WTR 2015;4:247-258 http://dx.doi.org/10.7165/wtr2015.4.4.247

OPEN ACCESS

Innovation Ecosystem Building in TusPark: Batch Transformation Mechanism of TusPark Nanotechnology Achievements

Herbert Chen[1*] and Quanhong Shen[2]
TusPark, Beijing, China

1. INTRODUCTION

To bridge research and industrialization and achieve true gathering and supporting effect of nano industry, links between the two must be well managed. With platform of the incubator as the core, TusPark has proposed and implemented a mechanism to integrate politics, industry, academy, research, finance, intermediary, media and many other innovation resources, innovate and incubate nano technology achievements and realize the mechanism of mass industrialization.

During the Process, incubation platform of the TusPark is the core drive. Under the support and instruction of Beijing Municipal Science and Technology Commission, the incubator of TusPark carries out project research and constructs new professional nano incubator on basis of Tsinghua University, Chinese Academy of Sciences and other research resources as an advantage and in consideration of its own actual conditions for entrepreneurship and incubation as well as successful experience of professional nano incubation platform both at home and abroad.

2. OVERVIEW

2.1 Rapid Development of Global Nanotechnology Industry

The development of nanotechnology will bring a huge impact on social and economic development, national security, people's lifestyle, and production method in the 21st Century; therefore, as the new materials and emerging technologies with great market potential and development prospect, nanomaterials and nanotechnologies have been universally concerned by all the countries in the world. In order to improve the country's competitiveness and occupy the strategic highland of nanomaterials and nanotechnologies, the government in recent years has formulated relevant development strategies and plans and invested heavily in the research and development of nanomaterials and nanotechnologies, focusing on promoting the industrialization of nanomaterials. Generally speaking, technological achievements are being transformed toward specialization, and they can be congregated to realize industrial scale and reduce transformation cost to a certain extent. Meanwhile, during the construction and operation process of technological achievement transformation bases, there should be an industrial circle to guide and lead the R&D institutions to improve R&D efficiency and achievement transformation efficiency.

2.2 Beijing Nano Zooming Project

Nanotechnology industry, as an emerging industry with platform support, is attracting more and more attention of governments and enterprises. Along with the implementation of the 12th Five-Year Plan of China, nanotechnology industry is always treated as a top priority no matter in the Nanotechnology Research - 12th Five-Year Special Planning of National Major Scientific Research Plan issued by the Ministry of Science and Technology, the Suggestions on Accelerating the Development of Strategic Emerging Industries in Beijing issued by Beijing Municipal Science & Technology Commission, or the relevant-industry supporting and guiding policies of

*Correspondence to : Herbert Chen
Vice President, Tuspark (Tsinghua University Science Park), China
E-mail : chenhongbo@tuspark.com

World Technopolis Review

WTR 2015;4:247-258 http://dx.doi.org/10.7165/wtr2015.4.4.247

Zhongguancun National Innovation Demonstration Zone.

"Beijing Nano Zooming Project" was launched recently to carry out researches on key nano-industrialization technologies, investigate for the batch transformation mechanism, construct Nano incubators and common open platforms, and perfect the Nano industrial layout. By 2015, the technologies, human resources, and industries in the field of Nano are expected to have developed in a congregation manner, with one national demonstration base established for the batch transformation of nano-technological achievements to realize annual output value of more than RMB 20 billion in the nano industry, striving to become a world-class nanotechnology innovation center and a high-end cluster area leading nanotechnology industry.

During the construction of nanotechnology industry, a nanotechnology industrial park was tentatively constructed in 2012 at Huairou Yanqi Economic and Technological Development Zone. Meanwhile, 34 national research institutions, accounting for 1/3 of nano-science and technology resources of China, are gathered in Beijing, including the National Center for Nanoscience and Technology, Tsinghua University, Institute of Chemistry, the Chinese Academy of Sciences, and the Central Iron & Steel Research Institute. They undertake nearly half of national projects every year and their published papers and applied patents account for nearly half of that in China. In 2013, Beijing Huairou Yanqi Industrial Park was approved as a national nano industrial park.

2.3 Incubator--An Effective Carrier for Innovation and Entrepreneurship Services

The incubator, fully named as Business Incubator, was called as Entrepreneurship Center when introduced into China. It is a technological innovation service carrier, which aims to promote technological achievement transformation and develop high-tech enterprises and entrepreneurs. It originated in the middle 1950s and has developed for more than 50 years. The world's first business incubator was born in 1959 in upstate New York. Its founder Joseph Mancuso acquired a 22-acre abandoned factory, divided it into small blocks, and rented to different enterprises, finally took advantages of family influence and business channels to help new enterprises survive and develop and attract more venture enterprises through visits, face-to-face business talks, customized services and provision of labors.

Wuhan East-Lake Hi-Tech Innovation Center, the first business incubator, was founded in June 1987, marking China's incubator industry entering rapid development. In December 2012, the State Council issued the 12th Five-Year Development Plan for the Service Sector and proposed the ideas of vigorously developing science and technology service industry, actively developing innovation services, fostering entrepreneurial service format, energetically promoting "incubator + venture investment", actively developing science & technology financial services, encouraging innovation in science & technology financial business, establishing science & technology financial integrated platform, and providing differentiated financial services to enterprises. It is required by the Plan to foster a number of technology service enterprises with strong innovation capacity, high service level, and great leading influence in the "12th Five-Year Plan" period, in order to form a series of technology service industrial bases and clustering areas, which have distinctive characteristics and outstanding advantages. This brings strategic opportunities, as well as higher requirements, to the incubator industry.

