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Special Issue: Technology Business Incubators in China

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Technology Business Incubators in China

As an important part within the policy framework of China's science and technology, technology business incubators(TBI) have achieved tremendous progress after two decades' development. With the direction of the State Council and Ministry of Science and Technology (MOST) as well as strong support from the local governments, the incubators have grown into a major policy instrument for commercializing scientific achievements, cultivating enterprises and entrepreneurs, and promoting innovation and entrepreneurship, aiming

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to build China into an innovative country. The effects and features of technology business incubators are as follows:

1. Nurturing hi-tech enterprises and flagships for emerging industries by encouraging technological innovation and entrepreneurship.

The fundamental role of TBI is to promote technological innovation and entrepreneurship by supporting companies in their early stages of development. According to statistics, over 95% of newly founded technology-based companies in China grow in the incubators and the number of start-ups keeps increasing year-on-year. By the end of 2012, there were 1,239 technology business incubators with over 22,000 service and management staff nationwide, of which 435 were at the national level. The incubators covered a total floor area of over 43 million square meters, holding more than 70,000 incubatees with 1.43 million people in different teams. There were nearly 50,000 incubatees graduated from TBIs, among which over 180 were listed companies.

Through comprehensive incubating services, the incubators provide strong support to start-ups for innovation and entrepreneurship, and have cultivated a large group of hi-tech companies as well as pioneers and flagship enterprises for emerging industries. In 2012, the incubatees obtained 57,515 patent licenses, 14,981 of which were invention patents. About 90% of the incubatees applied for different kinds of IPR protection and 60% obtained patent licenses, among which over 40% were invention patents and software copyrights. The incubators have become a driving force for endogenous growth realized in the hi-tech development zones, for most of the newly identified hi-tech companies in the hi-tech zones are graduated incubatees in TBIs. A large number of the graduated enterprises have grown into leading SMEs in their respective industries and become the primary force for the emerging industries of the country.

2. Concentrating high caliber professionals and fostering emerging enterprises and entrepreneurs.

Thanks to the preferential policies for innovation and entrepreneurship and incubation programs nationwide, the incubators have attracted large number of high caliber talents, university graduates and overseas returnees and become the cradle of entrepreneurs of technology-based companies. For example, 60% of the entrepreneurs selected by the national "Thousand Talents Program" are from the start-ups at incubators. By the end of 2012, a total of 9,000 incubatees were founded by 19,602 overseas returnees. A group of successful entrepreneurs from the incubators have turned into stars leading the industrialization of high technologies.

Some entrepreneurial centers for university students were also set up in the incubators, aiming to bring potential strength and passion of college graduates into full play and create more job opportunities for them. There have been more than 8,000 companies started up by university graduates in 149 such centers, providing 100,000 new jobs.

3. Contributing to local socio-economic development and becoming part of government action plans.

The extraordinary role of enterprises in regional innovation and entrepreneurship triggered the passion of both government and private sector in building incubators. So far, some regions in the country, with a sound economic growth and adequate resources in science and education, have set up technology business incubators. Beijing, Shanghai, Tianjin, Jiangsu, Zhejiang, Shandong, Qingdao, Dalian, Wuhan and Hefei are planning to build incubators locally in each affiliated county while the incubators are witnessing strong momentum with improved efficiency and services in the central part of the country like Anhui, Henan, Hebei, Hunan and Hubei as well as the regions where ethnic groups live, such as Xinjiang, Ningxia, Inner Mongolia and Guangxi. A new model of incubating companies in other provinces created by Inner Mongolia and Tibet has helped foster and attract a large number of hi-tech companies into these two regions. The national-level incubators in Jiashan of Zhejiang Province, Jiangyin of Jiangsu Province and Gaoming of Guangdong Province have now grown into powerful pillars for local emerging enterprises with hundreds of technology-based companies and dozens of PhD holders, starting from receiving the first doctorate holder as entrepreneur.

