

## Fostering Entrepreneurship and Enterprise Development in China: A Policy Review

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### Introduction

Entrepreneurship has become vital to the success of a company and economic growth. There is increasing evidence to show significant correlation between entrepreneurship and economic growth. Countries in the world are experiencing a surge of interest in the formation of new businesses especially in the developing world. This escalating interest of entrepreneurship has become a focal strategy of regional and national economic development in many regions and countries. Strong emphasis on enterprise development as a platform for economic development is thus an important dimension in development policy.

The People's Republic of China (hereafter China), an original planned economy, has demonstrated rapid economic success during the past few decades. Entrepreneurs are playing a significant role in contributing to national economy. Despite the limited access to resources and financial capital and services, Chinese entrepreneurs have continuously presented their strength and energy. In addition to their strength and energy, Chinese entrepreneurs' success to a certain degree results from China's previous and current policies which are intended to create an environment in which entrepreneurship and new small and medium-sized enterprises (SMEs) can thrive and flourish.

Previous studies examining China's enterprise development, especially in the high-tech sector, have focused primarily on the Torch Program and associated science and technology parks and business incubation programs.<sup>1</sup> This focus, unfortunately, overlooks the systematic approach taken to promote technological innovations and business creation in China, though it does correctly reflect the significant role of the Torch Program. The purpose of this paper is therefore to describe and evaluate China's previous and existing science and technology innovation and enterprise development policies and programs in the past 20 years. This study can not only greatly enhance the understanding on entrepreneurship fostering and

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<sup>1</sup> Chan, K., & Lau, T. "Assessing technology incubator programs in the science park: The good, the bad and the ugly", *Technovation*, 25, 1215-1228, 2005. Sutherland, D. "China's science parks: Production bases or a tool for institutional reform?", *Asia Pacific Business Review*, 11(1), 83-104, 2005. Tan, J. "Growth of industry clusters and innovation: Lessons from Beijing Zhongguancun science park", *Journal of Business Venturing*, 21, 827-850, 2006. Watkins-Mathys, L., & Foster, M. "Entrepreneurship: The missing ingredient in China's STIPs?", *Entrepreneurship and Regional Development*, 18, 249-274, 2006. Zhu, D. & Tann, J. "A regional innovative system in a small-sized region: A clustering model in Zhongguancun science park", *Technology Analysis and Strategic Management*, 17(3), 375-390, 2005.

development in China, it can also shed light on other developing countries' increasing emphasis and efforts on entrepreneurship and SMEs development.

## Entrepreneurship, Enterprise Development, and Economic Growth

Entrepreneurship is not synonymous with new ventures, but these two are closely related. The origin of entrepreneurship stems from the discussion on entrepreneurs, who, depending on various theories, are able to discover profit opportunities<sup>2</sup> or act on those opportunities.<sup>3</sup> Entrepreneurship is necessary to the creation of new (and often small) businesses.<sup>4</sup> Gartner suggested that the creation of new organizations is what entrepreneurship is all about.<sup>5</sup> Entrepreneurs, through their entrepreneurial activities, accumulate and assemble external resources to construct new businesses.<sup>6</sup> Through their new businesses, entrepreneurial individuals also channel and transform their entrepreneurial ambitions and qualities into actions. In these cases, small firms are a behavioral manifestation of entrepreneurship<sup>7</sup> or an organizational extension of individual entrepreneurial actions.<sup>8</sup> New and often small firms also greatly contribute to the flourishing of entrepreneurship as important catalysts or actors in technological innovations;<sup>9</sup> as agents of change in market

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<sup>2</sup> Kirzner, I. *Competition and entrepreneurship*. Chicago: University of Chicago Press, 1973. Kirzner, I. *Perception, opportunity, and profit: Studies in the theory of entrepreneurship*. Chicago: University of Chicago Press, 1979.

<sup>3</sup> Baumol, W. J. "Entrepreneurship: Productive, unproductive, and destructive", *Journal of Political Economy*, 98(5), 893-921, 1990. Schumpeter, J. *The theory of economic development*. Cambridge, MA: Harvard University Press, 1934.

<sup>4</sup> In rare cases, new businesses may not be small due to sectoral characteristics and entry barriers, for example, airline or mining industry.

<sup>5</sup> Gartner, W. B. "Who is an entrepreneur? is the wrong question", *Entrepreneurship Theory and Practice*, 13, 47-68, 1989.

