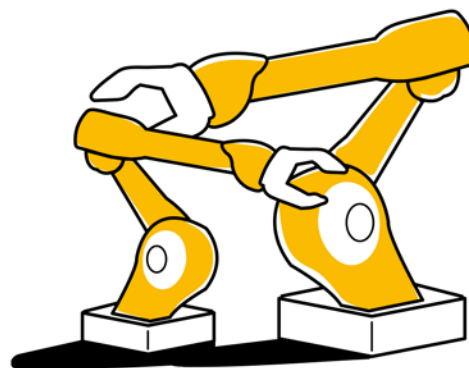


FEBRUARY 1, 2023 (REPORTING PERIOD: NOVEMBER 30 - JANUARY 18)

MERICS

China Industries



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MERICS TOP 5

1. Unleashing the productive forces with data

At a glance: Last December, the Chinese Communist Party Central Committee (CCPCC) and the State Council released one of the most significant economic policy documents to date charting the future of the country's data market. The twenty opinions highlight:

- Establishing a system of legally enforceable and tradeable rights with respect to public, enterprise, and personal data, including the rights to own data, process it, and manage related products
- Improving and standardizing data circulation and trading, both within China and across borders, encouraging experimentation (e.g., around pricing models) and preventing monopolistic behavior, data security and privacy violations, etc.
- Ensuring a fair and efficient distribution of revenues among all participants, from the individuals whose data is collected to data handlers and workers

MERICS comment: The CCP treats data as a [factor of production](#) alongside land, labor, capital and technology. To unleash data's economic value and digitalize the real economy, policymakers have progressively established the building blocks of a data governance regime. The 2021 Data Security Law and the Personal Information Protection Law set the foundations. After years of inefficient and under-regulated data trading, Beijing wants to promote the safe and orderly circulation of data.

The national data market is still a patchwork of local experiments. Shenzhen has [pioneered](#) the definition of data property rights and it recently launched its own data exchange, following Shanghai's. But issues related to data ownership, pricing, valuation, and dispute resolution remain thorny. What is sure is that the party state has asserted [firmer control](#) over large digital platforms like Didi Chuxing and Ant Financial, following more than a year-long crackdown. While this is good news for smaller players, enterprises should be under no illusion that the market is in charge.

Foreign companies could benefit from a more predictable data market as they seek to tap into data sets in China, export data, or provide supporting services. Yet, there will not be much tolerance for security and privacy violations, which makes compliance key. The opinions also contain the first mention of data-related violations in tandem with the (Corporate) Social Credit System. They also suggest that the security review of M&A deals involving foreign capital will consider data risks, adding yet another layer of complexity for foreign investors.

Article: "Opinions of the Chinese Communist Party Central Committee and the State Council on Building Basic Data Systems to Better Bring into Play the Role of Data Factors" (中共中央 国务院关于构建数据基础制度更好发挥数据要素作用的意见) ([Link](#))

Issuing bodies: CCPCC, State Council

Date: December 19, 2022

2. MIIT pushes growth of local data security providers

At a glance: Sixteen government bodies led by the Ministry of Industry and Information Technology released guidelines on promoting the development of the data security industry that provides technologies, products, and services to protect data. The main key targets for 2025 are:

- Expand the scale of the industry to CNY 150 billion, with annual growth of 30 percent
- Promote technological development and innovation, create five data security key laboratories at the provincial and ministerial level or above
- Build three to five national data security industrial parks, ten advanced demonstration areas for innovative application; cultivate international competitive firms as well as a number of [“little giant” enterprises](#)
- Promote privacy-preserving technology solutions such as secure multi-party computing, federated learning, and fully homomorphic encryption

MERICS comment: While China considers data as a key driver for economic growth in and of itself, the need to ensure the safe storage and exchange of data also presents an opportunity for indigenous hardware and software firms. Policymakers are pushing for the implementation of a wide range of data security technologies, from data identification, classification and grading, data desensitization, to data rights management. Moreover, the government’s [“autonomous and controllable”](#) policy mean that public and private entities are being progressively pushed to switch over to local suppliers.

In time, foreign firms offering related services could be pushed out of the Chinese market seeing as they are not considered [reliable and secure](#). For foreign companies in other industries, it may become harder to bring in data security solutions made in-house and to import from European, American, and Japanese suppliers. Ultimately, foreign firms will need to evaluate what scope exists for them to maintain their current information systems in place, whether it is necessary to switch suppliers, and what risks conducting operations using Chinese suppliers entail.

Article: Guiding Opinions on Promoting the Development of the Data Security Industry (工业和信息化部等十六部门关于促进数据安全产业发展的指导意见)([Link](#))


Issuing Body: MIIT, CAC, et. al.

Date: January 13, 2023

3. Not so self-reliant: high-tech centers lure foreign talent

At a glance: On January 1, the Ministry of Science and Technology and Ministry of Human Resources and Social Security launched two-year pilots in six cities to trial identification standards for foreign high-end talent. City governments are to attract more "expert and urgently needed" foreign talent and incorporate them into their talent service guarantee systems.

