

Strategies for the High-quality Development of Strategic Emerging Industries in Anhui Province

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Abstract Relying on its unique geographical location, rich scientific and educational resources, perfect industrial system, advanced infrastructure and efficient government service policies, Anhui Province, as a traditional manufacturing province in China, provides a solid foundation for the cultivation and development of strategic emerging industries. These factors open up a new situation for the high-quality development of strategic emerging industries in Anhui Province. However, the development of emerging industries in Anhui Province is also facing the challenges of the pressure of market competition, capital and technology, as well as the imbalance of regional development. To this end, it is necessary to further increase the introduction of talents and technology, widely absorb all kinds of capital, constantly optimize the industrial layout, and strive to enhance the ability of scientific and technological innovation. At the same time, it is needed to actively expand domestic and foreign markets, and promote the development of industrial clusters to make Anhui Province's strategic emerging industries bigger and stronger.

Key words Emerging industry, Development advantages, Challenges, Strategies

1 Introduction

As a traditional manufacturing province, Anhui has laid a solid foundation for the cultivation and development of strategic emerging industries by virtue of its superior location advantages, rich scientific and educational resources, complete industrial systems, complete infrastructure structure and high-level government service policies, and has demonstrated many advantages, creating a new situation of high-quality development of strategic emerging industries. In August 2020, the General Secretary Xi Jinping clearly proposed to strengthen the cultivation of emerging industries when visiting Anhui. Based on the strategic positioning of "three places and one region", Anhui grasps the historical opportunity of a new round of scientific and technological revolution and industrial transformation, takes scientific and technological innovation as the core driving force, continuously optimizes the allocation mode of production factors, takes strategic emerging industries as the key link in the construction of a modern industrial system, is committed to building a gathering place of emerging industries with significant influence, and promotes the vigorous development of emerging industries such as advanced photovoltaics, new energy vehicles, and quantum information.

From 2013 to 2023, the growth rate of annual average output value of strategic emerging industries in Anhui Province exceeded

15%. At present, 20% of the country's photovoltaic modules, 50% of photovoltaic glass, 14.3% of lithium batteries, 12.5% of new energy vehicles and 10% of the world's display panels are produced in Anhui. Seen from the development process of industrial structure in Anhui, the major transformation from the energy and raw material base to the gathering place of emerging industries has been successfully realized, and strategic emerging industries have become a powerful engine and core pillar to promote Anhui's economic development.

2 Advantages of high-quality development of strategic emerging industries in Anhui Province

2.1 Superior location and space advantage Anhui Province has a well-developed transportation network system and complete railway, road and air transportation networks, and has become an important transportation hub connecting East, Central and South China. In 2023, Anhui Province's water transport system formed a new pattern, and quickly integrated into the integration development strategy of the Yangtze River Delta, thereby achieving resource sharing and complementary advantages, significantly enhancing the ability to carry the development of emerging industries, and laying a solid foundation for the development of regional economic integration. At the same time, as a member of the Yangtze River Delta, Anhui Province is the only province that simultaneously enjoys the superposed advantages of the three national strategies: the integration of the Yangtze River Delta, the development of the Yangtze River Economic Belt and the rise of the central region, and has become an important bridge connecting the Yangtze River Delta with the central and western regions. This unique location and strategic advantage has brought more opening opportunities and dividends to the strategic emerging industries in

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Anhui Province, which will strongly promote the vigorous development of Anhui's real economy.