<sup>6</sup> Morgan, G. *Images of organization*. Thousand Oaks, MA: Sage Publications, 1996. Vesper, K. H. *New venture strategies*. Englewood Cliffs, NJ: Prentice-Hall, 1990.

<sup>7</sup> Hebert, R. F. & Link, A. "In search of the meaning of entrepreneurship", *Small Business Economics*, 1(1), 39-49, 1989. Wennekers, S. & Thurik, R. "Linking entrepreneurship and economic growth", *Small Business Economics*, 13(1), 27-55, 1999.

<sup>8</sup> Lumpkin, G. & Dess, G. "Clarifying the entrepreneurial orientation construct and linking it to performance", *Academy of Management Review*, 21, 135-172, 1996.

<sup>9</sup> Acs, Z. & Audretsch, D. B. *Small firms and entrepreneurship: An east-west perspective*. Cambridge, MA: Cambridge University Press, 1993. Schumpeter, J. A. *The theory of economic development*. Cambridge, MA: Harvard University Press, 1934. Nelson, R. "Incentives for entrepreneurship and supporting institution", *Weltwirtschaftliches Archiv*, 120(4), 646-661, 1984. Winter, S. "Schumpeterian competition in alternative technological regimes", *Journal of Economic Behaviour and Organizations*, 5, 287-320, 1984.

structure and competition environment;<sup>10</sup> and as critical forces in industrial restructuring and national competitive advantage upgrading.<sup>11</sup>

## **China's Entrepreneurship and Enterprise Development**

China's entrepreneurship and enterprise development has progressed in two directions at the same time. The first thread is to gradually liberalize the market toward a more market-oriented economy and consequently increase the proportion of private enterprises which have been typically comprised of SMEs. The other thread is to encourage technological innovations and support technology-based enterprises through strong technology-oriented strategies, policies and operational incubation programs.

### ***Market Liberalization and SMEs***

China's private sector or enterprises started to grow after the economic reform in 1978 which was intended to gradually introduce market force into China's traditional centrally planned economy. Before the reform, there was almost no private and individual business due to the socialist reconstruction in the 1950s, although there were about nine million individual business units in the early period of 1949. The turning point of private enterprise development began in 1978 after China officially signified market liberalization as well as economic modernization and growth. Emphasis was laid on social and economic incentives for private individual businesses (*getihu*) which was expected to revive China's individual businesses, contribute to economic growth, and improve people's living standards. Despite the intention to develop individual enterprises, a number of restrictions were applied which to a great extent limited China's enterprise expansion.

The boom of private sector development arrived after Deng Xiaoping's "Southern Tour" in 1992. Following Deng's initiative, both central and local governments started to implement preferential policies for private enterprise development. These policies focused mainly on encouraging foreign investment and channeling domestic capital into China's private individual business sector. Since 1992, the numbers of entrepreneurs, private firms, employed workforce, and enrolled capital and taxation grew at a stunning pace. It was estimated that by 2001 the total number of private businesses was more than three million.

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<sup>10</sup> Beesley, M. & Hamilton, R. "Small firms' seedbed role and the concept of turbulence", *Journal of Industrial Economics*, 33, 217-232, 1984. Brock, W. & Evans, D. *The economics of small business*. New York: Holmes & Meier, 1989.

<sup>11</sup> Hart, D. (Ed.) *The emergence of entrepreneurship policy: Government, startups, and growth in the U.S. knowledge economy*. Cambridge, MA: Cambridge University Press, 2003. Porter, M. E. *The competitive advantage of nations*. New York: Free Press, 1990.

More than 20 million workers were employed by private enterprises and more than 311 million participated in individual business activities.<sup>12</sup>

*Science, Technology, and Enterprise Programs*

Parallel to its efforts to gradually yet continuously liberalize its market, China has also adopted a technology-oriented strategy to promote entrepreneurship and enterprise development. Since the late 1970s, China has been reconstructing its science, technology, and enterprise development. The primary goals were to invest and promote basic research, to apply them, and to advance and contribute to China’s economic reform. Various programs, therefore, have been carried out to strengthen China’s basic science and technology capabilities and to commercialize research output. These programs include the National Technology Research and Development Program (1986), which is also referred as “863” program, the Spark Program (1986), the Torch Program (1988), and the Program of Key Basic Research (1997), which is also called “973” program. As in other countries, these programs are closely related, linking technological innovations to entrepreneurship assistance in order to promote high-tech start-ups and to facilitate commercialization of technological innovations.