On January 19, the [State Council](#) also released a circular instructing local authorities to incentivize foreign funded research and development (R&D) centers in China through advantageous tax policies, financial support, improved intellectual property protection and particularly through additional support for foreign talent to work in China.



Sectors with the most acute shortage of experts

SHENZHEN 113 POSITIONS IN TOTAL	GUANGZHOU 104 POSITIONS IN TOTAL	SHANGHAI 62 POSITIONS IN TOTAL
<ol style="list-style-type: none"> 1. Software and information services (👤 17 positions) 2. Semiconductors and integrated circuits (👤 16 positions), biomedicine (👤 16 positions) 	<ol style="list-style-type: none"> 1. New generation information technology (👤 30 positions) 2. Biomedicine and health (👤 18 positions) 3. New energy, energy conservation and environmental protection (👤 16 positions) 	<ol style="list-style-type: none"> 1. AI (👤 17 positions) 2. Integrated circuits (👤 15 positions), biomedicine (👤 15 positions), finance (👤 15 positions)

Note: Based on the number of positions in the "expert and urgently needed" foreign talent catalogues

Source: Ministry of Science and Technology

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MERICs comment: Highly skilled personnel, both home-grown and from abroad, is essential for China to achieve its science, technology and innovation goals. As such, support schemes have been established, offering significant [benefits](#) to experts in the form of housing and living allowances, etc. These initiatives are now being revamped following clear signals that talent development is a top priority. For instance, President Xi’s report to the 20th Party Congress in October stressed the importance of cultivating talent to support the growth of high-tech sectors. Yet strict Covid-related travel restrictions have led to a [decline](#) in the number foreigners living in China and begun a process of personnel localization – the share of local staff in foreign firms is on the rise.

Reforms to the foreign talent programs will channel more resources into recruiting foreigners to contribute to major science and innovation projects in China. Ultimately their focus on boosting the capabilities of indigenous firms could leave foreign firms worse off. But policymakers have had [little success](#) with similar initiatives in the past, particularly among experts without an ethnic Chinese background, given the linguistic and cultural barriers. Restrictions on the flow of skilled personnel, such as recent rules prohibiting US persons from "supporting" the development or manufacture of certain semiconductors, will only make it harder for Beijing to achieve its goals.

Article: Notice on Carrying out Pilot Work on Identification Standards for "Expert and Urgently Needed" Foreign Talent in Shenzhen / Guangzhou / Hangzhou / Chongqing / Shanghai / Beijing [科技部办公厅人力资源社会保障部办公厅关于在深圳/广州/杭州/重庆/上海/北京开展外籍“高精尖缺”人才认定标准试点工作的通知](#) ([link 1](#), [link 2](#), [link 3](#), [link 4](#), [link 5](#), [link 6](#))

Issuing bodies: MOST, MOHRSS

Date: January 6, 2023

4. Beijing to ween the country from non-renewable to bio-based materials

At a glance: Six government agencies led by the Ministry of Industry and Information Technology released a three-year action plan to develop the country's non-food bio-based materials industry. By 2025, China aspires to cultivate strong innovation capabilities and scale up the production of related products, to increase the scope of China's circular economy and reduce carbon emissions. Key targets included in the plan are:

- Develop mature technologies for large-scale saccharification (the process of breaking a complex carbohydrate into its monosaccharide components)
- Enhance the collaborative innovation system between industry, academia, research
- Enrich the varieties of bio-based chemicals and polymers based on non-food biomass such as lactic acid, glutaric diamine, polyhydroxy fatty acid esters, etc., and scale up their application in plastic products, textile fibers and other fields
- Cultivate about five leading enterprises with core competitive advantages and establish three to five bio-based-material industry clusters

MERICS comment: Bio-based materials could help decarbonize the plastics and chemical industries by replacing fossil fuels as a feedstock. Yet concerns around the diversion of food resources towards fuel and feedstocks has led to growing interest in non-food-based biofuels. The United States and China are the leading countries in the emerging field of [synthetic biology](#) research, which develops technologies for biofuel production from non-edible and sustainable raw materials. For China, the approach is particularly attractive given its desire to maintain a high degree of food and energy security.

To push forward this initiative, Chinese state-owned enterprises in the petrochemical and chemical sector will likely lead the way in pursuing supply chain innovation and application demonstration. The government intends to leverage abundant non-food biomass such as bulk crop straw and residues in the main crop-producing regions of the country to explore innovative bio-based materials.

This industry shares many similarities to the country's green hydrogen sector. In both cases, China is at the very beginning of scaling up new technologies to pursue the twin goals of industrial upgrading and greening. Like in hydrogen, there is strong potential for foreign firms to benefit from a growing market and opportunities to collaborate, as Belgian's [Galactic Group](#) is doing. Yet, Chinese firms are also likely to become increasingly competitive over time.

