

新時代地圖

MAPS IN A NEW ERA

時代改變了生活方式，從前的「路在口邊，見人問路」，現今已演變為「路在指尖，啟動搜尋」。「新時代地圖」是今年《香港街》的專題，將介紹新世代數碼地圖的特色，以興趣點為例，在地圖上標註準確的坐標，就可以把起居飲食的生活元素連繫起來。即使足不出戶，生活資訊也盡在掌握。

Changes in the way of life over time have transformed the practice of asking passers-by for directions into an option of tapping on the search button. "Maps in a New Era", the theme of this annual edition, will highlight some features of a new generation of maps. Take for instance points of interests, precise co-ordinates are inputted on maps so that data on different aspects of our daily lives are linked up. This facilitates access to a wealth of information on everyday life at our fingertips, without any need to set foot elsewhere.



古有指南車



South-pointing chariots in ancient times

今有導航儀



Navigation devices with GPS in modern days



Nowadays

現今

現今的流動地圖包含各式各樣的地理資訊，並結合多元化的搜索功能。只要一機在手，不論是搜尋地址或社區設施，還是查找行車路線或選乘公共交通工具，生活都變得更輕鬆便捷。

Equipped with diverse search functions, mobile maps nowadays encompass a wide array of geographic information. Be it a search for locations or community facilities, or a browse through means of public transport or traffic routes, a smartphone in hand always makes our lives much easier and more convenient.

地圖的演變

The Evolution of Maps

傳統地圖
Traditional map

流動地圖
Mobile map

底圖 Base Map

- ▶ 平面地圖
Plane map

- ▶ 平面地圖
Plane map
- ▶ 影像地圖
Image map
- ▶ 三維地圖
3D map

地圖內容 Map Contents

- ▶ 圖幅範圍固定
Fixed map extent
- ▶ 地理資訊有限
Limited geographic information

- ▶ 圖幅範圍靈活多變
Dynamic map extent
- ▶ 地理信息幾乎無限而且包羅萬有
Almost unlimited and all-encompassing geographic information
- ▶ 地圖檢索功能
Map search functions

更新頻次 Update Frequency

- ▶ 更新周期較長
Longer update cycle

- ▶ 持續更新
Continuous update

定位 Positioning

- ▶ 多以「北上南下」形式顯示
Mostly pointing to north with south on the opposite end
- ▶ 使用指南針
Compasses are used

- ▶ 根據使用者方位調整地圖方向
Maps are orientated to the user's direction
- ▶ 使用定位服務顯示使用者周邊的地理資訊
GPS is used to provide users with geographic information in the surroundings

比例 Scale

- ▶ 固定比例
Fixed scale

- ▶ 隨意放大縮小
Dynamic scale



建構新時代地圖

Constructing Maps in a New Era

興趣點
Point of Interest (POI)



地圖概括自動化
Automatic Map Generalisation



空間數據共享平台
Common Spatial
Data Infrastructure (CSDI)



建築信息模擬技術
Building Information Modelling (BIM)



地圖應用程式界面
Map Application Programming
Interface (MAP API)



建築信息模擬技術 Building Information Modelling (BIM)

整合建築信息模擬技術的模型及地理信息系統的數據，製作三維數碼地圖，在日常生活中為市民提供彈指可得的資訊。

Integration of BIM model and GIS data supports the production of 3D digital maps and provides the public with readily accessible information in daily life.

