For discussion

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LEGISLATIVE COUNCIL PANEL ON INFORMATION TECHNOLOGY AND BROADCASTING

Updates on Digital Government and Smart City Development

PURPOSE

This paper briefs Members on the latest progress on promoting digital government and smart city development.

BACKGROUND

- 2. The Government promulgated the Hong Kong Innovation and Technology Development Blueprint (I&T Blueprint) in December 2022, establishing overall directions and major strategies for Hong Kong's future innovation and technology (I&T) development. Following the proposal in the 2023 Policy Address to establish the Digital Policy Office (DPO), we completed the relevant procedures to set up the DPO in July 2024. This top-level design is expected to accelerate the development of digital government in a systematic manner and facilitate further development of the smart city vision.
- 3. The ensuing paragraphs set out the major work of the Government in the past year on digital government and smart city development.

ACCELERATING DIGITAL GOVERNMENT AND SMART CITY DEVELOPMENT

4. Established in July 2024, the DPO is responsible for formulating policies and measures relating to digital government, data governance and information technology (IT), overseeing the implementation of digital policies of the Government as a whole, and driving bureaux/departments (B/Ds) to expedite

digital transformation of public services. At the same time, the DPO accelerates the development of Hong Kong's digital government and smart city initiative by strengthening the support of digital infrastructure, promoting the flow and exchange of data, and driving innovation and smart applications within the Government.

5. Since its establishment, the DPO has been working from the three perspectives of digital government, data governance and digital infrastructure to promote data-driven, people-centric and outcome-based digital policies and measures, thereby driving digital government development and promoting the application of advanced IT by B/Ds in innovating public services and further facilitating the smart city development. The major work progress is set out below.

I. Digital Government Development

Full Digitalisation of Licences and Government Services

6. With the concerted efforts of the DPO and B/Ds, we have achieved the target of full digitalisation of government services by mid-2024. About 1 480 licences and government services involving application and approval, as well as some 600 payment items now offer electronic options.

iAM Smart Platform

- 7. The "iAM Smart" platform is a crucial interactive interface between the digital government and the citizens. As of April 2025, "iAM Smart" has over 3.4 million registered users and connects to more than 1 100 services provided by the Government and public and private organisations, as well as electronic forms from various B/Ds, with average daily usage over 100 000. The annual usage of "iAM Smart" in 2024 was around 44 million, surpassing the target set out in 2022 (i.e. to gradually increase the annual usage of "iAM Smart" from 10 million in 2023 to 17.5 million in 2025). The DPO is comprehensively upgrading the "iAM Smart" platform, optimising user experience, and developing more services to benefit the public and businesses, and with the aim of integrating all government online services into "iAM Smart" within 2025 to realise "single portal for online government services".
- 8. Over the past year, the DPO upgraded "iAM Smart" with a number of new features, including significantly simplifying the "iAM Smart+" registration process by utilising the Near Field Communication (NFC) function of mobile phones, introducing the "iAM Smart" personal code function,

launching a new user interface for easier navigation, introducing a "lite" mode for the elderly and those in need, and introducing the "Digital Document" feature. Various departments will gradually roll out personalised content for displaying on the "Personal Assistant" page of "iAM Smart" collectively. This allows citizens to browse their relevant personal and account information stored across various government departments within the "Personal Assistant" page in a convenient and swift manner.

9. More new features of "iAM Smart" will also be rolled out progressively this year, including the "Step-up Authentication", bill payment function and the "Mini-program Platform" which will enable citizens to directly access online services provided by different departments with the mini-programs in "iAM Smart", without the need to download the mobile applications provided by individual government departments. With the rollout of these new features, we will actively promote the adoption of "iAM Smart" by various departments to optimise and integrate different services, making "iAM Smart" the best platform for citizens to access and enquire about government services through a single portal with "one-tap access".

1823

10. 1823 serves as a key service window for citizens, providing round-the-clock, one-stop service to handle public enquiries and complaints about government services. 1823 currently handles about 3.5 million phone calls and emails each year. To improve service efficiency, 1823 actively adopts artificial intelligence (AI) and other I&T, enabling staff to concentrate on the more complicated cases such as complaints. The upgrade projects completed in 2024 include: (i) extending the service scope of AI-chatbot to cover all common enquiries within the scope of 1823 services; (ii) launching an interactive voice response system equipped with AI speech recognition technology to support voice navigation and automated responses; (iii) adopting AI speech-to-text technology to improve the efficiency in processing voicemails; (iv) applying AI to assist in drafting written replies to optimise the process of handling enquiries on specific topics.

