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## Observer

### Future Industries: From Niche Innovation to Ecosystem Building

By LONG Yun & FANG Linlin

In 2025, China's core artificial intelligence (AI) industry was valued at more than 1.2 trillion RMB, with the number of AI companies surpassing 6,200, according to Li Lecheng, minister of industry and information technology. Additionally, China ranked first worldwide in downloads of open-source AI models over the past year. By the end of 2025, more than 30 percent of manufacturing enterprises above the designated size had adopted AI technologies, while Chinese companies had released over 300 humanoid robot products.

Highlighted during the recently concluded fourth session of the 14th National People's Congress and the fourth session of the 14th National Committee of the Chinese People's Political Consultative Conference (hereinafter referred to as Two Sessions), these figures sent a message to the world: China's industrial innovation is accelerating from "leading in specific tracks" to "forming a robust ecosystem." This shift has drawn significant attention from the international community.

With AI as the core engine, China's emerging industries and industries of the future are undergoing a critical transformation, moving from technological exploration and early applications to substantial breakthroughs characterized by scaled deployment, accelerated industrialization, and global expansion.

This trend was demonstrated at the 2026 Mobile World Congress (MWC) in Barcelona, Spain. In the China pavilion, telecom operators and IT giants showcased intelligent robots and innovative terminals powered by the latest large models, attracting crowds of global attendees. As reported by South Korea's *Chosun Daily*, "China stole the spotlight at this year's MWC," while on-site comments said, "MWC (Mobile) has become 'CWC (China)'."

*The New York Times* noted a distinct strategic divergence: "Chinese tech companies have focused intensely on real-world applications for AI. By contrast, many leading American tech companies have been focused on more abstract goals, like developing the most cutting-edge model, or achieving artificial general intelligence." *See page 4*

## New Graphic

IN THE FIRST TWO MONTHS OF 2026

SALES REVENUE OF  
HIGH-TECH INDUSTRIES

16.1%  
y-o-y

SALES OF HIGH-TECH  
SERVICES

17.2%  
y-o-y

Source: China's State Taxation Administration  
Designed by SONG Ziyan / Science and Technology Daily

WECHAT ACCOUNT



E-PAPER



An aerial drone photo taken on March 14, 2026 shows the large cruise ship "Adora Flora City" in Shanghai, east China. As China's second domestically built large cruise ship, it is expected to be delivered by the end of 2026. (PHOTO: XINHUA)

## STI Frontier

### High-Altitude Sentinel in Global Climate Fight

Edited by WANG Xiaoxia

On the peak of Mount Waliguan in northwest China's Qinghai province, at a windswept altitude of 3,816 meters, an unassuming scientific outpost is quietly shaping our understanding of the planet's health. This is the China Global Atmosphere Watch Baseline Observatory that has been monitoring the Earth's temperature for over 30 years.

A great contribution of the observatory is the "Waliguan Curve" — a long-term, consistent record of atmospheric carbon dioxide concentrations.

*A station forged in extremes*

As the highest baseline observatory in the hinterland of Eurasia, its long-term observational data are incorporated into the World Meteorological Organization's Greenhouse Gas Bulletin and international climate assessments, becoming an important scientific basis for characterizing global climate change trends.

But keeping this vital data stream alive is a story of extraordinary dedication. Building the Waliguan observatory in the 1990s was a logistical challenge, requiring materials to be hauled from 140 kilometers away and water trucked up the mountain.

Today, life for the three generations of scientists who have manned the station remains incredibly tough. Oxygen concentration here is just 67 percent of that at sea level, temperatures regularly plunge to -20°C, and winds can reach hurricane-force levels, equivalent to extreme typhoons or hurricanes. Yet, the dedicated staff must still check sensitive equipment every two hours, ensuring the data remains long-term, continuous and precise.

*From a single peak to a green ripple effect*

Recognizing that even minor local pollution could have an impact on the observatory data, China is taking extraor-

dinary steps to protect the observatory's surrounding environment.

Starting from February 1, 2026, a new local law will formally safeguard the area around Waliguan, integrating its protection into regional development plans. This legal shield ensures that the "Waliguan Curve" will continue to provide reliable data for scientists worldwide.

The commitment to Waliguan reflects a broader, tangible shift towards sustainability. To the east of the station, the once-barren Talatan Gobi Desert has been transformed into a massive solar farm. The 609 km² photovoltaic park stretches like a "blue ocean," where an endless expanse of photovoltaic panels now generate clean energy. In 2025 alone, the Hainan Tibetan autonomous prefecture in Qinghai, where the photovoltaic park is located, saved an estimated 17.17 million tons of coal equivalent.

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### 6G Development in Critical Phase

By Staff Reporters

China is accelerating its R&D of 6G technology, a topic discussed by policymakers and industry experts at the recently held fourth session of the 14th National People's Congress (NPC) and the fourth session of the 14th National Committee of the Chinese People's Political Consultative Conference. With key technological breakthroughs having been made, China is now entering the phase of integration of technical solutions and development of prototype machines.

The technology is explicitly named in this year's government work report as a key industry of the future to develop,

alongside quantum technology, embodied AI and brain-computer interfaces.

*From connecting to sensing*

"6G represents far more than faster speeds; it's a leap from simple connection to ubiquitous sensing and intelligent services," said Miao Wei, a deputy to the NPC and senior vice president at ZTE Corporation.

Identified in the International Telecommunication Union's "IMT-2030 framework," 6G is expected to improve upon nine existing capabilities and bring six new capabilities, including sensing-related capabilities and applicable AI-related capabilities.

"The network will be ubiquitous, as

will computing power and intelligence," explained Shao Chunju, researcher from China Mobile Research Institute. She envisions authorized devices like robot assistants collaborating on tasks such as scheduling or home care. Holographic communication for individual users and advanced real-time monitoring for smart factories will also be possible.

