# SMART VISION 智城

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## 智能科技引領美好智慧生活

SMART TECHNOLOGY
LEADS A LIFE OF ABUNDANCE AND BRILLIANCE

# 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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**Editor-in-Chief 總編輯**

Ir. Dr. K F TSANG
曾劍鋒博士工程師

**Production 製作**

Techture Limited
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*(Alphabetize by Last Name)
按姓氏字母順序排列

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# Messages to Public
# 給公眾的話

首先在此感激各位理事與會員的鼎力支持，再度推選我為新一屆智慧城市聯盟會長，讓我繼續帶領聯盟，攜手為香港智慧城市發展出謀獻策，並進一步向外推廣香港智慧城市服務。經過今次新冠肺炎疫情，政府和業界合作推出了不少智慧服務，如疫情互動地圖儀表板和電子手環等，期望藉此能讓市民感受科技如何有助於生活，同時增加資訊透明度，從而令大眾更加重視香港智慧城市的發展。

疫情下，創新科技不單用於防疫抗疫，更助各行各業闖出生天、撐過疫情。除了遙距辦公成了行業新趨勢，也令不少電子商務企業崛起。我相信電子商務在未來是香港的重要趨勢，網上內容與行銷宣傳將是經濟起飛的契機。聯盟日後務必致力加強支援本港電商發展，為本地企業帶來更多機遇。

此外，受疫情影響，不少學校或大專院校相繼採用綫上教學形式，實現「停課不停學」。教育科技（Ed Tech）因而掀起熱潮，體現資訊科技在教育上的重要性。有見及此，聯盟新設教育科技委員會，希望能推動多元化網上教學，拓展教育科技的可能性。

First of all, I am grateful for all the support of the council members and members' reelecting me as the president so that I can continue to lead Smart City Consortium (SCC), keep on brainstorming about the development of smart city and further promote Hong Kong smart city service. During the COVID-19 pandemic, the government and industry have collaborated to launch a variety of smart services such as Interactive Map Dashboard and electronic wristband, in order to allow citizens to enjoy the benefits of available technology to increase the information transparency, and therefore gaining support to the development of smart city.

Under the pandemic, not only has innovation and technology been used to fight the virus, but it also assisted all walks of life to survive. Apart from remote office's becoming a new trend in the industry, many electronic commerce companies have also sprung up. I believe e-commerce is a significant trend for the future of Hong Kong with online content and marketing promotion forming turning points for the economic growth. SCC will strive to support the development of local e-commerce development so as to bring more opportunities to local enterprise.

In addition, many schools or post-secondary have adopted online teaching mode to achieve "suspending classes without suspending learning" during the outbreak. Education technology is now all the rage, showing the importance of information technology in education. In view of this, we have just set up an education technology committee, expecting to promote various types of online teaching and help realize the potential of education technology.

Mr. Gary Yeung, MH
楊文銳先生，榮譽勳章

President
會長

智慧生活是科技應用的最終目標，而背後是科技的環環緊扣：以5G網絡與物聯網為基礎，城市數據是重要元素，人工智能則促進演化的過程。宏觀來看，智慧生活涵蓋廣闊，大至城市規劃，小至個人生活，如可追蹤睡眠質素與健康狀況、偵測睡眠最佳狀態、管理慢性疾病、為用家提供健康資訊的智慧戒指等穿戴裝置也包含在內。

近年全球暖化加劇了極端天氣的形成，如超強颱風山竹或今次突然來襲的疫情，都令香港突然陷入緊急情況。若可活用科技推行完善的緊急應變方案，支援緊急事故，未雨綢繆，可保障市民的生命財產安全。如何適切地調撥資源及執行相應措施，令市民受惠，箇中關鍵是多個部門能否有效運用資訊。而分階段推行的「聯合運作平台」是以地理資訊為軸心的電子平台，綜合緊急事故的資訊，是緊急應變方案之一。我們期望它能盡快全面投入運作，為香港作好準備，以大大減少災害所帶來的損害。

Smart Living is the ultimate application springing from technology, the foundation of which originates from 5G network and internet of things (IoT), with city data as the supplement and artificial intelligence as the evolutionary process, smart living is all bound up with technology. In a macro view, Smart Living covers from urban planning to personal details like wearable such as smart rings which can track sleep quality and body data so as to identify the best sleep state, as well as managing chronic diseases by providing health information for users.

Recently, global warming has aggravated the formation of extreme weather such as Super Typhoon Mangkhut or a sudden outbreak of the virus, which has put Hong Kong under great strain. If technology can enable a more comprehensive emergency response plan to support the rescue operation and plan ahead, citizens can certainly experience the benefits. Thus, how to allocate the resources and implement the relevant measures in order to protect citizens' property and life, so that the information among multiple departments can be shared in an efficient manner is the key. The Common Operational Picture ("COP") which is a geographic information system platform integrating the real-time incident information is being launched in stages that can be used for coordinating emergency responses. We expected the whole system can be up and running as soon as possible for taking precautions and providing forecast that will substantially reduce the damage caused by disasters.

# 應對「雙老化」發展「雙智能」方案

# "Double Smart" Approach to Tackle Double-Ageing

為了向大眾講解創新科技應用如何提升生活質素，以加強市民對香港智慧城市發展的了解，智慧城市聯盟自2019年開始與新城電台合作，推出《創智傳城》電台節目。由新城電台林淑敏女士與聯盟會長楊文銳先生擔任主持，每集邀請不同的創科界嘉賓進行訪談。節目逢星期六上午11時至中午12時在新城知訊台播出，星期日晚上8時至9時則可在新城財經台重溫。

在4月25日的節目中，邀請到香港理工大學賽馬會社會創新設計院總監凌嘉勤先生接受訪問，主題是「雙老化」問題。其實早於2007年政府發表的《香港2030：規劃遠景與策略》報告中，已預測香港即將面臨人口老齡化與樓宇老齡化問題。試想像三十年後的香港，大量年

In order to introduce the latest and forefront applications of innovative technologies (InnoTech) to the general public, a new radio program "Smart People Smart City" was launched jointly by Smart City Consortium and the Metro Broadcast in 2019. "Smart People Smart City" is co-hosted by Ms Christine Lam of Metro Radio and Mr. Gary Yeung, MH, President of SCC. Different guests from InnoTech industry are invited for interview in each episode. The program is broadcasted every Saturday from 11am to 12pm in Metro Info. Program replay is available every Sunday from 8pm to 9pm in Metro Finance.

The guest on 25 April was Mr. K.K. Ling, Director of The Hong Kong Polytechnic University's Jockey Club Design Institute for Social Innovation. The discussion topic was the problem of "double-ageing" which has been mentioned in 2007 in the report *Hong Kong 2030: Planning Vision and Strategy*. The report predicted

*Mr. KK Ling (Left) are discussing with the programme host, Mr. Gary Yeung, MH (Right).*
*凌嘉勤先生（左）與節目主持楊文銳先生（右）進行訪談。*

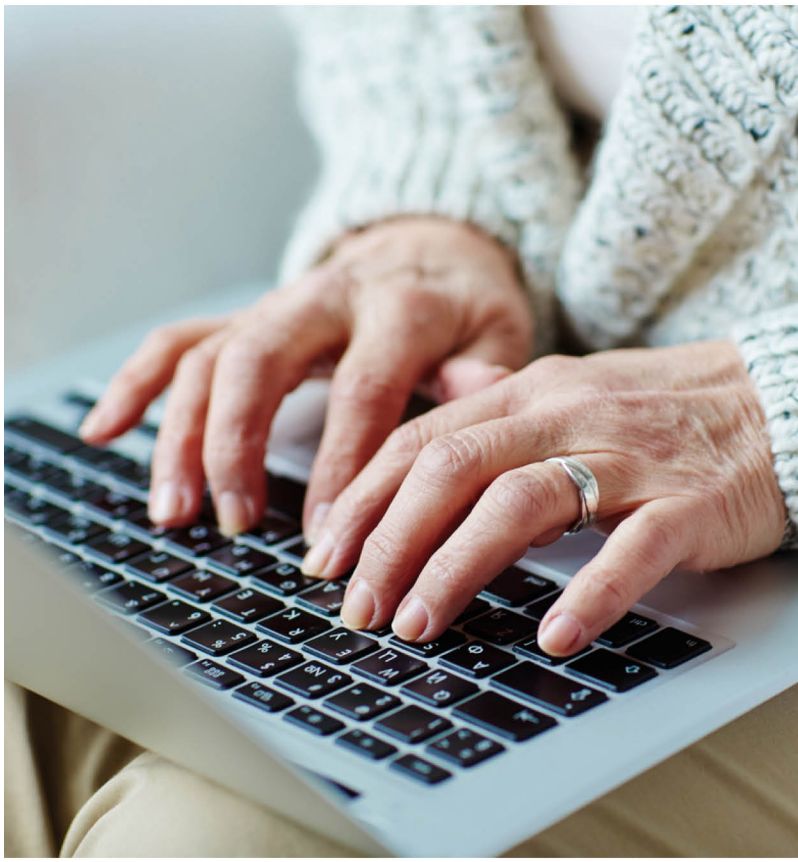
過八十五歲的長者居住在超過七十年樓齡的高密度高樓大廈。「雙老化」所帶來的雙重影響將構成嚴重的社會問題，若不妥善處理，將危害香港的持續發展。

城市必須為照顧未來的長者作好準備，而城市規劃是關鍵的一環。考慮到現時人口年齡分佈，要令香港成為長者安居的地方，除了重新配置公共資源，凌先生更建議採取「雙智能」方案，亦即「智能安老」和「智能城市科技」。當主持問到智能安老的措施，凌先生指出，若加強使用樂齡科技，例如強化機能的科技，包括為高齡人士而設的電腦化治療訓練及機械人訓練設備；此外，為長者提供簡單易用的通訊科技，方便他們與

that Hong Kong would face the dual problem of an ageing population and ageing buildings in the near term. Just imagine the situation 30 years later when numerous elderly people aged over 85 are still living in more than 70 years old high-density high-rise buildings. The double effect brought by "double-ageing" will give rise to severe social issues. If we do not address them properly, these will impair the sustainable development of Hong Kong.

It is necessary for Hong Kong to prepare for the demand of elderly care in future. In this aspect, urban planning is the first step to crack the hard nuts. Concerning the demographic characteristics, Mr. Ling suggested that not only should the

*Mr. KK Ling, Mr. Daniel Chun, Mr. Gary Yeung, MH (From left to right)*
*凌嘉勤先生、秦仲宇先生、楊文銳先生（左至右）*




*Mr Allen Yeung, Ms. Christine Lam, Mr. Gary Yeung, MH (From left to right)*
*楊德斌先生、節目主持林淑敏女士和楊文銳先生（左至右）*

家人及照顧者溝通聯絡，既能加強長者的社交網絡，也可改善他們的心理健康。

凌先生相信，即使香港面對「雙老化」的嚴峻挑戰，若能善用智能方案，將為香港帶來科技創新、制度創新、社區更新的歷史性機遇，由此提升市民的生活質素。


*The programme host, Mr. Gary Yeung, MH (Left) and Ms. Christine Lam (Right) are taking photos with Mr. Clement Fung and his teammates.*
*節目主持楊文銳先生（左）和林淑敏女士（右）與馮卓能先生及其團隊合照。*

government reallocate the public resources, but it also should take "double smart" approach to tackle double-ageing and make Hong Kong an age-friendly society. "Double smart" combines the ideas of smart ageing and smart city technologies. When being asked about the measures for smart ageing, Mr. Ling gave the examples of gerontechnology which are the technologies to strengthen elder's physical function such as appliances for programmed training and therapy for elderly and equipment of functional robotic therapy. In addition, the age-friendly and easy-to-use communication technology for elderly to connect with their family or carers will greatly enhance both their social network and their mental health at the same time.

Mr. Ling believes that even if Hong Kong encounters the immense challenge of "double-ageing", Hong Kong can still tackle it by taking smart approach. It is high time to bring forth the advanced technology, new system and modern community concept to improve people's quality of life.

詳情請參閱

For More Details

# 創智傳城節目一覽
## Smart People Smart City Programme List

| 日期 | 主題 | 嘉賓 |
|---|---|---|
| 2020-04-04 | 大數據分析<br>Big Data Analysis | theAnswr Limited 聯合CEO及聯合創始人<br>李志雄先生<br>Mr. Edmund Lee, Co-ceo and Co-Founder of theAnswr Limited |
| 2020-04-11 | 物聯網(遙控器)<br>Internet of Things (Remote) | Remotec Technology Ltd 聯合創辦人及行政總裁<br>秦仲宇先生<br>Mr. Daniel Chun, Co-owner & CEO of Remotec Technology Ltd |
| 2020-04-18 | 香港智慧城市發展<br>Smart City Development of Hong Kong | 大數據治理公會主席及數睿科技創辦人<br>楊德斌工程師，太平紳士<br>Ir Allen Yeung, JP, Founding Chairman of The institute of Big Data Governance and Founder & CEO of Intelli Global Corporation |
| 2020-04-25 | 雙老化與創新樂齡科技<br>Double Ageing & Gerontechnology | 香港理工大學賽馬會社會創新設計院總監<br>凌嘉勤先生<br>Mr. KK Ling, Director of Jockey Club Design Institute for Social Innovation |
| 2020-05-02 | 智慧安老<br>Smart Ageing | 仁濟醫院董事局永遠顧問 馮卓能先生<br>Mr. Clement Fung, Permanent Adviser of Yan Chai Hospital Advisory Board |
| 2020-05-09 | 電子支付<br>E-payment | Mastercard 香港及澳門總經理 陳一芳女士<br>Ms. Helena Chen, General Manager of Hong Kong & Macau of Mastercard |
| 2020-05-16 | 初創企業創業<br>Entrepreneurship | Snapask創辦人余佑謙先生<br>Mr. Timothy Yu, Founder of Snapask |
| 2020-05-23 | 人工智能應用<br>Application of AI | ThinkCol共同創辦人何偉揚先生與胡家聰先生<br>Mr. Kane Wu & Mr. Sam Ho, Co-founders of ThinkCol. |
| 2020-05-30 | 企業轉型<br>Business Transformation | 怡豐機器人有限公司項目經理 馮光先生<br>Mr. Peter Fung, Project Manager |

