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South Africa and the DRC deepen science, technology and innovation partnership



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AGRICULTURE



ISOBUS technology allows for full compatibility between all tractors and implements



The major advantage of ISOBUS technology in the agricultural industry is that it allows for full compatibility between tractors and implements, regardless of brands and models. The ISOBUS-compatible application combines the modular Field-IQ architecture with the new Trimble Liquid Control ECU. The Field IQ ISOBUS controller is ideal for a range of equipment from sprayers to fertilisers and/or lime spreaders, manure spreaders, liquid toolbars, strip till toolbars, effluent toolbars and planters.

Trimble Agriculture supplies solutions that solve complex technology challenges across the entire agricultural supply chain. In this regard, Trimble has created unique positioning products to assist its customers grow their business for over 30 years. A member of Trimble's elite agriculture partner network, Vantage SSA (Pty) Ltd. of Centurion represents Trimble Agriculture in the Sub-Saharan Africa region through an extensive dealer network.

"We pride ourselves on being experts in precision agriculture," says Jaco Viviers, GM at Vantage SSA. The company prides itself on being the farmer's 'Precision Agriculture Centre of Excellence', providing advice on the right combination of solutions and integrating the many complex processes across the farm.

"Our team has an extensive skillset in all areas of precision agriculture and is equipped to bring our industry-level technical expertise, customer service and support capabilities to your farm," says Jaco. "We are committed to

integrating and supporting a complete, end-to-end solution of hardware, software, positioning services and data for each farming operation's unique requirements."

Being the Africa partner of Trimble's elite agriculture network allows Vantage SSA to offer a bouquet of benefits to its customers. These include a single source of expert, personalised precision agriculture consultation and local sales, maintenance and support services for all Trimble Agriculture products and solutions.

"We are skilled in combining agronomic recommendations with precision agriculture technology. We alleviate the stress and time constraints caused by trying to coordinate multiple vendors," says Jaco. He adds that the combination of Vantage SSA's expertise with precision agriculture hardware, software and service allows farmers to plant

smarter, grow better and harvest more.

The unique advantage of the Trimble Field-IQ ISOBUS Liquid control system is that it can connect any ISO terminal to the implement after ECU configuration. Not only can existing Trimble Field-IQ install kits be used, but implement set-up is a cinch with standard configuration and calibration screens.

The advertisement features a large center pivot irrigation system in a lush green field under a blue sky with scattered clouds. The T-L logo, a yellow square with a black 'T' and 'L' inside a circle, is in the top left. To its right, the text "LIKE NO OTHER." is written in large, white, bold, sans-serif capital letters. Below the image, the words "RELIABLE HYDROSTATIC IRRIGATION SYSTEMS" are written in bold, yellow, sans-serif capital letters. At the bottom left of the ad, it says "T-L ... LIKE NO OTHER." in white. At the bottom right, there is a "60 YEARS" anniversary logo with "IRRI" and "EXCELLENCE" on either side, and a small ISO 9001 certification logo.

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Animal nutrition in livestock production



Like humans, livestock animals need a balanced diet containing all the necessary nutrients, fluids, minerals, and vitamins. Proper nutrition gives your animals the vigor to grow, develop, and reproduce, and strong immunity to fight off infections. All these advantages lead to more profitable and sustainable agriculture.

Whether you feed your livestock commercial feeds such as concentrates or in-farm foodstuff, you need to make sure that every ration meets each animal's essential dietary requirements during its various life stages. For instance, cattle have very different nutritional needs from pigs. And the diet of a lactating cow will also differ from that of a calf.

Remember, you can always boost your

feeds' specific nutritional content by adding feed supplements for livestock. Let's take an in-depth look at the importance of animal nutrition in livestock production.

Prevent malnutrition, deficiencies, and diseases

There are hundreds of nutrition-related illnesses that affect livestock animals. Most of these illnesses are caused by either malnutrition or minerals and vitamin deficiencies. Deficiencies and malnutrition severely impact animals' growth, development, and production; some extreme cases can lead to irreversible health conditions, disorders, or even fatalities.

Nutrition-related diseases have actually become more of a problem due to modern farming techniques. Since

most animals feed on concentrates specifically designed to maximize yield, they may lack some essential minerals and vitamins.

Enrich your livestock feeds with high-value supplements such as B12 supplements and salt-based additives containing various micro and macro minerals. For instance, B12 in cattle is essential to meet the high energy demands of lactation and growth.

Improve breeding

Numerous studies, such as this one published by animal health experts, have found a direct correlation between nutrition and reproductive performance in animals. Feeding patterns, the quality and quantity of rations, and more importantly, the nutritional value of feeds profoundly

affect an animal's reproductive health.

Deficiencies of certain minerals such as calcium, zinc, magnesium, selenium, and manganese can reduce fertility in cows by increasing the risks of placental retention and mastitis and upsetting the balance of gestation and parturition hormones. Improper nutrition may also lead to poor foetal development, stunted growth after birth, and high calf mortality rates in severe cases.

Nutrition also affects the reproductive vitality of male animals. Bulls, stallions, roosters, and ewes reared for reproduction purposes require special diets to ensure their spawn's health and viability.

Boost yields

In general, proper nutrition promotes good health in livestock, which results in higher productivity. Healthy, well-fed cattle and poultry will produce more milk, meat, and eggs. Although gross production figures form the backbone of every agribusiness, the yield quantity is only half the story.

Over the last decade or so, consumer preferences for food product quality have changed drastically. There is a

growing demand for farm produce cultivated through sustainable methods. The livestock industry is particularly under pressure to follow humane farming practices. In a humane farm, animals should not be subjected to harmful substances or conditions to improve their production.

A rich diet not only improves yields but also enhances the quality of livestock production. You do not need to cut corners or use unscrupulous means to boost your farm produce as long as your animals are fed in the right way.

Bottom line

The importance of proper nutrition in livestock production cannot be overstated. Food determines livestock's overall health and yield performance. Your farm's success could very well hinge on how you feed, handle, and care for your animals. Keep in mind that animals are highly sensitive to what they consume and how they consume it. So, make sure to provide your livestock animals with every bit of essential nutrient, in the right quantities, and at the appropriate time.



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Safe Feed for Safe Food guides Yara Animal Nutrition South Africa in Umbogintwini, Durban. Our fundamental principles of Ambition, Trust, Accountability, and Teamwork encourage leaders and people at all levels to perform well and to work safely and ethically.

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AUTOMOTIVE



Battery manufacturing pact stimulant for decent jobs in Africa



Global Union affiliated unions in the Democratic Republic of the Congo (DRC) and Zambia welcome the memorandum of understanding between their governments and the United States of America (US) on the creation of an electric vehicle value chain in the two countries.

The agreement, signed late last year, is to promote the development of an electric vehicle value chain from mining, refinery, battery cell and battery pack manufacturing, up to the end user. Signatories will conduct feasibility studies, provide technical assistance, and the US will promote the initiative among the US private sector and investors.

Unions say the agreement is aligned to union campaigns for mineral resources to be used for industrialization and economic development which comes with opportunities for the creation of decent jobs. Through the African industrialization campaigns and mining network meetings, unions have repeatedly emphasized the need for the domestication of the African Mining Vision which calls for: "Transparent, equitable, and optimal

exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development."

The DRC produces over 70 per cent of the world's cobalt, while Zambia is Africa's second largest producer. In the DRC, cobalt is mined by large scale mining companies as well as artisanal small-scale miners. Other minerals found in the two countries that can be used in electric vehicle battery manufacturing include copper, lithium, manganese, and nickel.

The agreement aims to promote the "development of a cross-border integrated value chain for the production of EV batteries, leading to increased awareness of investment opportunities and the identification of potential co-financing opportunities for electric vehicle value chain-related investments."

Glen Mpufane, IndustriALL director for mining says:

"This agreement speaks to some of the envisaged decarbonisation pathways as the world shifts from fossil fuels to renewable energy. However, trade

union demands on decent work remain. We want decent jobs to be created in the electric vehicle supply chain. Additionally, the rights at work must be protected according to international labour standards, and there must be social protection and social dialogue. The cooperation must include a human rights due diligence approach and the promotion of gender equality in the supply chain."

The agreement promotes the development of the clean energy sector through reduction of carbon emissions and supports the Paris Agreement goal to keep global warming below 2 degrees. Further, the agreement commits to adhere to UN conventions against corruption as well as domestic laws and international standards.

At a meeting on battery supply chains in Johannesburg in 2022, unions from Botswana, Ghana, Guinea, Kenya, Madagascar, South Africa, and Zambia agreed to map companies that were part of the electric vehicle value chain in their countries as one of the ways to build union capacity on organizing and recruitment in this sector.