2.2 Scientific and technological innovation leadership In Anhui Province as an important layout area of national strategic scientific and technological forces^[1], more than 13 large science installations have been successfully built and are being advanced for pre-development, and there are more than 200 national innovation platforms, attracting a large number of scientists and high-end technical talents gathered here. In addition, Anhui province's investment in the field of science and technology continues to increase, and the province's total financial investment in science and technology ranks fourth in China. Meanwhile, it actively promotes the reform of science and technology system and mechanism, and accelerates the transformation and upgrading of traditional industries. Its regional innovation capacity leads the country. In terms of the cultivation of science and technology enterprises, Anhui Province has nearly 20 000 state-level high-tech enterprises and more than 27 000 small and medium-sized enterprises of science and technology, of which about 2 400 enterprises have settled in China (Hefei) Sound Valley, with an annual output value of more than 200 billion yuan. In addition, the construction of high-end research and development institutions such as national laboratories and comprehensive national science centers leads the development of scientific and technological innovation fields such as quantum information, fusion energy and deep space exploration in Anhui Province, provides a strong impetus for the cluster development of major scientific and technological infrastructure, and promotes breakthroughs in key technologies and cutting-edge technologies.

2.3 Prominent industrial agglomeration effect Since the implementation of the 14th Five-Year Plan, Anhui Province has been committed to actively cultivating and expanding emerging industries, and striving to build a gathering place of emerging industries with significant influence. In key fields such as quantum information, new materials, advanced photovoltaic and new energy vehicles, industrial agglomeration effect has been significantly formed^[2]. By July 2024, Anhui Province has successfully established 3 state-level innovation centers, 1 state-level intelligent voice cluster (located in Hefei City), and has 10 provincial-level advanced manufacturing clusters and 49 characteristic industrial clusters of small and medium-sized enterprises. Around the new energy automobile industry chain, Anhui Province has gathered seven vehicle enterprises represented by Chery, NIO, Volkswagen Anhui and Jianghuai as industry leaders. Following the development model of "leading enterprise-industrial chain-industrial cluster-industrial ecology", Anhui Province has successfully attracted more than 2 800 auto parts and aftermarket enterprises, forming a close cooperation relationship between more than 4 000 enterprises. Besides, Anhui Province actively introduces, trains and supports local enterprises, promotes their quality and upgrading, and jointly promotes the improvement and development of the scale and technical level of the new energy and intelligent connected auto-

mobile industry.

2.4 Increasing policy support Anhui Province adheres to providing high-level policy support for the vigorous development of emerging industries, and actively builds a market-oriented, legalized and international business environment. To this end, Anhui Province has introduced a series of policy measures and implemented more than 800 measures for the optimization of business environment, aiming at accelerating the digital transformation and application process of manufacturing enterprises. In the middle of November 2024, the General Office of the Anhui Provincial Government officially issued the *Action Plan for Future Industrial Development in Anhui Province*, which proposes a series of supporting policies covering technology, platforms, products, application, scenarios, services and other aspects in key fields such as low-carbon energy, advanced materials, quantum technology, general intelligence, aerospace information, and life science.

3 Challenges of the development of strategic emerging industries in Anhui Province

3.1 Great pressure of market competition Anhui Province has made some achievements in the development of strategic emerging industries, but under the background of increasingly fierce competition in domestic and foreign markets, how to maintain and rapidly enhance its competitive advantage has become an important challenge to be solved. Therefore, it is necessary to constantly innovate and optimize the industrial structure, increase investment in scientific research, promote the research and development and application of key core technologies, and promote the transformation and practical application of scientific and technological achievements to cope with the increasing market competition.

3.2 Insufficient investment in capital and technology The vigorous development of strategic emerging industries cannot be separated from huge capital and technological investment^[3]. Although Anhui Province has made progress in the financial field to support strategic emerging industries, the efforts are still insufficient. In order to further promote the growth of these industries, it is necessary to establish an internal rating and credit system specifically for strategic emerging enterprises, and set up a loan risk compensation fund to attract more social capital participation. In addition, high-end talents are crucial for the development of strategic emerging industries. Compared with the international advanced level, Anhui Province has a significant gap in this field. Compared with the developed areas in China, the breakthrough ability of key core technologies also needs to be strengthened. Hence, strengthening the cultivation and introduction of high-end talents is particularly key to supporting the innovation activities of enterprises and enhancing the competitiveness and innovation ability of the industry.