# Smart Technology Leads a Life of **Abundance and Brilliance**

# 智能科技引領美好**智慧生活**

伴隨著5G網絡、人工智能（AI）、物聯網（IoT）等技術的高速發展，我們的生活方式與以往相比發生了重大改變，衍生出不同的智能應用場景，如智慧辦公室和安老院。各種信息化技術滲透我們生活的方方面面，包括高速網絡連通整個城市、數碼支付、數碼個人身份（eID）、長者及殘疾人士支援，以及醫療服務支援等，市民亦正逐漸感受到智慧生活的好處。

智慧生活離不開令大眾生活更便利，提升生活素質，而各行各業的智慧化產品和服務亦令香港人的智慧化生活變得觸手可及。今期《智城》邀請了多所企業的代表，分享他們對智慧生活的看法，以及他們的科技應用如何令我們有更美好的生活。這些企業包括有利集團有限公司、承昊基金、通力電梯（香港）有限公司、力安科技有限公司、L2 IoT Solutions有限公司和協通科技有限公司。

**With the rapid growth of 5G network, artificial intelligence (AI), internet of things (IoT) and so on, our lifestyles have experienced a great change. These changes spawned different smart applications like smart office and smart home for aged. A wide variety of information technology using high speed network connecting the whole city with e-payment and eID, supporting the aged and disabled, and medical services, has integrated into our lives in many ways. The benefits brought by smart living can be felt by the citizens gradually.**

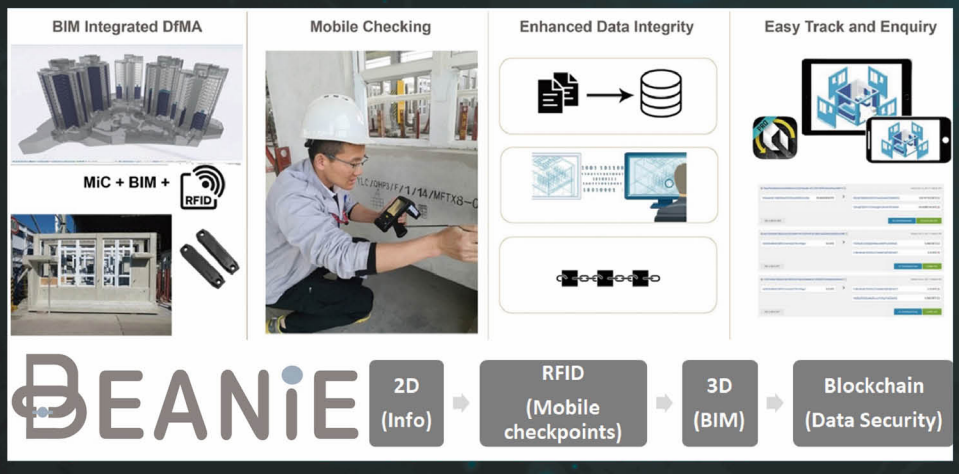
**The benefits of smart living are facilitating the convenience and improving the living quality. Smart products and services in different industry have also contributed to Hong Kong citizens' high accessibility to smart living. For this issue of Smart Vision, SCC has invited the representatives of Yau Lee Holdings Limited, Ophylla Ventures, KONE Elevator (H.K.) Limited, Lik On Technology Limited, L2 IoT Solutions Limited and Letlink Technology Limited to share their views on smart living and how their technology applications bring benefits to daily lives.**

*Ms Rosana Wong, Executive Director of Yau Lee Holdings Limited and Founder & President of Ophylla Ventures*
*有利集團執行董事及承昊基金創辦人及總裁黃慧敏女士*

## 有利：創新環保建築 突破傳統

科技引領轉變，企業也應不斷與時並進，經營樓宇建築、預製組件及環保建材生產、建築科技、機電工程及地產發展項目的有利集團便是成功的例子。在執行董事黃慧敏女士的領導下，集團發展為綠色綜合企業，採用嶄新環保科技建造樓宇。

問及哪一項建築工程印象最為深刻，她指出一定是位於將軍澳百勝角的消防處紀律部隊宿舍項目，工程比合約預計完工日期提早最少3個月落成。該宿舍是香港首個混凝土「組裝合成」建築法（MiC）的工程項目。預製組件技術是一種創新的建築樓宇方法，運用「先裝後嵌」的概念，把建築物分成多個獨立單元，俗稱「盒仔」。而每個盒仔均預先在廠房內完成大部分飾面、內部裝修、配件裝置等組裝工序，再運往工地裝嵌，像砌積木般疊起。




黃女士表示使用組裝合成建築法有助解決建造工人老化及短缺問題，提升進度和質量控制及項目成本效益，亦有助減少對周邊社區的干擾，並提高工地的整潔度，可以說是一舉多得，比「先落成、後裝修」的傳統建築法更高效率。同時，透過採用自家研發的「辦子」（BEANiE）多功能管理平台作品質監控，讓管理人員除親身到預製件廠外，亦可

## Yau Lee Holdings Limited: Creative Green Building Beyond The Tradition

Technology makes changes. Enterprises should move with times. Yau Lee Holdings Limited is an example of success. Yau Lee's businesses range from building construction, precast product and green building materials trading, construction IT, electrical and mechanical manufacturing and services and property development. Led by Ms Rosana Wong, Executive Director of Yau Lee, the group has developed to a green integrated corporation providing multidisciplinary construction related services in full lifecycle management approach.

When being asked about which construction project is the most noteworthy, Ms Wong quoted Construction of Disciplined Services Quarters for the Fire Services Department at Pak Shing Kok, Tseung Kwan O as one of the examples. The project is expected to be completed at least 3 months ahead of the contractual completion date. The Quarters is Hong Kong's first construction project using concrete Modular Integrated Construction (MiC) which refers to a construction method whereby free-standing integrated modules (completed with finishes, fixtures and fittings) are manufactured in a prefabrication factory and then transported to the site for installation in a building. It is an innovative prefabricated construction technology.

Ms Wong said that not only does MiC alleviate the problem of ageing construction workforce and shortage in construction labour, but it also raises the standard in the management of time and quality. The cost efficiencies of the project can be enhanced. At the same time, it reduces the nuisances to the neighbourhood and keeps the construction site cleaner. Numerous benefits are brought in one fell swoop. MiC is more efficient than the traditional construction method which is building before decorating. Meanwhile, construction manager can carry out quality control via a BIM-enabled blockchain multi-functional platform called BEANiE which is created by the Group. BEANiE is the first multi-functional management platform which combines construction information with blockchain technology. The management team can either go to the prefabrication factory, or choose to remote monitor each stage during prefabrication, including production, transportation and the quality and progress of installation. BEANiE facilitates the monitoring under the special import and export restrictions during the pandemic.

Holiday Inn Express Hong Kong SoHo which is one of the flagship projects is the greenest tall building and hotel in the world. The hotel achieved four platinum green awards or its equivalent. Numerous highly efficient green hardware and software are installed. 2 million kilowatt which equals to HK$3 millions of electricity expenses can be saved every year. "Although the construction cost is higher, the cost would be recovered within the first 4 years of operations. Not only does it put efforts on environmental protection, but it also reduces the operational cost. It is a worthwhile investment," Ms Wong said.

遠端監控每一件預製組件在不同階段包括生產、運送及安裝的品質及進度。這是香港首個結合建築信息模擬及區塊鏈技術的組裝合成建築法管理平台，在疫情期間設有出入境的特別限制下，令有利的管理人員仍能對每個生產環節瞭如指掌。

位於上環的香港蘇豪智選假日酒店可說是有利的代表作之一，共獲得四個鉑金或同級的環保認證，至今為止保持為全世界最環保高樓及酒店的紀錄。酒店安裝了多項高效能環保硬件及軟件，每年能節省約200萬度電，相等於300萬元電費。黃女士指出：「雖然建築成本的確較昂貴，但頭四年已經可以回本，為環保出一分力之餘更可減低營運成本，絕對值得投資。」

香港現時約有1,300幢100米或以上的高樓，若這些建築配置環保科技，並保養得宜的話，保守估算每年可節省約3億元電費。未來，有利將加強發展綠色建築，希望在環保配套方面做得更好，同時希望向業界推廣綠色科技，讓全港建築物邁向環保，展開建造業新的一頁！

## 承昊：支持原創性初創 追求變革

黃女士除了追求在建造業中求變，更熱愛科技、創新、科學及城市空間規劃，將其與可持續生態系統結合。為進一步實踐理念與促進本地及海外科研專家合作，於是她成立了承昊基金，支持及鼓勵旗下9間初創公司發展，主要針對四大範疇：環境、基建、保健及智慧轉型，期望在現今互動多變的社區下，建設一個更智慧及可持續發展的未來城市，並為社會帶來更好的選擇。

城系有限公司（Urban.Systems）是承昊其中一間初創公司，為本港首間獲得由運輸署發出「車輛行車許可證」的全自動可無人駕駛車開發商。自動駕駛車內安裝感應器，遇物件時會自行煞停，已在零碳天地和科學園試行。

近年，黃女士又積極規劃「明創城」項目（Place of tomorrow），「明創城」為21世紀創新經濟發展商業計劃，其中「4+9概念」是融合有利旗下4間分公司及承昊旗下9間初創公司之間的科技產品和技術優勢，創造一個以市民為本並能永恆創新的跨代智慧生活模式。她期望「明創城」可為社會帶來突破性的智慧生活體驗，大眾更可切身感受到當中可持續的影響力。

There are currently about 1,300 tall buildings of 100 meters or more in height in Hong Kong. If these buildings are equipped with environmentally friendly technology and maintained well, it is estimated that about HK$300 millions of electricity expenses can be saved annually as assessed under different circumstances. The group will continue to put more efforts on developing green buildings in future. They are hoping to do a better job in environmental protection, and to promote green technology to the industry so that all buildings in Hong Kong will move towards environmental protection and turn a new page in the construction industry!

## Ophylla Ventures: Aiding Startups with Originality to Transform City Life


Besides initiating changes in the construction industry, Ms Wong also exhibits her passion in technology, innovation, science and urban spatial planning, by fusing it with sustainable ecosystem. To further put her ideas and philosophy into practice and facilitate cooperation between local and overseas scientific researchers, she founded Ophylla Ventures to support 9 startup companies. These startups are in four main aspects: environment, infrastructure, care and transformation. With such measures, she aims to construct a more sustainable and smarter city and bring better choices to the society, in the ever-changing and dynamic community.

Urban.Systems Limited, one of the startups of Ophylla Ventures, is the first fully autonomous vehicle (AV) developer which has acquired a movement permit from the Hong Kong Transport Department. AVs, with sensors which brake the vehicle when obstacle is present, are already on trial in the Zero Carbon Park and the Hong Kong Science Park.

In recent years, Ms Wong also enthusiastically develops the project Place of Tomorrow. Place of Tomorrow is a 21st Century Innovative Economic Development Business Plan, amongst which is a "4+9 concept" that integrates the technological products and synergies of 4 subsidiary companies under Yau Lee and 9 startups under Ophylla Ventures, aiming to create an ever-innovating, people-oriented intergenerational smart living. She expects Place of Tomorrow to bring a breakthrough in smart living experience for the society, while the public can feel the impact of its sustainability.

## 通力：客流解決方案 提升體驗

提及智慧生活的重要性，通力電梯（香港）有限公司董事總經理張年生工程師指出，智慧生活可幫助地球可持續發展，減少碳足跡。通力身為全球升降機及自動梯設備與方案的供應商，亦致力減少升降機的用電量，一直使用低耗能摩打，以創新科技為環保出一分力。

除了硬件設備外，通力更致力提供最佳客流體驗方案，包括「智能住宅客流解決方案」（KONE Residential Flow™）。透過手機應用程式，連通大廈內的進出系統、升降機、資訊頻道及對講系統，自動命令升降機送乘客到居住的樓層，毋需按鈕，使住客更方便快捷使用升降機設備。

而「通力24/7 全連接服務」（KONE 24/7 Connected Services™），則是利用IBM Watsons 物聯網平台，透過大數據分析，可以偵測升降機及自動梯的潛在問題，在設備發生故障前預先進行維修保養及採取相應措施，使服務更安全、更高透明度及更安心。香港機場是首個使用此服務的機構，從中減少升降機及自動梯機件故障的頻率，令繁忙的機場客流更順暢。

通力總公司更推出了嶄新的智能客流解決方案應用程式介面，有望盡快引入香港市場。未來客戶可自製個人化升降機及自動梯方案，為服務對象提供最適合的體驗，如因應不同環境而在升降機內播放不同類型的音樂等。


## KONE: Improve the Flow of Urban Life

Mentioning the importance of smart living, Ir. Henry Cheung, Managing Director of KONE Elevator (HK) Limited, points out that smart lifestyle can aid sustainable development and reduce carbon footprints. As a global leader in the elevator and escalator industry, KONE is committed to provide innovative equipment and solutions which are high energy efficient and environmental friendly.


Apart from elevator and escalator equipment, KONE is dedicated to provide the best people flow solutions, such as KONE Residential Flow™, which brings new levels of convenience for home owners or tenants by connecting the building access, elevators, infotainment solution and intercom system with the smart phone. Smart-phone connected application allow the elevator to take you to destination floor automatically without touching the buttons.

KONE 24/7 Connected Service™ uses IBM Watsons IoT platform to predict and identify the potential problems of the elevators and escalators, so to take cation before equipment breakage base on the cognitive data analysis. For you as the end user, this means enhanced safety, more transparent and ease of mind. Hong Kong Airport Authority is the first customer to deploy this intelligent service. The people flow in such high traffic airport become smoother by reducing the breakdown frequency.

KONE global also launched a world's brand new digital elevator series, thanks to Application Programming Interfaces. Can't wait to introduce this solution to Hong Kong market in the near future. Customers will be able to personalized and customized their elevator offering upon their preferences and needs. For example, with connected to music player program, elevator will play itself with different music for providing best experience for passengers.


