

Hong Kong's Digital Twin – CSDI, 3D Map and BIM Development



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Hong Kong as a Smart City

The Innovation and Technology Bureau published in Dec 2017 the Smart City Blueprint for Hong Kong setting out the **overall framework and strategy for developing Hong Kong into a Smart City – including CSDI, 3D Map and BIM.**



Smart
Mobility



Smart
Living



Smart
Environment



Smart
People



Smart
Government



Smart
Economy



Promote the establishment of CSDI

Actively seek to require consultants and contractors to use **BIM technology**

Implement **Open Data Policy**



Earmark **\$300 million** to develop a **geospatial data sharing platform** and **3D digital maps** of the whole territory

BIM

Building Information Modelling



Acceptance of BIM Format for General Building Plan (GBP) submission

Study on integration of BIM/GIS

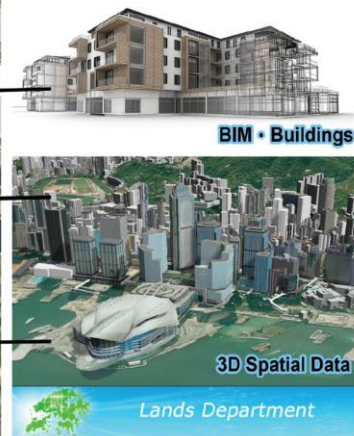
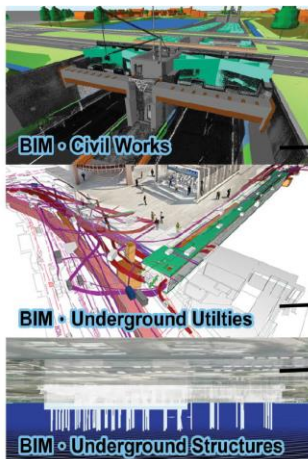


Collaboration with Construction Industry Council (CIC)

Setting up a BIM Data Repository Prototype



Mandatory use of BIM of Works Project over \$30M



BIM - Building Information Modelling

[BIM Data Repository]



Lands Department
地政總署

3D Map

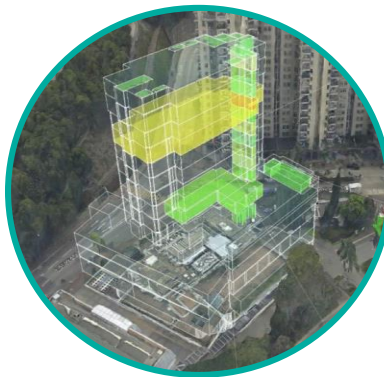
3 Stages of 3D Digital Map Development

Stage 1



**3D Maps
for Visualization**

Stage 2



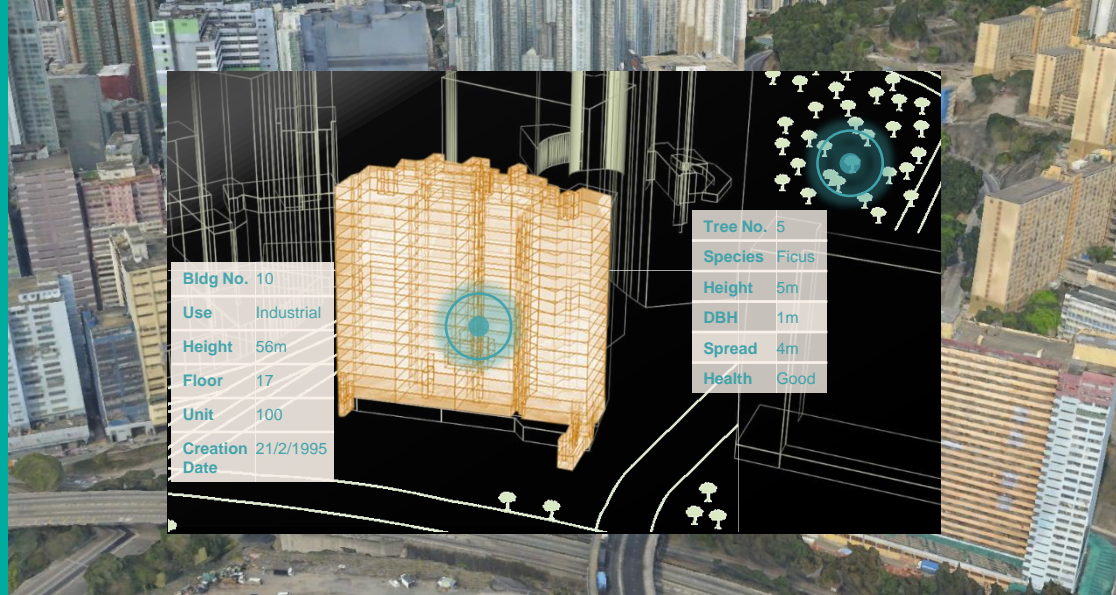
**3D Maps for Unit-based
Indoor Applications**