In 2012, there were 15,153 incubatees in incubators, with the total turnover reaching 490 billion yuan, R&D investment reaching 43.7 yuan billion and risk investment reaching 35.7 billion yuan.

4. Creating an atmosphere for innovation and entrepreneurship and building a good brand of incubation with international influence.

After twenty year's development, China is among the front-runners in terms of number, scale and performances of incubators. The innovativeness and entrepreneurship advocated by incubators are now widely accepted and respected in the country. A social environment that encourages innovation, tolerates failure and respects success has taken shape.

TBIs in China have also expanded their ties with international counterparts and fostered partnership. Since 1996, MOST has selected and approved 9 incubators as pilot International Business Incubators (IBI) in Beijing, Xi'an, Shanghai, Suzhou, Wuhan, Tianjin, Chengdu, Chongqing and Guangzhou, which greatly strengthened mutual visits and communication between China's TBI and the incubators abroad. Following the pace, 5 IBI training bases have been respectively established in Beijing, Shanghai, Xi'an, Wuhan and Guangzhou since 1998, forming an international training network that covers the main regions of China and connects global counterparts in incubation with international training workshops. In the past twenty years, China has trained over 1,000 incubator executives and managerial staff from about 50 countries. The Chinese incubators have also attracted hi-tech talents from France, Japan and Israel to start-up companies in China, and are also making plans to set up branches in other countries. Through international cooperation and communication, the Chinese incubators are widely recognized and promoted in the world, building the Chinese brand with a positive influence.

5. Developing policy systems and working institutions to facilitate overall deployment of incubators across the country.

The Chinese government has worked out a series of policies and measures to support innovation, entrepreneurship and business incubation, reflecting the strategic thinking of building an innovative country. Since late 1980s, MOST has been encouraging incubation programs nationwide through the Torch Program and later Innovation Fund for Technologybased Firms, setting up technology service platforms for incubators, building up incubation capacities and funding R&D activities of start-ups in different regions. The Ministry of Finance and State Administration of Taxation have implemented policies to reduce business tax, property tax, land use tax and income tax for incubators as well as guiding private capital to invest in incubators. Many local governments have also set strategic targets for incubation development through legislation or administrative regulation.

As a leading body guiding the development of incubation, MOST organizes and coordinates incubators across the country by setting up the management office and issuing administrative rules. MOST also promotes the establishment of the Committee for Entrepreneurial Centers under the National Hi-tech Zone Association, an incubator consortium within China Technology Entrepreneurship Association, an alliance for innovation parks for overseas returnees and the incubator network covering 5 regions of the country, with the engagement of central government, local governments and industrial associations.

6. Improving institutions and developing new incubating service system

As an important platform for technological innovation and entrepreneurship, the Chinese incubators have developed from tranditional centers that simply provide supportive services into incubation agencies with diversified investors and various organizational forms, including technology business incubator, international business incubator, innovation park for overseas returnees, incubator corporation and university science park, etc. The incubators not only cultivate new enterprises and entrepreneurs, but also foster emerging industries and high caliber business leaders. Therefore, the incubators have expanded from national hi-tech zones to other places near universities and industrial areas, and from the central area of city to the affiliated counties. Supported by the government authorities in different sectors, the incubators have been able to provide valueadded services such as business consulting, professional incubation, angel investment and shareholding incubation in addition to their conventional activities. Looking to the future, the incubators will explore new services through institutional improvement:

—— The business mentor system has begun to take shape across the country to facilitate growth of start-ups.

— Focus will be given to professional incubators in a bid to promote technology upgrading and regional industrial restructuring, assist the incubates to connect the market directly, and improve the competitiveness of start-ups.

— Efforts will be made to solve the financing bottlenecks by exploring a shareholding incubation model based on the mutual economic benefits among incubators, financing institutions and incubatees.

— Enterprise accelerators will be built through a speeding-up mechanism, which provides mass production facilities and conditions for industrialization, to support rapid growth of graduated incubatees.