3. STRATEGIC UPGRADING OF TUSPARK BUSINESS INCUBATOR MODEL

3.1 Successful TusPark Incubation Model

TusPark Business Incubator is the soul of TusPark, serving as an innovation source of the whole Park, and ranked first among the three functions, i.e., entrepreneurial business incubator, technological achievement transformation, and innovative talent training.

—— Mei Meng

Director, TusPark Development Center

TusPark Business Incubator was founded in 1999 and incorporated in 2001, taking "incubator + seed investment" as the development model and specialized incubator as the development target. The Incubator is listed among the national incubators recognized by the Torch Center, the first batch of pilot agencies of Beijing Science & Technology Platform, the first batch of partners of Haidian District enterprise service system, Beijing small entrepreneurial bases, and Beijing strategic emerging industries incubators. In the past 14 years, TusPark Business Incubator has grown together with the enterprises in the park by integrating innovation resources and establishing entrepreneurship platform, incubated more than 1,000 enter-

prises, trained a large number of outstanding companies, including 36 Diamond companies, 9 "Golden Seed Project" enterprises, 64 talents under the "1000-Talent Plan", "Overseas Talent Pooling Program" and "High-end Leading Talent Pooling Project", and helped 9 companies successfully go listed.

"4-Focalization" Model

Relying on TusPark as the carrier, TusPark Business Incubator proposed and practiced the development model cored by "congregation, polymerization, focalization and achievement, providing innovation and incubation services to the enterprises. In the past decade, domestic business incubators commonly used this development model as operation model. "Congregation" includes space, enterprise, technology, and talent gathering. Within 720,000m^2 in the Tsinghua Science Park, TusPark Business Incubator has gathered nearly 500 high-tech entrepreneurship clusters, multinational R&D institution clusters, financial and investment institution clusters. "Polymerization" covers industry-university polymerization, industry-industry polymerization, industry-intermediary polymerization and government-industry polymerization to create an entrepreneurial environment, which is fully integrated with innovation resources including government, industry, university, research, finance, intermediaries, trade and media. "Focalization" means to put technologies, talents, capital, market and other resources into superior industries and enterprises. With congregation, polymerization and focalization, TusPark Business Incubator has formed the fusion of a number of world-class enterprises, leading core technologies and creative talents.

"Incubation + Investment" Mode

TusPark Business Incubator, early at its foundation, developed an "incubation + investment" model for development and focused on investing high-tech enterprises with the highest innovation capacity in China. Relying on abundant resources of Tsinghua University and TusPark, TusPark Business Incubator has become a leading organization in Tsinghua in-

