



**The American Chamber of Commerce in Hong Kong
submission on the Chief Executive's Policy Address 2018**

POSITIONING & BRANDING HONG KONG FOR A NEW ECONOMIC ERA

August 31, 2018

The American Chamber of Commerce in Hong Kong congratulates the HKSAR Administration for a year of achievement in addressing important issues with regards to Hong Kong's economic development. The Chamber also welcomes the more open and engaging style of government under the leadership of Chief Executive Mrs. Carrie Lam in discussing Hong Kong's competitiveness and issues of concern to the international business community.

As China's economy becomes increasingly international and outward-facing, so Hong Kong's role is expanding: The city that prospered as the world's gateway into China is today also China's gateway to the world. Hong Kong is well placed to capture the fresh opportunities that China's renaissance offers, but to do so needs a **well thought out positioning, communications and execution strategy** that can successfully demonstrate to the world the city's value proposition over the long term.

Hong Kong still holds many advantages as a truly international commercial and financial hub at the heart of Asia. But a transformation toward a modern digital economy requires fresh thinking with new policies and redirected resources. An innovative and environmentally sustainable Greater Bay Area will generate new opportunities for Hong Kong. At home, increased engagement with the community could help drive new policies that ensure Hong Kong's viability.

AmCham's first Smart City Summit, held this past June, concluded that more public-private partnerships and a people-oriented approach are needed for Hong Kong to see real transformation.

Hong Kong's "One Country, Two Systems" is a unique framework, the value and importance of which can only be truly appreciated by those who spend time in the city or who live here. While AmCham has celebrated the successful implementation of "One Country, Two Systems" over the past 20 years, there is a lack of understanding of the framework both at home and abroad that must be addressed. AmCham's business sentiment survey published in May this year found a widespread perception that Hong Kong's core values – in particular, press freedom, free speech and an unbiased judiciary – are being eroded.

AmCham applauds the Hong Kong Government's unwavering commitment to maintain the rule of law and the freedoms guaranteed under "One Country, Two Systems." However, communicating these efforts is just as important to address the perception issue as are the efforts themselves.

Amid the ongoing U.S.-China trade tensions, Hong Kong – whose open society and separate legal system set it apart from other Chinese cities – will remain an important U.S. partner in trade, investment, and educational and cultural exchanges. Given this key relationship, AmCham believes that Hong Kong will weather the trade storm, aided by an increase in dialogue. We would like to see more higher-level exchanges between the United States and Hong Kong to foster understanding and build on our shared values. AmCham would warmly welcome and support a visit by the Chief Executive to the U.S. in the near future to promote Hong Kong.

The Chamber appreciates the opportunity to provide our broad-based views on the following issue- and industry-specific areas. Please see a summary below and **Appendices I & II** for details.

Key Issues

- Reorient the current brand towards a new economic era
- Incorporate sustainable development into the economic transformation plan
- Make the New Central Harbourfront Site 3 the role model for the development of Hong Kong as a premier global city
- Foster internationally friendly trade and travel policies in the Greater Bay Area
- Adopt a community-based approach and foster public-private partnerships in smart city development

Industry-Specific Recommendations

Financial Services

- Enhance cross-border investment schemes to maximize Greater Bay Area opportunities
- Protect and secure strong governance, transparency and investor protection
- Promote global collaboration to ensure a safe, sound, open and truly international fintech ecosystem

Innovation and Technology

- Drive collaboration in technology adoption with cities in China and the Asia Pacific region to address serious issues such as cyber security
- Build a center for cybersecurity innovation, with channels connecting multiple actors from businesses to academia and set guidelines consistent with global best practices
- Proactively encourage more government departments to open up their data and collaborate with the private sector to increase access to data.
- Update and clarify data regulations

Transport & Logistics

- Adopt a consistent green transportation policy, including strengthened support of electric vehicles
- Develop regulations to adapt to the new (sharing) economy
- Modernize container ports to keep up with the regional integration plan
- Revisit overall strategic business aviation plans incorporating regional perspectives

Trade

- Counter illicit trade in partnership with Greater Bay Area cities through law enforcement, intelligence exchanges, best practice sharing, and public awareness campaigns

Medical & Biotech

- Develop Hong Kong into a center of excellence for clinical trials in Asia
- Utilize big data to support an innovative healthcare service model

Intellectual Property

- Set up a Greater Bay Area center of excellence for intellectual property rights to build capacity and promote best practices
- Implement the new patent system as soon as possible
- Formulate suitable legislative amendments to improve the environment for creative industries and strengthen copyright protection

Education & Future of Work

- Integrate good internet practices into school learning.
- Foster creativity and critical thinking through a review of curricula to incorporate STEM as a way of thinking
- Identify and minimize barriers to STEM careers for women who are underrepresented in the field
- Increase specificity, segmentation, and intersectionality when researching, formulating, and implementing STEM policy
- Build a center for cybersecurity innovation, with channels connecting multiple actors from businesses to academia.

Inclusivity & Diversity

- Ensure female representation in private and government sectors and eliminate related barriers
- Extend Hong Kong's statutory maternity and paternity leave in line with the global trend

APPENDIX I:

ISSUE- & INDUSTRY-SPECIFIC RECOMMENDATIONS

KEY ISSUES

Rebrand Hong Kong to Place it at the Heart of China's Economic Narrative

Twenty-one years after Hong Kong's return to Chinese rule, the city has undergone a complete transformation from British colonial entrepot to become China's leading international services hub. Overshadowed by headline-grabbing political issues and the sheer speed and scale of China's development, Hong Kong's role in this newly emerging economic landscape is poorly understood by the international community.

In a digital age when visual images and instant communications prevail, many countries recognize the increasingly specialized nature of communication knowledge and expertise in a way that places government communications as a priority and have made big investments in strategic, as opposed to tactical, communications¹ and advertising.

