Development Philosophy and Policy Issues of Xiong' an New Area in the New Era: Postprint

Authors: Wang Shengguang, Zhu Changhai

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Abstract

Currently, China is situated at a historical convergence period of global new techno-economic paradigm transformation and the new era of socialism with Chinese characteristics. As China' s "millennium project" , Hebei Xiong' an New Area bears the important mission of leading China' s future new area construction and urban development. This article, combining the development requirements of the new era of socialism with Chinese characteristics and proceeding from the replacement of new general production conditions and new key production factors in the new techno-economic paradigm, proposes that the construction of Xiong' an New Area should establish a new-era development philosophy based on the new techno-economic paradigm—specifically, to comprehensively cultivate an innovative economic ecosystem across five dimensions: innovation and entrepreneurship, industry, market, society, and urban areas; and to research and design targeted promotion policies based on the composition of these five aspects of the innovative economic ecosystem. Grounded in this policy system framework, the article puts forward 20 framework policy recommendations for the innovative development of Xiong' an New Area.

Full Text

Development Concept and Policy Issues of Xiongan New Area in the New Era

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China is currently at the historical intersection of a global new technology-economy paradigm transformation and the new era of socialism with Chinese characteristics. As China' s "millennium strategy," Hebei Xiongan New Area shoulders the critical mission of leading the nation's future new area construction and urban development. This article, aligning with the development requirements of the new era of socialism with Chinese characteristics and starting from

the transformation of new general production conditions and new key production factors in the technology-economy paradigm, proposes that Xiongan New Area' s construction should establish a new-era development concept based on the new technology-economy paradigm. Specifically, it should comprehensively cultivate an innovative economic ecosystem across five dimensions: innovation and entrepreneurship, industry, market, society, and urban area. The article further suggests that targeted promotion policies should be researched and designed based on these five components of the innovative economic ecosystem. Grounded in this policy system framework, the paper puts forward 20 structural policy recommendations for the innovative development of Xiongan New Area.

Keywords: Xiongan, new area policy, technology-economy paradigm, innovative economic ecosystem

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The 19th Party Congress report states that "socialism with Chinese characteristics has entered a new era"and calls for "planning and constructing Xiongan New Area with high starting points and high standards" [1]. It is anticipated that the Xiongan New Area in Hebei, built with "high starting points and high standards," will become a demonstration and leader for China' s urban development and national-level new area construction in the new era. In particular, the "new era" of socialism with Chinese characteristics is deeply coupled with the global transformation of the new technology-economy paradigm [2]. This raises critical questions for Xiongan New Area regarding how to construct and develop itself, and whether it can lead the global development of new-era urbanization and seize a commanding position in this new round of global technology-economy paradigm shift.

Based on the authors' years of research experience in high-tech zones and recent investigations of several national-level new areas, we present the following discussion on the construction concepts and development policies for Xiongan New Area.

New Development Concepts for New Area Construction in the New Era

Xiongan New Area' s construction is occurring in a new era of national development and global new technology-economic development, where the "new era of socialism with Chinese characteristics" coincides with the global alternation between old and new technology-economy paradigms. Technology-economy paradigm transformation is triggered by technological revolutions, which incubate new industrial sectors and subsequently lead to new learning behaviors and new regulations throughout the entire network of surrounding industries, distributors, and users, eventually diffusing across the entire industrial system [3]. The new technology-economy paradigm triggered by the internet has brought fundamental changes to global economic and social operations and development patterns, making it impossible for Xiongan New Area, which will lead China' s

urban development future, to continue following urban construction approaches from the industrial economy era.

In terms of economic laws, the new economic era differs fundamentally from the industrial economy era in two major aspects. First, the formation of new general production conditions. This new general production condition is information interconnectivity. The essence of information interconnection is the transformation of information asymmetry—a fundamental premise that humanity has been unable to escape since its inception—thereby generating entirely new economic phenomena and laws distinct from both the agricultural and industrial economy eras. New models and business forms such as customized production, intellectual collaboration, precise supply, smart logistics, sharing models, and the sharing economy are gradually becoming mainstream, creating new alternatives in traditional sectors including agricultural production, industrial manufacturing, commercial circulation, and production and living services.

