

VISIONARY PARTNERSHIP KNOWLEDGE INNOVATION

Lessons and Insights
from the China-Singapore
Suzhou Industrial Park



THE FIRST GOVERNMENT-TO-GOVERNMENT PROJECT BETWEEN SINGAPORE AND CHINA THAT DEMONSTRATES THE POLITICAL WILL AND COMMON INTEREST IN JOINT DEVELOPMENT AND SHARED PROSPERITY



CENTRE for
LiveableCities
SINGAPORE

A division of the  MND
SINGAPORE

In Commemoration of
China-Singapore
Suzhou Industrial Park's
25th anniversary

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Set up in 2008 by the Ministry of National Development and the Ministry of the Environment and Water Resources, the Centre for Liveable Cities (CLC) has as its mission “to distil, create and share knowledge on liveable and sustainable cities”. The CLC’s work spans four main areas — Research, Capability Development, Knowledge Platforms, and Advisory. Through these activities, the CLC hopes to provide urban leaders and practitioners with the knowledge and support needed to make our cities better.



The Suzhou Industrial Park Administrative Committee (SIPAC) was established in February 1994 as an agency under the Suzhou Municipal Government to manage Suzhou Industrial Park (SIP). The SIP’s administrative area spans 288 sq km, within which is the 80-sq km China-Singapore Collaborative Area. The cooperative area consists of four sub-districts and is home to a population of approximately 807,800.

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“Suzhou Industrial Park is a grand, unprecedented cooperation plan between the governments of the two countries.”

Lee Kuan Yew

in his speech at a meeting celebrating the 10th Anniversary of the SIP on 9 June 2004

“Singapore’s social order is rather good. Its leaders exercise strict management. We should learn from their experience and do an even better job.”

Deng Xiaoping

during his southern tour in 1992

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FOREWORD

Mr Lawrence Wong

Minister for National Development
and Second Minister for Finance
Singapore

This inaugural joint publication on the Suzhou Industrial Park (SIP) demonstrates the long-standing relations and strong and growing cooperation between Singapore and China. This publication is a joint effort by the Centre for Liveable Cities (CLC), under the Ministry of National Development, Singapore, and the Suzhou Industrial Park Administrative Committee (SIPAC).



The objective of this publication is to capture and distil the knowledge, insights and lessons from the development experience of the SIP.

The SIP is of special importance, being the inaugural Government-to-Government collaboration between Singapore and China. The SIP was conceived at a time when both countries were looking to undertake reforms to transform their economies. Both our leaders — Mr Lee Kuan Yew and Mr Deng Xiaoping — saw the opportunity to collaborate. The success of the SIP is a testament to their bold vision, and the courage, perseverance and hard work of many pioneers from Singapore and China, to push through the SIP project as a key cornerstone of economic reforms.

The SIP collaboration has established an excellent platform for continued collaboration among various stakeholders, and a testbed for innovation and entrepreneurship. These have benefitted many people from government, business and civil society, and I believe this partnership will continue for many generations to come.

I am confident that the SIP will continue to flourish and accomplish greater success as a global destination for investment and business, and will be an innovative and liveable township for people of all ages and from different walks of life. Suzhou was conferred the Lee Kuan Yew World City Prize in 2014, and I hope the award will inspire the city towards even greater accomplishments as a world-class liveable and innovative city.

I would like to thank the Suzhou and SIPAC leaders and senior officials for their steadfast support and collaboration, especially in the hosting of the World Cities Summit Mayors Forum in 2017. At the Forum, we jointly launched a development report to summarise the key lessons from the SIP. Since then, both sides have continued to work together to document the SIP experiences and best practices in this book. I hope readers will find this publication a fulfilling read, and a useful contribution in our pursuit of more liveable, innovative, and economically vibrant cities.

FOREWORD

Mr Chen Deming

Former Minister of Commerce
of the People's Republic of China

A Model of Successful Cooperation in the Global Economy

I read this book with delight. As a witness to the Suzhou Industrial Park (SIP)'s transformation, I'm happy to see the launch of Visionary Partnership, Knowledge Innovation: Lessons and Insights from the China-Singapore Suzhou Industrial Park, a book jointly produced by the Centre for Liveable Cities, Singapore, and the Suzhou Industrial Park Administrative Committee. This is an invaluable resource documenting the SIP's 25-year journey, with narratives and images are deeply evocative and poignant.

Since its inception in May 1994, the SIP has achieved remarkably in economic, social, cultural and environmental development. These are achievements that inspire and motivate. How did the SIP transform, in just over 20 years, from marshes and farmland into an urban centre highly attractive to multinational investments and become a provincial or even national innovation hub? It succeeded on many grounds. At the micro or operational level, it selected the right location, and it prioritised planning and planned well; it opened its market and broke new grounds; it learnt from others and offered pro-business services; it created a liveable environment to retain talent; and it encouraged innovation and stayed relevant. The SIP's valuable experience has been shared and replicated not only in other national economic and high-tech development zones, but also in dozens of economic cooperation zones outside the country, especially those along the Belt and Road. China's Ministry of Commerce's training institute in the SIP and its foreign assistance and cooperation training programmes had also contributed substantially in sharing the SIP's good practices.

However, to look at the SIP's experience only at the micro level would be restrictive and provincial. From a broader perspective, the SIP's achievements reflect the successful collaboration between China and Singapore in aligning with the global integrated of economic globalisation. During the early days of China's "reform and opening-up (*gaige kaifang* 改革开放)" in the 1980s, Deng Xiaoping visited Singapore and proposed that China learn from Singapore; Lee Kuan Yew saw the global set-up of multinational companies and proposed that China and Singapore jointly develop an industrial park. Decades have passed, with the opening up of emerging countries and the advancement of transnational corporations, global supply chains form, providing the basis for global value chains to take hold. The contribution of international trade to global GDP has soared from about 15% to one-third. China has become the world's largest trading nation and second largest economy. Among the many engines propelling China's economic success, development zones are an essential driving force. The two leaders are truly visionary, and the cooperation between the two governments has proven to be correct and effectual move.

Globalisation is an inevitable result of technological development and productivity growth. We see this in the development of the Silk Road on the Eurasian continent after the Agricultural Revolution or the Industrial Revolution after following the Age of Discovery and the Renaissance. As a matter of fact, the two world wars attest to the danger and non-sustainability of de-globalisation.

The post-war world economic order and global governance system have accelerated economic recovery and the globalisation process, and have set the stage for the advent of information technology and digital technology. After 70 years of peace and development, the international landscape has changed. Emerging economies now contribute to more than half of global GDP growth. Nonetheless, many have also lost out in the process, and their remarks and measures have led to social fragmentation, even causing globalisation to fall into disarray and to regress.

The SIP's success is a clear demonstration of people becoming increasingly interdependent and of the human community embracing a shared future where interests and lives intertwine. Aligning strategies and conducting amicable exchanges are the only way to achieve common prosperity and security; and opening doors, remaining inclusive and forging cooperation are the only means to benefit all. During our past two decades of cooperation, we had differences and friction, mainly due to our different social and economic systems and different legal norms.

But by accommodating and communicating with each other, we have enhanced mutual understanding, based on equality and respect. Together, we have developed rules of cooperation in line with international practice and suited to our national specificities, which in turn accumulated and experience for Singapore's later cooperation with Tianjin and Chongqing. Given that the new and highly uncertain circumstances in today's globalisation process, I hope that the SIP model will flourish and make a global impact, and I certainly hope that our aspiring friends from other countries will visit the SIP and witness in person its work-in-progress and accomplishments.



PREFACE

The China-Singapore Suzhou Industrial Park (SIP) is the first of such Government-to-Government project collaborations between China and Singapore. Against the backdrop of both countries pursuing economic reform and growth, the vision and political will of Deng Xiaoping, the mastermind of China's reform and opening-up (*gaige kaifang* 改革开放), and Singapore's founding Prime Minister Lee Kuan Yew led to the inception of the SIP.

25 years had since passed, and the SIP had undergone immense transformation. Today, it is a modern township of innovation, with a robust economy, a beautiful landscape and a liveable environment. In 2018, its GDP grew more than 7% to 257 billion RMB; fiscal revenue grew by 10% to reach 35 billion RMB; residents' disposable income grew by 7.8% to reach 71,000 RMB and percentage of R&D-to-GDP was 7%. Over the past 25 years, SIP has generated 800 billion RMB worth of tax and 900 billion RMB worth of fixed assets investments; attracted more than 4,400 projects, of which 156 were invested by Fortune 500 companies; accumulated 1 trillion USD of imports-to-exports in value and 31.27 billion USD of utilised foreign direct investment.

Mr Khoo Teng Chye

Executive Director, Centre for Liveable Cities, Singapore

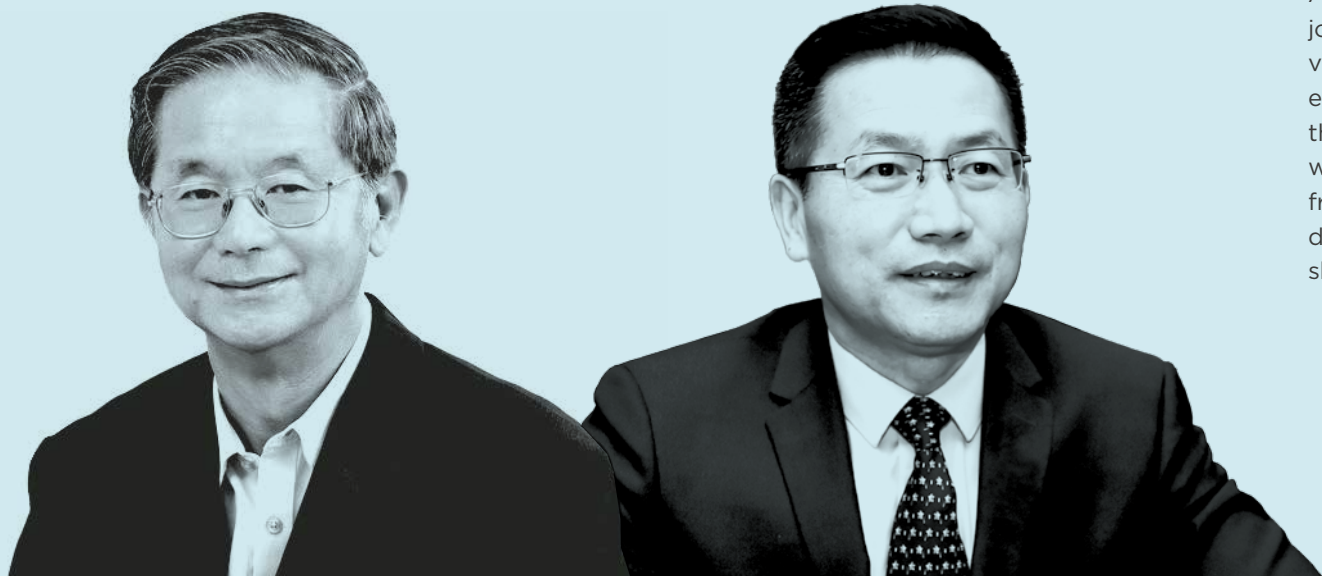
Mr Ding Lixin

Chairman, Suzhou Industrial Park Administrative Committee

SIP was ranked first among China's Economic and Technological Development Zones for three consecutive year; considered by China's Ministry of Science and Technology to be a first rate Science and Technology Park, and selected as an "Advance Collective" for 40 years of Reform and Opening Up in Jiangsu Province. The SIP had created many of China's "first" and "only" examples in areas such as logistics, modern services, science and technological innovation, and environmental protection, thereby fulfilling its role as an "experimental field".

Today, urban areas across the world face increasingly complex and ever-changing challenges. As policy-makers, mayors and city leaders strive to build liveable and sustainable cities of the future, the SIP's development experience could serve as a useful reference model. The SIP's commitment to a scientific approach towards the development and implementation of a master plan, its sound institutions and effective government system in place, and its high-quality infrastructure and pro-business environment are just some of the key areas of experience that could shed some light on the urbanisation process in China and beyond.

"Visionary Partnership, Knowledge Innovation: Lessons and Insights from the China-Singapore Suzhou Industrial Park" is a collaborative publication project between the Centre for Liveable Cities (CLC), Singapore, and the Suzhou Industrial Park Administrative Committee (SIPAC). It aims to mark the shared journey undertaken by both countries to realise the common vision set forth, and the innovative adaptation of Singapore's experience to the SIP's local conditions. At his interview with the CLC in 2012, Mr Lee Kuan Yew remarked that cities can learn what not to do by watching other cities, and also what to do from watching good cities. This book seeks to do just that — to distil key insights and knowledge from the SIP's development, to share with other cities.



It is heartening to note that the collaboration between Singapore and the SIP has strengthened and evolved over time to meet with changing needs, with strong participation of senior officials from both sides.* This publication is a testament to the strong and growing collaboration between Singapore and the SIP.

The joint research and editorial team of the CLC and the SIPAC have worked closely together and interviewed pioneers from both Singapore and China who were deeply involved in the SIP, to tap their knowledge and expertise. As a knowledge centre under Singapore's Ministry of National Development, the CLC seeks to share knowledge on the best practices and lessons in urban governance from other cities and to promote the development of sustainable and liveable cities. This collaboration has deepened knowledge-sharing capabilities on both sides and we are looking forward to further cooperation.

This book consists of five chapters. The first four chapters focus on the development journey that the SIP has undertaken since its inception, and the final chapter synthesises the key insights and lessons drawn from the SIP's experience.

Chapter 1 "Inception and Significance" provides an overview of how the concept of the SIP was mooted and subsequently realised. Against the backdrop of Singapore's desire to grow the external wing of its economy and China's economic reform and opening-up, the economic situations of both countries provided an opportunistic window for collaboration. The strategic acumen of leaders from China and Singapore paved the way for a project that would allow Singapore's experience to be used as reference and adapted to China's local context. Once the site for the SIP was agreed on as an ideal location for the project, both countries subsequently signed a series of landmark agreements which laid the foundation for this special partnership between Singapore and China.

* Specifically, this publication holds special significance to Mr Khoo Teng Chye who was personally involved in the development of the SIP's first Master Plan as Chief Executive Officer and Chief Planner of Singapore's Urban Redevelopment Authority.

Chapter 2 "Establishing Dynamic Governance and Sound Institutions" explains the mechanisms and institutional designs that were put in place on different administrative levels to achieve the vision of both countries for the SIP. The multi-level cooperative mechanisms between Singapore and China provided a strong foundation for bilateral cooperation and effective implementation. Preferential policies, streamlined and efficient government services were also integral to the development of a pro-business environment in the SIP. Most notably, rigorous conceptualisation and effective implementation of the master plan ensured the robust and systematic development of a liveable and economically competitive SIP.

Chapter 3 "Building Foundations and Accelerating Development" describes the key principles guiding the development of the SIP in its foundation years as well as the subsequent period of accelerated growth. Important principles that were closely adhered to since the beginning served the SIP well — including planning before building (*xian guihua hou jianshe* 先规划 后建设), and building underground infrastructures before above-ground development (*xian dixia hou dishang* 先地下 后地上). The SIP's high-quality and reliable infrastructure was pivotal in attracting investors from within China and abroad. In the early 2000s, the SIP entered a phase of fast-track development and moved towards higher-value industries. Its increased investment in urban amenities and public facilities, and emphasis on the environment further improved its liveability and helped to expand its talent pool, which in turn improved its growth potential.

Chapter 4 "Transforming and Upgrading the SIP" outlines the SIP's efforts to upgrade and transform itself to be in tandem with the changing global economy and be in a position to accelerate the development of an internationally renowned and top-class high-tech park in China. It also embarked on aggressive reforms to grow its service industries and attract science and technology-based ventures, including policies to develop the Dushu Lake Sci-Edu Innovation Park.



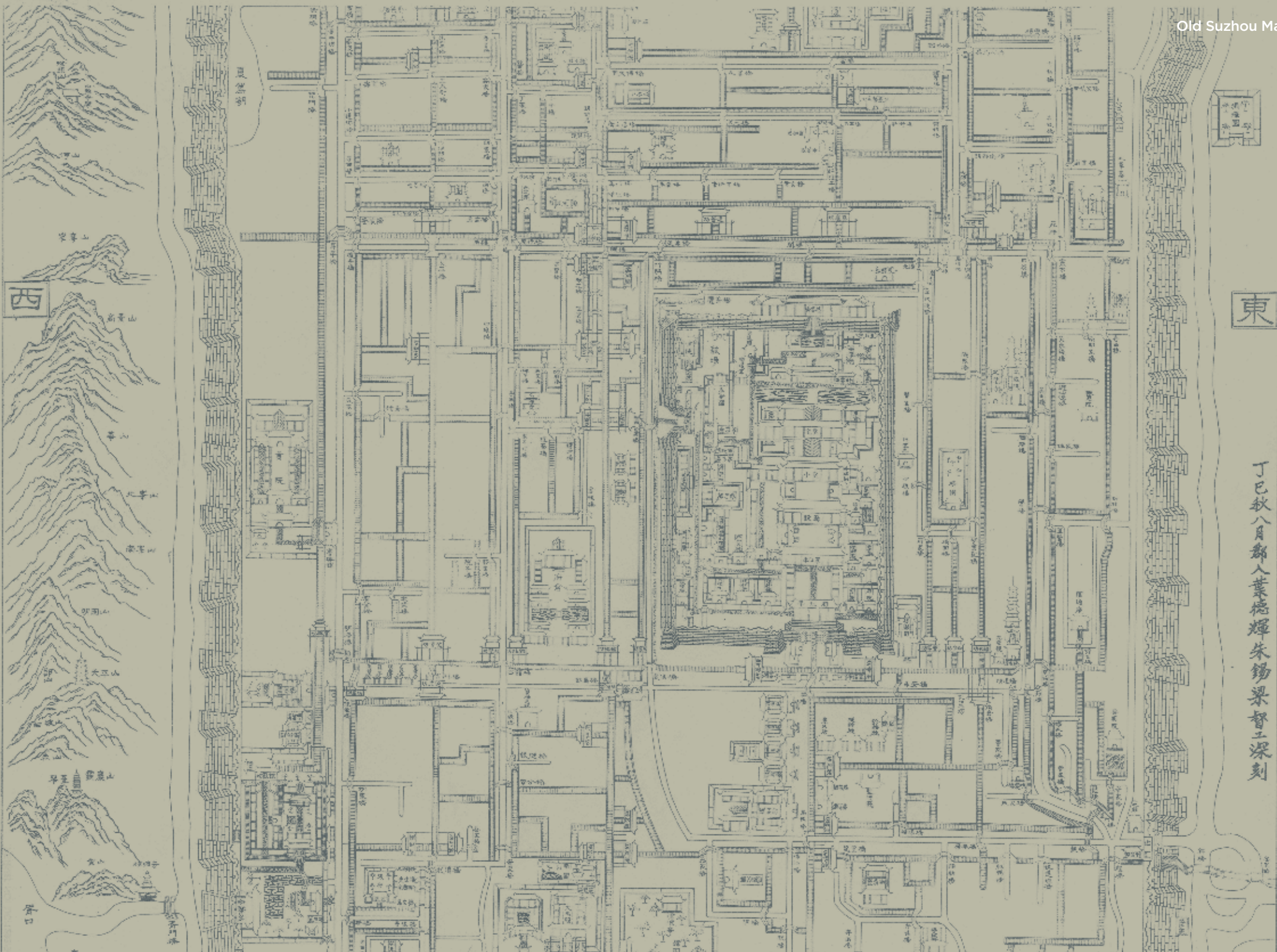
Jinji Lake Bridge

Priorities relating to the environment and quality of life continue to feature prominently in its policies, such as the building of a “green network” and more cultural and recreational venues, including the establishment of the Suzhou Culture and Arts Centre and local community clubs. Embarking on the “Venturing Out” approach with regards to expansion has also enabled the SIP to share its experience with other cities and expand its networks, thus opening up new opportunities for growth.

Chapter 5 “Distilling Insights and Forging Ahead” draws conclusions by seeking to draw some key lessons gleaned from the SIP’s development. Its development philosophy and intrinsic values of “learning, innovating, harmonising, and achieving win-win” have allowed the SIP to progress with the times and remain relevant and competitive. Innovative adaptation of Singapore’s experience also featured strongly

in the SIP’s development, including its scientific approach to development. At the core of it, the SIP has consistently prioritised and committed to observing the balance between production, quality of life and the environment.

Urbanisation is an important engine for modernisation and has a significant impact on the world’s socio-economic development. In the face of current challenges, the SIP will continue to transform itself in tandem with global economic development, and will remain committed to people-centric development. It is thus worth noting the future developments of the SIP as it seeks to become a top-class high-tech industrial park in China of high international reputation, and that other cities would find the SIP’s model worth emulating and replicating. We sincerely hope that this publication will offer some food for thought and be a useful reference for other cities looking to become more successful, harmonious and liveable.



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丁巳秋八月都人葉德輝朱錫梁督工深刻



CHAPTER 1

Inception and Significance

Introduction

As the 2014 laureate of the Lee Kuan Yew World City Prize, Suzhou's hosting of the World Cities Summit Mayors Forum 2017 presented an excellent opportunity to share the lessons learned from Suzhou Industrial Park (SIP) with other international cities. To further enhance knowledge-sharing, the Centre for Liveable Cities (CLC), Singapore collaborated with the Suzhou Industrial Park Administrative Committee (SIPAC) to jointly produce a publication on the SIP. This is of special significance since it marks the shared journey of 25 years undertaken by teams from both countries since 1994, which has continued to progress from strength to strength.

Today, the SIP has evolved into a modern township of innovation with a robust economy, beautiful landscape and liveable environment — one that impresses the world. The SIP is an endeavour that demonstrates the political will and common vision of both China and Singapore in pursuing development and shared prosperity.

View of the Jinji Lake in the evening



Objective

This joint publication aims to draw the key policy lessons from the Suzhou Industrial Park, which could serve as a useful reference to other cities within China and internationally. Specifically, the SIP offered a development model for reference where Singapore's approach was applied and adapted to local conditions.

“We learn what not to do by watching other cities and also what to do from watching good cities. There is nothing new that you can think of that has not been tried by thousands of other cities.”

Lee Kuan Yew, then-Singapore Minister Mentor, in his interview with the Centre for Liveable Cities Singapore, 31 August 2012



Lake West CBD

Bilateral Significance

As the first Government-to-Government project between China and Singapore, the SIP demonstrated both countries' political will and common interests in joint development and shared prosperity.

The idea of the SIP was conceived at a time when both countries were undertaking reforms and looking at ways to advance their respective economies. The two leaders — then-Vice Premier Deng Xiaoping of China and then-Prime Minister Lee Kuan Yew of Singapore — saw the opportunity to collaborate by adapting Singapore's experience in China and developing a modern industrial park which would serve as a reference model for other Chinese cities.

Being the first Government-to-Government project, the SIP laid a firm foundation for future collaborations between the two countries, which was seeded and cemented by the deep and strong friendship between Mr Lee and Mr Deng.

“Like a duet that synchronises two voices in perfect unison, Suzhou Industrial Park marks an unprecedented experiment in bilateral cooperation as two countries, attuned to the same dream, invest their resources and expertise to build one model industrial township.”¹

Lee Hsien Loong, then-Singapore's Deputy Prime Minister, 2001

Inception of the Suzhou Industrial Park (SIP)

In 1994, Singapore and China embarked on a project to develop the Suzhou Industrial Park (SIP). The SIP was a product of specific timing and circumstances. Singapore's development model had won the admiration of the Chinese leaders. It was perceived to have achieved remarkable economic results rapidly through large-scale industrialisation, with low levels of crime, corruption and environmental pollution, all while maintaining dominance in the social and political spheres.²

“Singapore’s social order is rather good. Its leaders exercise strict management. We should learn from their experience and do an even better job.”³

Deng Xiaoping, during his southern tour in 1992

SYNERGISTIC WINDOW OF OPPORTUNITY

The project was mooted when the economic situations of both China and Singapore provided an opportunistic window for collaboration. Both countries were looking at how to advance their economic development to the next level.

Singapore’s Experience: Growing the External Wing

The 1973 oil crisis ignited a global recession that led to an economic slowdown in Singapore. Recovering from the oil crisis in 1979, Singapore sought to expand its economic sphere beyond its shores. The recession provided an impetus for the Singapore government to restructure the economy, which was losing its competitiveness mainly due to rising labour costs and land shortage. The restructuring effort was a key milestone in Singapore’s economic development, as Singapore began to diversify its economy beyond manufacturing and embarked on regionalisation.

“The strategic intent of the regionalisation programme is to build an external economy that is closely linked to, and which enhances the domestic economy by participating in the growth of Asia. This programme seeks to form a network of strategic zones in key markets with emphasis on building good linkages between our regional projects and domestic clusters.”⁴

Singapore Economic Development Board (EDB) 1995

At a time when the world was experiencing rapid economic globalisation, Singapore’s regionalisation strategy was timely.⁵ Several countries in the Asia-Pacific region, including China, Malaysia, Indonesia and Thailand had liberalised their economies to increase foreign trade and adopted foreign direct investment (FDI)-oriented strategies to spur economic growth.⁶

As part of its regionalisation strategy, Singapore launched the “regional industrial parks” programme. The programme allowed Singapore to take advantage of the low cost of primary factors of production in emerging markets to become an industrial property developer providing high-quality secondary factors of production, industrial infrastructure and administration services.

Buoyed by the success of the pilot project launched in Batam in 1989, Singapore was confident that similar industrial estates in the region would also take off. In 1990, Singapore and China established formal diplomatic ties, which enabled the two countries to forge a strong relationship and provided a platform as well as opportunities to advance common interests by launching the first batch of bilateral collaboration projects.

China's Experience: Reform and Opening-up Policy

When China's then-Vice Premier Deng Xiaoping visited Singapore in 1978, he was impressed by the economic progress and urban development that Singapore had achieved within just 13 years of nation-building. He complimented Singapore's progress at a dinner with Singapore's then-Prime Minister Lee Kuan Yew. In response, Lee introduced the process of Singapore's economic development, open-door policies and concerted efforts to attract FDI. He added that China had abundant talent, whereas the majority of Singaporeans were the descendants of poor farmers mostly from the southern provinces of Guangdong and Fujian, hence China could do much better than Singapore.

A few weeks after Deng's visit, China's People's Daily newspaper described Singapore as a garden city worth studying for its greenery, public housing and tourism experiences.⁷ In one of his speeches in October 1979, Deng said, "I went to Singapore to study how they utilised foreign capital. Singapore benefited from factories set up by foreigners in Singapore: first, foreign enterprises paid 35 per cent of their net profits in taxes which went to the state; second, labour income went to the workers; third, foreign investment generated the service sectors. All these were income for the state."⁸

What Deng Xiaoping saw in Singapore in 1978 singled out this "Asian Dragon" as a learning model for China.⁹ In 1979, the Chinese government, led by Deng, started a series of reforms aimed at revitalising the country's centrally planned economy. One of the most significant reform initiatives was the adoption of FDI-oriented national economic development strategies. FDI would provide capital and facilitate the transfer of technological and managerial skills that the Chinese enterprises needed urgently to compete. Additionally, FDI would also create jobs and increase foreign currency earnings.

Instead of opening up the entire country to global capitalism, the Chinese government directed foreign investment, particularly industrial capital, into designated Special Economic Zones (SEZs) and Coastal Industrial and Technological Development Zones*. In 1985, the Chinese government appointed Dr Goh Keng Swee, Singapore's former First Deputy Prime Minister, to be its economic adviser for coastal development and tourism.

In April 1990, to advance its opening-up initiative and grow the socialist market economy, China officially launched the development and open-door initiative (*kaifa kaifang* 开发开放) for Shanghai's Pudong New District. Developing and opening up Pudong not only helped Shanghai become one of the world's economic, financial and trading centres but also catalysed the development and opening-up of the Yangtze River Delta region, which in turn contributed to regional prosperity. With Pudong developing and opening-up, the Yangtze River Delta region capitalised on its environment, transportation and geographical advantages besides the preferential policies to achieve synergy, succeeding in attracting a slew of foreign investments.

The bilateral cooperation in the SIP project was the result of opportunities presented by specific economic circumstances. It was a time when both countries were confronted with challenges from economic transformation, and were seeking possibilities of international collaboration to advance their economies. The common vision and shared purpose of the leaders of both countries were instrumental to the inception and success of the SIP.

* **Note:** In 1980, Shenzhen, Zhuhai, Shantou in Guangdong, Xiamen in Fujian province and Hainan province were established as SEZs. In 1984, 14 coastal cities, namely Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang and Beihai, set up industrial and technological development.



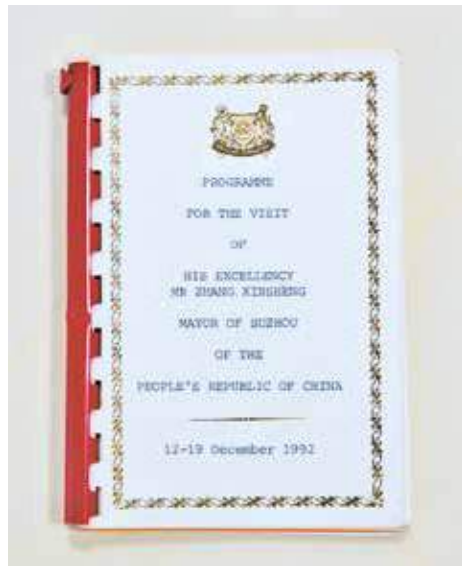
Jinji Lake Business District

“Mr Deng Xiaoping’s visit to Singapore in 1978 was the beginning of friendly cooperation between China and Singapore in the new era. Singapore’s experience provides valuable references for China in solving some of the problems in reform and development, and China’s development also brings about tremendous development opportunities for Singapore.”

