

**INSURANCE**

Helping the private sector invest with confidence **P22**

**GHANA**

Preparing for a bright future **P19**

**BANKING TECHNOLOGY**

The power of going digital for the financial sector **P24**

**LOGISTICS**

How the latest innovations mean greater efficiencies **P29**

# African Review

AUGUST 2020

of BUSINESS and TECHNOLOGY

**P33**

## MINING SPECIAL

Our Construction and Mining Buyers' Guide returns for 2020

**P50**

## MAJOR PROJECTS

Mining industry updates from West Africa and South Africa, plus the latest technology

**32**

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An overview of major renewable energy projects across the continent.



**56**  
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# Editor's Note

**M**ining is in the spotlight in this issue of *African Review*. Starting on page 33, we have our annual Construction and Mining Buyers' guide, showcasing the leading suppliers across the industry. The mining industry across the continent is proving to be resilient, despite the challenges of 2020.

We take an in-depth look at some of the major projects across the western part of the continent (page 50) and South Africa (page 53), as well as the latest mining industry technology. From heavy vehicles to solutions for drilling and crushing, industry leaders are supplying mining operators across Africa with the equipment they need to stay efficient and productive as economies start to reopen.

Elsewhere in this issue, we learn more about an innovative insurance scheme which is giving private sector companies the confidence they need to invest in major projects that will propel sustainable development in Africa (page 22), and our economist, Moin Siddiqi, analyses how digital advances are transforming banking and providing more people than ever with access to financial services (page 24). It is encouraging to see countries across the continent adopt digital technology early and with enthusiasm – this can only prove beneficial during the period of economic recovery after the global lockdown.

**Samantha Payne, Editor**

# Contents



**04 News**  
News from across the industries in every part of the continent, quotes from a diverse range of African leaders across a selection of industries, and a round-up of the best from the *African Review* website.



**19 Country report**  
Discover how Ghana is embracing digitalisation as part of an aggressive drive to modernise the economy as it seeks to forge new opportunities and make interactions with government more efficient.



**22 Banking and finance**  
Investment into Africa is being stimulated with insurance to give companies confidence, plus an overview of how technology is driving powerful change across Africa's financial services industry in multiple markets with our economist, Moin Siddiqi.



**27 Infrastructure**  
Commentary from African thought leaders on the importance of taking a broad, holistic approach to developing vital infrastructure, with people having equal importance to bricks and mortar.

**30 Power**  
An interview with Jürgen Pump from Standard Aggregatebau Evers GmbH & Co on ensuring a reliable power supply with effective genset technology; plus energy efficiency in the UPS sector in all conditions, and opportunities for smart investment in renewables.

**33 Mining and construction**  
An extensive Construction and Mining and Buyers' Guide; an overview of some major projects in the West African mining industry; an update on South African mining; all the latest technology in commercial vehicles for mining operations; innovative solutions for drilling and crushing; and explosion protection advances.

## Support pledged for Sudan's reform efforts

At a high-level Sudan Partnership Conference held virtually on 25 June, the African Development Bank, the World Bank, and the International Monetary Fund (IMF) along with several governments affirmed their support for the country's Transitional Government and its economic recovery efforts. More than US\$1.8bn in pledges for Sudan were made during the conference, which marked an important step in the African nation's re-engagement with the international community.

Sudanese Finance Minister Ibrahim el-Badawi highlighted the comprehensive reforms that the Transitional Government of Sudan has launched to put in place a transparent, productive and resilient economy.

"We will pass an anti-corruption law, create an anti-corruption commission and reform the enabling environment for business and investment," el-Badawi said. He promised an era of transparently managed budgets that will focus on health, education and other sectoral reforms, including a transformed public service and a Family Support Programme. The Minister also called for partnerships at "every step of the way."

African Development Bank president Akinwumi Adesina assured the Sudanese Government of the Bank's continued support for ongoing reforms to ignite growth, lay the foundation for sustaining high and inclusive growth and spur transformation towards a knowledge-based economy. The Bank currently has a US\$511mn portfolio in Sudan. The IMF and Sudan on agreed a 12-month Staff Monitored Program (SMP) aimed at narrowing macroeconomic imbalances, reducing structural distortions hindering economic activity and job creation, and strengthening governance and social safety nets. The SMP will facilitate progress toward debt relief under the heavily indebted poor countries (HIPC) initiative.

World Bank president, David Malpass, said, "We have been working to design the Sudan Family Support Program to mitigate the impacts of the economic crisis. The programme is costed at US\$1.9bn and seeks to cover cash transfers of US\$5 monthly per person to 80 per cent of the population, using digital and other delivery mechanisms. Following months of intensive technical work, it is now being piloted and readied for implementation."



Image Credit: Adobe Stock

More than US\$1.8bn in support was pledged at the Sudan Partnership Conference.

## CONTRACT FOR NEW HYDROCRACKING COMPLEX

TechnipFMC has signed a major Engineering, Procurement, and Construction (EPC) contract worth more than US\$1bn with Assiut National Oil Processing Company (ANOPC) for the construction of a new hydrocracking complex for the Assiut refinery in Egypt. The EPC contract covers new process units such as a vacuum distillation unit, diesel hydrocracking unit, delayed coker unit and distillate hydrotreating unit as well as a hydrogen production facility unit using TechnipFMC's steam reforming proprietary technology. The project also includes other process units, interconnecting, offsites and utilities.

The complex will transform lower-value petroleum products from Assiut Oil Refining Company's (ASORC) nearby refinery into approximately 2.8mn tons per year of cleaner products, such as Euro 5 diesel.



Image Credit: Adobe Stock

The complex will transform lower-value petroleum products into cleaner products.

Catherine MacGregor, president of Technip Energies, stated, "This award demonstrates TechnipFMC's long-standing relationship with the Egyptian petroleum sector and strengthens our expertise in the delivery of complex projects in the country. Assiut is considered one of the major strategic projects needed to meet growing local demand for cleaner products, and we are extremely honoured to have been selected by ANOPC to contribute to the largest refining project to be implemented in Upper Egypt."

## EGYPT TO PRODUCE ELECTRIC VEHICLES

Egypt's state-owned El Nasr Automotive Manufacturing Company and China's Dongfeng Motor have signed an agreement to produce electric cars for the first time in Egypt, according to a report in Egypt Today. Production is scheduled to begin in 2021.

According to the agreement, El Nasr will produce 25,000 electric vehicles annually. Egyptian Minister of Public Enterprise Sector Hisham Tawfik said the agreement will mark a return to production for El Nasr, which has been closed since 2009. He is reported to have said that the Ministry of Electricity will build 3,000 charging stations across the country over three years to boost the EV market, and financial assistance will be provided to new buyers. Other incentives to be offered include the launch of a programme to replace 11,000 taxis with electric taxis and subsidies for investors, while government agencies will be required to replace five per cent of their vehicle fleet each year, to boost the acquisition of electric cars.

## ► BRIEFS

### Algeria PV systems deal



Image Credit: Activ Solar/Flickr

The venture will make mounting structures for PV systems.

SPS, an Algerian metal sandwich panel manufacturer, is partnering with Dubai-based mounting system provider Qi-energy to make mounting structures for PV systems in Algeria, according to a report in *PV Magazine*. The initiative follows the Algerian government's recently announced plan to tender 4 GW of large-scale PV up to 2024 under a scheme that will include strong domestic content requirements for solar panels, cables and mounting systems.

### Egypt gold deposit find

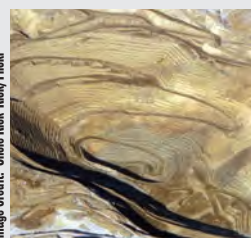


Image Credit: Uncle Nick/Flickr

The gold has been discovered in the southeast of the country.

Egypt's Ministry of Petroleum and Mineral Resources has announced that a gold deposit with estimated resources of 1 million ounces has been discovered in the southeast of the country. The deposit lies in the concession area of the military-controlled Shalateen Mining Company in the Eastern Desert's Iqaat area, it said in a statement. More than US\$1 billion is expected to be invested to develop the deposit over the next 10 years, the statement said.



# DAL MINING

DAL Mining is a DAL Group company which specializes in the mining industry. DAL Mining provides an extensive range of world leading mining services to the Sudanese mining industry; in a manner which promotes safety, and protects the health of individuals and the environment.

Our vision is to be the leading national company in providing mining supplies, mining services, and operations. We are committed to provide our clients with superior quality products, as well as efficient and reliable services by means of our technology leading equipment, and highly skilled employees.

### List of Services:



**Minerals Exploration drilling;** including Reverse Circulation (RC) and Core Drilling.



**Mine contracting;** including whole operation handling inside the mine (Blast-hole drilling, blasting, loading and holing up to plant).



**Analytical services;** sample preparation and analysis using ICP or Atomic Absorption Spectrometer (AAA), also working on adding Fire Assay.



**Environmental and Social Impact Assessment (ESIA).**

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Spare parts supply.

**Minerals processing chemicals supply;** including activated carbon, borax, soda-ash, caustic soda.



**Insulation material;** including HDPE sheets and Geotextile sheets.

**Personal Protection Equipment supply;** including complete range of PPE (e.g. helmets, safety shoes, face protection equipment).

### Hani Girgis

Sales & Business Development Manager  
DAL Mining

### Mining in Sudan

Ancient historical records indicate that gold and iron mining in the country existed under the kingdom of Meroë and also during the reign of the kingdom of Nubia, the Pharaonic era and during the Roman period. The name 'Neb' in the Nubian language means 'Gold' and is attributed to the Nuba Region. It was also called the 'Country of Metal' by the British.

Geological studies performed have shown that Sudan has a wide variety of geology, rock compositional and textural structure. Foundation rocks "Basement Complex Rocks" covers more than half the size of Sudan. Most mineral formations of economic value in Africa are found in these rocks. Therefore, Sudan is one of Africa's most promising countries for the mining industry based on the studies conducted.

## East Africa is the fastest growing region in the continent

Economic disruption caused by the COVID-19 pandemic has pushed East Africa's growth projection for 2020 down to 1.2 per cent, a rate that outstrips other African regions and is forecast to rebound to 3.7 per cent in 2021, according to the African Development Bank's (AfDB) East Africa Regional Economic Outlook 2020.

The projection is under the baseline scenario that assumes the virus is contained by the third quarter of this year.

Prior to the COVID-19 pandemic, the region's economic growth was projected at more than five per cent, well above the continent's average of 3.3 per cent and global average of 2.9 per cent. However, COVID-19-induced shocks and a locust invasion have contributed to job losses, increased humanitarian needs and will aggravate poverty and income inequality.

In the worse-case scenario, in which the pandemic persists until the end of 2020, growth is projected at 0.2 per cent, still above Africa's predicted average of -1.7 per cent and -3.4 per cent under the two scenarios.

At the launch of the report held in Nairobi, Simon Kiprono Chelugui, cabinet secretary of Kenya's Ministry of Labour, said East African countries could overcome the effects of COVID-19 and turn their economies around by mitigating the external and domestic risks.

"We need to implement a decisive and coordinated response to contain the spread of COVID-19; mitigate its health and socio-economic effects; accelerate structural transformation; improve the investment climate, and maintain the peace and security of our region," he said.

Nnenna Nwabufu, director general of AfDB's East Africa Regional Office, pledged Bank support to steer the region out of the crisis.

"Our ambition is to address the adverse effects of the COVID-19 pandemic and ensure that social and economic development across the continent is accelerated, including through the creation of an African workforce of the future," she said.



Image Credit: Adobe Stock

**East African countries should accelerate a real structural transformation.**

## LOTUS ENERGY AND EFFORT GROUP SIGN AGREEMENT TO BUILD 500MW SOLAR COMPLEX IN ETHIOPIA

Australian clean energy company Lotus Energy has won a contract to develop a 500MW solar complex in Ethiopia's Tigray region.

The solar facility is set to boost the infrastructure of the Ethiopian Effort Group which is active and operational in cement, automotive and steel production in the East African country.

The Tigray complex will be located in the north of Ethiopia and combine solar power, battery storage and waste-to-energy capacity. As reported in Afrik21, the solar complex will include energy storage batteries and biomass power plant facilities. Additionally, a power grid will be built to connect the plants to industrial facilities, the source further added.



Image Credit: Adobe Stock

**A number of major solar projects are underway in Ethiopia with an aim to boost access to electricity in Ethiopia.**

The work for the US\$4.3bn facility is scheduled to start in September 2020.

A number of major solar projects are underway in Ethiopia with the aim of boosting access to electricity. These include the Gad and Dicheto solar power plants in the Somali and Afar regions. The facilities are expected to have a capacity of 250MWp.

The two solar projects are part of the 'Scaling Solar' initiative by the World Bank through the International Finance Corporation (IFC). The aim is to encourage the companies to invest in solar energy, to supply energy to the national electricity grid of the country concerned and to rapidly implement electricity projects through public-private partnerships (PPPs).

## BEKO DEVELOPS EIGHT MWP SOLAR PLANT IN SOMALIA

Beco, the electricity utility company in Mogadishu, Somalia, has installed a solar photovoltaic power plant with the aim of reducing electricity costs in the region.

As reported in Afrik21, the Mogadishu solar photovoltaic power plant has a capacity of eight MWp. The Beco company has the ambition to increase the plant's capacity to 100MWp, with an investment of US\$40mn. The solar power plant is expected to be completed by 2022.

According to the US Agency for International Development (USAID), Somalia has an installed capacity of around 106MW. Most of the power generation companies rely on diesel generators.

With the solar photovoltaic power plant, Beco focuses on reducing the CO<sub>2</sub> emissions of the diesel-powered generators as well.

## BRIEFS

### Kenya and USA launch trade talks



Image Credit: Adobe Stock

**Kenya aims to do a deal with the USA before the expiry of the AGOA.**

The USA and Kenya have launched the formal negotiations for a trade agreement. As reported in Reuters, trade ministers of the USA and Kenya held an initial round of virtual talks due to the coronavirus. Kenya aims to do a deal with the USA before the expiry of the Africa Growth and Opportunity Act (AGOA) that allows sub-Saharan African states to export products to the USA without tariffs or quotas until 2025.

### Danakali work at Eritrea potash project



Image Credit: Adobe Stock

**The project is set to boost Eritrea's economy.**

DRA Global has delivered preliminary materials to Danakali's Colluli potash project in Eritrea. The delivery is set to help identify the focus areas to manage the design and process risks during the design phase. The Colluli Mining Share Company (CMSC) project team is in the process of reviewing the deliverables. CMSC is a 50:50 joint venture between Danakali and the Eritrean National Mining Corporation (Enamco).

## Webinar focuses on South Sudanese ambitions to preserve economic progress

Speakers at a webinar hosted by Africa Oil & Power have emphasised the importance of South Sudan continuing on a path towards prosperity, peace and economic growth, despite the challenges presented by the COVID-19 pandemic.

According to Makear Michael Dot, CEO, Nile Petroleum Services, “COVID-19 has [had an extreme] effect on the entire globe and South Sudan is a part of it because we are not isolated from the whole world. Since South Sudan is a landlocked country, we depend on our neighbouring regional countries for our gateway into the global market for the logistics and delivery of different services. Despite that we are a young nation that has been independent since 2011, so we are in need of a lot of expertise to come, especially from South East Asia where the [pandemic] started.”

Robert Mdeza, CEO, Trinity Energy, provided insights into the accessibility of funds for organisations, especially during the COVID-19 pandemic: “We have taken a medium to long-term view about our projects in the country. We work with Stanbic and other banks locally, for our local needs. We have taken a long-term commitment to the country. But we basically work with everybody because of the nature of our transactions. For us to handle the flows we have to have many connecting places.”

Commentary on investment attraction was provided by Felix Ataro, corporate banking head, Stanbic Bank Kenya: “Attracting investments into the country is quite important, however, from a commercial banking point of view, I wouldn’t say there is much that has gone into that. The kind of organisations that will be better at that would be the Developmental Financial Institutions (DFIs) because they have mechanisms to be able to manage that. Infrastructure at the moment has come from DFIs. Banks have to think beyond the commercial type of interest that [they] would earn money and look at the other elements like being part of a community.”

The discussion touched on the issue of sanctions, which Mr Ataro explained has become a headache for financial institutions: “Especially for us to be able to guarantee safe transfer funds for our clients in and out of the country. It is increasingly becoming quite a bit of a pain on a daily basis with international correspondents, banking partners and financial institutions. Again, we should not just be commercially oriented, we should also look at how do we contribute to development because that’s about community.”



South Sudan is hoping to attract investment for a wide range of infrastructure projects.

Image Credit: UNMISS

## CANAL+ AND EUTELSAT PARTNER UP IN ETHIOPIA

Eutelsat Communications and CANAL+ have signed a multi-year, multi-transponder contract for Ku capacity on EUTELSAT 7C to support the launch by CANAL+ of a premium DTH platform in Ethiopia, with the partnership starting at the beginning of 2021.

Leveraging Eutelsat 7C’s incremental capacity dedicated to Ethiopia, CANAL+ will launch a comprehensive broadcast offer encompassing a DTH pay-TV offer of 50 premium channels in a mix of standard and high definition, along with a selection of Ethiopian free-to-air content.

Commenting on the deal, Rodolphe Belmer, CEO of Eutelsat Communications said, “We are honoured to accompany our long-standing partner CANAL+ as it extends its services to the Ethiopian broadcast market which Eutelsat already knows well. This agreement highlights the appetite for high quality and varied programming in this dynamic country as well as throughout the broader African continent, which is the fastest-growing satellite broadcast market. It confirms the relevance of our investments in selected incremental resources to tap growth pockets in emergent video markets.”

Jacques du Puy, Chairman of CANAL+ International added, “We are delighted to launch our DTH pay-TV offer in Ethiopia relying on the experience of our trusted partner, Eutelsat, in this market. Our new platform, the first such offer in the Ethiopian market, will contribute to the already rich and diverse video landscape in this dynamic market and support our commitment to providing high quality, diverse programming in the African continent, where we are already present in 25 countries.”

The EUTELSAT 7C broadcast satellite entered into service in January and is co-positioned with EUTELSAT 7B at the 7° East position to form a two-satellite constellation, offering flexibility and connectivity.

## EAST AFRICA DESERT LOCUST RISK REMAINS

Cyril Ferrand, Food and Agriculture Organization’s (FAO) Resilience Team Leader for East Africa has given an update on the desert locust situation in East Africa, which has become a long-standing problem for many East African farmers throughout 2020. Mr Ferrand said that “significant progress” had been made in a number of countries, particularly in Kenya, where only two of the 29 counties that were infested in February have desert locusts today. However, he added that Ethiopia is still infested with a second breeding generation, and has been partly re-infested by swarms which have come in from Kenya, while Ethiopia is under threat from new swarms which have been arriving from Yemen.

“A lot of work has been done in Ethiopia, but unfortunately the battle will continue there until the end of the year. In Somalia we are also making progress, despite security issues, but breeding is expected in the north. We expect summer locust breeding in the Sudan and western Eritrea also,” Mr Ferrand said.

## BRIEFS



Image Credit: Adobe Stock

Mobile payment in Tanzania.

### Airtel joins Google in Tanzania

Airtel Tanzania subscribers can now pay for Google Play services and apps on their monthly phone bills or on their prepaid balances, with direct carrier billing on Google Play now enabled by DOCOMO Digital, a mobile business enabler. Carrier billing is an increasingly popular mode of payment for digital services, particularly in emerging markets, as it allows faster frictionless transactions in app stores, while ensuring transparency and control over purchases.



Image Credit: ENGIE

A boost to energy access.

### Off-grid energy for Uganda

An estimated 1.4 million Ugandans will access reliable, affordable energy under new EIB - ENGIE initiative. People including smallholders and entrepreneurs in remote villages across Uganda are set to benefit from the new off-grid solar scheme which has been agreed between ENGIE through its solar home system company Fenix International and the European Investment Bank, which is one of the world’s largest financiers of renewable energy.

## Enaex, Sasol partner to establish explosives joint venture

Integrated chemicals and energy company Sasol and Sigdo Koppers Group subsidiary Enaex have announced the start of operations of Enaex Africa, an explosive joint venture in Southern Africa.

Enaex in partnership with Sasol will comprise certain assets and associated activities spun off from the current explosives and rock fragmentation value chain of the base chemicals business of Sasol South Africa. This JV includes the related business activities in both South Africa and other Southern African countries.

This agreement forms part of Enaex's strategic plan to continue to strengthen its international presence in the world's most important mining regions.

Francisco Baudrand, CEO of Enaex Africa, noted, "This is truly an incredible day for Enaex with a new venture on a new continent. This joint venture is a platform of growth for Enaex not only in Southern Africa, but also for us to become the leaders in explosives and blasting services for the mining industry on the African continent."

Meaningful participation for BBBEE has also been catered for in the shareholding structure in line with South Africa's transformation agenda, which is fully supported by both Sasol and Enaex.

Fleetwood Grobler, Sasol president and CEO, said, "We are delighted to announce that Enaex Africa in association with Sasol has officially started operating in South Africa and on the African Continent. Enaex is a Chilean company celebrating a 100 years of history and leadership in the explosives business in South America and together with Sasol will be a force to be reckoned with in the mining industry."

Founded in 1920 in Chile, Enaex's core business is ammonium nitrate production – Enaex is the third-largest industrial grade ammonium nitrate producer in the world – explosives production and blasting services, according to Sasol. This deal is part of the strategic plan of Enaex to continue strengthening its international presence in the most important mining regions of the world, according to Sasol.



Image Credit: Enaex  
Enaex S.A. was selected as Sasol's preferred strategic partner to create the explosives business on the African continent.

## USING DIGITAL TOOLS FOR ECONOMIC TRANSFORMATION

The Zambia Digital Economy Diagnostic, a new report developed by the World Bank, finds that Zambia is making significant progress towards using digital tools to achieve the goals of social and economic transformation set out in its Vision 2030.

The report commends Zambia's rapid expansion of mobile network access, and the progress made through SMART Zambia in digitising government services.

Ellen Olafsen, the lead author of the report, said, "These services, if fully optimised, can bring about increased efficiency in government services directed towards citizens and the business community. The foundation is also now in place to fully leverage digital payments in the public and private sector. This is critical when contactless transactions and rapid transmission of funds to the vulnerable are vital to Zambia's COVID-19 resilience."

The report assesses Zambia's strengths and weaknesses with respect to five pillars that together form the foundation upon which the benefits of digital transformation can be realised. These pillars are digital infrastructure, digital skills, digital entrepreneurship, digital platforms, and digital financial services.

Martine Mtonga, deputy secretary to the Cabinet for e-government division in the office of the president, said, "Digitisation can help us get resources to the vulnerable quickly and transparently. It can also help us reduce the cost of doing business through digitally optimised systems that reduce the time spent to bring goods across the borders and make compliance easy and transparent."

Sahr Kpundeh, World Bank country manager for Zambia, said, "The digital economy report is a vital guide to accelerating digital transformation in Zambia, while also ensuring that the safeguards for data security and consumer protections are in place."

