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## Xiong' an New Area: A New Highland for Global Innovation Development (Postprint)

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### Abstract

Establishing Hebei Xiong' an New Area as an innovation hub with international influence represents a strategic opportunity for Xiong' an and constitutes a long-term national imperative. This article argues that comprehensive integration and leading innovation must serve as the cornerstone of Xiong' an' s scientific and technological innovation strategy, requiring substantive deployment in the introduction and cultivation of innovation entities, aggregation of innovative talent, investment in innovation capital, and development of an innovative urban environment, with particular emphasis on groundbreaking institutional innovations regarding the public nature of scientific and technological projects and the sharing of intellectual property rights.

### Full Text

## Xiongan New Area: A New Highland of Global Innovation

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### Abstract

Building Hebei Xiongan New Area into an innovation highland with global influence represents both a strategic opportunity for the region and a millennium-long national priority for China. This paper argues that Xiongan' s science and technology innovation strategy must center on comprehensive integration and leading-edge innovation, with solid deployment across four pillars: the introduction and cultivation of innovation entities, the aggregation of innovative talent, the mobilization of innovation capital, and the development of an innovation-friendly urban environment. Particularly crucial are major institutional innovations concerning the public nature of R&D projects and the shared ownership of intellectual property rights.

**Keywords:** Xiongan New Area, innovation, highland

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### **Strategic Opportunities for Xiongan as an Innovation Highland**

The establishment of Hebei Xiongan New Area by the Central Committee of the Communist Party of China and the State Council represents a major historic strategic decision made by the Party Central Committee with Comrade Xi Jinping at its core, carrying profound historical significance. Beyond its role in relieving Beijing of non-capital functions, Xiongan New Area strives to become a new engine for China's innovation-driven development, making innovation the fundamental driving force for the region's growth. The area aims to guide innovation factors to agglomerate within its boundaries, foster a favorable innovation atmosphere through supportive carriers, operating mechanisms, and development environments, attract high-end innovative talent and teams, and ultimately build itself into an innovation highland and technology-focused new city. Xiongan should emerge as an internationally influential innovation highland alongside Beijing and Shanghai.

Xiongan New Area faces significant strategic opportunities as a future world-class innovation highland because the times call for a new type of high-end innovation center. Globally, science and technology are accelerating, interdisciplinary integration is deepening, a new round of technological revolution is emerging, and disruptive technologies and emerging industries are becoming crucial forces guiding future development. The integration of basic research, technological innovation, and industrial development is increasingly evident. Strengthening the construction of national innovation highlands helps seize this critical strategic opportunity period, accelerate forward-looking deployment in emerging fields, reinforce basic research and scientific frontiers, and continuously provide high-quality key and generic technologies, thereby enhancing China's international scientific and technological competitiveness and laying a solid foundation for becoming a science and technology powerhouse. Since implementing the national innovation-driven development strategy, China has achieved remarkable scientific and technological progress, ranking among the world's top in both scientific publications and patent applications. The urgent task now is to fully utilize and integrate these existing achievements to improve the efficiency of technology transfer and diffusion, particularly by integrating and sharing resources across the innovation chain to significantly enhance the efficiency of technology transfer and commercialization. Effectively providing key technologies needed for "a better life" and social development requires vigorously developing livelihood-related technologies and advancing social welfare fields, which in turn necessitates strengthened public investment in science and technology to form a green, low-carbon, and sustainable public technology system.

Traditional regional or urban science and technology innovation centers have generally established several innovation units or platforms, but these commonly

suffer from small scale, single disciplines, and low comprehensiveness, resulting in insufficient knowledge scale effects in scientific and technological innovation. Regional innovation system theory suggests that the strength of individual innovation entities cannot guarantee high innovation efficiency for the entire system; only when various entities establish extensive connections and interactions can systemic innovation efficiency be ensured. Under current conditions where large-scale scientific research and comprehensive innovation require even more scaled and organized implementation, resource aggregation becomes particularly crucial. However, major cities have not reserved adequate space for scientific and technological innovation during their development, making it extremely difficult to pool innovation resources and elements, with insufficient attention to the public welfare aspects of innovation development. To proactively meet new challenges in global scientific and technological competition and adapt to new requirements for open innovation, China lacks a world-class innovation highland with comprehensive agglomeration effects. Xiongan New Area currently has a low level of development but abundant space, possessing the basic conditions for high-start, high-standard development of a high-end innovation highland.

### **Strategic Positioning of Xiongan as an Innovation Highland**

Amid the trend of cross-integration among science, technology, and industry, scientific and technological innovation presents multiple models: direct engineering and industrialization of basic research, integrated innovation through technology convergence, process innovation led by engineering technology, and chain innovation reflecting the non-linear relationships among science, technology, engineering, and industry. This complexity makes innovation increasingly difficult, demanding higher capabilities in organizing and allocating innovation resources. Major innovations based on national strategic objectives also require fully mobilizing the enthusiasm and creativity of enterprises, universities, research institutions, and other innovation entities to achieve cross-disciplinary, cross-departmental, and cross-industry deep collaboration and open innovation.

