

# Innovation & Technology

## Overview

With opportunities brought by the National 13th Five-Year Plan and the Guangdong-Hong Kong-Macao Greater Bay Area development, Hong Kong can capitalise on its advantages in R&D capabilities, technology infrastructure, legal system and intellectual property to act as a strategic bridge for innovative companies looking to access the Mainland market.

The Government is promoting innovation and technology (I&T) development along eight major areas: increasing resources for R&D, pooling technology talent, providing investment funding and I&T infrastructure, reviewing existing legislation and regulations, opening up government data, leading changes to procurement arrangements, and popularising science education. So far, we have committed over \$100 billion (US\$12.8 billion) for different initiatives in these eight areas.

## On-going efforts

- Develop Lok Ma Chau Loop into the **Hong Kong-Shenzhen Innovation and Technology Park**
- Support, and participate in, the development of the **Guangdong-Hong Kong-Macao Greater Bay Area** into an international innovation and technology hub
- Universities and research institutions in Hong Kong can apply for **science and technology funding of the Central Government** for use in Hong Kong. This policy allowing cross-boundary remittance of research funding will inject further impetus into Hong Kong's research sector
- Hong Kong is a leading digital economy, consistently achieving top rankings in digital readiness and Internet access capabilities. Hong Kong has 11 **submarine cable systems** and operates 11 **satellites** for external communications. Several submarine cable systems will be ready in the coming two to three years, enhancing the city's connectivity with other parts of the world
- Implement a \$2 billion **Re-industrialisation Funding Scheme** within 2020 to subsidise manufacturers, on a matching basis, to set up smart production lines in Hong Kong. Another \$2 billion will be provided to the Hong Kong Science and Technology Parks Corporation (HKSTPC) to develop a **Microelectronics Centre** in the Yuen Long Industrial Estate
- \$5.5 billion earmarked for **Cyberport to expand its campus** to provide additional space for technology companies and start-ups
- Earmark \$3 billion for Phase 2 of the **Hong Kong Science Park Expansion Programme**
- Earmark \$500 million to implement the **IT Innovation Lab in Secondary Schools Programme** to provide funding support for all publicly funded secondary schools
- Set aside \$40 million to **subsidise short-term internships** for undergraduates and postgraduates taking STEM programmes in local universities
- Establish two **InnoHK research clusters** at Hong Kong Science Park with focus on artificial intelligence (AI) and robotics technologies and healthcare technologies. The first batch of laboratories will be set up progressively in 2020. The Government is exploring the setting up of a **third InnoHK research cluster** to further promote global research collaboration.

## Innovation and technology stakeholders

- **Hong Kong Science Park** is home to over 840 technology companies
- **Cyberport** is a creative digital community with around 1,500 companies

- **Hong Kong Science and Technology Parks Corporation** has set up a subsidiary company – Hong Kong-Shenzhen Innovation and Technology Park Limited – to build, operate, maintain and manage the Hong Kong-Shenzhen Innovation and Technology Park in Lok Ma Chau Loop
- **The Hong Kong Applied Science and Technology Research Institute** focuses on applied research (Fintech, intelligent manufacturing, next generation network, health technologies and smart city)
- The **Hong Kong Academy of Sciences** and **The Hong Kong Young Academy of Sciences** advises the Government on research and technology-related policies
- The **Massachusetts Institute of Technology** set up its first overseas Innovation Node in Hong Kong in 2016
- **Karolinska Institutet** (Sweden) opened a research facility at Science Park in 2016 to strengthen research in regenerative medicine
- **Guangzhou Institutes of Biomedicine and Health** under the Chinese Academy of Sciences (CAS) set up a stem cell and regenerative medicine research centre at Science Park in 2017
- **Hong Kong-Mainland collaboration:** There are currently 16 State Key Laboratories in Hong Kong and 6 Hong Kong branches of the Chinese National Engineering Research Centres
- The **Ministry of Science and Technology (MOST)** and the Hong Kong Special Administrative Region Government (HKSAR Government) signed the “Arrangement on Enhancing Innovation and Technology Cooperation between the Mainland and Hong Kong” and the “Agreement on Commencing Jointly Funded Projects between the MOST and the Innovation and Technology Bureau of the HKSAR Government” in September 2018
- The CAS and the HKSAR Government signed the “Memorandum of Understanding on Establishing Affiliated Institution by the CAS in Hong Kong” in November 2018

