Innovation, Technology and Industry

Promotion of Innovation and Technology: Innovation and technology (I&T) are drivers for economic growth and the key to enhance competitiveness of our industries. In November 2015, the Innovation and Technology Bureau was established to formulate holistic I&T policies, thereby fostering the development of I&T and related industries in Hong Kong, raising the competitiveness of Hong Kong and improving the quality of life of our citizens. The bureau was re-titled as the ***Innovation, Technology and Industry Bureau*** (ITIB) in July 2022 to highlight new industrialisation as a standing policy function and work focus of the bureau, as part of its efforts in driving I&T development.

The ITIB promulgated the Hong Kong Innovation and Technology Development Blueprint (I&T Blueprint) in December 2022 to establish a clear development path and formulate systematic strategic planning for Hong Kong's I&T development over the next five to 10 years, charting Hong Kong in moving full steam towards the vision of an international I&T centre. The Government has formulated the I&T Blueprint from the perspective of top-level planning and design, and will take forward I&T development under four broad development directions, namely "to enhance the I&T ecosystem and promote new industrialisation in Hong Kong"; "to enlarge the I&T talent pool to create strong impetus for growth"; "to promote digital economy development and develop Hong Kong into a smart city"; and "to proactively integrate into the overall development of the country and consolidate our role as a bridge connecting the Mainland and the world", thereby accelerating the formation and development of new quality productive forces with Hong Kong's competitive edge.

New quality productive forces refers to productivity led by technological innovation that breaks away from the traditional mode of economic growth and development pathway. Adding technological content to productivity, it has the characteristics of high-end technology, high efficiency as well as high quality and quantity. Promoting the comprehensive development of upstream, midstream and downstream sectors to form an extensive I&T ecosystem chain is the key to developing new quality productive forces.

The Innovation and Technology Commission (ITC) under the ITIB implements related policies and measures as well as provides software and hardware support for key players to collaborate on research and development (R&D) and innovation activities. The approach in promoting I&T development is underpinned by five core strategies: providing world-class technology infrastructure for enterprises, research institutions and universities; offering financial support to stakeholders in the industry, academia and research sector to develop and commercialise their R&D results; nurturing talents; strengthening science and technology collaboration with the Mainland and other economies; and fostering a vibrant culture of innovation. The ITC also works closely with other government departments, the industrial and business sectors, tertiary institutions and industrial support organisations to promote applied R&D in different technology areas, as well as the upgrading of foundation industries.

The Digital Policy Office (DPO) under the ITIB is responsible for spearheading formulation of policies on digital government, data governance and information technology (IT), and promoting the opening up of data and co-ordination with departments to offer more digital services.

The New Industrialisation Development Office was set up in February 2024 within the ITIB. It is led by the Commissioner for Industry (I&T) and adopts an industry-oriented approach to promote new industrialisation, support strategic enterprises to develop their businesses in Hong Kong, assist the traditional manufacturing sector in upgrading and transformation by making use of I&T, and provide support for the growth of start-ups.

Committee on Innovation, Technology and Industry Development (CITID): The CITID chaired by the Secretary for Innovation, Technology and Industry was established in March

2023 to advise the Government on the strategic development of I&T in Hong Kong.

Innovation and Technology Fund (ITF): The Government set up the ITF in 1999 with an injection of $5 billion to support projects that help industries develop innovative ideas and upgrade their technological level. A number of injections totalling about $46 billion were subsequently made to implement new initiatives under the ITF and sustain the operation of various funding programmes.

There are various programmes under the ITF to support R&D development, facilitate technology adoption, nurture technology talent, support technology start-ups, promote new industrialisation and develop new quality productive forces as well as foster an I&T culture. As at the end of October 2024, 76 564 projects with total ITF funding of $49.1 billion were approved, of which 6 094 are R&D projects. Most of the funded R&D projects were related to IT (31%); electrical and electronics (18%); manufacturing technology (18%); and biotechnology (12%).

The Hong Kong Science and Technology Parks Corporation (HKSTPC): Established in May 2001, the HKSTPC is a statutory body wholly owned by the Government to provide quality infrastructure facilities and support services for I&T developmentin Hong Kong .