In the future, the incubators will continue to serve technological innovation and entrepreneurship and keep improving the services. Emphasis will be attached to cultivating incubatees rather than improving physical facilities, promoting industrial clusters rather than enterprise clusters, doing value-added services rather than basic services, continuing development of innovation and entrepreneurship rather than building incubators themselves. Aiming at "creating sound environment, concentrating resources, fostering talents and facilitating entrepreneurship", the incubators need to gather resources, expand services, strengthen financing capacity and improve the coaching and training system. More should be done to build 10 technological innovation and entrepreneurship demonstration areas, 100 regional leading incubators, 1,000 high level entrepreneurial teams, 10,000 innovative technologybased enterprises as well as new incubation service system and leading enterprises for emerging industries nationwide.



In the late 1980s, in order to embrace new technology revolution in the world, the Chinese government approved the Torch Program, which would facilitate the industrialization, commercialization and internationalization of hitech achievements. In June 1987, Wuhan witnessed the establishment of China's first technology business incubator - Wuhan Eastlake Hi-tech Innovation Center (Wuhan EHIC).

Over the past 20 years, Wuhan Eastlake Hi-tech Innovation Center has been dedicated to the incubation of technology-based small and medium-sized enterprises (SMEs). While incubating such enterprises, cultivating entrepreneurs of the enterprises and translating research findings into productivity, the Center has accumulated a great deal of experience in enterprise incubation. At present, with an incubation area of about 300,000 square meters, the Center has established and improved its consulting services, investment and financing services, conducted exchanges for international development and bettered its public relations. It also boasts a management team featuring good education, excellent skills and strong serving capacity.

Over the past two decades, Wuhan EHIC has accumulatively incubated 1,044 technology-based enterprises, among which 611 were graduated. Some of these graduated enterprises have already become industrial leaders. For example, in 1993 Kaidi Corporation was established with a registered capital of only 103,000 yuan, while now it has become China's leading enterprise in energy and environmental protection. In 1989 Wuhan Fingu Electronic Technology Co Ltd was established with a registered capital of only 30,000 yuan, while now it has become a star listed corporation in the field of communications. In 1989 Sante Cableway was established with a capital of only 30,000 yuan, while now it has become China's No.1 in cableway construction. KM Soft has become the largest CAD software supplier with its own copyrights in China. Chutian Laser Group was established with a registered capital of only 100,000 yuan, but now it has become China's largest production base of medical and industrial laser products that made its international presence.

Wuhan EHIC has created a business model of Shared Business Incubator (SBI), which is developed and managed by the Center, owned by investors and utilized by incubatees. This has provided opportunities for various social sectors to invest in incubation development and share the benefit of regional economic growth, which represents an organizational and institutional innovation. Under the government's policy support and almost zero investment from public finance, the Center has completed the first and second phase construction of SBI, with the incubation area soaring from 25,000 square meters to 300,000 square meters, the number of employees increasing from 30 to 380 and the incubatees rising from 60 to 433.

Among graduated enterprises, Wuhan Kaidi Electric Power Co Ltd and Kaidi Water Service Co Ltd have been listed in China's and Singapore's main boards, while KM Soft and Huagongtech have been jointly listed. In July and November 2013, Sante Cableway and Fingu Electronic Technology Co Ltd, which both came from Wuhan EHIC, were respectively listed. In the meantime, among incubated and graduated companies, some have already been preparing to get listed, such as Leador Spatial, Sunic Laser, Rixin Technology, Guoce, Xingtuxinke and Lvkang

Digital.

