

LCQ14: Research and development centres and parks for innovation and technology

Following is a question by the Hon Holden Chow and a written reply by the Secretary for Innovation and Technology, Mr Alfred Sit, in the Legislative Council today (May 5):

Question:

At present, there are five research and development (R&D) centres (namely Automotive Platforms and Application Systems R&D Centre, Hong Kong Applied Science and Technology Research Institute, Hong Kong Research Institute of Textiles and Apparel, Logistics and Supply Chain MultiTech R&D Centre, as well as Nano and Advanced Materials Institute) under the purview of Innovation and Technology Commission. In the financial years from 2015-16 to 2018-19, the total operating cost and total R&D expenditure of such centres exceeded \$1.15 billion and \$2.3 billion respectively, but their total income from commercialisation of R&D results (commercialisation) during the same period was only around \$190 million. On the other hand, the Governments of Hong Kong and Shenzhen are jointly developing a Shenzhen/Hong Kong Innovation and Technology Co-operation Zone, and the Batch 1 development of its park in Hong Kong – the Hong Kong-Shenzhen Innovation and Technology Park (HSITP) located at the Lok Ma Chau Loop will soon commence. In the light of the results of a related consultancy study, the HSITP will accord priority to the development of the following six major R&D areas: healthcare technologies, big data and artificial intelligence, robotics, new material, microelectronics, and financial technology (the six major areas). In this connection, will the Government inform this Council:

(1) of the total commercialisation income of the five R&D centres in the past two financial years; whether the Government last year reviewed and improved the operation of those R&D centres as well as formulated new measures to enhance their effectiveness in commercialisation;

(2) of the Government's considerations in and justifications for determining the six major areas for the HSITP; given that the first batch buildings in the HSITP will only be completed in phases from 2024 to 2027, whether the Government will, before then, continue to conduct reviews and studies on the six major areas so as to ensure that such positioning suits the latest situation;

(3) whether it has reviewed the commercialisation experience of the five R&D centres and made reference to the relevant practices in other countries/regions in order to formulate more effective commercialisation strategies and quantitative key performance indicators for the HSITP;

(4) whether it has formulated plans and set quantitative objectives for the work on attracting large-scale Mainland and international enterprises/organisations to apply for admission to the HSITP; whether it will regularly make public the names of the enterprises/ organisations which have newly been admitted to the HSITP and the numbers of new jobs to be created by them; and

(5) how the six major areas for the HSITP are expected to promote the development of Hong Kong's financial services industry, and what synergy effects will be created?

Reply:

President,

A consolidated reply to different parts of the question is provided as follows:

(1) The Government has set up five research and development (R&D) centres to drive and coordinate applied R&D in selected focus areas. The five R&D centres are:

- (a) Automotive Platforms and Application Systems R&D Centre (APAS);
- (b) Hong Kong Applied Science and Technology Research Institute (ASTRI);
- (c) Hong Kong Research Institute of Textiles and Apparel (HKRITA);
- (d) Logistics and Supply Chain MultiTech R&D Centre (LSCM); and
- (e) Nano and Advanced Materials Institute (NAMI).

The R&D centres play an important role in creating a vibrant innovation and technology (I&T) ecosystem. They act as a focal point for technology collaboration among the Government, industry, academia and research sectors.

As the R&D centres are platforms for coordinating applied research and facilitating technology transfer to the industry, from 2017-18 onwards, the Government implemented a new indicator on the level of industry income of the R&D centres, in order to gauge the level of support of the industry in their work. The indicator mainly covers the sponsorship and commercialisation income on R&D projects contributed by the industry and a target of 30 per cent has been adopted.

The level of industry income of the R&D centres in 2018-19 and 2019-20 meets the target and is tabled as follows:

Level of Industry Income

	2018-19	2019-20
APAS	49%	44%
ASTRI	36%	33%
HKRITA	34%	79%

LSCM	46%	94%
NAMI	55%	47%

Commercialisation income includes contract service income, licensing fees and royalties. In addition to conducting applied R&D in key areas, the R&D centres also work closely with the industry to carry out applied R&D projects that suit the needs of the industry, and to transfer technologies to the industry and strive to commercialise R&D outcomes. In 2018-19 and 2019-20, the commercialisation income of the five R&D centres are listed as follows:

	Commercialisation Income (\$ million)	
	2018-19	2019-20
ASTRI	21.16	25.88
NAMI	17.11	12.25
LSCM	10.09	15.95
HKRITA	10.98	29.30
APAS	1.87	2.58
Total:	61.21	85.96

The commercialisation income of the five R&D centres in 2019-20 has increased by about 40 per cent compared to that in 2018-19. Due to the social incidents and the outbreak of the novel coronavirus disease in 2019-20, it was not easy for commercialisation income to increase.

