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Jing-Jin-Ji At Ten: Urban Planning Under Xi

by Arran Hope



Beijing and Tianjin at night, taken from the International Space Station (Source: [Wikipedia](#))

Executive Summary:

- The Jing-Jin-Ji region's integrated development embodies Xi Jinping's vision for the PRC and is one of his strategic priorities.
- Planning documents from the past decade detail ambitions to leverage the potential of this region's 110 million people by designing a global center for innovation and high-end industrial production.
- Many western organizations and cities have been instrumental in assisting with the design of the region's strategies, unintentionally aiding the PRC's ability to compete in critical and strategic domains with the United States.
- Governance and coordination issues will challenge the regional initiative, at least in part because massive infrastructure spending underpins much of the project. And Beijing has yet to prove that innovation can be imposed in a top-down way.

This week marks the decennial of General Secretary of the Chinese Communist Party (CCP) Xi Jinping's visit to the Beijing Municipal Planning Exhibition Hall. There, he put forward a five-point request for promoting the development and management of Beijing, with a view to adjusting and relieving the “non-capital core functions (非首都核心功能)” of the city ([Beijing Planning Exhibition Hall](#), February 23). The following day, he chaired a symposium, raising the realization of the Beijing-Tianjin-Hebei coordinated development as “a major national strategy (重大国家战略)” ([Chinamil](#), February 26). The plans are still in an early stage of implementation, but the ambitions and contours of the project are now clear.

Cities at the prefecture level and above are the principal engine of the national economy. They account for around two-thirds of total GDP, much more than their proportion of the 60 percent of the population living in urban settings. Beijing anchors an urban agglomeration that is set to house as many as 130 million people under current plans. These plans seek to strip Beijing down to its core functions, deepen its integration with the port city of Tianjin, and foster positive externalities for the wider region of northern Hebei Province. A critical node of these plans is the techno-utopian city rising out of the wetlands south of Beijing known as Xiong'an New Area (雄安新区), which embodies a turn in the PRC's approach to urban development from speed (as was the case for Shenzhen) to quality, and is central to making Beijing-Tianjin-Hebei into “a pioneer and demonstration area for Chinese-style modernization” ([SCIO](#), December 26, 2023). Ultimately, Beijing seeks to leverage a massive labor shed of around 30 to 50 million people to help the region become “an international scientific and technological innovation center” ([Jing-Jin-Ji](#), September 10, 2023).

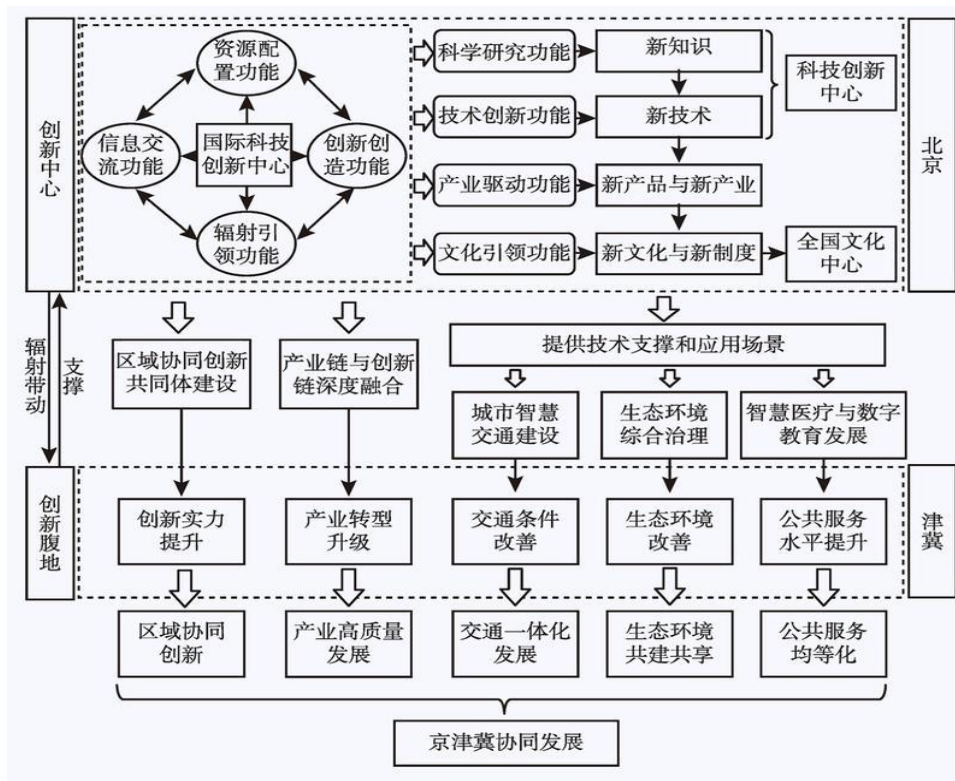
The Development of Jing-Jin-Ji

The Beijing-Tianjin-Hebei region is one of three in the PRC to have its own “Coordinated Regional Development Strategy (区域协调发展战略).” The region, also known as “Jing-Jin-Ji (京津冀),” [2] is not the country's preeminent region—it is less developed than the Yangtze River Delta or the Pearl River Delta—despite housing the political capital. It is also shaped primarily by centralized national economic and urban policies. These are partly intended to alleviate imbalances and inequalities which have been a policy concern for decades. However, the urban clusters themselves remain sites of acute inequality.

Over the past ten years, several major policies and political events have marked the development of this regional initiative. The February 2014 symposium which generated the concept was followed by 75 policies and plans (政策规划) up to March 2022 ([Jing-Jin-Ji](#), accessed February 29), a third of which are dedicated to science and technology innovation, and nine of which focus on city governance. [3] There have also been two subsequent symposia. At the second in early 2019, Xi urged officials “to maintain historical patience and strategic determination and do a good job in this historic project.” At the most recent one in May 2023, Xi announced that “in just six years, Xiong'an New Area has gone from nothing to something ... which is a miracle (短短 6 年里, 雄安新区从无到有...堪称奇迹)” ([State Council](#), December 26, 2023). The central government also set up a leading small group and an expert advisory committee.

This last symposium was accompanied by the unveiling of a New Implementation Plan for Coordinated Development of Industries in Beijing-Tianjin-Hebei Region (一图读懂京津冀产业协同发展实施方案) (MIT, May 23, 2023). This specifies eight key areas of focus, which read like a laundry list of PRC strategic goals and industrial policy priorities. To name a few: supporting the development of advanced manufacturing clusters; enhancing the advanced level of industrial foundation and industrial chains in the key sectors of new energy vehicles, biopharmaceuticals, and the industrial Internet; and improving the regional industrial innovation system. It is not for nothing that when, on the eve of the Year of the Dragon, Xi took the swift 30 minute journey from Beijing to Tianjin, the train he rode was called *Rejuvenation* (复兴) (Xinhua, February 4).

The top-down effects of these plans are clear. According to officials figures, region's total economic output reached Renminbi (RMB) 10.4 trillion (\$1.46 trillion), almost double the figure in 2013 before the initiative had begun (People's Daily, February 26). The evacuation of non-capital functions has seen Xiong'an New Area attract 292 "key projects." Over 3,000 general manufacturing enterprises have left Beijing. 1,000 markets and logistics centers have been closed or upgraded. Air quality has significantly improved, with average PM2.5 concentration was down 57.3 percent in 2023 compared with that in 2014. Beijing tops the national list in terms of research and experimental development (R&D) expenditure, as well as in invention patents (NBS, December 28, 2023). The Beijing-Tianjin-Hebei Regional Development Index reached 145.0 in 2022 (from a 2014 base of 100), driven predominantly by innovation and green development. [4]



Schema for the coordinated development of Jing-Jin-Ji. (Source: [Jing-Jin-Ji](#))

Tales of Two Cities and CCP Self-Strengthening

The cliché of a “Tale of Two Cities (双城记)” frequently appears in writing about Beijing and Tianjin’s deepening integration ([QStheory](#), February 23). Dickens is never mentioned, but the paradoxes and contradictions of his novel’s opening sentence are alive and well in the “new chapter (谱写新篇章)” that is being written in this post-revolutionary world ([Beijing Municipal DRC](#), February 23). The plan describes a model of “R&D in Beijing, manufacturing in Tianjin and Hebei (北京研发、津冀制造),” or as streamlining the process of bringing innovation “from the laboratory to the production line (推动更多科技成果从实验室走向生产线).” Tianjin has already built 15 national key laboratories and several research and development institutions either tied to or spun out of universities from both places have cemented linkages. The Tianjin Binhai-Zhongguancun Science and Technology Park, for instance, has accumulated more than 4,900 registered enterprises, including 259 national science and technology-based small and medium-sized enterprises and 193 national high-tech enterprises ([QStheory](#), February 23). [5] Meanwhile, there is an enormous amount of investment pouring into national champions, little giants, and—above all—infrastructure.

The literary allusion gestures to an understudied aspect of the PRC’s megacities—their western influence. This stretches back to the earliest days of plans for the region. The “Beijing-Tianjin-Hebei Blue Book: Beijing-Tianjin-Hebei Development Report (2023)” report attributes the concept of “global centers of science, technology, and innovation” to an article in *America Online* magazine (also known as Omni, or AOL; *美国在线*) in 2000. This article argued that such places would require local universities and research institutes to train skilled workers or develop new technologies, well-established enterprises and transnational corporations to provide expertise and bring economic stability, a strong start-up culture, and access to capital ([Jing-Jin-Ji](#), September 10, 2023)—all things that Beijing’s planners have been pursuing.

Beijing has solicited the assistance and expertise of a range of experts and organizations from western Europe and the United States. A Germany’s Federal (BMW) coauthored a report on “Power System Flexibility in Jing-Jin-Ji and Germany” alongside a leading Chinese think on formulating renewable energy and energy transition policies ([Energy Research Institute of the NDRC](#), August 2020). Earlier on, the Paulson Institute published the report “China’s Next Opportunity: Sustainable Economic Transition—How Jing-Jin-Ji Can Lead The Way” alongside another government-funded think tank ([Paulson Institute/CCIEE](#), October 2015). As Paulson writes in the foreword, they would “provide in-depth analysis of specific industry sectors in the Jing-Jin-Ji region, along with specific recommendations for transition strategies for these sectors.” This should come as little surprise, given recent coverage of McKinsey’s involvement in crafting PRC strategy (for instance, [Financial Times](#), February 23).

A recent exhibition at the Beijing Planning Exhibition Hall even uses the phrase “A Tale of Two Cities” to refer to an installation about its collaboration with Copenhagen (with which Beijing has been twinned since 2012) on the idea of a “sponge city,” as well as other water-related matters and energy-saving buildings ([Beijing](#)

[Planning Exhibition Hall](#), February 26). Intercity relationships have been a longstanding aspect of the CCP's United Front work ([Stealth War](#), May 12, 2023). In the words of Li Xiaojiang, former head of the China Academy of Urban Planning and Design, "the core of integrated development of 'Jing-Jin-Ji' lies in the concepts of optimization, adjustment and streamlining, all for the sake of pursuing healthier development" ([People's Daily Online](#), February 26, 2019). Such technocratic jargon sits well with city mayors and planners the world over, but the extent to which western expertise is actively enlisted in helping finesse developments underpinning its rise as a science and technology superpower likely concerns those in Washington, D.C. [6] The Jing-Jin-Ji strategy rests on central government approval, and clearly operates with Beijing's broader strategies in mind.

