

Research on the Construction and Operation Mechanism of Innovation Ecosystem in Xi'an High-tech Zone

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Abstract: Facing the new situation, the timely establishment of an innovation system for high-tech industrial development zones has become an inevitable choice for the sustainable development of high-tech zones. The improvement of the quality of economic development requires the national high-tech zone to play its due role. However, compared with the internationally successful science and technology parks, China's high-tech zones still have a large gap in technological innovation capability and industrial competitiveness. Therefore, the high-tech zone must be in line with the international community as soon as possible to build an all-round innovation system for high-tech industrial development zones. In theory, this paper not only provides basic theoretical methods for how to construct high-tech zone innovation system, but also enriches enterprise innovation theory and industrial cluster theory in theory. Secondly, the research on the technology innovation system of the high-tech zone has a strong practical guiding significance. Finally, from the practical point of view, the research on the innovation system construction of Xi'an High-tech Zone has a relatively important reference significance for the construction of the technological innovation system of Xi'an High-tech Zone. This will also help the government to formulate corresponding high-tech industry development policies and create a good space for innovation in the development of Xi'an High-tech Zone.

1. Introduction

In recent years, the new situation has put forward higher requirements for the development of high-tech zones, and also provided huge market opportunities. First of all, in the era of information technology-led knowledge economy, China is vigorously promoting the "secondary entrepreneurship" in which the national high-tech industrial development zone is centered on enhancing its independent innovation capability. The high-tech zone should further develop the advantages of the important base of high-tech industrialization. Efforts to become an important carrier to promote technological progress and enhance the ability of independent innovation. Facing the new situation, the timely establishment of an innovation system for high-tech industrial development zones has become an inevitable choice for the sustainable development of high-tech zones. Secondly, with the acceleration of China's accession and global economic integration, China's high-tech industry is more closely integrated into the international industrial division system, and China's high-tech enterprises will face new opportunities and severe challenges. The market demand for high-tech products is strong, and high-tech enterprises are required to provide diversified products and services. At the same time, the improvement of the quality of economic development also requires the National High-tech Zone to play its due role. However, compared with the internationally successful science and technology parks, China's high-tech zones still have a large gap in technological innovation capability and industrial competitiveness. Therefore, the high-tech zone must be in line with the international community as soon as possible to build an all-round innovation system for high-tech industrial development zones.

2. Basic tasks of building and improving the technological innovation system

Continue to promote the construction of the Torch Innovation and Pioneer Park. Improve the construction of a business incubator system centered on professional incubators and university

science parks. Encourage the construction of various incubators, including entrepreneurial service centers, overseas student entrepreneurship parks and university science parks. Encourage multi-disciplinary institutions such as universities, research institutes and enterprises to establish various professional incubators. Explore the establishment of a carrier and resource integration system suitable for the accelerated development of high-growth enterprises. In the national high-tech zone where SMEs are active and active, it is necessary to actively build an accelerating service function, enrich service means and integrate technology resource accelerators that allocate resources to meet the fast-growing, high-growth enterprise service requirements different from those of start-up companies. National high-tech zones should combine the construction of accelerators for technology enterprises with professional incubators, university science parks and innovative service system construction according to their own conditions to provide high-quality services for high-speed growth enterprises. Operate technology enterprise accelerators through market-oriented means, open up the growth channel of high-tech enterprises in China, and accelerate the development and growth of high-growth enterprises. Vigorously cultivate third-party intermediary service organizations that promote industrial development. Vigorously develop technology intermediary institutions such as entrepreneurial service centers, innovation service centers, productivity promotion centers, and technology trading centers; develop technology patent agencies, appraisal institutions, venture capital institutions, information and consulting companies, and accounting firms that support high-tech industries. , legal firms and other professional services. Give play to the role of intermediary institutions in industrial research, factor introduction, technical support and corporate services in the industrial development of national high-tech zones. It is necessary to strengthen the intermediary service market support agency through government procurement to be more specialized.

Strengthen the construction of high-end talent team. Develop modern entrepreneurs and high-level professional managers through cooperation with famous universities and training centers. Strengthen the training of high-level industrial and technical workers by establishing a regional talent training system and introducing high-end training institutions. It is necessary to closely cooperate with universities, institutes and enterprises, attract high-level talents with economic research background, insight into the basic laws of industrial development, international vision, and master the development of the industry, enrich the management and operation team of the national high-tech zone, and accelerate management and development. And operational specialization. Expanding openness and promoting industrialization with internationalization. Make full use of the Ministry of Science and Technology as the competent department of foreign affairs of science and technology, strengthen international cooperation and exchanges between the parks, and strive to promote the integration of high-tech zones with world-class science and technology parks and enhance the international competitiveness of the park. Encourage high-tech zones to participate in international industrial division of labor and resource allocation, and encourage high-tech enterprises with strong capabilities in the park to participate in international competition through investment in foreign countries and establishment of R&D centers, and continue to attract multinational companies to set up R&D centers, headquarters and production bases in national high-tech zones. Promote the legal diffusion and flow of advanced technologies, management methods, capital and talents in the national high-tech zones. By increasing publicity and policy guidance, we will absorb a large number of high-quality overseas students to return to China to start businesses, and build international students into an important carrier to make full use of the international and domestic markets and resources.