The 22-hectare ***Hong Kong Science Park (Science Park)*** located in Pak Shek Kok provides state-of-the-art laboratories and shared facilities which help reduce the capital investment of technology companies in product design and development, enabling rapid entry of new products into the market at lower cost. The HKSTPC is implementing Batch 1 of Stage 2 of the Science Park Expansion Programme, which will provide about 13 000 square metres of gross floor area mainly for wet laboratories. The project is expected to be completed in the first quarter of 2025.

The HKSTPC also manages three ***InnoParks*****,** located at Tai Po, Yuen Long and Tseung Kwan O, which provide 217 hectares of land in total. The specialised multi-storey industrial buildings in the InnoParks include the Data Technology Hub (commenced operation in 2020), Medical Accessory Resilience Supplies Centre (commenced operation in 2021), and Advanced Manufacturing Centre (commenced operation in 2022). In addition, the light weight workshops and co-working spaces in the Microelectronics Centre (MEC) in the Yuen Long InnoPark were completed in end-2024 for tenants to gradually move in. The HKSTPC is preparing for the installation of specialised systems in the pilot production facilities in the MEC and the works are expected to be completed in the third quarter of 2025.

InnoHK Research Clusters (InnoHK): InnoHK is a $10 billion major initiative of the Hong Kong Special Administrative Region (HKSAR) Government to develop Hong Kong as the hub for global research collaboration. Currently, two research clusters have been set up, namely Health@InnoHK, focusing on healthcare technologies, and AIR@InnoHK, focusing on artificial intelligence (AI) and robotics technologies. 30 InnoHK research centres have been established, involving seven local universities and research institutions as well as over 30 institutions from 12 economies, and pooling around 2 500 researchers locally and from all over the world. In addition, the Government has already started preparatory work to establish the third InnoHK research cluster, which will focus on advanced manufacturing, materials, energy and sustainable development.

Hong Kong Cyberport Management Company Limited (Cyberport): Cyberport brings together a cluster of over 2 100 high-quality information and communications technology (ICT) enterprises and talents. Through offering all-round financial and professional support, market promotion and business networks, Cyberport nurtures digital technology start-ups through incubation and accelerator programmes, including nine home-grown unicorns. Cyberport also runs the Digital Transformation Support Programme to subsidise the small and medium enterprises (SMEs) in the food and beverage, retail, tourism and personal services industries on a matching basis in adopting ready-to-use basic digital solution packages including e-payment systems to foster digital transformation of SMEs. The Cyberport Expansion Project is underway to provide more working space and facilities from end-2025 at the earliest.

The first-phase facility of Cyberport's AI supercomputing centre (AISC) commenced operations in December 2024, with a view to supporting the local demand for computing power, enhancing Hong Kong's R&D capabilities in various technological research and application fields and promoting industry development.

To support the AI ecosystem development in Hong Kong, the Government implements a three-year, $3 billion AI Subsidy Scheme to subsidise eligible users of Cyberport's AISC.

The Hong Kong Productivity Council (HKPC): The HKPC provides integrated support services to help Hong Kong's industrial and commercial enterprises achieve a more effective use of resources and increase the value added content of products and services, thereby enhancing productivity and competitiveness. Anchored on its core competence in manufacturing technologies, information technologies, new energy and green technologies and management systems, the HKPC has been helping Hong Kong's industrial and commercial enterprises in technology and process upgrading, promoting new industrialisation for local enterprises to harness new quality productive forces and helping innovative industries move up the value ladder and tap new business opportunities.

R&D centres: In 2006, the ITC set up five R&D centres to drive and co-ordinate applied R&D in five focus areas, namely automotive platforms and application systems; information and communications technologies; logistics and supply chain multi-tech; nanotechnology and advanced materials; and textiles and apparel. Since their establishment, the centres have been working closely with the industries in conducting industry-oriented R&D and promoting commercialisation of R&D results. As at the end of May 2024, 2 084 projects from the R&D Centres were supported under the ITF at a total project cost of about $11.4 billion. Besides, the Hong Kong Microelectronics Research and Development Institute has been established in 2024 to promote microelectronics development in Hong Kong, aiming to become one of the leading organisations for supporting microelectronics development in the Asia-Pacific region. The Institute is actively preparing for the setting up of pilot lines, with a view to serving as a bridge between innovative research and mass production. It will also strengthen collaboration with universities, R&D centres and the industry and expedite the "1 to N" transformation of technological outcomes. This will help pool Mainland and overseas talents in particular fields and strengthen the nurturing of local R&D talents, thereby further enhancing the I&T ecosystem.

