MANOHAR PARRIKAR INSTITUTE FOR
DEFENCE STUDIES AND ANALYSES
मनोहर पर्रिकर रक्षा अध्ययन एवं विश्लेषण संस्थान

CHINA
SCIENCE AND TECHNOLOGY REVIEW

March 2026

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Science and Technology in China 15th Five-Year Plan (2026-2030)

On 12 March 2026, China concluded its annual 'Two Sessions' – a large political meeting of delegates from China's legislative body, the National People's Congress, and its advisory body, the Chinese People's Political Consultative Conference. The gathering approved China's 15th Five-Year Plan (FYP), which outlines the Communist Party of China's (CPC) developmental objectives for 2026–30. Overall, China's strategic ambitions remain unchanged, i.e. achieving technological supremacy and self-reliance. Strikingly, though it reduces the annual growth target from 5% of GDP to 4.5%, the FYP sets an ambitious target of over 7% annual growth in research and development spending, reflecting China's economic development based on 'new quality productive forces.'

To foster high-quality (economic) development in China, establishing new quality productive forces, i.e. science and technology, is essential. Thus, in the 15th Five-Year Plan, the CPC has emphasised the development of several innovative technologies, including multimodal intelligence, AI, quantum technology, biotechnology and new energy. It also outlines China's strengths and weaknesses in the technology sector, including the need to secure "weak links of supply chains." It also pays special attention to improving technological self-reliance by "coordinating personnel" around S&T innovation to increase "the quality of independent talent." The plan supports the construction of "several new-type research-oriented universities" and the improvement of specialised curricula for emerging disciplines and the specialisations needed for AI implementation. It contains proposals to establish a "high-tech talent immigration system to cultivate world-class outstanding talents."

In reference to the incorporation of several elements of science and technology into the 15th Five-Year Plan, the Chinese Minister of Science and Technology, Yin Hejun, reiterated that efforts will be made to achieve self-reliance in science and technology and to transform the country into a scientific and technological powerhouse, with a focus on original and pioneering research endeavours. Also, he stated that "China will enhance the development of the regional innovation system, particularly by strengthening the original innovation sources, high-end industry leadership, and top talent attraction functions of the three major international scientific and technological innovation hubs", i.e. Beijing (Beijing-Tianjin-Hebei region), Shanghai (Yangtze River Delta), and the Guangdong-Hong Kong-Macao Greater Bay Area.

On the other hand, commending on China's 15th Five-Year plan, the editor-in-chief of *Nature*, Magdalena Skipper, stated that "the plan's science and technology components contain really important ingredients. It sets out a good ambition for the country to move toward and, importantly, it provides the means to carry out that work." On the increase in budget in science and technology, she stated: "It's an important

signal for the research community that the government understands that science needs financial support and that it's considered to be an important part of the growth of a nation."

Scientific Collaboration Projects

A High-Level meeting of the "China-France Interdisciplinary Ageing Research Network" was held in Shenzhen from 8 to 10 March at the Shenzhen Institute of Advanced Technology, bringing together researchers from both countries to strengthen bilateral collaboration to address global population ageing. The objective of the dialogue was to foster in-depth exploration and interdisciplinary cooperation, leveraging the distinctive and complementary strengths of China and France in healthy ageing research. Experts engaged in extensive discussions on five major areas: Brain and cognitive frailty, advanced diagnostic and therapeutic technologies, Nutritional intervention, Oncology and Biomarkers. The discussion led to a significant consensus towards establishing a solid foundation for future interdisciplinary, cross-sectoral, and inter-institutional research cooperation.

Scientific Research Breakthroughs and Discoveries

In a breakthrough in leukemia treatment, researchers at the Institute of Process Engineering (IPE) of the Chinese Academy of Sciences developed a biometric platform that boosts chimeric antigen receptor T (CAR T) cell activity in relapsed and refractory leukemia without modifying the CAR itself. Previously, CAR T, a genetically engineered chimeric antigen receptor, had been applied to the surface of the patient's T cells to target specific antigens on leukaemia cells, to identify and eliminate them. However, clinical data show that more than 50% of patients eventually relapse after CAR T treatment. One major reason is that leukemia cells can reduce or lose expression of the targeted antigen under therapeutic pressure.

However, the research team at IPE, in collaboration with Zhujiang Hospital and the Institute of Haematology & Blood Diseases Hospital, analysed extensive clinical samples and found that CD71, a protein involved in iron transport, is highly expressed across leukaemia types, disease stages, and even on autologous CAR T cells. That insight enabled them to design the ferritin aggregation cell engager (FACE) by precisely controlling ferritin self-assembly under defined solvent and assembly conditions.

The Chinese Academy of Sciences' Institute of Optics and Electronics, in collaboration with Beijing University of Posts and Telecommunications and the China Academy of Space Technology, have successfully conducted a laser communication experiment between a high-orbit satellite and the ground. During an experiment, it achieved three significant milestones: two-way data transmission at 1 gigabit per second over distances exceeding 40,000 kilometres; rapid link establishment in 4 seconds and uninterrupted link duration of over 3 hours.

This breakthrough is crucial for enhancing long-duration, stable, two-way, and real-time communication capabilities in high-orbit environments, forming the foundation for future space-based systems and advanced interactive applications; enabling satellites to transmit high-speed data and receive complex commands in real-time, transforming them into intelligent processing hubs and Validating deep-space communication capabilities of ground stations, paving the way for high-speed laser links with the Moon, Mars, and distant space probes. Also, it demonstrates the technology's reliability, provides a mature engineering model for future large-scale applications, and marks a critical step towards an integrated earth-space network.

China Science Diplomacy

Since 2014, Switzerland and China have maintained a Joint Working Group on Education between the State Secretariat for Education, Research and Innovation (SERI) and the Chinese Ministry of Education. Hence, to foster deeper bilateral cooperation in vocational and professional education and training, Huai Jinpeng, Minister of Education of the People's Republic of China, and Martina Hirayama, State Secretary for Education, Research and Innovation, held a meeting in Switzerland from 22-24 March. A key focus of the exchange was innovation in higher education institutions and vocational education and training. Discussions explored current developments, challenges, and opportunities for fostering innovation in teaching, learning, and institutional collaboration. Barbara Fontanellaz, Director General of the Swiss Federal University for Vocational Education and Training (SFUVET), took part in the exchange as a member of the Swiss delegation, sharing SFUVET's expertise in key areas such as AI, digital skills development, sustainability and lifelong learning, which were of particular interest to the Chinese delegation. The training of vocational, education and training professionals was also identified as a priority. In this context, SFUVET plans to organise three further training programmes in Switzerland for Chinese partners in 2026.

Meanwhile, to strengthen bilateral scientific cooperation, Dou Xiankang, President of the National Natural Science Foundation of China (NSFC), met on 25 March in Beijing, China, with a visiting delegation led by Benoît Dubuis, President of the Swiss Academy of Engineering Sciences (SATW). The main agenda of the meeting was to further advance Sino-Swiss scientific cooperation and exchanges among young researchers, thereby injecting new momentum into basic research cooperation between China and Europe. It is noted that Switzerland and China signed their first scientific cooperation framework agreement in 1989. Since then, bilateral scientific cooperation has developed and diversified substantially.