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SCIENCE AND TECHNOLOGY REVIEW

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China Science and Technology Budget 2024

The Budget for science and technology was unveiled during China's 'two sessions' yearly meetings – National People's Congress (NPC) and National Committee of the Chinese People's Political Consultative Conference (CPPCC) – which took place from 3-11 March in Beijing. [As per the draft budget report released by the Chinese Ministry of Finance](#), it allotted 370.828 billion Yuan for science and technology (S&T), an increase of 10% from the previous budget. The budget will exclusively focus on basic research, applied basic research and national strategic tasks in science and technology.

This year the budget for S&T is the largest percentage increase of any major area of government spending. According to the Chinese Ministry of Finance, the main expenditures on diplomatic endeavors is 60.783 billion Yuan, up 6.6%; 1.66554 trillion Yuan on national defense, up 7.2%; 227.662 billion Yuan on public security, up 1.4%; 140.636 billion Yuan on stockpiling grain, edible oils, and other materials, up 8.1%; and 777.315 billion Yuan on debt interest payments, up 11.9%.

Meanwhile, the [Chinese Ministry of Science and Technology](#) has said it will prioritize its work in three key areas: Intensifying efforts to address crucial problems in science and technology; bolstering the cultivation of strategic forces; and deepening the reform of sci-tech systems and mechanisms.

Scientific Collaboration Projects

[A joint laboratory for remote sensing technology and application](#) between China and Kazakhstan was inaugurated on 27 March in Almaty. A jointly funded laboratory of US \$ 400,000 was built by the Xinjiang Institute of Ecology and Geography (XIEG) of the Chinese Academy of Sciences and Al-Farabi Kazakh National University (KazNU). The laboratory will monitor the ecological environment between China and Central Asia and share technical support for promoting the construction of the Green Silk Road and regional sustainable development.

The Ubolratana Dam hydro-floating solar hybrid power plant, located in northeastern Khon Kaen province of Thailand and [jointly built by Chinese and Thai companies, started commercial operations on 5 March](#). According to Dongfang Electric International Cooperation, the Ubolratana Dam integrates floating solar panels, clean hydropower, high efficiency energy storage systems and smart energy management systems. [Jiraporn Sirikum, Deputy Governor of the Electricity Generating Authority of Thailand \(EGAT\)](#) thanked the Chinese and Thai engineers for being able to deliver the project ahead of schedule and paving the way for an important step towards clean energy production and power stability in Thailand.

Scientific Research Breakthroughs and Discoveries

To provide a robust Earth-Moon communication service, on 20 March China successfully launched a relay satellite

called Queqiao-2 into lunar orbit from Wenchang Space Launch Center in South China Hainan province. [According to China's National Space Administration](#), the Queqiao-2 relay satellite is a key step towards China's future lunar exploration missions including Chang'e-6, Chang'e-7 and Chang'e-8. Also, [Queqiao-2 has more technological innovations](#), stronger functions and interfaces, a higher degree of development and can undertake longer missions to carry out scientific exploration, compared to Queqiao-1 launched in 2018.

On 11 March, the [Centre for Artificial Intelligence and Robotics \(CAIR\), Hong Kong Institute of Science & Innovation](#) of the Chinese Academy of Science, unveiled the CARES Copilot 1.0, the latest multimodality model for efficient clinical diagnosis, especially for complex neurosurgery. According to Dr. Tat-Ming Chan, Head of Division of Neurosurgery, The Chinese University of Hong Kong, "CARES Copilot 1.0 can handle complex surgical material exceeding 3000 pages."

A research team from [Dalian Institute of Chemical Physics](#), successfully developed a new high-energy lithium-ion battery which can operate successfully in temperatures as low as -60 degree Celsius. According to Prof. Chen Zhongwei, the leader of the research team, the battery's key features are: it enhances the flow of ions within the battery, especially at low temperatures, and a proprietary semi-solid electrolyte was used, as a result of which it increases fire resistance and thereby significantly reduces the risk of fire or

explosion. According to Prof. Chen, such breakthroughs will not only improve the performance of electric vehicles, but also revolutionize various sectors including aviation, aerospace and polar exploration.

China Science Diplomacy

A meeting between Prof. Dou Xiankang, [President of the National Natural Science Foundation of China \(NSFC\)](#) and [Mark Walport, Vice President and Foreign Secretary of The Royal Society \(RS\), UK](#) and Alison Noble, RS was held on 12 March in Beijing. During the meeting both parties agreed to expand cooperation in academic exchange and talent cultivation between China and the UK's scientific communities. They also agreed to expand the 'joint funding' mechanism to catalyze better scientific and technological innovation in addressing global challenges and to achieve sustainable development.

Chinese Minister of Science and Technology, [Yin Hejun](#), signed several bilateral agreements with his French counterpart Le Thailou on science and technology cooperation during his visit to France from 18-22 March. During the 15th Joint Committee for Science and Technology Dialogue, both sides agreed to implement the consensus reached in October 2023. Meanwhile, in [the presence of the Chinese minister and Antoine Petit, CEO of Centre National de la Recherche Scientifique \(CNRS\)](#), commitments were renewed to continue scientific collaboration on particle physics, fundamental and applied mathematics and the study of biodiversity and impact of climate change.