**Table 1: Summary of Major Science and Technology Programs in China**

<b>Program</b>	<b>Goals</b>	<b>Funding Sources</b>
“863” program	Promote R&D in information, biotechnology, advanced manufacturing technologies	Government budget: about six billion <i>yuan</i> over the last 15 years
Spark program	Technological support for township-village enterprises in China’s rural areas	Government budget and bank loans
Torch program	Support for high-tech companies located in high-tech zones	Bank loans
“973” program	Support for major basic research projects	Government budget

This technology-oriented strategy and associated enterprise assistance programs echoed Porter’s national competitiveness building and upgrading theories.<sup>13</sup> Despite China’s lower-cost advantage, China is facing increasing competition from other developing countries that have utilized the similar advantage of lower labor cost as this advantage may be easily duplicated in other labor-rich or resource-abundant countries. In addition to the international labor cost competition, China has also faced rising wages domestically, particularly in large

<sup>12</sup> Liu, Y. Development of Private Entrepreneurship in China: Process, Problem and Countermeasures. Presented at the conference of “U.S.-Japan dialogue on Entrepreneurship in Asia”, 2002.

<sup>13</sup> Porter, M. *op cit*. Porter, M. *On competition*. Cambridge, MA: Harvard Business School, 1998.

and industrial cities such as Beijing, Shanghai, and Shenzhen. The increasing labor cost in China's coastal region may push some of the firms into China's interior areas or lose some firms to other labor-intensive countries, thus jeopardizing national competitiveness.

These various programs implementing China's technology-oriented enterprise development strategy have different policy orientations. The "863" plan was devoted to critical technologies which could have significant impacts on China's economic reform or even national security. Large state-owned enterprises (SOEs) were then chosen to carry out the "863" plan due to the criticality of the technologies, the ability of SOEs to gather capital, human, and technological resources, and the dominance of SOEs in China's economy. In the following two years after its initiation in 1986, 500 million RMB *yuan* were mobilized and channeled into the program and thousands of scientists participated in the research.<sup>14</sup> Consequently, major breakthrough was documented in the fields of new materials, biotechnology, information technology, lasers, and space technology. The research breakthrough, however, was not smoothly transferred into final outputs in production processes. This was partly because of large SOE's rigid bureaucratic management<sup>15</sup> and partly because of the underdeveloped connections between research and production in China.<sup>16</sup>

Beside the "863" plan, the Spark program is also an integral part of China's science, technology, and enterprise development policies. The major targets of the Spark program were China's huge rural population and the vast number of Township and Village Enterprises (TVEs). TVEs, which were primarily developed by peasants, were created to employ surplus agricultural labor force, financially support the peasants, and promote economic growth in the rural areas. The development and contribution of TVEs, however, were constrained by their crude technological abilities, low quality products, and unprofessional management. The primary goals of the Spark program were, therefore, to introduce and spread scientific and technological "sparks" to the rural areas, to help the TVEs with new technologies, new designs, new equipment, and new management skills, and to transform them into specialized, competitive, and fully-fledged enterprises.

To achieve these goals, a number of policy measures have been implemented. First, the Spark program has intended to support key applied techniques. For example, the initial support for livestock production has been extended to disease prevention, slaughter management, and even meat packaging and cooking. This all-inclusive approach well facilitated the diffusion of new techniques in the rural economies. Second, the Spark program was intended to improve TVEs' competitiveness and reap scale efficiency by offering incentives for TVEs to combine their efforts on research, marketing, and warehousing. Finally,

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<sup>14</sup> Segal, A. *Digital dragon: High-technology enterprises in China*, Ithaca, NY: Cornell University Press, 2003.

<sup>15</sup> Walcott, S. M. *Chinese science and technology industrial parks*, Burlington, VT: Ashgate, 2003.

<sup>16</sup> Segal, A. *op cit.*

the Spark program has established Spark Technology Zones, concentrating limited resources to enhance their technological and investment environments. These zones, like China's other specialized zones, enjoy advantageous policy treatments on technologies, talented personnel, taxation, and infrastructure. These scattered zones also constitute an industrial production network in China's rural areas.

