

Made In China 2025: Mastering Future Industries And Going Global

The most important strategic program today is called “Made in China 2025.” This industrial initiative looks out over a ten-year time frame (it was released in 2015), and is couched in terms of China’s national destiny and the grand historical terms of “the rise and fall of world powers”:

Manufacturing is the main pillar of the national economy, the foundation of the country, tool of transformation and basis of prosperity. Since the beginning of industrial civilization in the middle of the 18th century, it has been proven repeatedly by the rise and fall of world powers that without strong manufacturing, there is no national prosperity. Building internationally competitive manufacturing is the only way China can enhance its strength, protect state security and become a world power.

Planners identified “strategic industries” in the Hu Jintao years that China would have to master to sustain economic growth and achieve the superpower status coveted by its leaders. The sectors targeted for mastery are:

- Next Generation IT
- High-end Digital Control Machine Tools and Robots
- Aerospace and Aeronautical Equipment
- Oceanographic Engineering Equipment and High-technology Shipping
- Advanced Rail Transportation Equipment
- Energy Efficient and New Energy Automobiles
- Electric Power Equipment
- Agricultural Machinery Equipment
- New Materials
- Bio-pharmaceuticals and High-performance Medical Equipment

“Made in China 2025” highlights the “urgency” of China’s need to catch up with advanced economies in terms of science and technology, linking this to the PRC’s original self-conception as the “New China” and to “China’s position as a world power”:

Since the founding of New China, and especially following the reform and opening-up period, China’s manufacturing sector has maintained rapid development and has built an industrial system that is both comprehensive and independent.

It has greatly supported China’s industrialization and modernization and significantly enhanced the country’s overall strength. It has supported China’s position as a world

power. However, compared with the advanced economies, China's manufacturing sector is large but not strong, with obvious gaps in innovation capacity, efficiency of resource utilization, quality of industrial infrastructure and degree of digitalization. The task of upgrading and accelerating technological development is urgent.

The advent of "Made in China 2025" is an "existential" issue, according to my conversations with economists and trade organizations in the United States. When China enters new export markets, it does so not only with cheaper goods, but also with government support.

As a Chinese telecommunications manager explained to me on a plane ride in India, "China is one giant incubator." In other words, decades' worth of forced joint-ventures, technology transfer, cyber-espionage, and conditional market access given to foreign firms in their quest to enter China's giant market has produced one great outcome: globally competitive Chinese firms.

Chinese firms, especially those known as "national champions," are given priority over foreign firms inside the Chinese market, while benefitting from unconventional methods such as state-supported technology transfers, financing, and espionage—a practice that has lasted decades, but which has begun to reach a tipping point for something even larger.

What happens after "incubation" in China's giant domestic market is that these firms go out into the world—while *continuing* to receive the support of the Chinese state.

The country's objective of turning "national champions" into global actors will mean a new form of competition for multinational companies around the world, something which has never been seen on this scale in history.

When American and other global companies compete with their Chinese competitors, they are competing not only with these companies, but also with the Chinese state.

The investments that are necessary to compete globally are there thanks to massive amounts of capital which the state can deploy to build new "champions" and aid existing companies in both traditional and emerging industries.

This strategy is what enables China to overcome barriers to entry and "leapfrog" not only military technologies, but vital sectors which are the essence of industrial and economic power.

A panelist at the Center for Strategic and International Studies (CSIS) in Washington, DC, explained this phenomenon using robotics as an example:

Out of the thousand companies that are out there ... You'll end up with a dozen or half a dozen that will be world class, eventually. And that's where they're going. That's the plan. And it's a very long game. It's not a five-year game, it's not a ten-year game. It's a twenty-year game. And in the end, twenty years later, you've burnt through massive amounts of capital to eventually dominate or have high control of a very high, very important critical industry; the outcome is positive in the end.

