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WEEKLY EDITION

International Cooperation

CIFTIS: Providing New Opportunities for Int'l Cooperation

By Staff Reporters

The 2023 China International Fair for Trade in Services (CIFTIS), themed "Openness Leads Development, Cooperation Creates a Win-Win Future," was held in Beijing from September 2 to 6.

Addressing the Global Trade in Services Summit of the 2023 CIFTIS via video, Chinese President Xi Jinping noted that the country is committed to promoting high-standard opening up and advancing Chinese modernization on all fronts through high-quality development, thereby providing all countries with new opportunities for openness and cooperation.

CIFTIS, initiated in 2012, serves as a platform for greater global engagement. With an exhibition area of 155,000 square meters, the 2023 CIFTIS attracted exhibitors from 59 countries and regions as well as 24 international organizations.

The UK, the guest country of honor for the 2023 CIFTIS, assembled its largest-ever delegation for the fair this year. A number of events, forums and exhibition tours that cover the financial, sports and creative sectors were carried out during the fair.

A seminar about the challenges and opportunities of deepening digital transformation hosted by a global tech consultancy company was held at the UK Pavilion on September 3.

With 51 offices in 18 countries, Thoughtworks has benefited from China's talent and infrastructure advantages in informatization and digitalization in the past decade.

Xiao Ran, general manager of Thoughtworks China, told *S&T Daily* that the people who engaged in the knowledge-intensive service industry would be very excited about sharing the outcomes of Chinese modernization with the rest of the world.

"China is moving towards high-quality and sustainable development, and we have used some of the products and services developed in the Chinese market to help other countries and regions worldwide to embrace the new era of digitalization," said Xiao, adding that he believed China's innovation and its output can help the world become more digital, intelligent and greener in the new era.

The UK Pavilion also held another forum with the theme of "Transformation and Cultivation of Innovative Financial Talents in the Digital Era" on September 4.

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WEEKLY REVIEW

China's Largest Green Hydrogen Plant Operates

A solar green hydrogen facility with an annual capacity of 20,000 metric tons of hydrogen began to operate in Xinjiang Uygur autonomous region on August 30.

CMSA Solicits Name for Chinese Manned Lunar Lander

The China Manned Space Agency (CMSA) on August 31 began to solicit a name for the new manned lunar lander in future lunar exploration missions.

Largest Offshore Wind Turbine Creates New Record

The world's first 16-megawatt ultra-large-capacity offshore wind turbine unit achieved 24-hour full-power operation on September 1, with a daily electricity generation of 384,100 kWh, a new world record for single-unit daily wind power generation.

Evidence of MAD Formation in Black Hole Found

An international team led by Chinese scientists analyzed archival multiwavelength observations of an outburst from the black hole X-ray binary MAXI J1820+070 in 2018 and interprets this as evidence for the formation of a magnetically arrested disk (MAD) in *Journal Science* on September 1.



The 2023 China International Fair for Trade in Services is held in Beijing from September 2 to 6. (PHOTO: HONG Xing/S&T Daily)

Editor's Pick

Precipitation-Measuring Radar Operational in Space

By FU Yifei & LIANG Yilian

On April 16, China launched the Fengyun-3G into space. Its main payload is China's first satellite-borne Ku and Ka Dual-frequency Precipitation Measurement Radar (PMR).

As part of China's meteorological and climate satellite system, this second-generation polar-orbiting environment satellite will provide crucial information on severe weather conditions like heavy rain that can lead to calamities like floods and landslides.

By August 29, the PMR had detected precipitation in the middle and low latitudes and captured the three-dimensional structure of the rainfall systems of Typhoon Mawar, and Typhoon Talim.

Pursuing new techniques for rainfall forecasting

China is located in the typhoon-active zone west of the North Pacific Ocean. Rainstorms and waterlogging have been the main natural disasters in some areas of the country.

In the past, due to technical limitations, it was difficult to obtain information on large-scale surface precipitation.

In the early 21st century, China carried out preliminary research on satellite-borne radars and realized that dual-frequency radars work better than the single-frequency radar.

"PMR can combine the advantages of high radar observation resolution and wide satellite observation range," Jiang Baisen, China Aerospace Science and Technology Corporation (CASC) microwave remote sensing technology research director, introduced that the Ku-band is conducive to the detection of strong precipitation, Ka-band is conducive to the detection of weak precipitation, and the synchronous work of the two can expand the detection ability of precipitation, even if it is 0.2 mm drizzle per hour, it can also accurately perceive.

Also, dual-frequency monitoring can distinguish rain, snow, hail, and other states, and detect liquid and solid changes in the precipitation process,

which is very important in meteorological applications.

Overcoming challenges

However, the development of China's first satellite-borne precipitation measuring radar had to overcome many challenges. It was difficult to design, process and manufacture, the Chief Designer Yang Runfeng said.

In July 2010, Yang and his colleagues took the prototype to Sichuan province in southwest China to test it. It was summer and the weather was hot and humid while mosquitoes raged in the fields. The team bore the discomfort stoically and in September of that year, the test was initially completed.