Beijing may have looked abroad for solutions, but the "big-city disease (大城市病)" it has sought to resolve has proven to be chronic. The digitally integrated "smart city" concept—another western import, now adopted in forms such as Alibaba's "City Brain"—is embodied in Xiong'an. But government reports detail significant aspects that still need to be addressed. The *Blue Book* report worries that Beijing specifically does not have a sufficiently high enterprise innovation level, that investment in basic research is still relatively low, and that industry-university-research cooperation needs to be deepened ([Jing-Jin-Ji](#), September 10, 2023). Meanwhile, the wider region still suffers from disparities in innovation and a "core-periphery" imbalance that hinders the cluster's ability to be competitive on the global stage. Green and digital economies have developed more slowly than hoped and governance problems have obstructed effective institutional mechanisms for coordinated development. This is critical, as the North China Plain is not only one of the most densely populated regions in the world but is also the world's most at-risk place for climate change-related extreme heat [7]

Jing-Jin-Ji is an attempt at a new style of urban planning in the PRC, but fostering innovation is difficult to achieve. Veteran urban planner Liu Taige (刘太格) has noted this, as well as arguing against applying the formula for other PRC cities to Jing-Jin-Ji. Under this formula, "for the sake of GDP, local leaders require a major project to start before the end of the year. The time constraints will then make the science of planning much less effective. In addition, in most cities in mainland China, the departments of land, transport, planning, environment, construction and development and reform each come up with their own plans, and there are contradictions in the interests of the departments themselves, which bring about inefficiency in management and implementation" ([Caijing](#), June 5, 2017). More recently, Liu has indicated that the plans for Xiong'an in particular may be insufficient ([Epoch Times](#), May 14, 2023).

Conclusion

The Jing-Jin-Ji region, now ten years old, symbolizes the body politic under Xi Jinping. It is attempting to steer a population exceeding that of any European country to support Xi's personal ambitions. These come with the baggage that attends many of Xi's policies. Should these plans come to fruition, the city cluster could be among the world's most dynamic urban regions. But by mid-century, when many of these schemes have their putative deadlines, the PRC may be in a very different place.

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Notes

[1] Lynch, Kevin. *Good City Form*. MIT Press, 1984.

[2] The “Jing” is from “Beijing,” the “Jin” from “Tianjin,” and the “Ji” is the old name for what is now much of northern Hebei.

[3] Some of the more notable relevant plans and documents not mentioned in the piece include:

- The New-Type Urbanization Plan (国家新型城镇化规划), which signaled a shift from land-based urbanization to a more human-centered approach (March 16, 2014);
- The “Outline of the Beijing-Tianjin-Hebei Synergistic Development Plan (京津冀协同发展规划纲要) (April, 2015);
- The 13th Five-Year Plan of Beijing-Tianjin-Hebei (which included 12 special plans for Beijing-Tianjin-Hebei land, urban and rural areas, water conservancy, and health) in 2016;
- The “Outline of the National Informatization Development Strategy (国家信息化发展战略纲要);”
- The “Overall Plan of the City of Beijing (2016-2035) (北京城市总体规划 (2016年—2035年))” (Fall, 2017).

[4] These figures ought to be taken with a grain of salt. A cursory look at the same graph for the years 2019–2022 sees different numbers in each instance. It is unclear whether this is on account of a constantly adjusted methodology or a retrospective tweaking of the data. Though it should be noted that NBS data is not known for its objectivity or accuracy. See: https://www.stats.gov.cn/sj/zxfb/202312/t20231227_1945819.html; https://www.stats.gov.cn/sj/zxfb/202302/t20230203_1901694.html; https://www.stats.gov.cn/sj/zxfb/202312/t20231227_1945819.html; https://www.stats.gov.cn/sj/zxfb/202302/t20230203_1900862.html

[5] Haihe Laboratories (海河实验室), which focuses on Brain-Computer Interaction and Human-Computer Integration in Tianjin, was recently discussed in *China Brief*: “[Brain-Computer Interfaces: Medical Miracles and Innovation Policy](#),” January 5.

[6] See for instance, Rahm Emanuel. *The Nation City: Why Mayors Are Now Running the World*. Penguin Randomhouse, 2020. (See also, [LRB](#), June 18, 2020)

[7] Wu Weiping & Piper Gaubatz, *The Chinese City*, (Routledge 2020), p.322

Implications of Article 23 Legislation on the Future of Hong Kong

by Eric Y.H. Lai



A demonstrator's banner against the Article 23 security law. (Source: HKFP/Ellie Ng)

Executive Summary:

- Hong Kong's Article 23 legislation will integrate the PRC's national security framework into Hong Kong's legal system, impacting the city's rule of law and foreign business interests.
- Broad and vague definitions of national security will create challenges for Hong Kong's common law system. It will likely contribute to the erosion of legal certainty and judicial independence.
- Proposed offenses such as "theft of state secrets" and "espionage" are ambiguously defined, creating uncertainty. This may cause issues for foreign businesses collecting information for due diligence and will further chill freedom of expression in the city.
- The legislation aims to isolate Hong Kong further from the liberal democratic world, granting extensive powers to the government for political control and undermining public oversight and due process rights.

On February 28, the Hong Kong government ended a month-long public consultation of “Basic Law Article 23 legislation” ([The Standard](#), February 28).”This refers to the local legislation of a national security law, which is required by the city’s mini-constitutional document following the “one country, two systems” framework of the People’s Republic of China (PRC) ([HKSARG](#), January 30). The public consultation document (hereafter, “the Document”) issued by the Hong Kong government contains proposals which, if implemented, will be deleterious to Hong Kong’s rule of law system. These proposals also impact the interests of foreign business communities and global civil society actors.

Vague Terms as Hong Kong Law Converges with PRC Legal Framework

Article 23 of Hong Kong’s Basic Law stipulates the prohibition of acts endangering national security by the local government of the Hong Kong Special Administrative Region (HKSAR). The first legislative attempt failed in 2003 after more than half a million citizens joined rallies to express their disapproval of the bill. Although the local government did not re-introduce the bill, the PRC government has persistently requested that Hong Kong fulfill its obligation to “safeguard national security.” One ostensible instance is the State Council’s white paper on “one country, two systems,” released two months after President Xi Jinping introduced the concept of a “holistic view on national security” in 2014 ([SCIO](#), June 10, 2014). This white paper asks government administrators, including independent judges, to love the country and safeguard the PRC’s national security and development interests ([Lai](#), 2023). The following year, the PRC promulgated “the National Security Law of the People’s Republic of China” in the mainland, providing that “the Hong Kong Special Administrative Region and Macao Special Administrative Region shall fulfill responsibilities for the preservation of national security” (Article 40(3)). For the PRC, these obligations have yet to be satisfied, despite Beijing’s introduction of a national security law (NSL) for Hong Kong in mid-2020. As Article 7 of the NSL states, the Hong Kong government is still required to complete additional legislation of its own to safeguard national security under the Basic Law ([HKSARG](#), June 30, 2020).

The latest Article 23 legislative proposal accomplishes the transplanting of “safeguarding national security” as a legal framework into Hong Kong. Unprecedentedly, the Document affirms that the definition of “national security” in the 2015 national security law will be adopted in the new legislation—going beyond the definition in the 2020 NSL ([Xinhua](#), July 10, 2015):

“National security refers to the status in which the State’s political regime, sovereignty, unity and territorial integrity, the welfare of the people, sustainable economic and social development, and other major interests of the State are relatively free from danger and internal or external threats, and the capability to maintain a sustained status of security (国家安全是指国家政权、主权、统一和领土完整、人民福祉、经济社会可持续发展和国家其他重大利益相对处于没有危险和不受内外威胁的状态，以及保障持续安全状态的能力).

The Document further stresses that the Hong Kong government “shall discharge its responsibility of safeguarding national security in accordance with the holistic view of national security” (Paragraph 1.5).

Adopting such ideological terms into Hong Kong's domestic law would inevitably create tensions with the principles of the rule of law. For instance, the ambiguity inherent in the concept of an “holistic view” of national security creates issues around certainty as well as around consistency with the wider common law corpus. Under the PRC's national security imperatives, such concepts are too vague and overbroad for criminal prosecution and trials to be conducted following the city's common law system. Other concepts that cause the same difficulties include “economic security,” “cultural security,” “resource security,” and “sustainable economic and social development.” This would also be a challenge for local judges, trained mainly in the English legal system, as they would have to adjudicate without referencing such ideological concepts.

The proposed offences of the “theft of state secrets” and “espionage” in the Document (Chapter 5) are further evidence of the erosion of Hong Kong law. The document states that the new legislation will define “state secrets” with reference to “the Law of the People's Republic of China on Guarding State Secrets.” In other words, information “concerning the economic and social development” of the mainland and Hong Kong could also be considered state secrets if “the disclosure of the information without lawful authority would likely endanger national security” (Paragraphs 5.8 and 5.9). The Document also refers to the PRC's “Counterespionage Law” to expand liability-bearers' scope beyond spying organizations ([Xinhua](#), March 27, 2023). This law defines espionage activities as including “Activities ... carried out by espionage organizations and their agents, or instigated, supported, or colluded in by domestic or foreign institutions, organizations, or individuals (间谍组织及其代理人实施或者指使、资助他人实施, 或者境内外机构、组织、个人与其相勾结实施的...活动)” (Article 4(1), cf. the Document, Paragraph 5.15), as well as “Directing attacks against targets for the enemy (为敌人指示攻击目)” (Article 4(5)). The Document, meanwhile, suggests replacing the ordinary term “enemy” with “external forces” for the offence of espionage. This refers to “any foreign government, ... external political organization, etc.” and their “associated entities and individuals” (Paragraph 5.19). Ambiguously and broadly defined, there are no clear boundaries as to what and whom could be deemed criminal under this proposed law.

Chinese courts have recently convicted foreign business executives for espionage. The lengthy jail sentences these executives have received reveal how foreign corporations in the mainland are vulnerable to the PRC's national security regime ([BBC News](#) January 26). Transplanting anti-espionage elements from the mainland's jurisdiction into Hong Kong's local legislation may encourage foreign businesses to draw parallels with how the Chinese authorities target business groups with national security laws ([Lai](#), 2024).

Information Control And Private Enterprise Concerns

The Hong Kong authorities are eager to further tighten information control in the city as a corollary of stricter security legislation. The Document suggests raising the penalties for the offence of “seditious intention” and of “possession of seditious publication,” which has been used to prosecute pro-democracy media outlets including Apple Daily (蘋果日報) and the Stand News (立場新聞) (Paragraph 4.8). In the past three years,

the authorities have been using the sedition law to charge ordinary citizens for criticizing government policies on digital platforms. Public prosecutors have alleged that these outlets have published “seditious” reports, feature interviews and opinion articles. It is foreseeable that an enhanced version of the sedition law would have a further chilling effect on information circulation, as citizens would be disincentivized from sharing critical views in both the public and digital domains.

The business community would be particularly affected by the new “theft of state secrets” and “espionage” offences. Under the proposal, espionage includes “obtaining, collecting, recording, producing or possessing, or communicating to any other person, any information, document or other article that is, or is intended to be, for a purpose useful to an external force” (Paragraph 5.20). One challenge to foreign investors, therefore, is the risk of conducting due diligence of their operations in Hong Kong. Risk assessments are required for background checks of clients from state-owned enterprises and internal investigations of mainland-based links in supply chains. The Document stresses that “intent to endanger national security” is a prerequisite for an activity to constitute an offence. However, the overbroad definitions of “national security” and “external force”, alongside the language of “[information] for a purpose useful to an external force” suggests that the law could be arbitrarily enforced against foreign businesses who merely seek to comply with the due diligence requirements of their home jurisdictions. Such concerns will only grow as regulatory frameworks for supply chain due diligence emerge as a norm in the West, while the penalty for individuals convicted of espionage-related crimes could be a suspended death sentence ([Reuters](#), February 5).

The Document suggests that disinformation may constitute an espionage offense. Paragraph 5.20 states that the offense targets acts including “Colluding with an external force to publish a statement of fact that is false or misleading to the public” with intent to “endanger national security.” Similarly, for the offence of “foreign interference,” “knowingly making a material misrepresentation” serves as an “improper means” for one to interfere with the policymaking of the PRC and Hong Kong governments. The Document also targets prejudicing “the relationship between the China or the HKSAR and any foreign country” (Paragraph 7.6). The underdefined terms used increase the scope for the government to accuse an individual or an entity of spreading disinformation to endanger national security.

