

Hong Kong's sewage surveillance programme wins HKIE 50th Anniversary Legacy Award (with photos)

Following the receipt of the Gold Award of the International Water Association Project Innovation Awards last August, the Territory-wide Sewage Surveillance Programme has achieved another remarkable milestone by winning the Excellence Award in the Innovation Category (2010-Present) of the Hong Kong Institution of Engineers (HKIE)'s 50th Anniversary Legacy Award. This honour not only recognises the programme's groundbreaking achievements in engineering technology, but also highlights its outstanding contributions to safeguarding public health and protecting the well-being of Hong Kong citizens, making it a source of pride for Hong Kong's engineering community.

To celebrate its 50th anniversary, the HKIE established the Legacy Award, comprising three categories, namely Innovation, Industry, and Infrastructure, to honour exceptional engineering projects and technologies that have delivered profound benefits to the engineering sector, industry and society in Hong Kong and globally over the past half-century. The Territory-wide Sewage Surveillance Programme stood out among more than 100 nominated projects as one of the 19 award recipients, securing the Excellence Award in the Innovation Category. This success is attributed to its forward-thinking technological applications, interdisciplinary collaboration, and significant societal impact. The judging panel highly commended the programme for leveraging innovative technology to support epidemic prevention and control, showcasing the professionalism and creativity of Hong Kong's engineering sector.

The award presentation ceremony was held last night (April 3) during the HKIE's 50th Anniversary Dinner. The Director of Environmental Protection, Dr Samuel Chui, together with the Director of Drainage Services, Mr Ringo Mok, and the Controller of the Centre for Health Protection of the Department of Health (DH), Dr Edwin Tsui, led a delegation to receive the award.

During the COVID-19 pandemic, the Environmental Protection Department (EPD), in collaboration with the Drainage Services Department and the DH, formed an interdepartmental team that successfully developed a real-time predictive model based on sewage virus monitoring. By analysing SARS-CoV-2 concentrations in sewage, the system accurately tracked viral transmission dynamics within communities and identified potential outbreak hotspots in advance, providing critical data support for the Government's swift deployment of anti-epidemic measures. The system's efficient operation not only helped detect hidden cases and break transmission chains, but also significantly reduced new infections during peak outbreaks, bringing Hong Kong's pandemic under control within two months.

Dr Chui said, "The success of this technology is not just a breakthrough in science and engineering. It's also a story of resilience and dedication.

At the most challenging times of the pandemic, our team worked tirelessly around the clock to protect the health of every citizen. The fact that this technology successfully uncovered hidden transmission chains and helped Hong Kong emerge swiftly from the shadow of the pandemic made all our efforts worthwhile. We are also deeply grateful for the public's support. Winning the HKIE's 50th Anniversary Legacy Award is not only a recognition of our team but also a powerful reflection of the collective efforts of all Hong Kong people in combating the pandemic together."

He added that the Government has expanded the application of sewage surveillance technology to monitor other infectious diseases, such as seasonal influenza, to build a more comprehensive public health surveillance network. Looking ahead, the EPD will actively share this successful experience with Belt and Road (B&R) countries, fostering international collaboration through technology exchange to support the vision of green development under the B&R Initiative, and contribute Hong Kong's expertise to global public health efforts.

