LCQ15: Common Spatial Data Infrastructure

Following is a question by the Hon Chan Chun-ying and a written reply by the Secretary for Development, Mr Michael Wong, in the Legislative Council today (September 29):

Question:

To facilitate the development of Hong Kong into a smart city, the Government is developing a Common Spatial Data Infrastructure (CSDI) portal, with a view to enhancing the use, management, discovery and sharing of spatial data. CSDI will be ready for full operation next year. On the other hand, it is learnt that the Singapore Government has developed CSDI for more than 10 years, and the key measures introduced in this respect include setting specific performance pledges for all government agencies (e.g. data fusion for cross-agency projects to be completed within seven working days), and actively encouraging the private sector to provide and use spatial data. The geospatial industry in Singapore is developing vibrantly, with its scale nearly tripling to an amount equivalent to HK$2.8 billion between 2009 and 2020. In this connection, will the Government inform this Council:

(1) whether it has set specific targets for the provision of spatial data by policy bureaux/government departments; if so, of the details; if not, the reasons for that;

(2) whether specific measures are in place to encourage public and private organisations to actively provide CSDI with the geospatial data in their possession; if so, of the details; if not, the reasons for that; and

(3) whether it has assessed how the private sector's participation in CSDI can facilitate the development of the local geospatial industry; if so, of the details (including the scale expected to be achieved), and whether a development roadmap will be drawn up for such industry; if it has not assessed, the reasons for that?

Reply:

President,

The Development Bureau (DEVB), with the support from the Innovation and Technology Bureau, takes the lead in developing the Common Spatial Data Infrastructure (CSDI), a map-based digital infrastructure serving as a one-stop data platform to open up and share standardised spatial data for free use by government departments, businesses, the academia and the public. The CSDI portal is under development, targeted to be made available for government and public use by phases before end-2022.

The replies to the three parts of the question are as follows:

(1) We are implementing the following measures to set out specific targets for government bureaux/departments (B/Ds) to open up the spatial data in their possession under the CSDI initiative:

(i) We have issued a circular related to the policy and related measures of the CSDI to B/Ds, specifying that unless for security, privacy, confidentiality or other policy or operational reasons, B/Ds shall progressively open up their spatial datasets;â€‹

(ii) B/Ds shall prepare returns of spatial data annually to set out the plan and arrangements for the release of spatial datasets. Such annual returns will be published on B/Ds' departmental websites for information of the public starting from end-2021;

(iii) The sharing of spatial data by B/Ds should be in compliance with the CSDI standards, viz. geo-tagging of non-spatial data, documentation of data specifications and metadata, establishment of Application Programming Interface and conversion of spatial data to an open and machine-readable format; and

(iv) In developing new geospatial applications and systems, B/Ds are required to open up the spatial data according to the prevailing policy.

We target to open up no less than 320 standardised spatial datasets in a common open and machine-readable format contributed from different B/Ds through the CSDI portal for free download and use by the public. Those datasets will mainly cover planning, lands, buildings and works related datasets, census datasets, public facilities, etc.

We will continue to review these measures to help B/Ds open up their spatial data in a timely manner to suit the needs of the wider community.

(2) Apart from B/Ds, we are also encouraging public and private organisations to share their spatial data that are of interest and benefit to the public. The Spatial Data Office of the DEVB has started approaching various organisations in the public and private sectors, such as the Hong Kong Science and Technology Parks, the Urban Renewal Authority and the Construction Industry Council, to explain and promote the benefits and business opportunities in sharing spatial data. We also approached and encouraged private companies and professional institutes in the fields of construction, transportation, public utilities, etc. to make their spatial data available for sharing on public platform in the future. Feedback initially received was positive and encouraging.

(3) The CSDI, as a digital infrastructure underpinning Hong Kong's smart city development, can spur the growth of the local geospatial industry. In taking forward the development of CSDI, we commissioned a consultancy study on the development strategy of a CSDI in 2017. The study has set out a road map for the development of CSDI in short, medium and long terms for exploring how the participation of private companies, such as public utilities and public transportation operators, can enable them to enjoy the potential benefits of CSDI. Such benefits include increased availability of spatial data to spur

innovation, reduced efforts in the capture, management, and delivery of geospatial information, leading to lower business costs, improved transparency and public engagement, etc.

We have also undertaken a number of quick wins to engage the private sector to participate early in the development of CSDI which may facilitate the expansion of the local geospatial industry. For example, we have made available for use by private organisations a wide range of spatial data, geo-tagging tool and Map Application Programming Interface services on the Hong Kong GeoData Store website, viz. the alpha version of the CSDI portal. We noted the high hit rates of the spatial data and tools with an increasing trend, and we believe that the private sector should have started exploring and using spatial data for their business.

Besides, with the advice from the Common Spatial Data Advisory Committee and engagement activities through the recently opened Geospatial Lab, we look forward to nurturing a geospatial group comprising entrepreneurs, technology specialists, startups, professional organisations, academia, young generation, etc. to harness the creation, analysis and applications of spatial data. Moreover, private sector, non-government organisations and professional institutions proactively participated and identified a number of potential smart city applications in our recent activities. For instance, the wider use of pedestrian passageway information of areas of private properties to facilitate the application of indoor and outdoor positioning and navigation, which can provide seamless navigation for visually impaired people and elderly so as to enhance their connection with other communities, improving the living quality, the greater use of real-time parking vacancy information to spur parking and transport related applications, etc. Private sector and geospatial industry including startups will be invited to collaborate and explore further the feasibility of such applications.

Realising the importance of spatial data, we plan to invite public and private sectors to share more data on CSDI with a view to contributing further to the development of a local geospatial industry. We will consider at suitable juncture to assess the scale of development of the geospatial industry in the private sector after the launch of the CSDI and formulate the most appropriate policy measures to boost further the digital economy in Hong Kong.