The 2019 protests in Hong Kong are a clear motivator for this part of the proposed law. The authorities, who characterize the events five years ago as “the Hong Kong version of ‘colour revolution’” (Paragraph 1.8), have repeatedly accused some activists and journalists of publishing disinformation on police brutality. However, many international NGOs, such as Amnesty International, have published verified testimonies and reports which constitute allegations of police abuse of power as well as torture in Hong Kong ([Amnesty](#), September 19, 2019). If the government could determine the meaning of misleading statements or material misrepresentation in a legal case, then foreign media outlets, international NGOs, foreign commercial chambers, and netizens inside the city would fear criminal liability when publishing information adversarial to the regime.

Isolating Hong Kong and Removing Judicial Safeguards

One possible objective of the legislation is to isolate Hong Kong further from the liberal democratic world. A lengthy passage in the Document accuses “external forces” of inciting “hatred” against the political system, as well as sowing seeds for “colour revolution” in the name of “monitoring human rights” and “fighting for rights” (Paragraph 2.6). It infers these allegations to justify the new offense of “external interference,” applicable to the aforementioned “associated entities or individuals” of foreign governments or organizations. While “political organizations” are not specified in the Document, the current Implementation Rules of Article 43 of the NSL state that political organizations could refer to any organization outside the PRC, aside from political parties, that pursues political ends inside Hong Kong ([HKSARG](#), July 7, 2020, Schedule 5 (1)). Such a broad notion implies that foreign NGOs, churches, federations of unions, and charitable foundations could be considered “external forces.” This speculation echoes the condemnation of rights-focused groups above and aligns with why and how PRC authorities regulate international NGOs. Even though the Document promises to allow exchanges between local groups and external equivalents, these must be conducted by “lawful and proper means” and “must not pose any national security risks” which authorities can define arbitrarily. The extraterritorial reach of the proposed Article 23 legislation, in line with the current NSL, would continue to impact local and diasporic communities of Hongkongers who may wish to cut ties with their counterparts to minimize the legal and political risks they face.

The Article 23 legislation is likely to be enforced through the government’s abuse of power. In 2020, the NSL not only introduced new offences and enforcement institutions, it also reshuffled the local criminal justice system. Consequently, the Chief Executive of Hong Kong can designate judges to try national security cases and the government’s attorney general—known as the Secretary for Justice—can replace a jury trial with a three-judge bench. The Chief Executive can further impose a certificate to affirm evidence related to state secrets in a national security trial and bar foreign lawyers from defending such cases.

The authorities now enjoy extensive powers to seize suspects’ assets and conduct searches without a court warrant. The local court used to have the power of judicial review against any local government’s acts. However, it has no jurisdiction to review decisions made by the National Security Committee, the supreme body operating the city’s national security apparatus. The Document indicates that such procedural practices will remain in place, if not be sharpened. For instance, the government has proposed to extend the detention of suspects and prohibit access to lawyers on certain conditions (Paragraphs 9.12–9.13). Predictably, the goal is to restrict even further the due process rights of criminal suspects allegedly endangering national security.

Looking Forward

The overarching goal of the Article 23 legislation is to broaden the scope of surveillance and political control in society. As the Document shows, this is to be achieved through weakening both the flow of information and the public’s access to it. This will incapacitate citizens’ abilities to monitor government conduct and foster a free, open, and transparent society. The alignment of Hong Kong’s legislative proposal with the PRC’s

national security agenda proves that at least some government forces are eager to isolate Hong Kong further from the broader global community, turning it into a relatively closed society, akin to that of the mainland.

The Hong Kong government concluded the legislative consultation on Wednesday, February 28. Such short notice for opinion submissions on legislation, compared with a three-month-long public consultation provided in 2002, indicates a desire to speed up the legislative process as much as possible. However, it may also be to conform with Beijing's political calendar. The annual "two sessions" will be held in early March. There, Beijing will likely make a final decision on the legislative bill and many political consultants and National People's Congress (NPC) representatives from Hong Kong will receive final instructions from top officials.

Uncertainty pervades the PRC's relationships with both the West and Hong Kong. On the one hand, central authorities continue to proffer an olive branch to the West to rebuild economic ties. On the other, nationalistic sentiments against "foreign forces" and threats to "national security" remain a popular narrative of hawks in the PRC and Hong Kong governments. Hardliners have led an increasingly repressive approach to Hong Kong's governance. In light of events in the past three years, the tensions between alleviating economic pressures and amplifying the need to safeguard national security will continue until the top authorities determine the course of the legislation, marking the future of Hong Kong's autonomy and its role between China and the West.

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BeiDou And Strategic Advancements in PRC Space Navigation

by Jemima Baar



Satellites in orbit around Earth. (Source: AI-generated image)

Executive Summary:

- BeiDou enhances both the PRC's strategic autonomy and its influence across the world. It has signed agreements with numerous countries to expand its use, including for military applications.
- An interoperability agreement with the US government diminishes the strategic value of GPS by eliminating and altering the costs of switching over to BeiDou.
- BeiDou could successfully insulate the PRC and partner countries in the event of a conflict scenario with the United States, while being instrumental in supporting the country's counterspace capabilities.
- The PRC's BeiDou satellite navigation system is now perceived as superior to GPS. Xi Jinping has described the third generation of satellites as "one of the important achievements China has made in the past 40 years."

For nearly half a century, the United States' Global Positioning System (GPS) has been the undisputed gold standard for global navigation satellite systems (GNSS). Now, it has a challenger: BeiDou (北斗).

On February 23, 2024, the People's Republic of China (PRC) successfully placed an experimental telecommunications satellite into orbit using its Long March 5 (长征五号) launch vehicle. This was PRC's fifth launch of the current calendar year, which demonstrates its commitment to pushing the frontier of satellite technology ([CALT](#), accessed February 26). The PRC's activity in this domain follows several successes last year. In November 2023, the International Civil Aviation Authority recognized that BeiDou had met the criteria to be accepted as a navigation system for global civil aviation ([State Council](#), November 16, 2023). In December, the PRC successfully launched two new satellites to augment its Beidou-3 (北斗三) constellation. This third generation of the PRC's domestically developed GNSS now comprises 58 satellites, compared to GPS' 31 ([CALT](#), accessed February 26; [USCG](#), February 14). The PRC also seeks to expand its presence in low-Earth orbit, where it is possible to launch satellites more cheaply and plentifully. The state-owned China Satellite Network Group (中国卫星网络集团) aims to challenge the dominance of the US company StarLink by establishing a megaconstellation comprising approximately 13,000 satellites. 10 percent will be launched between mid-2024 through 2029 ([Sina](#), January 12).

In the 30 years since its inception in 1994, BeiDou has grown in sophistication and scope to make the PRC a central player in the GNSS arena. In 2023, a US government advisory board on GPS found that, "GPS' capabilities are now substantially inferior to those of China's BeiDou" ([GPS](#), January 27, 2023). In today's era of heightened geopolitical competition, BeiDou is a highly strategic asset for the PRC. Since at least 2014, BeiDou has been integrated into the PRC's military communications and precision-guided munitions systems ([China Brief](#), August 22, 2014). This has eliminated the PRC's reliance on the United States' GPS and thereby enhanced its strategic autonomy. An equally pressing concern for the United States is BeiDou's role as a vehicle through which the PRC has extended its reach in global politics, economics, and military affairs. The capital cities of 165 out of 195 countries—or 85 percent—are now observed more frequently by BeiDou satellites than by those operated by GPS ([Nikkei Asia](#), November 25, 2020). Increasingly, the PRC shares BeiDou technology with its partners expressly for military purposes, which may strengthen its military ties with traditional US partners like Pakistan and Saudi Arabia, as well as US adversaries such as Russia and Iran. States face negligible opportunity costs when switching over from GPS to BeiDou. An agreement signed between the US Department of State and the PRC's Satellite Navigation Office in 2017 included provisions for the interoperability of the GPS L1C and BeiDou B1C civil signals. As a result, states are able to seamlessly switch GNSS systems without substantively changing the hardware used to receive signals ([GPS](#), December 4, 2017). Together, these developments may prompt a transition away from the global reliance on GPS, diminishing a crucial instrument of US influence in civil and military domains.

Some Things Never Change: BeiDou's Foundation Amidst Global Power Dynamics

The PRC developed BeiDou with a watchful eye on the United States. Chen Fangyun (陈芳允), the founder of radio electronics in the PRC, originally conceived of building a Chinese satellite navigation system in the 1980s. But the impetus to actualize this idea came after the United States first tested GPS in combat during Operation Desert Storm. The United States' military dominance during the first Gulf War stunned Chinese officials and galvanized the PRC's comprehensive military modernization in all areas, including space. [1] A further catalyst was the "Yinhe incident" in 1993. The US government had been given intelligence that the Chinese container ship *Yinhe* (银河) was transporting chemical weapons materials to Iran and instructed nearby Middle Eastern countries to prevent it from docking. In the ensuing stand-off, during which *Yinhe* was stranded in the Indian Ocean for 24 days, the PRC alleged that the United States had deliberately jammed the ship's GPS navigation system and prevented its ability to navigate ([The Paper](#), June 6, 2020). Work on an independent Chinese satellite navigation system began immediately afterwards, in 1994 ([State Council](#), November 4, 2022). The PRC felt vindicated by this decision during the Third Taiwan Straits Crisis in 1995-96, when it claimed that GPS interference had made it lose control over one of its ballistic missiles fired over the Taiwan Strait ([SCMP](#), November 13, 2009).

Going Global: BeiDou as a Tool for Soft Power

The program progressed quickly. In December 2000, the PRC launched its first satellite, *BeiDou-1A*, which provided domestic positioning services. By 2012, the second generation of BeiDou satellites extended services beyond the PRC to the Asia-Pacific. Soon after, the PRC signed myriad bilateral agreements with countries to expand BeiDou's reach. The first was with Thailand in 2013, for use in its public sector, disaster relief, power distribution, and transport. At the time, an expert on BeiDou based at Wuhan University stated that, "If Thailand can embrace Beidou, other countries may follow and the Americans' political, economic and military power in the region will be reduced" ([SCMP](#), April 4, 2013). The strategic orientation of the BeiDou program was, therefore, clear from the start.

Agreements with Laos, Brunei, Cambodia, Pakistan, and Sri Lanka soon followed Thailand's ([China Daily](#), May 18, 2013). In 2015, Beijing and Tehran signed an MOU, which involved building BeiDou ground stations in Iran and establishing an Iranian center for space data collection ([Mehr News](#), October 18, 2015). In 2016, Saudi Arabia's King King Abdulaziz City for Science and Technology signed an MOU with the PRC's Satellite Navigation Office, which included clauses on cooperation on satellite manufacturing, the usage of the BeiDou Satellite Navigation System, and the "establishment of a permanent space station" in Saudi Arabia ([Carnegie](#), August 1, 2023).

In 2020, BeiDou further expanded its reach with the full launch of its third generation, which provides coverage around the world ([State Council](#), November 4, 2022). President Xi Jinping described the system as

“one of the important achievements China has made in the past 40 years of reform and opening up (中国实施改革开放 40 年来取得的重要成就之一)” ([Sina](#), July 31, 2020).”

