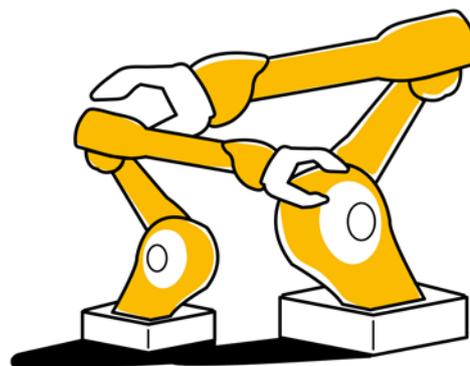


NOVEMBER 2, 2022 (REPORTING PERIOD: SEPTEMBER 28 - OCTOBER 25)

MERICS

China Industries



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MERICS TOP 5

1. The CCP is getting worried about China's talent gap

At a glance: In a new high-level document the Central Committee of China's Communist Party and the State Council called for greater efforts to create a system conducive to the training of highly skilled workers. Goals for 2025 include:

- Increase the skilled workforce to 30 percent of China's total workforce, one third of which are meant to be "highly skilled" [no specific definition is given]
- Encourage and reward enterprises for cultivating high-skilled talents [SOEs will be evaluated on this]
- Improve the high-skilled personnel training system by strengthening the cooperation between industry and vocational schools
- Promote the training of workers in sectors experiencing acute worker shortages and improve digital literacy

MERICS comment: For China, promoting skilled labor is crucial to boost labor productivity – as economic growth wanes – and for the success of an ambitious science and technology agenda centered on self-reliance. In the critical semiconductor industry, the talent shortage is forecast to grow from 250,000 to 300,000 people by 2025. That existing shortage coupled with geopolitical conflict, sluggish GDP growth and difficulties to access foreign talent due to China's strict Covid-19 regulations and US export controls have put the talent question at the top of the political agenda: President Xi Jinping highlighted skilled labor in his report to the 20th Party Congress.

Despite the high-level support, major challenges remain: Improving vocational education has been a government priority for decades. But it remains attached with [great social stigma](#), and those pursuing it often face worse employment opportunities than their peers in higher education, making it difficult to catch-up to other advanced economies in non-academic skills. In addition, [staff turnover is high](#), disincentivizing employers to invest in training.

Foreign companies could benefit from this policy through increased recognition of their training efforts by the Chinese leadership. Many multinationals are already investing heavily in the [training](#) of their Chinese staff. Still, it might also increase government expectations to do even more. Foreign vocational education institutions in China might also benefit from increased cooperation and investment opportunities.

Article: Opinions on Strengthening the Construction of a New Era of Highly Skilled Personnel (关于加强新时代高技能人才队伍建设的意见) ([Link](#))

Issuing bodies: CCPCC and State Council

Date: October 7, 2022

2. Beijing pushes inland shipbuilding industry to get smarter, greener

At a glance: Five government agencies led by the Ministry of Industry and Information Technology (MIIT) released a plan to develop the inland waterway shipbuilding industry. The document applies to river ships used for passenger, cargo and engineering purposes. The government aspires to create the foundations of a modern inland shipbuilding industry by 2030, with ships fully incorporating green and smart technologies. Intermediary goals set for 2025 include:

- Achieve breakthroughs in key green power technologies such as liquefied natural gas, batteries, methanol, and hydrogen fuel
- Significantly improve the level of smart technology in ship equipment, including related to navigation, berthing, cargo loading and engine room equipment monitoring
- Cultivate influential inland shipbuilding enterprises that can lead on green and smart ship design, construction, equipping and operation

MERICS comment: Inland waterways are an important form of cheap transportation with a relatively small carbon footprint, connecting China's interior to major coastal ports. This policy will help the government to fully utilize its extensive networks of navigable waterways – reportedly three times the size of Europe, [128,000 kilometers](#) compared to about [42,000 kilometers](#) – and strengthen the competitiveness of local shipbuilders. European suppliers of related green technologies could see a bump to their business in China in the short-term, but the policy will also spur on the growth of Chinese suppliers.

The document shows how policymakers engage in industrial coordination to maximize the competitiveness of the indigenous inland shipbuilding industry. It seeks to integrate ICT and battery technologies, as well as leverage the vertical value chain of mostly SOEs, all to advance the digital, low-carbon and cost-effective production of ships. This sort of state-backed, cross-sectoral coordination does not exist in Europe and leaves European shipbuilders at a disadvantage.