祥龍圍邨
Cheung Lung Wai Estate

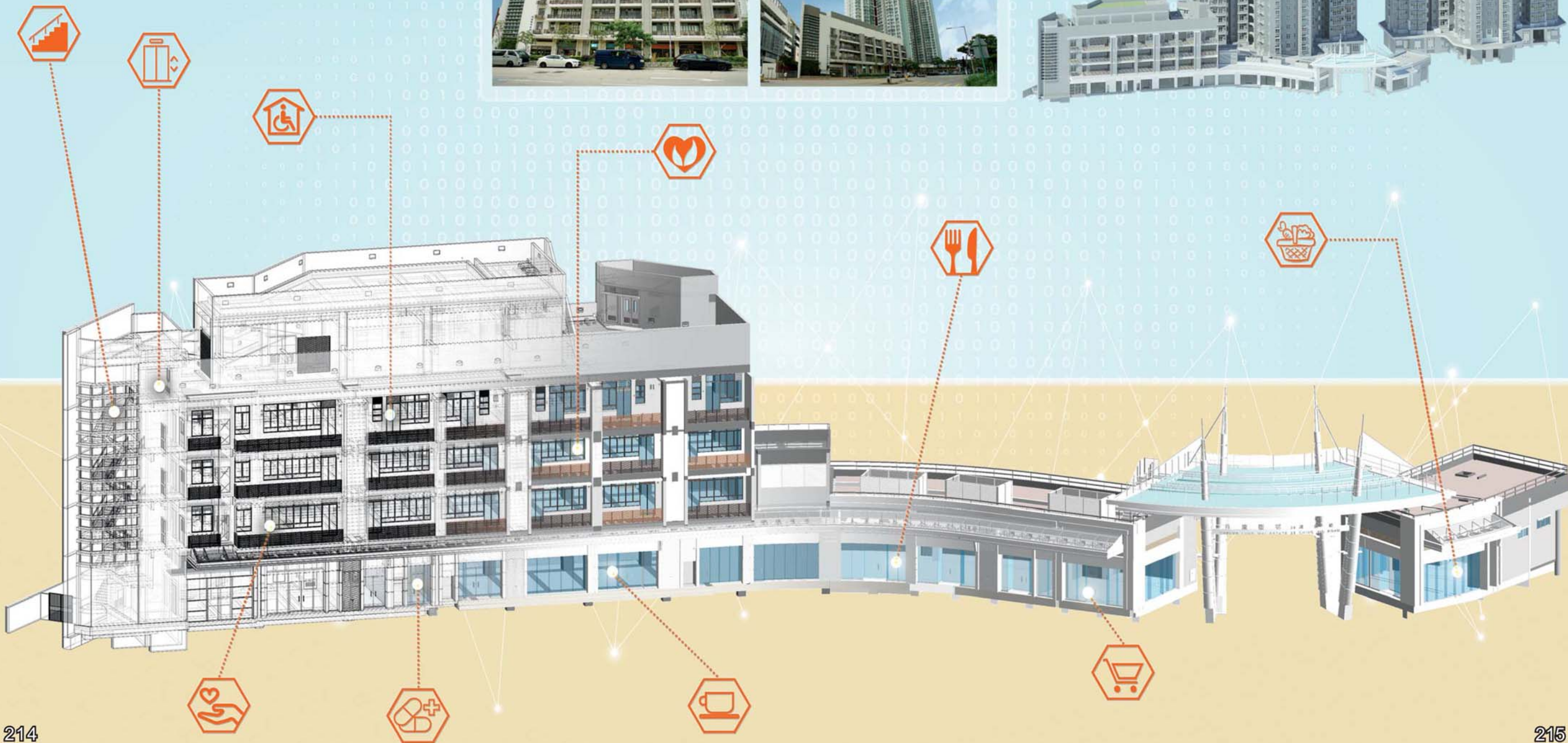
大廈名稱 Building name	1 呈祥樓 Ching Cheung House	2 景祥樓 King Cheung House
層數 Number of floors	32	36
單位數目 Number of flats	1358	