Second, the change in key production factors. New key production factors mark the formation of a new technology-economy paradigm and serve as the basis for distinguishing different types of technology-economy paradigms [4]. In the industrial economy era, material resources, labor (primarily physical labor), and land (natural forces) were the key production factors [5]. These have now been superseded. Due to the new general production condition of information interconnectivity, the key production factors driving economic development have shifted to knowledge, wisdom, and data. The main forces supporting economic growth and wealth creation now are the emerging knowledge service economy, innovation value, and widespread entrepreneurship, which manifests as the application of wisdom to knowledge. Moreover, with the rapid advancement of information, network, and intelligent technologies, production and operations in any industry now depend on data. Knowledge, wisdom, and data create new wealth and have overturned previous economic laws in multiple ways. Jeremy Rifkin [6] proposes in *The Zero Marginal Cost Society* that the new technological revolution will bring tremendous impact to existing economic rules through zero marginal costs. For instance, land and natural resources as production factors were previously finite and would decrease with production use, whereas knowledge, wisdom, and data resources are infinite and increase with production use—a pattern exactly opposite to the marginal laws explained by classical economics.

These new general production conditions and new key production factors have changed the development dependency patterns of regional and urban economies. The emergence of the internet has led to new production functions [7] and corresponding transformations in regional development models. In the past, regional and urban economic development emphasized scale economies, relying on expanding scale to promote economic growth and using expanded production from scale economies to drive the urban agglomeration of industrial workers and consumer populations. However, the new era has brought completely different changes. On the one hand, the economic demand for large-scale production

is increasingly saturating, with no growth space left for large-scale production sustained by traditional goods demand; new growth must depend on new demand and new supply. On the other hand, new demand and new supply are established on the basis of new general production conditions and new key production factors, bringing new product forms, new service forms, new production organizations, and new production methods—all vastly different from the industrial economy era. The economic support of the industrial era can be summarized as limited-element scale economies, relying on one or several leading industries. In contrast, the new era economy can be summarized as diversified scope economies, where products, services, organizations, and models increasingly exhibit diversity, personalization, customization, and distributed network collaboration. This requires regions or cities seeking economic development to shift from relying on limited-element scale economies to relying on diversified scope economies.

In essence, diversified scope economy is a form of ecological composition. This economic ecosystem exhibits increasingly diverse, complex, and uncertain evolution on both supply and demand sides, and the force that can maintain the positive evolution of this diversified scope economy ecosystem must be innovation and entrepreneurship [8]. Therefore, for Xiongan New Area' s construction focusing on future urban development, an economic ecosystem that can effectively stimulate innovation and entrepreneurship is crucial. It can be said that stimulating and promoting innovation and entrepreneurship is the core focus of Xiongan New Area construction under the new era background, and the quality of the innovation and entrepreneurship ecosystem essentially determines the success or failure of new area construction.

New Area Construction Should Focus on Building an Innovation Economy Ecosystem

The conceptual framework of innovation economy ecosystem construction also embodies what General Secretary Xi Jinping described as innovation-driven development being "comprehensive innovation with technological innovation at its core." Although any conceptual ecosystem is extremely complex in terms of composition, overall, Xiongan New Area' s innovation economy ecosystem construction can be summarized into five basic aspects—innovation and entrepreneurship, industry, market, society, and urban area. These five aspects, combined with the role of government, constitute the six-element model of an urban innovation economy ecosystem. Xiongan New Area' s innovation economy ecosystem construction needs to pay attention to the development changes and mutual influences of these five aspects and apply correct government functions and policy guidance (Figure 1 [Figure 1: see original paper]).

Focus on Innovation and Entrepreneurship

Innovation and entrepreneurship are the power source for future urban development. Only continuous innovation and entrepreneurship can support the continuous development and evolution of cities; without them, the development

and evolution of the urban economic ecosystem would be impossible. Only innovation and entrepreneurship can push cities from one development stage to a new, higher-level stage. In fact, the decline of many old industrial bases and the difficulties in transforming traditional resource-based cities we currently observe lie in the lack of innovation and entrepreneurship genes in their past construction and formation processes. When these cities encounter irresistible forces on their dependent paths, they lose growth points and directional choices for new development.