Article: Implementation Opinions on Accelerating the Green and Smart Development of Inland Vessels (工业和信息化部等五部委关于加快内河船舶绿色智能发展的实施意见) ([Link](#))

Issuing bodies: MIIT, NDRC, MOF, MEE, MOT

Date: September 28, 2022

3. China seeks to upgrade manufacturing through foreign investment

At a glance: The National Development and Reform Commission (NDRC) and five ministries issued 15 measures to boost inbound foreign investment, primarily in the manufacturing sector. The document instructs officials to improve the business environment for foreign firms and strengthen their contribution to the government's strategic priorities. Key measures include:

- Support foreign investors to set up research and development (R&D) centers in China, deepen science and technology (S&T) cooperation and localize value chain segments such as R&D and design
- Boost foreign investment in advanced manufacturing, high-end equipment and core components, as well as green technology innovation
- Facilitate the entry and exit of foreign enterprise executives, technicians and their families, on the premise of effectively preventing and controlling Covid-outbreaks
- Increase investment matchmaking activities with foreign firms in the medical, semiconductor, chemical energy and other key industrial sectors

MERICS comment: Foreign firms are critically important for China's ambitions to remain a manufacturing powerhouse and move up the value chain. Without foreign technology and know-how, it will be far more difficult for China to achieve self-reliance in key sectors. The US recently [expanded restrictions](#) on high-tech exports to China, thus increasing the necessity for Beijing to entice foreign enterprises to invest and bring technology into the country.

Despite the absence of concrete actions to incentivize more investment among the fifteen policy measures, they are a signal that China's arms are still open to the foreign business community. The document's release may have been timed to act as a counterweight to the announcement of China's new supreme leaders on October 23. The absence of any market-oriented official in the new Politburo Standing Committee led to a [sell-off](#) of mainland stocks listed in Hong Kong on October 24. The NDRC and Ministry of Commerce subsequently issued an updated [catalog](#) of industries where foreign investment is encouraged on October 28, also focusing on the manufacturing sector.

Until China changes course on its Covid-zero policy, it is unlikely to regain the confidence of foreign investors. China's economic performance will continue to remain suppressed, and weaken the attractiveness of further investment, until it begins to relax Covid controls.

Article: Notice on Several Policy Measures to Promote the Expansion, Stock and Quality of Foreign Investment with a Focus on the Manufacturing Sector (国家发展改革委等部门印发《关于以制造业为重点促进外资扩增量稳存量提质量的若干政策措施》的通知)

[\(Link\)](#)

Issuing bodies: NDRC, MOFCOM, MIIT, MNR, MEE, MOT

Date: October 25, 2022

4. NEA to speed up standardization of clean energy

At a glance: The National Energy Administration (NEA) issued a plan to advance China's decarbonization goals in the energy sector. The plan promotes the standardization of non-fossil energy sources, new power systems (e.g., grid types, demand-side response, electrification improvement etc.), energy storage, hydrogen, carbon capture, utilization and storage (CCUS), carbon accounting and traditional energy efficiency. Targets for 2025 include:

- Promote the formulation and revision of relevant standards in all the energy sectors through pilot demonstrations
- Shorten the formulation and revision cycle of carbon neutrality standards to within 18 months
- Deepen international cooperation on standards in the energy field, promote the compatibility of national standards with the international standard system and the adoption of domestic standards abroad

MERICS comment: The plan highlights China's ambitions to become a leader in energy system standards. China has already recorded [some successes](#) in setting international standards in areas such as solar photovoltaic components and materials, or renewable energy grid terms and definitions. But it remains behind the curve in other areas like carbon accounting.

The more that Chinese firms play a coordinated role in pushing China's standards in international bodies, the easier it will be for them to compete for market share abroad by locking in their own domestic standards. This could have important economic and geopolitical implications. European competitors may end up needing to adapt to the standards pushed by Chinese firms abroad and paying royalty fees to the Chinese inventors of the underlying technologies. The wide adoption of Chinese standards in energy infrastructure could also lead to a dependence on Chinese suppliers for the operation and maintenance of energy systems and lend China greater influence over foreign countries.

China's resolve to promote its energy standards internationally also shows in its translation efforts. On October 21, the NEA slated [67 standards](#) for English translations. Translating Chinese standards into English features prominently in China's [15-year standardization plan](#) published in 2021.

