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# New Action Plan Aims to Boost Enterprise Innovation

## Policy

By ZHONG Jianli & LIU Yin

An action plan to boost the technological innovation capability of enterprises has been released by Chinese authorities, aiming to achieve more positive results in promoting the country's high-quality development through sci-tech innovation.

Jointly issued by the Ministry of Science and Technology and the Ministry of Finance, the *Action Plan for Enhancing the Technological Innovation Capability of Enterprises (2022-2023)* lists supportive measures in 10 areas, including fully implementing preferential tax or other policies for enterprises, so as to stimulate their innovation capabilities.

"There is still much room for improvement in the technological innovation capabilities of Chinese enterprises," said Chen Zhi, director of the Institute of Sci-Tech & Economic and Social Development under the Chinese Academy of Science and Technology for Development.

Chen said improvements in developing more core technologies in key areas, strengthening efforts to innovate frontier original technologies, and creating a more collaborative and efficient industrial ecology are some of the areas targeted.

The action plan proposes to establish a mechanism for enterprises to participate in the country's sci-tech innovation decision-making process on a regular basis.

By setting up new mechanisms such as the entrepreneur sci-tech innovation advisory meeting, and the high-end think tank network for enterprise innovation, enterprises will be able to en-



A technician at Hebei Yili Technology Company tests a car's flexible axle. (PHOTO: XINHUA)

hance their strategic planning ability, and participate more deeply in the country's decisions on sci-tech innovation, said Chen.

The plan also pledges to support enterprises in frontier basic research. It calls for optimizing the management of the Joint Fund for Enterprise Innovation and Development of the National Natural Science Foundation, so that the fund can focus on meeting the real needs of enterprises, and help them carry out prospective basic research.

With the goal-oriented approach, such policy aims to find more basic research tasks from enterprise's industrial practices, said Chen, thus encouraging qualifying enterprises to increase invest-

ment in basic research.

In particular, to guide enterprises in tackling core technologies in key areas, the document mentioned it is necessary to support those enterprises in the digital economy or platform economy to develop more hard technologies.

There are good signs that some leading enterprises have already started to invest in hard technologies in cutting-edge fields. The government needs to take more targeted measures, such as offering preferential tax policies, to help solve difficulties encountered by these enterprises in making innovation, according to Chen.

To facilitate international cooperation, the action plan supports enterpris-

es in building overseas sci-tech innovation centers, and offshore innovation and entrepreneurship centers. Capable enterprises are encouraged to establish international organizations in their specific industries, and take part in the formulation of international standards.

In addition, more support will be given to enterprises who introduce foreign experts into their operations. Foreign-funded R&D institutions are encouraged to participate in government sci-tech projects and the commercialization of sci-tech achievements, says the plan.

*This article is in cooperation with the Chinese Academy of Science and Technology for Development.*

# China to Strengthen Management of Ecological Conservation Red Lines

By LI Linxu

More concrete measures have been rolled out concerning the management of ecological conservation red lines in a notification jointly released by three government bodies, including the Ministry of Ecology and Environment (MEE).

Ecological conservation red lines are important management and control boundaries in territorial spatial planning, said the notification, laying out specific provisions on what kind of activities are allowed within the red lines.

Once drawn up, the ecological conservation red lines shall not be arbitrarily adjusted without approval, according to the notification.

Based on monitoring of the carrying capacity of resources and environment, assessment of the importance of ecological conservation, and evaluation of the implementation of territorial spatial planning, partial adjustment can be proposed by corresponding provincial governments and shall be submitted for the approval of the State Council.

Supervision efforts on the implementation of such red lines will also be reinforced, as per the notification, vowing that any breaches will be fined or punished in accordance with relevant rules and regulations.

The notification is a follow-up policy to a guideline released in 2019, focusing on coordinated delimitation and implementation of three control lines.

The red line for ecological conservation is listed at the top of the three control lines. The other two are designated for permanent basic farmland and for urban and rural development boundaries respectively.

The red line policy was initiated in 2011, enshrined in the Environmental Protection Law of 2015, and implemented at national scale in 2017.

In 2021, China had basically completed drawing up such red lines nationwide, covering important ecological function areas, ecologically sensitive and fragile zones, biodiversity, and natural landscapes.

China is the first country in the world to propose and implement the red line strategy for ecological conservation, said a white paper released last year, noting that this is an important institutional innovation in the country's land use planning and eco-environmental reform.

The country's proposal "Drawing a 'Red Line' for Ecological Protection to Mitigate and Adapt to Climate Change" has been selected by the UN as one of the 15 best Nature-based Solutions around the globe.

Strictly abiding by these red lines is an effective way to improve the country's ecosystem service function, said an official from MEE, adding that ecological conservation red lines are bottom lines and life lines for safeguarding and maintaining national ecological security.



Migratory birds in Chenhu Wetland Nature Reserve, Wuhan, Hubei province. (PHOTO: XINHUA)

# Support Measures Unveiled to Bolster SME Digital Upgrade

By LI Linxu

A wide range of replicable and promotable experience is being developed to bolster digital upgrades of China's small and medium-enterprises (SMEs).

