



Intersections is a news digest that describes the interplay between the People’s Republic of China’s (PRC’s) technology acquisition efforts and US and partner nation responses to those efforts.¹ In this issue, we feature the recent Beijing crackdown on PRC citizens and companies who are sharing with foreign entities data deemed sensitive by the PRC. We also cover the newly released US strategy for critical and emerging technology standards and a series of technology and defense cooperation agreements among partner nations. Click [here](#) to read *Intersections* in your [browser](#).

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NEW PRC RESTRICTIONS ON DATA SHARING

A major regulatory trend in China in recent years has been Beijing's effort to exercise increasingly stringent control over what information leaves China, and over the information handled by corporate experts and consultants inside China. As of this year, the PRC government's [updated](#) counter-espionage law defines much of this corporate data as sensitive,² and those who share it overseas are increasingly at risk of penalties. This section covers two actions by Beijing that are part of its effort to restrict outbound information flows: raids on corporate due diligence firms inside the PRC, notably the consulting firm Capvision, and limiting access from outside China to widely used corporate and academic databases.

PRC firm Capvision raided by PRC authorities for allegedly providing "state secrets" to foreign clients. In May 2023, PRC authorities conducted a [raid](#) against international consulting firm Capvision, which specializes in connecting international investors with in-country experts on Chinese companies and markets.³ During the raid, authorities questioned staff and announced that they would open investigations into both the company and specific personnel.⁴

According to a *Financial Times* [report](#), the consulting services offered by Capvision and similar firms are essential for foreign investors looking to enter the Chinese market because they enable these investors to conduct due diligence on PRC firms involved in new acquisitions or partnerships.⁵ For foreign investors, such information can be difficult to acquire without in-country expertise. But given the extensive ties between PRC firms and the PRC Party-state and military, corporate data, such as patent information that might be considered part of routine due diligence in other countries, can be treated as a state secret by the PRC government.

The Capvision raid is only the latest in a [series](#) of spring 2023 raids against international consulting firms in China.⁶ The PRC government's publicly articulated goal for these raids is to investigate individuals who, working with Capvision and similar firms, are allegedly providing sensitive information on PRC businesses to clients overseas. In a May 2023 TV [special](#), PRC state broadcaster China Central Television accused Western countries of using Capvision and its network of contacts to steal "intelligence information" in key industries.⁷ Other PRC state media outlets have also written opinion pieces accusing Capvision of "becoming an accomplice of foreign intelligence agencies," alleging that Capvision had regularly contacted Chinese Communist Party (CCP) officials in fields such as defense and science and offered them compensation in exchange for information.⁸

The raid against Capvision, as well as similar raids against the PRC operations of US firms Mintz Group and Bain & Company, is part of a broader crackdown by Beijing aimed at preventing PRC corporate data deemed sensitive from leaving China's borders. By publicizing the Capvision raid, the CCP is attempting to signal domestically to companies and individuals that they must stop sharing information with foreigners. The resulting lack of information increases the risks for foreign entities seeking to invest in the PRC.

PRC authorities restrict access from outside China to corporate and academic data following passage of updated counter-espionage law. Over the past several months, foreign companies, think tanks, and research institutions have lost access from outside China to various widely used PRC economic, financial, and academic data resources.⁹ Restricted data sources include the following:

- A key Shanghai-based economic and financial information [database](#) called Wind, which businesses and investors had used widely to conduct investment research on the Chinese market¹⁰

- The China National Knowledge Infrastructure, one of the PRC's largest academic databases, which had been used widely by [foreign researchers](#) to access PRC academic publications¹¹
- Other officially published data resources, such as China's official statistical yearbooks¹²

Although PRC authorities did not give any explanation for what prompted their decision to revoke access to these data resources, one possible explanation, according to a *Wall Street Journal* [report](#), is the recent publication by prominent US think tanks of detailed analyses of PRC military capabilities, in which the authors made use of publicly available information.¹³ The *Journal* report claims that the researchers' use of such data to cover sensitive topics, such as civil-military fusion, unnerved Beijing and may have triggered leaders' decision to cut off overseas access.

