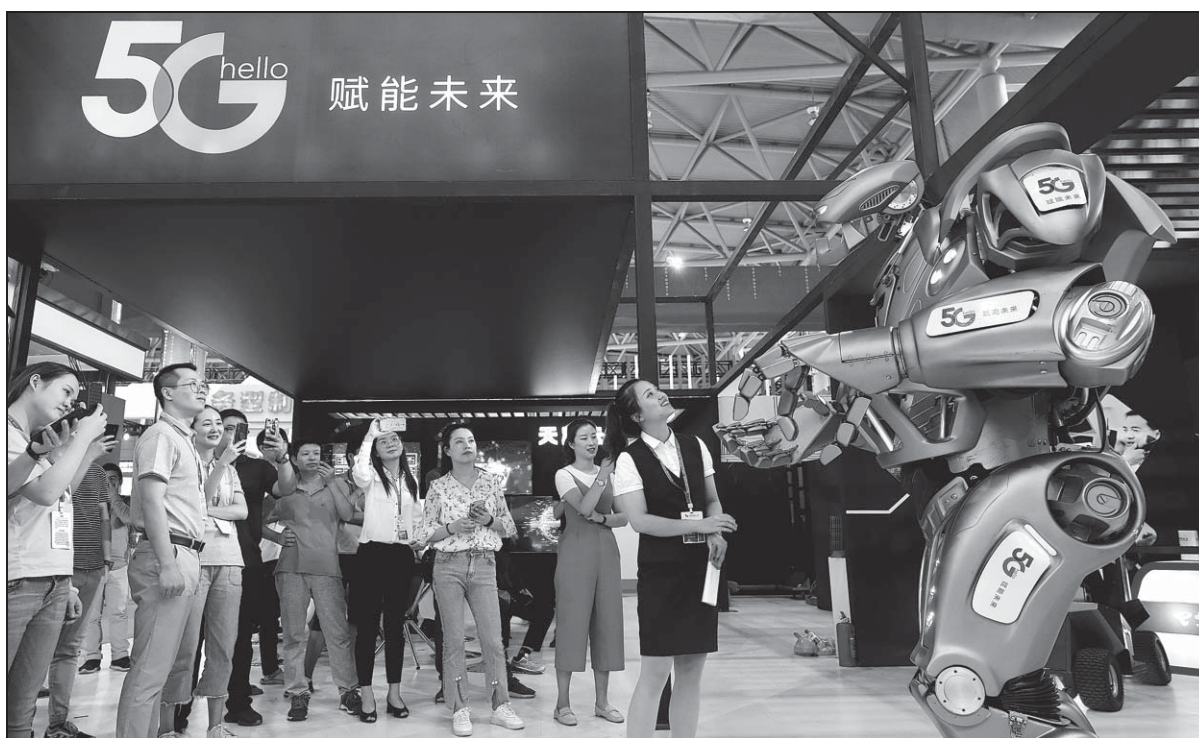


BUSINESS



Attendees interact with an artificial intelligence-powered robot that uses 5G technology during the World Manufacturing Convention in Hefei, Anhui province, in September. CHEN SANHU / FOR CHINA DAILY

China biggest global driver of deep tech investment growth

Funding increased at an annual rate of more than 80% from 2015 to 2018

By JIANG XUEQING
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A recent report has found that China is the biggest driver of deep technology investment growth globally, with funding increasing at an annual rate of more than 80 percent from 2015 to 2018.

Offering significant advances over technologies currently in use, deep technologies require substantial research and development to develop practical business or consumer applications and bring them from the lab to the market. Many of these technologies address big societal and environmental challenges and will likely shape the way people solve some of the most pressing global problems, said the research report.

It was jointly issued on Tuesday by Boston Consulting Group, a global management consultancy, and Hello Tomorrow, a global organization dedicated to leveraging deep technologies to help solve world challenges.

The analysis is based on 8,682 deep tech companies related to 16 technologies across seven categories, namely advanced materials, artificial intelligence, biotechnology, blockchain, drones and robotics, photonics and electronics, and quantum computing. Among the total, 4,198 deep tech companies are located in

the United States, followed by 746 in China.

The aggregate annual global private investment in these deep tech categories reached \$17.89 billion last year, up by 22 percent each year since 2015. From 2015 to 2018, the US and China landed about 81 percent of global private investment in deep tech companies, with approximately \$32.8 billion and \$14.6 billion invested in each country respectively, according to the report.

Xu Qin, a partner and managing director of BCG, said the rapid growth of deep tech companies in China is closely related to government support.

