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**The Propensity of the Market-Oriented Finance Service Scheme towards
Powering AOIs: A Cross-Border Outlook under B&R Initiative**

Plenary session 2:

New tools and functions for cities and areas of innovation

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Hosted by:



The Propensity of the Market-Oriented Finance Service Scheme towards Powering AOIs: A Cross-Border Outlook under B&R Initiative¹

Plenary Session 2 - New tools and functions for cities and areas of innovation

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Abstract

Finance service scheme to support SMEs² and technology-based start-ups has received a great deal of policy and market attention recently. This paper is concerned with the finance service scheme of STPs³ and other AOIs⁴ to encourage the development of SMEs in China and abroad. The Chinese AOIs has introduced many market-oriented finance service schemes after the implementation of the Belt & Road Initiative and Mass Entrepreneurship and Innovation Strategy to power entrepreneurial activities in AOIs. This essay is going to analyze the role of public support for SMEs and start-ups in China and the development tendency of the financing pattern in the context of other framework conditions for innovation. China attempts to remodel itself towards an innovation-driven economy, therefore, different types of SMEs in the Chinese AOIs access public funding for R&D and innovation activities to varying degrees. The empirical study has shown that despite the introduction of the national policy to support SMEs development, Chinese AOIs still need to improve their market-oriented finance service scheme such as a pledge of intellectual property in support of innovative businesses, which would accelerate the transition and improve the competitiveness of SMEs. The authors use examples of Chinese AOIs combined with AOIs worldwide to show the active roles played by the innovative cluster and financial mechanism in using and promoting the open platform of B&R that creates opportunities to markets which are involved, and above all, to extend the STP value in unimpeded trade and financial integration. The insights from this study can also be applied to other developing and emerging economies attempting to understand the role of financing mechanisms in building an innovative economy.

¹ The Belt and Road Initiative (BRI) is a development strategy that focuses on connectivity and cooperation between Eurasian countries, primarily the People's Republic of China (PRC), the land-based Silk Road Economic Belt (SREB) and the oceangoing Maritime Silk Road (MSR). The strategy underlines China's push to take a larger role in global affairs with a China-centered trading network. The Belt and Road Initiative (B&R), as an open and inclusive platform, will promote the spread of China's development experiences and deepen international practical cooperation, and thus advance economic globalization.

² SMEs: Small and Medium-sized Enterprises

³ STPs: Science and Technology Parks

⁴ AOIs: Areas of Innovation

1. Analysis framework

In terms of the analysis framework of this paper, a general introduction of STP's funding patterns will be given firstly, including its roadmap, the dimension of SMEs for the various finance service schemes and the benefits of all participants in those schemes. And, in order to have a clear scene of how the promotion plans in B&R countries are designed and carried out, the case study of Chinese STPs will be taken from the general scope and specific area respectively.

The following issues will be analyzed:

- (i) What new trends or innovations under B&R are there in the AOIs' finance service scheme in China?
- (ii) How does AOIs adapt to this trend?
- (iii) What impact does the stronger interaction between STPs and cities have on them?

2. Corporate Lifecycle and Funding circle

Corporate Lifecycle, a theory most easily overlooked in the circle of business administration in the past two decades in China, was authored by Adizes, a Jew, who served as a consultant and tutor for hundreds of enterprises. He dissected the whole course from an enterprise's gestation to its utter decaying and amounted it to the life cycle of an individual. He divided an enterprise's issues into two categories namely "common issues" and "ill-posed issues".⁵ In this way, founders would objectively judge whether an issue arising in different stages of an enterprise falls to the former genre or the later group. It carries heft for an entrepreneur since he needs to judge and work out issues with ease when many of them pop up.

However, the book is congenitally short of the cycle of capital, another cycle. Other than grasping a product's logic, an enterprise's growing stages should also consider logic of capital. The employment relationship between entrepreneurs and capital should be one that the entrepreneur employs capital rather than his being employed by capital. A country can have a promising outlook in this way. If all entrepreneurs are working for capital, the country would be atrophying.

Two circulations for enterprise operation are likened to human blood that contains both vein and artery. The first circulation refers to operation rhythm of

⁵ Ichak Adizes, *Managing Corporate Lifecycles*. 1998

products or an enterprise's growing capacity. Operation of a product would yield revenues and call for costs before a profit takes form. The second circulation is the rhythm of capital operation that contains more than financial rhythm but also investment one. Investment is not restrained to equity investment, it also contains very important asset allocation. Capital operation is concurrently accompanied by investment behaviors and financial behaviors. The value of investment would be embodied during the financing round. A case in point is manifestation of the capital value of investment going to a start-up enterprise in its next round of financing process.

Capital operation decides the value of an enterprise while product operation decides how it rakes in money. How to make an enterprise both valuable and profitable is the rhythm sensation that should be found in an entrepreneur so that he would avert being reduced to work for capitalists. An entrepreneur and a capitalist are two different identities with varying motives behind them.

As a famous saying in the investment circle goes, investment is to invest on people. It's difficult to present an objective standard for "investment on people", but an investment team has an increasingly evident proclivity as their preference to input to continuous entrepreneurs since they used to "pay a heavy price" during their previous process of starting up their business and would thus come across more mature in tackling with things. Those that bank on the entrepreneurship center fall to speedily-armed entrepreneurs in the 1+6 chain services, who would help you take hold of the entrepreneurship rhythm so that they can provide scientific and technological financial services to medium and small enterprises, carefully assist them to seek for expansion and relinquish the investment means by probability.

In a company's financing process, velocity and quota are two fronts that should be soundly grasped.

2.1. Growing Pattern of entrepreneurial SMEs

An enterprise would go through a life cycle akin to the growing process of mankind from presentation of conception to its founding, expansion and maturity. Tyejee(1984) conducted categorization of the investment phase of a start-up enterprise.⁶ In usual cases, an enterprise's growth can be divided into four stages listed below.

Stage 1: seed stage. It usually involves conception of a product or services with scientific achievements or originality as the groundwork. Inventers or entrepreneurs of a product are required to input an appropriate amount of capital for development and research in an effort to verify feasibility of their originality and engage in correlated potential marketing analysis.

⁶ Landier A. Start-up financing :from banks to venture capital: University of Chicago Photocopy, 2003

Stage 2: start-up stage. Successful development of a product is ensued by entrepreneurs' embarking on set-up of enterprises and engagement in trial production.⁷ During this stage, capital is primarily invested to procure production devices, product development, sales and the like. Ample capital is in need for the stage, but as the enterprise is short of past records on operation, it has a measly probability to notch up loaning from banks and the bulk of start-up companies bungle in this stage. And hence investment in this stage is confronted by highest risks. Venture capital is usually poured during this stage. Duration of the start-up period varies thanks to variation of industries. Usually put, it ranges from 6 months at the minimum and four to five years at the maximum.

Stage 3: development and expansion stage. From launching of products to the market at the outset, a start-up enterprise calls for more capital in a bid to further develop products and reinforce marketing capacity. But as the enterprise still has a long way ahead to being listed in the stock market, entrepreneurs' personal guarantee and warranty is called for if it aims at financing from fiscal outfits. Therefore, it's exceedingly challenging to raise funds through the aforesaid channels. Involvement of venture capital serves just as to amend the loophole.

Stage 4: Mezzanine stage. It refers to a stage marked by a start-up company's embarking of acquiring stable marketing quota when it reaches a certain operational scale, during which the enterprise has grasped high profits, its operational status has approximated requirements on investigation from listed companies and it schedules to glean capital from the open market.

2.2. Funding cycle of SMEs

Financing source of a start-up enterprise incorporates individual capital, venture capital, warranty capital, commercial bank credit and the like. In its varying stages of development, a start-up enterprise would usually have varying financial source and demand scale, and show conspicuous difference on financial purposes, so it calls for different financial means in different development stages. Domestic studies expose that a star-up enterprise would follow a certain pattern for financing during its development process.

2.2.1. Own capital

Ideally, appropriate technologies that respond to people's needs and willingness to pay can be selected without requiring any external

⁷ V Kanninen, C Keuschnigg. The optimal portfolio of start-up firms in venture capital finance: Journal of Corporate Finance, 2003

financing. A truly demand-based program can then be designed. The advantage of self-financed schemes is that usually the more wealthy households will take action first, which often gives the improvements a higher status value and encourages others to copy them.

Usually put, in its incipient stage, a start-up enterprise is financially supported from its founders and their friends. For investors, capital provided by entrepreneurs is more than prerequisite, it displays a major leverage and credit role for its debt or equity financing.

2.2.2. Multifaceted venture lending

During the financing process, use of traditional mechanism would stop short of satisfying financial demands of a start-up enterprise and hence external financial backup is hinged upon.

Some entrepreneurs with a sound operational credibility can make use of deposit received or development expenditure from customers and strategic partners as capital for enterprise development. Moreover, venture firms can also deploy governmental risk guaranty capital, credit fund provided by merchant banks and other financial outfits to supplant equity financing. All sorts of venture capital institutions and individual venture capital constitute important capital source for start-up enterprises.

After a start-up enterprise enters the stage of maturity, it cannot just rack up more credit funds from banks and other financial institutions, they can use capital market for direct financing such as floating of bonds or direct listing and acquisition of development capital through partial or entire equity acquisition and transaction. A start-up enterprise would confront incessantly enlarging scale of financial demand from the inception of its expansion period as production and marketing is constantly expanding and widening.

