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Innovative and Green Development Thrives

By LU Zijian

In 2025, China will deepen the reform of economic and sci-tech institutions, supporting deep integration of sci-tech innovation and industrial innovation, and of real economy and digital economy, to create new industries, new modes and new driving forces.

Examples include the application of renewable resources and new-type energy storage technologies, and the construction of zero carbon industrial parks, zero carbon communities and zero carbon villages.

Zhao Chenxin, vice chairman of the National Development and Reform Commission (NDRC), said this at a recent press conference.

Talking about China's high-quality development in the past year, Zhao said the effect of innovation-driven development has been manifest, and green and low-carbon transition has been accelerated.

China ranked 11th on the Global Innovation Index list in 2024. Its major innovation achievements range from the lunar exploration mission to the development of heavy-duty gas turbines.

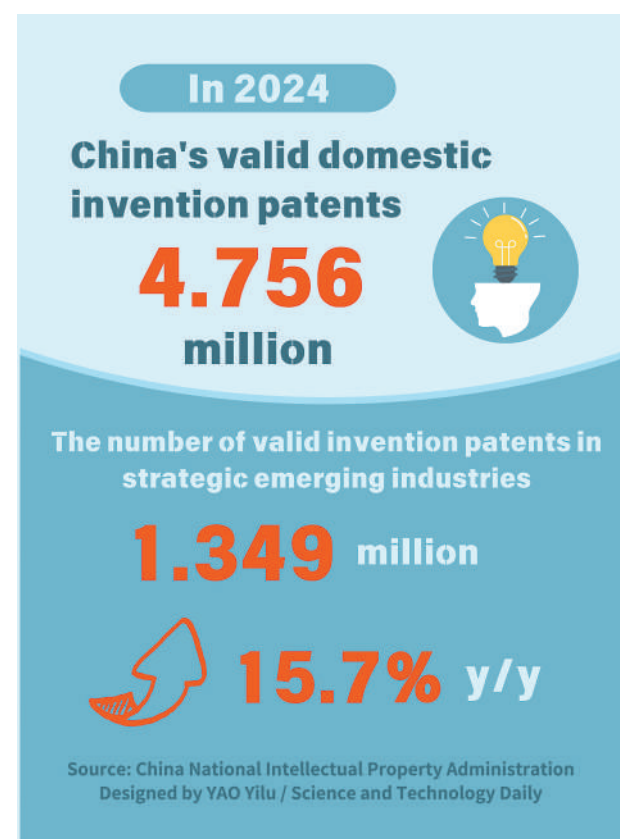
Traditional industries were upgraded, emerging industries developed and future industries planned at a quicker pace. Zhao said the construction of a modernized industrial system was accelerated, and the added value of the high-tech manufacturing industry grew at a higher speed than that of the whole manufacturing industry.

A set of guidelines were issued to accelerate green transition in all areas of economic and social development and to advance the carbon peaking and carbon neutrality goal. Thanks to the renewal of the large-scale equipment and consumer goods trade-in programs last year, more green, low-carbon and energy saving products facilitated people's daily lives, Zhao said.

The implementation of major projects to protect and restore key ecological systems was quickened. In the first three quarters of 2024, the average density of PM2.5 in cities at prefecture level and above decreased by 3.6 percent year on year, according to Zhao.

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New Graphic



WECHAT ACCOUNT



E-PAPER



China's total goods imports and exports reached 43.85 trillion RMB (about 6.1 trillion USD) in 2024, according to data released by the General Administration of Customs. This photo shows a cargo ship loaded with containers docking at Qianwan Port in Qingdao, east China's Shandong province on January 13, 2025. (PHOTO: XINHUA)

Editor's Pick

China's Robotics Leads Global AI Pack

By LIN Yuchen

China's vision for its robotics industry in 2025 is crystal clear, and that is to solidify its position as a global leader in intelligent manufacturing and service innovation. From cutting-edge pool-cleaning robots showcased at international expos to multi-functional yard robots solving household challenges in foreign countries, Chinese robotics companies are transforming industries worldwide. This rapid expansion is underpinned by technological breakthroughs, global partnerships, and a strategic shift from exporting products to building internationally recognized brands.

Global reach feeds growing demand
Chinese robots are making their mark across continents, serving in

homes, public spaces and industrial facilities. In the Middle East, Kuwait's logistics hubs rely on Chinese robots for efficient operations, while Riyadh, Saudi Arabia's capital, welcomes robots that assist tourists in Arabic. Across Europe, Chinese service robots are transforming everyday life. Estonia's Tartu University Clinic now deploys robots from Pudu Robotics to guide patients, while Serbian supermarkets rely on advanced cleaning robots from Gaussian Robotics.

Tailored solutions for local markets are driving this success. Shenzhen-based Hanyang Technology's Yarbo yard robot, for instance, addresses specific challenges like snow removal and lawn mowing in colder climates. Its robust battery, capable of operating at -45 Celsius, has made it a must-have for homeowners in

states like Minnesota in the U.S. Similarly, Cloud Whale's J4 robot dominates Western markets with its innovative design to handle pet hair, offering unmatched functionality and convenience for families.

