



Made-in-China 2025

OE Watch Commentary: In September 2018, the *South China Morning Post* published a three-part article series on the Made-in-China (MIC) 2025 initiative, a plan that China unveiled in 2015. The first article, the excerpt of which accompanies this, examines the question of whether or not Beijing's plan to dominate high-tech industries should be as big of a threat as the West thinks it is. The article explains that China is still at the stage of "following" and that MIC 2025 was originally meant for China to catch up with other countries, but has since been seen by the West as a threat. The article covers a lot of ground, describing MIC 2025 as "a lifeline to steer development into the future, moving the country away from being the world's biggest assembly line and a producer of cheap knock-offs and low-quality goods." The conclusion seems to point to MIC 2025 not being as big of a threat as the West believes, because China has been unable to get what it needs most – core technologies, most of which lie in US hands. In many cases, China has attempted to mimic certain core technologies. For example, after Redcore claimed to have "broken the American monopoly (on Google)" by developing an original Chinese web browser, it was accused of having based its software on Google's Chrome program.

In part two of the article series, the authors take a look at China's robot industry and how that fits into the MIC 2025 initiative. According to the article, the number of industrial automations operating in the country is expected to expand tenfold to 1.8 million units by 2025. Currently 30 percent of robots used in China are made in the country. By 2020, half of them will be made in China. By 2025, 70 percent are expected to be made in China, all pointing to a potential booming industry. These robots are intended to replace humans to offset skyrocketing labor costs and China's aging population. China, however, continues to lack original research when trying to develop new robots. For example, according to the article, Europe has a competitive advantage over China because of its deeper understanding of robotics, the artificial intelligence that goes into building and operating them, and the integration of robots with humans. Chinese robot makers and local governments reportedly often have a short-sighted approach to robotics, focusing on investing in existing technologies or setting up industrial estates to attract foreign robot manufacturers, as opposed to supporting original core research to develop the next generation of robots.

In the final article, the authors focus on the possibility of China becoming a semiconductor giant. Of the three articles, the third one seems to paint semiconductors as the most positive industry for the country. China had been trying to develop its chip industry even before MIC 2025, pouring in billions of dollars in subsidies, grants and investments. That effort might be paying off as the country appears to have gained some ground. **End OE Watch Commentary (Hurst)**

"(A) vision of global leadership to match the country's economic might emerged in 2015 when the government unveiled its 'Made in China 2025' plan."

Source: Elaine Chan, "Made in China 2025: Is Beijing's Plan for Hi-Tech Dominance as Big a Threat as the West Thinks it is?" *South China Morning Post*, 10 September 2018. <https://www.scmp.com/business/china-business/article/2163601/made-china-2025-beijings-plan-hi-tech-dominance-big-threat>

We are basically at the stage of 'following' ... especially for [developing] core technologies, which can't be bought and nor, if we ask for them, will people give

Prof. Zhang Haiou... For China, the original idea behind MIC2025 was simply to catch up with other countries, a tall order even by its own admission.

MIC2025, Beijing believes, is a lifeline to steer development into the future, moving the country away from being the world's biggest assembly line and a producer of cheap knock-offs and low-quality goods.

Most of all, the plan has so far failed to get what China needs most: core technologies that lie mostly in the hands of US companies.

Liu cited a lack of theoretical scientific knowledge, a skills deficit in some areas and insufficient patience and perseverance to see projects through as some of the obstacles facing China.

Source: He Huifeng and Celia Chen, "Made in China 2025: A Peek at the Robot Revolution Under Way in the Hub of the World's Factory," *South China Morning Post*, 18 September 2018. <https://www.scmp.com/economy/china-economy/article/2164103/made-china-2025-peek-robot-revolution-under-way-hub-worlds>

Under the Chinese government's "Made in China 2025" industrial master plan, the number of industrial automations operating in the country would expand tenfold to 1.8 million units by 2025, when up to 70 per cent of the robots used in China would be made in the country, from half in 2020, and 30 per cent now.

"China is the factory of the world, and there are millions of manufacturers that still depend on traditional labour-intensive methods," said Ren Yutong, executive president of the Guangdong Robotics Association, a government think tank. "If the country wants to maintain its top spot as a global exporter, each Chinese manufacturer has to start replacing humans with robots due to skyrocketing labour costs and the ageing population. [China] has already started running out of workers."

"We lack original research and have already tried to catch up by copying advanced technology. But neither technology-related mergers and acquisitions nor copycat [production] can close the gap in the short term."

(continued)



Continued: Made-in-China 2025

Source: Elaine Chan et al, “Made in China 2025: How New Technologies Could Help Beijing Achieve Its Dream of Becoming a Semiconductor Giant,” *South China Morning Post*, 24 September 2018. <https://www.scmp.com/business/article/2165575/made-china-2025-how-new-technologies-could-help-beijing-achieve-its-dream>

That vision of global leadership to match the country’s economic might emerged in 2015 when the government unveiled its “Made in China 2025” (MIC2025) plan. At the heart of the plan is the country’s semiconductor industry, in part because advances in chip technology can lead to breakthroughs in other areas of technology, handing the advantage to whoever has the best chips – an advantage that currently is out of Beijing’s reach.

China has in fact been trying to develop its chip industry for a number of years, even before the MIC2025 plan. It has poured in billions of dollars of subsidies, grants and investments, but progress has been slow.

“China has plenty of development opportunities, the market is deep ... China is the manufacturing hub and a big market for smart devices,” said Wang Huixuan, co-president of one of China’s top three smartphone chip makers, Tsinghua Unigroup, at a technology forum in Beijing in August.



Electronics factory in Shenzhen (2005).

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