Xi Jinping, China’s President, in his speech at the National University of Singapore, 7 November 2015



Qing dynasty map of Suzhou area



Visit programme prepared by Singapore for a Suzhou delegation (1992)

PROJECT INITIATION AND STRATEGIC LOCATION OF SUZHOU

Within one year of Deng Xiaoping’s speeches on his southern tour in 1992, about 400 Chinese delegations came to Singapore for study visits.¹⁰ In the second volume of his memoirs, Lee Kuan Yew said that studying Singapore using a piecemeal approach could not help the delegations understand how the entire system worked. He also said that given the different national conditions, using Singapore methods to implement projects in China would be difficult.

With Singapore and Chinese managers working side by side, Singapore could transfer its methods, systems and know-how.¹¹

In September 1992, Singapore’s then-Senior Minister Lee Kuan Yew visited Suzhou with then-Deputy Prime Minister Ong Teng Cheong. They met Zhang Xinsheng, then-Mayor of Suzhou, and became interested in Suzhou’s proposal to collaboratively develop an industrial township. At the invitation of Ong Teng Cheong, Zhang Xinsheng led a delegation to visit Singapore in December 1992.

“The city (Suzhou) was located in the developed Yangtze River Delta Area close to the regional leader of Shanghai and therefore enjoyed a favourable environment for economic growth.”

Lee Kuan Yew, Singapore’s then-Senior Minister, in his reply to a reporter from Xinhua News Agency on 22 February 1994 on the question of “why Suzhou”



Suzhou stood out as a project location because of its unique advantages. Its location was ideal, strategically at the heart of the Yangtze River Delta region, serving as an important node in an extended transport network of roads, railways and canals along the lower Yangtze valley. Suzhou's proximity to Shanghai, which was widely known as the "Dragon Head" of the Yangtze River Delta region, gave it access to international airports and seaports. Thus, Suzhou was strategically positioned to spearhead the development of regional logistic links. As a well-known hometown and retreat for Chinese scholars, Suzhou has a long history, a rich cultural legacy, and a large pool of skilled people. Furthermore, as it was not saturated with foreign investments or heavy industrial activities, resources and factors of production such as land and labour remained relatively cheap. The potential for higher marginal product of capital and return on investment was greater.

At that time, the idea of developing an industrial township was still in its infancy, and no consortium of companies was formed to undertake the project. In February 1993, Suzhou City Planning Bureau presented four potential sites for the

industrial township project. Phua Tin How, the then-Principal Private Secretary to Mr Ong Teng Cheong, visited Suzhou with planning experts from Singapore's Urban Redevelopment Authority (URA). The site near Jinji Lake was selected for the proposed township. In April 1993, following the site confirmation, Phua Tin How and Singapore's Chief Planner Khoo Teng Chye led a team of experts to visit Suzhou. Mayor Zhang chaired the meeting, during which URA presented the concept plan for the 70 sq km China-Singapore Collaborative Area. The plan was supported by Suzhou officials.

On 16 April 1993, Singapore Labour Foundation (SLF) International and Suzhou Municipal Government signed a Memorandum of Understanding (MOU) to develop the industrial township in Suzhou. On 19 April 1993, Singapore's then-Prime Minister Goh Chok Tong put forth the proposal of developing an industrial township in Suzhou to China's then-Premier Li Peng. After developing the township, Singapore could then transfer to China its experience in planning, developing, organising and managing industrial townships.

On 6 May 1993, China's then-Vice Premier Li Lanqing proposed to Ong Teng Cheong that when developing the industrial township, Singapore and China could collaborate in both "hardware" and "software". A successful collaboration in Suzhou would point to a good start. If both parties were satisfied with the collaboration, they could share their experience with other regions. On 7 May, China's then-Vice Premier Zhu Rongji said to Ong Teng Cheong, "It does not matter what we call Suzhou Industrial Park. It is a "non-special zone" that enjoys special policies (*bute youte* 不特有特)."

Between 10 and 14 May 1993, Lee Kuan Yew and Ong Teng Cheong led a delegation of senior officials and entrepreneurs from Singapore on a special visit to Suzhou to study the proposal of developing large land blocks into an industrial township. On 11 May 1993, at the Suzhou Bamboo Grove Hotel, the Suzhou Municipal Government and SLF International signed the "In-principle Agreement on the Joint Development of Suzhou Industrial Township".

On 26 October 1993, the Jiangsu provincial government and Singapore's Ministry of Trade and Industry signed an MOU on the sharing of Singapore's Economic and Public Administration Software with Suzhou.

“Suzhou Industrial Park creates a new model of cooperation between China and Singapore.”

Jiang Zemin, then-China President, when meeting then-Singapore Prime Minister Goh Chok Tong at IAELM (Informal APEC Economic Leaders' Meeting) in Seattle on 20 November 1993

Inking of Landmark Agreements

On 11 February 1994, the State Council of China issued the “Reply on Issues Concerning Development and Construction of Suzhou Industrial Park (Guohan No.9 [1994])”, which approved the joint development of the SIP by the Suzhou city of Jiangsu Province and the Singapore parties concerned. The reply also stated the “need to observe the requirements of a socialist market economy to develop the SIP into an industrial park of high standards, aligning with international economic development”, and the need “to produce tangible achievements (*wuzhi wenming* 物质文明) and intangible achievements (*jingshen wenming* 精神文明), and to further economic cooperation and the good relations between China and Singapore”.¹²



Agreement Signing between Singapore and China in Diaoyutai State Guesthouse

On 26 February 1994, at the Diaoyutai State Guesthouse in Beijing, the Suzhou Municipal Government and Singapore's Jurong Town Corporation signed the “Agreement on the Adaptation of Singapore's Economic and Public Administration Experience”. The two governments also officially signed the “Agreement on the Joint Development of Suzhou Industrial Township”. The two agreements detailed the collaboration between Singapore and China on the SIP and the transfer of Singapore's public administration “software” through the project.

On the same day, at the Shangri-La Hotel in Beijing, Zhang Xinsheng, then-Suzhou Mayor, represented the Suzhou Municipal Government while Sim Kee Boon, then-Chairman of Keppel, represented the Singapore consortium



Yuanrong Times Square

(Singapore-Suzhou Township Development Pte Ltd, SSTD) to sign the "General Commercial Agreement on Cooperation in Development and Construction of Suzhou Industrial Park". The Agreement formed the basis for SSTD's involvement in the development of the township and the establishment of the joint venture enterprise. Keppel was tasked to lead SSTD because of its forte in property and infrastructure development, where its experience would be useful in the physical development of the SIP.

These three agreements inked on 26 February 1994 in Beijing marked the beginning of China-Singapore mutual trust and cooperation on the SIP project. On 12 May 1994, a groundbreaking ceremony for the SIP was held.

"Develop Suzhou Industrial Park, enhance bilateral cooperation."

Ong Teng Cheong, then-Singapore President, wrote an inscription in August 1995

KEY INSIGHTS

The SIP, an icon of progressiveness and foresight, embodies the strategic acumen of both Singapore and Chinese leaders. Through the SIP project, China has demonstrated to the world the degree and extent of its open-door policy, and the myriad of collaboration models it has adopted. At the same time, it leveraged the SIP as a platform to learn Singapore's experience through a systematic approach, adapting it to suit China's national specificities, before establishing its own development and administration model. In the case of Singapore, it expanded and deepened its regionalisation strategy through the SIP, and proved the replicability of Singapore's development and administration experience. The vision of the leadership and the efficiency and effectiveness of the teams from both countries have laid a strong foundation for the SIP's future development.



CHAPTER 2

Establishing Dynamic Governance and Sound Institutions

Chapter Overview

The long-term vision and the strong political will of the top leaders of China and Singapore gave impetus to the SIP project. As both countries pursued economic reform and growth, the leaders identified opportunities for collaboration. Deng Xiaoping believed that through cooperation, China could learn from Singapore's "software" to drive its economic reform. At the same time, Lee Kuan Yew foresaw the huge potential of the Chinese market in helping Singapore realise its regionalisation strategy, as part of its economic diversification.

The SIP project not only provided a model that adapted Singapore's "software" experience and management principles, but also created a platform for both countries to work together. Right from the beginning, China and Singapore established a long-term vision in which they considered the viability of the project from various aspects. The refinement of the institutional design, coupled with scientific urban planning and management principles, laid the foundation for the robust and systematic development of the SIP.



Suzhou Cultural Arts Centre

Cooperation with Mutual Trust and Foresight

To materialise the vision of the SIP, China and Singapore instituted a multi-level cooperative mechanism that covered a wide range of domains to enhance the viability and sustainability of the project. The cooperative mechanism served as a new model for China-Singapore bilateral cooperation, provided a foundation for the adaptation of Singapore's experience and contributed to the accumulation of China's experience in international collaboration.

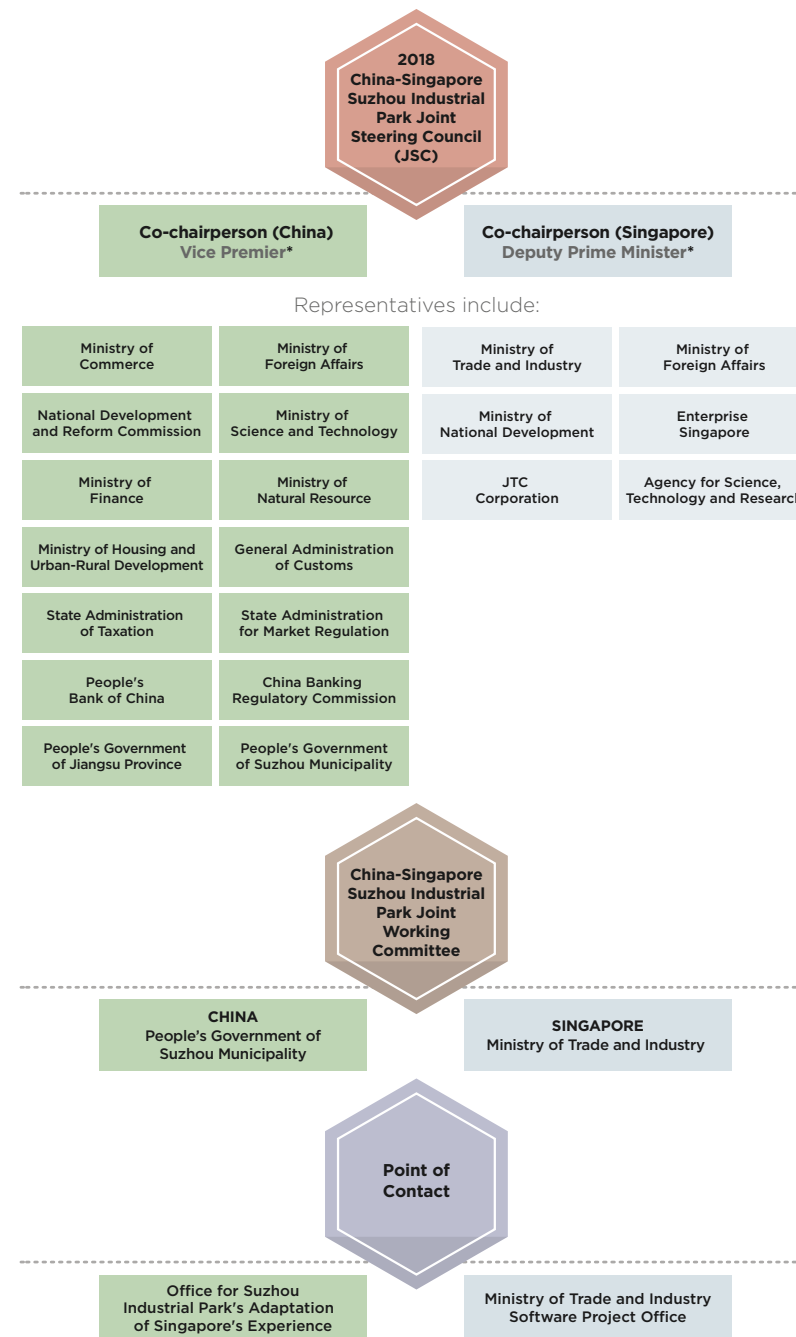
MULTI-LEVEL COOPERATIVE MECHANISM

According to the bilateral agreement between the China and Singapore governments signed in 1994, the SIP established a multi-level cooperative mechanism to implement the project and evaluate progress. The mechanism was made up of three levels.

The highest coordinating level was the China-Singapore Suzhou Industrial Park Joint Steering Council (JSC). China appointed a Vice Premier and Singapore appointed a Deputy Prime Minister to co-chair the JSC. The council was responsible for coordinating major issues in adapting Singapore's economic development and public administration experience for the SIP. The first JSC co-chairpersons were China's then-Vice Premier Li Lanqing and Singapore's then-Deputy Prime Minister Lee Hsien Loong.

JSC council members were high-ranking officials from both countries. As the SIP developed, the number of government organisations involved in the project increased, and the composition of council members from both countries had evolved over time to meet the changing demands.¹³ Currently, Chinese council members included representatives from the Ministry of Commerce, Ministry of Foreign Affairs, National Development and Reform Commission, Ministry of Science and Technology, Ministry of Finance, Ministry of Natural Resource, Ministry of Housing and Urban Rural Development, General Administration of Customs, State Administration of Taxation,

Cooperative Mechanism



* Co-chaired the 19th SIP JSC meeting on 20 September 2018

State Administration for Market Regulation, People's Bank of China, China Banking Regulatory Commission, People's Government of Jiangsu Province, and People's Government of Suzhou Municipality. Singapore's representatives included members from the Ministry of Trade and Industry, the Ministry of Foreign Affairs, the Ministry of National Development, Enterprise Singapore*, the JTC Corporation and the Agency of Science, Technology, and Research.

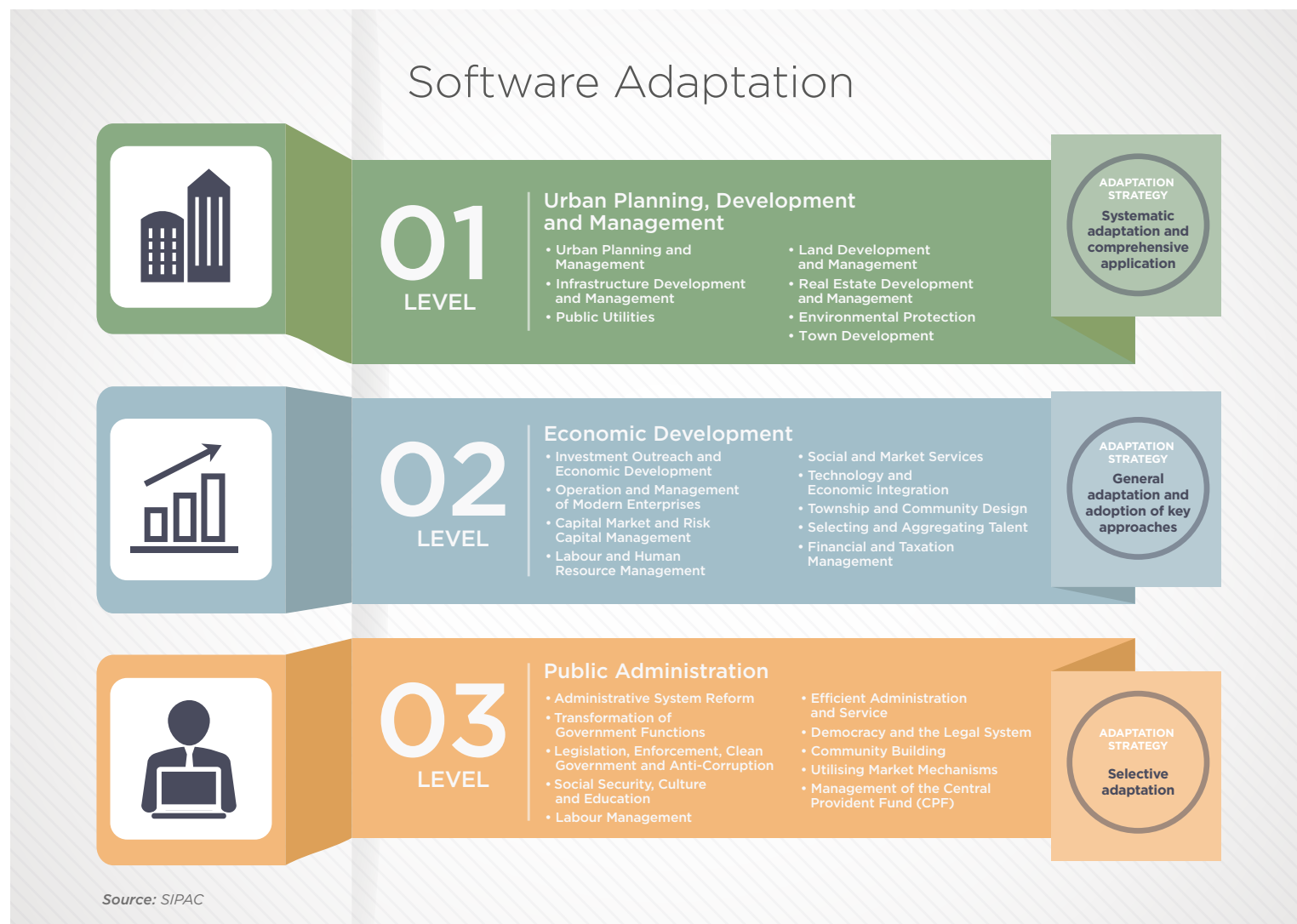
Reporting to the JSC was the China-Singapore Joint Working Committee, which would be co-chaired by the incumbent Mayor of Suzhou city and the Permanent Secretary of the Ministry of Trade and Industry, Singapore.¹⁴ The Joint Working Committee comprised members from relevant departments and organisations of the Suzhou Municipal Government, the SIPAC and Singapore. The working committee formulated strategies based on the adaptation of Singapore's economic and public administration experiences to the SIP, deliberated on major issues related to the SIP's development, and respectively reported to the chairpersons of the JSC.¹⁵

In addition, the SIPAC and the Ministry of Trade and Industry, Singapore had respectively set up the office for SIP's Adaptation of Singapore's Experience (苏州工业园区借鉴新加坡经验办公室) and the Software Project Office as the liaison departments in charge of implementation issues. Their responsibilities included curating job attachment programmes and training for Chinese officials in Singapore's government agencies, to ensure that Singapore's software was selectively, efficiently and effectively transferred to the SIP and Suzhou city.¹⁶

* Enterprise Singapore was formed by merging International Enterprise Singapore and SPRING on 1 April 2018.

COORDINATED SOFTWARE TRANSFER

The transfer of Singapore's development and management "software" covered urban planning, construction and management, economic development and public administration, as well as the adaptation of Singapore's experience to meet the developmental needs of the SIP. Based on the scope and nature of Singapore's experience, these areas of "Small Software" are professional topics which could be categorised into three levels.



The first level of “Small Software” consisted of urban planning, construction and management, which were mainly embodied in experience relating to urban planning and management, infrastructure development and management, land and construction development, effective utilisation of factors of production, and development and promotion of tourism.

The second level mainly encompassed economic management, facilitating cooperation and orderly competition. This level aimed to transfer Singapore’s experience in attracting investment and economic development, modern enterprise operations and management, capital operations and venture capital management, labour and human resource management, social and market services, technological and economic integration, township and community design, selecting and attracting talent, finance and taxation management, among others.

The third level covered administrative system reform, transformation of government functions, legislative, judicial, law enforcement and anti-corruption institutions, social security, culture and education, including experience in efficient administration and service, democracy and rule of law, spiritual civilisation (*jingshen wenming* 精神文明), and working with the relevant operational models for a market economy.¹⁷

Software transfer was not about merely replicating Singapore’s experience. It was about adapting and applying the applicable “software” independently and selectively, after considering China’s national specificities and the SIP’s developmental needs and conditions. To do this, specific strategies were developed to introduce the “Small Software” in the SIP. The first level software was systematically introduced and universally applied. The second level software was primarily introduced for the key areas of experience to be learnt. The third level software was introduced selectively with the adoption of useful components. The adoption of a discriminating strategy helped guide the transfer of Singapore’s experience through a targeted, systematic and appropriately selective approach across the entire SIP to achieve effective outcomes.

In addition to systematically adapting Singapore’s “Small Software” on three levels, the SIP also placed emphasis on understanding Singapore’s “Big Software”, which referred to the key policy principles that underpin the effective transfer of the “Small Software”. Building on the “Big Software”, the SIP aimed to serve economic development needs and to build a socialist market economy. It instituted a system of rules and regulations that were open, transparent and pragmatic, and created integrated and coordinated institutional mechanisms that were effective, well-organised and flexible. The SIP upheld its “pro-business” principles by creating a good service environment and by building its human capital to increase its international competitiveness and to ensure that the SIP’s socio-economic development proceeds according to plan.

Under the cooperative structure and the systematic transfer strategies, the SIP also adopted many mechanisms to facilitate software transfer. One of the mechanisms was through training programmes in Singapore. Chinese officials who were posted to Singapore for training were attached to government agencies such as the Urban Redevelopment Authority, the former Public Works Department (now the CPG Corporation), the Housing and Development Board, the Jurong Town Corporation and the Public Utilities Board. Such experiences allowed the officials to “learn on the job” and apply their newly acquired software knowledge when they returned home. The SIPAC staff also regularly received training in Singapore. The first batch of 10 SIPAC staff was trained in Singapore in April 1994.¹⁸ Since then, there have been 194 batches of SIPAC staff sent to Singapore for training, with a total headcount of 3680.

Another mechanism of software transfer was to enhance communication and collaboration between the Chinese and Singapore officials. In 1995, the Economic Development Board of Singapore (EDB) participated directly in the SIP investment promotion. To buttress the SIP’s investment promotion activities, EDB set up an office in the SIP with the Software Project Office to enable prompt communication with the experts from Singapore. The office also facilitated the execution and monitoring of software transfer, and sped up

the adaptation process. Face-to-face interaction and personal experience allowed Chinese officials to better understand, adapt and utilise the Singapore experience, based on their national conditions.¹⁹ China and Singapore also held regular software transfer meetings to communicate and consult each other, and organised seminars, forums and research projects to share and review the outcomes of software transfer.²⁰

EFFICIENT AND INTEGRATED INSTITUTIONS

Institutional development was the bedrock of Singapore’s public administration. Dynamic urban governance and integrated institutional structure allowed Singapore to transform from an island state with scarce natural resources and weak economic foundation to a modern international garden city. Similarly, the SIP’s achievements were built on sound institutional mechanisms and management.

Under the high-level cooperative mechanisms, the SIP adopted Singapore’s experience by implementing a development model that would separate the management and the developer. According to the written approval for the SIP project by the State Council of the People’s Republic of China, the SIPAC was an agency that represented the Suzhou Municipal Government to provide administrative services in the SIP. Government departments within the SIP were not required to match the institutional structure of the reporting levels, so that the SIP could develop systematically.²¹ China-Singapore Suzhou Industrial Park Development Group Co. Ltd (CSSD), the joint venture company formed by the Singapore and Chinese consortiums, was set up as the SIP’s master developer responsible for developing infrastructure and attracting investment. It was self-financed and operated as a modern enterprise based on market principles.

The SIPAC espoused the principles of “streamlined, integrated and effective” and “small government, big society”, based on which it transformed government functions, emphasised a service mindset, and streamlined the institutional structure and headcount. In its initial set-up, the SIPAC employed only 120 staff in seven permanent establishments, namely



Suzhou Industrial Park Xiandai Building
 (2006–present)



Suzhou International Tower
 (1998–2006)

Different locations where SIPAC
 was situated over the years



Former address for the original Jinji Lake Resort
 (1994–1998)

the Economic and Trade Development Bureau, the Planning and Construction Bureau, the Finance and Taxation Bureau, the Social and Public Administration Bureau, the Regional Development Bureau, the Secretariat and the Human Resource Bureau. To ensure autonomy and meet practical needs, some SIPAC departments also took on the functions of the Environment Bureau, Land Authority and Foreign Affairs Office. This was achieved without increasing head-count. The seven bureaus under the SIPAC assumed the responsibilities of nearly one hundred departments in a typical municipal government.²² To further streamline itself, the SIPAC minimised or avoided setting up public service institutions (*shiye danwei* 事业单位). Instead, it adapted the Singapore’s “statutory board model” by setting up corporations wholly or majority-owned by the government, and authorised these corporations to undertake designated public administrative functions. The corporations were paid based on their workload.

Given its streamlined structure and staff size, the SIPAC emphasised the quality of human resources, adherence to standard operating procedures and transparent operations to maintain efficiency. The SIPAC had therefore implemented an effective civil service system. Except for the small number of officials who were directly appointed during the preparatory stage, all SIPAC staff were hired through open national recruitment, where applicants were evaluated through fair and transparent examinations and employed based on merit.

In financial management, the SIPAC set up a central finance department to oversee all financial matters. Given that the bureaus in the SIP did not have financial autonomy, accountants were deployed to keep their books, with the income and expenses managed separately. The SIPAC would ensure government staff’s efficiency and integrity through strict and robust rules and regulation, and also through strengthening the administrative standard.

CHINA-SINGAPORE JOINT VENTURE ENTERPRISE

To drive the SIP’s development, China and Singapore put in place a dynamic governance structure and pragmatic development model that sought to meet the project objectives and the necessary management and development institutions, which laid the foundation for the SIP’s future development and bilateral cooperation.

On 12 August 1993, the Suzhou Municipal Government and the Singapore consortium SSTD signed an in-principle agreement to set up a joint venture enterprise to take charge of the SIP’s development and construction. On 26 February 1994, the two parties signed the “General Commercial Agreement on Cooperation in Development and Construction of Suzhou Industrial Park”, detailing the cooperation principles and business terms underlying the joint-development of the SIP.

Differentiating Features of the SIP Services

Efficiency

All functions which can be outsourced are outsourced to intermediaries and society

Transparency

All operations are open and transparent

Fairness

All investors are treated equally and fairly

Standardisation

All enterprises and individuals are given the best conditions to compete fairly

Source: SIPAC



*Zhuhui Road Office Location
(1994-1995)*



*Jinji Lake Resort Office Location
(1996-2000)*



*Suzhou International Tower Office Location
(2000-2006)*



*CSSD Tower
(2006-2017)*

The provisions in the Agreement formed the basis of the formation of the joint-venture company, and included items such as the SIP's development goals, land use rights and the terms for land assignment, industrial park planning, infrastructure, public welfare facilities, the principles and arrangements relating to the setting up of the joint venture company, investment incentives and preferential policies, investment protection, and cooperation matters.

The CSSD was jointly established by the Singapore consortium SSTD and the Chinese consortium China Suzhou Industrial Park Company (CSIPC) with paid-up capital of 100 million USD and registered capital of 50 million USD. The SSTD contributed 32.5 million USD taking 65 per cent of the shares, and the CSIPC contributed 17.5 million USD holding 35 per cent of the shares.



Zhongxin Building (2017-present)

The SSTD consortium consisted of 24 shareholders, including 20 publicly listed companies from Singapore and four multinational corporations from the United States, Japan, Korea and Europe. The CSIPC had 14 shareholders, including representatives from Suzhou city, Jiangsu province and Chinese state-owned enterprises.

Singapore wanted to develop the SIP based on market principles, so that the project was financially sustainable. Thus, forming a private consortium and operating on market principles was the best approach. Equity participation in the CSSD by listed companies and multinational corporations underscored the importance of decision-making based on sound business principles. Without the commercial discipline, the SIP would need long-term government subsidies, which does not favour the SIP's development.

A strong Singapore team, comprising senior government officials, was assembled to helm and manage the joint venture enterprise. The CSSD's first Chief Executive Officer (CEO) was Chan Soo Sen, a President's Scholar who previously headed the Chinese Development Assistance Council. He was succeeded in 1996 by David Lim, who was then-Member of Parliament and the CEO of the Port of Singapore Authority (PSA). Lim Neo Chian, then-Chairman of JTC, succeeded Lim in 1998. These officials, together with many other officials in the Singapore team, helped to establish enabling processes and innovative solutions in the project. Singapore's efficient and incorruptible government and its bureaucrats had established a good reputation during its industrialisation period between 1965 and 1980. Singapore, being well-regarded by foreign investors, was integral to the success of the CSSD's efforts to attract investments since the project's initial launch.

PREFERENTIAL POLICIES PROVIDING DEVELOPMENT ADVANTAGES

The SIP might not be a Special Economic Zone, but it enjoyed policy privileges that gave it development advantages. On 11 February 1994, China's State Council extended to the SIP policies that applied to the Coastal Industrial and Technological Development Zones.²³ Since then, the State

Council had released a series of documents relating to the SIP's development. The documents granted the SIP special administrative powers and the privilege to "move first, try first (*xianxing, xianshi* 先行先试)" in areas such as project approval, finance and taxation, foreign affairs and customs supervision.²⁴

Project Approval: Under a specific framework, the SIP had the authority to approve energy, transport and infrastructure projects, foreign invested manufacturing-based and non-manufacturing-based projects, and projects jointly-invested or jointly-developed by Chinese and foreign counterparts and wholly foreign-invested projects. The SIP was the only development zone in Jiangsu Province that has provincial-level authority to approve projects, and the SIPAC was one of the first local authorities that China's Ministry of Commerce granted approval authority for foreign-invested commercial projects.

