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Non-homogeneous Construction of Xi'an Science and Technology Education Town

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***Abstract*— In 2017, "the Guidelines for the Establishment of Characteristic Towns (Trial Implementation) of Xi'an" announced that the first 35 Characteristic Towns was beginning the construction in Xi'an. At present, under the background of the strategy of building "Big Xi'an" and "innovation and entrepreneurship", the development of characteristic small towns with educational science and technology should emphasize their "quality", take the "non-homogeneous" development path, and resolutely resist uniformity. The basic paradigm of Xi'an's educational science and technology towns is focused on "science + technology + culture + double creation + tourism + education + community". Moreover, "non-homogeneity" construction path need to be emphasized. It takes building their own "characteristic science and education" as the core of the development of production-city integration, supporting the construction of community and education promotion to support the characteristic industries and realize the locality.**

Keywords—non-homogeneous; homogeneous; science and technology education town; improving quality

I. INTRODUCTION

In order to further implement the important guiding spirit of the Central Committee and the State Council on promoting the structural reform of the supply side and speeding up the construction of characteristic towns, Xi'an promulgated "Opinions on Accelerating the Construction of Characteristic Towns in Xi'an" in early 2017. The Opinions give a way to promote the transformation and upgrading of Xi'an's economy and the coordinated development of urban and rural areas.

In 2017 later, the "guidelines for the Establishment of Characteristic Towns" of Xi'an announced that the first batch of 35 Characteristic Towns began their construction in Xi'an. Nowadays, the Characteristic Towns in Xi'an have been breaking their shells by virtue of their innovative advantages. Among them, the Characteristic Towns of science and technology education are gradually becoming the new highlight of "integration of production and city" and the "new fulcrum" of transformation and upgrading [1]. The Characteristic Towns in the wind of opportunity have dual attributes of national policy dividend and investment risk. Therefore, it is very important that who should control the orientation of the characteristic towns. But what kind of characteristics are local needs? Who will grasp the "special" of the town? Who will give Characteristic Towns live? This requires careful consideration by the builders of the town. In view of the scientific research, talents and educational advantages of the contractors would think about how to design the "special" and specific development path and mode of small towns with educational science and technology characteristics.

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II. CONCEPT OF CHARACTERISTIC TOWN

A. Characteristic Town

The Characteristic Town is not a town on the administrative division unit, not a "district" of industrial parks and scenic spots, and not a "big factory". The Characteristic Towns in Xi'an mainly refer to the innovation and entrepreneurship platform which is relatively independent of the urban area, focusing on the characteristic industries and emerging industries according to the concept of innovation, coordination, green, open and sharing development, gathering high-end resources and innovative elements, having a certain scale and strong competitiveness, and having the characteristics of sustainable development. Characteristic towns are characterized by "characteristics", which cann't be duplicated by others. The key to "special" lies in "quality", which is valuable and has core competitiveness [2][3].

B. Science and Technology Education Town

Science and Technology Education Town is a resource gathering area that gathers innovative capital, double-creative talents and science and technology, a future consumption area that covers new-type science and technology cultural tourism and scientific and technological life experience, a space of community, engine interaction and business integration, a safety and comfort, modernization and intelligence. The smart living area is of "technology + culture + double creation + tourism + community + education" [4][5].

III. HOMOGENEOUS AND NON-HOMOGENEOUS CHARACTERISTIC TOWNS

Characteristic Towns are characterized by "characteristics", which can not be duplicated by others. The key to "special" lies in "'quality", which is valuable and has core competitiveness. At present, under the background of the strategy of building "Big Xi'an" and "innovation and entrepreneurship", the development of small towns with educational science and technology characteristics should emphasize "quality", take the "non-homogeneous" development path, and resolutely resist uniformity.

A. Homogeneous performance

The first batch of small towns with educational science and technology characteristics in Xi'an make full use of Xi'an's advantages in higher education, scientific research institutes and aerospace industry. They all carry the following three functions. (1). Science and technology industry complex, including intelligent manufacturing base, science and technology research and development center, science and technology innovation service center, science and technology incubator, science and technology accelerator. (2). Science and technology tourism complex, science and technology theme park, science and technology exposition center, science and technology and culture creative center. (3). People's livelihood service complex [6]. It includes science and technology theme hotel, intelligent hospital, intelligent community management, science and technology talent apartment, etc. They aim at serving the local economy and people's livelihood, speeding up the development of science and education, and promoting the integration of cities and towns [7].