Application of Smart City Solutions

11. Over the past three years, the DPO matched over 70 solutions with more than 20 government departments through the "Smart Government Innovation Lab" (the Smart Lab), covering domains such as AI and Internet of Things. The Smart Lab completed more than 40 proof-of-concept (PoC) projects, leading to practical application including the AI-chatbot deployed by the Working Family

and Student Financial Assistance Agency and the video analytics technology implemented by the Social Welfare Department. In addition, the Government is implementing over a hundred of digital government and smart city initiatives, of which nearly 50 initiatives have been rolled out, including the application of AI and chatbot technologies to enhance government hotline services; the use of blockchain technology to facilitate the electronic issuance and verification of certificates or licences; the adoption of video analytics to strengthen security surveillance; and the application of technologies such as data analytics, geospatial analysis and visualisation dashboard to improve service management, etc.

Digital Corporate Identity (CorpID) Platform

12. Since the funding approval by the Legislative Council in June 2024, the DPO has been pressing ahead to develop the CorpID Platform at full speed and strives to roll out the Platform progressively from end-2026. We will also launch a Sandbox Programme this year for corporations and government departments interested in supporting CorpID to conduct PoC testing and develop their applications. To promote digital government, all corporate-related e-government services are required to support the use of CorpID within 18 months after the CorpID Platform is launched. We anticipate that the "Government-to-Business" and "Business-to-Business" e-services to be provided at the initial stage will cover areas such as finance and taxation, etc.

Cross-boundary Public Services (CBPS)

13. In November 2023, the SAR Government and the Government Services and Data Management Bureau of Guangdong Province launched the CBPS service area/thematic website to enable residents and enterprises in Hong Kong and Mainland cities of the Greater Bay Area (GBA) to conveniently access public services of the two places online anytime without the need for crossboundary travel in person. As at April 2025, the Hong Kong CBPS thematic website provides a total of 77 online services and related information of crossboundary public services from 12 B/Ds and related organisations. set up Hong Kong CBPS self-service kiosks and "iAM Smart" self-registration kiosks in 7 cities in Guangdong Province progressively since February 2024, facilitating residents and enterprises in the GBA to use CBPS and register for "iAM Smart", so as to access various government online services through the "iAM Smart" mobile app in a one-stop manner. This includes directly logging in to the Guangdong Government Service Network and the "Yue Sheng Shi" mobile app through "iAM Smart" for using various government services of the Guangdong Province.

II. Improving Data Governance

14. Data is a key element of digital government and smart city development. The DPO has been adopting a multi-pronged strategy, including policies, laws and guidelines, as well as supporting facilities, etc., to enhance data governance, while strengthening data security and facilitating the integration, application, opening up and sharing of data, so as to cope with changing environments and needs more effectively, thereby unlocking the full potential value of data.

Facilitating Opening Up and Interchange of Data

- 15. Currently, over 110 B/Ds as well as public and private organisations have opened up more than 5 500 datasets in machine-readable formats through the Open Data Portal for free use by the public for both commercial and non-commercial purposes. The Common Spatial Data Infrastructure Portal of the Development Bureau also provides more than 1 000 spatial datasets from over 60 government departments and organisations, covering different areas including planning, lands, buildings, works, population, transport, etc. Open data have been well received by the industry with over 60 billion downloads in 2024.
- 16. To provide citizens with greater convenience and promote data sharing among B/Ds, the DPO implemented the Consented Data Exchange Gateway (CDEG) with the function to link with the Commercial Data Interchange of the Hong Kong Monetary Authority at the end of 2023. This enables financial institutions, upon obtaining authorisations from their clients, to access or verify their clients' data that are stored in the systems of B/Ds, thus providing more convenient banking services to their clients. We fully opened the CDEG in June With consent, the CDEG enables citizens to use their 2024 for B/Ds to use. personal data stored in the participating B/Ds to apply for other government services, eliminating the need for information re-entry. This improves the user experience and streamlines the data verification procedures of B/Ds when processing applications. As of April 2025, the CDEG has processed over 20 million data exchanges, assisting financial institutions in accessing company registration information and supporting the automatic form-filling of address through the "e-ME" function of "iAM Smart".