## 力安科技：打造智慧社區　安全便利

對於智慧生活普及化，力安科技有限公司董事黃天厚先生指出，智慧生活不是只由政府或企業努力便可以達到的目標，更需要全民參與。公眾對智慧生活的建設具有關鍵作用，皆因公眾透過參與、回饋、監察科技的使用，有助促進智慧應用的發展和創新。

力安科技利用創新科技，將物業管理智能化，為屋苑、工商廈及商場提供優質客戶服務及生活體驗，打造安全和智慧的社區。力安科技理解住客的需要不斷變化，傳統的屋苑服務未必能滿足今天住戶的要求，遂開發不同應用程式與方案。包括SoProp屋苑手機應用程式，能夠提供即時屋苑通告、緊急通告、會所活動等資訊，讓住戶可一站式查閱所有關於屋苑物業的資訊。住戶亦可使用手機程式繳交管理費，或即時預約屋苑及會所設施，並透過手機網上付款；更可使用手機確認住客身份、開啟大門及信箱等，不需隨身攜帶各類住戶證件或鑰匙卡，進出大廈更方便快捷之餘，亦避免了丟失匙卡的風險。程式更提供QR碼訪客登記服務，住戶可透過手機，以QR碼授權訪客確認身份，加快手續流程。

而無人駕駛智能導向運用車——Acar更是最新之作。在屋苑內，將已暫存在管理處的貨品，利用 Acar 進行派送，毋需人手。「力安科技希望做到真正利用科技帶來便利，讓大眾享受智能化的生活體驗。」黃先生說。


*Mr. John Wong, director of Lik On Technology Limited and CEO of L2 IoT Solutions Limited*
*力安科技有限公司董事及L2 IoT Solutions 行政總裁黃天厚先生*

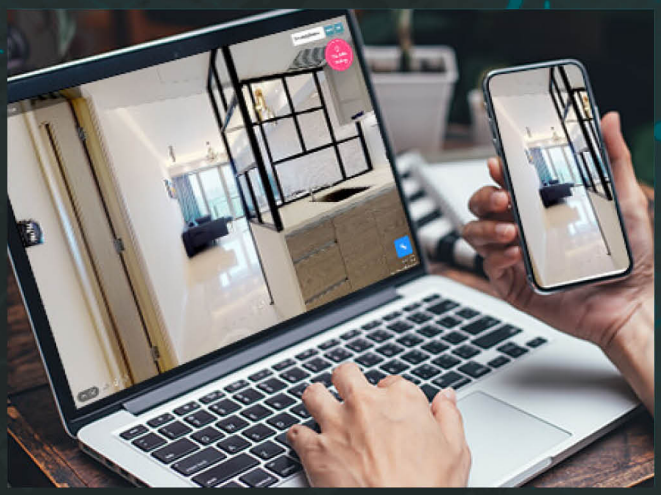
## Lik On Technology: Strives to Build Smart Community

With regard to the popularization of smart life, Mr. John Wong, the director of Lik On Technology Limited, points out that smart life requires not only the effort and support from the government and corporations, but also the participation of the public. The public is crucial to the construction of smart life, as they can participate, feedback and monitor the usage of technological products, facilitating the development and innovation in the application of smart technology.

Lik On Technology uses innovative technology to intellectualize property management and thus provide high quality customer service and living experience for housing estate, commercial and factory buildings, and malls, in order to build safe and smart communities. Lik On Technology understands the needs of the residents and the phenomenon that traditional estate services cannot fulfil the current aspirations of the resident, and therefore it strives to develop different applications and plans. For example, SoProp application can provide immediate notice, emergency notice, leaflets of clubhouse activities, etc., to keep the residents updated. The residents can also pay management fee via the phone application, and book, reserve and pay online for using the facilities, open the main gates and mailboxes, etc. As key cards are not required, the residents can enter and exit the property more efficiently, and the nuisance of losing key cards can be eliminated. The application also allows the residents to authorize QR codes for visitors, speeding up the registration process.


## L2 ：智慧物流管理　引領創新

黃先生同時也是L2　IoT　Solutions行政總裁。他指出：「企業持續致力做好以用戶體驗為導向的智慧產品和應用場景，相信有實際需求加上好的產品，就自然會有用戶願意使用。」。



現時電子商務、網購盛行，L2　看準物聯網的潛力，應用在不同場景。L2　為擁有車隊的企業提供物流解決方案，包括建立中央追蹤平台，提高整體物流供應鏈的效益；還可為管理空間及地理信息的企業提供可視化方案，建立室外及室內地圖和定位服務；市民亦可更快獲得準確的地理空間數據及大數據分析訊息。此外，L2　還積極研發其他科技產品，包括3D　虛擬導覽服務，使用戶足不出戶便能獲得如親臨現場的體驗；人工智能及機器學習技術設計視像分析系統，大幅縮短人工處理所需的時間，提升工作效率。

智慧物流、空間數據信息化管理、圖像識別和虛擬現實（VR）體驗等等，都是 L2 繼續研發的方向。因應 5G、人工智能和物聯網的技術發展，L2　還會持續開發更多智慧應用的場景，期望一方面為商業或公營機構提供信息化工具，提高管理效率；另一方面透過信息技術手段，為市民生活提供更便利、更優質的服務，促進香港智慧城市的穩健發展。

The autonomous smart navigating serviceable car – Acar is the latest add-in. The parcels temporarily stored in the management office can be delivered automatically by Acar. "Lik On technology hopes to bring convenience with technology, so that the public can enjoy the benefits of smart life," remarked Mr. Wong.

## L2: Smart Logistic Management Industry

"Corporation should continue to put effort into improving user experience oriented smart products and innovating application scenarios. I believe, when there is actual demand with good products available, the customers will be willing to use them," Said Mr. Wong, also the CEO of L2 IoT Solutions.

Now with electronic commerce and online shopping being popular, L2 observes the potential of IoT and applies such under different scenarios. L2 not only provides logistic solution plans for enterprises with fleets, such as establishing central tracking platform to raise the efficiency of overall logistic supply chain, but it also provides indoor and outdoor mapping and tracking services for companies that desire to visualize space management and geographical information. The public can also acquire more accurate geographical data and big data analytical information. Besides, L2 also actively researches and develops other technological products, such as 3D virtual guided tour services for users to gain on-site experience from home; AI and machine learning technical design visual analytical system to vastly reduce the required time and increase work efficiency.

Smart logistic, spatial data information management, image acquisition and virtual reality (VR) experience, etc., are the aspects in which L2 continues to research and develop. In response to the technical advancement of 5G, AI and IoT, L2 will persist in developing more smart applications, which on one hand increases management efficiency by providing information tools for commercial and public organizations, while on the other hand provides more convenient services for the general public by means of information technology, thus contributing to the construction of Hong Kong as a smart city.

## 協通科技：人工智能大數據　助中小企升級轉型

協通科技業務總監余嘉舜先生則認為，智慧生活可以減省程序，以科技代替不必要的工序及人手，這對於推展社會的進步非常重要。不過，香港人對智慧生活的認識或普及程度還是比較薄弱，不少企業仍然非常傳統，香港政府應該在教育及宣傳上著力多加推廣。

協通科技主力發展人工智能大數據分析系統，當中包括人面偵察人工智能系統、零售人流統計、銷售分析，以及不同行業的網上行為數據分析，希望透過大數據及人工智能，協助中小企升級及轉型，達到更佳的銷售業績。行業大數據分析系統與智能數據分析表，可令各行各業的市場營銷專員快速了解消費者最新的行為模式，知己知彼，作出及時反應，調整最佳的銷售策略。

而「智能商用流動雲POS」（All in One POS and online shop solutions）則幫助商家實行智慧支付，內置的零售系統、跨境收款、智能終端和整合式網上商店，簡化購物流程，提升結賬效率。

各行各業要繼續攜手合作，政府亦需加強支援科技產業，而市民透過參與和回饋，真正感受到智慧生活的好處，實現官商民合作。以科技引領美好智慧生活，可見香港發展成為真正智慧城市已不遠矣。


## Letlink Technology: Facilitates SMEs' Digital Transformation

Mr. Kason Yu, business director of Letlink Technology Limited, thinks that smart life can simplify procedures by replacing unnecessary process and manpower with technology, which is crucial to promoting social progress. However, as general Hong Kong residents' knowledge of smart life is inadequate, smart life is still unpopular, and working mode of numerous enterprises remains traditional, Hong Kong government should increase the public awareness of the benefits of smart life through education and promotion.

Letlink mainly focuses on developing AI big data analytical systems, including face recognition AI system, retail flow statistics, sales analysis, and online behaviour data analysis of different industries. Via big data and AI, Letlink strives to help SMEs upgrade and transform, for a better sales performance. Business big data analytical system and intelligent data analysis chart can help marketing specialists to rapidly discern consumer's latest behaviour pattern. After knowing you and your adversary, marketing specialists can react promptly to readjust the marketing strategies to best improve the sales performance.

All in One POS and online shop solutions help merchants implement smart payment, with its inbuilt retail system, cross-border payment settlement, intelligent terminal and integrated online shop. Shopping process is simplified and checkout efficiency is increased.

A tripartite collaboration among the government, business and society will be achieved when various walks of life cooperate, the government provides support for technological industries, as well as citizens participate and experience the benefits of smart life and give feedbacks. To lead a smart life with technology, Hong Kong will develop into a truly smart metropolis in the foreseeable future.

### Facebook HeatMap - Custom Search (Past 48 hrs)

Top 200 hot keywords

Keyword Tre... | Keyword

| Rank. | Keyword | Trend | Hot Index | No. of Pages | No. of Posts | Interactions |
|---|---|---|---|---|---|---|
| 1 | 國安 | New | | 5 | 19 | 6,827 |
| 2 | 中央 | New | | 5 | 6 | 4,191 |
| 3 | 安全 | New | | 5 | 13 | 3,487 |
| 4 | 立法 | New | | 4 | 8 | 4,412 |
| 5 | 國家 | New | | 4 | 11 | 3,251 |
| 6 | 國安法 | New | | 4 | 7 | 3,435 |
| 7 | 直接 | New | | 3 | 5 | 4,444 |
| 8 | 機構 | New | | 4 | 5 | 2,904 |
| 9 | 基本法 | New | | 3 | 8 | 3,360 |
| 10 | 立法會 | New | | 4 | 5 | 1,872 |
| 11 | 市民 | New | | 4 | 7 | 1,273 |
| 12 | 法律 | New | | 4 | 5 | 1,411 |

2020

# 27 APRIL


## Meeting with Innovation and Technology Bureau
## 與創科局會面

Senior representatives of Smart City Consortium (SCC), the Hong Kong General Chamber of Commerce (HKGCC) and PolyU's Jockey Club Design Institute for Social Innovation (J.C.DISI) presented the Advisory Report on Smart City Blueprint 2.0 to Mr. Alfred Sit, Secretary for Innovation and Technology on 27th April.

Also present at the meeting were Mr. Patrick Lee, HKGCC's Smart City Working Group Convener, and Mr. K.K. Ling, Director of the J.C.DISI. HKGCC and PolyU JCDISI are SCC's strategic partners in producing the proposed report.

智慧城市聯盟（聯盟）、香港總商會（總商會）以及香港理工大學賽馬會社會創新設計院（理大社創院）的高層代表於4月27日與創科局局長薛永恒先生會面，提交《香港智慧城市藍圖2.0建議報告》，雙方並就香港智慧城市的發展初步交換意見。

出席會議的還有總商會智慧城市工作小組召集人李世賢先生和理大社創院總監凌嘉勤先生，總商會和理大社創院是聯盟製作該建議報告的策略夥伴。


2020

# 17 MAY

## "Dialogue with Mo: Climate Change & of Sustainable Future"
## 「與武哥對話：氣候變化與可持續未來」

"Dialogue with Mo: Climate Change & of Sustainable Future" was held successfully on 17th May, Smart City Consortium was one of the supporting organizations for the event. Three professionals in different fields discussed with Professor Leung Wing Mo on how to achieve sustainable development in the face of climate change.

「與武哥對話：氣候變化與可持續未來」活動於5月17日完滿舉行，智慧城市聯盟為是次活動支持機構之一。三位不同範疇的專業人士，與梁榮武教授一同探討在氣候變化之中如何達到可持續發展。

2020

18

MAY

## The 4th Annual General Meeting & 17th Council Meeting
## 第4屆周年會員大會及第17屆理事會會議

SCC held the 4th Annual General Meeting and the 17th Council Meeting on 18th May. Mr. Gary Yeung, MH, was elected President of SCC, while Ms Rosana Wong, Ir. Dr. K.F. Tsang, Ir. Wilson Kwok, Mr. Clement Fung and Mr. John Huen were elected Vice Presidents. Mr. Stanley Lee becomes the Honorary Secretary and Mr. Sam Fan the Honorary Treasurer

Prof Paulina Wong, Ms Rene Chu, Mr. Hailong Shang, Mr. John Wong, Mr. Edmund Lam and Mr. Raymond Lam have joined the SCC Council (2020-22 term).

Mr. Gary Yeung said he was honored to be re-elected as the president. He pledged to lead the organization to enhance smart development in Hong Kong and promote our smart city services to overseas.

智慧城市聯盟於5月18日召開第4屆周年會員大會及第17屆理事會會議，楊文銳先生再度當選會長，副會長為黃慧敏女士、曾劍鋒博士工程師、郭偉信工程師、 馮卓能先生和禤文浩先生，李基銓先生當選名譽秘書長、范家珩先生為名譽財務長。

聯盟2020-22 屆理事會加入王沛欣教授、朱可儀女士、尚海龍先生、黃天厚先生、林紹忠先生及林子維先生等6名新成員。

楊文銳會長感謝聯盟會員及理事的支持，再度推選他為會長。他說任內當致力領導聯盟促進香港智慧城市的發展，及向外推廣香港智慧城市服務。


## "Smart City Development for the Future" online seminar
## 「智慧城市的未來發展」 網上研討會

Smart City Academy (SCA) under Smart City Consortium (SCC), Hong Kong Institution of Engineers (HKIE) and IVE Engineering jointly organized the Smart City Development for the Future online seminar on 11th June evening via MS Teams. Speakers and topics included:
1. Dr. Kenneth Tang, Chairman of SDI Committee, SCC on Smart Urban Planning for Hong Kong;
2. Ir. Steve Chan, Senior Engineer, Electrical and Mechanical Services Department on IoT Applications and LoRa network;
3. Dr. George Lau, Deputy Academic Director cum P(TM) on 5G & Smart City.

