

# Research on the Construction Framework of Innovative City in Tianjin Binhai New Area

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**Abstract:** Innovative city has been an international popular topic in recent 30 years which has strategic meanings to the national and exotic economics, social and regional development. This kind of research has been focal point nowadays. In this paper, the author use the past research on international innovative city for reference, trying to find the orientation of Tianjin Binhai New Area on the innovative city construction, master the foreground of the innovative city construction in Tianjin Binhai New Area, and eventually giving some suggestions on the construction framework of Innovative city in Tianjin Binhai New Area.

**Keywords:** innovative city; framework; sustainable innovation

## 1 Introduction

At the beginning of 2005, the state council has published the Decision to practice the Outline of the Scientific Plan, and Enhance the Capacity of Independent Innovation, formally suggested that the strategic target to construct an innovative country. The outline of developmental plan of long and mid-term science and technology has published soon after this, the National Development and Reform Commission and the Ministry of Science and Technology has published the special plan of Eleventh Five-Plan on scientific development as well which have both caused echoes in the whole country. From place to place, the targets of constructing innovative regions and cities have been set up, varies of regions have made enhancing the capacity of independent innovation and constructing innovative city as the dominant strategy that improve the city's capacity of comprehensive competence. During the Eleventh Five-Plan, the needs of transferring the development style of economy, adjusting the industrial structure, changing the increasing style, developing cycling economy, constructing resources saving and environmental friendly society are more urgent. Depending on the scientific improvement and innovation, realize the transform from "Made in China" to "Create in China", from "Investment-Driven" to "Innovation-Driven", from depending on resources and energy cost to developing the cycling economy, the way of sustainable development has been reached as a strategic consensus in many cities.

## 2 International innovative city

### 2.1 The origin of the research on innovative city

In the 80's last century, after America has experienced the gradual declination of manufacturing, the industrial structure has experienced great adjustments. The hi-tech industry represented by information telecommunications and biology technique has been arise, as a re-

sult leading to the development of neo-economy represented by USA after 90's the last century. Since this moment, the research of innovative city starts.

Since 1996, the Economic co-operation and development organization has suggested that the "Knowledge Economy". The organization has considered that more and more main members' developments are basing on the foundation of knowledge and information, so the creation, propaganda and application is going to be the core of economic development.

Till now, this prediction has been reality. The common cognition of the whole world is: pushed by the urbanization, hi-tech and globalization, knowledge economy which is integrated by elements as information, knowledge, talent and enterprise starting investment, will necessarily develop itself rapidly in the central city which the elemental resources are highly concentrated.[1]

Through the deep research made by western and American developed countries and international organization, there are two orientations as constructing "innovative society" and "creative city" have been formed at the turn of the century.

### 2.2 Representative systematic research on innovative city

In the ranking list of knowledge competence made by the Robert Hutchins association of British think-tank, there listed around 90 cities and city-group regions in Europe, America, Asia and Oceania; from 2003 to 2005, it increases to 125 which has covered North America, Europe, Asia and Oceania(Beijing, Shanghai, Tianjin and Pearl Rive Delta have been listed newly); in the report of 2008, it expands to 145(Jiangsu, Zhejiang and Shandong have been listed newly, Canton replaced Pearl River Delta as an instead). Among those cities, North America occupies 63; Europe 54; Asia-pacific 28. The proportion

has reflected the rough arrangement of innovative city. These cities have been categorized in 5 kinds 19 representatives according to the world knowledge competence index, including: human resources; financial capital; knowledge capital; output of regional economics; knowledge sustainable development.

The World Bank has published its research about Eastern Asia innovative city at 2005 Aug. It has mentioned specially that the orientation of the adjustment of industrial structure is innovative economy in the future which mainly includes three departments: Hi-tech manufacture, especially information and telecommunication technique and the advanced manufacture based on the bio-science techniques; knowledge concentrated services; creative content industry. The qualitative rules the World Bank has made about the East Asian innovative city includes: the capacity of research, explore and innovation; efficiency government control, high efficiency service; have a CBD with good transportation, telecommunication and other fundamental equipment, and sufficient places for business, culture, media, sports and academic activities; own a team of labors that with a relatively high education degree; possess different kinds and high quality choices of residence; pay attention to environmental friendly; accept the collisions and fusions between different cultures.[2]

### **3 The orientation of Tianjin BNA (Binhai New Area)**

According to the discovering and opening strategic orientation of BNA, the orientation of Tianjin BNA as an innovative city, should present as following seven dimensions:

#### **3.1 Serve for the developmental strategy of the country**

From the angle of regional development, even of the whole country's developmental track to choose the task to be focally constructed, to set up a high working standard, satisfying the needs of regional balanced developmental arrangement of the country.

#### **3.2 Lead to the update of the industrial structure**

To conform with the developmental rules of modern industry, the demands of the location as the high-level base of research and discovery, to develop the leading impacts of the strategic ambitious industry and the technical supporting in the updates of traditional industry, to strengthen the industrial capacity of international competence.

