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◆ WSJ NEWS EXCLUSIVE

China's Xi Stacks Government With Science and Tech Experts Amid Rivalry With U.S.

Number of people with backgrounds in strategically important areas among the Communist Party elite has more than doubled

By *Karen Hao* [Follow](#)

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HONG KONG—Chinese leader Xi Jinping has packed the top ranks of the Communist Party with a new generation of leaders who have experience in aerospace, artificial intelligence and other strategically important areas, as Beijing seeks to become a science and technology superpower that rivals the U.S.

The roster of officials with backgrounds in science and technology on the party's 205-member Central Committee has rebounded to roughly the length it had during former leader Jiang Zemin's first five-year term, beginning in 1992, when he kicked off a rapid acceleration of scientific research and innovation. The increase comes as Washington takes steps both to contain China's tech sector and boost U.S. innovation.

Chinese officials with technical expertise occupy 81 seats, nearly 40% of the total, in the new Central Committee—the elite body that decides major national policies—according to data compiled by the Washington-based Brookings Institution think tank and shared exclusively with The Wall Street Journal. That compares with less than 18% in the previous Central Committee. The new one was announced last month during a twice-a-decade conclave in Beijing.

On the party's ruling 24-person Politburo, the core of the Central Committee, the number of science- and tech-savvy decision makers rose to eight from two.

For most of its 73 years in power, the Communist Party has wrestled with the value of recruiting elites with technical knowledge, so-called technocrats, as opposed to purely political operators—the “red vs. expert” debate, as it's known. Though Mr. Xi often draws ideological comparisons with Mao Zedong, who was skeptical of experts, he has repeatedly espoused his belief in the importance of science and technology to bolster China's economic and military might.

“We must regard science and technology as our primary productive force, talent as our primary resource, and innovation as our primary driver of growth,” Mr. Xi said at last month's Communist Party congress.

“Those are not just empty words or an empty goal,” says Cheng Li, director of the China Center at Brookings, who compiled and analyzed the data. “He deliberately promoted leaders from that area to enter the Chinese leadership.”

Under Mr. Xi's predecessor, Hu Jintao, several top leaders had engineering backgrounds, but the party's lower ranks were thin on such experience. This left few candidates available in subsequent years to promote to more influential positions in the central government. Those roles went instead to leaders with training in economics and social sciences.

The new wave of appointments came a month after U.S. national security adviser Jake Sullivan announced the U.S.'s own strategic shift to start maintaining "as large of a lead as possible" over competitors like China in foundational technologies. In October, the U.S. Commerce Department released sweeping export controls to throttle China's ability to make and access advanced chips, one of Beijing's self-identified chokepoints critical to a wide swath of its economic and military ambitions.

Many of the new technocrats in the Central Committee come from emerging industries that Beijing has identified as strategic priorities, including semiconductors, environmental science and biotechnology. Brookings counted only individuals who earned a degree in science or engineering and subsequently practiced in the field. It didn't include those who specialized in economics and finance.

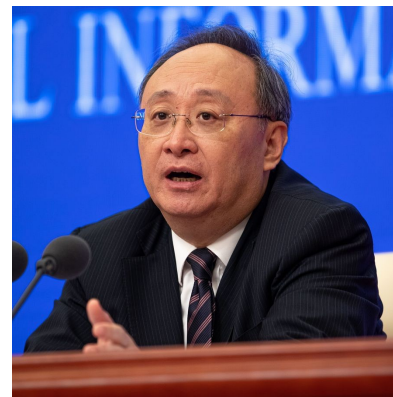
Aerospace experts lead with 20 seats, forming what is sometimes known as the "aerospace clique" or "cosmos club" in Chinese politics. Their dominance highlights the importance Mr. Xi places on the industry's role in Beijing's civil-military fusion strategy and as a source of national pride, Brookings' Mr. Li says.

Given the success of China's aerospace industry, such experts have also demonstrated "impeccable credentials" for managing large teams and complex projects, skills integral to overseeing national and provincial governance, according to Ruihan Huang, a research associate at Chicago-based think tank MacroPolo, which studies China's economy.

The sudden jump in science and technology experts is abetted in part by the changing makeup of China's political elite. Most senior officials under Mr. Hu had come of age during the Cultural Revolution and so were denied educational opportunities, said Mr. Huang, who analyzed the backgrounds of provincial leaders in a report released in May.

By contrast, the generation of experts now being promoted is highly educated and boasts extensive research or industry experience, according to the Brookings analysis. Many earned graduate and doctoral degrees, studied abroad and ran universities or multinational companies, including some listed among the Fortune 500, Mr. Li said.