Industry Development as the Foundation of Urban Endogenous Development

It is common knowledge that cities need to rely on industrial development. However, the continuous development of economy and society determines that the industries cities rely on cannot remain unchanged; industries must be renewed, expanded, and upgraded. Therefore, for cities to prosper, they must continuously promote industrial development forward, which means developing high-end industries. "High-end" refers to the level of the industrial value chain, not the industry itself. That is, any industry's value chain has high-end and low-end segments—the parts at the high end of the value chain are high-end industries. Under normal circumstances, only the high-end parts of the industrial value chain condense more knowledge and wisdom, thereby embodying the added value of knowledge and innovation. Therefore, for Xiongan New Area' s construction, industrial development should have high-end selection targets. High-end industries can drive innovation, and only by developing high-end industries can cities lead innovative development, which in turn can only be promoted by innovation to continuously upgrade industries to higher ends. Looking at development trends, high-end industries and innovation and entrepreneurship will become the most fundamental reason for the existence of most cities—without high-end industries and innovation and entrepreneurship, cities' wealth creation capacity will become rigidified, and rigidity will inevitably lead to urban decline.

Create Leading Markets in the Context of the Knowledge Economy

Markets can attract consumer populations, aggregate production and innovation resource elements, enable cities to respond to development changes and lead urban consumption upgrades—all of which determine a city' s cohesion and appeal. However, in the construction and formation processes of China' s previous cities and various development zones, market issues often did not receive much attention. In the "first 30 years," China' s various development zones and new area construction mostly focused on the supply side, emphasizing outward-oriented production supply functions. Yet reality shows that the ultimate dominant force behind a city or region' s success (such as Shenzhen) is the formation of markets and market atmosphere. Previously, due to information asymmetry, market development often depended on specific location conditions and environmental factors, meaning not any place could develop specific markets. However, under the new technology-economy paradigm, such bottleneck constraints have been greatly reduced. Online systems based on the internet can

trigger ecosystem transformations [9]. With the internet and improved transportation conditions, any place can develop specific markets, especially markets for innovation elements such as knowledge, capital, and talent. These innovation elements themselves are not fixed but fluid, and under new technology-economy conditions, they can flow and transfer with markets at any time. Therefore, creating and developing markets is no longer restricted by specific location conditions, just like the characteristic towns currently being built across China. Governments play an important role in the cultivation and development of innovation markets [10]. Xiongan New Area's construction should dare to take the lead and combine its own characteristics to create markets with leading advantages, including various specific commodity markets, factor markets, property rights markets, and even capital markets. Most importantly, it should develop knowledge factor markets under the new era background, promoting knowledge transactions, technology transactions, talent transactions, and property rights transactions that integrate capital and knowledge through knowledge markets, shaping distinctive or branded knowledge market leadership to promote the urban agglomeration of knowledge, talent, new knowledge populations, and new consumer populations. In this regard, building various transaction platforms and data platforms based on the internet, promoting the development of internet platform companies, holding exhibitions and competitions, organizing entrepreneurship roadshows, and launching idea forums are all specific forms for creating new markets—issues that Xiongan' s decision-makers and departments cannot ignore in new area construction under the new era background.

Continuously Enhance and Maintain Social Vitality

The ultimate goal of new area construction is to develop a new type of urban society with continuous vitality and sustained value creation functions. Therefore, this society needs to continuously elevate its knowledge and civilization levels, constantly inject fresh blood, and possess an innovative and creative culture and vitality. For Xiongan New Area' s current construction, the ability to rapidly aggregate talent and new knowledge groups under the new era background is an intuitive indicator of whether the initial construction is successful. In fact, the apparent sign of decline in many old industrial bases and traditional cities is the accelerated loss of young knowledge groups, causing these cities to gradually lose vitality and making it even more impossible to embark on the path of building an innovative society and innovation-driven development.