In countries with the most systematically managed communication planning, research and assessment, such as the United States, United Kingdom and Australia,² government communicators are drawn from a broad mix of backgrounds, including journalism, marketing and public relations, and are provided training programs to develop their skillsets.³

AmCham appreciates that the Government has stepped up its efforts to promote Hong Kong overseas. However, the Chamber would like to recommend the Government seeks long-term and strategic professional support to **design and deliver integrated communication strategies targeted specifically at the international community** and with an emphasis on people-focused "storytelling." Strategies could include, for example, more frequent high-level visits by government officials to tell the "Hong Kong story" in person; sponsoring overseas lawmakers and officials to visit so they can see and feel the "Hong Kong difference"; reaching out to media outlets to promote greater understanding of the "One Country, Two Systems" concept or to promote Hong Kong's special and unique attractions outside the realm of politics. A successful communications strategy would give Hong Kong leverage to advance economic objectives such as its development as a smart city and fintech and IP hub.

Sustainable Development

The world's leading cities aim to strike a balance between economic development, social development and the natural environment; and to incorporate the perspectives and collective wisdom of their citizens in evaluating the needs and design of projects. AmCham appreciates the Government's decarbonization efforts following the 2015 Paris Agreement on climate change, however a bottom-up, long-term strategy is required to map out Hong Kong's vision for sustainable development, set policy targets and define departmental collaboration flows.

¹ Tactical communication is defined as communication at a lower organizational level oriented to the pursuit of short- to medium-term goals, with no overarching communication structures but a dispersal and fragmentation of communication activities throughout the organization with little or no internal coordination. Karen Sanders & Maria Jose Canel, "Government communication in 15 countries: Themes and challenges" (p.280)

<https://www.ucm.es/data/cont/media/www/pag-37870/Government%20communication%20in%2015%20countries-1.%20Themes%20and%20challenges.pdf>

² Ibid (p.301)

³ Ibid (p.299)

Sustainable development is no longer the peripheral function it once was; good for burnishing the image, but not essential. Today, the issue is widely recognized as carrying substantial risks and equally substantial opportunities – so much so that most developed economies have worked hard to turn social responsibility into tangible action plans that also benefit the economy. This vision must be effectively communicated, and it must be defined at both the local and regional levels – fundamentally changing Hong Kong’s approach to its waste management, as an example of the former; assessing the impact of business decisions made in Hong Kong on the environment beyond our borders, for the latter.

Many high-performing economies, such as the state of California, embraced these challenges early to mitigate risks while at the same time driving growth and job creation in new industries, including green finance, energy-efficient technologies and new lifestyle solutions that fit smart city living.

Environmental Engineering & Sustainability

- A progressive, common-sense approach to land management – redeveloping brownfield sites as high-quality living/working areas while minimizing space wastage.
- Pursuing conservation and making the natural environment more visible/resilient in all parts of the city.
- Enriching green-blue space in Hong Kong and in collaboration with Guangdong Province.
- Mandating (not simply promoting) sustainable construction practices. Hong Kong standards are based on carrots rather than sticks (and assessments rather than actual building performance). This acts as a drag on Hong Kong’s capacity to build energy-efficient, wellness-enhancing living spaces – and erodes the ability to attract and retain professionals in this while our competitors move ahead.
- Promoting a better quality of life for all – focusing on minimizing congestion; improving air quality where people live and work, rather than where the monitoring stations are; creating more green space/high oxygen content space in the densest urban areas through addition of parks, fountains, pedestrianization, etc.

Waste Management

The Government’s planned Integrated Waste Management Facility is an essential step on the path to dealing with Hong Kong’s solid waste problems. With increasingly sophisticated technology, incineration and treatment facilities can recover more energy from waste with minimal emissions, as Scandinavian countries have shown. Given that the facility is still years away, the Government should consider these short- to mid-term steps to further improve waste management:

- **Leverage Internet of Things.** Countries like Singapore have explored the use of solar-powered smart garbage bins, equipped with sensors to notify the waste collection company when they are full, enabling more efficient collection routes. The bins can also provide Wi-Fi for nearby areas, boosting internet access.⁴ Costs remain a concern, however, which is why it is especially important to collaborate with businesses to maximize benefits as much as possible. Moreover, the benefits of IoT devices go beyond their primary purposes – adding Wi-Fi, generating solar energy, compressing waste, and reducing fuel use, for example.

⁴ Boh, Samantha. “Smart bins gaining traction in Singapore.” *The Straits Times*.
<https://www.straitstimes.com/singapore/smart-bins-gaining-traction-in-singapore>

- **Treat waste as a resource, and recycling as a utility.** Today, recycling is treated as a “do-gooder” activity to be supported incidentally by a small number of environmental charities, with the burden – and blame – placed on consumers’ inability or unwillingness to sort their waste. Instead, an integrated waste management process, including recycling, should be fully incorporated as a key cog in the circular economy. By designing consumer products for a recyclable end use, enabling purchasing and disposal mechanisms for recycling throughout the value chain, and by fostering industries that will create a viable market for recycle at home or abroad, all parts of the value chain can work to convert waste into a valuable resource. On a macro scale, waste is used as a resource in many countries. From waste-to-energy projects in the United States, China, Japan and Europe, to waste recovery in the U.S. and Australia. Many of these projects are in cities similar in size to Hong Kong and can generate additional societal benefits.
- **Value good design.** Garbage is ugly. Hong Kong has to make aesthetics a key consideration if it wants to increase community support for measures like large incineration facilities, which given the city’s small size, will have to be built in closer proximity to people. As AmCham has advocated before, this can be achieved through a “design-led” tender approach, in which principles like environmental friendliness, community consultation, and aesthetics precede traditional cost considerations.⁵ Apart from building support and awareness, good design also mitigates losses in real estate value. Furthermore, these principles need to be applied to smaller structures as well – right down to individual trash cans dotted around the city. Big recycling campaigns can be effective, but subtler prompts from good design will further enhance behavior.

Water Conservation

Fresh water is a scarce resource, as the unusually dry summer reminded us in Hong Kong. AmCham feels there is substantial potential to reduce water use per capita in Hong Kong by increasing awareness and education, as well as reassessing water charges that have not been reviewed for 20 years. The Water Supplies Department should also be required to make greater efforts to reduce leakages from pipes.