With the exception of a bilateral cooperation agreement signed with Argentina in 2020 ([Global Times](#), February 6, 2022), much of the recent expansion of BeiDou’s civilian network has occurred through multilateral fora. The China-Central Asia BDS Cooperation Forum was first convened in Nanning in 2019 ([BeiDou](#), October 19, 2019). The China-Arab States BDS Cooperation Forum was held in Shanghai in 2018, in Tunis in 2019, and in Beijing in 2021 ([BeiDou](#), December 8, 2021). These are not just talk shops. In 2018, BeiDou’s first overseas center, the China-Arab BeiDou Center, was built in the Jazala Science Park on the outskirts of Tunis ([Space in Africa](#), April 16, 2018). In 2021, delegates to the third China-Arab States BDS Cooperation Forum signed a two year action-plan (中国-阿拉伯国家卫星导航领域合作行动计划), in which they pledged closer cooperation and academic exchange in the field of satellite navigation ([Arab Civil Aviation Organization](#), December 9, 2021). In light of these multilateral meetings, Algeria, Lebanon, Morocco, Oman, and the UAE have all adopted BeiDou for land surveying and mapping, transportation, precision agriculture, environmental monitoring, and security ([Global Times](#), December 9, 2021). In another sign of BeiDou’s global expansion, the China-Africa BDS Cooperation Forum was held in Beijing in 2021 ([BeiDou](#), November 5, 2021).

Worldwide, the PRC has some 120 ground monitoring stations—the facilities used to establish and maintain connection with orbiting satellites—while the United States has just 11 ([SCMP](#), November 10, 2022). The locations of these ground stations are geopolitically charged. BeiDou purportedly uses facilities in Australia, Canada, Japan, and Sweden, key US allies ([SCMP](#), November 10, 2022; [ESA](#), accessed February 21). In September 2023, the PRC installed ground stations in two locations on the Paracels, a disputed island reef in the South China Sea ([SCMP](#), September 20, 2023).

BeiDou is a pivotal component of the PRC’s endeavors to cultivate ties around the world and thereby gain geopolitical advantages. The door is wide open for it to do so. In their comprehensive report on the impact of BeiDou on great power competition, Sarah Sewall, Tyler Vandenberg, and Kaj Malden argue that the United States’ GNSS strategy is too narrow: the Department of Defense is primarily concerned with preventing the disruption of GPS during military operations and protecting national critical infrastructure. By contrast, the PRC “recognizes that BeiDou’s commercial applications can enhance the CCP’s political, economic, and security goals.” [2] Key factors behind BeiDou’s expansion, then, are the PRC’s highly strategic diplomatic outreach, which is well received by states because of BeiDou’s wider global coverage, due to its larger satellite constellation.

That GPS and BeiDou are radio frequency compatible is another, oft-overlooked factor. This is an outcome of the agreement struck between the US Department of State and the PRC’s Satellite Navigation Office in 2017 ([GPS](#), December 4, 2017). In essence, this compatibility allows states to switch from GPS to BeiDou without the need to significantly change their hardware for receiving signals. As was the intention of the agreement, this improves the overall quality and coverage of GNSS internationally. However, precisely because this

interoperability facilitates a seamless and cost-free transition from GPS to BeiDou provides the PRC the opportunity to draw states into its network and therefore away from the United States, of which it has taken full advantage. The reverse could also be true, but in the absence of a similarly calculated effort by the United States to elevate and expand the reach of GPS, its strategic value has markedly diminished with the rise of BeiDou.

A Not So Peaceful Rise: BeiDou as a Tool for Hard Power

It is impossible to divorce the BeiDou satellite navigation system from the PRC's broader military apparatus. This is the case despite much of the export of BeiDou internationally serving civilian ends. Space capabilities feature significantly in the People's Liberation Army's strategy of coercive diplomacy. [3] BeiDou's "informationization programs" are primarily run by the Office of the Central Cyberspace Affairs Commission, the Central Military Commission (CMC) Equipment Development Department (EDD), and the CMC Joint Staff Department ([SCIO](#), December 15, 2016). A report published by CCID Think Tank (赛迪智库), which operates directly under the Ministry of Industry and Information Technology ([CCID](#)), on "Prospects for the Development of China's Military-Civil Fusion in 2019 (2019 年中国军民融合发展形势展望) highlights breakthroughs with BeiDou as an exemplar of the PRC's model of military-civil fusion (民参军). [4] In 2020, Zheng Anqi (郑安琪) of the China Academy of Information and Communications Technology stated that, "if modern military forces have strong information power, they have strong military power" ([Brookings](#), April 5, 2021). In the same year, researchers at the Academy of Military Sciences asserted that, the PRC "will give full play to the capabilities of future communications technologies—including large connections, low latency, high bandwidth, and wide coverage—to provide more powerful scientific and technology support for our military's intelligent combat system" ([Brookings](#), April 5, 2021).

The obvious military application for BeiDou is as insulation for the PRC in a conflict scenario with the United States. With its military and public no longer dependent on another nation's satellite navigation system, the PRC's military and civilian life can continue to function even if GPS is degraded. The PRC has a growing arsenal of counterspace weapons that threaten US satellites ([DOD](#), April 26, 2023). Significantly, the reach of BeiDou is such that other states will also be relatively insulated. As BeiDou is adopted more comprehensively around the world, the PRC may become capable of targeting GPS—wreaking havoc on the United States and its allies—with relative impunity. The PRC's decision to launch thousands of satellites into low-Earth orbit through the China Satellite Network Group, in conjunction with the BeiDou program, further complicates matters as it will be effectively impossible for the US military to successfully jam them all.

Beijing's defense-related foreign policy—of which BeiDou already forms a part—is an equally pressing matter. Just as the PRC has pivoted to using multilateral engagement to extend the reach of BeiDou for civilian purposes, it has intensified its bilateral outreach to expand the use of BeiDou for military purposes. In 2018, Pakistan was the first state to receive full access to BeiDou's military-grade Positioning, Navigation, and Timing (PNT) data, which enhances the precision of missiles, ships, and aircraft ([Times of Islamabad](#),

January 2, 2019; [Times of Islamabad](#), April 5, 2019). It is likely, though not confirmed officially, that the Pakistani military now exclusively uses BeiDou ([Global Village Space](#), March 21, 2022). In 2019, the Saudi Ministry of Defense and the PRC CMC's EDD signed an MOU on cooperating on the military use of BeiDou. [5] Although the defense relationship between Pakistan and the PRC has been close for some time and this is, therefore, a somewhat unsurprising development, it is still a cause for concern for the United States ([Rand](#), October 16, 2015). Given Pakistan and Saudi Arabia's historically close defense ties to the United States, the progression of their relations with the PRC in the space domain suggest growing military engagement may have implications for US power projection in regions in which it was once dominant.

BeiDou also presents the prospect for closer military interoperability amongst US adversaries. In 2015, the Iranian defense electronics company Salran signed an agreement with Chinese defense companies to begin using BeiDou PNT technology on Iranian missiles and UAVs to improve their targeting capabilities. [6] In 2021, Iran was granted full access to the PRC's BeiDou satellite system for military purposes. [7] In 2022, during President Vladimir Putin's now infamous trip to Beijing during the Winter Olympics, the PRC and Russia signed an agreement on the interoperability of BeiDou and its Russian counterpart, GLONASS ([BeiDou](#), February 5, 2022). The two sides doubled down on this commitment later that year, when they held the ninth meeting of the China-Russia Satellite Navigation Major Strategic Cooperation Project Committee and signed further agreements focused on the mutual construction, operation, and maintenance of BeiDou and GLONASS' respective ground stations in the two countries. They also made a statement pledging to jointly provide BeiDou and GLONASS user information support services ([BeiDou](#), September 27, 2022). Although further details have not been disclosed, this activity follows and further develops an agreement, signed in 2018, to integrate the two satellite navigation systems ([SCMP](#), February 5, 2022).

Conclusion

GPS has been described as a "silent utility," and this is no less true in the case of BeiDou ([GPS](#), May 4, 2023). In the 30 years since the PRC began building its indigenous satellite navigation system, the country has successfully developed a high-quality, global network of satellites and base stations. By rivalling GPS, the PRC can increase its global economic and political reach and augment its own military communication capabilities. Moreover, there is a noticeable trend of the PRC sharing access to BeiDou's PNT capabilities for military purposes. This strategically brings traditional US partners into Beijing's sphere of influence and fosters greater interoperability amongst the militaries of US adversaries. As the PRC, Russia, and Iran prepare for their fourth set of multilateral naval drills in almost as many years, it is crucial to monitor their engagement in space with the same level of scrutiny as that applied to their activities on the ground ([SCMP](#), February 6, 2024).

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Notes

[1] Michael Dahm, "China's Desert Storm Education," Proceedings 147/3/1, 417 (USNI, 2021)

[2] Sarah Sewall, Tyler Vandenberg, and Kaj Malden, "China's BeiDou: New Dimensions of Great Power Competition" (Belfer Center 2023)

[3] Kevin Pollpeter, "Coercive Space Activities: The View From PRC Sources," (China Aerospace Studies Institute, Air University, 2024)

[4] "Prospects for the Development of China's Military-Civil Fusion in 2019 (2019 年中国军民融合发展形势展望)" (CCID 2019)

[5] David H. Millner, Stephen Maksim, and Marissa Huhmann, "BeiDou: China's GPS Challenger Takes Its Place on the World Stage," Joint Force Quarterly 105 (National Defense University 2022).

[6] Jason Warner, Lucas Winter, and Jemima Baar, "Instruments of Chinese Military Influence in Iran," (US Army FMSO TRADOC G2, 2023)

[7] Vahid Ghorbani, Mostafa Pakdel, Mehrdad Alipour, "An Analysis of China's Military Diplomacy towards Iran," *Iranian Review of Foreign Affairs* 12, 1 (2021)

Forced Labor in the Xinjiang Uyghur Autonomous Region: Assessing the Continuation of Coercive Labor Transfers in 2023 and Early 2024

by Adrian Zenz



Press conference for the Xinjiang Information Office, February 9, 2023. (Source: Xinjiang Government)

Executive Summary:

- Higher-level policy and state planning documents indicate that coercive Xinjiang Uyghur Autonomous Region (XUAR) employment and poverty alleviation policies are to continue at least through 2025. XUAR state and media sources document that these policies continue to be implemented.
- The Poverty Alleviation Through Labor Transfer program continues to expand and represents a non-internment state-imposed forced labor mobilization system. Forced labor transfers for 2023 exceeded those from the previous year and surpassed state-mandated quotas.
- In 2023, Xinjiang significantly expanded the scale of the Pairing Assistance program, which facilitates cross-provincial labor transfers, aiming to increase transfers to other Chinese regions by 38 percent—levels exceeding those of any year since the mid-2010s. During his recent visit, Xi Jinping again endorsed this policy, which aims to reduce the “dominance” of the Uyghur population in their own homeland.
- The “Unemployment Monitoring and Early Warning Mechanism” was expanded in 2023 to extensively track the income and work situations of the lower-income population.

- Xinjiang's government has intensified employment and training requirements, aiming to ensure employment for every able person, as mandated in the 14th Five-Year Plan.
- Also in 2023, Xinjiang drastically expanded its skills training efforts. The state increasingly targeted groups traditionally not engaged in these programs, with a view to transferring individuals into work in sectors known to use forced labor.
- Land use rights, covering up to 90 percent of land in some areas, are being transferred away from local farmers to state-run cooperatives, forcing the local population into wage labor through coercive labor transfers.

Uyghur forced labor is a significant factor shaping the People Republic of China (PRC)'s relations with the United States and Europe ([Journal of Human Trafficking](#), November 20, 2023). Xinjiang currently operates the world's largest system of state-imposed forced labor. Coercive labor transfers and poverty alleviation practices in the Xinjiang Uyghur Autonomous Region (XUAR) have continued through early 2024. State work plans for this year mandate an intensification of employment requirements for the region's targeted ethnic groups, and official labor transfer statistics reflect heightened work requirements first introduced in 2021. Xinjiang's focus on these requirements intensifies the region's forced labor risk, extending it into higher-skilled sectors while concealing its coercive nature.

