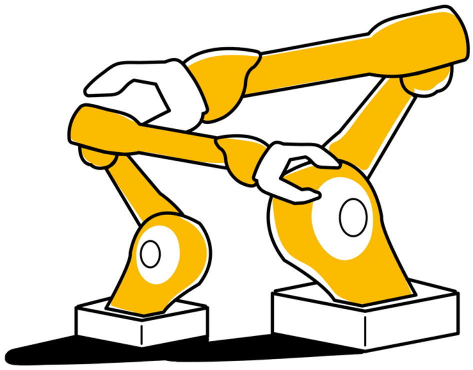
JULY 5, 2023 (REPORTING PERIOD: MAY 29 – JUNE 26)

MERICS China Industries



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MERICS TOP 5

1. State Council supercharges EV infrastructure roll out

At a glance: The State Council released guidelines to promote the high-quality development of China's electrical vehicle (EV) charging infrastructure. Policymakers intend to improve the roll out of charging infrastructure to support China's leading EV sector and strengthen consumption. Goals for 2030 include:

- Construct a high-quality nationwide charging infrastructure system with extensive coverage in and between cities as well as rural areas
- Increase the number of parking spaces with charging piles in medium and large cities so that they exceed the number of registered EVs in each locality
- Support the internationalization of Chinese charging standards
- Deploy new technologies such as battery swapping as well as fast and wireless charging

MERICS comment: China is today the world's largest EV market, in large part due to subsidies for EVs – which have just been extended – and its expansive network of charging infrastructure. In 2022, China installed nearly 650,000 public chargers, 70 percent of global installations. 975,000 more will be installed in 2023, forecasts the China Charging Infrastructure Promotion Alliance. Chinese policymakers favor investment-driven growth to stimulate the economy. Rather than splurging on roads and bridges, investing in charging infrastructure could cement China's EV lead and boost EV consumption, especially in rural areas where charging infrastructure is still lagging.

The plan is light on details but signals high-level support for China's charging and EV industry. Provincial and local governments will be tasked with the actual implementation. They have long subsidized the installation and operation of charging piles, which is an often unattractive, low-margin business.

In the short-term, foreign suppliers to Chinese charging equipment makers like Infineon will likely benefit from China's ongoing infrastructure push. Despite fierce competition from Chinese rivals, the overall market growth will enable foreign companies to expand. In the long-term, leveraging the scale of China's charging market and soft incentives to "buy Chinese," Chinese charging equipment makers and their suppliers will make forays into global markets. For instance, charging equipment maker Shenzhen Sinexcel Electric has obtained European AC standard certification and has become a supplier to BP.

Article: Guiding Opinions on Further Building a High-quality Charging Infrastructure System (国务院办公厅关于进一步构建高质量充电基础设施体系的指导意见) (Link)
Issuing body: State Council
Date: June 20, 2023

2. Shanghai tracks a course to reach even greater manufacturing heights

At a glance: The Shanghai People's Government issued a plan to advance its manufacturing industry, seeking to build on its existing position as one of the nation's key industrial hubs. By 2025, officials aim to:

- Increase the industrial added-value output from CNY 1.15 trillion to CNY 1.3 trillion
- Build world-class industrial clusters in integrated circuits, biomedicine and AI and consolidate advantages in industries such as life sciences, automotive, advanced materials, civil aviation and high-end ships
- Improve the resilience and security level of the industrial supply chains in sectors such as automotive, semiconductors, chemicals; strengthen the chain protection and stability of key materials and components
- Nurture technology-based enterprises, including 10,000 "Specialized SMEs" and 1,000 "Little Giants"

MERICS comment: Shanghai's plan for the manufacturing sector is part of a national push to promote advanced manufacturing clusters. In the face of international tensions and weak economic growth, the leadership in Beijing wants industry to expand their position in mid-to-high end segments and improve the resilience of the industrial chain. Provincial governments such as Zhejiang and Guangdong have recently released related plans. Shanghai has particular importance as a hub for the semiconductor, AI and civil aviation sectors: it hosts China's largest chip foundry, SMIC, and only commercial aircraft manufacturer, COMAC.

Foreign firms such as Tesla and Volkswagen are integral to the city's success, accounting for a quarter of its GDP and two-thirds of its imports and exports. The action plan seeks to continue to leverage international partnership, aiming to establish 25 new foreign R&D centers in the city every year. But deteriorating business sentiment means the city may struggle to meet these targets. The recently released EUCCC Business Confidence Survey shows that a record-high 64 percent of respondents nationwide think doing business in China became more difficult in 2022. In a time of growing geopolitical risks, volatile policy implementation on the ground, and ever-increasing pressure to localize operations, Shanghai's plan to simultaneously raise domestic supply chain security and attract FDI looks increasingly incompatible.