Toyota plans to manufacture electric vehicles in SA

Needs 'quick' government decision on new energy vehicle policy to avoid losing EU export market.

Toyota South Africa Motors (TSAM) intends to manufacture electric vehicles (EVs) in South Africa and export them to global markets, with its CEO Andrew Kirby saying on Thursday that it is crucial to the company's sustainability that the government finalise its new energy vehicle (NEV) policy.

A huge chunk – 44% – of TSAM's manufacturing volume is exported to Europe and this is not a market the company can afford to lose, he said.

It would "have dire consequences on our business structure, on our employment, on our suppliers".

"So we really do need to get some quick response from government in

terms of what aspects they are able to support us to improve the viability of investing to manufacture NE vehicles in South Africa."

How quick?

Expanding on what he means by a "quick" response, Kirby said TSAM is going into an investment decision phase in 2023 for the Hilux "so within the next 12 months".

He said it is definitely TSAM's intention to start producing EVs in South Africa and referred to the latest Euro 7 emission standard announcement.

"We know the transition [to electric mobility] in Europe is going to be quite quick and speedy and that if we want to retain those exports, we are going to have to adapt to manufacturing either a low or zero emission Hilux. That is the pressure point for us.

"It has an enormous impact on our business, on the supply chain and on the economy if we lose that market and that is obviously occupying our mind."

All cars and vans sold in the EU must have zero CO2 emissions by 2035.

However, in November the European Commission published stricter exhaust emission standards that it proposes should be effective from 1 July 2025 on all cars and vans sold in the EU and by 1 July 2027 on all new heavy duty vehicles.

Government's timeline?

Minister of Trade, Industry and Competition Ebrahim Patel published a Green Paper in May 2021 on the advancement of new energy vehicles in South Africa.

The stated aim was to finalise the strategy within 90 days to allow the policy proposals to be submitted to cabinet for consideration by October 2021.

That target was missed and the government has still not finalised its policy.

Kirby said Patel announced that SA's automotive industry should expect an announcement in the Budget speech in February.

What to expect?

"We are really looking forward to seeing what that includes and if that can help us find a way to accelerate our transition [to electric mobility] as a country, and obviously as a company as well."

He added that what the automotive industry is hoping for and what it thinks will be announced in the budget "are two different things".

The hope is that there will be support for the industry to accelerate the localisation of NEVs, including by trying to make NEVs – particularly plug-ins, batteries and fuel cell vehicles – more affordable and accessible in SA.

Kirby said this is important to enable the industry to create the market for NEVs "so we can justify investing in these vehicles".

"We don't think that is going to happen. The indication that has been given is that we are likely to see, as the first phase of support, support on the supply side.

"This means there will most probably be mechanisms put in place to try and reduce the capital expenditure requirements for NEVs and we can localise those.

"The reason for that is that those lead times are much longer and the indication we have been given is that that will be addressed first – but we haven't been given clarity on exactly how those mechanisms are going to work or the extent of the mechanisms."

Kirby said Toyota does not have a specified cut-off date for when it will stop producing internal combustion engine (ICE) and hybrid vehicles and exclusively produce NEVs.

He said Toyota feels strongly that battery electric vehicles are not the only way to go and that it needs to be careful about meeting the real-life needs of its customers.

This means Toyota has a diverse approach and multi-pronged strategy to mobility solutions and is adopting an approach for hybrids, plug-in hybrids, battery electric vehicles, fuel cell electric vehicles but also zero emission synthetic fuel or hydrogen fuel ICE engines vehicles.

Kirby said battery electric vehicles may be the answer for some customers in some markets but another technology might be the preferred solution in other markets.

He added that TSAM has adopted a phased approach to the rollout of energy-efficient vehicles in SA and is gearing up to sell as many NEVs as it

can – but that with limited charging stations in the country and an energy crisis, it has to do this pragmatically.

"But we are committed to increasing the sale of NEVs to at least 20% of our sales mix by 2025," he said.

Read: Auto industry contribution to the economy threatened by power crisis

"We don't have all the answers yet and of course don't have the supply yet – and one of the challenges for us as a sector is that we don't as of yet have a committed direction or support programme from national government."

TSAM senior VP of sales and marketing Leon Theron said that despite the floods that damaged its plant at Prospecton in Durban and stopped production for more than 100 days, Toyota retained its market leadership position for the 43rd consecutive year.

Toyota forecast total industry new vehicle sales of 540 000 units for 2022.

Automotive business council Naamsa reported earlier this month that total industry sales in 2022 grew by 14% to 529 000 units.

However, Kirby said Toyota's crisis caused by the flooding and the cessation of production meant it lost 32 000 units in the South African market.

Despite a number of challenges, Kirby forecast that the new vehicle market in SA will grow by 7.8% this year to 570 000 units and that the supply of vehicles will improve.



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Food security in Africa: *Current efforts and challenges*

Hailemariam Dessalegn/Former Prime Minister of the Federal Democratic Republic of Ethiopia Board Chair, Alliance for Green Revolution in Africa

Africa's food systems are at a crossroad. Several challenges and exogenous shocks—including extreme weather events and climate change, recurrent outbreaks of pests and diseases, limited availability and adoption of yield-increasing technologies—have exposed fragilities of Africa's food systems, undermining the ability to meet the food demand of a burgeoning population.

"Africa's food systems must become more resilient and guarantee access to healthy and affordable diets for all. Tested systemic models have demonstrated that agriculture

transformation is possible in input and output market systems, and that it can be scaled across the continent."

More recently, the COVID-19 pandemic and the war in Ukraine have disrupted the supply chain for agricultural inputs, fuel, and food. The state of food security in the continent is worsening, with over 20 percent of the continent's population (roughly 257 million people) undernourished.¹ Africa bears the heaviest burden of malnutrition,² while the African Union's Comprehensive African Agriculture Development Programme (CAADP) Biennial Review report (2019-2021) further reveals that Africa is not on track to meet its goal of ending hunger by 2025.³ In 2022, over 20 million people and at least 10 million children faced severe food shortage in Africa due to crop failure and four

consecutive dry seasons.⁴ East Africa alone lost close to 2 million livestock in a year due to recurrent drought and low response capacity.⁵ Moreover, projections by the United Nations Economic Commission for Africa point to Africa's annual food imports increasing significantly; by a factor of seven from \$15 billion in 2018 to \$110 billion by 2025, and by a factor of three from the current \$43 billion.⁶

Current efforts by AGRA and other African-led institutions

Given these worrying food security trends, Africa's food systems must become more resilient and guarantee access to healthy and affordable diets for all. Tested systemic models have demonstrated that agriculture transformation is possible in input and output market systems, and that



it can be scaled across the continent. Besides engaging in immediate recovery efforts, such as our \$11 million investments to tackle the impacts of the COVID-19 pandemic, the Alliance for Green Revolution in Africa (AGRA) has supported African countries to build capacities for the design of agricultural sector strategies and evidence-based policy reforms. At a country level, AGRA has made significant strides in helping resource national agriculture programs, working closely with ministries of agriculture to design 11 flagship programs. Some of the early dividends of this work include:

Enhanced capacity of African governments to design and implement policies, and hence respond to emergent agricultural and food systems challenges. AGRA recognizes that “business as usual” is no longer sustainable and has therefore developed a program called “sustainable farming” to ensure that farmers concomitantly achieve three major livelihood objectives, namely: Food security, protecting ecosystem services, and resilience to climate and other shocks. It employs context-specific farming system solutions with emphasis on improving water

and nutrient efficiency of crops, replenishing over extracted nutrients through application of judicious amounts of fertilizer, and diversifying the farming systems with climate resilient crops and management practices.

To improve climate resilience, AGRA invested in the development of African scientists and African research institutions. AGRA has thus far trained more than 500 national research system breeders at PhD and MSc level, to create local capacity of genetic development.

Responding to the climate risks, Africa has capacity to breed and release varieties of crop that are climate adaptive; early maturing, and drought tolerant like cassava, maize, rice, groundnuts, cowpeas, high iron beans, and b-carotene rich sweet potato that can be scaled.

Recognizing the malfunctional extension system in Africa, the introduction of private-sector led village-based agricultural advisors’ engagement has helped to reduce post-harvest losses by about 30 percent in countries such as Mali, Mozambique, and Nigeria.

Together with the Common Market for Eastern and Southern Africa (COMESA), AGRA is building the Regional Food Balance Sheet (RFBS) to address the dearth of reliable, timely, and accurate data and guide food and nutrition related decision making in Africa.

