

# Development of the Government BIM Data Repository in Hong Kong

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**Key words:** e-Governance; Implementation of plans; Standards; BIM data repository; BIM harmonisation; BIM data standard; BIM data validation; BIM to GIS data conversion; smart city development; digital twin

## SUMMARY

With the increasing adoption of Building Information Modelling (BIM) in the construction industry and the growing importance of data-driven decision making, the establishment of a centralized BIM data repository becomes crucial for developing Hong Kong into a world-class smart city to enhance the effectiveness of city management and sustainable development.

Pursuant to the release of Smart City Blueprint for Hong Kong in 2017 which sets out the overall framework and strategy for the use of innovation and technology to develop Hong Kong into a spatially enabled smart city including the adoption of BIM and the development of Common Spatial Data Infrastructure (CSDI) and 3D Digital Map, the Government of the Hong Kong Special Administrative Region further promulgated policies to mandate the use of BIM for all government projects over HK\$30 million in 2019 and formulated a harmonized BIM data standard for the works departments to adopt when preparing their design and as-built models for submission to the Lands Department to facilitate the development of the Government BIM Data Repository.

In order to further foster BIM adoption in Hong Kong, the Lands Department has taken up the key role in establishing and maintaining the Government BIM Data Repository as the centralized data sharing platform for all BIM data collected from government departments; facilitating the BIM standard harmonization amongst government departments; and spearheading the development of BIM/GIS integration to support smart city applications. This paper will walk through the journey of the Lands Department in establishing the Government BIM Data Repository as spatially enabled digital twins for Hong Kong and discuss the challenges encountered in BIM data management, validation, and conversion.

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