Foreign Affairs: The SIPAC had the authority to manage foreign affairs, issue passports and process visas on behalf of the provincial foreign affairs office, and also to issue visa notification letters to overseas Chinese missions and consulates and foreigners that it intended to invite to China. The SIP's public security bureau was the second designated passport acceptance facility in Suzhou authorised to process passport applications of the residents of the SIP, Wuzhong District and Xiangcheng District. It was also authorised to process five-year Mainland Travel Permits for Taiwan residents.

Finance and Taxation: China's Ministry of Finance and Jiangsu Province granted the SIP tax relief and allowed part of the tax revenue to be returned to the SIP based on a fixed ratio. For example, between 1994 and 1998, under the tax-sharing system, the SIP was exempted from turning over any additional fiscal revenue it collected. Between 1999 and 2002, Jiangsu Province allowed the SIP to retain income earned from stamp duty and urban land use tax. Between 2001 and 2003, for land use charges on new construction land, the SIP was exempted from paying the charges collected at the provincial level. Between 2004 and 2007, the central government returned the SIP half of the month-on-month increase in fiscal revenue collected from business tax and value-added tax.



Customs building

Companies investing in the SIP also enjoyed tax incentives. In 1995, for example, foreign companies that invested in transport, energy and infrastructure-related sectors enjoyed preferential tax treatment. The China-Singapore joint venture company responsible for developing infrastructure and public facilities development in the SIP also enjoyed a lower corporate tax rate of 15 % (lower than the corporate tax rate of 30% in most regions in China) and enjoyed the “exempted for two years and halved for three years (*Liangmian Sanjianban* 两免三减半)” preferential treatment (i.e. as of the year when the company begins to make a profit, exempt from paying corporate tax for the first two years, and a 50% reduction of corporate taxes payable for the third to fifth year). As of 1 January 2002, high-tech Chinese companies recognised by the provincial science and technology bureau enjoyed a reduced corporate tax rate of 15%.

Customs and Logistics: The SIP set up its preparatory customs office on 12 October 1994. From 1 August 1995, enterprises in the SIP enjoyed the favourable policies for Coastal Industrial and Technological Development Zones and other policy privileges approved by the State Council on goods for import and export; goods produced in the SIP for export were exempted from export duties; except if the law stated otherwise, for goods processed in the SIP for export using material, components or semi-finished parts produced by suppliers outside the SIP, where substantive processing took place within the SIP and where added value was greater than 20%, the goods might be regarded as having been produced in the SIP upon verification by customs, and be exempted from paying export duty. On 12 May 1999, the State Council approved the opening of the SIP’s customs office.²⁵

Planning as Priority with Systematic Innovation

The SIP adapted Singapore's experience based on the requirements of China's national conditions, and adopted Singapore's advanced planning system and development principle of "planning before developing". Prioritising planning enabled the SIP to develop a forward-looking and scientifically rigorous master plan which served as the SIP's development framework that effectively guided its development.

PLANNING CONCEPT AND FEATURES

Concept Plan and Site Selection

The SIP's planning system was developed based on Singapore's planning experience, and differed from those of other development zones in China. It was progressively developed to eventually become a robust and comprehensive planning system that had scientific rigour. The long-term positioning and development objectives were established in the Concept Plan, which specified land use and transport planning. Following that, a Master Plan was crafted for different development phases to lay down the urban structure and development scale. Detailed plans, including the Urban Design Plan for the central business and commercial area, were subsequently drafted to provide planning visions, control parameters, land use guidelines, construction densities and other specifications for each district, to serve as references for urban planning and management.

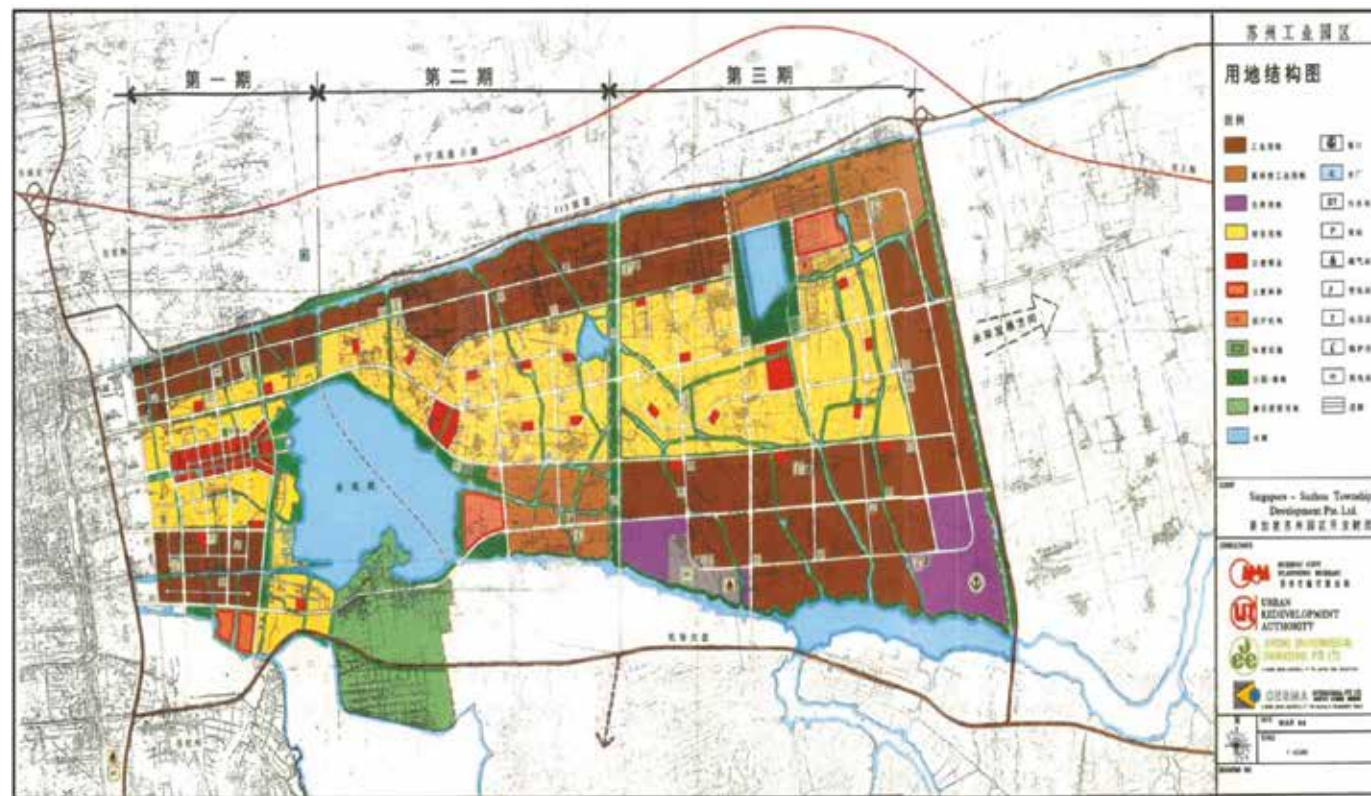
In 1993, the Jinji Lake area to the east of old Suzhou city was selected as the location for the SIP. The site was chosen due to its proximity to the old town, allowing the SIP to leverage on the existing infrastructure and labour supply from the old town during the SIP's start-up phase. Developing the selected site for the industrial park could also help to preserve the old town as Suzhou's civic and cultural centre. The selected site was a natural extension of eastern Suzhou, with Wuxi to its west and Shanghai to its east, which could form an east-west economic corridor joining the three cities. Jinji Lake also reflected the Jiangnan (south of Yangtze River) region's concept of waterfront living.

Upon confirming the site selection, the SIP's first Concept Plan was drawn up by experts from Singapore's Urban Redevelopment Authority (URA) upon consultation with the Jurong Environment Engineering (JEE) and the CESMA (now Surbana Jurong) and Suzhou-Singapore Industrial Township Preparatory Committee (now SIPAC). According to the Concept Plan, the China-Singapore Collaborative Area had a planned area of 70 sq km with three feature areas — one area converged with the old Suzhou city and formed a modern business centre. The second area, at the east of Jinji Lake, for high-quality waterfront residences and high-tech industry clusters. The third area was closer to Shanghai, with large land parcels to accommodate industrial enterprises.²⁶

Furthermore, the SIPAC commissioned the Architecture Department of the Suzhou School of Urban Planning and Environmental Protection (now Suzhou University of Science and Technology) to work with the SIP's planning and construction department to jointly design the Concept Plan for the surrounding areas of the China-Singapore Collaborative Area. The surrounding area, which consisted of five townships, namely Loufeng, Xietang, Kuantang, Weiting and Shengpu, was integrated into the SIP's master plan, which laid down the location and size of new town districts, spatial arrangements of functional land, transport structure and municipal infrastructure of the five townships.²⁷

This version of the plan aimed to build a self-contained industrial new town and a modern garden city in sync with the development of the old Suzhou city. As it developed industries, it also provided urban functions to create a quality living and working environment. The plan's spatial structure took the form of an east-west axis belt, where development takes place on both flanks of the business axis and the scenic axis to form an urban structure that integrates seamlessly with the Suzhou old town to the west of the SIP to balance Suzhou city's linear development.

The plan was divided into three phases, and featured a well-organised urban layout with well-defined land use. Commercial centres and residential neighbourhoods were surrounded by non-polluting light industries with an even distribution of resident population and employment opportunities to minimise commuting distance. The valuable land parcel around Jinji Lake which offered the best lake view in the SIP was marked out for commercial, residential and recreational uses due to its high commercial value. Key utilities including a sewage treatment plant was located away from major residential and commercial areas to minimise impact on residents' daily lives and on the environment, and at the same time, protect the land value in residential and commercial areas. Land parcels that were not demarcated for development in the short term were identified as "white sites" to allow a certain degree of flexibility to the plan.



Land use plan (1994)

Master Plan and Three-Phase Development

Based on the Concept Plan, Singapore experts drafted the preliminary plan for the China-Singapore Collaborative Area, which was used to guide the subsequent planning. The first version of the plan comprised the 70 sq km China-Singapore Collaborative Area, with a planned population of 600,000 and 360,000 planned jobs. On 17 January 1994, experts from the Preparatory Committee and Suzhou Municipal Government Planning Bureau, Environment Bureau and Transport Bureau visited Singapore and worked together with experts from Singapore's URA, JEE and CESMA (now Surbana Jurong) to develop the Master Plan of the first phase of the China-Singapore Collaborative Area based on the preliminary plan. The Master Plan provided a framework and development model for the SIP.²⁸

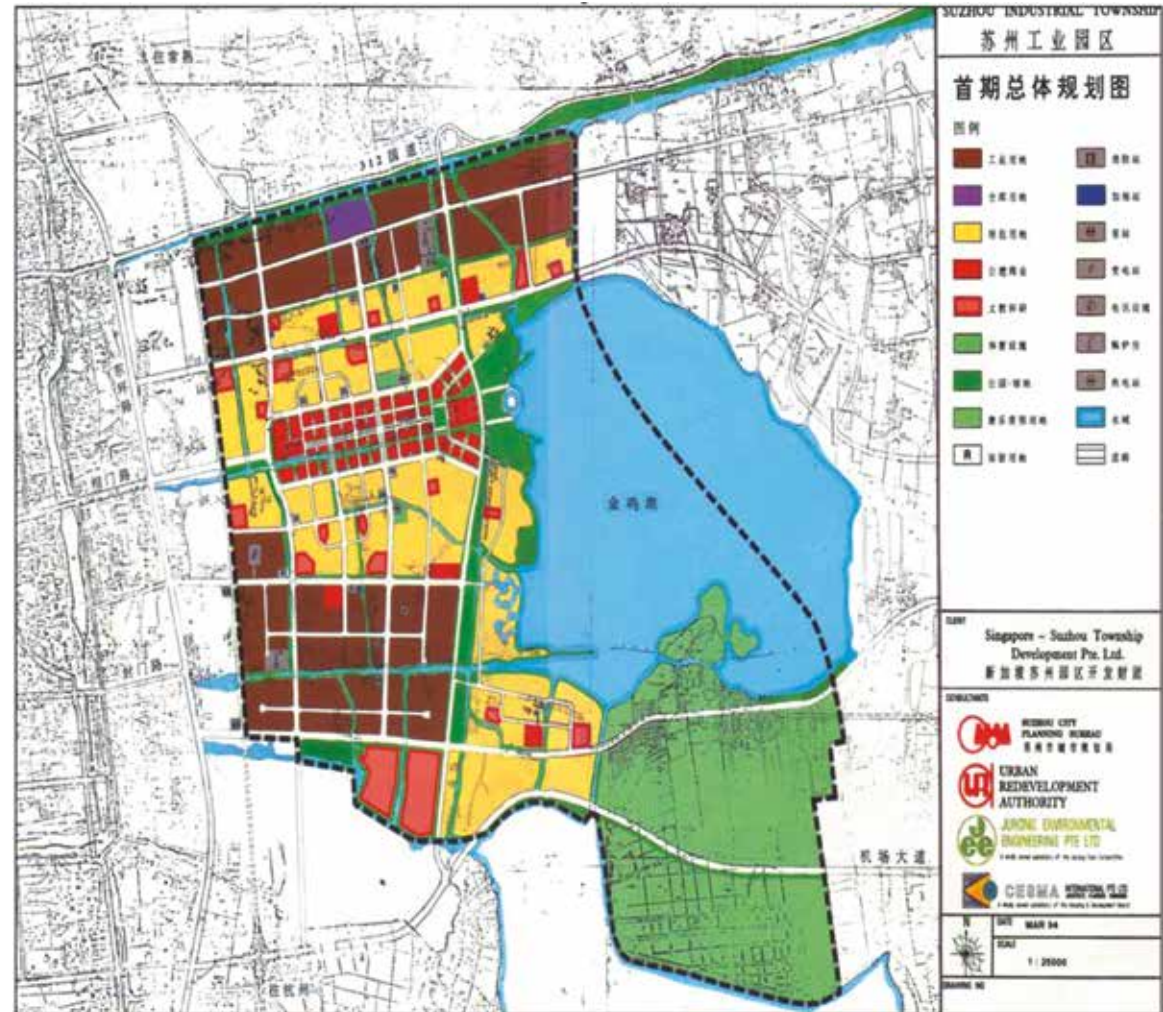
Based on the Master Plan, the SIP's development would extend from the west to the east. The first phase of the plan covered an area of 15.2 sq km with a planned population of 100,000.²⁹ In the planned area, 8 sq km were demarcated for Phase One development. A commercial hub was planned along the business axis to serve the township and the greater Suzhou city. To the north and south of the business district were residential areas, and industrial districts were located on both sides of the residential areas to balance commercial, residential and industrial land use. The plan designated a 2 sq km area as start-up area, with professional planning for the environment, power and water supply and other large-scale municipal infrastructure networks.

At the end of March 1995, the SIP's Planning and Construction Bureau sent a team of professionals to Singapore to work with Singapore experts in preparing the Master Plan for Phase Two and Phase Three. The Planning of Phase Two was for a high-tech centre, comprising a high-tech industrial park for research and development, and lakeside residences. It was planned with an area of 16.6 sq km and a projected population of 200,000. The third development phase was planned for light industries, covering an area of 36.56 sq km for industrial and residential uses with a projected population of 300,000. In July 1995, in a meeting regarding the China-Singapore Collaborative Area Phase Two and Phase Three master plans, leaders from the SIP Chinese Communist Party Working Committee and the SIPAC emphasised the importance of "long-term planning", and that "the quality of planning should not be lowered solely because of development cost considerations ('不能完全因开发成本的因素')".³⁰ Strong leadership with a long-term vision for the plan were other critical factors contributing to the SIP's excellent planning.

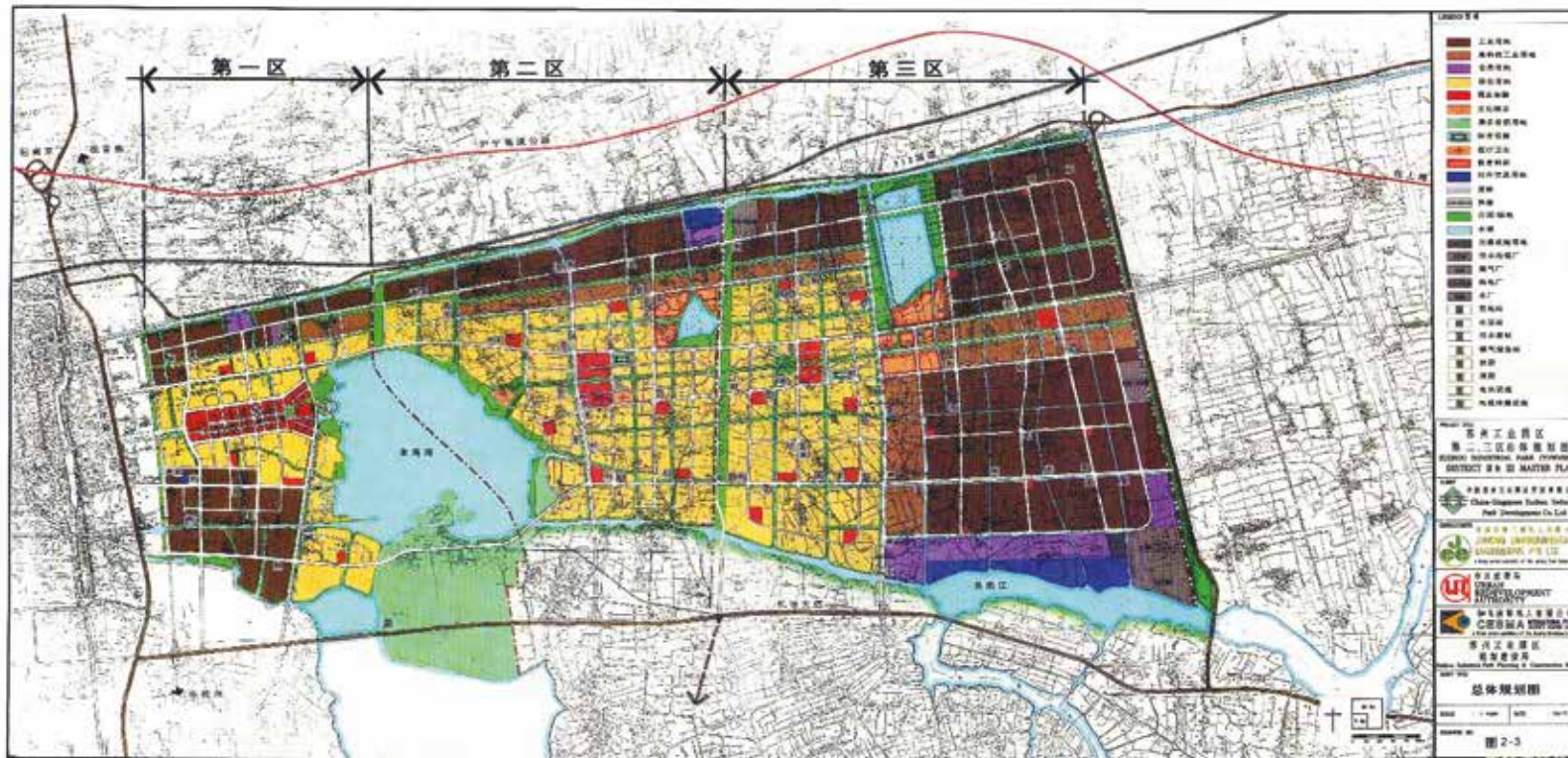
The planning foci for the second and third phases included commercial centres and neighbourhood centres, complemented by open spaces and green spaces, an environmental protection system and waste management system, integrated disaster prevention system, as well as an integrated transport system.

The planned business centre provided a high-quality modern space for future commercial activities, and prevented the old town from overdevelopment or large-scale redevelopment. The neighbourhood centre was adapted from the Singapore Housing and Development Board's neighbourhood concept. Neighbourhood centres were designed to provide one-stop commercial and community services.

To improve the quality of life, neighbourhoods in the SIP were equipped with a full range of public amenities such as primary and secondary schools and parks. Advanced environmental design principles were also incorporated into the plan, where open green spaces flanked picturesque lakes and canals. The existing lakes and main waterways would be preserved to accentuate Suzhou's unique features as a "water city".



Phase One Master Plan (1994)



Phases Two and Three
 Master Plan

The SIP also integrated its planned road network with the existing road system, with minor modifications, to create an efficient transport network. The road network catered to the needs of cyclists, and segregated pass-through traffic from residential traffic to reduce disturbance to the residential environment. The plan also reserved land to develop a rapid transit system (light rail), which could facilitate daily commuting along heavily travelled routes, particularly between the central commercial core of Phase One and the Suzhou old town.

BOX STORY

Surbana Jurong Developing Quality Towns in the SIP

How does one artfully integrate housing estates, industrial areas, educational facilities and entertainment facilities into Suzhou Industrial Park? Mr Michael Ng, Chief Executive Officer, North Asia, of Surbana Jurong Private Limited, shared details about Surbana Jurong's operations in Suzhou and his views on the SIP's master plan.

As the first bilateral project between Singapore and China, the SIP had a master plan created by both the Singapore and Chinese authorities that held great importance. Surbana Jurong has extensive experience in industrial park design and development as well as urban planning. Given its track record, Surbana Jurong participated in the design of the SIP's master plan which was led by URA, and was given the responsibility for managing and implementing key infrastructure works in the SIP's Phase One development.

From the start, Surbana Jurong played a significant role in the SIP's

planning and development, taking into consideration various aspects of a successful master plan, such as connectivity and sustainability, for its design for the SIP.

Careful consideration was given to transport links between Suzhou and other cities in the region. For example, given the lack of an airport in Suzhou, the original master plan catered for sufficient direct access routes from the SIP to Shanghai with special attention paid to traffic safety and convenience. The SIP's business district was intentionally located and linked directly to the expressway to Shanghai, while separate routes were planned for industrial vehicles transporting industrial goods, providing companies in the SIP easy access to Shanghai and other cities. The SIP is also one of the few areas in China where electrical lines were laid underground, laying the foundation for good infrastructural developments.

Another key element was having neighbourhood centres, which had

become an SIP trademark. The residential areas are well-designed, with accessible facilities such as convenience stores within the neighbourhood centres located within 800 metres of the residents' homes.

Surbana Jurong foresaw the continued development of the SIP and reserved "white sites" in the plan for future expansion, which made the plan more sustainable and flexible. Not only did it invest a lot of effort in planning the spaces within the SIP, it also introduced systems and processes aligned with international standards. In recent years, Surbana Jurong has actively participated in planning for other regions in China. The SIP project has enabled Surbana Jurong to demonstrate its capabilities and develop strong partnerships across China. Mr Michael Ng believes that the SIP's master plan will continue to serve as an important foundation for the SIP's development, and looks forward to more opportunities to collaborate with China.

PLAN MANAGEMENT AND IMPLEMENTATION

The use of a scientific approach in urban planning was not unique to the SIP, but what was commendable about the SIP was its execution and management of the plan. All the leaders, experts and officials from both China and Singapore placed great importance on planning. During its development, the SIP did not rush to introduce real estate projects or shop and office spaces; instead, it took a scientific planning approach by first building high-quality infrastructure before progressively putting in the urban functions. Apart from the Concept Plan, Master Plan and Detailed Plan, the SIP also incorporated planning elements such as urban design and technical requirements for important sites to ensure the feasibility of implementing the visual landscape and plan.

Since the beginning, the SIP had been emphasising the importance of using the plans to guide development and of adherence to the plans. All of the SIP's development plans were drafted by a professional urban planning team led by the chief planner, the highest authority in the urban planning regime providing technical expertise; in other words, the technical leader.

The plans were then validated by the planning committee, based on the laws and regulations, as well as the supervision, review and approval mechanisms. Thus, the plans were legally-binding, which ensured their implementation and effectiveness. The SIP also conducted training in urban planning for officials to understand the authority and importance of these plans.

Regardless, the plans were not cast in stone but rather, there was room for flexibility. The SIP reviews its Master Plan once every five years, and this would involve major modifications of, and adjustments to, the urban character, scale, development direction, spatial layout, and road structure. As the SIP developed, the plans were modified, and the flexible land-use regime of "grey sites" and "white sites" was invoked to develop land resources as needed.

KEY INSIGHTS

Upon the SIP's inception, both China and Singapore pooled their wisdom to explore innovative institutions and mechanisms for development. The SIP's future development needs were considered from a long-term perspective, and forward-looking plans were developed. Effective multi-level coordination mechanisms provided the foundation for continued deepening of the two countries' bilateral cooperation, such that software transfer could be adjusted to meet the changing demands of the SIP's different development phases. By separating management operations from development, the SIP's government was able to operate efficiently and its development proceeded systematically. By looking long-term and planning ahead, the SIP avoided the mistakes of developing in a haphazard manner. It laid a sound foundation for sustainable development, and created the conditions that were conducive to developing the SIP into a liveable township.

SIP Planning Concept

Balancing innovation and adaptation

Scientific positioning, city-industry integration

People-oriented and integrated development

Low carbon ecological development model

Comprehensive urban planning

High standards in planning and construction

From planning to constructing, from underground to above-ground

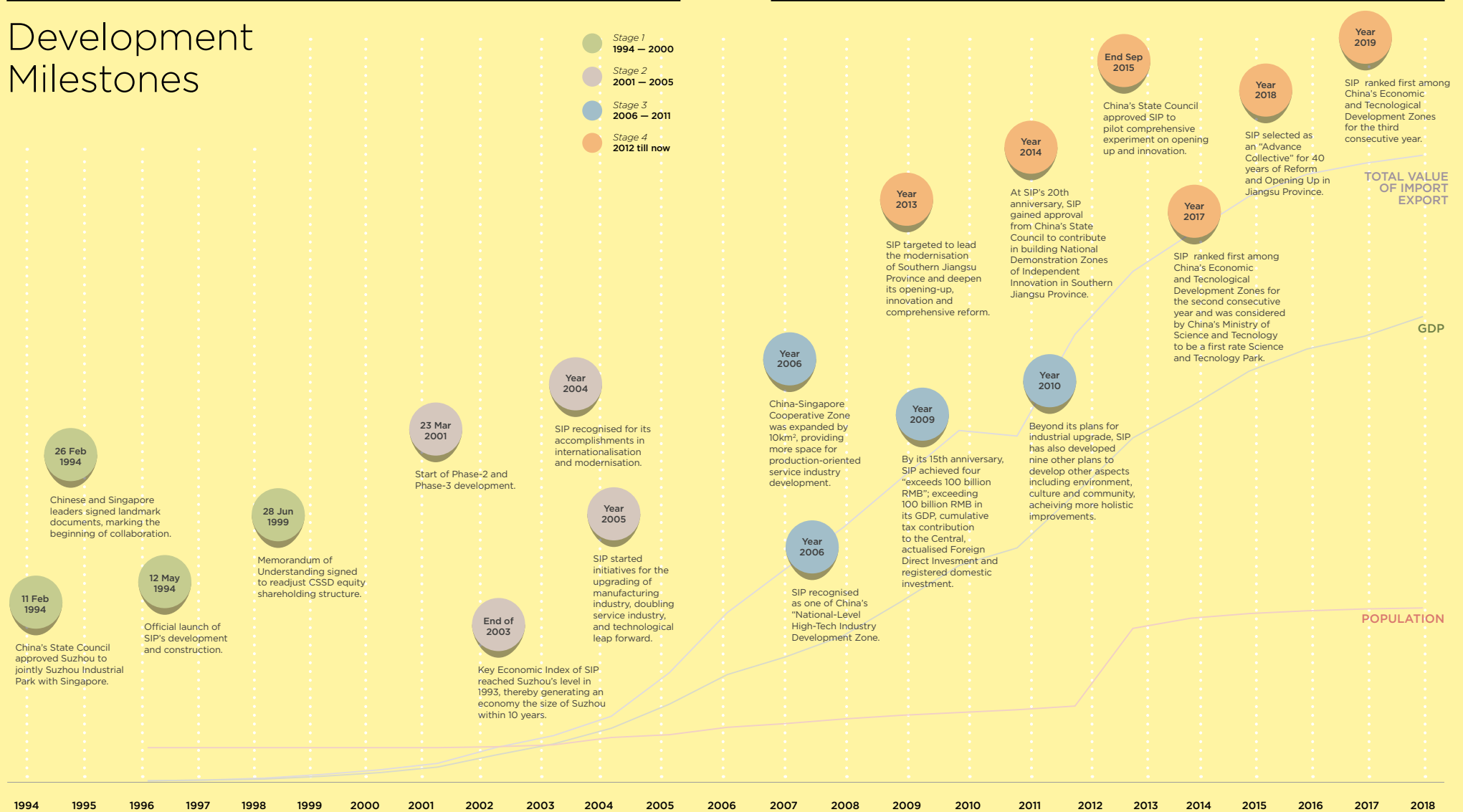
Scientific urban governance

Source: SIPAC

Ferris Wheel Park



Development Milestones





CHAPTER 3

Building Foundations and Accelerating Development



Illustration of the planning of Jinji Lake

Chapter Overview

The period from 1994 to 2004 was a decade when the SIP laid its foundation and accelerated development.