The development of 6G will directly drive the accelerated growth of cutting-edge industrial chains such as satellite Internet, intelligent metasurfaces and quantum communication, according to Professor Zhang Ping from Beijing University of Posts and Telecommunications.

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## International Cooperation

### Tech Empowers Lancang-Mekong Cooperation

By WANG Xiaoxia

As the Lancang-Mekong Cooperation (LMC) mechanism, initiated by the six countries of the region in 2016 to build a community with a shared future of peace and prosperity, marks its 10th anniversary, regional science and technology innovation cooperation has improved vastly. Multiple fields show substantive results, including aerospace, agriculture, water resource management and digital technology.

China continues implementing the Lancang-Mekong Space Cooperation Plan with Mekong countries. It launched the "Fudan-1 Lancang-Mekong Future Star" in 2024, and supported Fudan University in establishing the Research Center for Lancang-Mekong Youth Astronomical Sciences, an important platform for the six countries for exchange and cooperation in space observation and technology application.

Chinese agricultural technology has contributed to poverty reduction and industrial transformation in the region.

For example, the Spice and Beverage Research Institute of the Chinese Academy of Tropical Agricultural Sciences (CATAS) has collaborated with the Lancang-Mekong Agricultural Cooperation Center to promote disease-resistant cultivation techniques in Cambodia, which increased the local pepper production by over 22 percent and annual income of farmers by 1,000 USD. This project was listed as one of the global best poverty reduction practices.

The Rubber Research Institute of CATAS, cooperating with institutions from Mekong countries, has launched a demonstration project on rubber tree cultivation and processing techniques to reduce environmental pollution and damage to trees while helping upgrade the regional rubber industry.

The sustainable management and utilization of water resources is another important cooperation field. The six countries have established the Lancang-Mekong Water Resources Cooperation Center and an information sharing platform, applying advanced technologies for climate change mitigation and adaptation, disaster management, hydrological data monitoring and sharing, and water-related infrastructure construction.

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## WEEKLY REVIEW

*Shenzhou-21 Crew Completes Second Series of EVAs*

Astronauts from the Shenzhou-21 mission aboard China's orbiting space station carried out the second round of extravehicular activities (EVAs) on March 16. According to the China Manned Space Agency, their tasks included installing a space debris protection device on the station, along with additional operations.

*Scientists Find New Stem Cell Treatment for Type 1 Diabetes*

A Shanghai-based research team has treated three patients with type 1 diabetes by using endoderm stem cell-derived islet-like tissues (E-islet) to restore their pancreatic islet function, potentially providing a new treatment option for millions of people worldwide. The study was published in *The Lancet Diabetes & Endocrinology*.

*Researchers Develop Ultra-fast Data Processing Method*

A study published in the journal *Nature Photonics*, carried out by researchers from Politecnico di Milano and other international institutions, found that ultra-short light pulses can carry out logical operations at frequencies exceeding 10 terahertz — more than 100 times higher than the most advanced electronic devices available today.

*2025 ACM A.M. Turing Award Announced*

The Association for Computing Machinery (ACM) has named Charles H. Bennett and Gilles Brassard as the recipients of the 2025 ACM A.M. Turing Award for their essential role in establishing the foundations of quantum information science and transforming secure communication and computing.

# Industrial Data Foundation to Boost AI-powered Manufacturing

## Policy Express

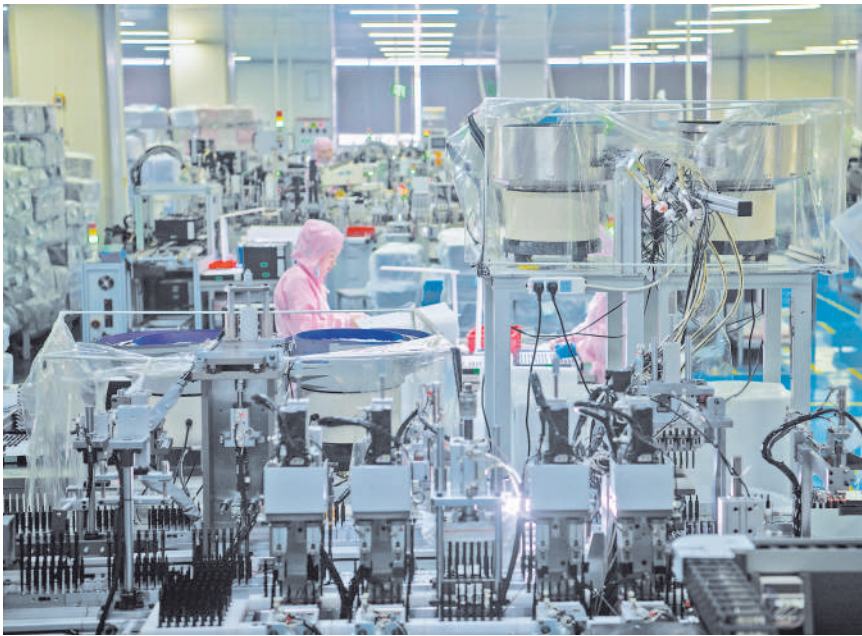
By TANG Zhexiao

The Ministry of Industry and Information Technology (MIIT) recently launched an initiative on building industrial data foundation to pilot the construction of datasets of high-quality industries empowered by AI.

With the main focus on promoting the development and utilization of industrial data, key industries of the manufacturing sector will be selected, and category-specific policies will be introduced based on leading enterprises of key industries, platform institutions, advanced manufacturing clusters and city-level pilot programs for the digital transformation of small and medium-sized enterprises.

By the end of 2026, China will establish a number of industrial data consortia, build trusted interconnection platforms for key industries, gather a wealth of industrial data resources, tackle a batch of key data technology challenges, develop a set of industrial data standards, and create several high-quality, standardized and tradable industrial datasets.

