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CHINA SCIENCE AND TECHNOLOGY REVIEW

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China Releases High Quality Development of Science and Technology Finance

To resolve financial issues in the science and technology sector and to enhance China's modernization and economic development, the National Financial Regulatory Administration, the Ministry of Science and Technology and the National Development and Reform Commission have jointly released the "Implementation Plan for High-Quality Development of Science and Technology Finance in the Banking and Insurance Sectors." The core objective of the plan is to build robust financial service systems in order to accelerate financial resources for sci-tech innovation without hurdles.

The plan outlines several measures and key areas, which includes strengthening mechanisms, product systems, professional capabilities and risk management for sci-tech financial services. In the area of strengthening institutional development for technology financial services, the plan requires improvement of the organizational system, optimization of internal assessment and incentive mechanisms, enhancing financial services for key and weak areas of technological innovation and building a technology finance ecosystem. The plan also requires digital empowerment, information sharing and improvement of services to third parties, where the third parties are required to provide credible consulting, valuation and technological risk evaluation services.

In the backdrop of the sci-tech finance plan, Zhang Ming, Deputy Director of the Institute of Finance and Banking, Chinese Academy of Social Sciences, stated that implementing such plan will have "collateral and risk control" as tech companies are characterized by high risks and long cycles and will deepen the supply-side structural reforms in finance for the sci-tech sector.

Scientific Collaboration Projects

At the AI-Empowered Astronomy for Open Science Conference held at the Zhejiang Lab in Hangzhou from 7-9 April, Brazil and South Africa became the latest members of the Global Open Transient Telescope Array (GOTTA) project, a UNESCO-endorsed global initiative spearheaded by China National Astronomical Observatories (NAOC). Subsequently, the Brazil National Laboratory of Astrophysics and the South African Astronomical Observatory will collaborate with the Chinese counterpart, NAOC and Zhejiang Lab, to build telescopes and advance software development, data mirroring and observation.

The UN General Assembly on 25 August 2023 declared the period 2024-2033 as the 'International Decade of Sciences for Sustainable Development'. As a result the GOTTA project was formulated to enhance astronomy education and promote equity in scientific research through open-access platforms. However, one major breakthrough in GOTTA lies in the integration of AI, big data and distributed computing and fostering cross-disciplinary collaboration to establish a global framework for sharing of data, algorithms and models.

Scientific Research Breakthroughs and Discoveries

The Institute of Metal Research (IMR) of Chinese Academy of Sciences achieved another milestone when it successfully

converted water (photocatalytic water) into clean hydrogen energy by using sunlight. Liu Gang, Director of IMR, underlined that the key for breakthrough lies in a material called titanium dioxide, which when exposed to sunlight, breaks down water molecules into hydrogen and oxygen. Liu emphasized that "with continued advancement in photocatalytic water splitting-efficiency" such technology holds promise for industrial applications and will transform the energy system.

Also, the Institute of Atmospheric Physics (IAP) of Chinese Academy of Sciences developed a new forecasting tool called "iDust" which enhances predictions of dust storms and offers significant benefits for solar energy production. Expansion of solar energy projects in the vast expanse of cold desert in Northern and Western China remains challenging due to recurrent dust storms, which not only block sunlight but also accumulate on solar panels, thus reducing power output. Chen Xi, head of the research team, underlined that the development of this latest technology will make it possible to address the challenges for renewable energy, especially in desert regions. He added, "Future development aims to expand iDust application globally and will push for a cleaner, more efficient energy solution."

China Science Diplomacy

The 2025 edition of the BRICS Engineering Congress was held from 24-26 April in Shenzhen under the theme "Converging Engineering Development Power, Creating a Bright Future for BRICS." The objective of the congress was to jointly advance engineering education reform, technological innovation, capacity building and improved governance among BRICS member nations. Over 200 representatives of the engineering community from the BRICS member states attended the congress. One major milestone from the 2025 edition was the signing of a Memorandum of Understanding for establishing the BRICS Engineers Competence Building Centre in Harbin. Participants in the 2025 edition expressed optimism that the event will unlock cooperation potential in the engineering sector among BRICS countries and positively contribute to economic growth and promote sustainable development.

A bilateral meeting between the President of National Natural Science Foundation of China (NSFC) and a visiting delegation headed by the Director of European Molecular Biology Organisation (EMBO), Fiona Watt, was held on 2 April in Beijing. In the meeting, both sides agreed to deepen the reform of the talent funding system and mechanism and strengthen academic exchange by nurturing young scientific research talents in the field of molecular biology.

Also on 21 April, the Vice President of NSFC, Lan Yuji, held a meeting with a visiting delegation headed by the Director of the Moroccan National Center for Scientific and Technical Research (CNRST), Jamila El Alami, in Beijing. In the meeting both sides emphasized and agreed to advance concrete cooperation in the fields of basic sciences, advanced materials and engineering technologies. It also proposed to identify priority funding areas. At the meeting the Xi'an University of Technology presented the latest progress of the China-Morocco Joint Laboratory for green energy and advanced materials.