Moderator for the panel discussion was Ir. Wilson Kwok, Chairman of HKIE - Electronics Discipline Advisory Panel and Vice President of SCC

由智慧城市聯盟成立的智慧城市學院（SCA），聯同香港工程師學會和IVE 工程學科於6月11日晚上舉辦「智慧城市的未來發展」 網上研討會。

研討會內容豐富，包括：
1. 聯盟「空間數據基礎設施委員會」主席鄧兆星博士講述「香港智慧城市規劃」；
2. 機電工程署高級工程師陳賀賢先生講述「物聯網應用和LoRa網絡」；
3. 香港專業教育學院副學術總監劉慶強博士講述「5G及智慧城市」。

而研討會討論環節則由香港工程師學會電子工程專業界別主席及聯盟副會長郭偉信工程師主持。

2020

11

JUNE


# Meeting with Innovation and Technology Bureau Submission of *Advisory Report on Hong Kong Smart City Blueprint 2.0*

# 與創科局會面 提交《香港智慧城市藍圖 2.0建議報告》

The representatives of Smart City Consortium (SCC), The Hong Kong General Chamber of Commerce (HKGCC) and The Hong Kong Polytechnic University's Jockey Club Design Institute for Social Innovation (J.C.DISI) held a meeting with Mr. Alfred Sit Wing-hang, Secretary for Innovation and Technology, and his Bureau member on April 27. They submitted an Advisory Report on Hong Kong Smart City Blueprint 2.0 ("Advisory Report"), and shared initial opinion on the development of smart city at the meeting.

智慧城市聯盟（聯盟）、香港總商會（總商會）以及香港理工大學賽馬會社會創新設計院（社創院）的代表，於4月27日與創新及科技局局長薛永恒及局方成員會面，就香港智慧城市的發展初步交換意見，並向創科局提交《香港智慧城市藍圖2.0建議報告》（《建議報告》）。

聯盟研究及藍圖委員會主席秦仲宇先生首先向局長簡介《建議報告》的重點。超過一萬字的建議書涵蓋智慧出行、智慧生活、智慧環境、智慧市民、智慧政府及智慧經濟六大範疇，其中有多項貼近民生議題的實用方案，供政府為行將發布的《香港智慧城市藍圖2.0》作參考。

聯盟創辦人及榮譽會長葛珮帆議員在會上指出，創科局的工作任重道遠，聯盟多年來都與創科局合作無間，她樂見政府增加資源投放在創科方面，更強調發展智慧城市需要官商民的合作，加強市民對創科發展的理解及接受程度，才有利香港邁向智慧城市的發展。聯盟希望創科局加緊籌備科技項目，令有利民生的措施能盡快推出。

薛永恒局長回應指：「創新科技既有利民生，亦可促進香港經濟發展。創科局將以改善市民生活的創科項目為大前提，盡快落實利民措施，讓市民直接感受科技創新所帶來的好處。」

聯盟創辦人及榮譽會長鄧淑明博士表示，希望有關建議能得到政府的採納。她注意到恰巧當天舉行的中學文憑試，通識卷有一條關於智慧城市的題目，在年青人網上討論區受到熱烈的討論。她認為當智慧城市在中學試卷和網上討論區出現，反映民間對智慧城市概念的認知已邁進一大步，期望大家可共同攜手推動發展。

聯盟會長楊文銳表示，聯盟於2016年底向政府就第一份《香港智慧城市藍圖》提供意見，其中一些建議包括開放數據及電子身份證等，已獲政府採納；鑑於政府將發布《香港智慧城市藍圖2.0》，聯盟特別聯同總商會及社創院，向聯盟會員、行業專家及學者諮詢意見，並舉行集思研討會。經過多月的諮詢工作，完成今次的《建議報告》。聯盟期望這份建議書能為政府提供下一個起步點，進一步推動香港智慧城市的發展。


Mr. Daniel Chun, Chairman of SCC Research and Blueprint Committee firstly introduced the main focus of the Advisory Report. With more than ten thousand words, the Advisory Report was composed of Smart Mobility, Smart Living, Smart Environment, Smart People, Smart Government and Smart Economy, including numerous practical solutions to address people's livelihood issues for Bureau's consideration.

The Founder and Honorary President of SCC, Hon Elizabeth Quat stated that the work of the Innovation and Technology Bureau (ITB) was very challenging. As SCC had worked with ITB for many years, she was willing to accept the government's recent decision to invest more resources on the aspect of innovation and technology (InnoTech), especially when developing smart city needed the collaboration between government and the citizens. The development of smart city in Hong Kong could be promoted via enhancing public awareness of the understanding and acceptance of development of InnoTech. SCC hoped that ITB could improve people's livelihood through science and technology projects as soon as possible.

Mr. Alfred Sit responded that not only did InnoTech benefit people's livelihood, but it also facilitated the economic development of Hong Kong. The ITB projects aimed at improving people's quality of life as a premise and implementing those measures as early as possible, so that people could directly enjoy the benefits brought by InnoTech.

The Founder and Honorary President of SCC, Dr. Winnie Tang also expressed her wish that the government would adopt their suggestions. Recently, she noticed that a question set on smart city in the HKDSE Liberal Studies exam paper had become a heated debate among the youngsters on the internet. In her opinion, the online discussion and the exam questions reflected that the understanding of smart city among public had been greatly improved. She had a high hope that everyone would put hands together to further promote the development of smart city.

The President of SCC, Gary Yeung stated that SCC had provided opinions about the first Hong Kong Smart City Blueprint to the government in 2016. Those suggestions including open data and Smart ID Card have been accepted. For the launch of the new Hong Kong Smart City Blueprint 2.0, SCC, HKGCC and J.C.DISI collected opinion from the members of SCC, industry experts and scholars, and held brainstorming discussion. The Advisory Report is a result of a few months' consultation and joint efforts. SCC expected it could provide the next starting point in order to further the development of smart city in Hong Kong.

鄧淑明博士　太平紳士
Dr. Winnie TANG, JP

智慧城市聯盟創辦人及榮譽會長
Founder & Honorary President,
Smart City Consortium

# 疫情帶來改變世界的契機

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# Epidemic Provides Impetus to Change The World That We Live In

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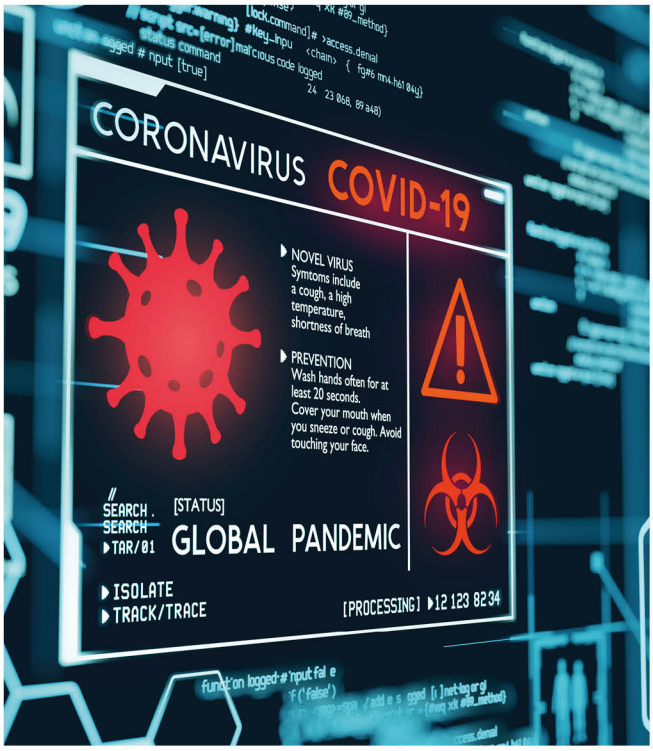



新型冠狀病毒疫情在全球肆虐，令人擔憂的同時，也帶來不少改變世界的契機，以下是一些饒有意義的例子：

## 人工智能（AI）

加拿大初創BlueDot以AI的自然語言處理（NLP）和機器學習（ML），篩選全球65種語言的新聞報道，加上航空公司訂位數據和動物病症報告，發出預警。

本來在多倫多擔任傳染病專家的Kamran Khan之所以創辦這個AI平台，源於港人耳熟能詳的2003年「沙士」，他目睹過傳染病的巨大殺傷力，希望避免禍患重臨。

The coronavirus (COVID-19) epidemic is raging around the world. The situation is very worrying. However, it also brings many opportunities to change the world. Here are some interesting examples:

## Artificial Intelligence (AI)

BlueDot, a Canadian startup, used AI's natural language processing and machine learning to screen news reports in 65 languages worldwide, plus airline booking data and animal and plant disease reports.

Amid this epidemic, AI has been widely deployed. For example, some scientists in Shanghai have used deep learning to examine the CT scans of the lungs. Combined with reviews by human experts, the diagnosing time has been greatly reduced from several hours in the past to four minutes. As extracting saliva samples from deep throat causes great discomfort, researchers are experimenting with other less-invasive methods, such as using AI to detect abnormal breathing sounds.

In the past, everyone said data was like petroleum. In recent years, the analogy has been changed to sunlight and air. AI lives on data. When facing the global epidemic, the Johns Hopkins University of the United States first linked the data of cases from various places for download on its Interactive Map Dashboard. Allen Institute published 29,000 medical papers, including those in peer-reviewed medical science journals and open to public for free. By doing so, they hope to gather insights and have breakthrough discoveries on the pandemic as soon as possible. The scientific research community has always been competing fiercely; their willingness to share precious data implies that this pandemic is an opportunity to bring about change.

Similarly, if Hong Kong's public and private organizations, such as mobile network operators and the Octopus owner, can share anonymous data on confirmed patients with researchers for free, I believe there will be a good chance to achieve breakthroughs in the local smart health-care industry.

今次疫情下，AI被廣泛運用，例如上海有科學家運用深度學習（DL），檢驗肺部的電腦斷層掃描（CT scan），結合人手覆核，速度由過往的數小時大幅減少至4分鐘；提取病例的樣本如深喉唾液令人不適，研究人員正試用其他方法，例如以AI偵測呼吸聲是否異常。

早年大家都說數據是石油，近年開始改稱數據是陽光和空氣，而AI更是無數據不行。可幸的是，面對這個全球疫症，先有美國約翰霍普金斯大學在它的互動地圖儀表板（Interactive Map Dashboard）上，連結各地病例的數據供人下載；其他「無償」開放資訊的，還有艾倫研究所（Allen Institute），他們把2.9萬篇醫學論文，包括只供行內閱覽的內容也一併公開，希望集思廣益，盡快為破解疫情帶來突破性發現。科研界一向競爭激烈，同行如敵國，今次大家分享珍貴的數據，這個疫症也許是帶來改變的一個契機。

同樣地，如果香港的公私營機構如手機網絡商、八達通公司等可以把患者的匿名數據跟研究人員免費分享，相信也有機會為本地智慧醫療帶來突破。

## 遙距醫療

今次疫症帶來改變的，更有遙距醫療。在香港這樣人煙稠密的地方，總有一間診所在附近，而且遙距醫療也一直欠缺監管，令不少醫生對此裹足不前。

幸好，去年12月香港醫務委員會正式對遙距醫療公布指引，減少了服務的灰色地帶。適逢近日大家為減少受感染風險而少到診所，令網上問診數字有可觀的增幅。根據本港結合醫療服務和資訊科技的平台「老友所醫」披露，疫情爆發以來，經他們平台的網上診症個案以倍數增長，例如不少人透過這個渠道索取專業意見，以決定入院治療是否可以延後。雖然目前診治個案的基數不大，但隨着提供服務的醫生增加，以及更多保險公司推出對接的賠償方案，相信遙距醫療有望在本地真正大力發展。

在內地，遙距醫療在疫情下卻真的有爆發性增幅。早前有報道指，內地網上零售集團京東旗下的京東健康，自1月底以來，累計服務超過200萬人次，月度使用量是以往的10倍。據《經濟學人》引述該平台負責人指，這本來應該要5年才有的發展，因為這次疫情而瞬間達到了。至於市場規模，內地研究機構易觀在疫情發生之前預計，今年有1,580億元人民幣，現在已躍升至近2,000億，增幅超過25%。

遙距醫療一直被視為應付人口老化、減輕醫療負荷的重要對策，說了許多年仍只有寸進，但今年之後有望可以開花結果。

## Telemedicine (Remote Medical Consultation)

This pandemic also brings telemedicine into the limelight. In a densely populated place like Hong Kong, there is always a clinic nearby. Further, since there is a lack of official guidelines on telemedicine, many doctors have hesitation in adopting this service.

Fortunately, the Medical Council of Hong Kong announced the Ethical Guidelines on Practice of Telemedicine in December, reducing the grey area of the services. It coincides with the current situation that fewer people visit clinics in order to reduce the risk of infection, which has led to a considerable increase in the number of online consultations.

According to local medical service and information technology platform DoctorNow Needs, the number of online consultations on their platform has increased "exponentially" since the outbreak. For example, people asked for professional opinions from the platform, so as to decide whether to postpone hospitalization. Although the current number of diagnosis and treatment is not large, with the increase in the number of doctors providing online service and more insurance companies introducing related compensation schemes, I believe that telemedicine will eventually become the norm locally.

On the Chinese mainland, telemedicine has seen an explosive increase in demand during the pandemic. According to JD Health, a subsidiary of mainland online retailer JD, its monthly consultation has risen to 2 million, 10 times the normal level. According to The Economist, the head of JD Health previously expected to achieve this volume within five years of development. But owing to the pandemic, it was achieved instantly. As for the size of the market, analysts from Analysys, a consultancy on the mainland, estimated that it was around 158 billion yuan (US$22.2 billion) before the outbreak, but it jumped to almost 200 billion yuan now, an increase of more than 25 percent.

Telemedicine has always been regarded as an important alternative measure to cope with the ageing population and increasing medical burdens. There have been many discussions on its development without much progress in the past, but it is expected to flourish from now on.

## Digital Map

As a map lover for many years, I have never seen any time like this with map playing a major role in addressing a pressing social issue — the pandemic. Interactive map dashboards are used by the Johns Hopkins University, the WHO and over 60 countries and economies, such as the European Union, Hong Kong, the Chinese mainland, Singapore, Japan, South Korea, the U.S., Canada, the United Kingdom, Germany, Italy and Congo of Africa, to manage the current health emergency.