Stage 3



**3D Maps for
City Modelling**

3D Map



Comprehensive 3D Map Objects

Spatial Data

Support applications across virtually all sectors of human activities.....



**Topographic
Basemaps**



Land Records



Utility Management



Telecommunications



**Disaster
Management**



**Urban & Regional
Planning**



Census



**Environmental
Management**



Health Care



Education



Logistics



**Economic
Development**

CSDI – Common Spatial Data Infrastructure

Vision



To contribute to a livable, competitive, innovative, sustainable and smart Hong Kong through the provision of convenient, easily accessible, high quality and up-to-date spatial information and services

Mission



Maximise innovation, knowledge and value creation for the Government, business and the community

5 Objectives



Enhance data interoperability



Promote the use of geospatial intelligence and applications



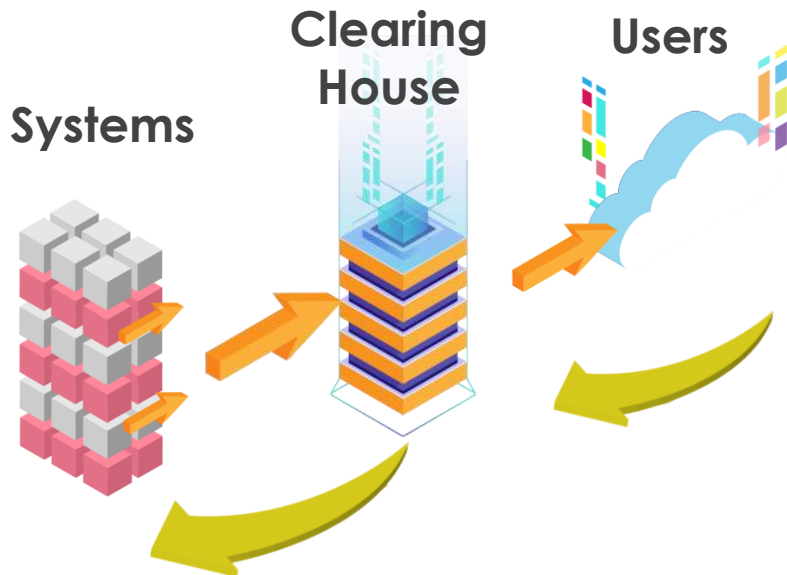
Improve geospatial capability and knowledge