OTHER PRC REGULATORY ACTIONS

PRC bans Micron products. On May 21, the Cyberspace Administration of China (CAC) banned PRC critical information infrastructure operators from procuring the products of US semiconductor company Micron, announcing that the company had failed a cybersecurity review. According to the CAC, its investigation into Micron's products, launched in March, revealed "potential cybersecurity issues" that "pose significant security risks to [China's] key information infrastructure supply chain."¹⁴ The *New York Times* notes that the ban on Micron products could represent a [change in tactics](#) for Beijing, which had previously taken more oblique measures against foreign technology companies.¹⁵

The ban on Micron's products will have economic and political ramifications. Micron's CFO has said that it may see a "high single-digit percentage" [impact](#) on its revenue because of the measures.¹⁶ US officials have also remarked on the ban. During a news conference, the US Secretary of Commerce referred to the ban as "[economic coercion](#)" and stated that "we won't tolerate it." When asked if Beijing was trying to drive a wedge between the US and its allies, the secretary responded that the US was "closely engaging" with partners to address the ban.¹⁷ The [US-South Korean relationship](#) is particularly entangled in this issue, as the US has reportedly asked the South Korean government to prevent Micron's South Korean competitors from filling the supply gap left by the ban.¹⁸

PRC imposes export controls on key metals used in chipmaking. In July 2023, two PRC government bodies—the PRC Ministry of Commerce and the Customs Administration—announced jointly that the PRC would subject two metals used in semiconductor manufacturing, gallium and germanium, to export restrictions and that PRC companies intending to export these metals would need to apply for a permit.¹⁹ To obtain a permit, PRC companies must provide documentation verifying the identities of end users outside China as well as the intended end uses. The regulation also specifies that failure to comply with all procedures for obtaining an export control license can be deemed a crime.²⁰ The timing of the new PRC controls, which comes immediately following the Netherlands' [announcement](#) to restrict high-end chipmaking [machines](#) from export to the PRC,²¹ has led international media reports to conclude that the controls are [retaliation](#) for actions by the US and its allies to prevent China from obtaining high-end semiconductor technology.²²

Because the new PRC export controls apply to the export of processed as well as raw materials, they could have a significant impact on chip production, and US partners are already responding. For example, according to a *Financial Times* report, following the PRC announcement, economic and trade officials in Japan, South Korea, Taiwan, and Germany all made statements that they were assessing the controls' impact

on their domestic industries, and the Japanese trade minister suggested that [action](#) at the World Trade Organization might be on the table.²³ In addition, officials in Taiwan and Germany stated that the controls would further spur efforts to reduce dependence on China for chipmaking raw materials.²⁴

US STRATEGY AND REGULATORY ACTIONS

US releases new national strategy for critical and emerging technology standards. In May, the White House released the [United States Government National Standards Strategy for Critical and Emerging Technology](#).²⁵ For technology to work, products rely on precise measurement and consistent and reliable standards. According to the US National Institute of Standards and Technology ([NIST](#)), “From the smart electric power grid and electronic health records to atomic clocks, advanced nanomaterials and computer chips, innumerable products and services rely in some way on technology, measurement, and standards.”²⁶ The Strategy notes that “standards development has been instrumental to the United States’ global technological leadership,” and that the US “must renew our commitment to the rules-based and private sector-led approach to standards development.”²⁷ The Strategy outlines 14 focus areas, shown in Table 1.

Table 1. Critical and emerging technology priority areas

Areas and applications for standards development		
Communication technologies	Semiconductors and microelectronics	Biotechnologies
AI and machine learning	Positioning, navigation, and timing	Digital identity infrastructure
Quantum information technologies	Clean energy generation and storage	Automated infrastructure
Biobanking	Automated transportation	Critical mineral supply chains
Cybersecurity	Carbon capture, removal, and storage	

The Strategy highlights private-sector led engagement based on “technical merits,” in contrast to the PRC’s top-down approach.²⁸ In China, the standards development process is not private-sector led, and according to [Tim Rühlig](#), who specializes in technical standardization for the German Council on Foreign Relations, in China “the degree of party-state support” is the most important factor in determining which standards are adopted. In other words, standards that enjoy strong PRC government support are more likely to prevail.²⁹ Given that the US and PRC have distinct approaches, the topic of technical standards is likely to become a new locus of US-China competition as each country attempts to lead standards development globally.