Article: Three-Year Action Plan for Promoting the High-Quality Development of the Manufacturing Industry in Shanghai (2023-2025) (上海市推动制造业高质量发展三年行动计划（2023-2025 年）) (Link)
Issuing body: Shanghai government
Date: June 14, 2023

3. New action plan unlikely to resolve China's shortage of skilled talent

At a glance: The National Development and Reform Commission (NDRC) is seeking to address the mismatch between China's education system and the personnel needs of the manufacturing sector with a three-year action plan. It includes 19 measures for 2023-2025, such as:

- Launch 50 pilot cities to trial reform initiatives for the integration of industry and education; cultivate more than 10,000 education-industry integration enterprises
- Promote the integration of industry and education in key industries such as integrated circuits, artificial intelligence, "Industrial Internet" and smart manufacturing
- Encourage vocational colleges and universities to establish internship training bases with enterprises, and to jointly construct and manage industrial colleges
- Provide financial incentives, such as grants of up to CNY 80 million to invest in training bases as well as preferential access to land and credit.

MERICS comment: According to a report by Deloitte and Chinese firm Renrui Human Resources Technology, China's talent shortage in the smart manufacturing sector will widen to 5.5 million by 2025, with job positions more than double the number of available workers. While more dedicated training colleges could boost the supply of talent in this area, the broader shortage facing China's manufacturing sector is due to structural problems which goes beyond the emergence of new sectors.

First, Chinese students are primarily focused on attending top universities, disregarding practical skills and the job market. Second, the manufacturing sector does not provide attractive working conditions. Assuming wages are more or less equal, most young people would prefer a job in the service sector rather than a factory. The action plan does not include any measures to improve pay for factory workers.

Manufacturers in China could respond through increased wages, automation, or outsourcing to low-wage countries. Raising wages risks sacrificing profits or undermining their competitiveness, while automation cannot be implemented in all areas and older workers may struggle to adapt to new work processes. Outsourcing is gaining ground among companies in sectors ranging from electronics and cars. Although this runs counter to calls from President Xi to keep manufacturing in China, the new action plan is unlikely to change this dynamic.

Article: Notice on the Vocational Education Industry-Education Integration Action Plan (2023-2025), (国家发展改革委等部门关于印发《职业教育产教融合赋能提升行动实施方案（2023—2025 年）》的通知) (Link)
Issuing bodies: NDRC, MOE, MIIT, MOF, etc.
Date: June 13, 2023

4. Ministries for finance and industry push efficient digitalization of SMEs

At a glance: The Ministry of Finance (MOF) and Ministry of Industry and Information Technology (MIIT) announced a pilot program to facilitate the digitalization of small and medium-sized enterprises (SMEs) between 2023 and 2025. Pilot cities will be granted up to CNY 150 million in rewards or subsidies depending on their size. Key goals outlined in the plan include:

- Focus on key industries of the real economy like general and special equipment manufacturing, automobile manufacturing and pharmaceuticals
- Prioritize expenditure on software and cloud services, data acquisition and transmission, gateways and routing, alongside services like consulting
- Promote the replication of best practices across industrial SMEs

MERICS comment: The program follows on from cues given in the 14th Five-Year Plan and a pilot program launched in March 2020. Whereas the 2020 program promoted the use of digital tools such as cloud services and digital platforms as a response to the COVID crisis, the 2023 program reconnects with long term goals and adds specificity and strategic alignment. The limited budget allocated to the program underscores a focus on generating replicable solutions that do not rely on large investments or subsidies. The pilots are to seek out targeted points of businesses that possess the potential to generate highly positive effects on overall enterprise efficiency. Officials hope to persuade SMEs that even minimal investments in digitalization can yield significant profitability enhancements. This approach aligns with the limited funds available to SMEs and local governments to invest in digitalization.

The program emphasizes industries belonging to the "real economy." The goal is to support SMEs that produce the kinds of goods that the leadership is prioritizing. But it could also steer China's digital champions toward a strategy focused less on the consumer and platform side of software that Beijing finds wasteful and rather focused more on offering products and services related to automated and smart manufacturing.