Increase accessibility and usability of spatial data



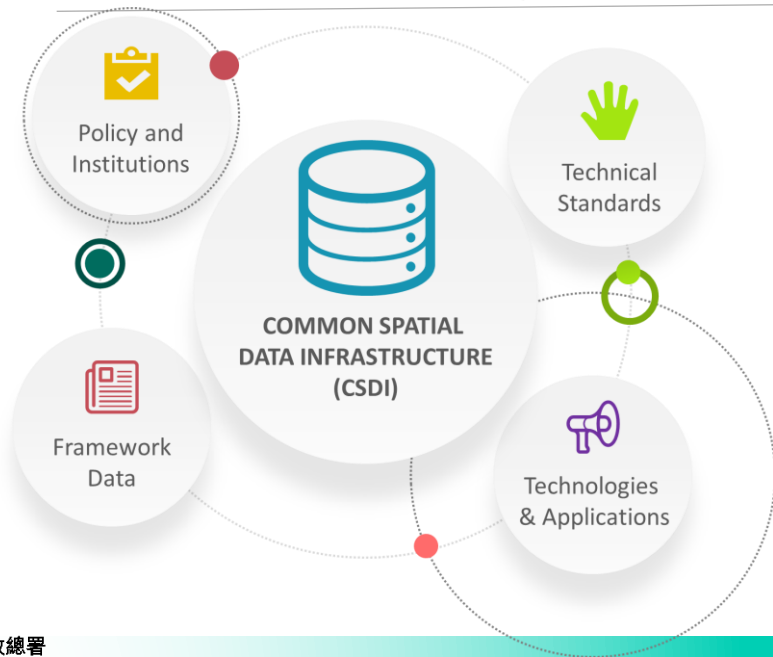
Foster a collaborative culture



CSDI - Common Spatial Data Infrastructure

Overview of CSDI

4 CSDI Core Components



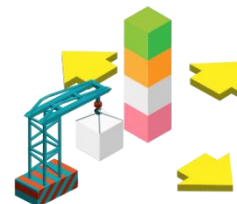
3 Essential Development Areas



Data & Technical Standard



