

Building Beijing into Global Innovation Hub

Policy

By LI Linxu

In the latest move to further advance its innovation-driven development strategy, China is stepping up its efforts to build Beijing into a global innovation hub.

By 2025, Beijing is expected to become a major international sci-tech innovation center in the world, according to a work plan jointly released by 12 government bodies, including the Ministry of Science and Technology and the National Development and Reform Commission.

The plan sets up a series of development goals to build Beijing into a hub for original innovation in science and technology, and a center for the convergence of global innovation elements.

Beijing's spending on R&D will be kept around six percent of its GDP, according to the plan. In 2021, the city's R&D spending reached 262.93 billion



Visitors experience new technologies at Zhongguancun Exhibition Center during the 2023 ZGC Forum. (PHOTO: XINHUA)

RMB, surpassing six percent of its GDP and ranking first in the country.

Efforts will be made to invest more in basic research, said the plan, pledging to increase the proportion of basic research to 17 percent of its R&D spend-

ing, up one percent from that of 2022.

By then, the number of R&D workers will be around 260 out of every 10,000 people employed in Beijing, while the number of unicorn enterprises in the city will be among the top in

the world. Meanwhile, the annual added value of high-tech industries will exceed 1.2 trillion RMB.

To achieve these goals, the plan sets out a series of major tasks, such as accelerating the construction of world-class major sci-tech infrastructure clusters, supporting the innovative development of new-type research institutions, carrying out strategic major sci-tech programs, building cross-fields coordinated platforms, and enhancing IPR protection.

Measures will be rolled out to create a favorable environment for foreign experts to work and live in the city.

Aiming to create an open and globally-competitive innovation ecosystem, Beijing is urged to deepen international sci-tech exchanges and cooperation and cultivate an internationalized environment for research.

The policy is a follow-up to implementing the spirit of the 20th National Congress of the Communist Party of China (CPC), which vowed to put innovation at the heart of China's modernization drive.

High-quality Growth

Innovation, Ecological Protection Prioritized in Jiangsu

By Staff Reporters

In recent years, China's Jiangsu province has comprehensively implemented new development concepts and built a new development pattern, where high-quality development has become its distinctive feature.

The province's sci-tech innovation capabilities have been significantly improved, with deeper integration of the innovation chain with the industrial chain.

In 2022, the R&D input intensity of the province reached three percent, contributing more than 12 percent to the whole country. The number of patents owned by 10,000 people was 50.4, maintaining the first place among all provinces. The output value of high-tech enterprises accounted for 48.5 percent of the total output of industrial enterprises above the designated size.

"Jiangsu has strengthened the development of core technologies in key areas. It has led the country in technological innovation on nanotechnology, supercomputing, Internet of Things, and biomedicine," said Zhao Jianguo, deputy director general of Jiangsu Provincial Department of Science and Technology.

The real economy and the manufacturing industry are the foundation of Jiangsu's development. The province has

made great efforts to improve the resilience and safety level of the industrial chain and supply chain and promote the industrial structure to move towards the mid-to-high level.

According to Xu Jun, deputy director general of the province's Industry and Information Technology Department, the added value of the province's manufacturing industry reached 4.6 trillion RMB in 2022, accounting for about 13.7 percent of the country and 4 percent of the world.

The scale of the digital economy exceeded 5 trillion RMB. The value of industries such as new materials, energy conservation and environmental protection, new energy, and marine engineering equipment ranks first in the country.

While achieving rapid economic development, the province also achieved good results in ecological protection. The environment quality has reached the highest level this century, said Yin Rongyao, deputy director general of the province's Department of Ecology and Environment.

According to statistics, 3,876 chemical companies along the Jiangsu section of the Yangtze River have been shut down for environment-protection related reasons, and the water quality of the Yangtze River has maintained Class II for five consecutive years.

Foreign Experts Expand Their Careers in China

By CHEN Chunyou

Over the decades, foreign experts have not only witnessed China's development, but have also been active contributors, while growing their careers amid China's ongoing development.

From May 22 to 27, an event called Foreign Experts' Visit to Zhejiang 2023 was held in Hangzhou and Shaoxing, Zhejiang province. More than 20 foreign experts from different regions of China visited Zhejiang's industrial clusters and research institutes. They had in-depth exchanges with local entrepreneurs, enterprises' representatives, and college researchers on China's innovation environment, cultivation of technological enterprises, and the construction of new-type research institutes.