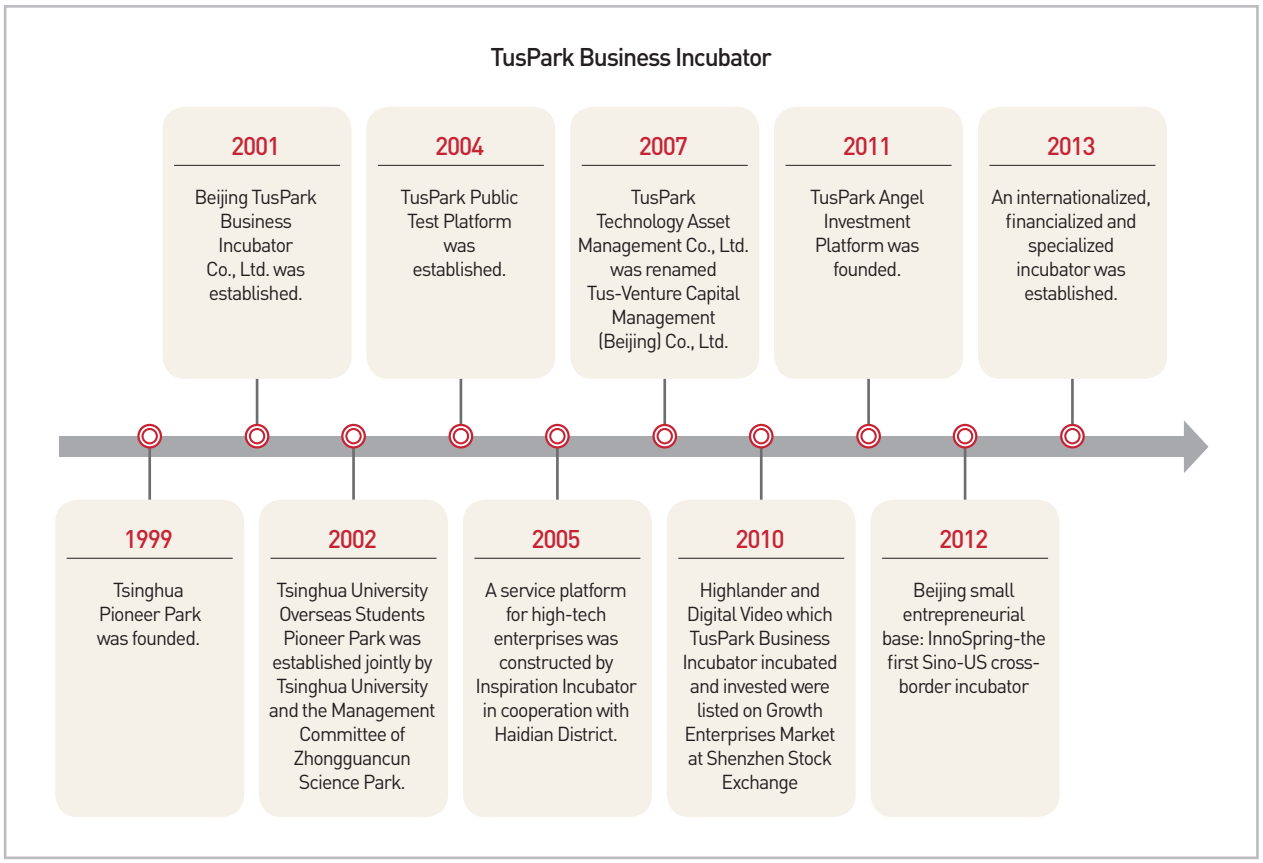

Fig. 1. TusPark Business Incubator Memorabilia

WTR 2015;4:247-258 http://dx.doi.org/10.7165/wtr2015.4.4.247

dustrial system which focuses on "incubation + investment". By carrying out seed investment in the early projects, TusPark Business Incubator has actively promoted the industrialization of universities' technological achievements and completed the investment in dozens of venture companies, which then enjoyed sound growth.

"Diamond Plan" Focalization Mode

"Diamond Plan" was launched in accordance with the "4-focalization" mode, aiming to develop high-tech companies with world-class technologies and leading position in the industry. In the Plan, various resources from domestic and foreign universities, enterprises and governments are integrated in terms of capital, technologies, talents and industrial chain, to give full support and assistance to a number of candidate "diamond" enterprises, which are elected from TusPark Business Incubator and investment companies, and then develop them to be "diamond enterprises" that own world-class technologies and leading position, with a great influence on the development of China and even the whole world. Since 2007, Tus-Holdings Company has totally selected 36 diamond enterprises in 5 batches. At present, 8 have been successfully listed and 4 acquired, all of which have become the innovation pillars in the development of all fields.

"Three-Dimension" Incubation Model

Tus-Holdings takes full responsibility for the development and operation of TusPark, and has successfully built a nationwide innovation system taking Science Park as the carrier. The radiation network covers more than 30 cities and regions. Taking the radiation network as the carrier, Tus-Holdings successfully implemented the "three-dimensional" incubation model (also called TusPark (Kunshan) Model) for technological achievements and entrepreneurial projects. The first "dimension" means to promote school-enterprise cooperation along with the extension of industrial development and to create an industrial chain. For example, under the impetus of Tsinghua Science Park, Extra-large-tonnage Press Project, one of major research projects of Tsinghua University, is settled in TusPark (Kunshan), and industrial chain is initially formed. The second "dimension" is to build a public platform around local industry. Many manufacturing and equipment enterprises had no innovation support in Kunshan, so TusPark (Kunshan) constructed an advanced manufacturing innovation center, established extensive connection with the Department of Mechanical Engineering, Department of Precision Instrument, Department of Electronic Engineering and other relevant departments of Tsinghua University, promoted the connection of about 30 projects of relevant departments with Kunshan, and implemented more

Table 1. Successful Cases under the "Incubation + Investment" Model of TusPark Business Incubator

Name	Field	Listing, Merger & Acquisition	Duration of Incubation	Time of Investment
Beijing Digital Video Technology Co., Ltd.	Electronic Information	Growth Enterprises Market	2000-2010	Year 2001
Beijing Spreadtrum Hi-Tech Communications Technology Co., Ltd.	Electronic Information	NASDAQ	2005-2007	Year 2005
Beijing Highlander Digital Technology Co., Ltd.	Electronic Information	Growth Enterprises Market	2008-2010	Year 2009
Beijing Voyage Media Co., Ltd.	Culture & Media	New Third Board	2011-present	Year 2011
Beijing Northland Biotech Co., Ltd.	Biomedicine	New Third Board	2007-2009	Year 2007
Beijing Smartdot Technologies Co. Ltd.	Electronic Information	Merger & Acquisitions	1999-2011	Year 1999
Beijing Ereneben Information Technology Co., Ltd.	Electronic Information	Merger & Acquisition	2010-2012	Year 2010

than 10 projects. For the third "dimension", the Park is committed to construction of industrial innovation base on the basis of innovation platform, and introduces siRNA R&D Project of Liang Zicai, the siRNA chief scientist of National "973" Plan under the support of Kunshan municipal government and the impetus of TusPark, then builds biotechnology public service platform and establishes a siRNA industrial innovation base, forming a common perspective of "Kunshan is the right place for nuclear acid study" in the industry.

3.2 TusPark Incubation Model Upgrading - Tus-Star

> *We believe that the future innovation and development of technology enterprises are driven mainly by financial service. Whether we can provide the enterprises with venture capital, business counseling, corporate governance counseling, and listing counseling"...Just like the seeding needs soil and more rainwater and sunshine in its growth process, the enterprise also needs its own rainwater and sunlight---financial services.*
>
> *——Jiwu Wang*
> *President, Tus-Holdings Co., Ltd.*

Facing the future, Tus-Holdings has put forward the strategic requirements for incubator upgrading, made all efforts to create an internationalized, financialized and specialized incubator, and proposed innovation plan for Tus-Star. Therefore, the establishment of a new nanotechnology-oriented incubator becomes a new attempt in the strategic updating of TusPark Business Incubator; in this way, Tus-Star (Nano) Incubator is emerged.