Together with the Economic Community of West African States (ECOWAS) Commission and other partners, AGRA has established the ECOWAS Rice Observatory (ERO) with respective national chapters, where rice-related matters of trade policy, market development, and farmer support will be discussed, and solutions identified.

Within the Southern African Development Community (SADC) region, AGRA has established Chinyanja Triangle Soybean Trade initiative and linked a total of 22,179 smallholder farmers to regional trade markets, supplying over 7,070 million metric tons (MT) of soybeans valued at more than \$4 million unlocking trade financing valued at \$2.5 million which will support aggregators to source soybeans from smallholder farmers at competitive prices.

Critical next steps

Beyond this progress, strategic and urgent measures are still needed to enhance the resilience of Africa’s food systems and bolster the ability to deliver on food security and nutrition objectives. Some of these actions include:

Accelerating the adoption and

implementation of the African Continental Free Trade Area (AfCFTA) in order to avert food supply disruptions, as experienced during the pandemic.

Providing an enabling policy environment for the financial sector to supply more business and financial tools to Agri-SMEs.

Supporting the establishment of Strategic Grain Reserves (SGRs) as a buffer against unexpected exogenous shocks. Social Protection Programs are also priorities and should be implemented with clear graduation targets for the beneficiaries.

Moving towards sustainable farming: Although Africa owns about 60 percent of the world’s potential land for agricultural expansion,⁷ by 2050, about 45 percent of the additional food should come from sustainable intensification (i.e., producing more food and fiber per unit of land and water).

African food systems should be diversified, moving from the major global commodities: Rice, wheat, and maize; and more investment must be made towards African indigenous and resilient crops including sorghum, millets, teff, and cassava.

Increasing investments in market infrastructure and other incentive mechanisms to support African farmers to adopt climate smart policies, technologies, and practices, including afforestation and rehabilitation of degraded lands, wetlands, and protected areas to enhance carbon sequestration and reduce carbon losses.

Investment in irrigation infrastructure is critical. Rainfed food production sits at the center of 70 percent of Africa’s livelihoods. This heavy reliance on rainfed systems exposes farmers to recurrent drought and other extreme events, hence water-centered adaptation must be a priority for Africa.

Increased availability of clean and renewable energy for rural Africa, the absence of which is currently contributing hugely to deforestation and climate change exposure.

Institutional capacity: Africa’s level of exposure and vulnerability is connected to its low institutional capacity and governance systems. We need to ensure that national systems have the capacity to convert climate policies and commitments into action.

Early warning systems and associated climate advisories that are demand-driven and context specific, combined with climate change literacy and awareness, can help make the difference between coping and informed adaptation responses.

Securing Africa's food sovereignty



Ahunna Eziakonwa

United Nations Assistant Secretary General, UNDP Director, Regional Bureau for Africa

The war in Ukraine laid bare a vexing and persistent structural vulnerability in most African countries.⁸ The continent, with 60 percent of the world's unused arable land, cannot feed itself because of low yields, poor farm management practices, and distortions in agricultural markets.⁹ Consequently, the continent is overly dependent on food and fertilizer imports to feed its people. Africa's farmers find it increasingly difficult to enhance productivity, create jobs, and boost wealth in the agricultural sector.¹⁰ The Ukraine crisis should be a wake-up call. African countries must embrace a food systems approach to scale-

up food production, overhaul farm management practices, and improve food marketing to move beyond food security and attain food sovereignty.¹¹ This will not only ensure the availability of affordable food, but it will also help countries attain a number of the Sustainable Development Goals (SDGs), including: SDG #2 zero hunger, SDG #3 good health and wellbeing, SDG #5 gender equality, SDG #8 decent work and economic growth, and SDG #10 reduced inequalities.

The 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) highlighted the challenges Africa continues to face with regards to tackling the effects of climate change. While we are buoyed by the groundbreaking decision to establish a loss and damage fund, the failure to reach global consensus on tangible

action that will reduce emissions reminds us of the difficult road ahead.¹² Without this thorny issue being resolved, our efforts to attain food sovereignty will remain stymied.

Food sovereignty speaks to the ability of a country to feed itself. In Africa, this must involve increasing production and ensuring that farming systems are more resilient to price and environmental shocks. The 2006 Abuja Declaration of African agriculture ministers called for an increase in Africa's average fertilizer application rates from 20 kg/ha to 50 kg/ha to boost production. Africa's average application rates are still at 2006 levels, while the global average is slightly over 130 kg/ha.[UNDP. 2022. "Towards Food Security and Sovereignty in Africa." Regional Bureau for Africa Working Paper. United Nations Development Programme.] While it is evident that

fertilizers are not the proverbial silver bullet, it is clear that better farming practices could be a crucial first step in Africa's journey towards food sovereignty. Recent UNDP research suggests that meeting the 2006 Abuja target could more than double Africa's food production in a couple of years.

In order to accomplish this, Africa does not need to be overly dependent on fertilizer imports from Ukraine and Russia. The continent produces sufficient potash and ammonia to sustain a thriving fertilizer industry. In addition, existing fertilizer blending facilities (in 19 African countries) and manufacturing plants (in 10 African countries) operate well below capacity. Concerted investments in infrastructure, technology, and skills, including through public-private partnerships, could boost fertilizer production. Leveraging the African Continental Free Trade Area (AfCFTA) could also widen and deepen Africa's market and facilitate the availability of affordable fertilizer across Africa. In Nigeria, for example, if fertilizer-producing plants were working at full capacity (Dangote's full capacity is 3 million tons and Indorama's 1.4 million tons), the country could meet its own 1.5 million tons of fertilizer consumption, while also meeting the rest of the region's needs.

"Food sovereignty speaks to the ability of a country to feed itself. In Africa, this must involve increasing production and ensuring that farming systems are more resilient to price and environmental shocks."

A case for food sovereignty

Food sovereignty in Africa is not just about production and trade. It is also about resilience and ensuring that the continent's food production is not held hostage by natural and market shocks. The use of technology, fertilizer, and improved farm management practices could revolutionize Africa's food sector. In addition, African countries must take steps to reverse their dependence on food aid and food imports. Free or cheap food imports have made local food production in Africa less competitive and, in turn, shifted consumer preferences away from local brands to foreign ones. As a result, Africa is now the most food-import-dependent region in the world, dedicating more than 13 percent of its import expenditure to buying food and agricultural commodities. This contributes to overall fiscal stress.

Revolutionizing food production in Africa will improve the continent's development prospects and build

resilience. Using fertilizers produced in Africa and fully integrating research from Africa's agricultural research institutes could help the continent attain food sovereignty by minimizing imports. This would make Africa's food markets more resilient during global shocks and prevent the pass-through of global price shocks into domestic inflation. It would also have the added benefit of relieving stress on scarce foreign exchange earnings.

Assuming Africa had adhered to the 2006 Abuja Declaration and gradually increased fertilizer application rates from 20 kg to 50 kg per hectare between 2010 and 2020, food production could have grown cumulatively by 209 percent instead of just 24 percent. Such an increase would have had a salutary impact on reducing hunger and addressing malnourishment.

The increased agricultural productivity would also significantly impact women and girls, helping Africa make more progress on SDG 5 regarding gender equality. Research by the Food and Agriculture Organization estimates that women comprise 43 percent of the agricultural labor-force in developing countries and are mainly concentrated in harvesting and weeding.⁷ Boosting food production could therefore also contribute to decent work and economic growth (SDG 8), especially for women and girls.

Policy options

Some African countries are already improving food production and attaining food sovereignty. Malawi's 2006-2010 agricultural development program, which has been described as "pro-poor," increased yields, raised incomes, and made the crops more resilient to drought.¹³ Ethiopia's 2005 productive safety net policy program (PSNP) targeted households and communities that are chronically food insecure and offered insurance, as well as investment in public goods such as soil and water conservation.

"Free or cheap food imports have made local food production in Africa less competitive and, in turn, shifted consumer preferences away from local brands to foreign ones. As a result, Africa is now the most food-import-dependent region in the world, dedicating more than 13 percent of its import expenditure to buying food and agricultural commodities."

Despite progress in a few countries, Africa needs coordinated policy changes and sustained action to increase food production, improve

distribution, ensure affordability, and reduce dependency.¹⁴ African leaders should prioritize incentives to increase domestic and regional food supply. This will include using appropriate inputs to boost and scale up production to cater to national and regional markets. An important goal in this context is the full operationalization of the AfCFTA to facilitate the free movement of labor, inputs, and food across the one-Africa market. From a policy perspective, Africa must shift the narrative from food supply to developing resilient food systems.¹⁵ Africa's default must no longer be only trying to address food availability. Policies must focus on ensuring that the entire continental food value chain is robust, profitable, and leaves no one (and no community) behind.