Hong Kong currently has 16 State Key Laboratories (SKLs) and six Hong Kong Branches of Chinese National Engineering Research Centres. To better leverage Hong Kong's strengths to serve the needs of our country, the ITC has commenced the re-structuring exercise of the SKLs in Hong Kong, which is expected to be completed in mid-2025.

Talent: Human resources are essential to the promotion of I&T in Hong Kong. The Research Talent Hub under the ITF provides funding support to each eligible company or organisation to engage up to four research talents to conduct R&D work. As at the end of December 2024, the programme has provided funding support for around 14 200 research positions. From September 2024, companies subsidised under the New Industrialisation Acceleration Scheme (NIAS) may further engage an additional 36 research talents on a 1 (Government): 1 (company) matching basis, with the Government covering up to half of the aforementioned maximum monthly allowance. Moreover, the STEM Internship Scheme was launched under the ITF in 2020 to subsidise undergraduates and post-graduates taking STEM-related programmes in local universities to enrol in short-term internships, with a view to fostering their interest in pursuing a career in I&T after graduation. To further expand the pool of I&T talents, the STEM Internship Scheme has been expanded to cover the internship opportunities offered by government-funded R&D centres and the HKPC to STEM students of local and non-local universities (including campuses at the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) established by designated local universities). As at the end of November 2024, the Scheme has subsidised some 15 500 internships. The Government also launched the Global STEM Professorship Scheme in 2021 to attract more world renowned scholars to engage in I&T-related teaching and research activities in Hong Kong.

The Government also launched the New Industrialisation and Technology Training Programme (NITTP) to subsidise local enterprises on a 2:1 matching basis to train their staff in advanced technologies, especially those related to new industrialisation. As at the end of November 2024, the NITTP has approved about 17 930 training grant applications for about 49 560 training sessions with total funding of about $672 million.

The Government rolled out the Technology Talent Admission Scheme (TechTAS) in June 2018 to provide a fast-track arrangement for the admission of Mainland and overseas technology talents to undertake R&D work in Hong Kong. The scheme was further enhanced in December 2022, including

lifting the local employment requirement, extending the quota validity period to two years and expanding the scope to cover more technology areas. The applicant company should be engaged in R&D in the areas of biotechnology, AI, cybersecurity, robotics, data analytics, financial technologies, material science, advanced communication technologies, Internet-of-Things, integrated circuit design, microelectronics, digital entertainment, green technology and quantum technology. As at the end of November 2024, 1 105 quotas were approved.

The "IT Innovation Lab in Secondary Schools" Programme and "Knowing More About IT" Programme were launched in 2020 and 2021 respectively to provide funding support for secondary and primary schools for organising IT-related extra-curricular activities. Up to December 2024, these programmes received applications from over 1 000 schools and approved nearly $700 million of funding.

I&T co-operation with the Mainland: All along, our country has been placing I&T at the core of its overall development and affirmed the important positioning of Hong Kong as an international I&T centre in the "Outline of the 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and the Long-Range Objectives Through the Year 2035" ("the 14th Five-Year Plan") promulgated in 2021. Subsequently, in the Report of the 20th National Congress published in October 2022, it was highlighted that our country should adhere to the strategies of advancing through science and technology and workforce development, expedite the achievement of high-level technological self-reliance, improve the institutional set-up for scientific and technological innovation, boost the efficacy of national efforts in innovation, and that in pursuing economic growth, the country must focus on the real economy and promote new industrialisation. In the I&T Blueprint, "to proactively integrate into the overall development of the country and consolidate our role as a bridge connecting the Mainland and the world" was one the four broad development directions, while "to deepen I&T co-operation with the Mainland for better integration into the overall national development" was one of the eight major strategies.