PRC General Secretary Xi Jinping visited Xinjiang in August 2023. While there, he emphasized that though the region needed to develop, it should "ensure development with stability" and "must always give top priority to maintaining social stability," concurrently promoting the "legalization and normalization of stability maintenance work" ([CPC News](#), August 27, 2023). Xi also emphasized the need to "consolidate and expand poverty alleviation achievements (巩固拓展脱贫攻坚成果)," an expression frequently found in connection with the region's current policy focus on "Preventing a Return to Poverty (防止返贫)" and on the creation of an "Unemployment Monitoring and Early Warning Mechanism (失业监测预警机制)."

Current XUAR Party Secretary Ma Xingrui (马兴瑞) seeks to reinforce the fruits of the region's re-education mass internment campaign and other assimilatory policies under the mantra of "high-quality development (高质量发展)" ([China Brief](#), 2022). The summary of Xi's statements underscored this approach, citing the expression "high-quality development" five times, thereby highlighting its significance for the state's long-term strategy for the region ([CPC News](#), August 27, 2023).

Coercive poverty alleviation and employment policies are ideally-placed to fulfill Xi's dual mandate of promoting stability maintenance and development. They enable the state to restructure ethnic societies by maximizing societal control through parent-child separation and to "optimize" the ethnic population structure by "reducing Uyghur population density" ([Central Asian Survey](#), June 10, 2021). As noted by the "Nankai Report," a high-profile Chinese academic research report, while the re-education camps represented a

“drastic short-term measure,” labor transfers represent an important long-term “method to reform, meld and assimilate” Uyghurs ([China Brief](#), March 2, 2021).

Xinjiang’s Two Coercive Labor Systems

From 2019, researchers have documented two major systems of forced labor targeting Uyghurs and other ethnic groups in the XUAR ([Journal of Political Risk](#), 2019):

(1) forced labor linked to the region’s re-education camps, whose designation the state gradually unified to the euphemistic “Vocational Skills Education and Training Centers (职业技能教育培训中心; VSETCs).” Detainees receive coerced skills training during internment and are then coercively placed into work ([The China Journal](#), June 20, 2023); and

(2) the separate so-called “Poverty Alleviation Through Labor Transfer policy (转移就业脱贫; or simply 转移就业),” which coercively trains and transfers non-detained rural surplus laborers from the primary (agricultural) sector into secondary or tertiary sector work ([Central Asian Survey](#), November 30, 2023). Labor transfers also include coerced seasonal transfers of surplus laborers into seasonal agricultural work, such as harvesting cotton or tomatoes ([Newlines Institute](#), December 14, 2020; [CPCS](#), May 19, 2023).

The evidence indicates that since early 2020, the VSETC policy is no longer active, although waves of arbitrary detentions have since continued outside the VSETC system. Besides performing mass re-education, the VSETCs functioned as filtration camps, “releasing” those considered less problematic into forced labor while sentencing others (especially intellectual and business elites) to long prison terms ([Journal of Contemporary China](#), January 30). While the VSETC system apparently no longer actively processes new victims, hundreds of thousands of detainees have been placed into forced labor and likely remain trapped in coercive work ([The China Journal](#), June 20, 2023).

In contrast, Xinjiang’s Poverty Alleviation Through Labor Transfer program continues to expand. Within the wider context of Xi Jinping’s Targeted Poverty Alleviation (精准扶贫) initiative, labor transfers are the coercive work policy that underpins most forced labor linked to the region ([Central Asian Survey](#), November 30, 2023). While VSETC-linked forced labor placements can be linked to the production of textiles, electronics, and a few other labor-intensive products, Poverty Alleviation Through Labor Transfer is the only forced labor policy that has been directly linked to the production of cotton, tomatoes and tomato products, peppers and seasonal agricultural products, seafood products, polysilicon production for solar panels, lithium for electric vehicle batteries, and aluminum for batteries, vehicle bodies, and wheels. [1]

Poverty Alleviation Through Labor Transfer represents a non-internment state-imposed forced labor mobilization system. Such systems operating in the XUAR, the Tibet Autonomous Region, Uzbekistan (until 2021), and Turkmenistan share several core features ([Journal of Human Trafficking](#), November 20, 2023). In contrast to company-based forced labor, these systems operate through a pervasively coercive social

context marked by a lack of civic freedoms and an extensive grassroots bureaucracy designed to coercively mobilize targeted groups.

Currently Active XUAR Policies and Government Work Plans

Since 2020/2021—and especially under Ma Xingrui—Xinjiang has shifted to a strategy of normalization and institutionalization that emphasizes maintaining labor placements through intensified monitoring and surveillance. This is a move away from the campaign-driven transfer approach taken by Ma’s predecessor, Chen Quanguo (陈全国). Under this new strategy, the state prevents people from returning to an unapproved state of low measurable income based on traditional livelihoods, including through abandoning state-arranged jobs ([China Brief](#), June 5, 2022).

For the 14th Five-Year Plan (2021 to 2025), the XUAR instituted intensified employment and training requirements for targeted rural populations. In 2021 and 2022, this resulted in increased annual labor transfer figures compared to the 13th Five-Year Plan (2016 to 2020). Labor transfers reached a record 3.17 million person-times (人次) in 2021 before leveling off at above 3.03 million person-times in 2022 ([Central Asian Survey](#), November 30, 2023). [2]

Xinjiang’s 14th Five-Year Plan for Employment Promotion (2021 to 2025) mandates that not just one person per household but “every single person who is able to work is to realize employment” ([XUAR Government](#), December 14, 2021). Governments at county and township levels must “comprehensively analyze the specific reasons for the decline in [a particular household’s] income.” The first listed countermeasure is labor transfer.

Several Uyghur regions published government work plans for 2023 indicating intensified employment efforts targeting Uyghur surplus laborers. For example, Hotan County’s 2023 work plan specified the construction of additional industrial parks, including parks jointly established with the Xinjiang Production and Construction Corps (XPCC), relying on industrial development to “provide more jobs for the masses” ([Hotan County](#), October 1, 2023). Industrial parks are premier destinations for the most coercive forms of labor transfers and the forced work placements of re-education detainees. The 2023 work plan for Karakax County outlines a continued acceleration of industrial park expansion together with the promotion of “labor-intensive industrial clusters,” including the “vigorous development” of “labor-intensive enterprises focusing on socks, hair product processing, shoe leather manufacturing, textile and clothing, electronic product assembly, and light industrial manufacturing”—all industries at the highest risk of forced labor ([Karakax County](#), January 5, 2023). The 2023 work plan for Yutian County outlined a labor transfer quota of 82,000 person-times, an increase of 1,000 over the 2022 quota, and planned a skills training “action plan” ([Yutian County](#), September 27, 2023).

In January 2024, Xinjiang’s state media published an article announcing intensified efforts for economic and employment growth for 2024 ([Xinjiang Daily](#), January 8). The article noted that this year marks the 75th anniversary of the PRC and represents a “critical” year for the achievement of the 14th Five-Year Plan (2021 to 2025). It called on the Uyghur heartland region of Kashgar to “work hard to drive employment.” The most

recent XUAR government work report, listing work goals for 2024, mandates that the state should “provide employment for ‘focus groups (重点群体)’ such as rural-urban migrant workers, and strive to ensure that all people in urban and rural areas who are able to work can find employment” ([Tianshan](#), January 30). So-called “focus groups” or “focus persons” are those considered by the state to represent the highest security risk, and many of these had been subjected to re-education internment.

Evidence for Ongoing Labor Transfers (January 2023 to January 2024)

General Labor Transfer Evidence

By the third quarter of 2023, the XUAR had already exceeded its entire 2022 labor transfer volume of 3.03 million person-times. State media announced the transfer of 3.05 million person-times rural surplus laborers between January and September, surpassing the state-mandated quota by 10.9 percent ([Xinhua](#), October 27, 2023). Kashgar Prefecture alone placed 1.05 million “rural laborers” into work, 34.4 percent of the regional total ([Xinjiang News](#), December 21, 2023). This indicates a continuation of the region’s intensified employment and labor requirements, following the mandates for the 2021 to 2025 period stated in the region’s economic and employment-related Five-Year Plans. In March 2023, the XUAR issued the “Xinjiang 300,000 Construction Worker Three-Year Training and Employment Action Plan (2023-2025)” to “drive more surplus labor to find employment in the construction industry” ([XUAR Government](#), March 18, 2023). 96,000 of these were to be trained and transferred in Kashgar Prefecture ([The Paper](#), May 19, 2023).

Recent local work reports also reflect the continued achievement of the XUAR’s intensified employment requirements. For example, Yili Haosheng Muye Biotechnology Co. (伊犁昊昇木驿生物科技) announced plans to build a third production line in 2024 to “solve the employment problem of more local surplus laborers” ([Tianshan](#), January 1). A January 2024 article issued by the XUAR government to local media outlets noted that due to employment efforts throughout 2023, an ethnic village in Artush City successfully subjected all 1,606 villagers who met the state’s “employment conditions” to state-assigned work ([Artush City](#), January 15). Of these, 157 or 9.8 percent were employed in other XUAR prefectures or other Chinese provinces such as Jiangsu and Shandong. This outcome was achieved through the deployment of “village-based work teams,” which have played a crucial role in the coercive mobilization of targeted ethnic populations. “Village-based work teams” go door-to-door to enforce state policy, monitor compliance, identify deviant citizens for re-education internment, and subject ethnic household members to skills training and work assignments ([Central Asian Survey](#), November 30, 2023). Another January 2024 report published by Yining County details how, in November 2023, such work teams “devoted all their efforts” to promote the “transfer of the surplus workforce,” successfully “stimulating the inner motivation of [ethnic] villagers” ([Yining County](#), January 17). In short, coercive labor mobilization continues unabated.

Cross-Provincial Labor Transfers Through Pairing Assistance

Coercive labor transfers of targeted ethnic populations to other provinces in China continued throughout 2023. During his visit to Xinjiang in August 2023, Xi Jinping argued that the Pairing Assistance program that

links eastern Chinese provinces with ethnic regions in Xinjiang for cross-provincial labor transfers needed to be strengthened ([CPC News](#), August 27, 2023). Xi exhorted the XUAR authorities to “do Pairing Assistance work well,” “guiding population groups from Xinjiang to find jobs throughout the PRC (要做好对口支援工作...鼓励和引导新疆群众到内地就业).”

In a significant development, the XUAR government stated that for 2023 the region was planning to increase the proportion of “poverty-alleviated laborers (脱贫人口务工)” transferred to other provinces from 2.54 to over 3.5 percent ([State Council Information Office](#), February 27, 2023). Based on a 2023 goal to transfer at least 1.087 million of this sub-group of surplus laborers, this would mean an increase of 37.8 percent, from 27,600 in 2022 to over 38,000 laborers in 2023 transferred to other provinces. These figures do not include cross-provincial transfers of surplus laborers that fall outside this sub-group. This announcement therefore suggests a significant increase in cross-provincial labor transfers, given that in 2018, only approximately 25,000 surplus laborers (all types) had been transferred to other provinces ([China Brief](#), March 2, 2021). [3]

In line with this XUAR-wide mandate, Kashgar Prefecture’s plans for 2023 lamented that too many rural Uyghurs were being placed into local (nearby) employment and that not enough were subjected to “organized transfer employment,” indicating a preference for and planned intensification of state-directed work assignments that transfer Uyghurs outside of their immediate home regions ([Kashgar Government](#), April 13, 2023).

A September 2023 state media article reported that Hubei province accepted 4,100 workers, while Anhui province, which is paired with the Uyghur majority population county of Pishan (Hotan Prefecture), received a transfer of over 5,000 workers ([People’s Daily](#), September 17, 2023). Among these, 295 Uyghurs were reported to have “settled down (落户安家)” in Anhui—a term that indicates a relocation of household registration, pointing to a more permanent labor transfer arrangement. This is a significant and concerning development, given that labor transfers are part of state efforts to “optimize” (i.e. reduce) the Uyghur population ratio in southern Xinjiang, in order to “end the dominance of the Uyghur ethnic group” in their own homeland ([Central Asian Survey](#), June 10, 2021). In addition, Hubei province received 13,700 transferred laborers from Xinjiang between mid-2020 and mid-2023. It continues to employ such laborers in Xinjiang through Hubei-based companies operating local factories ([Hubei government](#), July 4, 2023).

