FOCUS

Creating Sound Environment for Innovation

Policy

By ZHONG Jianli

In the report to the 20th CPC National Congress, China vows to continue to nurture a culture of innovation, encourage dedication to science, cultivate fine academic conduct, and foster an enabling environment for innovation.

Institutional reform should be carried out to inspire dedication among young scientists, said Rong Mingzhe, executive deputy secretary of the CPC Committee of Xi'an Jiaotong University.

He added that policy support should be given to build a sound environment in which young scientists are trusted, respected, tolerated, and encouraged to take on essential innovation

Ensuring public understanding of the spirit of scientists is vital to foster a sound environment for innovation. The China Science and Technology Museum (CSTM), as a national comprehensive scitech museum, has played a role in this

"CSTM has created a brand project—the National Top Science and Tech-



Visitors enjoy an exhibition integrating technology and modern arts at China Science and Technology Museum, January 25, Beijing. (PHOTO: VCG)

nology Award Winner's Hand Model Wall, which provides the public with more opportunities to experience the greatness of scientists, and stimulate children's interest in science and technology," said Qian Yan, deputy director of CSTM

Qian added that CSTM has organized a series of special exhibitions to publicize the scientific and academic spirit of scientists. At the same time, CSTM has produced the "Idol Scientists" series of animated micro films and the video series "Brighten Up the Science Dream" to introduce stories of scientists. Also, scientists have been invited to give online and offline lectures to the public on such topics as manned space flight, and Moon and Mars exploration.

The popularization of scientific knowledge is one of the effective means to spread scientific and innovative spirit of scientists, said Jiang Peng, who is in charge of the Five-hundred-meter Aperture Spherical radio Telescope (FAST) observation base of the Chinese Academy

Over the years, the FAST team has organized many events in universities, as well as in primary and middle schools, in order to disseminate relevant scientific knowledge among young people, and provide exchange and learning platforms for young science lovers to obtain scientific knowledge, added Ji-

Jiang said the base had tried to attract innovative experts. With all the efforts, they have made a series of scientific achievements with international influence in the fields of pulsar search, fast radio bursts, and galaxy formation and evolution. Meanwhile, FAST is open to astronomers all over the world and has become an important observation facility internationally.

Case Study

Foreign Experts Empower Rural Revitalization in Liaocheng

By LI Linxu & GENG Yuguo

Aiming to achieve rural revitalization, Liaocheng, a prefectural-level city situated in the west of Shandong province on the north bank of the Yellow River, is assembling the best minds around the world and drawing fully on their ex-

At present, there are more than 100 foreign experts from 30 countries actively involved in various sectors in the city.

Anush Balian, a Ukrainian expert, is one of them. In 2020, she led an agricultural experts team to Liaocheng to carry out exchanges and cooperation on the invitation of a local company, Shandong Guanyou Agriculture Co., Ltd. (referred as Guanyou).

She and her teammates shared research findings on prospective varieties of fruits and rootstocks, offered highly efficient fruit cultivation techniques, provided corresponding technical support, and gave advice on establishing a modern orchard ecosystem.

Under her guidance, Guanyou has gradually grown into a modern agricultural enterprise, with a marked improvement of quality, and an extended industrial chain

In addition, Guanyou has also built a large number of ecological orchards, particularly crisp pears, along the old course of the Yellow River, forming a unique Yellow River agro-ecological land-

"I'm honored to be appointed as scitech commissioner by Liaocheng," said Balian, hoping to carry out an all-round cooperation in the agriculture sector with local companies.

As a sci-tech commissioner, Balian has played an important role in providing technical guidance, advice and training for local companies and staff.

Advanced equipment that Ukrainian experts have brought to Liaocheng includes a netting that can protect crops from pests, frost, and hailstorms, which has filled the domestic technological gap.

Thanks to the new equipment, new crop varieties, and new technologies, productivity is boosted, with more cost saving and greater profit margin. Meanwhile, both economic and ecological benefits are gained in the ecological orchards.

"Now, I can earn money while working near home," said Fan Jinfang, an employee of Guanyou.

The orchards have provided more than 200 job opportunities for local residents, with an average income growth per capita of more than 30,000 RMB.

To further promote sci-tech innovation and entrepreneurship, the city vowed to create a favorable working and living environment for foreign experts, said an official from Liaocheng.

Source: Liaocheng Science and Technology Bureau



Foreign experts exchange techniques with Chinese staff in Guanyou. (PHOTO: Ding Xiaojie/Guanyou)

Incentive System to Unleash Innovation Potential

By CHEN Chunyou & LIU Yin

To improve the incentive system for science and technology is to maximize the potential of science and technology, human resources and innovation, enhancing the core competitiveness and providing support for building a modern socialist country in all respects.

This is what Wang Zhigang, minister of science and technology, said regarding the latest document titled Opinions on Improving Incentive Mechanism for Science and Technology, released by the General Office of the CPC Central Committee and the General Office of the State Council in a bid to solve problems in incentive system.

According to Wang, these problems include insufficient national mission-oriented incentives, a shortage of longterm and stable support for basic and public welfare research, and less effective measures for motivating young researchers, as well as a lack of an environment that inspires innovation and tolerates failure.

The document focuses the incentives on the dedicated personnel and teams that devote themselves to research, and prioritizes those who contribute to science and technology progress, socioeconomic development and national strategic security.

An incentive based on the size of contributions made by front-line individuals and teams is stressed.

