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# NEWSLETTER

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- **China's S&T Business Incubators and their Future Development**
- **Overseas incubation: A case study of Techcode**

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# China's S&T Business Incubators and their Future Development >>>

On 29<sup>th</sup>, June 2017, the Ministry of Science and Technology issued *the 13<sup>th</sup> Five Year Development Plan for S&T Business Incubators* (hereinafter referred to as the Plan). The Plan reviewed the development of such incubators during the 12<sup>th</sup> Five Year Plan period and put forward a systematic outlook for the next stage. The Plan was officially issued as a government policy.

The Plan was drafted to implement the national strategy of innovation-driven development; to facilitate the healthy development of S&T business incubators (including makers' spaces and other incubation entities for start-ups); to improve the ecosystem for innovation and entrepreneurship; to nurture new momentum for economic growth; and to offer staunch support to build China into an innovation-oriented nation. The Plan was drafted based on the *Outline of the National Medium- and Long-term Plan for S&T Development (2006-2020)*, *Outline of the National Strategy on Innovation-driven Development*, and *the 13<sup>th</sup> Five Year Plan for National S&T Innovation*.

## I. Overall performance of Chinese S&T business incubators

During the 12<sup>th</sup> Five Year Plan period,

incubators in China have witnessed in-depth and comprehensive development. We have expanded the systems of innovation, entrepreneurship and incubation and enhanced the capacity to support and nurture start-ups. We have fostered a strong entrepreneurial atmosphere. S&T business incubators have contributed to transform the growth model and optimize the economic structure; they have become an integral part of the national development strategy.

During the 12<sup>th</sup> Five Year Plan period,

China's incubators have developed into a new stage with substantially increased quantity and emerging regional clusters. By the end of 2015, there have been 2530 incubators incorporated in the Torch Program with 736 national level incubators, 43,000 incubation personnel and over 86 million square meters of incubation space, respectively 2.8, 2.1, 2.9 and 2.9 times the figure by the end of the 11<sup>th</sup> Five Year Plan period. Beijing-Tianjin-Hebei, Yangtze River Delta, Pearl River Delta and Sichuan-Chongqing have become important clusters, achieving a full coverage of less-developed areas. More than 80% of the provincial level regions have established associations of incubators. Previously less than 30% of incubators were under market-oriented management and now the percentage is more than 75%. Angel investment, start-up tutorship, skill training, consultation and other in-depth services have become important market-oriented services. Around the country, incubators have signed cooperation agreements with 13,000 intermediaries, offering quality services to start-ups.





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Incubators have nurtured a large amount of high-growth enterprises. Statistics show that enterprises with successful incubation have grown from 39,562 in 2011 to 74,838 in 2015 and the upward trend has been maintained. Incubators now have different focus including specific industries, comprehensive services, overseas returnees and international businesses; they experience targeted and in-depth development. State-owned incubators and private ones join hands in making progress and the for-profit and non-profit nature of incubators become mutually complementary. Makers' spaces, incubators and accelerators have been integrated and form a full incubation chain, supporting businesses at their seed, early and growth stage. Incubation has become an essential part in the S&T service industry.

Statistics from the 2015 Torch Survey show that 2,300 plus makerspaces have been established among which 498 have been registered at the Ministry of Science and Technology and new models based on different services and core resources have emerged. We have made efforts to combine innovation with entrepreneurship, online with offline and incubation with investment. We have offered staunch support for entrepreneurs to apply new technologies, develop new products, explore new markets and nurture new business models. In 2015 alone, makers' spaces around the country have staged 70,000 events, serving more than 150,000 start-ups and entrepreneurial groups, or 500,000 entrepreneurs. Associations of makerspaces have been established in most localities. Entrepreneurship Streets, Townships and Communities continue to emerge to support innovation and entrepreneurship. Makers' spaces, as an important part of the incubation process, have continued to support early-stage businesses and have contributed to the favorable environment for mass innovation and entrepreneurship.

### During the 12<sup>th</sup> Five Year Plan period,

we focused on nurturing emerging industries of strategic importance and transforming and upgrading traditional industries. During that period, 105,000 S&T businesses have been incubated with R&D investment reaching nearly 200 billion RMB. At end-2015, incubators were supporting 102,000 businesses, 1.8 times the figure in 2010. These businesses owned 150,000 IPRs, drew 1,350 high-caliber talents under the 1000 Talents Plan and offered 1,650,000 jobs including 170,000 for fresh college graduates. By end 2015, 74,000 businesses have successfully finished the incubation period and more than 800 businesses have been listed. Over 1/3 of the incubators around the country are specialized and a batch of incubators have emerged focusing on emerging industries of strategic importance including (mobile) internet, cloud computing, bio-pharmaceuticals, robotics and smart manufacturing, new materials, modern agriculture, aeronautics and space and cultural and creative industry. Leading enterprises have been focusing on their own industrial chain to establish specialized incubators and new products, industries, services and business models continue to emerge, injecting new vitality to the economy.