Unemployment Monitoring and Early Warning

The XUAR has also continued and intensified the deployment of its “Unemployment Monitoring and Early Warning System,” first documented by the author in June 2022. In 2021, Xinjiang sent 400,000 cadres to investigate and monitor the poverty and income situations of 12 million rural households through an “early prevention, early intervention, early assistance” campaign that identified 774,000 households for “real-time monitoring” ([China Daily](#), January 11, 2022).

A September 2023 XUAR government report described the use of such monitoring to continually increase targeted households' "transfer income" (remittances of surplus laborers derived from non-agricultural work) ([NRRRA](#), September 12, 2023). Monitoring efforts were to be intensified. An August 2023 notice from the XUAR "Work Conference on Consolidating and Expanding the Fruits of Poverty Alleviation" stated that officials must improve their "political stance" in grasping the importance of poverty alleviation work, to "resolutely consolidate and expand the results of poverty alleviation," an effort that was to involve "strengthened tracking and monitoring" of the income and work situation of lower-income rural populations ([NRRRA](#), August 2, 2023).

Enforcing Labor Transfers Through Land Usage Rights Transfers

In 2023, the XUAR also continued its coercive transfer of agricultural land from predominantly ethnic smallholder farmers to large state-run or state-supervised cooperatives ([CPCS](#), May 19, 2023). Land transfers are a primary method for coercing Uyghurs and other ethnic group members into livelihood changes through labor transfers. After surrendering their land usage rights, surplus laborers are then "liberated" to enter labor transfers into secondary or tertiary work.

In 2023 in a Zhaosu County township, usage rights for 90 percent of agricultural land had been transferred ([Legal Daily](#), November 7, 2023). In one of the township's villages alone, over 500 rural surplus laborers were subjected to labor transfers after usage rights to thousands of acres of their land were shifted. The township party committee secretary emphasized that "the township actively guides farmers to voluntarily transfer land use rights to large-scale [agricultural] planters."

Seasonal Labor Transfers

Xinjiang's 14th Five-Year Social and Economic Development Plan (2021 to 2025) has mandated closer cooperation between XPCC and other regions for an "enlarged" promotion of seasonal (harvest-related) agricultural labor transfers ([CPCS](#), May 19, 2023). An April 2022 article on Xinjiang's employment programs and labor transfers affirms that the "vast scale" of cotton, tomato, and other plantations in southern Xinjiang continues to "provide an abundance of short-term employment avenues" ([Tianshan](#), April 7, 2022).

Seasonal labor transfers of predominantly ethnic rural surplus laborers for seasonal agricultural work have continued. An April 2023 report on China News stated that in Luntai County, tomato-processing companies received 150 laborers for seasonal labor ([China News](#), April 20, 2023). Similar arrangements were reported for another township in Luntai, involving 245 rural laborers. In the same month, a township in Kashgar Prefecture received a batch of transferred rural surplus laborers to cultivate (plant, tend, harvest) peppers. The report noted that the region needed "large numbers of workers" and that the state was engaging in "vigorously organizing villagers" for such work ([The Paper](#), April 21, 2023). Another report noted similar arrangements for Wensu County, stating that local governments were "conducting a thorough survey of the rural surplus labor force in the entire township and actively guiding the farmers" to address the "labor shortage problems during the busy farming season" ([China News](#), April 19, 2023).

The concurrent publication of numerous similar articles on the subject indicates the presence of a XUAR-wide seasonal labor campaign to meet staffing needs for labor-intensive agricultural work. Such campaigns develop significant coercive pressures, heightening forced labor risks ([Newlines Institute](#), December 14, 2020).

State-Mandated Vocational Skills Training Quotas

As part of the 14th Five-Year Plan, the XUAR government is aiming to significantly expand its vocational training efforts, increasing average annual training volumes from 1.2 million to 1.5 million person-sessions ([China Brief](#), 2022; [XUAR Government](#), December 14, 2021). Vocational skills training in the context of poverty alleviation and labor transfer policies is part of a process that creates high coercive labor risks for targeted ethnic groups.

State reports confirm that throughout 2023, the government “intensified vocational skills training” and had directed regional authorities to “vigorously carry out order-oriented” work placements for targeted groups, including “focus groups such as those who are difficult to employ” ([Xinjiang Daily](#), January 19). In 2023, the XUAR conducted a record-setting 2.5 million person-times vocational skills training sessions, exceeding its goal for that year of 1.5 million by 66.6 percent. Xinjiang’s high-pressure campaign to meet and exceed training and transfer targets for lower-income rural populations (predominantly Uyghurs) is being implemented with greater intensity than expected.

Local examples show how the expansion of skills training means that the state is increasingly targeting populations that have traditionally not sought to engage in vocational skills training or labor transfers—namely, women in traditional homemaker and caretaker roles. [4] These groups are at highest risk of coercion. For example, a village in Yili Prefecture has been “vigorously” implementing the directive to have ethnic women “leave [their] land but not [their] township,” transferring them from traditional agricultural livelihoods to local factory work ([Gongliu County](#), January 16). In this case, 50 ethnic women were subjected to training in sewing skills, a sector that is strongly implicated in forced labor.

Previously, labor transfers implicated only lower-skilled sectors in forced labor. However, intensified skills and in-company training efforts have increased the forced labor risk. Recent propaganda reports exemplify this. For example, a February 2023 report discusses how over time, a transferred Uyghur rural surplus laborer employed by a civil engineering company came to be “transformed into a skilled worker” ([China Union](#), February 24, 2023).

Conclusions

Higher-level policy and state planning documents indicate that coercive XUAR employment and poverty alleviation policies are to continue at least through 2025. XUAR state and media sources document that these policies continue to be implemented.

The intensification of labor transfers in the context of the XUAR's recent Unemployment Monitoring and Early Warning campaign significantly increased forced labor risks, given that these efforts target groups that have traditionally not chosen to pursue secondary or tertiary sector employment that requires them to abandon farming and/or to surrender their long-standing land usage rights ([Central Asian Survey](#), November 30, 2023). Increased employment requirements targeting ethnic groups have resulted in soaring foreign trade figures in Uyghur heartland regions, implicating global supply chains ([The Hill](#), November 9, 2023).

Xinjiang's recent policy changes have rendered forced labor less visible and more challenging to conceptualize. By leveraging poverty alleviation policies to normalize and institutionalize mass coercive work, Xinjiang continues its fundamental strategic shift away from institutions of the state's domestic security apparatus, focused on re-education and internment, and toward entities overseen by the Development and Reform Commission ([ChinaFile](#), May 24, 2022). As a result, Uyghur forced labor is becoming both more prevalent and more insidious ([The China Project](#), October 26, 2023).

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Notes

[1] Zenz, A. (2023). Coercive Labor in the Cotton Harvest in the Xinjiang Uyghur Autonomous Region and Uzbekistan: A Comparative Analysis of State-Sponsored Forced Labor. *Communist and Post-Communist Studies*, 56(2), 1–32. <https://doi.org/10.1525/cpcs.2023.1822939> (free download at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4439694); Halper, E. (2023, September 18). EV Makers' Use of Chinese Suppliers Raises Concerns about Forced Labor. *The Washington Post*. <https://www.washingtonpost.com/business/interactive/2023/>; Swanson, A., & Buckley, C. (2021, January 8). Chinese Solar Companies Tied to Use of Forced Labor. *The New York Times*. <https://web.archive.org/web/20230424180048/>; Murphy, L., et al. *Driving Force*. Sheffield Hallam University. <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/>; Urbina, I. (2023, October 9). The Uyghurs forced to process the world's fish. *The New Yorker*. <https://www.newyorker.com/news/news-desk/the-uyghurs-forced-to-process-the-worlds-fish>. Human

Rights Watch (2024, February). Asleep at the Wheel – Car Companies' Complicity in Forced Labor in China. https://www.hrw.org/sites/default/files/media_2024/01/china0224web_1.pdf.

[2] Transfer figures are not cumulative as surplus laborers are transferred annually. Figures are given as “person-times (人次),” resulting from the fact that laborers can be transferred multiple times per year (the difference between “persons” and “person-times” amounts to roughly 10-11 percent, meaning that the number of distinct transferred individuals represents 89-90 percent of the stated “person-times” figure).

[3] Between January and November 2018, the XUAR transferred 25,378 surplus laborers (from within a total of 2.796 million person-times transfers for all of 2018) to other provinces ([PRC government](#), December 26, 2018). For additional evidence that the 1.087 million figure refers to “poverty-alleviated laborers (脱贫人口务工),” workers who were “freed” from poverty and who are performing state-arranged or state-approved labor to prevent them from encountering a lower measurable income level, see [People's Daily](#), August 11, 2023.

[4] See related discussion in Zenz, A. (2023). The Conceptual Evolution of Poverty Alleviation Through Labour Transfer in the Xinjiang Uyghur Autonomous Region. *Central Asian Survey*, 42(4), 649-673. <https://doi.org/10.1080/02634937.2023.2227225>.

Red Genes: Assessing WuXi AppTec's Ties to the Party-Army-State in China

by Sunny Cheung, Arran Hope, Peter Mattis



Executive Summary:

- WuXi AppTec, a major Chinese biotechnology and pharmaceutical firm, claimed that the company has not, does not, and will not pose a national security risk to any country in response to new legislation introduced in the US Congress.
- The company's claims are undermined by WuXi AppTec's network of relationships with the Chinese Communist Party (CCP), involvement in the Military-Civil Fusion Development Strategy, and alignment with the People's Republic of China's (PRC) national development plans.
- CCP leaders have stated that increasing the PRC's scientific and technological power is key to global influence and long-term economic development. Biotechnology is one of the strategic industries prioritized in PRC economic planning.
- WuXi AppTec and its subsidiaries' track record with handling genomic data is cause for privacy concerns, especially given the company's known collaboration with the CCP and the PLA.

At the end of January, the future of biotechnology and pharmaceutical firm WuXi AppTec (无锡药明康德新药开发股份有限公司; 药明康德) was cast into uncertainty following the introduction of the “BIOSECURE Act” to the US Congress ([Select Committee on the CCP](#), January 25). The proposed legislation included the company on a list of “Biotechnology Companies of Concern.” It further suggested the prevention of US taxpayer funds from flowing to biotechnology firms based in foreign countries of concern or the purchase of biotechnology equipment from such firms that could facilitate the transfer of US persons’ genetic data to a foreign adversary.

WuXi AppTec—and its sister company, WuXi Biologics (药明生物)—are key players in the biotechnology industry within the People’s Republic of China (PRC) and are among the country’s largest private enterprises. Although operating as independent companies, they share the same CEO. They are both committed to providing integrated end-to-end solutions through their global Contract Testing, Development, and Manufacturing Organization (CTDMO) platform, WuXi Biology, which accelerates the market entry of cell and gene therapy products ([WuXi Biology](#), accessed February 8). WuXi has been allowed to operate in the United States and Europe despite close ties to the People’s Liberation Army (PLA) and the national strategies of the Chinese Communist Party (CCP).

The announcement of the legislation sent shockwaves throughout the biotechnology industry and severely impacted the companies’ stock market valuations in Shanghai and Hong Kong ([Zhihu](#), January 26; [Baijiahao](#), January 28; [Baijiahao](#), February 2). In response, WuXi AppTec initiated its first ever share buyback, repurchasing about 20 million shares (worth 1 billion Renminbi; \$140 million) to stabilize the market, and issued a clarification announcement stating that the company has not, does not, and will not pose a national security risk to any country ([Baijiahao](#), February 5; [Zaobao](#), February 5).