Support will be provided for the ap-



Workers operate intelligent equipment in a digital workshop in Ningbo, Zhejiang province. (PHOTO: XINHUA)

plication of industrial large models, industrial intelligent agents and other applications. Effective approaches, innovative mechanisms and experience models for the efficient collection and processing, trusted circulation and aggregation, and in-depth integrated application of industrial data will be summarized and formed to empower industries to im-

prove quality, reduce costs and increase efficiency.

Key tasks of the action include establishing a trusted interconnection platform for industrial data, an industrial data resource repository, a repository for key data technology breakthroughs, an industrial data standards library, a repository of high-quality industry datasets

and a portfolio of data application scenarios.

Efforts will be made to integrate data infrastructure capabilities, including the Industrial Internet, big data centers, computing power centers, data governance platforms, data engineering capability platforms and industry-specific trusted data spaces to build a trusted data interconnection platform for key industries. Industrial data production and training bases will also be established to provide data collection in simulation environments, specialized data annotation and data synthesis for extreme scenarios.

Focusing on key stages such as R&D and design, pilot testing and validation, production and manufacturing, operational management and industrial collaboration, the industry-specific large model applications and industrial AI agent development will be promoted to empower the industry in improving quality, reducing costs and enhancing efficiency.

MIIT also called for financial support through local incentives, the development of an industrial data open-source section based on national AI open-source communities, and closer collaboration between universities and enterprises.



# Comprehensive Use of Photovoltaic Modules Encouraged

By YAO Yian

Guidelines to encourage the comprehensive utilization of photovoltaic (PV) modules have jointly been released by six Chinese national authorities. These include Ministry of Industry and Information Technology, Ministry of Ecology and Environment, Ministry of Commerce, State Administration for Market Regulation, National Financial Regulatory Administration, and National Energy Administration.

Key tasks of the guidelines include refining relevant laws, regulations, policies and standards, boosting R&D of processing technologies, broadening application channels for related products, and strengthening support for key production factors. These will help foster organized development of China's comprehensive PV module utilization sector.

By 2027, the country will further raise green production levels of PV modules, effectively increase the proportion of recycled materials in production, and refine the evaluation criteria and inspection methods of module retirement, according to the guidelines.

In addition, breakthroughs in core

technologies including surface structure disassembly, efficient separation of PV laminates, and component extraction will be achieved. The comprehensive utilization of retired PV modules will be further scaled up in key sectors including metal smelting, equipment manufacturing and building materials production.

A series of technical standards for the green design and comprehensive utilization of PV modules will be developed, a batch of leading enterprises in the sector will be fostered, and the cumulative volume of PV modules processed through comprehensive utilization will reach 250,000 tonnes.

By 2030, the technological and equipment level for comprehensive utilization of PV modules will be further enhanced with significantly strengthened industrial innovation and development capabilities, the guidelines noted. Application scenarios and methods for comprehensive utilization products will continue to expand, creating a strong capacity for using end-of-life PV modules. This capacity will feature close coordination across the industrial chain, rational production capacity layout, and the ability

to address large-scale retirement waves.

Efforts should be made to advance the green design and manufacturing of the PV industry, improve the ease of dismantling and recycling of PV modules, and raise the proportion of recycled materials used in production, according to the guidelines. It calls for the orderly decommissioning of end-of-life PV modules, and guides relevant stakeholders to standardize the handover and delivery of waste PV modules.

The guidelines also stipulate the promotion of green and high-efficiency dismantling and utilization, encourage the development of non-destructive dismantling technologies, and support the extraction of silver materials from the metal grid lines of crystalline silicon solar cells.

Furthermore, the guidelines advocate promoting the coordinated development of the entire industrial chain for the comprehensive utilization of PV modules, and encourage PV module manufacturers, solar power station operators, and comprehensive utilization enterprises to actively extend their industrial chains.

Efforts will be made to optimize

the environment for industrial innovation and development. Management measures for comprehensive utilization of industrial resources will be accelerated to clarify the responsibilities of all parties involved in the comprehensive utilization of waste photovoltaic modules. Policy support will also be strengthened.

Qualified PV industrial parks are encouraged to develop "waste-free zones." Support will therefore be given for collaboration among PV module manufacturers, comprehensive utilization product producers, and end-users to develop exemplary green and low-carbon industrial practices within the PV sector.

Enterprises in the PV module comprehensive utilization industrial chain will be supported to strengthen cooperation with internationally advanced companies. This will involve exchanges and learning from each other in areas such as technology, talent, and management model innovation. Ultimately, it would help improve their international competitiveness.



# Blueprint for Unified National Power Market

By LIN Yuchen

To deepen electricity sector reform and accelerate the development of a modern energy system, China has issued a comprehensive policy document to establish a unified national power market.

The policy aims to break regional barriers, eliminate market segmentation, and strengthen nationwide coordination to enable the market-based allocation of electricity resources across the country.

Phased development targets have been set. By 2030, a unified national power market system will be basically established in which all types of power generation sources and all non-guaranteed users will directly participate in market transactions. Market-based electricity trading is expected to account for around 70 percent of total electricity consumption.

Cross-provincial and intra-provin-

cial trading mechanisms are to be integrated, and core rules and technical standards unified. By 2035, the national power market system will be completed, with more mature market functions.

A key priority is optimizing electricity resource allocation on a nationwide scale. Cross-provincial, cross-regional and intra-provincial trading will come under a unified framework.

Interoperability among trading platforms will be promoted and a national power trading center established when conditions permit.

Cross-regional trading mechanisms will be improved by facilitating market-based transactions between the operating areas of the State Grid and China Southern Power Grid, expanding transmission capacity, and increasing the share of clean energy delivered across regions.

