FOCUS

New Rules Safeguard Research Integrity

By LI Linxu

Aiming to safeguard research integrity in China, a new policy has been jointly released by 22 government bodies, including the Ministry of Science and Technology (MOST).

The policy puts forward a series of rules for the investigation and handling of scientific research misconducts.

Three years ago, a trial version was released. In line with the latest laws and regulations, the new version has made a number of revisions to the trial version

It includes seven chapters including general rules, division of responsibilities, investigation, handling, appeal review, and supervision.

The new version is more methodical, detailed, and operational than its predecessor

It has specifically defined the kinds



In its latest move to safeguard research integrity, China has rolled out new rules for the investigation and handling of scientific research misconducts. (PHOTO: VCG)

of scientific research misconducts, such as plagiarism, fabrication of data and research conclusions, buying and selling experiment data, ghost-writing, peer review manipulation, and repetitive publication

These misconducts will be investi-

gated and handled in accordance with the procedures set out by the rules.

MOST would take responsibility for coordinating and managing such investigations in scientific fields, while the Chinese Academy of Social Sciences would do so in social sciences.

If a misconduct is involved multiple departments, a joint investigation could be carried out, according to the rules, which also detail punishment measures concerning misconducts, such as admonishment, public notice, suspension or termination of projects, cancellation or recovery of grants, and revoke of honors or degrees.

In recent years, China has rolled out a series of policies targeting scientific research misconducts, demonstrating the country's commitment to safeguarding research integrity.

Last year, China passed the revised Law on Scientific and Technological Progress, calling for improving the prevention, investigation and handling mechanism concerning research misconducts

The new rules are a follow-up policy to the law, as well as other relevant laws and guidelines, and took effect on September 14.

Cross-border E-commerce Pilot Zones Drive Foreign Trade

By ZHONG Jianli

A new batch of integrated pilot zones for cross-border e-commerce will be established in China to further stabilize foreign trade and investment, according to an executive meeting of the State Council in mid September.

Amid complex international issues, China has introduced a series of policies to stabilize foreign trade, which have yielded good results. In the first eight months of this year, China's total import and export value was 27.3 trillion RMB, a year-on-year increase of 10.1 percent.

To further improve the efficiency of goods handling at ports and ensure the stability of the industrial and supply chains, the State Council executive meeting proposed to set up a new batch of cross- border e- commerce comprehensive pilot zones, along with providing greater support to building overseas warehouses

Cross-border e-commerce is one of the fastest- growing industries in the past ten years in China. It is a new engine driving improvement of the quality and efficiency of foreign trade, especially in the face of the COVID-19 pandemic.

This year, a host of measures have been formulated to accelerate the development of cross-border e-commerce, including supporting qualified cross-border e-commerce enterprises to be recognized as high-tech enterprises.

Analysts believe that expanding the cross- border e- commerce comprehensive pilot zones is conducive to making full use of online and offline channels, diversifying markets, and promoting the stability of foreign trade.

According to data from the Ministry of Commerce, there are currently 132 cross-border e-commerce comprehensive pilot zones in China, and the number of overseas warehouses exceeds 2,000. China has established bilateral e-commerce cooperation mechanisms with 23 countries on five continents.

The meeting also proposed to improve services for Chinese companies to take part in overseas exhibitions and conduct business negotiations.

In addition, further measures should be taken to facilitate border entry and exit of business personnel and technicians employed by foreign companies, as well as their families

China On Par With U.S. in Top 100 S&T Clusters

By LI Linxu

As a key innovation metric, China is now on a par with the U.S. in terms of the number of top 100 science and technology clusters, with 21 each.

Of particular note is that two of China's science and technology clusters are among the top 5 S&T clusters, that is, Shenzhen- Hong Kong- Guangzhou, and Beijing, ranking second and third respectively.

cal to the vibrancy of national innovation ecosystems, so identifying them will help us understand where and how innovation is happening, and promote innovative activity as a powerful catalyst for jobs, investments, and growth, said Xiamen, climbing 15, 12 and 12 positions respectively.

Chinese clusters also experienced the largest increases in S&T output, with Qingdao and Wuhan jumping 25.2 percent and 21.9 percent respectively.