祥龍圍邨服務設施大樓
Cheung Lung Wai Estate Ancillary Facilities Block



祥龍圍邨
Cheung Lung Wai Estate



淺談地圖概括方法

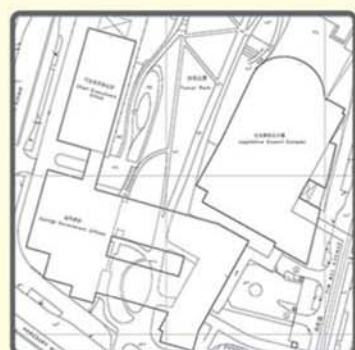
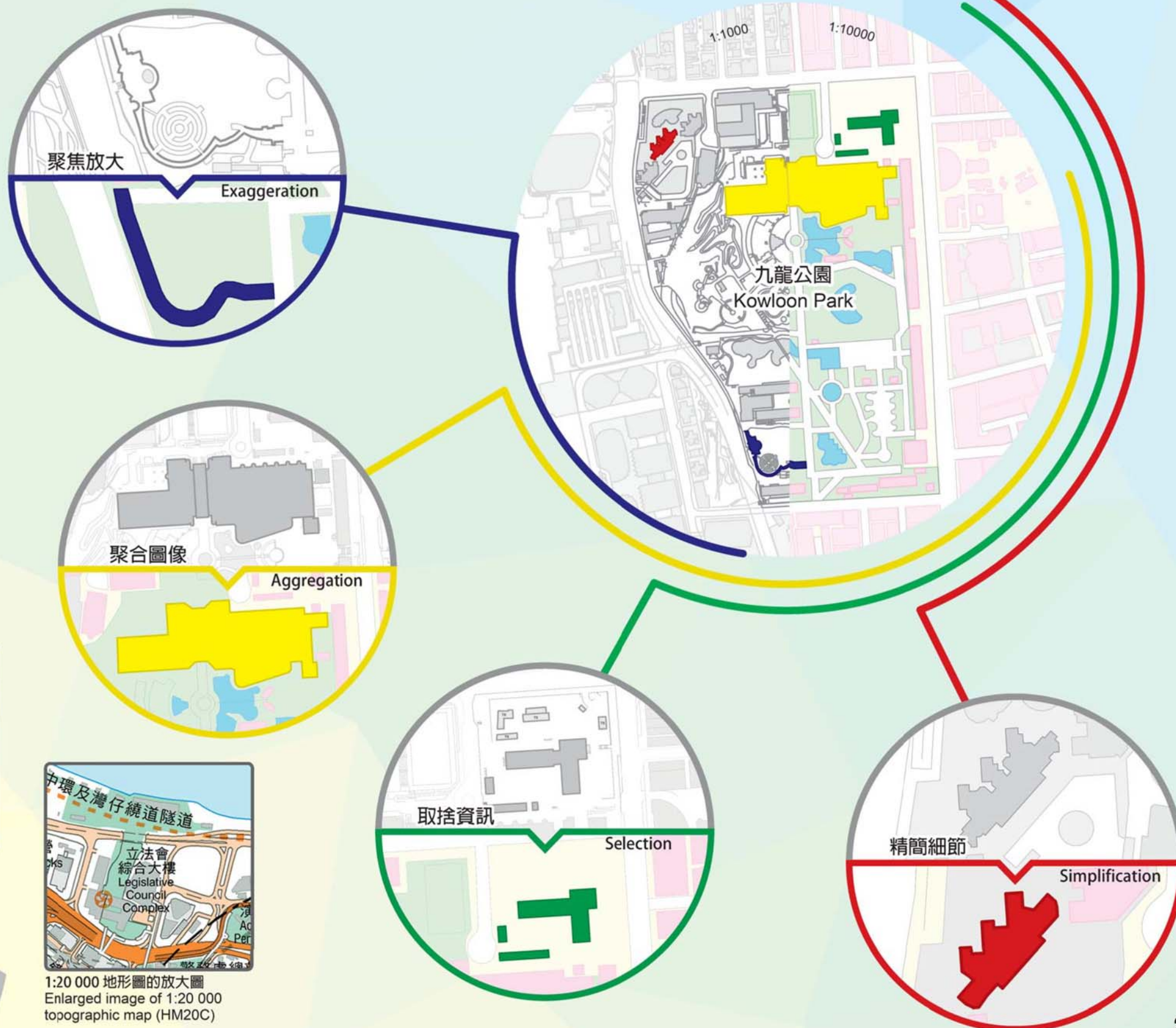
Brief on Map Generalisation Operators

何謂地圖概括？

地圖概括是指有意義地減少地圖的資訊量。當地圖比例縮減，地圖細節會變得更加密集。通過地圖概括，可以製作更易於閱讀的衍生地圖。以下是常見的地圖概括方法。

What is map generalisation?

