

## The New Government Should Propose a National-Level Semiconductor Grand Strategy

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A special report published by Bloomberg in mid-April 2024 pointed out that Taiwan is using the advantages of its semiconductor industry to enhance its international status and break through the diplomatic blockade of mainland China. Through technical cooperation agreements with the United States, Canada, France, Germany and other countries and the establishment of a chip design training base in Prague, the Czech Republic, Taiwan has accelerated its "chip diplomacy" strategy. In addition, the opening of TSMC's new wafer fab in Kumamoto, Japan, and the establishment of a wafer fab by Power Semiconductor Manufacturing Co., Ltd. in India in cooperation with Tata Electronics, both show Taiwan's active expansion in the global semiconductor field.

The semiconductor industry is an important pillar of Taiwan's economy, especially an important driver of Taiwan's export trade and investment attraction. In the past ten years, the proportion of semiconductors in Taiwan's manufacturing industry has increased from less than 30% to more than 40%, and its contribution to GDP in 2022 will reach 13.1%. Even as global demand declines, the importance of the semiconductor industry remains significant. Semiconductor exports are the main driving force for Taiwan's trade growth with mainland China. Compared with other export products, semiconductors have maintained growth.

In recent years, with the dramatic changes in the international political and economic environment, countries have emphasized the importance of national security and economic security strategies, and used this as a principle to guide international cooperation and control national development risks. In this context, the strategic goals of Europe and the United States and other countries are becoming increasingly consistent. The goals are to reduce dependence on mainland China's economy, curb the rise of mainland China, maintain economic growth and resilience, combat climate change and promote green transformation. It also clearly stated that international cooperation should be

based on common concepts and values.

With its leading position in the global semiconductor industry and its similar concepts and values to European and American countries, Taiwan has become the focus of cooperation and investment among various countries in recent years. From the initial main investment in mainland China and Singapore, to the expansion of investment in the United States, Japan, Germany, India and other countries in recent years, Taiwan's semiconductor companies are gradually moving from developing countries in Asia to developed countries, building localized semiconductor supply chain.

At the same time, Taiwan's semiconductor industry faces domestic development restrictions and intensified international competition. It is especially impacted by China's accelerated development of mature chip technology due to U.S. technology restrictions. It is expected that Taiwan's market share in mature processes will drop to 40% by 2027, the proportion of advanced processes will also drop to 60%. Therefore, the Taiwanese industry calls on the government to quickly promote a national semiconductor strategy, including increasing R&D investment and supporting the internationalization of enterprises, to strengthen the global competitiveness and sustainable development of the industry.

In order to better integrate resources and expand global cooperation, Taiwan's new government should formulate a comprehensive semiconductor strategy as soon as possible after taking office, including national security, diplomacy and international cooperation, economic and industrial development, technological innovation and R&D, as well as talent cultivation and international cooperation. and other strategic goals. In addition, in order to prevent companies from going it alone when investing abroad, the government should set up a special task force to provide assistance and negotiation support to maximize the benefits of chip diplomacy. This strategy will not only enhance Taiwan's international status, but also help Taiwan's semiconductor companies make more effective use of international resources and diversify risks on a global scale, while maintaining industrial security and enhancing economic resilience while promoting technological innovation and talent development.

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