2.3. Funding Support from the government capital

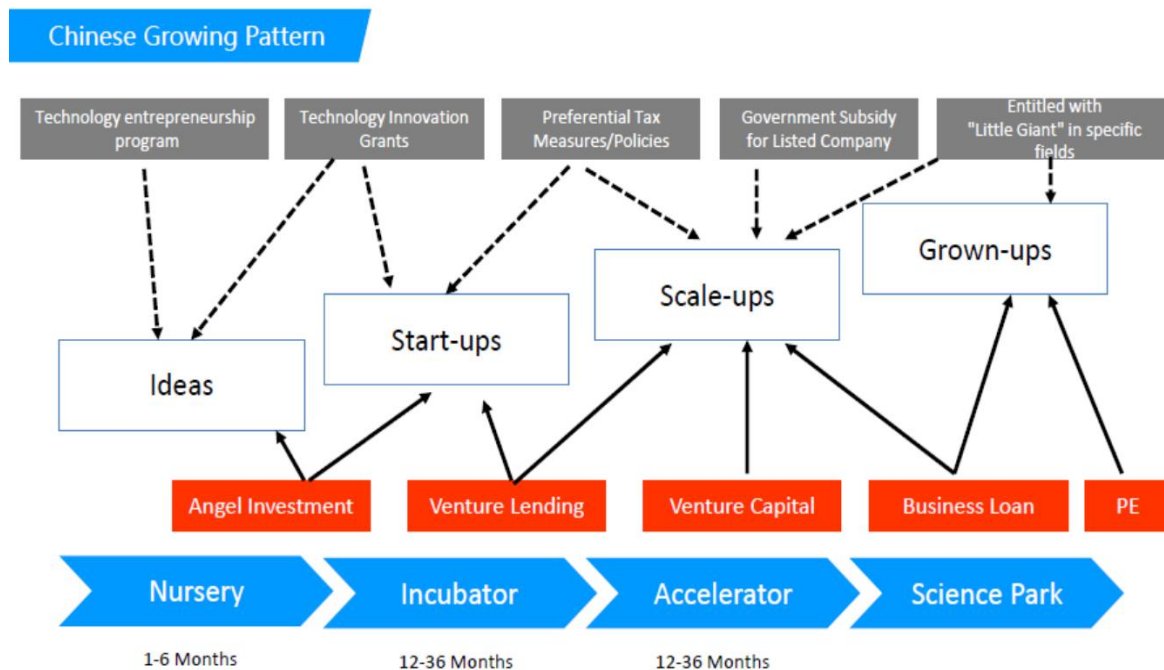


Figure 1 Chinese growing pattern

2.3.1. Technology entrepreneurship program & Technology innovation grants

The Innovation and Entrepreneurship Competition, which is sponsored by the China's Ministry of Industry and Information Technology and hosted by the Information Center of Ministry of Industry and Information Technology, and the local Provincial Economic and Information Commission, consist of the technology entrepreneurship program and the technology innovation grants for Chinese SMEs and entrepreneurs.

Take Shanghai's Innovation and Entrepreneurship Competition as an Example, the team, which wants to apply for the **technology entrepreneurship program**⁸, must meet the conditions:

- The entrepreneurial team that has neither registered nor established a company in China, has already technological innovation achievements and entrepreneurial plans;
- The core team members are no less than 3 people;
- Plan to register and establish a company in Shanghai within 6 months after the competition;
- Ready to settle in or have entered the entrepreneurial nursery.

The list of award winner will receive the following resources:

⁸ <http://cyds.shtic.com/>

	Program	Funding
Financial Support	Technology Venture Program	50,000 RMB
Technology Finance	Young Eagle Project	Maximum 200,000 RMB.

Table 1. Government subsidies for technology entrepreneurship program

The start-ups, which wants to apply for **the technology innovation grants**⁹, must meet the conditions:

- Enterprises have the ability to innovate and have high growth potential. They are mainly engaged in R&D, manufacturing, and service of high-tech products, have intellectual property rights and have no disputes over property rights;
- The company has standardized business operations, good social reputation, and no bad records, and is an unlisted technology-based SME;
- The company complies with the national SME classification standards, and the sales in 2016 shall not exceed 200 million yuan;
- The establishment of the company does not exceed 10 years;
- Total income \leq 30 million RMB.

The list of award winner will receive the following resources:

	Program	Funding
Financial Support	Shanghai Innovation Fund Project	200,000 RMB - 300,000 RMB
Technology Finance	Cooperative Bank Loan Credit	Maximum 1 million RMB.

Table 2. Government subsidies for the technology innovation grants

2.3.2. Preferential Tax Measures and Policies¹⁰

As of July 2017, China has introduced 83 tax measures and policies for key sectors and key areas of entrepreneurship and employment. In particular, since 2013, 73 new taxes have been introduced to cover the entire life cycle of the start-ups and SMEs. In order to create a sound tax environment for technological innovation and promote the rapid and healthy growth of enterprises, the state has issued a series of tax incentives to help companies continuously increase their motivation for transformation and upgrading.

Main preferential tax policies for Small-scale and low-profit enterprises:

- Personal VAT policy;

⁹ <http://cyds.shtic.com/>

¹⁰ <http://www.chinatax.gov.cn/n810341/n810755/c2576894/content.html>

- Small-scale and low-profit enterprises are exempt from corporate income tax;
- Accelerated depreciation of fixed assets of small profit-making enterprises in key industries;
- Exemption from government funds;

Main preferential tax policies for start-ups:

- Additional deductions for R&D expenses;
- Accelerated depreciation or one-time deduction of fixed assets;
- Import of major technical equipment is exempt from VAT;
- VAT refunds on domestic equipment purchased by domestic-funded R&D institutions and foreign-funded R&D centers;
- Technology transfer, technology development and related technical consulting and technical services are exempt from VAT;

Main preferential tax policies for scale-ups:

- “-15%” tax rate for High-tech scale-ups;
- “2 exemptions and 3 reductions” for software and integrated circuit (IC) scale-ups.

2.3.3. Government subsidy for listed company

As of October 2017, a total of 1595 companies in Shanghai and Shenzhen Stock Exchange have disclosed their 2016 annual reports, and 1,531 listed companies have received government subsidies. Among them, the ratios of government subsidies and net profits of 169 companies were all above 50%, and the accumulated subsidies amounted to 34.389 billion yuan¹¹.

2.3.4. Entitled with “Little Giant” in specific field

In accordance with the “Little Giant” growth plan, during the twelfth “Five Year” period, 1500 Small Technology Giant Enterprise will be cultivated, and 20 billion of yuan funds will be raised to build the science and technology “Little Giant” clusters¹²:

	“little giant enterprise”	“little giant cultivating enterprise”
R & D staff ratio	≥ 15%	≥ 10%
Annual research funding investment	≥ annual sales 3%	≥ annual sales 4%

¹¹ http://company.cnstock.com/company/scp_gsxw/201704/4061503.htm

¹² <http://www.stcsm.gov.cn/gk/zcfg/gfxwz/fkwwj/341481.htm>

Debt ratio	$\leq 60\%$	$\leq 70\%$
Last year's sales revenue	50million $\leq S \leq$ 300 million yuan	5 million $\leq S \leq$ 50 million yuan
annual growth rate of product sales or net profit in the previous 3 years reached	$\geq 20\%$.	15%
Sales volume or profit of major products	$\geq 50\%$	
Patent	≥ 2	≥ 1

Table 3. Recognition criteria of "little giant"

Evaluation results from the Shanghai Science and Technology Commission	Maximum amounts of subsidy	
	"little giant enterprise"	"little giant cultivating enterprise"
"excellent"	1.5 million RMB	1 million RMB
"good"	1.2 million RMB	0.8 million RMB
"qualified"	0.9 million RMB	0.6 million RMB

Table 4. Government subsidies for "little giant"

2.4. Financing constraints

Uncertainty, information asymmetry, nature of corporate assets and relevant terms for financial and product market, four decisive factors putting a strain on financing of a start-up enterprise, would decide financial selections facing an enterprise at any time.

Deployment of traditional mechanism by entrepreneurs during their financing course stops short of satisfying financing demands by start-up enterprises and hence external financing countenance is called for.

Uncertainty is used to gauge distribution of all probable results of an enterprise or a project. Increasingly dispersed potential results incur higher uncertainty. Uncertainty would revolve upon whether a research planning or new product can be worked out or not. Response by company rivals is also dicey.¹³ High uncertain is testament to that neither investors nor entrepreneurs would confidently forecast forthcoming future of an enterprise. Uncertainty would cast an impact on investors' willingness to offer capital, aspiration to grant credit and decisions by managers. It would

¹³ Wu Guanghan, Thinking about Bank Credit Innovation Supporting Small and Micro Enterprises[J]:Modern Finance,2016

also affect opportunity selection of investment. At the start-up stage of an entrepreneurial enterprise, investors would make a choice on entire pouring of capital or pouring of capital by stages.

Entrepreneurs are accountable for company operation who outshine investors or strategic partners in their mastery of information. Information asymmetry would lead to varying problems such as entrepreneurs' probable use of some detrimental acts without the earshot of some investors, use of strategies with greater risks than what is initially suggested or emergence of indolence.

Information asymmetry might lead to the issue of selection.¹⁴ Entrepreneurs might take advantage of favorable conditions that they outclass investors in knowledge or that are beyond their own competence. Investors would find it challenging to distinguish competent and incompetent entrepreneurs so that they would bungle in reaching valid and appropriate investment decisions. Information asymmetry probably leads to prohibitive external financing costs to the point of utterly stemming external financing.

Nature of corporate assets would play a role in financing decisions by entrepreneurs. Company financing with tangible assets tends to or has the conditions to rack up comparative privilege.

Marketing conditions also decide degree of difficulty for entrepreneurial financing. Capital and product markets are both frequented by major changes. Drastic changes in the capital market and fierce marketing competition of products would make it difficult for start-up companies to seek for financing via traditional channels.

3. Incentive policy in China

Finding for a new business or idea is almost always challenging. With the recent near-collapse of the financial system, however, funding innovation is even more difficult. Credit to businesses has tightened dramatically. The market for initial public offerings is moribund, and venture capital has been reduced to a trickle. As a result, the "valley of death" between a promising idea and a marketable product appears to be even more of an unbridgeable chasm. For many innovative companies, funding to move from a promising new concept to commercialization is simply not there. One sign of hope is the emerging practice of providing funding to companies on the basis of Market-Oriented Finance Service Scheme under "mass entrepreneurship and innovation strategy" and "B&R Initiative"

¹⁴ Lin Junbo, Research on information transmission mechanism and information disclosure system in stock market[D]:Zhejiang University,2005

towards Powering AOIs.

3.1. Mass entrepreneurship and innovation strategy¹⁵

The State Council of China issued an opinion to further boost mass entrepreneurship and innovation on June 16, 2015. Forces that have traditionally driven economic growth are weakening, the opinion said, and it is imperative that we intensify structural reform, boost efforts to implement the strategy of pursuing innovation-driven development, and all institutional obstacles should be moved to give way to mass entrepreneurship and innovation.

The opinion laid out specific measures to support mass entrepreneurship and innovation. Related government bodies are optimizing their financial policies to support mass entrepreneurship and innovation. Strengthened financial support policies, inclusive funding measures and more government purchasing will be seen in the near future.

Utilize financial markets to facilitate funding and investment. Optimizing the capital market, the government encourages corporations to raise funds through the bond market, and will study practical ways to enable start-up Internet and high-tech companies to enter specialized stock exchanges under the growth enterprise market (GEM) category. Banks are encouraged to cooperate with other financial institutions to offer special support to start-up firms. The government will support the development of Internet finance companies and crowd-funded projects.