Parallel to the efforts dedicated to large SOEs, policy attention was also drawn to small and nongovernmental enterprises. Complementary to the "863" plan, the Torch program was aimed to support new start-ups in high-tech innovation and commercialization. Unlike the "863" plan, the target technology of the Torch program was not those highly critical ones, but a wide range of new technologies which were advanced, readily producible, and marketable. In addition, the Torch program had much broader funding sources than the "863" plan. Beside the national government, local governments, China's domestic banks, and international organizations, like the World Bank and the Asian Development Bank, provided crucial financial support to the Torch program.

Another important component of the Torch program is high-tech and/or new technology development zones (HTDZs). The purposes of the creation of the HTDZs were two fold. On one hand, these HTDZs served as an additional funding source to the Torch program, linking promising new high-tech start-ups to any potential domestic and overseas capital resource. On the other hand and more importantly, these HTDZs worked as "incubators of high and new technology".<sup>17</sup> Tremendous efforts have been implemented to improve the investment and innovation environment in these HTDZs. For example, qualified high-tech enterprises in the HTDZs can enjoy preferential taxation, financial, personnel, and import-export policies.<sup>18</sup>

Despite the importance of the HTDZs, they were not evenly distributed in China: HTDZs were geographically concentrated in China's coastal and central regions. This is because of three considerations. First, this spatial concentration has been consistent with China's unbalanced development strategy which gave development priority to the coastal areas over the central and western ones. Second, this spatial arrangement of HTDZs can fully take advantage of solid industrial bases in China's coastal and central regions. Since the goal of HTDZs is to promote the development of small high-tech enterprises, the spatial closeness between these small enterprises and existing industrial bases enable them to mimic successful operational practices. Finally, this spatial distribution can borrow scientific and technical strengths in the coastal and central areas in light of their large number of professionals, universities, and research institutes.

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<sup>17</sup> *Ibid.*, p.33.

<sup>18</sup> For an extended discussion on preferential policies in HTDZs, please refer to <http://www.most.gov.cn/English/programs/torch/menu.htm>.

To further strengthen China's basic research ability and to meet the challenges of a knowledge-based economy, China launched its 973 program (National Basic Research Program) in 1997. The 973 Program has gathered extensive expertise to implement innovative studies of major scientific issues to meet China's long-term economic needs and to upgrade China's science and technology research capability. Tremendous efforts have been devoted to scientific and technological issues which are closely related to China's sustainable economic development and superior national competitiveness, for example, information technology, energy production and reproduction, environment protection, and population and health. By 2002, the 973 program has deployed 133 projects, attracted and appointed 175 well-recognized scientists, and mobilized financial support up to 20-30 million RMB *yuan*.<sup>19</sup>

### ***Incubator Programs***

China's incubator programs experimented prior to the initiation of the Torch program but have been its integral part since its inception. The original form of China's business incubation programs was High and New Technology Venture Service Centers (HNTVSC), which were established and administered jointly by the State Science and Technology Commission (predecessor of the Ministry of Science and Technology (MOST)) and local governments. The first HNTVSC (Wuhan Eastlake Venture Center) came into existence in 1987 in Wuhan, Hubei Province. Since the inception of the Torch program in 1988, HNTVSCs have been incorporated into the Torch program, primarily through the HTDZs. Over the past two decades, China has witnessed continuously increasing numbers of high-tech incubators – from merely 73 in 1994 to 534 in 2005. The increase of incubation facilities strongly suggests that infrastructure to support the SMEs development has expanded. These incubators have played a crucial role in technological commercialization, job and wealth creation, and economic growth (see table 2).

China's high-tech incubators can be roughly categorized into five types. They are 1) comprehensive/general technology business incubators; 2) specialized technology business incubators; 3) university incubators; 4) incubators for returned overseas students and/or scholars; and 5) international business incubators. The majority of Chinese incubators fall into the first category. Comprehensive/general technology business incubators assist SMEs in the transfer and commercialization of technological achievements through various services, such as floor space and facilities, financing, marketing, and other business management consultation and training, laws and policies, and sometime, direct financial support. All these create a favorable environment for the transformation of scientific achievements and the creation and development of SMEs. Specialized technology business incubators focus on

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<sup>19</sup> National Basic Research Program "Profile of 973 program," Retrieved on May 14, 2007 from World Wide Web: <http://www.973.gov.cn/English/Index.aspx>.

