

LCQ20: Innovation, technology and re-industrialisation

Following is a question by the Hon Wu Chi-wai and a written reply by the Secretary for Innovation and Technology, Mr Nicholas W Yang, in the Legislative Council today (October 23):

Question:

In recent years, the Government has been vigorously promoting scientific researches and the development of innovation and technology (I&T), and has set up the Committee on Innovation, Technology and Re-industrialisation (the Committee) to advise the Government on matters relating to the promotion of I&T development and re-industrialisation in Hong Kong. However, there are views that the percentage of value added of the manufacturing industry in the gross domestic product (GDP) has remained at a level below 1.5 per cent, without showing any upward trend. Besides, although the Government has launched the Re-industrialisation Funding Scheme to subsidise manufacturers on a matching basis to set up smart production lines in Hong Kong, specific and targeted measures are lacking, thus failing to attract factory operators to relocate their factories on the Mainland to Hong Kong. In this connection, will the Government inform this Council:

(1) of the respective total values of the exports and re-exports as well as their global rankings, in each year since 1970, in respect of the following types of goods: (i) textiles, (ii) articles of apparel, (iii) toys, (iv) electronic products, (v) watches and clocks, (vi) electrical equipment, (vii) footwear, (viii) bijouterie and precious stones-related articles, and (ix) artificial flowers;

(2) of the respective total values of production of (i) the Hong Kong Science Park (HKSP), (ii) the various industrial estates under HKSP, and (iii) each industry operating inside the various industrial estates, in each of the past 10 years;

(3) of the number of recommendations put forward to the Government by the Committee since its establishment, the number of recommendations accepted, and the details of each recommendation;

(4) of the government department that is currently responsible for formulating policies on attracting factory operators to relocate their factories on the Mainland to Hong Kong, and the specific measures formulated by that department in this regard; and

(5) whether it has drawn up indicators (e.g. the economic benefits brought about by every \$100 of subsidy, and the percentage of value added of the manufacturing industry in GDP) for evaluation of the effectiveness of the measures relating to re-industrialisation?

Reply:

President,

The application of innovation and technology (I&T) covers various sectors and industries, and is capable of enhancing Hong Kong's competitiveness and driving a diversified economy. The Government, through encouraging research and development (R&D) and applying innovative technologies, seeks to inject new impetus into traditional industries and opens up development opportunities for high-end manufacturing industries. To this end, the Government actively promotes re-industrialisation in recent years. Our purpose is not to return traditional land and labour intensive manufacturing industries to Hong Kong, but rather to develop advanced manufacturing industries that are based on new technologies and smart production and do not require much land and labour, so as to identify new growth points for Hong Kong's economic development.

Our reply to the various parts of the question is as follows:

(1) According to the information provided by the Census and Statistics Department (C&SD), the values of textiles, articles of apparel, toys, electronic products and electrical equipment, watches and clocks, footwear, bijouterie and precious stones-related articles and artificial flowers exported from and re-exported through Hong Kong each year since 1993 are at Appendices 1 and 2 respectively. The C&SD does not maintain figures on relevant types of goods for 1992 or before.

Hong Kong's rankings in world merchandise trade in terms of annual aggregate values of exports (including exports and re-exports) from 1993 to 2018 are at Appendix 3. The C&SD does not have information about the global rankings in terms of exports or re-exports values of individual types of commodities.

(2) To promote I&T development in Hong Kong, the Hong Kong Science and Technology Parks Corporation (HKSTPC) has been providing infrastructure, various professional and financial support, as well as organising different activities to incubate technology start-ups and assist technology companies. The effectiveness of HKSTPC's work is reflected by a number of indicators, including the number of companies, working population, fund raised, etc. The latest figures provided by HKSTPC are set out in the table below:

Hong Kong Science Park (Science Park)	
Number of companies	749
Working population	12 286
Number of R&D workers	8 564
Number of graduates of the Incubation Programmes	660
Total amount of fund raised by Science Park's tenants in 2018-19	\$18 billion

Industrial Estates	
Number of companies	138

HKSTPC has not collated statistics on the value added of the Science Park and Industrial Estates (IEs). That said, projecting from the economic impact assessment prepared by the consultant commissioned by HKSTPC in 2015, upon completion and achieving full occupancy of Stage 1 of Science Park Expansion Programme, the economic contribution of Science Park to Hong Kong as a whole is approximately \$20 billion per annum (in 2017 prices), creating about 17 200 jobs in the Park.