Launching Data Governance Thematic Web Page

17. According to the Policy Statement on Facilitating Data Flow and Safeguarding Data Security in Hong Kong published by the Innovation, Technology and Industry Bureau (ITIB) in December 2023, the DPO launched a

thematic web page on data governance at the end of last year, alongside with the publication of the Principles of Data Governance to elaborate on the guiding principles and work objectives set by the Government for data governance, with a view to enhancing the quality and reliability of data, facilitating data flow and sharing, and enhancing data protection, thereby supporting various government departments and sectors of society in leveraging data more effectively for data-driven development.

Preparing Departmental Data Catalogues

18. Moreover, to enhance data governance and promote the opening up and sharing of data, we will compile departmental data catalogues this year to facilitate government departments' understanding of shareable data from other departments. This will promote data standard alignment and interchange, thus encouraging the collection, analysis, sharing, and application of data across departments. This will also accelerate the development of digital government and enhance digital government services through data sharing within the Government.

Facilitating Cross-boundary Data Flow

19. 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, and jointly announced the facilitation measure on the "Standard Contract for the Cross-boundary Flow of Personal Information within the Guangdong-Hong Kong-Macao Greater Bay Area (Mainland, Hong Kong)" (the GBA Standard Contract) in December 2023 to facilitate and streamlining the compliance arrangement for cross-boundary flow of personal information from the nine Mainland cities within the GBA to Hong Kong. Since November 2024, the facilitation measure has been opened to all industries, allowing all Hong Kong industries to voluntarily adopt the GBA Standard Contract for cross-boundary flow of personal information, which promotes more cross-boundary services for the convenience and benefit of the public and the business sector, and facilitates data circulation within the GBA.

III. Promoting the Development of AI Ecosystem

20. AI is the key driving force for enabling digital government and smart city development. In the past year, we implemented various measures to assist in developing the local AI ecosystem and promoting wider application of AI:

- (a) Artificial Intelligence Supercomputing Centre: Cyberport established the Artificial Intelligence Supercomputing Centre (AISC) in December 2024 to support the strong local demand for computing power. The first-phase facility provides computing power of approximately 1 300 petaflops (PFLOPS) and will be ramped up to 3 000 PFLOPS within this year.
- (b) Artificial Intelligence Subsidy Scheme: With a view to encouraging the industry to make good use of the AISC's computing resources, the Government launched the Artificial Intelligence Subsidy Scheme (AISS) in October 2024, mainly to subsidise local institutions, research and development (R&D) institutes, enterprises, etc. to leverage the computing power of the AISC to foster the development of the AI ecosystem. As at end-April 2025, the AISS Committee established by the Government has approved 10 projects to accelerate local R&D work relating to large language models, new materials, synthetic biology and medical models, etc.
- (c) <u>Promoting Local Applications</u>: The DPO is actively promoting local applications of AI technologies, to innovate public services and enhance Government efficiency. Other than the aforementioned application of AI by 1823 to provide more convenient enquiry services to citizens, the DPO launched central platforms such as Big Data Analytics Platform, "Chatbot-as-a-Service" and "AI Computer Vision Hub" to support B/Ds to develop more AI applications covering graphics and documents analytics, traffic monitoring, water level monitoring, security surveillance and cargo handling zone management, etc.
- (d) Hong Kong Generative AI Research and Development Center (HKGAI): The HKGAI was established in 2023 with funding from the AIR@InnoHK Research Cluster, which focuses on AI and robotics technologies. The HKGAI focuses on R&D of local self-developed generative AI foundation model and applications, including the document processing application "HKPilot", which is now on pilot use in all B/Ds. In February 2025, the HKGAI launched Hong Kong's first large language model "HKGAI V1", which has been integrated into HKPilot to enhance its performance, with plans to make it publicly available within this year. The HKGAI also assists the Government in developing more applications to improve public service efficiency, in alignment with measures to optimise human resources and promote technology applications.

