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# CHINA

## SCIENCE AND TECHNOLOGY REVIEW

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## China National Science and Technology Conference

Convened by the Chinese Ministry of Science and Technology, a two-day National Science and Technology Conference was [held](#) from 26-27 January in Beijing. Delivering a work report, Chinese Minister of Science and Technology (MOST) Yin Hejun stated that though innovation in technology in China has become more optimized in 2025, the 15<sup>th</sup> Five-Year Plan period (2026-30) will be a critical phase for China if it want to remain a powerhouse in science and technology.

The minister also emphasized that along with China's three major technological innovation centers i.e. Beijing (Beijing-Tianjin-Hebei region), Shanghai (Yangtze River Delta) and the Guangdong-Hong Kong-Macao Bay Area (GBA), the government will also build regional science and technology innovation centers which can provide better high-quality regional development.

He also underlined the major achievements by MOST during 2025, which includes signing 120 inter-governmental scientific and technology agreements between China and foreign countries; cooperation on the Belt and Road Initiative with member states; and steadily implementing international mega projects i.e. Deep Time Digital Earth and Ocean Negative Emissions.

Also, a report released by China Manned Space Agency [detailed](#) projects that were

undertaken in 2025. It disclosed that in 2025, 86 new projects produced over 150 terabytes of data, launched 1179 kg of scientific materials and returned 105 kg of samples to Earth. Major achievements in space project in 2025 also included the successful experiment of the world's first biological study at China's space station *Tiangong*.

## Scientific Collaboration Projects

The China-BRICS Research Centre on New Quality Productive Forces was [opened](#) in Beijing. The objective of the Centre is to develop joint theoretical and applied studies on 'new quality productive forces', cooperation on sci-tech innovation and personal and professional training programs of exchange within the BRICS cooperation framework. At the launch event, Chen Jiachang, Vice Minister of Science and Technology [declared](#) that the Centre will enhance steps towards building a 'community with a shared future for humanity'. The idea of establishing the Centre was proposed by the Chinese Premier Li Qiang at 2025 BRICS Summit for cultivating scientific talent in BRICS member states.

## Scientific Research Breakthroughs and Discoveries

Research collaboration between the University of Chinese Academy of Sciences, Tsinghua University and Peking University has successfully [developed](#) a self-powered pacemaker, generating electricity from the heart's own beat.

After seven years of rigorous research on the concept of ‘symbiotic bioelectronics’, which aims to achieve self-powering capabilities within the human body, the research team made a breakthrough by converting the heart’s kinetic energy into electrical energy through electromagnetic induction with an average power generation capacity reaching up to 120 microwatts, far exceeding the 10 microwatts needed for its stable operation. Following the breakthrough, the head of the research team, Dr. Ouyang Han of the University of the Chinese Academy of Sciences, [stated](#) that the next goal is to manufacture devices with a service life two to three times longer than the existing one and to further optimize the device and put it into clinical trials before 2030.

This breakthrough may offer a lifetime pacemaker device to heart patients. The life span of the pacemaker’s battery is crucial for heart patients, which currently lasts for about only 10 years. Replacing the existing models with a new set of pacemakers poses additional health risks and financial burdens to patients.

A research team led by Li Bing from the Institute of Metal Research of Chinese Academy of Sciences [made](#) a breakthrough in generating a new cooling effect in refrigerator technology, which will simultaneously help in the realisation of low-carbon emission and provide high cooling capacity and high heat transfer. The breakthrough was achieved based on the production of a barocaloric effect in an

NH<sub>4</sub>SCN salt solution, where in the event of depressurization, the salt rapidly dissolves in the solution while absorbing a large amount of heat.

The Dalian Institute of Chemical Physics of the Chinese Academy of Sciences [conducted](#) a novel experiment of lithium-ion batteries at China’s *Tiangong* space station. The experiment was carried out by three astronauts of the Shenzhou-21 crew, with an objective to uncover the mechanisms behind battery performance on space. Due to gravity the power output and lifespan of a battery on Earth remains challenging. But the space station offers an ideal setting without the interference of gravity. The institute stated that once it is able to ascertain insights from the experiment, it expects to overcome current limitations on the interplay between gravitational and electric fields.

The Institute of Mechanics under the Chinese Academy of Sciences announced the successful [conduct](#) of the first metal 3D printing experiment in space, thereby marking another milestone achievement in orbit manufacturing capabilities. The experiment was performed by the Lihong-1 suborbital vehicle, which successfully completed its inaugural test flight from the Jiuquan Satellite Launch Centre on 12 January.

### **China Science Diplomacy**

To strengthen ties in science and technology between China and the UK, on 13 January a meeting was [held](#) between

Chinese Minister of Science and Technology Yin Hejun and the President of the Royal Society Sir Paul Nurse in Beijing. At the meeting, both sides exchanged views on an extensive cooperation between the UK Royal Society and Chinese universities and research institutes. On 14 January the President of the Royal Society also [held](#) talks with President of the China Association for Science and Technology, Wan Gang, where both sides agreed to have research collaboration in AI, life sciences and new-energy vehicles. The two sides also agreed to set up journals to foster research activities.

Though collaboration between China and the UK exists historically, in recent years research funding and visa procedures have been a major stumbling block in carrying out robust research and innovation partnership between Chinese and UK institutes and universities. It is [reported](#) that British funding for UK-China research had fallen precipitously from 112 million pounds in 2016 to just 400,000 pounds in 2022, mainly due to the growing concern of maintaining ‘research security.’

On the sideline of Chinese President Xi Jinping and South Korean President Lee Jae Myung’s Summit meeting in Beijing, South Korea’s Ministry of Science and ICT (MSIT) and Chinese Ministry of Science and Technology [signed a](#) MoU on science and technology cooperation. The agreed MoU calls for joint research and exchanges to collectively share insights on climate change and sustainable development.