## NAMIBIA'S ANIREP ACQUIRES MAJORITY STAKE IN TWO SOLAR COMPANIES

The Namibian investment company Alpha Namibia Industries Renewable Energy Power (ANIREP) has finalised the acquisition of majority shareholdings in solar energy companies, Hopsol Africa and Hopsol Power Generation.

ANIREP managing director Iyaloo Nangolo said, "Concluding these transactions provides ANIREP a sustainable platform from which we will pursue an expansion of the existing grid connected 10 MW solar PV capacity. ANIREP provides a bridge for capital markets into the Infrastructural Renewable Energy Projects and is well placed to raise such additional capital and project finance as will be required for solar PV capacity expansion, by unlocking a higher investment allocation by institutional investors to infrastructure investments, based on our sustainable long-term cash flows. This will undoubtedly differentiate and distinguish ANIREP on its journey to becoming a significant utility with sustainable long-term cash flows."

## ► BRIEFS



Image Credit: Dominik Wany/Dropsplash  
Phase 1 drilling operations at KML's Kitlanya project have now resumed.

### Drilling resumes in Botswana

Mining investor Metal Tiger stated that drilling operations had resumed at 62 per cent-owned Kalahari Metals' Kitlanya East copper project in Botswana.

The drill rig is now drilling hole KIT-E\_03 which is designed to test a disruption in marker conductors delineated from detailed airborne electromagnetic data.

A follow-on drill hole has been designed to test for mineralisation including copper and silver.

### Rare earths miner enters London Stock Exchange



Image Credit: Chris Barbauld/Dropsplash  
The project's bankable feasibility study will be completed by October.

Pensana Rare Earths, an Australian exploration firm, has listed its Longonjo project in Angola on the London Stock Exchange, representing the first resource-focused IPO since COVID-19. The Longonjo project contains vast deposits of neodymium and praseodymium (NdPr), which are used in the manufacturing of large permanent batteries for electric vehicles and wind farms. The project's bankable feasibility study will be completed by October, with construction commencing in 2021.



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## BUA Cement to establish cement plant, 50MW power plant in Adamawa

BUA Cement, one of West Africa's leading cement companies, is set to establish a three million metric tonnes cement plant and 50MW power plant in Guyuk and Lamurde local governments of Adamawa state in the North Eastern region of Nigeria.

This was revealed when the chairman of BUA, Abdul Samad Rabiu led the BUA Cement management team on a courtesy call to the Adamawa State Governor, Ahmadu Umaru Fintiri at Government House, Yola.

Abdul Samad Rabiu said that preliminary findings show that the two local governments of Guyuk and Lamurde are reputed to have good quality of limestone deposits and BUA Cement is ready to begin the investment in the state. He added that the BUA will use technologies to supply power to the proposed cement plant and communities of Guyuk and Lamurde in addition to providing 3,000 direct and 5,000 indirect jobs.

The Guyuk Cement Plant will be the major investment in the North East by BUA, which solicited the support of Governor Umaru Fintiri to set up the factory in Guyuk. Rabiu said the company has made a decision to source its raw materials locally and has invested billions of dollars in various sectors across Nigeria, and therefore urged the state government to support BUA to realise the Guyuk Cement project.

Governor Ahmadu Umaru Fintiri said that his administration's effort in exploring local content has started yielding results, and thanked BUA for showing interest in establishing the cement plant in Guyuk. He further assured the management team of BUA that government will do whatever is needed and provide the necessary support to create an enabling environment so that the BUA Cement company in Guyuk will become a reality.

He also expressed the readiness of the government to protect the investment once it is established, and said that his administration will maintain a good relationship with the company for the benefit of the state.



Image Credit: BUA Cement

The Guyuk Cement Plant will be a major investment in the North East.

## WORLD BANK FUNDING FOR DIGITAL TRANSFORMATION IN NIGER

The World Bank has approved an International Development Association (IDA) funding of US\$100mn for Niger.

The funding, which includes US\$50 credit and US\$50mn grant, will help Niger implement an ambitious programme to use digital infrastructure and services to modernise its economy and strengthen access to basic services.

The Smart Villages for Rural Growth and Digital Inclusion project aims to increase access to cellphone and broadband services in rural areas and to provide digital financial services to selected underserved regions of Niger.

In particular, the Smart Villages project will increase digital connectivity by supporting reforms that will help create an enabling environment for private telecommunications sector investment.

It will promote the access of women to telecommunications and financial services by helping develop a national digital equity strategy. Around 1,240,000 people (most of whom are farmers) in 2,111 selected villages will benefit from the project's significant activities which include, inter alia, financing digital infrastructures, conducting digital and financial literacy campaigns, modernising farmers' cooperatives' payments devices to allow digital payments, and creating digital data platforms for farmers.

"The COVID-19 pandemic has highlighted the necessity to accelerate digital transformation to help countries like Niger to maintain private sector activities and save lives and jobs," Tim Kelly, World Bank's lead digital development specialist, and co-task team leader for the project said.

In Niger, despite the presence of several mobile network operators, approximately half the population is not covered by mobile broadband, and there are huge gaps in coverage between urban and rural areas where most people live.

## USAID ANNOUNCES FINANCIAL SUPPORT FOR A NEW SUPPLY-CHAIN MANAGEMENT TRAINING CENTRE IN GHANA

The U.S. Agency for International Development (USAID) announced US\$15mn, on 14 July 2020, to support a partnership between Arizona State University and the Kwame Nkrumah University of Science and Technology in Ghana to create an innovative research and training centre to improve African supply chains.

The new Centre for Applied Research and Innovation in Supply Chain-Africa (CARISCA) will train researchers and practitioners, produce new research, and translate and apply state-of-the-art research from around the world to improve local supply chains, particularly in healthcare and agriculture.

The partnership aims to establish Kwame Nkrumah University of Science and Technology as Africa's preeminent source of expertise on the sustainable management of supply chains. The centre will leverage the private sector, governments, and civil society partners to connect African businesses, researchers and practitioners in supply chain management to global resources.

## ► BRIEFS

### Nigeria's Glo slashes international call costs



Image Credit: Maria, Swenke

To help subscribers stay in touch with their loved ones abroad, Globacom has made its costs more affordable.

Nigeria's national telecommunications operator Globacom has cut tariffs for international calls by as much as 55 per cent. According to a press statement, Globacom said, "We understand the need for our subscribers to stay in touch with their friends and family overseas now more than ever before. With the ban on international travel imposed by most countries because of the COVID-19 pandemic, people are unable to travel to reunite with loved ones."

### AEG Power converters crucial for Nigerian microgrid



Image Credit: AEG

The storage system provides grid-forming and balances load requirement with different sources of supply.

AEG Power Solutions has announced that Convert SC Flex storage converters are running successfully as backbone of the hybrid off-grid power plant of the Bayero University Kano (BUK) in Nigeria.

Andreas Becker, head of grid and storage, AEG Power Solutions, said, "Convert SC Flex embeds unique off-grid features, can be easily combined with any type of batteries and is easy to maintain."

## Nigerian Petroleum Minister inaugurates domestic gas pricing framework

TIMPRE SYLVA, NIGERIAN Junior Petroleum Minister, has set up a committee to examine the domestic gas pricing framework, even as the Nigerian National Petroleum Company (NNPC) said it has continued to increase its gas production in the country.

Sylva said an appropriate gas pricing system within the country would be helpful to the manufacturing industry, the people of Nigeria, and would certainly boost the gas industry domestically and internationally.

“Without appropriate pricing we cannot have it right. We have to ensure that gas becomes affordable. That is the only way our country can strive. It is sad to note that we sell gas cheaply to investors while the price is high in the domestic sector, and once we solve the issue of gas in Nigeria, we would have solved a lot of problems in Nigeria.”

The NNPC announced that it increased the daily natural gas supply to power plants in April 2020 by 19.14 per cent, an average 788 million standard cubic feet of gas (mmscfd), and a monthly equivalent of 226.51 standard cubic feet.

The NNPC said, “136.44BCF of gas was commercialised, consisting of 36.99BCF and



Image Credit: pjm/Albino Stock

**The NNPC increased the daily natural gas supply to power plants in April 2020 by 19.14 per cent.**

99.45BCF for the domestic and export market, respectively.

Out of the 1,233.01mmscfd of gas supplied to the domestic market in April 2020, about 787.70mmscfd, representing 63.88 per cent was supplied to gas-fired power plants, while the balance of 445.31mmscfd or 36.12 per cent was supplied to other industries.”

## INFRACO AFRICA FUNDING FOR BUMBUNA HYDRO II IN SIERRA LEONE

INFRACO AFRICA, PART of the Private Infrastructure Development Group (PIDG), has signed an agreement with lead developer Joule Africa to provide US\$6mn of funding to the 143MW Bumbuna Hydro II initiative in Sierra Leone.

Bumbuna Hydro II is expected to begin construction in 2021. The project is being delivered by experienced renewables developer, Joule Africa, through local project company, Seli Hydropower.

“Bumbuna Hydro II is expected to have a tremendously positive impact, powering sustainable economic development in Sierra Leone,” InfraCo Africa’s CEO Gilles Vaes said.

InfraCo Africa is committed to supporting the government of Sierra Leone’s National Renewable Energy Action Plan. This investment into the country’s renewable energy sector complements InfraCo Africa’s work elsewhere in the country to develop the pioneering Sierra Leone Mini-grid project.

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## Upcoming Events Calendar 2020

### AUGUST

4-6

#### TYREXPO AFRICA (TEAF)

Johannesburg, South Africa  
www.tyrexpoafrica.com

25-28

#### IEEE POWERAFRICA CONFERENCE

Virtual event  
ieee-powerafrica.org

27-28

#### CONNECT NIGERIA BUSINESS FAIR

Lagos, Nigeria  
www.connectnigeria.com/bizfair/2020

### SEPTEMBER

14-18

#### POWER WEEK AFRICA

Johannesburg, South Africa  
www.power-week.com/africa

15-17

#### 6TH AFRICA MINI GRIDS SUMMIT

Nairobi, Kenya  
www.africaminigrids.com

### OCTOBER

20-22

#### AFRICA ENERGY FORUM

Amsterdam, The Netherlands  
www.africa-energy-forum.com

### NOVEMBER

3-6

#### ECOMONDO

Rimini, Italy  
www.ecomondo.com

4-5

#### POWER & ELECTRICITY WORLD AFRICA

Johannesburg, South Africa  
www.terrapinn.com/exhibition/power-electricity-world-africa/index.stm

5

#### THE AFRICA DEBATE 2020

London, UK  
www.investafrica.com/event/africa-debate-2020/

24-26

#### AFRICAN UTILITY WEEK AND POWERGEN AFRICA

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

## Transformations in infrastructure and construction sector innovation in focus at the Big 5 Digital Festival Africa

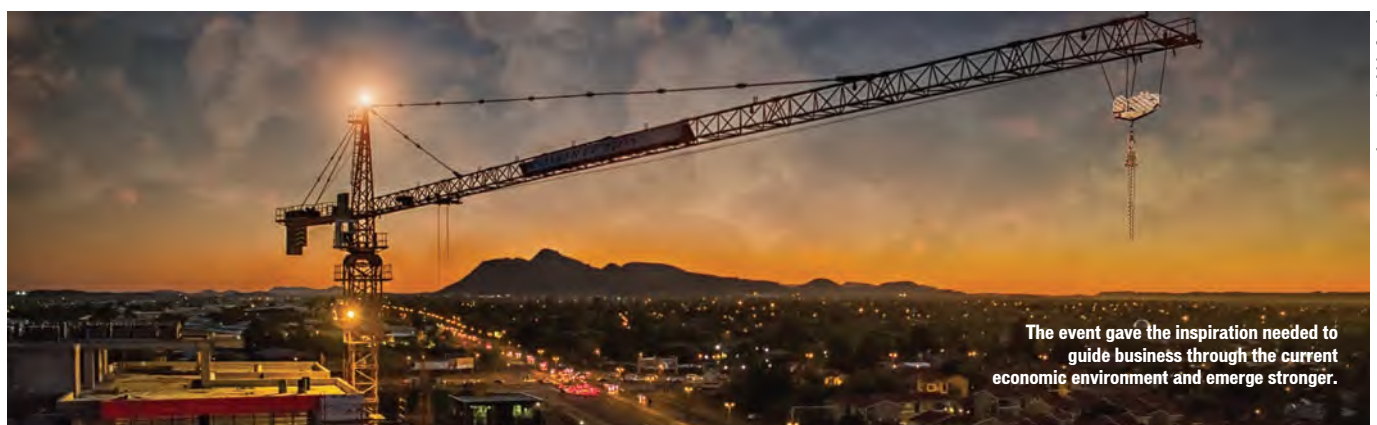


Image credit: Adobe Stock

The event gave the inspiration needed to guide business through the current economic environment and emerge stronger.

The Big 5 Digital Festival Africa was held from 21-23 July 2020, highlighting the transformations in Africa's infrastructure and construction sectors.

As the first of its kind in Africa, The Big 5 Digital Festival Africa was an online gathering of the infrastructure and construction community in Africa, delivering insight, inspiration and direction. The three days of high-level content and innovative product demos focused on rebuilding confidence in the African infrastructure and construction community, while defining the path to recovery.

Organised by dmg events, the Big 5 Digital Festival Africa's inspirational programme delivered incisive, forward looking analysis and thought leadership, giving the inspiration companies need to guide business through the current economic environment and emerge stronger. Some of the topics discussed include:

- Importance of infrastructure and construction in Africa
- Shifting to and embracing a 'Project Economy' culture in post-pandemic times
- Restart: architectural eco-tech strategies
- Business continuity during unprecedented

times, what is the best step forward?

- Construction as a major driver for sustainable economic development for African countries.
- The digital festival platform provided the attendees with the ability to directly message and book meetings with other delegates, speakers or sponsors at the event. Additionally, it hosted a revolutionary matchmaking service, connecting individuals with those best matched to their specific interests and objectives.

For more information, visit <https://thebig5digitalfestivalafrica.com/>

“The coronavirus will change the way the world lives and works for the next 100 years. The first casualty will be globalisation.”



**NTUTHUKO SHEZI**  
 Founder and CEO, Livestock Wealth

“We see digitalisation gaining pace and 5G is becoming an ever-closer reality, with more than three-quarters of global telecom operators expecting to be delivering 5G services by 2021.”

**JOACHIM FISCHER**  
 EMEA channel sales director, Vertiv

“My passion is education, how to improve people’s life through education and training. I was deeply influenced by my own emigration experience, and the tragedies of other who have less luck than me while trying to leave Africa.”

**YANICK KEMAYOU**  
 Founder and CEO, Kabakoo

“Geospatial technologies and agricultural data represent an opportunity to find new ways of reducing hunger and poverty through more accessible and integrated data-driven solutions.”

**QU DONGYU**  
 Director-general, FAO

“The global development community is united to support Africa at this time of need. The European Investment Bank is pleased to join forces with UNDP and BearingPoint to identify smart and cost-effective technological investment that can increase the resilience of African countries to COVID-19.”

**AMBROISE FAYOLLE**  
 Vice president responsible for innovation and development, European Investment Bank

“For the past 25 years, NSIA Group has been developing bank and insurance solutions to address the needs of African people and make them available to as many people as possible. We know that electronic banking is vital for the financial inclusion of our customers. We are proud to have combined our expertise and human capital with that of Orange to create the fully digital Orange Bank Africa.”

**JEAN KACOU DIAGOU**  
 CEO, NSIA Assurances & Banque

“Our growth [in Africa] has been well balanced between greenfield projects and strategic take-overs of existing hotels. We aim to further accelerate our presence across the continent through conversions, especially as liquidity remains a critical challenge. We have revisited our brand architecture to enable us to quickly integrate existing hotels to our network.”

**RAMSAY RANKOUSSI**  
 Vice president, development, Africa & Turkey, Radisson Hotel Group

“Through the availability of domestic gas, the [Mozambique LNG Area 1] project stands to facilitate the development of gas-fired electricity in Mozambique. This will play a key role in providing reliable and affordable energy for the country and the wider region.”

**WALE SHONIBARE**  
 Director, energy financial solutions, policy and regulation, African Development Bank

“I am privileged and excited to take on this challenge to drive GE’s business in Southern Africa, building into its 120-plus years of impact in the continent. I’m looking forward to working across our businesses in power, healthcare, renewable energy and aviation to create value for our countries, customers and people, as we rise to the challenge of building a world that works.”



**NYIMPINI MABUNDA**  
 CEO, General Electric, Southern Africa

“Vantage Capital is excited to be investing in the affordable housing space, making access to affordable housing a reality for hundreds of South Africans. We are very impressed with Alleyroads’ strong management team, vision and track record of quality execution over the past 12 years.”

**WARREN VAN DER MERWE**  
 Managing partner, Vantage Capital

## ▶ QUOTES

“The bank is making excellent progress in accelerating Africa’s development. I am excited with the opportunity to work with President Adesina and the bank’s leadership and teams to further provide top-notch policy, knowledge- and capacity-building support for African countries.”



### **DR RABEH AZREKI**

Newly-appointed chief economist and vice president, economic governance and knowledge management, African Development Bank

“We see a surging demand in cloud adoption and SaaS based-models in the region which is being accelerated by the coronavirus pandemic as banks require more resilient and agile technology propositions.”

### **JEAN-PAUL MERGEAI**

Managing director, Middle East & Africa, Temenos, on the company’s partnership with Al Ain Finance

“We leverage human capabilities and other core resources to partner for African transformation. We are passionate about co-designing partnerships to drive change at community levels across our pan-African footprint.”

### **CARL MANLAN**

Chief operating officer, Ecobank Foundation

“Harsh conditions for global trade are exacerbated by the tightening of the export credit insurance market – leaving many member country businesses highly exposed. Now more than ever, international partners must come together in solidarity to support countries as they face this once in a generation crisis.”

### **OUSSAMA KAISSI**

CEO, Islamic Corporation for the Insurance of Investment and Export Credit

“The renewed development of OML109 will bring a boost to local content development in Nigeria, and support the industry’s recovery following the COVID-19 crisis. As Nigeria multiplies efforts to build domestic capacity and develop the Nigerian content, we intend to live up to expectations as one of the country’s major indigenous players.”

### **PRINCE ARTHUR EZE**

Executive chairman, Atlas Oranto

“It is critical that Africa and Middle East governments implement alternatives to quarantine measures. Africa and the Middle East have the highest number of countries in the world with government-imposed quarantine measures on arriving passengers. The region is effectively in complete lockdown with the travel and tourism sector shuttered. This is detrimental in a region where 8.6 million people depend on aviation for their livelihoods.”

### **MUHAMMAD ALBAKRI**

Regional vice president, Africa and the Middle East, IATA

“Helping the Sokoto state government to provide free satellite internet services to isolation centres is very important to us. It shows our engagement to deliver high-speed Internet anywhere in Nigeria and to help communities in crisis. Eutelsat Konnect has been a very important partner for us, and with such initiatives, is showing its commitment to the Nigerian market.”

### **SHAHIN NOURI**

CEO, Coolink

“I call on governments, developing partners and civil society organisations to work together to remove barriers which prevent women, children, and people in rural areas to enjoy their full rights. Only then, solutions will be sustainable.”



### **GRAÇA MACHEL**

Chair, Graça Machel Trust

“The ultimate goal is to mobilise South African and Zambian business communities to consider taking up investment opportunities in both countries and to build on previous outward trade and investment missions held in Zambia between 2015 and 2019.”

### **NOMALUNGELO GINA**

Deputy minister, trade, industry and competition, South Africa

“Our strategy is to lead the fight against the pandemic by opening the economy to make COVID-19 response management sustainable. Therefore, we are committed to ensuring that Mozambique remains an important destination for business now and after the pandemic.”



**FILIFE NYUSI**  
President, Mozambique

“The recent challenges we have faced with the COVID-19 pandemic highlight the need for additional investment and smarter policies to deploy shared infrastructure to make access to broadband a reality for more Africans at a price they can afford.”

**FUNKE OPEKE**  
CEO, MainOne

“COVID-19 has presented a unique opportunity to accelerate transition to that clean, affordable, reliable and renewable energy source offered by the sun. Nigeria is committed to the full utilisation of this abundant solar energy source. The Federal Government has already removed fossil fuel subsidies and included five million solar connections in our post-COVID economic sustainability plan – first steps to new jobs and a cleaner, healthier environment.”

**PROFESSOR YEMI OSINBAJO**  
Vice president, Nigeria

“To help grow the crypto community, industry businesses are increasingly collaborating to uplift each other in providing more options for their users.”

**RAY YOUSSEF**  
CEO and co-founder, Paxful

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# AFRICAN REVIEW / ON THE WEB

A selection of product innovations and recent service developments for African business  
Full information can be found on [www.africanreview.com](http://www.africanreview.com)

## TUNISIA BOOSTING RENEWABLE ENERGY DRIVE

Image Credit: Adobe Stock



*The project will be one of the first wind independent power producers (IPP) in the country.*

Climate Fund Managers (CFM) and UPC Renewables (UPC) will develop the 30MW Sidi Mansour wind farm in Tunisia.

The project will be one of the first wind independent power producers (IPP) in the country. Climate Fund Managers is participating as co-developer, sponsor, financial adviser and E&S adviser to the project, through the development and construction financing facility under its management, Climate Investor One (CI1).

UPC will lead the development of the project with its local team that will lead land securitisation, permitting, grid connection, wind resource assessment and engineering and procurement contracts.

"We can start the construction of the Sidi Mansour wind farm in 2020, helping stimulate the Tunisian economy, create local jobs and a social plan for local communities while respecting international environmental protection guidelines," said Brian Caffyn, chairman of the UPC Group. The Sidi Mansour Wind Project is set to assist Tunisia in meeting its renewable energy goals. "As potentially the first wind IPP in Tunisia, this project will be a testament to how CI1's full lifecycle financing solution can unlock investment in renewable energy in new markets," according to Sebastian Surie, regional head of Africa for CFM.

## EBRD GIVES US\$100MN LOAN TO BCP TO TACKLE COVID-19 IMPACT IN MOROCCO



Image Credit: Adobe Stock

*The strong focus is on micro, small and medium-sized enterprises.*

Responding to the COVID-19 impact on the Moroccan economy, European Bank for Reconstruction and Development (EBRD) has provided US\$100mn loan to Banque Centrale Populaire (BCP) for on-lending to local private businesses.

The loan is the second in the country under the EBRD Solidarity Package, established to meet the immediate short-term financing needs of existing clients and to strengthen the resilience of the financial sector during the coronavirus crisis.

BCP will extend EBRD funds to corporations and small and medium-sized enterprises that are experiencing a decrease in activity, turnover and profitability to help them address liquidity needs.

The EBRD expects to dedicate the entirety of its activities to combatting the economic impact of the crisis and stands ready to provide support worth US\$24.35bn over 2020-21. BCP is part of Group Banque Centrale Populaire and the second largest bank in Morocco in terms of lending. It offers a wide range of retail, corporate and investment banking services with a strong focus on micro, small and medium-sized enterprises.