Expand investment to help the development of start-up companies. The government will establish a mechanism to guide investment to entrepreneurs and expand channels for entrepreneurs to raise funds. It will also encourage State-owned enterprises to invest on start-up companies, and boost investment on both domestic and international innovative projects.

Develop services to help mass entrepreneurship and innovation. Business incubators, third-party professional organizations, Internet Plus services and other newly public services should be prioritized.

- Expand tax credits on R&D

Starting in 2016, most enterprises were able to enjoy tax exemptions for new technology and products, as part of an effort to encourage research and development (R&D) efforts. Besides new equipment and facilities,

¹⁵ http://www.gov.cn/zhengce/content/2017-07/27/content_5213735.htm?trs=1

R&D-related production costs and extra labor costs are now also on the tax deduction list for R&D enterprises.

- **Promote startup investments**

The State Council issued a circular on promoting the sustainable development of startup investments, as part of an effort to advance mass entrepreneurship and innovation in China.

The circular decided to encourage multiple investors to set up venture capital enterprises or channel money into startups. The investors include investment agencies that have rich resources in entrepreneurship and innovation, such as lending enterprises, business incubators and insurance asset management institutions.

3.2. Innovation of Technology Finance Policy¹⁶

To further boost close-knit connection of science and finance, bump up accessibility of financing for technological innovative enterprises, Finance Office of Shanghai Municipal Development and Reform Commission has launched the following policies to propel innovation of financial services:

- **Facilitate innovation of diversified credit service system**

It carries out innovation of financial service mode characterizing linkage of investment and loan. It gives countenance to banking financial institutions to make available short-term bridge loan to venture capital institution and equity investment, amplifies cooperation with outfits of entrepreneurship, investment and equity investment institutions and launches innovation of financial scheme means marked by “equity +banking loan” and “bank loaning + equity warrants”. It synchronously sifts out under qualified enterprises, and backs up qualified technologically innovative enterprises.

- **Propel innovative pilots project for investment by equities**

The development of venture capital should be promoted. It gives play to the guidance and leveraging role of guidance fund for governmental entrepreneurship and investment, encourages more social capital to initiate set-up of venture capital, equity investment and Angel Investment, incessantly amplifies investment degree of innovative outcomes during the seed stage and incipient stage, and alleviates financial issue for the ‘first one mile’ of technologically innovative enterprises. It widens scale of guidance fund of governmental angle investment and allows it that equity formed out

¹⁶ http://www.gov.cn/zhengce/2016-03/28/content_5058933.htm

of involvement of guidance fund to Angle's Investment can be transferred to other shareholders of the Angle Investment at the original value within 5 years. It innovates the management mechanism for venture capital investment of state assets, and opens an appraisal mechanism befitting investment, internal appraisal of entrepreneurial investment and appraisal mechanism of state-run assets. It encourages set-up of Angle Investment Alliance and other intermediary service organizations, increases linkage degree between innovation outcomes and Angle Investment, forges a benign development ambience and builds Shanghai into a major aggregation place for Angle Investment, venture investment and all sorts of private equity investment funds.

The construction of quotation and transfer market of quota of equity investment fund should be expedited. It quickens construction of quotation and transfer system of private equity investment fund, sets up and works on information release platform on quotation and transfer of fund quota of private equity limited partner, promotes the function of transferring services and enriches withdrawal channel of equity investment in the capital market.

Equity investment enterprises should be encouraged to launch domestic and overseas two-way investment. It enlarges the range of investment on equity investment pilot enterprises by foreign merchants, appeals to overseas angle investment, venture capital and private equity with rich experience on investment of technologically-innovative enterprises to go in for the pilots and widens capital source and usage channels. It actively probes into relevant policies and moves, spurs the active effect displayed by equity investment companies when collaborating with implementation of the strategies of "going global" and "bringing in", reinforces set-up of fund and implementation of investment of outstanding equity investment enterprises in the city in foreign countries, introduces new technologies and new business forms, and prods industry-finance co-mingling.

- Enhances supporting vigor for policy-type financial support

Large-scaled policy financial assurance outfits (fund) should be established., It optimizes and aggregates investment means of financial support capital, consummates municipal policy-based assurance institution systems, sets up a large policy-based financial assurance institution (fund) with registered capital to the tune of 5 billion Yuan, makes innovation on appraisal and other operational mechanisms, perks up marketing vigor, works in tandem with policy-oriented financial assurance outfits and merchant financial assurance institutions in the city through financial assurance, re-guarantee and equity investment, offers credit amplification services to small and medium-sized technology-based enterprises and focuses on forging of

citywide system for financing, assurance and re-guarantee aiming at small and medium-sized enterprises.

- **Encourage intensified cooperation between innovation and entrepreneurial service platforms and financial institutions**

The bridge-like effect of innovative and entrepreneurial companies should be elaborated. It supports cooperation between mass entrepreneurship space co-working spaces, innovative work fields and other new incubators with angle investment, venture capital investment, internet financial outfits and so forth and makes innovation on investment and financing institutions. It encourages that eligible science and technology parks take advantages of technologically innovative companies in their familiar areas to establish the database of technologically innovative companies, assists financial outfits to make innovation on technological finance service model, launches technological finance services and product innovation, and incessantly extend new channels for fusion of technology and finance. It backs up eligible parks to set up and work on petty loan companies targeting at servicing of mass entrepreneurship space.

It guides financial outfits to intensify collaboration in an effort to construct the technological finance service chain. By hinging on innovation and entrepreneurial service platform, it supports intensification of business cooperation among angle investment, venture investment, equity investment, banks, security companies, insurance companies, trading market, financial assurance company, petty loaning companies and organizations for appraisal of intellectual property rights and credit rating organizations, provides financial services covering the whole gamut of life cycle to technologically innovative companies at varying growing phases namely those at the seedling stage, at the incipient stage, at the growing stage and at the mature stage, and facilitates technologically innovative companies to go from strength to strength. It amplifies building of credit system among technologically innovative enterprises, deploys professional superiorities in such intermediary service outfits as credit information outfits and credit rating institutions to profoundly propel credit checking and credit appraisal among technologically innovative enterprises, prioritizes addressing of asymmetrical information between technologically innovative enterprises and financial institutions and propels valid linkage between financial organizations and technologically innovative enterprises.

4. What innovative service scheme do these SMEs require under the “B&R” initiative?

Within entrepreneurial ecosystem, mechanisms often do not exist for equitable distribution. This option is one that imposed from outside, rather than choose by themselves. Even in many top-level STPs having many SMEs, ecosystem selection criteria is hard to establish so that a AOIs as a whole shows funding demand. This is more likely to be effective in a homogenous AOI or one that has existed for a long time.

Shanghai CHJ Hi-Tech Park (CHJ) is a typical example of the combination of new innovation platforms that involve sources from many sectors and attract innovation elements such as talent, technology, capital and information.

4.1. Complete service chain of Caohejing Hi-Tech Park

As a STP, CHJ is in need of executing a new innovation service scheme, which is articulated through the “B&R”, to make breakthrough in powering STPs and AOIs. CHJ attaches much importance to improve the capacity of innovation, the IPR protection as well as the public technical and equipment sharing platforms.

CHJ has launched “1+6” relay-style scientific and technological innovation and entrepreneurial services. Various items of services implemented by revolving upon the six stages compose the internal core connotation of scientific and technological innovation and entrepreneurial service branding, which, together with brand connotation unique to CHJ and standardized service model comprising 16 service models, jointly constitute an integrated brand on innovation and entrepreneurial services.

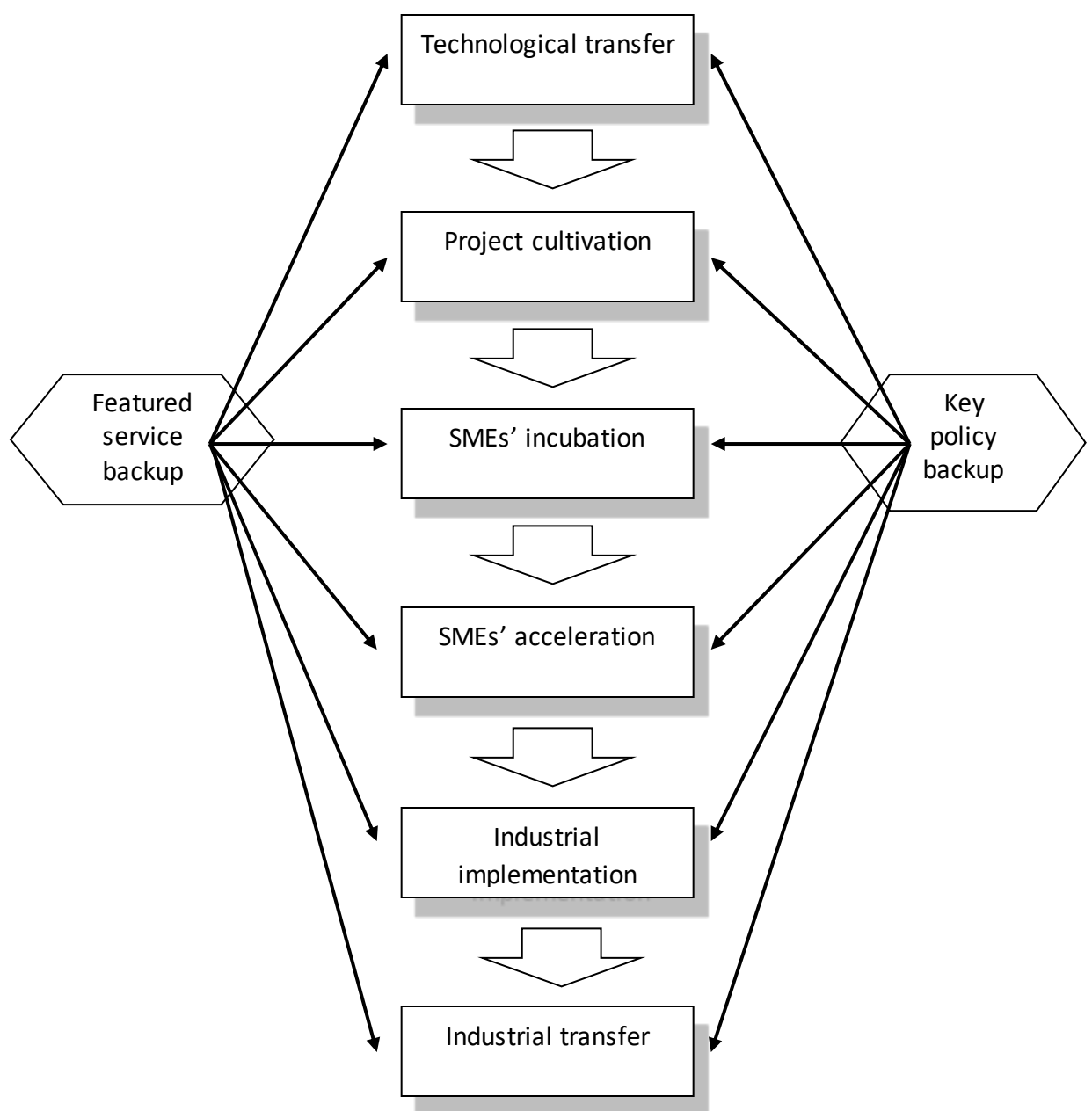
4.1.1. Standards for innovation and entrepreneurial services