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During the 12<sup>th</sup> Five Year Plan period,

we have changed our focus from basic services to value-added services and from only entrepreneurship to the full chain of S&T innovation and entrepreneurship. We have adopted major measures to encourage social participation in serving and supporting innovation and entrepreneurship. Incubators have ever-increasing influence and demonstrative power. More incubators have led to a substantial increase in entrepreneurial tutors from 3,500 in 2010 to 21,285 in 2015 (among which 1,048 are registered under the Torch Program). These tutors guide more than 50,000 start-ups. Incubators' funds and angel investments have acquired scale and incubators themselves had 36.5 billion RMB of funds by 2015. During the 12<sup>th</sup> Five Year Plan period, 26,577 businesses have received incubation support with an investment of about 84.2 billion RMB.

Since the government introduced the concept of "chain development for incubation", breakthroughs have been made in building the full incubation chain from venture nursery (makers' space), incubator to accelerator. We have now identified 41 state-level demonstration units for the incubation chain. The China Innovation and Entrepreneurship Competition has been held successfully for four consecutive years (2012-2015), serving 40,000 plus participating businesses and nearly 30,000 entrepreneurial groups. The contest has drawn over 10 billion RMB of social financing and 20 billion RMB of bank credit line. The contest has become a brand event for incubators to service entrepreneurship and innovation. Trainings for incubation personnel have become standardized and regularized. 26 training bases around the country have held over 120 training courses at low-, middle- and high- level. More than 13,000 people have participated in these trainings.

Incubators take their initiative to access international resources and markets and participate in establishing the global chain of innovation. A mutually-enforcing interaction has been achieved between domestic and overseas markets. China's incubators have established dozens of overseas branches in countries with dynamic innovation and entrepreneurship; they have cooperated with similar institutions overseas for R&D and cross-border technology transfer, angel investment and incubation acceleration. Foreign incubators have become more active in undertaking their businesses in China, introducing new models and concepts. This has promoted the introduction, communication and transformation of technology, talents and investments among different countries. With the global allocation of resources for innovation and entrepreneurship, many incubators have greatly enhanced their capacity to offer services. International exchanges have continued including the Annual Meeting for the Network of International Business Incubators, Forum on the Cooperation between Chinese and Foreign Incubators, Seminar on the International Training for Business Incubators and the Entrepreneurship Week for Chinese and Overseas Students. These events have offered a platform for communication and cooperation between Chinese practitioners and their international counterparts and promoted the two-way communication between China's and foreign incubators. China's incubators have greatly enhanced their international influence.



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## II. Systemic outlook for the development of S&T business incubators

### 1. Asking government departments and incubator managers to heed new trends and requirements

The Plan pointed out that the new round of S&T and industrial revolution is creating historical opportunities; China's economy has entered the New Normal where mass entrepreneurship and innovation have become new growth engines. Diversified forms of innovation and entrepreneurship emerge and this lead to new requirements for incubators. A favorable ecosystem is the prerequisite for entrepreneurship and innovation. Therefore, China's incubators will face more challenges and higher requirements.

(1). Focusing on global trends

(2). Focusing on China's policies

(3). Focusing on the characteristics of China's innovation and entrepreneurship

(4). Focusing on new requirements for incubators

### 2. Pointing out the guiding principles for the 13<sup>th</sup> Five Year Plan period

The Plan pointed out that during the 13<sup>th</sup> Five Year Plan period, China's S&T business incubators will fully implement the requirements of the 18<sup>th</sup> National Party Congress and undertake the strategy of innovation-driven development. The incubators in China will embrace the new wave of S&T and industrial revolution. We will seize the opportunity of mass entrepreneurship and innovation. We will focus on building a favorable ecosystem for innovation and entrepreneurship and target at nurturing new growth engines. S&T innovation should lead economic development, serve the transformation and upgrading of the real economy and boost the innovation-oriented economy. On this front, we will stimulate the vitality of the whole society for innovation and entrepreneurship. Previously, we were a country with a large quantity of incubators; we will now be a country with influential and high-quality incubators; in this way, we contribute to building China into an innovation-oriented country.

During the 13<sup>th</sup> Five Year Plan period, we should upgrade China's incubators with a focus on building the ecosystem for innovation and entrepreneurship: previously incubators served start-ups and now they should serve at the very source of the new economy; previously incubators drew factors for starting new businesses and now they should promote the sharing of resources; previously incubators focused on the ability to offer comprehensive services and now they should forge their ability to offer specialized services; previously incubators were driven by the supply of services and now they should focus on the demand of services; previously incubators tried to undertake international cooperation and now they should integrate into the global network of innovation and entrepreneurship; previously incubators create the awareness of innovation and entrepreneurship in various localities and now they should draw the participation of the whole society. Incubators should be more diversified in their forms and more efficient in their services; they

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should share resources and adopt flexible mechanisms; regional coordination should be realized with strong entrepreneurial atmosphere. We will mobilize all the forces and adopt various models and mechanisms to achieve a full-chain, multi-layered development for incubators.