## 電子地圖

作為一個酷愛地圖多年的擁護者，今次疫情可說是有生以來見到最廣泛運用地圖的一次。由上文提及的約翰霍普金斯大學，到歐盟、世衛以及各地政府，包括香港、內地、新加坡、日本、韓國、美國、加拿大、英國、德國、意大利以至非洲剛果民主共和國等，多達60多個國家和經濟體也運用互動地圖儀表板。

其實這些儀表板背後都運用了地理資訊系統（GIS），它是一種把地理位置相關數據匯集、整理、分析並圖像化顯示的學問。我從事了這個行業20多年，今次搭建香港的官方平台，有幸可以和智慧城市聯盟一起義務參與，並在政府多個政策局和部門通力合作下，整合開放數據，短短幾天內完成。儀表板令人一圖看清事態發展，有助掃除坊間有關疫情的不實謠言和混亂信息。

但GIS作為現代城市的規劃工具，用途遠不止於此。

正如蓋茨幾年前公開預警：會為全球帶來最大災難的，不是核戰，而是傳染病。過去10多年，世界經歷了「沙士」、H5N1禽流感、伊波拉病毒、中東呼吸綜合症等等，故此世衛早已呼籲各地政府要及早準備。

在疫情瞬息萬變的今天，各政府部門也需協調抗

In fact, the science enabling these dashboards is geographic information system (GIS) which aggregates, organizes, analyzes, and visualizes data according to geographic locations. I am honored to partner with the Smart City Consortium to set up the official information platform for Hong Kong on a voluntary basis. With the joint efforts of the SAR government's various bureaus and departments, we integrated open data and completed the platform in just a few days. The dashboard provides a clear picture of the pandemic development and helps clear up rumors and confusing information about the outbreak.

As a planning tool for modern cities, GIS can go far beyond these applications.

Just as Bill Gates publicly warned a few years ago: It is not nuclear war but infectious diseases that will bring the greatest disaster to the world. In over 10 years of time, the world has experienced SARS, avian influenza (H5N1), Ebola, Middle East respiratory syndrome-related coronavirus, etc. Therefore, the WHO has already urged governments to prepare pandemic influenza response plans at all times.

In today's rapidly changing epidemic situation, various government departments need to coordinate anti-epidemic actions, GIS can contribute in this regard. For example, to facilitate internal communication among various departments, the government should set up a Common Operational Picture (COP) which also

疫，這亦是GIS用武之地。政府應該在內部設立一個聯合運作平台（Common Operational Picture），方便各部門互通信息之餘，這個中央資訊平台也是指揮中心，讓指揮官全盤掌握狀況，調撥資源。如此，多個部門包括衛生防護中心及醫管局（確診、疑似個案、檢疫情況）、入境處（深圳灣、機場、港珠澳大橋3個口岸的本地、內地及其他居民進出數字）、新聞處（闢謠）、食物環境衛生署（食物供應、口罩等防疫物資供應）、教育局（上學安排）、康樂及文化事務署（那些設施要關閉）等，把最新信息綜合起來，並在大屏幕上顯示緊急事件分佈，以便指揮官決定應變行動。

香港早於20多年前已在亞洲同儕中率先採用GIS作規劃，希望我們能繼續發揮這個優勢，緩減香港受傳染病等災害的衝擊。

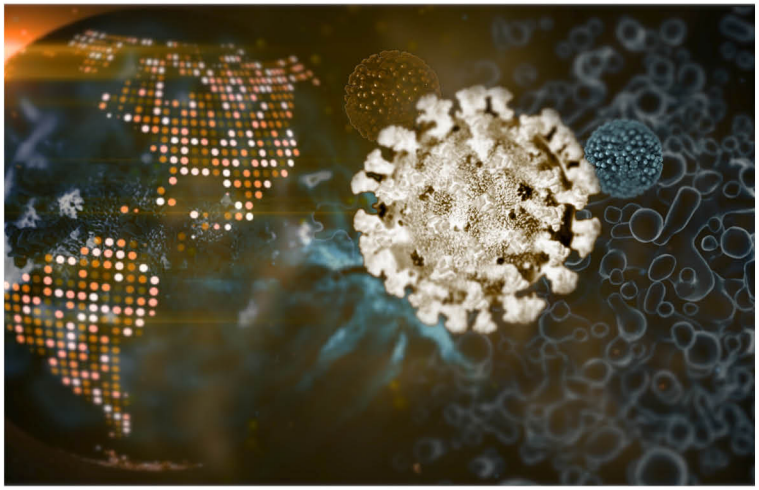
疫情除了帶來上述的改變，正如天文台前台長林超英日前翻譯的一篇文章，是作者Kristin Flyntz模擬新型冠狀病毒寫給人類的信件，提醒在停課、不能聚餐逛街旅遊的時候，大家要放慢腳步的時候，應該趁機反思地球出了什麼事，反思和我們息息相關的樹木、河流、天空、地球的健康究竟出了什麼問題。這些反思會否最終帶給人類改變？說不定這正蘊藏改變世界的契機。

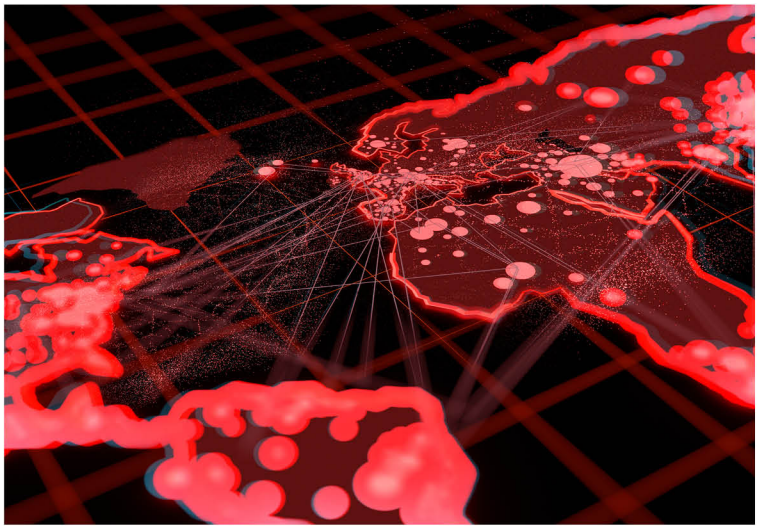
serves as a command center, allowing leaders to grasp the situation and allocate resources. In this way, various departments can integrate the latest information and display the emergency situation on the big screen for the commander to decide the corresponding actions.

These departments include: the Centre for Health Protection and the Hospital Authority (on confirmed cases, suspected cases, quarantine), the Immigration Department (on the numbers of local, mainland and other residents entering Hong Kong through the three ports of Shenzhen Bay, the airport, the Hong Kong-Zhuhai-Macao Bridge), the Information Services Department (to refute rumors), the Food and Environmental Hygiene Department (on food supply, masks and supplies of daily essentials), the Education Bureau (on school arrangements), the Leisure and Cultural Services Department (on the closure of facilities), etc.

More than 20 years ago, Hong Kong took the lead in adopting GIS for planning in Asia. I hope that we can continue to contribute in the forefront in mitigating the impact of the infectious disease on the communities.

A recent article, an imagined letter from COVID-19 to humans written by Kristin Flyntz, reminds everyone to slow down with classes closed, no more gatherings and shopping, and to reflect on what has gone wrong on Earth as seen from the health of trees, the conditions of rivers, and the severe weather. Will these reflections ultimately change humanity? Maybe this provides the impetus to change the world.



# 疫情過後，大灣區創新科技價值更突出

# The Value of Greater Bay Area's Innovation and Technology Will Be Significantly Illustrated After The Pandemic

葛珮帆議員
Hon. Elizabeth QUAT, BBS, JP

立法會議員(新界東)
Legislative Council Member (New Territories East)

智慧城市聯盟創辦人及榮譽會長
Founder & Honorary President, Smart City Consortium

去年黑暴肆虐打殘香港經濟，加上今年新冠病毒疫情夾擊，香港經濟雪上加霜。疫情散去後，香港經濟該怎樣尋找自己的出路？筆者認為，疫情過後大灣區創新科技價值更突出，香港在大灣區創新科技發展中可以發揮更重要的角色，只要香港加快融入國家發展大局，香港經濟定能在疫情和黑暴平復過後迅速走出陰霾。

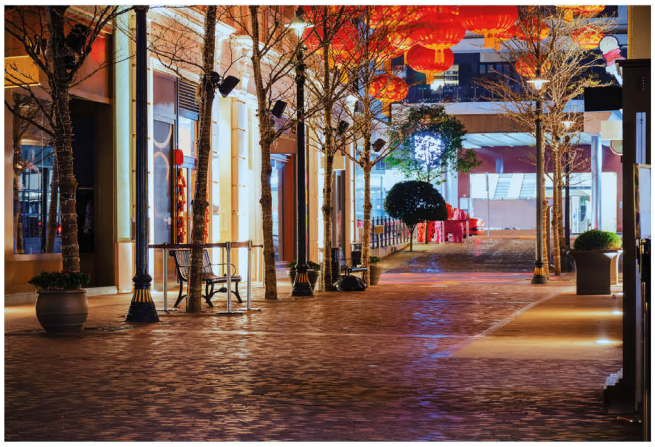
有見於此，筆者所屬政黨進行了深入而廣泛的研究，撰寫了《粵港澳大灣區創新科技發展》建議書，對如何推動在大灣區內發展創新科技，提出一系列建議，務求將大灣區盡快建設成世界一流並具有全球影響力的國際科技創新中心，助力香港向創新科技經濟轉型。

筆者所屬政黨建議書認為，目前大灣區內的創新科技發展存在四大不足：1.法規限制較大；2.應用場景不足；3.資訊零碎模糊；4.對創科教育未夠重視。

建議書在四大範疇提出共23項建議，包括：

（一）聯合打造創新科技走廊

1. 打造科技創新走廊：香港方面應與另外兩方特別加強協調，



The black riots raged through Hong Kong last year. Adding salt to injury the COVID-19 pandemic hits Hong Kong economy shortly thereafter. How can Hong Kong find her way out of the pandemic? In my opinion, the value of innovation and technology (I&T) in the Greater Bay Area (GBA) will be exemplified after the pandemic. Hong Kong always plays an important role in the development of I&T in GBA. If Hong Kong can expedite her engagement in the Central Government's development planning, Hong Kong's economy can break out of the darkness when the riot and the pandemic are over.

In light of this, the political party I belonged to had carried out an in-depth and comprehensive study on the subject. We drafted an advisory for the *Guangdong-Hong Kong-Macau Greater Bay Area's I&T Development*. To promote the GBA as an international world class I&T centre, we put the focus on advising how to facilitate the I&T development in the GBA so that Hong Kong economy can be transformed into an I&T based industry.

In the advisory, we stated that there are four major deficiencies in the present I&T development in the GBA: 1. Over regulation; 2. Lack of application scenarios; 3. Vague and fragmented information; and 4. Undervalued the importance of I&T education.

The advisory provided 23 advices on these 4 aspects, which are:

## (1) Putting hands together to build the I&T aisle

1. Building I&T aisle: Hong Kong should step up efforts in collaboration with Guangdong and Macau in order to establish an organization for high level coordination. Hong Kong should facilitate the development of I&T aisle via accelerated launching and adopting of new measures.

2. Fostering development of Lok Ma Chau Loop: Mainland together with Hong Kong should facilitate improved progress

成立高層次統籌組織，盡快推出及落實措施，以推動創新科技走廊的發展。

2. 加快發展河套區：兩地政府加快項目進度，並盡快確立各項優惠政策，盡快為高端的科技人才推行創新靈活的出入境制度以及税收制度，以吸引及便利人員往來。

3. 成立國家級科技創新中心：粵港澳三地應就此在行政法規及税務安排等方面加強合作，推動項目盡快落實，為大灣區提供最佳的科創資源和平台，及盡快推出具有世界級影響力的原創成果，以推動國家及灣區內的創新科技產業發展。

4. 建立統一資訊平台：三地政府加強協調，設立一站式的大灣區創新科技資訊平台，平台中應包含相關具體的操作流程指引，以協助創科企業或者個人在大灣區投資創業。

5. 增加重點實驗室數目：粵港澳三地應攜手合作，在大灣區內建立更多的相關實驗室和研究中心分中心，以全面提升大灣區的科研能力。

6. 聯合發展智慧灣區：三地應協調官、產、學、研的合作，透過發展大數據、加強科技基建，及訂立資歷認證機制等政策，將整個大灣區發展成智慧城市群。

7. 協助打造大灣區標準：目前大灣區內有部分企業已具備打造國際標準的潛力，三地政府應加強協調，重點培養及扶持相關行業，包括提供更多應用場景，及針對性地拆牆鬆綁。

8. 推動STEM教育：香港政府應增撥資源及加強培訓師資，在中小學階段進一步推動STEM教育。

9. 打造大灣區品牌：三地政府可以參考外地的經驗，聯手打造高端的大灣區創科品牌，全方位宣傳大灣區內具有潛質的品牌及創新應用項目，協助他們向海內外進行推廣。

（二）完善配套設施

1. 推動5G網絡基建：香港政府應盡快處理5G基站建設問題，本港在5G通訊基建建設及服務普及化方面，能與大灣區其他地區同步。

2. 建設國際數據中心：香港當局應成立專責小組去協調跨境資料傳輸的管理工作，並就相關工作與內地及其他司法管轄區建立更緊密的溝通機制。

3. 加快建立空間數據共享平台（CSDI）：為促進科技及產業創新，政府應盡快建立一個公開易用的資訊平台，即CSDI，以便利商界及科研等界別存取及充份運用數據。

of projects and establish favourable policies in the near future. To attract high-tech talents to the Loop, the Government should establish new and flexible immigration and tax system.

3. Establishing National Innovation and Technology Centre: Governments of Guangdong, Hong Kong and Macau should join together to accelerate the establishment of administrative legislation and tax measures. To promote the I&T development in China and GBA, not only should the government provide the best I&T resources and platform for the GBA, they should launch a world-influencing I&T infrastructure as promptly as possible.

4. Establishing centralized information platform: Governments of Guangdong, Hong Kong and Macau should build a one-stop I&T information platform for the GBA. The platform should contain the related operational process and specific instructions for assisting I&T companies or individuals to invest and establish startup in the GBA.