Hi-tech Zones

Biomedicine Industry Thrives in Yichang

By CHEN Chunyou & WU Chunxin

The biomedicine industry is known as a "sunrise industry" due to its close connection with high technology, broad development prospects and huge market potential. Yichang High-tech Zone (YHZ) is a prime example.

In 2020, the YHZ Biomedical Industry Base was identified as the National Torch Program Specialized Industrial Base by the Ministry of Science and Technology, and the pharmaceutical industry cluster was listed as one of the key growth industry clusters of Hubei province.

YHZ is home to more than 250 enterprises in the field of biomedicine. In 2021, the revenue of the biomedicine industry reached 47 billion RMB.

YHZ has introduced a number of public technical service platforms, such as Yichang Biomedical Research Center, Hubei Jinque Medical Laboratory, and Yichang Biotechnology Public Service Center

Eastern Valley U is a national professional incubation platform in Yichang High-tech Zone Biomedicine Industrial Park (BIP), and covers an area of more than 300 mu (about 20 hectares).

Over the past five years, Eastern Valley U has attracted and cultivated more than 150 biomedical industry chain enterprises, including 23 national high- tech enterprises, four provinciallevel "little giant" enterprises, and six listed enterprises. The output value reached 1.35 billion RMB in 2021.

"We introduce leading enterprises, which likewise attract their upstream and downstream enterprises of the industrial chain to accumulate here. Enterprises can exert a positive influence on

Harvest Festival

each other, meet each others' demands and cooperate together. Thus, the industrial chain is gradually improved and the innovation capacity is further enhanced," said Wu Penglu, vice-general manager of the Eastern Valley U.

In order to support the industrialization of generic drugs' research, YHZ Generic Drug Technological Innovation Public Service Center built three public experimental platforms centering on fermentation, extraction and detection technology, and 14 laboratories specializing in different research fields, which make it convenient for enterprises to carry out technological innovation and R&D.

Guo Kangxin, director of the management committee of YHZ, said that the zone will continue to strengthen the capacity of leading enterprises, and accelerate the cultivation of small and micro enterprises. He noted that 70 biomedicine enterprises above the designated level and 10 new high-tech biomedicine enterprises are to be cultivated this year.

The R&D expenditure of enterprises at BIP accounts for more than seven percent to date, and five new R&D platforms, along with innovation and entrepreneurship platforms at and above the provincial level, were established. It is expected that by 2023, the proportion of enterprises' R&D expenditure can reach nine percent, and 10 R&D and entrepreneurship platforms will be created.

Wang Li, vice governor of Hubei province, said Yichang aims to build a biomedical industry cluster, which focuses on the transformation of people's lifestyles to promote R&D of products, and will maintain a high intensity of R&D investment, creating more possibilities for long-term development.

This is the first time that China hosts so many innovation clusters, according to the 2022 edition of World Intellectual Property Organization (WIPO)'s Global Innovation Index.

The world top 10 clusters remain the same as last year, with one difference: Shanghai and Suzhou have now merged into one cluster.

Local innovation clusters are criti-

Daren Tang, WIPO director general.

Compared with the previous year, the largest increases in the 2022 cluster ranking came from three Chinese clusters, that is, Zhengzhou, Qingdao and

Aside from the long-identified clusters of excellence in the U.S., Europe, Japan and the Republic of Korea, we see new S&T hotbeds in East Asia, particularly in China, said Daren Tang.

Global Framework on Life Sciences Helps Reduce Biorisks

By CHEN Chunyou & CHEN Xi

As with all things, advancement in science always has its pros and cons. One such example is the biorisk arising from the rapid progress in biological science, posing a growing threat to the world, and prompting a sense of urgency to make these risks more controllable.

On September 13, the Global Guidance Framework for the Responsible Use of the Life Sciences was released by the World Health Organization.

The framework is the first global

technical and normative framework in the field of biological risk management. It adopts the one health approach and focuses on the role that responsible life sciences research can play in preventing and mitigating risks caused by accidents, and inadvertent or deliberate misuse that causes harm to humans, animals, plants and agriculture, and the environment.

