

TRAIL OF GROWTH

HKSTP intensifies smart tech push

Science park steps up bid to revive manufacturing as part of the goal to position city as global technology hub

Editor's note: In this installment of the series, the chairman of the Hong Kong Science and Technology Parks Corp describes the infrastructure support for enhancing inno-tech and manufacturing sectors he has witnessed in the city.

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With the necessary space and infrastructure in place, Hong Kong will be better positioned to develop the innovation and technology sector as well as accelerate the progress of its economy in coming decades.

Sunny Chai Ngai-chiu, chairman of Hong Kong Science and Technology Parks Corp, made the prediction on the cusp of the 25th anniversary of the establishment of the Hong Kong Special Administrative Region.

The HKSTP has intensified its efforts to revive local manufacturing sector by upgrading industrial facilities and setting transformation guidelines as part of its goal to help position Hong Kong as a global technology engine. Chai said that the HKSTP aims to build a "solid" infrastructure of the innovation and technology ecosystem development, from research to commercialization and manufacturing.

The SAR government disclosed the outline of reindustrialization for the first time in its 2016 Policy Address, illustrating that the HKSTP — the government-run company incubat-

ing the high-tech startups' ecosystem — will construct new buildings "for lease to innovation and technology industries", and "promote smart production, attract high value-added technology industries as well as high value-added manufacturing processes".

Over the past five years, the SAR government has poured more than HK\$150 billion (\$19.1 billion) and allocated land resources into the innovation and technology sector, including the 87-hectare Hong Kong-Shenzhen Innovation and Technology Park as well as providing about 150 hectares to develop the San Tin Technopole.

In alignment with the government's policies, the HKSTP in April unveiled the Advanced Manufacturing Centre at Tsang Kwan O InnoPark. The 2.71-hectare manu-

facturing center is set to provide services for logistics, warehousing, prototyping, low-volume assembly and cleanroom-enabled space.

Last year, the HKSTP transformed three industrial estates in Tai Po, Yuen Long and Tseung Kwan O as InnoParks to boost inno-tech-led manufacturing. The InnoParks will upgrade various sectors, such as pharmaceutical and biomedical production, through digitalization and precision manufacturing.

Chai said InnoParks "offer a high-spec, fully-serviced production base for advanced manufacturing and provide a foundation for Hong Kong's mission to reindustrialize and achieve technology-driven growth".

The manufacturing sector used to be one of Hong Kong's economic pillars in the 1970s and early '80s. However, the city started putting an emphasis on the services sector, and an increasing number of manufacturers relocated their production lines northwards — to the Chinese mainland — to take advantage of more-affordable labor and land.

Today, the manufacturing sector accounts for only about 1 percent of Hong Kong's GDP.

To address the significance of the industrial sector in diversifying the economy, the new-term Hong Kong administration, led by chief executive-designate John Lee Ka-chiu, is reorganizing the Innovation and Technology Bureau into the Innovation, Technology and Industry Bureau effective July 1. Lee's manifesto called to "encourage the commercialization of technology research results; develop high tech and high value-added manufacturing industries, ... (and) harness technology effectively".

Chai said the HKSTP established eight guiding principles to underpin its reindustrialization target: "output, investment in factories, high-skilled employment creation, product specifications, advanced processes, research and development activities and capabilities, local consumption for stable supply chain and sustainability in terms of business, environment, or resources".



The HKSTP aims to build a solid infrastructure of the innovation and technology ecosystem development, from research to commercialization and manufacturing."

Sunny Chai Ngai-chiu,
chairman of Hong Kong Science
and Technology Parks Corp



"These principles set the direction of supporting the upgrade and transformation in the existing operations of companies in InnoParks, creating the fabric necessary to enable the production of new technologies and world-class manufacturing of high value products, thereby generating new business opportunities, high-skilled employment and a brighter future career for the young generation," he said.