#### **3.3 Gather innovative resources and radiating extend**

To gather the industrial and innovative resources in the globe through a broad view and to strengthen the

capacity of radiating other areas, which are both the fundamental functions of BNA's high-level transition base of research and discovery.

### **3.4 The reform of scientific institution and the paradigm of policy innovation**

To try and then practice at first through the innovation of institution and mechanism, to discover the new developmental modal actively, create new working experience, to offer the institutional security for the construction of innovative urban districts.

### **3.5 Construct a highly efficient innovative system**

Insist on oriented by the market, deepen the cooperation between industry, academy and research, to lay stress on the main status of the corporation, to accelerate the construction of BNA's transition base of high-level research and discovery.

### **3.6 Discover an international self-innovative way**

Accelerate the construction of the transition base and innovative urban districts, the opening and internationalized way is necessarily needed. Actively and subjectively afford the international modern manufacturing industry, modern service industry and the move of international research and discovery resources, to participate in the international labor division, assimilate into the big cycle of international economics and science, becoming an significant kitting point of industrial internationalization and the internationalization of research and discovery.

### **3.7 Support the construction of ecological livable districts**

Emphasize on developing innovative developmental green economics, low-carbon economics, cycling economics and ecological environmental friendly, to put forth effort to construct a new ecological livable city which is international advanced, practicable, repeatable, and promotable.

### **4 The construction framework of innovative city in Tianjin Binhai New Area**

#### **4.1**

Set up an international top-level plan as orientation; promote the construction of the innovative international city. Suggest constructing and organizing the committee of the construction plan of innovative international BNA, collect plans from the whole world, aiming at the leading edge of global scientific development, following tightly the orientated target of BNA made by the Party Central Committee and the State Council. Focusing tightly on the central task that serve for the opening and discovering of BNA, set up and practice <The General Plan for Improving the BNA's capacity of self-innovation, and con-

structing the innovative international city>, making endeavors to build an innovative international city.

#### 4.2

Stress on strengthening the industrial capacity of sustainable development, step up the process of self-innovation and industrialization on the focal area. Aiming at strengthening the capacity of the innovation of advantageous industrial techniques and coral competence, focusing on the gathering innovation and import-digest-absorb-reinnovation circle, practice deeply about the informatization of manufacture, the modernization of Chinese medicine, industrial energy conservation and cost reduction projects, and other scientific projects. Organize to practice the focal task of scientific supporting plan, develop the projects sponsored by scientific innovative special funding, actively start a batch of projects of important scientific results transition and industrialization which possess independent intellectual property rights, to accelerate the construction of scientific paradigmatic projects, try to achieve the leap-over development on electronic information, biology, and other focal strategic realms.

#### 4.3

Follow through the way of gathering development, focusing on constructing a batch of hi-tech industrial bases and parks with particular characteristics. On the basis of fostering the construction of high-level modern manufacture and the transition base of research and discovery, step up gradually to "China creates", and then forming "Intelligent Valley" and "Creative City" with international top level. Deepen the cooperation between colleges and regional governments, between universities and corporations; soon construct a batch of scientific research bases, technical invention bases and achievements promoting bases. Keep setting up strategic hi-tech technical innovative bases with particular advantages, making endeavors to construct BNA as an undertaking spot, promoting spot, original spot and industrial base. Eventually, accelerate the construction of international top level research and discovery bases.

#### 4.4

Strengthen the main status of the corporation innovation; actively explore the model of corporation innovation. To promote the capacity of independent innovation of corporation, support corporation to build the research and discovery center, help scientific incubating corporation through increase the investment on research and discovery, step up the industrialization of independent

innovative projects, to encourage corporation's transferring from "one-fresh action" to "sustainable innovation", gradually fostering the independent innovative corporation of "China designs, China invents, China creates and China intelligence". Support the research and discovery organizations of the corporations ally with each other, encourage the large and medium-sized corporation to establish tech-ally among the industry. Construct the technical achievements evaluation institution, and add the increase in value of the intangible assets into the range of evaluation to encourage corporation to raise their investment on research and discovery, and the organic form of corporations' assets. Practice the intellectual property strategy, promote the corporation to construct and refine the institution of intellectual property, and strengthen the protection on independent intellectual property and core technique of the corporation. Encourage the corporation to make endeavor to explore the leading product and the key-tech which possess the independent intellectual property, to handle a batch of core techniques and independent brand possessing the independent intellectual property. Use the incubation as an innovative media, promoting the industrialization of innovative incubation. Foster the independent innovative corporation groups, make endeavors to form an independent innovative echelon of corporations.[3]

### 5 Conclusions

Innovative city still stays in the state of discovery in the globe, especially its complicated system including the innovations and interactions of enormous factors, so Tianjin BNA should according to the reality of itself discover the way of developmental paradigm and construction with particular characteristics.

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