The "14th Five-Year Plan" has indicated support to Hong Kong in reinforcing and enhancing its competitive advantages and the Central Government has implemented a number of measures benefitting Hong Kong's I&T development. For instance, regarding opening up more national-level science and technology programmes to Hong Kong, certain special projects under the "National Key Research and Development Programme" and the "National Science and Technology Major Project" were opened up to the designated R&D institutions in Hong Kong. The HKSAR Government will continue to facilitate effective flow of innovative elements. On funding, universities and research institutions in Hong Kong can apply for science and technology funding of the Central Government as well as relevant government agencies at provincial and municipal level on the Mainland, and use the funding in Hong Kong, which enables cross-boundary remittance of research funding thereby injecting impetus into the city's research sector. In addition, education institutions, hospitals and branches established by Hong Kong's universities and scientific research institutions in the Mainland, upon meeting specific requirements, would be allowed to lodge applications for exporting human genetic resources to Hong Kong independently under a trial scheme. The HKSAR Government signed with the Ministry of Science and Technology the "Arrangement between the Mainland and Hong Kong on Expediting the Development of Hong Kong into an International Innovation and Technology Centre" in March 2023 to deepen technology and innovation exchanges and co-operation between the two places, and to foster the development of Hong Kong into an international I&T centre.

Guangdong and Hong Kong have all along maintained close partnership in I&T and achieved fruitful results. The ITIB and the Department of Science and Technology of Guangdong Province signed in March 2023 the "Co-operation Agreement on Technology and Innovation Exchange between Guangdong and Hong Kong" to further deepen technology and innovation exchanges and co-operation between the two places, as well as to promote the development of an international I&T centre in the GBA. In addition, as of November 2024, over 410 projects under the "Guangdong-Hong Kong Technology Cooperation Funding Scheme" implemented by the HKSAR Government, the Department of Science and Technology of Guangdong Province and the Science, Technology and Innovation Bureau of Shenzhen Municipality were supported by the Innovation and Technology Fund, involving a funding amount of around $1.09 billion.

The Hetao Shenzhen-Hong Kong Science and Technology Innovation Co-operation Zone is one of the major co-operation platforms in the GBA under the "14th Five-Year Plan". The Co-operation Zone consists of the 87-hectare Hong Kong Park (i.e. the Hong Kong-Shenzhen Innovation and Technology Park,

which will be referred as HSITP below) and 300-hectare Shenzhen Park. Hong Kong and Shenzhen have been discussing the future development of the Co-operation Zone through the Joint Task Force on the Development of the HSITP in the Loop, which was established in 2017.

The Government has promulgated the Development Outline for the Hong Kong Park of the Hetao Shenzhen-Hong Kong Science and Technology Innovation Co-operation Zone in November 2024, setting out the key development directions, strategies and targets of the Hong Kong Park and leading the development of the Hong Kong Park through top-level design. The Hong Kong Park will be developed in two phases from west to east. With a total floor area of up to 1 million square meters, the first phase of the Hong Kong Park will be made up of different functional zones which mainly include Life and Health Technology zone, the Artificial Intelligence and Data Science zone and the New Technology and Advanced Manufacturing zone. With the completion of the first three buildings of the first phase, the Hong Kong Park will officially enter into operational stage within 2025. The HSITP Limited is undertaking detailed planning for the second phase. Meanwhile, apart from taking forward hardware construction, cross-boundary innovation elements including talent, materials and data are key to the Co-operation Zone's vision of "one river, two banks", "one zone, two parks". As such, the HKSAR will continue our active collaboration with Shenzhen, thereby promoting the synergistic development of "one zone, two parks" under "one country, two systems" in the two parks of the Co-operation Zone.

The DPO takes active steps to facilitate exchange and collaboration between the ICT industries of Hong Kong and the Mainland. These include co-organising the Hong Kong Chapter of the national global contest "Maker in China" SME Innovation and Entrepreneurship Global Contest and the Hong Kong/Shanghai Co-operation Open Data Challenge and leading delegations to take part in major ICT exhibitions in the Mainland, providing opportunities for local ICT companies especially SMEs to showcase their innovative products and services and tap into the Mainland market.