Africa's development partners also have a critical role to play.¹⁶ While temporary aid is needed, the primary need is to fully support programs that de-risk and boost critical investments in Africa's food sector. This will facilitate financial and technical resources to modernize food production, storage, and marketing in Africa. Africa's development partners can also promote efforts to maximize regional food trade, by reducing disincentives and inefficiencies in global markets—such as dumping, subsidies, and tariff structures that would disadvantage or discourage domestic production in African countries.

Conclusion

Africa has a long history of food dependency, a legacy of food-aid policies and low domestic productive capacity.¹⁷ As a result, much of its food is imported, implying that any major global shock can lead to severe trade disruptions, increased hunger, and pass-through inflation, eroding both household and public budgets. Africa's food sovereignty pathway involves enhancing agricultural productivity by improving farm management techniques.

UNDP analysis shows that Africa could easily produce the fertilizer inputs it needs, and that meeting the 2006 Abuja Declaration targets would boost food supply, while positively impacting the SDGs.¹⁸

Ensuring Africa's food sovereignty—implying increased availability and affordability—is key to the continent's own economic sovereignty, sustainable development, and achieving the SDGs.¹⁹

HEALTH



Meeting the healthcare needs of Africa through technology



Founders of Innov8 Group Holdings, chartered accountant Abdul Malick Salie and Dr Chad Marthinussen.

A South African investment holdings company focused on bringing innovative technologies to the African medical industry through its investment has announced its successful partnership with an Irish-based fund and family office.

It said the partnership between the Irish and Innov8 Group Holdings, has resulted in the company externally valued in excess of R250 million, with initial seed investors reaping a 60% return on a partial exit as well as a significant capital appreciation.

"The performance is testimony of the company's skill and ability to manage the allocation of funds as well as strategic and operational input to underlying businesses yielding top line growth accompanied by strong cash returns," co-founder Abdul Malick Salie said.

The founders of Innov8 Group Holdings, Dr Chad Marthinussen, and Salie boast almost three decades of experience in the corporate finance and investment space, as well as healthcare and technology industries.

The pair are both dynamic entrepreneurs who bring a unique combination of entrepreneurial and financial expertise to the table.

Salie, a chartered accountant, brings extensive corporate finance experience and further boosts a strong track record in managing the allocation of funds and providing strategic and operational input to underlying

businesses.

"One of our key objectives is developing the real usable datasets and data infrastructure from our medical imaging, primary care, virtual care and biotechnology products and services, allowing our technology and AI teams based both locally and internationally to harness the information, creating enhanced and innovative solutions for the medical market," Marthinussen said.

The company is also focused on expanding its asset base with plans to offer local partners, investors and institutions the opportunity to share in its journey.

"The investment roadmap is defined and we will continue to grow our assets organically, through acquisitions and with strategic partnerships. One such partnership has recently been concluded with a pharmaceutical and medical device group for our ultrasound platform.

"This partnership sees significant base revenues being generated, and along with our latest capital partnership, we are empowered to execute our planned roadmap," Salie said.

According to the group, the healthcare technology and biotechnology industry in Africa has a vast and untapped market with a rapidly growing population and an increase in demand for access to quality healthcare.

"The continent's population is projected to reach 1.7 billion by 2050,

and with the current infrastructure and resources, it is challenging to meet the growing demand for healthcare services.

"This presents a significant opportunity for investment in healthcare technology and biotechnology, as new and innovative solutions are needed to address the continent's healthcare challenges," Marthinussen said.

Canada Immigration

He said the Innov8 Group Holdings is a parent company of several subsidiaries which includes Innohealth Technologies, a healthcare holding company strategically led and controlled by the duo which then controls several subsidiaries that operate in various verticals of the healthcare industry.

"MyPocketHealth is a virtual care platform developed internally by Innohealth that offers telemedicine and virtual care to the masses, Innohealth Clinics is a rapidly expanding digital-first doctor-lead, affordable primary care company.

"U-Image Africa is a South African-developed wireless ultrasound ecosystem focused on making POCUS (point-of-care ultrasound) accessible to all healthcare providers, AI Biologics Africa is an AI biotechnology platform focused on streamlining the IVD and vaccine development industry.

"Social Medical is a healthcare marketing agency that oversees all the entities in the group and offers services to other industry players, Innov8 Property, is a healthcare-focused property company," Marthinussen said.

He expressed the importance of the subsidiaries as part of the group's strategy to provide a comprehensive range of services and solutions to the healthcare industry in Africa.

IMPORT & EXPORT



RBCT coal exports plummet to lowest level in 3 decades as rail troubles persist



- Exports through the Richards Bay Coal Terminal last year hit their lowest levels since 1993.
- The low volumes delivered by Transnet Freight Rail continue to impact coal exporters.
- As coal prices drop, the impact of the rail problem will become even more devastating.
- Richards Bay Coal Terminal (RBCT) last year had its lowest exports in over three decades as Transnet's rail troubles persist.

RBCT, which is among the world's largest coal export terminals, reported export volumes of 50.3 million tons in 2022 – the lowest number recorded since 1993, when 50.9 million tons were exported. With a design capacity to export 91 million tons, RBCT reached record volumes in 2017 when exports hit 76.4 million tons.

"The biggest factor [affecting the terminal's performance] is the low

volumes," said RBCT CEO Alan Waller. "And intrinsically linked to that is the ability to get the rail to the port."

The terminal, which is owned by South Africa's largest coal producers, is not designed to take road trucks, and even if it were, the number of trucks required to compensate for undelivered rail volumes is "pretty much unthinkable", he said.

Transnet's severe operational issues, which have intensified over the past two years, have severely impacted the terminal's performance.

The state-owned entity's rail division has been plagued by operational issues, cable theft and the unavailability of locomotives, causing rail volumes to plummet across the network and on the lucrative coal line in particular.

RBCT's performance was especially impacted in the fourth quarter of 2022 due to a 12-day Transnet strike and

severe derailment, which affected the line for 10 days.

Budgeted volumes for 2023 are 60 million tons, in line with the volumes contracted with Transnet. "However, where we sit right at the moment, we have been hit very badly in the last two weeks, and there is certainly an increasing trend in terms of cable theft," said Waller, adding that industry and Transnet are looking closely at enhancing initiatives to tackle the issue.

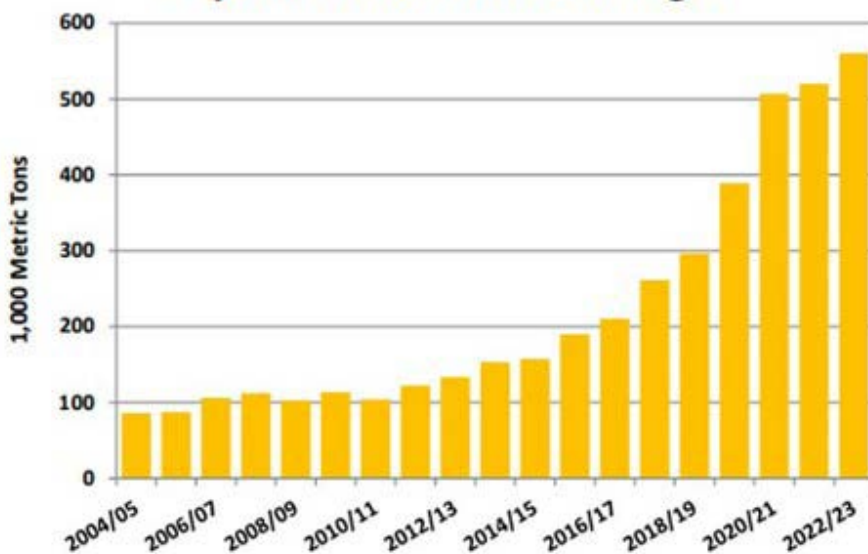
Transnet's Freight Rail's Ali Motala – the managing executive of the coal line – said the state-owned company is on track to deliver budgeted volumes this year, despite the numerous challenges faced, as it works to implement various initiatives.

Industry and Transnet are working closely to try to resolve the ongoing issues affecting the rail line. For example, a collaboration to tackle cable theft yielded good results last year.

South Africa tangerine/mandarin exports forecast to reach a record 560,000 tons in 2022/23



South Africa Tangerines/Mandarins Exports Grow To Record High



South Africa exports of tangerines/mandarins are forecast to grow by almost 8 percent in 2022/23 to reach

a record 560,000 tons on higher production and strong overseas demand. The European Union and the United Kingdom account for 45

percent of total South Africa exports followed by Russia (10 percent) and the United States (10 percent).