**Table 2: Growth of China's Incubators: 1994-2005**

	1994	1995	1996	1997	1998	1999
<b>No. of High-Tech Incubators</b>	73	73	80	100	100	110
<b>No. of Tenant Companies (1,000)</b>	1.4	1.9	2.5	2.7	4.1	5.3
<b>Average No. of Tenant Companies per Incubator</b>	19	25	31	27	41	48
<b>Total Employees (1,000)</b>	N/A	N/A	N/A	45.6	68.9	91.6
<b>Average No. of Employees per Tenant Company</b>	N/A	N/A	N/A	17.1	16.7	17.3
<b>No. of Graduating Companies</b>	N/A	174	284	177	491	618
<b>Percentage of Graduating Companies (%)</b>	N/A	9.4	11.5	6.6	11.9	11.7
	2000	2001	2002	2003	2004	2005
<b>No. of High-Tech Incubators</b>	131	280	378	431	464	534
<b>No. of Tenant Companies (1,000)</b>	7.7	12.8	21.0	27.3	33.2	39.5
<b>Average No. of Tenant Companies per Incubator</b>	59	46	56	63	72	74
<b>Total Employees (1,000)</b>	128.8	263.6	363.4	482.5	552.4	717.3
<b>Average No. of Employees per Tenant Company</b>	16.7	20.6	17.3	17.7	16.6	18.2
<b>No. of Graduating Companies</b>	836	1,224	2,213	2,774	2,737	4,097
<b>Percentage of Graduating Companies (%)</b>	10.9	9.5	10.5	10.2	8.2	10.4

business assistance in a single or a few closely related technological fields, for example, bio-medical incubators, software incubators, and new material incubators. University incubators are mainly established within university campuses and generally set up to take advantage of technological resources in universities. Businesses within such incubators are typically founded by university faculty and students based on their research results. These university incubators have demonstrated their superior abilities to link readily available faculty and students to entrepreneurship assistance, to accelerate the development of innovative high-tech firms, and to facilitate the commercialization process of technical innovations. Incubators for returned overseas students and/or scholars, initiated in 1997, focus primarily on attracting Chinese scholars and students abroad to start their own ventures in China. International business incubators promote international cooperation by both helping foreign enterprises enter the Chinese market and by helping Chinese domestic businesses explore overseas markets and develop international operations.

In addition to the government financial supports, China's incubators are also sponsored by other financial sources, including university subsidies, SOEs, private funds, and international donor organizations. But these additional fund sources only account for a small portion of the entire finance.<sup>20</sup> The dominant position of public investments on incubators in

<sup>20</sup> Chandra, A., He, W., & Fealey, T. "Business incubators in China: A financial services perspective", *Asia Pacific Business Review*, 13(1), 79-94, 2007.



China results partly from the inadequate venture capital in China.<sup>21</sup> As a result, most of Chinese incubators, which are exclusively funded by the governments, are not for profits.

Despite the dramatic increase of incubators in China, their successful role in connecting entrepreneurship and technological innovations, and their significant impacts on technological commercialization, China's incubator programs still have their weaknesses. First, China's incubators over-rely on government financial sources. This over-reliance may enable the governments to impose their political mandates on the operations of incubators. For example, incubator managers may avoid supporting "risky" start-ups, due to their concern of losing future governmental resources.<sup>22</sup> Second, excessive attention and emphasis have been put on incubators' "hardware," like brand new buildings, new roads, and broadband Internet. As a result, the improvement of their "software" is overlooked. Though physical infrastructures are important to the development of new enterprises, the major benefits of incubators come from the nurturing environment and professional assistance provided by well-trained staff in incubators.<sup>23</sup> In China, unfortunately, professional management assistance is lacking. For example, an incubator has only 16 staff members on average, who have to be responsible for over 50 tenant companies at the same time.<sup>24</sup> Due to the insufficient entrepreneurship support, the essential advantage of incubators may merely be lower rent costs and preferential bank loans.<sup>25</sup> The lack of management talent in incubators may seriously limit their positive impacts in China.