The Hong Kong/Guangdong Expert Group on Co-operation in Informatisation was set up to strengthen co-operation in promoting the development and adoption of new generation digital technologies such as 5G, big data, artificial intelligence in both places, deepening the collaboration between the two governments and facilitating the exchanges among the industry, academia and research sectors. The Hong Kong/ Guangdong Expert Group on Co-developing a Smart City Cluster was also set up to jointly promote the development of a Guangdong-Hong Kong smart city cluster. For example, a mutual recognition scheme of electronic signature certificates between Hong Kong and Guangdong is in place to help enhance security and reliability of cross-boundary e-commerce.

The ITIB and the Cyberspace Administration of China signed the Memorandum of Understanding on Facilitating Cross-boundary Data Flow within the Guangdong-Hong Kong-Macao Greater Bay Area in June 2023 to explore management measures that foster cross-boundary data flow within the GBA in a safe and orderly manner. The two parties announced in December 2023 the pilot arrangement of the voluntary and consent-based facilitation measure on "Standard Contract for the Cross-boundary Flow of Personal Information Within the Guangdong-Hong Kong-Macao Greater Bay Area (Mainland, Hong Kong)", which will facilitate and streamline the arrangements for cross-boundary flow of personal information from the Mainland cities in the GBA to Hong Kong. Starting from November 2024, all sectors may adopt the facilitation measure for cross-boundary data flow. The processing and export of personal data from Hong Kong will continue to be governed by the Personal Data (Privacy) Ordinance of Hong Kong.

In November 2023, the ITIB signed the "Co-operation Agreement between Guangdong and the HKSAR on Cross-boundary Public Services" with the Guangdong Provincial Administration of Government Service and Data to deepen collaboration in public services between the two places. Thematic websites and self-service kiosks have beenlaunched by both sides to facilitate residents and enterprises in the HKSAR and Mainland cities of the GBA to access public services of the two places. Hong Kong residents who have registered for the Guangdong Provincial Administrative Service can log in directly to the relevant website and the "Yue Sheng Shi" mobile app through "iAM Smart" to enjoy a wide range of Guangdong's public services in a more convenient and efficient manner.

The ITIB and DPO published the "Policy Statement on Facilitating Data Flow and Safeguarding Data Security in Hong Kong" in December 2023, setting out 18 action items in five areas to promote the consolidation, application, opening up and sharing of data, while enhancing safeguards for data security

and planning of related infrastructural facilities. Subsequently, the DPO launched a thematic web page on data governance in December 2024 covering the Principles of Data Governance and the relevant strategy, guidelines, and technical standards, etc. concerning data governance to introduce the Government's data governance principles in a one-stop manner.

The HKSAR Government and the Ministry of Industry and Information Technology signed the "Co-operation Agreement on the Development of New Quality Productive Forces and the Promotion of New Industrialisation" in September 2024. The subject agreement aims to support Hong Kong in developing new quality productive forces and promoting new industrialisation according to local conditions. Moreover, it strengthens exchanges between the two sides in the fields of industry and IT, promoting co-operation and joint development in industries where both places have clear advantages.

Fostering an I&T Culture: The ITC organises the InnoCarnival which comprises exhibitions, workshops and talks regularly to arouse interest of the general public in I&T. The ITC also supports I&T-related competitions such as the Hong Kong Student Science Project Competition and the Joint School Science Exhibition. Besides, the Government launched the General Support Programme (GSP) in 1999 to support non-R&D projects that contribute to the upgrading and development of our industries, the fostering of an I&T culture in Hong Kong as well as promoting popular science. As of end of December 2024, a total of 477 projects with a funding amount of around $907 million were supported.

The Second City I&T Grand Challenge was launched in March 2024 under the theme "Hong Kong's Got I&T" in "I&T for Nature (Yama)" and "I&T for Community (Community Wellness)". A series of workshops and other activities were held to promote a fervid I&T atmosphere in the community. The Grand Pitch was held in August 2024. 23 winning solutions and some of the prototypes were displayed during the Showcase held in October 2024 and the public could try out the solutions in person. Winners of the Open Group and University/Tertiary Institute Group will be provided with trainings and support to refine their I&T solutions and produce prototype for trials at designated venues such as government departments or public organisations.