Strengthening market functions is another core component. Full operation

of spot markets will be accelerated, enhancing the role of real-time pricing in reflecting supply and demand conditions, and ensuring better coordination between spot and medium- to long-term markets.

Medium- and long-term contracts will continue to play a stabilizing role in guaranteeing electricity supply, with improved contract adjustment and transfer mechanisms.

In addition, ancillary services markets will be developed to support system flexibility. Efforts will be made to refine green electricity and green certificate markets to better reflect environmental value, and explore establishing capacity markets to provide reliable support for the development of flexible power generation.

The policy emphasizes equal and broad participation by all types of market entities. Renewable energy generators, distributed energy resources, virtual power plants and adjustable loads

will be encouraged to enter the market under unified rules, while retail markets will be further standardized to improve price transmission and protect end-user interests.

To underpin the unified market, there will be harmonized trading rules, pricing mechanisms driven primarily by supply and demand, unified technical standards, and a nationwide credit system for market participants. Stronger regulatory coordination will curb improper local intervention and prevent anti-competitive behavior.

By promoting institutional integration, technological standardization and policy coordination, China aims to create a unified, open, competitive and secure power market system that supports energy security, economic development, and the country's green and low-carbon transition.



## Case Study

# Guangdong Building Robot Industry Cluster

Edited by TANG Zhexiao

In Guangdong province in south China, human-robot collaboration is reshaping a new production landscape.

Flexible welding production lines for new energy vehicle manufacturing, 100 percent robot-operated, have ushered in a production cycle of only 74 seconds. Embodied intelligent high-end welding industrial robots have increased single-shift production capacity in the auto parts sector by 50 percent. The multi-connected robotic automatic assembly production line for air conditioners has achieved a one-time product qualification rate of 99.3 percent.

The 2026 government work report proposes fostering the industries of the future such as future energy, quantum technology, embodied intelligence, brain-computer interfaces and 6G.

As a major robot manufacturing province, Guangdong has ranked first in China in the output of industrial robots for six consecutive years. Its robot industry leads the country in both application breadth and penetration rate.

For example, in the medical field, Shenzhen Edge Medical's independently developed single-port laparoscopic surgical robot can complete complex surgeries with only one incision, significantly reducing trauma to patients. The traditional multi-port laparoscopic surgical robots require four to six incisions.

The launch of a humanoid robot with a "distributed heterogeneous multi-machine collaborative operating system based on open-source HarmonyOS" will expand application scenarios from single functions to cross-domain collaboration.

Large-scale and multi-scenario application of robots also depends on local

policy support. Data shows that since 2018, Guangdong has launched five batches of special projects on "new generation AI" under its key field R&D plan, investing nearly 1.5 billion RMB.

Coordinating with major and key special projects such as intelligent robots, it has built a scientific R&D system covering basic research, technological R&D and innovative application at multiple levels.

In 2025, Shenzhen released an action plan for an additional special investment of 4.5 billion RMB to support the development of the AI and robot industries.

"The Guangdong-Hong Kong-Macao Greater Bay Area is the only place in the world with a complete supply chain system for robotics. The iteration speed here is 10 times that of Silicon Valley, while the cost is only one-tenth of Silicon Valley's," said Li Zexiang, founder of XbotPark, an accelerator and incubator program, dean of Shenzhen InnoX Academy, an engineering technology innovation hub, and professor at the Hong Kong University of Science and Technology.

The recommendations for Guangdong's 15th Five-Year Plan point out the need for a large-scale application demonstration initiative for new technologies, new products and new scenarios, and promoting embodied intelligence and 6G for new economic growth points.

"Next, Guangdong will focus on technological R&D and application empowerment to further promote leaping development of the robot industry," Wu Hong, deputy director of the Department of Industry and Information Technology of Guangdong, said.



At a nursing home in Shenzhen, intelligent robots accompany the elderly in practicing Tai Chi. (PHOTO: Luo Yunpeng / Science and Technology Daily)

# High-Altitude Sentinel in Global Climate Fight

From page 1

The use of a "herding under panels" model that allows sheep to graze under the shadow, with grass growing even better and local livelihoods improved.

From Waliguan's solitary peak, China has expanded its efforts to a national network of over 120 greenhouse gas monitoring stations. The resulting data shows tangible progress: in 2024, the growth rate of China's carbon emissions slowed significantly, increasing by only 0.6 percent compared to the global average of 0.8 percent.

*A curve that connects to the world*

The "Waliguan Curve" mirrors data from the Mauna Loa Observatory in Hawaii. Together, these two stations — one continental, one oceanic — provide peer-reviewed proof of rising global greenhouse gases and serve as a key scientific pillar for organizations like the UN's Intergovernmental Panel on Cli-

mate Change (IPCC).

At the 2025 UN Climate Change Conference (COP30), China made its meteorological AI models and global climate datasets available to the world, offering practical tools for climate adaptation.

At the 62nd Plenary Session of IPCC hosted by China in February 2025, Chinese scientists actively provided scientific support for future climate change projections and contributed to global climate science governance.

Ultimately, the "Waliguan Curve" is more than just a line on a graph. It is a powerful symbol of scientific dedication and international cooperation. It charts our planet's vital signs and fuels the global hope that one day, through continued effort and innovation, the curve will finally begin to bend towards a stable and sustainable future for our shared Earth.

# China's Green Tech Drives Sustainable Development

## Voice of the World

By Staff Reporters

China has made remarkable strides in its green tech, with the global society applauding the endeavors and achievements made to promote sustainable development and improve people's well-being.

### Decarbonization hand in hand with sustainability

According to Forbes, China is at the forefront of the global clean energy movement, investing nearly as much as the U.S. and the European Union combined. It is also leading manufacturing across most clean energy supply chains.

