Office of the Government Chief Information Officer
The Government of the Hong Kong Special Administrative Region

Hong Kong's Smart City Journey

5 January 2021

Where Are We?

>12M daily passenger journeys on public transport

283.75% mobile subscriber penetration rate

6.54M+ registrations

$1 900B+ transactions

39 000+ free public Wi-Fi hotspots

4 200+ open datasets

10B in 2020 downloads

93.7% household broadband penetration rate

Smart City Blueprint 1.0 for Hong Kong

76 initiatives

6 smart areas

40+ Completed or under completion in phases

Initiatives Implemented after Release of Blueprint 1.0

- Smart Prison /Smart Customs Blueprint
- New on-street parking meters
- Adoption of technology in construction

Global Ranking

International Institute for Management Development

5th World Digital Competitiveness Ranking 2020 (Overall ranking) (8th in 2019)

7th World Competitiveness Yearbook 2020 (Technological infrastructure)(18th in 2019)

The Digital Intelligence Index Report

2nd Asia-Pacific region **/** **3rd** World

Global Innovation Index

11th In 2020 (13th in 2019)

Blueprint 2.0 – Key Objectives

(a) members of the public can perceive benefits from smart city development

(b) quick-wins, visible, and impactful

(c) open and transparent

Summary of Blueprint 2.0

140 initiatives

6 smart areas

+ new chapter on "Use of I&T in Combating COVID-19"

60+ new initiatives

	No. of initiatives in Blueprint	No. of initiatives in Blueprint 2.0
Smart Mobility	23	31
Smart Living	8	15
Smart Environment	10	18
Smart People	10	12
Smart Government	12	31
Smart Economy	13	20
Use of I&T in Combating COVID-19	-	13
Total	76	140

Blueprint 2.0 - New Initiatives

SMART MOBILITY

- Traffic Data Analytics System
- Set up the Smart Traffic Fund

SMART PEOPLE

- IT Innovation Lab in Secondary Schools
- STEM Internship Scheme

SMART LIVING

- "iAM Smart" to streamline TD's licensing services
- Telehealth, video-conferencing and remote consultation

SMART GOVERNMENT

- Electronic Submission Hub for processing building plans
- ‘Be the Smart Regulator’ and ‘Streamlining of Government Services’ Programmes

SMART ENVIRONMENT

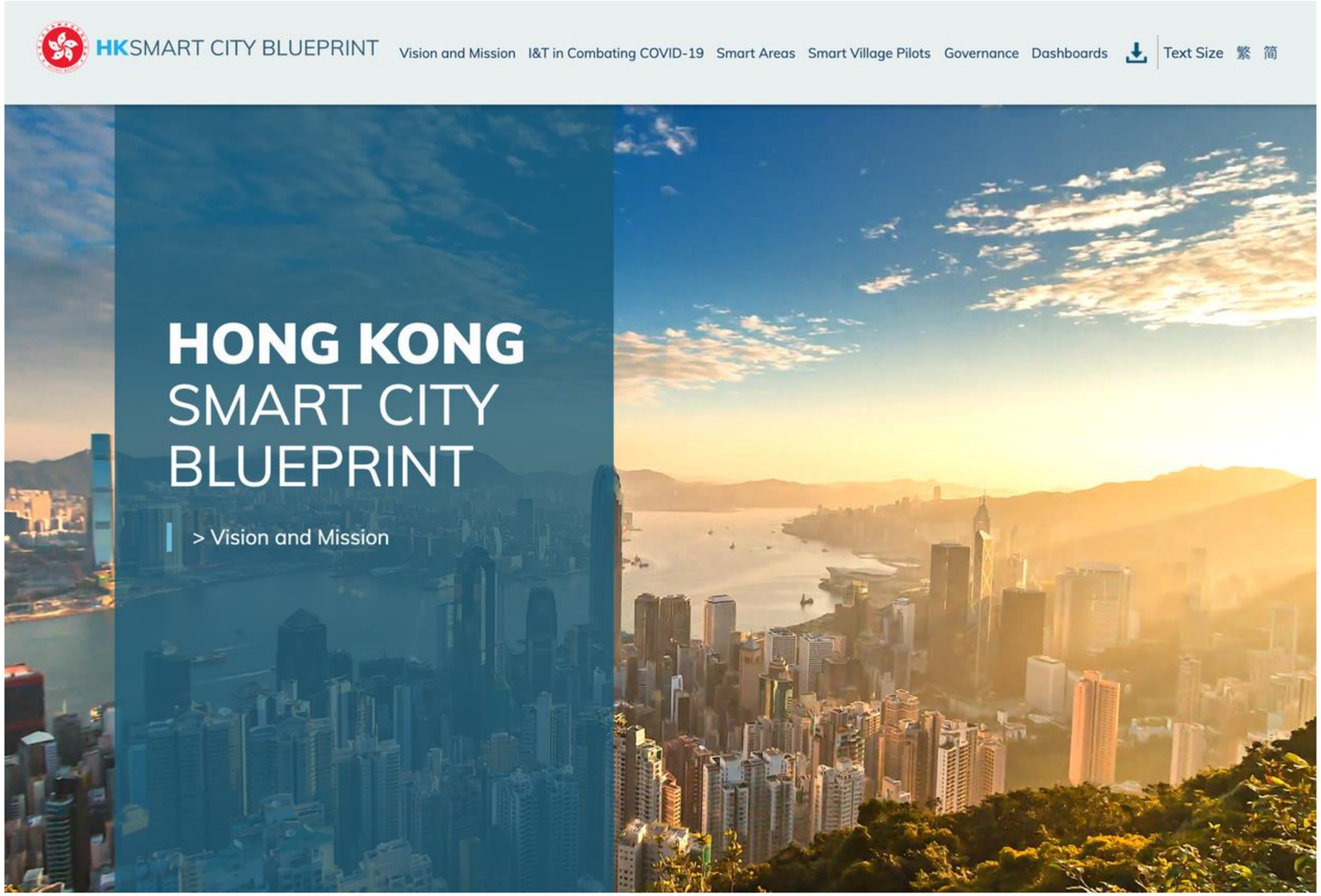
- “Smart toilet" pilot and apply technologies in public toilets
- Improve pest control using IoT technology etc.