At the Zhejiang Nurotron Biotech-

nology Co., Ltd. in Hangzhou Future Sci-tech City, a worker introduced the application of technology in helping patients with hearing impairment and Parkinson's disease. A British expert on global health listened attentively. Over the years, she has witnessed the huge changes that 5G, AI and big data have brought to the healthcare industry. She is promoting medical exchanges between China and the world in the intensive care sector, and has visited many areas in China for this purpose. She said that the Chinese government gives full support to overseas experts in project application, fund allocation and resource mobilization, so that they can carry out research efficiently.

A Japanese expert from an energy company in Huzhou, Zhejiang province, said that government supports enterpris-

es in pioneering innovation. His company has set up a postdoctoral workstation and he is supervising two postdoctoral fellows. His team focuses on the R&D of fuel cells. He plans to build a joint R&D platform with Westlake University to address major technical challenges in the new energy material sector.

"China's research environment is open, and a graduate of mine is working as an assistant professor at Westlake University," said a Pakistani expert in bone tissue engineering, now working as a visiting professor at a Shanghai-based institute. He said China is leading the world in 3D printing technology for medical use. He is currently doing joint research with his Chinese peers, and plans to establish a joint laboratory in Pakistan.

In Shaoxing's Keqiao district, foreign experts visited the Zhejiang (Shaoxing)

High-level Foreign Experts Innovation Center, where many global entrepreneurs were attracted to start business.

While engaging with some of the entrepreneurs, the foreign experts were impressed by the support services tailored for the inbound experts by the local government, such as offering research workshops and housing. "This is especially good for newcomers to the district, to encourage them to carry out technological explorations and help them adapt to local life as quickly as possible," said a British expert in automobile manufacturing based in Anhui province.

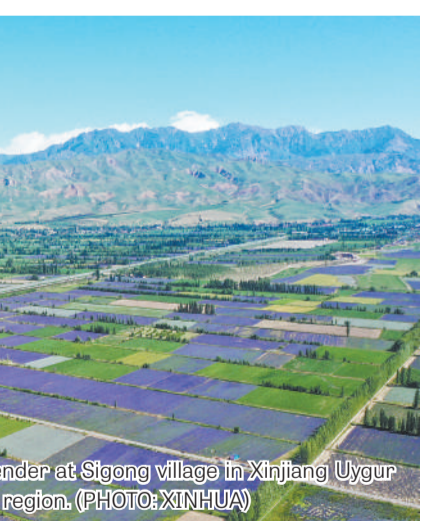
The event was hosted by the Department of Science and Technology Talent and Popularization of the Ministry of Science and Technology (MOST), and organized by MOST's Service Center, and the Zhejiang Provincial Department of Science and Technology.

Lavender Transforms Fortunes of a Xinjiang Village

Case Study

By LI Linxu & FU Lili

From a land of rocks to fields of flowers, lavender has helped transform the fortunes of Sigong village in northwest China's Xinjiang Uygur autonomous region.



Fields of lavender at Sigong village in Xinjiang Uygur autonomous region. (PHOTO: XINHUA)

Owing to the beautiful scenery of lavender flowers, tourists have begun flocking to Sigong in recent years, creating new jobs and bringing business opportunities to the village.

It is a tremendous change, said Ma Yu, the first secretary of Sigong village, noting that while in the past, the village was known for its sterile soil and poverty, now it has become a destination bustling with tourists and young people.

In 2022, the average income per villager reached 22,000 RMB in Sigong, about 10 percent higher than the average income per capita in its located town.

Situated on the same latitude as Provence in France, the village shares similar meteorological and soil conditions with its French counterpart, making it possible to become a lavender production base.

At first, some villagers had concerns

about whether lavender could be viable, said Pan Lin, secretary of the Sigong village committee of the CPC, also one of the first villagers to plant lavender.

The tentative move to plant lavender has seen a very encouraging outcome, with higher income than traditional crops and a growing number of sightseers.

As a result, more and more villagers joined the call to plant lavender. Now, the village has 12,000 mu (about 800 hectares) of lavender farms and become a well-known tourist resort.