InnoEX is an annual signature event hosted in Hong Kong every April to promote Hong Kong as an international I&T centre. The event gathers industry leaders and experts and offers a platform for showcasing Hong Kong's technological achievement and innovative solutions.

The DPO has been collaborating with local ICT industry in organising the Hong Kong ICT Awards since 2006 to recognise outstanding achievements. The DPO has also been leading local ICT delegation to take part in the "Asia Pacific ICT Alliance Awards" (APICTA), providing opportunities for local ICT industry (including start-ups and SMEs), NGOs and students to showcase their innovative ideas and technology solutions in the international arena.

The Smart Government Innovation Lab was set up in April 2019 to promote pro-innovation government procurement policy and expedite bureaux and departments' adoption of innovative IT products and solutions, thereby improving public services and creating more business opportunities for local start-ups and SMEs.

Encouraging Local R&D Activities: To encourage enterprises to invest more in local R&D and promote local R&D activities, the Government provides enterprises with enhanced tax deduction for their expenditure incurred in qualifying R&D activities. The deduction will be 300% for the first $2 million spent on qualifying R&D and 200% for the remaining amount. There is no cap on the amount of enhanced tax deduction. The deduction is applicable to qualifying R&D expenditures incurred on or after April 1, 2018.

Promoting transformation of R&D Outcomes: To unleash the potential of local universities in transforming and commercialising R&D outcomes, and facilitate relevant collaboration among the Government, industry, academia and research sector, the Government launched the $10 billion Research, Academic and Industry Sectors One-plus (RAISe+) Scheme in October 2023 to fund, on a matching basis, at least 100 research teams in the eight universities funded by the University Grants Committee (UGC) which have good potential to become successful start-ups to transform and commercialise their R&D outcomes. Funding support from $10 million to $100 million will be provided to each approved project. The ITC signed Memorandum of Understanding with representatives of 24 university research teams in May 2024 to confirm the first batch of participating projects. The total funding amounts to over $1 billion.

The ITC also provides annual funding up to $16 million to each of the six designated universities through the Technology Start-up Support Scheme for Universities to support their teams in starting technology businesses and commercialising their R&D results, and an annual subsidy of up to $16 million to the Technology Transfer Office of each of the eight UGC-funded universities to enable them to strengthen technology transfer and marketing services.

Promoting development of new industrialisation: In order to support enterprises in developing new quality productive forces, we have introduced enhancement measures in January 2024 to the "New Industrialisation Funding Scheme" to encourage local manufacturers to switch to smart manufacturing. Under the NIFS, each eligible enterprise may receive a maximum funding of $15 million on a matching basis for a smart production line project established in Hong Kong. A total of three projects under each enterprise can be funded at any one time, i.e. an enterprise can receive a maximum funding of $45 million in total.

In addition, we have launched the $10 billion "New Industrialisation Acceleration Scheme" in September 2024. Enterprises engaging in the life and health technology, artificial intelligence and data science, advanced manufacturing and new energy technologies will each be provided with funding support of up to $200 million on a 1 (Government): 2 (enterprise) matching basis to set up new smart production facilities in Hong Kong.

Furthermore, over the past two years and more, the HKSAR Government has liaised with over 130 representative and potential-filled I&T enterprises to set up or expand business in Hong Kong, so as to continually construct and consolidate relevant industry chains and drive new industrialisation.

To further promote the development of new industrialisation and I&T in Hong Kong, we will facilitate the establishment of the Hong Kong New Industrialisation Development Alliance so as to strengthen a closer collaboration among the Government, industry, academica, R&D research and investment sectors. The Alliance will promote the synergy and co-operation between different enterprises and organisations, such as providing more financing opportunities and fostering I&T cooperation between newly listed companies in Hong Kong and local universities, etc.

We will commence in 2025 a study on the medium to long-term development of new industrialisation in Hong Kong, to survey the development status, constraints and difficulties faced by new industrialisation in Hong Kong and relevant professional services, and the impact and opportunities brought about by Hong Kong's development of strategic emerging and future industries, in order to assist the Government in devising a suitable plan to drive new industrialisation. We are vigorously undergoing relevant preparation work with a view to launching the study as soon as practicable.