Platform & Application



Capacity Building & Outreach

5 Building Blocks



Leadership & Governance



Funding and Charging



Fundamental and Common Sharable Data



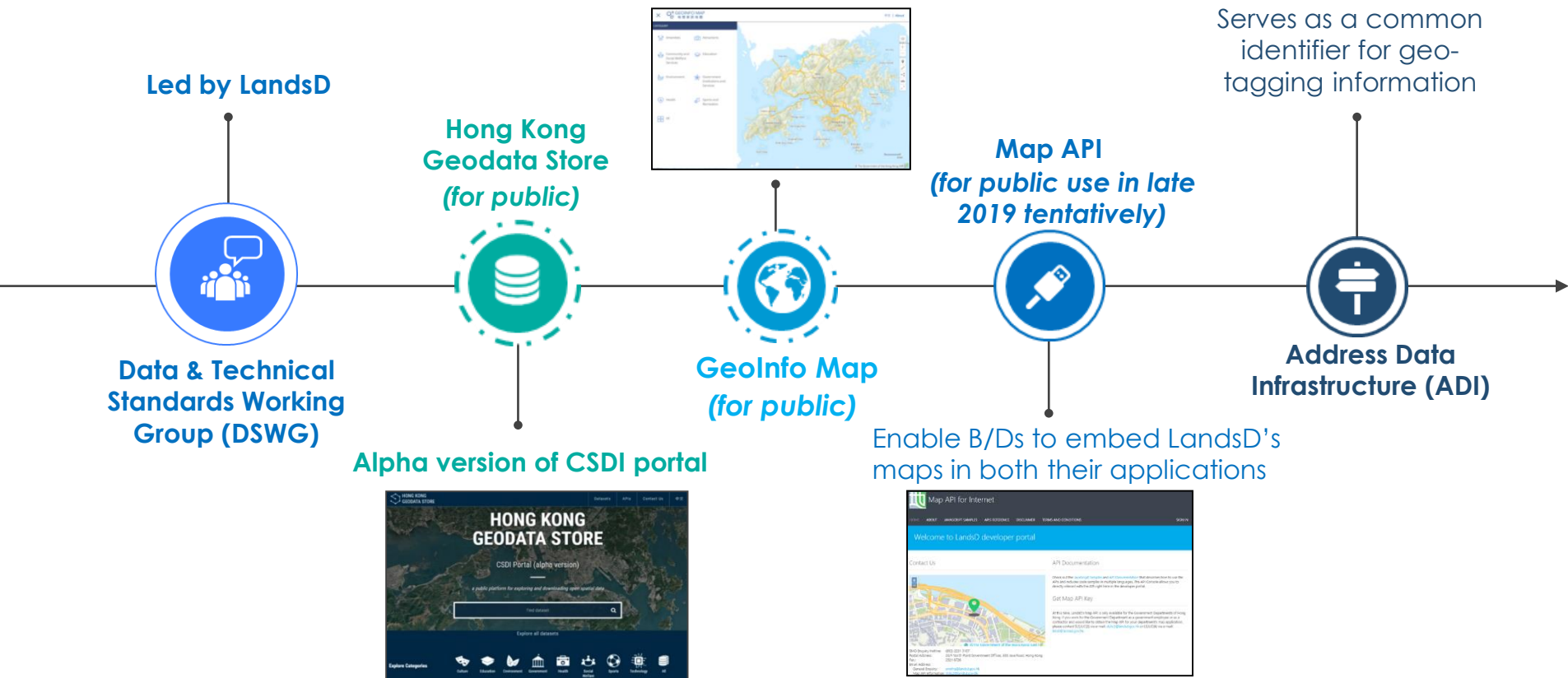
Operating Model and Technology



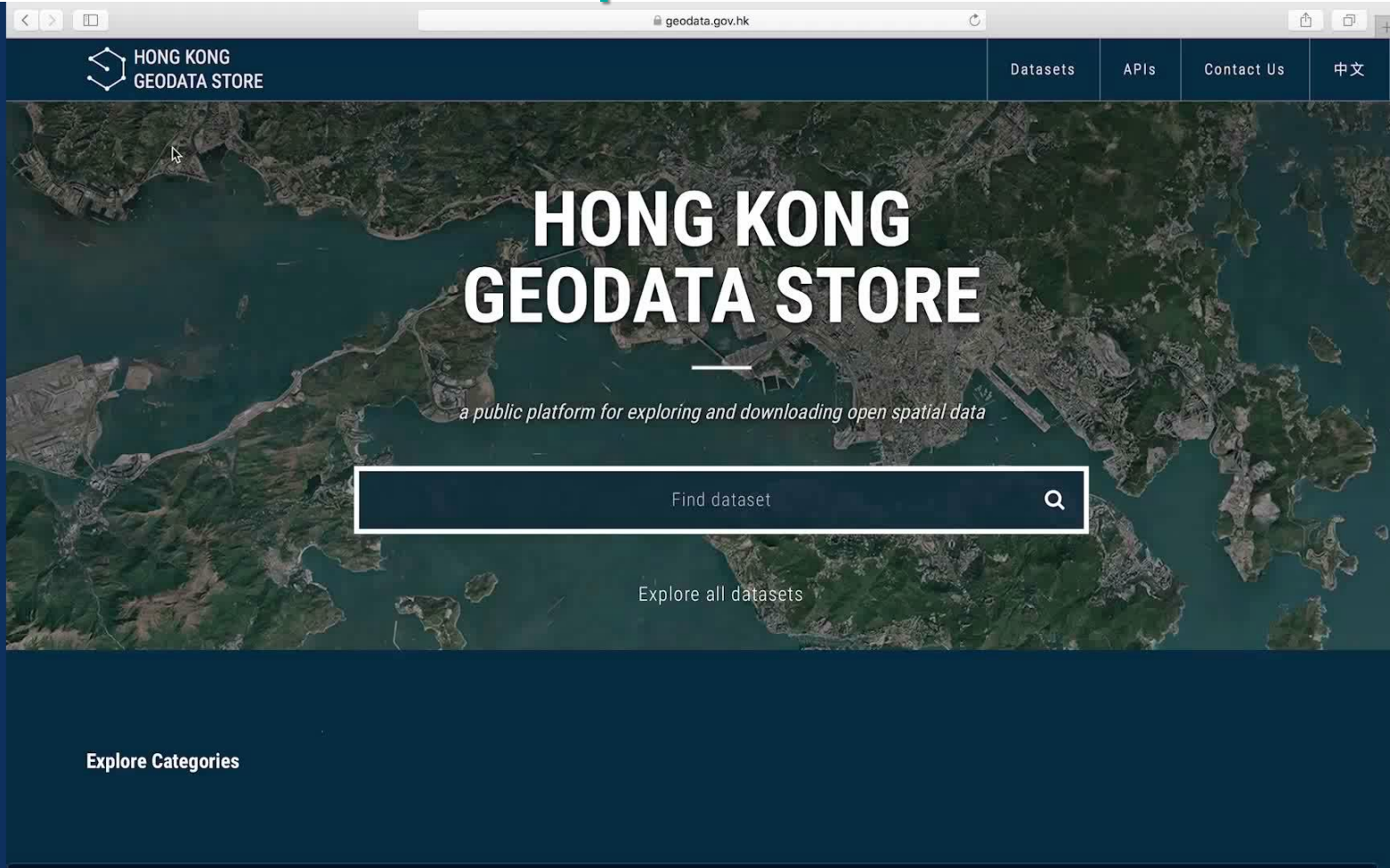
Capacity Building, Outreach & Partnership