How WuXi AppTec rose to prominence in the PRC and globally provides cause for concern. The PRC’s security laws, like the National Intelligence Law (中华人民共和国国家情报法), that mandate cooperation with the CCP’s military and intelligence apparatus provide a general reason to be skeptical of any PRC company that accumulates personal and corporate data. WuXi appears to have benefitted from and continues to engage with the PRC’s general planning initiatives, the Military-Civil Fusion Development Strategy, and the more recent focus on achieving dominance in science and technology research and development. The potential consequences of the CCP’s inevitable abuse of WuXi’s data require the highest scrutiny to be applied to the company’s statements and operations.

WuXi AppTec in Context: PRC Biotechnology Goals and Strategies

Understanding the risks posed by WuXi AppTec requires understanding the CCP’s strategy for national rejuvenation and increasing the PRC’s global influence. One of the elements of this strategy is becoming the leading global innovation and scientific power. As CCP General Secretary Xi Jinping told his colleagues at the 20th Party Congress, “We must regard science and technology as our primary productive force, talent as

our primary resource, and innovation as our primary driver of growth” ([Xinhua](#), October 16, 2022). In addition to mentioning biotechnology specifically in that speech alongside other technologies like artificial intelligence, Xi has repeatedly highlighted the importance of biotechnology elsewhere. For example, Xi told a Politburo study session that “Biosecurity concerns the health and lives of the people, the long-term stability and security of the country, and the sustainable development of the Chinese nation. It is an important component of overall national security and a significant force that affects and even reshapes the global landscape” ([MOJ](#), September 29, 2021). Xi’s words clearly express Beijing’s longstanding commitment to strengthening the PRC’s self-reliance and innovation in biotechnology.

Underpinning Xi’s words is a national biotechnology strategy articulated through its national development plans, demonstrating a clear intent to leverage biotechnology as a pivotal driver of economic and scientific advancement. By the end of the Thirteenth Five-Year Plan (2016-2020), the state had already prioritized the biopharmaceutical industry as a pillar of the national economy ([MOST](#), May 10, 2017). The Fourteenth Five-Year Plan (2021-2025) further emphasized this, particularly through the integration of biomedicine with the latest generation of information technology. Key policy milestones include:

- **2006:** The “National Medium-and Long-Term Science and Technology Development Plan (2006–2020) (国家中长期科学和技术发展规划纲要(2006—2020年)),” issued by the State Council, marked a foundational step toward prioritizing biotechnology and the life sciences. It identified these fields as crucial for sparking a new scientific revolution in the 21st century, with genomics and proteomics (the study of proteins) leading the charge toward a more systematic approach to biotechnological research. The plan emphasized the importance of breakthroughs in functional genomics, the molecular design of drugs and crops, and cutting-edge technologies like biochips, stem cells, and tissue engineering. It also predicted significant advancements in diagnostics, therapeutics, and regenerative medicine ([State Council](#), 2006).
- **2015:** The “Made in China 2025 (中国制造 2025)” policy identified pharmaceutical development, including biotechnologies targeting major diseases, as a priority. This encompasses advances in chemical drugs, antibody medicines, and novel vaccines ([Global Times](#), May 2015).
- **2021:** The “Fourteenth Five-Year Pharmaceutical Industry Plan (“十四五”医药工业发展规划)” emphasized improving biopharmaceutical production technologies, notably cell cultivation techniques and recombinant protein vaccines ([State Council](#), February 1, 2022).
- **2021:** The “Fourteenth Five-Year Plan and 2035 Vision (中华人民共和国国民经济和社会发展第十四个五年规划和 2035 年远景目标纲要)” called for the expansion of strategic emerging industries, including biotechnology. It stressed the importance of integrating biotechnology with information technology to foster the development of biomedicine ([State Council](#), March 12, 2021).

Local initiatives mirror this national ambition. For example, in 2023, Shenzhen’s People’s Congress Standing Committee issued the “Shenzhen Special Economic Zone Cell and Gene Industry Promotion Regulations,”

the first piece of special legislation concerning the genetics industry in China ([SZRD](#), January 6, 2023). This move, along with subsequent initiatives like the selection of management organizations for the Shenzhen Cell and Gene Industry Fund, underscores the local government's commitment to fostering this sector. Also, in 2023, the Beijing Economic and Technological Development Zone announced measures to promote high-quality development in the cell and gene therapy industry, aiming to leverage the city's innovation and clinical resources ([NCSTI](#), February 23, 2023).

Through carrying out the directives mapped out within these plans and policy documents, the PRC is not only steadily emerging as a global leader in biotechnology but also clearly perceives the sector as a key engine for national development. In this way, key biotechnology firms bear the hallmarks of the PRC's industrial strategy.

The signature of such firms includes their integration with state-controlled research organizations, companies, and innovation ecosystems. As Barry Naughton and his co-authors recently said, the PRC's new phase of industrial policy in the Xi era is "characterized by a focus on security and new implementing instruments such as the 'new-style national team' and the strengthening of the 'national strategic science and technology force' (NSSTF)." [1] Xinhua describes the force as "embody[ing] the will of the Party/State, guided by national strategy, and deployed and organized for the purpose of conquering key core technologies." This team includes academics from the Chinese Academy of Engineering (CAE), Chinese Academy of Sciences (CAS), and other institutions, alongside enterprises that develop and industrialize the research produced. As the authors write: "We should expect that local government-run high-tech parks ... will be delegated substantial responsibility for coordinating these activities on the local level."

Under Xi Jinping, the CCP has intensified its drive to ensure private industry contributes to national objectives through the creation and extension of party committees in companies. Xi has been clear about the importance of the Party in the governance of private enterprise for years, and the reforms of the united front system in 2015 emphasized the Party's need to work more closely with entrepreneurs ([War on the Rocks](#), June 24, 2019; [CSIS](#), January 2021). An "Opinion" issued by the Central Committee in September 2020 reiterated the importance of unity between the party-state and business, noting that "Relying on the united front to carry out communication and consultation between government and enterprises is the key to building friendly and clean relationships between government and businesses." It went on to detail how this should occur: "The main responsible comrades of Party committees and governments at all levels communicate with the representatives of private enterprises ... *through seminars, informal discussions, and other means*; communicate the relevant situations; focus on development problems; discuss solutions; and establish strong mechanisms for overseeing communication results and feedback."

Moreover, in localities where the private economy occupies a relatively large share of the economy, "Party committees and governments should hold economic work conferences and conferences related to the development of the private economy" ([CSIS](#), October 2020). Additional research from Anhui Province in 2012 detailed how officials and units from a Party "Nonstate Economic Organizations and Social

Organizations Working Committee (非公有制经济与社会组织工作委员会)” would “meet regularly at working conferences to discuss cooperation on party-building initiatives in the private sector.” [2]

The approach, termed “Party building + Industry” (党建+产业) demonstrates the integration of the CCP with the private sector. Another associate approach, termed “Party building + Project item (党建+项目),” unifies party-building activities with concrete project items in a company. Measures such as “maintaining the guidance of ‘party building’ in project development and having Party members to participate in the development of project items (坚持以党建引领项目发展、让党员参与项目建设)” ensure that a company will develop in a way to serve and resonate with the Party’s interests ([CCP WuXi Gov, April 18, 2023](#)). According to Article 2 of the “Regulations on the Work of CCP leading groups (中国共产党党组工作条例),” Party groups, which are widely set up in private companies, serve as leadership bodies established by the Party within central and local state organs, people’s organizations, economic entities, cultural organizations, and other non-Party organizations. They play a leading role within their respective units and represent a crucial organizational form through which the Party exercises leadership over non-Party organizations ([Xinhua](#), April 15, 2019).

Any company that operates in the conferences, funding mechanisms, industrial and research parks, and ties itself closely to national strategies, like the Military-Civil Fusion Development Strategy, warrants further scrutiny. Taken individually, such participation is simply the nature of doing business in the PRC. The accumulation of such indicators suggests that a private firm contributes to the CCP’s objectives as much as any state-owned enterprise and should be treated with similar care.

The Rise of WuXi AppTec: A Model of State-Supported Biotechnology Advancement

In Beijing’s eyes, WuXi AppTec is a critical vehicle for achieving the high-quality development and national rejuvenation it prizes. [3] It thus bears the hallmarks of the PRC’s industrial strategy, both in terms of the alignment of corporate and party objectives and the outcomes seen in WuXi AppTec’s rapid ascent.

WuXi AppTec, founded in 2000 in Wuxi City, Jiangsu Province, exemplifies the symbiotic relationship between China’s biotechnology enterprises and the CCP’s ambitions. WuXi AppTec managed to be listed on the New York Stock Exchange within just seven years, following remarkable growth—bolstered by targeted support from the Wuxi government, including tax incentives and land use advantages ([WeiXin](#), March 8, 2023).

The company has deep connections with the CCP. By 2005, WuXi AppTec had already established a CCP organization within its structure in China, boasting 20 Party branches and embedding the Party’s presence within its corporate culture. By 2013, over 1,000 of its 7,000 employees were CCP members ([Communist Party Member Web](#), May 25, 2013). According to WuXi AppTec’s CCP Party Group Vice Secretary Lin

Wenbun (林文斌), the company's culture promotes the notion that "Party members are the technical backbone (党员就是技术骨干)" of the organization. This is also reflected through the CEO and Chairman Li Ge (李革), who personally attended and supported internal CCP activities. Li demanded that Party branches and members should actively contribute to the company, and provided significant support for the company's Party-building efforts, allocating a specific space for CCP activities in the company headquarters. These practices remain a core part of the organization's functioning.



2020 Annual Work Summary and Commendation Meeting of CCP Party Group of WuXi AppTec. (Source: [WeiXin](#), February 2, 2021)

In 2022, You Tiangcheng (尤天成), party Secretary and director of the Tianjin Economic Development Area, visited WuXi AppTec's Tianjin office to guide and inspect the company's Party-building work among private enterprises. You commended the company for its comprehensive approach to talent management, emphasizing the integration of daily operations with Party-building activities. He highlighted the importance of cultivating Party members as key personnel and vice versa, aiming to achieve a "win-win" between Party work and business development. By advocating for the absorption of communist members into leadership and core groups, he sees the Party as a "red engine (红色引擎)" for the company's growth ([Wunyi](#), May 17, 2022).

The reciprocal relationship between the state and enterprises like WuXi AppTec was underscored in another meeting in 2022. Du Xiaogang (杜小刚), the Party Secretary of Wuxi City, engaged in a virtual meeting with Li Ge and China COO Zhang Chaofei (张朝晖) to strengthen collaboration. During this meeting, Du expressed gratitude for WuXi AppTec's long-standing support and contributions to the development of the city's biopharmaceutical industry. In return, Li clearly affirmed that the company's successful development since its early days would not be possible without the local government's support and thus would further contribute to the city ([The Paper](#), August 31, 2022). Here, mutual support and collaboration are key to achieving both corporate success and regional development goals.



The Secretary of the Wuxi Municipal Committee, Du Xiaogang, met with the Chairman and CEO of WuXi AppTec, Li Ge, and the COO and Executive Vice President of WuXi AppTec China, Zhang Zhaohui. (Source: [The Paper](#), August 31, 2022)

In April 2023, WuXi AppTec, WuXi Biologics, and other local biotechnology companies participated in a significant contract signing ceremony for the "Party Building Joint Construction Agreement (党建共建协议书)." This event further formalized and deepened the construction of Party-building alliances within the biopharmaceutical industry. By inserting "Red genes (红色基因)" and embracing the principle of "joint construction, progress, sharing, and winning," the municipal Party committee formed a Party-building alliance

and established a cooperation mechanism focused on aligning the firms with the Party's key goals and tasks (see [China Media Project](#), May 18, 2021; [CCP WuXi Gov](#), April 18, 2023).

