SMART VISION

智城

《香港智慧城市藍圖2.0》建議書
展望美好智慧生活

ADVISORY REPORT ON
HONG KONG SMART CITY BLUEPRINT 2.0
FOR A SMART LIFE

"About Us 關於

Smart City Consortium (SCC)
智慧城市聯盟

The Smart City Consortium (SCC) comprises a group of professionals from different corporations and organizations with the aim to provide opinions and suggestions to the Government for formulating related policies and standards in the development of Hong Kong as a world-class smart city. We encourage worldwide collaboration with different stakeholders to create the right ecosystem, which fosters innovation and sustainable economic growth for Hong Kong.

智慧城市聯盟（SCC）匯聚一群來自不同公司和機構的專業人士，為香港發展成為一個世界級的智慧城市，在政策和標準層面提供專業意見和建議。我們鼓勵與全世界不同的持份者合作以創造合適的生態系統，促進香港創新及經濟的可持續增長。

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2019年下旬到2020年，香港經歷社會動盪和新冠肺炎疫情，經濟下滑。令人欣慰的是，香港智慧城市的表現未有褪色。

香港持續強勢 「科技」全球稱冠

2020年西班牙IESE商學院的全球智慧城市排名（ICMI）顯示，在全球174個城市中，香港由2019年的全球11位，升到第10位，在亞太區排名第3；亞太區首五名還包括東京（全球第4）、新加坡（9）、首爾（19）和台北（27）。香港在「科技」一項全球稱冠，這個指標包括基建，如固網和寬頻網絡覆蓋、網速、WiFi熱點多寡等方面；也包括個人應用，即手機和電腦的使用、網上理財、社交媒體的普及等。

瑞士洛桑管理發展學院（IMD）九月公布最新「全球智慧城市指數」，在全球109個城市中，香港排名由2019年的第37位，升至2020年的第32位，其中「科技」一項更獲「A」級。該調查把「智慧城市」定義為日常生活中有效應用科技，改善市民的生活，並減低城市化帶來的弊病；而評比的重點是如何利用創新和技術（I&T）應對城市領域、城市管理和生活質素的挑戰。

數據中心對香港智慧城市的成功發展至關重要，顧問公司戴德梁行在八月底盤點2020年以來亞太區數據中心的投資情況時，指香港是區內第四大最具吸引力選址，僅次於新加坡、悉尼和東京。

東盟亟待發展 智慧城市商機龐大

聯合國指出，到2050年全球68%人口將在城市生活，令都市擠擁不堪。人們湧入城市是因為工作機會較多，顧問公司麥

"Promoting Hong Kong's Smart City Services" in Smart City Blueprint 2.0 To Grasp Business Opportunities in ASEAN

Hong Kong has experienced economic downturn during the civil unrest and COVID-19 pandemic since the second half of 2019. Thankfully, Hong Kong performs well in smart city development.

Hong Kong's Smart City Position Remains Strong

Hong Kong is ranked as world's number 10 in the IESE Business School's Cities in Motion Index 2020, up from 11th in 2019 among 174 cities worldwide and making the 3rd in Asia Pacific. While Tokyo (4th globally), Singapore (9th), Seoul (19th) and Taipei (27th) are among the top five in Asia Pacific, Hong Kong is also the world's top performer in the dimension of "technology". The indicators include infrastructure, such as fixed and broadband network coverage, network speed, number of Wi-Fi hot spots, as well as personal applications, such as mobile and computer usage, online banking and social media penetration.

The Institute for Management Development (IMD) in Lausanne, Switzerland, released the *2020 Smart City Index* in September 2020. Hong Kong was ranked the 32nd, out of 109, up from 37th in 2019, with "technologies" being graded A. A "smart city" is defined as one in which technology is used effectively in daily life to bring benefits to citizens and reduce the adverse effects of urbanization. The criteria for rankings are how "innovation and technology (I&T)" was used to address challenges in the urban environment, city management and quality of life.

Data centres are instrumental to the successful smart city development of Hong Kong. According to a research released by Cushman & Wakefield in August 2020, Hong Kong was ranked the fourth most attractive location for establishing data centre in the Asia Pacific, trailing Singapore, Sydney and Tokyo.

Huge Business Opportunities in ASEAN

According to the United Nations, 68% of the world's population will

Mr. Gary Yeung, MH
楊文銳先生，榮譽勳章
President
會長

肯錫便指2025年600個城市將佔全球GDP六成的增長。要解決城市化衍生的房屋、治安、就業等難題，發展智慧城市成為全球共識。由於這個工程浩大，不同的研究報告都預期智慧城市的商機驚人，例如CB Insights和Frost & Sullivan分別預測到2025年，它的全球價值為1.4萬億到1.56萬億美元不等。

其中需求甚殷的大都是新興發展國家，東盟諸國是其中代表。

全世界都因為新冠肺炎而五癆七傷，國際貨幣基金組織（IMF）今年六月預期，東盟五國（印尼、馬來西亞、菲律賓、泰國和越南）經濟明年會急速回升至增長6.2%，遠超先進國家的4.8%。近年這些國家經濟增幅驕人，智慧城市基建卻亟待改進，因此造就了龐大的商機。

智慧城市產業化 增人才發展機會

上面第1點談到，2020年度的西班牙ICMI排名中亞太區首五位的城市，值得注意是香港以外的其他四個地方（東京、新加坡、首爾和台北）都有一個共通點——非常積極向外推銷智慧城市服務。

其實全球所有先進經濟體都就此龐大商機摩拳擦掌，香港也應急起直追，拓展經濟發展的新機會。

就此，智慧城市聯盟（SCC）於2020年4月27日與創科局薛永恒局長會面，就《香港智慧城市藍圖2.0》提交建議書（下列連結），其中「推廣香港智慧城市服務」是建議重點之一。SCC希望政府能採納建議，促使香港盡快把握好東盟湧現的龐大商機，為本地人才謀求更多的發展機會。（https://smartcity.org.hk/upload/articles_lv1/0/20200427021602_156.pdf）

be living in cities by 2050, causing them to become overcrowded. According to consulting firm McKinsey, 600 cities will account for 60% of the world's GDP growth by 2025. Smart city development has become a global vision to solve the accompanying challenges such as housing, security and employment. Because of the magnitude of the project, various research reports expect the business opportunities from smart city development to be enormous, for example, CB Insights and Frost & Sullivan have predicted that the global value of smart cities will range from US$1.4 trillion to US$1.56 trillion by 2025.

Most of these high demands are in developing countries, represented by the Association of Southeast Asian Nations (ASEAN).

The whole world is suffering from a severe setback by COVID-19. The International Monetary Fund predicted in June this year that the economies of the five ASEAN members, ie. Indonesia, Malaysia, the Philippines, Thailand and Vietnam, would rebound 6.2% next year, far outpacing the 4.8% growth rate of the developed countries. While these countries have enjoyed impressive economic growth in recent years, the need to improve smart city infrastructure has created enormous business opportunities.

Hong Kong Should Export Smart City Service

It is noteworthy that among Tokyo, Singapore, Seoul, Taipei and Hong Kong, the top 5 cities in Asia Pacific in the Spanish ICMI 2020, all but Hong Kong have one thing in common - they are aggressively promoting exports of smart city services.

All advanced economies are rousing themselves to catch up, and Hong Kong should pick up the momentum to seize the business opportunities in ASEAN.

In view of this, the Smart City Consortium (SCC) met with Mr. Alfred Sit, Secretary for Innovation and Technology on 27th April 2020 and submitted an advisory proposal on the *Smart City Blueprint 2.0* (the link attached below). "Promoting Hong Kong's Smart City Services" is one of the key suggestions. SCC hopes that the proposal will be adopted by the Government so that Hong Kong can grasp the huge smart city business opportunities and thus create more quality job opportunities for local professionals. (https://smartcity.org.hk/upload/articles_lv1/0/20200427021602_156.pdf)

Advisory Report on Hong Kong Smart City Blueprint 2.0

For a Smart Life

《香港智慧城市藍圖2.0》建議書

展望美好智慧生活

香港政府於2017年12月推出首份《香港智慧城市藍圖》（《藍圖1.0》），提供發展相應的數碼基礎建設及政策框架。智慧城市聯盟（SCC）一直積極參與智慧城市的發展，因此當年匯集了會員、業界及相關人士的意見，向政府提交專業建議。而政府將於2020年底公布《香港智慧城市藍圖2.0》（《藍圖 2.0》），預期當中會提出超過 100 項措施，進一步推動香港在這方面的發展，讓香港市民更實在地感受智慧城市的發展及數碼科技為生活帶來的便利。

本年4月27日，SCC、香港總商會以及香港理工大學賽馬會社會創新設計院的代表，與創新及科技局局長薛永恒及局方成員會面，提交了《香港智慧城市藍圖2.0建議報告》，就「智慧出行」、「 智慧生活 」、「 智慧環境 」、「 智慧市民 」、「 智慧政府 」及「 智慧經濟 」六個主要範疇提出以下發展建議：

In December 2017, the Hong Kong Government released its first *Hong Kong Smart City Blueprint* ("Blueprint 1.0") to implement the measures and to provide the digital infrastructure and policy framework for smart city development in Hong Kong. Smart City Consortium (SCC), always being active in engaging its members, the industry at large and different stakeholders, had provided its expert input on the *Blueprint 1.0* to the Government. It is expected that the *Hong Kong Smart City Blueprint 2.0* ("Blueprint 2.0") will be announced this year, which will propose a list of more than 100 initiatives to actively promote the development of Hong Kong as a smart city. This will further allow Hong Kong citizens to enjoy the added convenience of smart city with innovations and digital technology.

On 27th April this year, senior members of SCC together with The Hong Kong General Chamber of Commerce and The Hong Kong Polytechnic University's Jockey Club Design Institute for Social Innovation held a meeting with Mr. Alfred Sit Wing-hang, Secretary for Innovation and Technology, and members of the Innovation & Technology Bureau (ITB). In the meeting, SCC submitted an *Advisory Report on Hong Kong Smart City Blueprint 2.0* which puts forward suggestions on the six main areas of Smart Mobility, Smart Living, Smart Environment, Smart People, Smart Government and Smart Economy as follows:

智慧經濟

貿易單一窗口助中小企提升效率

「貿易單一窗口」是由香港海關牽頭的一項重要的智慧經濟和智慧政府計劃，為用戶提供一站式服務的電子平台。業界現時可以透過平台向政府提交部分進出口貿易文件，包括由漁農自然護理署發出的「除害劑進出口許可證」、土木工程拓展署發出的「搬運沙粒許可證」等等。貿易單一窗口作為香港貿易的樞紐，對經濟十分重要，因此，應該納入《藍圖2.0》內。

此外，《藍圖2.0》也應探討以應用程式介面（API）作為行政機關之間和企業之間交換貿易相關數據的可行性，如果實施，有助中小企業將系統連接到貿易單一窗口的文件和合規性系統，既慳錢也省時。

公私營合作促進智慧旅遊

SCC建議將智慧旅遊的電子競技、擴增實境（AR）和虛擬實境（VR）引入香港的主題公園。雖然反覆的新冠疫情令旅遊推廣計劃增加變數，但如果主題公園能採用最新的娛樂科技，相信可提升吸引力，為相關酒店、餐飲和商店等的生意帶來新動力。透過公私營合作夥伴關係（PPP），例如加入數碼港內的AR和VR技術公司的電子競技遊戲，既可為主題公園引進更多嶄新科技和創意，亦可支持本地的創科企業。政府作為主題公園的主要股東，更應帶頭鼓勵這些合作。

智慧市民

於校園發展人工智能及加強STEM教育

知識的傳播是教育最重要的部分。在這人工智能（AI）時代，SCC建議將AI課程引入學校，而教育局和香港教

Smart Economy

Enhance Trade Single Window to help SME to Improve Efficiency

Trade Single Window (TSW) is considered as one of the most important Smart Economy and Smart Government initiatives led by the Custom and Excise Department. TSW is a one-stop electronic platform for registered users to lodge import and export trade documents with the Hong Kong Government online, such as Import/Export Licence for Pesticides from Agriculture, Fisheries and Conservation Department; Sand Removal Permit through Civil Engineering and Development Department, etc. SCC shares the view that TSW will become very important to our economy as a regional trading hub and should be tracked and reported in the future *Blueprint 2.0*.

In addition, the use of open application programming interface (API) for related parties to exchange trade related data between businesses and governments should be discussed. The use of API will allow SMEs to connect their system to the TSW's related documentation and compliance systems, and thereby reducing cost and improving efficiency.