South Africa exports to the United States under African Growth and Opportunity Act (AGOA) have quadrupled over the past 5 years, reaching nearly 50,000 tons in 2021/22. This trend is expected to continue based on the expanding consumer preference for tangerines/mandarins in the United States and continued duty-free market access under AGOA.

Local consumption of tangerines/mandarins is much smaller than oranges as the industry prioritizes export markets and mostly supplies surplus fruit to the local market. The increased use of pest management netting has yielded higher quality produce and has reduced the percentage of fruit that is considered surplus. However, some high-end retail chains sell export-grade citrus to domestic consumers. Therefore, local consumption of tangerines/mandarins is estimated to grow marginally to 48,000 tons in 2022/23.

Private sector urged to “own and drive” Africa’s continental trade agreement



United Nations Economic Commission for Africa

The private sector is recognized as an indispensable stakeholder in the African Continental Free Trade Agreement (AfCFTA), especially given its ability to catalyze sustainable economic development and job creation.

“Africa’s private sector accounts for 80 percent of total production, two-thirds of investment, and three-quarters of credit, and employs 90 percent of the working-age population,” said Stephen Karingi, Director of Regional Integration and Trade at the Economic Commission for Africa (ECA).

Speaking during the opening of a three-day Africa Prosperity Dialogues on 26 January in Ghana, Mr Karingi called on captains of trade and industry to “own and drive the implementation of the AfCFTA by supporting their governments but also by holding them to account.”

ECA estimates that by 2045 intra-African, trade in agri-food, industry, and services sectors will increase by nearly 35% compared to a situation without the AfCFTA. But governments must implement the Agreement “fully and effectively” for such impressive projections to come true, and the

private sector must also seize the opportunities of a large single market created by the AfCFTA.

The role of the private sector was also echoed by the chairperson of the African Prosperity Network, Gabby Otchere-Darko, who stated “we (the private sector) should make the fulfillment of the promises of the AfCFTA “our agenda.”

The event was officially opened by Ghana’s Vice President, Mahamudu Bawumia, who pointed out that “we have everything we need to transform Africa into a global powerhouse of the future,” adding “the AfCFTA has set the stage for Africa’s industrialization.”

UN Assistant Secretary-General and Director of UNDP’s Regional Bureau for Africa, Ahunna Eziakonwa, said “it is through the AfCFTA that we will industrialize” and create rather than “export African jobs”

“An Africa that produces its people’s needs is not just the Africa we want, it is the Africa we need,” Ms Eziakonwa said.

Mr Karingin noted, however, that the African private sector of which 90 percent are small and medium

enterprises face challenges in conducting cross-border trade due to non-tariff barriers such as complex customs procedures, lack of access to finance, high costs of transportation and logistics, and lack of access to information, among others.

He cited inadequate infrastructure connectivity, rudimentary productive capacity, and risky or expensive payment systems as some of the barriers to trade, adding “the cost of doing business across African borders remains high, leading to the regrettable situation where African products are uncompetitive in African markets.”

Africa’s weak productive capacity and consequent excessive reliance on imports for essential products expose the continent to external shocks such as the COVID-19 pandemic and the Russia-Ukraine war.

“When Covid struck, African countries were confronted with a lack of access to basic medical supplies because Africa imports over 90 percent of its supplies. When the Russia-Ukraine crisis dawned, several African countries faced a crisis of food security because wheat and corn exports from Russia and Ukraine were suspended,” Mr. Karingi said.

The AfCFTA is expected to integrate and consolidate Africa into a single USD 2.7 trillion market by eliminating many of the barriers to trade present across the Continent. It provides the platform for Africa to diversify its economy and achieve resilience to natural and manmade shocks, including climate change.

Wamkele Mene, Secretary General of the AfCFTA Secretariat, posited that the ambition to integrate Africa dates back to the founding of the Organisation for African Unity (now the African Union). But the challenge now, he noted, is to “transform such ambition into action,” citing vaccine manufacturing in some African countries as one of the ways in which the continent is moving from ambition to action under the AfCFTA.

The maiden Africa Prosperity Dialogues is organized by the Africa Prosperity Network in collaboration with the ECA, the AfCFTA Secretariat, and the Government of Ghana

Mr Karingi reassured participants that “ECA has been there from the beginning; ECA will be there to the end. Africa is ready to turn the promises of the AfCFTA to reality, and ECA will be there all the way.”

South Africa's power cuts leave fruit farmers in despair



Too little water during the irrigation peak, from end of November to mid-March, affects the size and quality of a wide variety of apple and pear cultivars

CERES - On the cusp of harvesting this season's first fruit, South African deciduous farmer Heinie du Toit frets as the worst power cuts on record threaten to take the shine off his apple and pear crop destined for foreign markets.

Situated in Ceres, one of the country's major fruit growing regions around 120km (75 miles) north east of Cape Town, the century-old family farm "Remhoogte" needs a steady electricity supply for an automated irrigation pump network that sprays thousands of trees heavy with fruit.

Too little water during the irrigation peak, from end of November to mid-March, affects the size and quality of a wide variety of apple and pear cultivars, hitting produce and revenue as only premier grades are shipped to the European Union, UK, China and the Middle East.

"The trees have a certain need for water and if they don't get that water it's going to affect the quality negatively and then you can't export

the fruit," Du Toit said.

A 10% reduction in exports from the farm may result in some 7.5 million rand (\$435,600) lost revenue, Du Toit said, with lower grades destined for the domestic market and juice processors.

Daily power outages, which utility Eskom anticipates would continue for two more years at least, have hammered economic growth, fuelling widespread discontent among businesses and households.

"Many farmers said this is their last chance and if something doesn't happen very quickly they are going to sell their farms ... It is a huge concern," Du Toit said as the steady throb of a diesel generator kicked in.

The fruit industry wasn't the only one feeling the squeeze.

Roughly 20% of maize, 15% of soybeans, 34% of sugarcane and nearly half of South Africa's wheat production was under irrigation, said Wandile Sihlobo, chief economist at the Agricultural Business Chamber of South Africa, adding farmers had raised concerns about power cuts hitting output.

"IMPOSSIBLE TO FARM"

Cape Town vegetable farmer Carl Gorgens has given up on about half of his farming area because he cannot irrigate as frequently as needed.

"It's impossible to farm like this, to farm half the amount of seedlings in a season, when you're supplying supermarkets. I might as well stop and close the doors," said Gorgens.

Power outages are the latest setback following a drought, the COVID-19 pandemic, bottlenecks at ports and higher commodity prices, such as fuel and fertilizer, due to the Russia-Ukraine war, Du Toit said.

At the Bella Frutta fruit exporters' packaging warehouse in Ceres, two massive diesel generators help keep conveyor belts moving and cold storage units at -1.5 degrees Celsius.

Earlier in January, the pack house burnt through 5,000 litres of diesel in just under three days to keep operations running.

"We struggle to keep a constant cooling supply to our cold rooms," said Fransu Viljoen, engineering manager at Bella Frutta, adding it was frustrating to get up before the crack of dawn to reset the generators.



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LOGISTICS



AfCFTA to Boost Intra-Africa, Enhance Livelihoods



The Caretaker Minister of Trade and Industry, Samuel A. Jinapor, has called on Ghana's private sector and Africans in general to own the African Continental Free Trade Agreement (AfCFTA) Agenda to boost intra-Africa trade and enhance livelihoods.

He explained that, ownership of the Agenda would enable the private sector to drive AfCFTA in achieving a single market for Africa while also enabling private businesses to expand their markets, and venture into new territories which were previously inaccessible to them.

He therefore, called on all stakeholders in the sector to work with the government in the full implementation of the AfCFTA and support the realisation of the African Union's Agenda 2063.

Mr Jinapor was speaking at Adukrom in the Eastern Region on January 27 during the closing of a two-day business and policy dialogue, dubbed "The Kwahu Summit on Africa's Prosperity."

Organised by the African Prosperity Network (APN) in collaboration with the Presidency and the AfCFTA Secretariat, the event was on the theme "AfCFTA: From Ambition to Action, Delivering Prosperity through Continental Trade."

The two day event brought together Ministers of State, Members of Parliament, Representatives of Regional Economic Communities, Business Executives and Associates, Technocrats, Women and Young Entrepreneurs and Civil Society Organisations (CSOs) to dialogue and proffer actionable solutions to boost Intra-African trade and Africa's prosperity within the context of the African Union's Agenda 2063.

Through public-private and multi-sectorial engagements, the Acting Minister said, Africa could unblock the bottlenecks that hamper the full realisation of the single market agenda.

This, he noted, would require that Ministers, policymakers, government representatives, and representatives of regional economic communities, work with the private sector to develop the requisite institutional and logistical frameworks for the private sector to thrive.

