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China and African Union Science and Technology Cooperation

On the sidelines of the inaugural “China-Africa Innovation Cooperation” held on 26 September at the African Union (AU) headquarters in Addis Ababa, China and the AU [signed](#) a Memorandum of Understanding (MoU) in several fields of science and technology. The signing ceremony was held in the presence of visiting Chinese Minister of Science and Technology Yin Hejun and AU Commissioner for Education, Science, Technology and Innovation, Gasper Banyangimbona. The objective of the MoU, which is the 120th inter-governmental agreement between China and AU, specifies joint research projects in agriculture, water management, health and desertification. The MoU also deals with technology transfer and innovation and exchange of scientific researchers between China and AU countries.

It is to be noted that in order to accelerate the continent’s socio-economic development in November 2024, the AU has [adopted](#) and started implementing a policy blueprint for harnessing science and technology called the “Science, Technology, and Innovation Strategy for Africa” (STISA 2025-2034). The objectives of this policy strategy include strengthening research and development capacity, establishing robust science, technology and innovation (STI) infrastructure, building technical competencies, promoting innovation and entrepreneurship, and creating an enabling environment for STI-led initiatives. Yet

several [obstacles](#) persist in implementation, such as absence of reliable data, manpower and financial support.

In the backdrop of the latest MoU with China, AU leaders believe it will overcome several challenges that are being faced in the implementation of STISA. In his remarks, AU Commissioner for Education, Science, Technology and Innovation Gasper Banyangimbona [expressed](#) his hope to deepen cooperation with China in areas such as cultivation of innovative talent and building digital infrastructure. Meanwhile, Chinese Minister of Science and Technology Yin Hejun proposed the deepening of research cooperation between Chinese and African research institutions, universities, enterprises and think tanks.

Scientific Collaboration Projects

On 8 September, the ANSO Green Aral Sea Science Initiative (ANSO IPO) was successfully [implemented](#) in the Republic of Karakalpakstan, a drought stricken region located in the Western Uzbekistan, to supply safe drinking water to schools. The ANSO IPO project is supported by the United Nations Development Programme and hosted by the Xinjiang Institute of Ecology and Geography (XIEG) of the Chinese Academy of Sciences. The project is committed to ecological and environmental research in Central Asia's arid regions. Qiao Jianfang, director of XIEG, noted that it represents a concrete step under the “Joint Laboratory for Green Aral Sea Technology R&D and Demonstration” established by XIEG and the International Innovation Centre for the Aral Sea Basin.

The Chinese Ministry of Science and Technology and the Russian Science Foundation [agreed](#) to establish joint scientific research projects, including establishment of joint funding mechanism based on equality and mutual benefit. The two sides agreed to finalised key priority areas by the end of the year and commence their first joint proposal in 2026. This meeting was held in the backdrop of President Vladimir Putin's visit to Beijing where a MoU was [signed](#) with his counterpart President Xi Jinping. The agreed MoU underlined the establishment of a Russian-Chinese Institute of Fundamental Research between Moscow State University and Peking University; academic exchange between the National Research University Higher School of Economics and Peking University and cooperation between the Institute of Plastic Surgery and Cosmetology and the Hospital of Plastic Surgery of the Chinese Academy of Sciences.

Scientific Research Breakthroughs and Discoveries

A scientist team led by Prof. Ping Chen at the Dalian Institute of Chemical Physics developed the world first rechargeable hydride ion battery, thus making a breakthrough for future energy storage and boosting China green energy. In developing hydride ion battery, the team used sodium aluminum hydride, hydrogen storage material (positive electrode) and hydrogen-poor cerium dihydride (negative electrode). According to the research team, hydride ions are considered promising charge

carriers for next-generation electrochemical devices because of their low mass and high redox potential. The battery's positive electrode boasts an initial specific discharge capacity of 984 milliampere-hours per gram (mAh/g) at room temperature. It also maintains 402 mAh/g after 20 cycles.

A research team from the Centre for Excellences in Molecular Cell Science of the Chinese Academy of Science successfully [constructed](#) an engineered nanozyme, named a "nano-tagging robot", which can precisely identify cancer cells. In cancer immunotherapy, in order to attack cancer cells inside the immune cells, it needs to receive strong signals which has been a challenging task till today. But with this development, it can clearly tag cancer cells in the fight against cancer. According to the lead team researcher Han Shuo, it is expected to pave a new path for the development of more efficient immunotherapies.

China Science Diplomacy

On 8 September Chinese Minister of Science and Technology Yin Hejun and Cuban Deputy Prime Minister Eduardo Martinez Diaz along with the Cuban Deputy Minister of Public Health [held](#) a meeting in Beijing, where both sides agreed to deepen bilateral scientific and technological cooperation. The Chinese side assured its Cuban counterpart of continual Chinese support for Cuban research institutes, collaboration projects and exchange of scientists and medical doctors. This meeting was held in the

backdrop of the President of Cuba Miguel Diaz-Canel Bermudez' visit to China from 2-6 September where a Joint Declaration between China and Cuba was [signed](#). The Joint Declaration emphasised cooperation in nanotechnology, life science, biomedicine, food production, brain sciences, and energy. It also agreed to ease visa procedures for Cuban scholars for studying at Chinese universities and increased funding for scholarships.

Meanwhile, under the theme, “Energy Transition and Climate Change Action: Promoting Sustainable Development through Science, Innovation and Communication”, the Cuban Guest Country Forum was [held](#) on 27 September in Taiyuan, Shanxi province. Speaking at the forum, Cuban Ambassador to China Alberto Blanco Silva appreciated Chinese government support both in terms of technology and financial aid to Cuban energy infrastructures, where the country has been struggling for several years. Also, the Cuban Ambassador announced the launching of a China-Cuba Joint Committee on Scientific and Technological cooperation in the coming days, which specifically focuses on energy transition and environmental projects.

In terms of the energy crises in Cuba, this year in September Cuba [suffered](#) its fifth nationwide blackout. The energy crisis has worsened in Cuba in recent years mainly due to US sanctions, where the island country is prevented from having sufficient foreign currency to buy fuel or repair its ageing thermoelectric plants.