Morocco is a founding member of the EBRD and became a country of operations in 2012. To date, the EBRD has invested US\$2.78bn in Morocco through 65 projects.

## DJIBOUTI CELEBRATES MAJOR MILESTONES, BOOSTS REGIONAL INTEGRATION



Image Credit: Adobe Stock

*Djibouti is accelerating infrastructure to bolster regional trade.*

Djibouti has achieved two major milestones in boosting regional integration.

In the first, Djibouti Shipping Company welcomes its first ship and the Tadjourah-Balho road receives its first major cargo shipment. In the other, Djibouti has received M/V Spar Capella at Tadjourah Port. This ship arrived carrying 50,000 tonnes of coal destined for Ethiopia.

Djibouti Shipping Company's first ship (M/V African Sun) arrived in Djibouti on 19 July and is set to drastically reduce transit time for merchandise travelling from Turkey to the region. With this, the transit times from Turkey to Djibouti will reduce from 30 days to nine days. Transit times from Turkey to Mogadishu will reduce from 40 days to 20 days.

Djibouti received M/V Spar Capella on 17 July at Tadjourah Port. The arrival of this ship marks the first major use of the Tadjourah-Balho road corridor. The cargo was met at the port by 1,250 lorries which have taken the coal to Balho, Ethiopia by road.

This third road corridor between the two countries will strengthen regional cooperation and further position Djibouti as trade and logistic hub for Africa.

## AFDB-FUNDED TRAINING BUILDS SKILLS FOR GHANA'S FUTURE ECONOMY

A six-year project to develop industrial skills among Ghana's workforce has



Image Credit: Adobe Stock

*The aim is to support the Ghana government's efforts to reform the TVET sector.*

improved the engineering and manufacturing skills of young people, promoted economic competitiveness and contributed to an improvement in the quality of life of beneficiaries and a reduction in poverty, according to an African Development Bank (AfDB) report.

The Development of Skills for Industry Project (DSIP) was implemented between 2013 and 2019 with US\$95.2mn in financing from the African Development Fund of the AfDB. Its goal was to support the Ghanaian government's efforts to reform the Technical and Vocational Education Training (TVET) sector and enhance technical and professional schools' capacity at the intermediate level.

The project achieved significant results. Over the period, 2,010 students enrolled in two technical universities and 10 technical institutes (40.7 per cent of whom were women) aided by scholarships, with the goal of increasing the participation of disadvantaged groups. In addition, 2,500 apprentices, more than half of them women, benefited from this scholarship programme. In total, scholarships were granted to 4,510 people, including 2,173 disadvantaged students, according to the Project Completion Report prepared by a team led by Efua Amissah-Arthur, social development specialist at the AfDB.

The project improved access to 13 public technical institutions in 38 districts of Ghana's 10 former regions, through the development of new infrastructure.



# AFRICAN REVIEW / ON THE WEB

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## FINNISH ICS UNVEILS OPTICS TECHNOLOGY TO TRANSFORM SOLAR INDUSTRY ECONOMICS



The ICS SEO Film is produced in a highly economical roll-to-roll process.

ICS has developed a technology platform and a film solution to enhance solar energy economics and bring solar energy to the front line of sustainable energy solutions on a global scale.

The Solar Energy Optics (SEO) film solution is one of the major outcomes from comprehensive industrial research and development around light guide technology.

“We have found a way to capture and very precisely redirect light beams,” explained Kari Rinko, chief technology officer at ICS. “Our SEO film technology is based on embedded cavity optics, which is not exposed to external influences or contamination and therefore lasts as long as the solar panel itself. The SEO film is as effective as if the optics would be mounted on the whole surface of the solar panel.

“We use an ultra-thin film produced in a cost-efficient roll-to-roll process,” Rinko said. “Thus, our technology is truly scalable and ready for seamless industrial adoption on a global scale. This unique technology platform determines and enables the new sustainable energy goals for the whole photovoltaic industry.” Rinko further pointed out that the SEO technology focuses on controlling and redirecting more sunlight into the solar cells – not on the structure of the mono- and polycrystalline silicon cells themselves.

## 600W+ PHOTOVOLTAIC OPEN INNOVATION ECOLOGICAL ALLIANCE ANNOUNCED



The aim is to bring more value to customers and promote sustainable development of the PV industry.

A total of 39 photovoltaic companies have banded together to give industry a fillip as the 600W+ Photovoltaic Open Innovation Ecological Alliance.

The 600W+ Photovoltaic Open Innovation Ecological Alliance aims to create a collaborative and innovative ecosystem through open collaboration, synergising the main resources of the industry chain and integrating core processes such as R&D, manufacturing and applications.

In a declaration adopted by the 39 members of the alliance, member companies said that they will work together to build products, systems and standards for a next-generation technology platform, committing to maximise the customer values of 600W+ ultra-high power modules and other related solutions at the application end.

PV is becoming one of the strongest driving forces for energy transformation. To bring more value to customers and promote sustainable development of the PV industry, open innovation is critical. The member companies come from silicon, wafers, cells, modules, trackers, inverters, materials and equipment manufacturers.

Some of the 600W+ Photovoltaic Open Innovation Ecological Alliance companies include Arctech Solar Holding, China Datang Corporation Ltd, Cybrid Technologies, DNV GL Singapore Pte and others.

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# Sustainable solutions for a better future

MYTILINEOS is transforming its traditional EPC business with a strong focus on sustainable energy innovations to propel the company towards an environmentally responsible future.



**M**YTILINEOS, an international company active in metallurgy, energy, gas trading and solar activity, foresees the global trends in energy transition and pioneers once more, by elevating its EPC business, into the fascinating world of sustainable energy solutions.

The company announced that the brand METKA – which was absorbed by the mother company MYTILINEOS in 2017 – is now called Sustainable Energy Solutions Business Unit (SES BU).

By implementing its strategy, the unit is enriched with a renewed orientation and is ready to skyrocket to the future.

The new course aims at the transition from construction of thermal power generation plants, traditionally carried out by the business unit, towards dynamic sustainability projects development: water and solid waste management, hybrid and off-grid energy projects, energy upgrading projects and implementation of innovative first-of-kind energy projects, such as hydrogen projects.

In parallel to growing its presence in sustainability projects, MYTILINEOS is planning to continue capitalising on its competitive advantage in thermal power generation plants construction and to further expand in the field of transmission and distribution, and pursue a targeted growth in the field of infrastructure through PPP projects and other projects requiring a high level of know-how.

Moreover, MYTILINEOS will be more focused at geographical level, looking to expand in important markets such as Africa, Europe and Middle East, where the company can enhance its activity around its priorities.

To optimally support its strategic plan, MYTILINEOS plans to change the organisational structure.

In particular, the dynamic new organisational structure includes four departments of activity (Conventional Business, Infrastructure, Environmental Solutions, New Energy Solutions), two projects development departments, each with selected geographical focus (Greece, Africa, Europe, and Middle East) and five departments of technical and general business unit support.

As defined in its mission statement, MYTILINEOS operates in local and international markets, showing resourcefulness, efficiency



Image Credit: MYTILINEOS

## SUSTAINABLE ENGINEERING SOLUTIONS BUSINESS UNIT (SES BU)

### Transforming the EPC BU – METKA “Launching” into the future

MYTILINEOS aims at the dynamic development of sustainable projects (Sustainability).

- Solid and liquid **waste** management
- Hybrid** and off-grid energy projects
- Energy **upgrade** projects
- Execution of innovative **first-of-kind energy projects** (eg, hydrogen projects)

---

#### WE ARE RENAMING THE BU

in a way that **reflects its new Strategic Direction** and our vision for its future:  
**Sustainable Engineering Solutions Business Unit (SES BU)**

#### WE ARE CHANGING THE BU'S ORGANIZATIONAL STRUCTURE AND BUSINESS MODEL

The new structure is based on **four key features**:

- **Flexible and efficient** shape
- Emphasis on optimizing project **execution costs**
- Distinction of responsibilities and **performance management**
- **Maximizing synergies** with the rest of the Business Units

---

#### AT THE SAME TIME, THE COMPANY IS ESTABLISHING ITSELF

in the **construction** of thermal power stations and selected projects.

An infographic from MYTILINEOS to explain the business model and how the company operates sustainably.

and respect for the environment and for the society. With the contribution of its new Sustainable Engineering Solutions Business

Unit, MYTILINEOS seeks to continue to create value for its shareholders, its employees and international clients. ■

# Ambitious Ghana goes digital

Ghana is looking at multiple ways to further modernise its economy with digital technology, a process which has been accelerated out of necessity during the COVID-19 lockdown. Georgia Lewis reports.



Convenient online transactions and mobile money applications are on the rise in Ghana.

Image Credit: Adobe Stock

**A**mong Ghana's immediate responses to the COVID-19 pandemic was a series of measures to make digital transactions easier. In March this year, the Bank of Ghana and the Ghana Interbank Payment and Settlement Systems decided to waive or reduce charges for online transactions and discourage the use of cash to prevent the spread of coronavirus. This was coupled with other measures, such as a two per cent reduction in interest rates, a two-month extension for filing annual tax returns, a waiver of penalties for taxpayers who redeemed outstanding debts by the end of June this year, and a soft loan scheme for micro, small and medium-sized businesses.

Looking beyond simply mitigating the short-term economic impact of

COVID-19, in May, Ghana's Ministry of Finance launched a series of policy initiatives to further digitise the economy, improve financial inclusion, reduce poverty and boost economic development.

There are three main pillars of this strategy. The first is the National Financial Inclusion and Development Strategy, which was created in conjunction with the World Bank, and it aims to increase financial inclusion from 58 per cent to 85 per cent by 2023.

The second is the Digital Financial Services Policy, which has been developed in partnership with the Consultative Group to Assist the Poor, and this builds on existing technology to further bolster the digital financial ecosystem.

Thirdly, the Cash-Lite Roadmap, designed with the United Nations-based Better Than Cash Alliance, puts forward concrete steps to build an inclusive, digital payments system across all of Ghana. This includes better access to financial

services, improved regulation and oversight and greater promotion of consumer protection.

A statement from the ministry said that in the context of the COVID-19 pandemic, these policies reinforce the government's commitment to digitising the Ghanaian economy and providing soft infrastructure to enable the private sector, payment service providers and other ecosystem players to innovate digital financial solutions. In practical terms, the government has established the Digital Payments Coordination Unit to drive effective stakeholder engagement and implementation of the vital actions that will be required to make policy tangible.

Prior to the May launch, Vice President Mahamudu Bawumia launched QRPay and Proxypay on

**“ Digital payments help drive transparency, accountability and efficiency, and help with greater women's participation.”**

**KEN OFORI-ATTA, FINANCE MINISTER, GHANA**

behalf of the Bank of Ghana in March, calling on financial institutions, telecommunications companies and the fintech sector to find innovative solutions for turning mobile phones and mobile money platforms into “vehicles of economic emancipation”, especially in the informal economy.

Speaking at the May launch, Ken Ofori-Atta, Ghana’s finance minister, commented, “Digital payments help drive transparency, accountability, efficiency, as well as greater women’s participation in the economy. Moving away from cash helps our country advance towards achieving many of the Sustainable Development Goals.”

Mr Ofori-Atta stressed the importance of the private and public sectors to work together to digitise the economy “in a responsible manner, to turn these new policy initiatives into tangible benefits for all Ghanaians”, adding that this was “even more relevant in the era of the COVID-19 pandemic.”

Dr Ruth Goodwin-Groen, managing director of the UN’s Better Than Cash Alliance praised Ghana for already being recognised as a “global digital payments success story”, describing the latest initiatives as an “ambitious, cash-lite road map” that needs to be accelerated “in a way that is responsible and responsive to the needs of all Ghanaians.”

The financial empowerment of women is an important part of Ghana’s push towards further economic digitisation.

Along with the Ghanaian government policy initiative, GSMA marked four years since the launch of its GSMA Connected Women programme by announcing the first wave of operators to renew their



Greater access to the tools of digital commerce has the potential to transform every level of the Ghanaian economy.

Image Credit: Adobe Stock

commitment to the programme through to 2023, including MobileMoney Limited, a subsidiary of MTN Ghana. The initiative was launched in 2016 to take action to close the mobile gender gap and, since then, 39 mobile operators across Africa, Asia and Latin America made formal commitments to reduce the gender gap in their mobile money and mobile internet customer base, as well as driving greater digital financial inclusion for women, who are disproportionately affected by a lack of access to financial services.

For its part, the World Bank has provided US\$115mn in financing towards the eTransform Ghana Project, which aims to further digitise the Ghanaian government’s service delivery and boost internet access, especially in remote areas where improved connectivity can be economically transformative.

“The project will help underpin a comprehensive COVID-19 digital response by increasing broadband

provision in underserved parts of the country and preventing service disruptions,” said Michel Rogy, World Bank practice manager, digital development, for Africa and Middle East.

“Restoring jobs and livelihoods for micro, small and medium enterprises is critical for promoting the economic recovery of the country and is at the heart Ghana’s COVID-19 response,” said Pierre Laporte, World Bank Country Director for Ghana of the project.

The impetus is certainly there for greater digitisation of the economy, partly thanks to the temporary economic shutdown caused by the pandemic. Digital payments captured by the Ghana Interbank Payment and Settle Systems increased by 81 per cent in the first quarter of this year, including credit cards, banking apps, mobile transactions, digital cash, smartcards and electronic billing.

This enthusiasm for greater migration to digital transactions should further sharpen competition in Ghana’s already lively mobile money market. This sector is dominated by AirtelTigo, MTN and Vodafone - these three companies comprise a total market share of around 96 per cent. This has been supported by a large agent network, which is even bigger than that of Kenya (Ghana has 226,000 agents

while Kenya has 205,328), along with strong regulations and around half the adult population of Ghana still unbanked. Companies which are keen to make their moves on the mobile money triopoly include Ghana Commercial Bank and fintechs such as Zeepay.

Another example of Ghana’s progress in this sector is the launch in May this year of a national QR code payment solution by HPS in conjunction with the Bank of Ghana. This made Ghana the first African country to launch a QR code payment system at a national level, enabling users to make instant payments for goods and services regardless of the payment method.

The growth of e-commerce in Ghana, which was on the rise before the pandemic and continues apace, is another means of accelerating the digital economy. For example, MallforAfrica, an online retailer that gives Africans access to more than 250 US and UK online retailers, is already a solid performer in Ghana.

On its expansion across more African markets this year, MallforAfrica’s CEO Chris Folayan said, “Current customers in Nigeria, Kenya, Ghana, and Rwanda love our platform, which is why we are rolling out in 11 additional countries and will continue to expand our platform to meet the needs of customers worldwide.” ■

“Ghana is a global digital payments success story and its ambitious, cash-lite road map needs to be accelerated.”

DR RUTH GOODWIN-GREEN, MANAGING DIRECTOR, BETTER THAN CASH ALLIANCE

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# Reducing the risks across the continent

The African Trade Insurance Agency (ATI) is changing the economies of countries all over Africa. In 20 years, it has become an important development finance institution, especially in emerging markets.

Access to finance helps countries such as South Sudan develop and complete projects.



Image Credit: UNMISS/Flickr

**T**he African Trade Insurance Agency (ATI) is a multilateral provider of investment and trade credit insurance, offering insurance against political and commercial risks, by attracting foreign direct investments across the continent. The acting chief executive officer, chief underwriting officer, and a senior underwriter talked to *African Review* about how ATI is making a difference across multiple markets while remaining resilient during a turbulent year.

This pan-African institution, which has 18 member countries including Burundi, Côte d'Ivoire, the Democratic Republic of Congo and Zimbabwe, (the most recent additions being South Sudan in 2017 and Togo in 2020) has been going from strength to strength.

In 2019, ATI insured US\$6.4bn worth of investments and trade across Africa. This represents a

35 per cent increase over the previous year and it is part of a larger trend that has seen ATI continue to post record results over the past eight years.

And not even a global pandemic has had a negative impact on this agency – earlier this year, S&P Global Rating published its annual assessment of ATI's performance reaffirming the company's creditor rating of 'A' with a Stable Outlook (A/Stable) and noting ATI's 'policy importance' to the region.

This is ATI's thirteenth annual S&P rating, which has remained consistent despite occasional economic downturns and instability in the past decade.

In affirming this rating, S&P said in a statement, "Even amid weakening economic fundamentals in the region following the outbreak of COVID-19, we expect that ATI's members will uphold ATI's preferred creditor status, recovering any payouts on non-commercial claims."

John Lentaigne, the acting chief

executive officer, who was appointed in June 2019 commented, "This report from S&P affirming ATI's rating amid such unprecedented market turbulence, supports our recent statements to the financial markets about our capacity and institutional commitment to stay the course and help our African member countries through the anticipated COVID-19 storm."

"ATI's standing as an important partner for other development finance institutions, global and regional financial sector institutions, and African governments is, to my mind, imperative to our ability to help ensure that investments and trade continue to flow in the region particularly during the current pandemic," Mr Lentaigne added.

ATI started in 2000, when a group of east African countries, under the leadership of COMESA,

**“ATI's standing as a partner for other development finance institutions is imperative to our ability to ensure trade and investments flow in the region.”**

**JOHN LENTAIGNE, ACTING CEO, ATI**

commissioned a World Bank-funded study to look into why the region wasn't attracting more foreign direct investment, despite myriad opportunities. The results showed political risk to be the biggest concern for investors. Seeing a gap in the market, ATI was launched just a year later to fill that gap, and provide risk solutions for investors. Over the years, their services have expanded in keeping with the needs of the markets across Africa.

Membership of ATI opens a whole new path for countries to reduce their debt levels, as it provides global investors and financiers with the reassurance that sovereign transactions and other investments are back-stopped by a highly rated and reputable insurance guarantee agency. This has certainly been the case with the joining of South Sudan, which became a member country in 2017.

Albert Rweyemamu, a senior underwriter at ATI, said, "Generally, ATI supports limited projects in non-member states as we cannot confer our Preferred Creditor Status (PCS), which offers protection against political risks, to non-members."

On the addition of Africa's newest country to ATI's ranks, Mr Rweyemamu commented, "With

South Sudan joining the agency, ATI is now able to offer potential investors products that protect against sovereign and investment risks, which is a prevalent risk in the market."

In regard to the other ways ATI helps reduce the risks associated with investing in emerging markets, he added, "Our PCS adds another layer of comfort for investors because it ensures that, in the event of a claim, ATI-backed transactions will be prioritised by the government. Since the country has joined, ATI has supported several projects including the importation of petroleum. To date, our total support to South Sudan is valued at over US\$500mn."

He was candid about the risks of working with a country such as South Sudan, which has been finding its feet politically and economically since it was founded in 2011: "Being one of the youngest and the most oil-dependent countries in the world, there are related political and economic challenges that the Republic of South Sudan is currently facing. ATI stands ready to be part of the solution by offering its insurance innovation, which will help the country explore various

“ There are political and economic challenges facing South Sudan and ATI is ready to be part of the solution, helping the country explore borrowing options.”

ALBERT RWEYEMAMU, SENIOR UNDERWRITER, ATI

borrowing options."

In regard to debt management, Togo, Benin, Côte d'Ivoire and Niger, have all benefitted, via ATI, from a blended finance tool that uses credit enhancement measures, or guarantees, from multilateral institutions to lower their cost of borrowing and obtain loans with longer tenures. These west African countries have used these proceeds to buy back more expensive and short-term debt, thereby lowering their debt servicing costs to the tune of well above 100 per cent in many cases. In the current COVID-19-affected environment, these transactions, which largely took place before the pandemic, are now viewed in a different light.

Benjamin Mugisha, ATI's chief underwriting officer, said, "ATI's main objective is to provide useful

solutions to our African member governments. These reprofiling transactions are popular because they address governments' desire to more sustainably manage their debt loads, which we predict will become a priority for many countries as the COVID-19 pandemic continues to take an economic toll."

ATI's business model is premised on the strength of its Preferred Creditor Status (PCS), among other factors. Mr Rweyemamu, says, "Through these legal instruments, ATI is guaranteed preferential payment/ reimbursement by member states for any claims resulting from their payment delays or breach of sovereign or sub-sovereign obligations.

"In recent years, ATI has taken practical measures to boost its PCS, which has resulted in near-zero sovereign claims in 2019. In addition, we have been able to mitigate a total of US\$91mn recoveries, thereby resolving payment default situations before they result in claims," he added.

Rweyemamu explained how ATI works to assist in increasing investment and trade flow into its member countries: "ATI's main mandate is to attract trade and investment into Africa through risk mitigation products that target both local and international private sector players, ranging from financiers to suppliers of goods and services. As a major provider of risk-mitigation solutions on the African continent, ATI develops insurance solutions for transactions that would not be insurable in the commercial insurance market, and, where needed, ATI has the flexibility to design innovative solutions." ■

Countries such as Togo are looking forward to brighter economic days ahead with better managed finances.



Image Credit: Francisco Anzola, Flickr

# How digital technology will foster prosperity

Africa has embraced digital technology, sometimes leapfrogging other regions in the process. Economist Moin Siddiqi explains how this needs to continue so the continent can become more economically successful.

South Africa is a leader on the continent in terms of far-reaching mobile connectivity.



Image Credit: Adobe Stock

**D**igitalisation is radically transforming and speeding up government and private businesses worldwide, thus impacting people’s lives and prosperity. Digital technology has facilitated working from home and enabled businesses and households to adapt faster to the new reality of social distancing, as well as providing access to public services during the health emergency.

In sub-Saharan Africa (SSA), e-commerce, e-learning, e-transfers, e-payments, and e-governance are finally catching up. The digital transformation is a big winner from the global health crisis.

“Clearly, many organisations are not going back to the old ways of working we knew before the pandemic. We have seen that we can telecommute effectively. We know that we can organise work more flexibly and accommodate our staff’s conditions and preferences. So, we are going to see a rapid

modernisation in how we operate,” said International Monetary Fund (IMF) managing director Kristalina Georgieva.

Digital connectivity in SSA is expanding rapidly thanks to mobile connectivity. Internet penetration has risen tenfold since the early 2000s, compared with a threefold hike globally – with most people accessing the internet via mobile rather than fixed line broadband. Digitalisation has made huge inroads into financial sector, where some SSA countries (led by South Africa, Kenya and Nigeria) are global

leaders in mobile money – money transactions as a share of GDP average around 25 per cent, against just five per cent globally.

Many regional governments are leveraging mobile technology to help their citizens since the outbreak of COVID-19. In SSA, more than 80 per cent of measures announced in recent months were in the form of cash transfers – compared to 30 per cent globally.

The GSMA has launched the Innovation Fund for Rural Connectivity, which aims to expand digital inclusion through

technology solutions for connecting unserved rural communities.

“Mobile operators are committed to advancing connectivity in rural areas as they work to deliver commercially sustainable solutions to accelerate progress against the UN’s Sustainable Development Goals (SDGs),” said John Giusti, chief regulatory officer, GSMA. “The Innovation Fund for Rural Connectivity will drive partnerships aimed at developing new ways of using mobile technologies to close coverage gaps in rural areas so that more citizens have access to life-enhancing mobile services.”