Build Urban Areas Responsive to People' s Needs for a Better Life in the New Era

New urbanization must provide basic support conditions for the innovation economy, promoting innovative economic development through new lifestyles and new organizational methods [11]. Three major urban functions are closely related to "people' s growing needs for a better life" and also closely related to creating an excellent innovation economy ecosystem: (1) natural ecology reflecting green development; (2) infrastructure supporting shared urban economic and social development with an eye on the intelligent future; (3) equalized and

high-quality public services reflecting humanistic values. In summary, new area construction should be livable and business-friendly, especially focusing on the agglomeration of knowledge populations and the future development of intelligent society as fundamental positioning for Xiongan New Area. New area construction should start from providing livable and business-friendly urban ecology and conditions for intelligent survival, from providing high-quality and efficient public services, to plan and manage the city.

Policy Framework Recommendations for Xiongan New Area' s Innovative Development

Based on the above five major aspects, we propose the following 20 structural policy recommendations for the innovation development policy system that Xiongan New Area is about to launch (Figure 2 [Figure 2: see original paper]), with brief explanations as follows.

Focus on Innovation and Entrepreneurship

(1) Increase investment in R&D and innovation in the new area, primarily from both government and enterprise R&D investment. (2) Promote and strengthen the development of innovation carriers and innovation subjects in the new area. Innovation carriers refer to various R&D institutions, while innovation subjects are mainly enterprise-led innovation, particularly high-tech enterprises within the jurisdiction. (3) Focus on building innovation and entrepreneurship ("dual innovation") platforms under the new era background, which is particularly important. "Dual innovation" platforms mainly refer to spatial venues that can openly gather "dual innovation" talents and provide condition support, financial support, and integrated service support for "dual innovation" activities. Currently, new R&D institutions and maker spaces created across China have become the mainstream form of new "dual innovation" platforms, which are products of new technology-economy development. Platforms based on the internet can effectively activate mass collaborative innovation [12], which is significant for activating local innovation and entrepreneurship, making it the most critical policy promotion aspect for current new area construction. (4) Vigorously develop venture capital in the jurisdiction. Venture capital includes government or state-owned capital, market investment institutions, and private and social capital. Policies should especially focus on promoting the enthusiasm of private capital entering the new area for entrepreneurship investment, as such investment behavior is more rooted and most critical for supporting long-term local economic development and entrepreneurial prosperity. (5) Promote the formation of broad and diverse innovation and entrepreneurship atmospheres. Talent policies are most critical in this atmosphere, including creating a policy environment conducive to attracting, cultivating, and incentivizing talent.

Develop High-end Industries

(6) First, cultivate and build innovative leading enterprises settling in the new

area, as innovative leading enterprises directly determine the prosperity and competitiveness of local industrial clusters. (7) Especially under the new era background, promote the development of "Internet Plus" platform enterprises, as future industrial competition is gradually evolving into industrial ecosystem competition, and platform enterprises maintain and support industrial ecosystems. Particularly "Internet Plus" platform enterprises, their mature state will certainly be big data companies, thus playing the most prominent role in a region' s integrated utilization of knowledge and data resources to develop the new economy. (8) Persistently and continuously promote industrial intelligence and key technological innovation in the new area, making it a demonstration and leader of China' s "Industry 4.0." (9) Systematically and methodically cultivate and strengthen the backbone enterprise group in the new area. The abundance of tech enterprises, gazelle enterprises , hidden champion enterprises , and listed enterprises determines whether a region' s industrial foundation is solid, and its development level is closely related to whether the government can implement targeted policies according to local conditions. (10) Be adept at cultivating and developing emerging industries. Especially under the backdrop of new technology-economy paradigm transformation, industrial categories are changing rapidly, and often a casual disruptive idea could develop into a future unicorn enterprise , requiring the government to have the vision and policy promotion capability to respond to these new development changes in a timely manner.