US puts Shanghai supercomputing facility and 30 other PRC firms on export blacklist and may further restrict PRC cloud computing companies’ access to US chip technology. In June 2023, the US Commerce Department’s Bureau of Industry and Security (BIS) added [31 PRC entities](#) to the Entity List, meaning that US companies must seek a license to export to these entities and that licenses will be subject to a presumption of denial.³⁰ Key groupings of PRC firms added to the Entity List include the following:

- A cluster of companies involved in military technology research, including hypersonics, for the People’s Liberation Army (PLA)

- Entities whose activities contributed to the PRC government carrying out human rights abuses
- Shanghai Supercomputing Technology Ltd. (SST), a Shanghai-based provider of supercomputing resources in the cloud

The addition of SST is the most noteworthy because recently, PRC entities seeking access to advanced computing power have made use of the company's resources rather than acquire their own supercomputers with advanced chips. By doing so, PRC entities have exploited a current loophole in US export controls and been able to continue computationally intensive advanced research, such as modeling the characteristics of hypersonic flight. The BIS announcement noted that SST was backed by a supercomputer center in Shanghai that supports hypersonics research with military applications.³¹

Using cloud services is only one way that PRC entities are attempting to maintain access to adequate computing power so that they can continue to progress in areas such as AI. Other methods include experimenting with different combinations of existing microchips and implementing techniques to reduce the computational power required to train AI models. PRC state policies have also sought to strengthen the country's chip industry. In March, the *Financial Times* reported that Beijing had given successful domestic chip companies like Semiconductor Manufacturing International Corporation easier access to state subsidies and a greater role in state-backed research.³² If successful, these efforts could help the PRC chip industry survive US regulatory measures.³³

RECENT ALLY AND PARTNER DEVELOPMENTS

NEW US AND PARTNER NATION AGREEMENTS

Recently, the US and its partners announced several joint initiatives designed to foster cooperation in areas including defense, science and technology, and supply chains. Although most of these initiatives are not explicitly intended to counter PRC economic and technological actions, many will likely result in reduced US and partner nation reliance on the PRC in these areas.

US and India sign extensive defense and technology agreements. In June 2023, Indian Prime Minister Narendra Modi [met](#) President Biden at the White House.³⁴ As part of Modi's visit, the US and India announced a series of agreements. Table 2 lists the main points of cooperation in the areas of defense and technology, according to a joint US-India [statement](#).³⁵

Table 2. US-India joint efforts on defense and technology

Defense	Technology
Reciprocal liaison officer placements in each other's armed services	Space program cooperation, including human spaceflight and satellites
New defense dialogues, including in areas such as space and AI	Initiative on Critical and Emerging Technology (iCET)
Defense Industrial Cooperation Roadmap to facilitate defense co-production and R&D	MoU on developing a Semiconductor Supply Chain and Innovation Partnership
MoU signed for production in India of GE jet engines for light combat aircraft	Advanced telecom cooperation, including on 6G standards and R&D
India to provide repair and maintenance in Indian shipyards for US Navy ships	Collaboration on quantum R&D and high-performance computing
New R&D cooperation: the India-US Defense Acceleration Ecosystem (INDUS-X)	Joint investments in research infrastructure such as atomic, and astronomical facilities

Many of these initiatives have clear implications for US-PRC and India-PRC strategic competition. For example, the India-US Defense Acceleration Ecosystem (INDUS-X) is an [initiative](#) designed to “expand the strategic technology partnership and defense industrial cooperation between [the US and Indian] governments, businesses, and academic institutions.”³⁶ Although competing with China is not an explicit purpose of INDUS-X, a Department of Defense [press release](#) announcing the initiative notes that US and Indian officials intend INDUS-X to “help equip both countries’ armed forces with the capabilities” to defend a Free and Open Indo-Pacific.³⁷ The 2022 US Indo-Pacific Strategy, for example, [mentions](#) working with Indo-Pacific allies and partners as a response to PRC “coercion and aggression,” including along the Sino-Indian border.³⁸

