LCQ20: Research and Development Centres under purview of Innovation and Technology Commission

Following is a question by the Hon Jimmy Ng and a written reply by the Secretary for Innovation, Technology and Industry, Professor Sun Dong, in the Legislative Council today (November 27):

Question:

It is learnt that the Innovation and Technology Commission (ITC) adopts six indicators (including (i) the level of industry income, (ii) the number of ongoing projects involving industry participation, (iii) the number of companies participating in the ongoing projects, (iv) the number of organisations benefiting from the Public Sector Trial Scheme, (v) the number of researchers engaged under the Research Talent Hub, and (vi) the number of patents filed and granted) to evaluate the work progress and performance of the five Research and Development (R&D) Centres under its purview (including the Automotive Platforms and Application Systems R&D Centre, the Hong Kong Applied Science and Technology Research Institute, the Hong Kong Research Institute of Textiles and Apparel, the Logistics and Supply Chain MultiTech R&D Centre, and the Nano and Advanced Materials Institute). In this connection, will the Government inform this Council:

(1) given that, in the reply to a question raised by a Member of this Council on November 8 last year, the Government indicated that ITC hoped to gradually raise the target of the indicator for evaluating the performance of the R&D Centres in item (i) above (i.e. the level of industry income) to 50 per cent in the coming few years, yet the Government indicated in its paper submitted to the Panel on Commerce, Industry, Innovation and Technology of this Council on June 18 this year that it was considering raising the target to 40 per cent in 2024-2025, and would explore the possibility of raising the target further to 50 per cent in the long run, of the reasons for the relevant change and the latest timetable for raising the target;

(2) whether it will include more indicators for evaluating the performance of the R&D Centres, such as the success rate of patents granted and the number of new projects undertaken each year; if so, of the details; if not, the reasons for that;

(3) given that, in the reply to a question raised by a Member of this Council on November 8 last year, the Government indicated that ITC did not keep the number of patents of the R&D Centres which had been successfully commercialised and the income involved, of the reasons for that; whether ITC will compile relevant statistics in the future, so as to enable the community to conduct a value for money evaluation of the R&D Centres' work on conducting technology transfer to the industries; if so, of the details; if not, the reasons for that; and

(4) whether it will introduce more new measures to encourage enterprises to more actively allocate resources to conduct scientific research; if so, of the details; if not, the reasons for that?

Reply:

President,

The public research and development (R&D) Centres not only conduct applied research in respective key innovation and technology (I&T) areas, but also act as focal points for technology collaboration among the Government, industry, academia and research sectors, thereby complementing the implementation of the relevant development directions and strategies under the Hong Kong Innovation and Technology Development Blueprint and the development of new quality productive forces and working together to promote Hong Kong as an international I&T centre. While the Government has continued to provide resources to the R&D Centres, we have continuously monitored their performance through different performance indicators and reported to Legislative Council (LegCo) on their work progress regularly. In response to the various parts of the question, the reply is as follows:

(1) The Innovation and Technology Commission (ITC) has set a target of the level of industry and other income at 30 per cent since 2017-18. ITC has raised the target to 35 per cent in 2023-24. Having further reviewed the R&D Centres' performance and the overall economic situation in Hong Kong, ITC has shortly further raised the target to 40 per cent in 2024-25 and is exploring the possibility of raising the target further to 50 per cent in the long run. The Government needs to strike a balance between raising the target to encourage the R&D Centres to strengthen co-operation with the industry and taking into account the fact that the R&D Centres bear the public mission of transferring technology to the industry extensively and other objective factors (e.g. overall economic situation). Therefore, we consider it more desirable to keep in view the economic development before hammering out the implementation timetable of adopting a new target.

(2) At present, the R&D Centres report to ITC regularly on their operation and R&D project progress (including number of new projects commenced and patent application) etc., and summarise their work in various aspects in their annual reports, allowing ITC to assess their overall performance. ITC also regularly reports to the Panel on Commerce, Industry, Innovation and Technology (CIIT Panel) of LegCo on the work progress and relevant performance figures (including the six performance indicators) of the R&D Centres. As the nature and scale of the R&D Centres are different, it is difficult to devise a set of uniformed quantifiable key performance indicators. ITC will continue to maintain close liaison with the R&D Centres and review their performance from time to time, with a view to introducing and setting new key performance indicators as and when appropriate.