Smelling the business opportunities, Ma Zhongliang renovated his home to accommodate and entertain growing tourists. He even called back his two daughters who worked in the city to help out in his thriving business.

"Thanks to lavender and related businesses, our lives have changed," said Ma.

2023 ZGC Forum: Cooperation for Shared Future

From page 1

Ranking third in the top 100 science and technology clusters listed by the Global Innovation Index 2022, Beijing is now one of the most vibrant innovative cities in the world.

A number of international sci-tech organizations have set up their headquarters in Beijing, including the International Hydrogen Fuel Cell Association, International Coalition of Intelligent Manufacturing and International Panel of Mesoscience.

Beijing will build a cluster for headquarters of international sci-tech organizations in Chaoyang district to attract more organizations, according to the information released at the opening ceremony.

Advanced sci-tech achievements released

A large amount of profound sci-tech achievements were also exhibited during the ZGC forum.

Beijing Academy of Quantum Information Sciences issued a new generation cloud platform for quantum computing named Quafu. With three superconducting quantum chips of 136, 18 and 10 quantum bits, the platform is the largest cloud platform in China, and its precision for operation and loading exceeds 98 percent, reaching a world leading level.

For the first time, a research team from Peking University managed to induce human pluripotent stem cells from somatic cells by chemical reprogramming. Compared with traditional technologies, chemical reprogramming is safer, easier and simpler to standardize and control.

There were also plenty of fascinating technologies displayed at the China Beijing International High-tech Expo during the 2023 ZGC forum.

Some of the highlights were a surgery robot which can remove the shell off a raw egg, brain computer interface (BCI) gloves which can perform hand function recovery training, a lighting drone that has been involved in dozens of fires, landslides and other emergency rescues. A batch of the latest technological advances and major achievements in the fields of AI, quantum information, intelligent manufacturing, medicine and health, were also showcased in the hall themed "Information Technology and Intelligent Manufacturing."

Held from May 25 to 30, the 2023 ZGC Forum is jointly hosted by the Ministry of Science and Technology, the National Development and Reform Commission, the Ministry of Industry and Information Technology and other related departments and organizations.

From page 1

In the 1960s, Chinese researchers collected two ichthyosaur fossil specimens in an expedition to Mt. Qomolangma. The giant ichthyosaurs with long mouths, sharp teeth and more than 10 meters in length were named "Himalayasaurus." However, the two specimens found in the 1960s are now in poor condition after repeated transport and repairs to reinforce them.

The newly discovered ichthyosaur vertebrae and ribs were well preserved with more complete and clear structure, while well-preserved Himalayasaurus fossils were rare in previous scientific expeditions, according to the research team from the Institute of Vertebrate Paleon-

Scientific Expedition to Protect Roof of the World

tology and Paleoanthropology of the CAS.

Based on a number of fossils found in the past decades, we can better understand the process of life evolution on the Qinghai-Tibet Plateau, said Wang Wei, an associate research fellow at the institute.

Li Meng, vice minister of science and technology, stressed the importance of this year's Mt. Qomolangma expedition, as it enriches and broadens the second comprehensive expedition on the Qinghai-Tibet Plateau. "I believe more and more 'unsolved codes' will be 'decoded'," said Li.

Keep exploring

"I never thought I conquered the mountains. Instead, I felt like the mountains were accepting me," said Chinese mountaineer Dong Hongjuan, who has become the first woman to conquer all 14 peaks above 8,000 meters on Earth. Dong's words can also reflect the goal of scientific expedition changing from "conquering" to "understanding" and "protecting".

In the 1950s and 1960s, mountaineering was the first goal, said Yao. With support from CAS, a Chinese mountaineering team reached the summit of Mt. Qomolangma from the north ridge on May 25, 1960, for the first time in human history.

Since the 1970s, China has carried out the first scientific expedition on Qinghai-Tibet Plateau, which lasted more than 20 years. From then on, scientists have been deepening their knowledge of the plateau, and ecological protection measures are carried out in accordance with their research results.

Decades have since passed. Compared to the first one, the second comprehensive scientific expedition may have advanced equipment, but the spirit of hard work is still passed on and has never changed, said Yao.