AI Facilitates Industrial Transformation

By Staff Reporters

The "Artificial Intelligence + Industry" Forum, a parallel session of the 2026 Zhongguancun Forum Annual Conference, was held in Beijing on March 27, focusing on large-scale commercial application of AI, fostering new business models and formats native to AI, deepening the development and utilization of data resources, and improving AI governance.

The forum was hosted by the Ministry of Science and Technology, and organized by *Science and Technology Daily (S&T Daily)* and the Institute of Scientific and Technical Information of China.

Wu Jing, president of *S&T Daily*, said the forum was a concrete measure to carry out the national strategic deployment to accelerate the development of next-generation AI.

Experts and entrepreneurs shared their thoughts on how AI is shaping the industrial development.

It is widely acknowledged in the sector that AI will empower the automated system of manufacturing in an all-round way, said Yu Haibin, an academician of the Chinese Academy of Engineering and a researcher at the Institute of AI for Industries, Chinese Academy of Sciences, in his keynote speech.

Yu said in complex, uncertain and dynamically changing environments, the new generation systems can autonomously perceive, make decisions and execute without human intervention. With the integration of large models and embodied AI, cyber-physical systems will possess an exceptional ability to adapt to specific objectives, heralding the advent of "super-automated factories."

At the embodied AI robot training center of Qingdao Technical College, humanoid robots demonstrate the effect of motion programming in the classroom setting. (PHOTO: XINHUA)

Such reshaping of productive forces is not only demonstrated in the underlying logic of technologies, but also in the upgrade of industrial application paradigms.

Yin Dawei, vice president of Baidu AI Cloud, said, China's AI industry is entering a new stage of large-scale development, with the shift from large models to intelligent agents emerging as the most prominent technological trend.

Baidu AI Cloud leverages its full-stack capabilities — spanning chips, cloud, models and agents — to support the evolution of intelligent agents from conversational bots to professional assistants with complex reasoning capabilities.

Yin said the maturation of this "intelligent agent infrastructure" will enable developers to rapidly build multimodal applications in scenarios such as transportation and industry, closing the loop from model services to enterprise-level services.

Liu Xin, director of Transport Planning and Research Institute, Ministry of Transport, said embodied AI is driving the evolution of transportation vehicles into autonomous agents. In the construction of smart roads and waterways, it is transforming systems from passive response into active prevention.

A platform for matching application scenarios and technology supply nationwide developed by *S&T Daily* was launched at the forum. It will serve as a bridge connecting scenario providers — such as governments, enterprises and industrial parks — with technology suppliers, including tech companies and research institutions.

It will reduce the costs associated with matching scenario demand and supply, enhance the efficiency of scenario development, and accelerate the practical application of technological achievements.

The platform will also provide specialized services for matching application scenarios in the "AI+Industry" sector.

Next-Gen Energy-saving Solutions

Policy Express

By TANG Zhexiao

Energy-saving equipment aimed at accelerating the sector's intelligent transformation, high-quality development and green upgrading has been thrust into the spotlight after an action plan by four Chinese government agencies, including the Ministry of Industry and Information Technology and the National Energy Administration, was recently issued.

As defined in the plan, energy-saving equipment refers to products and devices designed and manufactured using advanced technologies that enhance energy efficiency, and reduce energy consumption and loss, across the entire energy production and utilization process.

The plan prioritizes six specific categories of energy-saving equipment: energy-efficient motors, transformers, industrial heat pumps, industrial refrigeration and heating equipment, water electrolysis hydrogen production equipment, and information and communication equipment. Driving energy conservation and carbon reduction in key industrial sectors is set as the objective, which will adopt green design and manufacturing, equipment renewal and retrofitting, and AI empowerment as the core pathways.

By 2028, notable breakthroughs will be made in key materials and core components for energy-saving equipment, according to the plan. The compatibility and actual operational efficiency of energy-utilization systems in key industrial sectors are projected to improve continuously.

The energy efficiency levels of equipment such as motors and transformers are expected to reach internationally leading standards, while the market share of energy-saving equipment is anticipated to increase further.

The plan outlines a systematic deployment of tasks covering several key areas, such as promotion of advanced energy-saving equipment, and advancing the digital upgrading of energy-saving equipment.

It specifically calls for accelerating the R&D of new materials, components, and products — targeting higher efficiency and performance — that meet market demands and demonstrate outstanding energy-saving effects.

Accelerating the high-quality development of energy-saving equipment is a crucial measure for boosting industrial energy efficiency and achieving the goals of carbon peaking and carbon neutrality. Furthermore, it serves as a fundamental pillar for meeting the growing energy consumption demands of society as a whole, while safeguarding national energy security.