(3) The R&D Centres not only conduct technology transfer through licensing their patents, but also conduct collaborative projects with the industry and conduct contract researches for the industry to transfer technology to the industry. If an industry partner has contributed at least 50 per cent of the

total project cost, it is entitled to the intellectual property generated from that R&D project for commericalisation directly without the need to involve any licensing arrangement. Furthermore, some of the R&D Centre-owned patents are R&D outcome of exploratory nature, which are to pave way for conducting more downstream projects with the industry in the future.

ITC regularly reports to LegCo CIIT Panel on the R&D Centres' commercialisation and other income. In 2023-24, the R&D Centres received $158.9 million commercialisation and other income in total, representing an increase of about 23 per cent as compared with that in 2022-23. The R&D Centres bear the public mission of conducting technology transfer to the industry, and their objective for conducting applied R&D and technology transfer is not about making profits. In determining the licensing fee and model, the R&D Centres will take into account a basket of factors, including R&D project cost, scale of the licensee (e.g. small and medium enterprises will be given a minimal initial licensing fee), projected business returns of the licensee, scale of application of the technology being licensed, etc.

It is evident from the above that simply using the number of patents with successful commercialisation and profits involved to measure the work of the R&D Centres in transferring technology to the industry may not fully reflect the R&D Centres' performance in this respect. In fact, as at end-March 2024, there were 414 on-going projects (including 231 projects involving industry participation) under the R&D Centres. There were 445 companies participating in these on-going projects. All these demonstrated that the projects could meet the needs of the industry. Examples of R&D outcomes that have been successfully commercialised include the high-protective training footwear for the Hong Kong Olympics fencing team and the application of innovative hybrid modular integrated construction technology that combines steel and ultralight high-strength concrete for constructing an elderly's home in Sha Tin. The R&D Centres bring economic contributions through helping enterprises to adopt R&D outcomes in technology upgrading and transformation. Between 2017-18 and 2022-23, the R&D Centres have brought about $23.8 billion economic contributions towards Hong Kong, averaging around $4 billion per year. We will continue to monitor the R&D Centres' performance and urge the R&D Centres to strengthen their work on transferring technology to the industry.

(4) To encourage more enterprises to conduct R&D in Hong Kong, the Government made amendments to the Inland Revenue Ordinance in 2018 to provide a two-tiered enhanced tax deduction regime for expenditure on "qualifying R&D activities" incurred by enterprises on or after April 1, 2018. The deduction is 300 per cent for the first $2 million of "qualifying R&D expenditure" incurred by enterprises and 200 per cent for the remaining amount. There is no cap on the amount of the relevant tax deduction. Among the tax returns received as at September 30, 2024, the claims for tax deduction on R&D expenditure for the year of assessment 2022/23 was about $3.9 billion, which has more than doubled that of $1.67 billion in the year of assessment 2017/18 (i.e. prior to the implementation of the measure). This indicated that the tax measure could attract and encourage enterprises to devote more resources in local R&D activities. Besides, some funding schemes under the Innovation

and Technology Fund also encourage enterprises to invest in R&D. For instance, the Enterprise Support Scheme provides funding to companies for conducting in-house R&D projects; the Research and Development Cash Rebate Scheme encourages companies to establish stronger partnership with local public research institutes etc.

In addition to fostering collaboration among the Government, industry, academia and research sectors, the current-term Government will increase investment and guide more social capital to invest in I&T industries, reflecting a revamped approach of the Government in this aspect. As announced in the 2024 Policy Address, one of such measures is to set up a $10 billion I&T Industry-Oriented Fund to form a fund-of-funds which will be industry-centric and focus on industry development. By leveraging market capital, more investments will be driven to specified emerging and future industries of strategic importance, including life and health technology, AI (artificial intelligence) and robotics, semi-conductors and smart devices, advanced materials and new energy, etc. We will also optimise the Innovation and Technology Venture Fund by redeploying $1.5 billion to set up funds jointly with the market, on a matching basis, to invest in start-ups of strategic industries, with a view to enhancing Hong Kong's startup ecosystem.