Financialization: to create a financial incubator of Venture Capital + Investment Banking + Incubation

After experiencing the "incubation + investment" stage, TusPark Business Incubator has stepped into the "investment banking + incubation" stage, namely, the investment banking model: financial services which integrates various resources to provide the whole industrial chain to the enterprises, not just investment. In the past 10 years, Tus-Holdings innovated and guided the incubator model of "incubation + investment". Facing the future, Tus-Holdings proposed the strategic updating of incubator model to improve the supporting capability of financial service in the whole cycle US of enterprise development. Tus-Holdings and Lenovo invested in Beijing Ereneben for three years and then helped it and Tsinghua Tongfang to achieve the acquisition, which is a new successful attempt of new incubation model of Tus-Holdings. In this stage, the incubator is featured by a throughout business sector "industry, finance, incubation plus listed companies", forming a comprehensive operational capacity of "venture capital, investment banking + incubation". Currently, the financial services platform Tus-Financial Group has developed an incubation system integrated direct investment, credit, investment banking and comprehensive financial services. The capitals and assets under the management of Tus-Venture Capital Management (Beijing) Co., Ltd. are up to RMB 2 Billion, and the investment is oriented toward information technologies, life technologies, clean technologies, creative industries and modern services. In addition, TusPark Angel Investment Platform controls RMB 200 million, which was invested in the early stage of the "Angel" Program, including TusPark Business Incubator Investment Funds, Ginkgo Angel Investment Funds, Tenry Venture Investment Funds, and AAMA Angle Funds.

Specialization: to create a specialized incubator for new nanomaterials, biomedicine, mobile Internet, and other themes

According to national intermediate- and long-term science and technology development plan, taking the construction of an innovation country as a strategic objective, sustainable development as a strategic direction, and the combat for economic and technological highlands as a strategic priority, the strategic emerging industries are gradually turned to the dominant force in economic and social development, and the priority is given to the development of such industries related to energy-saving and environmental protection, new generation of information technology, biotechnology, high-end equipment manufacturing, new energies, new materials, and new energy vehicles. In June 2013, according to Management Methods for Innovative Industry Cluster Pilot Identification (GKFH 2013 No. [230] Document), the Ministry of Science and Technology has identified and announced 10 industry clusters as the first batch of innovative industry cluster pilots, including Mobile Internet Industry Association, Baoding New Energy and Smart Grid Equipment, Wuxi High-Tech Zone Intelligent Sensing System, and Zhuzhou Rail Transportation Equipment Manufacturing.

According to the direction of national focus on the development of strategic emerging industries, Tus-Holdings gives full play to its own advantages and characteristics in the field of specialized incubator to further enhance the construction of specialized incubator. In 2013, Tus-New Nano Incubator estab-

WTR 2015;4:247-258 http://dx.doi.org/10.7165/wtr2015.4.4.247

lished Nano Science Incubation Base under the support of Beijing Municipal Science & Technology Commission. With nanotechnology regarded as one of the development directions of emerging strategic industries, "Beijing Nano Zooming Project" was proposed in Beijing. Tus-Incubator is located within 5,000m^2 in the core zone of TusPark, taking nanotechnology as the key incubation objective, gathering nanotechnology achievements, establishing entrepreneurship and incubation base, connecting industrial channel, and further improving nanotechnology industrial chain in Beijing. Tus-Incubator employs professional service platform, special supporting policies and achievement-oriented transformation to provide fast and efficient incubation services for the entrepreneurs. Until recently, Tus-Incubator has actively promoted and facilitated the Supercapacitor Project of Jisheng Xingtai Tai (Beijing) Technology Co., Ltd. and the first nano-scale "carbon silk" atomic production line developed by Academician Fan Shoushan, Tsinghua University to settle down in Beijing Nanotechnology Industrial Park in Huairou Yanqi Economic and Technological Development Zone. In addition, Tus-Holdings Company conducts the construction of biomedical specialized incubator and mobile Internet specialized incubator with biomedical investment funds and mobile Internet open platform.

Internationalization: to perfect international incubation project undertaking platform

In the course of providing services to innovative entrepreneurs, we find that the challenge encountered by technological innovation-oriented enterprises is global competition, so our vision should commit to the global perspective. In the 21st Century, technological innovation has become a strong power to drive the development of the world, and innovation & entrepreneurship boom has continually lasted for a long time. In order to cope with global market competition, Chinese entrepreneurs, apparently not satisfied with domestic resources, ask for more capitals, technologies and talents around the world. However, many entrepreneurs from the United States look for future markets in China, and they desire more urgently for resources, platforms and landing support from China. Meanwhile, many returned overseas students start up companies in China but most resources are introduced from foreign countries, so they have to become a "flying trapeze". It is all quietly confirmed that incubators need to go abroad to meet new challenges.

Following the formal foundation of InnoSpring, the first Sino-US cross-border incubator by Tus-Holdings Co., Ltd., Silicon Valley Bank, Shui On Group and Northern Light Venture Capital in April 2012, TusPark signed the Understanding Memorandum on Cooperation with Zhiguli Valley Technopark in July 2012, and both parties discussed on the incubator construction under the framework of the memorandum. In September, the delegation of Tus-Holdings visited Imperial College to prepare for the establishment of an incubator in the UK. In 2013, Tus-Holdings Company further accelerated the expansion of international cooperation channels, and signed a strategic cooperation agreement respectively with Korea Gimpo Science Park, Israel Haifa Science Park, and Hong Kong Science Park. With great efforts of Tus-Holdings, an international platform network undertaking incubator projects has been gradually shaped out.