In addition, the R&D centres also conducts R&D projects relating to government departments. The related R&D outcomes can help participating departments improve their service quality and operational efficiency. By participating in the Public Sector Trial Scheme, the R&D centres will put R&D outcomes to trials in government departments and public sector organisations, thereby obtain suggestions from users on improving products and services and improve their scientific research outcomes so as to increase the opportunities for realisation and commercialisation of their R&D outcomes.

On the whole, the R&D centres have received more income other than industry sponsorship in recent years, including contract service income, licensing fees and royalties. Each of the centres has also established their reputation and has become a reliable R&D partner internationally, with the Mainland and locally in the technology fields they belong to. Facing the opportunities brought by the development of the Guangdong-Hong Kong-Macao Greater Bay Area (Greater Bay Area), the R&D centres will actively promote their R&D outcomes, seek cooperation and development opportunities in the Greater Bay Area, and facilitate the commercialisation of their outcomes.

(2) to (4) The Government is taking forward in full swing the development of the Hong Kong-Shenzhen Innovation and Technology Park (HSITP) located in the Lok Ma Chau Loop. Upon its full development, the HSITP will provide a gross

floor area of 1.2 million square metres and become Hong Kong's largest-ever I&T platform. The vision of the HSITP is to become the world's knowledge hub and I&T centre, converging technology enterprises, R&D institutions and higher education institutions from local, the Mainland and overseas, which can connect upstream and midstream research to downstream market, further enhancing the collaboration among the industry, academic and research sectors. High value-added processes including R&D, prototyping, product design and testing can be conducted at the HSITP.

To plan for the development of the HSITP, the Hong Kong-Shenzhen Innovation and Technology Park Limited (HSITPL) conducted the Master Planning Study and the Business Model and Business Planning Study. Taking into account of the relevant findings of the consultancy studies, the HSITP will focus on the development of six R&D areas, including healthcare technologies, big data and artificial intelligence (AI), robotics, new material, microelectronics, and financial technology (fintech). In researching for the focus R&D areas, the consultant has taken into account factors such as the global trend of key emerging technologies, Hong Kong's advantages, regional demand and innovation cost, etc.

Currently, the HSITPL is pressing ahead with the construction works of Batch 1 development, in which the primary goal is to complete the first eight buildings in phases from 2024 to 2027. Regarding the key performance indicators (KPIs) for HSITP in the next phase, the HSITPL will discuss with the Government according to its stage of development, taking into account the dynamics of the I&T market and making reference to the KPIs of the Hong Kong Science and Technology Parks Corporation and the Hong Kong Cyberport Management Company Limited, where appropriate. However, as the HSITPL is not a R&D centre, their positioning, functions, and organisation are not identical. Therefore, the strategy and experience of the R&D centres in commercialisation may not be applicable.

(5) In consultation with the Financial Services and the Treasury Bureau, the reply to part (5) of the question is as follows:

The Government is committed to making good use of Hong Kong's position as an international financial centre in providing convenient cross-boundary financial support measures and financial support measures that meet international standards to enterprises (especially those which seek to tap into the international market or attract international capital). These will incentivise the setting up of I&T enterprises with international competitiveness in the HSITP.

The Government also hopes to support the development of I&T start-ups to promote the sustainable development of local financial services industry. For example, the Hong Kong Exchanges and Clearing Limited has reformed its listing regime to allow the listing of new economy companies, including high growth and innovative enterprises which have weighted voting rights structures possessed by individuals and pre-profit / pre-revenue biotechnology companies, subject to appropriate safeguards on investor protection. The new listing regime is gradually delivering results, with

around 50 companies successfully listed in Hong Kong, raising a total of over \$500 billion of funds through initial public offerings. Furthermore, the Government established the Limited Partnership Fund (LPF) regime in August 2020 to allow private equity or venture capital funds to set up through this regime and operate in Hong Kong, which helps channel capital into start-ups in the I&T field. Over 200 funds have been set up under the LPF regime in eight months. It is expected that the HSITP's development vision and wide-ranging fields will attract many investors.

