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MERICS China Industries Briefing

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MERICS TOP 5

1. Xi speech reminds cadres that China is staying the course on its innovation drive

Article name: Strive to Become the World's Main Scientific Center and High Ground for Innovation (努力成为世界主要科学中心和创新高地) (Link) Issuing body: Qiushi journal Date: March 15, 2021 – speech delivered on May 28, 2018

At a glance: China's leading party theory journal, Qiushi, published an excerpt from a speech Xi Jinping gave at the Chinese Academy of Sciences (CAS) and Chinese Academy of Engineering (CAE) in 2018. Speaking about turning China into a hub for science and innovation, Xi highlighted:

- If China wants to achieve prosperity and national rejuvenation, it must vigorously develop science and technology (S&T) and strive to become the world's main scientific center and "high ground for innovation" (创新高地)
- China faces major deficiencies in S&T that must be solved urgently, e.g., shortcomings in basic research and bottlenecks in high-end machinery and chips
- Only by grasping key and core technologies "in [its] own hands" can China guarantee economic security, defense security and other aspects of national security

Qiushi also published several articles authored by the head of the <u>Ministry of Science</u> and <u>Technology</u> (MOST) and the party secretaries of the <u>CAS</u> and <u>CAE</u> that support and expand on Xi's science and innovation rhetoric.

MERICS comment: The decision to publish this nearly three-year-old speech at this point in time is significant: It came just four days after the formal approval of the <u>14th</u> <u>Five-Year Plan (FYP)</u>, which places innovation front and center of China's modernization drive (see next entry). The speech is a powerful reminder to cadres that the government's ambitions of turning China into a "world S&T superpower" (世 界科技强国) and achieving tech self-reliance have long been set in stone.

The message of the speech and the FYP is clear: China's self-sufficiency drive is a strategic pillar of China's national development that will be pursued at all costs. Advancing S&T is a matter of both national security and long-term economic growth. But the road ahead remains long and arduous and will require intelligent sectoral policies that address China's S&T shortcomings and vulnerabilities.

2. Five-Year Plan doubles down on basic research in quest to overcome tech chokepoints

Policy name: Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Long-Range Objectives Through the Year 2035 (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) (Link) Issuing body: Official version issued by Xinhua Date: March 12, 2021 – approved by the NPC on March 11, 2021

At a glance: The annual "Two Sessions" political meetings unveiled and formally approved China's development blueprint for the next five years. Innovation – and research and development (R&D) in particular – is one of the most prominent themes of the 14th Five-Year Plan (FYP). Concrete targets for R&D include:

- Increase R&D spending by more than 7 percent annually
- Ensure that R&D spending accounts for a higher percentage of GDP than during the 13th FYP period (i.e., more than 2.2 percent of GDP)
- Boost R&D spending on basic research by 10.6 percent in 2021 and increase the proportion of overall R&D spending devoted to basic research to more than 8 percent over the next five years
- Increase the number of innovation patents per 10,000 people from 6.3 (in 2020) to 12 (by 2025)

MERICS comment: China's leadership is opting for more attainable goals for R&D spending in this FYP. China has consistently missed previous R&D spending targets and in 2020 R&D expenditure growth <u>even slowed</u>.

The plan also signals more targeted support for R&D that focuses on basic research. Recognizing that China lags in this area, which is crucial to tackling tech bottlenecks, MOST said it will issue a <u>ten-year action plan for basic research</u>, alongside a range of policy support measures, e.g., for the establishment of basic research centers. Increasing the efficiency of funding allocation and giving more decision-making power to researchers are prominent themes throughout.