Mr Jinapor, who is also the substantive Minister of Lands and Natural Resources, stated that the government places a lot of premium on the AfCFTA and it was the fulcrum around which most of Ghana's trade policies revolve.

To this end, he said, a number of initiatives aimed at promoting the AfCFTA, including the establishment of the National AfCFTA Coordination Office, the development and

implementation of a comprehensive National Policy and Action Plan for AfCFTA, and the implementation of an AfCFTA Facilitation Programme aimed at promoting local companies to produce and export to the AfCFTA market, have been undertaken.

Secretary-General of the AfCFTA Secretariat, Wamkele Mene, said, it was critical that Africans pursued developments that reflect the interest of the continent and drive prosperity.

Such interest, including the AfCFTA, should be defined by actions which brings about positives changes to the lives of Africans.

He urged member countries to work together in tackling challenges that impedes development efforts.

"As Africans, we have one history. It is necessary to create the African development narrative that reflect the interest of our continent.

We should drive the narrative and define it based on actions as taken by Africans to further development.

Let us be energised to tackle the challenges of our continent," Mr Mene added.

Dr Eugene Owusu, Director of APN urged African leaders to help build prosperity mentality to be able to exploits available resources to promote the continent's growth.

Two Foreign Firms Ink MoU On Ports Logistics



AS the government continues to improve investment and trade environment in the country, two major foreign firms have signed a Memorandum of Understanding (MoU) for the implementation of strategic joint investments on ports logistics in Tanzania.

The two companies are Abu Dhabi-based Ports and AD Ports Group and India's Private Ports and Logistics Company, Adani Ports and Special Economic Zone (APSEZ).

The deal will see investments in end-to-end logistics infrastructure and solutions, such as rail, maritime services, ports operations, digital services, an industrial zone and the establishment of maritime academies in Tanzania.

The partnership with Adani comes hot on the heels of AD Ports' link up with Hong Kong operator and one of the leading port investors, Hutchison Ports, to identify joint investment and business opportunities, with an initial focus on operating within Tanzania, including the country's principal Dar es Salaam Port.

"This MoU with Adani Ports and SEZ is significant in its impact on both Tanzania's ability to transform itself into an African trading hub, as well as our ability to further develop our global capabilities and connections that will bring goods to market faster and more efficiently.

"Our strategic investment in Tanzania in infrastructure and solutions will enable international companies to enter African markets," said Captain Mohamed Juma Al Shamisi, The AD Ports Managing Director and Chief Executive Officer.

AD Ports' venture in Tanzania is part of the United Arab Emirates (UAE) government's strategy to position Abu Dhabi as a global leader in logistics and industry and will enable international companies to enter African markets.

"The agreement is significant in its impact on both Tanzania's ability to transform itself into an African trading hub, as well as our ability to further develop our global capabilities and connections that will bring goods to market faster and more efficiently", Mr Al Shamisi said.

Tanzania's freight sub-sectors are expected to post 'healthy' growth rates in the short to medium term, with total trade growth projected to expand by more than 10 per cent in 2022 as the easing of Covid-19 restrictions encourages consumer spending on imports.

Stronger global economic growth would also increase demand for Tanzania's exports. Cargo over rail, road and ports are all expected to improve in the long term, as Dodoma continues to invest in turning Tanzania into an international logistics hub for East Africa.

"The agreement between AD Ports and Adani Ports is expected to improve and bring about positive change in communities, standing by our commitment to growth with goodness", said Karan Adani, the Adani Ports CEO.

"We continue to support local employment, as well as general economic growth in Tanzania and East African countries that will benefit from our investments through the collaboration with AD Ports Group," he said.

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MINING



Flameproof switchgear for enhanced safety and system protection

Becker Mining's compact flameproof KE 1008 1.1 kV switchgear units comprise power bus technology and plug connections, that ensure a high level of operator safety and system protection.

Becker Mining South Africa's Energy Distribution division manufactures customised switchgear, designed for the efficient distribution of electrical power, energy co-generation, rectification and traction.

"These systems are certified for safe and dependable use in hazardous and non-hazardous applications in surface and underground mining, as well as chemical and petrochemical plants," says Nico de Lange, Vice President: Operations & Systems, Becker Mining South Africa. "Becker's compact flameproof KE 1008 1.1 kV switchgear units, which are imported from Germany and adapted to customer requirements, comprise power bus technology and plug connections, that ensure a high level of operator safety and system protection.

"Modular KE 1008 switchgear units are fitted with integrated and adjustable monitoring and control functions, for easy programming, dependable operation and low maintenance requirements."

KE1008 switchgear units have seven module slots, one earth leakage monitor and a lighting module. Parameters for the slide-in modules can be set at the closed compact station during operation, or via various field bus systems.

Notable characteristics of this system include Modbus and Profibus communication, temperature and power factor monitoring, maximum voltage recording, kilowatt hour monitoring, an operational hour meter and individual phase current and voltage display. Machine selection with



pre-set safety settings, is available for ease of operation.

Safety protections comprise short circuit, loss of vacuum, earth leakage, earth fault lock out and pilot relay. Added to this are over and under current, thermal curve, over and under voltage, loss of phase and phase unbalance occurrences protections. For enhanced safety, this unit has an interlocking system and can only be powered up on closing of the main door. All external electronics are rated as intrinsically safe (IS).

Other features of this system include modular mounting on a skid or trailer and a quick opening door that cannot be opened until all slide-in modules of a housing have been disconnected. This compact station has separate compartments for a contactor unit, the display and relay module.

KE1008 switchgear also comprises Becker's HPC 450 V5 contactor unit, which is a 1.1 kV unit rated to 450 Amp, with IECEX certification. These contactor modules are fitted with fully integrated electronics for control, monitoring and protection functions and comprise proven technology that has been successfully used in the global mining sector for over 20 years.

HPC contactor modules have been designed for the easy exchange of pin adaptors for various applications,

without the need for disassembly. For added safety, sliding guides into contact points can only engage on initiation of the switching handle.

These contactor units have a high breaking capacity of 22 kA for 1 kV. A motorised phase reversing switch allows the direction of rotation on the outgoing circuit to be changed within five seconds. Individual items can be reversed, without affecting other outlets.

KE 1008 switchgear also comprises a TU6 lighting module, which encompasses a dry type single phase 4.1 kVA transformer. This unit, with a 50/60 Hz mains frequency, has a primary voltage up to 1.1 kV (6.6 kV is available and secondary voltages of 1 x 230V (or 110V) – 10 Amp or 1 x 230 V (or 110V) – 6 Amp. Safety features include integrated 30 mA earth leakage and overload protection.

Apart from switchgear, Becker Mining's Energy Distribution division also manufactures transformers, conveyor control systems, electrical panels, motor protection systems and a range of flameproof and non-flameproof products. With a focus on supplying solutions to meet specific end-user requirements, Becker has developed transformer and switchgear combinations. These systems have been well received by many sectors, mainly the mining industry.

BMG's heavy-duty mechanical face seals offer dependable performance in agriculture



Applications for BMG's Trelleborg mechanical face (torric) seals include agricultural machinery, for example tractors, planters and harvesting equipment.

Trelleborg mechanical face seals offer optimum protection to equipment exposed to abrasives and corrosion, thereby enhancing performance, reducing downtime and extending service life of the system

BMG's extensive range of seals and gaskets comprises Trelleborg mechanical face (torric) seals, that have been engineered for rotating applications in arduous conditions in many industries.

"Trelleborg mechanical face seals are designed to withstand excessive wear and to prevent the ingress of harsh and abrasive external media in harsh environments. This robust sealing system offers optimum protection to equipment exposed to contamination and corrosion, thereby enhancing performance, reducing downtime and extending service life," explains Michael Bissett, Operations Manager, BMG's Seals and Gaskets division. "Applications for mechanical face seals include agricultural machinery, for example tractors, planters and harvesting equipment. In construction,

these specialised seals enhance performance of road milling machines, concrete mixers, concrete pumps and dump trucks.

"Mechanical face seals are also proven for high-performance in gearboxes, wind driven power stations and other applications with similar conditions, or where maintenance-free lifetime sealing is essential. Other applications for mechanical face seals are in heavy-duty mining equipment, including draglines, wheel loaders, shuttle cars, bucket wheels and haulage trucks.

"BMG specialists offer customers a solutions-based service, which encompasses technical consultation to ensure trouble-free operation of seals. Most premature seal failures occur as a result of incorrect installation and improper handling or storage. To ensure optimum performance and extended service life, the correct installation method, using appropriate tools and careful handling and storage of seals is critical. Failure to install the correct sealing system, or incorrect fitment that results in a leaking seal, is highly dangerous, particularly in extreme conditions."