Regarding smartphones, he explained that there would be "Lots of losers, a few winners, and eventually the market will concentrate on four or five players, of which two or three will be Chinese. Apple, Samsung, Huawei, a couple other players, and that'll be the smartphone market." At the heart of this is state strategic planning.

As "Made in China 2025" explains:

At present, a new wave of technological and industrial revolution is aligning with the transformation of China's economic development and reshaping the structure of the international division of labor. China must seize this historic opportunity to implement a strategy of reinvigorating Chinese manufacturing and reinforce planning and forward deployment in accordance with the requirements of the "Four Comprehensive Points" strategic blueprint (a prosperous society, policy reform, rule of law, party discipline). We will strive to transform China into the global manufacturing leader before the centennial of the founding of New China, which will lay the foundation for the realization of the Chinese dream to rejuvenate the Chinese nation.

Though some are dismissive of these initiatives, China's acceleration across major industries can already be observed.

Take shipbuilding, for example. In the year 2000, China contributed very little in terms of global ship production. Today, China is the largest shipbuilding nation in the world by compensated gross tonnage. Shipbuilding was explicitly selected for mastery.

"Made in China 2025" provides firm guidance on which sectors the country seeks to master. Consider also those sectors and technologies where Chinese companies have made significant progress of their own, whether through acquisition (take Lenovo's purchase of IBM's personal computer business as an example) or organic growth in technology companies such as Huawei, Xiaomi, Tencent, and Haier. In the case of the latter, Haier was once considered an attractive acquisition target for General Electric. But as the Chinese incubator moved forward, the roles reversed and Haier bought GE Appliances.

Today, China's economic power is visible across numerous industries, and the ambitions of the Chinese state are visible in every major emerging technology of the twenty-first century. Through global acquisitions, state-led strategic investment, and global cyber- and human espionage, China's state and private corporations have made great gains in everything from telecommunications, semiconductors, robotics, aerospace, automobiles, space industry, and agricultural and industrial machinery, and even in major technologies where the US has always been confident in its ability to lead, from artificial intelligence, autonomous vehicle development, big-data processing, smart appliances, to other Internet of Things-driven industries.

The creation of an advanced industrial base is essential to the Communist Party's ambition of catching up with and ultimately surpassing the United States as the leading technological power.

Importantly, China's industrial base doubles as a base for military power. The two, for Chinese leaders, are inseparable, especially given the Party's view of history.

China's sense of decline and fall historically is based on a lack of technological capacity. The country was, in the eyes of generations of Chinese citizens, picked apart in defeat after defeat by the European and Japanese empires. The wide gap in military technology, as well as political and economic stagnation, is often named as the culprit in these defeats, the foundations of the "Century of Humiliation."

In short, in the view of its government and many citizens, China's fall as a nation was the result of lagging technology and a stagnant economy.

In 2006, my first year in China, I could not get away from conversations that hinged on two points: "We are lagging behind" and "We must develop the economy." The two words 落后

(lagging) and 现代化 (modern) featured in hundreds and hundreds of conversations I had in China's cities and countryside.

It's striking how the words from China's leaders were reverberating through the conversations of the whole country, from the cities to the remotest villages— some with barely any electricity, where a single loudspeaker in the village square would blare the party line on economics, and farmers and families would carry on the conversation with me in their homes.

Hu Jintao had seized upon modernization and development as the national narrative. On the other hand, this is an old, old struggle in China. Remember that Mao's Cultural Revolution took as its object of destruction anything that was not fully revolutionary— or anything which spoke of China's past.

The people I met in that first year were visibly confronting anything that was “old,” whether it meant tearing down old houses, village structures, and urban districts, or speaking of the importance of wealth and new advances in technology. It seemed that the country was tearing apart its past traditions in order to rush into modernity of a Western kind. I did not know then how long and hard China had struggled against its past. As a saying goes in the country: “If the Old doesn't go, the New will not arrive.”

And in China, the New means power.