Another priority is encouraging companies to invest in R&D, particularly in the seven "frontier" technologies highlighted as priorities (see text box). To that effect, the government vows to extend tax incentives for R&D activities and support the flow of venture capital into startups. Manufacturing firms will enjoy tax deductions for 100 percent of R&D costs (up from 75 percent), SMEs are singled out for <u>special</u> loan support and semiconductor companies can benefit from <u>import tax exemptions</u>. European companies stand to benefit from these and more upcoming policies to support corporate R&D activities (see next entry). Yet long-standing <u>IP infringement</u> <u>risks</u> will continue to complicate foreign R&D in China.

China to prioritize S&T breakthroughs in seven cutting-edge areas

The 14th FYP states that by 2035, China is to make "significant breakthroughs" in core technologies and be among the most innovative nations in the world. In the context of S&T advancements, it highlights seven "frontier" science and technology areas (科技前沿领域) that will receive strengthened policy support in the coming five years:

- 1. Next-generation artificial intelligence
- 2. Quantum information
- 3. Semiconductors
- 4. Neurosciences
- **5.** Genetic research and biotechnology
- 6. Advanced clinical medicine and healthcare
- 7. Deep-space, deep-sea and polar exploration

3. China wants more foreign investment in R&D, but risks remain

Policy name: Notice on Doing a Good Job in Stabilizing Foreign Investment in the Context of Building a New Development Pattern (关于围绕构建新发展格局做好稳外资工作的通知 (Link) Issuing body: MOFCOM Date: March 1, 2021

At a glance: The Ministry of Commerce (MOFCOM) issued a notice that outlines strategies to attract more foreign investment to China. The document also highlights that foreign capital should be channeled toward technological innovation. Key measures include:

- Formulate a Five-Year Plan dedicated to better utilizing foreign investment
- Lower regulatory hurdles for foreign investors to establish R&D centers
- Guide foreign investors to increase their investment in China's technological innovation
- Implement and improve the security review of foreign investments

MERICS comment: The MOFCOM's measures, as well as the 14th FYP, highlight that China remains determined to attract foreign investment and know-how in its bid to pursue high-quality driven development and eliminate dependence on foreign countries. The government is particularly keen to funnel foreign investment into areas where Chinese companies lag such as high-tech manufacturing. Foreign companies that build R&D centers in related sectors are especially welcome. Xi Jinping drove this message home: "If you contribute to innovation in China, China will fully support you, regardless of where you come from."

Other ministries have backed up the rhetoric about opening channels for foreign investment. The Ministry of Industry and Information Technology (MIIT), for example, said it will <u>relax entry restrictions for foreign capital</u> in the telecom sector. The

National Development and Reform Commission (NDRC) meanwhile announced it will <u>streamline the approval process</u> for foreign investments in encouraged industries. Yet, in a worrying sign for foreign investors, MOFCOM also reiterated support for the review of foreign investments on national security grounds in its notice, while China's legislature voiced its intent to further <u>upgrade its legal toolbox</u> to combat foreign sanctions. Ultimately, foreign investments in innovation are welcome only on the condition that they advance China's strategic goals.

What to look out for: the 14th FYP is just a start

It is important to remember that the 14th FYP is a crucial, but relatively abstract, overarching blueprint for China's development. Throughout 2021 and early 2022, ministries and local governments will formulate more detailed sectoral and local Five-Year plans that contain more tangible goals and action plans that clarify how to implement the high-level policy priorities. European policymakers and companies should closely follow the release of these and other longer term planning documents, which will (most likely) include:

- Five-Year Plan for Utilizing Foreign Investment for Development (2021-2025)
- Five-Year Plan for the Energy Sector (2021-2025) and local action plans for peaking carbon emissions by 2030
- Five-Year Plan for Science and Technology Innovation (2021-2025) and the Ten-Year Action Plan for Basic Research (2021-2030)
- Medium and Long-Term Plan for Science and Technology (2021-35)
- Five-Year Plan for National Informatization (2021-2025) and Five-Year Plan for Smart Manufacturing