#### **Supporting start-ups**

- **3,184 start-ups** in Hong Kong in 2019 (+21% over 2018), and **12,478 start-up jobs** (up 31%) according to the 2019 start-up survey by InvestHK
- **\$2 billion Innovation and Technology Venture Fund** set up by the Government to co-invest on a matching basis with selected private venture capital funds in Hong Kong
- The **Research Talent Hub** provides funding support to each eligible company or organisation to engage up to four I&T talents to conduct R&D work
- The **Public Sector Trial Scheme** provides funding support to assist local technology companies in realising and commercialising their R&D outcomes and encourages public sector organisations to utilise more local R&D outcomes
- **Private sector:** Alibaba Group launched a \$1 billion Hong Kong Entrepreneurs Fund; Sequoia Capital initiated the Hong Kong X-Tech Startup Platform
- **Cyberport: Cyberport Incubation Programme** and \$200 million Cyberport Macro Fund to provide initial venture capital funding support for start-ups to scale up and accelerate their progress. In 2018, the Government injected \$200 million for Cyberport to strengthen support to its tenants and start-ups
- **Hong Kong Science and Technology Parks Corporation:** Incubation programmes and Corporate Venture Fund
- **InnoCell** is being built adjacent to Hong Kong Science Park to provide residential units with shared working spaces to foster the development of the I&T ecosystem in Hong Kong. It is expected to be completed by end-2020
- **Technology Talent Admission Scheme** extended to cover all companies conducting R&D activities in the 13 designated technology areas in Hong Kong.
- Regularised the **Technology Voucher Programme** and introduced enhancement measures, including to increase from April 2020 the Government’s funding ratio from two-thirds to three-fourths, and the

funding ceiling from \$400,000 to \$600,000, with a view to incentivising more local companies and institutions to use technology to improve efficiency and services.

### **Smart city**

- **Hong Kong Smart City Blueprint:** sets out a vision to establish Hong Kong as a world-class smart city. Major areas are "Smart Mobility", "Smart Living", "Smart Environment", "Smart People", "Smart Government" and "Smart Economy". The Government will release the **Smart City Blueprint 2.0** to further promote smart city development in 2020
- **Smart City key infrastructure projects:** "iAM Smart" Platform (i.e. electronic identity), smart lampposts, Next Generation GovCloud and Big Data Analytics Platform
- Budget 2020-21 initiative to earmark around \$1 billion for the **Smart Traffic Fund** to provide funding support for research and application on vehicle-related I&T
- The Budget 2020-21 proposes to allocate \$100 million to **develop an integrated digital platform** for data integration and information exchange of all public works projects
- Budget 2020-21 initiative to earmark \$60 million to establish **the first Geospatial Lab to promote the application of spatial data**
- **Wi-Fi Connected City** programme: to further expand common brand Wi-Fi.HK coverage in Hong Kong. There are over 36,000 "Wi-Fi.HK" hotspots in the territory as at the end of February 2020
- **Asia's No.2 and World's No. 8 in IMD World Digital Competitiveness Ranking 2019**, which rates the ability of an economy to adopt new digital technology
- **South East Asia & Oceania's No.3 and World's No.11 in World Intellectual Property Organization's Global Innovation Index 2020**, which rates the innovation performance of 131 economies worldwide.

### **Fintech**

- Over **600 Fintech companies** operating in Hong Kong, with 76% of them focusing on the B2B market; over **US\$1.1 billion** raised in the past five years (2014-2018)
- Major Fintech infrastructure includes the **Faster Payment System** (3.7 million registration as at Oct 2019) and a **blockchain-based "eTradeConnet" trade finance platform**
- **8 virtual banks, 2 virtual insurers and 15 stored value facilities/e-wallets** in operation or granted licenses. An **Open Application Programming Interface (Open API) Framework** for the banking sector being implemented in phases
- **Regulatory sandboxes** available in the Hong Kong Monetary Authority, the Securities and Futures Commission and the Insurance Authority
- **InvestHK's dedicated Fintech team** provides one-stop service for overseas and Mainland Fintech companies to set up in Hong Kong; and a series of Fintech events over the year, including the annual flagship **Hong Kong Fintech Week**.

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