In alignment with the strategic requirements on putting into force “standardization”, we launched the country’s very first New and High-tech Park Standards on Innovation and Entrepreneurial Services for Incubators, the first corporate standard for domestic incubator industry and recommended standards for the field in Shanghai, which was both groundbreaking and demonstrative. The standard system comprises sub-systems of universal basic standards, sub-system of service guarantee standards and sub-system for service delivery standard that introduces 34 national standards, 48 original ISO system files, re-enacts and formulates 114 service standards and roundly covers around 600 services for scientific and technological innovation and entrepreneurship. It is the mainstay for brand-building of scientific and technological services.

4.1.2. Relay-like standard and entrepreneurial service system

CHJ not just undertake varying incubation functions of the original incubators, we also shoulder the grave task of propelling scientific and technological innovation and development in the STP. To this end, we have actively relied upon the nursery garden on scientific and technological entrepreneurship, business start-up garden for college students, incubator of scientific and technological companies, accelerator and so forth, and worked on the scientific and technological innovation and entrepreneurial service system consisting of 6 stages and 16 service models of enterprise development.

Figure 2 Relay-like Innovation and Entrepreneurial Service System



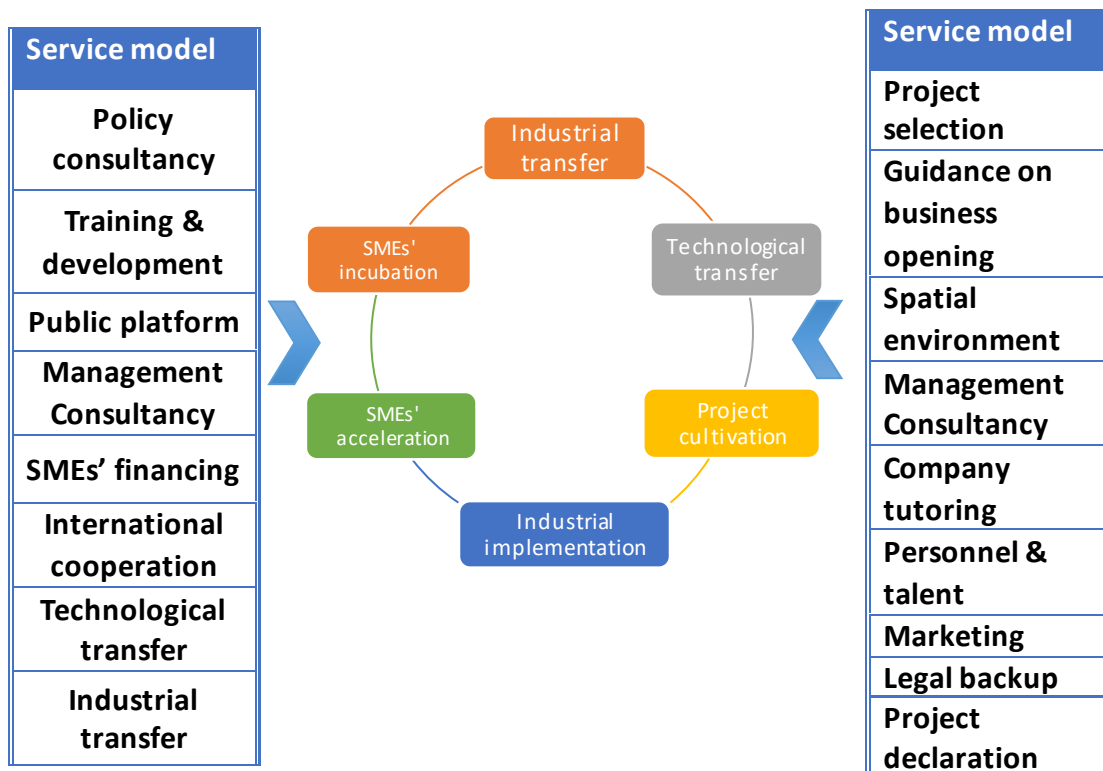
- **Relay-like scientific and technological innovation and entrepreneurial service system**

"1+6" relay-like service system (Figure 1) is a service system exclusive to the innovation and entrepreneurial service brand in CHJ. "1" represents the incubation service as essence and basic assignment; "6" refers to relay-like innovation and entrepreneurial service system consisting of six service stages namely technological transfer, project cultivation, company incubation, company acceleration, industry facilitation and industrial transfer.

- **Standardized service model-provision of systematic and standardized services**

After being up and running for several years, the scientific and technological innovation and entrepreneurial service system has constituted an integrated relay-like scientific and technological innovation and entrepreneurial service chain. By centering on all stages of the relay-like service system, it opens 16 standardized service models covering project introduction, guidance on business opening, company tutoring, project application, company financing, training and development, personnel and talent, international cooperation, technological transfer, public platform, industrial transfer, foreign exchange, marketing, legal support, management and consultancy and space and environment astride the whole gamut of enterprise development covering technological transfer, project cultivation, company incubation, company acceleration, industrial facilitation, industrial transfer and the like. It provides the relay-like innovation and entrepreneurial service system for companies.

Figure 3 Figure on Standardized Model for Innovation and Entrepreneurial Services



To date, building of scientific and technological innovation and entrepreneurial service brand has been in close connection with CHJ Hi-Tech Park all along by hinging on CHJ Hi-Tech Park. A scientific and technological innovative and entrepreneurial service system framework and brand advantages with intense CHJ characteristics has taken form.

4.2. "1+2+X" Innovative Funding Scheme

Multifold theoretical studies probe into mechanisms wielded by venture investors to relieve agency conflict between a start-up enterprise and its external investors. This mechanism incorporates monitoring and provision of consultancy [Comeli and Yosha (1997); Marx (1994); Hellmann (1998)], screening mechanism (The Screening Mechanisms Employed) [Chan (1983)], withdrawal incentives [Bergl 9f (1994)], proper joint investment [Admati and Pleiferer (1994)] or investment by stages [Bergemann and Hege (1998)].¹⁷

Shanghai CHJ Hi-Tech Park has accomplished a lot of basic and exploratory work In recent years, in support of the development of technology-based SMEs, among which stand out the unique "1+2+X" innovative funding scheme, which updated

¹⁷ Zhou Rongqin, Research on the Financing Difficulties of SMEs; Global Market Information Review, 2017

from the original “1+4” financial service scheme and is oriented by Shanghai financial industrial agglomeration. Among them, “4” means the original financial service chain, which consists of credit service, investment and financial services, listing service and integrity services; “X” means adding some technology and financial services scheme on the basis of the original “4” to better meet the new needs of the SMEs under the “B&R” background; the emerging solution² represents the linkage of venture lending and venture capital, and the financing platform is the cornerstone of all. In summary, the “1+2+X” contains the mechanisms of “proper joint investment”, investment by stages, and indefinite service extension.

4.2.1. New Financing Problems¹⁸ Faced by the SMEs under the “B&R” Initiative

According to the statistics of CHJ, SMEs face the following four major problems when conducting trade activities in countries along the “Belt and Road”:

- **Liquidity is under pressure**

After successfully exploring the Czech market, Horen Plastics¹⁹ received a large order from the Czech Republic and paid with USANCE L/C. However, upstream suppliers of Horen require payment and delivery, so Horen has to face enormous financial pressure in the stocking stage.

- **Financial services are not connected**

Many SMEs in CHJ have encountered a bottleneck in expanding its businesses along the “B&R” countries. Those companies negotiated orders with buyers in certain countries in Africa for a total of several million US dollars by the settlement method of USANCE L/C²⁰. However, the domestic-funded bank that the companies cooperate with at home has no business relationship with the issuing bank of the African country and therefore cannot provide USANCE L/C to support those trades.

- **Local risks are difficult to control.**

¹⁸ http://www.sh.xinhuanet.com/2017-09/18/c_136617976.htm

¹⁹ Horen Plastics is a privately owned plastics manufacturer based in Shanghai China. Horen specializes in the design and manufacture of packaging systems used for the transportation of bulk liquids. Horen use the world's latest technology to produce IBC containers and valves for liners. Because of a total of 36 million RMB Venture loan service scheme from Shanghai CHJ Hi-tech park innovation center Horen Plastics has passed the valley of death and achieved rapid growth. Furthermore, through the soft-landing program of CHJ Hi-Tech Park, Horen has got a slice of the B&R countries' market and is now participating actively in the B&R development project in Czech Republic.

²⁰ USANCE L/C: Usance Letter of Credit

A SME that produces and sells hi-tech building materials receives an order from a Southeast Asian country alone “B&R”. In the process of contact, the buyer requested that the letter of guarantee issued by this SME complies with the local laws or regulations. However, the cooperated said that there was no way to issue a letter of guarantee applicable to the local laws of the Southeast Asian country. The company itself did not know what kind of trade risks this term will bring.

- Exchange rate fluctuations cause losses

On August 11th 2017, the middle rate of RMB Yuan against US dollars concluded at 6.6642 which had risen for 128. The middle rate of RMB Yuan had risen for 4 days which had set a new record since Sept. 22th last year. It had been risen for 490 point this week and 2728 point for this year. Its growth rate reached 4 %. ²¹Under such circumstances, foreign trade SMEs need more help to avoid the risks caused by exchange fluctuation.