SMART ECONOMY

- Online dispute resolution and deal-making services
- eMPF Platform

Dedicated Smart City Portal

- Blueprint 2.0 uploaded to dedicated Smart City portal (www.smartcity.gov.hk)



Dedicated Smart City Portal – Progress of initiatives

HKSMART CITY BLUEPRINT | Vision and Mission | I&T in Combating COVID-19 | Smart Areas | Smart Village Pilots | Governance | Dashboards | Text Size 繁 简

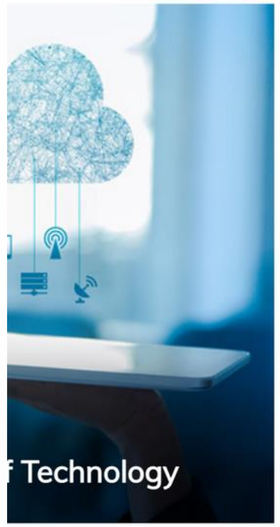
SMART GOVERNMENT INITIATIVES

Benefits

Open up more data in machine readable format on the Public Sector Information Portal for free use by the public, provide building blocks for research and development, facilitate innovation and smart city development

Progress

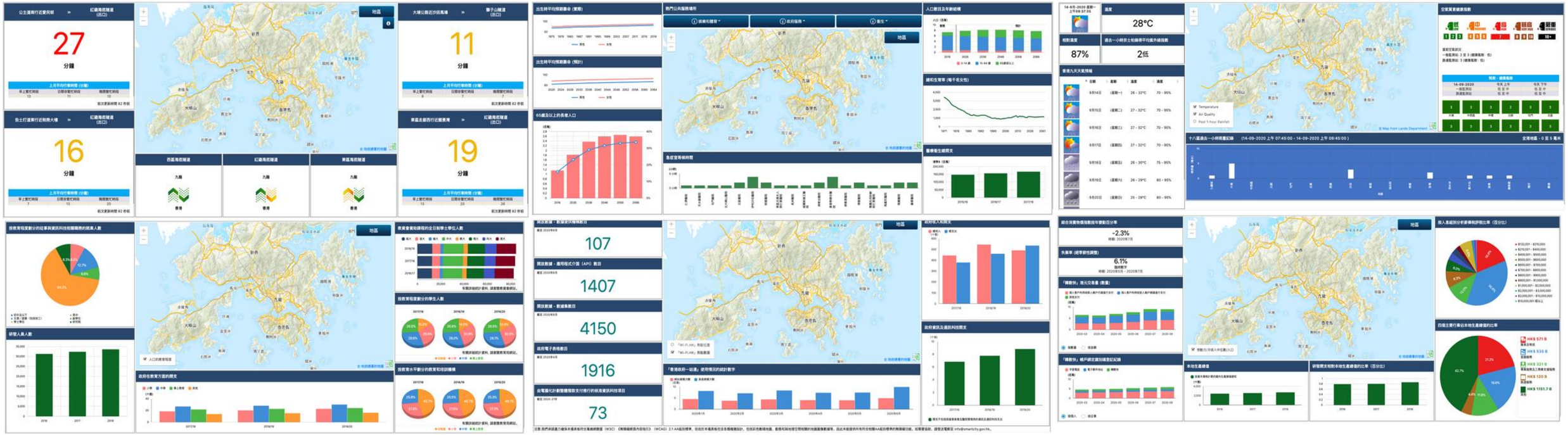
- Open up over 230 new datasets in 2020. As at end Aug 2020, 171 new datasets have been opened up
- Bureaux/departments are preparing their third annual open data plans — Dec 2020
- Bureaux/departments published their second annual open data plans — Dec 2019
- Opened up 700 new datasets in 2019 and launched City Dashboards — Dec 2019
- Real-time arrival data of New World First Bus, Citybus, New Lantao Bus and MTR Corporation (for 4 rail lines) opened up — Aug 2019
- B/Ds published first annual open data plans — Dec 2018



Continue to promote the opening up of data from public and private sector under the open data policy announced in 2018

Dedicated Smart City Portal - Dashboards

- Six new smart city dashboards using open data



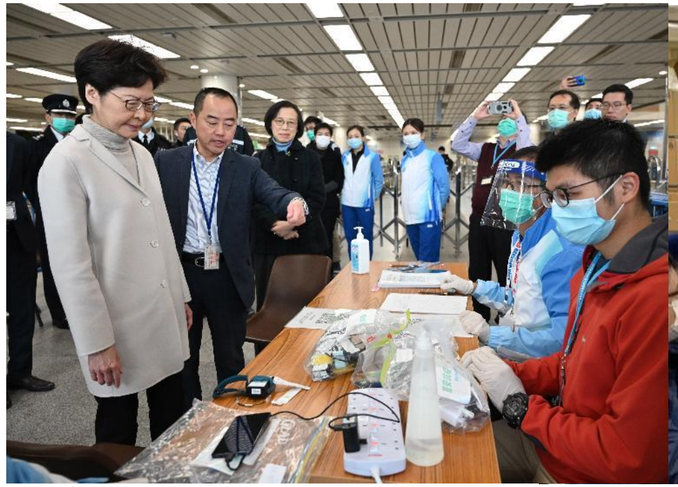
Blueprint 2.0 - New Chapter

USE OF I&T IN COMBATING COVID-19

居安抗疫
Stay Home Safe

- "StayHomeSafe" home quarantine system
- "LeaveHomeSafe" exposure notification and mobile app
- Promote contactless payments in public markets
- COVID-19 Online Dispute Resolution Scheme ...

