

By post and email at info@smartcity.gov.hk

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Dear Ir YEUNG

Public Consultation on Views on Hong Kong Smart City Blueprint

Thank you for inviting the Institution to give views on the captioned subject. We are pleased to provide herewith our views and suggestions on the subject matters for your consideration.

Thank you for your attention.

Yours sincerely



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Views from the Hong Kong Institution of Engineers to the Hong Kong Smart City Blueprint

The Hong Kong Institution of Engineers (HKIE) supports the vision of Smart Hong Kong and the initiatives under the Smart City Development Plan in areas of “Smart Mobility”, “Smart Living”, “Smart Environment”, “Smart People”, “Smart Government” and “Smart Economy” as recommended by the *Report of Consultancy Study on Smart City Blueprint for Hong Kong* (“the Report”). Sharing the aspiration for early and effective implementation of smart city initiatives in Hong Kong, the HKIE would like to put forth our views and recommendations regarding the Report.

Smart City Vision, Policy and Strategy

2. The HKIE is of the view that having test beds is essential for the smart city development, and considers that Kowloon East is an ideal site for testing out the application of various smart technologies. We suggest that the scope of testing could be further expanded so as to accelerate the learning curve of identifying suitable applications for Hong Kong and speed up the deployment in other suitable areas.

3. Smart city can be an impetus for setting the new industry standard and driving for investment in technology development. The initiatives would necessitate corresponding measures to address the intellectual property rights and availability of professional expertise. The HKIE welcomes the proposed Public-Private-Partnership (PPP) models to facilitate the smart city development. The Administration should also consider instilling further financial resources, drafting and enforcing relevant laws and regulations, and encouraging industries to participate alongside with their own business goals in order to facilitate the smart city development through PPP models.

4. To create a more vibrant Hong Kong’s innovation and technology ecosystem for the smart city development, we suggest the Administration to establish a new fund, and the provision and assignment of which should be in line with the definition of the smart city development determined by the proposed Smart City Steering Committee. The Administration is also suggested to optimise the funding framework of the existing Innovation & Technology Fund in order to better cover the needs for the smart city development. To ensure that the existing laws can be more in tune with the technology and smart city development, the Administration is also suggested to conduct necessary review to enable innovation to flourish while the public interests can be better protected.

Governance Arrangements

5. Smart governance requires the collaboration among numerous responsible Government Bureaux/ Departments, and a top-level public official spearheading the proposed governance structure is mandatory. The HKIE opines that successful implementation of smart city initiatives requires a senior champion to provide top-down leadership as well as a centralised coordination and implementation body which has the authority, resource and accountability within the Administration to work with both internal and external stakeholders on multi-disciplinary and cross-departmental issues.

6. The HKIE is of the view that respective committees with well mix of key representatives from the Government, industries, professionals and academics should be established to define the road map of the smart city development and standards pertinent to the characteristics of Hong Kong. It is hoped that the respective committees could draw up a more solid plan in the near future with a concrete timetable and milestones as well as the associated key performance indicators to monitor and review the progress of the smart city development.

7. Regarding the proposed Smart City Programme Office, it should also act as the one-stop-shop to coordinate with relevant Government Bureaux/ Departments for their support and assist the private enterprises to assess the feasibility to pilot and implement innovative smart city projects. To facilitate wider participation and encourage innovative ideas on smart city initiatives, the Administration is recommended to set up an open platform for the public and the stakeholders to generate debate and formulate “smart ideas” on the development of applicable technologies for smart living.

8. We recommend the Administration to consider establishing a dedicated committee to move towards a wider adoption of city-wide Internet of Things (IoT) and other emerging technologies on one hand, and to lay down the corresponding cyber security framework and precautionary measures on the other.

Smart City Development Plan

Smart Mobility

9. The HKIE supports the wider adoption of electric vehicles (EVs) to reduce roadside emissions, and urges the Administration to enhance the corresponding infrastructures such as partnering with the community/ private sector in installing more charging facilities. For smart mobility to materialise, the Administration should secure the support and participation from the public transport operators in sharing real-time service information with the community and to coordinate with various stakeholders to deliver the vehicle users with the information related to car parking/ EVs charging facilities availability.

Smart Environment

10. The HKIE welcomes the initiatives that leverage technology to better manage Hong Kong’s built and natural environment. We expect closer collaboration with public utilities in implementing Smart Grid to enhance the reliability and efficiency of power supply. Drive for encouraging the public utilities to launch effective demand-side management programs such as installing smart metering system for the households and other users should be pursued.

Smart People

11. To develop Hong Kong into a data-driven society, it is of paramount importance to uplift the technical skills and knowledge on the evolving technologies. The Administration should develop a holistic manpower development plan to cater for the long-term need of putting forward the smart city development.

12. For the youngsters, we suggest the Administration to consider reviewing and adapting the curriculum and examination system in order to better facilitate STEM (Science, Technology, Engineering and Mathematics) education in schools. The Administration should provide the

schools with sufficient support for equipping them with relevant hardware facilities and preparing teaching/ learning resources, enrich the teachers' professional development in delivering STEM education, and strengthen partnership between schools and community stakeholders/ professional bodies for arranging relevant STEM educational activities and services.

13. In view of a rising trend in the demand for skilled professionals in data science and data analytics, the Administration is suggested to partner with the private sector in providing more job/internship opportunities for university students in data science and smart city technologies to sustain the supply of the emerging professionals (e.g. data science talents).

14. Status and professional standard of technologists and engineering professionals including those engaged in information technology shall be promoted to attract high calibre young people to enter the field to supply the manpower for the long-term smart city development.

15. For the working adults, the Administration should coordinate for more continuous education initiatives to encourage further study on data analysis and smart city related technologies, so as to update their skills in smart use of data and facilitate them to master new job tasks related to smart city projects.

16. The HKIE also considers it necessary to reach to the community in promotion of smart city, and assist the public to grasp the concept and gradual application of smart city technologies in their daily living.

Smart Government

17. The Administration is suggested to refine and put forward a data sharing policy and identify a suitable policy and operation unit to determine the policy and practice for sharing timely and comprehensive data owned by the Government to the public, in particular to the planning data that can facilitate better construction design and town planning by the engineering and construction sectors. The Administration should also continuously review and enhance the provision of public services via the electronic means for the benefits of the public users.

18. The HKIE supports the proposal on the development of a 3D Common Spatial Data Infrastructure integrated with Building Information Modelling (BIM) for information sharing to facilitate infrastructure planning, construction, operation and maintenance. The BIM technology is expected to create more opportunities for new services from analysis of the shared information. To make the proposal successful, we consider that the Administration should take lead in promoting the BIM technology through closer collaboration and coordination among relevant Bureaux/Departments, utilities and private sector.

19. The HKIE considers that the Government should take lead in driving for the use of underground integrated ducts/ tunnels or utilidors for placement of different underground utility service facilities. The Government is suggested to construct the utilidors and coordinate with the utilities on assigning spaces for the installment of those service facilities through contractual agreements. Meanwhile, the feasibility of placement of utility services in the existing Government infrastructures can be explored.