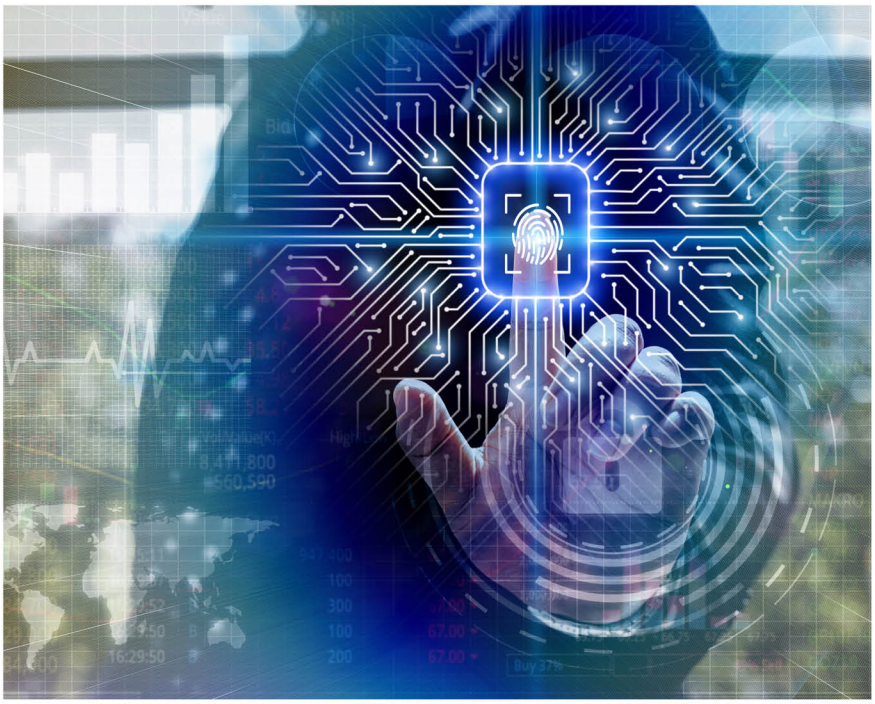
5. Increasing the number of key laboratory: Hong Kong should join hands with Guangdong and Macau to build more related laboratories and research centers so that the overall research capacity of the GBA can be elevated.

6. Developing Smart Bay Area with joined hands: the three governments should be in collaboration among government, industry, academia and research sectors to develop the GBA as one of the smart cities via different policies such as developing big data, strengthening technology infrastructure and concluding qualifications framework.

7. Assisting in building the GBA standard: There are existing enterprises already having the potential to set international standards. The three governments should strengthen their coordination and focus on cultivating and supporting related industries, including providing more application scenarios and removing barriers.

8. Promoting STEM education: The Hong Kong Government should allocate more resources and strengthen the training of teachers to further promote STEM (science, technology, engineering, mathematics) education in primary and secondary schools.

9. Building a GBA brand : The three governments can refer to the experience of other countries to jointly build a high-end GBA innovative technology brand, comprehensively promote the potential brands and innovative application projects in the GBA, and assist them in promoting themselves in the local and overseas market.



4. 加快發展電子身份：為配合智慧城市的發展，盡快完善各項智慧城市的基礎設施，包括進一步提升公眾場所WiFi系統的速度及安全性；除了數碼個人身分（eID）以外，應研究推出電子商業登記（eBR）。

5. 推動電子簽名證書互認：三地政府加強協調，共同推進電子簽名證書互認工作，以及推動其在各方面的應用。

（三）加強財政支援

1. 內地向香港開放更多研究項目：期望國家進一步優化有關計劃，包括提高資助金額，開放更多研究專項，並對港澳開放更多類似的計劃，以及建立科研經費跨境使用的長效機制等等。

2. 建立全面創科融資配對系統：統合現時大灣區內主要的投資資源及項目資源，讓創業者和投資者可以透過系統進行高效、安全、有針對性及一站式的創業配對，以改善有錢無項目，或有項目但無錢的情況。

3. 降低「創新斗室」租金：期望政府能給科學園投入更多資金，從而降低「創新斗室」的價格，以減輕企業引進人才的財務支出，吸引更多創科人才進駐。

4. 定期舉辦國際黑客松：黑客松（Hackathon）亦被稱為「創科馬拉松」，讓參與團隊在極短時間內進行專項創科項目。建議三地政府應撥出充足的資源，並加強協調，定期舉辦有關活動，以促進業界良性競爭及匯聚國際人才。

（四）優化行政法規

1. 增設更多監管沙盒：建議香港設立新的監管沙盒並開放予各個創科行業，以推動本港金融科技、電子商貿、智慧城市以及其他領域創科的發展。

2. 優化「科技人才入境計劃」：建議政府加大輸入人才的配額，

## (2) Perfecting supporting facilities

1. Promoting 5G network infrastructure: The Hong Kong Government should facilitate the construction of 5G base stations as soon as possible. Hong Kong can synchronize with the other areas of the GBA in terms of 5G communications infrastructure construction and the popularization of services.

2. Constructing an international data centre: The Hong Kong authorities should set up a task force to coordinate with the management of cross-border data transmission and establish a closer communication mechanism with the Mainland and other jurisdictions on related works.

3. Accelerating the establishment of a common spatial data infrastructure (CSDI): In order to promote technological and industrial innovation, the Government should establish an open and easy-to-use information sharing platform, that is CSDI, as soon as possible to facilitate business and scientific research and other sectors to access and utilize the data.

4. Accelerating the development of electronic identities: In coordinating with the development of smart city, improving the infrastructure of various smart city measures is the key. The improvements can include further upgrading the speed and security of WiFi systems in public places, personal electronic identities (eID) and launching the electronic business registration (eBR).

5. Promoting mutual recognition of electronic signature certificates: The three governments should strengthen their coordination to jointly facilitate the mutual recognition of electronic signature certificates and promote its application in various aspects.

## (3) Increasing financial support

1. Mainland opens more research projects to Hong Kong: It is hoped that the country will further optimize the relevant plans, including the increase of funding, operating more research projects, opening more similar plans to Hong Kong and Macau, and establishing a long-term mechanism for the cross-border use of scientific research funds, etc.

2. Establishing a comprehensive science and technology financing matching system: The right funding and the right projects needed to find each other. Through integrating the current major investment resources with the project resources in the GBA, entrepreneurs and investors can perform efficient, safe, targeted and one-stop business matching through the system.

3. Reduce the rent of the InnoCell: We hoped that the Government can invest more capital in Science Park. By reducing the financial burden of enterprises more creative talents can be attracted to settle in the initiative.

對小規模的科研公司「3：1+2」的要求可作彈性處理，進一步「拆牆鬆綁」，提供便利，使到計劃在吸引內地和海外科研人才上達到預期效果。

3. 提供足夠應用場景：期望香港政府在各部門的預算中預留專款，主動採購切合部門需要的本地創科產品和服務，以及修改相關法例，及與廣東省及澳門政府加強協調，藉以建立足夠的應用場景，鼓勵及便利本地創科公司在大灣區內尤其是香港試驗及優化產品及技術。

4. 入口免關稅：建議內地海關對於來自香港的大灣區創新科技所需的原材料、設備和中間產品等，均不視為進口，而免除入口關稅。

5. 內地開放重大科技基礎設施：期望內地開放更多尖端的科技基建和大型儀器予香港，讓香港的科研人員得以借助國家的力量，取得更佳成績。

在「一國兩制」下，香港在對接全球科技創新體系、吸引世界優秀科技人才、促進科技成果轉移轉化等方面具有比內地城市更為優越的條件，是國家創新體系不可替代的重要資源，在大灣區科技創新中心建設中可以發揮特殊重要作用。疫情過後大灣區創新科技價值更突出，香港應抓住這一契機，推動香港經濟向創新型經濟轉型，為香港青年提供更多新經濟形態下高技術高薪酬的職務。

4. Organizing international hackathons regularly: Hackathon is also known as technology marathon, which allows participating teams to carry out special innovation and technology projects within a very short time. It is recommended that the three governments should allocate sufficient resources, strengthen coordination and regularly organize relevant activities to promote healthy competition in the industry and gather international talents.

## (4) Optimizing administrative regulations

1. Setting up more supervisory sandboxes: It is recommended that Hong Kong establishes new supervisory sandboxes and open them to various I&T industries to promote the development of innovation in Hong Kong's financial technology, e-commerce, smart city and other fields.

2. Optimizing the Technology Talent Admission Scheme: It is recommended that the Government increases the quota of imported talents, and is flexible on the requirements of "3:1+2" for small-scale scientific research companies. The Government should provide convenience and empower the scheme to achieve the expected results in attracting mainland and overseas scientific research talents by removing barriers.

3. Providing sufficient application scenarios: It is expected that the Hong Kong Government will reserve special funds in the budgets of various bureaux and departments and proactively purchase local innovation products and services which meet the needs of the bureaux and departments. The Government should amend the relevant laws and regulations, and strengthen coordination with the governments of Guangdong Province and Macau so that sufficient application scenarios can be established to encourage and facilitate local innovation companies to test and optimize products and technologies in the GBA.

4. Providing duty-free concessions on imports: It is recommended that the Mainland Customs shall not levy tariff on raw materials, equipment and intermediate products being used for innovation and technology in the GBA coming from Hong Kong.

5. Opening up major technological infrastructure: It is hoped that the Mainland will open more cutting-edge technology infrastructure and large-scale instruments to Hong Kong, so that Hong Kong researchers can draw on the strength of the country to achieve higher goals.

Under the "one country, two systems", Hong Kong is in a better position than the other mainland cities in connecting with the global technological innovation system, attracting world-leading scientific and technological talents, and promoting the transfer of scientific and technological achievements. It is an irreplaceable and important resource for the national innovation system. District science and technology innovation centres can play a particularly important role. After the pandemic, the value of innovation and technology in the GBA will become more prominent. Hong Kong should seize this opportunity to promote the transformation of the Hong Kong economy into an innovative economy and provide Hong Kong youth with more high-tech and high-paying jobs under the new economic pattern.

李志強先生
Mr. Chris Lee

毅能達智能終端技術有限公司首席顧問
Chief Consultant of
Einolda Smart Terminal Technology Co. Ltd.

李欣小姐
Ms. Leanne Lee

德誠信用咭製造有限公司首席策略官
CSO of Takcere Credit Card Mfg. Ltd.

# 智能終端下實踐智慧城市

# Smart Terminals Lead to a Smarter City

一個規劃完善的智慧城市能透過各種信息技術及創新概念，將系統和服務打通及集成，以強化資源運用的效率，優化城市管理和服務，以及提升市民的生活質素。

政府在2017年已經開始大力推動智慧城市，今年更會進一步發布《香港智慧城市藍圖2.0》，致力把香港打造成為一個世界級的智慧都會。《藍圖2.0》主要專注在六大範疇，當中「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」都十分令人期待。

目前，已有多項智能工具融入商業及日常生活之中，例如正要推動本地居民使用的「智方便」（iAM SMART），享用一站式個人數碼政府服務。另外，每當港人進入大型停車場就能體驗的智能空位指引，亦可在終端機上快速尋車，使停車場達到高效管理。而電子道路收費（ETC）利用射頻識別技術（RFID），令市民在穿梭主要幹道和隧道時能夠暢通無阻，便民利民。

## 政府服務 x 智能終端系統

香港政府設有多項公共申請服務，例如身份證、駕駛執照及車輛牌照等等，所需時間約7-24個工作天不等，有時辦公大堂更會因為人多而大排長龍。如果能夠推動使用即時制證的

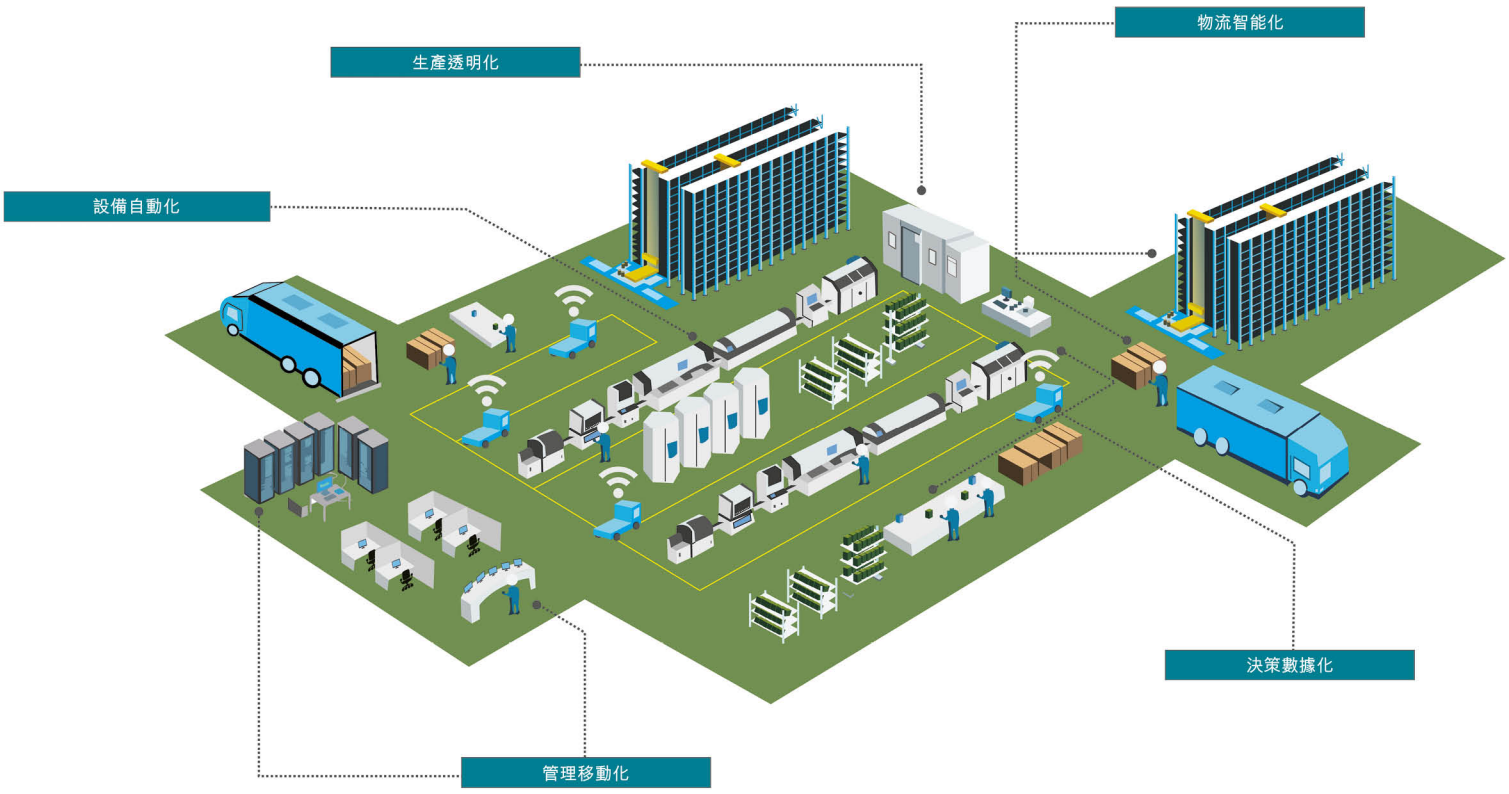
A structured smart city should have its system and service connected and integrated through various data technologies and innovative concepts. It enhances the efficiency of resource utilization, optimizes city's management and services, and improves the overall quality of life.