Create Leading Markets

(11) In terms of new development trends, first develop transaction markets and platforms relying on the internet to promote market transactions of commodities, factors, property rights, and capital, especially focusing on promoting knowledge transaction market development in the new area for the new economic era. With the arrival of the knowledge economy, knowledge factor transactions will inevitably become the most active and promising development market globally, while emerging crowdfunding, crowdsourcing, various dual innovation platforms, and angel investment platforms provide diverse implementation forms for such market development. This involves both model innovation and many practical explorations of institutional and mechanism innovation, which also provide new promotion for advancing China' s technology transaction market and technology achievement transformation work in line with the times. New area construction should take the lead in piloting these aspects. (12) Combine transaction market and platform construction to promote the development of local online and offline integrated warehousing, logistics, and services. (13) Develop online and offline integrated commercial markets, as these circulation industries will enhance a place' s economic vitality. (14) Promote communication and exchange of ideas, concepts, and new development trends through forums, competitions, and exhibitions to enhance the new area' s ability to respond to and lead transformations.

Build a Vibrant Society

(15) For society to be vibrant, the most important factor is the continuous aggregation of new-generation young knowledge groups. In this regard, developing knowledge, education, and training industries in combination with new era transformation is extremely important, as the knowledge education and training industry itself is a venue and scenario for new knowledge group aggregation. Currently, traditional knowledge education models are undergoing completely new transformations, and experience-based education relying on the internet and combining employment and entrepreneurship is rising rapidly, providing possibilities for developing training and education industries anywhere. Moreover, looking toward the future development of intelligent society, future human value creation and time occupation must rely on continuous knowledge supplementation and ongoing education. Therefore, from Xiongan' s current perspective, the aggregation demand for new knowledge populations creates huge development space and potential for the new area' s training and education industry. Even looking to the future, whether the knowledge education industry is developed directly relates to the region' s prosperity. (16) Promote the development of service industries such as fashion, leisure and entertainment, health services, and cultural consumption. These aspects are beneficial supplements to the new area' s industrial economic development and will continuously enhance the new area' s social vitality and urban appeal. (17) Develop knowledge communities in the new area and activate locally embedded innovation networks. Knowledge communities and innovation networks are extremely important for whether a place can embark on an endogenous innovation-driven development path, which is also the most fundamental reason why the development of Silicon Valley and China' s first-class high-tech zones has become increasingly strong.

Build a Livable and Business-Friendly Urban Area

(18) Looking to the future, the new area' s urban construction must reflect humanistic green ecological civilization. (19) There must be high-quality and efficient public services. From the perspective of Xiongan New Area' s talent needs, developing high-quality primary and secondary education is particularly important in the initial construction phase. (20) Reflect future-oriented smart city construction and operation. Intelligent society is humanity' s future. Looking at the leading and demonstration significance of new area construction, building and operating a future-oriented intelligent urban society is a challenging new task for Xiongan New Area' s construction. For the present, smart city hardware construction still has precedents to follow, but institutional follow-up and governance methods for evolving toward an intelligent society are currently in an inexperienced state globally. This presents Xiongan New Area' s construction with the need to explore institutional follow-up for intelligent society, management and governance of intelligent society, and the mission of providing pioneer-

ing paths and experiences for the intelligent social civilization that China and the world will inevitably enter.

Footnotes:

Banks' general term for high-tech enterprises with good growth potential and leapfrog development momentum.

The famous management master Hermann Simon first defined small and medium-sized enterprises that occupy most of the domestic or international market share but have low social visibility as "hidden champions" in *Hidden Champions: Who Are the Best Companies?*.

In 2013, the famous American Cowboy Venture investor Aileen Lee categorized startups valued at over $1 billion in private and public markets and called these companies "unicorns."

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Author Biography

Wang Shengguang, researcher and doctoral supervisor at the Institutes of Science and Development, Chinese Academy of Sciences, founder and director of the Research Center for China High-tech Zones. His main research areas include national innovation development strategy, science and technology innovation policy, regional innovation, and science park development. His work has supported the formulation of strategies and policies for China' s high-tech zones and high-tech industry development in multiple aspects, earning him honors including the "CAS Academy-Locality Cooperation Advanced Individual Award," "China Torch Program 20th Anniversary Special Individual Contribution Award," and "China High-tech Zone Construction 20th Anniversary Outstanding Contribution Award." E-mail: wangshg@casipm.ac.cn.

Note: Figure translations are in progress. See original paper for figures.