# 中大未來城市研究所開發全港首個城市大數據整合分析平台助香港發展成為「智慧城市」





## (1) 創新調查系統改善城市規劃

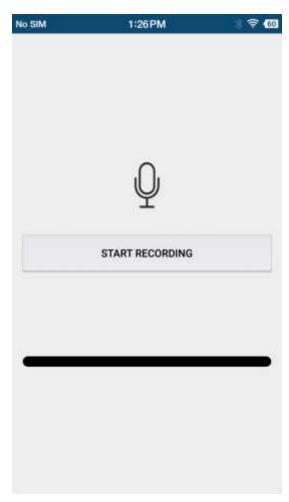
#### Generic Interviewing System with Applications







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Sounds

**Photos** 

**Videos** 

(2) 覆蓋面更廣泛的空氣污染監察系統

## Air Pollution Decision Support System (APDSS)

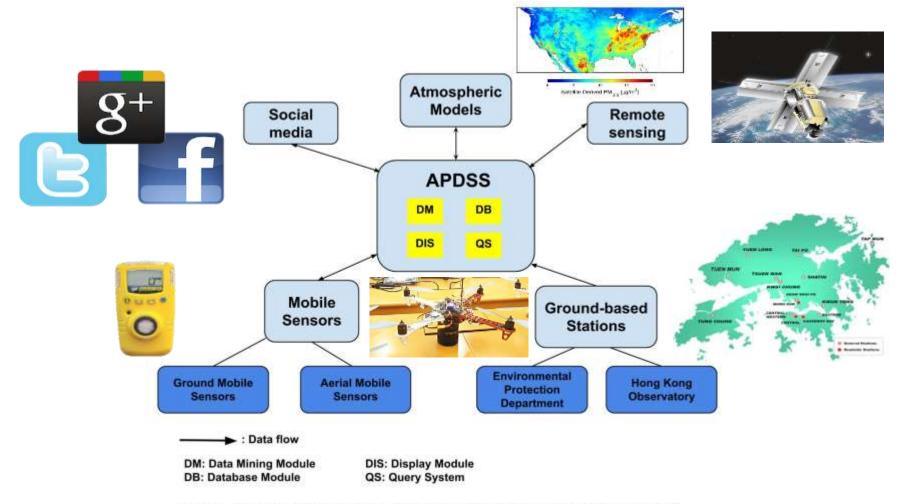


Figure 1. Overall System Architecture of the Air-Pollution Decision Support System (APDSS)

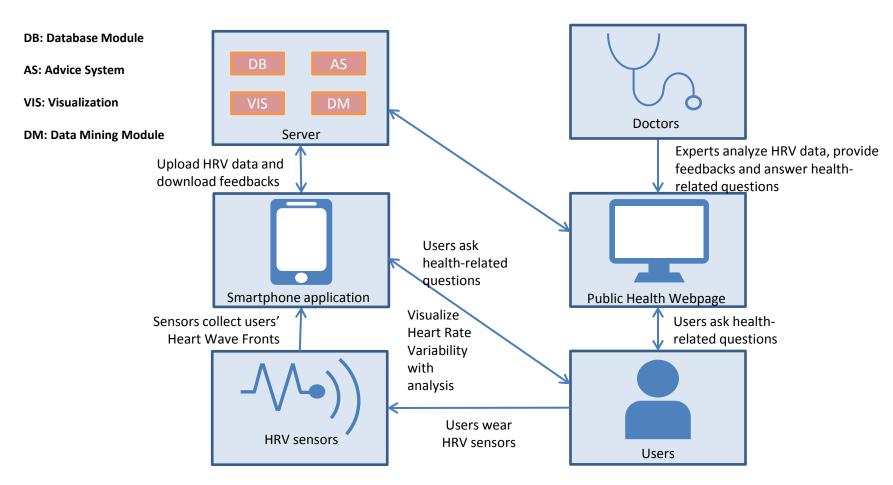
#### **Mobile Sensors**

- Modularized Sensors
  - Configurable Sensing Capability
  - Plug-and-Play
- Multiple Wireless Communication Links
  - Bluetooth, ZigBee, GPRS, Wi-Fi, etc.
  - Wearable, Stationary and Vehicular
- Main Control Unit
  - Real-time Data Acquisition and Analysis