“Many organisations are not going back to old ways of working. We have seen that we can telecommute effectively, that we can organise work more flexibly.”

KRISTALINA GEOGIEVA, IMF MANAGING DIRECTOR

## Digital policy solutions

Many countries have deployed digital tools to cushion the effects of Covid-19 on their economies, while promoting social distancing. Digitalisation has allowed African businesses to continue partial operations via telework and e-commerce innovations.



The former is limited to fewer companies and services operating within the small formal sector but enabled some countries to minimise disruptions in core public services.

In Rwanda, the judiciary is increasingly using videoconferencing for court proceedings.

Meanwhile, in Côte d'Ivoire, a new ePassport agency manages the service online from the first application through to appointment booking and payments.

Kenya's e-Citizen portal has led to increased usage for services, such as civil and vehicle registration. Tax authorities are also encouraging the use of e-tax services.

In Kenya, Namibia, and Nigeria, taxpayers are encouraged to use existing online platforms for filling tax returns, making tax registrations, applying for tax refunds, and communicating with tax officers during the lockdown.

Online orders are reported high in Kenya and Nigeria, while an e-commerce platform in Senegal offers easy access to websites of small-and medium-sized enterprises selling essential goods.

In Uganda and Kenya, for example, authorities have used social media to share information on where consumers can purchase

food with e-money and delivered via ride-hailing apps.

The region's less reliable internet connectivity and electricity supply affect telework arrangements – with average mobile download speed of 7.4MB per second, which is more than three times slower than the average for the rest of the world.

### Cross-country examples

Countries are targeting 'social safety nets' to vulnerable people and hardest hit businesses through e-money, electronic cash transfers, and virtual engagement in countries such as Benin, Côte d'Ivoire, The Gambia, Lesotho, Madagascar, Namibia, Togo, Uganda, Zambia and Zimbabwe.

Some central banks have relaxed e-money regulations to support retail transactions in order to limit the spread of COVID-19 through bank notes. Telecom operators have also eased the terms of service to encourage increased use of e-money.

Togo's 'NOVISSI' cash transfer scheme distributed emergency aid to 500,000 people in under two weeks using mobile phones.

E-money transfers are being used to deliver income support (Namibia) and unemployment benefits

“ Mobile operators are committed to advancing connectivity in rural areas as they work to deliver commercially sustainable solutions.”

JOHN GIUSTI, CHIEF REGULATORY OFFICER, GSMA

(Zambia). In Gabon and Senegal, the authorities provide utility bills relief for people on low incomes by digitally crediting the beneficiaries' accounts with utility companies.

Nigeria has partnered with mobile network operators to identify vulnerable informal workers in urban areas through airtime purchase patterns. Technology firms in South Africa and Kenya are developing contact tracing apps. In Rwanda, anti-epidemic robots are monitoring patients, delivering food and medication, while free online consultation tools are helping Nigerians to self-assess infection risk and get tested based on symptoms. International health experts offer advice on hospital management, emergency response and staff medical training via webinars with Mozambique's frontline doctors.

Countries are leveraging digital platforms to enhance education, especially in rural areas.

Côte d'Ivoire and Kenya have launched online education services, and Sierra Leone is using digitalisation to upgrade teacher recruitment processes and evaluate student progress.

Educational television and radio programmes have also been launched in Angola, Burkina Faso, Cameroon, Madagascar, and Malawi. Although fewer higher educational institutes have moved online compared to other regions, virtual campus apps and websites provide free study materials during school and university closures in countries such as Côte d'Ivoire, Ghana, Kenya, Liberia and Uganda.

In Rwanda, drones fitted with megaphones are used to raise awareness and enforce lockdown measures and in Botswana, people can request passes for domestic movements via an online platform. Digitalisation has provided essential tools to tackle the socio-economic impact of the COVID-19 virus in unprecedented ways.

In sum, digitalisation can help to increase productivity, skilled jobs, and growth. It can support Africa's post-pandemic recovery through the diffusion of knowledge and innovative products/services, as well as supporting further financial inclusion and deepening. According to IMF research, expanding the region's internet access by an extra one-tenth of the population could boost real per capita GDP growth by one to four percentage points. ■

For more on Ghana's digital economy, turn to page 19.

Online learning has helped students across Africa continue their studies during the COVID-19 pandemic.



Image Credit: Adobe Stock

# Egypt banking on renewables to meet demand

To meet energy demand, Egypt is turning to renewables. But are its ambitious targets realistic? Toufik Khitous, business development manager for North Africa, Wärtsilä Energy Business shares his views.

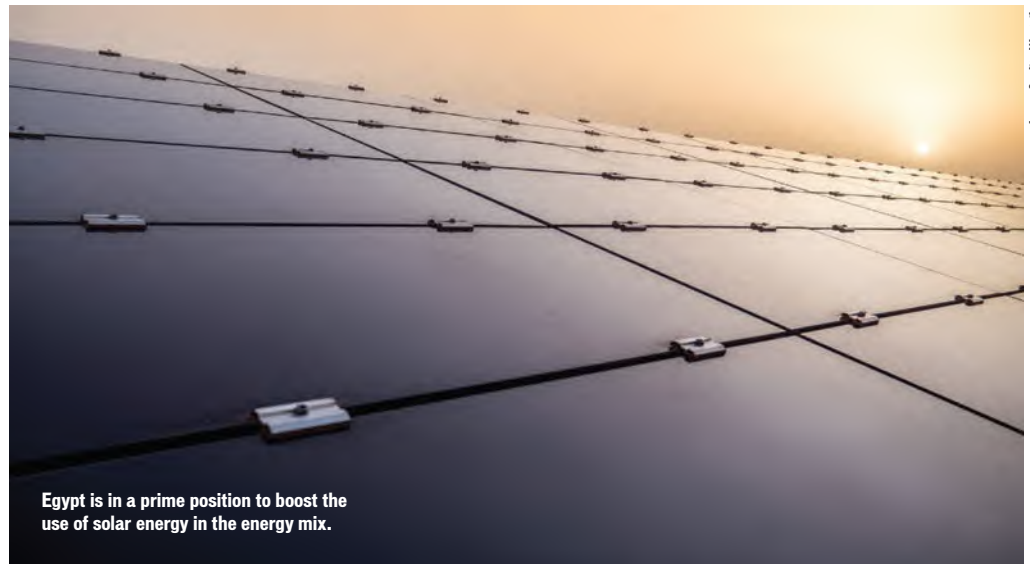
**E**gypt's population has now passed 100 million. As one of the most populous and fastest-growing nations on the African continent, providing electricity to all its citizens is a matter of priority for the Egyptian government.

To ensure continuous security and stability of energy supply, Egypt has launched an energy diversification strategy, known as the 2035 Integrated Sustainable Energy Strategy (ISES), which aims to step up the development of renewable energy and energy efficiency in the country.

Egypt aims to produce 20 per cent of its electricity using renewable sources by 2022 and 42 per cent by 2035. For the second target, the goal is for wind to provide 14 per cent, hydropower two per cent, and solar 25 per cent. This is a hugely ambitious energy plan, but it is one that is necessary for Egypt to flourish. In particular, the country wants to diversify its mix of power sources. Egypt has introduced nuclear power and it is developing megaprojects that will bring a massive amount of gas into its energy mix.

This is in stark contrast to 2014, when, due to electricity shortages, Egypt was forced to introduce more coal into its energy mix to lower its dependence on imported gas. Rising demand, the falling costs of renewable energy, and the discovery of new natural gas sources have allowed Egypt to diversify its energy mix and become a gas exporter.

Furthermore, environmental concerns over the generation and use of coal have reinforced this ecological approach. Egypt has signed up to the United Nations Framework Convention on Climate Change (UNFCCC), meaning that it has no option but to reduce its dependence on fossil fuels.



Egypt is in a prime position to boost the use of solar energy in the energy mix.

Tapping into renewable energy will benefit Egypt in ways more than one. It will enhance the country's economic growth and bring revenues in foreign currency. The increased usage of renewable energy is expected to lead to exporting fossil fuels or using them in other areas domestically, such as industrial production.

The transition to renewable energy sources is also expected to help local businesses in Egypt, since the cost of electricity is an essential factor for business owners. While solar power and sustainable electricity are not widely available in the country yet, there is merit in Egypt's plan to tap into renewable energy sources in the long run. More factories will lean towards sustainable renewable energy sources if it is economic, due to the cost of production and increasing price of electricity.

But to leverage the benefits of the transition to renewable energy, Egypt needs to overcome a few infrastructural and geographic hurdles. A report by the International Renewable Energy

Agency (IRENA) provides a comprehensive assessment and recommendations for primary measures that Egypt must consider to achieve the goals set out in ISES. The report points out the need to update Egypt's electric power sector strategies to reflect the growing cost advantages and other benefits of renewable energy. It focuses on reforming the existing market framework to improve the economic feasibility of projects.

Additionally, the country is very much split in two by the fabled river Nile, with many regions in the south still not connected to the national grid. Egypt is very keen to invest in the tourism sector along the Red Sea, meaning there is a need for not only infrastructure but also the power to supply to these regions.

Egypt's situation has changed a lot since 2011. Nowadays, the issue is distribution rather than consumption. Egypt has a tradition of setting its energy distribution vertically. This has a rather negative impact on how the energy is consumed, but it can change, since we are starting to see more

industries coming into the country as Egypt is encouraging private sector participation.

Between 2022 and 2027, Egypt plans to install an additional thermal power plant and two clean coal technology power plants. These initiatives are expected to exceed the nation's peak power and electricity demands.

Of the renewable energy targets for 2022, solar and wind are considered achievable. In particular, the Benban Solar Complex project, one of the largest solar PV power plant projects in the world, with a total installed capacity of 1.8 GW, is foreseen to come online alongside a number of utility-scale wind farm projects in the Gulf of Suez.

Egypt has a lot of unanswered questions, but it seems to be on the right track. Three big parts – gas, sea turbines and renewables – need to play their part going forward. Egypt has no choice; it must invest in renewables. This sector only makes up around two per cent of the energy mix, but these announcements could increase it to 20 per cent – this is almost a revolution. ■

# Hurdles to infrastructure development in Africa

The world is eager to do business with Africa but finds it difficult to access the continent's markets because of poor infrastructure, writes Tonny Tugee, managing director, SEACOM, East Africa.

**W**ithout a doubt, Africa is one of the world's fastest-growing economic hubs. Crucial to this development is the ability to meet the demand for infrastructure. At the end of last year, a World Bank economic update reported that Kenya has seen its ICT sector grow at an average of 10.8 per cent annually since 2016, becoming a significant source of economic development and job creation with spillover effects in almost every sector of the economy. While this is hugely encouraging news for Kenyans, it raises questions about the factors which might impact the ongoing positive trajectory of infrastructure development, in Kenya and the rest of the continent.

**Fixed-line networks:** In 2019, Kenya invested US\$59 million in the Djibouti Africa Regional Express (DARE) submarine fibre-optic cable system, which reached the shores of Mombasa during March this year. The others include SEACOM, East African Marine System (TEAMS), Eastern African Submarine Cable System (EASsy) and Lion2 systems. According to Njoroge Nani Mungai, chairman of Kenya's Communications Authority, the investment demonstrates the government's desire to improve Kenya's position as a regional IT hub. It is aimed at guaranteeing access to a faster, more secure, and more reliable internet connection. Revenues generated by the digital economy should reach US\$23,000bn by 2025, thanks to investments 6.7 times higher than those in other sectors. In addition, terrestrial fibre networks have continued to expand, offering more connectivity options and better network redundancy – great news for land-locked countries. However, according to



Tonny Tugee outlines the ICT infrastructure improvements needed to boost investment.

Image Credit: SEACOM

MainOne's CEO, Funke Opeke, these remain underutilised due to high prices and a failure to establish an enabling environment.

**Mobile network coverage:** Telecommunications has continued to register positive growth, with increased uptake and usage of mobile services. High-bandwidth internet infrastructure has become more widely available, while the rollout of 4G infrastructure by the MNOs has led to substantial growth in subscriptions to data and internet services. With the expansion of fibre-optic infrastructure across Kenya, more homes will be connected to better quality broadband services, which will be extended to the rural areas. Consequently, the increase in mobile network coverage has led to a decline in fixed-line networks. Alternative solutions need to be considered to ensure a stable internet connection throughout

Kenya to bridge the rural and urban digital development divide.

**Poor infrastructure:** The world is eager to do business with Africa but finds it difficult to access markets because of poor infrastructure. Greater economic activity, enhanced efficiency and increased competitiveness are hampered by inadequate transport, communication, water, and power infrastructure. The World Bank economic update highlighted challenges relating to the inadequate power supply, transport networks and communication systems as crucial to ensuring ongoing connectivity and continent-wide economic development. It found that the poor state of infrastructure in sub-Saharan Africa reduced national economic growth by two percentage points every year and cut business productivity by as much as 40 per cent. It is estimated

that around US\$93bn is needed annually over the next decade to overhaul sub-Saharan African infrastructure. Around US\$60bn of that is needed for new infrastructure and US\$30bn for the maintenance of existing infrastructure. Only about US\$25bn annually is being spent on capital expenditure, leaving a shortfall that must be financed.

**Economic potential:** The economic climate of Kenya will determine access to the tools needed to build the relevant infrastructure. According to André Pottas, Deloitte's corporate finance advisory leader for sub-Saharan Africa, this translates into exciting opportunities for global investors who need to look past the traditional western view of Africa as a homogeneous block and undertake the detailed research required to understand the nuances and unique opportunities of each region and individual country.

With governments across the continent committing billions of dollars to infrastructure, Africa is at the start of a 20 to 30-year infrastructure development boom. Fortunately, we have access to a global network of exports, which we need to be utilising optimally to ensure a stable infrastructure, both digital and physical. However, in preparation for the boom, the only way for Africa's infrastructure backlogs to be cleared and to unlock connectivity and communications in Kenya is through globally competitive, growth-oriented, mobile, and digital technology businesses. It is imperative to establish partnerships with trusted private sector players who already cater to the local and international communications market with reliable connectivity solutions. ■

# “So much more than bricks and mortar”

Carl Manlan, chief operating officer at Ecobank Foundation, discusses the corporate social responsibility aspects of infrastructure development and why taking care of people is an important part of any major project.

Often when people speak about the need for infrastructure development in Africa, they are discussing bricks and mortar, physical structures such as transportation links, hospitals and schools. But creating a world in which the African continent can truly flourish and provide long term stability and growth for millions of people relies – arguably more heavily – on invisible infrastructure, the hidden strength behind those physical health centres, roads and community hubs.

Five years ago, the Ecobank Foundation collaborated with the Charities Aid Foundation (CAF) to design a strategy that would help us become the ‘go-to’ partner in Africa in development of improved access to health and education, along with financial inclusion. It has been a rewarding journey. With a financial institution as our foundation, we needed to explore how we could best deliver on what was an ambitious goal. We wanted to leverage what we already knew how to do to deliver the foundation’s mission to achieve social change, while helping to battle life-threatening diseases such as HIV/AIDS, tuberculosis, and malaria.

We have been guided by CAF’s in-depth research into growing giving in four countries in Tanzania, Kenya, Uganda, and South Africa. With an aim to capturing the size and scope of giving among these countries’ emerging middle classes, the reports examined individual giving and the enabling environment. Recommendations included supporting the development of the invisible infrastructure which supports civil society. Among them was promoting new ways of safe and secure giving to develop the potential for mass engagement and individual giving.

For the foundation, the need for secure giving translated into using the access given by the Ecobank mobile app to reach potential donors, be they local or part of the African diaspora, and help them to give across Africa. It meant engaging with our staff to test dedicated fundraising appeals such as World Malaria Day and was used successfully to fundraise for the victims of Cyclone Idai in March 2019 and other initiatives that build on the giving culture of Ubuntu.

To move towards our goals, our foundation has harnessed the talents of Ecobank employees across 33 countries. In addition to our direct



Improving access to mobile banking has far-reaching benefits, especially in rural areas.

Image Credit: Adobe Stock

financial support of malaria prevention programmes in Mozambique and Nigeria, we are supporting the Global Fund and its local partners to develop technology-led solutions to finance challenges such as cash management and mobile money support. An example of this is providing mobile banking services to street children in Togo with a local charity acting as custodian to safeguard their savings. This is an example of what we knew from the outset about successful corporate social responsibility – it will only translate into real-world impact if it is borne out of the local context – you need a deep understanding of the problem you are hoping to help solve to best use your resources.

For Ecobank Foundation, a cornerstone of this approach was the collaboration with the Ecobank Academy, a corporate university which provides training for finance managers working in health programmes that supported large relief organisations such as The Global Fund and the United Nations Population Fund (UNFPA). Drawing on our strengths, we created an initiative to bridge the knowledge gap between financial institutions and colleagues working in development on the ground. Leadership and financial management training was designed for the International Federation of the Red Cross

and Red Crescent Africa to support national societies.

From here, they were able to improve their individual governance and reporting standards, demonstrate their professionalism, strengthen relationships with funders, and connect with colleagues in similar organisations in other regions to share successes and lessons learned along the way. Therein lies a crucial piece of that ‘invisible’ knowledge infrastructure that will help to solve the transformation puzzle of development in Africa. Amid our work in support of those affected by the pandemic, our foundation has not lost sight of the battle against malaria, which continues to inhibit African development. We launched the Zero Malaria Business Leadership Initiative and joined with the RBM Partnership and African Union Commission Zero Malaria Starts With Me campaign so that we can continue to work with like-minded institutions.

Despite the current crisis, we have cause to be hopeful. The foundation and CAF are working together to help create desperately needed basic systems and services, as well as the more complex ‘invisible’ civil society infrastructure which, done thoughtfully and with a sense of purpose, tangibly improves the lives of millions. ■

# The new shape of logistics and warehousing

Macroeconomic factors, tenant needs, last-mile delivery and ever-rapid technology developments are all factors that are reshaping the demand and design for warehousing and logistic networks. Abhishek Paul reports.



Image Credit: Adobe Stock

**T**he materials handling webinar ‘Forecasting future demand for logistics and warehouse space’, hosted by Messe Frankfurt, has discussed the strategic evolution of supply chain strategies and focus on the growing demand to satisfy inventory controls, supply chain diversification and e-commerce needs in the COVID-19 era.

Giving a top-line overview of implications of COVID-19 on the industrial and logistics market, Peter Haywood, from industrial and logistics agency JLL, noted that the trend is shifting from retailers to e-commerce platforms and sophistication of the supply chain.

“The impacts of COVID-19 have not fully materialised, but the initial impacts have been felt,” Mr Haywood said. “There is optimism that the abruptness of these events has forced the markets into adapting, which will have a positive outcome for the future.”

The future of retail is changing at an accelerated pace as the businesses are choosing advanced warehouses, new technologies, automation and re-shoring, he said.

Logistics firms offering services to hard-hit sectors such as retailers, manufacturing, automotive are facing challenges due to the pandemic, said Mohsen Ahmad, CEO, Logistics District, Dubai South. To mitigate the impact of COVID-19, it is imperative to look at reducing the operating costs, collaborating with customers, addressing cash flow challenges and finding innovative operational methods, according to Mr Ahmad. How to keep the business functional even in the lockdown is a lesson learnt by many of the companies, he said.

Ako Djaf, vice-president, contract logistics/SCM and land transport, Middle East and Africa, DB Schenker, noted, “As a consequence of e-commerce growth and advanced

technology, automation and innovation, we believe, will determine the future success in our industry.

The growing shortage of labour in matured logistics nations and in our region in many locations and explosion in demand of online retailers will automatically drive automation and innovation, according to Mr Djaf. However, re-skilling the labour force is needed to collaborate and maintain the new machines in the facilities, he added.

Talking about strategies, he noted that advanced warehouse management systems with AI features and interface capabilities are picking up rapidly. Enabling customers better material flow through visibility and traceability is increasing in terms of customers expectation, he added. Creating a value proposition and stable strategic partnerships remain vital for logistics firms, in his view.

Technology will change the way online retail goods are distributed in Africa

Alain Kaddoum, general manager of Swisslog Middle East, said, “The traditional retailers in the market are expecting that 50 per cent of their transactions will be 30 per cent to 50 per cent on e-commerce for the next one year at least due to COVID-19 impact. People will get a habit of ordering online more than before.”

Mr Kaddoum said that retailers are moving to the e-tailer approach having a smaller footprint of a retail shop and delivering more on e-commerce. All the panellists have agreed that macroeconomic factors, tenant needs, last-mile delivery and rapid technology developments are all factors that are reshaping the demand and design for warehousing and logistic networks. As operators pivot to deal with the long-term ramifications of the pandemic, supply chain strategies will be overhauled and this will lead to a boost in warehousing demand, according to the industry experts. ■

# How reliable and individual is your power supply?

Jürgen Pump, sales manager of Standard Aggregatebau Evers GmbH & Co. KG, one of Germany's leading generator set manufacturers, talks about reliable solutions for electrical power supply.

**African Review (AR): Your company's name 'Standard Aggregatebau' implies that you are a series manufacturer of generator sets, like numerous other generator set packagers worldwide. What differentiates you from the competition?**

**Jürgen Pump (JP):** Our company's name resumes from the early days of generator sets manufacture in 1961 when we were one of the first to assemble diesel-driven generator sets in Germany. At that time, there were no technical regulations in place for the assembly of generator sets, so we set our own high standards of consistent design and quality. There are many packagers of generator sets in nearly every country of the world, from small garage companies to multinational corporations. What most of these enterprises have in common is their focus on serial production with standardised generator sets and firmly defined options. We set ourselves apart by successfully focusing on the right project-

designed generator sets for applications with sophisticated requirements and individual manufacture.

**AR: But isn't individual manufacturing much expensive?**

**JP:** All too often apparent investment savings backfire and actual losses turn out to be much more costly than an adequate initial project design and execution. Many times it is in the news that an emergency generator did not work correctly in shopping malls, airports, data centres, and even hospitals – although the well-reputed engine and alternator brands were installed and often in redundancy. While lack of maintenance causes some incidents, others are simply due to improper design, system integration, or workmanship. Such failures can cause the

operator at best "only" monetary losses, but fatalities in the worst cases. This is particularly bad, as nearly all cases can be avoided by proper design and selecting suitable specialist firms with the execution of mission-critical projects instead of choosing just the cheapest offer from a dealer whose technical capability ends with presenting just datasheets. Although the business has become much more complex, the fundamental laws of business have not changed.

Still, the gap between ambition and reality is quite significant when it comes to complete systems in which several companies are involved. We support project owners, design engineers, and contractors likewise throughout the whole project and successfully handle every order individually to achieve the best price-performance-ratio for our customers for almost 60 years.