Public-private Partnership to Boost Smart Tourism

SCC recommends the concept of Smart Tourism by combining E-Sports, augmented reality (AR) and virtual reality (VR) for application in theme parks. Although the COVID-19 pandemic is still holding back the city's plan to revitalize tourism, the strategic move to combine latest technologies with theme parks could bring forth a lot of incremental businesses and consumptions to related industries including hotels, restaurant, and local shops. With the public-private partnership (PPP), for example, the local E-sports and AR/VR technology companies from the Hong Kong Cyberport, our theme parks can acquire fresh ideas from the more technological advanced and agile startup community. Since the Government has a major stake in the theme parks, it should take the lead by having

在香港科技園舉行「*Innovate for Future (IFF)*」展示日
Innovate for Future (IFF) demo day event celebrated at Hong Kong Science and Technology Parks Corporation

育城亦應重新審視推廣科技教育的項目，研究如何將科技作為重點進一步融入核心課程，從而為孩子未來的工作和職業發展做好準備。讓AI在教育上發揮力量，並成為全民普及的技術，可讓每個學生從幼年開始以度身訂造的方法學習，有助為未來社會培育更多數碼專才。

贊助啟發年輕科學家活動

為了推廣STEM教育，現時有許多不同種類的機械人比賽。我們認為社會不僅需要機器人技術、編寫電腦程式和STEM活動，更需要多方面改革課程和增加學習活動的多樣性。例如由香港電子科技商會與聖荷西州立大學共同發起的計劃——Innovate for Future（IFF）比賽，就能激勵及啟發年輕人成為未來的科學家和工程師以解決現實世界中的問題，這些多元化的學習活動可為學生帶來長遠的影響。

智慧政府

開放數據增施政透明度

政府各部門之間應該緊密合作，更多分享資訊，提升效率，最重要的是改變固有思維，以更開放的態度共享數據，有助掌握民情；而把數據開放，與民共享，增加資訊透明度，更有助施政。

近期就有一個很好的例子，在SCC的IT義工團隊協助下，由發展局、地政總署、衛生防護中心和其他政府部門牽頭，以公私合作形式，於今年二月初新冠肺炎疫情熾熱時，推出「互動地圖儀表板」。它以地理位置匯集並圖像化顯示和新冠肺炎相關的資訊，令人一圖看清疫情的事態發展，有助掃除坊間的混亂訊息。

同時，我們建議要充分運用市民致電1823所獲得的豐富數據，增強城市的運作效能。1823服務用途廣泛，為公眾提供23個參與部門的公共資訊，亦能透過網站

strategic plans to support local technology developments and encouraging these collaborations.

Smart People

Develop AI and STEM Program for Schools

For centuries, we believe that the transfer of knowledge is the most important part of education. In the era of artificial intelligence (AI), the SCC has recommended the development of AI curriculum in schools. We also recommend the Education Bureau and the Hong Kong Education City Limited to revisit the various programs in promoting the adoption of advanced education technologies. If education can harness the power of AI and encourage a territory-wide adoption in creating unique learning path for each student starting from young age, we will soon have a talented digital-savvy workforce trained up ready for the future.

Sponsor Activities Inspiring Young Scientists and Engineers

There are quite a variety of robotics competition being promoted as part of the movement in adopting STEM in education. We are in the opinion that our society needs more than just robotics and coding and STEM programs to enhance diversity, curriculum reform and learning activities. An exemplary program such as the Innovate for Future (IFF) competition which was initiated by the Hong Kong Electronics & Technologies Association together with the San Jose State University is a good initiative. This program creates diversity and has a longer-lasting impact by inspiring these young minds to become future scientists and engineers to solve real world problems.

Smart Government

Sharing Data with the Public Increases Transparency of Governance

There is a pressing need for various bureaus and departments within the Government to collaborate with each other in sharing more knowledge, defining the best practices, and most importantly changing their mindset to share their data in a common format. Furthermore, to open up the data and share it with the public will improve governance through increasing the transparency of the information.

A great example of such effort, an Interactive Map Dashboard on the latest situation of the COVID-19 outbreak, was recently achieved by a public-private partnership led by the Development Bureau, Lands Department, the Centre for Health Protection and other government units with support from SCC's volunteer information technology team. The launch of the dashboard which lists up-to-date disease information, enable the public to grasp the changing situation at a glance which can be pacifying.

We also suggest tapping the actual data provided by our citizens using the Hotline 1823 which is also a treasure trove and could be used to improve city efficiency. The

CSDI是發展智慧城市和一站式資訊中心的核心
CSDI, a one-stop information center, is the core of a smart city.

及應用程式收集各種讚賞、建議和投訴，可視為反映民情的一面鏡子。要充分發揮1823數據的價值，創新及科技局可帶頭整理這些數據，並跟其他部門和通過data.gov.hk與公眾分享。

制定CSDI路線圖有助成功落實
在2017年發布的首份《藍圖1.0》中，政府已承諾建立空間數據共享平台（CSDI），這是發展智慧城市和一站式資訊中心的核心。

CSDI其中一個重要的應用，是構建聯合運作平台(COP)，這是一個促進跨部門協作的中央資訊平台。在2019年下半年發生多次道路阻塞、地鐵停駛、交通癱瘓，學校不得不停課，而緊急救援亦受到阻礙。如果當局有一個COP，便可發揮關鍵功用，一方面方便各部門互通訊息，便利統籌；另一方面，在處理突發事件時，這個平台也是指揮中心，讓當局調撥資源。

裝設了雷達傳感器的智能洗手間
A Smart Toilet Use Case with radar sensors

Hotline 1823 is a round-the-clock one-stop service to provide a variety of public information from 23 participating departments. Its scope of service has extended to receive all sorts of compliments, suggestions and complaints about any aspect of Government services via web and its own app as well. It can be seen as a mirror of the public sentiment. To optimize the value of the 1823 data, the ITB can take the lead in first codifying all these data into reusable data format and sharing them with all departments and the general public through data.gov.hk.

CSDI Roadmap Needed for Successful Implementation
The Government pledged to support building a Common Spatial Data Infrastructure (CSDI) in the *Blueprint 1.0*. This development, a one-stop information center, is the core of a smart city.

One of the key applications of CSDI is enabling inter-departmental collaboration for constructing a data-driven common operational picture (COP), a central platform that enables the exchange of information and facilitates better coordination amongst departments. An example would be the road blockages, MTR suspensions, with traffic being paralyzed, class being suspended and even emergency services being blocked in the second half of last year. If a COP is in place, the coordinated information platform can enable people to cope with the situation with accurate and updated information.

The development of CSDI is crucial to the smooth operation of the city. In the upcoming *Blueprint 2.0*, a well-defined roadmap for the CSDI is needed for all departments and bureaus and external contracting parties to be able to implement the CSDI successfully.

Smart Environment

Smart Toilets and Mobile Washing Stations
We recommend using the latest sensors technology to support the ongoing monitoring of the hygiene conditions and the management of the public toilets. These indoor radar sensors can provide a more accurate means to determine occupancy data. When such sensors are combined together with odour, water leakage, temperature and humidity sensors, the real-time monitoring of the facility can trigger the additional ventilation fan to operate or have additional cleaning through demand-management notifications to Food and Environmental Hygiene Department's contractors or attendants to provide on-demand job scheduling for cleaning to achieve a positive public image.
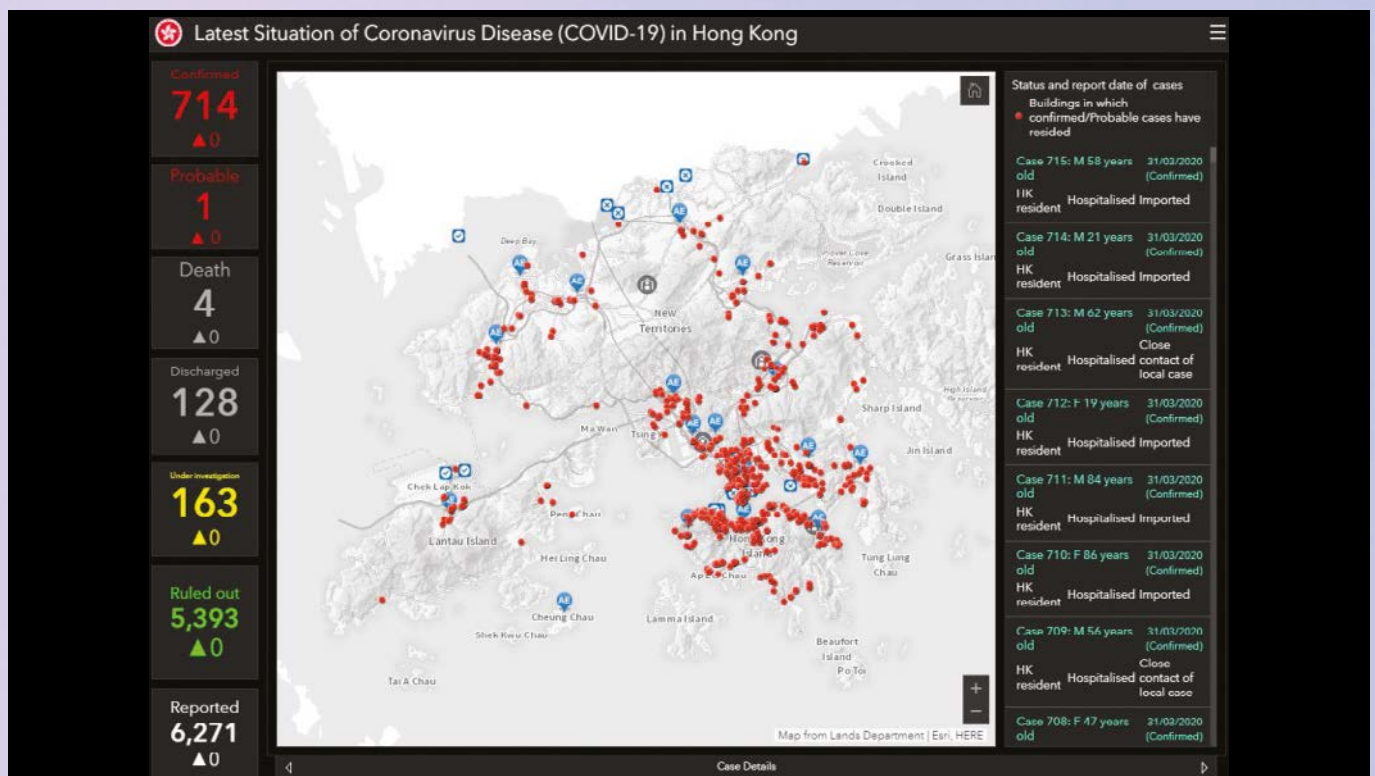
During this intense period of the pandemic, we also recommend putting in place additional measures to make hand-washing more accessible to the public.

Sustainable Development Goals

Environmental Protection
The Government should enhance pollution monitoring

香港新型冠狀病毒感染最新情況的互動地圖儀表板
The Interactive Map Dashboard on the latest situation of COVID-19 infection in Hong Kong

CSDI對城市的暢順運作非常重要,因此,所有部門和相關機構都應該要有一個推行CSDI的路線圖,以確保計劃能成功落實。

智慧環境

智能洗手間及流動洗手站
我們建議使用最新的傳感器技術提升公共洗手間的管理和監察衛生狀況。運用室內雷達傳感器,可監察使用情況。當氣味、漏水、溫度和濕度傳感器結合使用時,可因應實際需要啟動風扇通風,或者通知食環署承辦商或服務員適時處理,改善衛生狀況,可令公眾對公廁改觀。

此外,在新冠疫情時期,我們還建議加設流動洗手站,方便公眾清潔雙手。

可持續發展目標

環境保護
政府應通過使用低成本傳感器建立微電網來識別污染源,從而加強能源監測,以便找到節能的解決方案。在北歐,有創新的物聯網和雲計算分析解決方案,提供了低成本、低保養的選擇,可以在許多社區中設

by establishing micro grid using low cost sensors to locate the source in order to identify energy efficient solutions. In Northern Europe, there are innovative internet of thing (IoT) and cloud-based solutions which offer low-cost, low-maintenance options making it possible to have a dense grid of adequately accurate measurements on air quality and noise levels in many neighborhoods with advanced analytics support.

Energy Saving
One of the means to increase available energy is to harvest ambient energy by integrating sensing and harvesting technologies in building materials and infrastructure of building envelopes, street furniture and city assets. This also reduces light pollutant entering residential premises. In the U.S., there are systems embedding solar harvesting installations on or as part of a building envelope, which are able to concentrate light energy towards photovoltaic cells while minimizing the loss in illumination due to shading.

Climate Change Mitigation
The Government can also promote using electricity in operating the city's transport system including land-based vehicles, marine and aerial vessels by installing associated charging-enabling facilities as city infrastructure. With public engagement and pilot trials, we saw a successful example of ferries switching from diesel-powered to all-electric and hybrid which is one way forward.