Climate Action Tracker reported that China now manufactures more than 80 percent of the world's solar panels, about 60 percent of the wind turbines, and roughly 75 percent of the lithium-ion batteries. The numbers reflect that dynamic. China accounted for roughly 39 percent of global energy transition investment in 2024.

"For too long, emerging economies have faced what seemed like a stark trade-off between growth and sustainability...China's green ascent challenges that assumption," energy think tank Ember said in its report. "Through scale, innovation and long-term planning, China is demonstrating that decarbonization can go hand in hand with industrial upgrading, job creation and im-



The broad riverbed of the Yarlung Zangbo River and the trees planted along the banks. (PHOTO: XINHUA)

proved quality of life."

As Neil Thomas, fellow on Chinese Politics at Asia Society Policy Institute's Center for China Analysis, wrote in an online article for The Wire China, the upside of China's clean-tech surge is clear: It is driving down the cost of decarbonization.

Pan Jiahua, professor at the Hong Kong University of Science and Technology (Guangzhou), told Carbon Brief that expanding demand for clean energy through mechanisms such as "green factories" represents an increasingly "bottom-up" and "market-oriented" approach to the energy transition. It will

leave "no place for fossil fuels."

### New frontier for sustainable development

According to APPN News, satellite imagery from NASA and other space agencies has confirmed that China's "Great Green Wall (GGW)," a tree-planting initiative launched by the Chinese government to combat the expansion of the Gobi Desert and restore degraded landscapes across northern China, is effectively slowing the advance of the desert, reshaping entire regions and creating a new, vibrant frontier where once there was only desolation.

This transformation has a profound

impact on the local ecosystem, restoring biodiversity, improving soil quality, and providing new economic opportunities for the people living in the region. It's a testament to the power of human ingenuity and the resilience of nature.

According to the United Nations Convention to Combat Desertification, nearly a quarter of the world's land surface is now affected by desertification, putting the livelihoods and food security of millions of people at risk. The GGW is seen as a model for other countries to combat this crisis, using a combination of large-scale tree planting, sustainable land management, and community engagement.

Sheradil Baktygulov, director of the Institute of World Politics of Kyrgyzstan, has visited China multiple times in recent years. Recalling his observations in China, Baktygulov said many deserts have gradually been turned into green oases, and smog in cities has declined sharply, according to a Xinhua report.

Erik Solheim, former UN under-secretary-general and former executive director of the UN Environment Programme, said he was impressed by the transformation of Anji, a county in the eastern province of Zhejiang. Renowned as China's "bamboo county," Anji has over one million mu (about 66,667 hectares) of bamboo forests.

China's progress is significant for the world, Solheim added. Other nations can learn from China's approach that economic growth and ecological protection can go hand in hand.

### Policy support and challenges ahead

As the OPC trend gathers momentum, local governments across China have begun introducing policies to support the model.

Beijing recently launched an AI OPC service initiative aimed at building an incubation system through measures such as rent subsidies and computing-power support. Shenzhen plans to establish more than ten OPC communities and nurture over 1,000 high-growth AI startups by 2027. Other cities, like Suzhou and Hangzhou, are also developing OPC-focused entrepreneurial ecosystems.

Despite the enthusiasm, experts say the model still faces several challenges.

Ling pointed out legal uncertainties surrounding OPCs, including blurred boundaries between personal and corporate assets and unclear intellectual property ownership for AI-generated content.

Zhang, meanwhile, highlighted another issue: the entrepreneurial ecosystem for OPC founders can be isolated, as many individuals operate largely independently without the collaborative support systems found in traditional startups.

To tackle these issues, Ling suggested that policymakers adopt a coordinated set of measures. These could include compliance guidelines clarifying responsibilities related to AI ethics, data use and intellectual property rights, as well as the tiered access to high-quality anonymized datasets for qualified OPC developers.

materials originally developed for its foldable smartphones in the core components of the Robot Phone's motor. Using simulation technologies from foldable device engineering, Honor developed a miniature motor that is both compact and lightweight, enabling the camera's flexible movement without increasing the device's size.

"Smartphones should not remain a dull black rectangle with a touchscreen," Li said during the launch event. "We decided to give them not only a brain but also limbs. That's why we created bold and exploratory designs like the Robot Phone. We hope to bring new excitement to a smartphone industry that has become somewhat stagnant, and rekindle people's curiosity about mobile technology."

## Comment

# Preventing Safety Hazards in Utilizing Open-source AI Agent

By Staff Reporters

"Have you 'raised lobsters'?" has become the "social currency" in the AI circle. Cities like Hefei, Anhui province and Shenzhen, Guangdong province have issued policies to support "raising lobsters," and some major Internet companies have also announced that their products would be integrated with "lobsters."

This "lobster" is not a delicacy on the dining table, but an open-source AI agent named OpenClaw, named because its icon is inspired by a lobster. OpenClaw is an autonomous AI agent that can work independently. It breaks through the limitations of traditional chatbots that "only talk but do nothing." Like a 24-hour online "cyber worker," it can read and write files, control browsers, and even autonomously complete complex tasks such as writing and planning, truly achieving "You give the order, he carries it out."

It is worth noting that behind the bustling "lobsters' farming boom" lie multiple risks. As Qihoo 360's founder Zhou Hongyi said, "The 'OpenClaw' industry is still in its early stages, and configuring it is an extremely difficult task for common people."

Some users have reported that their important data was mistakenly deleted by OpenClaw, and others have suffered privacy leaks due to OpenClaw having excessive permissions. Criminals even disguise "skill packs" to implant malicious plugins, turning "raising lobsters" into a situation where "wolves are invited into the house."

Hu Xia, leading scientist of Shanghai Artificial Intelligence Laboratory, said, "If 'lobster' represents a sharp weapon in users' hands, then at present, this knife has no sheath."