The blueprint of HKSTP facilities was unveiled in 1997, the year that the central government resumed the exercise of sovereignty over Hong Kong. It aims to help "position Hong Kong as a regional centre for research and development activities and innovation and technological development", as a Hong Kong Legislative Council document from 1997 showed.

During the past 25 years, the HKSTP has incubated around 1,100 startups and tech ventures from 24 countries and regions, accounting for nearly 30 percent of total startups in Hong Kong. Among them, three unicorns emerged — artificial intelligence giant SenseTime, which went public on the Hong Kong Stock Exchange in December, raising funding of \$2.6 billion; intelligent

manufacturing technology company Smartmore, whose value grew more than \$1 billion within 18 months; and smart logistics firm Lalamove, which expanded its footprint to more than 20 cities across the world.

Hong Kong has conceived 18 unicorns since 2017, according to Hong Kong Unicorns List Unicorns HK 2021, released by a local innovation charity foundation. In addition to homegrown unicorns, the HKSTP attracts overseas unicorns, such as Geek Plus International Co, focusing on robotics and AI, and Nium, a global platform for money movement, to nourish Hong Kong's inno-tech ecosystem.

Chai said the HKSTP has also "built up Hong Kong's largest R&D community of 17,000 people", and he has witnessed a growing appetite to invest in local inno-tech startups.

"In the past four years, there were over 220 investment cases within the science park, raising HK\$68 billion," he said.

"The HKSTP Venture Fund totals over HK\$600 million in assets under management. The fund has invested in 23 tech ventures, while the total amount of funding attracted by companies in the science park has accelerated in recent years."



An aerial view of the Hong Kong Science Park. PROVIDED TO CHINA DAILY

Commemorating YCYW'S 90th anniversary in international education

By YUAN SHENGGAO

Developing from a school with a few children to an international network covering infancy to tertiary education, Yew Chung Yew Wah, or YCYW, is celebrating its 90th anniversary.

Established in 1932 in Hong Kong, the school, initially named Yew Chung, was founded by Tsang Chor-hang with a vision to save the country through education during tumultuous periods of world history and the titanic struggle that China experienced.

Looking back on almost a century of history, YCYW has been dedicated to nurturing the holistic development of students and grooming their global perspectives and has made achievements in international education with creative pedagogy and constant practices.

"YCYW has adhered to the original value of focusing on personal character formation in our education over the decades. It is essential to build the country and a person's life development," said Betty Chan Po-king, who is Tsang's daughter and now the CEO and school supervisor of YCYW.

Pioneer in concept

Following in her mother's steps, Chan returned to Hong Kong to take over the YC schools in the 1970s when she graduated from the University of Hawaii with a bachelor's degree and a master's degree in early childhood education, or ECE. Awarded the American Association of University Women scholarship, Chan then attended the University of Illinois at Urbana-Champaign for a doctoral program tutored by ECE educator Bernard Spodek. She completed her PhD at Union Institute and University in 1985.

The educational researcher received honorary doctorate degrees in humane letters and laws from the University of Illinois at Urbana-Champaign and the University of Bath respectively. She was also awarded the honorary fellowship by the Education University of Hong Kong.

In the 1970s, a lot of families in Hong Kong tended to emigrate to foreign countries or send their children to study abroad.

"As an educator, I felt obliged to set a balanced program in schools to help students acquire international education at home," Chan said.

During this period, Chan not only took over from her mother and continued YC's commitment to quality education, but also introduced the ECE concept, which contributed greatly to Hong Kong's education system.

For the ECE, Chan highlighted the impor-



tance of learning through play and creating an open class environment. This pedagogical technique originated from Chan's learning experience.

"In my university studies, my professor always told me that 'you have to find some games,'" Chan recalled. "I was confused. How can I find games while having my lessons?"

But it turned out that Chan, the former student who questioned her teachers, finally acquired knowledge and unexpectedly discovered her passions through practice in a relaxed atmosphere.