置密集的網格，對空氣質素和噪音水平進行準確的測量，並提供先進的分析，有助尋求改善環境的方法。

節約能源

另一個增加可用能源的方法，是將傳感器和技術整合到建築材料，利用基礎設施的建築物外殼、街道設施和城市資產以收集周圍的能源例如日光，同時能減少光污染物進入住宅。

在美國，他們以太陽能設備嵌入建築物的結構或外殼，令光能集中到太陽能電池上；同時減少被遮擋的陰影部分，從而降低對收集日光的影響。

舒緩氣候變化

政府還應該通過安裝更多充電設備，為陸上、海上和空中的交通工具都提供充電設施。例如透過公眾參與和試驗，香港的渡輪已由柴油轉換為混合和全電動，為舒緩氣候變化跨進了一大步。

可持續發展

SCC希望透過廣泛使用資產標籤、翻新各種設備和儀器等，促進可持續發展和零浪費的循環經濟。其中一個方法是以資產標籤技術提供包括產品、配件或材料可用性的資訊，以決定是否有保養和升級的需要。此外，結合空間位置資訊，令人更易找到需要的物品，有助延長資產的壽命，提高再使用率，並透過其他有用的周期循環或級聯再用(例如把陳舊的木製品變成纖維製品再成為燃料，之後灰燼回歸樹林)，減少廢棄，促進自然資源的重用。

智慧出行

公共停車位

《藍圖1.0》提出要設置新一代儀表系統，該計劃在2019年由香港電訊有限公司夥拍泊車方案供應商Flowbird贏得。該合同由運輸署批出，為期11年，價值6.82億港元，以安裝和營運新一代儀表系統。在香港電訊的簡介中，指會「設有車輛感應器以偵測停車位是否已被使用」，服務詳情尚未公開，不過我們認為系統如果能估計車位何時可用，令駕駛者更有預算，比查詢時是否有停車位置更有用。

此外，在試行無人駕駛方面，運輸署應與業界進一步磋商，就車聯網技術和在不同場景中試驗的路線進行更多研究。

至於公共停車場的月租車位租賃方法，我們建議運輸署借鑒「康體通」的成功例子，採用相同的「網上抽籤」機制，相信比先到先得的方式更公平。

Sustainable Development

SCC is in support of the development of circular economy through wider use of technologies such as asset tagging, reconditioning various equipment and appliances. One of the methods is to provide asset tagging technologies which can provide information including the condition and availability of products, components, or materials for maintenance or upgrade. Integrating with spatial data, such information can help extend the useful life of an asset, increase its utilization, loop or cascade it through additional useful cycles (for example, old wooden products can turn into fibre-based products, then energy for heat, and finally ashes return to forest), and help reuse of natural resource.

Smart Mobility

Public Parking Spaces

In 2019, Hong Kong Telecom and its joint-venture partner Flowbird won a HK$682 Million 11-year contract from the Transport Department (TD) to install and operate the next generation meter system as proposed earlier in the *Blueprint 1.0*. According to the company information, there will be sensors to detect the occupancy of parking spaces. As details of the service offering are not publicly available, we would like to recommend that the estimated time by which a car park is available to enable a better planning of drivers. This would be more useful than whether a parking space is available at time of inquiry.

In the area of adopting autonomous vehicle technology, we support TD to have further consultation with the industry to undertake more research in connected car technology and pilot testing routes planned for different scenarios.

On the sale of monthly public parking spaces, we suggest TD to learn from successful case from LeisureLink and apply the same "online balloting" mechanism to manage the sales process of monthly and termed parking spaces, making the entire process transparent, fair and efficient.

Smart Living

Develop Age-friendly and Healthy Living Community

In order to facilitate healthy ageing in Hong Kong, we could improve the senior citizen's well-being through distributing resources equitably to those in need by adopting these three pillars:

Proactive Smart Health Monitoring

An indoor and outdoor smart internet of things (IoT) network could be deployed to detect minimal change of real-time individual's health status, biometric measurements, living habit and social behaviours. These could be integrated to any smart home devices and ecosystem and could also be linked up with an individual clinic and hospital to provide comprehensive health data and knowledge management for everyone.
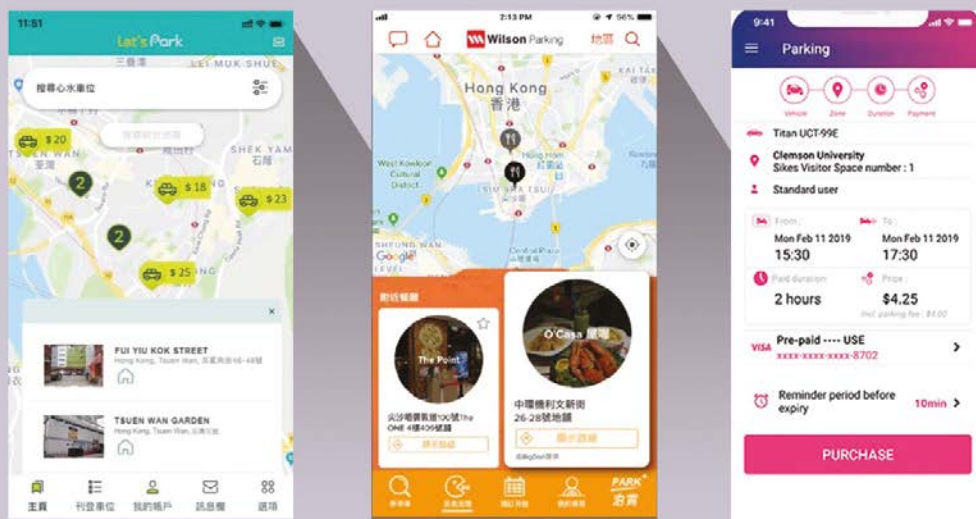
手機應用程式：*Let's Park*、*Wilson Parking*、*FlowBird*
Mobile Apps: *Let's Park, Wilson Parking, FlowBird*

智慧生活

適合長者的社區
為了促進長者的健康，我們可以建構一個三管齊下的智能保健系統，改善長者的生活之餘，也可更公平地分配資源。

智能健康主動監測
透過連接智能家居設備及指定診所和醫院的智能物聯網(IoT)，可偵測長者實時的健康數據，包括血壓心跳、生活習慣和社交行為的變化，讓醫療人員可更全面監察長者的健康狀況。

智能健康分析預測
為醫療人員設立一個大數據分析平台，通過整合數據和電子健康記錄，了解環境變化和健康風險的關連，並透過演算法預測急性疾病出現的可能性，為患者提供實時而個人化的治療。

智能保健社區網絡
此智能系統可與政府的緊急服務、醫護人員以及社區組織連結成社區的支援網絡。把電子健康記錄上傳給獲授權的專業人員後，慢性病患者可在家中享用遙距診症服務，令他們毋須舟車勞頓，而醫生也可根據患者起居生活的數據，提供精確而個人化的治療。

SCC熱切期待《藍圖2.0》的面世，讓我們攜手共創更美好的智慧城市吧！

Predictive Smart Health Analysis
A big data analytic platform will be designed for digital healthcare professionals to share and discover correlations between environmental changes and associated health risks by integrating raw data and digital health records, with a proprietary algorithm developed to predict acute disease occurrence and provide real-time advice for personalized medical treatment.

Preventative Smart Health Community Network
This intelligent ICT solution would involve Government emergency units, medical professionals, and the support from local community organizations. With the availability of electronic health records sharing between authorized professionals, tele-medical consultation could become feasible for patients with chronic illness staying at home, saving their time and effort to make regular visits to doctors. Precise and personalized medication will also be possible for medical diagnosis based on data of individuals' living habits.

SCC looks forward to the *Blueprint 2.0*. Let's create a smarter Hong Kong together.

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提振疫後經濟
三方面助青年就業

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Policy Address should tackle youth unemployment

Originally posted on China Daily on 8th October, 2020

政府即將公布最新的施政報告，提振經濟當然是重點，我認為更重要是關顧青少年的失業問題。

猶記得17年前受「沙士」疫情影響，當年第二季香港整體失業率攀升至8.5%，比較之下，今年同期錄得的6.2%雖然較為緩和，但兩次疫情下，青少年（15-24歲）不約而同都是最受打擊的一群。當年15-19歲群組失業率高見33%，今天的數字似乎沒有2003年般驚嚇，但15-19歲和20-24歲失業率是整體數字的兩三倍（分別為18.8%和14.3%），為所有年齡組別之冠。

值得注意的是，15-19歲群組中，女生失業驟增，由去年同期的8.2%，以及今年第一季的9.3%，到第二季急升至18.1%，升幅達一倍，遠超同齡男生和其他年齡組別，情況堪憂。

The Government is going to unveil its new Policy Address shortly, with a focus likely on boosting the economy. But I think it is also of paramount importance to tackle the youth unemployment problem.

When Hong Kong was hit by the SARS epidemic 17 years ago, the overall unemployment rate climbed to 8.5 percent in the second quarter of the year. By comparison, the unemployment rate of 6.2 percent recorded in the corresponding quarter this year, during the COVID-19 pandemic, is relatively moderate. However, under both health emergencies, the youth group (aged 15-24) is seriously affected. The unemployment rate for 15-19-year-olds reached 33 percent in 2003. Though the unemployment rate today for the same age group is not that shocking, the rate for the 15-19 and 20-24 groups are still two and three times higher than the overall rate, reaching 18.8 percent and 14.3 percent respectively, the highest among all age groups.

青少年失業 加重政府負擔

歐洲一項由1980至2005年進行的研究指出，青少年在經濟危機發生後至少五年內都深受影響，其中以第二及第三年最為嚴重。即使大學畢業生也不能倖免，他們的收入在之後十年也會較低，沒有接受大學教育的更差。眼前例子有日本，由1990年代中期開始的經濟衰退，令不少僱主把聘用形式由長工變成臨時或散工；美國、加拿大和南韓的研究也發現，比起較年長的一群，年輕人往往首先被裁，又同時需花更長時間尋找穩定的工作。

失業容易令人意志消沉。上世紀約翰 • 霍普金斯大學的 Harvey Brenner教授曾指出，失業率每上升一個百分點，自殺率可能會上升達4%。在2003年，香港失業率高企，當年每10萬人便有18.8人自殺，是回歸二十多年來的最高紀錄。今天疫情之下，自殺率暫時未見異動，但也不可掉以輕心。

英國「志願組織行政總裁協會」（ACEVO）的報告指出，年輕人失業為政府帶來的財政負擔可高達280億英鎊（約2,790億港元），這包括現今及未來的種種支援。

香港政府雖然早已推出協助15-24歲青少年的就業支援，包括1999年開始的「展翅計劃」和2002年的「青少年見習就業計劃」，今年九月又試行優化措施，包括為僱主和僱員提高津貼金額等。不過，我認為改善青少年失業問題，要從多方面着手，也是今年施政報告應該特別着墨的地方，包括：

重手救初創 免人財兩失

一）為初創企業提供五年免息貸款，以拯救本地初創和挽救剛形成的生態圈。

青年是初創的生力軍，而初創也為他們提供就業機會。過去幾年，香港的初創生態圈在政府努力下已經成形。自創新及科技局成立的五年以來，政府在創科投入了超過1,000億港元，這已看到成效：根據投資推廣署的數字，2019年在香港的初創有3,000多間，較2018年上升21%；聘用員工超過1.2萬，較2018年上升近三成。

可是，今年的疫情有機會令政府前功盡廢。創業機構「青年創業軍」聯同「亞洲創業家協會」二月的調查已發現，幾乎所有初創都對香港營商環境不感樂觀，近四成受訪初創已裁員，兩成更有意撤離。連旅遊預訂平台、也是獨角獸（unicorn，估值達10億美元並成立不足10年的初創）的KLOOK，亦傳聞在第二季已裁減兩成員工或放無薪假，估計有100至200人受影響。

投資銀行摩根士丹利估計，香港是亞太區內最遲復甦的地方之一，原因是外圍環境持續欠佳。如果政府再不出重手，恐怕初創人財兩失——人才和投入資金也不保。

Furthermore, in the 15-19 groups, unemployment among girls has increased sharply, from 8.2 percent in the second quarter last year, reaching 18.1 percent in the corresponding period this year. The sharp increase outstripped boys of the same age and other age groups, the situation is worrying.

Scarring effects of youth unemployment

Several foreign studies concluded that youth unemployment had brought heavy costs to young people and society as a whole.

A study of financial crises in Europe during 1980-2005 confirmed a far-reaching impact on youth unemployment rates of up to five years after the onset of the crisis, with the second and third years being the worst. Even college graduates were affected; they had a lower income in the following 10 years. And those who did not receive a university education were worse off. Japan is an example. The economic recession that began in the mid-1990s has caused many employers to change the form of employment from long-term to temporary or part-time jobs. Studies in the United States, Canada, and South Korea have also found that younger workers were laid off first versus older people; it also took them longer to secure a stable job.

Unemployment can easily lead to depression. In the last century, Professor Harvey Brenner of Johns Hopkins University pointed out that for every percentage point increase in the unemployment rate, the suicide rate would rise by as much as 4 percent. In 2003, with a high unemployment rate in Hong Kong, 18.8 out of every 100,000 people committed suicide, the highest rate recorded in the last 20 years. Under the pandemic today, no change in the suicide rate was detected for the time being, but it should not be taken lightly.