4.2.2. One Platform - Financing Platform for SMEs of Shanghai Caohejing Hi-Tech Park

- Management and Daily Working Institution

Review Committee on Loaning of Financing Platform (short as Loaning Review Committee below): it is accountable to screening and verifying medium and small enterprises that submit application for loaning, drafting proposals and plans on loaning of enterprises, issuing instructions of loaning and so forth. It goes to great lengths to provide timely and handy financing services to medium and small technology-based enterprises in CHJ and synchronously maintain interests of the financing platforms and rein in relevant loaning risks with great endeavors. The Loaning Review Committee would convene meetings per month on the third Thursday each month. Its members consist of members dispatched from the head company based in CHJ Hi-Tech Park and from Inter-district Cooperation Office.

Receiving Group of Loaning of Financing Platform: It consists of office and loaning service team of cooperative banking platform under management lending team of the financing platform. The receiving group is responsible for routine work of the financing platform including management of risk provisions, management and maintenance of company pond list in the financing platform, acceptance of company loan application, before-loaning investigation, after-loaning monitor and related coordination work. The receiving group would receive companies’ application for loaning throughout the year. Its members comprise relevant departments appointed by Shanghai Caohejing Hi-Tech Park innovation Center (hereinafter referred to as ‘CHJ

²¹ http://www.sohu.com/a/167257575_649930

innovation center) and departments appointed by cooperative banks.

Cooperative Banks of the Financing Platform: 3 cooperative banks are chosen via open bidding. They are Bank of Communications, Shanghai Pudong Development Bank, Bank of Shanghai.

- **Service Targets**

Loaning targets of the financing platform are science-based medium and small companies registered in CHJ Hi-Tech Park. Companies are required to have some development potentials, conform to industrial orientation in CHJ Hi-Tech Park and Xuhui District, and acquire sound marketing prospects and business model. High-tech enterprises that rent or procure towers in CHJ Hi-Tech Park are given priority.

- **Loaning Varieties**

Loaning via financing platform is dominated by granting of liquidity loans through the form of credit. To avert operational risks of the financing platform, the cooperative banks are actively using the intellectual property rights to mortgage products, pledge of accounts receivable and other innovative products to bolster enterprise development.

- **Loaning Plans of the Platform**

The financing platform's loan ceiling each time for the enterprise is no more than 10 million Yuan with 20 million Yuan as the maximum. The first loaning quota tops at 5 million Yuan. The loaning duration is no more than 2 years. Duration of short-term working capital loan is no more than one year. Application for medium-term working capital loaning is no more than 2 years. Three Cooperative Banks should issue no less than 400 million Yuan as platform loaning on the yearly basis.

Based on an enterprise's different development phases, the financing platform would provide three types of different loaning plans. (Notes: duration for set-up mentioned below is counted in an integrated accounting year. Sales revenue refers to that of the previous year. Accumulative sales revenue is used if it is yet to reach an integrated accounting year)

The first scheme targets at science and technology SMEs in the early stage that have reached or have explicit intention to reach agreement on investment in capital (including providing services to equity or angel fund for investment). It can be under operation in the form of investment and loaning in combination, i.e., the financing platform would claim bad debt risk

compensation ranging from 50% to 100%. This type of customers would not run beyond 10% floating upward the benchmark interest rate of the commensurate period in the Peoples Bank of China. In principle, investigation and review for this type of companies adopts the model of “negative detailed account + model scoring” (list and model seen in the appendix).

The second scheme targets at technology-based enterprises during the growing stage. The financing platform would assume 33.33% of the bad debt risk compensation. Loan interest rate for this type of customers is usually no more than 10% floating upward of benchmark interest rate of the People’s Bank of China during the commensurate period.

The third scheme targets at technology-based companies during the stable development period or companies with high credibility record notched up from the former three rounds of financing platforms. The financing platform would assume 5% of the bad debt risk compensation. Loan interest rate for this type of customers is usually no more than 20% floating upward of benchmark interest rate of the People’s Bank of China during the commensurate period. At the same time, the platform would provide listing (board-listing) services, merger and acquisition and other value-added services to satisfy demands of this type of companies.

Moreover, in the event that some outstanding companies need to surpass the aforesaid ceiling for quota or it’s necessary to lower the establishment years, sales revenue and other criteria, it can be submitted to the loaning review committee for negotiation.

	Integrated accounting year (Year)	Sales revenue of the previous year (10,000 Yuan)	Whether share-buying agreement is signed	Loaning quota (10,000 Yuan)	Maximum compensation ratio	others
Incipient Stage (First Type)	≤1	≥100	Yes	50	100%	Investment before loaning
	1-2	500-1000	Yes	100	80%	Loaning before investment
	1-3	≥1000	Yes	200	50%	Loaning before investment
Growing Stage (Second Type)	≥2	200-4000	-	500	33.33%	
	≥2	≥4000	-	1000	33.33%	
Mature stage (Third Type)	≥2	2000-4000	-	1000	5%	Bolstered for several times or companies with high growth rate
	≥2	≥4000	-	2000	5%	"Filing mechanism" is adopted

Table 5. Loaning Plans of Financing Platform for SMEs of Shanghai Caohejing Hi-Tech Park

- Warranty Means

In principle, the credit warranty means of 'issuing loans based on the company's prestige and credit for those without pledge or warranty' for companies acquiring loaning via the platform. Cooperative banks would also collaborate with the platform to probe into innovative financial loans with non-material pledge or non-policy pledge such as intellectual property rights, accounts receivable or contract energy management.

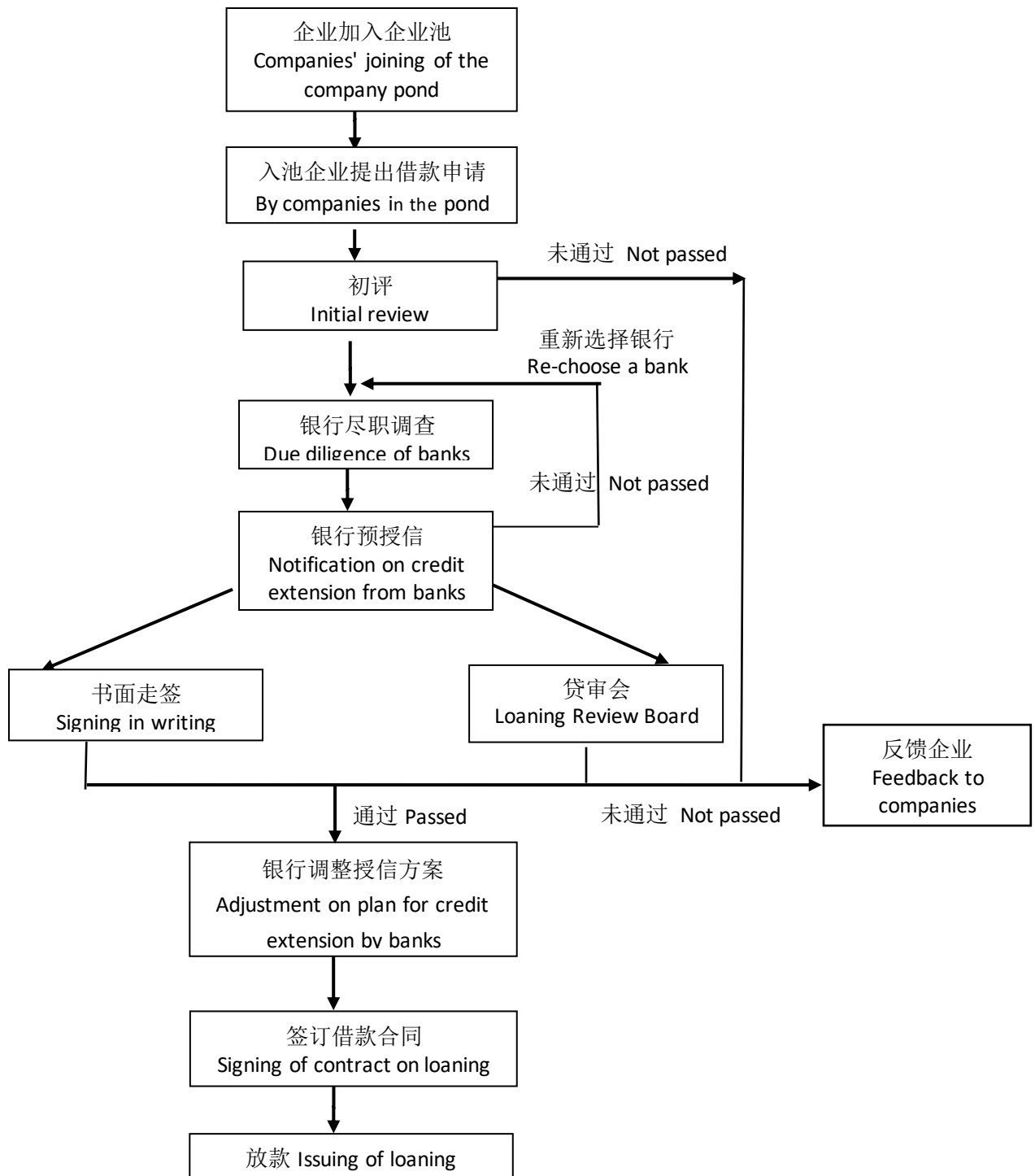


Figure 4. Flow Chat of Financing Platform for SMEs of Shanghai Caohejing Hi-Tech Park

4.2.3. “Belt and Road” Financial Package

Start with a working capital loan, the financing platform with three cooperative bank can provide one-stop financing solutions for SMEs, including integrated liquidity, trade financing, forward foreign exchange, and operating accounts, to meet the company's short-term financing needs and solve funding problems. Letter of credit financing can be used by exporting SMEs to revitalize funds, helping them to obtain early payment and mitigate risks. Foreign exchange services aim to reduce the uncertainty of SMEs along the “B&R” countries, help SMEs to choose the right hedging program, and reduce the risk of exchange rate fluctuations.

In response to the four mentioned major problems, CHJ innovation center will link its advantages in the “B&R” with the services scheme that are urgently needed by SMEs. The SMEs “Belt and Road” financial package is launched, covering three mechanisms and one-stop financing solutions. The “1+2+X” innovative funding scheme can also provide a set of trade service programs for SMEs to provide working capital loans, letter of credit financing and foreign exchange services.

4.2.4. Linkage of Venture lending and Venture Capital

To hunt for the innovative model featuring sustainable development for the financing platform, loaning function of the financing platform and the investment function of the angel fund can be linked. Angel fund refers to respective input tallying 5 million Yuan from Xuhui Technology Innovative Investment Co., Ltd. commissioned by the District Government of Xuhui and CHJ Hi-Tech Park Innovation Center commissioned to establish the first-phase angel incubation fund to the tune of 10 million Yuan. Set-up and operation of the fund is operated pursuant to the principle of “dominance by the government and marketing operation”. CHJ Hi-Tech Park Innovation Center is responsible for investment management and is engaged in motivation assessment on performance of investment management via marketized-operation.

