

# ‘Silicon Harbour’ comes of age

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FANNY LAW  
Chairman, HKSTPC



PROFESSOR WEI SHYY  
Provost, HKUST



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CEO, Nest

Until the late 1990s Tolo Harbour was known as a beauty spot tucked away in the Northeast New Territories, once famous for its pearl industry, and popular with day-trippers from Kowloon and Hong Kong in search of peace and quiet. A decade later, it is fast turning into what the city’s government hopes will be China’s answer to Silicon Valley.

Occupying a 22-hectare site looking out across to Mirs Bay and surrounded by forested hillsides is the Hong Kong Science Park, managed by Hong Kong Science and Technology Parks Corporation (HKSTPC). With the official launch of the latest phase (3) in September, the waterfront site now contains 26 state-of-the-art buildings more than 330,000 sq m of R&D office and laboratory space, along with meeting venues, a clubhouse, and ‘green trail’, all laid out along tree-lined avenues.

“HKSTPC illustrates the commitment of the SAR government to give impetus to innovation. The administration has made unprecedented investments to lay the foundations for innovation to create, if you will, a ‘Silicon Harbour’ for China and the region,” says Fanny Law, who was appointed HKSTPC’s chairman in July this year. She brings 30 years’ experience in a

range of Hong Kong government posts, and is also a Deputy to the 12th National People’s Congress of the People’s Republic of China, as well as a Member of the HKSAR Executive Council.

According to Mrs Law, the iconic ‘golden egg’ Charles K. Kao Auditorium embodies the spirit of Science Park in hatching technological innovations that brings great benefit to mankind. Also managed by HKSTPC are the InnoCentre where product and brand designers turn innovations into products for reaching the mass market, as well as three industrial estates that focus on applying advanced technology into food processing, pharmaceutical manufacturing and data centres.

“The HKSTPC provides world-class infrastructure and support services, while working in collaboration not only with universities, research institutions, industry partners, the Productivity Council and Cyberport, but increasingly with the leading academic and scientific institutions of Mainland China as well,” says Mrs Law, adding: “China’s 12th Five Year Plan, announced in 2011, puts renewed impetus on innovation and technology as key economic drivers, characterising a handful of industries as emerging ‘battlegrounds’ where countries will be competing for technological leadership during the next wave of



Which came first?  
Science Park’s iconic  
‘golden egg’ Charles  
K. Kao Auditorium

development. These industries, including new energy sources and biotechnology, are distinguished by their high profit growth potential and strategic contribution to the community. In these areas, the government has dedicated itself to incubating national and global champions by helping them gain leading technologies and expanding their commercial capabilities.”

Hong Kong’s achievements in scientific research have been recognised by Beijing, and over the last decade China has designated 16 Partner State Key Laboratories (SKLs) within several Hong Kong higher education institutions, half of which are Bio-medical focused laboratories. Two of these, Brain and Cognitive Sciences and Emerging Infectious Diseases were set up in 2005, and were then the first and only SKLs in their respective fields located outside Mainland China. Two more, Liver Research and Synthetic Chemistry, were established in 2010. The fifth, Pharmaceutical Biotechnology, was established in 2013. SKLs are key components of China’s science and technology research system, serving as the basis for top-level research and applied research development, assembling and nurturing outstanding researchers, as well as taking part in exchange programmes. Hong Kong’s SKLs now work with partner laboratories in China, and can also apply for national level research funding.

Professor Wei Shyy, Provost at Hong Kong’s University of Science and Technology (HKUST), and headhunted in 2010 from his post as Chairman of the Department of Aerospace Engineering at the University of Michigan, Ann Arbor, points out that Chinese universities are increasingly trying to modernise their systems and standards via experience sharing with Hong Kong: “For example, the Mainland universities try very hard to establish the culture of transparency we have in Hong Kong: at the same time, they value our international links. We provide consultation to many Chinese universities, and we will also act as an accelerant. We would like to create more opportunities and a wider contact network for our inland counterparts and connect them more naturally with the world’s research and development trends.”

Although previously based in the United States over the course of his more than 30-year career, Professor Shyy has maintained extensive collaborative links with Japan, Korea, and Mainland China, as well as Europe. He points out that under the One Country, Two Systems policy Hong Kong’s universities receive no direct funding from Beijing, nor are they “accountable” to China. He would, however, like to see the Mainland invest more resources in Hong Kong to strengthen collaboration: “More joint funding would bring more opportunities to improve the system.”

The results of the Hong Kong government’s technological innovation policies and the proximity

to the huge China market are also benefitting the local economy, says Mrs Law: “We are seeing more and more young people come to Hong Kong to start businesses.” This summer, InvestHK, the government organisation tasked with promoting investment and entrepreneurship in Hong Kong, attracted 550 entries from entrepreneurs in 47 countries for its 2014 StartmeupHK Venture Programme.

#### **Competitive advantages**

“Hong Kong offers start-ups the best of both worlds,” adds Professor Shyy. “It is the regional hub, less than four hours’ flight from the major cities in Asia, and only a couple of hours by train from the Pearl River Delta region, which should be taken together with Hong Kong,” he says, adding: “The Pearl River Delta is one of the most advanced industrial areas on the planet; it has tremendous expertise in manufacturing, packaging, and logistics. The iPhone isn’t made there not only for cost reasons, but also for the expertise that factories have established. Hong Kong doesn’t have enough industrial capacity, but it can provide technology, skills, education, and innovation which can be fed into the Pearl River Delta region.”