According to data compiled by The Economist, China's spending on R&D on a purchasing-power-parity basis has risen by about 400 percent over the past two decades to exceed \$400 billion a year.

From 2016 to 2018, the most robust deep tech investment areas in China were photonics and electronics, artificial intelligence and blockchain, with total public and private investments hitting \$32 billion, \$31.15 billion and \$25.65 billion respectively.

Among the seven deep tech categories studied by the report, artificial intelligence took the lead in breeding the largest number of unicorns, privately held startup compa-



Jeff Walters, managing director and senior partner of Boston Consulting Group

nies valued at over \$1 billion, in China. The number was 12 last year, followed by eight deep tech unicorns in the field of biotechnology and three in the field of blockchain.

Earlier this month, the US Department of Commerce added eight Chinese technology companies to its "entity list", which restricts their access to US technology exports, with a notable focus on companies that specialize in artificial intelligence, machine learning and digital surveillance.

Jeff Walters, managing director and senior partner of Boston Consulting Group, said some of the political challenges will probably reduce the market opportunity to be addressed for some companies, but the opportunity is so large that he would expect many investors still find a reason to invest in Chinese deep tech companies.

"What has increased most is uncertainty around what the risk is going to be... It's difficult to predict what the sentiment will be in six months or two years. Is this something that investors will take into consideration? Absolutely," he said. "But at the same time, China has

so many large, traditional companies and industries that need these technologies to be built in order to prepare for the next 10-20 years. They need a lot more than what's being provided right now. So that demand side is still really strong, but it's much more complicated if you think in a global context."

Walters criticized the idea that there could be a Chinese ecosystem and a Western ecosystem, and they would be separated. On the contrary, a typical scenario is that a technology company in France has a customer in China and buys components from a company in the US.

"That's the way so many companies have been built today with this global interconnectedness of customers and suppliers. Trying to separate the ecosystems is basically not good for anybody because you will be losing suppliers, customers or a combination of both," he said.

"If countries try to create walls for technology, it will slow down the international growth of deep tech," he added.

Focusing on helping companies transform themselves, BCG is currently seeing its digital teams growing at triple-digit rates annually. A large percentage of the projects it works on now have a digital component to them.

The firm will open its DigitalBCG Immersion Center in Shenzhen, Guangdong province, in December, to help CEOs understand what digital transformation really means.

Kweichow Moutai sees sales revenue jump in first three quarters

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60.93 billion yuan

sales revenue of Kweichow Moutai in the first three quarters of this year

China's top alcohol brand Kweichow Moutai saw its sales revenue jump by 16.64 percent year-on-year in the first three quarters of this year, according to the company.

Its sales revenue during the period reached more than 60.93 billion yuan (\$8.6 billion), with net profit exceeding 30.45 billion yuan, up 23.13 percent year-on-year.

The company's share price reached 1,183.3 yuan on Thursday, pushing its market value to 1,486.49 billion yuan.

However, net profit growth in the third quarter reached 10 billion yuan, up 17.11 percent, which is a drop from 31.91 percent in the first quarter and 20.29 percent in the second quarter this year.

Its third quarter revenue of 22.3 billion yuan exceeded the second quarter with a growth of 13.28 percent year-on-year.

The company has conducted reforms of traditional distribution channels. The first three quarters saw a reduction of 586 domestic distributors out of its total of 2,401.

According to Dongxing Securities, high-end liquor will continue to see strong momentum and has potential to expand.

He Qi, an analyst from Huatai Securities also holds a positive opinion on the company's performance and further growth given its dual increase in volumes and prices boosted by strong demand in the festival season this autumn.

Kweichow Moutai's recent strategy to fuel its direct distribution to major retailers and to its commerce platforms has given the company more say in pricing.

The company's plan is to supply 1,500 metric tons a year to its directly operated stores. Among them, Wumart, China Resources and RT-Mart had quotas of 600 tons in total in June. In September,

e-commerce players including Tmall and Suning received 400 tons.

However, its direct distribution channels have not yet met expectations, as the first three quarters saw direct sales channel revenue reach 3.1 billion yuan, down 767 million yuan from the same period last year. The fall in revenue from directly operated distribution channels is a result of its postponed reform in directly operated distribution channels in the first quarter.

Moutai's direct distribution channel reform was carried out by Moutai Group's marketing company, which was only founded in May this year.

The company explained that the reform of the direct distribution channels still has a long way to go to achieve high potential growth.

Yang Yongsheng from China Merchants Securities Co Ltd said there was still potential for sales to grow in the fourth quarter.

The liquor brand saw its sales revenue in the overseas market reach more than 1.9 billion yuan during the period, according to the report.