(e) Enhancing AI Governance: The Government has updated the Ethical AI Framework in August 2023 to provide clear guidelines to B/Ds on developing applications with AI-related technologies. Besides, the DPO has commissioned the HKGAI to study and propose appropriate codes and guidelines on the generative AI technology. With the completion of the relevant study, the DPO has promulgated the Hong Kong Generative Artificial Intelligence Technical and Application Guideline in April 2025 with a view to balancing the innovative development, application and responsibility of AI, thereby constructing a governance framework with local characteristics that suits the Hong Kong context in the AI ecosystem.

IV. Safeguarding Government Data and Security

21. Safeguarding government data and system security is the cornerstone of digital government. B/Ds should not only strictly follow the Personal Data (Privacy) Ordinance and related information security regulations, but also comply with the requirements of Government IT Security Policy and Guidelines on government data protection, audit, risk assessment and incident handling and response, as well as staff education and training, etc., in order to comprehensively protect government systems and data security. With the advancement of digital government initiatives, the Government has continued to strengthen cybersecurity measures to address increasingly complex risks. August 2024, the Government has implemented a number of enhancement measures, requiring all B/Ds and their affiliated public organisations to strengthen the governance and security of their information technology systems. These measures include reinforcing supervisory responsibilities, conducting regular security checks and penetration tests, and strengthening staff training. Additionally, the DPO has coordinated and hosted an annual real-world cybersecurity attack and defence drill since 2024, inviting various B/Ds and public organisations to participate. The aim is to improve the technical skills, experience, and overall defensive capabilities of the B/Ds and organisations in identifying and responding to cyber attacks through simulated cyber attack exercises.

PUBLICITY AND PROMOTION

22. To strengthen the promotion of Hong Kong's smart city development to the public, we set up the Smart Hong Kong Pavilion at the annual premier I&T

event, the Hong Kong International Innovation and Technology Exhibition ("InnoEX"), held in April in Hong Kong annually. The pavilion showcases over 100 I&T solutions, including the initiatives developed by departments which are closely related to the daily lives of citizens, thus promoting the application of I&T by the government.

23. We are also mindful of the needs of different communities to avoid the digital divide becoming a barrier. To this end, the Government actively promotes digital inclusion through multi-pronged measures, with a focus on assisting groups such as the elders to integrate into the digital development process. For example, through the "Smart Silver" Digital Inclusion Programme, we have set up community-based help desks at suitable locations in different districts to provide regular and fixed-point digital training and technical support for the elders aged 60 or above, including guidance on using the "iAM Smart" app to access various commonly used online government services. We will also collaborate with different departments, the District Services and Care Teams, and the "Community Living Room" to organise training workshops to assist citizens and the elderly in registering for and using "iAM Smart".

LOOKING FORWARD

- 24. Building on the foundation laid by the aforementioned efforts, the DPO will continue to advance smart governance, strengthen data governance, and provide a secure and reliable digital infrastructure environment to accelerate digital government and smart city development. Among these initiatives, further promoting the application of AI and other information technologies will be our top priority.
- 25. To further promote the AI adoption by B/Ds, the Smart Lab will launch the "AI + Governance" promotional initiative. This aims to drive the broader use of AI in government operations and intensify the promotion of HKGAI's generative AI document processing co-pilot application across various B/Ds, exploring more application scenarios. The Smart Lab is also developing an "AI Solution Catalogue" to enable government departments to quickly identify and select suitable AI solutions and technology providers. Additionally, the Smart Lab will organise thematic technology forums, seminars, matching workshops, etc., to foster exchanges and collaboration between B/Ds and technology providers, and share practical experience, thus deepening the understanding of different AI technologies and applications. This initiative aligns with the overall digital government and smart city development strategy, aiming to elevate the intelligence level and operational efficiency of public services.

26. Moreover, the 2025-26 Budget announced that \$1 billion has been set aside for the establishment of the Hong Kong Artificial Intelligence Research and Development Institute (AIRDI), which will spearhead and support Hong Kong's innovative R&D and industry applications of AI, facilitate upstream R&D, midstream and downstream transformation of R&D outcomes and expand application scenarios. The DPO is formulating a detailed plan for the establishment of the AIRDI and our goal is to establish the AIRDI in 2026-27.

ADVICE SOUGHT

27. Members are invited to note the content of this paper and provide views on digital government and smart city development.

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