To create a friendly growth environment for young researchers, national non-profit research institutes and universities affiliated with ministries, are required to spend no less than 50 percent of their basic research funds on the vouth.

It also calls for increasing the proportion of young researchers who undertake major national tasks and projects. More than 20 percent of young researchers aged under 40 will host national key research projects in the next five years.

The document encourages research-

ers to immerse themselves in basic research, and other unpopular and overlooked fields, as well as establishing long-term support mechanisms for them.

In addition, the reform of public academic organizations, like research institutes and universities, is to be deepened through implementing a different management system, such as giving them more rights to make decisions on their internal affairs.

To ensure that researchers have enough time to engage in their research, the document proposes reducing unnecessary administrative gatherings and social activities, while streamlining research reviews and evaluation processes.

Pilot Program to Promote International Talent Exchanges

By LI Linxu

In its latest move to promote international talent exchanges, China has rolled out a new program tailored for foreign experts in six pilot cities.

Under the program, eligible personnel will be recognized as "high-level, elite, cutting-edge, urgently-needed" foreign experts, according to a notice jointly released by the Ministry of Science and Technology, and the Ministry of Human Resources and Social Security.

The program is testing the waters in the country's most economy dynamic cities, including Beijing, Shanghai, Chongqing, Hangzhou, Guangzhou, and

It vows to improve the level of convenience and services for foreign experts working in China.

Each pilot city has released its own criteria for such recognition, as

well as its urgently-needed job position directory.

Those with internationally recognized achievements, employed as senior managers or technicians in market-oriented encouraging job categories, or graded more than 85 points in the corresponding assessment system, are on the

Innovative and entrepreneurial person, outstanding young talent, or highly skilled specialist, are also on the list.

The urgently-needed job positions cover a wide range of sectors in these pilot cities. In Guangzhou for example, the listed 104 kinds of job positions cover eight sectors, including new generation information technologies, smart and new energy vehicles, biomedicine and health, and smart equipment and

The pilot program will last two years, starting from January 1, 2023, according to the notice.

tem. By setting up camera and radar sensors at the entrance and exit of the ser-

vice area, combined with big data and

AI recognition technology, the system

can count the vehicles entering and leav-

Digital Community: New Vehicle to Spur Real Economy

By Staff Reporters

The digital community, as a new vehicle for developing digital economy, is an emerging concept and model of Internet community construction, proposed for sustainable development, said Ao Li, chief engineer at CAICT.

The Digital Community Research Report was released by China Academy of Information and Communications Technology (CAICT) under the Ministry of Industry and Information Technology in late December 2022.

According to Ao, the main forms of digital communities have shifted from texts, images, and voices to short videos and live broadcasts, with more real-time interaction, which have given birth to new forms and models of consumption and production.

Currently, the digital community is deeply integrating with the real economy. It connects hundreds of millions of users from all walks of life through the content matrix built by diversified information interaction technologies.

According to the report, small and medium-sized enterprises and traditional industries are seeking transformation.

Some long-established catering en-

quality content, then market their products and introduce business activities like group purchasing, from which they obtain more business opportunities and potential sales leads. Digital communities also help im-

terprises and brick- and- mortar stores

need access to digital communities.

They attract Internet users with high-

prove the urban public service system. The report points out that in first- and second-tier city communities, there is a booming demand for online consumption, instant retail, entertainment, training and employment.

With the help of emerging technologies such as 5G, the mobile Internet and big data, digital communities can provide integrated online and offline services, making community life services more intelligent, accurate and conve-

In remote rural areas, more and more people are opening accounts on short video platforms, and selling local specialties and other featured products nationwide through live streaming.

This has increased their income and driven the rise of rural employment, becoming a new engine promoting rural revitalization in the new era.

Smarter Spring Festival Travel Rush

Meanwhile, many airports in China now use intelligent face information collection and comparison technology in check-in and security checks. Passengers can complete the ID inspection by themselves, which greatly speeds up boarding.

The face recognition system is connected to the luggage information system, to ensure the link of people and bags, which is not only convenient for passengers to check in and claim luggage, but also facilitates the registration and traceability of illegal items.

In addition, staff at Beijing Daxing International Airport wearing AR glasses can also use the face recognition function to read passengers' boarding information, quickly find passengers in need and provide timely assistance.

Smart expressway service area

The expressway service areas

widely built in the expressway system are an important place for regulating road traffic flow and alleviating traffic pressure. As more and more people drive cars home in the Spring Festival, the service areas become crowded, especially on the last day of public holi-

Recently, Shaoguan North Ring Expressway in Guangdong province adopted a smart service area management sysing the service area. When the system detects that the number of vehicles entering the service area has reached 80 percent of the upper limit, it will issue an early warning to remind the staff to activate the emergency plan for the service area, in order

to ensure its smooth operation. In addition, the system can also alert staff about the condition of vehicles stranded in the service area.

for people's livelihood.

Beijing will further explore the trusted circulation of data elements, and the all-process data control and monitoring mechanism of highly coordinated

Beijing's Blockchain Infrastructure Upgraded

The first version of the directory

blockchain went into operation in April, 2019. Since then, Beijing has gradually

established a new pattern of data management and control, in which the data source can be trusted, scope of authorization is defined, process of circulation

is traced, and scenarios and usage are monitored. The directory blockchain plays an important role in city operation, society management and service management systems, in order to comprehensively enhance the service of data fusion and sharing between government and enterprises.