Networking: to build TusPark Business Incubator network system for online and offline interactive support

In order to essentially break the spatial constraints on the development of entrepreneurship incubator, on the basis of the exploration on the reproducibility of incubator operation model, Tus-Holdings gradually forms a spatial incubation support network, which covers main international and domestic innovation zones. Moreover, Tus-Holdings Company also utilizes network informationization technologies to establish online innovation incubation service platform—Tus-Service Network, further realizing TusPark Business Incubator network system for online and offline interactive support.

Tus-Service Network has the following features: taking the network as the carrier to integrate innovation information and elements, constructing a networks to form a standardized management system that is highly integrated with various information, resources and services; the system breaks through the geographical restrictions, facilitates the promotion and replication, and realizes "three breakthroughs" to facilitate the efficient configuration and utilization of resources. Firstly, break through the restrictions of the traditional incubation carrier. Specifically, take information network as the carrier, put TusPark Business Incubator's experience into practice, form a standardized model, and promote and copy the model in incubation network through "master site - sub-site group". Secondly, break through the restrictions in data sharing and matching. In detail, unify all interface platforms on the basis of "Cloud Computing" concept to realize data integration and sharing among incubation platforms and effectively promote high-efficiency matching of innovation resources at low cost.

Fig. 2. TuswPark Networking

Thirdly, break through the constraints in geography, industry and other tangible resources. In other words, flexibly and actively realize the online integration of various innovation resources including government, industry, university, research, finance, intermediaries, trade and media, according to market changes and business needs, and promote the innovation and upgrading of regional industries through operating incubators.

Innovation incubator: to discover one new incubation model of "integration of four industries" - "Tus-Star"

Since 2009, a number of innovative incubators emerged in China, including Innovation Works, Garage Cafe and Legend Star. Instead of taking physical space as the carrier to gather and incubate enterprises, these incubators promote the establishment and rapid development of the enterprises through early investment, integration of industrial chains and resources, establishment of professional technical platforms, counseling of entrepreneurial mentors, and other proactive services. A batch of innovative incubators with new operation mode and strong innovation capability become the most vigorous new force of business incubator system, initially forming a new pattern of innovation service industry with the participation of state-owned capital, private capital, associations, non-government enterprises, and other social organizations under market-oriented operation.

Based on the traditional incubator model, Tus-Holdings will further combine multi-year experiences to launch the "Tus-Star" Plan, gather worldwide innovation projects and entrepreneurs which have leading innovative technologies and technology-based business model, and employ new incubation method of "integration of four industries" (incubation service + entrepreneurship training + angel investment + open platform) to gather high-quality entrepreneurial resources, train entrepreneurship leading talents, connect "Diamond Plan", and produce a number of world-class influential enterprises. Inspiration to create a chain of financial services to support the entire platform will be the powerful driving engine of "Tus-Star" Development Program, similarly, "Tus-Star" combined with "Diamond Plan" will also inspire the work of promoting financial services platform to be an important starting point and the carrier.

New Case: Tus-Star (Nano) Specialized Incubator

To open up the R&D and industrialization path to achieve true gathering and supporting effects of nanotechnology industries, they should be well linked. Tsinghua Science Park has proposed and implemented a mechanism that takes science park incubator platform as the core, integrates multiple innovation resources including government, industry, university, research, finance, intermediaries, trade and media, then innovates and incubates nanotechnology achievements, finally achieves mass industrialization.

One nanotechnology achievement transformation mechanism as explored in Beijing, which focuses on science park