3.3 Uneven regional development of emerging industries During the development of emerging industries in Anhui Province, it

is noticed that there are obvious regional development imbalances in the development of strategic emerging industries in various cities. For example, the growth rate of Anqing City (23.5%) ranks first in the province, while that of other regions is relatively low. Such unbalanced development between regions may lead to uneven distribution of resources, thereby affecting the overall development. Therefore, there is an urgent need to take measures to balance coordinated development among regions, ensure that each region can make full use of resources and policy advantages, and prevent excessive concentration of resources in a small number of regions.

4 Strategies for the high-quality development of emerging industries

4.1 Adhering to the key role of science and technology in the development In view of the development of emerging industries such as quantum information, new energy, and deep space exploration, it is needed to focus on key core technologies, strengthen reform and innovation in modern engineering technologies, cutting-edge leading technologies, and disruptive technologies, promote collaborative innovation among universities, research institutes, large scientific installations, and enterprises, give full play to the role of high-powered science and innovation platforms, and promote the transformation and application of scientific and technological achievements. At the same time, it is necessary to strengthen the introduction of technical talents, vigorously implement talent training projects and high-end talent introduction projects, encourage, support and help outstanding talents grow, and meet the demand for high-end scientific and technological talents for the high-quality development of strategic emerging industries.

4.2 Increasing financial support While government financial support is increased continuously, the credit rating of enterprises should be assessed according to factors such as the development status, growth cycle and innovation projects of strategic emerging industries. It is needed to actively guide banks, guarantee institutions and other social funds to flow to emerging industries, design and launch diversified credit products to adapt to the innovation and upgrading of business processes. In addition, the loan discount support for key projects should be strengthened to reduce the operating costs of enterprises and help enterprises with listing potential to complete listing financing. At the same time, strong enterprises are encouraged to take the lead and jointly issue collective bonds with a number of emerging industry enterprises to further expand the source of funds for the development of strategic

emerging industries.

4.3 Optimizing industrial distribution Under the principle of adapting to local conditions, focusing on the future and being promoted by the government, the planning and layout of strategic emerging industries should be scientifically coordinated. Government departments should reasonably guide all regions to optimize their planning and layout according to their development foundation, resource advantages and strategic positioning by giving full play to their comparative advantages and following the principles of scientific development. Meanwhile, it is necessary to implement misplaced development strategies, highlight local characteristics, and carefully select projects with core competitiveness as a breakthrough in regional industrial development to avoid repeated investment in low-level industries, thereby reducing industrial competitiveness and avoiding the problem of new overcapacity.

5 Conclusion

As a traditional manufacturing province, Anhui Province is actively adapting to the trend of a new round of scientific and technological revolution and industrial change, fully integrates the concept of high-quality development into every link of new industrialization, and steadily moves toward the rank of strong provinces in terms of "intelligent manufacturing". In view of the vigorous development trend of strategic emerging industries in Anhui province, it is needed to not only give full play to its unique advantages in scientific and technological innovation and deep integration, but also be clearly aware of the challenges in the process of high-quality development, such as market competition pressure, capital and technology bottlenecks, and regional development imbalance. Hence, it is needed to further increase the introduction of talents and technology, widely absorb all kinds of capital, constantly optimize the industrial layout, and strive to improve industries bigger and stronger.

References

- [1] SONG YY. Study on high-quality development path of strategic emerging industries in Chuzhou under the background of integration of the Yangtze River Delta[J]. *Anhui Science & Technology*, 2022(9): 14–16. (in Chinese).
- [2] WANG HJ. Research on high-quality development of manufacturing industry in Anhui Province under the background of Yangtze River Delta integration[J]. *Journal of Pu'er University*, 2024(1): 41–43. (in Chinese).
- [3] SHAO Y, YU T. Construction and analysis of high quality development indicator system of Anhui Province under the background of Yangtze River delta integration[J]. *Market Weekly: Theoretical Research*, 2022(2): 57–60. (in Chinese).