Map generalisation is a process of reducing the amount of details on a map in a meaningful way. When the map scale is reduced, map contents will be densified. Through map generalisation a derived map can be produced with satisfying legibility. Here are some common operators used in map generalisation.



1:1 000 基本地圖的縮影圖
Reduced image of 1:1 000
basic plan (HP1C)



1:5 000 衍生地圖的縮影圖
Reduced image of 1:5 000
derived plan (HP5CL)



1:20 000 地形圖的放大圖
Enlarged image of 1:20 000
topographic map (HM20C)

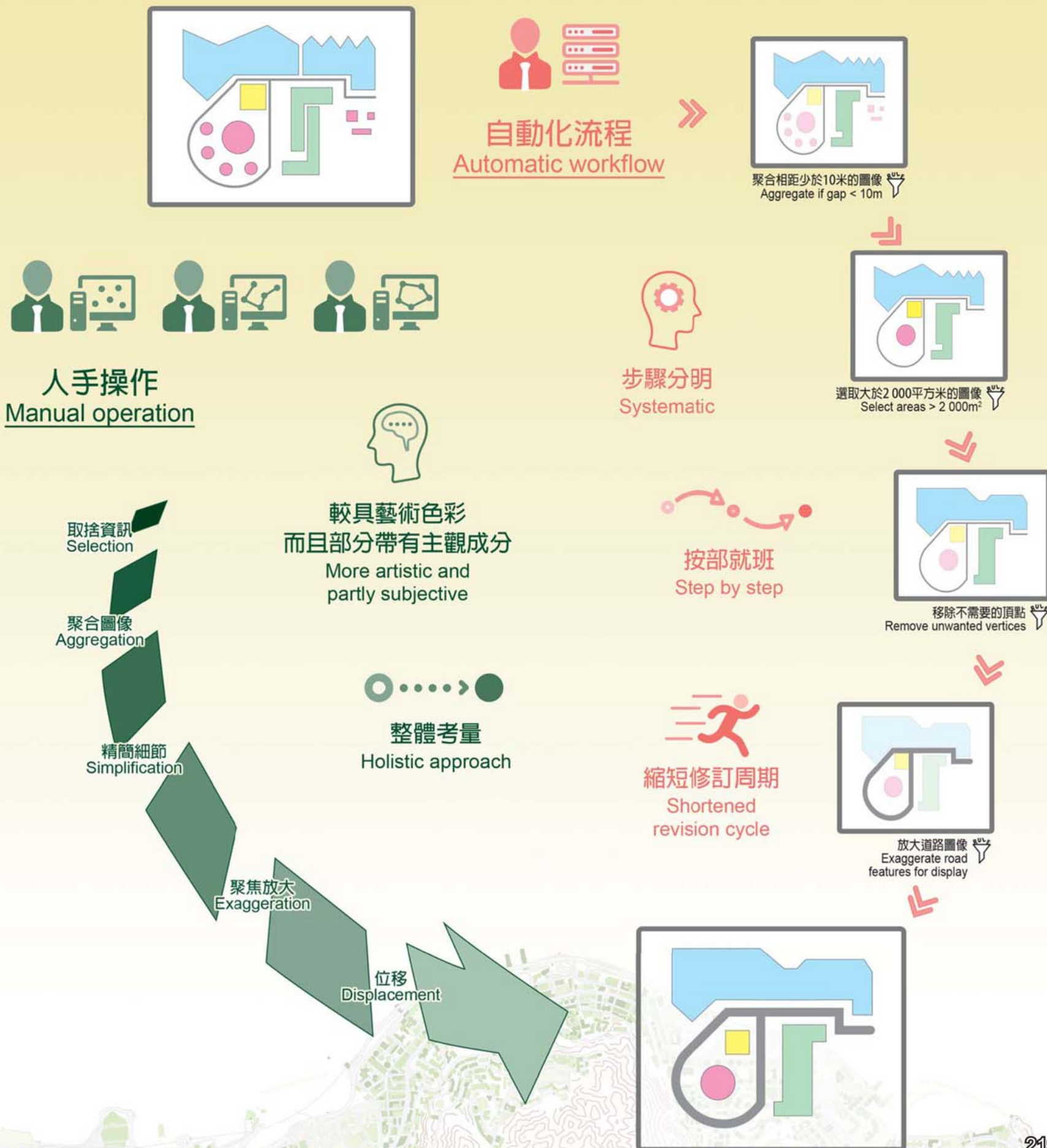
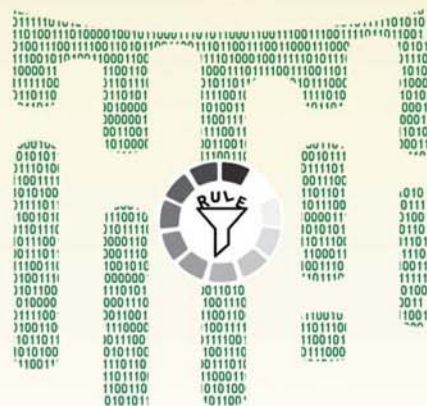
Map details are reduced by map scale
地圖細節按地圖比例減少