Since its inception in 1994, the SIP's development tenets had been "planning before building" (*xian guihua hou jianshe* 先规划后建设), and "to build underground infrastructures before above ground developments" (*xian dixia hou dishang* 先地下后地上). The rigorous Master Plan jointly developed by Chinese and Singapore experts was effectively implemented by the SIP. High-quality and reliable infrastructure facilitated industrial development and succeeded in attracting many companies, including Fortune 500 companies to locate at the SIP. Meanwhile, the SIP have localised the transfer of Singapore's public administration "software" and adapted it to create

an efficient and streamlined, pro-business and user-friendly system, elevating the SIP's investment and living environment.

After the CSSD changed its shareholding structure in 2001, the SIP development accelerated and soared into a new stage. China's accession to the World Trade Organisation (WTO) also expedited the SIP's development, increasing its investment in educational, healthcare and recreational facilities, which have helped to create a better environment to live and work in, attracting many companies and talents. Furthermore, the SIP also established a "green channel" to expedite logistics. All of the above, have helped the SIP to become an important engine driving Suzhou's "One Body, Two Wings" (*yiti liangyi* 一体两翼) development strategy.

1994-2000: Laying the Foundation and Building a Relatively Independent Modern Industrial Township

Between 1994 and 2000, the SIP planned to develop a relatively independent modern industrial township in the 70 sq km China-Singapore Collaborative Area. The industrial township would serve the employment and residential needs of a population of about 600,000. The SIP developer CSSD began work in the 8 sq km Phase One area, working on the “nine utility connections and land levelling” (*Jiutong Yiping* 九通一平) as well as developing high-quality ready-built standard factories and infrastructure. As CSSD completed the investment promotion activities for Phase One industrial land, and as neighbourhood centres and other amenities were built, the SIP was off to a good start.



Initial stages of development

PLANNING SYSTEMATICALLY AND THINKING LONG-TERM

Jiutong Yiping at its best

Drawing from Singapore’s industrialisation experience, the SIP proceeded with systematic planning and designing of its infrastructure. It adopted the highest standards and the most stringent requirements, using the “nine utility connections and land levelling” (*Jiutong Yiping* 九通一平) approach, which included laying utility connections for electricity, water, industrial gas, steam, sewage system, storm water drainage, telecommunication network, cable television service and roads in addition to land levelling.

“Speed up the construction of Suzhou Industrial Park, and accumulate new experience in developing Sino-foreign economic and technological cooperation of mutual benefit.”

Jiang Zemin, then-China President, in an inscription for the SIP on 12 May 1995

Subterranean utilities system “*Jiutong Yiping*”



Construction of the utility network was carried out systematically, based on the principle of “building underground before above-ground”. Power cables and pipelines were also installed underground to save land and preserve land value. Having a subterranean system of utility lines also avoided marring the skyline in the SIP and improved the security and reliability of utility networks.

Driven by long-term thinking, the SIP modelled its system after Singapore’s successful separation of storm water management and sewerage collection system. Storm water was collected using underground roadside drainage pipelines and discharged to the nearby water bodies, while industrial effluent and domestic wastewater were collected and conveyed through a separate sewer line to the wastewater treatment facility. This prevented untreated effluent from being haphazardly discharged into the water bodies, causing pollution. Conveying storm water to a receiving water system, which was separated from that for waste water, prevented flooding and back-flow in the sewer network during heavy storms and hence pollution to surface water.

The SIP also took a long-term view when designing its wastewater treatment plant. During the start-up phase, although only a few thousand cubic metres of waste water were generated daily, the plant was designed for a Phase One daily capacity of 100,000m³ and planned for an eventual total daily capacity of 500,000m³. Although building a comprehensive water treatment and sewerage system required substantial investment, its importance and long-term benefits convinced the SIP that it should pay for the water infrastructure projects. Soon, the project was off to a smooth start.



Waste water treatment plant

Apart from having to provide quality water and developing a waste water treatment facility that complied with rigorous standards, the SIP investors also required reliable electricity supply and speedy response during power failures. To boost investor confidence and ensure the reliability of the SIP’s power supply, the SIP commissioned its own power plants, including a diesel power generation plant by Keppel, followed by power plants by Huaneng Power Plant (华能电厂) and Blue Sky Power Co. (蓝天热电厂). Despite facing higher costs, the SIP was committed to providing quality infrastructure, as this was the SIP’s promise to its investors and residents. The relentless pursuit of quality and excellence had stood the SIP in good stead.

BOX STORY

Zhongxin Group Joining efforts to draw water from Taihu Lake

A modern industrial township would require abundant water resources to meet its water needs. When developing and promoting the SIP, the CSSD realised that the volume of water to be supplied by Suzhou city under the joint-venture agreement was insufficient for the SIP's industrial,

residential and commercial uses. For example, New Zealand beer manufacturer Lion Nathan Beer and Beverage (Suzhou) (狮王啤酒饮料公司), a company that the SIP hoped to entice, required 7 tonnes of water to produce 1 ton of beer. The SIP had to search for more water sources.



Lion Nathan Beer and Beverage (Suzhou)'s largest beer tank

The SIP had the advantage of being situated in close proximity to many water bodies. Located some distance away in the west of Suzhou was Taihu Lake, a huge water body found to have the best raw water quality amongst others. Although a huge investment was needed to lay about 30 km of water pipelines, as well as to construct the water intake point, the CSSD decided that it should still draw raw water from Taihu Lake for treatment to provide the SIP with quality water.

It was not easy to secure the raw water intake point by Lake Taihu. It was a huge water body of 2,425 sq km, about three times the size of Singapore, with a long shoreline connecting several cities.

Lake Taihu was also a renowned tourist destination in China, and the waterfront land would generate much higher value if it was put to residential or commercial use.

Given the importance of water resources, the SIP's stakeholders came together to coordinate and facilitate the construction of the raw water pipelines and water intake point at Wu County. In August 1995, the unveiling ceremony of the water intake point was officiated by Singapore's then-Senior Minister Lee Kuan Yew and Suzhou Party Secretary Yang Xiaotang. This attests to the leadership's commitment to building quality infrastructure and a world-class industrial park.



The SIP's Keppel diesel power generation plant and Huaneng Power Plant

Low-lying land that the SIP was sitting on before development

Drawing on Collective Wisdom to Level Land

Developing a large, integrated industrial park required flat land to site factories, roads and green spaces. The SIP started off as swampy farmland interspersed with streams and fish ponds. During land surveys, certain locations were accessible only by boats. Given the topography, the site was particularly susceptible to flooding during rainy seasons. Before constructing factories and other facilities, the SIP had to resolve this potential flood hazard.

Nevertheless, CSSD's shareholders could not agree on the solution. The Singapore consortium suggested using landfilling to raise the level of the land for the entire 70 sq km cooperative area. The Chinese consortium thought landfilling was too time-consuming and costly, as the amount of earth needed was unusually large and earth had to be transported from some 30 km away. Suzhou had just opened up and its economy was still relatively weak. Excavating and transporting the earth involved significant spending.



Launch of the SIP's Phase One development on 12 May 1994; landfilling truck fleet in 1994; the SIP's landfilling project



There were also concerns about the need to increase the price of land to recover costs. After accounting for other basic infrastructure investments, the SIP's land price would be twice as high as that of the nearby industrial estates. The high land prices might then undermine the SIP's competitiveness. Furthermore, landfilling would mean that the earth would require a long time to settle before above-ground structures could be built. During a period of rapid urbanisation, other Chinese cities would be busy constructing buildings and factories on unlevelled land. Time expended was opportunity cost. Considering the above factors, the Chinese consortium preferred the more conventional method of installing pumps and building dyke.

The Chinese and Singapore experts studied the relative merits and constraints of both methods, and eventually found that installing pumps and building dykes would be feasible for non-industrial zones because of the relatively low cost of cleaning up after a flood. In industrial estates, however, a flood could potentially damage millions of dollars' worth of machinery.

Repairing and restoring machinery and equipment and loss of production time implied incurring enormous losses and costs. Although landfilling would cost more in the initial phase, it could indeed reduce the risk of flooding significantly and instil greater confidence among investors.

Both sides eventually agreed that the SIP's land should be raised to a level that could withstand a once-in-a-hundred-years' flood. As soon as they arrived at a consensus on the solution and objective, the CSSD and the Suzhou-Singapore Industrial Township Preparatory Committee (now SIPAC) quickly mobilised resources for implementation. More than 300 seven-ton trucks were used to transport earth to the site. The first landfill project commenced in 1994 and by the end of 1997, 6.9 sq km of land was filled and levelled. The land was raised by an average of 0.9m, higher than Suzhou's once-in-a-hundred-years' flood level. Rivers were also dredged and canals widened to improve water flow and the SIP's flood resistance. In the summer of 1999, Suzhou was hit by storms that dragged on for days. Water levels soared and caused extensive flooding. The SIP was spared the ordeal of flood damage, with all its industrial, residential and commercial properties unaffected.³¹ Filling up and levelling the land to prevent flooding proved effective and gave merit to various parties' efforts.

Weaving a Well-Connected Road Network

A well-connected and functional transport network would be critical to the development of a modern township. Industrial estates required roads that were wide enough to convey equipment, machinery, raw material and finished products, and a dense road network for industries to operate efficiently and compete effectively. The SIP was connected to the surrounding industrial estates and the residential and business areas in the city centre through a dense web of road networks; an east-west running arterial road that linked the SIP with Suzhou old city ensured smooth traffic flow.

When constructing its transport network, the SIP not only adhered to high quality standards, but also observed financial discipline. For instance, instead of building all roads in full

width at one go, the SIP adopted Singapore's "slightly ahead of demand" (略为超前) practice and built the roads in stages. Some roads were built with two lanes first to meet the current demand, but sufficient land would be reserved to expand to four lanes in later years.

The Shanghai-Nanjing Expressway (沪宁高速公路) was the first highway in Jiangsu Province and a major traffic artery connecting economic hubs in the Yangtze River Delta region. Construction of the expressway was approved by the Chinese central government prior to the SIP's inception in 1994, and the expressway exits for the Suzhou section were only planned for the Suzhou city area and Suzhou New District (Suzhou High-tech Industrial Development Zone). The SIPAC and the CSSD appealed to the Suzhou Municipal Government, Jiangsu Provincial Department of Transportation, and Jiangsu Provincial Government to open another exit at Weiting (唯亭) in the SIP.

The Jiangsu Provincial Government coordinated the planning and supported building an additional exit at the SIP. However, it cautioned that the plan and the design of the road bridge would have to be revised. The additional budget would also require the central government's approval, and the process would be time-consuming. Finding the funding to build an interchange connecting with the expressway was also a challenge. The SIP was just starting out, and the expressway exit was strategically important, yet financially demanding. After many rounds of discussions and consultations, the decision was that the Jiangsu Provincial Department of Transportation would pay for the construction of the exit in Weiting, and the Singapore consortium SSTD would provide a loan for the construction of the interchange. Apart from budget considerations, the soil conditions at the interchange section also posed engineering challenges. Since the soft soil layer was quite extensive and could cause the roadbed to sink, the SIP had to use a special technology to stabilise the foundation.

Construction of the Weiting Interchange project (唯亭互通立交桥) took two years, and was completed in September 1996.



312 State Highway and the Shanghai-Nanjing Expressway
 (before and after)

This 150 million RMB project was two years and three months ahead of schedule, and the Shanghai-Nanjing Expressway had since commenced its pilot run. Before the completion of the expressway, driving from Suzhou to Nanjing via the 312 State Highway would take about four hours. The expressway reduced travelling time by half. Similarly, the time taken to drive from Suzhou to Shanghai,

the regional “economic magnet”, was reduced to one hour. The SIP was also connected via the Shanghai-Nanjing Expressway and other expressways to both domestic and international airports in the Yangtze River Delta Region, including the domestic airports Guangfu Airport (光福机场) and Wuxi’s Shuofang Airport (硕放机场), the Shanghai Hongqiao International Airport (80 km away) and the Shanghai Pudong International Airport (146 km away). The Shanghai-Nanjing Expressway had greatly facilitated travel and the movement of goods.

ATTRACTING INVESTMENTS AND CREATING A PRO-BUSINESS ENVIRONMENT

Facilitating Investments with Ready-Built Factories

Singapore’s Jurong Town Corporation’s ready-built factory concept was adopted first in the 2 sq km start-up area in the SIP and had proven popular among investors. The factories were well-equipped, and investors could start operations within a relatively short time. Additionally, the factory spaces could be flexibly configured to meet different investors’ needs. Agglomeration could take place within the factory zone, as industrial clusters would enable integration of the value chain and allow investors to seek support services.

Just three days after its ground-breaking ceremony in May 1994, the SIP began to construct the first batch of ready-built factories. Xinsu Industrial Square (新苏工业坊, which later changed its name to Ascendas-Xinsu Industrial Square (腾飞新苏工业坊)), was among the first batch of ready-built factories to be completed. Construction was completed at the end of 1995, providing 95,000 sq m of industrial floor space. By the end of 1998, the China-Singapore Collaborative Area had completed 489,000 sq m of factory floor space in total, and the peripheral towns (园区内周边乡镇) provided another 450,000 sq m. By the end of 2004, 10 years after the SIP’s ground-breaking, the total ready-built factory floor space completed was 2.44 million sq m.³²



The SIP's first ready-built factories at Xinsu Industrial Square

BOX STORY

Ascendas-Singbridge Public-Private Partnership in Brand-Building

The strong partnership between the government and businesses has been key to the success of the SIP. The government provides a visionary development plan, whereas businesses provide the infrastructure. In an interview, Mr Charles Chan, China CEO of Ascendas-Singbridge Group, described how his company has worked with the government to create the SIP's pro-business environment.

Ascendas-Singbridge first ventured into the SIP in 1995, pioneering the Ready-Built facilities concept in China through Ascendas-Xinsu in the SIP. It then went on to develop industrial facilities in the north of the SIP, which include Built-to-Suit facilities. In 2008, Ascendas-Singbridge established its second project in the SIP, named Ascendas iHub Suzhou, which caters to the business space needs of IT and outsourcing businesses. In 2013, the company redeveloped the facilities in Ascendas-Xinsu.

Renamed Ascendas-Xinsu Industrial Square, the enhanced facility's target industry was upgraded from industrial development to industrial R&D.

According to Mr Chan, the SIPAC's support has enabled the company's success in developing infrastructure for the SIP. Ascendas-Singbridge is committed to developing quality business environments that catalyse and contribute to the SIP's economic development. The SIP's steady strategy and policies have enabled companies such as Ascendas-Singbridge to dovetail projects with the SIP's development plans expeditiously to cater to its needs. As Jiangsu Province develops its characteristic towns, Ascendas-Singbridge will explore future opportunities to participate and contribute to its development. This will include creating conducive environments that attract companies and institutions in artificial intelligence research, in line with the government's current development

focus, and also participate in the SIP's Belt and Road Initiative cooperation and the integration of the Yangtze River Delta development strategy.

Quality infrastructure, visionary plans and sound execution are what make the SIP a friendly place for businesses and the people today. During its preliminary development stages, the SIP leveraged the reputation and expertise of Singapore's Economic Development Board (EDB) to reach out to businesses and foreign investors. Today, the SIP's sound management and prompt delivery on its promises have established strong credibility, enabling the SIP to attract businesses and extend its reach into corporate networks. In terms of "software", every level of the SIP management had visited Singapore for training, and the SIP has introduced many innovative policies. The SIP has also created a conducive ecosystem for start-ups through providing incubators and

other facilities to support budding entrepreneurs. The SIP also pays close attention to enhancing its physical environment through a clear focus on greening, creating an aesthetically beautiful and lush landscape despite industrial development. An active approach to employment policies such as the "Leading Talent" plan has helped the SIP attract high-quality professionals to work within the park.

The SIP's continued ability to attract businesses is an affirmation of its success. Companies locating operations in the SIP include leading information and communications technology (ICT) equipment and services company Huawei, which will be setting up a technology research centre in the SIP. Mr Chan shared that Ascendas-Singbridge looks forward to build a closer partnership with the SIP and working hand-in-hand with its management to attract more quality enterprises and talents to the SIP.

Selecting Investments for a Strategic Fit

The high investment cost of infrastructure projects, including “*Jiutong Yiping*” 九通一平, drove land prices in the SIP up — sometimes even to 50 per cent higher than those of other industrial estates in the same region.³³ The SIP assessed its advantages and decided to strategically target established global players of high-end, capital-intensive manufacturing industries. After analysing the merits of different high-tech industries, the SIP decided to focus on high value-add industries, including two electronic and information clusters — ultra-thin display and integrated circuit industries — and precision machinery clusters such as automobile and aerospace components, to set itself apart from other industrial estates in terms of industrial composition.

Capital-intensive industries would typically occupy less land. Land cost was therefore a smaller component of their business costs, and they would be more willing to pay a premium for quality infrastructure, a reliable business environment, and efficient administrative services, which were the main advantages of the SIP. Moreover, these investors are heavy contributors to tax revenue and employment opportunities, and could serve as the “head honcho” that attract upstream and downstream companies to follow suit and locate in the SIP.

To attract businesses and investments to the SIP, both countries jointly launched major investment promotion campaigns internationally, with Singapore offering its rich experience and business contacts to lay a firm grounding for the investment promotion activities. Joint efforts demonstrated the commitment of both countries and the unique advantages that could accrue when the two governments work together. During a visit to Germany and the UK in April 1994, Singapore’s then-Prime Minister Goh Chok Tong made a pitch on behalf of the SIP, marking the first step of their joint investment promotion. At business conferences in Germany and the UK, Prime Minister Goh Chok Tong delivered opening speeches during which he introduced at length the SIP’s prospects and possibilities to world-renowned Multinational Corporations (MNCs) and companies.³⁴



Construction scene of the SIP

Singapore and China went on to strengthen their respective investment outreach teams, and produced promotional materials in Chinese, English, German and Japanese, including video tapes, slides, presentation packs and investment guides. Following the 4th SIP JSC Meeting in August 1995, and at the directive of then-Senior Minister Lee Kuan Yew, the Economic Development Board of Singapore made the SIP’s investment outreach its top priority. Seven EDB officials were appointed to assist the CSSD in attracting investments. In the same year, Director of the SIP Economic and Trade Development Bureau, Xiao Yimei, led a delegation to Singapore to learn about economic management and be trained in customer service and foreign investment management, especially to take intensive courses on investment promotion.



Instead of involving everyone and going for every company in its investment outreach, the SIP opted for a more targeted and effective approach. It identified a select group of potential investors, and delegated high-calibre broad-skilled professionals to visit potential investors individually to make a genuine and convincing case.

The joint recruitment efforts were very successful, as many world-renowned enterprises were eager to locate in the SIP. On 14 September 1994, the CSSD signed MOUs with 14 eminent investors, including Siemens, Samsung, Becton Dickinson, Comfort Group and Pokka Corporation, among others, which committed investments totalling approximately 1 billion USD. Given that the SIP was trying to build industrial clusters, having these big investors in place laid a good foundation for its efforts.



Ready-built factories for Samsung. One of the SIP's first batch of investors.



These brand names also helped to boost investor confidence in the SIP's business environment. By the end of 1999, merely five years since inception, more than 30 Fortune 500 companies had established a presence in the SIP. At this point, the SIP investors constituted four key high-tech industrial pillars, namely electronics and information, biomedicine, precision machinery and new materials, with its average industrial output growing by 5 billion RMB every year.³⁵

Building "Training Labs" to Develop a Skilled Workforce

Having a highly-skilled workforce was integral to building an attractive investment environment. Initially during the start-up period, both China and Singapore recognised the need to build vocational schools in the SIP to cater to the needs of its advanced manufacturing and high-tech industries, and provided for this in the China-Singapore Cooperative Area Master Plan.³⁶

During a visit to the SIP in May 1997, then-Singapore Prime Minister Goh Chok Tong proposed setting up an advanced level vocational school in the SIP to address the manpower gap required for advanced manufacturing and high-tech industries. To meet the SIP's development needs, the vocational school would provide skills training to develop skilled workers and technicians. After studying Nanyang Polytechnic's management experience and its "training lab" model, the Suzhou Industrial Park Institute of Vocational Technology (IVT, 苏州工业园区职业技术学院) was officially established.

For the new institute's operations, the IVT adopted Nanyang Polytechnic's set-up of a president running the school under the leadership of a board of trustees. The board comprised managers, entrepreneurs and experts from the government (SIPAC, education authorities and labour departments), industry (CSSD, Nokia, Solectron, Emerson, etc.) and academics (Tsinghua University, University of Technology Sydney, etc.) providing policy, financial and academic support.

On teaching, the IVT emphasised partnering with businesses to impart skills that were closely aligned with the SIP's development needs. Setting up factories on the IVT campus enabled resources and facilities to be shared with the students. Not only did they have specialised knowledge, they could also skilfully operate equipment and adapt to different corporate cultures. Having worked with the industrial sector for many years, the IVT developed different models of university-industry cooperation which could be shared with other vocational institutes.

STREAMLINING ADMINISTRATION FOR BETTER SERVICES

Pro-business Services and Progressive Concepts

In the initial stages of the SIP, the focus on adapting from Singapore's experience was mainly on macro-level aspects of public administration and economic management. Later, to stay in tandem with the project's progress on the ground, the SIP changed the focus of software training by shifting from training of the macro aspects to training of the micro-aspects to be more issue- and problem-solving driven. For example, the training programmes in 1996 and 1997 focused on Human Resource System for Civil Servants, Central Provident Fund Management and Customer Management. During this period, the SIP put together a "streamlined, integrated and effective" government organisational framework and civil service team to provide a "full range of end-to-end 24/7" services. The study outcomes of management personnel trained in Singapore were compiled and developed as the SIP's administrative rules and procedures. This was done to clearly define and institutionalise the administrative guidelines which required professional qualities.

The SIP was committed to ensuring policy transparency and consistency so as to fulfil the needs of businesses. It required minimal intervention by the authorities in the businesses; and when needed, prompt service was provided. As the SIP strived

to create a service-oriented culture and protect the interests of businesses, it developed an investment-friendly environment. The SIP had also set up a pro-business service mechanism that promises comprehensive and responsive services anytime and anywhere. The SIPAC staff would visit the businesses regularly to address their concerns and provide timely solutions to their difficulties. The various SIPAC departments would deal with economic and social matters strictly according to law for a fair, open and transparent playing field. All SIPAC departments were supportive of the SIP's pro-business principles and applied themselves to help investors obtain satisfactory returns, which in turn benefited the SIP.



The SIP's
One-Stop
Service
Centre



The SIP's
One-Stop
Service
Centre
Lobby



SIP Enterprise Development Service Centre



Service Centre

For the convenience of investors, a “one-stop” service centre was established in 1996 to streamline legal and administrative procedures. Back then, many regions required investors starting a business to apply separately to many government departments. In the SIP, the authorities were housed under a single roof. This was an innovative step in China, and signified the progress from an “administration” mindset to a “service” mindset. In three offices situated in a small white

building next to Jinji Lake, the SIPAC set up three windows for economic development, urban planning and human resource matters. Foreign investors had access to a full range of services, from incorporation, commencement of operations, construction and recruitment, all in one place. By early 2000, the SIP officially opened its one-stop service centre, where the various government departments stationed staff to serve investors more efficiently.

Comprehensive Arrangements for Resettled Residents

The 70km² site for the SIP's China-Singapore Collaborative Area was surrounded by one township and four towns – Loufeng Township, Kuantang Town, Xietang Town, Weiting Town and Shengpu Town. To ensure integrated development of the surrounding towns based on the SIP's plan, the Jiangsu Provincial Government put the administration of the above five towns under the purview of the SIPAC. The government also acquired land from the surrounding towns and townships to accommodate resettled residents, businesses and public institutions affected by residential and industrial developments within the 70 sq km cooperative area.

Resettling the residents was a crucial task before the development. Many had been farmers for generations. Their dependence on land for a livelihood and lack of employable skills also made resettling more difficult.



Village to be resettled before the SIP's development





The SIP thus began building multi-storey resettlement apartments soon after land acquisition in 1994. Within nine months, four resettlement neighbourhoods with about 1,000 new flats were completed near the China-Singapore Collaborative Area, and villagers started moving in.³⁷ The high-rise flats provided sanitation, ventilation, reliable utility services such as electricity and water. Residents could benefit from the development of the SIP and enjoy improved living standards.

Apart from housing, other social amenities such as schools, hospitals, cultural, sports and other social services were also provided.

First batch of resettlement housing, *Xiayuan Xincun* (夏园新村); *Fengyi Xincun* (葑谊新村)





Improvement of learning environment in SIP

Although many village schools used to sit on the SIP site, transportation was inconvenient, and many had only one classroom conducting multi-grade classes. When the SIP constructed its first Affordable Housing Estate (安居房) *Xincheng Huayuan* (新城花园) in 1997 (within the 70 sq km cooperation area), it had already built a kindergarten near the estate. Teachers and students had better hardware and education resources in the new schools. This helped to hasten the resettlement process as villagers were more willing to move into their new homes.

For farmers who had lost their land, the SIP also conducted training courses to improve their professional skills, including basic electrical work, hairdressing, forklift operation, domestic services, and entrepreneurship training.

The CSSD also provided employment opportunities for relocated residents, for instance, by hiring villagers for landscaping work in the SIP. By end-1999, the SIP had resettled 4,326 households and 230 institutions and firms.³⁸

Neighbourhood Centres and Communities for Convenient Living

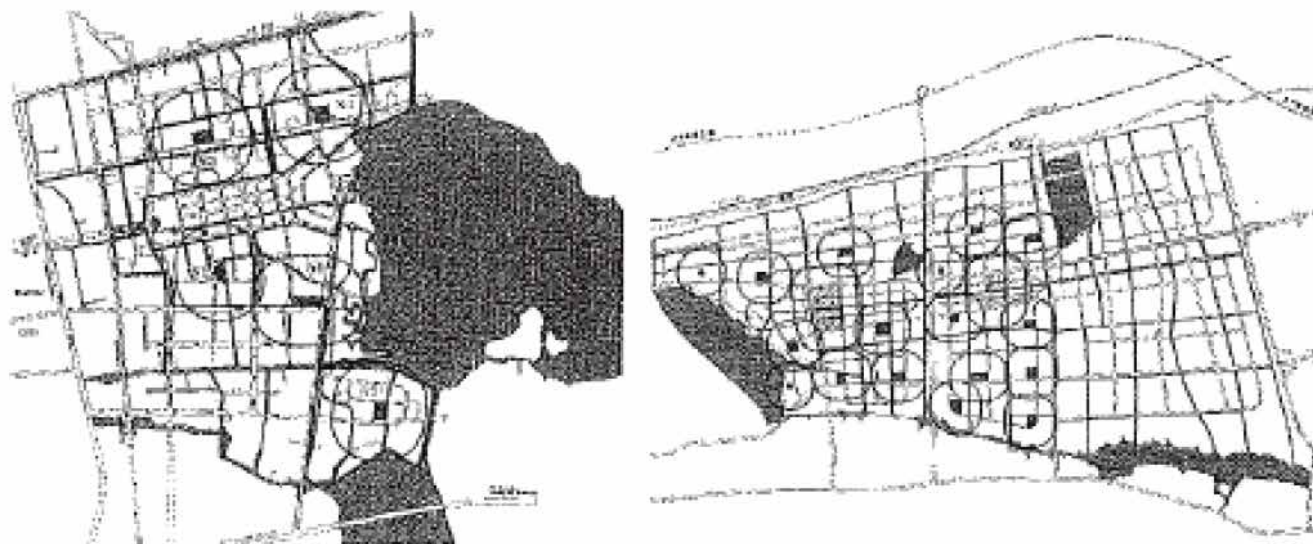
The SIP's Master Plan clearly laid out its functional areas. Industrial sites were first developed to attract investments and create jobs, while residential sites were progressively developed and were built around commercial and neighbourhood centres. Doing so would improve the SIP's vibrancy and the overall environment, as well as meet the housing and shopping needs of the working population needed for industrial development.



The SIP neighbourhood centre

Public amenities were designed based on Singapore's model and were distributed in different administrative tiers to provide social services, greenery and recreational facilities, and public spaces to further enhance liveability and increase the SIP's appeal to investors and potential residents.

Neighbourhood centres in the SIP were critical commercial nodes serving the community. These were adapted from the neighbourhood concept in Singapore public housing estates



Neighbourhood centre distribution in the Phase One area (west of the lake) and Phases Two and Three (east of the lake)

that emphasised “family” and “neighbourhood” as units. People oriented principle meant that the conventional model of having street-level shops was discarded and replaced by neighbourhood centres, which congregated business services, social facilities and recreational and shopping facilities, including an agricultural produce market, supermarket, restaurant, bank, post office, beauty salon, cinema, clinic, pharmacy and other services that made living more convenient.