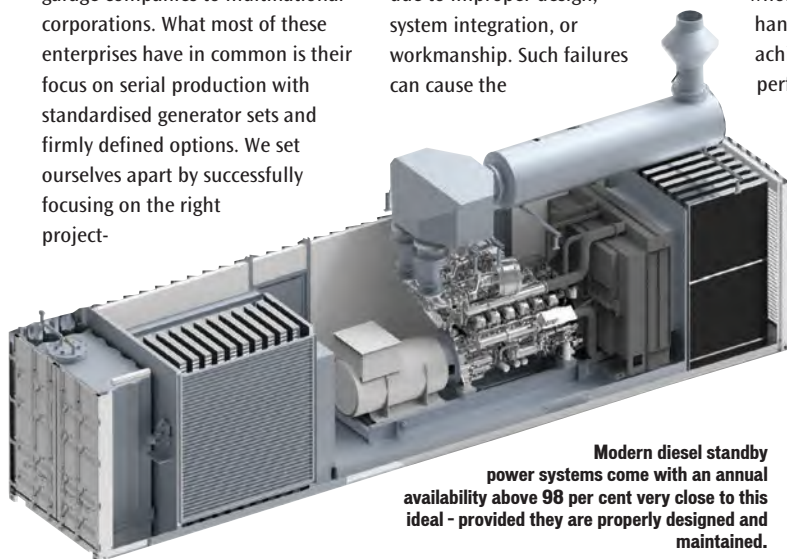
**AR: Are diesel-driven generator sets still the measure for reliable backup power?**

**JP:** Yes. However, no mechanical system can be expected to perform with 100 per cent reliability over time. Modern diesel standby power systems come with an annual availability above 98 per cent very close to this ideal – provided they are

properly designed and maintained. The vast majority of problems result from human error or neglect, both during system engineering and operation, while power system component failure is a relatively rare event.

**AR: But 98 per cent availability does not sound very impressive or reliable?**

**JP:** This figure applies to a standard code compliance generator set commercially available from many manufacturers and dealers. The availability is not only determined by failures but also planned downtimes for maintenance. For mission-critical installations, SAB, as a specialist firm, can increase the availability of up to 99.999 per cent by implementing redundancies into the system design. This starts with quite cheap but effective measures for most vulnerable components, like adding a redundant starting facility, and goes up to completely redundant power lines, which are fault-tolerant as they have no single points of failure. As each project is different in its requirements, off-the-shelf solutions do usually not achieve the desired results. Close coordination between all parties and suppliers during design, installation, and commissioning is vital for maximising reliability, and this challenging task should be left to experienced professionals like ourselves. ■



Modern diesel standby power systems come with an annual availability above 98 per cent very close to this ideal – provided they are properly designed and maintained.

# Enhancing UPS energy efficiency

Alex Emms, operations director at Kohler Uninterruptible Power, discusses the various techniques available to optimise UPS operating efficiency under all conditions.

When double-conversion on-line UPSs first appeared in the 1970s, they used transformer-based designs. However, advances in power semiconductor technology have facilitated a general industry move towards transformerless solutions. This has brought several advantages, including some related to efficiency. Firstly, the topology is inherently more efficient. Even at optimal, near-full load conditions, transformer-based designs remain well below 95 per cent – and as the load reduces towards 25 per cent, efficiency approaches just over 85 per cent. By contrast, the PowerWAVE 9250DPA can achieve efficiencies up to 97 per cent with loads from 25 to 75 per cent of nominal capacity.

However, the benefits extend further; the considerable size and weight reductions achieved by

transformerless designs mean that complete UPS solutions can be implemented as small, rack-mounting modules rather than as large, monolithic units. The advantages of this can be explained by considering a PowerWAVE 9250DPA example.

This comprises the UPS supporting, for example, a 200kW load; it would use four of its 50kW modules – or five, to provide N+1 redundancy.

Then, if the load increases, incrementing the UPS's capacity by plugging in another 50 kW module (vertical scaling) is cost-effective, easy, and can be done without even interrupting power to the load.

Further capacity can be provided by horizontal scaling, i.e. adding more racks in parallel. Note that both benefits – redundant capacity and scalability – are achieved with minimal excess capacity, space and

cost, due to the modules' granularity.

By contrast, a monolithic system typically has to be significantly oversized for future-proofing. Additionally, N+1 redundancy must be implemented using two complete systems, so neither can ever be more than 50 per cent loaded even in the best case. These factors force the monolithic system to work with low loads, where efficiency drops away sharply.

## Maintaining high efficiency

We have seen how modular topology improves UPS efficiency, but it's crucial to maintain these high-efficiency levels under low loads. One way to facilitate this is to use a smart module switching technique called Xtra VFI.

Xtra VFI is an intelligent feature that minimises loss and improves efficiency on double-conversion modular systems like the



Alex Emms from Kohler.

PowerWAVE 9250DPA. With this mode enabled, the UPS automatically adjusts the number of active modules to match changing load requirements.

Surplus modules are switched to standby but remain ready to transfer to active mode if the load increases or the mains fails. The active modules share the load equally.

The efficiency improvements are particularly significant when the load is less than 25 per cent of full capacity.

Power availability is protected, as the system allows for desired redundancy levels in its module-switching calculations. Xtra VFI operation is summarised in Figure 1.

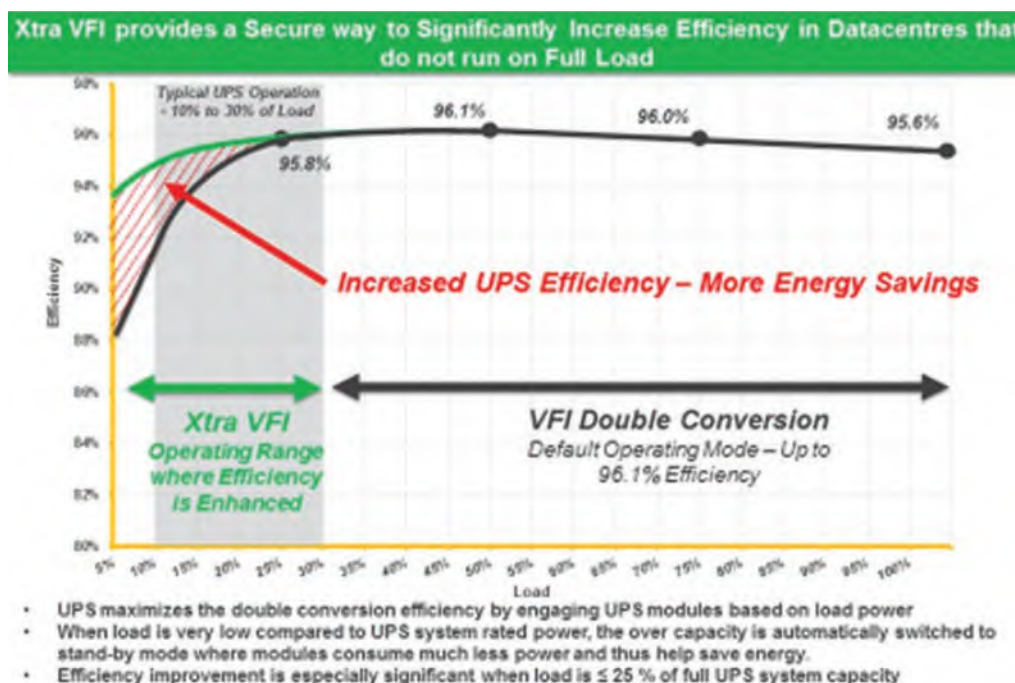


Image Credit: Kohler Power

## Eco mode

In eco-mode, power flows directly from the utility mains supply to the load during normal operation, so bypassing the rectifier and inverter inefficiencies. If a mains problem is detected, the critical load is switched to the inverter output.

While eco-mode efficiency can reach 99 per cent or more, it exposes the load to any incoming mains problems during regular operation. Accordingly, users should weigh the benefits of increased UPS operating efficiency against the risk created by operating in eco-mode. ■

Figure 1: UPS Xtra VFI operating mode

– Source: KOHLER Power

# Land of opportunity for canny investors

Africa's drive to renewables offers huge investment opportunity for ambitious, motivated international energy firms. Martin Clark reports on the outlook across the entire African continent.

**T**he shift to clean energy is set to gain momentum in Africa in the coming years, driven, in part, by COVID-19. The African Union Commission and the International Renewable Energy Agency agreed in April to work more closely to advance renewables. The aim is to improve the ability of rural communities to deal with the crisis using renewable energy to power critical services such as medical equipment and water pumping. But this marks only the latest step in a long journey that has pushed renewables to the top of the agenda, continent-wide.

South Africa offers immense potential. Based on a government plan to add 2.6 GW of unprocured wind and solar capacity in 2022, the next round of projects could attract more than US\$2bn in investment, a Reuters analysis shows. Eskom's coal-fired power stations still produce more than 80 per cent of the nation's electricity but struggle to meet demand; renewables account for just 7 per cent of the local energy supply. In 2018, the government signed long-delayed contracts worth US\$4.7bn with independent power producers for 27 renewables projects. Elsewhere, Chinese investors have shown appetite for rolling out renewables infrastructure across southern Africa.

In Zambia, state-owned Zesco signed contracts worth US\$548m in May with Power China to develop three solar plants and add 600MW to the national grid. Zambia's power system is still heavily dependent on unpredictable hydropower. Zesco said in a statement that the additional power would boost access to electricity and enhance industrial development.



Egypt has been a frontrunner in solar energy. At the end of 2019, the second phase of the US\$2.1bn Benban plant was completed near the southern city of Aswan. With a swathe of photovoltaic panels spreads over an area of desert so large it is visible from space, it is one of the world's largest solar parks. The plant provides 1.5 GW to the national grid and has brought down the price of solar energy while Cairo is phasing out electricity subsidies. The government aims to increase the energy mix from renewables to 20 per cent in 2022 and 42 per cent by 2035.

Morocco is attracting big investors. Last year, a consortium led by French EDF Renewables won a tender to build an 800MW solar plant in the Atlas Mountains. The UAE's Masdar will assist with the US\$782m scheme, known as Noor Midelt 1. It marks the first phase of a larger project as Morocco looks to increase renewables in the national

energy mix to 52 per cent by 2030.

Some of West Africa's less-developed states may benefit too. Senegal inaugurated the first large-scale wind farm in West Africa this year. The 158MW project was built by Lekela, a British company, and at full capacity will supply nearly a sixth of the nation's power. It does not resolve all of Senegal's energy troubles though with many rural areas still not electrified. The roll-out of more wind farms and solar power plants is expected to help with the goal of universal access.

Nigeria is looking to renewables to end its power shortages. Small-scale solar power plants have been popular during lockdown to keep the lights on in homes which traditionally may have looked to fuel-based generators. Almost half of all Nigerians do not have access to grid electricity, and those who do face regular power cuts.

Educational centres are turning to solar too. The government is

recruiting for the next phase of its Energising Education Programme, to roll out solar hybrid power at universities, with funding from the African Development Bank.

In eastern Africa, Tanzania's deputy energy minister Subira Mgalu told parliament in April that the country aims to have six times its current power generation capacity by 2025 through investment in thermal and renewable energy. Tanzania is looking to exploit offshore gas while being keen to diversify the energy mix to include solar, wind and hydro. About 70 per cent of its electricity already comes from hydro and geothermal, three times the global average. It hosts Africa's largest wind plant, the Lake Turkana Wind Power Project, a complex of 365 turbines, each with a capacity of 850kW. The site, connected to the grid via a 435km transmission line, represents 17 per cent of the country's capacity. ■



# CONSTRUCTION & MINING Buyers' Guide

Section One: Listings by Category

Section Two: Suppliers

Section Three: Agents & Subsidiaries in Africa

Please mention African Review when contacting your supplier

## Section One: Listings by Category

### AIR COMPRESSORS

Cantoni Motor S.A.  
Coelmo Spa

### AIR CONDITIONING

SEFKO Trading Solutions  
**Aluminium Products**  
Jindal Aluminium Limited

### Asphalt Plant

Marini S.p.A.  
Parker Plant Ltd.

### Attachments and Accessories

Bobcat  
Magni Telescopic Handlers

### Backhoe Loaders

Action Construction Equipment Ltd.  
Bobcat  
Caterpillar SARL

### Batching Plant

Carmix - Metalgalante S.p.A.  
Jessop & Associates (Pty) Ltd.  
Marini S.p.A.

### Block/Tile- Making Equipment

Jessop & Associates (Pty) Ltd.

### Breakers

Bobcat  
Fritsch GmbH Milling and Sizing  
Jubaili Bros  
Lovato Electric S.p.A.  
Wacker Neuson (Pty) Ltd.

### BUILDINGS

EEC Group  
Jindal Aluminium Limited  
Mytilineos SA  
Zamil Steel Building Co. Egypt

### CAD

WSCAD South Africa  
**Compaction Equipment**  
Wacker Neuson (Pty) Ltd.  
**Complete Solutions for Electrical Needs**  
Altaaqa Global Energy Services  
Jubaili Bros  
Lovato Electric S.p.A.  
Mytilineos SA

### Components and Accessories

Erlau Ag  
Liugong Machinery South Africa (Pty) Ltd

### COMPONENTS AND SPARE PARTS

Blumaq South Africa  
Cat Lift Trucks  
Erlau Ag  
Maitek S.r.l.  
SMT Africa  
Wirtgen Group Branch of John Deere GmbH & co. KG

### Concrete

Bobcat

### CONCRETE EQUIPMENT

Bobcat  
Kraft Tool Co.  
Parker Plant Ltd.  
Wacker Neuson (Pty) Ltd.

### Concrete Equipment - Other

Carmix - Metalgalante S.p.A.  
Jessop & Associates (Pty) Ltd.  
RATEC GmbH

### Concrete Pumps

RATEC GmbH

### CONSTRUCTION VEHICLES

Aquamec Ltd.  
Bell Equipment Co. SA (Pty) Ltd.  
Caterpillar SARL  
SMT Africa

### Attachment & Accessories

Caterpillar SARL

### Construction Vehicles- others

Caterpillar SARL

### Dump Trucks & Haulers

Caterpillar SARL

### Earthmoving Equipment

Caterpillar SARL

### Engines, Components & Accessories

Caterpillar SARL

### Site Dumpers

Caterpillar SARL

### Tractors

Caterpillar SARL

### CONSULTANCY SERVICES

RATEC GmbH  
SEFKO Trading Solutions  
WSCAD South Africa

### CONVEYOR SYSTEMS

Cantoni Motor S.A.  
Keestrack n.v  
Parker Plant Ltd.

### Cranes

Cantoni Motor S.A.  
Condra Cranes and Hoists  
Liebherr- Export AG

### Crushing, Screening and Washing

Cantoni Motor S.A.  
Fritsch GmbH Milling and Sizing  
Keestrack n.v  
Maitek S.r.l.  
Parker Plant Ltd.  
Rockster Austria International GmbH  
Volvo Penta  
Weir Minerals Africa (Pty) Ltd.  
Wirtgen Group Branch of John Deere GmbH & co. KG

### DEMOLITION EQUIPMENT

Bobcat  
Rockster Austria International GmbH

### Doors & Windows

Jindal Aluminium Limited

### Dozers

Liugong Dressta Machinery Sp. Z O.O.

### Drilling Machinery And Plant

Bauer Maschinen GmbH  
Cantoni Motor S.A.

### EARTHMOVING EQUIPMENT

Action Construction Equipment Ltd.  
Bell Equipment Co. Sa (Pty) Ltd.

Blumaq South Africa

Bobcat

Caterpillar SARL

J.A Delmas S.A.S

Kanu Equipment

Liugong Dressta Machinery Sp. Z O.O.

Mb S.P.A

Smt Africa

### Attachment & Accessories

Caterpillar SARL

### Backhoe Loaders

Caterpillar SARL

### Dozers

Caterpillar SARL

### Earthmoving Equipment - Other

Bedelco Sprl  
Blumaq South Africa  
Liebherr- Export Ag

### Electric

Altaaqa Global Energy Services  
Cantoni Motor S.A.  
Himoinsa S.L  
Irem S.P.A. A Socio Unico  
Lovato Electric S.P.A.  
Sefko Trading Solutions

### Engines, Components And Accessories

Baudouin  
Cantoni Motor S.A.  
Himoinsa S.L  
Jubaili Bros  
Liugong Machinery South Africa (Pty) Ltd  
Perkins Engines Company Limited  
Volvo Penta

### Equipment

HIMOINSA S.L  
Snorkel

### Excavators

Aquamec Ltd.  
Caterpillar SARL  
Wacker Neuson (Pty) Ltd.

### Fabrication and Structures

EEC Group  
Zamil Steel Building Co. Egypt

### Loaders Others

Caterpillar SARL

### Mini Excavators

Caterpillar SARL

### Motor Graders

Caterpillar SARL

### Scrapers

Caterpillar SARL

### FINISHING

Kraft Tool Co.

### Formwork

Ratec GmbH

### Generator Sets

Aksa Power Generation  
Altaaqa Global Energy Services

Clarke Energy

Coelmo Spa

Himoinsa S.L

Jmg Ltd.

Jubaili Bros

Lovato Electric S.p.A.

Mytilineos SA

Visa S.p.A.

### GEOIMAGING

Sequent

### Grinding Equipment

Cantoni Motor S.A.  
Fritsch GmbH Milling And Sizing  
Weir Minerals Africa (Pty) Ltd.

### Hoists

Cantoni Motor S.A.  
Condra Cranes And Hoists

### Lift Trucks

Cat Lift Trucks

### LIFTING EQUIPMENT

Action Construction Equipment Ltd.  
Bell Equipment Co. Sa (Pty) Ltd.  
Cantoni Motor S.A.  
Condra Cranes And Hoists  
Erlau Ag  
Goscor Access Solutions (Pty) Ltd  
Haulotte Group  
Liebherr- Export Ag  
Magni Telescopic Handlers  
Snorkel  
Volvo Penta

### Lighting Masts/Towers

Aksa Power Generation  
Eec Group  
Goscor Access Solutions (Pty) Ltd  
Himoinsa S.L  
Jubaili Bros  
Wacker Neuson (Pty) Ltd.

### Loaders - Other

Bobcat  
Wacker Neuson (Pty) Ltd.

### Materials

Liugong Machinery South Africa (Pty) Ltd

### Mechanical

Mytilineos SA

### Mini-Excavators

Bobcat  
Wacker Neuson (Pty) Ltd.

### Mixing

Cantoni Motor S.A.  
Fritsch GmbH Milling And Sizing

### Mobile Mixing Plant

Bobcat  
Carmix - Metalgalante S.p.A.  
Marini S.p.A.

**MOBILE POWER SUPPLY UNITS**

Aksa Power Generation  
Altaaqa Global Energy Services  
Coelmo Spa  
Jmg Ltd.  
Mytilineos SA  
Visa S.p.A.

**MOTORS/DRIVERS/CONTROLS**

Cantoni Motor S.A.  
**Other Materials Handling**  
Cat Lift Trucks  
Condra Cranes And Hoists

**OTHER SITE EQUIPMENT AND MATERIALS**

Bobcat  
Coelmo Spa  
**Piling**  
Aquamec Ltd.  
Bauer Maschinen GmbH  
**Pipe And Cable Detecting Systems**  
Eec Group  
**Pneumatic**  
Bedelco Sprl

**PUMPING EQUIPMENT**

Aquamec Ltd.  
Visa S.p.A.  
Wacker Neuson (Pty) Ltd.  
Weir Minerals Africa (Pty) Ltd.

**Pumping Equipment - Other**

CANTONI MOTOR S.A.  
Maitek S.r.l.

**Quarrying**

Keestrack n.v  
Liugong Dressta Machinery sp. Z O.O.  
Magni Telescopic Handlers

**RAW MATERIALS**

Smt Africa  
**Recycling**  
Bobcat  
Fritsch GmbH Milling And Sizing  
Keestrack N.V  
Maitek S.R.L.  
Marini S.P.A.  
Rockster Austria International GmbH

**Rental Equipment**

Altaaqa Global Energy Services  
Bauer Maschinen GmbH  
Cat Lift Trucks  
Goscor Access Solutions (Pty) Ltd  
J.A Delmas S.A.S  
Visa S.p.A.  
Weir Minerals Africa (Pty) Ltd.

**ROAD BUILDING EQUIPMENT**

Action Construction Equipment Ltd.  
Caterpillar SARRL  
Kraft Tool Co.  
Wacker Neuson (Pty) Ltd.  
Wirtgen Group Branch Of John Deere GmbH & Co. Kg

**Compaction Equipment**

Caterpillar SARRL

**Pavers**

Caterpillar SARRL

**Road Building Equipment - Other**

Bedelco Sprl  
Bobcat  
Caterpillar SARRL  
Liugong Dressta Machinery Sp. Z O.O.

**Rollers**

Caterpillar SARRL  
Wacker Neuson (Pty) Ltd.

**Scaffolding**

Wilhelm Layher GmbH & Co Kg

**Services**

J.A Delmas S.A.S  
Sefko Trading Solutions  
Wscad South Africa

**Site Dumpers**

Carmix - Metalgalante S.P.A.  
Wacker Neuson (Pty) Ltd.

**Skidsteer Loaders**

Bobcat  
Wacker Neuson (Pty) Ltd.

**SOFTWARE**

Seequent  
Sefko Trading Solutions  
Wscad South Africa

**Software - Other**

Seequent  
Wscad South Africa

**Steel**

Eec Group  
Zamil Steel Building Co. Egypt

**Steel - Other**

Erlau Ag  
Zamil Steel Building Co. Egypt

**Submersible**

Wacker Neuson (Pty) Ltd.  
Weir Minerals Africa (Pty) Ltd.

**Telescopic Handlers**

Bobcat  
Goscor Access Solutions (Pty) Ltd  
Magni Telescopic Handlers  
Snorkel  
Wacker Neuson (Pty) Ltd.

**TOOLS**

Cantoni Motor S.A.  
Smt Africa

**Tractors**

Action Construction Equipment Ltd.

**Trailers**

Bedelco Sprl  
Goldhofer  
Aktiengesellschaft  
Wacker Neuson (Pty) Ltd.

**Trenching And Pipe Laying**

Liugong Dressta Machinery Sp. Z O.O.

**UNDERGROUND & MINING MACHINERY**

Bell Equipment Co. Sa (Pty) Ltd.  
Blumaq South Africa  
Cantoni Motor S.A.  
J.A Delmas S.A.S  
Liebherr- Export Ag  
Magni Telescopic Handlers

**USED EQUIPMENT**

Bauer Maschinen GmbH  
Bell Equipment Co. SA (Pty) Ltd.  
Caterpillar SARRL  
Cat Lift Trucks  
J.A Delmas S.A.S  
Maitek S.r.l.  
Snorkel  
Visa S.p.A.

**Rental Equipment**

Caterpillar SARRL

**WELDING EQUIPMENT**

Coelmo Spa

# Section Two: Suppliers

**Action Construction Equipment Ltd.**

4th Floor, Piracle  
Suraj Kund  
Faridabad  
121009  
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Tel: +91 129 4550000  
Fax: +91 129 4550022  
Web: www.ace-cranes.com  
E-mail: ajay.malik@ace-cranes.com; bhogal@ace-cranes.com

Featured among "India's 70 most Trusted Brands" by Power brands, ACE limited is one of the leading manufactures for material handling, Road construction, Earth moving and Agriculture Equipment. Offering equipment like Agriculture tractors, Harvesters, mobile/fixd tower cranes, Crawler cranes, Truck mounted cranes, Lorry loaders, Backhoe loaders/loaders, vibratory rollers, forklifts.