Home Quarantine Solutions



Timeline

Jan 29	Started work to support Home Quarantine	
Feb 4	Hubei returnees	handmade e-wristband & IT monitoring system ready
Feb 8	All Mainland returnees	location sharing (Centres 1 & 2 for video calls, etc.)
Mar 9		pilot mobile app + e-wristband at HZMB
Mar 14 Mar 17	Italy, France, Germany, Japan, Spain Korea & Schengen	mobile app + e-wristband
Mar 19	All returnees from overseas	mobile app + QR code wristband (Centre 3 for central helpdesk, enquiry hotlines)
Mar 31	All overseas returnees via airport	mobile app + disposable e-wristband
Apr 4		Centre 4 to support data input
Apr 14	All returnees via all control points	mobile app + disposable e-wristband
Apr 27	Location sharing fully replaced by e-wristband	Centre 2 closed on 22 May

Home Quarantine Figures at a Glance

People under home quarantine : (cumulative since 4 Feb)	~533 000
No. of people using wristband :	~453 000
No. of people using location sharing :	~80 000
No. of spot checks, enquiries and support requests handled :	~490 000

Electronic Wristbands

Over 413 000 installed

re-usable base station

re-chargeable and re-usable

disposable

disposable

No GPS

Geo-fencing (base station & mobile app)

Bluetooth signal tracking

Break alert

“StayHomeSafe” Mobile App

- R&D of local university and tech startup
- Detect and analyse changes of wireless signals and their strengths (WiFi, Bluetooth, GPS, telecom, etc.) in the environment (geo-fencing)
- Paired with disposable e-wristband with its Bluetooth as prime signal
- Convenient to apply; uninstall app and dispose of wristband after use
- No collection of personal data, preserve privacy