Of particular note is that Tianjin Biosecurity Guidelines for Codes of Conduct for Scientists was an important principle of this framework.

The guidelines are a set of 10 guiding principles and standards of conduct designed to promote responsible science practice and strengthen biosecurity governance at national and institutional levels

It is the first international biosafety initiative named after a Chinese city. It was co-developed by the Johns Hopkins Center for Health Security, The InterAcademy Partnership, and the Tianjin University Center for Biosafety Research and Strategy, aiming to address the lack of commonly accepted guiding principles for international biosecurity practice.

The framework gives priority to biological safety, laboratory biosecurity and dual-use research supervision. It provides values, principles, tools and mechanisms to support key stakeholders to mitigate and prevent biorisks and govern dual-use research.

It also offers references for the world to formulate a framework on biorisk management, and will help guide the life sciences and related technologies to play an important role in improving global health.



The Chinese farmers' harvest festival, which coincides with the Autumn Equinox each year, falls on Sept. 23 this year. Photo shows villagers drying hot peppers in Youhe village of Qiaocheng district in Bozhou city, Anhui province. (PHOTO: XINHUA)

China Forges Closer Sci-tech Ties with ASEAN

From page 1

In recent years, China's Ministry of Science and Technology has further boosted the two sides' sci-tech partnership, helping China-ASEAN Technology Transfer Center to grow into a window for China and ASEAN countries to carry out technology transfers and innovation cooperation.

Wang mentioned the Talented Young Scientist Program conducted by the ministry, which has supported 145 researchers from ASEAN countries to participate in yearlong scientific research in China.

More than ten joint R&D platforms including the China- Indonesia Joint Laboratory of Biotechnology and the Laos-China Joint Laboratory for Renewable Energy Utilization and Developnology transfer collaboration network covering 10 ASEAN countries estab-

In 2021, the two sides jointly released the China-ASEAN Action Plan for Building Closer Science, Technology and Innovation Partnership for the Future (2021-2025), injecting impetus into China- ASEAN sci- tech cooperation through high-level mechanisms.

As 2022 marks the first year of the establishment of the ASEAN-China comprehensive strategic partnership, ASEAN Secretary-General Lim Jock Hoi said that he "looks forward to advancing our vision for innovative and sustainable growth, notably in the areas of trade, digital technology, public health and sustainable development."

Actively Addressing Development Issues in HKPL

By Staff Reporters

The Hindu Kush Karakoram Pamir Landscape (HKPL), also known as Bam-e-Dunya, Persian for the roof of the world, represents a fragile ecosystem and faces challenges in economic and social development, resulting in more transboundary cooperation needed to balance development and conservation in this area.

HKPL covers the arid high-altitude regions of the Hindu Kush Himalaya, and is shared by Afghanistan, China, Pakistan, and Tajikistan.

Home to diverse biological resources and rich cultural traditions, it is the gateway to the China-Pakistan Economic Corridor, one of the projects under the Belt and Road Initiative (BRI).

As part of the Bam- e- Dunya network, China has been active in promoting international sci-tech cooperation in the region.

Professor Long Ruijun, director of the International Centre for Tibetan Plateau Ecosystem Management of Lanzhou University in northwest China's Gansu province, is one of those dedicated to in-

troducing new technologies to Pakistan and other countries along the BRI.

At a media workshop on reporting environmental issues in HKPL on September 20, Long said that his team has been working closely with their counterparts to bring energy and agricultural solutions to Pakistan and Nepal.

Due to the lack of electricity in Pakistan, water from many mountainous rivers cannot be pumped to irrigation areas. Long thus introduced the solar pump to Pakistan, which was well received by locals. He also sent oats and alfalfa seeds to the Pakistan Agricultural Research Council for local people to plant more productive crops.

Apart from facilitating people in the HKPL to develop their economy, guests at the workshop also emphasized the importance of balancing economic development and ecological protection.

More human activity in the region has brought problems such as loss of biodiversity, climate change, and rapid land use change, so transboundary cooperation needs to be strengthened for the development of a healthy and resilient HKPL.

ment, have been launched, with a techlished.