The government has begun to promote smart cities vigorously since 2017. The Hong Kong Smart City Blueprint 2.0 to be released later this year commits to make Hong Kong a world-class smart city. The Blueprint 2.0 focuses on six major strategies - Smart Mobility, Smart Living, Smart Environment, Smart People, Smart Government and Smart Economy which are all very exciting.

At present, a number of smart tools have emerged into our business and daily routine. For example, iAM SMART is being used for local residents to enjoy personal digital government services. In addition, the parking vacancy guidance that most of us experience when entering commercial parking lots, and a smart terminal that allows quick search for cars location. Electronic Toll Collection (ETC) uses Radio Frequency Identification (RFID) to reduce disruption due to paying toll fees while travelling through major routes and tunnels within Hong Kong.

## Government Service x Smart Terminal System

The Hong Kong government provides many public application services, such as for HKID Cards, Driver's Licenses and Vehicle Licenses etc. The usual processing time requires 7 to 24 working days and there is often a long queue at the office lobby because of the number of citizens that need to be served. If smart terminals, such as a Self Service Certificate Issuing Terminal, are to use in Hong Kong, the formalities could be shortened to a few minutes. It can also reduce the crowd and ensure adequate social distance, which enables the public services to operate for 24 hours even in a pandemic. Most citizens can use their spare time and holidays to manage




自助終端機，就能大大縮短手續過程至數分鐘，亦改善人流，令有足夠的社交距離，使公共事務即使在疫情下亦能24小時運作。而大部分市民也可利用公餘或假期去處理，毋需特別在工作時段內請假。

中國早於 5 年前已在許多城市開設自助服務，例如個人社會保障卡及當地房產證。利用公共雲端技術提交個人資料，居民經過認證後，便可以在任何設有即時打印終端機的房產局辦事處獲取所需的房產證書，整個領證過程都有監控視頻錄影，便於後期的協助和追蹤。另外在醫療系統方面，國內醫院的登記取籌、醫生分配、檢測報告、繳費都可於智能終端機上申請及完成；醫院藥房更鼓勵市民使用自動配藥系統，確保劑量準確及零出錯率去保障市民健康。可見智能終端系統的確有助提高工作效率，同時亦可省卻部分人力資源。

## 德誠智能終端的發展

德誠於 1991 年正式成立，旗下子公司毅能達智能終端技術有限公司早已在中國各地推廣一系列為民、便民、利民的智能終端產品項目。項目包括個人化的即時自助制證智能終端，利用公共雲端資料存取，從申請、拍照、制證到領證一氣呵成。整個過程基於Make-It-On-Demand原則，避免無人認領的資源積壓。


其強大的研發團隊更視工業 4.0 的發展為重點之一，在江西贛州全力打造無人化智能工廠。它主要通過互聯網、物聯網（IoT）和務聯網（IoS）去整合物流資源，提升生產自動化、柔性化、自我優化和提高生產資源效率，並實現高品質、短交期、低成本的智慧生產基地。

personal applications, and can avoid having to take a day off during their usual working hours.

Many major cities in China started to apply Self Service Terminals around 5 years ago such as for applying Personal Social Security Cards and local Real Estate Certificate. Residents can submit personal data through public cloud technology, once the identification is authenticated, residents may obtain the actual Certificate anytime at the Smart Terminal from any Real Estate Bureau Office. Furthermore, in terms of the medical system in China, a Smart Terminal can handle registration in hospitals, assigning doctors, providing medical reports and processing payment. The hospital pharmacy also encourages the use of automatic dispensing systems to ensure the right dosage and zero error rate to protect public health. It can be seen that the Smart Terminal does assist to upgrade the work efficiency and reduce demand on human resources.

## Development of Takcere's Smart Terminals

Takcere was formally established in 1991, and our subsidiary Einolda Smart Terminal Technology has been developing a series of Smart Terminal products to benefit cities in China. We build customized Self Service Certificate Issuing Terminals for users to access public cloud data for retrieving certificates, taking ID photos, and to distribute the final certified copy in one go. The service is charged on a Make-It-On-Demand basis to avoid wastage.

Our strong research and development team focuses on the development of Industry 4.0, and strives to build an unmanned smart factory in Ganzhou, Jiangxi. Through the internet, internet of things (IoT) and internet of services (IoS), it integrates logistics resources and improves production automation which enables more flexibility and self-optimization at the same time. It also improves production resource efficiency in order to achieve high product quality with minimal production lead time at low cost.

# 室內導航技術助視障者智慧出行

陳尊裕博士
Dr. John Chan

蜂圖誌行政總裁
CEO of Mapxus

## The Eyes of the Blind –
# Indoor Mapping Technology

全世界都爭做智慧城市，但你可知道如何評定香港作為一個智慧城市是否「夠班」？建議大家可思考一下我城的「智慧出行」水平。它是2017年推出的《香港智慧城市藍圖》羅列的六大支柱之首：

1. 智慧出行
2. 智慧生活
3. 智慧環境
4. 智慧市民
5. 智慧政府
6. 智慧經濟

Mapxus相信，當我們的視障朋友毋須熟人或導盲犬帶領，毋須事先詳細計劃行程或熟習出行路線，就可像普通人一樣自由上街探索時，香港才能夠真正稱得上是一個「智慧城市」。可惜的是，視障朋友時至今日仍會在擁擠的商場、醫院或者大學校園裡迷路，因為沒有一個「室內版地圖手機程式（App）」可支援他們自主行動。

大抵不是太多人了解到，要創建一個智慧城市，超過8成數據是與空間維度有關的。可惜這些數據到目前為止仍處於零散狀態，既沒有統一標準，也欠缺地理標籤（geo-tagged），不能互通互用，亦難以檢索，更難以分享。

Mapxus有份參與的「逍遙行」手機App，屬於「2017行政長官社會資助計劃」之一。此App由香港失明人協進會(協進會）牽頭進行，Mapxus全力協助室內地圖定位及導航科技。

協進會發言人於三月份遠赴美國加州出席「CSUN輔助科技年度會議」，並在會上分享科研應用成果，以及與Mapxus的共同願景，就是讓受制於固定行程的失明人，享受睽違已久的探索自由，和開眼人一樣充滿生活樂趣。

「CSUN」於1985年10月首次在加州州立大學校園開講，可說是首個全方位關注失明人士及傷健人士輔助科技需要

Do you know how to define our city's performance of "Smart Mobility"? It is the first on the list of the six pillars of *Hong Kong Smart City Blueprint* ("2017 Blueprint") launched in 2017, the others namely Smart Living, Smart Environment, Smart People, Smart Government and Smart Economy follow.

We are bold to say that only when our visually impaired friends can explore freely wherever he wants, without a human friend or a guide dog aside, and not along any pre-planned or familiar routes, then we could claim our city a smart one.

Sadly enough, it is still not the case as our less abled friends would get lost among the crowds in a shopping mall, a hospital, or a university campus; and there is nothing like an "indoor Google Map" to lend them a hand in the point to-point navigation.

Probably not many people realize that more than 80% of our smart city data has a spatial dimension, and most of them are now scattered, not standardized, not inter-operable, not geo-tagged, not searchable nor sharable.

So, would Hong Kong Jockey Club's Smart City Walk Project, one of "The Chief Executive's Community Project List 2017" developed jointly by the blind community and Mapxus, their technical partner, be good enough to tackle the pain points? Let's hear how the spokesperson of the Hong Kong Blind Union says, after returning from the 35th CSUN Assistive Technology Conference in California, the United States in March this year.

The Hong Kong Blind Union's presentation at CSUN shared its insight on how Mapxus created indoor map data and enabled application (app) development for iPhones and Androids. Also it spelled our co-shared vision and mission to return the long-deprived freedom to explore in any strange places to our blind friends.

的主題會議。歷年來會議規模日益壯大，已由學術圈子跳進科企巨擘的視野，受到蘋果、Google、微軟及Facebook等高度重視。

目前流通於失明人圈子的輔助出行App，擁有的室內地圖標示寥寥可數。協進會獲得來自香港賽馬會的支持，「逍遙行」App初步目標為開發150個室內地點，包括：熱門購物商場、政府文娛康樂設施、港鐵站、醫院及大學等。

「逍遙行」App以外，Mapxus最新應用經驗還包括大阪JR西及阪急等企業的室內地圖及定位服務。我們擁有低成本、大批量生產室內地圖數據的技術，例如可按照蘋果室內地圖數據模組（IMDF）要求，在iOS作業平台上進行室內定位；也可在Android機上進行同類操作。連中小企或NGO都可借助我們的室內地圖解決方案，以有限成本製作一隻專屬的導航App。

《香港智慧城市藍圖》展示三維數碼地圖發展的3個階段：可視化三維地圖、應用於建築物內部的三維地圖，以及製作城市實景模型的三維地圖。這些Mapxus也可隨時上陣參與，尤其是第三階段涉及眾多持份者，由城市規劃/營運、應急、管理、運輸/路線/物流、室內導航、電訊安裝，到可持續社區，Mapxus室內地圖解決方案都可提供有效的技術支援，解決痛點，協助香港邁向真正的智慧城市。

CSUN was first opened on the campus of California State University in October 1985, and was first of its kind to focus on the all round needs of the blind. The conference has grown in size, and has been jumped from the academic circle into the eyes of the corporate giants. Today, no giant corps like Apple, Google, Microsoft, Facebook would ever miss the chance to show the social impact of their technology.

Obviously, the Smart City Walk app is not the first of its kind, but its predecessors are all limited only to a small number of local sites mainly in the U.S. because of their expensive developing cost. With the support of Jockey Club, the Smart City Walk app targets to cover an indoor mapping of 150 popular local sites, including shopping malls, recreational facilities, MTR stations, public hospitals and universities. But our ultimate goal is to cover most of the indoor sites in Hong Kong for every city walker, which works seamlessly with the street map navigation.

Mapxus has worked with the JR West and Hankyu in Osaka, Japan to deliver indoor map for user-friendly indoor navigation. We can create very cost-effective indoor map, for example, the Apple's Indoor Mapping Data Format (IMDF) can enable iOS indoor positioning, similar operations is also available on the Android platform. As such, any third parties like SMEs or NGOs could leverage Mapxus solution to customize an app of their own at a limited cost.

Our indoor map solution also allows us to develop 3D Maps for Visualization, 3D Maps for unit-based Indoor Apps, and 3D Maps for City Modelling as planned by the *2017 Blueprint*. We are ready to serve any potential partners from urban planning / operations, emergency management, transportation / routing / logistics, indoor navigation, telecommunication placement, and sustainable communities. And the list goes on in establishing an authentic smart city here in Hong Kong.

冠恒集團有限公司
Good Century Holdings Limited

# 無線電技術在智慧城市的無限可能性

# The Infinite Possibilities of Radio Technology in Smart City

保安系統的重要性與日俱增，無論政府部門還是私人機構，每年都會花一定預算於視像監控、門禁考勤等項目。然而，增購設備與升級軟件再多，駐場管理仍會為某些現存問題大感頭痛。保安系統以設施控制室為中樞，場地有任何突發事件或警報，都經此轉達前線人員，控制室如出現系統或人為失誤，例如電腦/ 顯示屏故障，在外職員將失去指揮。

智慧城市概念提倡的技術整合，將是各行業的趨勢，應用於保安上，可以減低控制室變成故障單點(Single Point of Failure，簡稱SPOF）的機會。作為一種兼具穩定與便利的成熟技術，無線電對講機能在這種整合方案大派用場；技術人員可將保安警報接駁數碼對講機系統，防盜、視像、門禁等一旦出現異狀，巡邏職員在收到全自動文字簡訊或提示語音後，便可立刻趕往現場，提高了團隊反應速度之餘，亦節省了控制室的管理成本。

## 無線電對講機的技術優勢

穩定可靠是無線電對講機歷久不衰的原因。它利用甚高頻（Very High Frequency，簡稱VHF）或特高頻（Ultra High Frequency，簡稱UHF）傳送聲音與文字簡訊，針對限定場地範圍，職員只按一鍵即可進行一對多通話，過程簡單高效。走進一些偏遠、封閉環境，或遇上大型災難時，手提電話可能因發射站受損而得不到支援，無法正常運作，但對講機使用私人而封閉的天線系統，加上機與機之間亦可選用直通模式（Direct Mode）溝通，所以在難以預測的環境仍能確保設施通訊無礙。

## 數碼對講機的進化革新

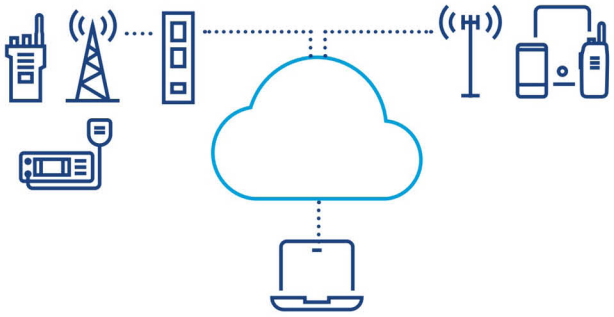
最新的專業對講機採用數字集群通信標準（Digital Mobile Radio，簡稱DMR），其特點是利用分時多工（Time Division Multiple Access，簡稱TDMA）技術通話，在相同頻道資源下傳輸量可增加一倍，有助解決香港頻道不足的問題。除了話音更清晰、對話更保密外，數碼對講機的功能亦延伸到其他領域。以全球對講機先驅者摩

Security system is gaining importance day by day. No matter in government divisions or in private organizations, managements spend considerable budgets on projects like CCTV and access control every year. However, despite continuously upgrading hardware and software, site managers still feel annoyed by certain long-existing problems. Facility control room is the brain of its security system, and it would notify the frontline for on-site incidents or system alerts. If the control room suffers from system or human errors, for instance, computer or display malfunction, the crew outside would lose guidance.