Monitoring Centres

Centre 1 (8 Feb) – Location sharing & spot checking

Centre 2 (24 Feb) - Location sharing & spot checking

Monitoring Centres

Centre 3 (19 Mar) – Helpdesk & mobile app user support

Centre 4 (4 Apr) – Data analysis and case investigation

Service Desks at Control Points

HK International Airport

HK–Zhuhai–Macao Bridge

Shenzhen Bay

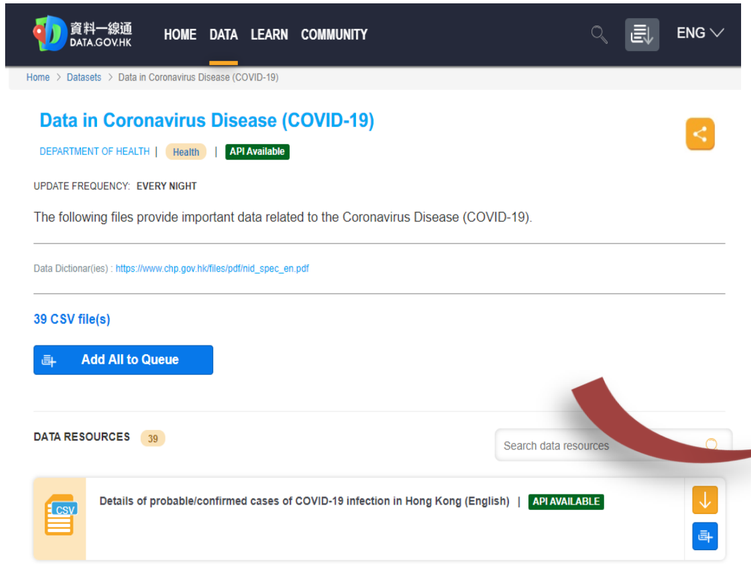
Device Pairing and Home Visits

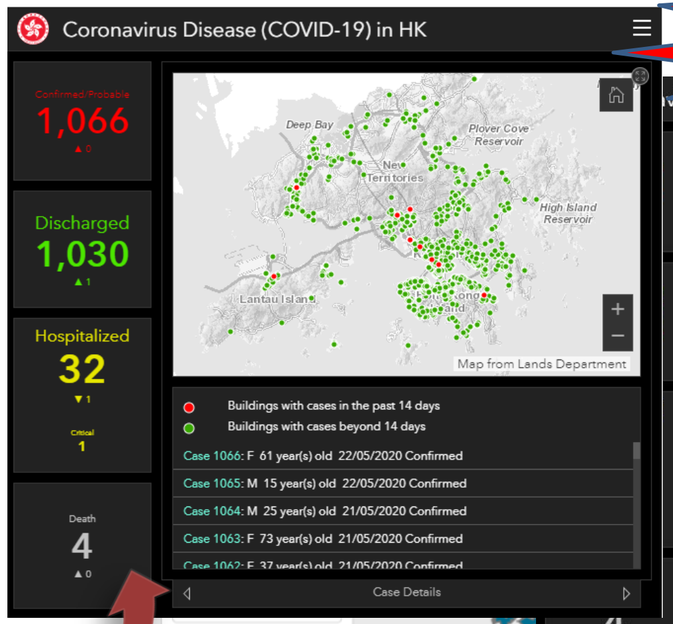
Collaboration

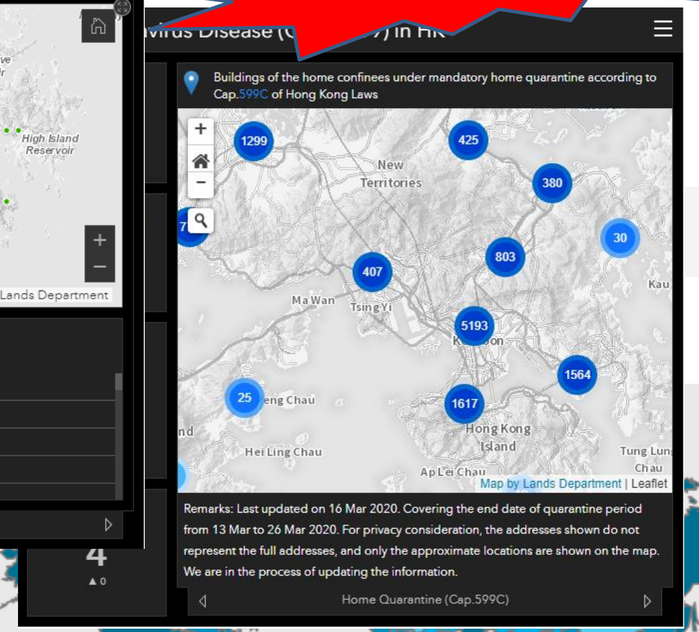
- Design and produce first batch of 500 wristbands & IT monitoring system in 5 days
- Develop and support the IT system on wristband monitoring
- Sourcing, logistic and quality control of wristband manufacturing
- Mobilise over 700 staff, partners and volunteers (from IT industry, in-service & retired civil servants) for IT system support, device pairing at CHP, home visits, control points, helpdesk technical support, contractors training and supervision

COVID-19 Dashboard

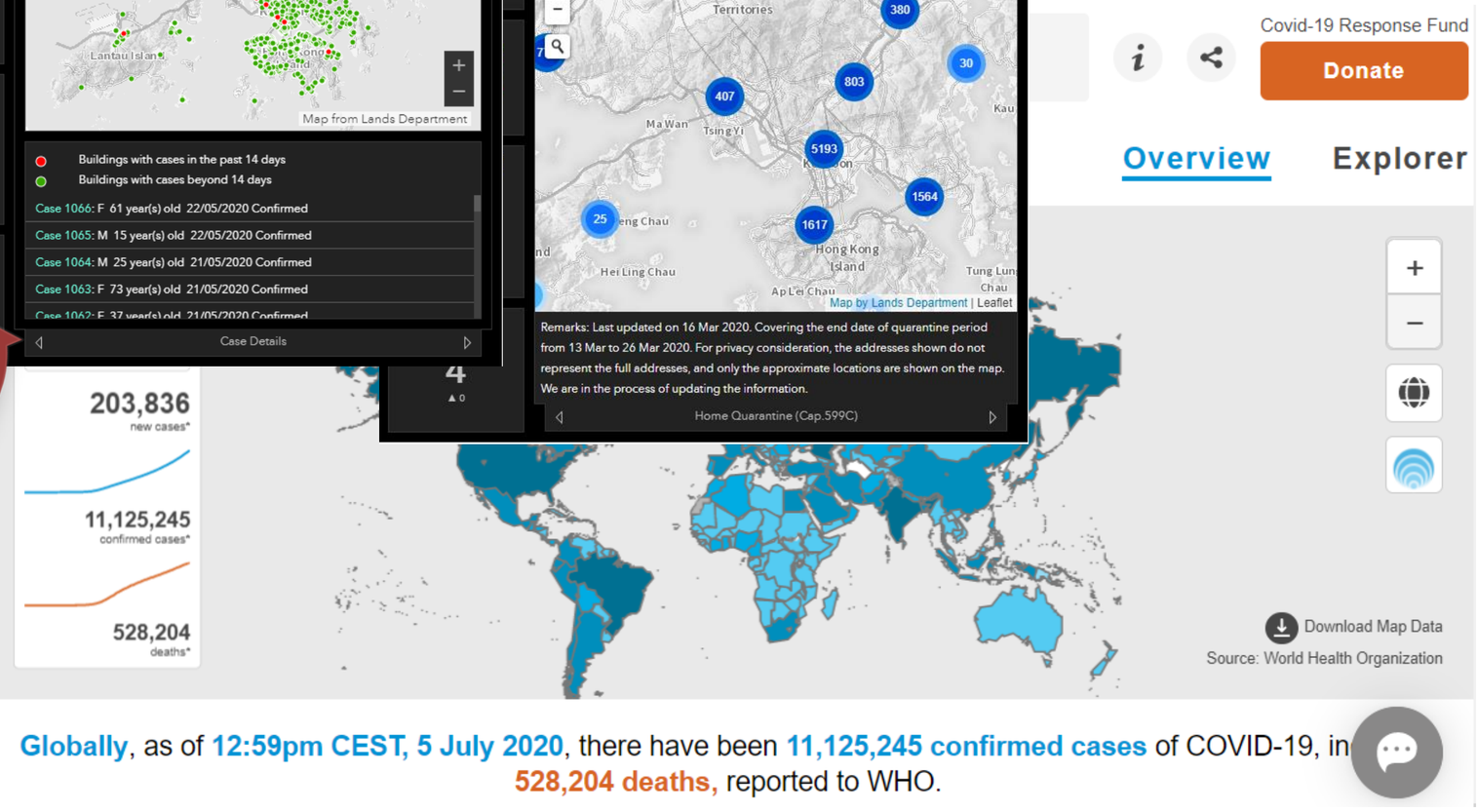
Technology improves transparency and promotes Government and industry collaboration







About 44 million views



資料一線通 DATA.GOV.HK **41 Open Datasets with APIs on COVID-19**

CuMask+ Registration and Distribution

6 May – 6 June 2020

On 6 May	Received over 720,000 registrations, covering around 2 million registrants
Up to 6 June	Received some 1.4 million registrations, covering around 4 million registrants
Up to 15 Jul	Over 4.1 million masks delivered / collected in first round
14 Sep – 4 Oct	Over 3.3 million masks delivered in second round
5 Oct – 31 Oct	Mask collection from counters in second round