Article: Notice on Carrying out the Pilot Work of Digital Transformation of Small and Medium-sized Enterprises in Cities (关于开展中小企业数字化转型城市试点工作的通知) (Link)
Issuing bodies: MIIT, MOF
Date: June 14, 2023

5. Beijing wants more funding for its tech innovators

At a glance: The State Council passed a plan to strengthen the tech sector's access to financing, in all stages of the company lifecycle. The plan aims to:

- Encourage financial institutions to provide support to tech companies, particularly startups, in the form of equity investment, bank loans, or by facilitating the issuing of bonds
- Improve evaluation frameworks necessary for more investment activity, such as for evaluating tech innovations, tech IP, and credit information, thus allowing banks to make more loans to tech SMEs
- Provide differentiated treatment for venture capital funds within a new regulation framework for private equity, presumably allowing more freedom to invest in different tech ventures

MERICS comment: The plan is one of several policies to promote the "continued recovery" of China's economy by focusing on tech innovation and industrial upgrading. However, banks are typically reluctant to invest in startups due to regulations and the risky nature of the venture. Beijing wants to change this so tech startups can access more funding, rather than relying solely on venture capital or private equity.

The guidance issued is a continuation of efforts to direct more funding to tech innovation, a foundational focus for Beijing to strengthen economic growth and national security. The PBOC and regional banks have already been expanding funding capacity and offering special financing instruments to make loans to technology firms, especially state-approved ones such as "Specialized SMEs" or "Little Giants."

Beijing's push for its national banks to provide seed funding to tech startups perhaps also reflects its uneasiness with relying on private investment, particularly from foreign investors. Likewise, foreign venture capital firms have become more cautious about investing in China amid Washington's policies to counter Chinese tech growth and the general economic downturn. Famed venture firm Sequoia Capital recently announced plans to spin off its Chinese fund, reflecting a trend of foreign businesses trying to limit exposure.

Article: State Council Passes Policies on More Financing Support for Tech Firms, Regulating Private Equity (Proposal) and Discussed Academic Degrees Act (Proposal) (李强主持召开国务院常务会议 研究推动经济持续回升向好的一批政策措施 审议通过《加大力度支持科技型企业融资行动方案》 审议通过《私募投资基金监督管理条例（草案）》 讨论《中华人民共和国学位法（草案）》) (Link)
Issuing body: State Council
Date: June 16, 2023

NOTEWORTHY

Policy news

- *May 29:* The MIIT released the conditions for semiconductor firms to qualify for a value-added tax plus deduction policy, which cover firms involved in integrated circuit design, production, packaging, equipment and materials (MIIT notice)
- *May 30:* The Cyberspace Administration of China issued guidelines for recording contracts related to the export of personal information, outlining requirements such as procedures and filing materials (CAC notice)
- *June 1:* The Ministry of Science and Technology (MOST) announced the list of National Science and Technology Business Incubators for 2022, composed of 194 incubator programs and the companies operating them (MOST notice)
- *June 1:* The MOST published new regulations on the management of human genetic resources, requiring information on human genetic resources to pass a security review before it is shared with foreign organizations or individuals (MOST notice)
- *June 15:* The MIIT released new guidance on improving the quality and branding of industry in China, calling for action to enhance the quality standards and brand value of small and medium-sized enterprises (MIIT notice)
- *June 16:* The National Energy Administration launched pilot demonstrations for new energy storage technologies (NEA notice)
- *June 26:* The MOST launched preparations for the Eighth China Innovation Challenge which will involve 18 "industry competitions" covering strategic emerging industries such as new-generation information technology, high-end equipment manufacturing, and biomedicine (MOST notice)

Corporate news

- *June 5:* Anglo-Australian mining firm Rio Tinto signed an agreement with Sichuan University to conduct research on carbon mineralization techniques, whereby carbon dioxide gas is turned into a solid mineral (Yicai article)
- *June 6:* Senior managers of China’s State Power Investment Corporation claim the production of the Guohe One – a third-generation nuclear power technology – will achieve 100 percent localization this year (Yicai article)
- *June 7:* Dutch semiconductor firm STMicroelectronic signed an agreement with China’s Sanan Optoelectronics to create a new 200mm silicon carbide device manufacturing JV in Chongqing, China (GlobeNewswire article)

- *June 15:* Siemens announced it will invest EUR 140 million to expand its production facility in Chengdu, China, as well as build a new plant in Singapore, as part of plans to increase global manufacturing capacity (Financial Times article)
- *June 18:* German flying car maker Lilium GmbH signed an MoU with the Bao'an District of Shenzhen to open its regional headquarters in Shenzhen with a view to establishing an all-electric vertical take-off and landing ("eVTOL") eVTOL service in China (GlobeNewswire article, Caixin article)
- *June 23:* Caixin reports that Oppo shut down its chipmaking subsidiary Zeku after only launching it in 2019, due to its inability to coordinate internally and make progress on the development of an application processor chip (Caixin article)
- *June 25:* Chinese electric vehicle power supplier Shinry Technologies signed an MoU with US-based semiconductor firm Wolfspeed to jointly develop supercharging station products (Shinry Technologies press release, Yicai article)

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