(3) The Committee on Innovation, Technology and Re-industrialisation (the Committee) has, since its establishment in April 2017, discussed and advised the Government on over 20 agenda items covering various I&T-related issues such as establishment of research clusters, promotion of re-industrialisation, enhanced tax deduction for R&D expenditure, attracting overseas R&D institutions to Hong Kong, research work in the higher education sector, nurturing I&T talent, the Technology Talent Admission Scheme, the Talent List, supporting the development of start-ups in Hong Kong, the Smart City Blueprint for Hong Kong, the open data policy, the Government's pro-innovation procurement policy, development of the e-sports industry and electronic payment, etc. The Government has made reference to members' views in devising and implementing relevant policies.

(4) and (5) According to the Commerce and Economic Development Bureau, Hong Kong has all along been following the economic policies of free enterprise and free trade. The Government's policy on supporting industry is to create a business-friendly environment for the trade and provide them with appropriate support so that they can flourish. Some enterprises, especially those engaging in high-end manufacturing, are well-positioned to consider performing some high value-added production processes in Hong Kong that require not much land and labour. All Hong Kong enterprises, including those interested in relocating their operations back to Hong Kong, can receive support through the support schemes under various government departments and quasi-government organisations, such as the SME Loan Guarantee Scheme, the SME Export Marketing Fund, the Trade and Industrial Organisation Support Fund, and the Dedicated Fund on Branding, Upgrading and Domestic Sales administered by the Trade and Industry Department, as well as the special concessionary measures under the SME Financing Guarantee Scheme operated by the HKMC Insurance Limited, in obtaining finance, exploring export markets and enhancing overall competitiveness of individual sectors.

To promote re-industrialisation and encourage the development of advanced manufacturing industries that are based on new technologies and smart production in Hong Kong, the Government has been providing support from the perspectives of infrastructure, finance, technology and talent.

In terms of infrastructure, through the HKSTPC, the Government provides the necessary infrastructure and facilities for fostering industrial R&D and

advanced manufacturing. The HKSTPC refurbished a factory in the Tai Po IE into the Precision Manufacturing Centre (PMC) in March 2017 with a view to fostering high technology smart production. The PMC has been fully occupied by a number of tenant enterprises. The HKSTPC is also developing an Advanced Manufacturing Centre (AMC) in the Tseung Kwan O IE to foster smart production and advanced assembly of high value-added manufacturing industries. The HKSTPC invited tenders for tenancy of the AMC in April this year, and has received a good number of applications for admission, reflecting positive response from the industry. This reflects that there is certain demand for local production facilities from the manufacturing sector.

In terms of finance, the Government, through the Innovation and Technology Fund (ITF), provides financial support for local R&D work and finance projects that can contribute to the technological upgrading of industries and promotion of innovation, thereby promoting re-industrialisation. Relevant funding schemes include the Innovation and Technology Support Programme, Partnership Research Programme and Enterprise Support Scheme, etc. The HKSTPC will also designate part of the Government's \$10 billion allocation to offer incentives for advanced manufacturers to set up operations in the IEs.

In terms of technology, the Hong Kong Productivity Council (HKPC) has been assisting enterprises to move towards high value-added production and gradually upgrade to Industry 4.0. For example, it has set up the Invention Centre Hong Kong in collaboration with the Fraunhofer Institute for Production Technology of Germany to support Hong Kong enterprises in adopting innovative industrial technologies. Also, the five R&D Centres established by the Government have also been actively engaging in R&D related to re-industrialisation in recent years, covering various areas such as big data, Internet of Things, robotics technology, new materials, smart mobility, environmental technology, etc., assisting the industry to capture and capitalise on business opportunities.

In terms of talent, the Innovation and Technology Commission rolled out in August 2018 the Reindustrialisation and Technology Training Programme under the ITF to subsidise local enterprises on a 2:1 matching basis to train their staff in high end technologies, especially those relating to Industry 4.0. In addition, the HKPC, together with the Vocational Training Council and the Fraunhofer Institute for Production Technology of Germany, launched in March 2018 the first Industry 4.0 professional diploma programme in Hong Kong to strengthen training of industry practitioners in Industry 4.0-related skills.

To further promote re-industrialisation, the Government plans to establish a \$2 billion Re-industrialisation Funding Scheme to subsidise manufacturers, on a matching basis, to set up smart production lines in Hong Kong, and allocate another \$2 billion to the HKSTPC for converting an old factory in the Yuen Long IE into the Microelectronics Centre to satisfy the demand of the industry. The relevant proposals have obtained the support from the Panel on Commerce and Industry of the Legislative Council (LegCo). The Government will seek funding approval from the LegCo Finance Committee within

this legislative year, with a view to launching the measures as soon as possible.

We will evaluate the effectiveness and benefits of the new initiatives when we take forward the proposals. For instance, the proposed Microelectronics Centre to be set up can help to meet the industry's demand for advanced manufacturing facilities in the near term. It is estimated that the Centre may create about 420 direct job opportunities and generate a value added of over \$600 million annually.