Position the Central Harbourfront Site 3 as a Role Model of Development

The Government’s business-as-usual approach shows a lack of vision when it comes to the development of Victoria Harbour, one of the most iconic waterfront sites in the world. Since the two-stage Public Engagement exercise conducted by the Planning Department in 2008, the Urban Design Study for the New Central Harbourfront no longer reflects the public interest or the latest developments and trends in environment sustainability, technology, conceptual design and finance. The limited nature of the Planning Brief for the Comprehensive Development Area zone at Site 3 combined with a “price maximization” tender approach undermines the key objective for this redevelopment to attain a truly world-class standard and to benefit the whole community.

The redevelopment is a once-in-a generation opportunity to brand Hong Kong and will provide a legacy for this Administration. AmCham urges that international best practices be followed in project selection and public engagement to ensure that the redevelopment both serves the public interest and demonstrates world-class excellence in design and project execution.

We believe that Site 3 is worthy of special attention to reinvigorate the Hong Kong spirit and promote the city internationally. Building public trust in the Government’s intent to make this a project of pride for

⁵ The American Chamber of Commerce in Hong Kong. “Future Development of Site 3 – Central Harbourfront.” Advocacy Paper. February 14, 2018.
<http://www.amcham.org.hk/uploads/media/default/0001/04/9228f991d3987a8a75a8575f76a0b3121cfed499.pdf>

our city is essential to show the Administration's recognition of our shared interest in and passion for Victoria Harbour.

AmCham urges the Government consider the following recommendations:

- Designate the Victoria Harbourfront a “*Special Design Area*,” which is feasible under the Town Planning Ordinance.
- Provide a “*Development Brief*” instead of a “*Planning Brief*” to invite bidders for this project so as to include social, environmental and political considerations.
- Brand this exercise internationally to invite global competition and attract state of the art technology and design.
- Champion the project as a model for achieving development with sustainability and consideration of public interest, and ensure the relevant criteria is stated in the “*Development Brief*.”
- Put aside the business-as-usual approach to the bidding procedure for Site 3 to allow true competition on merit coupled with financial viability.

Greater Bay Area

AmCham welcomes Hong Kong's participation in the Chinese leadership working group tasked with driving greater collaboration and economic integration in the Greater Bay Area.

AmCham also welcomes measures that will make it easier for Hong Kong residents to work and commute within the GBA. The Chamber would further urge that consideration be given to extending such measures to foreign business representatives who need to travel within the GBA frequently. The foreign business community is essential to maintaining the international standards and characteristics that are a key factor making Hong Kong the “super connector” for an outward-looking Chinese economy as well as being instrumental in sharing global best practices within the GBA.

Smart City Development

AmCham had the honor to host the Chief Executive at the Chamber's first Smart City Summit in June. Tom Murphy, the former mayor of Pittsburgh, Pennsylvania, who played a seminal role in transforming his city from a dying steel producer into a research and development tech center, told the conference that Hong Kong needs to tear down the conventional barriers to progress. A different mindset is required to achieve transformative smart city development: “The challenge is for cities to be intentional about reaching the future, not to drift into it or be protective of the status quo.”

Following on from our submission before the Government launched its Smart City Blueprint, participants in AmCham's summit concluded that Hong Kong should adopt a community approach toward smart city development. The Chamber shares the Administration's belief that this topic is of major importance and has laid out detailed recommendations drawn from views collected at the summit and in further discussions in **Appendix II**.

INDUSTRY-SPECIFIC RECOMMENDATIONS

Financial Services

The success of Hong Kong as an international financial center is predicated on maintaining a competitive, open and free market environment. Global companies choose to locate significant portions of their regional operations – and in many cases their Asian headquarters – in Hong Kong because of the transparent and predictable regulatory and legislative environment and the independence of the judiciary to guarantee contract enforceability and legal recourse.

Enhancing cross-border investment schemes to maximize Greater Bay Area opportunities

Hong Kong's unique position as a gateway to China offers many opportunities for U.S. financial services firms based in the city. In recent years, exchanges and regulators in China and Hong Kong have introduced some of the most innovative and successful cross-border investment platforms for stocks, bonds and mutual funds. The Stock Connect, Bond Connect and the Mutual Recognition of Funds schemes, for example, have expanded investor access to financial products on both sides of the border as well as adding to the diversification of the Chinese economy and deepening the economic and financial integration of the GBA. However, these popular investment portals require fine-tuning to ensure maximum utilization. The Chamber and our members are prepared to offer our significant expertise to support efforts to further improve these programs.

Additionally, investors are eagerly awaiting additional access opportunities – in particular, the inclusion of additional securities and the launch of IPO Connect and ETF Connect platforms. However, we strongly recommend consultation with international market participants in Hong Kong regarding global best practices to ensure that both risks and potential unintended consequences are fully assessed before any announcements are made. As large intermediaries, U.S. banks and broker dealers in Hong Kong play an important role in facilitating international investment flows. The Chamber and its members would welcome the opportunity to offer insights to the Government in support of its mission to remain the region's leading international financial center.

Strong governance, transparency and protection critical in dual class listings

With the recent introduction of dual class listings on the Hong Kong Exchange we would caution that strong governance, transparency, enhanced investor protection and adequate provisions for legal recourse are necessary to ensure new entrants do not damage Hong Kong's reputation as a world class marketplace for international investors. We will look forward to monitoring the development of the new listing regime for both successes and risks.

Promoting ESG investments for sustainable development

Hong Kong has an opportunity to be a leader in the fast-growing sustainable investment sector. Taking account of environmental, social and governance factors when making investment decisions makes good business sense. Such an approach not only mitigates risks but has been shown to improve long-term returns on portfolios as well as meeting the investment goals of major investor segments, including women and Millennials. We applaud the steps Hong Kong took earlier this year to implement a new Green Bond Grant Scheme that will fund green public works projects. Further strong and proactive government policies are needed to promote the production and distribution of ESG products so as to position Hong Kong as the region's leading ESG financial center.

Fintech

Technology, and particularly fintech, plays a critical role in the growth and development of our businesses and the Hong Kong economy. We urge the Government to work with its regulators to actively engage in promoting domestic and global collaboration to ensure a safe, sound, open and truly international fintech ecosystem. The Hong Kong Government's effort to support and promote fintech investment has shown great promise, but more needs to be done to ensure that Hong Kong can continue to attract and grow innovative businesses in an increasingly competitive global marketplace. Yet in so doing, great care must also be given to avoid damaging the a burgeoning fintech ecosystem characterized by internationally compatible standards, sound practices, risk awareness, and the commercial viability that incumbents currently uphold.