## 3. Putting forward the development goals during the 13<sup>th</sup> Five Year Plan period

The overall goals for S&T business incubators are the following: by 2020, focusing on mass entrepreneurship and innovation, we will improve the diversified and multi-layered system of incubation services. We will pool domestic and overseas resources and incorporate various factors of incubation around the globe. We will enhance tutorship and capital services to advance high-level incubation. We will nurture professionalized personnel and enhance the capacity, quality and efficiency of incubation services. We will nurture a culture of incubation that incubation is for the future and helps to realize dreams and based on this culture we will foster a stronger entrepreneurial climate. We will give incentives so that start-ups and high-growth enterprises will emerge in large amount and we will boost the rapid development of new technologies, services, products and industries. As a result, incubators will become the major platform for mass entrepreneurship and innovation, major test field for new business models, leader for innovative culture and engine for the new economy. Specific targets include:

-New layout for incubation entities

-Higher performance of incubation

-Improved capacity for incubation services

-Enhanced sharing and openness

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## 4. Identifying 9 tasks for the 13<sup>th</sup> Five Year Plan period as follows:

❖ (1) Serving mass entrepreneurship and supporting the diversified development of incubators

❖ (2) Optimizing financial services and integrating investment and incubation

❖ (3) Improving the quality of incubation and optimizing innovation services

❖ (4) Promoting open and coordinated development and building the ecosystem for business incubation

❖ (5) Enhancing regional cooperation and developing incubators in a coordinated and balanced manner

❖ (6) Integrating into global networks and heeding the internationalized development of incubators

❖ (7) Pushing forward reforms and innovations and achieving a sustainable development

❖ (8) Fostering an entrepreneurial climate and enhancing the entrepreneurial culture

❖ (9) Enhancing self-discipline and self-regulation and achieving a healthy development for the incubation industry

(Source: Ministry of Science and Technology, September 2017)





# Overseas incubation: A case study of Techcode

Introduction: The science and technology policy package of China has been attaching great significance to the development of startup incubators. Favorable terms to increase investment and exempt taxes for incubation infrastructures and startup incubating networks were included in both the *Guidelines for the Medium- and Long-Term National Science and Technology Development Program (2006-2020)* and the *Medium- and Long-Term Talent Development Plan (2010–2020)*. And a number of policies have been published accordingly by local governments at various levels to set up their own development strategies. Meanwhile, sci-tech incubators have become important carriers for international science and technology cooperation. During the 11th Five-Year-Plan, incubation management training that included more than 300 people from over 20 countries including Russia, some Central European countries and Southeast Asian countries were conducted under the guidance of competent Chinese authorities. In the future, China's cross-boundary incubators will embrace a new era of development, as the country further strengthens its international science and technology cooperation.

This column will give a brief introduction on the “off-shore incubation” practices of Beijing-headquarter Techcode company, which has set up 30 incubators and accelerators to 22 cities in 7 countries, and managed to accumulate rich experiences in the differentiated operation modes to adopt in different places.

## 1、Techcode's Silicon Valley incubator

The innovation business of US is featured by the close combination of high-level fundamental research in first-tier colleges, large technological enterprises and active venture capitals, which altogether forms a self-contained ecosystem. From the prospect of fundamental research, college-company cooperation has been so mature that many college professors are business-minded and are self-reliance in forming their own team and commercializing their research findings. Also, owning the world's largest venture capital has decisive meaning for the success of startups.

With deep research into the market, Techcode figures out a common growth pattern of startups in the US, that most startups are founded by experienced technical or management staff who quit their jobs from technology giants in order to develop their own technology. With the founders' connection to large technology companies, most of the startups are eventually merged despite their reliance on venture capitals in the initial stage. In this way, a circle of innovation is formed among a few technology giants and numerous high-tech startups.

Techcode's incubator in Silicon Valley, despite its Chinese background, has established reputation for its ability to accelerate local startups. The incubator has pooled extensive local resources, including top talents from Stanford University, Princeton University, Duke University and MIT etc and executives from Google, Microsoft, Cisco, eBay, Amazon, Facebook, Intel, HP, etc.

The incubator also develops in-depth cooperation with Stanford University, UC Berkeley, MIT, University of Arizona, AMATA, Amazon, Accenture, NEA and the most active venture capitals. With plentiful projects, LPs and industry experts, Techcode has been recognized as top 10 accelerators ranked by *Entrepreneur*, and has received a number of awards such as Accelerator of the Year released at Sino-US Incubator & Accelerator Summit 2017.





