



Overall Update of CSDI

Hong Kong ICT Awards 2023 – Gold Award

Aiming at recognizing outstanding information and communications technology (ICT) inventions and applications, the Hong Kong ICT Awards 2023 Awards Presentation Ceremony was held on 3 November 2023. Spatial Data Office (SDO) and Energizing Kowloon East Office (EKEO) of DEVB together with Maphive Technology Limited, received the “Smart Mobility (Smart Transport) Gold Award” with the project “**Smart Navigation Tool for the Visually Impaired/People In Need**”.

Being one of the Proof-of-Concepts (PoC) prototype under the CSDI initiatives, this project with the strong support from MTRC, relevant visually impaired related NGOs/communities and some major shopping malls in Kowloon East aims to provide seamlessly navigation indoor and outdoor with audio instructions for the visually impaired/people in need. It is now named into “Walking Assistant” under the MyKE mobile app of EKEO for use in Kowloon East and MTRC Kwun Tong Line and Kai Tak Station. The judging panel commented the use of CSDI data and indoor navigation has improved the quality of life for visually impaired individuals and the solution has made society more inclusive.

Detailed information of the winners and the event is available at the website of the Hong Kong ICT Awards (<https://www.hkictawards.hk/>).





Overall Update of CSDI

Hong Kong GeoData Store Ceased Operation

As the CSDI Portal (<https://portal.csd.gov.hk>) was officially launched on 29 December 2022, the operation of the Hong Kong GeoData Store was already ceased on 1 August 2023.



Appointment of Common Spatial Data Advisory Committee

The Government appointed nine new members and reappointed 14 incumbent members to the Common Spatial Data Advisory Committee (CSDAC) for a term of three years from 1 October 2023 to 30 September 2026. Chaired by the Director of Lands, Mr Andrew Lai, the CSDAC comprises representatives from five bureaux / departments and 23 non-official members from various sectors including the construction industry, geospatial and IT related groups, academics, social services, public utilities and transport operators.

Mr Lai said, “With extensive professional knowledge and experience, the newly appointed and reappointed members will offer professional advice to the Government on the development of the Common Spatial Data Infrastructure (CSDI), facilitating Hong Kong’s development as a smart city.” He also expressed gratitude to the 10 outgoing members for their support to the CSDAC’s work in the past three years, as well as their contribution to the creation of 3D Digital Map and the progressive development of the CSDI.

You may click [here](#) for the information about the CSDAC in the website of Development Bureau and [here](#) for the press release regarding the appointment.



Thematic Topic: Census and Statistics Data

Census and Statistics Department (C&SD) provides census / by-census statistics to the Common Spatial Data Infrastructure (CSDI) portal. In this issue, GeoFun, the CSDI Ambassador interviewed Paul and Charlotte, the mascots for the 2021 Population Census (21C), and they tell us more about the census and statistics data.



GeoFun

Q1: How often does C&SD conduct population census in Hong Kong?

A1: A population census/by-census is conducted every five years to obtain up-to-date benchmark information on the demographic and socio economic characteristics of the population of Hong Kong and on its geographical distribution. Such information is useful to the Government for planning and policy formulation, and the private sector and academia for business and research purposes. The 2021 Population Census (21C) results and analyses have been released in stages as from February 2022.



Charlotte



GeoFun

Q2: What types of data are collected in 21C?

A2: The 21C collected data on 46 data topics in six aspects, including (i) demographic and social characteristics (e.g. year and month of birth and sex), (ii) educational characteristics (e.g. educational attainment and field of education), (iii) internal migration characteristics (e.g. place of residence 5 years ago), (iv) economic characteristics (e.g. income and hours of work), (v) housing characteristics (e.g. floor area of accommodation, rent and mortgage payment or loan payment) and (vi) household characteristics (e.g. relationship to head of household).



Paul



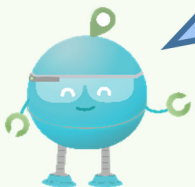
GeoFun

Q3: In what ways, the 21C spatial data can be applied?

A3: Within the Government, 21C spatial data have widespread applications in forming the basis of service planning and development at both the territorial and district levels. In a more general setting, 21C spatial data are disseminated to the public in a diversified range of statistical products and services to cater for the specific needs of different data users, from general to sophisticated ones.



Charlotte



GeoFun

Q4: How do the general public and the community find 21C spatial data useful? Are there any examples of its application?

A4: 21C spatial data have also been frequently requested from academic institutions and private sectors. For academic institutions, data are used for research in different socio-economic domains such as education, income, poverty, employment, housing, etc. For private sector, data are used to serve a wide range of purposes such as understanding of specific local population sub-groups, identification of target segments, formulation of marketing strategies, etc.



Paul



GeoFun

Q5: Could you elaborate more on how spatial data being applied in 21C and give examples of its general usage?



A5: Products dedicated for spatial data, which are free and accessible online (including CSDI portal), are highlighted below.



Charlotte

District Profiles

The District Profiles provide detailed small area statistics in different geographical demarcations, including District Council Districts (DCDs), District Council Constituency Areas (DCCAs), Tertiary Planning Unit Groups, Subunit Groups, New Towns and Major Housing Estates. Upon selecting the small area of interest, users will be provided with as many as around 30 web tables of that area. The web tables can be downloaded in Excel, XML and GML formats.