Building a world-leading science and technology powerhouse requires strategic transformation. China's science and technology innovation strategy must shift from following to leading, from introduction and integration to indigenous innovation, and from indigenous innovation to self-controllability. The main theme of China's scientific and technological innovation is to take the lead. The "Centennial Dream of Building a Powerful Nation Through Science and Technology Innovation" represents the core strategy guiding China's scientific, economic, and social development for the foreseeable future. Therefore, Xiongan's innovation development should embody two major characteristics: comprehensive integration and leading-edge originality.

First, Xiongan must possess integrated innovation capabilities. It should be able to integrate scientific and technological innovation resources, establish collaborative mechanisms, substantially enhance indigenous innovation capabilities, form internationally competitive strategic emerging industries, and drive the

development of local and industry innovation bases as well as scientific and technological innovation across society.

Second, Xiongan must demonstrate major original innovation capabilities. It should be able to identify, propose, and undertake major national strategic science and technology innovation tasks, gradually developing world-leading scientific and technological innovation capabilities. Breakthrough innovation is the fundamental driving force for sustained regional economic development. Beijing and Tianjin possess strong comprehensive scientific research strength. If Xiongan adheres to the principle of “doing certain things while refraining from others” and conducts joint research on pioneering technologies, industrial key technologies, and generic technologies that will determine the future direction of the Beijing-Tianjin-Hebei regional economy, it should be able to quickly establish its position in national and even global scientific and technological innovation.

### **Key Measures for Promoting Xiongan as an Innovation Highland**

To promote Xiongan as an innovation highland, four key measures should be implemented.

First, introduce and establish a group of comprehensive, leading-edge universities, key research institutes, and several world-influential innovative enterprises that integrate research and innovation. Building a world-class science center and innovation highland requires possessing a group of world-class research universities, scientific institutions, and innovative enterprises that can continuously produce major original scientific achievements.

Second, assemble high-level scientific and technological teams and cultivate innovative talent. To further mobilize advantageous scientific and technological resources and attract, motivate, and cultivate outstanding innovative talent, it is essential to stabilize a group of high-level national research teams engaged in basic research, technology integration, and major engineering comprehensive innovation, forming a world-class scientific and technological innovation talent community, which is the key to building a high-end innovation highland.

Third, provide ample funding conducive to scientific and technological innovation. Establish central government funding channels for Xiongan New Area’s scientific and technological innovation, supporting Xiongan’s innovation activities through strategic, forward-looking, basic, and public welfare national major R&D projects. On the basis of ensuring government investment, mobilize multiple parties to absorb social capital participation in Xiongan’s scientific and technological innovation, particularly through the introduction of large industrial funds, forming a joint construction mechanism among national and local governments and enterprises. Explore multiple support methods and channels combining stable support with project support, central support with local support, and financial investment with enterprise and social capital.

Fourth, form an urban construction pattern characterized by green livability,

smart interaction, and humanistic harmony. Xiongan New Area should take green and sustainable development as its fundamental starting point, uphold an open and interactive urban construction concept, and continuously build smart city communities based on advanced information technology. Xiongan's rich traditional Chinese medicine heritage and the Chinese traditional culture it promotes will also have important influences on producing scientific and technological innovation achievements with Chinese wisdom.

### **Institutional Innovation for Xiongan as an Innovation Highland**

Scientific and technological innovation and institutional innovation complement each other. Shenzhen and Pudong have made important contributions to China's economic development as pilot zones for economic reform and opening-up. Xiongan New Area should serve as a pilot zone for China's social development and science and technology system reform, focusing on institutional innovation concerning social development and scientific and technological innovation.

First, innovate property rights and talent systems. Further highlight the characteristics of socialist public ownership, emphasizing the commonality of land, capital, and talent. Conduct experiments in "common sharing" regarding housing to significantly reduce innovation and entrepreneurship costs. Simultaneously, in terms of talent, accelerate organizational planning and preparation work, adhere to global vision, international standards, Chinese characteristics, and high-point positioning to gather national and international talent, while also focusing on institutional experiments for talent sharing.

Second, deepen major reforms of the science and technology system. Change the current drawbacks of research project applications and profit individualization and short-term orientation, gradually strengthening the public welfare and social orientation of R&D projects to conduct more "public innovation." In terms of intellectual property systems, experiment with systems that make intellectual property from publicly funded research projects freely accessible to the public, enabling relevant scientific and technological achievements to be rapidly transferred to relevant institutions, which would have significant value for enhancing industrial innovation in the Beijing-Tianjin-Hebei region.

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