

Commissioner for Innovation and Technology inspects trial of anti-epidemic technology solution (with photos)

The Commissioner for Innovation and Technology, Ms Rebecca Pun, visited the Yue Wan Estate at Chai Wan today (April 27) to inspect the trial of a project funded by the Public Sector Trial Scheme (PSTS) to combat the COVID-19 epidemic under the Innovation and Technology Fund (ITF), and met with the representatives from the Hong Kong University of Science and Technology (HKUST) and the Housing Department, which participated in the project.

Accompanied by Professor Yeung King-lun of the Department of Chemical and Biological Engineering and Division of Environment and Sustainability of the HKUST, and Assistant Director of Housing Mr Michael Hong, Ms Pun visited Yue Wan Estate at Chai Wan under the Housing Authority (HA) to inspect the conduct of a trial project funded by the special call for projects under the PSTS. The project involves an antimicrobial hydrogel for use in flush toilets, which has been developed by Professor Yeung and funded to conduct trials in elderly homes operated by the Haven of Hope Christian Service. The test result showed that the antimicrobial hydrogel could effectively reduce more than 95 per cent of viable microbes and inactivate more than 99 per cent of viral particles in toilet flush water, with the antimicrobial hydrogel could remain effective up to 60 days. In view of the positive results from an earlier field trial, the Innovation and Technology Commission (ITC) further provided funding for the trial of the antimicrobial hydrogel in three public housing blocks (ranging from 22 to 39 storeys high) under the HA with a total of over 2 880 flats.

The antimicrobial hydrogel dissolves in the flushing water tank of the buildings such that the flushing water with antibacterial and antiviral properties will disinfect the toilet every time the residents flush the toilet, preventing vertical transmission of sewage containing pathogens to other residents. Compared to disinfection methods using detergents or bleach, the antimicrobial hydrogel is colourless and odourless, and therefore will not cause any inconvenience to residents. In addition, the antimicrobial hydrogel is mild in nature and will neither react with other chemicals in the flushing water to release substances that are harmful to the human body, nor will it cause any structural impact on the drainage pipes of the buildings.

Ms Pun said, "The ITC has been committed to supporting the application of technology in the community to combat the epidemic since the outbreak of COVID-19 in Hong Kong, which includes providing funding support for trials of Research and Development (R&D) outcomes that can help combat the epidemic in the community to integrate technology into daily life. The ITC launched a

special call under the PSTS for combating COVID-19 in March 2020 and approved 63 projects in the same year, including the antimicrobial hydrogel project we inspected today. The responses from the 57 participating local public sector organisations were very positive, providing trial venues and actual operating environments to the applicant organisations with a view to facilitating the early implementation of R&D outcomes.

"We are pleased to see that innovation and technology (I&T) products developed by local universities can be applied in public housing estates to prevent the spread of the epidemic and protect the health of the public. This arrangement also demonstrates the willingness of government departments to try out local technological inventions to jointly support I&T development in Hong Kong. If the outcome of this trial is satisfactory, we will discuss with colleagues at the Housing Department on how to promote the adoption of hydrogel to other public housing estates."

The ITC will continue to provide funding to organisations in the field of R&D and application of technologies to support the community's continued efforts in combating the epidemic so that the general public may resume normal life as soon as possible.

So far, 52 out of a total of 63 approved projects under the PSTS special call have been completed, and the remaining trials of projects will be completed within this year.

The list of the approved projects under the special call for the PSTS is available on the website of the ITF (www.itf.gov.hk/en/funding-programmes/facilitating-technology/psts/psts-covid-19/index.html).