Financial crimes and anti-money laundering

It has been well documented that transnational criminal organizations have taken advantage of the global financial system to launder funds derived from illicit trade, tax evasion, smuggling and human trafficking. AmCham acknowledges the Financial Secretary's message in the "Hong Kong's Money Laundering and Terrorist Financing Risk Assessment Report" published in April, and recommends that the Government continues to actively engage the banking sector, fintech community and advanced-technology stakeholders to ensure that the policies, regulations and systems in place are sufficiently robust to detect and act against money laundering, fraud, terrorist financing and sanction violations.

A risk-based approach coupled with proactive enforcement measures to restrain and confiscate illicit proceeds are critical to address such serious financial crimes as outlined by the Financial Action Task Force guidance and recommendations.

Attracting and retaining financial services talent

Our businesses are only as good as our people. We strongly urge the Government to create an open, meritocratic, and fair labor market through immigration reform, labor protection and anti-discrimination legislation. Such an approach will improve Hong Kong's competitiveness, supporting a virtuous cycle in which the best global talent is drawn to the city and boosts the quality and depth of the local labor market, benefiting both the economy and companies alike.

Innovation and Technology

AmCham recommends the Administration drives collaboration in technology adoption with other cities in China and across the region. The adoption of innovation technologies such as blockchain and artificial intelligence is not limited by geographical borders. Establishing a level playing field across the region is necessary for regulators and law enforcement agencies to work together to address serious issues such as cyber security. The Government's buy-in is needed to ensure favorable policies, legislation and regulatory frameworks are in place.

Transportation

Revisit overall strategic business aviation plans with regional perspectives

AmCham appreciates the Administration's efforts in consulting the public through the *Hong Kong 2030+ Study* in an effort to develop strategies for territorial development beyond 2030. However, there are concerns that the *2030+ Study* has not explored wider opportunities presented by regional cooperation, such as those brought by the GBA development, particularly in the realm of aviation. The increasing connectivity with neighboring cities means that the Hong Kong International Airport and related

Government agencies, such as the Security Bureau, Hong Kong Civil Aviation Department and the Transport & Housing Bureau has an opportunity to resolve current restraints on liberalization of low-altitude airspace through regular communication with Mainland counterparts within the Civil Aviation Authority of China, People's Liberation Army air force division, inter-city cooperation, closer cross-border coordination and standardization of regulations.

While the GBA is now in full force, there is a gap between the national vision and departmental plans at the local level. Neither the airport authority nor the two related government agencies have drawn up any five-year plan for the GBA in the field of aviation. There is also no indication of general aviation or business aviation accommodation in HKIA's redevelopment or in its expansion plans (i.e. within the three-runway system at this time).

It is often difficult to measure the direct economic impact and benefits of either general aviation or business aviation due to the adoption of revenue models based on the passenger taxes and value per landing fees of commercial and cargo airlines. Business aviation and its development at HKIA has been an after-thought for the Hong Kong Government and transport planners as its importance to the wider economy is often misperceived, leading to other lingering issues on runway slots and noise profiling which has had a huge and damaging effect on the sector these past two and half years.

After slot restrictions were imposed at HKIA in May 2016, non-scheduled aircraft movements fell by about 2,000 compared with the corresponding period the year before. The decline continued through 2017, resulting in a forced one-third slump in movements over 18 months. These figures not only signaled a significant and imminent destruction of a vital aviation sector, but also negatively impacted Hong Kong's economy. More entrepreneurs, business leaders, artists, collectors and buyers have been avoiding Hong Kong due to the access problem for business jets and lack of infrastructure for helicopter commercial transfers. As neighboring cities such as Macau, Shenzhen and Zhuhai are now enjoying significant short-term increases in business aviation movements, Hong Kong should take full advantage of the "One Country, Two Systems" framework and capitalize on the opportunity to reverse this trend and put Hong Kong's aviation sector back on the map.

The Asian Business Aviation Association (AsBAA) has reported a much-improved operational environment in 2018 so far.⁶ While this is welcome news, it must be treated with caution as its continuation depends on the expansion plans of other sectors growth plans which could easily cut short the current recovery in the business aviation sector, an industry on which thousands of jobs depend. In addition, as shown at recent student activities held at the Hong Kong Aviation Academy and other locations around the region, there is strong interest from the younger generation of students and graduates to learn more about careers in business aviation, such as engineering, marketing, finance, legal, services and many others. As such, the industry should be provided with a fair percentage of runway slots at HKIA as capacity is added with the third runway. The industry should also be enabled to develop its infrastructure needs to accommodate growth, both at HKIA and other facilities such as the heliports at Shun Tak and Kai Tak, construction of which is soon to commence.

To position Hong Kong as the leading transportation hub within the GBA, the Government must plan properly for the future of air transportation passenger movements, particularly urban air transportation needs of the future, rather than sticking to the same but antiquated model which is no longer best-fitted to the opportunities that lie ahead.

To this end, AmCham urges the Government to consider the following:

⁶ Business aviation movements have increased by 25 percent in the first six months. Asian Business Aviation Association (AsBAA) predicts a year-end increase of around 28 percent over 2017, meaning that the total movements will be slightly higher than 2016 at approximately 8,595.

- Take a fresh look at the overall development strategy of Hong Kong from a broader horizon, taking into account new technologies, autonomous vehicles, equipment and demands to support Hong Kong's rapid transportation evolution; and develop a more comprehensive, regional-inclusive and convergence plan that aims for better cooperation with multi-modal transportation needs between Shenzhen, Macau, Zhuhai, Guangzhou and other GBA cities, especially on issues concerning airspace and coordinated ground-to-air infrastructure development at multiple city locations, existing and future airports/heliports & recharging stations.
- Draw up a comprehensive air transport masterplan that incorporates all existing and planned airports and heliports and the authorities within them, and form an umbrella authority with expertise from the public and private sectors with the power to make the necessary recommendations to Government.
- Continue to work with the private sector to further increase runway slots for business aviation at HKIA using the latest technologies.
- Consider expanding commercial routes for helicopters from Shun Tak and Kai Tak to cater for the opening of cross-border flows by helicopter flights within the GBA and perhaps a heliport close to the Asia Expo Area to cater to cross-border demand, intra-city demand and to service medical evacuations from any Zhuhai Bridge or off-coast incidents and surrounding residential and industrial areas under development.