The release of this plan will drive the high-quality development of energy-saving equipment and accelerate the advancement of new industrialization.

Why Technology Trade Surges in China

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The trend is reflected in trade data. In 2025, China's intellectual property royalty exports increased by 26.3 percent, with advanced technologies in fields such as new energy, biomedicine and high-end equipment entering global industrial chains through patent licensing and international partnerships.

"We must not only pursue original innovation, but also attract global talent and research outcomes to provide high-level technological supply for China's development," said Liu Qing, director of the National Technology Innovation Center par Excellence.

The center has established 10 overseas representative offices, including in Silicon Valley, Northern Europe, Israel and the United Arab Emirates.

Liu told the forum the center has set up a proof-of-concept fund at the University of New South Wales in Australia, investing around 1.2 million Australian dollars annually to support overseas innovations with strong commercialization potential that are interested in entering the Chinese market.

Operating under the model of "discover overseas, incubate in China, and serve global markets," the initiative attracted 15 cutting-edge projects last year in areas such as new materials and flexible displays.

From passive waiting to active integration

China's technology market is also undergoing a structural shift — from passively waiting for research outcomes to actively integrating innovation resources.

Chen Dongmin, director of the industrialization committee at the Songshan Lake Materials Laboratory, explained that the proof-of-concept stage often struggles to secure investment because of its high technological and market risks. To address this challenge, the Songshan Lake model uses government funding to leverage private investment.

An initial one billion RMB in fiscal funding was invested in 27 projects, which subsequently attracted more than 1.2 billion RMB in venture capital, creating a powerful synergy between public funding and market forces.

Nationwide, the strategy of investing earlier and in smaller startups is gaining traction. Yang Tao, deputy director of the National Institution for Finance and Development, said China's equity investment market reversed its decline in 2025, reaching 928.7 billion RMB. Investment in seed-stage enterprises surged 78.4 percent, while funding for early-stage firms rose 12.7 percent.

Supporting this trend is an increasingly robust institutional framework. Social security funds have established technology investment funds totaling over 160 billion RMB in provinces such as Zhejiang, Jiangsu and Sichuan, focusing on long-term investment in hard-tech companies.

Alongside technology finance, China is also strengthening its ecosystem of technology managers and professional services, which acts as a key facilitator of technology transfer. By the end of 2024, universities and research institutes nationwide had established 2,364 technology transfer institutions, while 36 national training bases had collectively trained more than 110,000 technology transfer professionals.

From bottlenecks to coordinated innovation

Besides financial support and professional services, localized institutional innovations are helping remove the remaining bottlenecks in technology commercialization.

Kang Kaining, general manager of Southwest Jiaotong University Research Institute (Chengdu) Co., Ltd., highlighted the reforms allowing researchers to establish limited partnerships and co-own service-related invention patents. These policies help bypass rigid salary caps and significantly boost researchers' incentives to commercialize their discoveries. The approach is now being replicated across Sichuan and other western regions.

Institutional innovation is also taking place across entire industrial chains. Yuan Yu, deputy director of the National (Qingdao) Integrated Innovation Demonstration Zone, described a collaborative mechanism in which national ministries and central state-owned enterprises translate production bottlenecks into research challenges that are openly published nationwide. Research institutions and private firms can then compete to address them, creating a coordinated innovation ecosystem.

Viewed through the lens of the 2026 ZGC Forum, the rapid rise of China's technology trading market is not the result of a single factor. Rather, it reflects broader global engagement, institutional reforms, and numerous grassroots innovations working together. As a nationwide network for technology commercialization takes shape, a more dynamic, innovation-driven China is rapidly emerging.

Case Study

Jiangxi Races to Lead BCI Innovation

By TANG Zhexiao & WEI Yichen

Enabling people to control computers with their minds and even getting those who are paralyzed to walk using brain-implanted devices is now a reality, thanks to revolutionary brain-computer interface (BCI) technology that builds a bridge between the brain and machines.

This year's government work report has identified BCI as one of the future industries to be prioritized for development during the 15th Five-Year Plan period (2026-2030).

Located in eastern China, Jiangxi province is striving to build a pilot zone for the BCI industry through four major pathways: policy support, clinical breakthroughs, industrial implementation and ecosystem development.

Tech transformation

Recently, during a surgical procedure at the Jiangxi Provincial People's Hospital, a surgical team — assisted by a high-precision neurosurgical robot — precisely implanted a 1,024-channel high-density stretchable electrode array into a patient's brain.

