EPD’s technological achievement reaffirmed as Hong Kong Environmental Database wins international innovation award

The Hong Kong Environmental Database (HKED) (hked.epd.gov.hk/), developed by the Environmental Protection Department (EPD), has been awarded the International Association for Impact Assessment (IAIA) 2025 "Corporate Initiative Award". The recognition highlights the Hong Kong Special Administrative Region (HKSAR) Government's efforts and achievements in leveraging innovative technology to support the environmental impact assessment (EIA) process.

The HKSAR Government implemented several measures in 2023 to optimise the EIA process, including the establishment of the HKED. The database utilises geographic information system and three dimensional mapping platforms to integrate over 100 types of environmental baseline survey data, significantly reducing the data collection time for preparing EIA reports. The HKED not only tracks changes in the environment over time and with development projects but also provides a range of online tools and datasets, such as air quality, water quality and traffic noise. These resources enable project proponents to effectively carry out project planning and simulation assessments, improving the accuracy and consistency of EIA studies.

The Director of Environmental Protection, Dr Samuel Chui, said, "The database is a cornerstone of our efforts to optimise the EIA process by utilising advanced smart technology and a robust data system to support the entire EIA process and significantly shorten the time needed for EIA. The recognition from the IAIA reaffirmed the international community's acknowledgement of the HKSAR Government's innovative thinking and technological achievements. The EPD will remain committed to environmental protection and sustainable development, leveraging cutting-edge technology to contribute to environmental efforts in Hong Kong and globally."

Dr Chui added that the EPD will continue to enhance the HKED's functions and integrate artificial intelligence to support EIA studies. The department is currently collaborating with the Hong Kong Generative AI Research and Development Center (HKGAI) to develop and integrate a new AI-powered application into the foundation of the HKED. This application will utilise large language models such as DeepSeek and HKGAI V1, combined with the HKED's rich data, with a view to further boosting the efficiency and quality of the EIA process.

Since its launch, the HKED has recorded over 20 000 users annually and has received positive feedback from various sectors, including government departments, industry stakeholders, consulting firms, and academia. To date, more than 100 EIA and planning projects have benefited from the application

of the HKED.

The IAIA's Corporate Initiative Award honours outstanding individuals or institutions that have made significant contributions to EIA, management or policy practice. The award ceremony will be held on May 1, 2025, at the 44th IAIA's Annual Conference in Bologna, Italy. An EPD delegation will attend the ceremony to accept the award and share insights on how the HKED's spatial data and information technology support the EIA process, promoting transparency and efficiency in environmental governance.

Last December, the EPD also won the Best Environmental Innovation Award at the 2024 Southeast Asia Forum International Conference for the HKED. In addition, EPD representatives will attend the 7th Ecological and Environmental Protection Industry Innovation and Development Conference in Beijing in mid-April to share the positive impact of smart technology on EIA with Mainland experts.

The EPD continues to promote the application of innovative technology in environmental protection. One of the notable initiatives is the Territory-wide Sewage Surveillance Programme, which detects the viral concentration of the SARS-Co V-2 virus in the sewage network through a non-intrusive approach, assisting in effectively tracking the source of the virus in different anti-epidemic phases and serving a sentinel surveillance function. It has also received regional and international awards.