China's service robots are not only competing but often outperforming international peers due to their combination of advanced technology and affordability. According to the International Data Corporation, Chinese service robot manufacturers generated approximately 1.51 billion RMB in export revenue in 2023, with Asia-Pacific and Europe contributing over 90 percent of that figure.

This growth highlights the rising global demand for Chinese robotics and their adaptability to diverse consumer needs. See page 2

New Milestone for Domestic Wheeled Crane

By LIANG Yilian & SUN Yu

The "Canglong" wheeled crane set a new record with the largest lifting capacity of a beam-moving machine in China. This milestone marks a significant achievement for the country's bridge construction industry.

With the rapid advancement of high-speed rail technology in China, the construction of long-span and cross-sea bridges has become increasingly demanding. The design span of railway box girders has expanded to 60 meters or more, with weights reaching up to 1,700 tonnes. To address these challenges, Jingjiang Heavy Industries Company independently developed the two 1250-

tonne wheeled beam-moving machines. Each machine weighs approximately 830 tonnes, spans 44.6 meters, and has a net lifting height of 23 meters — equivalent to an eight-story building. Equipped with 88 inflatable giant tires, the machines boast impressive capabilities. A single machine has the lifting capacity of 1,250 tonnes, while a combination of two machines features 2,500 tonnes. It can reach a maximum speed of 17 meters per minute under heavy load.

These beam-moving machines are designed to handle the transportation of large prefabricated box girders and pier columns for high-speed rail and highway projects. During operations, they move prefabricated box girders from the casting

platform to storage and then transfer them onto transport ships for deployment. This process significantly enhances the safety and efficiency of box girder installation.

The successful development and deployment of these groundbreaking machines further entrenches China's leading position in bridge construction technology.

With the support of these machines, the beam yard can transport one box girder every four days. This efficiency has been instrumental in advancing major infrastructure projects, including the second phase of the Ningbo-Zhoushan Port Liuheng Highway Bridge and other world-class cross-sea bridges.

Chinese Tech Benefits Sierra Leone Farmers

International Cooperation

By WANG Xiaoxia

"I want to share more skills and experience with local farmers during the training course, so that they can apply what they have learned and increase [both] their output and their income," said Li Youliang, the leader of the agricultural team for the 14th Phase of the China-aid Agricultural Technology Cooperation Project to Sierra Leone.

Li made the remarks while providing technical trainings for local farmers at Ogoo Farm, Freetown, the capital of Sierra Leone. Chinese agricultural experts held a training on high-yield corn cultivation techniques in January last year. Two months later, they brought a brand-new micro tiller to teach farmers how to use the farming machine.

"As the corn planting season is coming soon, Chinese experts have not only brought us high-quality corn seeds and fertilizers, but also trained us on planting techniques, which are all urgently needed," said Steven Fallah, head of the local farmers in the Ogoo farming community.

Corn seeds were sown according to technical specifications, and with multiple on-site guidance from Chinese experts, the local corn yield reached six to eight tons per hectare.

"The technical training organized by Chinese experts has benefited us greatly. The corn varieties we planted before have not been updated for more than 10 years and have suffered severe degradation, with a yield of only about two tons per hectare. The new corn varieties have greatly increased production and our income has also significantly increased. Chinese experts are our true friends!" said Fallah.

Located on the west coast of Africa, Sierra Leone is traditionally an agricultural country. See page 3

WEEKLY REVIEW

Energy-Efficient Carbon Fiber Metro Train Launched

A new carbon fiber metro train, CETROVO 1.0, started passenger service in Qingdao, Shandong province, on January 10. Its lightweight design reduces energy consumption by 7 percent, cutting annual carbon dioxide emissions by 130 tonnes.

Space Station to Undertake 1,000+ Research Projects

Over the next 10-15 years, China's space station plans to conduct more than 1,000 research projects, focusing on interdisciplinary collaborations to achieve significant scientific and technological advances, according to the Chinese Academy of Sciences on January 13.

Scientists Advance Lithium Battery Research

A Chinese research team has developed a stable solid electrolyte interphase for lithium batteries, improving performance and safety. The findings of the research team, led by South China University of Technology, have been published in the academic journal *Nature*. This interphase is highly electronically insulating, has excellent ionic conductivity, and remains chemically stable, addressing key challenges in lithium battery technology.

Multifunctional New Gene Editing Platform Developed

Researchers at the University of Pennsylvania have developed the Minimal Versatile Genetic Perturbation Technology (mvGPT) platform, which integrates gene editing and expression regulation to address hereditary diseases. Unlike previous tools requiring multiple systems for simultaneous genetic modifications, the mvGPT combines these functionalities into one platform, making it a powerful tool for studying genetic diseases like Type 1 diabetes.

2024 Confirmed as Hottest Year on Record

The Copernicus Climate Change Service reported that 2024 was the hottest year since record-keeping began in 1850. The year broke multiple climate records, including global average temperatures and ocean heat levels. These alarming trends underline the urgency of global action to combat climate change and mitigate its far-reaching impacts on ecosystems and human society.