Inspired by personal experiences, Chan promoted the learning through play concept.

"My favorite age is 3. It is the beginning and an important period of a person's life," Chan said. "The younger the children are, the more knowledge they can absorb and the more interests they can find."

In 2004, Chan, who was the first Asian invited to speak at the Alliance for International Education World Conference in Duesseldorf, Germany, shared her views on the ECE.

To better implement her teaching concept, Chan had designed courses featuring hands-on activities at YC schools such as setting interest corners in each classroom, as part of the efforts to motivate students to engage in learning through play.

In 1985, Chan introduced the ECE to the Chinese mainland by holding an exhibition, *Pillars of Tomorrow*, in Beijing.

The executive and her team presented the YC schools' classroom setting in Hong Kong at the exhibition, which was the first of its kind to introduce the ECE model of Hong Kong after the opening-up of China.

Invited by the local education authority,



Above: Betty Chan Po-king, CEO and school supervisor of Yew Chung Yew Wah Education Network, delivers a speech. **Top Left:** YCYW offers art courses for cultivating the holistic development of students. **Bottom left:** A teacher practices learning through play with children.

PHOTOS PROVIDED TO CHINA DAILY

thereafter, Chan successfully brought the ECE concept to the Chinese mainland with the first Yew Chung established in Shanghai in 1993 and the first Yew Wah in Yantai, Shandong province, in 2000.

The Yew Wah international schools, the twin series of YC schools, were co-founded by Chan and Paul Yip Kwok-wah in 1998 in an effort to bring quality education to Chinese and expatriate students in mainland cities.

To date, the YCYW international schools have opened in cities such as Shanghai, Yantai, Chongqing, Shenzhen, Beijing, Qingdao, Rizhao, Guangzhou and Tongxiang.

Well-rounded development

"International does not mean Western. International should be a fusion of different cultures. The education of international schools means to be able to help students realize a balanced development," Chan said.

YCYW adopts bilingual teaching in Chinese and English. It also opens optional language courses including German, French, Spanish and Korean. Moreover, the school has curriculums ranging from science and technology to culture and arts, aiming to produce well-rounded students to reach their

potentials rather than just excelling in exams.

Languages are a tool for students to adapt to a multicultural context and help them gain more exposure to history and learn more knowledge, Chan said.

YCYW knows that students learn best when they are involved in activities that stimulate inquiry in areas of their personal interest, and that digital literacy is vital for today's learners, the school supervisor said.

Taking advantage of the large school network, its upper secondary students can take one online subject from another YCYW school through the YCYW Online program, offering them more subject options.

Apart from classroom instruction, the international school puts patriotic education high on its agenda. Chan said: "We have students from different countries. We teach them to love their countries while respecting others' cultures."

Baby to Bachelor

In 2018, the Yew Chung College of Early Childhood Education, a degree-awarding institution, was established in Hong Kong, meaning YCYW had completed its network from infancy to tertiary education, also known as the Baby to Bachelor cycle.

YCECE is the only specialist tertiary institution of its kind in Hong Kong. It offers a Bachelor of Education, higher diploma and a diploma in ECE, as well as an array of professional development courses for early childhood educators and industry professionals.

"Forming the education network from kindergarten, and primary and secondary schools to college is not easy. We have achieved this based on our decades of practices," Chan said.

Teaching cannot be replaced by artificial intelligence, especially for the ECE, Chan said, explaining education requires teachers to impart knowledge as well as to teach by words and influence by deeds.

"The bachelor's degree also means YCYW has fulfilled the commitment to nurturing a better next generation," she added.

To date, YCYW has expanded its global footprint in more than 20 locations spanning Hong Kong, the Chinese mainland and other countries and regions including the United States and the United Kingdom.

"With an unshakable vision, YCYW continues to play a major role in promoting international education, intercultural understanding and global citizenship from early childhood to tertiary education, actively contributing to our home country and the wider world," Chan said.