Specifically, "raising lobsters" mainly faces three types of risks. The installation and usage of OpenClaw has a high threshold. OpenClaw emphasizes "local priority," requiring complex environment configuration and model integration. Even those with programming skills often find it difficult.

Moreover, the cost of "raising lob-

sters" is not low. Although OpenClaw is free, its local operation requires computing power, and cloud leasing incurs fees. Using practical plugins often requires payment, and some users spend as much as several hundred RMB per day.

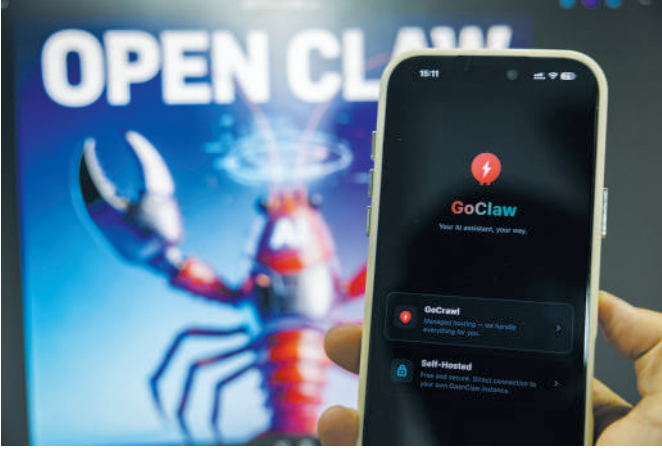
The most critical issue to be guarded against is security risk. Recently, the National Vulnerability Database of the Ministry of Industry and Information Technology, as well as The National Computer Network Emergency Response Technical Team/Coordination Center of China, have issued a series of notices highlighting the potential security hazards associated with "raising lobsters."

Experts noted that the greatest risk brought by autonomous intelligent agents like OpenClaw lies not in code errors, but in granting AI excessive "system proxy authority." This could lead to uncontrolled micro-behaviors, the formation of invisible communication among agents, and new challenges to the macro defense line.

He Xiangnan, the vice dean of the School of Artificial Intelligence and Data Science at the University of Science and Technology of China, said, "It is urgent to conduct in-depth research on the formation and evolution mechanisms of self-evolving intelligent agents and their networks, and accelerate the construction of an integrated system of 'internal security - defense reinforcement' to prevent problems before they occur."

In Shanghai, some research institutions have taken action. The Shanghai Artificial Intelligence Laboratory has issued a white paper on systematic risk identification, meanwhile, an intelligent agent defense model capable of quickly diagnosing risks was also made available for free, exploring the "internal evolution" governance framework that embeds safety guidelines within the decision-making layer of intelligent agents.

"The aim of these efforts is to deeply integrate security capabilities into the entire chain of AI development, providing a systematic solution for 'internal security' in the era of intelligent agents," Hu said.



A mobile application page of open-source AI agent OpenClaw. (PHOTO: XINHUA)

# AI Enables One-person Startup Boom

## Opinion

By LIANG Yilian, WANG Shanshan & LI Jun

For three consecutive years, China's government work report has highlighted the "AI+" initiative. This year's report introduced the concept of "new forms of smart economy" for the first time.

China's AI development is moving beyond technological research and early-stage applications into a new phase of deep industrial integration and economy-wide empowerment. This move is evident in the shift from promoting "AI+" to outlining a broader smart-economy framework.

### AI agents enable "one-person armies"

At the start of 2026, an emerging manifestation of this transformation is the rise of the one-person company (OPC) model. AI agents such as OpenClaw, are empowering a growing number of entrepreneurs capable of independently building commercial applications.

"Starting a business by 'raising lobsters' has become quite popular recently, and the OPC model is gaining strong momentum," said Zhang Yunquan, a member of the National Committee of the Chinese People's Political Consultative

Conference (CPPCC) and a researcher at the Institute of Computing Technology of the Chinese Academy of Sciences.

The phrase "raising lobsters" has become a buzzword in the AI community, on the back of OpenClaw adopting a red lobster logo and users jokingly using the phrase to describe the process of training and developing their AI assistants.

"The emergence of AI agents such as OpenClaw and McDo allows ordinary people without coding backgrounds to develop practical applications within a short period of time," said Ding Hong, a CPPCC member, academician of the Chinese Academy of Sciences and chair professor at Shanghai Jiao Tong University.

According to Ding, the OPC model represents a new form of "one-person army" that has become a dynamic unit within the emerging smart economy. "It is not only an agile leap by individuals in the technological wave, but also a reflection of national strategy and social transformation at the micro level," he said.

Ding highlighted the dramatic productivity gains brought about by AI agents. Tasks that previously required a team of ten people working for a week can now be completed in days — or even hours — with AI systems operating 24/7. Furthermore, AI-based products can be optimized in real time based on

user feedback, improving efficiency while lowering costs.

"The OPC is not a short-term trend," Ding said. "It reflects a long-term shift in how economic activities and the social division of labor are organized."

### Lower barriers empower entrepreneurs

The potential of OPCs has also attracted attention from policymakers and business leaders.

Ling Junjie, a CPPCC member and founding chairman of the Chinese Young Entrepreneurs Association in Hong Kong, believes that a number of OPC unicorn companies could emerge within the next five years.

He noted that AI tools have significantly lowered the barriers to entrepreneurship while reducing the cost of experimentation. This environment allows individuals to test ideas quickly and iterate products with far fewer resources than before.

Their defining features — light assets, rapid iteration and deep vertical focus — align well with the digital economy's operational logic, Ling said.

He encourages young entrepreneurs to actively explore sustainable business models within the rapidly expanding AI application landscape. With AI tools, ideas that previously required substantial investment can now be developed and launched more efficiently.

on the global smart device ecosystem.

Breaking away from conventional smartphone design, the Robot Phone has a three-axis mechanically stabilized gimbal camera on the top of the device that can extend.