Hong Kong’s appeal over its Mainland rivals is easy to see: faster and unrestricted internet access; a pro-business approach that makes it possible to open a bank account and register a business in two days; more than 200 per cent cellphone penetration, and five independently owned cellphone providers. Since 2010, 18 Chinese high-tech firms have delisted from Wall Street to join Hong Kong’s exchange. HKSTPC has funded over 300 start-ups over the last few years,

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Free enterprise: Science Park’s Enterprise Place



**Hong Kong is a unique place. You can easily have 10 meetings a day and do a week's work in one day here. An idea in wearable tech can progress to prototype within days**

while InvestHK puts the total number of start-ups at between 700 and 800. At the same time, the number of co-working spaces in HK has risen from six to over 30 in the past two years, growth that clearly reflects pent-up demand.

Simon Squibb, a British entrepreneur with 18 years experience as an angel investor, set up incubator Nest in 2010. He cites Hong Kong's low tax rates, its internationally accepted legal and financial systems, and robust intellectual property protection rules as among the city's competitive advantages. Having worked here for several years before setting up Nest, he says he has always been impressed by Hong Kong's prodigious work ethic:

"It's a unique place. You can easily have 10 meetings a day and do a week's work in one day here. An idea in wearable tech can progress to prototype within days. Every part of the world has trouble finding programming talent, but in Hong Kong we have easy access to tech talent in India and China, a system HK has been tapping into for quite some time. Doing business in HK is fast and efficient, just what you need in a tech cluster."

A firm believer in small is beautiful, his advice to Hong Kong's administration is to keep focusing on developing start-ups: "Let's not focus all our energy on just bringing big overseas firms that will suck up talent. We need to focus more on bringing in CTOs and entrepreneurs to build Hong Kong brands that can go global rather than bringing in the Microsofts of this world." He identifies

the trends in which Hong Kong is a leader as "financial, wearable, and education technology".

### **Serving start-ups**

HKSTPC's incubation programmes run from 18 months to four years, rendering comprehensive technological and research support to technology start-ups. In addition to enjoying office facilities, business advice, training and marketing services, companies can also access the 12 state-of-the-art laboratories in the Science Park and gain assistance from a team of experienced engineers.

"We incorporate industry-focused support services such as marketing and promotion, training and talent development, mentoring programmes and consultancy services, as well as many investment-matching events to connect angel investors and venture capitalists," says Mrs Law, who describes the essence of HKSTPC's role as "connection and collaboration".

Among those connections is ASTRI, the Hong Kong Applied Science and Technology Research Institute, set up in 2000 to improve the city's competitiveness in technology-based industries through applied research. "ASTRI helps customers capture business opportunities from the technology market; it has a rich portfolio of commercially viable technologies readily available for customers' deployment," says Mrs Law.

To HKSTPC's connecting and collaborating can be added clustering. Different technology sectors can create powerful synergies when they operate



Taking the long view:  
Science Park's Phase 1

in the same environment, declares Mrs Law: “We focus on gathering together businesses specialising in biotechnology, electronics, green technology, information technology and telecommunications, and precision engineering. We have seen how they can stimulate each other, and have identified these sectors as those in which Hong Kong has the potential to be a world leader. Companies in the cluster can share expertise and cross-fertilise with ideas. By grouping companies together we provide them with the platform to communicate, work and identify market opportunities with each other.”

HKSTPC also offers overseas universities, research institutes and technology-oriented start-up companies a two-year soft-landing platform for easy take-off in one of the most business-friendly economies in the world, while introducing and exposing their technological innovations to the promising Asian and Chinese markets. HKSTPC will sponsor interested parties for an exploration trip to Hong Kong to gain a better understanding of the local support and market opportunities. For those who are keen to make Hong Kong a base for their research and market expansion, a service fee of just HK\$10,000 a year will provide them with full-service shared office and research laboratories at Hong Kong Science Park for up to 50 workdays, as well as familiarisation programmes on finance, taxation, intellectual property protection and patent registration, a talent pool to recruit local staff, as well as valuable connections to local partners.

HKSTPC regularly hosts seminars and trade shows in Hong Kong and Shenzhen, so that entrepreneurs and researchers can present their innovations and new ideas to potential licensees from all over Asia face-to-face. “Companies also get to interact with them on a personal level in our matching sessions to impress them. They just need to submit their proposed projects to us, and we will be in touch with them to help them kick-start their business in Asia and China for a small fee. It’s that easy,” explains Mrs Law.

Every year for the last decade, HKSTPC has organised InnoAsia, a six-day event that plays an important role in knowledge transfer and business matching, linking leading academics, experts, decision makers and thought leaders from across disciplines and geographical boundaries to exchange insights and inspire each other through innovative models and engage in forward-thinking dialogue on policy implementation and adoption of new technologies for the Asian markets. In 2013, it attracted more than 2,200 participants from 17 countries, including 80 speakers from around the world. To celebrate the 10th anniversary, it has been renamed the APAC Innovation Summit. This December, the theme is Shaping the Future, as Fanny Law explains: “Hong Kong is going to play a big role in shaping the future of Asia. Hong Kong is Asia’s world city, no longer just an international financial centre. We are diversifying and growing fast, to become a tech hub: the Silicon Harbour of the East.”

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Learning curve: Science Park’s futuristic amphitheatre