The HKSAR Government will revamp our approach in I&T industries investment and set up a $10 billion "Innovation and Technology Industry-Oriented Fund" to form a fund-of-funds to channel more market capital to invest in specified emerging and future industries of strategic importance, including life and health technology, AI and robotics, semi-conductors and smart devices, advanced materials and new energy, with a view to building up the I&T ecosystem in a systematic manner. We hope that market forces can be fully harnessed to support the growth of "patient capital" and scale up investment with the focus placed on specified industries of strategic importance, thereby promoting the sustainable development of I&T and new industrialisation-related industries in Hong Kong.

Life and Health Technology Research Institutes: The Government is implementing a $6 billion subsidy programme to provide subsidies to local universities to set up life and health technology research institutes to foster cross-university/institutional and multi-disciplinary co-operation. The institutes would focus on basic research, translational research and transformational of R&D outcomes related to life and health technology. The top-notch scholars and scientists worldwide so attracted to Hong Kong will help build a research ecosystem in Hong Kong by leveraging the complementary strengths across different institutions and disciplines to bring benefits to society.

Smart City Development: More than 130 initiatives, set out in the "Smart City Blueprint for Hong Kong 2.0" published in 2020, have been completed or are ongoing to develop Hong Kong intoa more advanced and livable smart city.

Some other key smart city infrastructure includes:

- ***One-stop personalised digital services platform "iAM Smart":*** the one-stop personalised digital services platform "iAM Smart" was launched in December 2020. As of December 2024, over 3.1 million people are registered users and can access more than 460 government, public and private online services with a single digital identity, conduct online transactions and perform digital signing with legal backing in a simple and secure manner.

- ***Multi-functional Smart Lampposts:*** Over 400 smart lampposts have been put into operation in four urban locations with higher pedestrian flow to collect real-time city data such as air quality and traffic flow, enhance city management, and support the development of digital infrastructure for 5G services. Smart lampposts will also be installed at all new development areas (including the Northern Metropolis).

- ***Government Cloud Infrastructure Services and Big Data Analytics Platform:*** The launch of the Next Generation Government Cloud Infrastructure Services and the Big Data Analytics Platform in September 2020 has facilitated system connectivity and data interchange among B/Ds and assisted B/Ds in implementing more projects using innovative technologies such as AI and big data analytics. As at December 2024, over 500 digital government services and over 20 projects for conducting big data analytics have been supported.

- ***Shared Blockchain Platform (SBP):*** a shared platform rolled out in June 2022 to facilitate the development of blockchain applications by B/Ds more conveniently. Besides, the Government developed the "e-Proof" as a common service on top of the SBP in 2023, using blockchain technology to support B/Ds in issuing licences and certificates by electronic means. 17 types of government licences and certificates were launched in 2024.

- ***Digital Corporate Identity (CorpID) Platform:*** The Government will launch the CorpID Platform progressively starting from end-2026 to facilitate corporations in Hong Kong to undergo corporate identity authentication and corporate signature verification in a secure, convenient and efficient manner when they use e-government services or conduct online business transactions.

Wi-Fi Connected City: The Government has been collaborating with the private sector to promote free public Wi-Fi services at both public and private premises under the common brand "Wi-Fi.HK" since 2014. There are around 42 000 "Wi-Fi.HK" hotspots in town as of December 2024.

Data Centres: The Government champions initiatives and measures to develop Hong Kong as a prime location for high-tier data centres in the region by putting up land for sale and encouraging conversion of industrial buildings to data centres and use of industrial lots for high-tier data centre development. The Data Centre Facilitation Unit of the DPO provides information and one-stop support to assist enterprises interested in setting up data centres in Hong Kong and works with government departments on measures to facilitate their business planning.

Cyber Security: The Government adopts a robust management framework and maintains a comprehensive set of information security policy and guidelines with regular audits, strengthens the training on core digital skills for senior government and cyber security management personnel and also organises annual cyber security attack and defence drills to continuously enhance information system and data security in the Government and public organisations.

A dedicated governmental computer emergency response team (GovCERT.HK) handles information security incidents in the Government in an effective and co-ordinated manner.