Article: Three-year Action Plan to Accelerate the Innovation and Development of Non-food Bio-based Materials (工业和信息化部等六部门关于印发加快非粮生物基材料创新发展三年行动方案的通知) ([Link](#))

Issuing bodies: MIIT, NDRC, MOF, MEE, MOA, SAMR

Date: January 13, 2022

5. Indigenous biomedical material firms to benefit from new research program

At a glance: The MIIT and China’s food and drug watchdog, the National Medical Products Association, released an application call to ‘unveil the list’ for three types of biomedical materials (polymer, metal and inorganic non-metallic materials). Unveiling the list refers to a competition-based research model whereby policymakers identify important technologies and select promising firms to develop them with government support, with the intention to later incorporate them into government procurement programs. In that sense it is akin to a pre-commercial procurement agreement.

Consortia of producers and up- and downstream stakeholders, including research institutes, can apply to participate in the scheme by February 10. Good political relationships and government titles such as “Little Giants” will go a long way, as provincial governments can recommend specific applicants.

Short-listed companies will benefit from preferential policies and resources, including land, capital and energy supplies. A professional body will evaluate newly developed products. The winner’s products will be listed on the NMPA’s [medical device master file](#) and benefit from a [subsidized insurance scheme](#) to promote high-tech products.

MERICS comment: Despite years of trying to produce high-tech biomedical materials domestically, China still relies heavily on imports. [70 percent](#) of high-end biomedical materials come from other countries. Beijing views the ability to produce these materials locally not only as an economic opportunity, but also as a matter of national security, fearing potential supply disruptions caused by foreign countries.

Hence, officials are taking steps to address – what in their eyes is – a market failure in the medical technology industry by providing assurance to potential local suppliers that they will have a market for innovative or first-time China-developed solutions. They are also working to ensure that medical institutions will be compensated if materials do not meet their standards.

If successful, the policy would negatively impact foreign producers who currently supply high-tech biomedical materials such as high-end polytetrafluoroethylene (PTFE) varieties that are used for implants. If Chinese competitors can develop “good-enough” alternatives, foreign producers may be replaced in the market through local content requirements or “Buy Chinese” policies.

Article: Notice on Organizing and Carrying out the Work of Unveiling the List of Innovation Tasks for Biomedical Materials (First Batch) (两部门关于组织开展生物医用材料创新任务揭榜挂帅（第一批）工作的通知) ([Link](#))

Issuing body: MIIT, NMPA

Date: December 15, 2022

NOTEWORTHY

Policy news

- *December 15:* The State Council issued a Five-Year Plan for the development of modern logistics to boost the development of a more efficient and green logistics system and strengthen the integration of logistics and manufacturing ([State Council notice](#))
- *December 26:* The State Administration for Market Regulation (SAMR) launched a sandbox pilot for new automotive technologies including autonomous driving functions and innovative electric vehicle technology ([SAMR notice](#))
- *December 28:* NDRC and MOST released the “Implementation Plan for Further Improving the Market-Oriented Green Technology Innovation System” to boost China’s green technology sector; measures include changes to procurement laws and SOE procurement of green energy technologies ([NDRC notice](#))
- *December 30:* The MIIT intends to overhaul the way China assess S&T achievements in industry and information technology; focus will be on industrialization and commercialization of research ([MIIT notice](#))
- *January 11:* The MIIT issued a list of one hundred specialized manufacturing clusters for SMEs, including a life sciences cluster in Beijing and an automotive chip cluster in Tianjin, and an electrolyte and diaphragm materials cluster in Liaoning province ([MIIT notice](#))
- *January 17:* The MIIT and five other government ministries issued Opinions to encourage the development of new energy technologies like photovoltaics and energy storage ([MIIT opinions](#))

Corporate news

- *November 30:* China has reportedly set up a consortium of research institutes and companies, including Alibaba and Tencent, to design semiconductor chips to increase China’s technological self-reliance ([Financial Times article](#))
- *December 6:* From 2024, Volkswagen will produce its first electric SUV in Anhui, the Tavascan, also for exports ([Bloomberg article](#))
- *December 28:* PowerChina to start construction on China’s first offshore floating wind power project by 2027 – the project is intended to have a capacity of 1 MW ([PowerChina press release](#))
- *December 30:* China granted conditional approval for the import of Merck’s Covid-19 treatment Molnupiravir ([Reuters article](#))
- *January 12:* German automotive supplier Bosch announced plans to invest EUR 950 million into a new R&D and manufacturing site in Suzhou focused on EV components and automated driving technology ([Bosch press release](#))

- *January 12:* China is planning to acquire “golden shares” in units of tech giants Alibaba and Tencent ([Financial Times article](#))
- *January 13:* Tesla had to delay its Shanghai Gigafactory expansion after local authorities withheld permission, potentially due to data security ([South China Morning Post article](#))

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