The geographical distribution of neighbourhood centres was detailed in the Master Plan. Each neighbourhood centre served 20,000 to 30,000 residents within a 0.5 km radius to prevent resource wastage and vicious competition due to service duplication. Neighbourhood centres were usually

located near bustling arteries where human traffic could gather easily, and were convenient for logistics arrangement.³⁹ The neighbourhood centre model enabled a more compact and efficient use of land and space, and also provided employment opportunities close to home. It also mitigated noise and sanitation challenges from street-level shops at the first storey of residential blocks in traditional residential districts, ensured fast and smooth traffic, and increased the commercial value and quality of life of surrounding residences. Scientific planning delivered quality living and accessible services in the SIP.

The SIP’s neighbourhood centres underwent several phases of development. The start-up phase was more oriented towards delivering social benefit. Nonetheless, as they



Market



Neighbourhood centre

catered mostly to the residents' daily needs, the centres' operational efficiency and economic returns were lacklustre. As a state-owned enterprise, the SIP Neighbourhood Centre Corporation (SIPNC) aimed to develop neighbourhood centres with a local touch, and sought to innovate based on Singapore's model. It introduced improved versions of farmers' markets: "Neighbourhood Fresh (邻里生鲜)", breakfast cars "Neighbourhood 1+1" (Chinese fast food franchise), and a budget hotel franchise "Neighbourhood Holiday Hotel". This was China's operating model for neighbourhood centres. Phases Two and Three of the neighbourhood centres added general functions such as office spaces and hotels.

Yet, the commercialisation of neighbourhood centres and the high construction standards drove up product prices. However, the SIPAC continued to strive for enhancement of the planning and operation of neighbourhood centres to better serve the public. Guided by the government, the SIPAC relied on government facilitation, private sector investments and market-based operations (*zhengfu yindao, qiye touru, shichanghua yunzuo*, 政府引导、企业投入、市场化运作) to develop community businesses and to maximise both social and business benefits.

2001-2005: Accelerating Development

Following China's accession to the World Trade Organisation in 2001, its economy began to take off, as exports flourished and foreign investment increased. The Yangtze River Delta region, an important location with emerging manufacturing industries, became a popular destination for foreign investments. After the 2001 dotcom bubble burst in the US and Europe, high tech talent and Internet professionals turned to emerging markets to launch start-ups and develop new markets. The SIP had a potential talent pool for its technology park and higher education district.

After China and Singapore altered their percentages of shareholding in 2001, the SIP entered a phase of accelerated growth, in which the SIP took aggressive steps in relocation, expansion, construction, business outreach and development (*da dongqian* 大动迁, *da kaifa* 大开发, *da jianshe* 大建设, *da zhaoshang* 大招商, *da fazhan* 大发展). By the end of 2003, the CSSD declared profit for three successive years, and succeeded in recouping the past losses. In the same year, the SIP's major economic indicators had reached Suzhou's 1993 level. This was similar to creating an economic equivalent of Suzhou in just 10 years.⁴⁰

During this phase, the SIP's Master Plan was modified based on the 1994 plan — to intergrate a relatively self-contained township as part of Suzhou City's Master Plan. The centre of the SIP was extended to serve as the commercial and cultural centres of the greater Suzhou city.



Accelerating development

The plan in this phase expanded to encompass the towns and townships surrounding the China-Singapore Collaborative Area. The total area became 278 sq km, with a planned population of 500,000 in the Cooperative Area and 430,000 in the adjacent towns. The SIP pushed for development in Phase Two and Phase Three, including the construction of functional zones during this period, by building the technology park, export-processing zone, higher education district, BioBay and Jinji Lake business rim. The completion of these sites implied that the infrastructure development within the 70 sq km Cooperative Area was essentially complete. As industrial development spurred residential and commercial development, the SIP's urban functions became more robust, and its urban profile began to take shape. Driven by rapidly growing industries, the SIP became part of the new urban district in Suzhou's "One Body, Two Wings" spatial plan. In 2004, on the SIP's 10th anniversary, both China and Singapore recognised that the SIP had made remarkable achievements.

URBAN PROFILE TAKING SHAPE

Amenities that Create Liveable Communities

As the SIP entered a new stage of development, the industrial foundation of peripheral industrial estates was mostly in place. Together with increasing residential and commercial activities, the urban functions of the SIP started to take shape. Social amenities for education, healthcare and leisure, for instance, were also constructed to build liveable communities.

Educational facilities were an important part of the SIP's amenities. Since the founding of *Xincheng Huayuan* (新城花园) Primary School, the first school in the SIP that provided compulsory education, village schools scattered amid criss-crossing waterways had gradually disappeared. In their place were new schools providing modern and standard education aligned with international standards. These included kindergartens, primary schools, secondary schools, high schools, international schools and special schools, built to meet the educational needs of the SIP residents.



Suzhou Singapore International School (SSIS)



Among them was the Suzhou Singapore International School (SSIS), the first school in Suzhou to enrol foreign students. Its first intake in 1996 consisted of 37 students from 26 countries. As the SIP developed and with the arrival of more foreign investors and expatriates, the SSIS expanded rapidly. By 2005, its student population was more than 1,000. The SSIS had also shared its experience with other development zones in China, and established sister schools in Changsha and Nantong.



Dushu Lake Library

Xinghai
Swimming Complex



Jiulong Hospital and healthcare workers providing community health consultation services

During the early days, as part of the amenities of an urban district, the SIP had planned for a first-class modernised hospital with the capacity to serve a population 1.2 million. In 2003, the privately-funded Jiulong hospital was registered. Construction took three years, and the hospital opened in 2006. Occupying an area of 138,000 sq m with 1,100 beds, this was the largest healthcare institution in the SIP. The hospital also signed a cooperation agreement with Shanghai Jiaotong University's School of Medicine to jointly run the hospital. To serve the increasing population of foreign residents, the hospital employed healthcare workers who were conversant in several languages. Public hospitals, social healthcare centres, disease control centres and other health institutions were also built in the SIP to meet the residents' medical and health needs. To bring healthcare closer to the homes, healthcare workers also provided free consultation sessions in neighbourhood communities.



The SIP had also built recreational and leisure facilities such as community swimming pools, cultural centres and libraries to provide residents with more public spaces. The Dushu Lake Library, a 160 million RMB project, had a total floor area of 230,000 sq m, with five million books and digital publications. Apart from serving the teachers and students of the Dushu Lake Higher Education District, the library also served the public.

Balancing Working and Living for Convenient Commuting

For industrial, residential and commercial facilities within the China-Singapore Collaborative Area, the SIP adopted a compact layout when structuring the relationship between buildings, such that every planning unit had sufficient amenities to meet the daily life, work and recreational needs of most residents. However, as the SIP expanded in size and as its working population increased, balancing working and living needs as well as providing commuting options under the current layout posed new challenges. Given that the manufacturing companies in the SIP employed large numbers of production workers and that most were non-locals, the SIP decided to work with businesses to explore other suitable residential options.

The Rongyuan dormitory area (融园集宿区) developed by AU Optronics Corporation provided a new model that balances working and living needs of non-local workers. AU Optronics selected a location near the company premises and constructed 10 dormitory buildings on an 80 mu (5,333 sq m) site. The dormitory area could accommodate nearly 10,000 employees, and was equipped with amenities such as canteens, a supermarket and basketball courts. Furthermore, it was connected to the company premises by a footbridge, which did not only make commuting easier, but also eased traffic.⁴¹

Another model was the Youth Commune developed by the China-Singapore Suzhou Industrial Park Property Corporation. As the first rental apartments meant for

non-local employees, the Youth Commune was a high-density residential development offering garden-style living. Designed for intensive land use, it had a convenience centre and full amenities. Because of its locational advantage, the Youth Commune provided convenient transport options, with bus terminals nearby, company shuttle bus stops, and bicycle lanes that made travelling to many companies within the SIP a breeze.⁴² Reasonable rental and comprehensive functions had earned the Commune Phase One recognition and compliments from many companies in the SIP. Its social significance and the demonstration effect it had as an accommodation supply system in development zones earned it the “National Comfortable Housing Demonstration Project (国家康居示范工程)” award.

Building an Eco-Structure and Creating Green Spaces

The SIP was not only a globally competitive industrial estate, but also a modern township surrounded by lush greenery and water bodies. It was also often admired for its ability to balance economic, social and environmental development. The SIP Master Plan 2001 clearly outlined the structure of the ecological network, which was made up of the northern and southern ecological reserves and the eco-corridor. By creating a green belt as a protection zone encircling the SIP, the right elements were in place for developing ecological green spaces for the SIP.⁴³

Parks and greenery in the SIP were planned on three levels, based on their distribution and the surrounding population densities. The first level consisted of parks integrated with the lakes in the SIP – Jinji Lake, Yangcheng Lake and Dushu Lake. Second-level parks were specialised or themed parks such as the Baitang Ecological Botanic Garden (白塘生态植物园), Central Park (中央公园), Dongshahu Park (东沙湖公园) and Sports Park. Third-level parks were the widely-distributed neighbourhood-level community greenery, so that every household would be within 500 metres of a park. These third-level parks were pockets of luxuriant green spaces where residents would enjoy their leisure activities amid verdant surroundings.

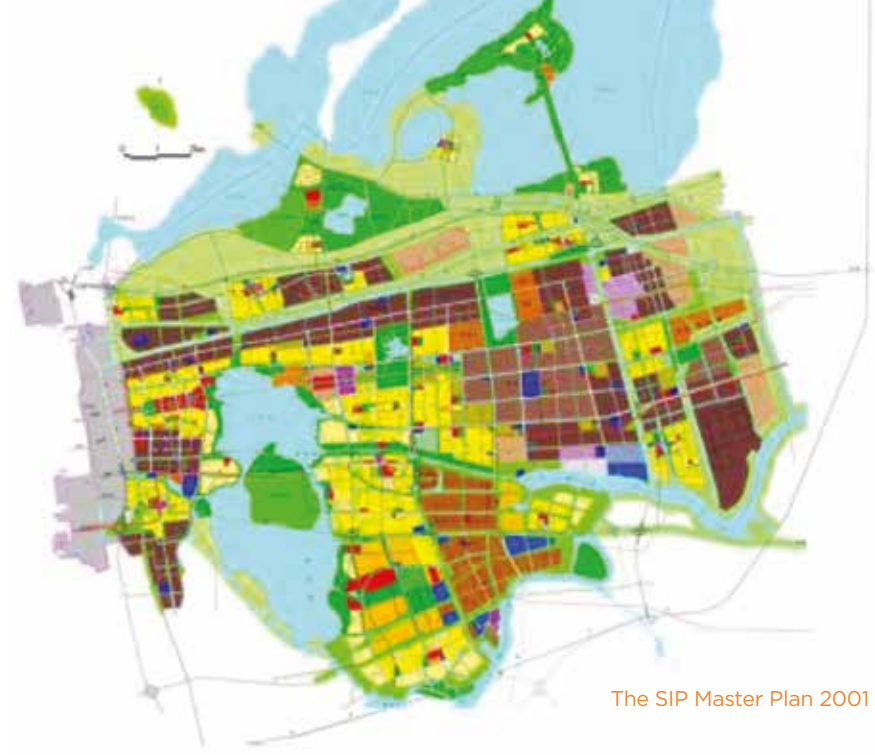
Since 2004, the three revisions to the SIP's plan had adjusted land use proportions. Residential land was increased by 5 per cent, but the area for green reserves remained unchanged. Although the pace of urban expansion in the SIP accelerated, it was not achieved at the expense of greenery, signalling the SIP's commitment to greening.

The SIP believed that greenery and parks should be open to the public. For example, to provide residents with a place for leisure and recreational activities, entry to Baitang Ecological and Botanic Garden was free despite the high maintenance costs (maintaining the vegetation alone would cost 1.5 million RMB a year). The SIP's lavish green landscapes were enjoyed not only by the local residents, but also by visitors from nearby cities such as Shanghai and Wuxi. A good environment was also an asset in real estate development. Having a park implied that the price of its surrounding land would inevitably rise.

RAPIDLY GROWING INDUSTRIAL CLUSTERS

Since 2001, the SIP had gradually moved towards having higher value-added industries. The software transfer programme between China and Singapore also evolved to include new topics such as development of green industrial parks, high-tech manufacturing, and research and development.

Although China's economy began to flourish after the country joined the WTO, the SIP was not indiscriminate in bringing in investments; instead, to avoid competing head-on with other development zones, it was prudent in selecting investments that were pertinent to its strategic positioning. One of the SIP's main areas of focus was the electronics and information industry chain (信息产业链), including integrated circuits, optoelectronics and electronics manufacturing.



The SIP Master Plan 2001



The SIP functional zones 2001



Dongshahu Park;
Lake trail
during sunset

From design and manufacturing to package testing, integrated circuits were demanding on the environment and supporting facilities. Substrate wafers used for fabricating integrated circuits particularly required larger volumes of water which were of a higher standard to be used. Being “pro-business”, the SIP identified sites that met the needs of wafer manufacturers and laid utility pipelines deeper underground and with larger diameter. After the SIP succeeded in attracting integrated circuit manufacturers, many upstream and downstream businesses followed and located in the SIP to eventually form a complete electronics and information industry chain.





Linglong Bay



Sculptures in the SIP - Window (窗口)



Suzhou Village shopping outlets

Chongyuan Temple



Suhong Road (苏虹路), an arterial into the east of the SIP, was known as the “IT corridor” because of the aggregation of many electronics and information technology companies. It enjoyed a distinct advantage from industry clustering. By having suppliers closer to manufacturers, raw materials and services could be accessed more efficiently, and market feedback could be obtained more quickly to adjust production based on customers’ demands. In an industry cluster, where professionals congregated, and comprehensive supporting services were available, companies enjoyed higher production and service efficiency.



Electronic and Information
Enterprises on Suhong Road



Apart from selecting investments with a good strategic fit, the SIP also required investments to meet the minimum environmental standards. Investment promotion agencies placed a lot of emphasis on environmental standards in their negotiation process. Before investment projects were brought to the SIP, environment agencies would conduct stringent environmental impact assessments as required by the environment protection and administration regulations. Projects that were highly energy- and resource-intensive as well as those that posed an environmental risk might be “vetoed” by an environment agency.⁴⁴ Be it air, water, noise or solid waste pollutants, protecting the environment at the polluting source had enabled the SIP to save on cleaning-up costs.

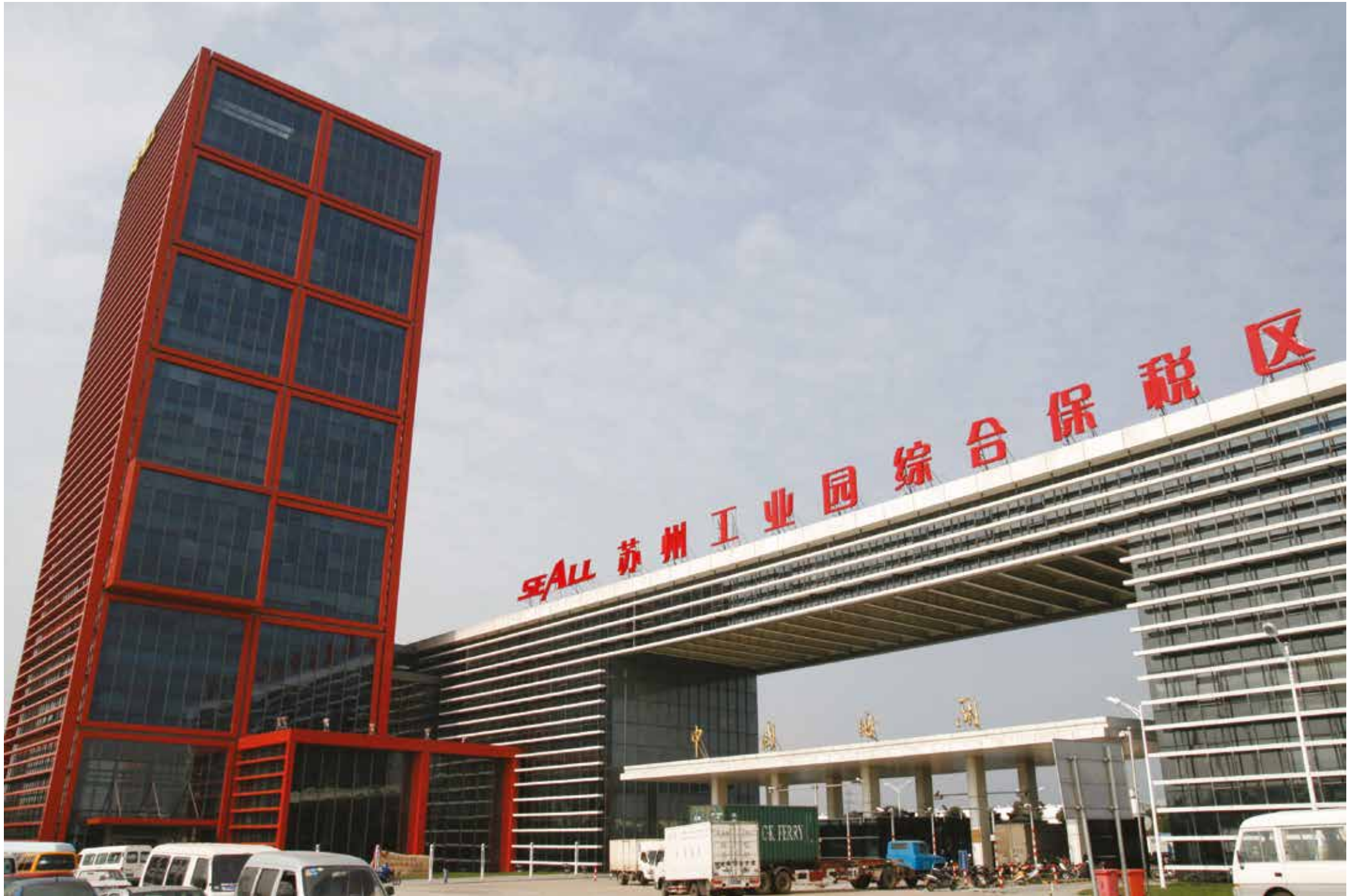
FIRST MOVER ON “GREEN CHANNEL” INITIATIVE

The speed of raw material and cargo flow was critical to industrial development. The SIP’s key industries, such as electronics and information, automobile and aerospace components, pharmaceuticals and medical devices were particularly demanding on logistics efficiency.

In March 1997, China’s General Administration of Customs decided to launch the Shanghai-Suzhou direct customs clearance services (沪苏直通式转关运输服务) and proposed establishing a “Green Channel”. The Shanghai’s port of entry functions were extended to Suzhou. Companies could now clear customs and commission transport services at the customs inspection point to expedite both import and export cargo clearance. In May 1998, 93 hectares of land near the Weiting Interchange were acquired to develop an independent customs inspection point (沪苏直接转关运输监管点) and Suzhou import-export distribution centre (进出口货物分流中心), equipped with warehouses, container yard, customs, and the “three inspections” (commodity inspection, sanitation inspection

and animal-plant inspection). Having the Weiting Green Channel facilitated simplified cargo clearance and reduced operating costs. Other than connecting with the Shanghai-Nanjing Expressway, the Weiting Interchange had also become an important transit node in the Shanghai-Suzhou “Green Channel” initiative (i.e. Shanghai-Suzhou direct customs clearance services, 沪苏直通式转关运输业务).

The SIP capitalised on its policy advantage of being an early mover and the special status of being able to enjoy special policies as a non-Special Administrative Region (SAR) (*xianshi xianxing, bute youte*, 先行先试, 不特有特). In 2000, it established the export-processing zone; in 2002, the Suzhou Virtual Airport (SZV); and in 2004, a bonded logistics centre in the modern logistics park. Goods going through the export-processing zone were considered to be within the border but outside the customs checkpoint (*jingnei guanwai*, 境内关外) and were eligible for tax exemption and rebate. Learning from Europe’s experience, the SZV adopted the air-land transfer model, the first of its kind in China, where the Shanghai international airport was “extended” to the SIP and treated as a stopover for planes bound for the SIP. Warehouse clearance procedures at the Shanghai airport were abrogated to shorten the time between flight landing and cargo release to about seven hours, down from 48 hours previously. This had helped businesses save nearly 30 per cent on logistics costs on average. The virtual airport model had also been applied in the Nanjing Lukou International Airport, Hangzhou Xiaoshan International Airport and Hong Kong International Airport. By offering tax exemption for inbound goods and tax rebate for outbound goods, the bonded logistics centre reduced the logistics costs for delivering goods between upstream and downstream entities and enabled the SIP to compete even more effectively.



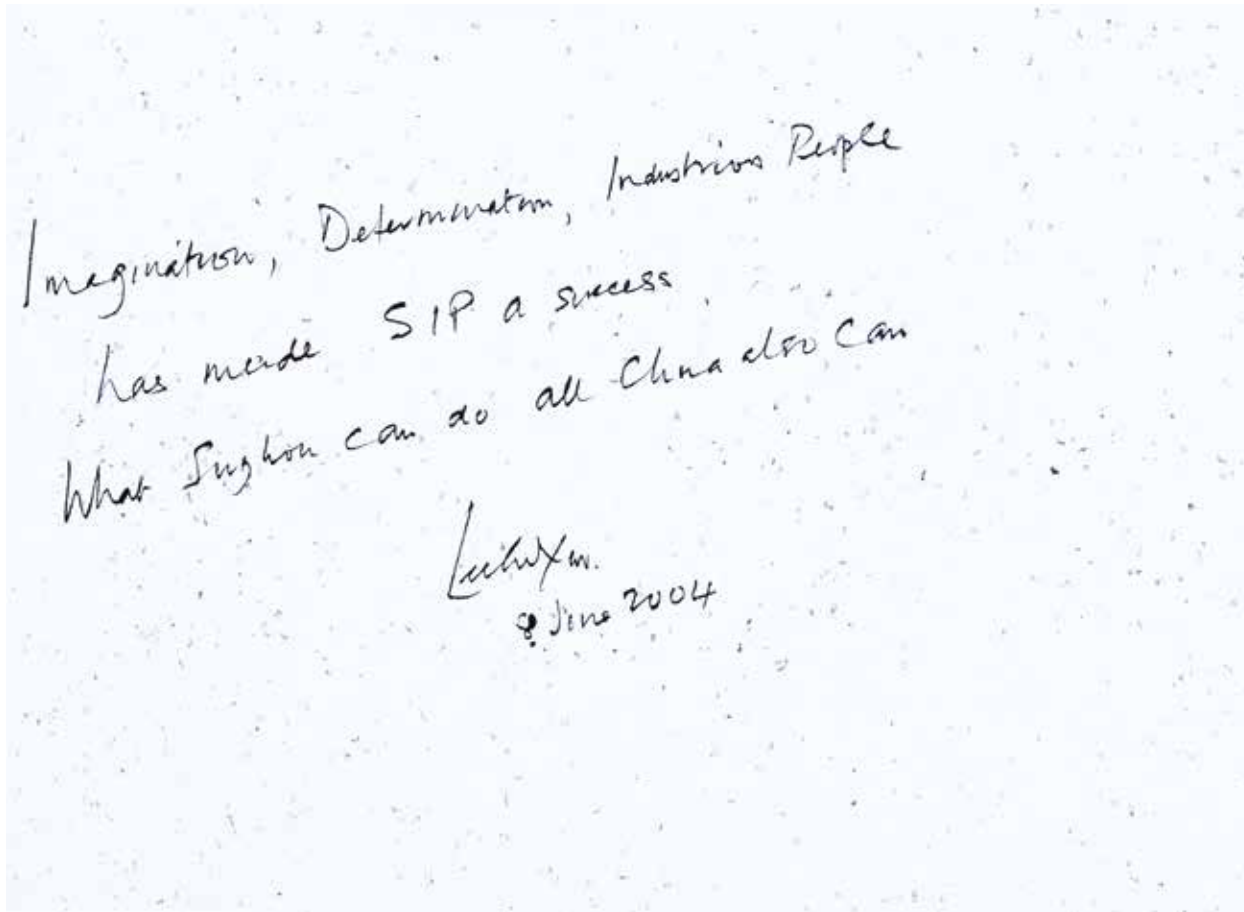
The SIP Integrated
Free Trade Zone

KEY INSIGHTS

After 10 years of development, the SIP has made remarkable achievements. In 2004, on the 10th anniversary of the founding of the SIP, Singapore's then-Senior Minister Lee Kuan Yew measured the SIP by four important criteria and recognised its success. First, the software transfer had been effective; second, the SIP had maintained a high standard of urban planning and management, growing systematically in accordance with the Master Plan; third, the SIP had retained the confidence of its existing MNC tenants, and had attracted new MNC tenants; fourth, the CSSD, which drove the development of the SIP, was becoming commercially successful.

*The SIP's achievements would not have been possible without the amicable cooperation between China and Singapore in both software and hardware. In planning, developing and administering the township, the SIP followed the principles of "plan first (*guihua xianxing*, 规划先行)" and "plans were laws (*guihua jifa*, 规划即法)", investing in high-standard and quality infrastructure for the long term. In managing its economy, the SIP believed in being pro-business and working for the businesses. It shared the investors' perspective and was always willing to move first, daring to innovate to help investors resolve practical problems. In public administration, the SIP had developed a streamlined and efficient system to serve the people and to create a liveable and business-friendly environment.*





Lee Kuan Yew's
inscription for the SIP
on 8th June 2004

“Imagination, determination, industrious people has made SIP a success. What Suzhou can do all China also can.”

Lee Kuan Yew, then-Senior Minister, 2004

“I hope China and Singapore would apply the successful cooperation experience of the Suzhou Industrial Park in new areas so as to continuously expand the achievements of cooperation and to raise China-Singapore’s mutually beneficial friendship and relations to higher and new level.”

Hu Jintao, then-China President, when meeting then-Singapore Minister Mentor Lee Kuan Yew on 20 June 2004



CHAPTER 4

Transforming and Upgrading the SIP

Chapter Overview

After 10 years, the SIP saw significant progress in urban, industrial and social development. From 2005, it began building on these achievements to transform and upgrade itself. The SIP would develop into the “Eastern New District” of Suzhou city, and the SIP’s Central Business District would become Suzhou’s CBD. The SIP would take vigorous steps to grow its service industry and attract science and technology-based ventures. With improved urban design and living facilities, the SIP’s high-quality infrastructure, liveable ecosystem and robust transport system would not only serve the industrial, housing and commercial needs of different stages of development, but would also harmonise ecology with the economics of modernisation to improve the SIP’s vitality and charm. Over time, education, health, cultural and sports facilities and various amenities were progressively developed and improved, as investors and talent arrived from all over the world. This helped to drive the new growth sectors and enabled the SIP to become a modern new urban zone for high-tech industries.

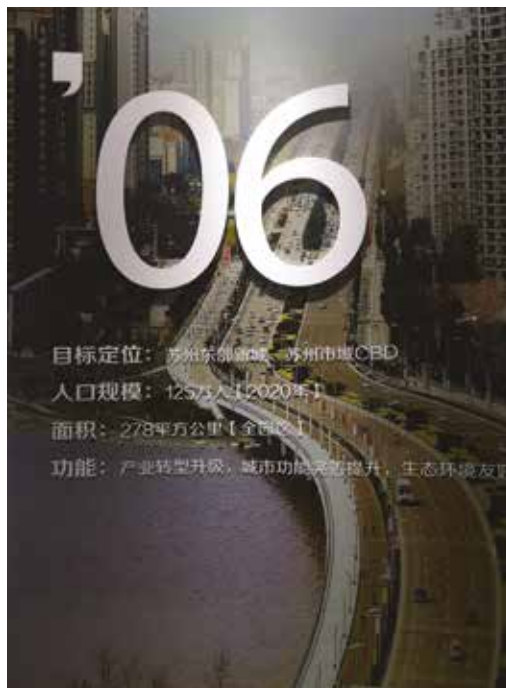


Suzhou International
Financial Square

2006-2011: Transformation and Upgrading

From 2006 onwards, the SIP initiated plans to upgrade its manufacturing industry, expanding the service industry and taking a technological leap forward. In the following years, the SIP went on to propose the “Nine Action Plans (九大行动计划)”, involving eco-optimisation (生态优化), the Jinji Lake “Double Hundred Talents” program (金鸡湖双百人才), doubling of the financial sector within three years (金融产业三年翻), doubling the growth of nanotech industries (纳米产业双倍增), cultural prosperity (文化繁荣), and happy community (幸福社区). At the 8th Joint Steering Council meeting held in August 2006, “transformation and upgrading” was designated as the SIP’s goal and task for the next five years. The new master plan also positioned the SIP as the “Eastern New District”, and the SIP’s CBD to be developed into the CBD of Suzhou.

Transformation & Upgrading Phase — The SIP Plan 2006



USING URBAN LANDSCAPING AND DESIGN TO CREATE AN IDENTITY

After the SIP’s basic infrastructure needs were met in the first few years, urban landscaping and design became increasingly important in the township’s development. Concurrent with the greening efforts was the incorporation of artistic elements into the urban landscape, where a series of sculptures was installed in the estate. Several sculptures were erected at different zones within the SIP. Among them was Yuan Rong (圆融, lit. “Harmony”), a famous work by Singapore sculptor Sun Yu-li. Unveiled by China’s then-Vice Premier Li Lanqing and Singapore’s then-Minister Mentor Lee Kuan Yew, Sun’s work signified the blending of tradition with modernity, and technology with humanity. It also embodied the close cooperation and harmonious relations between China and Singapore. Improved urban lighting design — which saw the installation of street lighting and landscape illumination in the various SIP zones — emblazoned the SIP’s nightscape with sparkling vibrancy and brilliant energy.