Over the years, the Government has provided various employment support to young people, including the Youth Pre-employment Training Programme and the Youth Work Experience and Training Scheme in 1999 and 2002 respectively. In September, the Government further optimized the programs, such as increasing allowances to employers and young employees. However, with youth unemployment continuing to rise, we must work from more aspects to solve the problem. This should also be the focus of this year's Policy Address, including the following measures:

Heavy-handed relief measures to save startups

First, provide five-year interest-free loans to local startups to save them and the newly formed ecosystem.

Young people are the fresh impetus of startups, which also provide youth with job opportunities. In the past few years, thanks to the efforts of the government, Hong Kong's startup ecosystem has taken shape. In the five years since the establishment of the Innovation and Technology Bureau, the government has invested more than HK$100 billion in innovation and technology. The results are rewarding: According to InvestHK, there were more than 3,000 startups in Hong Kong in 2019, an increase of 21 percent year-on-year. More than 12,000 employees were hired, an increase of nearly 30 percent from 2018.

出口智慧城市 謀求優質機會

二）將智慧城市產業化，把軟硬件和顧問服務出口到外地，尤其關係密切的東盟國家。

智慧城市的商機龐大，市場研究機構CB Insights和Frost & Sullivan分別預測到2025年，智慧城市的全球價值為1.4萬億到1.56萬億美元不等。

作為香港第二大貿易夥伴的東盟國家，如泰國、越南都急需發展智慧城市，因當地供水設施、垃圾處理、街道照明、交通系統、教育、醫療保健、街道規劃等基建早已跟不上騰飛的經濟發展。

而香港在智慧城市的表現一向廣受國際認同。西班牙IESE商學院七月公布的「全球城市運轉指數2020」（IESE Cities in Motion Index），香港的智慧城市表現不單持續進步，在全球174個城市排第10位、亞太區第3，而且「科技」一項更全球第一（包括寬頻覆蓋、網速、個人手機和電腦使用、網上理財等）。而在「國際連繫」（旅客、國際會議、酒店和餐飲數目等）和「人力資源」（人均教育開支、本地大學的外國學生數量、全球排500位以內大學數目）方面，香港均高踞亞太區前列。

加拿大智庫菲沙研究所在九月公布的《世界經濟自由度2020年度報告》，再次把香港評為全球最自由的經濟體；瑞士的國際管理發展學院《2020年世界競爭力年報》，香港在全球63個經濟體中排第五，亞太區第二位；顧問公司戴德梁行以2020年初至八月底亞太區數據中心交投量看，香港是區內最具吸引力選址第四位。種種殊榮可見，香港在出口智慧城市服務上有顯著優勢，政府要把握大好商機，為本地人才尤其年輕人謀求優質的就業機會。

However, the government's previous efforts could be wasted as a result of the pandemic. A February survey conducted by startup organization Youth Entrepreneur Warrior and the Asia Pacific Entrepreneur Association found that almost all startups were not optimistic about the business environment. Nearly 40 percent of them had started laying off employees and 20 percent were planning to withdraw.

Therefore, if the government does not take a bold move to help them, the startups could lose momentum and people eventually.

Export smart city service to create quality job opportunities

Second, export software, hardware, and consulting services for "smart cities" to the 10-member Association of Southeast Asian Nations (ASEAN) for the development of local professionals and the economy.

The business opportunity in the smart-city sector is huge. Market research companies CB Insights and Frost & Sullivan have predicted that by 2025, the global value of the industry will range from \$1.4 trillion to \$1.56 trillion.

As Hong Kong's second-largest trading partner, ASEAN is eager to develop smart cities, as the infrastructures in the groupings have not kept up with the booming economic development.

On the other hand, Hong Kong's performance in the smart-city sector has been widely recognized internationally. According to the IESE Cities in Motion Index 2020, published by the IESE Business School in Spain in July, Hong Kong's smart-city performance continues to excel. It was ranked 10th among 174 cities in the world and third in the Asia-Pacific region.

Based on the transaction volume of data centres in the Asia-Pacific region from early 2020 to the end of August, Hong Kong is seen as the fourth-most-attractive data centre location in the region, according to a research by consulting firm Cushman & Wakefield. These rankings prove Hong Kong has significant advantages in exporting smart-city services. The Government must seize the business opportunities and create job opportunities for local professionals, especially young people.

Coding education included in regular school curriculum

Third, prepare the next generation for future challenges and add computer programming or coding to the regular curriculum of school education.

Photo credit: Esri China (Hong Kong) Ltd

培訓編程人 納入常規課程

三）把編寫電腦程式（coding）加入中小學常規課程。

被譽為「創科王國」（Innovation Nation）的以色列，其政府早於上世紀90年代已改革教育，把編程一如語文和數學般列入學校常規課程；並為中小學制定官方要求，以此釐定教課書、課程大綱；同時以此作為訓練專業教師的藍本，為該國往後的創科發展打下堅實的基礎。

現今世界多國已把編程加入中小學常規課程，計有英國、愛沙尼亞、意大利、芬蘭、法國、西班牙、南韓等，香港也應及早追上，加緊這方面的培訓，為香港人才庫注入動力。

疫下人心渙散 用科技聚民心

今年西班牙IESE商學院的智慧城市排名中，「社會凝聚力」（social cohesion）是香港最弱一環（第111位）。

自去年社會運動到今年的疫情，人心渙散，如何團結市民令香港重新振作起來非常關鍵。今年初新冠肺炎開始在香港散播，謠言四起，政府立即運用「互動地圖儀表板」羅列重要疫情資訊，提升資訊透明度；現在也可用它列出「保就業」計劃受惠公司和僱員人數、開設臨時就業職位數目、各個就業計劃成效等，令市民明確見到政府的施政狀況，也有利督促施政。

亞洲開發銀行（ADB）今年八月有關亞太區青年失業的報告提到，種種扶持政策必須秉持三大原則：針對弱勢一群，包括年輕女生；在制定政策時需吸納年輕人的想法；以及把青年就業市場和疫情影響的資訊多對外公開。這正呼應了智慧城市要從下而上、群策群力建設宜居城市的信念，也是香港政府應該努力的方向。

Innovation Nation Israel whose government has reformed education early in the 1990s so the country is able to grasp the high tech opportunity in the last 20 years. Its regular school curriculum included coding, just like language subjects and mathematics. They have developed official requirements for textbook and course outline for primary and secondary schools which are also used as a blueprint for training professional teachers, building a solid foundation for the country's future development of innovation and technology.

Many countries have already added coding to the mandatory curriculum of primary and secondary education, including the United Kingdom, Estonia, Italy, Finland, France, Spain and South Korea. Hong Kong should catch up as soon as possible by speeding up training in this area to inject momentum into Hong Kong's talent-pool growth.

Use IT to enhance administration transparency

Fourth, use information technology, such as the interactive map dashboard, to enhance administration transparency and unite people.

In the smart-city ranking from IESE Business School, Hong Kong scored very low in "social cohesion", at 111th.

The Government has made use of the interactive map dashboard, providing a clear and updated picture of the COVID-19 outbreak, to swiftly rebut rumours and clear up confusing messages about the pandemic. Now the dashboard can also be used to demonstrate the effectiveness of various relief programs, such as showing the number of companies and employees benefiting from the Employment Support Scheme and the number of temporary jobs created. By doing so, people have a clearer picture of the Government's administration, enabling the public to monitor the Government's performance. This will help unite people to revive Hong Kong.

The Asian Development Bank mentioned, in its report Tackling the COVID-19 Youth Employment Crisis in Asia and the Pacific, released in August, an effective policy response should underpin "three cross-cutting considerations", which are: "reaching the most vulnerable youth including the poorest and marginalized young women; meaningfully engaging young people in policy development and social dialogue; and facilitating disaggregation of crisis impact data by age and enhanced youth labor market information." This echoes the belief that smart cities should be built from the bottom, and that to build a liveable city requires the joint effort of all people. It should also be a priority of the Hong Kong Government.

《香港智慧城市藍圖2.0》建議

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Recommendations on Hong Kong *Smart City Blueprint 2.0*

Originally posted on Hong Kong Economic Times on 21st August, 2020

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特區政府於2017年推出首份《智慧城市藍圖》，是本港發展創新科技的一個突破。藍圖為2017至2022年的智慧城市發展，提出了不少短、中、長期規劃的建議，包括利用大數據、物聯網及車聯網等技術去解決交通、醫療、環保問題的具體方案。若相關項目得以落實，本來會是一項德政，惟部分項目至今仍未實現，部門間缺乏協調合作亦成創科發展的障礙。創新及科技局承諾今年底會公布《香港智慧城市藍圖2.0》，推動5G網絡發展和應用。當中，政府將如何加快步伐，以追上全球發展的節奏與疫後的社會大轉型，將考驗其魄力與決心。

有見於此，筆者建議政府應於《香港智慧城市藍圖2.0》著墨下列範疇：

智慧型公共服務：港府多年前曾制訂名為「數碼21」的資訊科技策略，「公共服務電子化」為整個計劃的先驅，卻只聞樓梯響。儘管市民現時能於政府網站下載不同公共服務的申請表格，卻未能直接於網上填妥並遞交表格。若申請駕駛執照更需在辦公時間前往運輸署遞交表格，或以傳統的郵遞與傳真，連同證明文件提交表格，過程費時失事。由於疫情肆港，政府過去多月縮減了不少公共服務，特別是牌照申請及續證服務，對市民及商戶造成嚴重不便。港府承諾今年年底推出eID「智方便」平台，香港市民將可以擁有網上個人身份證明，在此基建上更應大量培訓和匯聚更多科技人才，以官商民合作模式，全面提升公共

The first Hong Kong *Smart City Blueprint* launched in 2017 by the government was a breakthrough in the innovative industry. It gave numerous suggestions and guidelines on Smart City development between 2017 and 2022 with short, medium, and long-term plans, including details on how to help resolve transportation, medical, and environmental problems by using big data, internet of things and internet of vehicles. A benevolent rule could have been resulted if fully implemented. But projects remained incomplete today due to obstacles created by a lack of coordination between departments, hindering innovative development.

The Innovation and Technology Bureau has promised to announce the Hong Kong *Smart City Blueprint 2.0 (Blueprint 2.0)* by the end of this year, promoting 5G network development and applications. The government's proposal on how to up the pace in keeping up with the global smart city's development and their preparation on post-pandemic social transformations will be a test of their courage and determination. Therefore, may I suggest that the Government should focus on the following areas in the *Blueprint 2.0*:

Smart Public Services: The Hong Kong Government had devised an information technology strategy called "Digital 21" many years ago. The plan was to pioneer the digitalization of public services which it failed to deliver. Though citizens can download various application forms of public services, online submission is still not available. Take the application of driver's license for example, it is a time-consuming process and requires a physical visit to the Transport Department during office hours for submission of forms, or alternatively submitting

服務電子化，讓大眾生活更方便，同時節省各部門不必要的資源，做到真正高效、智慧、便民。

將編程（Coding）及人工智能（AI）列為必修課程： 面對以科技主導的世代，香港如何培養人才迎合產業轉型及知識性經濟發展已是一大挑戰。筆者多年來一直推動STEM（科學、技術、工程、數學）教育，但STEM教育在本港的推行卻是艱難重重，當中很大原因是受制於政府缺乏清晰政策。為此，政府應盡快全面落實STEM教育，將編程及人工智能列為小學及初中必修課程，以新思維作出改革，培養主動愉快學習、善用科技、德才兼備、放眼世界的新一代。

針對性開放數據： 政府去年公布，超過80個部門將於「資料一線通」網站，上載逾650項新增數據集，期望年底網站上數據總數由3,300增兩成至4,000個。惟各政府部門及其他機構發布數據的標準不一致，有業界反映政府仍未能滿足他們對數據的需求。加上黑暴攬炒把收集大數據的智慧燈柱予以破壞，更拉倒了本港的創科步伐。政府應設立常設開放數據的諮詢委員會，與科技界及商界等加強溝通，了解他們的需要，真正做到數據開放到位。政府智慧城市的相關法例亦應與時並進，例如應參考美國紐約於2012年通過的《開放數據法》（Open Data Law），研究透過立法訂定何謂公共數據，並要求所有公共數據須在一個單一平台上公開，加快推動香港智慧城市，尤其是智慧出行方面的發展。

瑞士洛桑管理學院去年公布了「2019　IMD全球智慧城市指數」，新加坡冠絕全球102個城市，而香港僅排37。香港於智慧城市整體發展上雖仍領先部分內地城市，但距離正在收窄，有些內地城市在智慧城市管理、政府服務、電子支付、保安、出行等更已經超越香港，期望當局在推出《香港智慧城市藍圖2.0》的過程中能廣納持份者意見，善用已有科技、加強公私營合作、鼓勵本地研發領先的智慧城市科技，並做到真正的「以人為本」，務實解決普羅大眾日常所面對的問題，令市民體會到發展智慧城市的好處。

by mail or fax with supporting documents. And during the pandemic in the past few months many individuals and businesses were affected by the shutdown of public services, particularly the license application and renewal services. The Government promises to have online personal identification for the citizens by launching the iAM Smart (formerly known as eID) platform by 2020. This infrastructure requires extensive training and recruitment of IT talents as well as coordination between individuals, government and businesses so that electronic public services can be comprehensively upgraded, adding convenience for the general public while reducing resources of the various departments, improving efficiency, and intelligent.