In collaboration with key partners such as Hong Kong Computer Emergency Response Team Coordination Centre (HKCERT), Hong Kong Police Force and Hong Kong Internet Registration Corporation Limited (HKIRC), the DPO promotes awareness of cyber security in the community and industry and provides practical advice to guard against cyber attacks through various channels and means, including the Cyber Security Information Portal (www.cybersecurity.hk), seminars, contests and school visits. The DPO further works with the HKIRC to administer the Cybersec Infohub, a public-private-partnership programme that promotes cross-sector

collaboration and sharing of cyber security information on a trusted platform.

E-Government: All licences, services involving application and approval and forms have been fully digitalised. If in-person submission or collection of documents is required by law or international practice, applicants only need to visit the government office concerned once. In addition, electronic payment options are provided for all government fees, with some 80 government services commonly used by Mainland visitors also support payment made through Mainland e-wallets.

The GovHK portal (www.gov.hk), the one-stop portal of government information and e-services, was launched in 2007 to provide single access to an array of personalised e-Government services. The GovHK portal adopts responsive web design and was revamped at the end of 2019 to further enhance user experience.

Since October 2018, all government B/Ds should endeavour to release their data for free public use. The Open Data Portal (DATA.GOV.HK) releases government open data in machine-readable format for public consumption with a view to tapping creativity and wisdom of the community in developing innovative applications with open data. User-friendly tools such as visualisation of multiple datasets on a map and city dashboards are provided to facilitate the public to visualise dynamic city data. Over 5 500 datasets were available on the Portal as of December 2024.

The Development Bureau and the Lands Department launched the Common Spatial Data Infrastructure portal (portal.csdi.gov.hk) and the first 3D Visualisation Map dataset in December 2022 for the public's free use. Approximately 1 000 spatial datasets from various government departments are made available through the portal, covering different aspects such as planning, lands, buildings, works, population, transport, etc. Framework Spatial Data Themes such as "Building", "Land Parcel" and "Address" are also available on the portal to provide location references for other datasets.

To facilitate citizens and promote further data sharing among B/Ds, the DPO developed the Consented Data Exchange Gateway (CDEG), which linked up to the Commercial Data Interchange of the Hong Kong Monetary Authority in end-2023 and became available for B/Ds' adoption in mid-2024. The CDEG promotes data sharing within the Government and also provides option for citizens to authorise government departments to share their personal information across government systems to facilitate their use of digital government services by reducing the need to submit information repeatedly during application.

The DPO facilitates the implementation of mobile e-Government services by providing support to government departments and developing mobile applications for departments' common use to render public services.

IT Strategy: The DPO formulates government-wide IT strategy and advises government B/Ds in their formulation of departmental IT strategy to meet specific policy objectives. The DPO also supports government B/Ds in their planning and implementation of IT-enabled change initiatives in a more agile, cost effective and co-ordinated manner by adopting cloud computing and other emerging technologies, including:

- ***Electronic Information Management:*** In line with the government-wide electronic information management strategy that embraces content management, records management and knowledge management, the DPO, in collaboration with the Government Records Service, is deploying a central Electronic Recordkeeping System (ERKS) to support full implementation of ERKS in the Government, thus enhance efficiency in preserving and managing government records.

- ***Electronic Procurement:*** The DPO is rolling out its cloud-enabled electronic procurement service to government B/Ds to enhance efficiency from the automated and integrated procurement processes. Suppliers also reap the benefits of shorter transaction turnaround time and greater business opportunities.

Digital Inclusion: In order to allow members of our society to enjoy the benefits of digital technology, the DPO promotes various digital inclusion measures including outreach programme, mobile outreach service stations, regular and fixed-point training on digital technologies and technical support, enriched ICT training and a web based learning portal, under the "Smart Silver" programme to help those in need (especially the elderly) to understand and use digital technology products and services. These measures enable them to use digital technologies effectively and safely, and

thereby fully integrate into the digital society. Besides, the DPO has also launched the Digital Accessibility Campaign for promoting the adoption of accessibility design by government departments, private and public organisations on their websites and mobile applications for facilitating persons with disabilities to access online information and services.