It has the following two operations:

- **Investment before loaning**

Targeting at companies falling to the first type, the cooperative banks would grant certain intentional credit extension, unshackle green tunnels for bank

review and speedily and validly switch them to official credit extension after acquiring the notification on release of the financing platform within the investment period (including investment of share options) by angle incubation fund and other institutions acknowledged by the financing platform.

Intentional quota tops at 500,000 Yuan with the ceiling no higher than investment quota of the angle investment platform to the company and the duration no more than 2 years.

Within 15 work days upon receiving notification for release of the financing platform, the cooperative banks would apply for official credit extension to the company with quota no more than the intentional one, duration no more than one year and interest no more than 10% floating upwards of the benchmark interests of the People's Bank of China during the commensurate period. The financing platform would undertake a maximum of 100% of bad debt risk compensation for this type of credit extension.

- Loaning before Investment

For the first type of companies mentioned above, the financing platform would grant credit extension to company loaning and would help angel incubation fund and other financing platforms or third-party investment institutions acquire option for buying shares through forward equity transfer agreement. By wielding option, this plan can hedge loaning risks with interests garnered from accrued value of equity in the future.

Intentional quota tops at 2 million Yuan with duration no more than 2 years and interest no more than 10% floating upwards of the benchmark interests of the People's Bank of China during the commensurate period.

Before the loaning company accesses the capital market or is merged, the investment institution can exercise its rights and withdraw to yield a profit. Means of withdrawal covers withdrawal from the capital market or buy-back of investees following negotiated price settled when signing the forward equity transfer agreement. The investment institutions would share the profits of withdrawal with the cooperative banks in the form of procurement services and so on with concrete means being otherwise agreed upon.

In the event that recouping of loans is overdue, CHJ Hi-Tech Park Innovation Center can deduct the sum from the account of risk provision following warranty proportion determined when loaning is extended.

Column - The Innovation Ecosystem Efforts of Caohejing Hi-Tech Park

Covering an area of 14.28 sq. km, Shanghai CHJ Hi-Tech Park is one of China's first state-level economic and technological development zones, as well as a national high-tech industrial zone and export processing zone.

Currently, CHJ is home to more than 3000 domestic and overseas hi-tech companies, including over 800 foreign invested enterprises. 82 Fortune 500 companies have invested 136 projects in the park. In 2016, the combined sales revenue of CHJ enterprises totaled 293.3 billion yuan, with industrial output value of 80 billion yuan, GDP of 99.1 billion yuan, and imports & exports US\$8.4 billion. As a result, CHJ tops all development zones in China in terms of its economic output per unit area.²²

CHJ has witnessed a sound and rapid development in the past three decades, characterized by a number of hi-tech industries, such as electronic information technology, new materials, biomedicine, high-end equipment, automotive accessories, new & alternative energies as well as modern service. The electronic information technology constitutes the pillar industry of the park, with focus on microelectronics, photo-electronics, computer hardware and software, wireless communication and terminal units.

2005年-2016年开发区主要经济指标 Economic Index of CHJ in 2005-2016							
年份 Year	地区生产总值 GDP 亿元 RMB 100 Million	工业总产值 Industrial output value 亿元 RMB 100 Million	销售收入 Sales revenue 亿元 RMB 100 Million	利润总额 Profits margin 亿元 RMB 100 Million	税收总额 Tax income 亿元 RMB 100 Million	出口额 Export value 亿美元 US\$100 Million	进口额 Import value 亿美元 US\$100 Million
2005年	329.76	835.97	930.69	22.00	19.64	83.12	65.37
2006年	381.50	1005.92	1227.91	29.63	22.27	107.10	62.56
2007年	416.44	1013.57	1405.30	56.63	27.55	105.16	44.44
2008年	473.99	1146.95	1603.43	55.48	33.25	138.09	42.45
2009年	562.13	1253.26	1862.63	79.32	62.56	136.96	39.90
2010年	670.30	1253.10	2188.90	100.80	67.05	127.70	52.90
2011年	716.81	1145.37	2217.58	124.61	72.91	125.25	53.74
2012年	810.01	1068.40	2469.30	122.46	86.33	115.58	45.43
2013年	1023.86	1043.90	3085.87	196.35	86.38	114.15	40.02
2014年	970.27	784.69	2852.57	217.16	94.75	79.71	40.19
2015年	883.00	631.77	2587.71	240.62	95.66	46.46	35.74
2016年	991.6	626.23	2933.20	275.78	105.17	43.84	48.80

Figure 5. Economic Index of Caohejing Hi-Tech Park in 2005-2016s

Source: Caohejing Hi-Tech Park Annual Report 2017

²² Caohejing Hi-Tech Park Annual Report 2017

2016年开发区主要经济指标完成情况 CHJ 2016 figures

指标名称 Index	计量单位 Unit	2016年 In 2016	同比增减% % change	指标名称 Index	计量单位 Unit	2016年 In 2016	同比增减% % change
地区生产总值 GDP	亿元 RMB100 million	991.1	13.5%	出口总额 Export value	亿美元 US\$100 million	48.8	5%
其中:工业增加值 Industrial added value	亿元 RMB100 million	180.4	-0.5%	进口总额 Import Value	亿美元 US\$100 million	34.8	-2.5%
销售收入 Sales revenue	亿元 RMB100 million	2933.2	13.4%	新引进企业数 Newly-approved enterprises	家 number	2980	—
其中:外商投资企业 Foreign-funded enterprises	亿元 RMB100 million	1887.9	20.3%	其中:外资企业 Foreign-funded enterprises	家 number	27	—
其中:第三产业总收入 Revenue of the tertiary sector	亿元 RMB100 million	2133.7	18.7%	新增外资注册资本 New increased registered capital from abroad	亿美元 US\$100 million	8.8	—
工业总产值(现价) Industrial output value (current price)	亿元 RMB100 million	626.2	-0.5%	新增内资注册资本 New increased registered capital from domestic	亿元 RMB100 million	41.7	—
其中:外商投资企业 Foreign-funded enterprises	亿元 RMB100 million	544.4	0.5%	年末全区从业人员 Employees (by the yearend)	万人 10 thousand	22.5	—
税收收入(含异地及关税) Tax income	亿元 RMB100 million	115.9	13.6%				
利润总额 Profits margin	亿元 RMB100 million	275.8	14.6%				

Figure 6. Caohejing Hi-Tech Park 2016 figures

Source: Caohejing Hi-Tech Park Annual Report 2017

The modern service industry has mushroomed over the past decade, which involves financial service, information service, quality assurance, technique supervision, IPR, logistics, education & training, HR service, research and design, as well as service outsourcing. Specifically, banks and financial institutions has established their data centers or clearance centers in CHJ, such as the Bank of China (East China branch), the Agricultural Bank of China, the Bank of Communication, Shanghai Pudong Development Bank, Ping An Insurance Company and Shanghai Social Security Bureau, with the major telecommunication and networking companies in China, China Telecom, China Unicom, China Mobile and Shanghai Network Access Point and Shanghai Software Testing Center having their data centers.

4.3. Referential Financing Mechanisms for SMEs

Established officially with 100 million USD by the government of Israel in January, 1993, YOZMA, widely recognized as the creator of the Israeli venture capital industry, started to activate the country's capital market, channel venture capital into startups and develop financial investment talents.

Yozma launched its first venture fund, Yozma I, basing on a venture

investment stimulus program by the government. In the following three years, 10 sub-funds with around 20 million U.S. dollars each were created. ²³YOZMA financed 40% of all the sub-funds and other private investors like MVP and Advent of US, Dimler-Benz (DEG) of Germany, AVX and Kyosera of Japan, offered the rest 60%.

Meanwhile, more and more startups received venture capital investment under the direction of Yozma, which became the beginning of the venture capital market in Israel. Now, Yozma is still lending and developing the Israeli venture market.

With the success of Yozma I, Yozma launched its second and third fund, Yozma II & Yozma III, consecutively in 1998 and 2002. Yozma II & III focused on technology company investments by providing professional talents, constructive business strategies, new round financing, etc.

Since the foundation of Yozma I, Yozma has operated more than \$220 million totally in these three funds and invest around 50 great technology companies, among which, many have already gone public on US and European stock exchanges.

4.4. Case Analysis (HOREN Plastics)

HOREN - Zero Waste Zero Loss

Founded in 2013, SHANGHAI HONGYAN RETURNABLE TRANSIT PACKAGINGS CO., LTD. is a new and high-tech enterprise specialized at research, development, designing and manufacturing of returnable transit packaging (RTP).

Thanks to its deeply-imbedded industrial acknowledgment, profound reserve of knowledge, speedy manufacturing and delivery capacities, HOREN has roundly delivered its technologies and products to Europe, North America, Southeast Asia and Australia and provided services to CHEP, the world's largest renter of logistics instrument, EuroPool, the most noted renter of logistics instruments in Europe, SGL, the 3rd-place-ranker facilitator of logistics services in the world and Top Four manufacturers of flexible packaging namely Flexsol of UK, Goglio of Italy, Bemis of America and Sealed Air of Australia. Worldwide, HOREN has grown into a brand with big clout in RTP sector.

In its expansion process, HOREN racks up all-out countenance and service scheme from Caohejing Hi-Tech Innovation Center.

²³ <http://www.yozma.com/home/>

CHJ Financial Platform has accumulatively provided HOREN with four pledge-free and warranty-free credit loaning at low interests, incessantly pumped low-cost financial backup to its speedy development and raised its quota of credit extension from the incipient 5 million Yuan to 20 million. By December, 2017, HOREN had acquired Caohejing Angle Investment Fund tallying 36 million Yuan as investment and loaning and B+ round of input. The B+ round of investment is testament to realization of first-time melding of credit and loaning function and investment function of CHJ Financing Platform, marking the first successful case on “investment and loaning in combination” for CHJ Financial Platform.

In the aspect of corporate scientific and technological development, the innovation center has conducted comprehensive tutoring and long-term planning on certification of scientific and technological certification, application for scientific and technological projects based on its own characteristics. By the end of August, 2017, the innovation center had helped HOREN hover up a total of 2.8 million Yuan from all sorts of financial subsidy for science and technology.

In the aspect of linkage between investment and financing, the innovation center also claims the credit for HOREN’s acquisition of angle investment to the tune of 12 million Yuan from Vertex ventures in 2014.