The idea of smart city encourages technology integration, and it will become the main trend across industries. Applied in security sector, this idea can reduce the chance of control room becoming a single point of failure (SPOF). As a mature technology with convenience and stability, two-way radios will come in handy for various proposal. Technical crew should first connect existing security system with digital radio network. When alarm, CCTV or access control system triggers alert, patrolling staffs will receive automatic text messages or voice prompts, which can immediately guide them to the incident point. Such integration not only improves the team response time, but it also saves the control room management cost.

## The merit of two-way radios

Reliability is the reason why two-way radio technology is long lasting. A portable radio transmits text messages and voice prompts via Very High Frequency (VHF) or Ultra High Frequency (UHF). Within designated site area, staff are able to achieve one-to-many communication by simply pressing one button. When the site location is remote and enclosed, or even hit by a catastrophe, mobile phone may not work properly because cell towers may become out of service. Portable radios, by contrast, allow users to communicate under unpredictable situations for two reasons: First, the devices work with private and closed repeater system. Moreover, staffs can switch the devices to direct mode in which radio signal is transmitted directly from one portable unit to another.



托羅拉系統（Motorola Solutions）為例，其對講機系統已發展出室外與室內定位技術，並在香港有成功案例。透過與i-beacon技術的整合，控制室可知對講機持有者的室內位置，並檢測他們按照設定路線巡邏與否；配合倒地警報功能，更可立刻協助受傷員工。而室外定位則應用了GPS技術，控制室除了知道人員所在，在電子地圖上又可設圍欄，當指定職員越過巡邏範圍，對講機即會發出警報。

## 跨媒介的智慧整合方案

在今年下半年，Motorola Solutions將會推出WAVE™ OnCloud，一個全新的按鍵即講（PTT）雲端平台。此平台的用家既享有穩定安全的封閉系統，又能進行廣域通訊，職員即使遠離場地，也可利用Android 或 iOS設備與駐場對講機系統溝通。借用現有的4G或WiFi網絡，管理人員就毋需為龐大的系統建設費用煩惱，這亦是平台在實行上的優勢。而對應WAVE™ OnCloud的智慧對講機，以4G及WiFi作傳輸的TLK100，同樣計劃在下半年推出。

智慧城市講求創新精神，我們要以全新角度去思考舊問題，才可超越盲點，克服既有限制，服務質素才能飛躍提升。

## The evolution of digital radios

The latest two-way radios have adopted Digital Mobile Radio (DMR) standard, which uses two-slot Time Division Multiple Access (TDMA) as channel access method. Since TDMA doubles the transmission capacity, it actually relieves the unmatched demand of frequency resources in Hong Kong. Besides quality voice and enhanced privacy, new radios extend their functions beyond conversation. Taking the industry pioneer Motorola Solutions as an example, the company has developed indoor and outdoor positioning solution for radio system, and established successful cases in Hong Kong. By integrating radios with i-beacon technology, control room would be able to track a staff member's indoor location and patrol route from his portable unit. Making use of the "Man Down" alert feature, site officers can notice and locate an injured teammate quickly. On the other hand, the outdoor positioning technology relies on GPS to track the crew. If a security guard crossed his designated patrolling area in electronic map, his radio would send an alert.

## Cross-medium smart integration

In the second half of the year, Motorola Solutions will launch WAVE™ OnCloud (WOC) – a cutting edge Push-To-Talk (PTT) cloud platform. WOC users will enjoy a reliable closed system with wide geographic coverage. Even if a staff member is off-site, he can still communicate with the on-site radio system by iOS or Android based devices. Also, infrastructure cost will become less of an obstacle towards project implementation because management can utilize existing 4G or WiFi network. In step with WOC, Motorola Solutions will also launch a new 4G and WiFi based smart radio model named TLK100.

The idea of smart city emphasizes on innovative spirit. To get beyond the blind spot, we should re-examine old problems in new perspectives. We can only improve our service quality if we can overcome existing problems.

# 是時候加速智能遠程辦公的策略部署

# It Is Now Time to Fast-Track Your Enterprise Mobility Strategy

*全球疫情扭轉了商業溝通、合作和經營的傳統模式。您的企業是否準備好應對數字化轉型的挑戰？*

建立遠程辦公已經成為企業發展新趨勢。隨着新冠肺炎疫情的出現，很多企業還沒有做好適當準備；疫情導致的業務影響和衝擊，遠遠超過很多企業所能預計的：公司被迫取消日常的商務會議；很多員工突然需要在家工作，他們只能夠臨時選擇現成的網上通訊工具，然而這些平台的互動性參差不齊，安全性亦成為了隱憂。企業的工作效率、團隊內部協作、客戶的參與度均受到影響。

企業需要即時轉換到遠程辦公，但是該如何才能快速地建立一個性能強大、功能全面、安全穩定、操作簡單而又可以實時與全球客戶連接，並與內部團隊協作的一體化融合智能通訊系統？

## maaiiconnect為企業提供即時的通訊支援

maaiiconnect 是一個開創性的雲端數字化融合平台，為企業提供客戶互動和內部團隊協作的一站式通訊解決方案。對於企業而言，這個平台意味着將會帶來更高的客戶滿意度、更佳的員工生產力和效率，有助提升銷售業績。

通過採用革新的電訊和數字化技術，maaiiconnect致力幫助全球各地的企業應對最嚴峻的通訊挑戰。在這特殊的時期，我們意識到協助企業保持團隊協作暢順及客戶緊密聯繫從未如此重要。正因如此，maaiiconnect現進一步為各大企業提供免費的智能遠程辦公基本計劃（Essentials Plan），以助其員工即使需要遙距辦公，仍能保持生產力。

maaiiconnect 基本計劃令員工之間透過優質的網絡通話、視像通話和電話會議等，更高效地進行協作。這個網上的免費解決方案實現了多用戶、多渠道的內部通訊交流，並配備一流的通話質量、安全性和儀表板管理。

*The global pandemic has turned the traditional way of business communication, team collaboration and doing business on its head. Are you ready to ride the wave of digital transformation with maaiiconnect?*

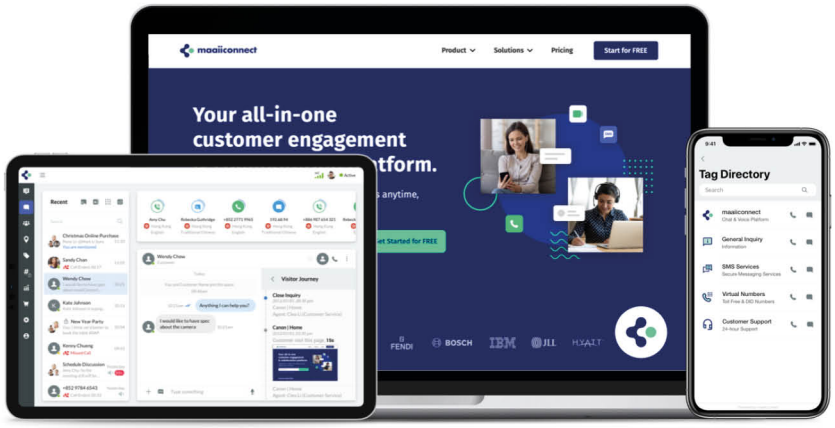
Enterprise mobility capability has become the new imperative for companies today. As the pandemic crisis emerged, firms have found themselves under-equipped for the speed and severity of the impact and the responses they need to react. Face-to-face business meetings have been cancelled. Staff have found themselves suddenly working from home and forced to task-switch between multiple network tools that are immediately available to them, yet connectivity performance of these platforms differs. Productivity, internal collaboration, and customer engagement are suffering.

Companies need to shift to a remote working environment, but how can they quickly and successfully master an integrated communication and team collaboration solution that is robust, feature-rich, and easy to implement?

## maaiiconnect provides immediate support for businesses

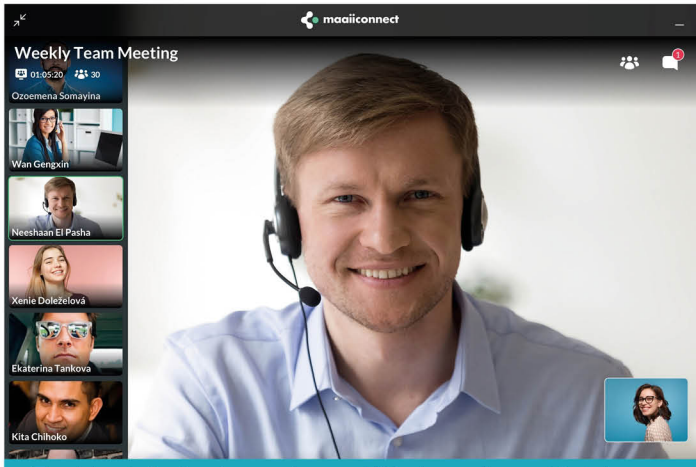
**maaiiconnect** is a revolutionary cloud-based digital convergence platform that provides businesses with an all-in-one solution combining telecom and digital channels for customer engagement and internal collaboration. For companies, this means higher customer satisfaction, enhanced team productivity and efficiency, and improved sales performance.

maaiiconnect is committed to helping companies around the globe to tackle their toughest communication challenges. During these unprecedented times, we recognize that staying connected with teams and customers has never been more important. That leads maaiiconnect to step up offering businesses and enterprises a free unified communications solution, Essentials Plan, to keep up business productivity when teams are forced to work remotely.




*maaiiconnect, a cloud-based digital convergence platform, combines telecom and digital channels for companies to level up customer engagement and internal collaboration.*

*雲端數字化融合平台maaiiconnect，通過採用革新的電訊和數字化融合技術，幫助企業帶來更佳的客戶互動和內部團隊協作。*




*The rich set of call and messaging capabilities by maaiiconnect includes video conferencing, an exciting upcoming feature that allows both crystal-clear visual aid and call recording for full traceability.*

*maaiiconnect提供一系列豐富的語音通話及聊天功能，當中即將推出的視像會議功能，不但加深團隊互動交流，其通話錄音還方便與會者追溯會議紀錄。*

只需一分鐘，便可將懸浮圖標安裝在業務的網頁上，從而使用maaiiconnect一系列全方位的智能通訊功能。

分佈各地的團隊正急切需要線上虛擬辦公通訊工具來進行實時的互動交流，同時支援多方會議和查看實時數據。maaiiconnect基本計劃為企業提供一系列豐富的功能，包括：

- 清晰的語音通話
- 即時信息傳遞
- 文件共享
- 二維碼呼叫
- 網絡鏈接呼叫
- 視頻呼叫
- 屏幕共享
- 電話會議
- 視像會議（即將推出）

## 安全的團隊內部通訊

maaiiconnect由24/7全天候行業認證的服務團隊和一系列管理工具支援，同時在其母公司M800全球分佈式網絡和專有的電訊基礎設施及軟件支援下，其通訊質素完全符合電訊行業和國際安全標準，保證產品在數據加密、安全合規性、數據備份和身份驗證等方面都達到世界領先水平。

## 您是否準備好應對數字化轉型？

數字技術的出現，將人與各式系統聯繫在一起，帶給人們前所未有的全新體驗。通過選擇和投資正確的數字化解決方案，與時俱進，您的企業將引領智慧未來。未來已至，現在立即註冊並免費體驗maaiiconnect基本計劃https://r.maaiiconnect.com/SCCLanding，讓您的企業邁向新高度。

欲瞭解更多詳情，請訪問www.maaiiconnect.com。

Try NOW for FREE
立刻免費體驗

maaiiconnect Essentials Plan allows employees to collaborate faster, with best-in-class web calls, video calls, and conference calling. The free, web-based solution enables multi-user, multi-channel internal communication with class-leading quality, security, and dashboard management. After just a one-minute installation, the package's website widget can unlock a comprehensive suite of communication features.

Virtual and distributed teams today need communication tools for real-time conversations, and the ability to hold joint project meetings and view visualised real-time data together. maaiiconnect offers a rich feature-set, delivering:

- Crystal-clear voice calls
- Instant messaging
- File sharing
- QR code calls
- Web link calls
- Video calls
- Group chat
- Screen sharing
- Video conferencing (Upcoming features)

## Secure internal communication

The platform is backed by a 24/7 industry-certified security team and suite of monitoring tools, as well as supported by its parent company M800's global distributed network, proprietary infrastructure and software that are 100% compliant with telecommunication and international security standards. Together, maaiiconnect guarantees you world-leading standards in data encryption, compliance, backup, and authentication.

## Are you ready for digital transformation?

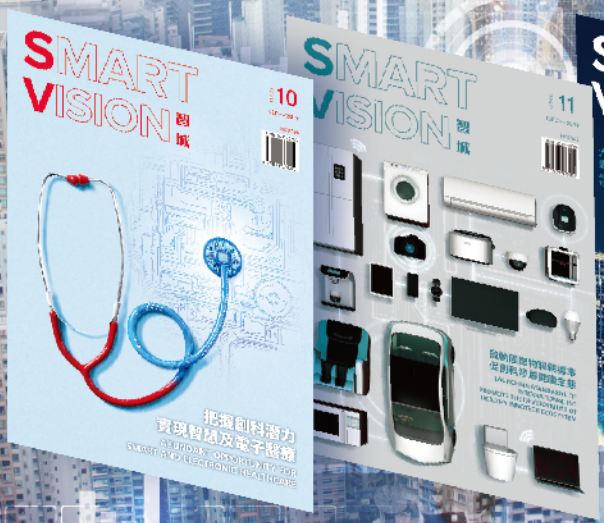
Digital technology connects people and systems with one another to deliver an experience which was far beyond our reach decades ago. By choosing the right solutions and investing in the right changes, a business can strive for digital maturity and thrive for decades to come. Register now and try the maaiiconnect Essentials Plan for free today https://r.maaiiconnect.com/SCCLanding to experience how maaiiconnect can elevate your business to the next level.

To learn more, please visit www.maaiiconnect.com.

智慧城市聯盟
Smart City Consortium

# Smart Vision Your Bridge to Business

## 智城 — 為你連繫業界

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*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.

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# SMART CITY

# BLUEPRINT 2.0

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# SMARTER CITY
# SMARTER HONG KONG

Smart City Consortium
Room 302, Tuspark, 118 Wai Yip Street,
Kwun Tong, Kowloon, Hong Kong
智慧城市聯盟
香港九龍觀塘偉業街118號
香港啟迪科技園3樓302室

Email: info@smartcity.org.hk
Tel: (852) 3480 4230
Fax: (852) 3020 8812
www.smartcity.org.hk