In 2018, Moutai saw its output reach about 70,200 tons, with sales revenues reaching 73.6 billion yuan and net profit 35.2 billion yuan, up 26.49 percent and 30 percent year-on-year respectively.

Distilled in the town of Maotai in Southwest China's Guizhou province, Moutai is one of the country's leading liquor brands and often served at State banquets.

Xinhua contributed to the story.



Consumers browse Kweichow Moutai products during the ninth China (Guizhou) International Alcoholic Beverages Expo in Guiyang. WU DONGJUN / FOR CHINA DAILY

Honeywell launches smart manufacturing research center in Shanghai

By ZHENG YIRAN
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US-based conglomerate Honeywell has launched its Smart Manufacturing Research Center in Shanghai, in a bid to further tap into the Chinese market by diversifying its investment and development in the country.

The research center, announced during the ongoing Honeywell Process Solutions' biannual China Technology Symposium in Xi'an, Shaanxi province, plans to issue new reports each year on smart manufacturing, use cases, applications and technology trends.

The center will also serve in an advisory role for Chinese businesses and the Chinese government, and facilitate collaborations with universities, research institutes, and nonprofit organizations to facilitate the country's high-quality development, the company said.

The first report of the research center was simultaneously launched. In response to China's "Smart Plus" initiative, the report shared perspectives about how the industrial internet of things can be leveraged to improve operation performance in the process industry.

The process industry is defined as an industry concerned with the processing of bulk resources into other products. It mainly includes basic raw material industries such as petroleum, natural gas, chemicals, metals, mining, pharmaceuticals and building materials. It is the pillar industry of the national economy and an important supporting force for China's sustained economic growth.

"The report aims to address topics like what can be considered a 'Smart Plant' in China, key success factors for smart manufacturing, and the latest technology trends, including global success stories about Honeywell's advanced software solutions," the company said in a statement.

According to the report, as early as in the 1970s, China's process industry had achieved automatic control. The next challenge of the industry will be how to move toward an intelligent era through digitization and connectivity.

"The key is to transform production and operation data to insights and knowledge of business, and improve the management level of key assets and process safety and efficiency through advanced analysis and prediction."

"The future trend of smart plants



Participants check out an intelligent manufacturing display at the Honeywell booth during the China International Industry Fair 2019 in Shanghai. LYU LIANG / FOR CHINA DAILY

will be using technologies such as cloud computing, virtualization, digital tools, data interconnection, virtual reality and advanced analysis to ensure process safety, improve operation efficiency and decision-making effectiveness," the report said.

"China's process industry is catching up to the rest of the world in terms of sustainable, high-quality

development, yet many companies don't know how to well structure the strategy to execute it," said Chen Yan, vice-president and general manager of Honeywell Process Solutions, China.

"We are honored to offer comprehensive connected solutions for Chinese companies in the process industry, supporting the long-term

development of our Chinese partners," he said.

A report from Ciscinfo, a Beijing-based industrial cloud platform provider, noted that in recent years, China's process industry has been in urgent need of new kinetic energy for industrial transformation and development. The existing manufacturing model has problems to be solved immediately, mainly including the integration and efficient regulation of capital flow, material flow, energy flow and information flow.

"This is where smart plants are needed. The smart manufacturing of the process industry can not only increase enterprise benefit and social benefit, but also improve the resource allocation and operation efficiency of the whole industry, making China ahead of other countries in the sector and enhancing the country's overall competitiveness," said the report.

Zhou Lubo, chief technology officer of a business section at Honeywell, noted that the goal of smart plants is to enhance efficiency and realize connectivity through efficient utilization of data. "China is expected to realize impressive progress of intelligentization of its manufacturing plants in five to 10 years."

Lin Zhong, director of digital technology from Wison Engineering, said that "a smart plant is similar to a smartphone, with countless numbers of enterprises, like mobile apps, offering services".

"In the future, our Smart Manufacturing Research Center will come up with more research results to offer suggestions to China's manufacturing enterprises for their high-quality and sustainable development," Chen from Honeywell said.

Apart from Honeywell, other international conglomerates are also attracted by China's growing market and looking to diversify their development in China.

During the 2018 World Artificial Intelligence Conference, Amazon Web Services announced plans to launch an AI research institute in Shanghai, aiming at tapping into AI and robot learning locally in China.

Meanwhile, Microsoft also launched its Asian research institute in Shanghai, with a goal of transforming the results of AI research into application, promoting the digital transformation and talent upgrade in China, and helping Shanghai become an AI highland of China, or even the world.