When it comes to internationalization, Caohejing Innovation Center would make full use of its international incubation resources to link HOREN to the targeted industrial clusters in the international market, to vibrantly connect to innovative resources of the Fortune Global 500 companies, and to triumphantly pry up the international logistics packaging segmented market to go along with the “B&R” layout. Through the soft-landing program of CHJ Hi-Tech Park, HOREN has got a slice of the B&R countries’ market and is now participating actively in the B&R development project in Czech Republic.

By fully mobilizing international incubation, investment and financing, certification of scientific and technological qualification, application for science and technology projects and the like and going along with “B&R” layout, CHJ Innovation Center helps HOREN successively open markets in Central and Eastern Europe covering Czech and so forth so that “B&R” attains full coverage in this swath of land and it surges into a lending enterprise in the global smart logistics packaging sector. HOREN has accumulatively registered an upward of 350 patents for invention worldwide.

From 2015 to late 2017, HOREN accumulatively acquired 36 million Yuan of investment and loaning and B+ round of investment from Caohejing Investment Angel Investment Fund. The capital increment is raised to 600 million Yuan with

investors seizing 0.1667% of shares from the company after capital increment. August 8, 2017 marked the date that HOREN Logistics Co., Ltd. proclaimed its completion of C-round financing surpassing 100 million Yuan, led by Seven Seas Venture Capital founded by Mr. Xiong Minghua, ex-CTO of Tencent and co-invested by Yungpark Capital.

HOREN Logistics acquired a yearly revenue of 110 million Yuan and a net margin of 23 million Yuan in 2017, showing a speedy upswing when compared the revenue of 82.83 million for 2016 and that of 55.4 million for 2015. Facilitated by speedy expansion, it switched to a merited company equipped with the conditions to be listed and to bring brunt to the capital market from SMES. It is projected to be listed in 2019.

5. Extending the STP Value Creation Perspectives under B & R initiative

According to the statistics of the Ministry of Commerce, Chinese enterprises made a total of 14.36 billion U.S. dollars of non-financial direct investment in the countries that along the Belt and Road Initiatives in 2017, and 19 new China's Overseas Economic and trade Cooperation Zone were born 2,330 China's Overseas enterprises found their home in the industrial park, and their turned over 1.14 billion U.S. dollars tax to the host country. With these great achievements in overseas investment and foreign cooperation, there are still problem of "four noes" compared with advanced parks overseas, such as incomplete strategic co-ordination, unidentified business models, insufficient development agglomeration and inadequate high-quality overseas parks in China's Overseas Industrial Parks; Therefore, how to avoid risks and solve these problems that are inevitable in development, how to scientifically assess the development performance and growth potential, how to formulate the overall development strategy and create suitable management models, how to enhance the development level and governance capacity of China's overseas parks to enrich the connotation and expand the influence of the "Belt and Road Initiative" will be the focus of the political, academic and business communities all over the world in the new era.

As regards opportunities, threats, actual issues, characteristics of types, distribution characteristics, development performance, growth potentials and the like concerning construction and development of overseas parks by China, this chapter is to set off from such fronts as coordination of strategic planning, elevation of construction quality, encouragement of diversified innovation of parks and set[-up of risk precaution system, among other things, to come up with detailed implementing countermeasures to propel long-term, effective, wholesome and sustainable development of China's overseas parks under "B&R" Initiatives.

5.1. Intensification of Planning and Coordination

It is a requisite that the country intensifies its strategic planning of its overseas parks with key projects propelled by the top brass being switched to those facilitated by the holistic planning, a move calling for national resources' prior and focal diversion to overseas parks featuring geostrategic significance and strategic significance for resource assurance.²⁴ For one thing, the country is required to heighten inter-departmental coordination, conduct overall planning, put into effect guidance at hierarchies, consummate service system and intensify risk control; and for another, it should further enforce bilateral protection treaty, viably redress such issues as double taxation, park land, tax, labor policies, supporting infrastructure, investment disputes, risk prevention and so forth, clarify respective interests of overseas park building and provide vigorous legal guarantee to park construction and development.

On the one hand, the National Development and Reform Commission should give vital countenance to overseas parks in association with capacity by giving an eye on the development status quo, distribution terms, industrial types, building performance, growth potentials and such concerning China's overseas parks; on the other hand, it should actively guide overseas companies to come closer to the neighboring overseas parks, hearten scaled aggregation of industrial development among overseas enterprises, and provide instructions and proposals on coordinated planning involving spot, line and panel layout of set-up of China's overseas parks on the macroscopic level by hinging on key sectors, key realms and overall strategic layout to be implemented under recommendation of the "B&R" Initiative and with reference to actual condition of the countries along the line.

On prodding audited construction and optimized adjustment of China's overseas parks, the Ministry of Commerce should guide overseas parks to energetically deploy preferential policies of a hosting country and take the initiatives to link to local development tactics coupled with giving instructions to China's overseas parks and enterprises to sort out explicit development realms and key orientations for disparate regions and parks by combining with existent conditions of resources, energy, market, labor force and the like in each country and region so that regional coordination and layout dominated by China's overseas parks that characterizes different types and functions can be spurred. Measures in case incorporate emphatically layout of port-surrounding parks on production and processing by relishing on China's favorable conditions in building and running of ports in South Asia, together with its comparatively lower labor

²⁴ Zeng gang, Zhao hai, Hu hao, Report on construction and development of china's overseas industrial parks under the Belt and Road Initiatives, 2018,

costs; and probing of setting up scientific and technological research and development parks and facilitation of industrial cooperation via technological cooperation by taking advantage of lending technological superiorities in west European countries, putting technological cooperation as the emphasis and adopting the model of high-tech incubator.

5.2. Highlight on Normalization and Elevation

The ultimate aim of overseas park construction is to engage in branding output of Chinese parks, which involves multifold fronts covering capital, technology and talents. Construction of overseas parks along “B&R” initiative should combine with existing development level, quality and issues with reference to prominent issues and main bottlenecks covering main body and development factors of park development. Land, planning and profit-running model should be further sorted out. Acquisition of land constitutes the groundwork for project implement when racking up land based on laws and regulations is the minimum guarantee to determine project risks, so priority should go to legal proceedings of land procurement (renting) in a bid to ensure legitimacy and economic nature of land use. At the same time, functions of overseas parks should be accurately positioned, and development of enterprises based in the park should be scientifically coordinated for the purpose of guaranteeing sustainable development of the park.

Valid implementation of financial and policy countenance of overseas parks requires, among other things, heightened financial backup on overseas parks along “B&R” and formulation of different encouragement and subsidy moves by adjusting measures to local conditions. It is advised that special capital for overseas parks be set up in Silk Road Fund as backup for building and developing of overseas parks in countries along “B&R”.²⁵ The country should vibrantly work in tandem with Asian Infrastructure Investment Bank, New Development Bank among Brics, World Bank and other outfits for multilateral development to shore up overseas parks along “B&R” and join hands with relevant parties in formulating the principle for financial directions in overseas parks along “B&R”. Secondly, a bulk of the outbound subsidy capital is to be diverted to aid funds of the park as incipient investment capital of the enterprise. Lastly, set-up of industrial fund or incubation fund of companies in the park before propelling and promoting outbound orientation of Chinese enterprises. By set-up or holding of professional outfits for industrial investment and with deeming relevant industrial projects or capital and management in the investment parks as the groundwork, it is to construct a corporate incubation platform.

²⁵ Zeng gang, Zhao hai, Hu hao, Report on construction and development of china’s overseas industrial parks under the Belt and Road Initiatives, 2018

Resident enterprises are to be incubated with whole-process services in the intermediary organizations. Building and developing of overseas parks calls for professional planning, business attraction, law, public relations, sales and other professional services dominated by domestic companies for park development with rich construction experience who would guide intermediary outfits for whole-process services to incubate enterprises settled in so as to grant more guarantee to development of companies in the parks. For the moment, we can model on Tsinghua Enlightenment Holding's efforts to engage in professional and brand-based science and technology parks in such countries along "B&R" as Pakistan, Brazil, Egypt and so forth. Against the setting of "B&R", China's overseas parks should put into effect the concept of cooperation and win-win characterizing 'joint business, joint construction and sharing', fully show regards and initiatively get incorporated to local society, give consideration to local demands and interests, adhere to inclusive and sharing development, establish corporate social accountability and pay attention to sustainable development of parks and companies as well as synergy of interests between hosts and guests.

5.3. Encouragement of Diversified Innovation

The effect of private capital and private economy should be given play and diversified investment subjects of park development should be aroused. For the moment, overseas parks undertaken and run by private enterprises have racked up glitzy achievements both in quality and quantity. Viewed from distribution of attributes of overseas parks, China's overseas parks in countries and regions alongside "B&R" that are dominated by private enterprises account for a proportion of 57.8%. Ranking of China's overseas parks in terms of development status quo, development performance and development potentials are also testament to the irreplaceable effect displayed by private companies in development and building of overseas parks.²⁶At present, 14 out of 45 China's overseas parks in countries and regions along "B&R" are run by private enterprises, knocking into top 20 in comprehensive ranking. Thus the dominating role of private economies is particularly evident. Much though dispersed private capital falls short of state-run capital in volume, it outnumbers state-run companies and companies run by the Central Government by ten-odd folds. If more private entities are heartened to get involved in international competition, those with strength and experience on overseas investment should be appropriately encouraged to huddle for going outbound in a bid to arouse vigor of private capital in investment, finance and management of overseas parks, which would not only propel diversified subjects of overseas parks to implement

²⁶ Zeng gang, Zhao hai, Hu hao, Report on construction and development of china's overseas industrial parks under the Belt and Road Initiatives, 2018

innovation of investment, financing and management, but also validly prodded construction and development of China's overseas parks under recommendation of "B&R".

To boot, the effect of commerce society and cooperative platforms should be actively displayed and the benign surrounding of operation and management of overseas parks should be extended. Overseas Chinese merchants constitute third powers propelling "B&R". To cater to diversified and perplexed operational business on marketization and legislation of countries settled in the overseas parks, Commercial Society of Chinese Merchants can fully wield its geographic advantages so that companies in the park can attain transboundary cooperation by establishment of multilateral outfits on industry and commerce. Furthermore, financial effect of commercial societies of Chinese merchants should be actively displayed, involvement of local social capital should be fully encouraged so that ample financial backup on overseas infrastructure construction, technological innovation and talent introduction of transnational parks can be provided. Therefore, building of platforms for exchange among Chinese merchants in overseas parks and provision of major information liaison and backup platforms to parks helps validly conquer endemic nature of overseas parks.