The financial services sector in Hong Kong can even reinforce the position of Hong Kong as an international fintech hub through the HSITP's focused R&D areas, which cover fintech, big data and AI, to develop advanced technologies in blockchain, cybersecurity, data analysis, etc. Enterprises and start-ups in other areas can also capitalise on Hong Kong's position as a world financial capital market centre in fundraising and establishing connections with financing channels, providing opportunities for business development and bringing in vast demand for financial services. With the HSITP's advantage in converging financial services and I&T in Hong Kong, it is envisaged to build a strong fintech ecosystem.

LCQ17: Promoting Regtech adoption in banking sector

Following is a question by the Hon Chan Chun-ying and a written reply by the Secretary for Financial Services and the Treasury, Mr Christopher Hui, in the Legislative Council today (May 5):

Question:

In November last year, the Hong Kong Monetary Authority (HKMA) announced a two-year roadmap to promote Regtech adoption in the Hong Kong banking sector (the roadmap), with a view to accelerating the use of technology by the banking sector for enhancing risk management and compliance. The HKMA has indicated that it will roll out a series of events and initiatives in the coming two years, including hosting a large-scale event, launching a Regtech Adoption Index, publishing relevant practice guides, creating a Regtech Knowledge Hub, and establishing a Regtech skills framework. In this connection, will the Government inform this Council:

- (1) of the implementation timetable for the aforesaid events and initiatives, as well as the amount of expenditure and manpower involved;
- (2) whether it has set quantitative performance indicators for the roadmap; if so, of the details; if not, the reasons for that;

(3) whether, apart from establishing the Regtech skills framework, it has formulated other long-term plans for nurturing Regtech talents; if so, of the details; and

(4) whether the HKMA has any plans to collaborate with the Innovation and Technology Bureau in the coming three years to support local fintech start-ups to conduct research and development on technologies that dovetail with the Regtech needs of the banking sector; if so, of the details; if not, the reasons for that?

Reply:

President,

The adoption of Regtech can assist the financial services sector to cope with the changing operation mode and relevant regulatory measures, and strengthen risk management and regulatory compliance. To develop a more vibrant Regtech ecosystem, the Hong Kong Monetary Authority (HKMA) published a whitepaper entitled "Transforming Risk Management and Compliance: Harnessing the Power of Regtech" in November last year, and launched a two-year roadmap to facilitate Regtech adoption by the banking industry through a series of promotional events and development initiatives.

After consulting the HKMA, my response to the Hon Chan's questions is as follows:

(1) The HKMA launched the "Global Regtech Challenge" on March 25 this year to enhance the interaction and communication between banks in Hong Kong and global Regtech firms, and encourage them to put forth solutions that help solve common risk management and regulatory compliance pain points experienced by banks. A judging panel is currently evaluating the submissions from participants and the final result will be announced during a Regtech event to be held on June 30 this year. The HKMA has invited leaders from the banking and technology sectors to join the event and share their vision for Regtech development and application, with a view to raising the Hong Kong banking industry's awareness of the potential of Regtech adoption. In addition, the HKMA plans to publish the "Regtech Adoption Practice Guides" series and create a "Regtech Knowledge Hub" in the second half of this year to further facilitate Regtech adoption and encourage information sharing amongst banks. The expenses and staff costs associated with the aforementioned events and initiatives have been incorporated into the HKMA's administrative budget.

(2) The HKMA is developing a "Regtech Adoption Index" to quantify and monitor the overall status of Regtech adoption in the banking industry. It can also gauge the effectiveness of the two-year roadmap in facilitating Regtech adoption.

(3) To nurture Regtech talent, the HKMA is developing a Regtech skills framework to identify the current skills gaps in this aspect in Hong Kong for reference by banks for training purposes. It is expected to be completed by

Q3 this year. In addition, the HKMA is working with the banking industry and professional bodies to develop an Enhanced Competency Framework covering both Fintech and Regtech, with a view to assisting the professional development of new and existing practitioners of the Regtech sector.