Only one member of China's ruling seven-member Politburo Standing Committee is a technocrat by Brookings' definition. Ding Xuexiang, a political protégé of Mr. Xi who split his career between materials research and government administration, is sometimes seen as a bridge between the old-guard bureaucrats and the newer technocratic elite, according to Tristan Kenderdine, research director at political-risk consulting firm Future Risk.



Xu Dazhe, Ding Xuexiang and Yin Li

CHINA DAILY/REUTERS; TINGSHU WANG/REUTERS; ROMAN PILIPEY/EPA/SHUTTERSTOCK

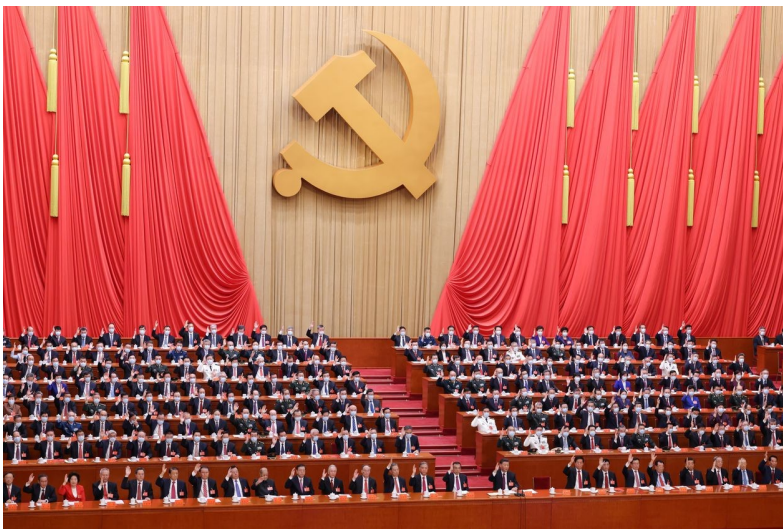
One rung below, in the Politburo, the technology experts have backgrounds more characteristic of the up-and-coming generation.

Ma Xingrui, a member of the “cosmos club” seen as another Xi protégé, had a 25-year career in aerospace that included leadership roles across university administrations, a state-owned aerospace contractor and government agencies including China's National Space Administration. He was also chief commander of several space missions, including China's first for lunar surface exploration.

In 2013, he entered government, working his way up to governor of the southern province of Guangdong, one of China's economic engines, which elevated him to the Central Committee. In 2021, he was transferred to the fractious northwestern region of Xinjiang to serve as party secretary—a sign of Beijing's significant trust in his capabilities, China watchers say. In October, he was

promoted to the Politburo.

Yin Li, another new addition to the Politburo, is an internationally respected public-health expert who served as a vice chairman of the World Health Organization and was a visiting scholar at Harvard University. At China's Ministry of Health, he helped shape the country's response to the SARS crisis in 2003.



The new tech-heavy Central Committee was announced at last month's Communist Party congress. PHOTO: LINTAO ZHANG/GETTY IMAGES

Dr. Yin entered government in 2015, swiftly rising to become governor of Sichuan province and gain a seat on the Central Committee. In 2020, he was named party boss of the southeastern province of Fujian, one of Mr. Xi's power bases. On Sunday, he was named municipal party chief in Beijing, where China watchers expect his expertise to play an important role in management of Covid-19 and the eventual reopening of the capital city.

Experts in science and technology are also being promoted in provincial governments, a sign that their influence will continue to grow. A preliminary MacroPolo analysis found that many provincial-level experts are matched with the province whose industries fit their expertise, which could improve management of high-tech industries and strengthen their development, MacroPolo's Mr. Huang said.

Aerospace-industry veteran Xu Dazhe, for example, held key government roles from 2016 to 2021 in Hunan province, a major center of aerospace research that helped develop the Beidou Satellite Navigation System, China's homegrown

alternative to the U.S. Global Positioning System. During his tenure, Mr. Xu intensified investment in Beidou and expanded the local industrial base through partnerships with state-owned aerospace companies, Mr. Huang says.

Upon his retirement last year, Mr. Xu was succeeded as Hunan party secretary by another aerospace-industry veteran, Zhang Qingwei, former party secretary of Heilongjiang province, a manufacturing hub for commercial aircraft. Mr. Xu served on the Central Committee, and Mr. Zhang remains a member.

Write to Karen Hao at karen.hao@wsj.com

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