In multiple areas concerning incubation of technologybased enterprises in China, Wuhan EHIC has been forging ahead with pioneering spirit. The decision-making team of the Center innovatively put forward the concept of Shared Business Incubator (SBI). By building the entrepreneurs' community and integrating private capital with real estate, the Center has made innovation in development pattern, forming a unique "Eastlake Model" dedicated to the building of technology business incubators. The Center and its team earned the following comment: Being no governments, they have provided job opportunities for more than 60,000 people;

Being no banks, they have helped enterprises finance and invest over 500 million yuan;

Being no research institutes, they have introduced over 900 technology-oriented projects;

Being no thinkers, they are changing the traditional values of Chinese intellectuals from "he who excels in learning can be an official" to "making wealth by starting business". They are realizing the dream of the times.

Model Exploration (2): Xi'an Pioneering Park in High-tech Zone

According to national S&T policies, Xi'an established Shaanxi's first technology business incubator - Xi'an Hi-tech Innovation Service Center (HISC) in 1990s. After decades' development, a new form of the regional incubation, Xi'an Pioneering Park, emerged under the direction and management of Xi'an HISC and it has become an important base of the application of scientific and technological achievements in production as well as a major platform for the development of technology-based SMEs, playing a significant role in attracting and pooling scientific talents and facilitating regional technological innovation.

After 2000, the incubators in Xi'an hi-tech zone saw a rapid development, with an increasingly large number of incubatees. In 2005, the hi-tech zone received another 55 enterprises, therefore the proportion of Xi'an's incubators in China increased to 44.8%. In the same year, the Xi'an's incubation fund totaled 371 million yuan, ranking 7th among all of regional incubation areas in China; its incubation area reached 345,000 square meters, the 4th in China; the total number of its incubatees stood at 500, the 5th in China; the number of newly incubated enterprises reached 100, the 11th in China; the number of graduated enterprises stood at 50, the 9th in the country; accumulated number of graduated enterprises reached 235, the 9th in China. Among innovation centers nationwide, Xi'an Pioneering Park has been ranking among the top based on a comprehensive evaluation.

Innovation bases have played a marked role in pooling start-ups and providing innovation services. From 2002 to 2007, the number of innovation bases owned by the hi-tech zone jumped from 3 to 10, with the area increased from 102,000 square meters to 389,000 square meters; by increasing investment, the innovation center has evolved from single incubator to a cluster of incubators, consisting of seven incubators and one National Science and Technology Enterprise Accelerator. The management staff of the incubators increased from 15 to 45; self-owned assets of the incubators increased from 200 million yuan to 600 million yuan. The actual utilization area of enterprises stood at about 100,000 square meters. The incubators have received 266 technology-based start-ups, among them 120 were zero-revenue enterprises. In 2007, the enterprises have realized a total turnover of 433.65 million yuan, with a tax of 23.58 million yuan. In other words, every per thousand square meter of the incubation areas can generate an output of 4.33 million yuan, with a tax of 240,000 yuan.

Since its establishment, the Innovation Center has accumulatively incubated 265 graduated enterprises, among which 211 have seen healthy development while the rest closed down or moved out. Among incubated enterprises, 151 have been identified as hi-tech enterprises, accounting for 71% of the total. In 2007, the turnover of enterprises graduated from the innovation base reached 2.613 billion yuan, with a tax of 105 million yuan paid and 4,870 job opportunities created. Among these enterprises, there are 6 whose turnover exceeded 100 million yuan, 43 whose turnover exceeded 10 million yuan and 67 whose turnover exceeded 5 million yuan. Enterprises in the Pioneering Park have carried out 105 projects supported by the public S&T plans, among which 31 projects gained financial support by national plans. 12 enterprises had their projects approved by the Innovation fund for Technology-based Firms of the Ministry of Science and Technology. 38 enterprises established by overseas returnees enjoyed support from the Overseas Returnees Entrepreneurship Fund, while 9 enterprises received financial support from the Incubation Program of the Park.