Two different types of Trelleborg mechanical face seals are available from BMG. Type DO, which is the most common form, uses an O-ring

as a secondary sealing element, while Type DF has an elastomer portion, with a diamond-shaped cross-section as a secondary sealing element, that replaces the O-ring.

Both types consist of two identical metal seal rings that are mounted in two separate housings, face-to-face on a lapped seal face. The metal rings are centred within their housings by an elastomer element. One half of the mechanical face seal remains static in the housing while the other half rotates with its counter face.

BMG's extensive range of quality branded sealing products also includes rotary shaft, hydraulic and pneumatic seals, as well as allied products like O-rings, waved washers, circlips, mechanical seals, gland packing and adhesives.

The company's commitment to providing high quality seals is evident in the extreme care taken in brand selection, in terms of standardisation, reliability, flexibility and consistent quality controls. These sealing products meet the demands of the OEM and end user for efficient performance from equipment that needs to work harder and for longer periods, as productivity levels increase.



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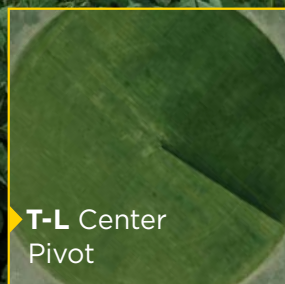
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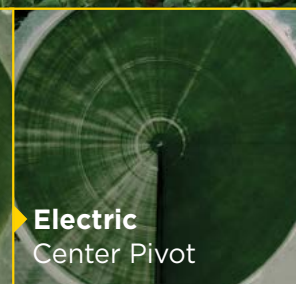
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AFEX Expands Operations To Uganda, Appoints Group CEO and Presidents

Africa's leading commodities exchange to begin operations in Uganda, building on its success in Nigeria and Kenya, with new roles for senior partners positioning the company as a truly pan-African firm.

Lagos, Nigeria | 23rd January, 2023: AFEX, Africa's leading commodities exchange and commodities market player, has announced its expansion into Uganda, seven months after it first entered the East African continent. Similar to Kenya and Nigeria, farmers in Uganda will benefit from AFEX's revolutionary tech-enabled services for agricultural producers. In its first year of operations, AFEX Uganda aims to reach 10,000 farmers and aggregate 15,000 metric tons of commodities, while extending its aggregation, storage, and financial inclusion services to Ugandan farmers and processors.

Continuing its pan-African expansion plans, AFEX will be implementing its scalable model that combines advanced technology and infrastructure with a unique understanding of Africa's food systems and local markets to replicate its successes in Nigeria and Kenya to Uganda. Working closely with local and international partners, the operation will focus on maize, sorghum, soybeans, barley, and coffee, with maize being the initial priority.

According to the International Trade Administration, Uganda is lacking the necessary infrastructure in storage, credit, and access to markets to sustain food production. To begin tackling these issues, AFEX Uganda has established warehouses in Bulambuli and Kapchorwa districts in Eastern Uganda, and in the Lira district of Northern Uganda. Under the leadership of Abdul-Hafeez Odusanya, Managing Director, AFEX Uganda, AFEX will be introducing its range of solutions including its technology platform, WorkBench, to enable farmers to participate in market opportunities and scale their operations.

Starting with a network of over 1500 farmers, AFEX Uganda will be addressing the following problems:

Reducing post-harvest losses by providing storage facilities

Providing access to loans for farmers to purchase quality farming inputs including agrochemicals, fertiliser, and seedlings

Provision of advisory and extension services to tackle poor agricultural practices and post-harvest handling practices.

Access to markets for smallholder farmers, with transparent prices

High quality and traceable supply of food and feed grade commodities to processors

Abdul-Hafeez Odusanya, Managing Director, AFEX Uganda expressed excitement about the new opportunity: "I'm thrilled to be leading the next stage of growth for AFEX in East Africa and eager to see how Uganda's success contributes to AFEX's portfolio of innovative food system interventions. I'm confident AFEX Uganda will contribute massively to building an inclusive and efficient market system, giving Ugandan farmers the support and infrastructure they need to improve efficiency and access bigger markets," he revealed.

Often referred to as Africa's 'bread basket,' Uganda has one of the most dynamic commodities markets in Africa with a significant potential for growth, and a positive government interest in commercialising agriculture through collaboration with private sector players. In the first quarter of 2022, agriculture accounted for 24% of the country's GDP. In addition, the government has ratified the African

Continental Free Trade Area (AfCFTA) and the East African Community Customs Union which provides access to the international market.

Since inception, AFEX's focus has been to establish a strong foothold across Africa, and AFEX Uganda is the latest in a series of planned expansion to 10 African countries over the next 5 years. In restructuring for the future and to provide efficiency and focus on the regions, AFEX has announced new appointments and internal promotions among its leadership.

Appointed in October 2022, Sanne Steemers is now President, Rest of Africa, overseeing the expansion across the continent; Akinyinka David Akintunde (previously Chief Operating Officer) has become President, AFEX Nigeria, responsible for all operations in the West African country; and CEO Ayodeji Balogun has been appointed Group CEO, heading all entities globally.

Speaking of her new responsibilities, Sanne Steemers said: "With twenty years' experience working at the intersection of global supply chains, finance and agricultural commodities, I'm very excited to be joining AFEX as we expand into yet another market, and look forward to driving the expansion across the rest of Africa. In just a few years, AFEX has achieved exemplary success in Nigeria and Kenya, I'm looking forward to adapting these winning strategies, services and approach to service farmers, processors and partners in Uganda and beyond."



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HEAVY DUTY EXTENSION



Africa set to be next global technology hub, say experts



It's no secret that technology across Africa is burgeoning at unprecedented rates. Homegrown innovations that speak to socio-economic bottlenecks are plenty due to increased access to resources, training and development, and investment.

This can largely be attributed in part to the growing number of "technology hubs" being established on the continent that are fostering innovation for start-ups and helping to bridge the gap to a more developed and economically sustainable continent.

According to the World Economic Forum (WEF), 92% of Africa's investment in technology is won by Nigeria, Egypt, Kenya, and South Africa, which account for a third of the continent's start-up incubators and accelerators.

While these four regions lead the way in terms of technology hubs, regions such as Zanzibar, Tanzania, through its new initiative 'Silicon Zanzibar' are joining the race to attract and relocate technology companies and workers from across Africa and beyond to the island.

The continent has a long way to go if it is to reach the record figures raised by US start-ups. As we continue to bear witness to the continued rise of innovative solutions from the continent, here's what an increase in local tech hubs could mean for industries and what to take into consideration:

Increased partnerships and collaboration

Africa has been at the forefront of world-class innovation for a long time, especially when it comes to homegrown technology solutions that speak to and solve socio economic problems in communities across the continent.

Countries such as Kenya and Nigeria have been at the forefront, but the likes of Tanzania, Uganda and Ghana are establishing intentional tech ecosystems that foster entrepreneurship and skills development, which will open up endless possibilities, particularly for fintech, an industry that is rapidly growing, evolving and one that has often relied on foreign investment.

"At MFS Africa, we have always believed that the only currency is access, and while we continue to, through our own efforts, create, advocate for, and partner to enable borderless transactions across the continent, the growing 'tech hub' culture in Africa will in the long run allow us to identify talent and collaborate with and partner with more start-ups.

"It also has the potential to increase dialogue with governments in regions like Tanzania, where we have partners, as we continue to transform the lives and realities of Africa and the diaspora," says Cynthia Ponera, regional sales director for East Africa at MFS Africa, a leading digital payments

hub in Africa that works continuously with trusted global partners across Africa to connect African consumers to each other and to the global digital economy.

Climatetech: Matthew Cruise is the head of business intelligence at Hohm Energy. Photo: Supplied/Ventureburn

Sufficient power for the necessary infrastructure

"When we talk about Africa's quest to be a global technology hub we need to ensure that we're also considering the tech needed to power the foundational infrastructure that supports this ambition," says Matthew Cruise, head of business intelligence at Hohm Energy.

According to the United Nations, some 570 million people in Africa have no access to electricity, which drastically hampers socio-economic development or poverty alleviation for those without this basic human right.

Renewable energy in the form of solar energy is the most viable option for addressing this challenge, as the continent holds some of the highest solar radiation numbers in the world.

The inability of Eskom to meet the energy needs of Africa's most industrialised country is widely known. But surprisingly, South Africa's energy crisis has created opportunities for companies and investors to meet the demand for renewable energy alternatives.

We are seeing considerable innovation in solar solutions locally and throughout Africa for addressing power outages, and many of these will be replicated in Europe and other first-world countries as they too start to grapple with rising fuel costs and power outages.