A meeting report provides further insight into the workings of the Party group and Party-led model (described in the previous section). The report reveals that the Party Group of the Wuxi High-Tech Zone Science and Technology Innovation Promotion Center conducted a review and identified a lack of diversity in their investment channels as a significant issue. In response, the group visited WuXi AppTec and other companies to seek contributions, successfully raising RMB 2.5 billion (\$350 million), which was then used to induce more companies to relocate to the zone ([WND](#), October 27, 2021). In a separate instance, SOE China Life Healthcare Investment Company invested a total of RMB 15.5 billion (\$2.18 billion) in WuXi AppTec and other biotechnology companies via the Party group's financing mechanism. This was touted as contributing to the "Healthy China" initiative, a national-level policy goal ([Communist Party Member Web](#), February 2, 2023).

WuXi AppTec's Intersections with PLA and Military-Civil Fusion Initiatives

WuXi AppTec's engagements reveal ties to the PLA and broader state-led initiatives, highlighting a complex relationship that blends civilian and military interests. Examples such as WuXi Biologics CEO Chen Zhisheng (陈智胜) delivering a joint lecture at Tsinghua University with Major General Chen Wei (陈薇) of the PLA's Academy of Military Medical Sciences (AMMS) are just the tip of the iceberg ([Tsinghua](#), January 1, 2019).

WuXi AppTec's acknowledgment and awarding of PRC researchers from the PLA's Academy of Military Medicine for their research contributions underscore a close connection to military-affiliated scientific endeavors. Significantly, the composition of WuXi AppTec's management committee includes representatives from AMMS, the Fourth Military Medical University, CAS, and even a vice chairman of the National People's Congress Standing Committee. This is suggestive of a deliberate fusion of military and civilian realms in the company's research and development activities ([WuXi AppTec](#), accessed February 8).

Joint lectures and awards indicate that cooperation and joint projects occur, even if they are not in themselves hard evidence of *institutionalized* military cooperation. At the very least, the mutual approbation and acknowledgment between the two groups indicate that the PLA and WuXi AppTec work in parallel to advance the CCP's goals and are both considered to be key players in the same field. More substantively, as highlighted above, "seminars, informal discussions," and other collaborative meetings are known to be the preferred *modus operandi* for engagement and coordination between Party organizations and private enterprises. Such connections are also further evidenced by WuXi AppTec's involvement with the MCF development strategy.

WuXi AppTec's receipt of investment from the "Aviation Industry Corporation of China Military-Civic Fusion Selected Hybrid Securities Investment Fund (中航军民融合精选混合型证券投资基金)" further cements its role within the MCF Development Strategy. This fund, explicitly set up to invest in enterprises

engaged in military production, indicates WuXi AppTec's involvement in the PLA's broader ambitions to integrate military capabilities with civilian technological advancements ([JRJ](#), September 3, 2019).

Since 2016, the company's operation of one of 27 National Development and Reform Commission (NDRC)-designated "Genetic Testing Technology Application Demonstration Centers (基因检测应用示范中心)," alongside entities like the Xinjiang Production and Construction Corps—which faces US sanctions for human rights abuses—raises serious concerns about the use of genetic data collection utilizing practices that the international community views critically ([Labtub](#), accessed February 8). This center came out of a June 2015 announcement from the NDRC, which was closely followed by the news that Wuxi City was going to build "Asia's biggest genetic testing industrial base" ([Yzymed.com](#), August 24, 2015). This would be led by an academic at the CAE.



CCP Contract Signing Ceremony, including a WuXi Biologics representative. (Source: [CCP WuXi Gov, April 18, 2023](#))

Additionally, in 2016, as part of the "Major New Drug Creation Initiative (新药重大创制)科技重大专项" under the Thirteenth Five-Year Plan, WuXi AppTec Deputy CEO Chen Shuhui (陈曙辉) was appointed to the core committee of the initiative alongside representatives from the Fourth Military Medical University (第四军医大学), the Military Medical Science Academy's Institute of Pharmacology and Toxicology (军事医

学科学院毒物药物研究所), and the CAS. The committee's mandate was to foster a tightly integrated innovation system across all stages of drug development, combining government, industry, academia, and research efforts to produce innovative outcomes with significant clinical value ([Phirda](#), November 25, 2016).

These examples collectively highlight WuXi AppTec's multifaceted relationship with the PLA and related state endeavors, suggesting a blend of commercial, scientific, and potential military interests that merit deeper scrutiny within the context of global genomics research and its ethical implications. One facet of this includes how WuXi and its subsidiaries handle genomic data from individuals around the world.

Genomics at WuXi AppTec and Data Privacy Concerns

WuXi AppTec's first significant involvement in sensitive genomics and genetic data analysis was through its former subsidiary WuXi NextCode (药明明码), created in 2015 through the acquisition of NextCode Health, a company in Iceland. In 2018, WuXi NextCode acquired the controversial Genomics Medicine Ireland (GMI). GMI had previously been accused of collecting hundreds of thousands of Irish DNA samples using problematic donation and consent mechanisms ([Irish Times](#), September 7, 2023). WuXi NextCode also advocated for building an open cloud database to allow researchers worldwide to freely access extensive genomic information of patients and their families ([Bioon](#), May 25, 2016). A segment of WuXi NextCode was restructured into Genuity Science—a separate entity—to avoid US regulatory action and criticism. Genuity Science was eventually purchased by US biotechnology firm HiberCell in an all-stock transaction worth \$100 million ([BizJournals](#), August 16, 2021). However, the approach taken by the WuXi conglomerate in viewing and managing genomics data requires more investigation.

WuXi AppTec states that its model is made from publicly available human genome sequences without involving human gene sequence analysis ([The Paper](#), February 4, 2023). However, in 2016, China's Ministry of Science and Technology concluded an investigation into WuXi AppTec in Suzhou for violating human genetic resources management regulations ([MOST](#), October 21, 2016). The company was found to have improperly exported 5,165 human serum samples without authorization, falsely labeling them as canine plasma. To improve its ability to sequence DNA, in 2014, WuXi AppTec purchased an Illumina HiSeq X Ten Sequencing System. It was the world's first platform to deliver full coverage of human genomes for \$1,000, including DNA extraction, so it granted WuXi the most advanced gene sequencing capability at that time ([Illumina](#), March 10, 2014). Hence, WuXi AppTec's recent denials against researching human genomics should be treated skeptically.

Cell Bank Manufacturing

Create, characterize, and release.

Integrated cell bank manufacturing and characterization/release services are designed to certify safety and ensure cell line longevity over the life of your biopharmaceutical.

Cell Bank Manufacturing Overview:

- GMP Master, Working, or End of Production Cell Bank Capabilities
- Integrated Characterization and Release from incoming seed stock QA to COA
- Experience with 50 plus cell lines; human and non-human
- Sequencing to characterize insert
- Surplus built into expansion plan – No loss of vials from testing
- Standard Batch Records for efficient regulatory review
- Support – Multiple shifts and Dedicated PM
- Storage solutions available

WuXi ATU's website shows that they provide cell bank manufacturing services. (Source: [WuXi Advanced Therapies](#))

A Philadelphia-based subsidiary, WuXi Advanced Therapies (WuXi ATU) (药明生基), offers cell bank manufacturing services ([WuXi Advanced Therapies](#), accessed February 8). This facility specializes in creating, characterizing, and releasing cell banks for use in biopharmaceutical products, and offers sequencing to characterize DNA inserts. Sequencing services involve analyzing the DNA of the cells they store in order to confirm the identity of the cell lines and check their integrity. The existence of a cell bank with such capabilities implies that the facility has access to, and can process, cell lines derived from human sources—among others—at any time. The latest WuXi Biologics research also indicates that they have adopted whole genome sequencing and next-generation sequencing from patients ([AICHE](#), June 20, 2021; [NCBI](#), December 19, 2022). To note, the WuXi conglomerate has not disclosed the origins of the cells stored in its cell bank, necessitating further investigations to determine if there is any unauthorized collection of cell samples. However, the evidence presented is adequate to show that WuXi has been actively engaged in the reading and interpretation of human genetic material, defying its claims.

WuXi AppTec's previous collaborations are also cause for concerns over data privacy. In 2016, the company partnered with Huawei to develop a "Genome Cloud (明码云)" platform for freely computing, storing, sharing, and exchanging cloud data containing large-scale population genomics (大规模人群基因组) and biotechnology within the industry at a national level ([Bioon](#), May 25, 2016). Such concerns are compounded by WuXi AppTec's global reach, and its overlap with other PRC national strategies, including its investments in Ireland and Singapore, and its participation in the Belt and Road Initiative (BRI) ([Xinhua](#), August 2, 2018; [Caijing](#), December 24, 2019; [ifeng](#), February 7, 2023; [WuXi Gov](#), October 19, 2023).

In 2018, WuXi AppTec and China Electronics Data Service Co. (CECD) partnered to create CW Data Technologies (中电药明), a venture offering one-stop big data healthcare solutions to China based on the collection of hospital medical and prescription data ([WuXi AppTec](#), October 22, 2018). This collaboration under the umbrella of China's National Health Commission, raised concerns due to CECD's ties with significant state-owned entities, including China Electronics Corp (中国电子) and the China State-owned Enterprise Structure Adjustment Fund (中国国有企业结构调整基金) ([CWDATA](#), accessed February 8). Defense conglomerate Norinco (中国兵器工业集团) also held a stake in the venture ([State Council](#), September 28, 2016). The involvement of firms linked to the Chinese military and security services—firms that also appear on the US Treasury Department's Office of Foreign Assets Control list of Non-Specially Designated Nationals (SDN) Chinese Military-Industrial Complex Companies—indicates that developments coming out of China's civilian healthcare technology sector may also have applications of interest to the PLA ([OFAC](#), June 3, 2021). Firms whose technology aids the development of adversarial militaries pose risks to the United States and its allies and partners. This should attract further scrutiny to ensure that a nation's data is not transferred across borders or is otherwise allowed to benefit the CCP.

Conclusion

WuXi AppTec is a model of embedding state ambition with corporate success, showcasing how biotechnology enterprises are playing a pivotal role in advancing the PRC's strategic objectives. This model also shows the critical need for robust data privacy measures and transparent practices. As WuXi AppTec continues to expand its global footprint, its commitment to safeguarding sensitive information against misuse becomes paramount. However, its links to the Chinese state at the local and national level, as well as the PLA, suggest that the firm could put Party priorities over those of its customers around the world, including US citizens, if called upon to do so.

WuXi AppTec's story is not just one of corporate achievement but a narrative that encapsulates the broader theme of how state ambitions can be realized through strategically aligned enterprises. The company's journey reflects the potential of such alignments to foster innovation and growth, while also highlighting the inherent responsibilities and challenges in balancing global leadership in biotechnology with the imperatives of data security and ethical governance.

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Notes

[1] Barry Naughton, Siwen Xiao, and Yaosheng Xu. “The Trajectory of China’s Industrial Policies.” US Institute on Global Conflict and Cooperation, June 2023 [Working paper]. <https://ucigcc.org/wp-content/uploads/2023/06/Naughton-et-al-working-paper-1-jun-2023.pdf>

[2] Xiaojun Yan and Jie Huang. “Navigating Unknown Waters: The Chinese Communist Party’s New Presence in the Private Sector.” *The China Review*, Vol. 17, No. 2 (June 2017), 37–63. <https://yanxiaojun.org/reference/publications/Navigating%20Unknown%20Waters.pdf>

[3] For a description of these objectives, see, Daniel Tobin. “Testimony: How Xi Jinping’s New Era should have ended U.S. Debate on Beijing’s Ambitions”, Hearing on “A China Model? Beijing’s Promotion of Alternative Global Norms and Standards”, U.S.-China Economic and Security Review Commission, March 2020. <https://www.uscc.gov/sites/default/files/testimonies/SFR%20for%20USCC%20TobinD%2020200313.pdf>