LCQ15: Development of digital economy

Following is a question by the Hon Benson Luk and a written reply by the Secretary for Innovation and Technology, Mr Alfred Sit, in the Legislative Council today (May 11):

Question:

On developing the digital economy, will the Government inform this Council:

(1) as it has been reported that the trading of non-fungible token (commonly referred to as NFT), a type of virtual assets, has been popular in recent years and has become one of the new trends in the development of the digital economy, and that through NFT online trading platforms, works of art and culture such as digital paintings, images, audio-visual products and animations can be traded, whether the Government has plans to make use of NFT to promote the development of the digital economy as well as the development of the digital arts and cultural industry in Hong Kong; if so, of the details; if not, the reasons for that;

(2) in view of the target that the digital economy should move towards a full expansion stage by 2025 as put forward in the circular, issued by the State Council in January this year, on the Development Plan for Digital Economy during the 14th Five-Year Plan Period, and on the premise of taking into account two national security fields of "economic security" and "science and technology security", whether the Government will formulate a blueprint for developing Hong Kong's digital economy, so that Hong Kong's digital economy can develop steadily and healthily and that Hong Kong can achieve the targets of developing into an international innovation and technology hub as well as an East-meets-West centre for cultural and art exchange as set out in the National 14th Five-Year Plan; if so, of the details; if not, the reasons for that; and

(3) whether it will consider including topics relating to the digital economy in existing teacher training courses and STEM courses (i.e. courses relating to science, technology, engineering and mathematics) in schools, so as to enhance young people's understanding of the development of the digital economy and nurture relevant talents?

Reply:

President,

Digital economy is a global trend. In light of the COVID-19 epidemic over the past two years and our experience in the distribution of consumption vouchers last year, electronic payment and electronic consumption are becoming more popular. In order to expedite the development process of digital economy in Hong Kong and promote digital transformation across different industries, the Government announced in this year's Budget that a

Digital Economy Development Committee led by the Financial Secretary will be set up. Members of this Committee will comprise industry practitioners, experts, scholars, and representatives from relevant bureaux/ departments (B/Ds). We are now taking forward the relevant preparatory work in full speed.

In consultation with the Home Affairs Bureau, the Financial Services and the Treasury Bureau, the Commerce and Economic Development Bureau and the Education Bureau, my reply to the Hon Luk's question is as follows:

(1) Digital economy brings different new development trends. In recent years, digital encrypted art has gained worldwide popularity. A number of Hong Kong artists and arts creators have attempted and explored the use of non-fungible token (NFT), a non-homogeneous token, in aspects including arts creation and trading, etc. With a free economy and a talent pool in fintech, law and intellectual property, Hong Kong possesses favourable conditions for arts and culture creation in the form of NFT and lawful trading on NFT platforms which are conducive to the development of digital arts and culture. The Home Affairs Bureau will continue to pay attention to the operation of NFT online trading platforms. The Bureau is also pleased to see the success of relevant industries, including artists and art groups in their development in this area.

(2) The 14th Five-Year Plan supports Hong Kong to develop into an international innovation and technology hub and put forth nurturing and building up of emerging digital industries, including artificial intelligence (AI), big data, blockchain, cloud computing and cyber security, etc. in the era of digital economy. In the past few years, the current-term Government actively promotes the development of smart city and digital economy by implementing a series of initiatives through a data-driven approach.

To this end, following the publishing of the first Smart City Blueprint for Hong Kong in 2017, the Government published the Smart City Blueprint for Hong Kong 2.0 in December 2020, setting out over 130 smart city initiatives under six smart areas, including "Smart Government" and "Smart Economy".

For "Smart Government", the Government announced the new open data policy in September 2018 and released the open data of the Government and public and private organisations for free use through the "data.gov.hk" portal since 2019. We have also completed the construction of different digital infrastructures including the Next Generation Government Cloud Platform, Big Data Analytics Platform and "iAM Smart" one-stop personalised digital services platform launched in 2020. We are currently developing a Shared Blockchain Platform, which is expected to commence operation in the middle of this year, to promote the use of advanced technology by different government departments all-round.

To actively promote digital transformation of government departments, we have implemented different schemes including the TechConnect (block vote), the Public Sector Trial Scheme under the Innovation and Technology Fund and the Smart Government Innovation Lab.