While keeping pace with China's development, Xi'an Pioneering Park Development Center, as the Park's working body, has developed greater incubation scale and improved services, becoming China's largest national hi-tech innovation center and international business incubator. The incubator cluster and Enterprise Accelerator formed by Xi'an Pioneering Park Development Center and 6 technology incubators concerning dominant industries jointly formed the facilitators for the development of technology-based start-ups. In recent years, on an annual basis, there were 100 enterprises received by the Pioneering Park, 40 enterprises graduated and about 500 under incubation.

In China, Xi'an Pioneering Park Development Center is one of the innovation centers with the largest number of graduated enterprises, highest incubation rate and strongest innovation capacity. The Center has been assessed as one of China's top innovation centers for consecutive years, and has won the prize of Asian Incubator.



Technology incubation started in Shanghai in 1988 with the founding of Shanghai Technology Innovation Center, which is in charge of all incubators in the municipality and has played a leading role in promoting innovation, fostering entrepreneurs and accumulating experience.

Over the past twenty years, a network for hi-tech development zones and technology business incubators has been formed. A layout including one district and six parks has been completed in Shanghai and most districts and affiliated counties in the city have more than one incubator. The multiple incubators are enjoying rapid development in resource-intensive districts like Xuhui, Yangpu and Pudong, substantially promoting the growth of start-ups.

The scale and competence of incubators in Shanghai has improved tremendously in terms of infrastructure, function and management. By the end of 2007, there were 35 technology business incubators in Shanghai, 15 of which were innovation centers at the national level. The incubators, with a floor area of 600,000 square meters, earmarked 157 million yuan for incubation out of its total investment of 595 million yuan. The total revenue reached 237 million yuan, generating 38.25 million yuan in taxes. The 2,145 incubatees created 33,927 jobs, and the total revenues and taxes stood at 6.78 billion yuan and 522 million yuan respectively. 621 companies had already graduated from the incubators.

The incubators in Shanghai are highly professionalized and internationalized. There are now 15 incubators dedicated to different technology areas, such as integrated circuit design and urban industry design in Huangpu district, nanotechnology and computer software in Xuhui, environmental protection technology in Yangpu, bio-medicine in Pudong, special software in Pujiang and multimedia technology in Changning. The Shanghai International Business Incubator (IBI) is consisted of six incubation centers located in Caohejing, Zhangjiang, Yangpu, Huigu and Shanghai University Science Park. It has organized various international symposia and training programs with the support of Technology Innovation Center, and is working with over 20 countries, thus certified by both UNDP and MOST as a pilot incubation agency for international businesses.

Moreover, the incubators have created a group of hi-tech enterprises with proprietary IP and huge market potential, such as IDT, Fudan Grand Horizon, MicroPort, Tongji Tongjie and Xinyuan Electronics, and Focus Media was listed in NASDAQ in July, 2005. The technology-based SMEs graduated from the incubators have grown into the power force of the local hi-tech industries and are playing an active role in building Shanghai into an innovative city.

The history of incubators in Shanghai can be divided into 4 phases.

In early 1990s, under the leadership of central and municipal science & technology commissions, the Shanghai Technology Innovation Center built its first incubator in Caohejing development zone to explore new approaches for starting businesses and commercializing research achievements. The incubators at that time were mainly set up by science parks, including the business service centers in Zhangjiang, Caohejing, Jinqiao, Jiading, China Textile Technology City and Shanghai University Science Park. At this stage, the incubators were just started and were looking for their own ways for development.

In 1997, the Science and Technology Commission of Shanghai Municipality worked with the district government of Yangpu to set up Yangpu Technology Incubation Center next to Fudan University. It marked the beginning of the second phase (1997-1999) during that time incubators were established near universities to facilitate translation of research achievements. Such similar incubators were Huigu technology center and Tongji University Science Park.

In the spring of 2000, the World Incubator Conference was held in Shanghai, which generated a social consensus on the role of incubation. The incubators in Shanghai enjoyed rapid growth since then, with its number increased from 13 to 20.