As the SIP pushed ahead with industrial development and with an increased residential population, a CBD began to take shape in the Jinji Lake area. The first office building in the SIP was Xindu Plaza (馨都广场) on Jinji Lake Road. Upon its completion at the end of 1995, this eight-storey building was the highest building in the SIP.

As it entered a new development phase, the SIP constructed more high-rise office and commercial buildings. By intensifying land use, space would be released for the development of the service industry and other commercial projects.

Sculptures in the SIP —
After the Rain (雨后),
Harmony (圆融)





Xindu Plaza (Depicted under construction and after completion)



The charms of Jinji Lake



SIP Creative Industry Park



Suzhou International Technology Park

The SIP continued to equip its officials with training in urban planning and management through software training. From 2005 to 2010, five training programmes related to urban planning and land use were conducted. Specifically, a training programme on underground space utilisation was conducted in 2008 — the first time that “underground” was a topic of focus for the software training programme.

In the process of constructing the Eastern New District, the SIP connected urban planning with building design, and incorporated specific urban design requirements of key zones into the land tender conditions to ensure that the spaces had substance and personality. The plethora of iconic buildings defined the SIP skyline. Among them were Global 188, Gate of the Orient, the Suzhou Centre, and Suzhou International Financial Centre, soon the tallest building in the SIP.



Shin Kong Place



Huijin Building



Suzhou Olympic Sports Center



Yangcheng Lake Peninsula

As a joint-project of the SIP Jinji Lake City Development and Singapore CapitaMalls Asia, the Suzhou Centre incorporated the new concept of "urban symbiosis", where a shopping mall, apartments, office buildings and hotels commingled with the water culture of Jinji Lake. Building height and tower spacing were also controlled to allow for sufficient space between buildings for a maximum view of the lake.

More cultural and recreational venues were also constructed, with a focus on architectural aesthetics. The design of Suzhou Culture and Arts Centre was conceived to embody the beauty of various elements that alluded to the lustre of a pearl, the poignancy of ancient Chinese screen walls and the poetry of Chinese gardens. Having garnered many accolades, including the "100 Classic Projects in Celebration of 60 Years of Nation-Founding" and the "China Construction Industry Association Luban Award", this new monumental landmark of Suzhou used new technology and materials



A time lapse of the Jinji lake



A panorama of the Dushu Lake Sci-Edu Innovation Park



Suzhou Culture and Arts Centre

for its exterior walls and lighting, while the latticework motifs found in Suzhou gardens on its curtain walls reflected ancient craftsmanship. Located in the Culture Water Corridor of Jinji Lake is the Suzhou Ferris Wheel. Since its opening in 2009, the area has been bustling with activity. The ferris wheel has made the night view of Jinji Lake resplendent, adding much character and vibrance to the landscape.

Suzhou Ferris Wheel



BOX STORY

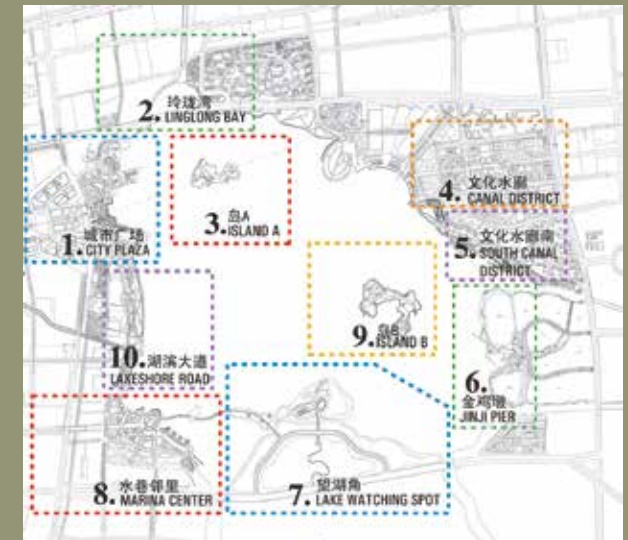
A Handsome View, a Vital Life

Jinji Lake was a proud natural asset to many Suzhou residents and a public space where many would stroll and play. Before the SIP days, Jinji Lake was only a lake used for fish farming. To improve its water quality and create a scenic view, fish farms were shut down and more than 20 polluting factories near the lake were relocated. Commercial navigation was also prohibited to reduce pollution of the lake waters from oil spills by passing vessels. The lake was then dredged and cleaned, and the dredged materials were used for landfill works in the area East of Jinji Lake.⁴⁵ The SIP managed to resolve the shortage of soil for landfilling and reduced the cost of landfilling after it adopted this dredge-and-fill innovative solution.

The SIP paid close attention to improving its environment as it further industrialised. Design consultant EDAW Earthasia was hired to design and transform Jinji Lake, the “pearl” of the SIP, into an urban scenic park accessible to all.

The lakeside area was designed to integrate the concept of a modern garden city with that of a traditional Chinese garden. Lined up along the lakeside promenade were art galleries, cafes, fountains and other facilities, and landmarks such as the Culture and Arts Centre, the Ferris Wheel and Ligong Dyke. Food and entertainment street not only added charm to the environment and provided residents with more recreational possibilities, but also enriched the CBD’s cultural vitality. Jinji Lake has since become a new landmark of the SIP, leading to the appreciation in value of the land surrounding the lake.

Design Concept
of Jinji Lake





Jinji Lake View
Before and After

INDUSTRIAL TRANSFORMATION TO IMPROVE VITALITY

“2+3+1” Modern Industrial Upgrading

Transformation and upgrading were the main focus areas of this development phase. While the momentum of economic development must be maintained, it must also balance environmental and social needs. The defining attribute of this period was increasing wages, which had led to higher overheads and lower profits in labour-intensive industries. The traditional secondary (i.e. manufacturing) sector that was mainly export-oriented relied on overseas markets. However, the 2008 financial crisis had a dampening effect on trade and sales went down. When product R&D, design and key raw materials were dependent on a parent company located overseas, the risk resilience of a company was further reduced, and changes in the external environment could seriously hamper development.

To cope with changes in the general economic environment and capitalise on the opportunities availed by this round of international industry restructuring and transfer of new technology, the SIP accelerated the pace of industry transformation and encouraged high-tech industries at the higher end of the value chain to locate in the SIP. This was an effort to develop the “2+3+1 industries”, which were technology-intensive and high value-added, and focused more or less equally on the domestic and export markets. “2” referred to the two key manufacturing pillars, i.e. electronics and information industry and machinery manufacturing; “3” referred to the three emerging industries, i.e. biopharmaceuticals, nanotechnology and cloud-computing; “1” referred to modern services.

Within the “2+3+1” industrial structure, electronics and information industry and machinery manufacturing would continue to be the dominant sectors given their huge market potential, strong technological development capacity and diffusion effect, and their abilities to support and drive other sectors. Instead of focusing solely on production, the SIP endeavoured to upgrade the above two industries by

overcoming technological bottlenecks, bringing in projects with key technologies, and encouraging businesses to locate sales and procurement functions in the SIP. Another priority area was to invite businesses to set up their R&D entities or functions in the SIP, and to develop mechanisms for inward technology transfer and innovation. Apart from giving the two pillar industries organisational support and helping to attract investments, the SIP also actively helped businesses create product showcases and establish logistics and distribution platforms, and to connect with research and tertiary institutions for university-industry collaborations. It also assisted them in establishing collaborative alliances to incorporate scientific resources in leading industries. Some examples of these collaborative alliances included the Suzhou-Chinese Academy of Sciences Semiconductors Integrated Technology Research Centre and Suzhou Non-Ferrous Metals Research Institute.

Talent Development for the Technology and Education Innovation Zone

Attracting and nurturing talent in the areas of science and technology was the key to helping the SIP move up the value chain. In 2008, the Software Project Office conducted a training programme under the theme of “Talent Management”. As of 2018, 149 people have been recruited into China’s talent development plan. The SIP offered liveability and other incentives to attract talents. As early as 2001, the SIP began designing and developing the 25 sq km Dushu Lake Sci-Edu Innovation Park Tertiary Education Zone, to which it invited more than 20 world-renowned tertiary institutions, including the Chinese Academy of Sciences Suzhou Institute, Xi’an Jiaotong University and the University of Liverpool, Suzhou Graduate School of Nanjing University, Soochow University-Dushu Lake Campus, Xi’an Jiaotong University Suzhou Academy, and International College (Suzhou Research Institute) of Renmin University. The SIP’s Higher Education District provided common resources, including apartments, canteens, a sports complex and cinema halls. This facilitated interaction between teachers and students, integrated the industrial park into the city, created open campus grounds, and promoted the sharing of resources.

Subsequently, Dushu Lake Sci-Edu Innovation Park expanded, and went on to become the SIP’s “think tank”, attracting even more local and foreign learning institutions to establish their presence here, including the University of California-Berkeley, George Washington University, Monash University of Australia, and the National University of Singapore (Suzhou) Research Institute (NUSRI). Tertiary institutions not only provided education, but also offered research and employment opportunities, and helped to promote the SIP’s innovative research outcomes. Fully funded by the SIPAC, NUSRI was founded in 2010, being jointly witnessed by China’s then-Vice President Xi Jinping and Singapore Prime Minister Lee Hsien Loong. This was NUS’s first overseas research institute, and the aim was to facilitate research and start-ups as well as to develop training programmes for senior executives.⁴⁶ The NUSRI was actively working on areas such as research, education and entrepreneurship. In 2012, it obtained Jiangsu Province’s research funding for Enterprise-Academic-Research Innovation Platforms, which helped to attract global talents to the SIP.

Dushu Lake Science and Innovation District



BOX STORY

Alphamab Setting Off from the SIP, Forging into Domestic and International Markets

When Dr Xu Ting first visited the SIP in 2006, the SIP shared that the biopharmaceutical park would be completed quickly. At that time, the foundation construction work was already completed, but based on his experience in the US and Europe, he did not think that the needed research labs and incubation facilities could be completed within a short span of time. Therefore, he decided to visit other places. However, when he went back after two years, he found that the construction was completed, and the speed of completion was faster than he had expected.

Eventually, Dr Xu established the company in the SIP because he felt that the SIP had a pro-business environment and its management had foresight. On a personal level, as a native of Jiangsu, he felt an attachment to the place. Hence, despite the shortfall in investment capital, he brought with him the first batch of employees he had recruited from universities during the initial set-up.

Today, Alphamab has evolved into a leading pharmaceutical research company hiring more than 100 eminent scientists, and its R&D centre occupies more than 60,000 square feet. To better attract talent from across China, the company works closely with prestigious pharmaceutical research and educational institutions, such as the Shanghai Institute of Materia Medica, Zhejiang University, and Southeast University, to provide a platform for pharmaceutical research in China. To compete internationally,

Dr Xu shared that Alphamab will have to focus on developing differentiated products and new medicine. In 2013, Alphamab collaborated with Shihuida, a pharmaceutical group in Jilin province, to jointly build a platform in Changchun city to promote the industrialisation of biomolecular medicine. Strategically, this will allow both companies to develop synergies and strengthen their positions in the Chinese market to compete effectively with the multinationals.

According to Dr Xu, the SIP is a place where business ideas can be transformed into reality. The SIP provides a level playing field for Chinese companies to compete with foreign companies and to synergise their strengths. However, the SIP has to ensure that companies continually pursue high-quality development, and that it provides a favourable environment that is conducive to agglomeration of talent. The pharmaceutical industry operates on the international stage and has a high demand for talent. To compete effectively, the SIP must be able to attract a large pool of talent for the companies located there. To attract the best technology talent, the SIP must continue to internationalise, including its management and sales culture, and this requires efforts from all parties, including the government, companies and workers. Dr Xu foresees that over the next few years, the SIP will see a slew of pharmaceutical companies of considerable size emerging; and in the foreseeable future, companies in the SIP will have an increasing presence on the global stage.

“Twin-Axes” Development of Modern Services

In 2005, the SIP proposed the “Doubling Service Growth Plan (服务业发展倍增计划)”, with the aim of doubling the growth of the modern finance sector, logistics sector, business process outsourcing sector, arts and culture sector, and other modern service sectors. In 2006, the State Council approved the extension of the China-Singapore Cooperative Area by 10 sq km to give the SIP more space to develop production-based services such as indigenous innovation (*zizhu chuangxin* 自主创新) and modern logistics. The SIP’s 2006 Plan outlined a “cross axes” development plan which used the Jinji Lake CBD as the core to develop high-end financial services such as banking, insurance and securities; the Integrated Free Trade Zone as the core to develop a demonstration zone for commerce and trade logistics; the Business Process Outsourcing Park as a cluster zone to develop a business process outsourcing industrial park; and Jinji Lake, Dushu Lake and Yangcheng Lake as the base to develop cultural and creative industries.

Modern Finance Sector. When developing modern financial services, the SIP focused on venture capital industries and founded the Shahu Lake Equity Investment Centre (East Shahu Lake Park) to attract venture capital and companies providing secured loans. In doing so, it created conducive conditions for attracting angel funds, venture capital funds and equity investment funds. Venture capital companies provided the capital for industrial upgrading and assisted many start-ups in public listing.



The SIP 2006 Plan
 — The SIP Layout

To support the SIP’s financial industries, software training in 2009 included a programme on financial management.

Logistics Sector. Modern logistics continued to grow steadily, as the SIP continued to strengthen its customs clearing conditions and operations and the capacity of its logistics services to serve and benefit the surrounding areas. In 2006, China’s State Council approved the SIP’s establishment of the Integrated Bonded Zone (IBZ), which in 2007 started a pilot programme on the setting up of a virtual seaport by linking up with Taicang Port in Jiangsu Province. This pilot programme extended the port’s functions to the SIP, allowing for quicker customs clearance of goods. In 2008, the SIP took advantage of the favourable policies and its hardware and software capabilities to create a public information platform for modern logistics. It also developed a China International Electronic Products Trading Base in its Integrated Free Trade Zone, allowing businesses to efficiently and conveniently showcase their electronic and information products and to connect with markets.



Artist’s impression of
 Jinji’s early planning stage

Business Process Outsourcing (BPO) was a key area in the SIP's modern services industry. By outsourcing business processes, manufacturing companies can reduce costs incurred from outsourcing overseas, improve efficiency, and focus development efforts on coordinated and large-scale operations. As more companies invested in the SIP, the demand for information technology and outsourcing of business processes increased. This spurred Samsung, Panasonic, Emerson and Andrew Corporation to establish an R&D presence in the SIP to provide software outsourcing services for their Asia-Pacific headquarters and global divisions.

Suzhou Industrial Park
Service Outsourcing
Industrial Park



In May 2007, the SIP was designated as China's first BPO demonstration base by the Ministry of Commerce (MOFCOM), Ministry of Science and Technology (MOST) and Ministry of Information Industry (MII). At the 9th JSC meeting in 2007, the SIP obtained BPO incentives which included tax breaks and exemption of sales tax for revenue earned from offshoring services.

After the 2008-09 global financial crisis, cost pressures prompted some businesses from developed countries to move their process operations overseas, which spurred the growth of outsourcing businesses relating to financial and back-end processes. Apart from growing its information technology,

business processes and knowledge process outsourcing businesses, the SIP also evolved and boosted business process outsourcing by promoting software development, animation, R&D and design, financial back-end services, and knowledge process outsourcing. To develop outsourcing professionals, it went on to establish the Suzhou Industrial Park Institute of Business Process Outsourcing, the first of its kind in China.⁴⁷ In June 2008, Singapore's Ascendas signed an Investment Agreement with the SIPAC to embark on a 10-hectare BPO Park project at Dushu Lake Higher Education Park. Software transfer in 2008 was also expanded to include a training programme on Business Process Management.

Arts and Culture Sector. During its early days, the SIP developed along the east-west axis. During the transformation and upgrading phase, development moved north-west, and the southern region was designated as a cultural and creative industrial zone. By leveraging the rich cultural heritage of Suzhou, the SIP developed creative bases, including the Creative Industrial Park, Idea Pumping Station and Dong Fang Innovation Park, aiming to become Yangtze River Delta region's software factory and creative workshop. Refurbished from an old water pump factory, the Idea Pumping Station was completed in 2007, with a built-up area of 20,000 sq m. Here, old flatted factories were remade into fashionable incubators and vehicles that animation, gaming and advertising and media companies could call home. Also opened in 2007 was the 150,000 sq m Suzhou Culture and Arts Centre, which housed the Grand Theatre, Cineplex, Suzhou Symphony Orchestra (SZSO), Suzhou Ballet Theatre, Jinji Lake Art Museum, the SIP Cultural Centre, Arts School and Commercial Centre. As Suzhou Culture and Arts Centre's resident orchestra and officially founded on 18 November 2016, the Suzhou Symphony Orchestra had recruited 58 talented musicians from 15 countries and regions, including China, United States, Germany, Russia, Korea, Japan and Colombia. This was a young orchestra, in that the average age of its musicians was 30 years, and more than half of the musicians held at least a master's degree. SZSO was a splendid, active and well-managed artistic group with a truly international presence. The Suzhou Ballet Theatre was the first professional ballet company in Suzhou, and the sixth in China. The inception of the Suzhou Culture and Arts Centre greatly enriched the cultural life in the SIP.

The SIP also successfully transformed its industries. In 2009, in its 15th year of founding, the SIP achieved the development milestone of "Four 100-billion Surpasses (四个超千亿)", that was, the SIP's regional GDP surpassed 100 billion RMB, cumulative taxes and levies paid surpassed 100 billion RMB, actual utilisation of FDI surpassed 100 billion RMB, and registered domestic capital surpassed 100 billion RMB.



Suzhou Symphony Orchestra,
 Ballet Theatre of Suzhou
 Culture and Arts Centre,
 Idea Pumping Station

STATE-OWNED ASSETS AND ENTERPRISES TO LEAD IN THE SIP'S DEVELOPMENT

The SIP was inextricably linked to state-owned enterprises (SOEs), the trailblazers and principal driving forces of the SIP's growth. As some of these infrastructure projects were public goods with long paybacks and risky returns, SOEs and Government-Linked Corporations (GLCs) undertook the development and running of many infrastructure, municipal and government function-related projects. Thanks to the quality infrastructure and public services, the SIP's superior investment climate and liveable environment attracted many first-class companies to invest and grow their businesses here. When the SIP was transforming and upgrading itself, SOEs and GLCs also transformed themselves and focused on developing sectors such as science and technology, indigenous innovation and modern services. They also led the market in developing the "three key service domains (三大服务板块)" comprising the Jinji Lake Central Business District, Yangcheng Lake Eco-Tourism Resort and Dushu Lake Sci-Edu Innovation Park.



01. Dushu Lake Sci-Edu Innovation Park
02. Jinji Lake Central Business District
03. China-Singapore Science and Technology Eco-city
04. Integrated Free-trade Zone
05. Phase-3 New and High-Tech Industrial Zone
06. Yangcheng Lake Eco-Tourism Resort

Six Functional Zones in the SIP
 (Source: SIP Committee official website)

The SIP adopted Singapore's management model of delegation of authority for government-owned holding enterprises, and espoused Temasek Holding's efficient system of decision-making and operations. By doing so, it created a new type of system to run and supervise SOEs based on China's national context and at the same time, also to align with international practice. In 2005, the SIP established its State-owned Assets Supervision and Administration Office (SASAO) and state-owned holding company to supervise and invest in the SIP's state assets. Three special committees, namely the investment decision committee, audit committee and wages committee, were established to exercise the powers of the board of directors and board of supervisors of the Suzhou Industrial Park State-Owned Assets Holding Development Co. Ltd. The SIP would also supervise the finances of state-owned assets with an online financial platform that it developed. By using uniform financial software and operations, companies could connect to SASAO, and the financial operations of different companies would automatically be subject to real-time and dynamic monitoring. By being profit- and market-driven, and through corporatising, the SIP could manage state-owned enterprises with systematic processes and exercise effective supervision. This translated to smooth operations and improved operational effectiveness. To support the SIP's SOE development, software training programmes in 2006 and 2010 included content on State Assets Management and Management of Government-linked Corporation-Singapore Experience.

2012-Now: High Quality Development

After more than 20 years, urban functions in the SIP had become more comprehensive. According to its 2013 Master Plan, the SIP had entered a transformation-deepening phase, during which it would intensify integration, enhance liveability and drive development of the service industry. This would also be a period to take the “Venturing Out” initiative further, so that the experience that the SIP had accumulated over the years could be shared with local and foreign cities.



Artificial Intelligence
Industrial Park

“Jiangsu has a good number of development platforms for an open economy such as the China-Singapore Suzhou Industrial Park, bonded zones, export processing zones, national economic and technological development zones, and high-tech zones, which are making active efforts in connecting with China (Shanghai) Pilot Free Trade Zone to play an experimental and exemplary role in open innovation and comprehensive reform.”

Chinese President Xi Jinping, 14 December 2014

R&D AND INNOVATION FOR EMERGING INDUSTRIES

In its new development phase, the SIP focused more on three key emerging industries: nanotechnology applications, biopharmaceuticals, and artificial intelligence supported by big data and cloud computing. This shift from “Made in China” to “Created in China” reflected the SIP’s determination to drive projects that developed their own intellectual property. In 2014, a Letter of Intent (LOI) was signed between Singapore’s Ministry of Trade and Industry and China’s Ministry of Commerce on “China-Singapore Deepening Modern Services Cooperation in Suzhou Industrial Park (《关于深化中新两国在苏州工业园区现代服务业合作》)”. In the same year, an MOU was signed between International Enterprise (IE) Singapore, now referred to as Enterprise Singapore (ESG), the Infocomm Development Authority of Singapore and the SIPAC on the “Strategic Collaboration on Smart City Development (《关于智慧城市发展战略合作》)”. To facilitate Singaporean and Chinese companies’ innovation in smart cities solutions such as smart transport system, the Smart City Working Group convened its first meeting in 2014. Over the years, bio-pharmaceutical, artificial intelligence and nano-technology grew to become the three most significant and unique industries of the park, consistently growing at more than 30% per year. In 2018, the output of these industries amounted to 8.03 million RMB, 6.6 billion RMB and 2.57 billion RMB respectively. SIP was responsible for more than 20% of the new bio-pharmaceutical product approved in China and was reputed as one of the eight most representative industries within the micro-nano sector. 2018 also saw the likes of Baidu, Huawei, DiDi, iFlytek, Apple, Microsoft and Siemens establishing R&D or innovation centres in the park. The SIP continued to accelerate towards becoming the country’s leading and internationally renowned site for the development of the artificial intelligence industry.

Globally, SIP aimed to accumulate and distribute innovative resources, attracting 42 research institutes such as the Chinese Academy of Science Suzhou Institute of Nano-tech

and Nano-bionics (SINANO) and Institute of Electronics, Chinese Academy of Sciences (Suzhou). 21 different collaborative institutes for innovation were set up, with top academic institutions such as Harvard University, University of Oxford, Massachusetts Institute of Technology also starting research institutes or offshore innovation bases in the park, attracting nearly 500 new R&D institutes. Offshore innovation bases were established in the Silicon Valley, Singapore and Israel. These overseas establishments interacted with local institutions, resulting in transnational research centres and HQs locating in the park. An innovation cluster comprising sites such as the International Science Park, the Innovation Industrial Park, Suzhou Nano City and the Bio-industry Park



Transformation Deepening Phase



was formed from scratch. In 2018, 10,000 people possessed 149 effective patents, nurturing a cumulative total of 1,046 high-tech enterprises, of which 23 were listed on the main board and 76 on the new third board. Fin-Tech has been growing from strength to strength, with the establishment of a venture capital centre and East Shahu Lake Equity centre, through which more than 150 billion RMB was raised from regional investors.

Emerging industries differed from traditional industries in that they had different needs for industrial parks. They required a smaller space and less manpower but produced higher industrial output, and they demanded a better living environment. The SIP therefore shifted its focus from “attracting investments” to “attracting intellectuals”, and had introduced a series of policies and measures to drive this emerging area.

Talent is the main determinant of innovation-based industries' core competitiveness. By converting manufacturing-based industrial land to service-based land (*tui'er jinsan* 退二进三) and by optimising the use of existing manufacturing-based industrial land (*tui'er you'er* 退二优二), industrial land use was adjusted and adapted to enable large-scale construction of high-quality sites for modern tech-based and innovation-based companies. The SIP also started construction of innovation-based sites, such as the International Technology Park, Creative Industry Park, Bio Bay, Eco Sci-tech Industrial Park, and developed many advanced public technology platforms, including an intellectual property protection centre, integrated circuit design and test centre, chemical drug processing platform, biologics pilot scale platform, System-in-Package (SiP) public platform. By planning for, and developing, sites on par with international standards, the SIP aimed to attract the best. Its “Innovation & Entrepreneurship by Top Science & Technology Experts (*keji lingjun rencai chuangxin chuangye gongcheng* 科技领军人才创新创业工程)” programme further drove technological innovation and the aggregation of high-end talent. Online publicity, TV promotion and advertising were channels that the SIP used to promote its development achievements and gain coverage from the mainstream media.



Community Club,
Residents enjoying
community activities

While the SIP was committed to improving the hardware environment for start-ups and residents, it also stepped up support for software and policy development. To attract talent, the SIP introduced preferential policies that provided housing allowances and assisted in family and children resettlement. It revamped its intellectual property regime by introducing administrative measures such as the “No Piracy SIP” strategy and protected the intellectual property of SMEs. The SIP’s recruitment entity also provided a series of services tailored to individual business needs, from recruiting and hiring, to training, development and labour law advisory services.

By providing financing, participating in and supporting projects that would generate a positive social impact, the SIP hoped to drive rapid development of certain industries. Priority industries such as research and development, and software and financial services were given preferential housing rental and development grants. State-owned companies in the SIP took the lead by establishing a multi-channel investment and financing system for sci-tech industries, including founding Oriza Holdings Co., Ltd with a capital of 3 billion RMB, and raising and managing direct investment funds worth 8 billion RMB. The “Top Experts Science & Technology Entrepreneurship Programme (*keji lingjun rencai chuangxin chuangye gongcheng* 科技领军人才创新创业工程)” also helped top sci-tech start-ups by providing special financial assistance in areas such as initial capital, venture capital, follow-up investments, project loans and guarantees.

At the same time, the SIP brought in private capital to cooperate with financing entities, such as venture capital and risk capital funds, to support the SIP in incubating businesses, nurturing SMEs with indigenous intellectual property rights, and helping companies obtain public listing. To strengthen partnerships between Singapore and China on technology cooperation, and to support the SIP’s development of innovation industry, a Letter of Intent (LOI) was signed in 2013 between China’s Ministry of Science and Technology and Singapore’s Ministry of Trade and Industry to establish the Singapore-China (Suzhou) Innovation Centre (SSIC) to

promote commercialisation of technology. The NUSRI, under the SSIC framework, attracted and incubated innovation enterprises. The NUSRI also organised industry events regularly to increase collaboration and development. On the sidelines of the 18th SIP JSC meeting held in 2017, NUS, Singapore Institute of Molecular and Cell Biology (IMCB) and the SIPAC signed a LOI on “Deepening Cooperation in the Biopharmaceutical Industry (《关于深化在生物医药产业领域合作》)” to assist Singapore biopharmaceutical companies to incubate in the SIP and set up operations in China, and, at the same time, to create a more vibrant biopharmaceutical sector in the SIP. In 2018, during the 19th SIP JSC meeting, SIPAC, Enterprise Singapore and the Agency for Science, Technology and Research (A*STAR) signed a Memorandum of Understanding in order to deepen collaboration and exchanges in entrepreneurship, innovation and commercialisation.

CARING FOR AND ENRICHING THE PEOPLE, AND UNIFYING THE COMMUNITY

The SIP had dedicated itself to providing residents with a pleasant and liveable environment, and sought to develop an integrated “innovative, green and happy” urban business district. Having achieved industrial and economic development and abundant material wealth, the SIP also focused on providing spiritual wealth, comfort and convenience, and harmony and safety. By harmonising production activities with living and nature, the SIP would achieve its development goal of intrinsic development (*neihanshi fazhan* 内涵式发展), which integrated industrial development with urban development, and succeeded in creating a liveable and pro-business environment. Another important focus was the coordination with the surrounding towns and townships for inclusive development. In 2012, in a restructuring of Suzhou’s administrative zoning, the administrative system for towns and townships around the SIP was abolished and replaced by sub-districts (*jiedao* 街道). This accelerated the integration of the SIP, and was conducive for the balanced development of the SIPs infrastructure and public services.

Being people-oriented was fundamental to creating a harmonious community with a liveable and pro-business environment. After more than 20 years, as the population in the SIP grew, its demographics became more diversified, including the “old Suzhou residents” who were resettled here when the government acquired their land, “the new Suzhou residents” who arrived from across the country to settle and work here, and the “international Suzhou residents” from foreign countries. They spoke different languages, and had different cultures, habits and needs. To help them adapt to life in the SIP, all housing estates in the SIP were required to provide social services and amenities, and reserve space for residents’ committees and public spaces, such as libraries and studios, for resident activities. In doing so, the communities became more vibrant, and people developed a sense of belonging and ownership as they became closer.