WTR 2015;4:247-258 http://dx.doi.org/10.7165/wtr2015.4.4.247

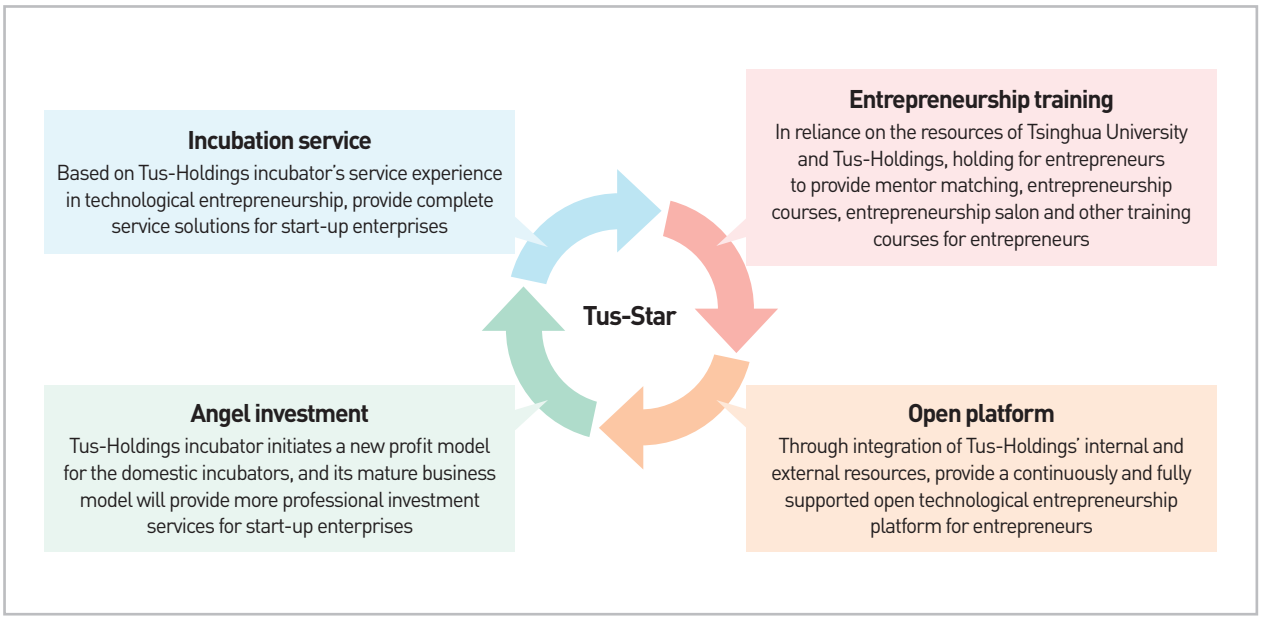

Fig. 3. the "Tus-Star" Plan

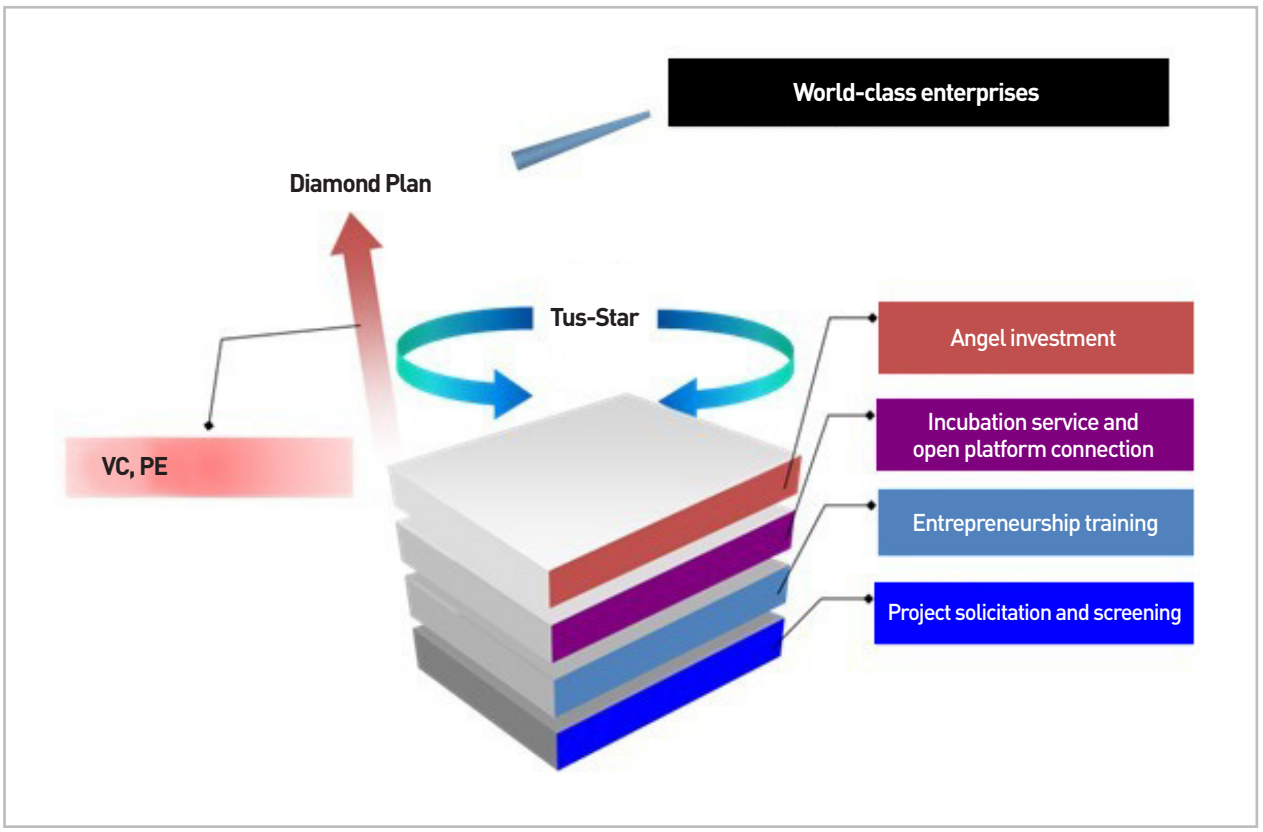

Fig. 4. Diamond Plan

incubator platform, namely, give full play to the leading role of the New Energy and New Material Division of Beijing Municipal Science & Technology Commission in policies, the industrialization bearing function of Beijing Industrial Park, and serving capacity of various nano-industrialization service intermediaries to explore an effective model with effective linkage, governmental guidance and market mechanisms.

Throughout the mechanism, the science park incubator platform is the core driving force. Taking Tus-Star (Nano) Specialized Incubator (or called TusPark Nano Specialized Incubator, the first nano specialized incubator in Beijing), for example, under the support and guidance of Beijing Municipal Science & Technology Commission, TusPark Specialized Incubator takes full advantage of research resources from Tsinghua University, the Chinese Academy of Sciences and other institutions, combines actual business and incubation conditions, and learns from the successful experiences of foreign and domestic nano professional incubation platforms to carry out project researches and new nano specialized incubator construction.