地圖概括自動化

Automatic Map Generalisation

為執行地圖概括自動化，現有的編繪指引會編寫成按規則處理的電腦可讀格式。電腦利用各種地理處理工具，在概括地圖的過程中，模擬製圖人員的決定。

To achieve automatic map generalisation, current compilation guidelines will be converted into a rule-based format. With the use of various geoprocessing tools, computers can imitate human decisions in the map generalisation process.



空間數據共享平台

Common Spatial Data Infrastructure (CSDI)

空間數據 Spatial Data

空間數據來自不同政府部門所提供的資訊。「空間數據共享平台」可讓地理空間數據整合、互通和共享，從而支援智慧城市的發展。
Spatial data come from the information provided by various government departments. The CSDI enables the integration, exchange and sharing of geographic spatial data in support of smart city development.



地圖應用 程式界面 Map API

政府部門可以通過地圖應用程式界面，輕易把地政總署的地圖和其他地理信息，融合到各自的應用程式，從而減省處理地圖數據所需的時間和資源。

With the use of Map API, government departments can gain easy access to maps and other geographic information provided by the Lands Department in their applications. By doing so, raw map data can be processed with less time and resources.

應用 Application

公眾可以使用不同的應用程式，取得地理資訊和備有空間維度的數據：

The general public can obtain spatial information and data with spatial dimensions through different applications:

 GEOINFO MAP
地理資訊地圖

<https://www.map.gov.hk>



 HONG KONG
GEODATA STORE

<https://geodata.gov.hk/>



還有更多應用程式有待探索.....
More to discover...