After more than two months of flying tests, the research team finally obtained the required data, laying the foundation for subsequent engineering work.

Compared with ground-based radars, spaceborne radars face additional problems, such as surface echoes that interfere with detection.

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Internet Users in China Cross 1 Bln

By Staff Reporters

By June 2023, the number of Internet users in China had crossed one billion, with an Internet penetration rate of 76.4 percent, according to a report released by the China Internet Network Information Center (CNNIC) on August 28.

The 52nd Statistical Report on China's Internet Development provides a crucial resource for government agencies, domestic and foreign business organizations, as well as the general public to understand the growth of the Internet in China and adopt policies accordingly.

CNNIC official Wang Changqing said,

"The scale of users accessing mobile Internet and gigabit-level fiber optic networks in China has continued to grow. The average time users spend on the internet has continued to increase, and the download rates of both mobile and fixed broadband Internet have improved."

Surfing experience and Internet access have also improved, Wang added.

By June, Chinese users of the mobile Internet of Things accounted for around 55.4 percent of all mobile network terminal connections nationwide. Sixty major categories of the national economy have integrated 5G applications, expanding key sectors such as

manufacturing, healthcare, education and transportation.

Also by June, about 86 percent of Internet users could use digital tools to access, store and transmit digital resources, about 60 percent of them could produce and process digital resources, an increase of around two percent compared to last December.

Rural network infrastructure historically realized full Internet coverage, and new forms and modes of the rural digital economy are evolving. Rural Internet service retail sales reached 1.12 trillion RMB (153 billion USD) in the first half of the year.

Promoting G20's Role in Global Sustainable Development

By WANG Xiaoxia

The 18th G20 Summit, scheduled this year in New Delhi, India from September 9 to 10, adopted a theme of "One Earth · One Family · One Future."

At the invitation of the government of the Republic of India, Premier of China's State Council Li Qiang will attend the summit.

As the world's main forum for international economic cooperation, the G20 initially focused largely on broad macro-economic issues, but has since expanded its agenda to trade, sustainable development, health, agriculture, energy, environment, climate change and anti-corruption.

In recent years, the G20 has reached more consensus and cooperation on sustainability through embracing the digital economy and green finance. China has been playing an active role in accelerating this process.

At the G20 Summit in Hangzhou in 2016, China introduced the digital economy to G20's agenda for the first time, proposing to innovate development models and explore new growth drivers, which won widespread support among leaders and entrepreneurs at the summit.

China proposed the *G20 Action Plan on Digital Innovation and Cooperation* at last year's G20 Summit in Bali, which is aimed at promoting the innovative application of digital technology and making innovation outcomes beneficial to all and shared by all, welcoming the participation of all parties.

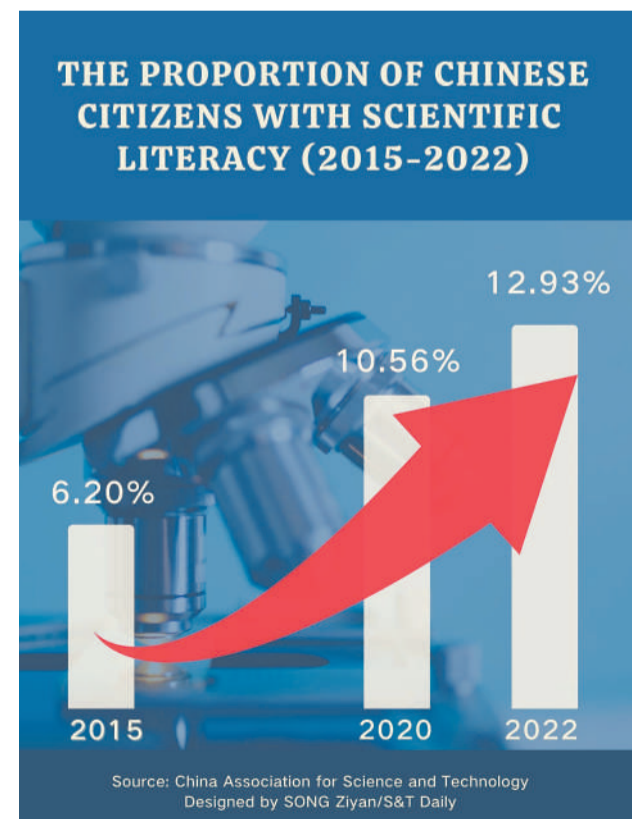
Also, at this year's G20 Digital Economy Ministers' Meeting concluded on August 19 in Bengaluru, India, China urged bridging of the digital divide and promoting digital connectivity. The meeting affirmed the advancement of G20 members' collective efforts to build an enabling, inclusive, open, fair, non-discriminatory, and secure digital economy.

To promote sustainable development, China has been guiding the international market to provide financial support to address climate change.

In 2016, China issued an initiative for developing Green Finance under the G20 framework, which helped Green Finance be included in the G20 agenda for the first time.

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New Graphic



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