New nano specialized incubator highlights on the full industrial-chain service, from project R&D stage, achievement transformation, to centralized mass incubation. Meanwhile, the whole industrial chain is supported by the feedback and guidance of nano industry so as to control R&D direction and realize major breakthroughs and efficient incubation. Finally TusPark Specialized Incubator connects project industrialization to Beijing Nanotechnology Industrial Park and other industrial bases, in order to achieve the congregation of nanotechnologies in industrialization stage. With the above measures, the channel to nano industrialization is opened up to make nanotechnology become a true key technology to support the industrial upgrading in Beijing and even in the whole society.

Nano Professional Incubation Base: Under the guidance of the Beijing Municipal Science and Technology Commission, Tus-Holdings new nano incubator platform was awarded with the plaque for establishment and taken as the executor of promoting nanotechnology achievement transformation. Beijing Municipal Science and Technology Com-

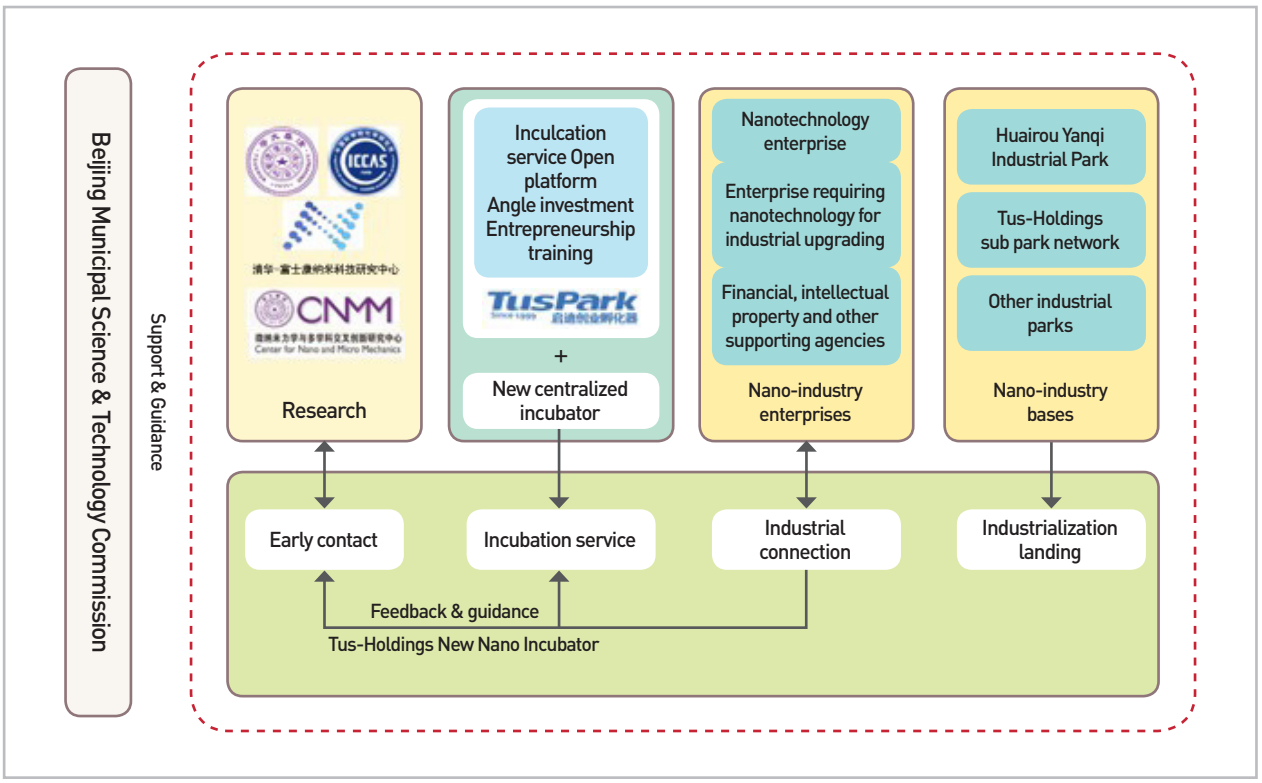

Fig. 5. Batch Transformation Mechanism of Nanotechnology Achievement Taking Incubator Platform as Core

WTR 2015;4:247-258 http://dx.doi.org/10.7165/wtr2015.4.4.247

Fig. 6. TusPark Nano Incubator

mission is responsible for the management, assessment and support for the identified incubators, encouraging them as market- oriented mechanisms to participate in the transformation of nanotechnology achievements, actively joining the exploration, transformation, investment, industrialization landing and other promotion activities of nano projects. The following picture shows Tus-Star (Nano) Incubator (i.e., TusPark Nano Incubator) which is the first Beijing nano specialized incubator identified by the New Energy and New Material Division of Beijing Municipal Science & Technology Commission.

Project Investigation & Review: Relying on the incubator, the investigation mechanisms to establish nanotechnology achievements and the nano project reserve have been established, followed with reviews for enterprises planned to settle in the incubator and selection of high-quality promising nano incubation projects into the incubator for project incubation.

Entrepreneurship Training: Systematic trainings have been provided for nano industrial projects and entrepreneurs within the incubator through Beijing NanoBusiness Salon, TusPark Entrepreneurship Salon, TusPark Entrepreneurship Initiative, and other brand series of training activities, so as to help realize the transition from research personnel to entrepreneurs as soon as possible.

