科技日報

Science and Technology Daily

VOL.2-NO.71 THURSDAY, DECEMBER 1, 2022 WEEKLY EDITION

HIGH-LEVEL OPENING UP ATTRACTS GLOBAL RESOURCES, PRODUCTION FACTORS

PAGE 2 | FOCUS

YIN RUINS TELL ANCIENT STORIES

PAGE 4 | LIFE IN CHINA

International Cooperation

China Actively Advances Global Sci-tech Cooperation

By Staff Reporters

Since 2012, China has been continuously strengthening sci-tech cooperation between governments, proactively participating in global innovation governance, implementing the Belt and Road Science, Technology and Innovation Cooperation Action Plan, thus promoting international cooperation and exchange in sci-tech innovation, said Liang Yingda, director-general of Department of Strategy and Planning of Ministry of Science and Technology (MOST), at a press conference recently.

China has established sci-tech cooperation relationships with over 160 countries and regions, signing 114 inter-governmental sci-tech cooperation agreements, according to Liang.

Supported by key projects of MOST, such as International Cooperation in Science and Technology Innovation between Governments, nearly 2,000 programs with a total funding of 10 billion RMB have been jointly approved within more than 60 countries, regions and international organizations, covering agriculture, energy, environment, life health and IT.

In particular, China has been working on combating the COVID-19 pandemic via sci-tech cooperation since its outbreak. Joint research on medicine, vaccines, and tests has also been conducted with 17 countries, including the U.S., UK, Malaysia and South Africa. *See page 4*

Indonesia Bullet Train Tracks Closer International Collaboration

Edited by LIN Yuchen

Jakarta - Bandung High - Speed Railway (HSR) recently completed its first sectional trial on November 16, ensuring that all engineering parameters of that section meet the design requirements.

Beginning in 2018, the construction of the HSR represents China's first overseas railway construction project that only uses Chinese standards. Its railway systems and technologies all originate from China.

"Cooperation, innovation and mutual benefits are the essence of the successful practice and spirit of the construction of the Jakarta-Bandung HSR," said Dwiyana Slamat Riyadi, director of KCIC, a joint venture consortium of Chinese and Indonesian state-owned companies that run the railway.

At present, all tunnels and culverts along the railway have been completed, including over 90 percent of railway subgrade, bridges and stations. Jakarta-Bandung HSR epitomizes the engineering projects of the Belt and Road Initiative between China and Indonesia and will serve as the first HSR in the whole southeast Asia region.

See page 2

Jakarta-Bandung High-Speed Railway (HSR) represents China's first overseas railway construction project that only uses Chinese standards. (PHOTO: XINHUA)

China's Shenzhou-15 manned spaceship is launched from the Jiuquan Satellite Launch Center in northwest China on November 29, and later successfully docks with the space station combination. The number of astronauts at the in-orbit space lab reaches six for the first time. (PHOTO: XINHUA)

Editor's Pick

Chinese Technology Stars at Qatar World Cup

By WANG Xiaoxia

The FIFA 2022 World Cup kicked off on November 20 in Qatar, attracting the interest of hundreds of millions of soccer enthusiasts around the world. Among all the excitements brought by this cup, Chinese innovation and cutting-edge technologies are highlighted.

Chinese elements can be seen everywhere in Qatar, such as stadiums construction, power supply, transportation and irrigation systems.

Sustainable stadium

Chinese companies have taken part in the construction of all the eight stadiums of the Qatar World Cup.

The Lusail Stadium, which will host the World Cup final and closing ceremony, was built by China Railway Construction. The golden - bowl - like building is Qatar's biggest stadium and has a seating capacity of 92,000.

The Lusail Stadium meets the highest FIFA standards, and it was the first time that a Chinese company, as the major contractor, carried out the design and construction work for a World Cup stadium, said Li Bai, leading designer of the stadium.

The construction of the stadium adheres to environmental protection and sustainability. It adopts a double - skin curtain wall to improve the thermal insulation abilities during hot weather. Air flows in the intermediate cavity of the wall and will be cooled before entering into the stadium, thus reducing energy consumption for air-conditioning.

Recycled water is used to irrigate plants around the stadium while water efficient fixtures and leak detection systems are operational. The construction site conserves 40 percent more fresh water than conventional stadiums, according to FIFA website.

Green energy

Chinese eco-friendly buses are used on a large scale for the main services during the 2022 World Cup, which is unprecedented for the international football gala.

Qatar imported 1,500 buses from China, including 888 electric buses, which shuttle between stops transporting fans, FIFA officials and media to stadiums.

To meet the operational conditions in Qatar, the Chinese vehicle company Yutong equipped the motors of electric vehicles with sand-proof facilities, adopted cooling systems for batteries, and adopted intelligent temperature control air conditioners in the buses.