**Aksa Power Generation**

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Çıkmazi No:10 Beykoz Istanbul  
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E-mail: aksa@aksa.com.tr

Aksa Generators manufactures gasoline, diesel, natural gaz and marine generating sets range between 1kVA to 3000 kVA as well as lighting towers and generator hardware in the

manufacturing facilities in Istanbul (Turkey 20.000 m2 of indoor space), Changzhou (China 120.000 m2 of indoor space) and Louisiana (USA, 10.000 m2 of indoor space); and has become a leader and pioneer within teh sector.

Aksa Generator exports more than %65 of its product and is among the top five global firms of the sector with 23 offices located in Asia, Europe, Africa and America.

**Agents:**

Algeria - EURL Aksa Generaturus Algerie  
Ghana-Aksa Generators Ghana  
South Africa-Aksa Power Generation SA(Pty) Ltd  
United Arab Emirates- Aksa Power Generation FZE

**Altaaqa Global Energy Services**

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Altaaqa Global Energy Services is a pioneering international energy services business providing cost- effective integrated power solutions, expert project consultancy and advisory services, and flexible contractual and project financing arrangements (including Build- Own- Operate- Transfer) to a diverse range of industry sectors, including mining, oil & gas, manufacturing, cement, utilities and process industries.

**Aquamec Ltd.**

PO Box 260  
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Tel: +358 10 4026400  
Fax: +358 10 4026422  
Web: www.watermaster.fi  
E-mail: watermaster@watermaster.fi

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**Baudouin**

Technoparc du Bregadan  
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Web: www.baudouin.com  
E-mail: contact@baudouin.com

Based in France for 100 years, Baudouin has manufactured the highest quality engines for marine, power generation and variable speed applications. With marine in our DNA, and a range of diesel and gas power solutions spanning 18-4000 KVA, all Baudouin engines are durable, reliable and built with the robustness that is required of a marine engine. There are over 300 Authorized Baudouin Partners around the world, supporting our customers with service, genuine spare parts, application support and commissioning.

**Bauer Maschinen GmbH**

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Fax: +49 825 2971896  
Web: www.bauer.de  
E-mail: hermann.schrattenthaler@bauer.de  
Supplier of equipment for piling and mining.

**Agents:**

South Africa - BAUER Technologies South Africa (Bauer)

**BEDELCO SPRL**

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E-mail: info@bedelco.com

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**Caterpillar SARL**

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**Cat Lift Trucks**

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 E-mail: wukm@liugong.com; liuql@liugong.com  
 WhatsApp: +86 13659669258; +86 15107728028



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**Magni Telescopic Handlers**

Via Magellano 22  
Località Cavazona  
Castelfranco Emilia  
Modena  
41013  
Italy  
Tel: +39 059 8031000  
Web: [www.magnith.com](http://www.magnith.com)  
E-mail: [commerciale@magnith.com](mailto:commerciale@magnith.com)

Manufacturer of heavy and rotating telescopic handlers for mining, construction, industry and quarries.

**Agents:**  
South Africa - MAGNI SA (PTY) LTD

**Maitek S.r.l.**

Via Vittorio Alfieri  
No. 8 Portorio di san Costanzo (PU)  
61039  
Italy  
Tel: +39 0721 959340  
Fax: +39 0721 936623  
Web: [www.maiteksrl.com](http://www.maiteksrl.com)  
E-mail: [info@maiteksrl.com](mailto:info@maiteksrl.com)

Maitek manufactures aggregates crushing, screening and washing plants for quarry and mine, including water clarifying and sludge treatment plants, dust suppression systems. Turnkey projects from engineering to after-sale assistance and spare parts. Warehouse of new and second-hand machines in prompt delivery.

**Marini S.p.A.**

Via Roma  
50 Alfonsine (RA)  
Italy  
Tel: +39 0544 88111  
Fax: +39 0544 81341  
Web: [www.marini.fayat.com](http://www.marini.fayat.com)  
E-mail: [info@marini.fayat.com](mailto:info@marini.fayat.com)

MARINI is a worldwide leader in the manufacture of stationary and mobile batch asphalt plants (production up to 500 t/h).

MARINI plants produce low-energy asphalt using up to 100% of RAP. The result of the most modern technologies and 120 years of experience Made in Italy.

**Agents:**  
Algeria - EURL METEC  
Egypt - M.S.E., Modern Structures & Equipment  
Kenya - Achelis Material Handling (Kenya) Ltd  
Morocco - ETS L Berenger

**MB S.p.A**



Via Astico 30/A  
36030 FARA VICENTINO (VI)  
Italy  
Tel: +39 0445 308148  
Fax: +39 0445308179  
Web: [www.mbcruisher.com](http://www.mbcruisher.com)  
E-mail: [info@mbcrusher.com](mailto:info@mbcrusher.com)

MB Crusher transforms any heavy machine in a highly efficient material processing tool that recycles material that can be reintroduced in the next job or be sold for other applications. Crusher bucket, screening bucket, grapples, drum cutters and shafts screeners are an ever-expanding range of products strictly certified, whose use reduce costs, processing times and transportation of materials, while contributing to the environment.

**MYTILINEOS SA**



8 Artemidos Str.,  
Maroussi  
151 25 Athens  
Greece  
Tel: +302106877300  
Fax: +302106877400  
Web: [www.mytilineos.gr](http://www.mytilineos.gr)  
E-mail: [info@mytilineos.gr](mailto:info@mytilineos.gr)

MYTILINEOS S.A. is a leading Greek industry active in Metallurgy, Power & Gas, Renewables and Storage Development and Sustainable Engineering Solutions. Established in Greece in 1990, the company is listed on the Athens Exchange, has a consolidated turnover of 2.3 billion and employs directly or indirectly more than 3,600 people in Greece and abroad. MYTILINEOS' main field of expertise and performance in Africa is in Sustainable Engineering Solutions for Mining & Industrial Infrastructure, Thermal Power Plants, Hybrid Energy Solutions, Off Grid Solutions, Environmental Solutions such as water, liquid and solid waste management and treatment.

**Agents:**  
Ghana - MYTILINEOS S.A GHANA  
Nigeria - METKA POWER WEST AFRICA

**Parker Plant Ltd.**

Canon Street  
Leicester  
LE4 6GH  
United Kingdom  
Tel: +44 116 2665999  
Fax: +44 116 2610812  
Web: [www.parkerplant.com](http://www.parkerplant.com)  
E-mail: [sales@parkerplant.com](mailto:sales@parkerplant.com)

Parker Plant manufactures and supplies a comprehensive range of crushing, screening, asphalt and concrete plants as well as bitumen / road surfacing equipment and bulk handling conveyor systems.

**Perkins Engines Company Limited**

Frank Perkins Way  
Peterborough  
Cambridgeshire  
PE1 5FQ  
United Kingdom  
Tel: +44 1733 583000  
Web: [www.perkins.com](http://www.perkins.com)  
E-mail: [info@perkins.com](mailto:info@perkins.com)

A World-leading Supplier of off-highway diesel engines in the 4-2000kW market, Perkins has 85+ Years' experience of designing, building and servicing industrial power solutions. Working in collaboration with 800+ equipment manufacturers in the agricultural, construction and power generation markets, we tailor our engines to meet their needs and exceeding standards.

**RATEC GmbH**

Karlsruher Str. 32  
Hockenheim  
68766  
Germany  
Tel: +49 6205 940729  
Fax: +49 6205 940730  
Web: [www.ratec.org](http://www.ratec.org)  
E-mail: [info@ratec.org](mailto:info@ratec.org)

Meet the better ideas for your precast concrete housing and building projects. RATEC is a well-known supplier of magnetic shuttering systems, magnet boxes, battery formwork systems and

concrete pumps. Furthermore, with Reymann Technik as partner it offers plant design and consultancy for new and existing precast concrete plants.

**Rockster Austria International GmbH**

Matzelsdorf 72  
Neumarkt i.M.  
4212  
Austria  
Tel: +43 720 701212  
Fax: +43 720 701212 329  
Web: [www.rockster.at](http://www.rockster.at)  
E-mail: [office@rockster.at](mailto:office@rockster.at)

ROCKSTER is a specialist in the development and manufacturing of mobile crushers, screening machinery and stackers for profitable recycling of asphalt, concrete and other construction waste as well as the efficient processing of natural stone. With innovations such as patented Duplex System or the patented Double-Functional Return Belt, the company repeatedly demonstrates its approach towards progress & improvement.

**Agents:**  
South Africa - Mfangano Solutions

**Seequent**



2nd floor, 18 Melrose Boulevard  
Melrose Arch  
Melrose North  
Johannesburg  
2196  
South Africa  
Tel: +27 11 759 4031  
Web: [www.seequent.com](http://www.seequent.com)  
E-mail: [jnb.office@seequent.com](mailto:jnb.office@seequent.com)

A World leader in geoscience software that enables decision making in the mining and exploration, civil, environmental, and energy sectors. Large scale projects use our solutions globally, including road and rail tunnel construction, groundwater detection and management, geothermal exploration, subsea infrastructure mapping, resource evaluation, and subterranean storage of spent nuclear fuel.

**SEFKO Trading Solutions**

Unit 12 Aldeia Nova Complex  
1172 Lawson Ave  
Waverley  
Pretoria  
0186  
South Africa  
Tel: +27792560913  
Web: [www.sefko.co.za](http://www.sefko.co.za)  
E-mail: [info@sefko.co.za](mailto:info@sefko.co.za)

Engineering consultancy with the flexibility and mobility to deliver excellent results in projects across Africa. Pride ourselves on consistently meeting the challenge of tough projects and compressed construction programs. Provide innovative and targeted solutions to ensure on-time delivery, quality results and cost-effective construction and operating costs.

**SMT Africa**



Avenue Arnaud Fraiteur 15-23  
Brussels  
1050  
Belgium  
Tel: +32 22 343300  
Fax: +32 22 343301  
Web: [www.smt.network](http://www.smt.network)  
E-mail: [info.africa@smt.network](mailto:info.africa@smt.network)

Established in 2010 in Belgium, SMT today provides a broad range of advanced products, services and solutions for the transport and infrastructure sectors across Europe and Africa. Reinforced by the operational agility of its dedicated sales and service network, SMT works in partnership with its customers, delivering value to improve their performance and support their growth. SMT is the exclusive distributor of Volvo Construction & Equipment, Volvo Trucks, Volvo Bus and Volvo Penta in several countries in North, Central and West Africa.

SMT Subsidiaries:-  
SMT Algeria, SMT Benin, SMT Burkina Faso, SMT Cameroun, SMT Congo, SMT Cote d'Ivoire, SMT Gabon, SMT Ghana, SMT Liberia, SMT Mali, SMT Morocco, SMT Nigeria, SMT DRC, SMT Senegal, SMT Togo

**Snorkel**

Vigo Centre, Birtley Road  
Washington  
Tyne & Wear  
NE38 9DA  
United Kingdom  
Tel: +44 845 1550057  
Fax: +44 845 1557756  
Web: [www.snorkellifts.com](http://www.snorkellifts.com)  
E-mail: [sales.emea@snorkellifts.com](mailto:sales.emea@snorkellifts.com)

Snorkel is a leading global manufacturer of aerial work platforms. With a focus on simple and robust design, the Snorkel product line ranges from 3.0 meter push-around scissor lifts for low level access, to 66 meter telescopic boom lifts for the largest construction projects.

**Visa S.p.A.**



Via I° Maggio, 55  
Fontanelle (TV)  
31043  
Italy  
Tel: +39 0422 5091  
Fax: +39 0422 509350  
Web: [www.visa.it](http://www.visa.it)  
E-mail: [visa@visa.it](mailto:visa@visa.it)

Visa S.p.A. is one of the world's leading gensets suppliers, based in Italy, designing, developing and manufacturing diesel gensets, from 9 to 3000 kVA, in standard or tailor-made solutions for a large variety of applications. It provides also specific equipment for the construction sector (such as mobile site pumps for dewatering and sewage). It is present in over 90 countries through a global network to support in the successful completion of projects through an efficient engineering department, guaranteeing a highly operational flexibility and qualitative standards for which it has become a leader in the market for 60 years.



**Volvo Construction Equipment**

Eskestuna  
63185  
Sweden  
Tel: +46 16 541 4203  
Fax: +46 16 152989  
Web: [www.volvoce.com](http://www.volvoce.com)  
E-mail: [carin.ekstrom@volvo.com](mailto:carin.ekstrom@volvo.com)

**Agents:**

Egypt- Ghabbour Egypt  
Morocco- Volvo Maroc SA  
Sierra Leone- A. Yazbeck & Sons Ltd.  
Angola- Auto-Maquinaría Lda. Auto Sueco (Angola) SARL  
Algeria- SMT (Algeria)  
Sudan- Albarajoub Engineering Co. Ltd.  
Madagascar- Leal Equipements Compagnie LTEE (MADAGASCAR)  
Mozambique- Babcock International (Mozambique)  
South Africa- Babcock International (South Africa)  
Ethiopia- Equatorial Business Group Pvt. Ltd. Co.  
Zambia- Babcock International (Zambia)  
Mauritius- Leal Equipements Compagnie LTEE (MAURITIUS)  
Seychelles- Leal Equipements Compagnie LTEE (SEYCHELLES)  
Tunisia- Nordic Machinery  
Burundi- SMT (Burundi)  
Burkina Faso- SMT (Burkina Faso)  
Cameroon- SMT (CAMEROON)  
Cote D'Ivoire- SMT (CÔTE D'IVOIRE)  
Congo- SMT (Congo)  
Gabon- SMT (GABON)  
Ghana- SMT (GHANA)  
Liberia- SMT (LIBERIA)  
Congo DR SMT (Congo DR)  
Nigeria- SMT (NIGERIA)  
Rwanda- SMT (RWANDA)  
Togo- SMT Benin (Togo)  
Morocco- SMT Morocco  
Kenya- NECST Motors Kenya Ltd  
Tanzania- NECST Motors Tanzania Ltd

**Volvo Penta**

Region Emerging Markets & Asia Pacific  
Gothenburg  
40508  
Sweden  
Tel: +46 31 235460  
Fax: +46 31 508187  
Web: [www.volvopenta.com](http://www.volvopenta.com)  
E-mail: [info.volvopenta@volvo.com](mailto:info.volvopenta@volvo.com)

Volvo Penta, with more than 4,000 dealers in over 130 countries, is a world-leading and global manufacturer of engines and complete power systems for both marine and industrial applications. The engine program comprises diesel and gasoline engines with power outputs between 10 and 900 hp. The Volvo Penta Industrial engine range covers: diesel engines for electrical power generation, 50 and 60 Hz and industrial diesel engines for different stationary and off-road applications. These engines have now been developed to meet future stringent exhaust emission levels. Volvo penta is part of the Volvo Group, one of the world's leading manufacturers of trucks, buses, construction material & equipment, drive systems for marine and industrial applications, aerospace components and services.

**Agents:**

Algeria - Altruck 1  
Angola - Auto Sueco - Angola 1  
Congo Brazzaville - SMT Congo 1  
Congo Brazzaville - SMT Congo 2  
Congo DR - SMT RD Congo 1  
Congo DR - SMT RD Congo 2  
Cote D'Ivoire - SMT - Ivory Coast  
Egypt - Orascom Trading Co. SAE  
Mauritius - Talbot Engineering 1  
Morocco - SMT Morocco

Nigeria - Marine and Land Logistics Ltd.  
Nigeria - SMT Nigeria 1  
Nigeria - SMT Nigeria 2  
Nigeria - SMT Nigeria 3  
Seychelles - Adesho Marine  
South Africa - Southern Power Products  
Sudan - Al Barajoub Engineering  
Tunisia - Bateauamed 1  
Zimbabwe - Avoca Marine  
Zimbabwe - Avoca Power

**Wacker Neuson (Pty) Ltd.**

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1031 Katrol Avenue  
Robertville  
Florida  
South Africa  
Tel: +27 11 6720847  
Fax: +27 11 6720916  
Web: [www.wackerneuson.com](http://www.wackerneuson.com)  
E-mail: [Reception.za@wackerneuson.com](mailto:Reception.za@wackerneuson.com)

**Weir Minerals Africa (Pty) Ltd.**

31 Isando Road  
Isando, Gauteng  
1600  
South Africa  
Tel: +27 11 9292600  
Fax: +27 11 9292960/2950  
Web: [www.minerals.weir](http://www.minerals.weir)  
E-mail: [sales-za@weirminerals.com](mailto:sales-za@weirminerals.com)

Weir Minerals Africa is a global supplier of excellent minerals solutions, including pumps, valves, hydrocyclones, wear-resistant linings, dewatering solutions, high pressure grinding rolls, centrifuges, screens, hoses and rubber products, crushers, feeders, screens, washers and material handling equipment. All products are backed by superior technical service.

**Wilhelm Layher GmbH & Co KG**

Ochsenbacher Strasse 56  
Gügingen  
74363  
Germany  
Tel: +49 71 35 70 0  
Fax: +49 71 35 70 265  
Web: [www.layher.com](http://www.layher.com)  
E-mail: [info@layher.com](mailto:info@layher.com)

Wilhelm Layher GmbH & Co. KG, through its subsidiaries, manufactures and markets scaffolding systems. It offers modular scaffoldings, facade scaffoldings, event-systems for grandstands and stages, weather protection roofs, scaffolding claddings, rolling towers, and ladders. The company also provides scaffolding\protective systems, such as round scaffoldings, scaffolding decks, cassette roofs, lightweight cassette roofs, and scaffolding accessories. It offers its products through representatives worldwide. The company was founded in 1945 and is based in Gügingen, Germany. It has subsidiaries internationally.

**Wirtgen Group Branch of John Deere GmbH & co. KG**

Reinhard-Wirtgen-Str. 2  
Windhagen  
53578  
Germany  
Tel: +49 2645 1310  
Fax: +49 2645 131392  
Web: [www.wirtgen-group.com](http://www.wirtgen-group.com)  
E-mail: [info@wirtgen.de](mailto:info@wirtgen.de)

The Wirtgen Group is an internationally active group of companies in the construction equipment industry, comprising the brands Wirtgen, Vögele, Hamm, Kleemann and Benninghoven. Products include cold milling machines, recyclers, slipform pavers, surface miners, asphalt pavers, rollers, crushers, screens and asphalt mixing plants.

**Agents:**

Algeria - T.P.S. SARL Tractor Parts Services  
Angola - Movicortes Angola - Equipamentos & Serviços, Lda  
Benin - DEM Ghana (Benin)  
Botswana - WIRTGEN South Africa (Pty) Ltd. (Botswana)  
Burkina Faso - DEM Group SA  
Burundi - Panafrican Equipment Ltd. (Burundi - Wirtgen)  
Cameroon - Kanu Equipment Cameroun Sàrl  
Cape Verde - Moviter Equipamentos Lda  
Comoro Islands - UMCL Ltd.  
Congo DR - DEM D.R. Congo  
Cote D'Ivoire - DEM Côte d'Ivoire  
Djibouti - Moenco  
Egypt - ACE Arabian Company for Engineering  
Ethiopia - Moenco (Ethiopia)  
Ghana - DEM Ghana  
Guinea - DEM Group SA (Guinea)  
Kenya - Panafrican Equipment Kenya Ltd.  
Lesotho - WIRTGEN South Africa (Pty) Ltd. (Lesotho)  
Liberia - Kanu Equipment Libéria Ltd. (Liberia)  
Libya - WIRTGEN Libya J. C.  
Malawi - Machinery Spares and Trading Limited  
Mali - DEM Senegal SARL (Mali)  
Mauritania - DEM Mauritania  
Mauritius - UMCL Ltd. (Mauritius)  
Morocco - SMDM - Société Marocaine de Distribution de Matériel  
Mozambique - Movicortes Mosambique, Lda  
Nigeria - Mining & Construction Equipment Ltd.  
Nigeria - SCA TRAC (Wirtgen)  
Senegal - DEM Senegal SARL (Senegal)  
Seychelles - UMCL Ltd. (Seychelles)  
Sierra Leone - Kanu Equipment Sierra Leone Ltd.  
South Africa - WIRTGEN South Africa (Pty) Ltd.  
South Sudan - Machine Afrik Co. Ltd.  
Sudan - Machine Afrik Co. Ltd.  
Swaziland - WIRTGEN South Africa (Pty) Ltd. (Swaziland)  
Togo - DEM Ghana (Togo)  
Tunisia - SOTRADIES  
Zimbabwe - Machinery Exchange (pvt) Ltd

**WSCAD South Africa**

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1172 Lawson Ave  
Waverley  
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0186  
South Africa  
Tel: +27792560913  
Web: [www.wscad.com](http://www.wscad.com)  
E-mail: [info@sefko.co.za](mailto:info@sefko.co.za)

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**Zamil Steel Building Co. Egypt**

5th Industrial Zone  
6th of October City  
Giza  
Egypt  
Tel: +20 2 38283333  
Fax: +20 2 38283399 / 97  
Web: [www.zamilsteel.com](http://www.zamilsteel.com)  
E-mail: [egypt.marketing@zamilsteel.com](mailto:egypt.marketing@zamilsteel.com)

Zamil Steel established in 1977 in Saudi Arabia, specializes in the design, manufacture and supply of pre-engineered steel buildings. Since its inception, Zamil Steel has supplied more than 50,000 buildings to over 90 countries worldwide, through a dedicated network of 65 direct sales offices in 36 countries.

**Zest WEG**

47 Galaxy Avenue  
Linbro Business Park  
Johannesburg  
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Tel: +27 11 7236000  
Fax: +27 11 7236001  
Web: [www.zestweg.com](http://www.zestweg.com)  
E-mail: [info@zestweg.com](mailto:info@zestweg.com)

Zest WEG, a subsidiary of leading Brazilian motor and controls manufacturer WEG, has a strong commitment to contributing to the development of the African region, and has been servicing the mining sector on the continent for more than 40 years.

An in-depth understanding of the harsh conditions found within this sector and years of experience on the continent have ensured the Zest WEG service offering is fit-for-purpose. By leveraging best practice engineering and manufacturing capabilities, the group can offer a range of standard off-the-shelf products and end-to-end energy solutions.

From single product installations to individually customised solutions, which are application specific, the latest technology is used to ensure optimum performance and reliability without compromising on energy efficiency.

Zest WEG product line-up includes low- and high-voltage electric motors, vibrator motors, variable speeds drives, softstarters, power and distribution transformers, MCC's, containerised substations, mini-substations, diesel generator sets, switchgear and cogeneration and energy solutions, as well as electrical and instrumentation engineering and project management services.

**Agents:**

Ghana- Zest Electric Ghana Ltd.