Venture Capital: TusPark Business Incubator has invested in multiple enterprises for nanotechnology projects, including Jisheng Xingtai Tai (Beijing) Technology Co., Ltd., Beijing UNIFLY Scientific and Technology Company Limited,

Fig. 7. Review on Enterprises for Entering the Incubator

Fig. 8. Crystal Plaque for Individual Enterprise Settled in the Incubator (Nano Specialized Incubator Reserved Project)

Beijing U-Precision TECH Co., Ltd., Hyperstrong Technology Co., Ltd., Shenogen Pharma Group, Shenzhen Wald Electronics Co., Ltd., Hi-Print Technology Co., Ltd.

Table 2. Entrepreneurship training activities of TusPark Entrepreneurship Salon

S/N	Time	Theme
1	2012.2.22	Talent Policy Talk
2	2012.3.15	International Patent Application and Foreign Patent Portfolio Strategy
3	2012.4.17	High-end Talent Interview Practical Analysis
4	2012.5.8	Market Promotion Forum on "New Third Board"
5	2012.5.31	Intellectual Property Roundtable Symposium
6	2012.6.20	Special Section in Tsinghua Returned Students Pioneer Park of Zhongguancun Returned Overseas Student Top-level Entrepreneurial Project Promotional Seminar
7	2012.6.22	"Returned Overseas Student Cutting-edge" Salon of Zhongguancun Special Talent Zone
8	2012.7.19	"Attract Investment & Gathering Strength" Venture Capital Experience Exchange
9	2012.12.18	Lecture on China's Capital Market Development and New Development Opportunities for New Third Board
10	2012.12.28	2012 TusPark Business Incubator's New Enterprise Reception and Plaque Awarding Ceremony Held for Settled Enterprises
11	2013.1.15	Seminar on Nanotechnology Development Trends and Policy Interpretation
12	2013.3.28	Software Copyright Registration
13	2013.4.18	Talk on Beijing Science and Technology Policies
14	2013.4.25	Business Secret Risk Control
15	2013.5.9	Innovation Fund Application Practices
16	2013.5.23	Financial & Tax Planning Skills for SMEs
17	2013.5.30	Response Plan for Legal Risks in Recruitment, Employment and Probation
18	2013.6.7	Talent Policy Talk
19	2013.6.8	"Tsinghua Venture Industry" Community Foundation Salon
20	2013.6.20	Symposium on Intellectual Property
21	2013.6.27	Interpretation and Training on High-tech Enterprise Designation and Review Policies
22	2013.7.4	Beijing Nano Zooming Project Salon
23	2013.7.18	New Media Marketing Salon
24	2013.7.26	New Settled Enterprise Reception
25	2013.8.1	Training on New Technology & Product (Service) Recognition Policies
26	2013.8.8	"3D Printer Connecting Your Image with All Things" Salon
27	2013.8.15	"Huawei 4G, Not Only a Bit Faster" Salon
28	2013.8.22	Corporate Brand PR Communication - Exchange of News Writing and Photography Skills
29	2013.8.29	Israel Investment Seminar and "Health Care" & "Modern Agriculture" Project Special Roadshow
30	2013.9.5	Sharing of Employment Document Modification and Risk Response Plan
31	2013.9.12	Sharing of Business Photography Skills
32	2013.9.17	Nano Section of New Product Launch in Strategic Emerging Industry Incubation Base
33	2013.10.15	"Talent War - Human Resources and Personnel Training" Courses
34	2013.10.17	Training on Deduction Policy of R&D Expenses in Enterprise
35	2013.10.23	Special Section in Tsinghua Returned Students Pioneer Park of Zhongguancun Returned Overseas Student Top-level Entrepreneurial Project Promotional Seminar

WTR 2015;4:247-258 http://dx.doi.org/10.7165/wtr2015.4.4.247

Fig. 9. Beijing Nano Business Salon (Activities List (Partial) of TusPark Entrepreneurship Salon)

Fig. 10. New Nano Product Launch of TusPark Business Incubator

Through the incubator platform, a batch of nanotechnology achievement projects have been organized to connect with industrialization bases, specifically, employing such means as Tus-Holding Venture Industry, new nano incubator product launch and roadshow of nano project investment.

4. CONCLUSION

By introduction to training activities for Beijing Nano Industrial Salon, TusPark Entrepreneurship Salon, TusPark Entrepreneurship Cluster and other series brands in addition to systematic entrepreneurship training provided to nano industrial projects and entrepreneurs within the incubator, this Text drives their transformation from research talents to entrepreneurs as soon as possible as a favorable reference for other parks in transforming technological achievements.

After "investment-plus-incubation", TusPark Incubator has entered a new stage of "investment bank plus incubation", i.e. investment bank pattern, which aims to integrate many resources rather than just invest and provide full-chain financial service to the enterprises. In addition, through the incubation platform, nano technology achievements are interfaced with industrial base by large scale. The adopted means include TusPark Entrepreneurship House, Nano Incubation New Product Release, Nano Project Investment Road show, etc.

This Text also introduces some key nano projects organized by large scale on basis of professional nano incubator as a carrier. Through professional nano incubator of TusPark, a number of nano technology achievements has emerged on recommendation and acquired funds support.

Beijing Municipal Science and Technology Commission has established a number of new nano incubation platforms and verified the first professional nano incubator in Beijing, TusPark New Professional Nano Incubator. There will be more and more professional nano incubator in Beijing and all over the China.

TusPark will keep continue effort, not only the professional nano incubator, but also the professional incubator on Mobile internet, renewable and clean energy, environmental protection, big date and smart city.

Received March 30, 2015
Revised November 09, 2015
Accept December 14, 2015