- Tight Schedule
- Large User Population
- Large Influx of Workload within short period
- Security & Privacy

O2O improves user experience and convenience

Cash Payout Scheme

Bank

Tight Schedule	Large User Population
Collaboration with Banks and HK Post on Various Stages of Development	Security & Privacy

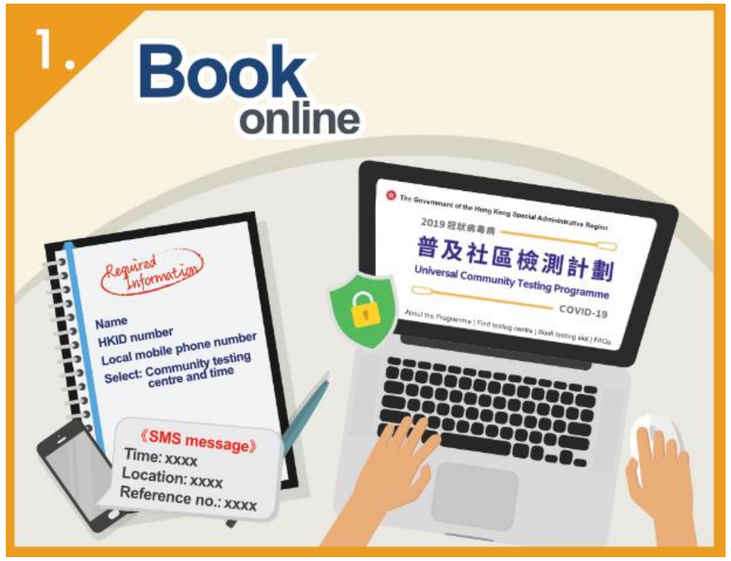
Multi-stakeholders collaboration and simplicity are key to success

Employment Support Scheme

Tight Schedule	Large User Population
Leverage on MPF Trustees	Security & Privacy

Technology shortens time to deliver and improves scalability

Universal Community Testing Programme



Extremely Tight Schedule	Volatile Requirements
Challenging Logistics and Onsite Support	Security & Privacy

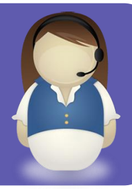
Technology helps to achieve impossible missions