The “Community Centres” established based on Singapore’s experience were also part of the SIP’s efforts to strengthen the community spirit. Since 2011, every neighbourhood would designate space for a community centre, which would be equipped with a community workstation, clubroom, activity room for the aged, children’s playroom, health services station, neighbourhood library and neighbourhood recreation and sports station. This provided a one-stop shop to cater to the residents’ many needs. In 2012, the SIP was also designated as the “Pilot Unit for China-Singapore Cooperation on Social Management”, and this furthered bilateral cooperation on livelihood issues, public housing and social security.

Community centres organised activities for residents during traditional Chinese festivals, such as the Spring Festival (Chinese New Year) and Mid-Autumn Festival, so that new and international Suzhou residents who came to the SIP from different places could integrate into the life here. Community centres were open every day of the year, and residents could use the facilities for free. The SIP also adapted Singapore’s Meet-the-People Sessions (MPS), and designated every second Sunday of the month as the SIP’s Community Centre’s

BOX STORY

InnoLight Technology The Suzhou Industrial Park — A Place for Budding Entrepreneurs

There are countless success stories of entrepreneurial venture in SIP. Dr Liu Sheng, General Manager of InnoLight Technology (Suzhou) Ltd, shared his views on some of the ingredients of success behind the SIP’s business environment.

In 2008, he decided to take with him the innovative spirit and quintessential qualities of Silicon Valley’s leading tech companies and start his own technology company — a company that provided high-end optical communication and cloud computing services. Prior to this, Dr Liu worked in the United States as a middle-level manager of a Silicon Valley company which he helped in getting listed on Nasdaq. Dr Liu came to know about the SIP through an event organised in the US by the SIP Technology Investment Promotion Centre, and decided to take his founding team with some top talent to study the possibilities in China. He found the SIP a good investment destination where he could find talent and capital.

To him, the SIP is strategically positioned. Its location near the Yangtze River enabled it to attract global talent. Due to the nature of InnoLight Technology which requires specific expertise, coupled with Dr Liu’s desire to incorporate the culture and spirit of innovation found in Silicon Valley companies, InnoLight faced a pressing need for global talent. The SIP fulfils InnoLight’s demand for talent. Currently, InnoLight Technology recruits from several platforms: fresh graduates and postgraduates

from China who will receive pre-job training; experienced personnel who have worked in other related companies; and hiring fairs in universities well-recognised within the industry. This has thus led to collaborations with various universities, including Chengdu University of Science and Technology, Xi'an Jiaotong University and Wuhan University of Science and Technology. According to Dr Liu, the labour market within SIP is also more stable. Hence, in April 2008, with investments from the Suzhou Venture Capital Group and Acorn Campus Venture from the US, he set up his company with a founding capital of more than 3 million USD.

Although InnoLight Technology has moved several times due to expansion — the most recent being 2016 — its headquarters has always been in Suzhou. According to Liu Sheng, InnoLight was founded during the cloud computing boom. As a result, the company became the first high-speed optical transceiver supplier accredited by Google and Amazon. InnoLight is growing rapidly, and doubling its turnover every year. By relocating to new premises, it could better cater to clients' demands, and use resources more efficiently. InnoLight's rapid growth calls for bigger premises for its operations, and the SIP is well-placed to provide the necessary environment.

Dr Liu believes that the SIP is a good place for start-ups. The SIP's broad development direction, including developing artificial intelligence and high-end manufacturing, is on sound footing. The SIP also provides ample opportunities for entrepreneurs, by providing access to angel investors and incubators. With stronger marketing, the SIP's vibrancy and appeal are effectively enhanced. Many foreigners were impressed with the SIP after their visit.

"Meet the People Day (社情民意联系日)". On this day, residents' feedback would be collected and submitted to the the SIP's work committee, an effective way to maximise the role of social organisations.

Apart from the government's community work group, the SIP residents often organised their own volunteer groups and activities, such as recreation and sports coaching, volunteer patrolling, volunteer domestic services, and repair and care. By participating in social services and community management, the residents came together to create a warm and caring community, which in turn gave them a sense of belonging.

VENTURING OUT AND SHARING EXPERIENCES

Developing, transforming and upgrading industries were common challenges for all cities. To meet the challenges, Singapore began exploring regional development to expand its external economy. The SIP's experience of "Venturing Out" in the 21st century saw the SIP sharing its experiences and achievements in building up the park, conveying the strength of its brand and fostering mutually beneficial cooperation.



The SIP's "Venturing Out and Sharing Experiences" Initiative

Venturing Out



Venturing Out of Suzhou

- 1 Korgas Economic Development Zone**

 - Location: Korgas
 - Land Area: 73 km²
 - Year Established: 2011

SIP provided support in five areas: Planning, Encouraging Investment, Applying for Preferential Policy, Exchange of Personnel and SOE Involvement
- 2 Lhasa Economic and Technological Development Zone**

 - Location: Lhasa
 - Land Area: 5.48 km²
 - Year Established: 2002

SIP contributed to the construction of this Economic and Technological Development Zone since 2002
- 3 Suzhou Suqian Industrial Park**

 - Location: Suqian
 - Land Area: 19.45 km²
 - Year Established: 2007

A joint collaboration between the two cities was led by Suzhou
- 4 Suzhou-Nantong Science and Technology Industrial Park**

 - Location: Nantong
 - Land Area: 50 km²
 - Year Established: 2009

A joint project by two Yangtze River cities, Suzhou and Nantong, the project was developed by a subsidiary of CSSD, the Zhongxin Sutong Technology Industrial Park (Nantong) Development Limited Company
- 5 SIP-Xiangcheng Cooperation Development Zone**

 - Location: Xiangcheng District
 - Land Area: 48 km²
 - Year Established: 2012

SIP and Xiangcheng collaborate on urban development, attracting investment and capability development
- 6 Suzhou and Chuzhou Modern Industrial Park**

 - Location: Chuzhou
 - Land Area: 38 km²
 - Year Established: 2011

The project was developed by a subsidiary of CSSD, the Zhongxin Suchu (Chuzhou) Development Limited Company
- 7 Ningxia Yinchuan Suzhou-Yinchuan Industrial Park**

 - Location: Yinchuan
 - Land Area: 33 km²
 - Year Established: 2016

Development a high-tech, eco and integrated industrial town by utilising the strength of both Suzhou and Yinchuan city
- 8 China-Singapore Jiashan Modern Industrial Park**

 - Location: Jiashan County
 - Land Area: 18.3 km²
 - Year Established: 2016

Constructing a modern industry platform for high productivity industries

Source: SIPAC

The SIP’s “Venturing Out” initiative took different forms in different regions. The Suzhou-Suqian Industrial Park (SSIP) initiated in 2007 was a joint effort between Suzhou and Suqian. Suzhou was responsible for operations, and through secondment of personnel, it could transfer its experience in developing industrial parks. The Suzhou-Nantong Science & Technology Industrial Park which opened in 2009 and the Suzhou-Chuzhou Modern Industrial Park established in 2012 were projects that the CSSD’s majority-owned subsidiaries jointly developed with Nantong city and Chuzhou city of Anhui Province.

In 2012, China’s Ministry of Commerce (MOFCOM) designated SIP Training Management Centre (TMC) as the training base for officials from National Economic and Technological Development Zones (ETDZ). In the same year, a Letter of Intent (LOI) on deepening collaboration in software transfer was signed between Singapore’s Ministry of Trade and Industry and the Suzhou Municipal Government, aimed at training ETDZ officials through the SIP TMC’s MOFCOM’s training base for ETDZ.

Under the Belt and Road Initiative led by Chinese President Xi Jinping, the SIP had also cooperated by sharing its experience with the China-Belarus Industrial Park (CBIP), which was located at the geographic centre of Eurasia. The SIP also participated in the construction and running of the China-UAE (United Arab Emirates) Production Capacity Cooperation Demonstration Park. Recently, the SIP’s planning and development expertise was extended to Africa and implemented in the Republic of Congo and Ethiopia. The SIP’s expertise was also put to use in initiating cooperation over the development of an industrial park in Indonesia.

Financial cooperation was instrumental in supporting the internationalisation of the SIP companies under the Belt and Road Initiative. In 2014, the SIP and Sino-Singapore Tianjin Eco-City (SSTEC) piloted a cross-border RMB initiative to strengthen Singapore-China financial cooperation. Among other things, banks in Singapore could lend RMB to corporates in the SIP and the SSTEC, and the SIP and the SSTEC could issue RMB bonds in Singapore.

The “Venturing Out” projects enabled the SIP to share its development experience with different regions and assist companies located in the SIP as well as Chinese companies to expand their markets, enabled cities to cooperate and synergise their production capacities and optimise the structure of the SIP’s production capacity. Going global would also foster greater economic and cultural integration between countries, and open more doors for the SIP to explore sustainable business models in the development of industrial parks.

**“Vision, friendship,
devotion and experience
created a successful
Suzhou Industrial Park.”**

Goh Chok Tong, then-Singapore Senior Minister,
during his visit in Suzhou on 15 April 2006

KEY INSIGHTS

The SIP’s development speaks of its progressiveness, openness and innovation. It has progressed with the times and adjusted to the market. It has continued to forge ahead, transform itself, optimise its industries, and took a technological leap forward. It also capitalised on the high-level platform of China-Singapore cooperation to leverage its function as a “test-bed” for reform and opening-up by exploring uncharted paths. The SIP is now recognised as an important window for reform and opening-up, and a successful model for foreign cooperation. The importance that it attaches to urban liveability and social cohesiveness has also laid the foundation for the SIP to develop into an integrated modern and cosmopolitan “New Town”. The SIP learnt from Singapore and went on to innovate, adapt and localise Singapore’s experience for China. The SIP is a successful development model which other cities could take reference from. Its current “Venturing Out” strategy is a case in point.



CHAPTER 5

Distilling Insights and Forging Ahead



Dushu Lake Moon Bay

Chapter Overview

Since inception, the SIP had undergone multiple phases of upgrading and transformation before evolving into an international, modern and integrated new township that impressed the world with its achievements. The SIP's vision had evolved over time — from being a “new industrial township (*gongye xinzhen* 工业新镇)” outlined in the 1994 Master Plan, to a “modern version of the new urban district (*xiandaihua xinchengqu* 现代化新城区)” in the 2000 version, to the “Eastern integrated business city (*dongbu zonghe shangwucheng*

东部综合商务城)” in the 2006 version, to the current “integrated New Urban District (*zonghexing xinchengqu* 综合性新城区)”. SIP has developed consistently according to plan and is aiming to become a world class high tech industrial park based on the principles of adaptation, innovate, harmony and win-win for all. In doing so, the SIP had built a reputation of being the “city of innovation and industrial park of distinction”, having evolved into the foremost high-tech industrial park in China of international repute.

The SIP's Achievements

25 years ago, because of the foresight of Deng Xiaoping and Lee Kuan Yew, China and Singapore embarked on the joint development of the China-Singapore Suzhou Industrial Park (SIP), marking the beginning of profound cooperation between the two governments. Singapore transferred its expertise in urban planning, economic development and public administration to the SIP to help transform the previously low-lying farmlands to the east of Suzhou into one of China's fastest-growing and internationally most competitive development zones.

With the commitment of all levels of government in both countries and the overall joint efforts of the two sides, the SIP progressed from the initial phase of laying groundwork to accelerating development, transforming and upgrading to deepening development. In fact, the SIP had done remarkably well in driving the regional economy forward, furthering its open-door policy and innovation, promoting transformation and upgrading, developing a liveable "new city", and improving the quality of life. It had created a model of success for China's open-door policy and international cooperation, and had actualised the initial blueprint for the SIP, which the leaders of both countries had conceptualised together.

Since its development in 1994, the SIP's key economic indicators maintained rapid growth. Its rankings on comprehensive development indices were among the highest compared with other national-level development zones. In 2018, its GDP grew more than 7% to 257 billion RMB; fiscal revenue grew by 10.1% to reach 35 billion RMB; Total imports-to-exports grew by 20.7% to reach 103.57 billion USD; Utilised foreign investment 980 million USD, fixed asset investment grew by 3.8% to reach 38.9 billion RMB and residents' disposable income grew by 7.8% to reach 71,000 RMB.



The SIP — Then and Now



Suzhou Industrial Park
— Then and Now

Through continued improvement of development quality and efficiency, the SIP had many major achievements, accumulating 1 trillion USD of imports-to-exports in value, completed 900 billion RMB worth of fixed assets investments, generating 800 billion RMB worth of tax and leads the nation in economy, innovation and openness.

The SIP's pro-business philosophy had helped to attract more than 4400 projects, of which 156 were invested by Fortune 500 companies, and 92 MNCs HQs. Its percentage of R&D-to-GDP was 7%, attracting more than 1000 high tech enterprises and obtained 149 patents for inventions, as well as bringing in 29 renowned tertiary institutes.

Apart from driving economic and industrial development, the SIP also actively sought to promote innovation and further opening-up to strengthen its development's dynamism and vitality. Since inception, the SIP had created many of China's "first" and "only" examples in areas such as logistics, modern services, science and technological innovation, and environmental protection. In 2014, the SIP's pilot of a new cross-border RMB initiative was approved to broaden financing options for companies in the SIP. This was a new impetus for financial cooperation and innovation between China and Singapore. At the 17th SIP JSC meeting in 2015, the SIP was designated as the National-level Overseas Investment Demonstration Platform. In support of the implementation of the Platform, International Enterprise Singapore (IE Singapore) signed a Memorandum of Understanding (MOU) with the SIP Administrative Committee (SIPAC) in October 2015 to establish the first national-level overseas investment services platform that helped promote internationalisation of Chinese companies using Singapore as a launchpad. IE Singapore and the SIPAC had since co-organised two editions of the China (Suzhou) Outbound Investment and Services Forum.

Despite being an industrial park, the SIP had evolved into a modern integrated new town which was cosmopolitan, liveable and pro-business, with an eco-environment for sustainable development that provided quality and gracious living. The SIP's planning and development focused on creating a sustainability framework of eco-parks, ensuring green spaces, clean water and clean air. As such, the SIP was selected as one of China's first Demonstration



Eco-Industrial Parks, a National-Level Industrial Park for Circular Economy Pilot Demonstration, and was in the third batch of National-Level Pilot Zones for Ecological Development. The quality of life in the SIP had also improved progressively. The Jinji Lake Park, Hubin Avenue, Times Square, Expo Centre, Culture and Arts Centre, Ligong Dyke, Sports Centre, Red Maple Woods, to name a few, were the cultural and arts amenities, as well as recreational and sports facilities that residents could enjoy for their social, shopping, sports and recreational activities.



“Suzhou Industrial Park is a successful model of mutually beneficial cooperation.”

Xi Jinping, then-Vice President of China,
when meeting then-Singapore Minister Mentor
Lee Kuan Yew in Singapore on 14 November 2010

“What Suzhou Industrial Park has achieved is far beyond our expectation.”

Lee Hsien Loong, Prime Minister of Singapore,
during his visit to the SIP on 12 September 2010

Stable and
Lasting Development

The SIP's Experience

As the first inter-government flagship project between China and Singapore, the SIP had persevered and grown over the past 25 years. It adopted and adapted Singapore's experience to build institutions and pursued more innovative approaches to engender a development model suited to its needs. Also embodied in the SIP's practice was its philosophy in development and intrinsic values of "learning, innovating, harmonising and achieving win-win". The SIP had become a successful model for China's foreign economic cooperation and for development zones of different types and levels.

ADAPTING AND INNOVATING TO GAIN COMPETITIVE ADVANTAGE

Adaptation

By conscientiously adapting Singapore's development experience to suit the local and national contexts, the SIP had established a series of administration systems and development and operation mechanisms aligned with international practice and market principles, yet these systems were distinctive because they were specific to China and crafted according to the SIP's specificities. The SIP progressed with the times, actively pursuing innovation and upgrading to increase its competitive advantage.

In the area of urban planning, the SIP had adopted a scientific approach to planning and a systematic approach to development, emphasising forward-planning based on scientific rigour, so that plans were reliable and practicable. In doing so, it avoided the arbitrariness of rolling development and duplication of urban functions. From master plans to specific project plans, the SIP had adhered to the development principles of "planning before building" and "building underground infrastructures before above-ground developments". Development of key infrastructure was suitably ahead of time and strictly based on the planned functional areas and development control guidelines to

ensure that development and construction would proceed methodically, and that urban functions such as industries, commerce, residences, transportation and public facilities and landscaping were well-coordinated. The SIP opened all infrastructure development and public service provisions to public tender, to ensure the high quality of its development.

To attract investments and create a pro-business environment, the SIP capitalised on the China-Singapore joint outreach efforts to build a network-based investment outreach system that provided professional and diversified services. The SIP would select foreign investors and investments prudently, based on the industrial structure and development strategy, giving priority to capital and technology-intensive flagship projects that could generate spillover growth in the surrounding areas. Over the years, the SIP's investment focus shifted from a "preferential policy-based" model to the "industrial clustering" model, whereby the SIP would research its potential investor thoroughly and, if appropriate, extend a genuine invitation to locate in the SIP. The SIP also offered a comprehensive "one-stop" public service platform and a pro-business service mechanism that was detail-oriented. In doing so, it created an investment ecosystem that had broad competitive strengths, where policies were transparent and stable, and business services delivered promptly.

In the case of public administration, the SIP had built a professional management team. Since the early days of inception, the SIP had been sending its officials to Singapore regularly for training, where the officials could implement their learning outcomes upon their return. To institutionalise the adapted outcomes, officials would distil their knowledge and practices as well as compile the key points into administration guidelines and rules of implementation. As the receiving entity of Singapore's "software" on urban management, the SIPAC had dedicated itself to developing a transparent, fair and regulated environment. Working on the principle of "small government, big society", it had also built a streamlined, unified and effective service-oriented government that provided efficient services for investors and residents.

Innovation

On top of learning from Singapore's experiences, the SIP would assess its own needs and observe development trends, based on which it leveraged the China-Singapore cooperation platform to reform and innovate, attempting new and untested approaches to shape its own development advantages.

When the SIP commenced development, the CSSD was responsible for infrastructure development, investment outreach and project management. The purpose of doing so was to separate the development function from administration. Thus, the SIP's model of equity joint venture with market-based operations became a new development model for development zones.

To develop its customs and logistics sector, the SIP assessed its practical needs and implemented innovative initiatives that saw the creation of special customs supervision zones, including the first land-based port of entry (border station) for imports and exports, export processing zone, bonded logistics centre and integrated free trade zone. Additionally, the SIP was the first in China to implement electronic customs declaration, and land-air customs clearance via the "SZV Virtual Airport". As import and export cargo were only required to do one-time customs declaration, it was able to improve efficiency and reduce logistics costs.

In running and managing state capital, the SIP adapted the experience of Singapore's Temasek Holdings to search for more innovative solutions. It had organised an array of large and strong state-owned asset management companies (*guozi gongsi* 国资公司) for various sectors, such as real estate, construction, land development, venture capital investments, public utilities, logistics, education investment, sci-tech and research. The state-owned assets and state-owned enterprises were classified and managed according to their hierarchical level and business nature. Performance appraisal systems were developed to improve their market competitiveness. Among the State-Owned Enterprises (SOEs), the SIP Neighbourhood

Centre Development Co. Ltd adopted Singapore's public administration concepts and adapted them to the SIP's practicalities and the needs of businesses and residents. The resulting community business development model was progressive, innovative and distinctive. The SIP had also developed a multi-dimensional and comprehensive community business-operations concept, based on which it succeeded in building many national brand names.

The SIP's notion of progressing with the times and being innovative manifested itself in the SIP's industrial distribution and in the way the SIP transformed and upgraded industries. From agglomerating companies and developing the manufacturing industry during its early days, to accelerating the development of advanced manufacturing industries, service industries and emerging high-tech industries, and the current phase of deepening development, the SIP focused on developing pillar industries and emerging industries. It also formulated the "2+3+1" industry development plan, proposing that the SIP focused on two key industries, namely electronics and information industry and equipment manufacturing, and accelerating development of three key emerging industries, i.e. bio-pharmaceuticals, nano-technology, and artificial intelligence. The service industries would complement the other industries. The SIP's keen and accurate grasp of the economic climate during the different development phases had enabled it to recalibrate its development strategy and optimise its industrial structure to improve the competitiveness of its core industries.

The SIP leveraged science and technological innovation to drive its new development phase. It had established state-invested innovation-based investment entities such as Oriza Holdings, Suzhou Industrial Park Biotech Development Co., Ltd, Suzhou Industrial Park Science & Technology Development Co., Ltd, and brought in risk capital, credit guarantee fund for start-ups and sector funds to step-up investment in the industrial sector. It focused on developing infrastructure to host innovation-based functions to attract

potential investors. It also expanded its “pro-business” concept to a “pro-business, pro-people and pro-talent” service concept, and “attracting business and investments” to “attracting talent and intellectuals” to create a talent pool. The SIP leveraged its strong industrial foundation to promote broad cooperation between businesses and research institutions and universities. Such cooperation could be in the form of project development or industry-university alliances to build an industrial system integrating research, manufacturing and service that advances the SIP’s overall competitiveness.

HARMONISING AND ACHIEVING WIN-WIN: BUILDING AN EXCEPTIONAL AND LIVEABLE NEW TOWNSHIP

Harmony

Given its economic prowess, the SIP was more than just an engine to drive Suzhou’s development. With increasingly complete urban functions, it had also become a new urban district embodying modernity, a growing international reach, and the information age. The SIP was conceived as an open and modern township, and a great place to live and work. To do so, it must embrace a spirit of harmony by pursuing urban symbiosis, green growth and social harmony, and the “win-win” philosophy conveyed through balanced and inclusive practices, regional development and experience-sharing.



‘Harmony’ Sculpture

The SIP had consistently emphasised comprehensive development, and had devoted efforts to integrating the new industrialisation approaches with urban modernisation to enable urban symbiosis. The SIP's planning observed scientific rigour, with rational mapping of production and urban living to improve production and living standards and quality of life. During its transformation-deepening phase, it focused on agglomerating companies in the advanced manufacturing and high-tech industries, elevating the modern services industry, and furthering development of emerging high-tech industries. At the same time, the SIP also endeavoured to create an international urban landscape, develop modern urban management, and elevate its urban functions, profile and intrinsic qualities. As of today, it had developed functional zones, such as the financial and trade zone, international trade zone, science and education innovation district and tourism and leisure districts, and high-end commercial sites, such as the Eslite Bookstore, Shin Kong Place, Fresh Mart, and iStation (comprising Suzhou International Expo Centre and Suzhou Culture and Arts Centre). These were amenities essential for encouraging economic activities and stimulating vitality, and for enabling the economics of developing high-end industries and urban modernisation to interact and connect. At the same time, the SIP was supporting and driving the digital economy and accelerating the building of a smart city. To do so, it had digitised urban management, and implemented smart transportation and smart environment protection. By virtue of its approaches and pursuits, the SIP had elevated the standard and quality of production and living, and had facilitated the profound integration of modernity and innovation within a single industrial park.

During construction and development, the SIP had always observed the balance between production, living and the environment. It attached great importance to protecting and managing the environment, and to preventing pollution and controlling emissions by institutionalising the requirement for environmental impact assessment before administrative procedures. It also emphasised “green outreach” when

approaching potential businesses, and would veto projects that were too energy- or resource-intensive or which were associated with high environmental risks. Source reduction had enabled it to save waste management and cleaning-up costs. In terms of production, the SIP promoted the application of clean production and green technology to improve resource efficiency and reduce pollution, and encouraged development and innovation in energy conservation technology. Other green efforts included mobilising residents to participate in environment protection activities, building green communities, green schools and green buildings, promoting low-carbon commuting, and developing green transport systems. Its stringent environmental regulations and broad social participation had ensured good quality air, water and soil, which translated into a natural, fresh and eco-friendly urban environment. Thus, among China's economic development zones, SIP has one of the best environment and offer a great quality of life, a key to attracting talents.

Throughout its urban development, SIP remained people centric and is striven to balance its development so as to build a harmonious community. The SIPAC had set up residents' committees, neighbourhood centres and community residents' committees provided management services for the entire China-Singapore Collaborative Area (through one-stop service centres) so as to offer residents in sub-districts (*jiedao* 街道) services such as social security for employed persons, residential care for the elderly, family planning and healthcare services, property management, registration for the migrant population, and housing rental. Neighbourhood centres have community clubs that allowed residents of different cultures and who spoke different languages to interact and bond, so that people of diverse cultures could mingle and foster social cohesion. To strengthen labour-capital relations, the SIP had set up a Federation of Trade Unions to provide employment opportunities and improve the living conditions of employees; in doing so, it created a desirable “soft environment” for investments.



Visionary Partnership Knowledge Innovation

Win-Win for All

The SIP's development did not stop at the original boundaries of the cooperative area. In fact, it also focused on coordinating development with neighbouring townships and benefiting their people. As required by the central government's directives on urban-rural integration and on "building a new countryside", the SIP incorporated in its Master Plan the townships and towns surrounding the cooperative area for unified planning and administration based on standard guidelines. This allowed alignment and sharing of infrastructure and urban public services at the district and town levels, and ensured balanced and equitable development. The SIP adapted Singapore's Central Provident Fund system, dovetailed it with China's social security system, and went on to establish a universal and

robust social security system for residents employed by the SIP companies. For farmers whose land was acquired for development, the SIP also created "three safeguards" mainly for farmer-residents: the land acquirer would buy insurance for the farmers so that they would receive a monthly payout (*baoyang anzhi* 保养安置); providing social security and social relief (*shebao jiuzhu* 社保救助); and helping the farmers find employment opportunities or start a business (*jiuye chuangye* 就业创业). Poor and disadvantaged persons were put under an assistance and support (*bangfu* 帮扶) programme. The SIP also implemented the basic old-age insurance, the rural cooperative healthcare insurance, and the risk-sharing and protection system for major illnesses so that the people would benefit from development and enjoy better livelihood and welfare.

The SIP had benefited from being near to Shanghai, the economic hub of the Yangtze River Delta region, and to Jiangsu Province, Nanjing and Zhejiang Province, Hangzhou. Tightly connected by a vast transport network, together these areas form a major service industry hub, a manufacturing base and an urban cluster for commerce, trade and tourism in the Asia-Pacific region. Having the high-speed rail increased the speed of commuting between major cities within the Yangtze River Delta. Now, travelling between the SIP and Shanghai by high-speed rail would take only 30 minutes. Not only did the SIP residents benefit from the “one city effect” (i.e. commuting between two cities feels as if it was within one city), the SIP’s functions could also now extend to the Yangtze River Delta city cluster. When pursuing development, the SIP positioned itself as a specialised industrial park, capitalising on its advantage of having a sound industrial base and innovative sci-tech education resources. Hence, it focused on providing high-end services such as services for regional headquarters and business services to complement and synergise the strengths and functions of other major cities in the Yangtze River Delta, and to develop its own niche.

Having learned from Singapore, adapted its development experience and taken a scientific approach to development, the SIP had penned a proud success story. The SIP model had produced far-reaching demonstration effects. Guided by a win-win philosophy, the SIP had shared its experience in different ways within and without China. This included jointly developing with other regions, including the SIP-Xiangcheng District Cooperative Economic Development Zone, Suzhou-Suqian Industrial Park, Suzhou-Nantong Sci-Tech Park, Suzhou-Chuzhou Modern Industrial Park, Horgos Technological Development Zones, China-Belarus Industrial Park, and participating in the development and running of the China-UAE economic cooperation zone. Through cooperation, SIP could impart its advanced planning and development concepts and share its administration system that meets international standards. It could also help to drive the development of the local economy and deliver the promise of the model brand of Chinese development zones.

Looking Ahead

For 25 years since establishment, the SIP had registered significant achievements, whether in economic strength, openness and innovation, liveability development or in wellbeing and welfare. Looking ahead, the SIP would continue to function as the test-bed for China’s reform. It would leverage the advantage of the China-Singapore cooperation to deepen opening-up and innovation, and explore new institutions for an open economy. It would also further its innovation-driven development, and engage in economic and technological cooperation at the international level. The SIP had strived to create an environment with good law and order, an active market, a sound financial system, and a rich culture. With these, it could develop a dynamic innovation-driven entrepreneurial ecosystem aligned with international norms, that was fully equipped with the necessary amenities, and be conducive to opening-up and cooperation. The SIP would build a modern, distinctive and high-end industrial cluster that focuses on innovation and on creating wealth for the people. It would also accelerate development to become a first-rate high-tech industrial park in China of international repute, and would build an SIP brand known for its “visionary partnership and knowledge innovation”.

As the first flagship project between the two governments, the SIP had been a bridge to friendship and a cornerstone of bilateral relations between China and Singapore. It had also paved the way for the second bilateral project in Tianjin and the third project in Chongqing. Here was a succinct narrative of the spirit of the SIP collaboration: “Be distinctive in collaboration, develop in learning, innovate in adaptation” (在合作中有特色、在学习中有发展、在借鉴中有创新). Singapore and China will deepen the fields of collaboration and lead more Chinese companies to explore opportunities in third-country markets by using the SIP as a launch-pad. Through internationalisation of the SIP enterprises, both countries can also further the interests of Singapore and China companies in countries along the “Belt and Road Initiative” and extend the influence of the SIP’s development experience.

