

# Innovation to Boost Agricultural Strength

## Policy Express

By WANG Manxi

China has issued a plan to accelerate its agricultural development, targeting an overall grain production capacity of 700 million tonnes by 2027. Agricultural technology and equipment will be strengthened and the international competitiveness of agriculture enhanced.

To achieve these goals, the plan, covering the 2024-2035 period, calls for promoting innovation in agricultural technology and equipment, with breakthroughs in core technologies and guided by industrial requirements.

Strategic sci-tech strength in agriculture will be enhanced and basic agricultural research will be supported, as well as public welfare research institutions. Leading agricultural sci-tech enterprises will be cultivated and a well-structured, collaborative and moderately competitive agricultural sci-tech innovation system will be built.

The layout of basic agricultural research will be strengthened, speeding up breakthroughs in genomics, preventive veterinary medicine, and in-depth cooperation between major agricultural production areas and regions promoted with sci-tech innovation.



Farmers in Bozhou city, Anhui province, use drones to spray pesticides on wheat fields in April 2025. (PHOTO: VCG)

Other tasks include promoting the full integration of digital technology and modern agriculture. A comprehensive agricultural observation network will be established integrating space, air and ground technologies. The statistical survey and monitoring system for agriculture and rural areas will be improved, a big data platform will be constructed

and the mechanism for the development and utilization of agriculture-related data will be improved.

In addition, the plan emphasizes developing smart agricultural technologies with independent intellectual property rights, improving the standard system for smart agriculture and unleashing the digital productivity of agriculture and rural

areas. A smart agriculture construction project will be implemented to promote the digital upgrading of large-scale farms, pastures and fisheries, and cultivate smart agricultural clusters with complete chains and coordinated operations.



# Fast-tracking Standardization of Future Industries

By WANG Manxi

China is set to standardize emerging industries, aiming to strengthen the framework of a modern industrial system. This was recently unveiled by the Ministry of Industry and Information Technology, the Ministry of Science and Technology and two other ministries.

Emerging industries refer to emerging and future sectors that grow by applying new technologies. These industries are characterized by active innovation, intensive use of technology, and broad prospects for development. They play a crucial role in the overall economic and social development of the nation and are key to optimizing and upgrading the industrial structure.

The plan has set a target of formulating over 1,800 industry standards and

establishing more than five standardization technical organizations for emerging and future industries.

To ensure industrial safety, China has developed guidelines for a mandatory national standard system in industry and IT, with plans to draft over 100 compulsory national standards. To promote global industrial development, China will support the formulation of more than 100 international standards led by domestic enterprises and institutions, targeting an 88 percent conversion rate of international standards across the sector.

The plan specifies the establishment of standard systems for smart manufacturing, industrial internet, cloud computing, smart homes, all-solid-state batteries and automotive carbon footprints to support high-quality development in these fields. It also explores the

integration of "AI + standardization," leveraging large AI models to enhance standardization efforts. AI will be applied across the entire lifecycle of standards — from preliminary research and drafting to implementation — to improve efficiency and ensure effective adoption of the standards.

Notably, the plan emphasizes strengthening standardization in emerging industries. This includes accelerating the development of standards for new-generation information infrastructure, such as 5G-Advanced, low-altitude information infrastructure, 6G and quantum-secure communication.

Standard systems for advanced materials—including metals, non-metals, and polymers—will also be established. Other emerging industries covered by the plan include robotics for specialized

applications, new energy vehicles, high-end equipment and shipbuilding and marine engineering.

Additionally, the plan highlights the importance of standardization in low-altitude industries and civil aviation, such as large aircraft. It also calls for speeding up the development of foundational, key technological, advanced processes, testing methods, critical product, application-specific and safety standards.

Meanwhile, research will focus on standards for the metaverse, brain-computer interfaces, quantum information, humanoid robots, generative AI, biomanufacturing, advanced computing, next-gen displays, future networks and new energy storage systems.



# Health and Hope Across Borders

By Staff Reporters

On April 7, World Health Day, the 27th Chinese medical team dispatched to Tanzania held a mobile free clinic in the Arusha region. Dr. Zhang Junqiao, team leader and doctor from Shandong Second Medical University, said the clinic helped bring Chinese medical expertise to a wider range of communities. The team remains committed to saving lives and improving health services in Tanzania's healthcare system.

Providing medical aid abroad has long been an important part of China's diplomatic efforts. In April 1963, the first Chinese medical team arrived in North Africa, launching over 60 years of

international medical assistance. Since then, the Shandong Second Medical University has sent 23 medical professionals to countries such as Tanzania, the Seychelles, and Tonga.

In 1982, Professor Chen Zhiren, from the university's pathology department, became the first medical aid team member sent overseas. At that time, a large number of patients requiring surgery had been backlogged for years, which delayed relevant diagnoses and treatment. In just three months, Professor Chen examined all the backlogged cases. His efforts represented the beginning of a lasting bond between the university and the people of Tanzania — a friendship that has been carried forward

by generations of Chinese medical professionals.

Traditional Chinese medicine (TCM) has also played a significant role in foreign medical assistance services. In 1991, China dispatched its first TCM expert group to the Estonian Soviet Socialist Republic, including Tao Enxue and Tian Wenping from Shandong Second Medical University. When Arnold Rüütel was Estonia's president, he suffered from acute laryngitis. They cured his chronic illness in just two weeks using TCM. They subsequently organized 28 training sessions, trained 1,400 students, and treated 2,000 patients, while methods such as plum blossom needle therapy and massage were highly praised by the local population.

