

China rises as powerhouse of innovation

World Economic Forum sees the mainland as 'on par or even better than' many advanced nations

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Out of 137 economies surveyed worldwide, the Chinese mainland ranked 27th in terms of overall competitiveness, while in innovation it is "on par or even better than many advanced economies", the Geneva-based World Economic Forum said on Sept 27.

The Chinese mainland was listed between South Korea and Iceland in the annual ranking based on factors contributing to productivity and prosperity, according to a report released by the forum.

The mainland ranked highest among the BRICS group of five emerging markets — Brazil, Rus-

sia, India, China and South Africa — and moved up to 27th, one place higher than in last year's assessment.

Switzerland ranked as the world's most competitive economy, narrowly ahead of the United States and Singapore. Hong Kong moved up three spots to sixth place as Japan dropped one place to ninth.

The authors of this year's report examined data back to 2007. They said that 10 years after the global financial crisis, many economies remain ill-prepared for the next wave of innovation and automation.

David Aikman, chief representative of the World Economic Forum's China operation, said on Sept 27 that the most important development in the past decade has been the main-



Sign language interpretation gloves, which help people with disabilities in hearing and speaking overcome the barrier of communication, are demonstrated at a nine-day technology exhibition that opened in Hong Kong on Sept 24.

TAN DAMING / CHINA NEWS SERVICE

land's emergence as an innovation powerhouse.

"Various indicators suggest its innovation capacity is now on par or even better than that of many advanced economies. More generally, we observe that the country's innovation ecosystem has improved significantly," Aikman said.

He also said Chinese companies

are becoming much more sophisticated and are rapidly moving up the value chain, while at the turn of the century most exporting companies were merely suppliers of basic manufactured goods.

China has made "steep progress" in innovation and in science and technology in recent years, underpinned by educational strides, said

Reinhilde Veugelers, a professor at the University of Leuven in Belgium.

Klaus Schwab, founder and executive chairman of the World Economic Forum, said: "Countries preparing for the fourth industrial revolution and simultaneously strengthening their political, economic and social systems will be the winners in the competitive race of the future."

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qualifying companies for the next stage of negotiation.

"We have previously developed the Sukulu phosphate project, so we fully understand the policies that govern various sectors in Uganda," Guo said. "We are thus confident of winning more contracts."

According to global consultancy PwC, Africa currently boasts significant quantities of untapped oil and gas, estimated at 8 percent of the world's proven reserves. The figure has increased from 5.8 percent in 1991.

From 132 billion barrels of proven oil reserves, Africa produced 9 million barrels of crude oil per day in 2011. Eighty-one percent of this came from Nigeria, Libya, Algeria, Egypt and Angola.

However, to fully tap its petroleum potential, the continent requires investment. According to the World Bank, Africa's energy and transportation needs will require \$50 billion annually over the coming years.

Against that backdrop, governments are wooing China to increase its investment.

Ernest Rubondo, executive director of the Petroleum Authority of Uganda, said the country's oil and gas sector is expected to attract investment worth \$14 billion, with the majority being directed toward infrastructure development.



The Kingfisher field, from which CNOOC is licensed to extract oil.

"Chinese investors are welcome to participate in all the investment opportunities that exist in Uganda's oil and gas sector. They can participate as capital providers or contractors," he said.

Uganda is working toward delivering its first oil in 2020, according to Rubondo.

Last year, the Nigerian National Petroleum Corp embarked on a road show in China, seeking investment to bridge the infrastructure funding gaps in the country's oil and gas sector.

During the road show, the company signed memorandums of understanding with several Chinese companies, amounting to \$80 billion.

The investments span five years and cover pipelines, refineries, gas and power, facility refurbishments and upstream financing.

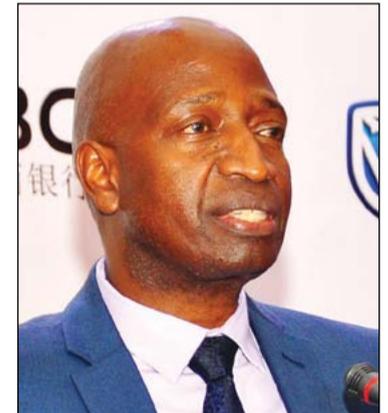
James Karama, head of the oil, gas and industrial sector at Stanbic Bank Uganda, said oil and gas is one of the unexploited sectors in Africa.

"Africa is the new frontier, so we expect to see more discoveries of oil which will be sold in the world market," he said. "We see African governments working together with Chinese capital and institutions to develop this sector."

Karama said many African governments are looking to China for support in exploration of their oil and gas reserves.



James Karama, head of the oil, gas and industrial sector at Stanbic Bank Uganda.



Ernest Rubondo, executive director of the Petroleum Authority of Uganda.

"Chinese support comes with enormous benefits. Companies set up shop in Africa, employ locals, develop local capacity and engage with the community, so African governments can't ignore them. They are basically better to work with compared with investors from other parts of the world."

Karama added that Chinese companies have a big appetite for African risk and are willing to invest in long-term projects. He said China will continue to be part of Africa's social and economic journey.

However, the challenges facing oil and gas companies operating in Africa are diverse and numerous. They include fraud, corruption, theft, poor

infrastructure and a lack of skills.

Additionally, regulatory uncertainty and delays in passing laws severely inhibit the sector's development in many countries on the continent.

According to PwC, some key players have delayed or canceled projects until further clarity can be provided in their respective jurisdictions.

Chris Bredenhann, PwC's Africa oil and gas advisory leader, said that meticulous planning is required due to the challenges of the market.

Xiao Zongwei, president of CNOOC Uganda, said that because of poor infrastructure and the fact that Uganda is a landlocked country, logistics costs constitute 30 percent of the company's investment.