The last phase started in 2003, in which the incubators become professionalized with the influence of Shanghai Integrated Circuit Design Innovation Center. By 2007, professional incubators were set up in different areas, including nano technology, multimedia, urban industry design, modern agriculture, environmental protection, fine chemicals and bio-medicine. The investors and management model of incubators vary with the involvement of universities and private businesses.

In short, the 4 phases are: early incubators in hitech zones----incubators near universities----incubators in regional economic circle----professional incubators targeting at emerging industries. The incubators grew fast in the second and third stage, and are now enjoying a stable development.

The incubators fall into 4 different categories depending on the investors: the first kind is established by the government, and the funding and human resources are all from the public sector; the second one is set up by the investment company in hi-tech zones, working to provide technological innovation services and following a corporation management model; the third one is founded as a limited company by multiple shareholders; and the last one is set up by a company to provide paid services.

The incubators in Shanghai now target at professional services, business financing, innovation capacity building and brand making in a bid to hatch more innovative companies and improve their international influences.

Model Exploration (4): Yangpu Technology Innovation Center

In 1997, Shanghai Technology Innovation Center purchased an old food factory with 21 million yuan on behalf of the government and invested another 6 million yuan for restoration, and then made it into the incubation base of Yangpu Technology Innovation Center (Yangpu TIC). At the beginning, with a total area of about 7,300 square meters and the incubation area 6,000 square meters, the innovation base can accommodate 20 to 30 enterprises for incubation.

In 2001, relevant institutions of Shanghai established Yangpu Incubation Base Corporation (Yangpu IBC) with 45 million yuan. Based on market operation, the Corporation then developed a great deal of infrastructure, constructing two incubation buildings covering 63,000 square meters. Therefore, it entered the fast lane of development, becoming the largest innovation center in the municipality, with a total asset of over 600 million yuan. On the basis of Yangpu IBC and Yangpu TIC, Yangpu Venture was established to improve selfdevelopment, incubation service, and the financing and investment capacity for technology-based enterprises.

The incubation base of Yangpu (TIC) has been operating soundly, triggering rapid development of incubators in Shanghai. Various incubation bases have been established around prestigious universities and inside development zones. These bases used to provide infrastructure and property services only, while now they provide whole-process and all-dimensional services in a network-based, specialized and internationalized manner.

Yangpu (TIC) was the first to become the largest incubation base in Shanghai, serving as an important demonstration and role model. In 2005, the Center established the College Students Pioneering Park, which has incubated 71 college students' start-ups and created 440 job opportunities. The Pioneering Park has contributed a great deal to promoting the translation of research results from universities, cultivating innovation spirit, developing entrepreneurial skills, expanding employment channels for college graduates and fostering a sound social environment for innovation. Within four years, 25 enterprises won financial support of 3.4 million yuan from MOST Innovation Fund for Technology-based Firms and 2.93 million yuan from Shanghai Innovation Fund for Technology-based Firms; 5 enterprises respectively won financial support of 430,000 yuan from special funds of MOST and the Ministry of Commerce;

18 enterprises won support of 2.84 million yuan from the special funds of Shanghai Municipality and Yangpu district government; 14 enterprises accumulatively won the venture capital investment of 20.38 million yuan.

In 2008, Yangpu (TIC) accumulatively received 203 enterprises, with a registered capital of 850 million yuan, an increase of 63%. A total of 55 enterprises were identified as incubatees, and 12 enterprises graduated from the Center. The incubatees applied for 208 patents and copyrights, with the IP applications increased by 26.8%. The Center helped 78 enterprises apply for 136 projects, and 94 got approved with a total fund of 20.94 million yuan. In the year of 2008, the head office of Yangpu Venture made a profit of 11 million yuan, and enterprises in the Innovation Center paid a tax of about 30 million yuan, an increase of 55%. All this has contributed substantially to regional development.