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## 2、 Techcode's incubator in Berlin and Brandenburg

The German innovation model is featured by strong government support, with around 3% GDP goes to the innovation sector every year. As early as 2006, the federal government has put forward its own high-tech development strategies that covers 17 future industries, and has highlighted the effective government-college-market connections as one of the five pillars for the country's success in innovation.

Techcode's incubator in Berlin is the first private Chinese incubator in Germany, as well as the only Chinese company recognized by German Center for Research and Innovation. In May 2017, Techcode opened an innovation center in Brandenburg, which specializes in accelerating healthcare startups.

Techcode has established extensive links with local government agencies and research institutions including strategic partnership with the city of Berlin and Brandenburg, being a founding member of the Germany-China R&D Innovation Alliance and strategic partnership with top German universities like the Technical University of Berlin.

With such broad innovation network, Techcode has helped more than 100 German projects to conduct technological exchanges or business contacts with Chinese partners. During Premier Li Keqiang's visit to Germany in last June, Techcode was invited as one of the Chinese company representatives received by the Premier at an event named China-Germany Forum: Shaping Innovation Together

## 3、 Techcode's incubator in Tel Aviv

As a famous Start-up Nation, Israel attaches vital importance to technological innovation in its national development, given its limited domestic market and natural resources. The generous national policies – such as constantly helping Israeli companies to develop overseas market through diplomatic means, setting up special government department to manage incubators and startup funds and investing directly in seed-stage international cooperation projects – makes the country itself a super incubator for innovation startups.

Techcode's incubator in Tel Aviv is the first Chinese innovation center in Israel. The opening ceremony of the incubator was attended by Vice-Premier Liu Yandong and Minister of Science and Technology Wan Gang.

The center has established in-depth cooperation with Israel's Ministry of Economy, Ministry of Foreign Affairs, the Israel Innovation Authority and the city government of Tel Aviv, as well as bringing Chinese elements to the DLD Tel Aviv Innovation Festival for the first time in history. Avi Hasson, Chief Scientist of Israeli Ministry of Economy, said that the cooperation with Techcode will create a bridge between two great innovative powers in the world – China and Israel – which allows the two powers to work hand in hand to create a brilliant tomorrow.

## 4、 Techcode's incubators in Seoul

The government of Korea has been dedicated to mobilize all social forces to participate in innovation, with the ultimate goal of making headway in the "fourth industrial revolution". There are specialized government bodies in charge of coordinating with various departments, i.e., department of science and technology, department of commerce and department of finance, to support private companies' innovation projects. At



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the same time, the government adopts positive policies – such as providing trainings – to provide guidance for Korean companies to expand overseas.

Techcode's incubator in Seoul provides solid assistances for Korean companies entering the Chinese market. For example, the company has been cooperating with Sungkyunkwan University to carry out Sino-Korea talent exchange programs, working together with Korean technology parks to introduce frontier technologies to China, and help Korean company founders to seek support from governmental guided funds. Techcode has gained state-level recognition in Korea by participating in the government-guided fund project TIPS.

In April 2017, Techcode built its China-Korea commercial center in the Hui Autonomous County of Dachang in Langfang city, Hebei province, which provides one-stop service for Korean companies entering China.

In last July, Techcode opened two new accelerators in Korea – one works together with Korea Creative Content Agency to attract more cultural industry resources, the other cooperate with Seoul Business Support Center to classify the local IoT industry and home automation industry.

### 5. Techcode's incubator in Helsinki

Finland's well-known state innovation system was established bit by bit from 1960s to 1980s, and became mature in the decade followed. The core parts include the Ministry of Education and Culture, the Ministry of Economic Affairs and Employment, the Ministry of Social Affairs and Health, the Ministry of Agriculture and Forestry, and a number of public colleges and the Finnish Academy of Science and Letters. The small domestic market did not inhibit industrial development. Instead, it pushed Finish companies to explore overseas market and Finish research agencies to be more open to international cooperation.

Techcode's incubator in Helsinki is the first Chinese incubator in Finland. In a few months since its opening, it made significant progress such as establishing a strategic cooperative relationship with Helsinki Business Hub under the city government of Helsinki, and initiating a two-month exchange program for high-growth Finnish and Chinese companies with the help of NewCo, a local incubator also run by the Helsinki city government.

Moreover, Techcode has become partners with a number of multinational companies that are investing in Finland, i.e. Techcode has become strategic partner of Lenovo by helping the latter to build an accelerator specialized in healthcare industry in Finland, and is working on a scheme to establish an AI accelerator jointly with IBM.

(Source: Techcode, September, 2017)