Modernizing container port to keep up with the regional integration plan

Hong Kong's container port development fits into the city's smart city vision and the GBA initiative. With container traffic falling at Kwai Tsing in recent years, the container port should be included in the city's modernization drive, to create a new operating model that can be part of the regional integration plan. The Smart City Blueprint looks to integrate road, rail, tunnel and airport infrastructure, yet the plan is silent on the opportunity to connect and enhance Hong Kong's other world-renowned piece of infrastructure – the container port in Kwai Tsing.

Around the world, container ports enable the physical flow of international trade. Hong Kong's port is among the very best, handling over 17,000 container ships and 53,000 river barges in 2017 throughput. These statistics are a tangible reminder of the critical role Hong Kong plays as a super-connector to the global economy. The port also supports over 85,000 jobs where those families rely on the ongoing success of our maritime logistics sector.

By rethinking traditional operating models and applying new technology, the port can generate greater efficiency and improve its service offering to ocean carriers. The Government has an opportunity and obligation to create a new value proposition for Hong Kong's port, and should have a renewed sense of urgency, a willingness to break down barriers, and the courage to think differently.

With the development of equipment automation, sensor technology, artificial-intelligence-enhanced operating systems and blockchain technology, Hong Kong is well positioned to move up the value chain and become a next generation port that will provide greater efficiency and value to customers. The development of the GBA could provide an opportunity for Hong Kong's port, with its international status under "One Country, Two Systems," to play a valuable role in augmenting a network of ports across the bay area economic zone.

E-commerce and digital trade

Demand for logistics capacity and connectivity in Hong Kong will only increase as cross-border e-commerce continues to drive global trade and economic growth. Asia is the global leader in cross-border

B2C e-commerce, a trend reflected in HKIA's record-breaking 2017 air cargo volumes. With strong growth in e-commerce expected to continue in the years ahead, and 80 percent of SMEs generating revenue through e-commerce, Hong Kong's physical connectivity will be more important than ever to move goods to their destinations.

In support of physical connectivity is digital connectivity. Given the widespread development of national and regional Single Window initiatives to facilitate and streamline international trade, Hong Kong should continue to prioritize and expedite the development of its own national Single Window platform. Hong Kong is a vital global trading hub, and a Single Window platform will reaffirm the Administration's commitment to free and open trade, and maintain the city's global competitiveness in trade and leadership as a logistics hub. The Administration should strive to keep pace with Single Window initiatives in neighboring economies, with the goal of regional trade facilitation and interoperability.

A consistent and transparent green transportation policy

The Government is making great strides to help improve Hong Kong's air quality. The phasing out of old diesel engines and the establishment of a marine Emission Control Area by 2020 are evidence of this. These initiatives should be applauded, completed and then extended.

As part of this effort, the Government's decarbonization strategy⁷ mapped out clearly that the wider use of electric vehicles, or EVs, as one of the six key objectives. However, an abrupt change of the First Registration Tax waiver policy two years ago without any clear explanation of achievable targets for wider adoption of EVs has induced more petroleum cars on the road along with a rise in the total number of cars registered in Hong Kong, worsening both road-side air pollution and traffic congestion.

The Chamber feels there is widespread confusion and disappointment within the community at the Government's apparent intention to reverse the trend of greener transportation and the growing adoption of commercial EVs in Hong Kong, after 20 years of effort in bringing world-class EV technology and infrastructure to this city. Hong Kong has the potential to be the leader in zero-emission transportation and related technologies not just in Asia but globally, unfortunately the abrupt adjustment of the FRT waiver has not only brought the once-thriving EV ecosystem to a complete halt, but also led to a retrogression of consumer behavior that was developed over years.

The introduction in February of a "One-for-One Replacement" incentive to encourage private vehicle owners switch to EVs has proven ineffective to increase the adoption of commercial EVs. According to the Transport Department's statistics, only 75 EVs were registered from March to May 2018 since the scheme was in place, however the number of petrol and diesel vehicles continued to outgrow EVs in Hong Kong. The replacement incentive has also failed to slow the growth of the total private vehicle fleet or to alleviate traffic congestion or roadside air pollution – which the Government said was a key motivation behind the change in the FRT policy.

To this end, Hong Kong must "pick up the pace" and be aggressive in promoting the use of EVs. AmCham recommends the following:

- Relax the ownership requirements of the "One-for-One Replacement Scheme" by shortening the three-year period to one year to attract more people to take part.
- Raise the FRT waiver cap to effectively achieve the Government's goals of slowing the growth in private vehicles and alleviating traffic congestion and roadside pollution.
- Set out a policy objective that EVs will account for a certain market share in the long run.
- Provide policy support to EV owners who wish to install residential charging equipment.

⁷ <https://www.enb.gov.hk/sites/default/files/susdev/html/en/council/Paper02-18e.pdf>

- Incentivize investment in charging infrastructure by providing EV-only charging spaces at government carparks and excluding EV charging spaces from private carpark operators' allowance.
- Implement other non-financial incentives to encourage EV adoption.

Renew regulations with an innovative mindset for the new economy

AmCham appreciates the Administration's visionary commitment in taking up the new roles of "promoter" and "facilitator" as set out in the 2017 Chief Executive's Policy Address. However, many still question Hong Kong's aspirations to embrace the new economy as the Administration has shown reluctance in changing the rules of the game to cater to innovative technologies and business models.

The controversy over Uber entering the Hong Kong market is one typical example that illustrates the lack of a mindset shift from settling vested economic interests toward embracing the fact that new business models are bringing in technological transfer and promoting entrepreneurship in Hong Kong. Government officials should also understand that the concept of "innovation and technology" in fact goes beyond the technology sector. In fact, it is built into the future of all sectors, including the government itself. Given the central importance to Hong Kong of its image and ambition as the "world's freest economy," it is essential that we be able to quickly and flexibly adapt to the market changes brought on by technological innovation; Hong Kong's antiquated taxi system and the regulatory structure that preserves it are inconsistent with Hong Kong's professed commitment to a free and open market and reflect poorly on our ability and determination to serve as an innovation hub.