Epilogue

“Visionary Partnership, Knowledge Innovation: Lessons and Insights from the China-Singapore Suzhou Industrial Park” is a joint effort by the Centre for Liveable Cities, Singapore (CLC) and the Suzhou Industrial Park Administrative Committee (SIPAC) to document the development journey of the Suzhou Industrial Park (SIP) and draw out key lessons and insights on urban governance to be shared within China, and internationally. In preparation for this publication and to ensure a comprehensive coverage of the SIP’s development, concerted efforts were undertaken by the CLC and the SIPAC to interview former and current persons from Singapore and China involved in the SIP. Joint workshops and meetings were held to consolidate useful insights from pioneers involved in the SIP in its earlier years.

This publication shares the story of the SIP through five chapters. The first four chapters cover the development of the SIP in chronological order and document the key principles and efforts which allowed the SIP to remain competitive and evolve with changing times. The final chapter seeks to draw together the key insights gleaned from the SIP’s experience.

It is our hope that the contents will be a useful and practical reference to other cities interested in developing an economically competitive and liveable city.

We would like to express our gratitude to Mr Lawrence Wong, Minister for National Development and Second Minister for Finance Singapore, and Mr Chen Deming, Former Minister of Commerce of the People’s Republic of China for their support for this research collaboration. We also would like to extend special thanks to Singapore’s then-Manpower Minister Lim Swee Say, Suzhou and SIPAC leaders for their guidance. We are grateful to the pioneers involved in the SIP, experts and colleagues from CLC and SIPAC, especially Tan Siong Leng, Lim Chin Chong, Foo Chee See, Bernard Teo, Shi Kuang, Pan Yunguan, Qin Xiaojing and Zhao Dasheng for their invaluable advice.

Finally, we would like to thank Ministry of Trade and Industry Singapore, and Ministry of Commerce, People’s Republic of China for their support.

Amanda Ong Hwee Fang
CLC Deputy Director

Wu Hong
SIPAC Deputy Party Secretary

About CLC and SIPAC

CLC

Set up in 2008 by the Ministry of National Development and the Ministry of the Environment and Water Resources, the Centre for Liveable Cities, Singapore (CLC) has as its mission “to distil, create and share knowledge on liveable and sustainable cities”. The CLC’s work spans four main areas – Research, Capability Development, Knowledge Platforms, and Advisory. Through these activities, the CLC hopes to provide urban leaders and practitioners with the knowledge and support needed to make our cities better.

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SIPAC

The Suzhou Industrial Park Administrative Committee (SIPAC) was established in February 1994 as an agency under the Suzhou Municipal Government to manage Suzhou Industrial Park (SIP). The SIP’s administrative area spans 288 sq km, within which is the 80-sq km China-Singapore Collaborative Area. The cooperative area consists of four sub-districts and is home to a population of approximately 807,800.

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ANNEX

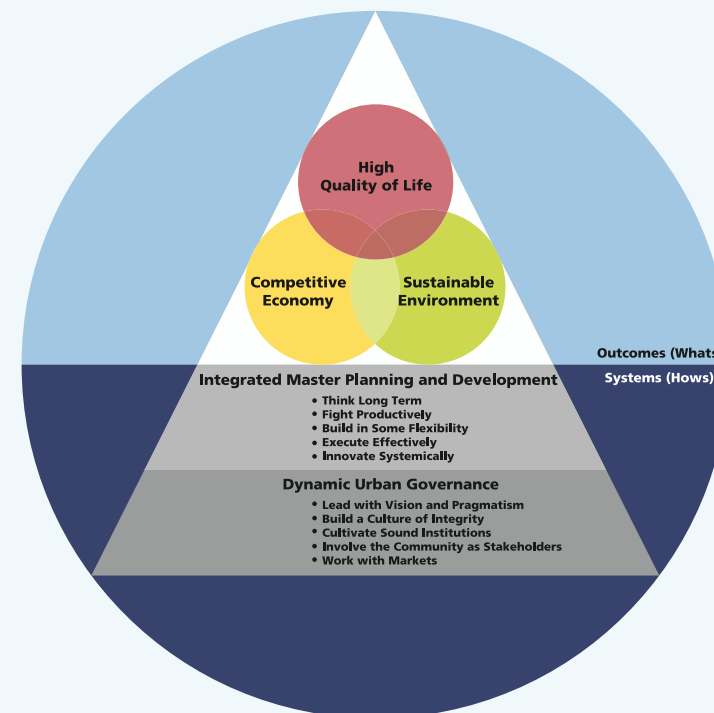
Singapore Liveability Framework

In 2008, the Centre for Liveable Cities (CLC), Singapore was established, under the Ministry of National Development, to capture the explicit and tacit knowledge underlying Singapore's unique urban development experience, and to distil some of the general principles that have guided Singapore's urban planners and policy-makers over the years. The CLC's research has so far included over 150 original interviews with past and present Cabinet ministers and senior officials, a few of whom are quoted in this book. Through research, the CLC found that Singapore has produced three key outcomes in its pursuit of liveable urban development:

- (i) A competitive economy in order to attract investments and provide jobs;
- (ii) A sustainable environment because the city has to survive with limited natural resources, especially in land and water; and
- (iii) A high quality of life, including the social and psychological well-being of the population.

In addition to these three outcomes, two elements have been vital to successful urbanisation in Singapore. First, it was crucial to have a system of integrated master planning and development that kept the outcomes of a liveable city constantly in view, over the long term. Second, subscribing to an urban governance approach that was dynamic helped sustain the conditions needed for a thriving liveable city.

Together, these elements form the components of the Singapore Liveability Framework.



The Liveable City Outcomes

In 1992, the United Nations Conference on Environment and Development (UNCED) posited that the social, environmental and economic needs of a country must be met in balance among all these needs. It is worth noting that there are no absolute levels where liveability is met. Instead, the challenge is to optimise the tradeoffs at each stage of growth. Hence, each city must take into account its own needs, resources and context when planning its development. The philosophy behind the liveable city outcomes identified in the Singapore Liveability Framework has nevertheless remained consistent for some five decades of Singapore's urbanisation.

Outcome 1: A competitive economy

Singapore's competitive economy has contributed greatly to the city-state's liveability quotient. At the most basic level, residents need opportunities to make a living and achieve a degree of economic security. This is as true today as it was in the early days of development, when industrialisation helped squatters and rural residents make the transition to a modern urban economy. Singapore's urban systems have had an integral role in supporting the country's economic development — a priority in its earliest years — from the purposeful allocation of land and facilities to the supply of utilities and a strong transport infrastructure with local and global connections, giving the economy a competitive edge over its regional neighbours. In turn, a competitive economy has allowed the city-state to generate income to sustain itself, and develop and create yet more opportunities for growth in a virtuous cycle. With further development, a well-functioning economy and a liveable environment have become ever more important, since cities worldwide now compete, more than ever, for investment and mobile talent.

Outcome 2: A sustainable environment

Singapore committed to sustainable development early on, in order to preserve and make the most of what few natural resources it did have. Provisions for clean air, clean water and green cover were integral to city planning from the start. Careful thought was even given to wind patterns when the industrial estates were located west of Singapore, so that pollution from factories would not blow into the city.

Environmental considerations have not been assumed to be at odds with economic development. Instead, they have been integrated into urban planning and embedded into a larger social and economic narrative by framing them as a means to

distinguish Singapore from its regional peers. In the early years, a clean and green city was a way to show foreign investors that Singapore was a well-run country and thus a good and pleasant, and efficient and reliable, place to set up business.

Outcome 3: High quality of life

The notion of a high quality of life encompasses many aspects of urban living, including the economic, social, environmental and psychological. One of Singapore's key attractions today is its pleasant and well-planned environment — a far cry from the early days of slums, squalor and crime. Indeed, apart from the provision of amenities, creating a sense of personal security was an important aspect of developing Singapore's new towns.

Retaining a sense of engagement with the physical landscape has since become a way to encourage Singaporeans to feel more connected to the land. Since the mid-1980s, city planning in Singapore has also tried to give more emphasis to the character and soul of the city-state, one that encompasses culture, identity and aesthetics.

Balancing the three liveability outcomes

These three liveable city outcomes are linked directly to Singapore's outcome indicators at the national level. They are published in the Ministry of Finance's Revenue and Expenditure Estimates for each financial year, ensuring that all government agencies know the big picture of the overall state of urban development. It also signals to the public that the Government is committed to, and serious about, making Singapore even more liveable.

Developing a liveable Singapore involves balancing the three interdependent (and often overlapping) outcomes. Focusing too much on one at the expense of the others could easily

lead to undesirable outcomes. The outcomes are also not always so discrete: solutions to achieve one outcome could create opportunities for another. For instance, Singapore's quest for water self-sufficiency has given rise to a niche sector of specialised companies that provided services related to water reclamation and desalination. With further investment by the Government, this nascent water sector was expected to have provided 11,000 jobs and added S\$1.7 billion to the economy by 2015. Taken together, these three outcomes inform Singapore's planning and development regime.

Integrated master planning: *implicit principles*

Singapore's integrated master planning system has enabled the Government to create and manage urban systems that balance the different guiding priorities on both short- and long-term scales, in response to changes in a dynamic political, economic and social environment. A key differentiating factor for Singapore's planning regime is that its plans do not just stay on paper — they are implemented and executed through dedicated organisations, with expertise and resources. Five implicit principles underpin Singapore's integrated master planning approach:

Principle 1: **Think long-term**

At the heart of the integrated master planning approach is Singapore's overarching Concept Plan, covering the country's land use over a time horizon of up to 50 years. The plan, created through an inter-agency effort, ensures that all key land use requirements for the city are met and that individual urban systems, such as transport, water or public housing, do not work in isolation.

Taking a long-term view has been important in two other ways. First, it has helped officials keep the three liveability outcomes in balance, at both the planning and implementing stages. Second, taking a long-term view has helped the Government identify problems in the future, making it expedient to start taking steps early to pre-empt the problem, or to develop better projects ahead of time. In the early decades of Singapore's rapid growth, even longer planning timeframes were needed.

Principle 2: **Fight productively**

Left to their own devices, each government agency would naturally focus on its own targets more than the goals of the government as a whole. In order to facilitate integrated planning, an inter-agency structure is needed to encourage agencies to acknowledge, and work to accommodate, one another's different concerns and goals. In Singapore, such a structure has nurtured an environment in which officials learn to debate, to have fights that are productive and which generate critical thinking, based on rational thinking and analysis. For example, before Singapore's Mass Rapid Transit (MRT) system was approved, former Deputy Prime Minister Goh Keng Swee encouraged a rigorous, decade-long debate on the alternatives.

These robust discussions, while sometimes heated, have eventually led to better collective decisions on planning and implementation. Tradeoffs made among the three liveability outcomes are then better understood by all parties and appropriately managed. Such "productive fights" within government have been supported by a Cabinet that is collaborative, with diverse experience across different portfolios, serving as the final conflict arbitrator.

Principle 3: Build-in some flexibility

Singapore's city planners accept that no plan is perfect, as the future is ultimately unpredictable. Consequently, the Concept Plan has been periodically reviewed in the light of changing conditions, such as shifts in the economic or social environment.

The Government has also been open to changing the schedule or form of certain developments slated in the Master Plan. For instance, Sungei Buloh, slated to become an agro-technology park, was instead turned into a wetland reserve in 1989, given that there was no pressing need for the area to be developed.

Some other land parcels are also reserved for future use and zoned in a way that gives developers some leeway in the land use mix, a concept known as "white sites": the Marina Bay area is a prominent example.

Principle 4: Execute effectively

A plan is only as good as its successful implementation. In Singapore, the coordinated efforts of the operational agencies set up to implement policies and programmes have been key. One important element of effective execution is the careful preparation that takes place before implementation, including extensive research into the situation at hand. This was the case when Singapore first introduced its "new town" concept for public housing.

Executing a plan is also not just about completing the project but giving careful consideration to the maintenance of what has already been built. For instance, the upkeep and upgrading of existing sewage systems in Singapore has proven much more cost-effective than digging up and replacing the old structures.

Principle 5: Innovate systemically

Urban development will always face resource limits, whether natural, physical or financial. However, innovation can mitigate these limits and, in some cases, overcome them over the long term. Solving Singapore's urban problems has required officials to be able to see different possibilities.

To solving Singapore's urban problems, officials must be able to discern the different possibilities; sometimes, courage and bold moves are needed. [A typical example is Singapore's Deep Tunnel Sewerage System (DTSS) and its Semakau Landfill (environment considerations were included in the development plan, and the landfill has become a favourite place for nature lovers).

Policies, too, can be innovative. In 1998, Singapore implemented the world's first Electronic Road Pricing System (ERP) to solve the problem of traffic congestion. In 2000, it pegged the water tariff to the long-run marginal cost of water supply. Singapore's bold policies are attributed to the government's highly innovative approach to governance.

Dynamic urban governance

The best intentions in planning amount to nothing if a city's urban governance system — or lack of one — does not allow good plans to be crafted and realised. Sound urban governance creates the right conditions for a city to achieve its liveable city outcomes.

Singapore's urban governance has been distinguished by its efficient provision of basic services to citizens and the establishment of competent institutions for development and coordination. Its geographical scale and structure of

government has allowed for efficiency in policy formation and implementation, and the country has been able to achieve economic and institutional development. At the same time, Singapore's size and lack of resources have made it perennially vulnerable to changes in the external political and economic environment.

In this context, Singapore had to evolve an urban governance approach that is dynamic: allowing its leaders to make optimal decisions and choices in an unpredictable, complex and constantly changing environment, as well as helping society develop the capacity to deal with challenging situations.

Of the many elements informing Singapore's approach to dynamic urban governance, five have stood out as key principles:

Principle 1: Lead with vision and pragmatism

How leadership is exercised both at the political and bureaucratic levels has had an important impact on planning and implementation. A leadership with vision, and the political will to realise it, has been critical for Singapore's development. Of particular importance was the political will to push through policies or projects that were considered unpopular or politically difficult at the time, but which were for the long-term benefit of the country and its people. For instance, the Government's spate of land acquisitions from the late 1960s was regarded as somewhat draconian, but was nevertheless deemed necessary for Singapore's subsequent development.

Principle 2: Build a culture of integrity

Since Singapore's independence, a culture of integrity has been enforced by governance systems that stress the importance of accountability, transparency and incorruptibility. This culture of integrity has affected how Singapore's public officers, as well as politicians, carry out their responsibilities, earning them a high degree of credibility and legitimacy.

The government has taken pains to inculcate a sense of accountability in public officers. City planners are responsible for large infrastructure projects that shape the city and the daily lives of citizens, from the roads used to the roofs over their heads. The Government has had to ensure that sound financing mechanisms are put in place to maintain fiscal solvency and the sustainability of the projects.

Principle 3: Cultivate sound institutions

Strong institutions with well thought-out systems and processes contribute to better decision-making, leading to more effective planning and development. Singapore's approach has been to use a range of structures (both formal and informal) in planning, and to allow these structures to evolve as the situation requires. Aside from formal institutions, less formal norms of governance have also been important, such as a rational approach to policy, respect for sound professional competence and meritocracy.

Professionalism is an important feature in Singapore's public institutions. Many professional bureaucrats are technical experts as well as strategists, well able to defend their ideas when necessary. The separation of politics and the professional services, as embodied in Singapore's institutions, is another significant norm. While politicians focus on strategy and policy, the professional and technical issues are handled by the agencies, which ultimately lead to greater accountability and effectiveness. At the same time, mutual respect between the political leadership and the bureaucracy contribute to better decisions and clarity of action and responsibility. This was evident, for instance, in the decade-long clean-up of the Singapore River, beginning in 1977.

Institutional rules and norms, both formal and informal, have enabled government agencies to work together effectively, irrespective of different or competing interests or professional opinions.

*Principle 4: **Involve the community as stakeholders***

Creating a liveable city is a huge and complex undertaking, and city planners need the support of the city's inhabitants for projects and policies to succeed and to be sustainable. No government has all the answers or inexhaustible resources.

Creating a stake in the city for the community provides opportunities for the public, people and private sectors to work together for the long-term good of the city.

The Singapore Government has increasingly involved the community in protecting the country's shared resources,



as well as in the policy-forming process. While policy and planning decisions are fundamentally undertaken by the Government, public engagement enhances the legitimacy of decision-making and policy outcomes. When Chek Jawa, a biodiversity-rich area, was slated for development, the civil society organisation the Nature Society (Singapore) lobbied the Government to preserve the area. The result was a reprieve in 2002.

When the Government and key community stakeholders work together for the greater public good, the result is a collective win for the country.

*Principle 5: **Work with markets***

A key governance principle, and a fiscally prudent approach, has been to harness market forces to improve efficiency.

The private sector has played a part in the provision of services which the Government alone could not provide, or services which the Government wanted to relinquish in order to re-direct public funds to different priorities. For example, the Government has successfully privatised power generation and some parts of public transportation. This approach has enabled the Government to implement a wide range of programmes more effectively. Nevertheless, there are limits to private sector involvement in the provision of public services. The Government has had to be clear about the kind of services that cannot be outsourced or privatised, given the overall role and responsibility of government. In the case of Surbana Corporation Pte Ltd, which used to be HDB's Building and Development Division and is now an international building consultancy, the issue of maintaining control was clear.

Conclusion

Singapore has come a long way in its urbanisation journey. It took about one and a half centuries for Singapore to develop from a fishing village to an urbanised society. Most of the development took place after it gained independence in 1965.

The Singapore Liveability Framework, providing a snapshot of key takeaways from Singapore's unique urban development experience, is not meant to be exhaustive. Instead, it seeks to outline general principles that underpin effective urban planning and governance, considering urbanisation issues from strategic, managerial and political perspectives, not just from purely technical ones.

This Framework might provide some useful insights for other cities interested in sustaining and raising liveability standards, as they consider the approaches best suited to their particular circumstances.

| Integrated Master Planning and Development | | | | |
|--|---|---|---|--|
| Think Long-Term | Fight Productively | Build-In Some Flexibility | Execute Effectively | Innovate Systematically |
| The SIP was planned scientifically featuring a well-organised urban layout balancing land use and location for commercial, residential, industrial and public utilities. The development and construction of SIP was carried out systematically. | The SIP adopted the high requirements for landfilling on low-lying agricultural land to prevent flooding. This reflects the constructive power of 'productive fight' between experts in search of the most effective solutions. | Some land parcels are reserved for future use and zoned as "white sites" in land use planning to provide flexibility in the land use. | Following pro-business, pro-people, and pro-environment principles, specialised departments and agencies collaborate to create a "One-Stop Service Centre" to provide better services for the public and enterprises. | The SIP overcame resources constraints and saw different possibilities in piloting policy innovations, including the "Green Lane" and "Virtual Ports" which improved the speed of custom clearance, enhancing the SIP's competitiveness. |

| Dynamic Urban Governance | | | | |
|---|--|---|---|---|
| Lead with Vision and Pragmatism | Build A Culture of Integrity | Cultivate Sound Institutions | Involve the Community as Stakeholders | Work with Markets |
| Adopting the "just ahead of demand" principle to prioritise the building of the right pieces of infrastructure first. | A culture of integrity is enforced by governance systems that stress the importance of transparency, fairness and accountability. Public officers are recruited based on their merits. Professionalism is valued in the SIP's public institutions. | Plans have legal power in the SIP. Strong institutional rules and norms were established to enhance the standardisation and authority of plans, leading to more effective planning and development. | Public engagement creates a stake for the community, providing opportunities for the public, people and private sectors to work together for the long-term good of the SIP. | Applying market principles to improve efficiency, through the joint-venture enterprise CSSD as the main developer of the SIP. Working with state-owned enterprises (SOEs) to effectively enhance the development of the SIP. |
| Source: CLC Analysis | | | | |

Endnotes

CHAPTER 1

- 1 Seet K. K. et al. (2001). In *Unison: Bilateral Collaboration on the Suzhou Industrial Park*. Singapore: Times Publishing Group.
- 2 Wong, J. (1999). China's Fascination with the Development of Singapore. *Asia-Pacific Review*, 5(3), pp. 51-63.
- 3 Deng, X. (1994). Highlights of Talks in Wuchang, Shenzhen, Zhuhai and Shanghai. *The Selected Works of Deng Xiaoping, Volume III*. Beijing, China: Foreign Languages Press.
- 4 *Singapore Economic Development Board (EDB)*. (1995). Yearbook.
- 5 Dicken, P. (1998). *Global Shift: Transforming The World Economy(3rd Edition)*. London, UK: Paul Chapman Publishing.
- 6 Tongzon, J.L. (1998). *The Economies of Southeast Asia: The Growth and Development of ASEAN Economies*. Cheltenham, UK: Edward Elgar Publishing.
- 7 Lee, K.Y. (2000). *From Third World to First: The Singapore Story (1965-2000)*. Singapore: Times Media and The Straits Times Press.
- 8 Deng, X. (1984). *The Selected Works of Deng Xiaoping, Volume II*. Beijing, China: Foreign Languages Press.
- 9 Lee, K.Y. (2000). *From Third World to First: The Singapore Story (1965-2000)*. Singapore: Times Media and The Straits Times Press.
- 10 Pan, X. (2015). *Celebrating 25 years of diplomatic relations between China and Singapore*. Singapore: Global Publishing, pp. 243.
- 11 Lee, K.Y. (2000). *From Third World to First: The Singapore Story (1965-2000)*. Singapore: Times Media and The Straits Times Press.
- 12 SIP chronicles (1994-2005). *Chapter 2 China Singapore Cooperation Section 2 Signing of Agreements*. (2012). Jiangsu, China: Jiangsu People's Publishing House. pp. 70-71

CHAPTER 2

- 13 Pan, Y. *The Rise of China-Singapore Suzhou Industrial Park and The Development Lessons*, pp. 18.
- 14 When SIP first started, the Singapore co-chair was Chairman of Jurong Town Corporation.
- 15 SIP Chronicles (1994-2005). (2012). *Chapter 2 China-Singapore Cooperation Section 4 China-Singapore Joint Working Committee*. Jiangsu, China: Jiangsu People's Publishing House, pp. 118
- 16 SIP Chronicles (1994-2005). (2012). *Chapter 2 China-Singapore Cooperation Section 5 China-Singapore Liaison Agency*. Jiangsu, China: Jiangsu People's Publishing House, pp. 132
- 17 Ministry of Commerce. (2008). (ShangZiFa No 253 [2008]) Notice on Distillation of SIP's Development Experience and SIP's Adaptation of Singapore's Experience.

- 18 SIP Chronicles (1994-2005). (2012). *China-Singapore Joint Working Committee*. Jiangsu, China: Jiangsu People's Publishing House, pp. 22
- 19 SIP Chronicles (1994-2005). (2012). *Chapter 2 China-Singapore Cooperation Section 3 China-Singapore Joint Steering Council*. Jiangsu, China: Jiangsu People's Publishing House, pp.103.
- 20 Pan, Y. *The Rise of China-Singapore Suzhou Industrial Park and The Development Lessons*, pp. 62-67.
- 21 SIP Chronicles (1994-2005). (2012). *Chapter 2 China-Singapore Cooperation Section 2 Multi-level Government Support for Development*. Jiangsu, China: Jiangsu People's Publishing House, pp.72-79.
- 22 Pan, Y. *The Rise of China-Singapore Suzhou Industrial Park and The Development Lessons*, pp.47
- 23 SIP Chronicles (1994-2005). (2012). *Chapter 2 China-Singapore Cooperation Section 2 Multi-level Government Support for Development*. Jiangsu, China: Jiangsu People's Publishing House, pp.72
- 24 SIP Chronicles (1994-2005). (2012). *Chapter 2 China-Singapore Cooperation Section 2 Multi-level Government Support for Development*. Jiangsu, China: Jiangsu People's Publishing House, pp. 72-79
- 25 *Suzhou gong ye yuan qu zhi* 1994 - 2005 (Chronicle of Suzhou Industrial Park 1994-2005) 2012, Jiangsu, China, Jiangsu Renmin Publishing Firm, p.22
- 26 SIP Chronicles (1994-2005). (2012). *Chapter 9 New Township Construction Section 1 Planning*. Jiangsu, China: Jiangsu People's Publishing House, pp. 554
- 27 SIP Chronicles (1994-2005). (2012). *Chapter 9 New Township Construction Section 1 Planning*. Jiangsu, China: Jiangsu People's Publishing House, pp. 554-555
- 28 SIP Chronicles (1994-2005). (2012). *Chapter 9 New Township Construction Section 1 Planning*. Jiangsu, China: Jiangsu People's Publishing House, pp.555
- 29 SIP Chronicles (1994-2005). (2012). *Chapter 9 New Township Construction Section 1 Planning*. Jiangsu, China: Jiangsu People's Publishing House, pp. 557
- 30 SIP Chronicles (1994-2005). (2012). *Chapter 9 New Township Construction Section 1 Planning*. Jiangsu, China: Jiangsu People's Publishing House, pp. 554-557

CHAPTER 3

- 31 SIP Chronicles (1994-2005). (2012). *Chapter 9 New Township Construction Section 4 "Jiutong Yiping"*. Jiangsu, China: Jiangsu People's Publishing House, pp.643
- 32 Suzhou Industrial Park (SIP). (2014). Yearbook.
- 33 Kahn, J. (1994, September 15). "China's Singapore-style Township Attracts 15 Foreign Enterprises". Wall Street Journal.

- 34 SIP Chronicles (1994-2005). (2012). *Chapter 5 Investments Promotion 2 Investment Outreach Activities* Jiangsu, China: Jiangsu People's Publishing House, pp.243.
- 35 SIP Chronicles (1994-2005). (2012). *Chapter 7 Industrial Sectors 1 Manufacturing Industry*. Jiangsu, China: Jiangsu People's Publishing House, pp.359.
- 36 SIP Chronicles (1994-2005). (2012). *Chapter 15 Education Section 5 Higher Education*. Jiangsu, China: Jiangsu People's Publishing House, pp.878.
- 37 Jia, M. (2009). *Harmonic Movement and Grand Ambitions*. Singapore: Keppel Corporation.
- 38 SIP Chronicles (1994-2005). (2012). *Chapter 9 Construction of New Town Section2 Relocation and Resettlement*. Jiangsu, China: Jiangsu People's Publishing House. pp. 577
- 39 Zhao, D. (2012). *A Profound Interpretation of Suzhou Industrial Park*, Suzhou University Press
- 40 Liu, F. (2004). The 10th Anniversary of Development and Construction of Suzhou Industrial Park Cooperated by China and Singapore. *Using High Technology to Create a new Suzhou in 10 years*. www.sipac.gov.cn/sip10th/html/meiti/news20040609_04.htm
- 41 Tian, X. & Chen, Q. (2014). *The Urban Transformation of Suzhou*, Suzhou University Press, pp. 382.
- 42 SIPAC. Youth Commune - The Way to Excellent Enterprise Logistics. February 10, 2009. http://www.sipac.gov.cn/tbtj/200902/t20090210_37364.htm
- 43 Xiong, G. (2003). A Study on Suzhou Industrial Park's Developmental Plans, *Urban Planning Journal*, 144 (2).
- 44 SIP Chronicles (1994-2005). (2012). *Chapter 5 Investment Promotion Section 2 Investment Outreach Activities*. Jiangsu, China: Jiangsu People's Publishing House, pp.249

CHAPTER 4

- 45 SIP Chronicles (1994-2005). (2012). *Chapter 10 Urban Management Section 1 Environmental Protection*. Jiangsu, China: Jiangsu People's Publishing House, pp.669
- 46 Singapore's Ministry of Education. Speech by Singapore's Minister of Education, Heng Swee Keat, at the official opening ceremony of NUS-Suzhou Research Institute. May 29, 2013. <http://www.moe.gov.sg/media/speeches/2013/05/29/speech-by-mr-heng-swee-keat-at-the-official-opening-ceremony-of-NUSRI.php>
- 47 Zhao, D. (2012). *A Profound Interpretation of Suzhou Industrial Park*, Suzhou University Press.

“China and Singapore are very different. Yet, we share much in common. We aspire to strengthen the three key pillars of building a competitive economy, cohesive society and sustainable environment. The joint development of the Suzhou Industrial Park (SIP) has provided a special platform for the leaders on both sides to share and learn from each other. Together, we have created a SIP that is pro-business, pro-worker and pro-environment, all at the same time.

This, in essence, is what the Singapore Software is all about.”

Mr Lim Swee Say, then-Minister of Manpower, Singapore

“The Suzhou Industrial Park (SIP) has evolved to be a successful model for sustainable economic development for cities across the world, epitomising an inclusive, vibrant community. SIP has proven to be capable of surmounting multi-dimensional challenges of urban governance, attaining key UN Sustainable Development Goals (SDGs), particularly the SDGs on Industry, Innovation and Infrastructure, and Sustainable Cities and Communities.”

Ms Maimunah Mohd Sharif, UN-Habitat, Executive Director

Visionary Partnership, Knowledge Innovation: Lessons and Insights from the China-Singapore Suzhou Industrial Park seeks to distil the key lessons and insights from the development experience of the Suzhou Industrial Park (SIP) in China. Besides discussing the shared journey undertaken by Singapore and China, the publication delves into areas of experience and guiding principles that would be relevant and applicable to the urbanisation challenges of cities within China and internationally. Through extensive research and interviews with pioneers and experts from Singapore and China who were involved in the SIP at various stages of its development, this book is a useful, practical reference for policy-makers, mayors, industry leaders and academics interested in understanding the SIP's evolution in becoming an economically vibrant and liveable city.