Australia and US announce new climate compact. On 20 May, Australia and the US announced the Australia-United States Climate, Critical Minerals, and Clean Energy Transformation Compact, a [framework](#) meant to advance and coordinate climate action. Its primary focus areas include expanding and diversifying clean energy and critical mineral supply chains, developing markets for established and emerging green technologies, and enhancing climate adaptation and resilience in the Indo-Pacific and beyond. The two countries intend to identify joint actions that will advance these goals within 12 months.³⁹

Although the US-Australian [statement](#) on the compact emphasizes mitigating climate-related risks, the compact’s focus on the green energy supply chain also links it to PRC-related security issues.⁴⁰ According to the [International Energy Agency](#), an intergovernmental organization specializing in the global energy sector and energy policy, the PRC is the world’s leading supplier of green energy technologies.⁴¹ As discussed in previous issues of *Intersections*, the PRC’s powerful position in certain green energy markets, including [polysilicon production](#) and [lithium refining](#), may pose supply chain risks.

UK and Japan announce semiconductor partnership. In May 2023, the UK and Japanese governments announced a new [partnership](#) to promote each other’s semiconductor industries. According to the UK statement, the two countries intend to undertake several collaborative efforts, including the following:⁴²

- Promoting joint R&D activity in “areas of mutual strength” including “cutting-edge chip design, chip fabrication, advanced packaging, advanced materials and compound semiconductors”

- Sharing expertise, organizing “skills exchanges,” and opening up reciprocal access to key infrastructure such as research facilities
- Working with industry in both countries to launch a UK-Japan semiconductor industry dialogue
- Forming expert missions to facilitate exchanges between industry, academia, and government
- Engaging in joint activity to strengthen the resilience of semiconductor supply chains

This partnership is an example of how key US allies are forging new areas of cooperation on strategically critical technologies that may help reduce their reliance on the PRC.

TSMC partners with Japanese government to set up new chip production in Japan. In June 2023, Taiwan Semiconductor Manufacturing Corporation (TSMC), the world’s largest chip manufacturer, [announced](#) plans to build a second plant in Kumamoto prefecture in southern Japan, in addition to another TSMC facility in the prefecture already under construction.⁴³ This latest project is a collaborative venture that involves Japan’s Sony Group as well as major Japanese car parts manufacturer Denso. Japan is contributing some US \$3.4 billion to the development of the initial TSMC facility and is also looking to provide tax incentives and other policy support for building new semiconductor facilities in the country.

Japan and TSMC have distinct reasons for pursuing these collaborations. TSMC aims to diversify its geographic footprint to hedge against the risk of disruption from potential PRC conflict. For its part, Tokyo seeks to recoup lost ground in semiconductor manufacturing, which has atrophied in Japan over the past 30 years. Japan also seeks to build on its strengths, such as manufacturing certain semiconductor components, to develop in areas where it has fallen behind, such as chip fabrication.

OTHER ALLY AND PARTNER DEVELOPMENTS

Recent regulatory changes in Italy used to limit Sinochem’s corporate influence in Italian firm Pirelli. Pirelli, an Italian tire manufacturing company,⁴⁴ is trying to limit the influence of PRC firm Sinochem, which is a national-level, state-owned enterprise specializing in materials, petrochemicals, tires, and other types of manufacturing.⁴⁵ In June, the [Financial Times](#) reported that “Italian Prime Minister Giorgia Meloni’s government has invoked national security concerns about the potential for misuse of Pirelli’s chip technology.”⁴⁶ The concerns are related to a microchip that would be installed on Pirelli tires and whether Sinochem would have access to the chip’s data. According to the [Financial Times](#), the microchips “allowed for the geolocation and collection of drivers’ information.”⁴⁷ The new Italian government order limits Sinochem’s involvement in corporate sales or mergers and acquisitions,⁴⁸ and also requires Sinochem to maintain separate accounting and financial records to avoid information sharing with the PRC.⁴⁹