About 300 public service platforms and 4,000 to 6,000 SMEs are expected to be nurtured as digital transformation models during 2022-2025, according to a notification jointly released by the Ministry of Industry and Information Technology and the Ministry of Finance.

Covering 100 subsectors, including the manufacturing of boilers, pumps, textiles, auto parts, motors, cells, smart electronics, instruments and meters, the policy's major target is the SMEs in key areas of manufacturing and key links of the industrial chain.

In the next four years, the pilot projects will be carried out in three batches, said the notification, vowing to develop an array of small, fast, lightweight and precise digital system services and products.

Central financial funds will play a guiding role in support of these trans-

formation efforts. Local government are encouraged to roll out relevant support measures to create a favorable environment for digital transformation of SMEs.

During each batch, each province can recommend five subsectors at maximum to pilot digital transformation, according to the notification.

Eligible platforms can apply for financial support from central financial funds. The selected platforms will provide digital transformation services, such as transformation consultations, diagnostic assessments, equipment upgrades and software applications, for SMEs.

This year, about 100 public service platforms are expected to receive financial support from the central financial funds, as per the notification.

During the 14th Five-Year Plan period, China's digital economy is entering a new phase of deepening application, orderly development, inclusiveness and sharing, said the notification.

Statistics show that by the end of 2021, there were 48.42 million enterprises in China, among which SMEs accounted for 99 percent.

# Deepening Sci-tech Cooperation, Win-win for Shandong and Ningxia

By Staff Reporters

Located in the upstream and downstream of the Yellow River basin respectively, Ningxia Hui Autonomous Region and Shandong Province share close ties through sci-tech cooperation.

Shandong, a more developed province in east China, boasts rich innovation results and professionals, while

northwest China's Ningxia has a strong desire to further develop and innovate.

This August, the science and technology departments of Shandong and Ningxia signed a new round of sci-tech cooperation framework agreements, aiming to further promote collaborative sci-tech innovation along the Yellow River basin.

As early as in 2017, Ningxia began

to deepen sci-tech cooperation with eastern provinces, and Shandong became one of its important partners.

Since then, the two sides have jointly implemented a total of 56 sci-tech cooperation projects, built 10 sci-tech innovation platforms in textiles, fine chemicals, and bio-medical industries, achieving a number of key sci-tech results.

Since 2019, the Department of Science & Technology of Shandong has launched the intellectual aid program for sci-tech cooperation with Ningxia. As of August this year, 23 experts in new maize variety breeding, water-saving irrigation, green foods, and other fields, have been invited to share their expertise with technicians and farmers in Ningxia. A total of 1,160 people have benefited from 13 online and offline training sessions.

Sci-tech commissioners also play an important role in advancing cooperation. By the end of 2021, 11 sci-tech commissioners (teams) from Shandong were sent to Ningxia to help develop local agriculture.

By introducing the "honeysuckle cultivar cultivation, screening and evaluation method" by Professor Zhang

Yongqing's team from Shandong University of Traditional Chinese Medicine (TCM), Ningxia's Zhongwei Yangguang Muchang Agriculture and Animal Husbandry Company cultivated three excellent new varieties of honeysuckle, which were widely planted in Shandong, Hebei and Ningxia. Honeysuckle is used to clear heat and remove toxins in TCM.

Mutual benefit is the ultimate goal of cooperation between the two sides.

"In collaboration with Ningxia Dehao Technology Industry Co., Ltd., we are able to constantly discover new problems and improve our technology," said Su Jixin, a professor at the School of Environmental Science and Engineering at Shandong University. He believes that Ningxia has great advantages in energy, resources and many other aspects, and there will be more opportunities for cooperation between companies, universities and platforms of the two sides.

With the signing of the new agreements, Ningxia and Shandong are expected to carry out an all-round, multi-level cooperation on building innovation platforms and nurturing experts, and mutually enhance the innovation capacity and industrial levels.



A "smart plant factory" was exhibited at the 9th Ningxia Seed Expo held in July. (PHOTO: XINHUA)

# Innovation Brings Chinese Robots to the World

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*Chinese robots going global*

In addition to serving the domestic market, robots developed and produced by China can be found across the world.

As early as 2007, SIASUN won the bid in an AGV project from U.S. company General Motors, which was the first time that China's AGV products had

been exported to developed countries. Now, SIASUN's products have been sold to more than 40 countries and regions around the globe.

Chengdu CRP Robot Technology Co., Ltd., listed by the Ministry of Industry and Information Technology as a "little giant" among all the specialized, refined, differential and innovative (SRDI) enterprises in China in 2021, witnessed

an increase of export orders by nearly 40 percent year-on-year for the first half of 2022.

The export value of industrial robots has experienced obvious growth for the past few years. According to China Customs, the export value of industrial robots reached about 3.67 billion RMB in 2021, surging by 40 percent compared with exports in 2020.

Last December, 15 departments in China jointly issued a guideline for the robotics industry during the 14th Five-Year Plan period (2021-2025). The guideline says that the country aims to build three to five robot industry clusters with an international influence by 2025.

This augurs well for this industry given the projected ongoing growth of the global robot market.