(4) The Financial Services and the Treasury Bureau and the HKMA have been working with the Innovation and Technology Bureau to promote Fintech development. We are assisting the Office of the Government Chief Information Officer in promoting the use of "iAM Smart" by the financial industry as one of the Regtech infrastructure. The HKMA is also studying the feasibility of a corporate version of "iAM Smart" and Commercial Data Interchange. The latter allows small and medium-sized enterprises to share their commercial data with financial institutions, so that financial institutions will better understand their needs and be in a better position to provide them with tailored financial services while complying with the necessary regulatory requirements. In respect of supporting Regtech development by the Fintech sector, the Financial Services and the Treasury Bureau launched the Fintech Proof-of-Concept (PoC) Subsidy Scheme in February this year to encourage financial institutions to partner with Fintech firms (including Regtech companies) to conduct PoC projects on innovative financial services. In addition, the HKMA is considering enhancing its Fintech Supervisory Sandbox by providing "through-train" approval and funding arrangements for promising Fintech solutions, thereby expediting the market launch of innovative financial products. Cyberport, the Hong Kong Science and Technology Parks Corporation and the Innovation and Technology Commission also provide a series of initiatives to support the development of local Fintech firms. These include the provision of financial subsidies, sharing of market research and the matching with potential corporate users and investors.

LCQ7: Trade unions conducting annual general meetings

Following is a question by the Hon Poon Siu-ping and a written reply by the Secretary for Labour and Welfare, Dr Law Chi-kwong, in the Legislative Council today (May 5):

Question:

The Trade Unions Ordinance (Cap. 332) stipulates that trade unions shall make rules on the matters specified in Schedule 2. These matters include the method of convening and conducting annual general meetings (AGMs). However, quite a number of representatives of trade unions have relayed that due to the rampant Coronavirus Disease 2019 epidemic, their trade unions have not held AGMs for more than a year to handle the personnel and accounts matters of the trade unions concerned. In this connection, will the Government inform

this Council:

(1) of the respective numbers and percentages of trade unions which have made enquiries with and sought assistance from the Registry of Trade Unions since the outbreak of the epidemic on matters relating to the conduct of AGMs; and

(2) whether it has formulated guidelines setting out the arrangements for AGMs of trade unions under special circumstances (e.g. an epidemic); if so, of the details; if not, whether it will immediately formulate guidelines and recommend trade unions to make rules specifying the arrangements for handling the personnel and accounts matters of the trade unions concerned in the event that AGMs cannot be conducted; if so, of the details; if not, the reasons for that?

Reply:

President,

In accordance with Schedule 2 to the Trade Unions Ordinance (TUO), each registered trade union must specify in its rules (or called the constitution) the method of convening and conducting annual general meetings (AGMs) and extraordinary general meetings, and the matters to be presented to the members of the trade union at such meetings, including in the case of AGMs the presentation of audited accounts. In this regard, TUO does not provide for any exemption arrangement. With regard to Member's question, my reply is as follows:

(1) During the outbreak of Coronavirus Disease 2019 pandemic, the Registry of Trade Unions (RTU) of the Labour Department has received enquiries from trade unions about the holding of AGMs. RTU has provided advice and suggestions to the trade unions concerned. RTU does not keep statistics on the related enquiries.

(2) Generally speaking, trade unions should hold AGMs in the month(s) specified in their rules. If trade unions need to convene AGMs in accordance with their rules during the pandemic, they also have to comply with the requirements of the Prevention and Control of Disease (Prohibition on Group Gathering) Regulation (Cap. 599G) and take appropriate anti-epidemic measures. RTU understands that quite a number of trade unions have convened their AGMs as scheduled in accordance with their rules. If individual trade unions need to make special arrangements for convening AGMs, they should explain to their members the relevant situation and consult members' views, so as to ensure members' understanding of the special arrangements.

Trade unions are welcome to contact RTU should they have the related enquiries.

LCQ15: Earnings of youths in Hong Kong

Following is a question by the Hon Luk Chung-hung and a written reply by the Secretary for Financial Services and the Treasury, Mr Christopher Hui, in the Legislative Council today (May 5):

Question:

Will the Government inform this Council of the average monthly employment earnings (at constant 2018 dollars) of full-time employees across different birth cohorts (as set out in the first column of the table below) when they reached the ages listed in the table below, broken down by selected educational attainment (i.e. (i) upper secondary educated, (ii) post-secondary non-degree educated, (iii) bachelor's degree educated, and (iv) postgraduate educated) (set out in tables of the same format as the table below)?