Traditionally, smartphone cameras are fixed in place, requiring users to raise the phone, aim it at the subject and manually adjust the angle. The Robot Phone, however, allows the camera to move independently, automatically adjusting its viewing angle according to a person's position, changes in the surrounding environment, and the user's intended task.

The device is also equipped with AI capabilities that allow it to communicate through motion. During interactions, the camera module can perform gestures such as "raising its head," nodding to signal agreement, or even swaying along with music, creating an interactive user experience.

In imaging performance, the Robot Phone combines its three-axis mechanical stabilization gimbal with a 200-megapixel sensor to address common smartphone video challenges such as shaky footage and imprecise subject tracking.

According to Honor CEO Li Jian, the company used high-performance ma-

## Hi-Tech

By Staff Reporters

Chinese tech company Honor unveiled a highly discussed new concept device — the Robot Phone — at the Mobile World Congress (MWC) 2026 in Barcelona, Spain, drawing significant attention from industry observers.

Many experts said the product left a strong impression, highlighting both the rapid development of China's AI applications and their growing influence

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### Building the ecosystem

China holds approximately 40 percent of global 6G patent applications, supported by a substantial talent pool and comprehensive industrial chain, Zhang said.

However, he warned that critical vulnerabilities remain in core components and foundational software. He also highlighted a shortage of interdisciplinary leaders capable of managing the convergence of communications, AI, aerospace and materials science.

"If the first phase was about 'drawing blueprints and gathering materials,' this second phase is about 'building the framework and creating the prototype,'" Zhang said, describing the 2025-2026 period as crucial for integrating over 300 key tech-

nologies into a functional, efficient and low-carbon 6G prototype system.

To secure a leading role in shaping next-generation technology, experts emphasized the need for coordination.

Areas such as new network architecture and integrated sensing, aligned with national strategies and industry standards, require advanced research, Shao stressed.

Meanwhile, application-driven development is also important, using future scenarios like immersive experiences and embodied intelligence to define infrastructure needs and cultivate new terminals and applications.

In addition, Zhang proposed establishing cross-disciplinary programs such as "Communications + AI" to train personnel required for the 6G era.

# Science Advances When People Share, Co-create

## Dialogue

By LONG Yun & BI Weizi

"We're not racing to see who gets there first. We're building a ship together that can carry all of humanity toward a healthier, more sustainable future," Bill Moran, global director of Custom Publishing, International Collaboration and Advertising for Science Publications and the American Association for the Advancement of Science (AAAS), said during a conversation at a recent conference.

Moran has spent over two decades fostering connections between researchers, institutions and nations. In recent years, much of this work has centered on how emerging technologies, such as AI, can be integrated into the scientific enterprise not only as ends in themselves but also as tools to address real human needs.

He described the current moment as "probably the biggest paradigm shift in science in several decades," pointing to the ways AI is reshaping research: accelerating drug discovery, reimagining clinical trial design, and even mining insights from past experimental failures once written off as dead ends.

"Imagine being able to simulate Phase I, II and III trials virtually," he said, "and use real-world data to predict side effects before they occur in patients. That's not science fiction. And it is happening now."

Yet for all the promise AI holds, Moran also issued a clear warning: Enthusiasm must be tempered with responsibility.

"The application side of AI is racing



Bill Moran. (COURTESY PHOTO)

ahead, which is exciting, but without ethical guardrails, international standards and inclusive governance, we risk amplifying bias, inequity or misuse."

For him, the central question is how AI's direction should be shaped.

This sense of shared governance leads him naturally to the value of dialogue. "If people committed to continuing the conversation, that's already a win." Challenges like pandemic response, climate modeling or ensuring research integrity, he stressed, cannot be solved by any single country.

"What we're shaping isn't just today's agenda. It's the scientific foundation for future generations," he said. And that foundation must include voices beyond the usual power centers. "We need perspectives from diverse countries too, because different ways of seeing the world lead to more resilient,

creative solutions."

In particular, China occupies a critical place in this vision. Moran applauded China's active role in international discussions on AI governance and scientific collaboration. "China's engagement is crucial," he said, noting that global problems demand joint action.

Looking ahead to China's new Five-Year Plan with its strong emphasis on science, technology and social development, he sees opportunity not just for national advancement, but for global benefit.

"When China invests in green tech, precision medicine or AI-driven diagnostics, it doesn't help China alone, it also creates knowledge and tools the whole world can use."

But he added an important caveat here too: such progress must be grounded in openness. "Innovation thrives

when ideas flow freely across borders. We don't care if a breakthrough happens in Beijing, Boston or Berlin. What matters is that it reaches those who need it."

Moran is equally committed to advancing open science, a principle woven into AAAS's broader mission. He likes to discuss best practices in data sharing, research transparency and equitable access to knowledge with partners. While his own work focuses on publishing and custom collaborations, he highlighted how colleagues in science diplomacy and policy regularly engage with institutions worldwide, including in China, to ensure that technological progress aligns with the public good.

"Scientific publishing isn't just about putting papers out there," he explained. "It's about building ecosystems where trust, reproducibility and collaboration can flourish."

As the discussion turned back to the future, Moran returned once more to the metaphor that opened the conversation: the shared ship. He acknowledged the breakneck pace of innovation but cautioned against framing progress as a competition.

From his perspective, the most urgent opportunities for collaboration lie in healthcare, where AI could turn failed clinical trials into learning moments. He also called for cooperation in the field of climate science because the predictive models depend on globally pooled data.

Ultimately, he believes success hinges less on algorithms than on relationships.

"Science advances when people trust each other enough to share, challenge and co-create," he said. "That's always been true and in the age of AI, it's more essential than ever."

