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Innovation Pathway

Building Xiong'an New Area into Innovation Hub

Xi Jinping, general secretary of the Communist Party of China (CPC) Central Committee, on Monday called for efforts to build the Xiong'an New Area in north China's Hebei province into an innovation hub in the new era and a model of promoting high-quality development.

Xi, also Chinese president and chairman of the Central Military Commission, inspected the Xiong'an New Area on Monday, where he also chaired a symposium on further advancing the high- quality construction and development of the new area.

He emphasized the need to firmly uphold Xiong'an New Area's primary functional positioning as the major recipient of functions relieved from Beijing that are non-essential to its role as China's capital.

The new area should strengthen endogenous development momentum through reform and innovation, and unlock vitality via reasonable concentration of production factors and resources, Xi said.

On Monday morning, Xi arrived in Xiong'an and traveled by vehicle to inspect construction progress in the start-up zone. He then visited China Huaneng Group Co., Ltd., which moved over 1,000 employees to Xiong'an in October 2025, and heard briefings on the company's relocation, industrial layout and innovative development.

At the company, he had a cordial exchange with representatives of officials and staff from relocated organizations already operating in the new area and those currently under construction, to learn about their life and work.

Xi also visited the Xiong'an campus of Beijing No. 4 High School, where he conversed with teachers and students in the classroom to learn about the teaching situation there. In the school canteen, he examined the dining environment and the variety of dishes available.

On Monday afternoon, Xi chaired the symposium and delivered an important speech. He acknowledged that important progress has been achieved in the construction and development of the Xiong'an New Area.

It has been fully proved that the CPC Central Committee's decision to develop the new area is entirely correct, and all related work has been solid and effective, he added.

Xi stressed efforts to relieve Beijing of functions non-essential to its role as the national capital and integrate them into the new area in a more vigorous and orderly manner, and advance the construction of relocation projects for state-owned enterprises directly administered by the central government, universities and hospitals in an active, steady and phased manner.

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New Graphic

WECHAT ACCOUNT E-PAPER

This photo taken on March 25, 2026 shows the Zhongguancun International Innovation Center in Beijing, China. (PHOTO: HONG Xing / Science and Technology Daily)

2026 ZGC Forum Focuses on Global Innovation

By LIANG Yilian, SUN Mingyuan & HUA Ling

Technological achievements cannot remain mere prototypes in the lab — they must find their way to the production line to truly become new quality productive forces. The 2026 Zhongguancun Forum Annual Conference, which opened in Beijing on March 25, has brought together thousands of participants from over 100 countries and regions to focus on translating scientific and technological innovations into industrial outcomes.

Themed "Integrate Technological and Industrial Innovation," this year's edition consists of five main segments: plenary sessions, achievement releases, technology trade, a frontier competition, and supporting events.

Driving technology commercialization

Lin Xin, vice minister of science and technology, said at a press briefing that the agenda mirrors the latest global technological trends. The discussions will center around the integration of cutting-edge fields such as 6G communications, brain- computer interfaces, and cell and gene therapies with future industries.

Technology trading, which serves as a crucial bridge connecting technological innovation with industrial advancement, has long been a cornerstone of the forum. This year, the technology trading segment has over 20 targeted matchmaking events, with the number of registered investment institutions hitting a record high. More than 500 high-quality domestic and international tech projects will hold on- site roadshows and presentations.

China's top 10 scientific advances in 2025

The opening ceremony presented "China's Top 10 Scientific Advances of 2025," spanning a wide range of fields, including physics, life sciences, energy materials, Earth sciences, and information technologies.

They included the discoveries made possible from samples brought by the Chang'e- 6 mission, revealing the evolutionary history of the moon's far side and the effects of giant impacts on it for the first time. Another innovation is a scalable method for producing flexible ultraflat diamond films, a material with promising applications across multiple industries. ***See page 3***

STI Frontier

Giant 'Power Bank' Lights Up E. China

By Staff Reporters

The first unit of the Tiantai Pumped Storage Power Station in Zhejiang province was officially connected to the grid recently, adding a gigantic "power bank" to east China's electricity network. At the station, water cascades from the upper reservoir, leveraging a world- class 724- meter water head to drive turbines and generate green electricity. At the mountain's base, the lower reservoir gathers the water, ready to pump it back uphill for storage when power is abundant and demand is low.