Trade & Logistics

Countering illicit trade in partnership with the Greater Bay Area cities

While the fast-moving development of the GBA is improving logistics and smoothing supply chains, cross-border organized criminals are also taking advantage of the greater efficiency. Customs and Excise Department is proactive in seizing smuggled goods. AmCham respectfully urges law enforcement agencies to step up further to address the illicit flow of commodities at Shenzhen and Lok Ma Chau borders. With the Hong Kong-Zhuhai-Macau Bridge opening by the end of this year, border controls to prevent smuggling will be another challenge for law enforcement. Even though the Macau-Zhuhai border is not under Hong Kong's jurisdiction, these key cities in the GBA should work together closely to exchange intelligence, share best practices, run public awareness campaigns and deploy joint enforcement measures to deal with illicit trade of all forms.

In a paper published by the OECD⁸ in March, it was acknowledged that free trade zones facilitate trade with less stringent regulations and customs control, but that some of these zones have been misused for the trade of counterfeit and pirated goods, smuggling and money laundering. In particular, Singapore's FTZs have been identified as a regional and global transit hub for illicit tobacco. Given the risks presented by transnational criminal networks to transship illicit goods, AmCham urges the Administration liaise with its counterpart and host strategic discussions on addressing the FTZ-related criminal activities and money laundering.

AmCham supports the Administration's proposal to regulate e-cigarettes and other new tobacco products. By strengthening the control policy on tobacco alternatives, it could help eliminate illicit trade activities that have been growing due to increased demand. AmCham supports the Government's efforts to consult the public on the most effective policy to protect public health following international best practices that fit Hong Kong's social context. In the U.S., the Food and Drug Administration has adopted an approach

⁸ OECD, "Trade in Counterfeit Goods and Free Trade Zones – Evidence from Recent Trend" (2018)

to regulate innovative and non-combustible tobacco products and saw such a policy contributive to public health goals.

Medical & Biotech

To develop Hong Kong into a center of excellence for clinical trials in Asia

The pharmaceutical industry has a longstanding history of investing in research and development. In 2016, it spent about US\$159 billion on R&D and this figure is expected to increase to more than US\$200 billion by 2024.

According to research by the Hong Kong Association of the Pharmaceutical Industry, multinational R&D-focused pharmaceutical companies recognize that Hong Kong has the strongest data integrity and most skilled investigators among all Asian economies. However, Hong Kong has yet to take full advantage of these amazing resources and, in fact, there have been fewer clinical trials in Hong Kong recently due to a lack of institutional support. The situation in Hong Kong is in marked contrast to current developments in other Asian economies, particularly South Korea, Singapore, Taiwan and Mainland China.

AmCham recommends the Government develops a dedicated policy to enhance the clinical trial capacity of Hong Kong by:

- Developing a visionary milestone for clinical trials, such as 10 percent of patients taking part in clinical trials in 10 years (a participation rate that has been achieved in the UK).
- Including the patient recruitment rate and time to recruit the first patient in a range of performance indicators for public hospitals.
- Advocating the benefits of participation in clinical trials to the general public.

The Government should set up an independent department that can coordinate and facilitate clinical trials within public hospitals and combine the six existing ethics committees into one to standardize and simplify the approval criteria and process.

The Government should provide incentives for pharmaceutical companies to support clinical trials in Hong Kong, e.g. by facilitating early access to innovative medicines for Hospital Authority patients. In addition, there is an opportunity to link the entire GBA together by recognizing all hospitals to conduct clinical trials thus encouraging investment and attracting world class investigators whose expertise can be leveraged. The expanded system should allow outcomes of clinical trials conducted in Hong Kong to be recognized for regulatory registration in Mainland China.

Utilize big data to support an innovative healthcare service model

Many multinational healthcare service providers are keen to collaborate with local stakeholders on analytics projects to develop their products, improve their specialist services and treatments, and create operational synergies that can benefit everyone in society. For pharmaceutical companies, advances in personalized medicine and information technologies have opened the possibility of building a technology-driven model of care as the industry can now use predictive modelling to qualify a particular healthcare solution, including patient screening, disease detection, diagnosis, treatment and performance-based risk sharing programs based on patient genetics, diseases or lifestyle.

Health information technology infrastructure that enables the collection and analysis of diverse sets of real-world patient data is key to the development of a healthcare service model. In Hong Kong, 90 percent of in-patients are treated at Hospital Authority facilities. Established in 1990, the authority is well-

positioned to create a world-class IT infrastructure for public health with its enormous patient record database. The healthcare industry will then be able to develop more comprehensive healthcare solutions for local patients in a fast and efficient way with easier access to the data.

AmCham recommends that the Government opens up the HA data using a structured system with appropriate privacy and approval procedures to enhance data-driven R&D, policy making and pay for performance risk sharing programs. In addition, the HA should continue to improve the quality of the database and work with stakeholders to ensure the data collection system can work for future R&D areas of focus such as genomic analyses.

Intellectual Property

Hong Kong, with its world class intellectual property rights protection and enforcement regime, has an important role to play in the countries that constitute China's Belt and Road investment and trade promotion initiative. The IPR standards across this vast landscape of countries vary significantly. AmCham recommends the Government set up a Belt and Road IPR center of excellence to provide a "one-stop-shop" with the following three-fold mandate:

- **Capacity building.** To strategically build upon IPR protection and enforcement regimes across the region based upon jurisdictional capability.
- **Promote IPR best practice.** To educate and train the relevant authorities in these jurisdictions on IPR best practices and to assist with establishing the necessary legal framework.
- **Facilitate IP trading and transfer of know-how.** To leverage Hong Kong's technology and financial services capabilities to facilitate IP trading and the transfer of know-how within the Belt and Road region.

AmCham's specific recommendations include the following:

Patent reform

The basic legal framework for Hong Kong's "original grant" patent system was introduced in 2016. However, it remains uncertain when the new system will take effect, as the relevant rules and guidelines under which it will operate are still being developed. AmCham urges the Government to prioritize all work required for the new patent system to launch as soon as possible.