## Section Three: Agents & Subsidiaries in Africa

### Algeria

#### Attractors SARL (Algeria - Cat Lift)

Lot n° 4  
Route des Dunes  
Cheraga  
Tel: +213 21 821625  
Fax: +213 661 545181  
E-mail: abdenaf@gmail.com

#### Altruck 1

ZI, voie C n° 212 Rouiba  
Alger  
Tel: +213 21813871  
Web: www.made-in-algeria.com/vitrin  
E-mail: altan.yagan@groupehasnaoui.com

#### Bergerat

#### Monnoyeur(CATERPILLAR SRL)

Zone Industrielle Lot No. 121  
Route de dar Beida  
Oued Smar  
Alger  
16270

Tel: +213 21 513210  
Web: www.bm-a.com  
E-mail: contact.cat@bm-a.com

#### EURL Aksa Generateurs Algerie

Zone Industrielle Oued Smar  
Lot N 55, Harrach  
CP 16270

Alger  
Algerie  
Tel: +213 555 01 27 01  
Fax: +213 23 92 06 59  
Web: www.aksa-dz.com  
E-mail: contact@aksa-dz.com

#### EURL METEC

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Tel: +213 661 454839  
E-mail: eurlmetec@gmail.com

#### SMT (Algeria)

Tel: +213 56 0078851  
E-mail: info@smt-algeria.com

#### T.P.S. SARL Tractor Parts Services

Hauouche Rane Laroussi Hamoud  
Lot N°01

Khraicia – Alger  
Tel: +213 23 534634  
Fax: +213 23 534956  
Web: www.tps-algerie.com  
E-mail: tps-algeria@tps-algericom

### Angola

#### Auto Sueco - Angola 1

Emp. Cmdt. Gika Edf.  
Garden Towers Torre B 10°  
Andar  
Alvalade  
Luanda  
Tel: +244 94 5758485  
Web: www.nors.com/pt  
E-mail: sede@autosueco.co.ao

#### Barloworld Equipamentos Angola Lda. (Caterpillar SRL)

Estrada do Golf S/N  
Sector Talatona - Luanda Sul  
Luanda  
Tel: +244 22 2460220  
E-mail: info@barloworld-angola.com

### CI & MA Comp. Ind.

Rua Monsenhor  
Mendes Das Neves 3014  
Luanda  
2737  
Tel: +244 22 2290886/923425538  
Fax: +244 22 2290789  
E-mail: contabilidade@grupomopic.com

#### Himoinsa Angola

Modulo 13 - Kikuxi Park  
Viana/Luanda  
Tel: +244 936 255891  
Web: www.himoinsa.com  
E-mail: angola@himoinsa.com

#### Jembas Assistencia Technica Lta.

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Luanda  
Tel: +244 222 637000  
Fax: +244 222 637038  
Web: www.jembas.com  
E-mail: etienne.brechet@jembas.com

#### Movicortes Angola – Equipamentos & Serviços, Lda

Parque Movicortes  
Pólo Industrial de Viana  
Viana  
Viana – Luanda  
Tel: +244 222 014892  
Fax: +244 222 014872  
Web: www.moviter.pt  
E-mail: moviter@movicortes.es

### Benin

#### DEM Ghana (Benin)

23 Annan Sebreebe Street  
South Industrial Area  
Accra  
Ghana  
Tel: +233 302 934406  
Web: www.ghana.dem-group.com  
E-mail: pde@dem-group.com

### Botswana

#### Barloworld Equipment Botswana Pvt. Ltd. (Caterpillar SRL)

PO Box 1616  
Gaborone South-East  
Tel: +267 3951781

#### Duneton (Pty) Ltd.

Plot 73948, Unit 2  
Morula Industrial Park  
Phakal  
Gaborone  
Tel: +267 3973951  
Web: www.duneton.co.bw  
E-mail: Steven@duneton.co.bw

#### Kanu Equipment Botswana

Plot 68284  
Phakalane  
Gaborone  
Tel: 267 (0) 395 2291  
Web: www.kanuequipment.co.bw

#### WIRTGEN South Africa (Pty) Ltd. (Botswana)

52 Maple Street  
Pomona  
Kempton Park 1619  
South Africa  
Tel: +27 11 4521838  
Fax: +27 11 4524886  
Web: www.wirtgen-group.com/southafr  
E-mail: sales.southafrica@wirtgen-group.com

### Burkina Faso

#### Burkina Equipements (Caterpillar SARM)

3238, Route De Fada  
Km6 Secteur 28  
Dassasgho  
Ouagadougou Kadiogo Province  
Tel: +226 50 364766  
Web: www.burkinaequipements.com  
E-mail: info@burkinaequipements.com

#### DEM Group SA

Rue du Bassin Collecteur, 10  
1130 Bruxelles  
Belgium  
Tel: +32 2 2082637  
Web: www.dem-group.com  
E-mail: tni@dem-group.com

#### SMT (Burkina Faso)

Tel: +226 66 770101  
E-mail: info@smt-bf.com

### Burundi

#### Panafrican Equipment Ltd. (Burundi - Wirtgen)

PO Box 44927  
Uhuru Highway  
00100 Nairobi  
Kenya  
Tel: +254 732 151000  
Web: www.panafricangroup.com  
E-mail: info.ke@panafricangroup.com

### Cameroon

#### Bernabe Cameroun

Tel: +237 3342 9020  
Fax: +237 9876 5518  
E-mail: nicolas.dlb@bernabeafric.com

#### Kanu Equipment Cameroon

Boulevard de l'Aviation  
Quartier de l'Aéroport  
Douala  
Tel: +237 691 936 065  
Web: www.kanuequipment.com  
E-mail: cameroun@kanuequipment.com

#### SMT (CAMEROON)

Tel: +237 33 372746  
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#### Tractraffic Equipment Cameroun

Rue Du Cinema Etoile  
Garoua Nord  
Tel: +237 217556  
Web: www.tractraffic.com  
E-mail: sho.cameroun@camnet.cm

#### Tractraffic Equipement Cameroun (Caterpillar SRL)

Aéroport - Rue 8029  
Yaounde Centre  
Tel: +237 304681  
Web: www.tractraffic.com

### Cape Verde

#### Moviter Equipamentos Lda

Parque Movicortes  
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Ghana's Asanko mine is benefiting from Seequent's innovations.

# Asanko mine: Collaboration worth its weight in gold

Using Seequent Central to improve the organisation of data, ideas and geoscience models for stakeholders across multiple countries has helped achieve record hauls for a gold mine in Ghana's Asankrangwa Belt gold region.

**G**hana's Asanko Gold Mine is a significant source of gold and employment. In 2019, it hit records for production – more than 250,000 gold ounces – and employed 2,400 people, 99 per cent of whom are Ghanaians. The flagship joint venture, between Galiano Gold and Gold Fields, with a 10 per cent stake held by the government of Ghana, is thought to have 4.8 million ounces of reserves.

While the Asankrangwa Belt, where it is based, is one of Ghana's most prospective gold regions, it's one of its most underexplored. Delivering these levels of production so quickly – Asanko only began pouring gold in 2016 – involved a collaborative, global effort. One of the most important steps in moving smoothly from exploration to production is to build accurate 3D computer models of the reserves and their geology to direct the drilling locations. The pressure is always on to discover new resources to replace those depleted by mining, so they need to manage geoscience data accurately, precisely and rapidly. But traditional modelling has a particular weakness. The data is often gathered and held in a

number of locations, so teams may be working with an incomplete picture or old versions. It's not unknown for data to be passed on with no record of who's seen it, or what version they are working on as it drifts out of date. This causes models to be redrawn too often and frequently unnecessarily, at best, delaying production and, at worst, sending it in the wrong direction.

To avoid this, Asanko turned to geoscience solutions provider Seequent, who has been partnering with the mining industry since 2004. In January 2019, its Central software was introduced across the project to bring together all the geoscience data, creating a 'single source of truth' that could be accessed by a global team. All stakeholders were able to check in with operations and collaborate, confident that they always used the latest data.

"I'd estimate we probably cut the amount of time we spent modelling by half," said Benjamin Osei Tutu, senior exploration geologist for Asanko. "Using Central, we were able to add value and de-risk our projects from the outset. People from different parts of the world were able to look at the same

project in real time, and when the model updated, everyone could comment and refine. It not only improved our decision making but simplified workflow and cut work time significantly."

Stakeholders could be involved earlier enabling the best ideas to be incorporated at the right time: "Before Central you'd produce the model and give your outputs to the next team. They'd come back with changes – sometimes entirely different ideas – that would cause delays while those new ideas were taken on board."

Clashing versions of the model were eradicated. A detailed audit trail of the data was established, making it easier to create final reports and aid peer review.

Paula Ogilvie, Galiano Gold's senior resource specialist, believes the use of Central helped the modelling team reach a best-fit, refined, consensus model quickly: "The Central Platform allowed us to test a range of different structural and mineralisation scenarios, each of which had critical implications for the resource estimate, pit design and ultimately the economic feasibility for each deposit."

Being able to work on models remotely meant geologists did not have to be in Ghana, saving time and overcoming visa constraints.

Seequent's Senior Project Geologist, Africa, Andre Hanekom said: "We are now working with Galiano Gold on new ways to capitalise on their use of remote analysis, for example by using Central for borehole planning. This adds real value, enabling remote sites to provide much more efficient feedback and receive instant help in making time-critical decisions."

Galiano Gold's SVP technical services, Mike Begg, said that Seequent Central enables them to hold an entire project in a centralised space, but the benefits go beyond easier collaboration: "This is not just better security, data integrity and housekeeping, but it improves overall decision making and our confidence in it."

Central has enabled Asanko Gold to achieve these goals – Version control; Auditable updates; Use of annotations; Locking of models during updating; Permission-based access; Collaboration between stakeholders globally; and centralised storage of projects. ■

# Driving the mining sector across Africa

New technologies are shaping the vehicles and equipment that are performing the heavy lifting in Africa's mining industry. Martin Clark reports on the latest innovations.

**A**frica's mining industry is integral to the region's economy from Zambia's prolific Copperbelt to the gold mines of Ghana. Behind it all, are the people and the machines that make it happen. Flagship industry names such as Volvo, Caterpillar, Daimler, MAN and Scania, among numerous others, have long supplied the continent's big mines with everything from excavators, wheel loaders and haulers, through to road freight and transport services.

And, despite the volatile start to 2020, most major players were enjoying healthy business in the previous year, reflecting strong underlying demand and positive investor sentiment. Volvo Construction Equipment, for instance, a familiar name at many of Africa's big mines, saw its global sales rise 5 per cent during 2019.

While the COVID-19 crisis has disrupted the global economy and demand outlook, it might, intriguingly, drive interest in new areas, such as autonomous vehicles. This is a topic of interest to mining firms, which have pioneered in this niche around the globe for a number of years. As well as a general trend towards automation, it reflects working restrictions on human employees and mine operatives for safety reasons during the ongoing health crisis.

Volvo's new TA15 autonomous electric hauler was recognised with an award for its high-design quality. The battery-electric load carrier, with a 15-tonne hauling capacity, is designed to disrupt off-road hauling, and marks the latest output from the Volvo Autonomous Solutions' division, which has only been operational since the start of 2020.

Whether coronavirus could be the spark for an autonomous revolution



Caterpillar hit a haulage milestone in April this year.

Image Credit: Caterpillar

remains to be seen but it has certainly got manufacturers contemplating the future. Observers will have watched keenly how business continued at normal levels at Resolute Mining's Syama gold mine in Mali, a fully operational, purpose-built autonomous mine, it is perhaps a taste of things to come.

In a similar vein, Caterpillar announced in June that it had invested in US' robot and autonomy technology firm Marble Robot. The goal is to deepen its autonomous mining expertise and expand solutions for the quarry, industrial and waste industries. The company likewise continues to upgrade its mining fleet, unveiling the new Cat 966 GC wheel loader, Cat 326 next

generation excavator and Cat 6060 hydraulic mining shovel.

In April this year, Caterpillar hit a major milestone in autonomous haulage by achieving 2bn tonnes hauled using Cat MineStar Command. Caterpillar has doubled the amount hauled in the 16 months since reaching 1bn tonnes hauled in November 2018.

Household name truck firms are improving services for the mining industry, benefiting from increased investment in Africa's road transport infrastructure. Mercedes-Benz and MAN trucks play vital roles in moving goods and equipment, while Scania's vehicles can be tailored to satisfy the capacity and off-road demands of the mining industry.

The disruption caused by the pandemic has not stopped work on Africa's mines, nor on upcoming projects, which reflect the breadth of opportunity for contractors, suppliers and vehicle makers. These range from South Africa's Waterberg platinum mine to the Tender gold project in the Democratic Republic of Congo, while AngloGold Ashanti's projects pipeline includes the redeveloped Obuasi mine in Ghana.

Again, the industry will be watching closely to see how quickly these developments move forward and to what extent they embrace any COVID-era adjustments to working practices. The expert mining vehicle manufacturers will be ready whatever the challenge. ■



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# Promising outlook for West African mining

As West Africa's mining industry emerges from the COVID-19 crisis, operators across the extractive sectors are looking to operate sustainably as well as profitably. Georgia Lewis reports.

**B**efore COVID-19 disrupted every industry in the world, projections for the West African mining sector were looking promising. A report by SP Global from February this year found that in 2019, West Africa was responsible for nearly half (48 per cent) of Africa's total gold production, and projected that this would increase to 50% by next year. With 41 per cent of Africa's contained gold reserves in Ghana, Burkina Faso, Mali, Guinea, Mauritania, Côte d'Ivoire, Senegal, Sierra Leone, Liberia, Niger and Nigeria, the prospects for the gold sector remain strong. Sixty per cent of the region's gold exploration budgets for greenfield and development projects come from Ghana, Burkina Faso and Côte d'Ivoire. The report also found that in the underground ore sector, 206 per cent growth was projected between 2017 and 2021, and 115 per cent growth in the open pit ore sector over the same period.

Neighbouring Mali and Senegal continue to host busy mining operations throughout 2020, with big long-term ambitions.

Cora Gold released a report in May this year, which was upbeat about its gold prospects in Mali and Senegal, specifically in the Yanfolila Gold Belt of south Mali and the Kedougou-Kenieba Inlier gold belt which straddles west Mali and east Senegal, where exploration continues apace.

Senegal's Baobab phosphate project, meanwhile, located about 140km from Dakar, the capital, is fully owned by Baobab Mining and Chemicals Corporation (BMCC), an 80 per cent-owned subsidiary of Avenir. Construction began in 2016 and production commenced in the same year. In 2017, BMCC started looking into increasing the existing



There are still strong prospects for phosphate mine development in West Africa.

Image Credit: Adobe Stock

Gadde Bissik ore beneficiation plant capacity to 1Mtpa in 2017 as part of an ambitious expansion project. A feasibility study on the project was completed in March last year and FID is expected this year. Contractors involved in the study included Mineral Resource Associates, Mintek, Outotec, FLSmidth & Co, Eriez Manufacturing, and MPR Geological Consultants. Overall production from the mine is expected to be 13.2Mt of phosphate rock concentrate, with an expected mine life of 13.4 years.

As well as the significant offshore hydrocarbons discovery, which has the potential to transform the economies of Senegal and Mauritania, calcium phosphate in the Senegal-Mauritania-Guinea basin has a long history, with the

Taïba deposit in Senegal has been in production since 1960 by the Compagnie Sénégalaise des Phosphates de Taïba (CSPT). Additionally, the N'Diendouri-Ouali Diala (Matam) deposit has been producing some phosphate as well since 2008. However, the other two areas in the basin, Bofal-Loubboïra in Mauritania and Salioukhé-Farim in Guinea-Bissau, were explored three decades ago, but never put into production because of their distant location or unfavourable geological conditions. Now these two areas (Bofal-Loubboïra and N'Diendouri-Ouali Diala to the east and Taïba-Tobène and Salioukhé-Farim to the west) are set for a revival with mining companies again interested in their potential. The western deposits are especially

appealing to enterprising operators because of their complex geology which has led to a complete leaching of all calcite and enrichment in phosphate or, in other words, a natural pre-enrichment of ore.

Ghana, a long-term mining powerhouse, has been forced to adapt in recent years, not only to become more sustainable against a backdrop of climate change, but in terms of adopting new technology, becoming a more inclusive employer and now operating in a world where coronavirus is an ongoing presence.

However, companies such as Cardinal Resources, have released optimistic reports this year. In Q1 of this year, Cardinal Resources reported that it received term sheets



Ghana has a long history of mining. This is a gold mining operation in 2008.

Image Credit: The ETI/Wikimedia Commons

from bankers and financiers in regard to project financing for its Namdini gold project in January, and Minerals Commission of Ghana approval for the resettlement action plan for Namdini in March, as well as approval for the expansion of its current mining licence from 19km<sup>2</sup> to 63km<sup>2</sup> for a renewable term of 15 years, commencing in 2020, for this project. In regard to COVID-19, the company announced it was following World Health Organization advice, in cooperation with Australian and Canadian governments, to change its exploration and development programmes to focus on employee safety and wellbeing. All international travel was suspended and on the ground, only essential personnel were at work. The target for commencing production at Namdini is H1 2023.

Golden Star Resources is similarly upbeat about its post-lockdown prospects in Ghana. There have been no COVID-19 cases across its workforce and operations have continued throughout the pandemic. In Q1 2020, gold production totalled 50,000 ounces, compared with 53,300 ounces for Q1 last year. The final gold sale and shipment for Q1 2020 was delayed because of COVID-19-related changes to flight schedules, but the transaction was completed at the start of April. Q1 2020 cashflow from operations was US\$13.4mn before working capital changes.

Andrew Wray, CEO of Golden Star, commented, "At any time, the number one priority for us as a company is the overall health, safety and wellbeing of our employees and host communities. The COVID-19 pandemic has brought this sharply into focus and it has been enormously gratifying to see the level of dedication and collaboration between our employees, our host communities and the Government of Ghana in focussing on this

priority and at the same time enabling mining operations to continue as an important contributor to the local and national economies."


He went on to say that even with the "unprecedented nature of the pandemic", operations delivered a performance that was in line with expectations, especially with "impressive volume growth" at the company's Wassa operations.

"Our focus remains on accelerating development and definition drilling to deliver improved operational flexibility and consistency. We also expect an improvement in the grade profile as we go through the year, and this is already being demonstrated in the current quarter," Mr Wray said.

At the company's Prestea and Alimak operations, Mr Wray said Goldstar is investing in new mining methods. At Alimak in particular, there has been a lack of flexibility in the stoping area, but ore drives are in development, along with the setting up of infrastructure, such as ventilation and a maintenance workshop.

"Some of the new fleet for this area has already arrived at site, while other equipment is likely to see a small delay given the current dislocation in global logistics," Mr Wray added.


Supply chains for the main consumables, such as cyanide, lime, grinding media, fuel and lubricants, have not been adversely affected by the pandemic and are regularly monitored. Alternative suppliers have been identified for vital supply chains, additional medical supplies have been secured and, where lead times have increased, this has been factored into the company's planning. When commercial flights were reduced in the wake of the pandemic, alternative logistics arrangements were made so that doré could still be transported to refining facilities in South Africa. ■




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## Goldstone extends resource drilling and updates DEP of Homase South Pit

AIM-listed GoldStone has planned an additional infill RC drilling programme with the objective to increase the mineable resource at depth at the Homase South Pit, which is expected to commence shortly.

The Homase South Pit is the first of the three openpits planned to be brought into production as detailed in a definitive economic plan (DEP) published in June 2019.

The Homase South Pit extends 1500 metres southwards from the historic Homase Main Pit, from which AngloGold Ashanti produced 52 500 oz gold at an average grade of 2.5 g/t gold in 2002/3.

The proposed programme will seek to further define and extend the mineable resource down-dip at the Homase South Pit to a vertical depth of approximately 60 metres. As defined in the DEP, the Homase South Pit is currently targeting the oxide resource to a vertical depth of 30 metres.

Additionally, the company is considering an additional drilling programme within the Homase Trend, extending northwards, by approximately 2,000 metres from the historic Homase Main Pit, encompassing the proposed Homase Central and North Pits, being the other two open pits defined in the DEP.

The board has updated the financial model utilised for the DEP to bring it in line with the current gold price of approximately US\$1,800/oz (versus US\$1,300/oz used in the initial DEP) and to capture a reduced initial CAPEX of US\$3mn (versus US\$6.9mn in the DEP).

While the lease initially only relates to the Homase South Pit, the DEP has been approved by the relevant authorities in Ghana in its entirety and the lease can therefore be renewed and/or extended to include additional pits along the Homase Trend as the company's production plans advance.

The company continues to work closely with the Ghanaian Minerals Commission and the Environmental Protection Authority to finalise the environmental permit.

On receipt of the relevant permits, the company will be in a position to immediately commence mining operations at the Homase South Pit, utilising contract mining, and construct the heap leach plant, with the target of achieving our first gold pour in Q4 2020.



Image Credit: Adobe Stock

The Homase South Pit is currently targeting the oxide resource to a vertical depth of 30 metres.

## LONCOR EXPANDS JV RELATIONSHIP WITH BARRICK IN DRC

Loncor has announced that its 76.29 per cent owned subsidiary, Adumbi Mining, has entered into a joint venture agreement with Barrick Gold for two exploitation permits held by Adumbi Mining covering ground contiguous to the Company's Imva area within the Ngayu gold belt in the northeast of the Democratic Republic of the Congo.

The purpose of the New Barrick JV is to conduct exploration on the JV Permit properties to evaluate possible development and mining of such properties.

The Ngayu gold belt lies approximately 220km from the Kibali gold mine, operated by Barrick. Kibali produced record gold production of 814,000 ounces of gold in 2019, at "all-in sustaining costs" of US\$693/oz.

The terms of the New Barrick JV are similar to Loncor's ongoing joint venture agreement with Barrick which covers over 1,894 km<sup>2</sup> of ground in the Ngayu gold belt including, among other properties, certain properties in the Imva area.

Under the New Barrick JV, Barrick will manage and fund all exploration of the JV Permit properties until the completion of a pre-feasibility study. Once the joint venture committee has determined to move ahead with a full feasibility study, a special purpose vehicle (SPV) would be created to hold the specific discovery areas.

Subject to the DRC's free carried interest requirements, Barrick would retain 65 per cent of the SPV with Adumbi Mining holding the balance of 35 per cent. Adumbi Mining would be required, from that point forward, to fund its pro-rata share of the SPV in order to maintain its 35 per cent interest or be diluted.

Arnold Kondrat, CEO of Loncor, commented, "This New Barrick JV further consolidates the control of the Ngayu gold belt by Loncor and Barrick as partners."

## LANDELA TO BUY FOUR STATE-OWNED GOLD MINES

Landela Mining Venture, a privately held mining in start-up majority owned by a Zimbabwean businessman Kudakwashe Tagwirei, has reached agreements to take over and revive four idle state-owned gold mines and is in talks to buy more assets from a privately owned bullion producer, according to a news report.

David Brown, chief executive of Landela, told Reuters that Landela's takeover of gold mines run by state-owned Zimbabwe Mining Development Corporation (ZMDC) would be funded through debt and equity.

The four mines have a capacity to produce at least 85,000 ounces a year, according to ZMDC.