Large-Scale Operation

OGCIO 140

- IT system, technical support
- Data and statistical analysis

EffO 440



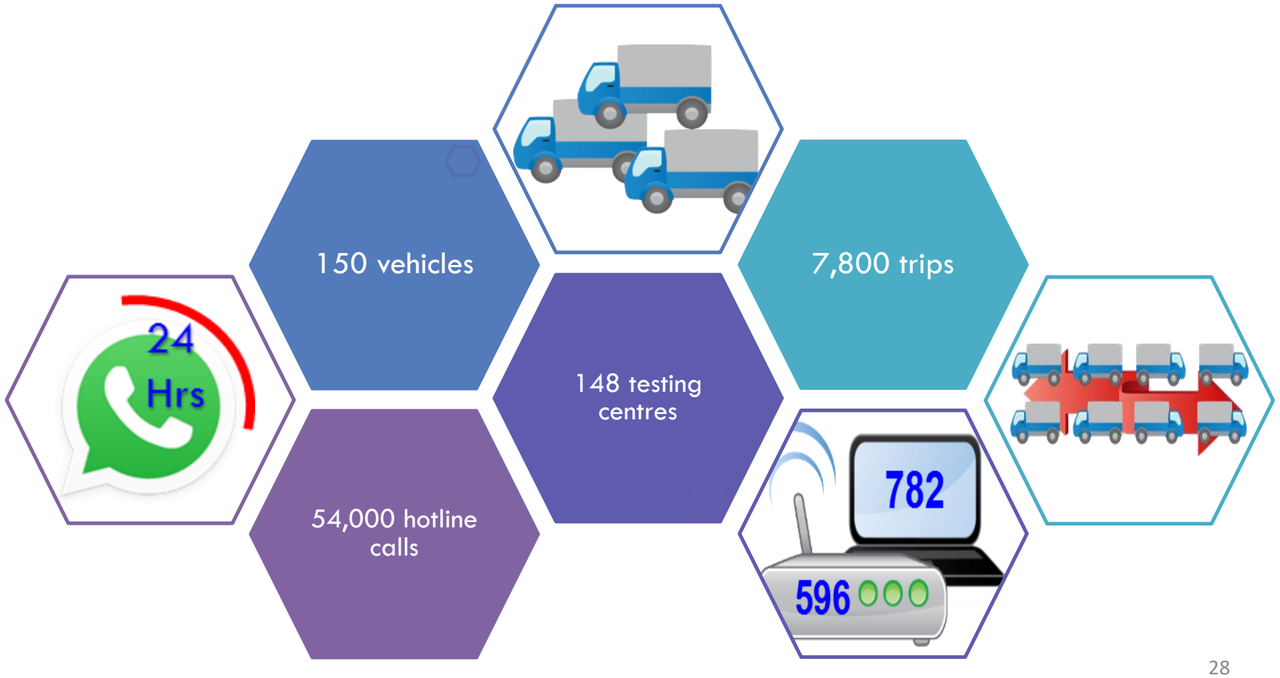
- 24-hour hotline

LSCM 100

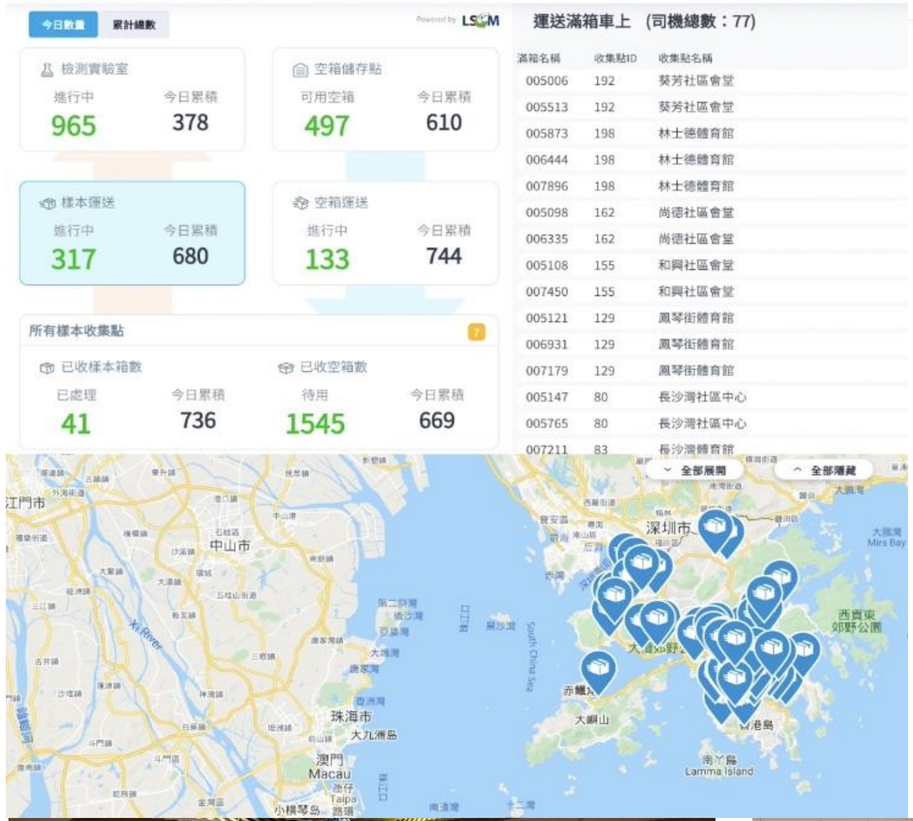
- Logistics system/control
- Supply chain management

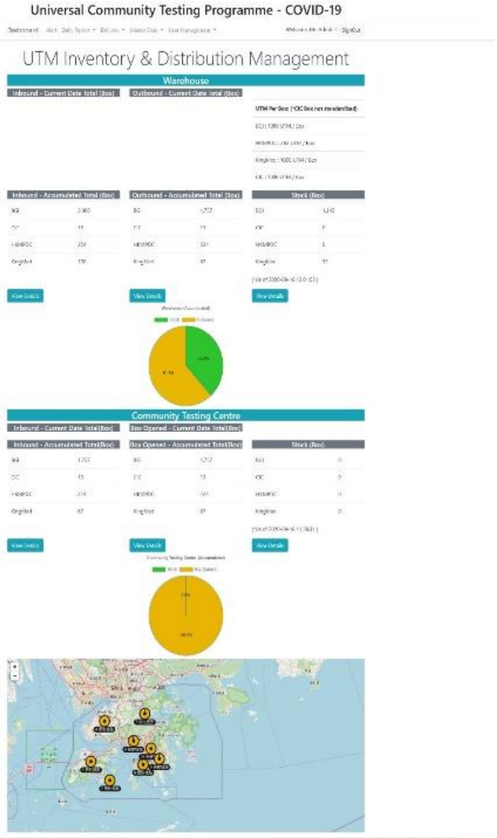
Contractors 1,300

- Security at centres, logistics, warehouse

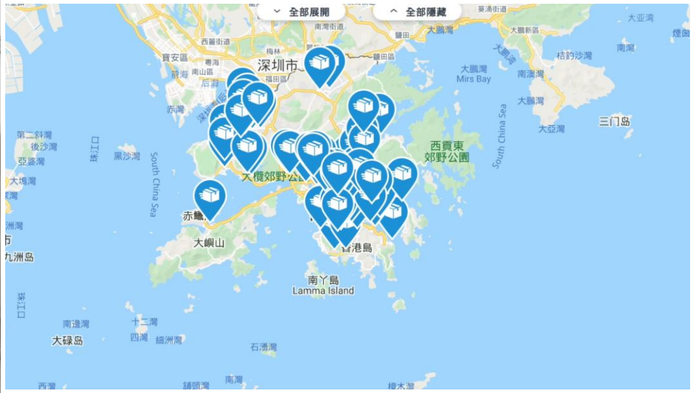


Logistics and Operation Control





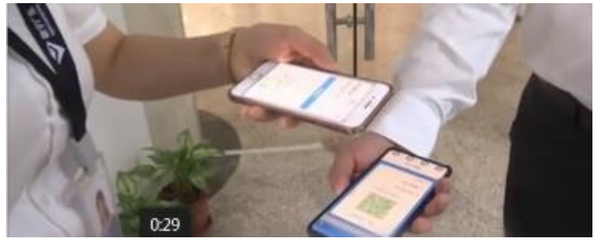
Timely and Secure Delivery



Production of **hourly & ad-hoc statistics/data analysis** throughout the 14-day period	100%
Delivery of specimen boxes to four designated labs *- Two times daily for all 148 centres*	*Within **1.5** hrs (from last specimen taken)*
- Average unloading time	*Less than 1 minute per vehicle*
- Tracked by GPS/BLE	*100% delivery (no loss)*
Supply of UTM bottles and empty specimen boxes to 148 centres	*100% continuous supply at all times*

Health Code

Cross boundary cooperation through technology innovation



Cross Boundary Collaboration	Large User Population
Technical & Data Standards	Security & Privacy