This releasing and storing efficiently transports electricity across time and space. Once fully operational, the station is expected to supply 1.7 billion kWh of clean energy annually, enough to power a city of 1.6 million people, according to the project builders, China Three Gorges Construction Engineering Corporation.

Building a "crack-resistant dam"

The upper reservoir's dam holds back 6.89 million cubic meters of water at a height of 953 meters, placing it under immense pressure. Dams of this nature are typically constructed from flexible rock-fill dams and rigid concrete faces, which makes them strong against compression but vulnerable to cracking from tension. Temperature changes could also deform the supporting rock-fill, and subject the concrete surface to the risk of cracking.

The construction team's solution to these challenges began with the concrete formula. Initial "trial- and- error" attempts with six different mixes were tried — but they either lacked early strength, were too costly, or even worsened cracking.

A breakthrough came when Zhou Tao, a project manager, studied the concrete microstructure of basalt fiber. He asked if a chemical bond, not just a physical mix, with the cement could be the key.

Shifting focus to the interface between materials, the team systematically tested 18 formulas across three dimensions — thermal, mechanical and durability — running 12 standard and three simulated environment tests for each.

After six months, a winning combination emerged: low- heat cement, basalt fibers and a cracking agent. In tests, crack width was reduced by nearly 60 percent, and ultimate tensile strength increased by 30 percent.

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International Cooperation

BFA Injects Stronger Impetus into Regional Development

By YAO Yian

Themed "Shaping a Shared Future: New Dynamics, New Opportunities, New Cooperation," the Boao Forum for Asia (BFA) Annual Conference 2026 was held in Boao, south China's Hainan province, from March 24 to 27.

This year marks the 25th anniversary of the BFA, which has become a prestigious platform for promoting exchanges, collaboration and common development among Asian nations and the wider world.

This year's conference centered on forging broad consensus on upholding multilateralism, opposing protectionism, deepening open cross- border cooperation, and bolstering inclusive, sustainable growth for Asia and the broader global economy.

Nearly 2,000 delegates from over 60 countries and regions took part in about 50 sub- forums, roundtable discussions, and dialogues.

The forum released two flagship annual reports at a press conference during the summit.

Asia remains the world's primary growth engine, with its economy forecast to expand by 4.5 percent in 2026. The global center of AI development is progressively shifting from the United States and Europe toward Asia, according to the report titled *Asian Economic Outlook and Integration Progress Annual Report 2026*.

The AI industry chain is now extensive and complex, with different Asian countries possessing their own strengths across various vertical sectors, said Deloitte China Research partner Lydia Chen. "Moving forward, collaboration at the industrial, software, data and policy levels will help facilitate a more convenient and efficient flow of key factors."

Asia is emerging as a pivotal force in the global shift toward greener, low- carbon energy, moving from "the largest center of traditional energy consumption" to "a leader in clean energy development," according to the report titled *Sustainable Development: Asia and the World Annual Report 2026 — Sustainable Development in Asia amid Global Transformation.* ***See page 2***

WEEKLY REVIEW

China's Large Telescope Releases over 30 mln Spectra

China's Large Sky Area Multi-Object Fiber Spectroscopic Telescope (LAMOST) on Tuesday issued its latest dataset to domestic astronomers and international collaborators. It includes more than 30 million spectra, cementing its position as the survey project with the highest number of released spectra worldwide.

Chinese Researchers Make a Breakthrough in Lithium Battery Technology

Chinese scientists have developed a new type of electrolyte, marking a breakthrough in the country's core lithium battery technology. The achievement, made jointly by researchers from the Shanghai Academy of Spaceflight Technology and Nankai University, is expected to double the range of existing lithium batteries and significantly improve their low-temperature performance.

NASA to Pause Gateway Lunar Station, Accelerate Return to Moon

NASA announced a set of initiatives to accelerate the return to the moon, including pausing the Gateway lunar orbital station in its current form, and building a sustained lunar surface presence. It said it will incorporate more commercially procured and reusable hardware to enable frequent and affordable crewed missions to the lunar surface, initially targeting landings every six months.

Hair-thin Sensors to Revolutionize Cancer Detection

Scientists from Australia and Germany have developed hair- thin sensors that can detect multiple cancer biomarkers simultaneously. The tiny sensors use ultrafast 3D micro- printing technology, which targets biomarkers and is printed onto optical fiber tips to measure several biomarkers simultaneously, including temperature and chemical changes.

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