The environmentally friendly and smart buses have been well received by locals. The fleet of e-buses will be embedded in the country's public transit system, thus creating a lasting legacy of clean energy mass transit after the Word Cup, said the Qatari ministry of transport.

See page 2

IPR Protection Makes Historic Progress

By LIN Yuchen

China has made historic progress in Intellectual Property Rights (IPR) protections over the past decade, driving regularly up its number of high-value patents, according to the National Intellectual Property Administration (NIPA) in a press conference on October 9.

From 2012 to 2021, over 3.9 million patents had been granted, indicating an annual growth rate of 13.8 percent on average. Over 3.5 million trademarks had been registered with an average growth rate of 25.5 percent annually during the same period.

"This is the fruitful result of China's efforts to strengthen the protection and application of intellectual property rights and solidly promote the construction of a strong intellectual property country," said Ge Shu, an official at NIPA.

By July 2022, there were more than 326,000 domestic enterprises holding over two million valid patents in China, accounting for 68.5 percent of the total number of domestic valid patents.

For the high - tech industry, there were over 1.3 million valid patents in 156,000 enterprises, accounting for 64.2 percent of all valid patents of domestic enterprises.

As for opening up to the outside world, the Beijing Treaty on Audiovisual Performances came into effect in April 2020, indicating the first intellectual property service treaty signed in China and named after a Chinese city.

The Hague Agreement, concerning the International Deposit of Industrial Designs and the Marrakesh Treaty, also signify the progress of China's IPR protection endeavors in the international arena.

According to NIPA, in 2021, the number of patents for inventions and trademarks granted to foreign applicants has grown by 23 percent and 5 percent year-on-year respectively. In the same year, joint ventures IPR protection has escalated as well.

Young Technicians Shine in 2022 WSC

By LIN Yuchen

Young Chinese technicians performed well at the 2022 World Skills Competition (WSC) Special Edition, demonstrating a strong depth of talent that is advancing the country's real economy, according to the Chinese organizing committee of the competition.

Running from the middle of September to the end of November in various countries, the WSC events kept abreast of various industrial trends, setting an age limit of less than 22 for all participators.

The Chinese team won 21 golds in total, topping the gold list in the event.

"The key to my success is to study the artistic work of others as much as possible," said Luo Kai, a gold winner of the 3D Digital Game Art contest, adding that learning about the different domestic and exotic art styles is necessary to building up a unique style of your own.

A total of 63 contests were arranged for this WSC, covering six industries including logistics, architecture, manufacturing and engineering, information technology, creative art and fashion, and professional services.

"Achieving these [results] was definitely not without effort," said Chen Xiaoxi, associate professor of the Tianjin research center of WSC, adding that in the face of questioning voices from other countries on our capabilities to win, breakthroughs have now finally been made.

Since China joined the WorldSkills International in 2010, the organization that holds WSC every two years, there had been doubts arising from the international arena about the quality of Chinese technicians, according to Chen.

Backing the young technicians' progress also included policies that focus on technical talent development on a national scale.

In July 2021, the Ministry of Human Resources and Social Security released an action plan, setting the target of producing another 40 million skilled workers, which are expected to account for 30 percent of the whole nation's total workforce over the 14th Five-Year Plan (2021-25) period.

On October 7, a State Council document highlighted the importance of constructing a WSC-alike vocational skill competition system, which would cover the whole nation.

WEEKLY REVIEW

C919 Receives Production Certificate

China's domestically developed C919 large jetliner received its production certificate from the Civil Aviation Administration of China (CAAC) on November 29, meaning the model was approved for mass production.

World Sci-tech Development Forum Opens

The 4th World Science and Technology Development Forum opened on November 27 in Chengdu, Sichuan. The participants, from over 20 countries and regions, discussed some hot topics on basic sciences, climate change, digital economy, and green innovation.

China's Patent Filings Top World in 2021

China's Intellectual Property office received 1.59 million of the total 3.4 million patent applications filed worldwide in 2021, topping the world in terms of global patent filings, according to the World Intellectual Property Indicators (WIPI) report released last week.

New Dataset for Qinghai-Tibet Plateau Unveiled

China's National Tibetan Plateau Data Center (TPDC) has recently issued and shared a dataset of lake-catchment characteristics for the Tibetan Plateau, which provides fundamental data for the study of lakes on the plateau.

WECHAT ACCOUNT

E-PAPER

Address: No. 15, Fuxing Road, Haidian District, Beijing, 100038. Telephone: 010-58884083 Price: 4.00 RMB **Visit: www.stdaily.com/English/index.shtml**
国内统一刊号:CN11—0315 邮发代号:81—97 **Submit your article to: stweekly@stdaily.com**