In recent years, doctors from Shandong Second Medical University have achieved remarkable feats during their foreign assistance missions. They helped introduce cardiac and vascular ultrasound exams, diagnosed rare conditions like ocular albinism and Leber's hereditary optic neuropathy, and promoted practical techniques such as digital palpation for eye pressure and one-handed eyelid flipping. In one critical case, Dr. Xia Fei performed emergency surgery to save a patient's ruptured eye and restore

vision to 0.5 visual acuity.

At Muhimbili National Hospital in Dar es Salaam, Zhang trains local doctors. He noted that techniques like video laryngoscopy and bronchoscope-guided intubation are common in China but remain unavailable locally due to resource limitations. In this context, Zhang focuses on building local capacity, believing that true support means empowering others — leaving behind not just technology, but a capable and self-sufficient medical team.

To date, the 27 batches of Chinese medical teams that have served in Tanzania, have treated approximately 20 million cases and helped hospitals fill numerous technological voids. This achievement reflects a proud history and a hopeful future. As Tang Jiande and Zhang Haifeng, members of the new batch of aid teams to Tonga, said, "We are honored to carry the baton passed down by our predecessors. With great responsibility, we are committed to continuing their mission."

The story of Shandong Second Medical University's foreign assistance continues, with each doctor contributing in their own way to build a life-saving bridge across borders. These efforts have not only improved medical conditions in recipient countries but also strengthened the emotional bonds between the Chinese people and those abroad.



A group photo of doctors from Shandong Second Medical University and children in Tanzania. (COURTESY PHOTO)

## Case Study

# Beijing's AI Valley Leads in Industry Development

By SUN Mingyuan, HUA Ling & ZHONG Jianli

Mentougou, a district in Beijing, has emerged as a significant player in the city's strategy for building a robust AI industry. The Western Beijing AI Valley established in the district is providing substantial and reliable computing power resources crucial for AI advancement.

### Facilitating AI model training

Science and Technology Daily reporters visited the Western Beijing AI Valley to see how the Huawei Ascend series of computing power cluster is supporting AI development.

"This is Beijing's first self-innovated AI computing power cluster. A super cluster with immense computing capabilities, it serves as a training base for industry-level AI models," said Yan Xinyu, executive deputy general manager of Beijing Ascend Innovative AI Co.

The power cluster facilitated the recent launch of a model tuning workshop in the AI valley to help traditional enterprises upgrade in efficiency and intelligent operation.

Given the rapid evolution of AI, especially in large model technologies, there is a growing demand across various sectors for digital transformation. However, many traditional businesses and research institutions are limited by their lack of adequate computing power and data. The model tuning workshop addresses this gap.

"For research institutions and traditional enterprises, we can swiftly integrate resources from the workshop to

identify the most suitable large model for their needs and provide targeted solutions alongside efficient professional tuning services," Yan added.

### Fostering a thriving talent ecosystem

The Western Beijing AI Valley is drawing young talents through various initiatives and support policies.

In 2023, Mentougou announced dedicated talent policies for AI algorithm specialists, a first in Beijing, to enhance entrepreneurship, computing power support, algorithm trading, and funding security.

The "Yongding Card" introduced by Mentougou offers various services, including healthcare, transportation, housing and leisure activities, to create a thriving talent development environment and strengthen talent retention.

Han Yu has been working as a product manager at Metabrain AGI (Beijing) Information Technology Co. for two years. He said, "The environment is great, the facilities are comprehensive, and the computing resources enable significant research outputs."

Han's company has collaborated with the local emergency management bureau to develop an emergency large model applicable in various scenarios, including fire prevention and flood relief.

As Mentougou enhances its business environment and industry ecology, various other large AI model applications have emerged, including the multimodal large model Awaker, traditional Chinese moxibustion robots, and a campus intelligent service platform.



The booth of Western Beijing AI Valley at the 2024 China Beijing International High-tech Expo. (PHOTO: XINHUA)

# China Strengthens Bonds with Vietnam, Malaysia and Cambodia

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In 2024, the bilateral trade volume exceeded 200 billion USD, and Vietnam has become China's fourth largest trading partner. China stands ready to advance cooperation with Vietnam on three standard-gauge railways in northern Vietnam and a smart port.

China-Malaysia economic and trade cooperation has scaled up rapidly. In 2024, the bilateral trade reached 212 billion USD, a year-on-year increase of 11.4 percent and a record high. China has been Malaysia's largest trading partner for 16 consecutive years and the main source of investment for many years. Malaysia is China's second largest trading partner and the largest source of imports in ASEAN.

With the Regional Comprehensive Economic Partnership coming into force, China and Malaysia have further expanded their market openness to each other.

### People-to-people exchanges

China has been a major contributor to safeguarding, preserving and developing the Angkor Archaeological Park, a UNESCO world heritage in Siem

Reap province in northwest Cambodia, according to Cambodia's Tourism Minister Huot Hak. Since 1997, China has been providing scholars, architectural experts, archaeologists and technicians to help restore and preserve the ruined temples in the Angkor park.

With 2025 designated the China-Vietnam Year of People-to-People Exchanges, a series of activities have been organized and planned to further cement the public support for bilateral relations.

China and Malaysia have a mutual visa exemption arrangement. The year 2024 saw nearly six million mutual visits between the two countries, which exceeded the pre-COVID level. In recent years, China and Malaysia have deepened cooperation in vocational education, and carried out training on modern railway and the digital economy.

Malaysia looks forward to using the platform to promote China's experience in vocational education at home and in other ASEAN countries, said Manndzri Nasib, chairman of the Advisory Board of the Malaysia-China Institute.