Educational attainment: _____

Birth cohort	Year in which the cohort aged 20-24	Earnings (\$) of cohort members when their ages reached			
		20-24	25-29	30-34	35-39
1970 – 1974	1994				
1975 – 1979	1999				
1980 – 1984	2004				
1985 – 1989	2009				–
1990 – 1994	2014			–	–
1995 – 1999	2019		–	–	–

Reply:

President,

Based on the data obtained from the General Household Survey conducted by the Census and Statistics Department, average monthly employment earnings of full-time employees (at constant 2018 dollars, excluding foreign domestic helpers) of different cohorts by selected educational attainment are provided below:

(i) Full-time employees (Note 1) with upper secondary educational attainment

Cohorts born in	Year in which the cohort aged 20-24	Average monthly employment earnings (Note 2) of the cohort concerned when their ages reached (HK\$)			
		20-24	25-29	30-34	35-39
1970 – 1974	1994	12,100	14,900	18,400	18,600
1975 – 1979	1999	11,700	14,600	16,500	17,900
1980 – 1984	2004	10,600	13,000	15,600	19,300
1985 – 1989	2009	10,700	13,700	18,200	–
1990 – 1994	2014	11,900	15,600	–	–
1995 – 1999	2019	13,500	–	–	–

(ii) Full-time employees (Note 1) with post-secondary non-degree educational attainment

Cohorts born in	Year in which the cohort aged 20-24	Average monthly employment earnings (Note 2) of the cohort concerned when their ages reached (HK\$)			
		20-24	25-29	30-34	35-39
1970 – 1974	1994	14,800	20,000	24,800	26,300
1975 – 1979	1999	14,300	18,200	21,600	23,600
1980 – 1984	2004	11,600	15,700	19,100	24,400
1985 – 1989	2009	11,600	15,100	21,400	–
1990 – 1994	2014	12,200	17,100	–	–
1995 – 1999	2019	14,400	–	–	–

(iii) Full-time employees (Note 1) with undergraduate educational attainment

Cohorts born in	Year in which the cohort aged 20-24	Average monthly employment earnings (Note 2) of the cohort concerned when their ages reached (HK\$)			
		20-24	25-29	30-34	35-39
1970 – 1974	1994	19,400	26,500	38,300	45,900
1975 – 1979	1999	17,100	24,600	37,300	40,000
1980 – 1984	2004	14,300	23,700	31,000	41,100
1985 – 1989	2009	16,900	21,700	33,700	–
1990 – 1994	2014	16,200	24,300	–	–
1995 – 1999	2019	18,000	–	–	–

(iv) Full-time employees (Note 1) with post-graduate educational attainment

Cohorts born in	Year in which the cohort aged 20-24	Average monthly employment earnings (Note 2) of the cohort concerned when their ages reached (HK\$)			
		20-24	25-29	30-34	35-39
1970 – 1974	1994	26,100	34,700	47,100	65,300
1975 – 1979	1999	21,100	29,300	47,200	51,400
1980 – 1984	2004	19,600	31,700	43,000	59,400
1985 – 1989	2009	19,900	27,100	46,000	–
1990 – 1994	2014	18,300	29,800	–	–
1995 – 1999	2019	19,400	–	–	–

Note 1: Refer to employees who work at least 35 hours, or those who work less than 35 hours due to vacation during the seven days before enumeration.

Note 2: The average monthly employment earnings are easily affected by extreme values in the survey sample, more so when reckoned for higher-end workers. They should therefore be interpreted with caution, in particular when they are compared over time.

[CHP follows up on two confirmed cases of COVID-19](#)

The Centre for Health Protection (CHP) of the Department of Health (DH) today (May 5) said that it is following up on two confirmed cases of COVID-19 with the test results involving the N501Y mutant strain.

The two cases involve two females aged 46 and 38, who both are domestic helpers. They reside at their employers' residences at Block N2 of Kornhill in Quarry Bay and Royalton in Pok Fu Lam respectively. The 46 year-old patient has been classified as a local case, whereas another patient is epidemiologically linked with the former case.

A further analysis conducted by the Public Health Laboratory Services Branch of the DH yesterday evening revealed that as the two cases involved the N501Y mutant strain of higher transmissibility, the CHP decided to carry out prudent measures on infection control and prevention to stop the potential risk of spreading the N501Y mutant strain. The CHP will, in accordance with the Prevention and Control of Disease Regulation (Cap. 599A), transfer asymptomatic residents of all units on all floors of the buildings

(involving around 230 units and 30 units separately) where the patients resided (Block N2 of Kornhill in Quarry Bay and Royalton in Pok Fu Lam) to quarantine centres. Symptomatic residents will be sent to the hospital for treatment. They will undergo compulsory quarantine for 21 days.

The CHP said that in view of the threat posed by the mutant strain, it is imperative for people to get vaccinated. As the Government has launched the COVID-19 Vaccination Programme, the CHP appeals to members of the public to get vaccinated as early as possible to protect themselves and others. Details of the programme can be found at the designated website (www.covidvaccine.gov.hk).