“LeaveHomeSafe” Mobile App

www.leavehomesafe.gov.hk

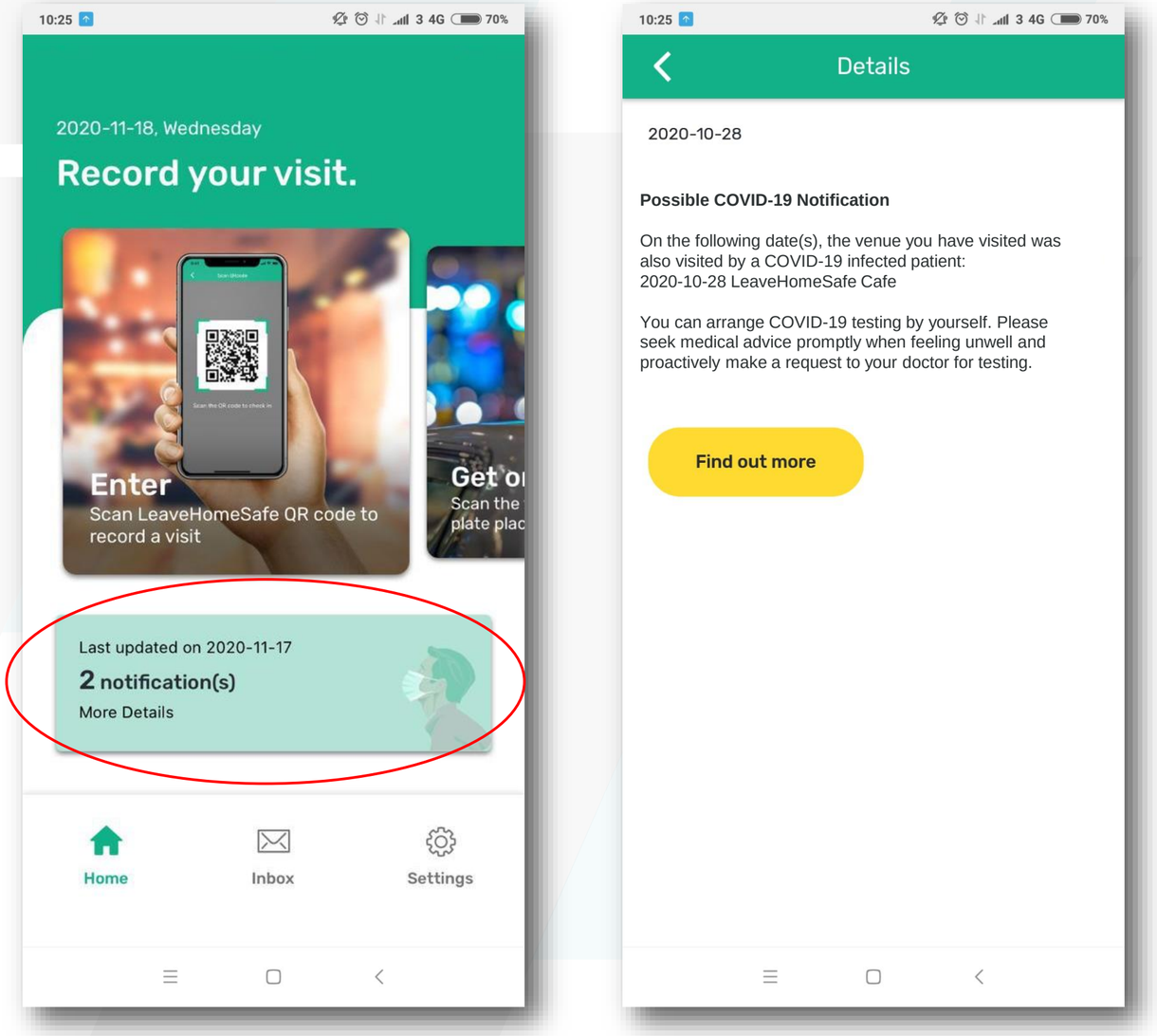
Mobile App	Launch Date
First Launch	16 November 2020
Updated (Reduced access permissions required)	30 November 2020
Updated (3 new functions enhancing UX)	11 December 2020

QR Code Registration	Launch Date
Online Venue Registration	19 November 2020
Express QR Code Registration Channel (for Catering and Scheduled Premises under Cap. 599F)	27 November 2020

- Current Status @ end Dec 2020
  - User download: Over 420 000
  - Venue participated: Over 67 000 (Public: 13 300, Private: 53 800)
  - Usable in Taxis: Over 18 000

Send Notifications

- Match visit records
- Send notifications to users



iAM Smart Platform

One-stop personalized service platform as one of the major smart city infrastructures

iAM Smart Functions

01

Authentication

02

“e-Me”
Form filling

03

Personalised
Notifications

04

Digital Signing

Government Online Services Adopted

Dec 2020
20+ services launched together with "iAM Smart"

Mid-2021
More than 110 services

Adoption of iAM Smart by Various Organisations

強制性公積金計劃管理局
MANDATORY PROVIDENT FUND SCHEMES AUTHORITY

HONG KONG MONETARY AUTHORITY
香 港 金 融 管 理 局

SFC
證 監 會

保險業監管局
Insurance Authority

Pilot Sandbox Programme

Integration Testing Environment (ITE)