3. Countermeasures for the technological innovation system of high-tech zones

The enterprise-based technological innovation emphasizes the enterprise as the main body. What kind of technological innovation is needed by enterprises, what kind of technology is needed in the market, and the enterprises in the market are the most clear. In the field of technological innovation, companies must take the lead in making the most of them. Universities and research institutes are the mainstay of knowledge innovation. Exploring unknown scientific discoveries, scientific

research, and technological innovations for the purpose of market development are different. In universities and research institutes, researchers often choose the fields they are familiar with when they declare projects, but this is not necessarily urgently needed by the market. The industry technology that is urgently needed by the market may not be of interest to efficient researchers. The current technological innovation system proposed by the state is to guide researchers to the main battlefield of economic construction. Therefore, we must actively link the needs of both. To promote the convergence of the two innovation systems, position the two innovation systems. "Academic orientation" and "market orientation" are two basic value orientations in the relationship between industry, education and research. It is understandable that the problem is to coordinate the relationship between the two. "Academic orientation" refers to behavioral tendencies that focus on the level of scientific and technological theory, manifested as intangible assets; "market-oriented" refers to behavioral tendencies that focus on product production and sales, manifested as tangible assets and industrial property rights. If the bridge of production, study and research is not used, the distance between the two is really difficult to make up. Under the conditions of combining production, study and research, "academic orientation" and "market orientation" can be well unified under the principle of common interests and seek together. Research, development, production and sales of "advanced best-selling products".

Directional research and development funding is a lubricant to maintain the normal operation of production, study and research. Although China's R&D investment is far from the developed countries, the investment in research funding in China has been very large in recent years. Many of China's achievements have been concentrated in universities and research institutes, and have become the focus of national science and technology investment. According to the survey, the invention patents applied and owned by Beijing universities accounted for 30% of the city's total. In April 2006, Guangdong Province, the Ministry of Education and the Ministry of Science and Technology set up a coordination group for production, study and research to jointly select Guangdong as a pioneering demonstration area for the combination of production, education and research, to promote the use of science and technology, education and human resources in universities, and to cooperate with Guangdong industry in industry, academia and research. At present, more than 70 national key universities and Guangdong enterprises have jointly implemented a large number of production, study and research projects, and initially established new models such as industry-university-research alliances, production-study-research demonstration bases, and colleges and universities. The practice in the past year has proved that the strategic measures of the combination of production, education and research in the province are feasible. It not only injects the strongest university technology and talent resources into the largest and most active provincial economic system in China, but also greatly enhances the competition of enterprises. The level of strength and innovation has also improved the level of running schools and the new goals of talent cultivation, discipline construction and technological innovation in universities. The Industry-University-Research Alliance is a new mechanism for school-enterprise cooperation and a new carrier for major projects. Through the establishment of market-oriented, enterprises as the main body, subordinate colleges and universities for technical support, strong alliance, complementary advantages, mutual benefit and win-win, long-term cooperation and common development. According to incomplete statistics, in 2006, there were 3,287 cooperation projects of various industries, universities and research institutes in Guangdong. The government invested RMB 1.05 billion in finance, invested RMB 16.5 billion in enterprises, participated in 2,368 enterprises, and participated in 167 colleges and universities. In 2006, only the major projects supported by the special funds of the province and the province can achieve an output value of more than 10 billion yuan and more than 350 patents with independent intellectual property rights.

With investment, finance, commerce, intermediary, exhibition, culture, media and business travel as the main content, we will accelerate the development of productive service industries, create a first-class business environment in western China, and greatly reduce the transaction costs of high-tech enterprises. At the same time, we must actively develop the consumer service industry, carefully create a high-quality living environment, comprehensively improve the quality of life in

Xi'an High-tech Zone, and form a new competitive advantage in Xi'an High-tech Zone with the comprehensive value of the park and the ability to attract high-level talents. The operating income reached 60 billion yuan, forming a modern service industry cluster with great influence in the center of China's Eurasia Continental Bridge. Through the construction of the Central Business District and the first phase of "returning two into three", it will provide first-class space and property conditions for the development of the modern service industry; it will introduce a large number of world-class modern service companies and accelerate the upgrading of the existing service industry; The headquarters of the Midwest Enterprise Group, financial investment institutions, and regional headquarters of intermediaries will enter the district; to speed up the development of modern business, Tang Yan Road should be the core area to introduce and cultivate a number of cultural and creative enterprises, such as advertisements, film and television, and animation, which are influential at home and abroad. , vigorously develop creative industries.

4. Conclusion

For the construction of Xi'an High-tech Zone, it is necessary not only to start from the innovation system, but also to demonstrate in other aspects. This paper only inspects the development of Xi'an High-tech Zone from the perspective of technological innovation system and gives relevant immature countermeasures and measures for the construction of Xi'an High-tech Zone's technological innovation system. This paper is not enough research on the construction of technological innovation system. It is necessary to further carry out further research on how to carry out innovation in the characteristic industry of Xi'an High-tech Zone.

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