To encourage adoption of the new patent system, the Government should introduce measures that offer a distinct advantage for filing patents in Hong Kong, such as providing a grace period to give domestic innovators greater flexibility as they may be unaware of the strict legal consequence of prior disclosure.

Copyright protection

Hong Kong's copyright legislation continues to lag behind other jurisdictions in respect of its ability to address challenges and realize opportunities arising from the digital environment. Online piracy and unauthorized digital distribution continue to be a serious and immediate threat to all copyright-based industries (originating both locally and abroad). AmCham urges the Government to continue working with creative and innovative industries in Hong Kong to develop opportunities and suitable legislative amendments (in line with international developments) for improving the online media environment.

The amended Copyright Tribunal Rules provide a welcome modernization to existing practices and procedures. However, further work is required to ensure efficiency and cost-effectiveness of proceedings before the Tribunal for it to play an effective role in resolving copyright use and licensing disputes.

Use of trademarks

AmCham recommends the Government to reconsider proposals requiring graphic health warnings on some consumer product packaging so as to conform with international trademark standards and preserve the rights of trademark owners.

Data privacy and protection

The requirements under Hong Kong's personal data privacy legislation are far less onerous than those currently in Europe and China. AmCham urges the Government to review whether our current laws are sufficiently robust to ensure data security and privacy of Hong Kong residents, including a review of the adequacy of current enforcement measures.

Education & Future of Work

Closing the gender gap in STEM education

AmCham encourages the Government to continue to invest in its younger generations of women and men, to ensure they are fully prepared to enter the workforce. Given Hong Kong's burgeoning role in the GBA as an innovation hub and technology center, men and women with skills and training in science, technology, engineering and math (STEM) will be in ever higher demand. In Hong Kong, substantially fewer girls and women undertake STEM education beyond secondary school (approximately 35 percent), and few choose careers in STEM, even as they continue to outperform their male counterparts and go on to university education at higher rates than boys. Given Hong Kong's growing need for talent within the fields of hard science and technology, AmCham recommends that the Government focus on identifying and minimizing barriers to STEM careers for women, who are chronically underrepresented in the field.

Studies also show that women often do not reach the same leadership positions as men because they do not actively seek promotions or effectively negotiate salary increases. In addition, women and men often display contrasting communication styles, which can have repercussions in the workplace. Thus, the Government could seek to address these barriers by training girls and boys on negotiation, communication and other career-building skills, which are required to succeed professionally. The Government could add optional courses in secondary school, or partner with corporations and schools to deliver specialized, extracurricular training programs. We encourage the Government to work with companies to identify barriers to career progress that can be overcome through teaching girls and boys the skills required for success in the workplace.

- **Increase specificity, segmentation, and intersectionality when researching, formulating, and implementing STEM policy.** Despite the pervasiveness of the gender imbalance, the “2016 Report on the Promotion of STEM Education” makes no mention of gender, girls, or women.⁹ While grants like the \$100,000 allocated to each public school are beneficial, blanket measures like this do not maximize benefits when different actors have different needs, a principle germane not just to gender, but to other categories like socio-economic class and learning ability as well. Improving policy segmentation allows schools and the Government to better allocate resources.
- **Collaborate with NGOs and businesses to promote STEM education for young women.** NGOs like HKYSTIC, which runs Hong Kong's most popular science competition, have professed a lack of funding, suggesting that government support *outside* the classroom needs

⁹ Hong Kong Education Bureau, “Report on Promotion of STEM Education, Unleashing Potential in Innovation.” December 2016. http://www.edb.gov.hk/attachment/en/curriculum-development/renewal/STEM%20Education%20Report_Executive%20Summary_Eng.pdf

more work.¹⁰ Such organizations provide an avenue of interest that schools cannot always provide with their limited schedules and resources. Organizations like First Code Academy and Women Who Code run events tailored specifically for women, and many are backed by the private sector. Funding NGOs and businesses allows them to extend their coverage, and helps to connect young women with inspiring professionals, increasing their interest in pursuing STEM at the tertiary level and beyond.

- **Expand, support, and publicize STEM scholarships for women in tertiary education.** While the Government has several scholarships for general undergraduate study, none specifically target STEM or women. Having a specialized scholarship for talented women in science and technology and publicizing it effectively will stimulate interest. Moreover, it makes STEM relatively more affordable for women, counteracting concerns regarding the perceived profitability (especially from parents) of STEM careers and education. Government support can also greatly expand existing initiatives (e.g. HKUST's WISE Scholarships) to cover more talented female students in the field.
- Another suggestion is to “make” Hong Kong the incubator of talent for the GBA and the Asia Pacific region. As a truly international city with well-developed infrastructure and eight world class research driven universities, Hong Kong has global-ready talent as in the field of fintech, and should continue to be a net importer of “raw” talent of all nationalities and genders. Once this talent pool is developed in Hong Kong, some of them can leave to pursue their dreams in other parts of the world.

Fostering creativity and critical thinking

Hong Kong education has long been criticized for promoting rote memorization. The Government has recognized this and has taken key steps to advance the issue, such as through curriculum renewal. However, barriers still exist, as an Economist Intelligence Unit study demonstrated when it ranked Hong Kong 14th in education.¹¹ For example, implicit in the promise to renew STEM curricula is a rigid distinction between STEM and other disciplines. If Hong Kong wants to realize its smart city goals, it will do so only on the backs of a labor force unbridled by stringent boundaries. AmCham makes some recommendations to this end:

- **Renew *all* curricula to incorporate STEM as a way of thinking.** STEM is not just an esoteric assortment of subjects consisting of biology, mathematics, computer science, etc. It has the power to transform all disciplines. Lawyers have started using AI to sift through relevant documents for cases. Designers and architects make technology green, welcoming, and aesthetically pleasing for consumers. STEM methods are essential to prepare students for *all* careers in the coming decades. Schools should thus introduce technological approaches in the arts and social sciences early on to foster a truly interdisciplinary way of thinking and to expose them to new possibilities within their fields of interest. Incorporating STEM into other disciplines will allow Hong Kong to move further ahead in its traditional comparative advantages in finance and law *alongside* the proliferation of tech industries.