4. Continued support for Made in China 2025 as Beijing aims to advance manufacturing with digital applications

Policy name: Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Long-Range Objectives Through the Year 2035 (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) (<u>Link</u>) Issuing body: Official version issued by Xinhua Date: March 12, 2021 – approved by the NPC on March 11, 2021

At a glance: In addition to boosting the fundamental research underpinning tech development and prioritizing seven frontier technologies, the FYP also emphasizes the continued importance of promoting the adoption of advanced tech in traditional industries such as manufacturing. The measures aim to:

- Promote the upgrading of the manufacturing industry through the use of smart technologies and the large-scale application of key tech including cloud computing, the Industrial Internet, blockchain and AI
- Accelerate the construction of new infrastructure to advance the digital transformation of traditional industries, e.g., 5G networks (56 percent user penetration rate by 2025), big data centers and the IoT

- Form an industrial chain that is more innovation-focused, higher value-added, safer and more reliable (e.g., by localizing supply chains within China)
- Make traditional manufacturing more service-oriented, e.g., by encouraging them to offer R&D, industrial design, business consulting, inspection and certification services

MERICS comment: This focus on modernizing China's manufacturing industry shows that state planners are doubling down on their controversial <u>Made in China 2025</u> strategy. The 14th FYP's list of strategic and emerging industries (SEI) shows remarkable continuity with the six-year-old MIC 2025 blueprint: next-generation IT, high-end machinery, electric vehicles, new materials, aerospace etc. are all once again listed as priorities for industrial policy. Beijing also wants to upgrade manufacturing by integrating and applying advanced digital tech such as 5G, the <u>Industrial Internet</u> or high-end machinery like robots in traditional manufacturing.

Though long-standing, the tasks at hand remain urgent. Former MIIT minister <u>Miao</u> <u>Wei</u> recently warned that China is still at least 30 years away from becoming a great manufacturing power. The country remains <u>dependent</u> on foreign high-tech in manufacturing and the <u>share of manufacturing output as value of GDP</u> is prematurely falling. Maintaining a stable share of manufacturing in the economy is not only important for growth and jobs, but also national security. For the foreseeable future, European companies are therefore still needed to achieve industrial upgrading. But foreign companies are increasingly expected to localize supply chains and face growing competition from Chinese national champions propped up by the state.

5. Beijing's game plan to reach carbon neutrality still short on detail

Article name: Xi Jinping Presides Over the Ninth Meeting of the Central Financial and Economic Affairs Commission (习近平主持召开中央财经委员会第九次会议)(Link) Issuing body: State Council Date: March 15, 2021

At a glance: Xi Jinping chaired a meeting of the Central Financial and Economic Affairs Commission in which he emphasized that green development is crucial for the country's overall sustainable development. The meeting readout highlighted several policy priorities, including:

- Build a low-carbon energy structure with an electricity system that focuses on renewable energy sources
- Improve energy efficiency and promote green manufacturing, especially in four sectors: industrial production, construction, transportation and logistics
- Promote major breakthroughs in green and low-carbon technologies and accelerate the application of such technologies
- Encourage low-carbon production methods and lifestyles

MERICS comment: The meeting is the latest high-level signal that Beijing intends <u>to</u> <u>rely on green tech advances</u> to achieve China's climate goals: peak carbon emissions by 2030 and reach carbon neutrality by 2060. Aside from reemphasizing the government's focus on <u>green manufacturing</u>, the meeting also indicates that the development of renewable energy sources (RES) will remain a key priority. Yet the outlined policy priorities are as vague and unambitious as the FYP, which <u>sets targets</u> for CO2 emission reductions and non-fossil energy consumption by 2025 but leaves crucial decisions about accelerating emission reduction open.

The government seems to be betting on tech solutions as the major challenge of simultaneously curbing emissions and ensuring continued economic growth remains unresolved. Flagrant <u>violations of emission regulations</u> indicate that local governments are often still too lenient. National government inspection teams <u>will</u> now conduct more audits, which will mean harsher crackdowns on production facilities.