Gold is the single biggest forex earner in Zimbabwe and controlling its production gives Landela greater access to dollars, which are in short supply in the country.

Landela last month restarted operations at the 21,000 ounces a year Shamva mine after buying it from Metallon Corporation, owned by South African businessman Mzi Khumalo, according to Brown.

Landela plans a bigger open pit mine at Shamva and is in talks to purchase Metallon's three other gold mines, he added.

## ► BRIEFS



Image Credit: Astec

Astec is developing a new customer proximity offer.

### Astec signs deal with Aramine

Astec Industries, through its regional office Astec Industries Africa Middle East and Aramine signed a distribution contract at the beginning of June 2020, appointing the French company Aramine as the official dealer of Astec Material Solutions products in several strategic countries in West Africa and the Maghreb. In addition to its recognised expertise and technical service, Aramine relies on its subsidiaries and partners in the region to strengthen the presence of Astec.



Image Credit: Adobe Stock

Altona Energy is also currently reviewing a number of other rare earth projects in Africa.

### Altona appoints consultants

Altona Energy, a mining exploration company with a new strategic focus on rare earth element mining projects in Africa, has appointed two highly experienced consultants as it progresses its African rare earths strategy. The appointments have been made to assist the company progress the proposed acquisition of Akatswiri Rare Earth, as announced on 2 June 2020 and in consideration of further possible investments in similar rare earth element (REE) projects in Africa.

# South Africa's mining industry at a crossroads

As South Africa seeks to rebuild multiple economic sectors affected by COVID-19, the mining industry is set to go through a period of change to ensure its long-term future. Georgia Lewis reports.



Galane Gold is among the South African mining operators with a positive outlook.

Image Credits: Adobe Stock

The South African mining industry is seeking to emerge from the COVID-19 pandemic stronger than before, while meeting a range of industry challenges.

In early July, the Gauteng High Court handed down a decision ordering the Minerals Council of South Africa (MCSA) to join parties representing communities, trade unions and BEE entrepreneurs in its judicial review of the 2018 Mining Charter proceedings. This decision was welcomed by the Department of Mineral Resources and Energy.

In a statement, the department said: “Decisions cannot be taken to the exclusion of workers, mining communities, BEE entrepreneurs. These parties were central to the drafting of the Mining Charter, thus the order affirms their inclusion at all material times.”

However, the MCSA said in its own post-judgement statement that it “had taken the view that these groups did not have a legal right to

be joined”, adding “this is not to say that the industry does not recognise their role as stakeholders.”

“In fact, the Minerals Council engages regularly with many of those named in various forums,” the statement went on to say, concluding that it will give effect to the court order but “regrettably, this development does mean that the finalisation of the status of the contested elements of the 2018 Mining Charter will be delayed.”

A report by McKinsey from April this year flagged up mining as a

sector that has been challenged by COVID-19. The report concluded that South Africa is “facing a likely economic contraction” where, if the pandemic is contained, GDP growth could decline from 0.8 per cent to -2.1 per cent, with an estimated 40 percent of that “stemming from supply-chain import disruptions, which will impact manufacturing, metals and mining in particular”.

Despite the negative projections, some mining operators in South Africa are remaining upbeat. Galane Gold released a statement about its Galaxy operations reporting a 60 per

cent increase in resources, “to give a new total of 970,904 ounces of measured and indicated mineral resources, and 1,409,764 ounces of inferred mineral resources.”

Galane Gold CEO, Nick Brodie commented, “We believe that our new independent technical report confirms that we have a ‘generational’ asset with the potential for further expansion in resource, throughput, and mine life with minimal capital requirement and robust ongoing economics.”

Anglo American, meanwhile, released its first report for 2020 which stated that the initial COVID-19 lockdown had a “limited effect” on Q1 production. A converter plant outage had a greater impact, but the company said in a statement that repairs to the damage, caused by a water leak, “is not expected to have any impact on full year refined production guidance, which remains at between 3.1-3.6 mn PGM ounces.” ■

“ We have a ‘generational’ asset with the potential for further expansion with minimal capital requirement and robust ongoing economics.”

NICK BRODIE, CEO, GALANE GOLD

## EPIROC PRESENTS MOBILE UNDERGROUND CORE DRILLING RIG

Epiroc is launching the second-generation underground core drilling rig with a mobile carrier. It utilises the drilling capacity of the Diamec Smart 6 and mobility and sturdiness of the Boomer S2 rig carrier. It is purpose-built for demanding underground operations with an extremely stable yet flexible boom. The drilling capacity of the Diamec Smart 6M equals that of the Diamec Smart 6, meaning that the deep hole version is rated for 1080 m hole depth. For drilling vertically up the number is 575 m.

"We have three different rotation unit options for the Diamec Smart 6M, from A to H size. The strongest one offers as much as 2390Nm of rotation torque which gives our customers the ability to achieve their required depth even in difficult rock conditions," said Ebrahim Nikafroozi, global product manager for underground core drilling rigs at Epiroc.



Image Credit: Komatsu

The new rig features a Rod Handling System (RHS) for increased operator safety and productivity. It has the capacity to handle drill rods and inner tubes. The Rod Handling System is fully synchronised with the drill rig through the Rig Control System (RCS) and is operated from the control panel.

The Rig Control System offers a number of useful features including automatic functions. It is fully compatible with Exploration Manager for advanced data collection and analysis.

The cabin of the Diamec Smart 6M is safe and comfortable with its FOPS/ROPS certification and air condition.

The control panel can be moved in and out of the cabin which allows for the operator to stay in the cabin while drilling.

The options offered for the new Diamec Smart 6M are developed to meet customers' demands on the global market. These are; Tier 3 and Tier 4 Final/Stage V engine, rear-view camera, LED spotlights, and fire suppression system.

ZT44 blasthole drill from Komatsu

## SANDVIK'S ELECTRIC DRILL RIG WITNESSES DEMAND

Southern African mines are set to witness the transition from diesel-driven to battery-powered drill jumbos, with the introduction of the world's first highly-automated underground electric drill rig by Sandvik Mining & Rock Technology.

According to Saltiel Pule, Sandvik Mining & Rock Technology's business line manager for underground drilling in southern Africa, the Sandvik DD422iE rig has already seen enthusiastic take-up in mining countries with strict anti-pollution regulations. The innovation has been in development for the past three years.

"The key benefits of the battery concept in underground drill rigs are zero emissions and much less heat, making for safer and healthier working conditions," Pule says. "There are many other advantages to this technology, however, including increased drilling productivity, reduced operating costs and better energy efficiency."

The Sandvik DD422iE's electric driveline, with an electric motor mechanically connected to axles for high torque and high efficiency, allows the rig to tram independently between working areas.

"The rig only needs to be connected to mains power during the actual drilling, at which point the electric motor is connected onto hydraulic pumps," he says.

Improved drilling power of up to 20 per cent is achieved by an active power compensation system which draws reserve power from batteries during peak loads. Battery charging is done during those phases of the drilling cycle when power intake is low, such as during boom movements. The unit uses sodium nickel chloride (SoNick) technology - regarded as safe battery system for underground conditions.

## KOMATSU LAUNCHES ZT44 BLASTHOLE DRILL FOR MINING-DUTY APPLICATIONS



Epiroc's underground core drilling rig Diamec Smart 6M

Image Credit: Epiroc

Komatsu's new ZT44 blasthole drill is a down-the-hole surface drill rig specifically designed for mining-duty applications. This track drill is a versatile machine, used for pre-split, production, auxiliary and any other application the end user demands. The ZT44 can offer higher reliability and production due to its purpose-built structures and dual-setting compressor, adaptable to varying hardness conditions.

Additionally, the blasthole drill provides flexibility and smaller footprint to excel in the quarry, aggregate or construction environments.

Equipped with a dual-pressure air compressor enabling high- or low-pressure drilling, the machine can efficiently adjust to changing drilling conditions to still achieve optimal performance

Paired with a power unit, the ZT44 is ready for a variety of work locations, including challenging elevations where production often

drops off. A tough chassis and accompanying structures mean you will not need to worry about shortened component life from longer work windows, while the smaller footprint of the machine means it still provides the flexibility of drilling in locations that can't be accessed by larger rigs. Better pulling capacity allows the ZT44 to move around unstable ground and tackle steeper grades than other OEMs.

A wireless remote pendant supports a safer environment for routine maintenance. The operator can remotely position the rig and position the boom or mast efficiently to change out consumables.

An external catwalk and handrails provide accessibility around the machine for routine maintenance and an internal walkway through the canopy provides access to internal componentry, such as the engine and compressor.

# Economical haulage for the mining industry

When looking for a cost-effective haulage solution for mining, South African manufacturer, Bell Equipment, pushes boundaries. Its crossover concept, the B60E 4x4, balances off-road performance, productivity and fuel economy.



The B60E 4x4 is effective over a wide range of conditions and terrain.

Image Credit: Bell Equipment

**D**esigned to provide a crossover to both rigid dump trucks (RDTs) and traditional ADTs, the 60-tonne B60E has a single rear axle instead of the more typical double axle whilst retaining the traditional ADT characteristics of all-wheel drive, and articulation steering with an oscillation joint.

According to Bell Equipment product manager: ADTs, Nick Kyriacos, this gives the B60E far better capabilities in challenging conditions compared to RDTs. "The oscillation joint keeps all the wheels in contact with the ground allowing for consistent all-wheel drive performance. If an RDT fleet owner is looking for more flexibility or is forced to stop production due to unfavourable conditions, then the B60E is a great solution for them. The truck has operated side-by-side with rigid dump trucks on several sites where it has proven its capabilities. Additionally,

customers running a mixed RDT and B60E fleet are able to standardise on one loading tool while retaining a high level of flexibility when deploying their equipment."

In comparison to traditional ADTs, Mr Kyriacos explained that there are customers who do not need the level of off-road ability that their 3-axle ADT counterparts provide. "In these cases, the B60E offers a level of productivity never seen before. There is negligible tyre scuffing on the 4x4 ADTs, which is a major wear point for the middle and rear axles of 3-axle trucks.

"Some of our leading customers have experienced the B60E achieving more than double the tyre life of their 6x6 counterparts in the same application. The B60E's tyre life also exceeded that of similar sized rigid dump trucks in the same application by 60 per cent due to a combination of its all-wheel drive

configuration and all wheels maintaining even contact with the ground along the entire haul cycle," continued Mr Kyriacos. "We've sold a number of B60s to ADT customers in various parts of the world who are running them very successfully and enjoying the increased productivity and tyre life they offer."

Far larger than a conventional ADT bin, the B60E's flat-bottomed 35m<sup>3</sup> body resembles a rigid-truck bin in its dimensions and geometry, which makes it fully compatible with existing loading equipment in mines and quarries and assures an ideal 2:1-heap of coarse blasted material. The shape additionally allows the loading tool to easily place bucket loads evenly within the bin for efficient loading that is not possible in comparable ADTs in this size class.

The truck has proven its versatility on work sites moving rock, ore, and sand over extended

distances, easily managing short, steep gradients, tight turning circles and poor underfoot conditions during inclement weather.

"The average fuel consumption of all B60Es ever sold is less than 24 litres per hour," said Mr Kyriacos. "Carrying a 55 000kg payload per cycle at that fuel economy coupled with the extended tyre life, the B60E achieves the Bell design philosophy by continuing to deliver lowest cost per tonne solutions."

In addition to cost efficiencies related to economies of scale and a highly economical drivetrain, the B60E is loaded with safety features incorporated as standard including Hill Assist, Safe Tip, downhill braking control and automatic traction control. Other standard features include auto-greasing systems, rear-view camera, onboard diagnostics, and Bell Fleetm@tic<sup>®</sup> telematics with full production data reporting. ■

## CEDARAPIDS UNVEILS PORTABLE CRC320 CONE CRUSHER WITH LARGE FEED SIZE

Cedarapids has introduced the new CRC320 plant featuring the TG320 300hp bushing cone crusher with a large feed opening. This economical portable plant can run smoothly with the optional patent pending “canted” jack system. Easily transported on the road or on-site, the all electric plant makes the TG Series cones portable to fit a variety of layouts and applications.

The TG320 is a 300hp bushing cone with large feed size that can be easily set up to perform and deliver cost per tonne cubicle product by selecting the optimum crushing cavity and eccentric throw to suit the application requirements. The 300hp (225kw) 1800 rpm motor and crusher are mounted on a rubber isolated frame, common between modular, portable and static platforms.

The CRC320 combines the TG320 cone crusher

and a 15hp, 42-inch wide discharge conveyor on a portable all electric chassis.

The plant has a variety of jack options available from simple crank landing to unique patent pending “canted” run-on jacks that stabilise the movement of the crusher. The chassis also includes a 48-inch (1219 mm) long lockable side-mounted storage box.

Safety and ease of maintenance are forefront in the design of the CRC320 plant. Emergency stop buttons are located on both sides of the frame. Service platforms with elevated observation deck, guard rails and access ladder as well as a convenient sloped stair / ladder provide safe access around the plant for inspection and maintenance.



CRC320 cone crusher plant from Cedarapids

Image Credit: Cedarapids

The CCM automatic switchgear panel gives easy one touch control for single plant or multi plant operation without the expense and complexity of a central control. The plug and play design allows you to work with any combination or number of plants, without the need for custom programming.

## SANDVIK'S NEW MODULAR HANGING SCREEN OFFERS VERSATILITY AND CROSS-COMPATIBILITY

Sandvik Mining and Rock Technology, Mobile Crushers and Screens, has introduced new ‘modular’ hanging screen for Sandvik’s latest range of mobile 2-series crushers.

Sandvik’s new double deck modular hanging screen enables customers to produce two screened products and recirculate any oversize back into the crusher.

Some of the unique benefits of this new modular hanging screen include its ability to be adapted quickly for operation in open or closed circuit configurations.

It features a patent pending adjustment system that allows the screen to be quickly reconfigured to produce one single-sized finished product, or two finished products, depending upon the customer’s demands, whereby the screen is hydraulically repositioned to create a single deck hanging screen using the top deck as a breaker deck without the need for a screen mesh removal.

The oversize conveyor may be hydraulically rotated for material stockpiling (90°) of up to three products on the ground, or removal (180°). The tail section can be raised hydraulically to give improved ground clearance for transport when loading or unloading.

The complete modular hanging screen can be installed or removed from the plant in less than 30 minutes without the need for any lifting equipment on site. The patent-pending hanging screen option can deliver multi-functionality as a 1, 2 or 3-way split screener.

## Metso presents Lokotrack LT4MX mobile cone crusher

Metso has rolled out special edition Lokotrack LT4MX mobile crushing plant equipped with an MX4 crusher, offering better performance for demanding aggregates production applications.

“The Lokotrack LT4MX with Multi-Action technology cone crusher represents market-leading mobile crushing technology. The key benefits of this combination are high capacity combined with energy efficiency,” said Kimmo Anttila, vice-president, Lokotrack Solutions, Metso.

The LT4MX is designed for increased safety and reduced environmental impact, with attention to reduced carbon dioxide emissions and dust and noise suppression. Dust suppression is handled with high-pressure water spraying. The LT4MX offers more energy efficiency with direct v-belt drive. The engine is powered by CAT and its emissions meet Stage V regulations.

The LT4MX comes with leading safety features, such as large platforms and access to service locations, as well as emergency wires so that service can be completed safely. Other extra features include a vibrating feeder, the optional side conveyor for fines separation and the large hopper, which provides continuous feed to the crusher and acts as a surge bin.

### Nordberg HP900 cone crusher

Metso has introduced the new Nordberg HP900 Series cone crusher for the aggregate and mining markets. The HP900, which an upgrade to the HP800 cone crusher that has more than 175 installations, is built to bring increased performance and reduced CAPEX.

The HP900 is an upgrade to the well-known HP800 cone crusher that has more than 175 installations. Approximately 80 per cent of the parts are compatible between the two technologies. The HP900 comes with improved kinematics, raised pivot point and power increase which leads to a 15 per cent capacity increase. A new lubrication system is included to help support the new performance level. The crusher is equipped with Metso’s IC70C automation system to ensure optimum operating parameters enabling the full potential. The IC70C is designed to be easy and simple to use. All information can be tracked using a single screen and features help and trouble-shooting options.



Lokotrack LT120 mobile jaw crusher, LT4MX coupled with the latest and biggest Lokotrack ST4.10 mobile screen.

Image Credit: Metso



# The dangers of combustible dust

Any workplace that generates dust is potentially at risk of a combustible dust explosion, which could have catastrophic consequences. Louise Waters reports on the hazards and how businesses can protect employees.

**M**any industrial facilities handle combustible particulate material which pose fire and explosion hazards. An explosion can happen when dust is disturbed and released into the air in a contained area where there is an ignition source, such as a welding spark or static electricity. This can cause catastrophic loss of life, injuries, and destruction of property.

There are many kinds of products or materials from which combustible dust explosions could occur if they are processed in powdered form. According to the USA's OSHA, types of dusts include, but are not limited to, metal dust, such as aluminum and magnesium; wood dust; plastic or rubber dust; biosolids; coal dust; organic dust, such as flour, sugar, paper, soap, and dusts from certain textiles. Dusts are created by processes such as abrasive blasting, cutting, grinding, crushing, mixing, sifting, polishing

or screening dry materials.

Essentially, any workplace that generates dust is potentially at risk. Managing combustible dust hazards is critical to ensure the safety of the plant, personnel and operations. A risk analysis, or dust hazard analysis, should be undertaken to identify and address such hazards, and various measures can be taken to mitigate the risks.

According to OSHA, initial preventative steps are to contain combustible dust to areas that are properly designed and located, with ignition sources either eliminated or controlled. Equipment or spaces such as ducts, dust collectors, vessels, and processing equipment that contain combustible dust should be designed in a manner to prevent leaks to minimise the escape of dust into work areas. Any dust that settles on workplace surfaces should be removed through a routinely implemented housekeeping programme. Areas or

equipment potentially subject to explosions, including the dust collection system, should be designed to relieve pressure in a safe manner, or be provided with proper suppression, explosion prevention systems, or an oxygen-deficient atmosphere.

Speaking in a podcast on <https://dustsafetyscience.com/dust-safety-science-podcast/>, Chris Giusto, director of Industrial projects at Hallam-ICS, highlighted the lack of awareness around the dangers of combustible dust, and identified five common mistakes companies make when addressing combustible dust hazards. These are:

1. Failure to appreciate the gravity of the hazard: not realising the potential of substances identified as a 'weak' explosion hazard to cause significant explosions, along with a lack of awareness with regards to secondary explosions and the risks associated with poor housekeeping in facilities.

2. Tolerating poor dust collection system performance; a dust collection system that performs properly prevents fugitive dust accumulations and decreases the risk for secondary explosions.

3. Not recognising electrical hazards; heat from electrical devices and sparks are common ignition sources for explosions.

4. Non-compliant explosion venting; installation by an expert is essential.

5. Vented dust collectors with no isolation; isolation prevents an explosion from travelling upstream or downstream from the vent-protected vessel so that it does not get into other equipment. In the 2014 Kunshan Explosion in China, a metal production company which polished various aluminium-alloy parts, experienced a dust collector explosion, but without an isolation system in place, it propagated back into the main building. 146 people were killed, and many others injured. ■

## Advertiser's Index

Cantoni Motor .....	17	Liebherr Export AG .....	35
Clarke Energy Ltd .....	60	Liugong Dressta Machinery sp. z o.o. ....	49
Condra Cranes and Hoists .....	51	LiuGong Machinery South Africa (Pty) Ltd. ....	41
DAL Group Company Ltd .....	5	MB S.p.A. ....	9
GCNET (Ghana Community Network Services Ltd)21		Metalgalante S.p.A. ....	11
JA Delmas S.A.S. ....	37	Mytilineos S.A. ....	18
Jessop & Associates (Pty) Ltd .....	15	Seequent Ltd .....	59
Komatsu .....	2		

# IoT access could transform the mining sector

Research by Inmarsat found that 85 per cent of organisations struggle to access reliable connectivity for IoT projects across their mining sites, which is holding back many from taking advantage of the latest technology.



Image Credit: Adobe Stock

**Data optimisation is vital for leveraging IoT technology at mining operations.**

Organisations across the mining industry are struggling to take full advantage of Internet of Things (IoT)-enabled applications due to a lack of reliable connectivity. This is according to a global study by Inmarsat, the world leader in global, mobile satellite communications, which found that only 15 per cent of mining organisations consistently have access to reliable connectivity for their IoT-enabled projects.

These results emerged from the 2020 edition of Inmarsat's research into IoT trends, *The Rise of IoT in Mining*. The report found that 45 per cent of respondents struggled to access connectivity across mine sites, hindering their ability to gather data. A further 40 per cent indicated they could access connectivity but it was often unreliable causing issues with data collection. Just 15 per cent reported they could access reliable connectivity wherever their data

producers were.

Although the mining sector has increased its adoption of IoT in recent years with 65 per cent of respondents fully deploying a project, 33 per cent have still only trialled or are trialling a project and 2 per cent not having trialled or deployed, it is apparent that connectivity is impeding miners' abilities to harness the IoT benefits.

Of the 130 respondents that have fully deployed IoT-enabled projects across their mine sites, 78 per cent were able to access connectivity, with 24 per cent of the 130 able to

access reliable connectivity. By contrast, of the 70 respondents yet to fully deploy IoT, only 11 per cent were able to access connectivity, and this 11 per cent was only able to access unreliable connectivity.

Joe Carr, director of Mining, Inmarsat, said: "Inmarsat's highly reliable L-band BGAN connectivity is helping organisations across all stages of their IoT journey to get the reliable connectivity needed, to ensure they can generate, analyse and action the necessary data and improve the way they operate. Although our research has indicated

that the global mining sector is undergoing an upswing in IoT adoption, reliable network connectivity is still clearly a sticking point that Inmarsat can help alleviate. To gain value from IoT-enabled projects, the right data must be where it needs to be at the right time, otherwise insights and return on investment cannot be delivered.

"The research points to a clear correlation between connectivity and those respondents who have fully deployed IoT projects. From our work in the industry, we see that poor connectivity can hamper getting a project fully deployed from a proof of concept into mainstream business operations. However, we also see from the research that for many who have fully deployed IoT projects connectivity continues to be a challenge. Inmarsat's connectivity and capability can help the sector transform quickly through IoT." ■

**“ To gain value from IoT projects, the right data must be where it needs to be at the right time, or insights and return on investment cannot be delivered.”**

**JOE CARR, DIRECTOR OF MINING, INMARSAT**



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## Protect your energy supply and your business

Reliable power supplies are essential for profitable business. Natural gas is an abundant clean-burning low-carbon fuel. Jenbacher gas engines are renowned for reliable performance. This performance is supported by our network of local service engineers.

For more information on the benefits of gas-fuelled captive power plants go to [clarke-energy.com](http://clarke-energy.com) or contact your local sales dept on the numbers below.

- + 9 – 18 months repayment of capital switching from diesel to natural gas
- + For electricity, heating and cooling loads
- + Engineer, procure and construct services available
- + Supported by a network of local service engineers