Third, most of China's incubators, directed by the not-for-profit operation rationale, do not provide their services on a cost-recovery basis and may, therefore, face long-term self-sufficiency problems. In addition, the not-for-profit approach may not offer enough motivations for incubator staff to provide their best services.<sup>26</sup> Finally, there is not enough attention to new kinds of incubators. Scaramuzzi identified three "generations" of incubators, i.e., science and technology parks are the first generation, and virtual incubators and incubator networks are the second and third generation respectively.<sup>27</sup> The beauty of the latter two types of incubators is that they can, with the help of advanced information technology, mobilize and

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<sup>21</sup> Scaramuzzi, E. "Incubators in developing countries: Status and development therefore perspectives", Retrieved on May 14, 2007 from World Wide Web:

<http://www.infodev.org/library/WorkingPapers/incubators.pdf>.

<sup>22</sup> Harwit, E. "High technology incubators: Fuel for China's new entrepreneurship?" *China Business Review*, 29(4), 26-29, 2002.

<sup>23</sup> Scaramuzzi, E. "Incubators in developing countries: Status and development therefore perspectives", Retrieved on May 14, 2007 from World Wide Web:

<http://www.infodev.org/library/WorkingPapers/incubators.pdf>.

<sup>24</sup> Lalkaka, R. "Rapid growth of business incubation in China lessons for developing and restructuring countries," Retrieved on May 14, 2007 from World Wide Web:

<http://techpark.ir/Parks/English/Articles/Lalkaka.htm>.

<sup>25</sup> Harwit, E. *op cit*

<sup>26</sup> Stough, R. R. "The rise of global enterprise development: Patterns in China and India", *Journal of Indian Management and Strategy*, 7(6), 2003.

<sup>27</sup> Scaramuzzi, E. *op cit*.

make full use of existing management talent across China and deliver entrepreneurship assistance to virtually anywhere in China in a timely and inexpensive manner.

In sum, since the late of 1980s, China has implemented systematic policies to promote technological innovations and enterprise development. Consequently, China has established various programs targeted especially at different types of technologies and enterprises. Among these efforts, a large number of incubators have been set up to provide a nurturing entrepreneurship environment to high-tech start-ups. Despite the rapid increase of these incubation facilities, the available facilities can only work with a small portion of new enterprises, and the remainder of promising companies is still lacking sufficient entrepreneurship assistance. Further, many incubators have insufficient staff and program support to assist their companies, which suggests that the benefits of these incubation programs may be limited to mere rent reduction over current market rates.

## **Conclusions and Policy Implications**

Enterprise development has become a central component of regional and national development strategy around the globe. This paper reviewed China's existing policies and programs to promote science and technology innovations and enterprise development. Among China's enterprise development policy approaches, tremendous efforts have been made to enhance China's science and technology innovation capabilities and commercialization of technological innovations. These efforts not only cover both critical and daily technologies but also support a variety of enterprises, like, SOEs, TVEs, and university spin-offs. In addition to the programs targeted at science and technology capacities in China, China has also established a comprehensive incubator program to boost enterprise development. This program has experienced rapid growth and demonstrated significant impacts on entrepreneurship development, job creation, and economic growth. The positive effects of this incubator program, however, are limited by insufficient management assistance, over-reliance on public finance, overemphasis on "hardware" side of incubators, and inadequate virtual incubators and incubator networks. With regard to the weaknesses of China's existing incubator program, it is recommended that future enterprise development programs stress the cultivation of nurturing investment and entrepreneurship environments, to attract private fund sources and venture capitalists, and to promote virtual incubators and incubator networks.

In addition to the general policy recommendations for China's future enterprise development, China's western regions should also focus on another two policy suggestions. First, the primary focus of the incubator planning should be on "software" instead of "hardware." Constrained by insufficient resources, China's western region does not have to be obsessed by physical infrastructure of incubators. Instead, efforts should be made to cultivate

a conducive investment and entrepreneurship environment in incubators. These efforts may include adequate incubator staff as well as professional entrepreneurship assistance on business plan and daily management operations.

The other policy suggestion would be to develop and strengthen virtual incubators and incubator networks. Compared to traditional physical incubators, such as science and technology parks, these two types of incubators do not require huge initial investments on infrastructure construction and improvement. A relatively small amount of money, therefore, is needed to initiate an incubator and, more importantly, to provide entrepreneurship services and nurture enterprises. Beside the cost advantage, virtual and incubator networks can also bring entrepreneurship assistance into the rural areas in China's western region where it is hard to recruit management talent and to run incubators on a cost-recovery basis because of the dispersed nature of new enterprises.