customers differ further. For instance, 88 per cent of South Africans are loyal to brands that protect their private information, 67 per cent are loyal to those that give them personalised special offers, and 52 per cent are loyal to brands that support a cause that they value. If small businesses are able to capture the trust of their millennial customers, they will most likely remain loyal, an important trait to this generation. ■



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