Hope remains that tangible targets and strategies will be outlined in the upcoming environment-specific plans. The National Energy Administration (NEA) recently confirmed it will follow up with <u>concrete targets for RES</u> power consumption, integration and storage, which could create even more opportunities for companies in the renewables sector.

WORTH NOTING

Policy news

- March 2: The China Development Bank earmarks CNY 400 billion of loans to support strategic emerging industries and companies active in advanced manufacturing in 2021 (<u>CCTV article (CN)</u>; <u>SMCP article (EN)</u>)
- March 8: NDRC vice chairman Ning Jizhe announces that China will further reduce the items on the negative list for market access to encourage foreign investment (<u>State Council (CN)</u>; <u>Economic Information Daily article (EN)</u>)
- March 11-12: The MIIT issues regulations that aim at the reduction of overcapacity in the solar industry and the NDRC issues guidelines on the "healthy and orderly" development of the wind and photovoltaic industries (<u>MIIT announcement (CN)</u>; <u>NDRC notice (CN)</u>)
- March 17: The MIIT, the Ministry of Transportation and the National Standardization Administration issue a guide on developing national autonomous vehicle standards (<u>MIIT notice (CN)</u>)
- March 23: The Cyberspace Administration of China issues regulations on data collection in mobile apps and determines what types of data constitute "necessary" data for 39 types of apps (<u>CAC notice (CN)</u>; <u>SCMP article (EN)</u>)

- March 23: The NDRC issues opinions on accelerating the high-quality development of the manufacturing service industry (<u>NDRC opinions (CN)</u>)
- March 24: The MOST announces the establishment of two new national AI pilot zones in Changsha and Suzhou, which will test different AI applications and conduct R&D (MOST letter Changsha (CN); MOST letter Suzhou (CN))
- March 25: The NDRC publishes a notice containing 24 measures to boost domestic consumption, a priority for China's economic development (<u>NDRC</u> <u>notice (CN)</u>)

Corporate news

- March 3: Chinese telecoms giant ZTE announces it will set up a new automotive unit responsible for developing smart car electronics products (<u>Yicai article (CN)</u>; <u>Yicai article (EN)</u>)
- March 8: JD Logistics, the logistics arm of e-commerce giant JD.com, announces it will form a joint venture with the China State Railway Group to advance China's high-speed rail network (<u>Caixin article (EN)</u>)
- March 10: China Mobile and China Broadcasting Network announce plans to build 400,000 5G base stations by the end of 2021 (<u>Elecfans article (CN)</u>; <u>Yicai</u> <u>article (EN)</u>)
- March 12: Facial recognition giant Megvii's IPO filing is accepted by Shanghai's STAR Market, where the company plans to raise at least CNY 6 billion (<u>Caixin</u> <u>article (CN)</u>; <u>Caixin article (EN)</u>)
- March 15: Chinese EV maker Xpeng receives CNY 500 million worth of funding from the Guangdong provincial government to accelerate its business expansion (<u>Tencent news article (CN</u>); <u>Pandaily article (EN</u>)
- March 16: ByteDance is reportedly in the early stages of developing plans to design artificial intelligence chips in-house (<u>Leiphone article (CN)</u>; <u>Reuters</u> <u>article (EN)</u>)
- March 17: Semiconductor Manufacturing International Corporation (SMIC) announces it will build a new USD 2.35 billion factory to produce 28nm chips with the financial backing of the Shenzhen government (Wangyi article (CN); <u>SCMP article (EN)</u>)
- March 24: Alibaba's Beijing headquarters announces the establishment of a corporate CCP committee (Global Times article (EN))
- March 30: Xiaomi announces an initial CNY 10 billion investment in a new standalone division for smart vehicle manufacturing and says it aims to invest CNY 65 billion over ten years (<u>Bloomberg article (EN)</u>; <u>Leiphone article (CN)</u>)

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