Yangpu Technology Innovation Center is one of the six international business incubators in Shanghai. The leading management team of Shanghai Technology Innovation Center has also been focused on a series of internationalization activities that enhance the influence of Yangpu TIC in China, Asia and the world, with a view to attracting enterprises to Yangpu for incubation and encouraging enterprises in Yangpu to go international.

After more than 10 years' efforts, Yangpu Technology Innovation Center has completed the infrastructure building and mechanism reform, fostered a series of excellent start-ups, and cultivated a qualified incubator management team. At present, the incubation base is still incubating hundreds of outstanding technology-based SMEs to seek success. Yangpu TIC has established and practiced a sustainable development path for incubators, providing valuable experience for incubators' development in China.



In August 1999, Tsinghua Pioneering Park was established with the help of Tsinghua University Science Park (TusPark), offering support for start-ups to find development opportunities and achieve success. It has gradually evolved into an important platform for innovation and entrepreneurship of professionals.

Over the years, Tsinghua Pioneering Park has always been exploring and accumulating experience in serving enterprises, as well as mapping out development strategies, namely establishing sub pioneering parks with local institutions and forming into network. Together with the TusPark, Tsinghua Pioneering Park has successively established 13 sub pioneering parks in such provinces as Jiangxi, Shaanxi, Jiangsu, Shandong, Liaoning, Guangdong, Zhejiang, Shanghai Municipality and two districts of Beijing etc., as well as built an initial innovation network across the country.

Relying on TusPark, Tsinghua Pioneering Park luckily gained a sound external environment for enterprise incubation. In TusPark, there are approximately over 400 brilliant multinational corporations and international institutions, including Fortune Global 500 companies like Google and sun, over 20 companies listed in NASDAQ and over 200 companies with the potential to become Fortune Global 500.

Thanks to excellent environment and intensive human resources in science and technology, Tsinghua Pioneering Park had quickly pooled a great number of leading enterprises in software and IC. By 2008, Tsinghua Pioneering Park has pooled 179 companies in software industry, among which 36 specialized in software development and about 20 design companies at the upstream of IC industry. In technical sense, these companies are dedicated to software development, system integration, software technology service and IC design. In terms of products and services, there are software products concerning operating systems, information security and office suite, as well as overall solutions based on industrial application.

Managers dedicated to enterprise incubation believe that start-ups incubated by Tsinghua Pioneering Park such as Xinjijiayi, Thunip Holdings, Sumavision, Highlander, Spreadtrum, ChineseALL, Smartdot, Sinoco Technologies, HiChina Zhicheng Technology, Zhongjiaoxingwang are promising companies to make new breakthroughs in industrial innovation. Based on their experiences in serving over 200 major startups, the managers of the Pioneering Park believe that under the current circumstances, technology business incubators need to fully integrate supportive elements from governments, industries, universities, research institutes as well as financial and technical agencies, to speed up growth of start-ups, relying on advantages of university science parks. Through providing specialized services, the Pioneering Park could help enterprises overcome development bottlenecks and realize rapid development, thus improving innovation capacity of industrial technologies.

With new development concepts, Qinghua Pioneering Park endeavors to build a comprehensive base of start-up incubation, innovative talent cultivation and commercialization of research achievements, and support start-ups' innovation activities by offering comprehensive services, including services for commercial property, human resource, investment & financing, enterprise support and information exchange etc. The Park also helps enterprises expand their connections with governments, universities and various social sectors, build a culture that encourages innovation, better an atmosphere for innovation, and establish a cluster of business incubators (comprehensive incubators, specialized incubators, international incubators and overseas returnees' pioneering parks), a cluster of technology- oriented R&D institutions as well as a cluster of intermediary and supporting service institutions. All these have pooled positive elements for innovation, such as emerging enterprises, technologies and talents in the Park, as well as facilitated a rapid development of clusters of start-ups.

> (source: Torch High Technology Industry Development Center, MOST)

(Editor's Note: All news in the issue are translated from Chinese texts for your reference. They are subject to checks and changes against official release of original Chinese or English texts.)