More business sectors to come…

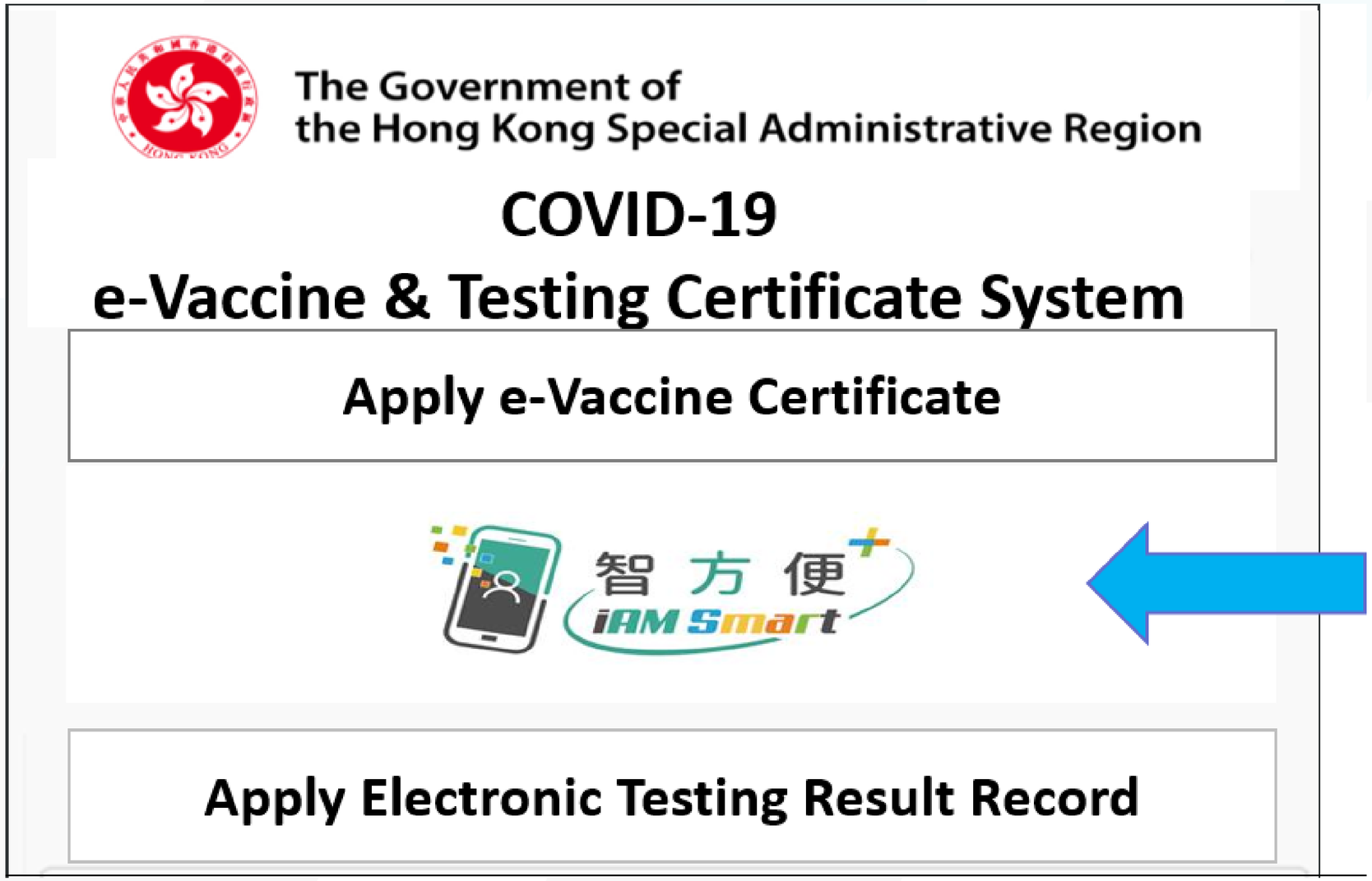
FinTech tenants
& incubatees

HKSTP 香港科技園

數碼港 Cyberport

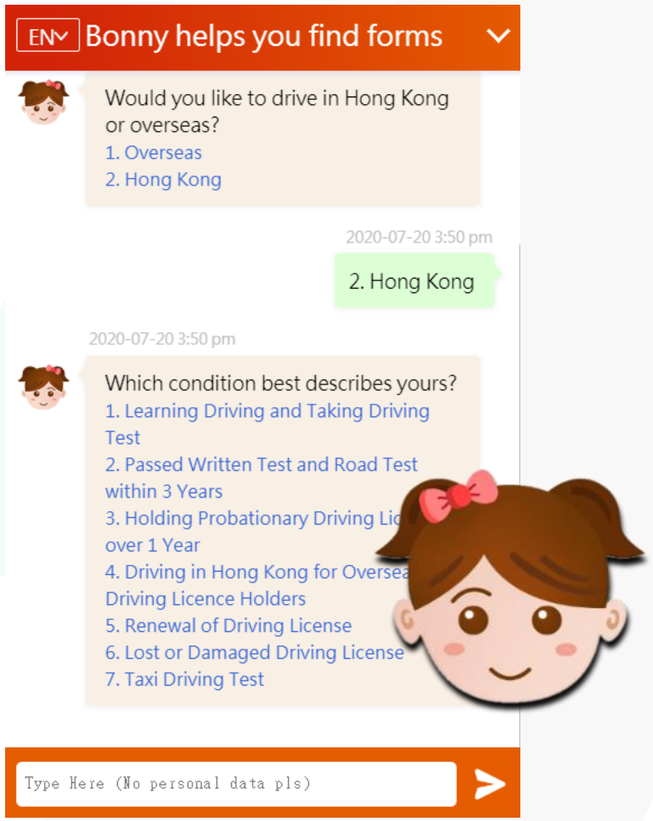
Visit *iamsmart@cyberport.hk* for details of the Pilot Sandbox Programme and ITE

COVID-19 e-Vaccine & Testing Record System



Opportunities to Enhance Digital Government Services and Customer Experience

GovHK香港政府一站通



智方便 iAM Smart

- One-stop e-services portal
- Convenient access to government information and services
- Single digital identity for authentication and conducting online transactions
- Popularise e-forms, auto-form filling, e-submission and digital signing
- Digital licences and certificates with the use of Blockchain

Key Messages

- Leverage local R&D and tech innovation to co-create solutions to meet different public and operational requirements
- Adopt the right technologies to make public services more scalable, responsive and user-friendly
- Strive for excellence in terms of system performance, reliability, security and privacy protection to meet high public expectations

THANK YOU