Effect of local citizen and communities in urban and rural areas should be displayed and development model of parks featuring fusion of industry and town should be innovated. China's overseas parks distributed in all corners should further propel conversion of parks from "those dominated by industry" to "those with industry and town in combination". On the one hand, we should establish division of space control concerning park development and growth range of construction site, and give prior emphasis to backbone effect of main shaft of future road development; and on the other hand, we should refer to development concept of fusion of industry and town in parks to forge an open, inclusive, innovative and outstanding park brand. To add, overseas parks should attach importance to communication and interaction with local citizens and pay attention to combination of infrastructure construction with indigenous culture. Construction on this front can draw reference from triumphant projects for soft power such as Cupi's global mindset project' in American thinktank and the like so that overseas parks can be made into a responsibility community characterizing economic fusion and cultural inclusiveness with countries they are based in.

In recent years, construction of China's overseas parks sets out exploration and practice on making of new carrier for transboundary fused development, which is mainly manifested in building of science parks, innovative regions and overseas research and development centers. Under recommendation of "B&R" and based

on the development trend that park construction is switched from singular manufacturing and trade and logistics parks to overseas technology parks and overseas research and development center, China's overseas parks should propel innovative building of multiple comprehensive overseas parks and park operation model. On this front, successful cases in point cover opening of overseas innovative centers of Zhangjiang Group in Massachusetts, USA, of Shanghai Lingang Group in Silicon Valley of America and in Helsinki of Finland.

5.4. Precaution of Investment and Financing Risks

"B&R" initiative indeed offers valuable opportunities for building and development of China's overseas parks but risks still abound. It would lead to fatal consequence to construction of China's overseas parks without corresponding prewarning and precaution system, and whereupon building of a dynamic and completed risk precaution system to counter against financing and investment risks on park building is of vital importance.

We should work on risk system for park building and attain dynamic appraisal on performance of park development. As overseas park building is highly probable to be subject to political, societal, cultural, financial, environmental and model risks, Chinese companies should conduct risk system identification and dynamic appraisal with quantitative and qualitative methods combined from three fronts namely macroscopic setting, industry and corporation. For one, it should combine with governmental preferential policies to engage in reasonable investment planning and management, gradually draft legal proceedings in connection to corporate financial conducts so that financing and investment system of overseas parks would gain more normalization and marketization; and but for another, capital operation for park building should be dominated by "swift" and "stability" with attempted avoidance of heavy asset investors. Park managers should synchronously work on overall planning and single design of precise park, precisely link to market demands to realize investment of capital by stages and returns through batches. We should propel conversion of China's overseas parks from "heavy asset investor" to "heavy asset operation". That park construction is solely reliant on state-run companies against the setting of "B&R" would usually lead to such issues as low operational efficiency and severe drainage of assets. China should not blindly model on the financial circulation model of "land development fees coupled with finance and tax binding" on development of domestic parks but alter the investment and management mechanism "with national investment prevailing and state-run operation as priority". Marketing force should be in play for the financial channel, companies should be encouraged to engage in spontaneous financial and investment model, state-run and private companies should be encouraged to form "aggregated" financing and

investment model via strategic alliance, labor division and synergy among companies should be intensified and cutthroat homogenous competition among parks should be shirked so that ways can be offered to overseas parks to work on innovative channels for financing and investment and to lower latent risks of financing and investment.

6. Conclusion and Further Work

Industrial parks compose a major carrier to propel “B&R” Initiatives. AOIs are supposed to energetically spur construction of economic corridors, pull through parks on economy, trade and industrial cooperation, further promotes investment and aggregation industry that adds momentum to employment and takes a track of innovative advancement on the front of cooperation of substantial economy during the building process of “B&R”. We should kick off Technological Innovation Planning in counties along “B&R” and conduct four conducts namely technological and people-to-people exchange, co-building of joint labs cooperation among technology parks and technological transfer. By March this year, a tally of 56 trade and economic cooperation zone in 20 countries along “B&R” had been established that together seize 72.7% of total ongoing overseas cooperation zones with an accumulation investment sum to the tune of 18.55 billion USD, the number of companies numbered 1082, a total value of output worthy of 50.69 billion USD and job vacancies numbering around 180,000 to local places.

To better aggregate resources both inside and outside the sector, and give play to advantages of linkage and facilitate “B&R” park building, “B&R” Alliance of International Capacity Cooperative Parks comprising 16 state-level overseas parks initiated by The International Cooperation Center under NDRC officially kicked off. 。 At present, China has built more than 100 economic and trade cooperation zones in 50 countries. As a bridge for economic communication between countries, these offshore cooperation zones play a special important role in international capacity cooperation. This marks the beginning of a new stage of development of the "Belt and Road" overseas areas of innovation, industrial clusters, economic and trade cooperation zones, industrial parks, special economic zones and other cooperative parks.

The following scientific and financial scheme under “B&R” initiative should continuously be promoted:

- Propel access of folk capital to the banking industry

The systematic innovation of technology financial organizations are supposed be improved. We should propel access of folk capital to the banking industry , shore up

potent private enterprises with intention for long-term investment to initiate set-up of Zhangjiang Technology Bank and other private banks with dispersed equities, set up organizations and management institution to cater to development demands of technologically innovative enterprises, further prod banking financial institutions to establish technology-oriented branches and probe into credit and loaning rewards and credit risk compensation policies.

- Formulate special enterprise credit policies for technological innovation

Trail-blazing of technology credit service mechanism should be guided. It backs up formulation of special enterprise credit policies for technological innovation by business banks, intensifies loaning supporting degree on technological innovative enterprises in such fronts as loaning access standards, review and approval mechanism for loaning, appraisal and incentive mechanism, risk tolerance policies and the like, and propels financial lease institutions to offer equipment lease to research and development of technologically innovative enterprises.

- Propose rediscount green tunnels

The supporting role of monetary policies and foreign exchange policies should be played. With synthetic use of such monetary policy tools as re-loaning, discount, difference reserve fund, directed RRR cut and so forth, it proposes discount green tunnels to micro and small-scaled technology enterprises. It deploys more lax policies of foreign debt management to technologically innovative enterprises, supports them to carry out concentrated operation and management of transboundary capital and provides convenience to transaction of outbound assurance and domestic loaning as well as domestic assurance and outbound loaning.

- Set up strategic emerging board in Shanghai Stock Exchange

The set-up of strategic emerging board in Shanghai Stock Exchange should be supported. As a stand-alone marketing board, it sets up non-profit and differentiated standards for circulation and going public that contrasts the main board, goes for dislocated development from other marketing boards and supports companies with special equity structure to be listed in strategically emerging boards. It supports International Financial Asset Transaction Platform in Shanghai Stock Exchange to rev up construction and offers transboundary financial services to technologically-innovative enterprises both inside Shanghai Free Trade Pilot Zone and outside the border.

- Set up technologically-innovative boards in Shanghai Equity Trust Trading Center

The set-up of technologically-innovative boards in Shanghai Equity Trust Trading Center should be promoted. On ground of complying with laws and regulations with risks under control, it is to spur opening of technologically innovative boards servicing technologically-innovative micro- and small-scaled enterprises in Shanghai Equity Trusteeship Transaction Center, set up and introduce such institutional arrangement as listing terms, auditing mechanism, transaction means and financial instruments that can sate demands of technologically-innovative micro- and small-scaled enterprises, and provides prior services to technologically innovative micro- and small-scaled enterprises in Caohejing Development Zone and correlated regions.

- Expand financing sources

The multi-channel implementation of direct financing of technologically innovative enterprises should be encouraged. It facilitates launching of pilots that can swap debts and merge bonds, caters to diversified financial demands of technologically innovative enterprises, countenances technologically innovative enterprises to liquidize remnant assets through asset securitization and widen financial tunnels.

- Amplify function of insurance services for technology innovation

Science and technology innovation enterprises are supposed to be provided with accommodation of funds by insurance capital. It powers insurance capital and entrepreneurial investment in the city, guides cooperation between the fund and angel investment guidance fund, encourages insurance capital to go to fund through investment and business start-up, sets up private equity investment fund or services technologically innovative enterprises that go through the growing stage by working with domestic and overseas mature companies of fund management. It encourages investment of insurance capital to be input to set-up of the chain on technological innovation, entrepreneurship and incubation featuring “entrepreneurial nursery garden-incubator-accelerator”, screens out technologically innovative companies with good growing potentials and carries out long-term stock equity and debt investment.

- Intensify supporting function of internet financial trail-blazing

Integrative innovation should be encouraged and the steady development of internet finance should be supported. Support is granted to eligible companies to initiate set-up of varying board-holding financial institutions with internet as the major business carrier or with internet business as the main service sphere. It countenances large-scaled e-business platforms and other online companies to set

up new local financial companies covering petty loaning, financial assurance, financial lease, business factoring and so forth. It encourages and guides internet finance to offer diversified and flexible financial services to technologically-innovative companies, shores up technologically-innovative enterprises to launch non-public equity financing through the internet in compliance with regulations, allows it that eligible companies with innovative technology and finance to get linked to relevant payment and clearing system and ants up capital usage efficiency.

The execution of pilots for equity crowdfunding and financing business should be promoted. It guides and backs up large-scaled internet companies, security companies, private equity investment and related associations to act based on laws and regulations to launch equity crowdfunding, backs up all sorts of equity crowdfunding platforms to innovate business model, widens business sector , and propels eligible technologically innovative companies to raise fund through equity crowdfunding platforms. By working on ecosphere of the industry and enhancing convenience of business registration, it would bring convenience to investment main bodies of equity crowdfunding for their registration. It guides and supports the extensive base of investors to input dosh to innovation and entrepreneurial companies in the city through equity crowdfunding channels.

Marketing orders and guides internet finance towards sound development should be standardized. By hinging on the credit reference system of People's Bank of China and "Shanghai Public Credit Information Service Platform", it amplifies construction of social credit system concerning the sector of internet finance, supports credit information outfits to intensify product research, development and service innovation in the internet finance field, intensifies departmental linkage, works on the system of supervision, coordination and risk prewarning and precaution in internet finance in Shanghai, lawfully fines and severely counters against unlawful criminal conducts in the internet finance sector involving unlawful fund-raising, usurious loan, bogus adverts , unlawful operation and financial swindling, works on security guarantee ambience for internet finance and adds impetus to wholesome advancement of internet finance companies.