District-based Spatial Data Dashboard

The District-based Spatial Data Dashboard facilitates data users in comparing the major characteristics of the Hong Kong population in DCDs and DCCAs across 2011, 2016 and 2021. To help users visualise the results and gain insights more easily, the Dashboard is featured with choropleth map, ranking within DCDs/DCCAs and comparison with the whole territory.



GeoFun

Q6: Where can the public retrieve the 21C spatial data related to District Council Districts (DCDs) and District Council Constituency Areas (DCCAs) for use?

A6: Along with the launch of the Common Spatial Data Infrastructure (CSDI) portal for the public to use in December 2022, 21C spatial datasets by various geographical demarcations, as well as those for the previous census/by-censuses starting from 2001, have been made available in the GML format in the CSDI. Users can retrieve the census spatial datasets from the CSDI. Map-based visualisation of census spatial data on the platform is also supported. Apart from the census datasets, C&SD also shares other spatial data, such as the number of establishments and persons engaged by industry and DCD as well as the stock of permanent living quarters by DCD, in the CSDI on a regular basis.



Paul

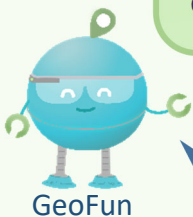


Q7: It is the fact that some researches in building levels are more meaningful. Would you provide statistics in more detailed smaller geographical demarcation area which is smaller than Subunit Groups and New Towns and Major Housing Estates?

A7: C&SD will keep abreast of the emerging user needs and review the dissemination of future population census results from time to time, taking into consideration data privacy and precision.



Charlotte



Q8: It is found that the information on the webpage <http://census.centamap.com/> is very useful, in particular some buildings are grouped together with similar characteristics (e.g Belcher's Street 1970's private residential buildings). Would C&SD consider to release such data on the CSDI portal?



Paul

A8: Population census/by-census results are also disseminated in Building Group demarcation, which is jointly developed by C&SD and Centamap Company Limited. Building Group demarcation provides a geographical framework for analysing Hong Kong property market using census results. It is expected that population census/by-census results disseminated in Building Group demarcation will be released on the CSDI portal from the first half of 2024 onwards.



Latest activities of Geospatial Lab (GeoLab)

Professional Geospatial Talk x Workshop - Introduction to Open-sourced Geographic Information System (June)

A two-part workshop was organized in June for parties and individuals with experience using GIS and fundamental understanding of coding. In the first part of the workshop, preparation and execution of Python codes in Google Colab were introduced. Demonstration on how Python codes and libraries can be deployed for spatial data visualisation and analysis as well as downloading spatial datasets from Open Street Map (OSM) were briefed.

The second part of the workshop focused on using Python and its libraries for geographical data analysis and visualisation with spatial data from the CSDI Portal. Some modern geospatial analysis libraries with hands-on training on accessing, cleaning, analysing and visualising spatial data using additional libraries were introduced.

Professional Geospatial Workshop - Let the Spatial Data Talk: Identify Urban Heat Island Effect (July)

An interactive session designed to empower participants with the skills and knowledge necessary to develop an Urban Heat Island Vulnerability Index Map was organised on 22 July. The objective of this workshop was to foster informed, sustainable decision-making in urban development by using geospatial techniques to identify urban areas most at risk from heat islands. Using the government's open spatial data from the CSDI Portal, participants were guided through a step-by-step process: data accessing, preparing, analysing, visualising and map sharing.

Geo-STEAM 2023 (July-August)

A fun and challenging 3-day workshop which used maps for storytelling was organised for Secondary 1 to 4 students in July and August. Participants were taught to build their own storymap by collecting, visualising, analysing and sharing their spatial data. A certificate was awarded to those participants who completed all three modules.



CSDI Awards - Presentation Day and Awards Ceremony (29-30 July)

To engage the stakeholders from a wider spectrum, the CSDI Awards 2023 – “Propel Our City with Spatial Data” (the “Awards”) has commenced in January. There were four categories from senior primary school students to open category. The goal of these Awards is to encourage students and individuals from the public to make creative use of spatial data to address challenges faced by the city. Among nearly 100 submissions received for the Awards, a total of 44 teams were shortlisted. The CSDI Awards 2023 Presentation Day and Award Ceremony were successfully held on 29 and 30 July. After rounds of evaluation and selection by the judges, the winners of the awards in the four categories were announced.

This year’s theme for the Awards is “Environmental, Social and Governance” (“ESG”). Key issues in ESG — such as environmental protection, social inclusiveness, conservation, wellbeing and access to resources — bear spatial dimensions and therefore provide the opportunity for problem-solving with spatial data. The Awards encourages the creative use of spatial data from the CSDI portal to deal with the challenges related to ESG issues, making Hong Kong a livable, smart and innovative city.

The Awards has sparked a surge of creativity since the year started, with our briefing sessions, workshops, and mentorship programs aiding contestants throughout their "spatial" journey. The event highlight can be found at <https://csdigeolab.gov.hk/en/event-highlight/csd-awards-2023-eh>.



Awardees of Primary School Category (P4-P6)



Awardees of Junior Secondary School Category (S1-S3)



Awardees of Senior Secondary School (S4-S6)



Awardees of Open Category