

Fast-tracking Digital Development

Policy

By CHEN Chunyou

Building a digital China is important for the country's advancement, and will provide solid support for improving overall competitiveness, according to a plan, co-released by the CPC Central Committee and the State Council in late February, aimed at fast-tracking digital development.

The plan vows to promote deepened integration between the digital economy and the traditional economy, and drive revolution in production, living, and governance through digitalization.

Notable progress will be made in the construction of a digital China by 2025, with effective interconnectivity in digital infrastructure, a significantly improved digital economy, and breakthroughs in digital technology innovation, said the plan.

It envisions a digital country with effective digital government services, a thriving cyberspace culture, widely accessible digital public services, and ecological governance empowered by digital technology.



The 5th Digital China Summit is held in Fuzhou, southeast China's Fujian province, July 2022. (PHOTO: VCG)

Sci-tech enterprises are expected to play a leading role in the digital China initiative, and the enterprise-led cooperation between industries

and academic institutions is to be strengthened, said the plan, which also calls for improved intellectual property protection, and a sound distribution mechanism of profits earned from the commercialization of research achievements.

In order to better empower socioeconomic development, the plan proposes to foster and strengthen core industries of the digital economy, roll out targeted policies, when necessary, to support their growth, and make them globally competitive.

Meanwhile, it calls for accelerating the application of digital technologies in key areas, such as agriculture, industry, finance, education, medical care, transportation, and energy, as well as supporting the development of platform companies.

In addition, China will strengthen international cooperation in the digital sector, join digital cooperation platforms under multilateral frameworks, such as the UN, WTO, G20, APEC, and BRICS, and engage in formulating relevant international rules on cross-border data flow, according to the plan.

Beijing-Tianjin-Hebei Region Building Innovation Community

By LI Linxu

As one of China's major national strategies, the Beijing-Tianjin-Hebei region's coordinated development is now pressing ahead at full steam and has grown into a new driver of the country's development.

In 2014, China mapped out a key strategy to build Beijing and its neighboring regions into a world-class regional city cluster. The move entails adjusting the economic structure and rationalizing space utilization, while exploring a new mode of optimized integrated development in a region with a dense population.

Nine years on, the coordinated development of the Beijing-Tianjin-Hebei region has advanced to a new level.

Latest statistics show that in 2022, the economic aggregate of the Beijing-Tianjin-Hebei region exceeded 10 trillion RMB, 1.8 times that of 2013 on the basis of current prices.

Of particular note is that sci-tech innovation and industrial synergy are one of the highlights in the implementation of the Beijing-Tianjin-Hebei region's coordinated development.

In 2021, the region's R&D expenditure reached 394.9 billion RMB, 2.1 times that of 2013, accounting for 14.1 percent of the country's total.

Driven by greater intensity of R&D investment, the region witnessed an increasingly large number of innovative enterprises.

In the 4th batch of "little giant" enterprises released last year, referring to

SMEs that specialize in niche sectors, command a high market share and have strong innovative capacity and core technologies, there are 535 such enterprises in the region, accounting for 12.3 percent of the total on the list.

Tianjin Progoo Information Technology Co., Ltd. is one of the beneficiaries of this strategy. From Beijing's Zhongguancun to Tianjin's Binhai-Zhongguancun, the company has gone through a transformation from an R&D-oriented company to a market-oriented company.

The mode of conducting R&D in Beijing and making sci-tech achievement transformation in Tianjin is a good fit for the company's development, said Zhang Lifu, chairman of the company's board of directors.

By leveraging Beijing's R&D advantages, and its neighboring region's manufacturing advantages, the same story is also unfolding in many other companies.

In 2022, Tianjin attracted 198.9 billion RMB of investment from Beijing and Hebei, while a total of 4,395 units from Beijing and Tianjin moved to Hebei, according to a report recently released by the Beijing Municipal Bureau of Statistics.

Accelerating the coordinated commercialization of sci-tech achievements in the region is an important work in giving full play to Beijing's advantages in sci-tech innovation, and promoting the deep integration of the region's innovation chains and industrial chains, said Li Guoping, director of the Beijing Development Institute of Peking University.

China-Germany Industrial Park Expands

Case Study

By CHEN Chunyou & HUA Ling

Beijing is seen as an ideal destination for overseas enterprises to expand business in China, thanks to the city's concentrated settlement of foreign enterprises' headquarters, R&D centers, opening-up policies and good business environments.

In Beijing's Shunyi district lies the China-Germany Industrial Park, which is a national-level cooperation project between the two countries. It opened in December 2021, next to Beijing Capital International Airport and other exhibition centers.

The industrial park covers industries like new energy intelligent vehicles, intelligent equipment, sci-tech consulting services, business exhibition and the digital economy.

To date, it is home to 90 German-invested enterprises, such as Bosch, Mercedes-Benz, and BMW, with an annual industrial output value of more than 35 billion RMB.

Although in its infancy, the industrial park is actively growing to better serve enterprises. Now, it has four overseas offices in Berlin, Frankfurt, Munich and Cologne, which help to connect with German innovation resources.

In December 2022, a market development team was sent to Germany and established ties with more than 20 com-

panies, most of which planned to set up branches at the industrial park.

In late February this year, the delegates took a second business trip to Germany, to further explore business opportunities, and bolster high-quality economic development. Their itinerary covered four major cities, including Frankfurt, Duisburg, Bonn, and Cologne. An agreement was signed with the leading global technology transfer center, Steinbeis Intelligent Manufacturing Transfer Center, on co-establishing an offshore innovation incubator.