## Tech+Culture

# Unique Memories From AI Infused Souvenirs

By Staff Reporters

"What was supposed to be a standard tourist souvenir ultimately transformed into a unique Song Dynasty narrative featuring my own image," said Ms. Wang, a tourist from Nanjing, as she demonstrated her unique creation to a media crew in Kaifeng. "This is far more interesting than average fridge magnets," she added.

"AI-powered Cultural & Creative" experience stations are quietly being rolled out across Kaifeng, the ancient capital of eight dynasties of China, located in the central province of Henan.

These stations symbolize the seamless integration of the ancient capital's cultural tourism with cutting-edge technology.

Unlike traditional tourist souvenirs, this exciting initiative fuses technologies, such as AI and augmented reality, with Kaifeng's profound cultural heritage from the Song Dynasty.

AI-powered cultural technology transforms the consumption of culture from a process of passive selection into active co-creation, empowering tourists

to no longer just be consumers, but active participants in culture creation.

The user-friendly process begins with selecting a cultural theme. Visitors can select from specific scenic spots and scenes of daily urban life, to the poetic aesthetics of the Song Dynasty, or the legacy of historical figures such as Bao Zheng, a judge in the Song Dynasty and a symbol of justice in Chinese culture.

They then input personalized elements via photos, voice recordings or text. Within a minute, the AI system processes this input to generate exclusive, personalized cultural content. Finally, visitors receive a digital file (downloadable via a QR code) and a physical product, such as a metal fridge magnet, card holder or button badge.

AI-powered cultural creativity represents a distinct trend in cultural tourism consumption, as it shifts from material consumption to experiential and emotional consumption. Kaifeng's practical implementation of this concept shows how technological innovation can enhance the added value of cultural tourism products and elevate the overall visitor experience.



Kaifeng, Henan province, sees the ancient Bianliang city illuminated with lights showcasing the splendor of Song Dynasty aesthetics, March 1, 2026. (PHOTO: VCG)

## Traditional Eastern Wisdom

# Genesis of Confucianism

By BI Weizi

The Four Books and Five Classics constitute the core texts of Confucian thought. They were the basis of the civil examination in traditional China from the Han Dynasty onwards and can be considered the Confucian canon.

The Four Books include the Doctrine of the Mean, the Great Learning, Mencius, and the Analects, and the Five Classics comprise the Book of Odes, the Book of Documents, the Book of Changes, the Book of Rites, and the Spring and Autumn Annals.

The Four Books are classic Chinese texts that demonstrate the fundamental values and belief systems of Confucianism. The Great Learning serves as a manual for cultivating moral character. By exploring or studying various subjects, one gains insight into the underlying principles of all things, enabling a deeper understanding of the world.

Similarly, the Analects also highlights the importance of learning. The Analects states that the initial step to understanding the "way" is to commit oneself to education. Besides education, the Analects also highlights the significance

of effective governance, respect for parents, morality and ceremonies.

Mencius comprises a series of dialogues between the scholar Mencius and the kings of his era. Unlike the concise and self-sufficient sayings of Confucius, the Mencius features lengthy dialogues filled with elaborate prose. The Doctrine of the Mean, meanwhile, emphasizes adhering to the way and behaving in a manner that is right and natural, yet recognizes that individuals frequently fail to act appropriately.

The Five Classics consist of five pre-Qin Chinese texts that are integral to the

Confucian tradition:

The Book of Documents is a collection of 58 chapters that recount the history of ancient China and the exploits of early sage-kings Yao and Shun.

The Book of Odes features 305 poems addressing various topics, such as love and marriage, agricultural issues, everyday life, and warfare.

The Book of Rites outlines the societal standards, political structure and ceremonial practices in the Zhou Dynasty.

The Book of Changes offers a method of divination primarily focused on the concepts of yin and yang.

And the Spring and Autumn Annals, as the longest of the Five Classics, serves as a historical record for the State of Lu.

# Want Younger Brain? Better Get Moving

## Science Outreach

By Staff Reporters

Do you ever feel as though you're forgetting things, or reacting more slowly?

Don't worry — it might not be because you're getting old, but rather a sign that your brain is encouraging you to get moving!

When it comes to exercise, many people's first thought is running or walking. However, the type of exercise that has the greatest effect on brain aging is resistance training.

A February 2026 study in *GeroScience*, a leading journal on the biology

of aging, found that moderate- to heavy resistance training can reduce MRI-based "predicted brain age" by about 1.4- 2.3 years, suggesting that strength training may slow aspects of brain aging.

Those who did not engage in resistance training did not experience this reverse-aging effect.

Resistance training improves brain health by promoting neuroplasticity, re-

ducing inflammation, increasing blood flow, and boosting cognitive function, especially in older adults. It specifically triggers the release of muscle-derived compounds (myokines) that may help support brain health and memory-related brain regions such as the hippocampus.

Resistance training involves overcoming external resistance, such as dumbbells, resistance bands or your own body weight, to build muscle strength. Examples include push-ups, squats, dumbbell lifts, glute bridges and wall squats.

# Tech Empowers Lancang-Mekong Cooperation

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For innovation-driven development, the Lancang-Mekong countries accelerated the implementation of the Joint Initiatives on the LMC Innovation

Corridor Development. China has proposed establishing a computing-infrastructure cooperation network with Mekong countries based on the Lancang-Mekong Cloud Computing Innovation

Center to support regional AI capacity building and digital development.

To facilitate the integration of the regional digital economy, the six countries jointly released an initiative on

technology cooperation for cross-border data flows in November 2025. It aims to improve data governance, digital infrastructure, AI and blockchain technology R&D as well as applications.

technology cooperation for cross-border data flows in November 2025. It aims to improve data governance, digital infrastructure, AI and blockchain technology R&D as well as applications.

In 2026, China's tech industry, poised as a frontrunner, is ready to join hands with like-minded partners worldwide to embrace the next wave of technological revolution.