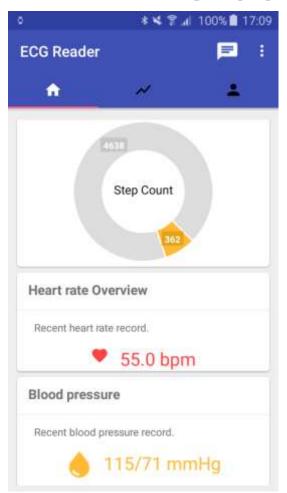


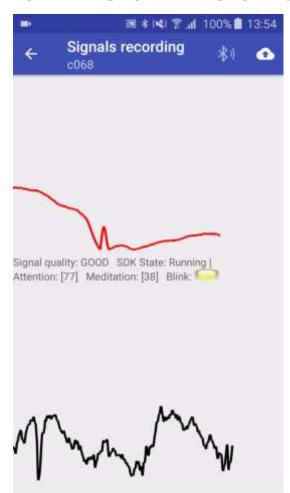
## (3) 個人化醫療保健

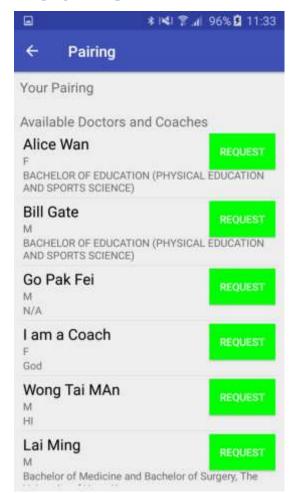
#### Personalized Healthcare



#### Personalized Healthcare







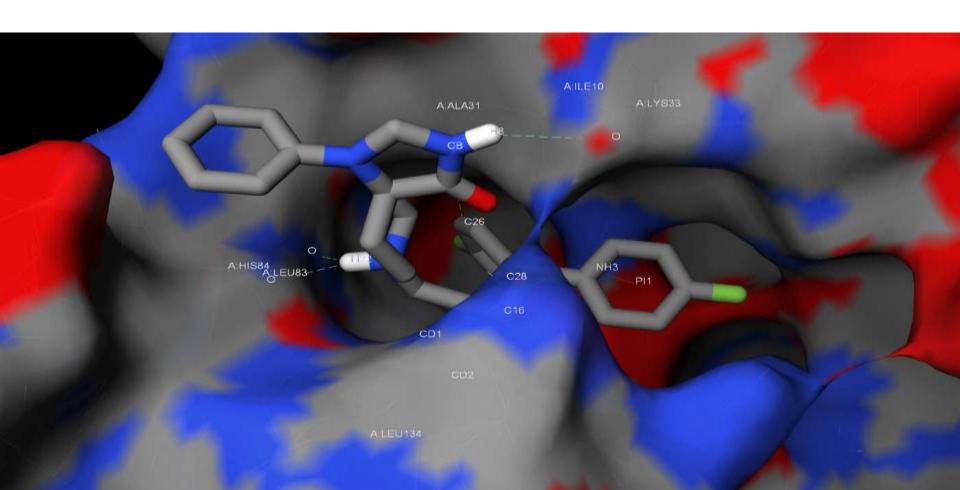
## (4) 以精算軟件輔助開發藥物

## **Drug Repurposing**

- Finding new indications of approved drugs
- Applications in oncology, virology, gout, etc.



## Predicted CDK2-Fluspirilene Complex

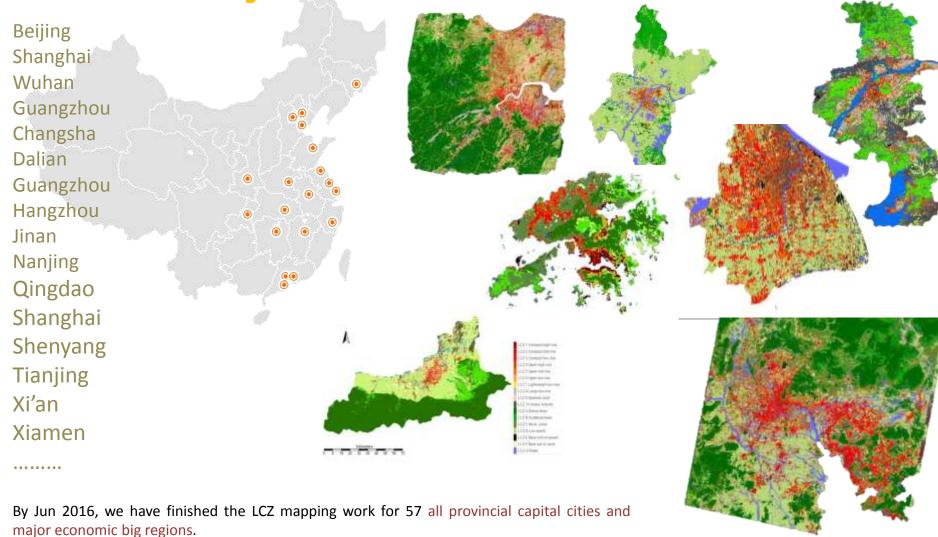


## (5) 世界城市資料庫及工具(WUDAPT)

- 中國城市形態與地表覆蓋的視覺化與地圖化

**WUDAPT Level 0 Product** 

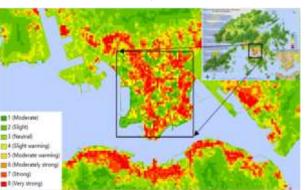
**WUDAPT: Major Cities in China** 



#### **WUDAPT Level 1& 2 Products & Application**

- WUDAPT level 1 & 2 applications
- Urban climatic analysis and Weather/Climatic Modelling, like WRF;
- Energy Balance study;
- Climatic-Spatial Analysis and Planning, like Urban Climatic Map;
- Early warning of high-risk urban areas with adverse urban climate issues.





Urban climatic map using satellite data



Satellite-derived building morphology using our approach



Actual building morphology for comparison