As the technology to harness this renewable resource becomes both more sophisticated and more cost effective, government and business alike need to embrace this as the solution to one of the continent's most fundamental infrastructure challenges.

Attracting more investment through unique solutions



Tony Mallam, managing director of bitcoin micro-saving and investing fintech platform, upnup advises that “entrepreneurs wanting to leverage the potential opportunities of a global Africa tech hub wave should think about building solutions that are unique to Africa, such as the huge unbanked and the “Know Your Customer” KYC’ed population, estimated to be at least 57% of the continent’s population.

“The opportunity provided by Africa’s high mobile internet penetration will allow investors to leapfrog last generation infrastructure into cutting-edge solutions. Governments would need to support this opportunity by providing the right infrastructure, a safe regulatory environment, minimal red tape and tax incentives,” explains Mallam.

Training, developing and upskilling will be crucial

Building the continent’s tech and digital capability needs to run parallel with skill development. The World Bank estimates that by 2050, half of Africa’s population of 1 billion people will be under the age of 25, suggesting that the workforce of the future is based here. But in order to effectively harness the potential of this workforce, we need to ensure we’re training, developing, and upskilling people in a relevant and sustainable way.

Salesforce’s Authorised Training Partner and Workforce Development Partners in South Africa are committed to bringing fit-for-purpose skills into the

ecosystem to meet the demands of the future workplace and to also ensure we’re leveraging technology for the greater good. And partnerships are central to reaching these objectives.

“Indeed, if Africa is to realise its ambitions of being a global tech hub, it is imperative that all the various stakeholders—government, business, civic organisations and educational institutions – work collaboratively. At Salesforce, we believe business is a platform for change and thus has a central role to play in Africa’s tech future” says Zuko Mdwaba, country leader and area vice president for Salesforce South Africa.

Access is key and healthtech is central to that

It is imperative that any reference to tech on the continent makes special mention of health tech, where the room for growth is exponential. In fact, the African healthcare market is expected to be worth \$259 billion by 2030, pointing to an opportunity that cannot be ignored.

“Three thoughts come to mind of how healthtech can significantly impact the continent’s different markets for the better: It can provide access to cheaper healthcare, provide access to healthcare in your pocket (such as telehealth), and technology can play a role in bridging the skills gap and helping medical practitioners do more with less resources,” says Bongani Sithole, CEO of Founders Factory Africa.

He adds that based on their own experience at Founders Factory Africa,

these are problems healthtech can solve, with its ability to improve the lives of users.

“In our portfolio alone, Viebeg is enabling hospitals to order medical equipment without paying for it upfront. Neopenda has developed a product – the neoGuard – that is a clinical vital signs monitor for infants and other patients in resource-constrained areas. Healthtech can be successful, especially when innovation is applied in ways that solve pain points of health users on a daily basis.”

Improved connectivity will improve competition in business

Africa’s internet penetration is currently half the global average of 62.5%. This affects not only consumers but also small businesses across the continent.

This, along with findings that revealed that South Africa saw a 66% growth in e-commerce in 2020 indicates that in order to compete and even scale, SMEs need affordable access to the internet. Currently, SMEs that have limited or no access to the internet are stunted in their ability to increase market share and reach new audiences.

Head of marketing and communication at online booking platform Jurni, Tshepo Matlou, says, “With more tech hubs in Africa, will automatically come increased connectivity. This will in turn lead to more SMEs being able to embrace and leverage online opportunities ultimately allowing them to hold their own in a competitive market.”

South Africa and the DRC deepen science, technology and innovation partnership



South Africa and the Democratic Republic of Congo (DRC) will work towards the establishment of collaborative scientific and technological projects and programmes, jointly implemented by relevant experts from the two countries, with the aim of mutual socio-economic development.

The collaboration follows the signing of a memorandum of understanding (MoU) on the side-lines of the World Science Forum, which was held in Cape Town in December 2022.

The South African Minister of Higher Education, Science and Innovation, Dr Blade Nzimande, and the DRC's Minister of Scientific Research and Technological Innovation, Maître José Mpanda Kabangu, signed an

agreement to develop and deepen scientific, technological and innovation relations.

The relationship between the two countries dates back to the support that the DRC provided in the fight against apartheid.

During the signing ceremony, Minister Nzimande said that investing in science, technology and innovation (STI) is the key to transforming the continent's socio-economic conditions. Africa has a population of approximately 1,3 billion, which is expected to grow to 2,5 billion by 2050. However, it only contributes 2% of global research output, accounting for 1,5% to 3% of research spending and 0,1% of global patents.

Minister Nzimande said that a lack of investment in STI had hampered Africa's transformation and that, without the necessary infrastructure for innovation, Africa would "continue to rely on the colonial developed model of resource extraction, which has been found to be the main contributor to debilitating poverty and aid dependency". He sees the signing of the MoU as a move away from that model.

The Minister indicated that the strategic areas of interest in the joint plan of action – agriculture, mining and geosciences, renewable energy, water, intellectual property management, technology innovation, high-performance computing, and space science and technology – would

help to fast-track socio-economic development in both countries.

Agriculture accounts for an estimated 24% of Africa's GDP. However, Africa has the potential to triple its production with the right investment in agricultural research, development and innovation (RDI).

Minister Nzimande said that investment in agricultural RDI would result in greater yield and land expansion, improved post-harvest processes, and increased trade in agricultural commodities.

"It does not make sense for us to rely on European countries like Russia for simple agricultural commodities such as grains," he said.

In relation to mining and geosciences, bilateral cooperation between the two resource-rich countries could include not only geological mapping and mineral beneficiation programmes – carried out by institutions such as South Africa's Mintek – but also initiatives to empower Africans to determine the value of their resources.

At the signing ceremony, Minister Kabangu said, "I remain convinced that this type of win-win partnership, the practical terms and activities of which will be defined through periodic action

plans, will result in fruitful exchanges between Congolese and South African researchers, as well as twinning between Congolese and South African research institutions."

He expects high-yielding activities in these research institutions, as well as research projects with visible effects on the long-term development of the two countries.

Minister Nzimande noted that the partnership could help to solve the continent's energy crisis, given the potential of the DRC's Inga Dam and South Africa's investment in hydrogen technologies as part of its renewable energy programme.

Although the two countries had identified infrastructure, technology and human capital as the most important areas for health cooperation, a bilateral programme could focus on strengthening the capacity of health institutions, particularly public health institutions.

Minister Nzimande highlighted the value of cooperation in space science and technology as, among other benefits, it would assist in detecting threats and providing technological solutions that would strengthen military and defence systems, fostering peace and security in African countries.

Intellectual property management, high-performance computing and technological innovation are three cross-cutting areas that will play a critical role in socio-economic transformation. For example, managing the intellectual property rights of innovations developed by Africans would secure ownership and facilitate commercialisation and the development of industry.

Minister Nzimande welcomed the fact that the Centre for High-Performance Computing (CHPC), one of the primary pillars of the National Integrated Cyberinfrastructure System and supported by South Africa's Department of Science and Innovation, will provide technical training to the DRC. This will help build the DRC's capacity to manage research big research data and strengthen the country's national system of innovation.

Minister Nzimande said that institution-to-institution collaboration was vital for activities carried out under the MoU, and stressed that the agreement should not be seen merely as a gesture of goodwill, but as an enabler of collaborative projects and programmes in response to pressing challenges.





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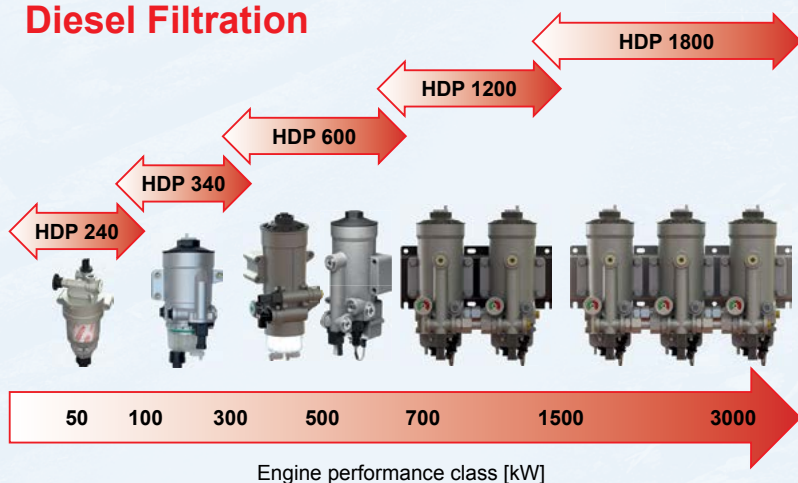
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