

MADE IN CHINA 2025: FROM ASSEMBLY LINES TO INNOVATION FRONTIERS

by

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In May 2025, at a manufacturing facility in Luoyang, Chinese President Xi Jinping called for continuous efforts to build the manufacturing industry stronger to advance Chinese modernization, [stating](#): “China has always adhered to the path of developing the real economy. From the past reliance on imported matches, soap and iron, to now becoming the world’s largest manufacturing country with the most complete industrial categories, we have taken the right path.” Xi’s remarks underscored the broader vision embodied in the ‘Made in China 2025’ (MIC, 中国制造) initiative.

A decade after its launch in 2015, this flagship initiative of the Chinese government has fundamentally reshaped and transformed China’s industrial landscape, positioning digitalization, networking, and intelligentization at the center of its economic rise. The ultimate goal is to reduce China’s dependence on foreign technology while promoting Chinese high-tech manufacturers in the global marketplace. Beyond closing the technological gaps with Western powers, MIC reflects Beijing’s ambition to assert leadership in emerging fields such as artificial intelligence (AI). This raises a more nuanced debate: Is China, through MIC, reshaping the global rules of industrial and technological competition, and what systematic challenges or opportunities does this present for domestic stakeholders and international competitors?

No Longer Just the World’s Factory

The first decade of MIC illustrates China’s transition from serving as the ‘world’s factory’ to striving towards ‘[innovation-driven production](#)’. When China’s State Council laid the foundations of the policy in 2015, it emphasized competition and technological progress, [declaring](#): “It must look at the world, step up strategic deployment, focus on building a manufacturing power, consolidate its

foundation, turn challenges into opportunities, and seize the commanding heights of the new round of manufacturing competition.”

Manufacturing, in this sense, [supports](#) not only China’s economic capacity but also its industrial strength and national security. MIC is the inaugural phase of the [three-step](#) process to elevate Chinese industry, which includes: first, achieving enhanced competitiveness by 2025; second, global leadership by 2035; and lastly, reaching full technological system integration and becoming a global manufacturing powerhouse (制造强国) by 2049. These milestones are aligned with the broader project of national rejuvenation articulated in Xi Jinping’s vision of the “Chinese Dream”. To this end, the state has encouraged coordination between multinational corporations and Small and Medium-Sized enterprises (国家中小企业银河培训工程), supporting the dual strategy of “going global” (走出去) and also to “bring value back in” initiative, often in coordination with larger firms.

MIC 2025’s focus on upgrading domestic capabilities has been reflected in targeted support for ten strategic industrial sectors, including semiconductors, robotics, and electric vehicles (EVs), among other next-generation technologies. Over the past decade (2015–2025), China has leveraged foreign direct investment, accelerated its AI ambitions, responded swiftly to geopolitical disruptions, and achieved notable advances in areas such as EV production, infrastructure expansion, and frontier AI development, as shown in Table 1 (see next page).

China’s approach distinguishes MIC as a long-term strategic roadmap rather than a narrowly scoped policy, enabling bold advances toward building an innovation ecosystem. Its transformation from a low-quality assembly hub to an innovation engine has been stimulated by institutional reforms and expanded international cooperation. Policies such as Internet +, AI +, and smart manufacturing point to a future in which craftsmanship, quality, and digital integration are prioritized.

In 2016, during the Chinese government's drive for industrial modernization under MIC, then Chinese Premier Li Keqiang emphasized the need for advancing 'smart manufacturing'. He called for [upgrading](#) the manufacturing industry from its traditional labor- and resource-intensive outlook to one that is innovation-driven, harnessing intelligent manufacturing leveraging technologies such as 'the internet, cloud computing and big data.' This integration not only strengthens industrial output but also connects technological advancements with population-scale benefits, laying the foundation for a comprehensive digital ecosystem.