Besides, data centre is an important infrastructure for digital economy development. The Government has been proactively driving forward the development of data centres in Hong Kong which include providing land for the development of high-tier data centres, encouraging conversion of industrial buildings and use of industrial lots to develop into high-tier data centres, so as to promote Hong Kong as the prime location for data centres in the Asia Pacific region.

In addition, 5G technology opens up vast potential for various innovative commercial services and smart city applications in digital economy. We have promoted 5G development on various fronts, which include supplying spectrum, opening up suitable government premises for base station installations, subsidising the extension of fibre-based broadband to remote villages, and subsidising the use of 5G technology.

For "Smart Economy", the Government is actively strengthening the current economic pillar of Hong Kong by leveraging innovation and technology (I&T). The Hong Kong Monetary Authority (HKMA) is actively developing the Commercial Data Interchange (CDI). It seeks to allow financial institutions, with the consent of enterprises (especially small and medium enterprises (SMEs)), to obtain more commercial data for conducting credit analysis in a more precise manner, thereby enabling SMEs to utilise their own data to receive more convenient and effective financing services. CDI is expected to be formally launched by end 2022. The HKMA and the Insurance Authority are also actively promoting the implementation of the Open Application Programming Interface for the banking and insurance sectors, with a view to allowing third-party service providers to gain programmatic access to the internal IT systems and data of banks and insurance companies, including information of various products and services, and aggregate the information under the same website or application, thereby enabling more innovative financial products and customer experience.

We have also introduced the Technology Voucher Programme (TVP) which supports local enterprises and organisations to use technology services and solutions so as to improve productivity or to upgrade and transform the business processes.

B/Ds would continue to pursue and implement the initiatives related to digital economy, and will timely review and update the development goals in view of the latest development in smart city and I&T.

In fact, the Government also attaches great importance to cyber security when developing digital economy. Various government information technology (IT) infrastructure projects (including the Next Generation Government Cloud Platform, Big Data Analytics Platform, "iAM Smart" one-stop personalised digital services platform and Shared Blockchain Platform) are implemented in accordance with the Government IT Security Policy and Guidelines. Independent professionals are engaged to conduct regular information security risk assessments and audits to ensure the security of information and systems of these IT infrastructures.

To effectively enhance the cyber security of the community as a whole,

the Government has all along been actively collaborating with different stakeholders to enhance the awareness and protection capability of the business sectors, in particular SMEs, as well as the general public through various measures. They include subsidising local enterprises to enhance their systems and cyber security measures through the TVP; providing cyber security information, free website scanning service, online self-assessment tools and suspicious email detection system for SMEs; joining hands with industry organisations to organise promotional and educational activities; and promoting exchange of cyber security information among public and private organisations through the cross-sector Partnership Programme for Cyber Security Information Sharing.

Meanwhile, the Government is undertaking preparatory work to clearly define the statutory cyber security obligations of critical infrastructure operators through legislation in order to strengthen the cyber security of the critical infrastructures, which could make Hong Kong a safer and more secure smart city and facilitate the robust development of digital economy.

(3) The Education Bureau (EDB) has been committed to promoting STEM (Science, Technology, Engineering and Mathematics) education in primary and secondary schools through implementation of various support strategies, including updating curriculum, enhancing teacher training, providing learning and teaching resources, etc. The EDB actively encourages schools to adopt a cross-disciplinary approach in arranging diversified "hands-on and minds-on" activities suitable for the primary and secondary levels both inside and outside the classroom to enhance students' ability in integrating and applying STEM-related knowledge and skills, as well as lay a foundation for their further learning of emerging topics in the future. To keep the school curriculum abreast of the times and the latest social and technological development, the EDB will keep in view the learning elements relating to I&T and their applications. The EDB will also review the curriculum according to the learning needs and abilities of students at secondary and basic education levels, so as to cultivate students' interests in learning I&T, creativity and problem-solving skills.

Besides, apart from school curriculum, in order to nurture local students' creative thinking and interest in I&T at an early age, the Government has launched the IT Innovation Lab in Secondary Schools and Knowing More About IT Programmes to provide funding support for publicly-funded secondary and primary schools respectively to organise IT-related extra-curricular activities with topics covering AI, coding and big data, etc. The programmes enable students to acquire I&T knowledge as early as possible, thereby building a solid foundation for their future integration into digital economy and smart city development. As at end-April 2022, over 490 applications from the two programmes were approved, involving a funding of over $160 million.