With the successful completion of intraoperative testing, a brand-new "data superhighway" has been established between the patient's brain and the external world.

Once the patient has completed their recovery, decoding algorithm engineers will guide them to use their thoughts to control a cursor on a screen and to "speak" the words they wish to communicate.

Clinical application represents the "first mile" in the transformation of BCI technological achievements. The success of this surgery clearly demonstrates Jiangxi's high-level promotion for the development of future industries.

Currently, patients suffering from conditions such as epilepsy, amyotrophic lateral sclerosis, and high paraplegia have strong practical needs of BCI technology.

In October 2025, the first BCI clinical research ward in Jiangxi was established through a collaboration between the First Affiliated Hospital of Nanchang University and NeuroXess, a pioneering BCI company that developed China's first fully implanted wireless BCI with an integrated battery.

"Our collaboration with this hospital aims to conduct large-scale clinical research," explained Tao Hu, founder and chief scientist of NeuroXess, "On one hand, we hope to benefit patients in Jiangxi; on the other, we seek to acquire high-quality, high-value electroencephalogram data to provide the necessary foundation for optimizing and iterating our algorithms, thereby enhancing product performance."

Policy support

Scientific research and clinical application alone are insufficient to support a thriving industry. Industrial prosperity demands the precise alignment of policy, technology and capital.

In 2023, BCI was included in Jiangxi's future industry plan.

Five BCI medical service price items, which came into effect on November 1 last year, make Jiangxi the sixth province nationwide to implement relevant BCI medical service pricing.

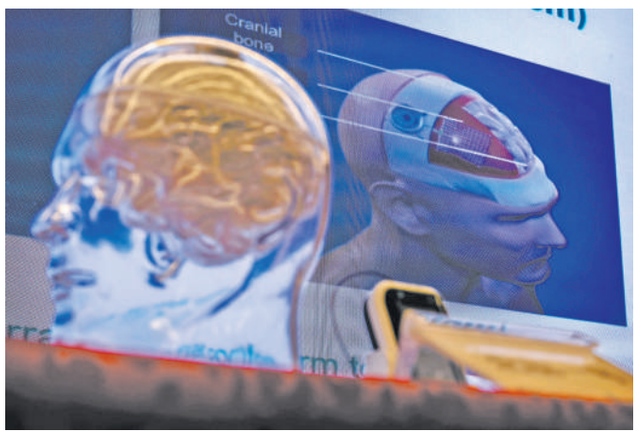
In November 2025, the provincial government issued Several Measures to Accelerate the Development of BCI Technology and Industry, putting forward 11 specific initiatives.

In response, related government departments established a special review channel for innovative medical devices, to accelerate BCI products' market launch. A BCI product testing center is also being prepared, making use of the provincial medical device testing center.

By the end of 2025, Jiangxi had issued several measures, providing full-chain policy support for the BCI sector — from scientific research and clinical trials to review, approval and industrial implementation.

Ganjiang New Area, China's 18th national-level new area located north of Nanchang city, has established a 300 million RMB special fund for the BCI industry, adopting a funding support plus equity cooperation model to provide critical seed funding for promising BCI enterprises.

"In Jiangxi, I have witnessed the concerted efforts of all parties to provide application scenarios and advance clinical research and technology application, and I feel the strong determination to cultivate and grow the BCI industry," said Zhou Zhitao, chief technology officer of NeuroXess.



The screen shows how the Beinao-1, a semi-invasive brain-computer interface system, is installed. (PHOTO: VCG)

Blueprint for High-quality Development of Marine Economy

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During the 14th Five-Year Plan period (2021-2025), the added value of emerging marine industries grew by 7.3 percent, driving traditional industries to accelerate their green and intelligent transformation.

China's "blue friends circle" continues to expand. China is among the first parties to the Agreement on Marine Biodiversity of Areas Beyond National Jurisdiction. China has signed marine economy cooperation agreements with over 50 countries and international organizations, and jointly conducted polar and oceanic scientific expeditions with numerous nations.

The 15th Five-Year Plan (2026-2030) has a blueprint for the marine economy, specifically developing marine energy resources and cultivating key industries such as deep-sea and offshore aquaculture, distant-water fisheries, marine equipment manufacturing, and marine biomedicines.

It also includes strengthening strategic marine sci-tech capacity and advancing pollution prevention and control, shoreline remediation, and ecological restoration in key marine areas. The goal is to ensure approximately 86 percent of nearshore waters is of excellent quality.