

LCQ7: Supporting manufacturing industry and promoting re-industrialisation

Following is a question by the Hon Abraham Shek and a written reply by the Secretary for Innovation and Technology, Mr Alfred Sit, in the Legislative Council today (March 17):

Question:

To cope with the coronavirus disease 2019 epidemic, in March last year, the Government launched the Local Mask Production Subsidy Scheme to subsidise manufacturers to produce face masks (masks) locally, and introduced a special call under the Public Sector Trial Scheme to support product development and application of technologies for the prevention and control of the epidemic in Hong Kong. On supporting the manufacturing industry and promoting re-industrialisation, will the Government inform this Council:

(1) among the masks procured by the Government since January last year, of the number and percentage of those which were locally produced; given that at present, locally produced masks can satisfy local demand, whether the Government will in future give priority to procuring locally produced masks so as to support the development of the manufacturing industry; if not, of the reasons for that;

(2) of the number of cases, since the outbreak of the epidemic, in which government departments used products and technologies for epidemic prevention and control which were researched and developed locally, as well as other details of such cases; whether it has assessed the opportunities that may be created by such products and technologies for Hong Kong's re-industrialisation and promotion of the "Made in Hong Kong" brand (especially in areas such as biomedical sciences and testing); and

(3) whether, under the existing policy, government departments and subvented organisations are required to give priority consideration to local products in their procurement (especially those innovation and technology products researched and developed locally) so as to support the development of the local manufacturing industry and promote re-industrialisation; if so, of the details; if not, the reasons for that?

Reply:

President,

Having consulted the Financial Services and the Treasury Bureau, the reply to the question is as follows:

(1) Amongst the masks (both regular-sized and small-sized ones) procured by and delivered to the Government Logistics Department (GLD) as well as those received by the GLD from the Local Mask Production Subsidy Scheme (the Scheme) for the period from January 1, 2020 to February 28, 2021, around 350 million (or about 53 per cent of the total number of masks) masks were produced locally. Since the production lines under the Scheme started to supply masks to the Government in June 2020, the GLD has been supplied with locally produced masks including those manufactured by the Correctional Services Department as well as those received from the Scheme. Except for small-sized masks, the GLD has not procured other regular-sized masks in addition.

(2) Technology products and applications researched and developed locally have played an important supporting role in the fight against the epidemic.

The Government has developed the "StayHomeSafe" system and electronic wristband in the early stage of the epidemic in order to support the mandatory home quarantine measure implemented in early February 2020. The system makes use of a Bluetooth Low Energy electronic wristband and a monitoring solution developed by the Logistics and Supply Chain MultiTech R&D Centre (LSCM), coupled with the "StayHomeSafe" mobile app developed by a local technology start-up that adopts geo-fencing technology, to detect electronic signals around the dwelling places of persons under quarantine, and by means of artificial intelligence analyse changes in various signal strength to effectively monitor whether persons under quarantine are staying at their designated premises. To date, about 470 000 persons under quarantine have used electronic wristbands.

In addition, the Government launched the "LeaveHomeSafe" mobile app in November 2020. Currently, the number of downloads of the "LeaveHomeSafe" mobile app exceeds 3.47 million, and about 82 000 public and private venues have displayed the venue QR code for members of the public to scan and record their visits. The mobile app will notify a user if he or she is later identified to have visited the same venue that a confirmed patient had visited at about the same time or hired the same taxi that a confirmed patient has taken on the same day. In the unfortunate event of infection, the user's visit records can assist the Centre for Health Protection in epidemiological investigations.

Locally developed masks also played a role in the anti-epidemic efforts. Adopting its nanofiber technology, the Nano and Advanced Materials Institute has developed the world's first nanofiber N99 facemask – NASK, in collaboration with a manufacturer. NASK is manufactured in Hong Kong and compliant with the EN149 standard of the European Union. NASK has also been adopted by the Hospital Authority. In addition, the Government has distributed over 10 million CuMask+™ developed by the Hong Kong Research Institute of Textiles and Apparel to Hong Kong residents for free. Two layers of the CuMask+™ are specially made with small quantities of copper, capable of immobilising bacteria, common viruses and other harmful substances. The mask complies with the American Society for Testing Materials (ASTM) F2100 Level 1 standard, and is effective for 60 washes.

The LSCM has developed a stringent system for the Universal Community Testing Programme launched earlier, which integrates QR code/barcode identifiers, electronic seal, bluetooth and global positioning system into a control network for real-time tracking of all the specimen boxes and delivery vehicles to ensure that the specimens arrive at the laboratories safely. When the Government implemented the COVID-19 Vaccination Programme in February 2021, the LSCM made use of locally researched and developed e-Lock technology and mobile technology in applied logistics and inventory management to develop relevant systems for vaccine procurement, consignment monitoring and handling, so as to render assistance to the relevant government departments in managing the supply, delivery and use of vaccines.

To support locally researched and developed anti-epidemic technologies, the Electrical and Mechanical Services Department (EMSD) launched a thematic page on the E&M InnoPortal in February 2020, where nine innovation and technology (I&T) wishes for anti-epidemic application have been published successively, including self-disinfecting substances, coatings or devices and using robotic technology for fever screening, indoor disinfection and delivery of objects, etc. The EMSD has received over 200 I&T solutions from I&T strategic partners in Hong Kong and the Greater Bay Area. The EMSD has been actively collaborating with several government departments to conduct field trials for more than 40 anti-epidemic I&T solutions. Furthermore, the Innovation and Technology Commission launched in March 2020 a special call under the Public Sector Trial Scheme to support product development and application of technologies for the prevention and control of the epidemic. The Public Sector Trial Scheme received 332 applications, of which 63 were approved. Approved projects include diagnostic/testing methods, face masks and other protective equipment, air purification devices, body temperature detection systems, disinfection equipment and products, virus transmission tracking devices, etc, involving trials at 57 public sector organisations with a view to helping the public prevent and control the epidemic in different locations and settings.

At the same time, many technology enterprises in the Hong Kong Science Park (the Science Park) proactively developed anti-epidemic technology solutions, unleashing the potential of the local I&T industry to turn the current crises into opportunities. The Hong Kong Science and Technology Parks Corporation has offered assistance to companies in the Science Park by matching them with the industry, enabling the application of many of their technology products and solutions in the fight against the epidemic by the Government and different sectors of the society, including food delivery robot and devices that prevent the wake effect, etc. Cyberport has also launched the "Braving the Epidemic" movement to rally its start-ups to proactively provide different solutions. For example, start-ups partnered with the Department of Health to launch delivery services for saliva specimens and robots were deployed to conduct ultraviolet disinfection at venues with high risks.

(3) It is the Government's procurement policy to encourage more interested bidders to participate in procurement of the stores and services required

under fair, open and competitive procedures. Hong Kong is a party to the Agreement on Government Procurement of the World Trade Organization (WTO GPA). When conducting procurement, the Government abides by the principle under the WTO GPA in order to ensure that Hong Kong and overseas suppliers and contractors, regardless of scale, can participate in biddings in an open and fair manner.

The Government introduced the pro-innovation government procurement policy in April 2019 under which procuring departments have to raise the weighting of technical marks and goods quality in tender assessment. In addition, a certain portion of marks have to be reserved for assessing innovative suggestions, including innovative suggestions related to, for example, application of technology, environmental protection and social care, etc.