Coding and Artificial Intelligence (AI) should be listed as compulsory subjects: In facing this technology driven generation, the training of talents to meet with the industry transformation and the development of knowledge-based economy are posing major challenges for Hong Kong. I have been advocating STEM (science, technology, engineering, mathematics) education for many years. But the implementation of STEM education in Hong Kong has encountered many obstacles, largely due to ambiguous government policies. As such, the Government should expedite the full implementation of STEM education, incorporating coding and AI as compulsory subjects in elementary and junior high schools, allowing new thoughts for reform, cultivate proactive pleasant learning, make use of technologies, generate virtue, and forge a global view for our future.

Targeted Open Data: Last year the Government have announced that over 80 of its departments would upload more than 650 new data sets onto the DATA.GOV.HK website, targeting a 20% data increase from 3,300 to 4,000 sets before the end of the year. However, various government departments and agencies have differing standards for data release which fell short of meeting the data needs for some industries, as has been reflected to the Government. Coupled with the destruction of the big data collecting smart lampposts during the recent social unrest, the pace of innovation development in Hong Kong has been crippled. The Government should set up a permanent open data advisory committee to strengthen communication with the technology sector and the business community to understand their needs and achieve real open data. The relevant laws and regulations related to smart cities should also be kept in line with changing times. References can be made to, for example, the *Open Data Law* enacted in New York in 2012. Studies should be conducted on defining public data through legislation. All public data should be made available from one single platform, accelerating the development of Hong Kong's smart city, particularly smart mobility.

The Institute for Management Development (IMD) in Switzerland has released the *IMD Smart Cities Index 2019*. Singapore tops 102 cities globally while Hong Kong ranked only 37th. Although Hong Kong is still ahead of some mainland cities in the overall development of smart cities, the lead is narrowing. Some mainland cities have already surpassed Hong Kong in smart city management, government services, electronic payments, security, and mobility. In the process of developing *Blueprint 2.0*, I hope the Government can widely adopt the opinions of stakeholders, make use of the existing technology to strengthen public/private sector cooperation, encourage local research and development of leading smart city technology, as well as achieving genuine "people-oriented" and pragmatic solution for the daily problems of the general public, so that citizens can reap the benefits of developing smart cities.

Smart City Blueprint 2.0
Advisory Report Highlight

27 April 2020

Robotic Process Automation helps make city life better
機械人助城市生活更美好

科技發展的最終目的是解放人類，讓人們的生活和工作更美好。這一點，在2020這特殊的一年更為明顯地體現。

UiPath 大中華區總裁吳威表示，新冠肺炎疫情的爆發讓我們看到了以「機械人流程自動化方案」（RPA）為代表技術的無限力量。他引述美國市場研究公司Forrester的一個報告，指出為應對新冠疫情帶來的新業務和市場壓力，越來越多企業使用RPA和其他智能自動化技術；同時，憑藉以人為本的原則，讓人們更好地面對未來工作。

那麼，在科技影響個人、企業、城市的當今時代，RPA的具體價值在哪裡體現？能多大程度助力我們的城市生活？

吳威說，RPA提供及時的解決方案，能高效執行工作、優

The ultimate goal of technology is to liberate mankind and make people live and work better, and this is becoming more obvious in 2020.

The General Manager, Managing Director Greater China of UiPath, Mr. Gabriel Wu stated that the limitless power of intelligent automation technologies, represented by Robotic Process Automation (RPA), has been demonstrated since the outbreak of COVID-19. According to a study from Forrester, a US research company, more companies are using RPA and alternatives to cope with new business and market pressures brought about by the epidemic. At the same time, they are using a people-oriented approach to facilitate future work.

So, in this technological era, affecting individuals, companies, and cities, where can the specific value of RPA be exemplified? How much can it help our city life?

Mr. Wu said that RPA provides a timely solution that can perform work efficiently, optimize business processes, and handle large-volume, urgent tasks that cannot be dealt by manpower single-handedly. It is applied in finance, manufacturing, medical, retail, logistics and other fields.

Under the impact of COVID-19, delays in work resumption and disruption of partners' service have prevented daily operations of most companies to return normal. Some of which have resumed work by relying on offline operational models and remote working tools, which reduces the work efficiency. Therefore, many companies have opted RPA. With the help of RPA, many companies have resumed normal operations, thereby ensuring

化業務流程，解決了單獨依靠人力無法處理的大批量突發任務，在金融、製造、醫療、零售、物流等多個領域也能全面發揮效用。

受疫情影響，員工延遲復工、合作夥伴因疫情中斷服務，使大部分企業的日常運作無法如常展開。即使復工的企業，也因依賴線下的營運模式，受制於遙距辦公技術，令效率不如人意，因此，很多公司紛紛轉以RPA來解決。借助RPA，企業得以恢復正常運作，確保業績增長不受疫情影響之餘，也保障了員工的健康。

他舉例說，疫情期間，UiPath的RPA協助航空業界輕鬆應對乘客的退票安排；而UiPath與合作夥伴聯手打造的方艙醫院疫情自動上報系統，機械人每天從內聯網索取資料，並上報到國家疫情直報系統，對當局掌握疫情進展非常關鍵。此外，UiPath的每日健康狀況調查機械人也在企業、社區發揮了重要角色，除了每日收集相關人員的健康資料外，對於未打卡的人員還會主動追蹤。

當然，RPA的全面普及還需要一段時間。吳威表示，目前許多客戶僅將UiPath的RPA視為現有資訊科技系統的「附加」工具。不過，該公司也同時看到新趨勢，就是由於勞動力和商業模式的轉變，越來越多公司逐漸將RPA視為核心功能。

他指出RPA是香港建設智慧城市不可或缺的推動力，也是UiPath能在香港蓬勃發展的獨特因素。香港是一個歷史悠久的城市，在自動化進程中，自然遇上諸多阻力，妨礙了企業創新和採用新技術的速度。RPA能夠將現有技術和新技術結合，彌補了新舊技術的差距，而且毋需客戶大量投資。

UiPath是香港知名的RPA品牌，自2017年7月以來，我們在香港的客戶快速增長，覆蓋不同行業，包括銀行、金融服務和保險業，以及交通運輸、公營部門等，並廣受客戶的好評。

UiPath的超自動化平台讓員工毋須從事單調重複的作業，可集中精力在更有價值的工作上。對客戶而言，這既滿足了自動化的需要，更有助提升投資回報。UiPath致力實現「每人都有一個機械人」的願景，積極發揮超自動化平台的價值，從而釋放人力，促進我們有更美好的城市生活！

performance growth during the epidemic and at the same time protecting employees' health.

He gave an example that during the epidemic, UiPath RPA helped aviation customers deal with passenger refunds easily. The automatic reporting system for mobile cabin hospitals is jointly created by UiPath and our partners. The robot obtains daily data from the intranet and reports to the national epidemic reporting system. In addition, the UiPath daily health status survey robot has also played an important role in enterprises and communities. Through collecting health data of relevant personnel on a daily basis, it can actively track people who have not checked in.

It is expected that it still needs more time for RPA to become popular. Mr. Wu mentioned that many UiPath customers only regard RPA as a "supplementary" tool in their existing IT system, but already we are seeing new trends. In relation to changes in the labor and business models, more and more companies are considering RPA as a core function.

He pointed out that UiPath's robust development has its own uniqueness in Hong Kong, and plays a crucial part from the perspective of Hong Kong's ideology of being a smart city. Hong Kong is a city with a rich history, but in terms of automation process, there are many obstacles hindering enterprise's innovation and adoption of new technologies and RPA can fill this gap, fusing existing with new technologies without the need of heavy investment.

UiPath is a well-known RPA brand in Hong Kong. Since July 2017, our local customers have grown rapidly, and our business covers multiple industries, including banking, financial services and insurance (BFSI), transportation, public sector and more, and has been praised by our customers.

UiPath, based on a hyper automation platform, allows people to escape the monotonous tasks, and do more value-added work with high energy; our solution can not only meet customer needs, but can also enable them to obtain a higher return on investment. UiPath is committed to actualizing "a robot for every person", releasing employees from mundane tasks, maximizing the potential of hyper automation platform, and making our city life better!

Co-creation and cooperation between public and private sector critical for Hong Kong's smart city development in years ahead

By KPMG China Smart City Group

公共部門和私營業界彼此協同創新和通力合作，對香港未來的智慧城市發展攸關重要

畢馬威中國智慧城市團隊

未來十載，香港需要考慮的發展因素眾多，包括土地使用和城市再發展、資源和廢物管理、持續推動研發與創新的需求、住房負擔能力問題、培養未來所需的勞動技能問題、以及照顧日漸龐大的長者人群問題。

面對新冠肺炎大流行目前造成的破壞，加上其對全球經濟的影響持續發酵，香港特區政府應與私營業界更緊密合作，加強香港核心產業的復原力，同時提升其創新和科技能力。公共部門和私營業界彼此協同創新和通力合作，對香港持續發展成為智慧城市是不可或缺的元素，而治理也發揮重要作用。政府應鼓勵公司和市民參與計劃，為合作機會清除障礙。

As Hong Kong looks ahead to the coming decade, it needs to consider many factors including land use and urban redevelopment, resource and waste management, the ongoing need to boost R&D and innovation, housing affordability, equipping the workforce with skills needed for the future, and taking care of the city's growing elderly population.

Amid the current disruption of the Covid-19 pandemic and its ongoing impact on the global economy, it is important that the HKSAR government work more closely with the private sector to improve the resilience of Hong Kong's core industries while building up innovation and technology capabilities. Co-creation and cooperation between the public and private sector is integral to Hong Kong's continued development as a smart city, with governance playing a key role. The role of government should be to encourage both businesses and citizens to participate in initiatives, removing hurdles that limit opportunities for partnerships.

研究表示，減少監管方面的障礙可以改善智慧城市計劃的公私合作

畢馬威中國與中電、數碼港、HKBN JOS、智慧城市聯盟、西門子、Weave Co-Living和威信集團在今年較早時間共同發佈的《智慧城市：未來香港2030》研究報告中，探討了如何利用有效管治、智能基礎設施和創新解決香港面臨的最嚴峻的都市問題。為此，我們調查了430位香港各界高管，他們分別來自大型企業、中小企業、初創企業、政府、非營利組織和學術界。

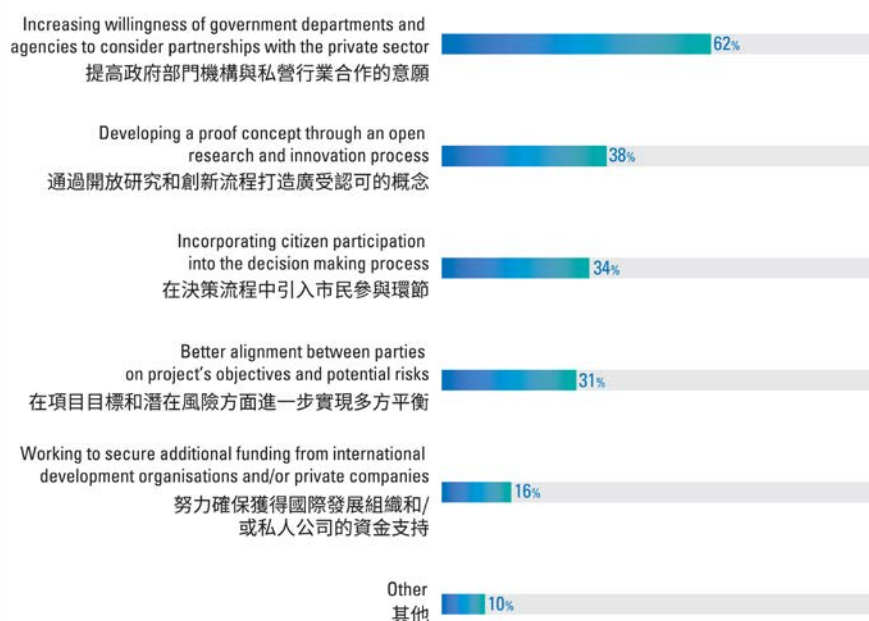接受調查的企業表示非常願意與政府合作開展相關範疇的項目，但只有少數機構表示目前正在與政府合作開展智慧城市

Reducing regulatory hurdles can improve public-private cooperation on smart city initiatives, study suggests

The Future Hong Kong 2030 study published by KPMG China in cooperation with CLP, Cyberport, HKBN JOS, Smart City Consortium, Siemens, Weave Co-Living and Wilson Group earlier this year looks at how effective governance, smart infrastructure and innovation can be used to address the city's biggest urban challenges. 430 senior executives from corporate enterprises, small-and medium sized businesses, start-ups, government, not-for-profit and academia, across a broad range of sectors in Hong Kong were surveyed.