Article: Notice on the Action Plan to Enhance Carbon Peaking and Carbon Neutrality Standardization in the Energy Sector (国家能源局关于印发《能源碳达峰碳中和标准化提升行动计划》的通知) ([Link](#))

Issuing body: NEA

Date: October 9, 2022

5. Quenching China's industrial thirst: Pilot program targets industrial wastewater recycling

At a glance: The MIIT launched a new pilot program to promote innovation in industrial wastewater recycling. Relevant companies, including foreign ones, and industrial parks are eligible to apply. Applications are required to summarize their pilot projects scope and name the planned use of relevant technologies and suppliers. Targets of the pilot program include:

- Promote water recycling efficiency, improve water reuse and reduce water consumption
- Support the innovation of low-cost and high-performance industrial wastewater recycling equipment technology
- Encourage the use of new generation IT technologies such as big data and cloud computing to establish an intelligent management platform for industrial wastewater recycling

MERICS comment: Reliable access to water is a major concern for Beijing's policymakers. The country has 21 percent of the world's population, but only [6 percent](#) of its fresh water. Major droughts in recent months that caused provinces to declare "red alerts" signal water access could worsen. China must use its scarce resources sustainably and for that it needs recycling technologies. In [two plans](#) published in 2021, China identified wastewater recycling as a core technology that should receive more attention from researchers, companies and policymakers. In those plans China also tightened recycling requirements, forcing companies to improve their industrial wastewater technologies.

The pilot program aims to help innovative companies find markets for their technologies, with a focus on fostering domestic solutions. But foreign companies, which often have the high-tech equipment China is after, could benefit from the additional demand of the pilot. Many of them, like Suez or Veolia, are already present in the market and foreign SMEs could use the pilot to commercialize their technologies. In the long-run it may however also benefit Chinese competitors, which are already starting to [eye international expansion](#).

Article: Notice on the Pilot Work of Industrial Wastewater Recycling in 2022 (关于开展2022年工业废水循环利用试点工作的通知) ([Link](#))

Issuing body: MIIT

Date: October 13, 2022

NOTEWORTHY

Policy news

- *September 28:* The Ministry of Finance (MOF) expanded the pre-tax deduction for purchases of equipment and appliances carried out by high-tech enterprise ([MOF notice](#))
- *October 9:* The MIIT has begun the collection of examples of cryptographic applications to further promote the application of commercial cryptography in the industrial and informatization fields ([MIIT notice](#))
- *October 11:* The MOF issued new tax policies for enterprises investing in basic research, including a 100 percent pre-tax deduction for expenditure on funding for non-profit research institutions ([MOF notice](#))
- *October 13:* The Civil Aviation Administration of China released guidelines to promote the use of big data in the civil aviation sector to advance regulation precision, operation efficiency and service quality ([CAAC notice](#))
- *October 18:* The MIIT announced support measures to increase the talent base and training of scientists and engineers needed in core manufacturing technologies ([MIIT notice](#))
- *October 24:* The MOF announced that the government procurement program for green building materials has been expanded from six to 48 cities and shared building standards covering building structure, heating, plumbing, electrification, etc. ([MOF notice](#))

Corporate news

- *September 29:* China's C919 narrowbody passenger jet, built by state-owned enterprise COMAC, received a "type certificate", taking it one step closer to mass production ([Reuters article](#))
- *October 4:* Chinese EV-maker BYD and German car rental firm Sixt announced a partnership under which Sixt will purchase 100,000 BYD EVs by 2028 ([BYD press release](#))
- *October 13:* Volkswagen's software subsidiary CARIAD invested EUR 2.4 billion to set up a joint venture with China's Horizon Robotics, an automated driving solutions provider ([Volkswagen press release](#))
- *October 13:* Major US companies involved in the semiconductor value chains, such as Applied Materials or KLA Corporation, suspended sales and services to semiconductor manufacturers in China ([Financial Times article](#))
- *October 19:* German Heraeus and Japanese Shin-Etsu Chemical started construction of a CNY 500 million semiconductor base in China ([Global Times article](#))

- *October 19:* News emerged that German carmaker BMW is planning to invest USD 1.4 billion to expand its Chinese battery manufacturing capacity ([South China Morning Post article](#))
- *October 19:* The CEO of carmaker Stellantis advocated that the EU adopt higher tariffs on cars made in China to level the playing field ([Europe Autonews article](#))
- *October 24:* A set of subway trains, namely CRRC-made rolling stock worth EUR 50 million, were shipped to Portugal via Tianjin, marking the first time China has exported subway trains to the EU ([Global Times article](#))

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