UK unveils National Semiconductor Strategy. In May, the UK government announced a [National Semiconductor Strategy](#) that will invest up to £1 billion to expand the UK’s semiconductor industry, mitigate the risk of supply chain disruptions, and protect national security. Key actions to achieve these goals include the following:

- Investing in the UK’s pre-existing advantages in semiconductor research, development, and design
- Increasing collaboration with UK partners and allies
- Strengthening UK technology protection efforts
- Enhancing UK expertise in semiconductor hardware security⁵⁰

Although some UK semiconductor industry leaders have welcomed the strategy, other industry leaders and some politicians have [criticized](#) it, noting the UK subsidies' relatively low monetary sum compared to US and EU subsidies.⁵¹

Netherlands considers screening foreign technology Ph.D. students. According to *Reuters*, the Dutch Education Ministry [announced](#) in June that it is working on measures that mandate security screenings for foreign Ph.D. students in technological fields. Although the ministry states that these rules would apply to all students from outside the European Union seeking to study in the Netherlands, *Reuters* suggests that this policy is aimed at restricting PRC students' access to Dutch technology.⁵² The announcement comes after several Dutch universities have begun putting [restrictions](#) on Ph.D. students who receive PRC government funding to study in the Netherlands, in part because of concerns that Dutch technological know-how could be transferred to the PRC and repurposed for military ends.⁵³ In addition, following the Dutch government's decision to restrict exports of chip-making technology to China, some Dutch officials have raised [concerns](#) that the PRC could access that technology through other avenues, such as academic connections to Dutch universities.⁵⁴ Of note, in April, the Dutch intelligence service AVID [stated](#) that the PRC poses "the greatest threat to Dutch economic security" and noted that the PRC has used "academic cooperation" to further commercial espionage.⁵⁵

PRC ADVANCES IN CRITICAL AND EMERGING TECH

"Largest and fastest wind tunnel in the world" begins operations near Beijing. According to a *South China Morning Post* [report](#), China's newest wind tunnel, called the JF-22, began operations in late May.⁵⁶ Reportedly, it can generate air flow up to 10km/second and simulate flight conditions up to Mach 30, compared to a US National Aeronautics and Space Administration (NASA) facility capable, reportedly, of only Mach 10. In addition, the test section diameter of the JF-22 is reportedly four meters, compared to only 0.8 meters for the NASA facility, and thus can hold larger aircraft or missile prototypes. The JF-22 represents a significant effort by the PRC to advance hypersonic research, with implications for the PLA seeking to gain an edge in aerospace technology.⁵⁷

ILLEGAL ACTIVITIES

Taiwan raids PRC firms for alleged economic espionage. In late May, Taiwan's Ministry of Justice Investigation Bureau (MJIB) [raided](#) eight companies with ties to the PRC for allegedly seeking to steal Taiwanese technology and poach Taiwanese high-tech workers.⁵⁸ According to MJIB's [press release](#), these PRC companies disguised themselves as either non-PRC, foreign-funded companies or as Taiwanese companies to set up subsidiary companies or office locations in Taiwan.⁵⁹ Based on previous MJIB investigations, these PRC companies likely disguised themselves to avoid being subject to Taiwanese laws that regulate cross-strait relations and business activity.⁶⁰ MJIB claims that these companies, once established, offered high salaries to attract Taiwanese engineers from advanced technological sectors, and, in some cases, even instructed their new hires to steal trade secrets from their former employers.⁶¹ In this example, PRC companies appear to have used "[boosting](#)" tactics to attract foreign talent, such as offering appealing financial incentives, while also encouraging their new hires to "[burglarize](#)" technological secrets from their previous employers. In addition, these firms used proxies and subsidiaries to obfuscate their PRC origins, a tactic often used by PRC companies trying to buy export-controlled technology.

NOTES

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This work was created in the performance of Federal Government Contract No. N00014-22-D-7001.

DISTRIBUTION STATEMENT A. Cleared for Public Release.

Public Release

7/31/2023

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DNL-2022-U-034039-Final5

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