In 2023, the park will focus on its competitive industries to attract investment, while making more efforts in management, industrial development, and infrastructure construction, making itself an international platform for industrial

and technological cooperation, said Dong Hao, a member of CPC Leading Group of Shunyi Bureau of Economy and Information Technology.

According to German Federal Statistical Office, China remained the country's most important trading partner in 2021 for the sixth consecutive year. This exemplifies China's good innovation and entrepreneurship environment.

In order to provide targeted service for currently registered and future inbound enterprises, in-depth research on development paths of the industries, such as new energy intelligent vehicles, intelligent equipment, and advanced manufacturing will be carried out, so as to roll out measures that cater to the development needs of enterprises, said Dong.



A driverless car parking before the Collaborative Development Center at Beijing-Tianjin Zhongguancun Tech Town in Baodi district of Tianjin, north China. (PHOTO: XINHUA)

National Blockchain Center Aims for More Breakthroughs

By Staff Reporters

Blockchain is playing an important role in technological innovation and industrial transformation.

This February, the Ministry of Science and Technology approved the establishment of the National Blockchain Technology Innovation Center in Beijing, tasked with achieving more technological breakthroughs in the blockchain sector.

The center will develop software, hardware and fundamental theory, with a focus on scenarios that benefit the national economy and personal livelihoods. This is aimed at advancing the industrialization of major basic research results and making blockchain a solid foundation for the country's digital infrastructure.

To improve the efficiency of research output, the center will explore an enterprise-led industry-university-research cooperative mechanism, establish an incentive mechanism for motivating high-level experts to accumulate

and grow, and strengthen the sharing of innovation resources, forming a global innovation network.

The construction of the center will be led by the Beijing Academy of Blockchain and Edge Computing, known for having developed an open-source blockchain platform Chang'an chain, officially known as ChainMaker, in 2021.

Emission Reduction Accelerated in Key Areas

By ZHONG Jianli

China has unveiled a guideline to speed up the upgrading and recycling of equipment in key areas, calling for faster transformation into an energy-saving development mode, and in the process helping save energy and reduce carbon emissions.

Released by the National Development and Reform Commission (NDRC) and eight other departments, the guideline proposes that the amount of renewable and recycled resources such as scrap steel and waste plastics, should reach 450 million tons by 2025, and the energy efficiency of products and equipment in key sectors should reach an internationally advanced level by 2030.

At present, more than five billion boilers, motors, power transformers, refrigerators, lighting facilities, household appliances and other equipment are used in such areas as energy, industry, construction and transportation, as well as in people's daily lives.

The annual energy consumption of equipment and appliances in the above-

mentioned key areas accounts for about 80 percent of the country's total energy consumption. So, the coordinated promotion of upgrading, recycling and utilization of equipment and machinery is important to help realize the carbon peaking and neutrality goal, said an official from the NDRC.

The guideline called for expanding market supply and application of energy-efficient products and equipment.

Enterprises are encouraged to increase investment in research and design of green products, upgrade technical processes, and enhance their manufacturing capacity for energy-efficient products and equipment.

The technical difficulties in upgrading and recycling products and equipment should be thoroughly investigated and sorted out, said the guideline.

It stressed that research institutions, industry associations, and key enterprises should focus on developing a group of advanced technologies for energy conservation and carbon reduction, with independent intellectual property rights and core competitiveness.

Sci-tech Innovation Forges Ahead in New Era

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All those are impossible without the progress of basic research, which advances fundamental knowledge about the universe and fuels technological innovations.

MOST has formulated a ten-year plan for basic research and diversified the source of input. Apart from financial support, enterprises, local authorities and all walks of life are encouraged to invest in basic research.

Funding for basic research rose from 49.9 billion RMB in 2012 to 195.1 billion RMB in 2022, an average annual increase of nearly 15 percent.

China has made many breakthroughs in basic research, including the establishment of major instruments such as the well-known FAST telescope, China Spallation Neutron Source (CSNS)

and the Steady High Magnetic Field Facility (SHMFF), which smashed the world record for the strongest steady magnetic field ever produced on Earth.

Key projects have also been deployed in fields such as quantum computing, stem cells, brain science and synthetic biology. One example is artificial synthesis of starch from carbon dioxide providing a new solution to carbon emissions and food security.

In the future, China will strengthen cutting-edge and exploratory basic research, carry out systematic research to support national strategies, and improve application-oriented research to help solve industrial challenges, said Wang during an interview after the opening meeting of the first session of the 14th National People's Congress on March 5, 2023.

Further international cooperation China is not only an important participant in international frontier innovation, but also an important contributor to solving global problems, said Wang.

According to MOST, China has to date established sci-tech cooperation relations with more than 160 countries and regions, and signed 116 inter-governmental agreements on sci-tech cooperation.

In 2022, 48 inter-governmental science and technology cooperation meetings were held, 25 new and renewed science and technology cooperation documents were signed, and pragmatic cooperation was carried out with many countries in such fields as pandemic control, biodiversity, climate change and clean energy.

With sci-tech support, more coun-

tries and their people benefitted from poverty alleviation, business startups, technology transfer and spatial information services. China has taken an active part in the global governance and made its own proposals and contributions to the common challenges of humankind, including the launch of a BRICS vaccine R&D center, as well as leading the Green Powered Future Mission.

Meanwhile, Chinese scientists have participated in international scientific programs and projects such as the International Thermonuclear Experimental Reactor (ITER) and the Square Kilometer Array (SKA) radio telescope, making great achievements in the progress.

China will continue to strengthen governmental and non-governmental exchanges to expand international sci-tech cooperation, according to MOST.