B. Non-homogeneous performance

All kinds of small towns with educational science and technology characteristics in Xi'an should combine their respective characteristics of science and education and resource advantages, differentiate the development of core science and education, and highlight the "characteristics" of small towns. This topic takes the first batch of educational technology featured towns in Xi'an as an example to illustrate the manifestation of “non-homogeneous”. Firstly, Northwestern Polytechnical University's Flying Town is a demonstration town of science, education, production and innovation with the core of "air, sky, earth and sea UAV system"; secondly, Xi'an Jiaotong University's Wisdom School Town of West China Science and Technology Innovation Port is built with the core of "the integrated mode of higher education open running, research and development of science and education and transformation of achievements". Thirdly, the hard science and technology town of Sino-Tech Star Incubator takes "hard science and technology enterprise investment incubation" as the core and "science and technology achievements transformation base" as the overall positioning. Fourthly, the dream town of Chang'an University Town has established a highly complex business innovation ecosphere with the core of "giving full play to the rich scientific research resources of universities, selecting dominant disciplines and attracting alumni". Fifthly, the characteristic towns of Xi'an Weapon Industry Science and Technology Industry Base are military science and technology towns with "military-civilian integration" as the core.

C. Feasibility analysis

Xi'an is a global capital of hard science and technology, which fully conforms to the law of development, has a solid foundation of science and education, abundant human resources, and has "factorial" development space.

2017 is the starting year of the construction of Characteristic Towns in Xi'an. There will be more policy dividends in the construction of characteristic towns with educational science and technology. In the future, there will be more types of approval plans for characteristic towns with educational science and technology.

D. The specific path and principles

Although the educational science and technology-type Characteristic Towns in Xi'an take “science and technology + culture + double creation + tourism + community” as the paradigm, each scientific and technological town takes the path of “non-homogeneity”, and separately takes the building of their own “characteristic science and education” as the core of the integration development of production cities, supporting the construction of community, Education promotion and other supporting characteristic industries, so as to realize the locality.

The development path of Xi'an Jiaotong University's wisdom school town in West China Science and Technology Innovation Port is based on the four major sectors of "scientific research + experience + incubation + comprehensive service + education". Combining the modern idyllic city concept with the international frontier "school town" concept is an innovative body of "campus, Park and community", a comprehensive body of technology and service, and a combination of science and technology and industry. It is committed to building a large sample of higher education reform in China and a sample of Xixian with Chinese characteristics in urbanization.

Northwestern Polytechnical University's Flying Town takes “Unmanned System + Big Scientific Device” as its main technology, and develops basic education and other tertiary industries as its development path.

The form of Science and Technology Town is shown as Fig. 1.

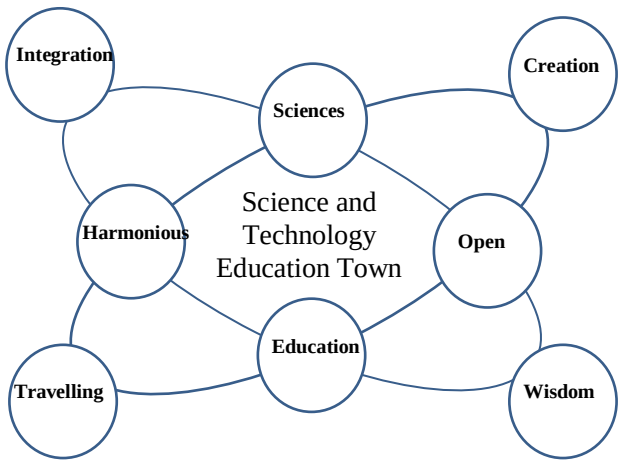

Fig. 1. The form of Science and Technology Town

1) Pay attention to the agglomeration of new industries.

In terms of optimizing the layout and forming new industrial agglomeration, the first is to make industrial choices within the framework of industrial development in the region, taking into account the local conditions, resource endowments and characteristics. In the future, industries should have strong driving force, large market demand, strong innovation ability and outstanding advantages. Two, innovation resources should

be concentrated on this region and pay attention to the formation and development of industrial agglomeration. We should focus on the cultivation of characteristic industries, take the unique industrial positioning as the core, form an industrial system with market competitiveness and sustainable development characteristics, build a complete industrial circle around a single industry, form an initial industrial cluster, take the road of innovation and development, talent entrepreneurship, and promote mass entrepreneurship and universal innovation.