Businesses surveyed expressed a strong willingness to partner with the government on projects in this area, however, only a minority of organisations said they are currently working with the government

Factors that can optimise cooperation with the government on smart city projects
有助進一步協助政府推進智慧城市項目的因素

Increasing willingness of government departments and agencies to consider partnerships with the private sector
提高政府部門機構與私營行業合作的意願 **62%**

Developing a proof concept through an open research and innovation process
通過開放研究和創新流程打造廣受認可的概念 **38%**

Incorporating citizen participation into the decision making process
在決策流程中引入市民參與環節 **34%**

Better alignment between parties on project's objectives and potential risks
在項目目標和潛在風險方面進一步實現多方平衡 **31%**

Working to secure additional funding from international development organisations and/or private companies
努力確保獲得國際發展組織和/或私人公司的資金支持 **16%**

Other
其他 **10%**

Source: KPMG Survey Analysis
Respondents could select up to two choices
資料來源：畢馬威調查分析
受訪者可選擇至多2項

計劃，大部分均指缺乏合作機會。62％的高管表示，政府部門和機關願意考慮與私營業界建立夥伴關係，是智慧城市計劃能否達標的重要因素。

接受訪問的業界人士認為，政府目前與私營業界合作的模式，可能是無法鼓勵部分企業參與項目的因素。除了招標模式外，受訪者表示，它們更希望採用公私合營（PPP）模式，以「物有所值」為考慮重點，而不是只側重於價格。在這種模式下，企業可以為社會大眾建立基礎設施或提供服務，並在一定時期內獲取收入。

事實證明，通過建立「免監管」區域，可以在減少監管限制的情況下有效開發和測試技術解決方案。香港金融管理局早於2016年推行金融科技監管沙盒，通過賦予金融科技行業測試技術和運行試點的能力，幫助業界發展。其他城市也印證這些「沙盒」對智慧城市計劃帶來幫助。例如，南韓的世宗市和釜山市已成功使用類似的沙盒，測試自動駕駛汽車、無人機和可再生能源在智慧城市的應用情況。台北市還建立了「生活實驗室」，讓市民和企業共同確定、協同創建和測試解決城市問題的方案。

on smart city initiatives, with most saying there are insufficient opportunities for partnerships. 62 percent of executives polled said that willingness on the part of government departments and agencies to consider partnerships with the private sector is an important factor to enable smart city initiatives to achieve their objectives.

Industry players interviewed for the study suggest that the government's current models for working with the private sector may be a factor in discouraging some businesses from participating in projects. As an alternative to the tender model, interviewees said they would prefer to see the public-private partnership (PPP) model adopted more frequently, with a key focus being "value for money" rather than predominantly being the price offered. Under this model, corporates can build infrastructure or provide a service for the public from which they receive a revenue stream for a set period of time.

Creating "regulation-free" zones where technology solutions can be developed and tested with reduced regulatory constraints has also proven to be effective. The Hong Kong Monetary Authority's Fintech Supervisory Sandbox, originally launched in 2016, has helped the fintech sector develop through giving it the ability to test technology and run pilots. Other cities have demonstrated that these "sandboxes" can also be helpful for smart city initiatives. For example, South Korea's Sejong and Busan have successfully used similar sandboxes to test smart city applications for autonomous vehicles, drones and renewable energy. Taipei has also established "living labs" where citizens and businesses can come together to identify, co-create and test solutions to urban problems.

Earlier this year, the government announced it is developing a refreshed version of its Smart City Blueprint, building on the original blueprint published in December 2017, which set out 70 initiatives under six priority areas, including smart environment, smart people and smart economy.

今年較早時間，政府宣布以2017年12月刊發的「香港智慧城市藍圖」為基礎，制定更新版本，並針對六個主要範疇羅列70項措施，包括智慧環境、智慧市民及智慧經濟。

隨着香港制定2030年及以後的智慧發展計劃，如何推行各種技術解決方案，對於改善政府服務、提高生活水平和應對城市挑戰是攸關重要的。通過採用靈活創新的方法與私營業界合作，城市政府透過這些解決方案真正改善人們生活的機會也會增加。

畢馬威中國智慧城市團隊成員包括畢馬威中國環球基礎設施諮詢服務中國聯席主管Julian Vella、香港科技賦能主管合夥人周嗣良、香港房地產業主管合夥人邱毅麟、香港運輸行業主管合夥人梁思傑、香港科技和新經濟市場主管合夥人朱雅儀、以及香港信息技術、媒體和電信業主管合夥人利安生。

As Hong Kong lays out its smart development plans for 2030 and beyond, implementing a variety of technology solutions will be critical to improve government services, raise living standards and address urban challenges. By employing flexible, innovative methods to work with the private sector, city governments can increase the likelihood that solutions will have a real impact on people's lives.
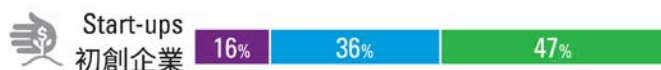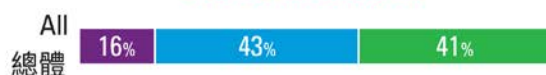
The KPMG China Smart City Group is comprised of Julian Vella, Co-head, China, Global Infrastructure Advisory, KPMG China; Marcos Chow, Head of Technology Enablement, Hong Kong; Alan Yau, Head of Real Estate, Hong Kong; Roy Leung, Head of Transport, Hong Kong; Irene Chu, Head of Technology & New Economy, Hong Kong; and Anson Bailey, Head of Technology, Media, and Telecommunications, Hong Kong for KPMG China.

Partnering with the government on smart city projects
攜手政府推進智慧城市項目

Sufficient opportunities to partner with the government on smart city projects or initiatives
存在大量協助政府推進智慧城市項目或計劃的機會

Actively partnering with the government on smart city projects or initiatives
是否積極協助政府推進智慧城市項目或計劃

	Agree 同意	Neutral 中立	Disagree 不同意	Yes 是	No 否
All 總體	16%	43%	41%	29%	71%
Corporates 大型企業	18%	48%	34%	34%	66%
SMEs 中小企業	14%	38%	48%	23%	77%
Start-ups 初創企業	16%	36%	47%	30%	70%

Source: KPMG Survey Analysis
資料來源：畢馬威調查分析

The Role of Private Organizations in Building Smart Cities

私營機構在創建「智慧城市」的角色

人們一般從基礎設施、通訊設施以及可持續發展的程度來定義「智慧城市」，當中科技和通訊技術非常重要。通過電訊科技的聯網和數碼化，能夠為市民提供安全優質的生活環境。

智慧城市旨在為我們提供高科技、安全和健康的環境，政府的角色非常重要，它主要專注於監管政府部門和公私營機構的運營，包括營造和分享知識管理機制、為城市訂下願景、並且為發展作好財政準備。

那私營機構在創建智慧城市當中又飾演著什麼角色呢？

美康醫學教育公司（下稱「美康」）的方釗博士表示，私營機構可以通過電子產品提供培訓給各行各業的市民以及不同的機構和公司，從而培養智慧型的市民、機構以及公司來符合智慧城市的要求。以他們的公司為例，美康原先是美國南伊利諾大學DxR　集團亞太區的獨家代理，後來更成為股東。面向智慧城市的未來發展，美康致力培養一支隊伍，建立預防和管理各種災難發生的機制，由原來專注做醫學模擬教育，發展到現在提供電子培訓和災難管理的技術，為香港成為智慧城市做出貢獻。而新冠病毒疫情的發生，亦讓大家注意到科技的重要性及步向智慧城市的趨勢。

A smart city is generally defined by the level of urbanization, provision of communication facilities, and digitalization and connectivity of telecommunications technologies. These are quintessential for providing a safe living environment to citizens.

Smart city aims at providing a high tech, safe and healthy environment for its residents. While focusing on supervising various governmental departments, public and private groups, the government is responsible in generating the mission and vision for the city, preparing financial foundations for development, and organizing information sharing mechanisms.

So what is the role of private organizations in creating smart cities?

The Director, Corporate Strategy & Business Development of MedSim Healthcare Education Company (MedSim), Dr. Samuel Fong stated that for private organization to fulfil requirements of smart cities, its role is to provide training to all citizens and corporations with smart devices. MedSim, for example, has become the sole agent and later, shareholder of a US-based DxR Development Group. MedSim has transited from being simulated medical education development focused, to providing technologies on e-training and disaster management. MedSim has nurtured a team dedicated to establish systems to prevent and manage various catastrophes as its contribution to the transformation of Hong Kong into a smart city.

醫學教育軟件

方博士指出，疫情的爆發影響世界各地的交流，美康把醫學教育軟件介紹到香港，學生通過「練習」來學習，將在課堂上獲得的知識應用於現實的臨床問題上，並在安全的環境下從錯誤中學習。透過這樣的模擬醫療學習，醫學生可以學習和建立臨床思維系統，並通過軟件等模擬醫療教育工具學到更準確的診症技術，有助減少醫療事故。

提供電子培訓

另外，在線培訓平台也十分重要，可解決因時間和各種限制而帶來的不便。方博士說，在香港，一些非政府組織例如診所和老人院為社區提供不同的服務，而培訓新入職員工特別是護理人員，以及病人家屬都對病人福祉至關重要。因此，美康便為這些大型的非政府組織建立了網上學習平台，並採用了世界級的適應性學習系統Area9，根據學員的不同程度以及不同需要提供適時的護理和復康培訓，為智慧城市培養智慧型的市民。通過這個平台，新入職的員工得到標準化的培訓，為他們的未來工作做好準備，減少出錯。此外，即使是病人家屬，也可以從中學習，在家協助照顧病人。

災難管理

方博士進一步指出，智慧城市其中一個關鍵是為市民提供安全的環境。雖然香港是世界最安全的城市之一，但我們仍然面對不同程度的自然和人為災難帶來的傷害。身處現代科技時代，數據的收集和分析系統可以為我們提供不同的災難場景和應對方法，防患於未然，從而減少災難所帶來的損失和傷害。有見及此，美康引進了最先進的科技——虛擬實境（VR）災難管理訓練系統，為香港各界提供災難的演習，從而提升有關人士的危機意識以及臨場應變的心理準備及技巧練習。

方博士相信，全世界的政府都在尋找和私營機構有更多的合作，或是基於某種信念，或是基於成本效益的考量。其中一個重要因素是，私營機構更能跟上科技的步伐。可見，私營機構在構建智慧城市中扮演著重要的角色。

Software for medical education

Dr. Fong mentioned that MedSim introduced a medical teaching software to Hong Kong while COVID-19 hinders worldwide communication. Students can learn through practice and mistakes in a safe environment, applying theoretical knowledge to simulated complications, developing clinical inferences and reducing medical malpractices through this accurate diagnostic software.

Providing E-learning

The Importance of online e-learning platforms is exemplified when facing time and environmental constraints. Dr. Fong said the local NGOs provide community services to clinics and nursing home, and more importantly, training fresh nursing staff and providing assistance to patients' family members. MedSim uses Area9, the world-class adaptive learning system, in the online learning platform for large-size NGOs. Providing nursing and rehabilitation training for students with varied capabilities and needs on the platform, standardizing training to freshmen can reduce error and ensure preparation for future duties. Patient's family members can also learn from within and take better care of the sufferer in daily routines.

Disaster management

He further noted that a safe environment for residents is vital to a smart city. Despite being one of the safest cities around the world, Hong Kong faces natural and man-made disasters causing diverse degree of damage. In this information age, multiple supportive data can assess the disaster management team in acquiring and utilizing the information effectively in rescue and response. Since being prepared is the best preparation for the next disaster, MedSim has introduced the latest virtual reality (VR) disaster preparedness training system to Hong Kong, providing simulated drills, elevating danger awareness and mentally preparing the team to use on the spot techniques.

Dr. Fong believed governments around the world are looking forward to more collaboration with private sectors on ideological reasoning or cost efficiency. However, one of the key driving forces is that private corporations can help governments in keeping up with technological and cultural change, thus, playing an important role in building smart cities.