CSDI - Common Spatial Data Infrastructure

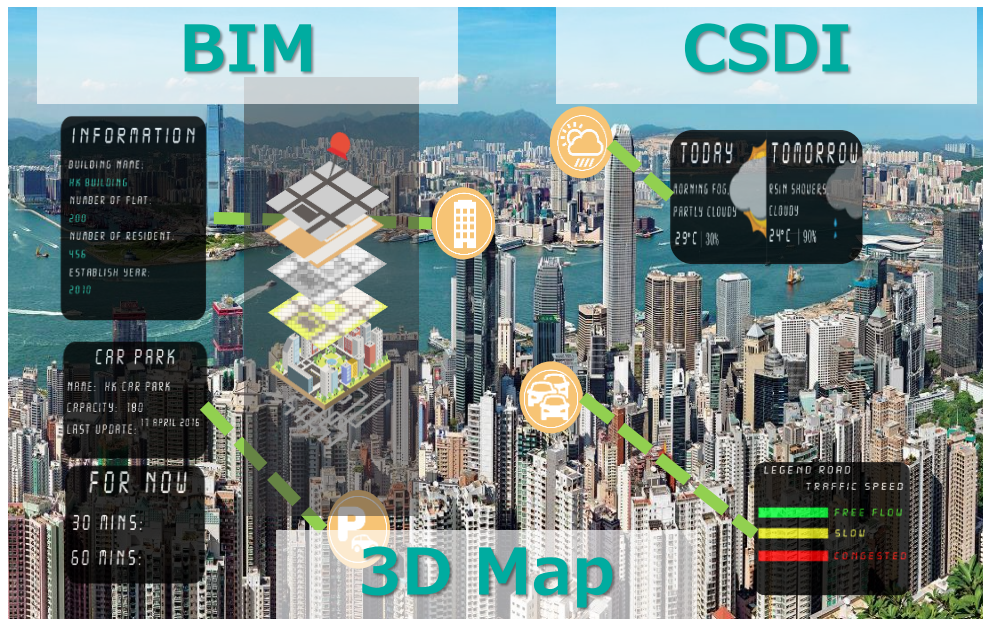
Data contributed by **30+** B/Ds with **270+**
public services and facilities data for public



CSDI - Common Spatial Data Infrastructure



Our goal is to develop Hong Kong into a spatially enabled world city



Smart Hong Kong with Digital Twin

Increasing accessibility and usability of spatial data

Using geospatial intelligence and shared applications

Enjoying an enabling eco-system to support innovation and the creation of valued-added spatial products

thank
you!



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