Xi'an has a good economic development trend and great potential for innovation and development in science, education, talent, military industry and regional advantages. The Chinese Academy of Sciences has always been the locomotive and national team of national scientific and technological innovation. The development of Xi'an needs the deep participation and support of the Chinese Academy of Sciences. In order to strengthen cooperation between the two sides and jointly build the Xi'an Science Park of the Chinese Academy of Sciences, Wang Yongkang, Secretary of the Xi'an Municipal Committee of the CPC, said that it was proposed to build a concentration area for scientific research institutions in the light of the advantages and local needs of the Chinese Academy of Sciences; to guide and help Xi'an better seize the opportunities and plan to settle in a number of large scientific installations; to meet the needs of the grounding Innovation Platform Agglomeration Zone; Establish a number of R&D platforms, industrial parks and incubators; Establish an innovation system with enterprises as the main body, accelerate the integration of production, education and research and the transformation of achievements, and build the Science Park into a comprehensive reform, experiment and innovation park.

2) Improving business environment

We should build a more perfect innovation system and market environment, improve the development environment of enterprise innovation, provide high-quality services, and make entrepreneurship innovation more convenient and fast. We should actively study and formulate specific policies and measures, consider how to achieve effective management of resources, and give strong policy support to the planning and construction of science and technology towns. The town has the functions of self-operation and management, entrepreneurship incubation and service, innovation ability of public technology innovation platform and development service.

Create livable humanistic environment, highlight building style, landscape facilities and humanistic environment with distinct personality, actively create a green, clean and comfortable development pattern, and create a work and living environment to give full play to the wisdom of high-end scientific research personnel.

Give financial support. We should give certain financial subsidies to the science and technology towns created, play the role of capital, explore multiple investment channels, and guide and encourage financial institutions to give financial support to the construction of science and technology towns. Widely attract social capital to participate in the construction of science and technology towns, increase the investment opportunities of private capital, and effectively attract the investment of social capital.

IV. RESPECT THE WAY THE MARKET OPERATES

We should further clarify the relationship between the government and the market, adhere to the government's guidance, enterprise's main body and market operation. While fully respecting the decisive role of the market in resource allocation, the government should consciously combine the structural supply management with the aggregate demand management. On the one hand, we should clarify the role and responsibilities of the government. The government is not an investor, but a policymaker and supervisor. On the other hand, the government should adhere to the market-oriented mechanism and activate the micro-economic main body. And enhance the competitiveness of the industry. We should encourage social capital as the main investment; explore financing paths such as industrial funds, equity crowdsourcing and PPP, and give full play to the decisive role of the market in the allocation of resources.

We should define the main body of investment and construction, introduce leading enterprises, give full play to the main role of leading enterprises in planning and construction, and give the right of choice to enterprises and market in industrial selection. Strengthen investment attraction, carry out small town promotion activities, and attract backbone enterprises, high-quality projects to settle in science and technology towns. The second is to carry out incremental reform. The government needs to loosen more departments and let social capital invest more in emerging and high-end industries. Thirdly, we should strengthen government guidance and service guarantee in planning, approval process, supporting infrastructure, resource factor guarantee and ecological environment protection.

V. CONCLUSION

This paper discusses how to design the “special” and specific development path of small towns with educational science and technology characteristics. The homogeneous and non-homogeneous of Xi'an Science and Technology Education Town were analyzed. In view of the feasibility of planning and building a small town in Xi'an, the specific path and principle of building a small town with educational science and technology characteristics are given, which is of great significance to improving the quality of small town construction.

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REFERENCES

[1] S. O’meara, “Taking the Silk Road to High-tech Growth”, Nature, J. United kingdom, vol. 563, 2018, pp.25-27.

[2] Q. Li, “The characteristic town is the strategic choice of Zhejiang's innovation and development”, Today Zhejiang, J. China, vol.24, 2015, pp.31-32. (In Chinese)

[3] Y. Zhang, G. Meng, “Watch out for Homogeneity in the Construction of Characteristic Towns”, China Economic Times, J. China, vol.4, 2017 (In Chinese)

[4] X. Wang, “Characteristic town and general” , Zhejiang Social Sciences, J. China, vol.5, 2016 (In Chinese)

[5] K. Kong, “The construction of Characteristic Towns under the background of new urbanization”, Macroeconomic Management, J. China, vol. 12, 2016. (In Chinese)

[6] C. Yin, “The core of developing characteristic towns is industrial development”, China Newsweek, J. China, vol. 9, 2016. (In Chinese)

[7] X. Gu, “Research on the Operating Mechanism and Construction Path of Science and Technology Support System for Characteristic Towns”, Jiangsu Social Sciences, J. China, vol. 11, 2017. (In Chinese)