Today, China's high technology exports have reached US\$1 trillion, supported by the rise of domestic champions such as Huawei in 5G, BYD in EVs, and others. Supported by significant state subsidies, these firms now [compete](#) with established global giants like Siemens and Toyota. Assessments of MIC's progress over the past decade remain mixed, with organizations such as the U.S. Chamber of Commerce and various international commentators [highlighting](#) both achievements and shortcomings. For example, *The Japan Times* characterizes MIC as a "[mixed success](#)," underscoring how evaluations often depend

on the perspectives and criteria applied.

A Global Competitor

What remains clear is that China's industrial ascent since the launch of MIC 2025 has positioned it as a formidable global competitor, with manufacturing output by 2024 nearly matching the [combined output](#) of the United States and the European Union. This trajectory has unfolded amid intensifying international tensions such as the pandemic, U.S.-China trade war, and other geopolitical frictions—to which Beijing has responded with targeted policy interventions and trade measures. Historical analysis by scholars such as [Ingleson O'Brien](#) highlights that China's ambitions draw on lessons from the modernization of the Asian Tigers, reinforced by a dynamic understanding of globalization and economic interdependence. Furthermore, by adapting elements of the [German model](#), particularly the vocational training system and state-guided innovation, China has sought to build resilience against economic and strategic shocks, thereby advancing both technological sovereignty and ecosystem development.

Additionally, at the regulatory frontier, MIC also functions as a vehicle for global norm-setting in areas

Table 1: Major Developments that pushed MIC (2015-2025)

Year	Developments
2015	Official launch of MIC 2025 strategy
2016	Chinese acquisitions totaled US\$45 billion
2017	Launch of the National AI Development Plan for AI leadership by 2030
2018	US blocks Chinese investment in critical technology (AI, semiconductors); tariffs escalate trade tension
2019	Huawei blacklisted; biotechnology R&D accelerated
2020	China becomes the top FDI destination amid the pandemic
2021	Record-breaking semiconductor investment as US sanctions grow
2022	High-speed rail expanded to 42,000 km
2023	60 percent of global EVs produced; Huawei released a 5G AI-capable smartphone with Kirin 9000S chips
2024	Industrial output reached 29 percent- matching the combined output of the United States and the European Union production levels
2025	DeepSeek-R1 AI model launched

Source: Compiled by Authors.

such as green technology, smart manufacturing, and AI governance. U.S. policymakers [perceive](#) MIC as both an economic and security threat, raising concerns about state intervention, strategic investment, and intellectual property practices. Beijing's ambition is evident in its efforts to shape emerging rules for the digital and industrial economies, while Washington contends that MIC is a strategic initiative designed to advance high-tech manufacturing through subsidies and state-owned enterprises, as well as by encouraging overseas investments.

The Biden administration has warned that such investments pose significant risks of cyber-espionage and national security threats, [noting](#): “Some countries use foreign investment to obtain access to sensitive data and technologies for purposes that are detrimental to U.S. national security.” In response, Beijing has advanced regulatory reforms and platform-building to reinforce its international rulemaking ambitions. The interplay of sanctions, trade disputes, and competitive innovation underscores the complexity of China's industrial ascent—reflected in surging Chinese patents, global dominance in electric vehicles and shipbuilding, and the deployment of frontier AI technologies such as DeepSeek-R1.

Looking forward, China seeks to emphasize leadership through the fusion of AI-powered and carbon-efficient manufacturing networks, designed to set the global benchmarks. Aspirations for manufacturing supremacy by 2035 and tech system dominance by 2049 remain within reach. However, Western countries remain

wary, contending with vulnerabilities in supply chains, advanced infrastructure, and persistent disputes over intellectual property and semiconductors. China's assertive industrial model, coupled with growing global protectionist responses abroad, suggests that MIC is less about ‘catching up’ and more about pioneering a new paradigm for global technology-industry integration—turning manufacturing into a strategic engine for Chinese national power and global influence.

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