Combining Technology and E-Commerce, Digital Virtual Exhibition has become a global trend

結合科技與電商
數碼虛擬展覽成大勢所趨

新冠疫情肆虐下，各行各業受到影響，加上疫情反覆，政府推出多項防疫及社交距離措施，旅遊、零售和飲食業等大受打擊，眾行業都承受著史無前例的經營困難，使香港經濟雪上加霜，而展覽業也不例外。

展覽會能夠促進訊息交流，協助參展商展示產品的特色，提升知名度。因此，展覽會是市場推廣業務的命脈。香港是全球第八大商品貿易經濟體，也是一個自由港，位處亞洲中心位置，對外航空聯繫亦十分完善，過往一直吸引了眾多的參展商、買家及海外旅客來港參加展覽會。

可是，在疫情以及隔離措施的影響下，各國嚴格限制人員流動以控制疫情，大部分展覽、活動策劃及製作也相繼停頓，消費端和生產端兩個方面同時對經濟運行帶來壓力。可以說，展覽會行業正面臨著前所未有的挑戰和機遇。

在資訊化年代，展覽行業的創新和發展將充分利用互聯網的特質。例如部分開展了網上銷售，並計劃把線下的展覽轉移到網上舉行，將原本需要實體接觸會面的業務及活動，改以網上平台及應用程式代替。透過創新令傳統行業可以轉戰線上，利用科技建立虛擬展覽廳，為各展商打通網上銷售的渠道，擴大生存空間，與時並進。

協通科技有限公司負責人余嘉舜稱：「數碼虛擬展覽及活動是

All industries have been affected by the raging COVID-19 pandemic. Amid fluctuating confirmed cases, the Government has introduced a number of epidemic prevention and social distancing measures. Tourism, retail and catering industries have been taking a beat. All industries are suffering from unprecedented operating difficulties, making Hong Kong's economy worse. The exhibition industry is no exception too.

Exhibitions can promote the exchange of information, assist exhibitors to showcase features and brand capability. Therefore, exhibitions are the lifeblood of marketing business. Hong Kong was the world's eighth largest trading entity in goods last year. Being located in the center of Asia with a Free Economic Zone, Hong Kong has perfect air flight connections with the world. In the past, it attracted different exhibitors, buyers and tourists from around the world to come and join the exhibitions.

However, under the influence of the epidemic and quarantine measures, countries have strictly restricted the mobility of people to control the epidemic, and most exhibitions, event planning and production have been suspended or cancelled. Both the consumer side and the production side put pressure to resume economic operations to normal level. The exhibition industry is facing unprecedented challenges and opportunities.

In the information age, the innovation and development of the exhibition industry can make full use of the unique advantages of the internet. Part of the online sales is planned to transfer offline exhibitions to online, and the business and activities that originally required physical contacts and meetings will be replaced by online

把線下的實體活動搬到線上舉行，透過網站聚集人流，再以3D模型建立虛擬展覽廳，當中有虛擬攤位，還有產品展示及影片介紹，還可以透過網站連結立即與展商對話，查詢產品及服務的詳情，亦能立即進行網購，令參加者仿如置身展覽會場，感受足不出戶的另類參展及購物體驗。」

他說，參展商免除實質展覽需要的搭建費及人手成本，也不受地域界限，令世界各地的人士都可以瀏覽及參與數碼展覽，可謂達到更少成本、更多觀眾的雙贏局面。

該公司多年來都提供線上線下的數碼營銷方案，於今年年中疫情爆發最嚴重時已經引入數碼展覽技術，並為零售企業舉行了幾個小型及大型的數碼展覽，將以往舉辦實體展覽的經驗結合創新科技到旗下的網購平台(http://hklivefeed.tv)，同時建立了一條龍服務的虛擬展覽團隊，提供不同的客製方案，幫助傳統行業轉型，提升業績，振興香港的經濟。

隨著科技發展日新月異，虛擬實境技術日趨完善，虛擬展覽、直播節目以及網購已是全球大勢所趨。不論身在香港、內地或外國，企業及廠商都可透過虛擬展覽豐富的視覺效果和互動效應，加強與世界各地的入口商、分銷商和零售商等的業務聯繫，開拓網上銷售渠道，繼續開展業務，把有著相同理念的大家匯聚在一起，突破界限，打破區域，發揮互聯互通，再次啟動全球產業鏈，無縫銜接及融合各個城市、國家，實現協同效應。

該公司聯合國際美容健康總聯合會將於12月中下旬舉辦本港第一個以美容為主題的虛擬展覽。美容業界從線下走到線上是創新的嘗試，業界希望能藉此帶來新機遇，也為其他行業起示範作用。

platforms and applications. Through innovation, traditional industries can move to virtual setting. The virtual exhibition hall opens up online sales channels for exhibitors, expands their market, and keeps them in pace with modern technology.

Mr. Kason Yu, head of LetLink, said that digital virtual exhibitions and events enable moving from face to face to online, through the website gathering people flow, and then using 3D models to build a virtual exhibition gallery, in which there are virtual booths, product demonstrations and video presentations. At the same time, through the website link, customers can immediately chat with the exhibitors, enquire about the details of products and services, the platform enables shopping online instantaneously. Visitors will be able to experience an alternative exhibition and shopping experience without having to leave their homes.

Exhibitors are free from set-up and manpower costs as in physical exhibitions, and there are no regional boundaries, so people from all over the world can browse and participate in digital exhibitions. It can be said that a win-win situation with less cost and a wider spectrum of audience can be contacted.

LetLink has provided online and offline digital marketing solutions for many years. It has introduced digital exhibition technology when the epidemic broke out in the middle of this year, and has held several small and large digital exhibitions for retail companies. Experience combining innovation and technology to its online shopping platform (http://hklivefeed.tv), enables it to establish a one-stop service virtual exhibition team which provides different customized solutions to help traditional industries transform, improve performance, and revitalize Hong Kong's economy.

With the rapid development of technology, virtual reality technology is being perfected day by day. Virtual exhibitions, live shows and online shopping have become the global trend. Whether they are in Hong Kong, the Mainland or any foreign countries, companies and manufacturers can use the rich visual and interactive effects of virtual exhibitions to strengthen business contacts with importers, distributors and retailers around the world. Open up online sales channels and continue carrying out business, bringing together people with the same philosophy, breaking regional barrier, developing interconnection, and reactivating the global industrial chain are seamlessly connecting and synergizing various cities and countries.

The company and the International Beauty & Health General Union (IBHGU) will hold Hong Kong's first virtual exhibition with the theme of beauty in mid-to-late December. It is an innovative attempt to move the beauty industry from offline to online. The industry hopes to bring new opportunities and set an example for other industries.

疫情下體驗「隔空撤軚」
Experience "kNOw Touch"
under the Pandemic

新型冠狀病毒的爆發，令市民更注重衛生。但很多時候我們避無可避，需要透過雙手去觸碰不同的物件，例如扶手、熒幕、門柄、按鈕等。可是，現時存在不少病徵輕微甚至完全沒有徵狀的隱形病人，患者有可能在沒有察覺的情況下於社區遊走，大大增加了傳播病毒的風險。為減低感染機會，市民想盡辦法盡量減少觸碰物件表面，譬如用紙巾、筆等代替，但試想想假若物件表面已有病菌，哪病菌不是也會隨我們的物件帶回家嗎？

The spread of COVID-19 has increased public awareness of hygiene. However, in many circumstances, there is no way to avoid touching different objects with our hands, such as handrails, touchscreens, door handles, buttons, etc. However, there are quite a number of patients with mild or even no symptoms at all, which may not be aware, not being indentified by detection and thereby, greatly increase the risk of infecting others. In order to reduce the risk of contact and infection, people try to minimize touching the surface of objects bare-handed by using tissues and pens as replacements instead. If there are germs on the surface of the object, won't our contact carry the germs along?

因此，香港生產力促進局發明了「kNOw Touch無觸按鈕」電梯面板，近日就在新城電台《創智傳城》節目向大眾講解。節目由林淑敏女士及智慧城市聯盟會長楊文銳先生主持，每集通過邀請不同創科界嘉賓進行訪談，希望加強市民對香港智慧城市發展的了解。

香港生產力促進局總經理潘志健博士在該節目解說了這次發明。潘博士稱，「kNOw Touch無觸按鈕」電梯面板，顧名思義，讓人毋須觸碰按鈕面板，便能夠「隔空撳電梯」，有效減低公眾感染病毒的機會，而且成本低，效益高。

「kNOw Touch無觸按鈕」的運作十分簡單，將紅外線感應裝置安裝在按鈕面板旁邊，透過發射精密紅外線光束，偵測升降機按鈕前被指尖阻擋並反射的紅外線，從而計算相應的樓層，並控制連接按鈕驅動系統。因此，市民只需將手指放在按鈕前面，聽到「嘟」聲以示按好，便能隔空按動升降機。

有些市民可能擔心「kNOw Touch無觸按鈕」會有誤觸或故意亂按的情況，潘博士表示智能軟件設計已考慮這些情況。軟件可以偵測錯誤，例如紅外線傳感器被大型物件阻擋或物件在按鈕面板上不斷移動時，都不會觸發按鈕。因此，可以預防不必要的故障或誤會。

現時不少政府部門及大廈公眾地方已經安裝，例如機電工程署、香港國際機場一號客運大樓、大埔墟街市熟食中心等等。此外，新舊款式的升降機也可以使用「kNOw Touch無觸按鈕」軟件，毋須進行大幅度的機械結構改動。

經過這次的疫情，相信香港未來將更關注醫療科技及公眾健康，投放更多資源，甚至運用智慧城市科技來解決市民的日常所需，全面普及科技，並將科技融入日常生活之中，以技術的層面協助市民，打造一個智慧社區。

新城電台和智慧城市聯盟合辦的《創智傳城》節目，由新城電台主持人和智慧城市聯盟會長聯合主持。節目內容圍繞智慧城市發展，每次邀請不同嘉賓分享對有關課題的意見和最新發展。節目在新城知訊台FM997逢星期六上午11-12時播出及於新城財經台FM104星期日晚上 8-9時重播。

The "kNOw Touch" elevator panel, invented by the Hong Kong Productivity Council (HKPC) in response to the COVID 19, was introduced in the Metro Radio program "Smart People Smart City". The hosts of the program, Ms. Christine Lam of Metro Radio and Mr. Gary Yeung, MH, President of Smart City Consortium (SCC), invite different guests from the innovative industry for an interview in each episode to enhance the public's understanding of the development of Smart City in Hong Kong.

The "kNOw Touch" elevator pane was introduced and explained on the radio program recently by Dr. Lawrence Poon, General Manager of the HKPC, as a cost effective measure to reduce the risk of infection by eliminating physical contact.

It is an infra-red sensor installed next to the button panel which emits a precise infra-red light beam and detects the infra-red rays blocked and reflected by the fingertips in front of the lift button. The system then calculates the floor level accordingly and connects to the button activation system. The public can simply place their finger in front of the button, and wait for a beeping sound to indicate the elevator has registered their input.

The public may have concerns about unintentional or intentional situations. Dr. Poon said that there is no need to worry as the system can identify between large objects blocking the sensor and objects moving across the panel without the intention of making inputs.

It can be fitted in old and new lifts with no requirements of major mechanical changes. Many government departments, public areas and buildings have already installed it, such as the Electrical and Mechanical Services Department, Hong Kong International Airport Terminal 1, Tai Po Hui Market, etc.

Throughout the COVID-19 epidemic, we believe Hong Kong will pay more attention and invest more in medical technology and public health. Using smart city technology to solve people's daily needs, popularizing and integrating technology into daily life to help people build a smart community are the most expected future.

Metro Radio and SCC jointly present "Smart People Smart City", a weekly program on smart city development, with different guests to share their views and the latest development on the topic. Co-hosted by Metro Radio's presenter and the President of SCC, the program is airing on Metro Radio FM 997 at 11am-12nn on Saturdays and Metro Finance FM 104 at 8-9pm on Sundays.