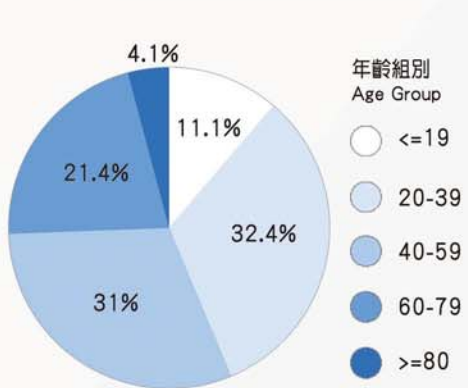
地圖新領域

Mapping the New Frontier

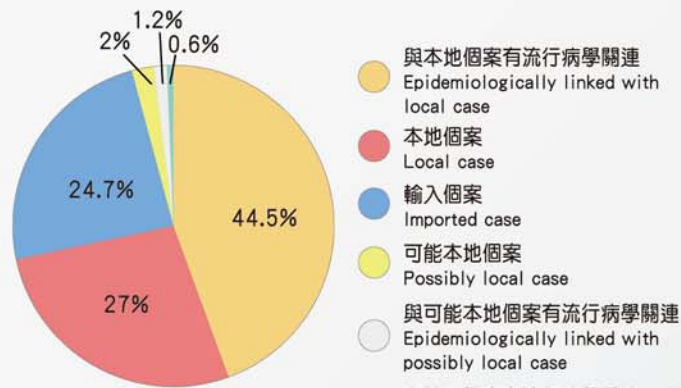
現今地圖的應用既切合民生所需，貼近生活，也為公眾提供更優質的網上地圖服務。
 Nowadays, map applications can cater for the public's needs, relate to their daily lives and provide them with better online map services.

互動地圖儀表板

Interactive Map Dashboard



年齡組別確診或疑似個案百分比
 Percentage of Confirmed or Probable Cases by Age Group



確診或疑似個案分類的百分比
 Percentage of Confirmed or Probable Cases by Class Classification

香港特區政府於2020年2月3日推出此互動地圖儀表板。以一站式平台為公眾提供有關新型冠狀病毒疫情的最新資訊。平台由發展局、地政總署以及一群智慧城市聯盟的義工合力開發和管理。疫情結束後，儀表板會繼續公開多項數據，例如急症室地址及輪候時間等。

QR Code: <https://chp-dashboard.geodata.gov.hk/>

The HKSAR Government launched on February 3, 2020 this Interactive Map Dashboard for effective dissemination of information on the latest situation of the novel coronavirus epidemic in Hong Kong. The Dashboard is jointly developed and managed by the Development Bureau, Lands Department and a group of volunteers from the Smart City Consortium. After the end of the epidemic, the dashboard will continue to release information such as the locations of Accident and Emergency Departments of various hospitals and waiting time for emergency services.

香港出行易

HKeMobility

運輸署已將「香港乘車易」、「香港行車易」及「交通快訊」整合成一個名為「香港出行易」的一站式交通運輸流動應用程式；市民可更方便快捷搜尋不同出行方式的路線、行程時間及交通費用，並獲取即時交通消息。

It's an all-in-one mobile application integrating TD's 3 previous mobile applications ("HKeTransport", "HKeRouting" and "eTraffic News"). It facilitates faster and more convenient search for routes of different transportation mode, journey times and fares, and disseminates real-time traffic news.



https://www.td.gov.hk/tc/public_services/hong_kong_emobility/



環境天氣儀表板

Environment & Weather Dashboard



資料一線網站推出這個城市儀表板，以形象化、實時動態方式展示環境天氣的數據。透過互動圖表和地圖展示特定地區最新天氣狀況。

The City Dashboard, which helps the public visualise real-time dynamic Hong Kong data, is available on data.gov.hk. The dashboard presents data on environment and weather on interactive charts and maps.

QR Code: <https://data.gov.hk/tc/city-dashboard?dashboard=environment>



讀者如對是次專題有任何建議，歡迎提出寶貴意見。
 You are welcome to contact us with any comments or suggestions on this year's theme.

郵寄地址：香港北角渣華道333號
 北角政府合署23樓
 Address: 23rd floor, North Point Government Offices, 333 Java Road, North Point, Hong Kong
 電郵：smohq@landsd.gov.hk
 Email:
 傳真：2521 8726
 Fax:

QR Code: <https://www.landsd.gov.hk/mapping/en/pro&ser/feedback.htm>