潘志健博士
香港生產力促進局總經理

楊文銳
智慧城市聯盟會長

《創智傳城》節目一覽
"Smart People Smart City" Programme List

| 日期 Date	主題 Topic	嘉賓 Guests
2020-09-05	疫情下體驗 「隔空撳粒」 Experience "kNOw Touch" under the Pandemic	香港生產力促進局總經理 潘志健博士 Dr. Lawrence Poon, General Manager, Hong Kong Productivity Council
2020-09-12	STEM 教育 STEM Education	Prister共同創辦人許佩珊女士及許文俊先生 Ms. Priscilla Hui and Mr. Terrence Hui, Co-Founder, Prister Corporation
2020-09-19	閒談智慧城市· 展望未來生活 Looking forward to Smart City Life	節目主持新城電台林淑敏女士及智慧城市聯盟楊文銳先生 Ms. Christine Lam of Metro Radio and Mr. Gary Yeung, MH, President of SCC
2020-09-26	融合大灣區· 發展新智慧 New Wisdom in Greater Bay Area Development	節目主持新城電台林淑敏女士及智慧城市聯盟楊文銳先生 Ms. Christine Lam of Metro Radio and Mr. Gary Yeung, MH, President of SCC
2020-10-03	突破傳統 Think Out of the Box	德國寶集團副總裁陳嘉賢教授 Professor Karen Chan Ka-yin, Vice President, German Pool (Hong Kong) Limited
2020-10-10	5G時代與智慧城市 The Age of 5G Communication and Smart City	中國移動香港有限公司解決方案部副主管 郭冠鴻先生 Mr. Gordon Guo, Deputy Head of Internet & Enterprise Solution Division of China Mobile Hong Kong Co. Limited
2020-10-17	智慧城市與醫護教育 Smart City and Medical Education	美康醫學教育公司企業策略發展總監方釗博士及美康醫學教育公司產品組合發展總監曾子恒先生 Dr. Samuel Fong, Director, Corporate Strategy & Business Development of MedSim Healthcare Education Company; and Mr. Gary Tsang, Director of Marketing and Product Development of MedSim Healthcare Education Company
2020-10-24	智慧人才與創業圈 Smart Talent and Entrepreneurship	香港啟迪中心啟迪之星總經理黃子華先生 Mr. Sam Wong, General Manager of TusPark Hong Kong
2020-10-31	新常態下智慧科技 Smart Technology under New Normal	西門子有限公司西門子Advanta香港數碼中心主管鄭慶舒先生及西門子有限公司智能基礎設施集團解決方案和服務事業部主管盧家駒先生 Mr. Keith Cheng, Head of Digital Hub, Siemens Advanta Solutions, Siemens Limited; and Mr. Tim Lo, Head of Services, Smart Infrastructure (Regional Solutions & Services), Siemens Limited

VIRTUAL EXHIBITION

虛擬展覽方案

虛擬展覽

線下的實體活動搬到線上，通過網站聚集人流，再以3D模型建立虛擬展覽廳，當中有虛擬展位，還有產品展示及影片介紹，還可以通過網站連結立即與展商對話，查詢產品及服務的詳情，亦能立即進行網購，令遊客彷如置身其中，感受足不出戶的另類約會及購物體驗。

3D實境導覽/虛擬商店
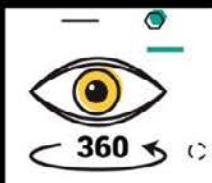
數碼展廳主要分為虛擬商店及實境商店兩類, 虛擬商店是3D模型設計出來的，而實境商店則是透過拍攝實體店內的所有產品及實地環境，再把實境影像上載互聯網，顧客可以自由遊覽商店及瞭解產品詳情及網購，這種購物體驗更清晰也更節省時間。

360°模型

擁有完整的360影像合成解決方案，能高效率拍攝互動式影像，選擇拍攝一圈360度影像，完成拍攝後可針對特定影像進行編輯，包含了放大，拖曳控制等功能，360度產品展示技術令顧客在網店亦能完全瞭解產品特色。

360°模型 | 3D實境導覽 | 虛擬展覽

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06
JULY

"SCC Smart City Blueprint 2.0"@ Connected Cities Conference
網上「互聯城市會議」

Smart City Consortium (SCC) staged a virtual booth at the Connected Cities Conference (virtual) organized by KPMG China on 6th July. Mr. Daniel Chun, Chairman of SCC Research and Blueprint Committee, hosted a session on "Smart City Blueprint 2.0" at the virtual event.

畢馬威中國於7月6日舉行網上「互聯城市會議」，智慧城市聯盟（聯盟）在會上設置虛擬攤位，並舉辦「智慧城市藍圖2.0」討論環節，由聯盟研究及藍圖委員會主席秦仲宇先生主持。

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23
JULY

MOU Signing with Chinachem Group
與華懋集團簽署合作備忘錄

Chinachem Group and Smart City Consortium (SCC) signed a Memorandum of Understanding (MoU) on 23rd July.

According to the MoU, SCC will establish a set of standards for rating the use and maintenance of internet of things (IoT) equipment in smart buildings, as well as cyber security guidelines. The Chinachem Group, on the other hand, will provide sponsorship and use the Group's properties to test the newly developed IoT standards to improve the network security of its smart buildings. The MoU was signed by Mr. Damien Wu, Director of Digital Transformation of Chinachem Group and Mr. Gary Yeung, MH, President of SCC; witnessed by Mr. Donald Choi, Executive Director and Group CEO of Chinachem Group and Dr. Winnie Tang, Founder and Honorary President of SCC.

華懋集團及智慧城市聯盟（聯盟）在7月23日簽署備忘錄。

根據備忘錄，聯盟將訂立一套有關使用及維護智能建築物聯網設備的評級標準，以及網絡安全指引；而華懋集團則提供資金贊助，並安排集團旗下物業成為新制訂物聯網房地產科技標準的試點，以提高其智能建築的網絡安全。當日在華懋集團執行董事兼行政總裁蔡宏興先生與聯盟創辦人及榮譽會長鄧淑明博士的見證下，華懋集團數碼轉型總監胡達明先生及聯盟會長楊文銳先生簽署了該項備忘錄。

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28
AUGUST

5G and the Future" online forum @ KODW 2020
「5G與未來生活」網上論壇 @ 設計「智」識周

Knowledge Of Design Week (KODW) 2020, organized by Hong Kong Design Centre, was held from 26th to 29th August, with the theme "Designing Digital Futures". Smart City Consortium (SCC) was one of the supporting organizations. There were over 40 forward-thinking leaders and innovators from Hong Kong, Mainland China and overseas to share insights and inspirations on how to best prepare for the new normal. Mr. Gary Yeung, MH, SCC President, was one of the speakers at the online forum "5G and the Future" on 28th August.

香港設計中心於8月26至29日舉辦設計「智」識周,當中邀請了逾40位高瞻遠矚的領袖及創新者,與大家分享具啟發性的見解,探討如何為新常態做好準備。智慧城市聯盟(聯盟)是支持機構之一。其中,聯盟會長楊文銳先生是8月28日網上論壇「5G與未來生活」的講者之一。

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29
SEPTEMBER

"Application of IoT and 5G in Property Management for Better Customer Experience" online training lecture
「物聯網及5G應用」網上培訓講座

On 29th September, the Smart City Academy (SCA) conducted an online training lecture for Hong Kong Housing Society titled "Application of IoT and 5G in Property Management for Better Customer Experience". The course was coordinated by Mr. Daniel Chun, Smart City Consortium (SCC) Vice President and SCA Executive Director. Ir. Dr. K F Tsang, SCC Vice President and Chairman of IoT Committee; Mr. Damien Wu, Chairman of SCC PropTech Committee; and Mr. Gordon Guo, Deputy Head of Internet and Enterprise Solution from China Mobile Hong Kong and Deputy Chairman for GBA-5G-Industry Alliance were invited as the guest lecturers. The training covered 5G and internet of things (IoT) applications and the challenges in using IoT for Smart Property and Smart PropTech. Almost 100 staff members from Hong Kong Housing Society attended the training.

智慧城市學院(SCA)於9月29日為香港房屋協會舉辦「物聯網及5G應用」網上培訓講座,活動由SCA執行總監及智慧城市聯盟(聯盟)副會長秦仲宇先生統籌,並邀請SCC副會長兼物聯網委員會主席曾劍鋒博士工程師、聯盟房地產科技委員會主席胡達明先生,及中國移動香港有限公司解決方案部副主管郭冠鴻先生主講,內容包括5G和物聯網在房地產的應用,以及房地產科技等,有近百位香港房屋協會職員參加該講座。

2020

30

SEPTEMBER

"Exploring the realms of future Smart City career with AI, FinTech and Cloud technologies" webinar

Exploring the realms of future Smart City career with AI, FinTech and Cloud technologies" webinar
「智慧城市職業 - 人工智能、金融科技、雲端科技」網上研討會

Smart City Consortium (SCC), Smart City Academy (SCA), IVE Engineering (IVE) and Manufacturing, Industrial & Systems Division of Hong Kong Institution of Engineers (HKIE) co-organized a webinar on 30th September. Chairman of SCC FinTech Committee Mr. Emil Chan, and Chairman of SCC AI & Cloud Committee Mr. Vandia Yang shared their insights on Digital Currency Electronic Payment (DCEP) for China, as well as AI and Cloud technologies respectively.

智慧城市聯盟（聯盟）、智慧城市學院（SCA）、香港專業教育學院工程學（IVE）及香港工程師學會（HKIE）的製造、工業及系統分部於9月30日聯合舉辦「智慧城市職業—人工智能、金融科技、雲端科技」網上研討會。聯盟金融科技委員會主席陳家豪先生分享了對中國數碼貨幣和電子支付的分析；而聯盟人工智能及雲端委員會主席楊智添先生則分享對人工智能及雲端科技的見解。

2020

08

OCTOBER

"The Age of 5G Communication" webinar
「5G時代 - 新挑戰vs新機遇vs新生態」網上研討會

"The Age of 5G Communication" webinar, held on 8th October, was hosted by etnet, a local financial information website and supported by Huawei. Smart City Consortium (SCC) was one of the supporting organizations. The webinar explored the future of IT industry market on big data analytics, cross-platform software, back-end, business data analysis and more. Mr. Gary Yeung, MH, President of SCC shared his insight on 5G development with other experts.

「5G時代 - 新挑戰vs新機遇vs新生態」網上研討會於10月8日舉行。該研討會由財經生活網站經濟通主辦、華為贊助，智慧城市聯盟（聯盟）是支持機構之一。研討會探究未來IT業界在大數據分析、跨平台程式開發、後台技術、商業數據分析等多方面如何能發揮最佳作用。聯盟會長楊文鋭先生在第一節「5G跨平台生態發展創造新可持續性價值」，和其他專家就5G的發展分享看法。

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OCTOBER

LU confers Honorary Fellowships upon Dr. Winnie Tang
鄧淑明博士獲頒嶺南大學榮譽院士銜

Lingnan University conferred Honorary Fellowships upon Dr. Winnie Tang, Founder and Honorary President of SCC, and other three distinguished individuals in recognition of their outstanding achievements in their professions and their valuable contributions to the society. Mr. Alfred Sit, Secretary for Innovation and Technology, Hon Elizabeth Quat, SCC's Founder and Honorary President, Mr. Eric Yeung, SCC's Honorary President and Mr. Gary Yeung, SCC's President, were among the guests attending the Honorary Fellowship Presentation Ceremony on 30th October.

嶺南大學頒授榮譽院士銜予智慧城市聯盟創辦人兼榮譽會長鄧淑明博士，及三位傑出人士，表彰他們在其專業領域的卓越成就及造福社會的重要貢獻。出席10月30日嶺南大學榮譽院士頒授典禮的嘉賓包括創科局局長薛永恒先生、智慧城市聯盟創辦人兼榮譽會長葛珮帆議員、智慧城市聯盟榮譽會長楊全盛先生，及智慧城市聯盟會長楊文銳先生。

"OHKF Internship Program"
團結香港基金 青年實戰工作計劃

Our Hong Kong Foundation (OHKF) has kicked off an Internship Program starting in mid-October offering a two-month on-the-job training to university graduates. Smart City Consortium (SCC) is a Program Partner and Dr. Winnie Tang, SCC's Founder and Honorary President has been invited as the Lead Advisor of the "Smart City Module", which took place on 22th – 30th October. A number of SCC experts and scholars gathered to explain the smart city concept and shared the progress of Hong Kong's development of smart city with 52 young people. They interacted with each other and exchanged opinion which was very lively.

團結香港基金推出「青年實戰工作計劃」，為大學畢業生提供兩個月的在職訓練。團結香港基金邀請了智慧城市聯盟（聯盟）擔任是項計劃的合作夥伴，以及聯盟創辦人兼榮譽會長鄧淑明博士擔任「智慧城市單元」的顧問。「智慧城市單元」於10月22-30日舉行，聯盟多位專家及學者與出席的52位青年人講解智慧城市的概念，並分享香港邁進智慧城市發展的進程，並一起互動交流，非常熱鬧！

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22-30

OCTOBER

Hong Kong Smart City Pavilion

香港智慧城市展馆

物联网、金融科技、讯息安全

6th China Smart City Expo
第六届中国智慧城市博览会 (智博会)

3-5 . 12 . 2020

北京展览馆3号馆
展位号 Booth No.
C003

参展商资料:

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主办机构:
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智慧城市联盟
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香港資訊科技聯會

Hong Kong Software
Industry Association
香港軟件行業協會

Smart Vision, quarterly published by the Smart City Consortium, has been circulated to Government departments, Cyberport, Hong Kong Science and Technology Park, Tusparks, Hong Kong Productivity Council and tertiary institutions' campus since the first issue. Therefore, it has a wide audience in the IT field. If you are interested in placing advertisement in Smart Vision, please contact the Smart City Consortium Secretariat at (Tel) 3480-4230 or (E-mail) info@smartcity.org.hk.

智慧城市聯盟的《智城》每季出版一次，以IT社群為對象，派發地方包括政府相關部門、數碼港、香港科學園、啟迪科技園、生產力促進局以及各大專院校校園。查詢刊登廣告事宜，請致電3480-4230或電郵至info@smartcity.org.hk與智慧城市聯盟秘書處聯絡。

SMARTER CITY
SMARTER HONG KONG

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