¹⁰ Heaver, Stuart. “Why Hong Kong children have fallen behind in science race, and the volunteers pushing them to catch up.” *The South China Morning Post*. 23 March, 2017.
<http://www.scmp.com/tech/innovation/article/2081117/why-hong-kong-children-have-fallen-behind-science-race-and>

¹¹ Hollingsworth, Julia. “Hong Kong not equipping students for the future as well as Singapore or South Korea, study says.”

Inclusivity & Diversity

AmCham acknowledges Chief Executive Mrs. Carrie Lam's historic achievement in becoming the City's first female Chief Executive. This is a great accomplishment, which has undoubtedly inspired the girls and women of Hong Kong who aspire to be leaders in their own careers. AmCham also applauds the Government's focus on improving the lives of workers by committing to expand community child care and increase paternity leave from three to five days.

Female leadership & empowerment

AmCham encourages the Government to significantly expand the scope of its efforts by focusing on barriers to success faced by professional women. Globally, university-educated women are 22 percent less likely to become managers than men, and 47 percent less likely to become senior managers or directors. In Hong Kong, just 29 percent of management positions are held by women, the second-lowest in Asia. While the percentage of female board members in Hong Kong has increased marginally in recent years, it is just 13.3 percent among Hang Seng-listed companies, despite ample evidence that companies with diverse boards perform better and yield higher returns for their investors. Additionally, establishing strong corporate governance to ensure that directors have appropriate independence may help further the positive impact of women's contributions to strong economic growth and sustainability.

Studies show when governments and corporations take action, dramatic progress is possible. For example, corporations that focus on adopting a culture of diversity, empowerment and accountability saw a 35 percent increase in women and 23 percent increase in men progressing beyond manager-level roles. In other words, both men and women succeed when gender diversity is prioritized. AmCham encourages the Government to prioritize female representation in the corporate and government sectors, and gently urges the Chief Executive to begin with her own cabinet, which lacks both gender and age diversity.

Gender pay parity

AmCham strongly urges the Government to prioritize efforts to close the gender pay gap in Hong Kong (currently at 22 percent), learning from other jurisdictions that have launched similar efforts in recent years. While women in their twenties earn slightly more than men, this trend reverses throughout their careers. By the time they reach their sixties, women in Hong Kong earn on average half of what men earn. This gap has gotten wider in recent years and Hong Kong sits behind Singapore, the U.S., Britain and Australia. Hong Kong should follow in the footsteps of the UK and require companies to publish their gender pay and diversity data on an annual basis. This would enable employees, employers and the Government to address pay inequity more effectively, using targeted policies to reverse the current pay gap trend.

Maternity & paternity leave

As part of these efforts, AmCham strongly suggests that the Government extend its statutory maternity leave policy of 10 weeks. This policy falls below the minimum recommended by the International Labour Organization and the EU (which both recommend 14 weeks) and the OECD average (37 weeks). It also falls well below those of Hong Kong's regional neighbors, such as Singapore (16 weeks), Japan (14 weeks) and China (90 days). Career stagnation among women primarily occurs in the early years of motherhood, strongly impacting the manager-to-boardroom pipeline. Extending maternity leave can reduce career stagnation and workforce dropout rates among women, ensuring the pool of talent remains diverse and competitive at the highest corporate levels. Hence, the global trend for the past several decades has been to extend maternity leave, rather than limit it. AmCham encourages the Government to do the same.

Given these significant benefits, AmCham welcomes the Government's proposal to increase statutory paternity leave from three days to five days. While paternity leave is still comparatively new, Hong Kong still lags its neighbors. For example, Japan and South Korea both offer paternity leave policies up to 12 months. When fathers take paternity leave, they are more likely to bond with their children and remain closely involved in their children's lives as they grow older. Fathers also report better physical and mental health when they take paternity leave. Women also benefit, as companies that offer paternity leave are less inclined to discriminate against hiring or promoting women of childbearing age. Finally, children benefit when both parents have adequate parental leaves, as studies show they are healthier, happier, and display increased cognitive abilities.

APPENDIX II: A COMMUNITY APPROACH TOWARD SMART CITY DEVELOPMENT

Hong Kong has allocated considerable effort toward becoming a digitally connected and sustainable city since laying out its Smart City Blueprint in December 2017. Government initiatives, from the installation of multifunctional lamp posts in Science Park, the expansion of Wi-Fi hotspots, the planned proliferation of e-sports, progress on an electronic identity card by 2020, plus virtual bank licenses, all signal the first steps in a potential commitment to transform Hong Kong into a digitally advanced metropolis.

But there are many more opportunities to be considered. One study predicts that each individual could save as many as 15 days a year from smart city initiatives, which could boost time allotted to family and leisure, and enhance productivity.¹² In other words, if Hong Kong does not take advantage of the increasingly abundant opportunities to digitalize, even if it is making some progress now, the fissure between this city and those that more aggressively pursue smart city initiatives – Singapore, Amsterdam, Shenzhen, London, Shanghai, New York, and many others – will widen. On the other hand, if Hong Kong reinvigorates its penchant for boldness and innovation, it will remain a premier global center.

Fundamental to Hong Kong remaining competitive as a place to live, work and do business is the inclusion of a long-term, sustainability-oriented approach to becoming a smart city. Smart tools are just that – tools that serve a larger vision of growth and development which balances environmental, social and economic goals. There is no merit in digitalization for its own sake. Smart city development can and should have a role to play in reducing wealth disparity in Hong Kong, by harnessing innovation and technology to build a strong economy and enhance quality of living for all.

In February 2017, AmCham released a paper to the Office of the Government Chief Information Officer (OGCIO) with recommendations as well as case studies that suggested an approach toward achieving a smart city. In light of the city’s trajectory since then, including the release of the blueprint, AmCham provides the following suggestions, summarized from its Smart City Summit held on June 27, 2018, drawing attention to global smart city trends.

The Big Picture

A recent AmCham survey on business sentiment demonstrates that **firms currently express some concern about Hong Kong’s progress toward digitalization**. The key to building confidence lies in both a bolder approach, ensuring that the Government conveys smart city successes to the public effectively, and most of all ensuring that a smart city revolves not around technology, but people. This people-centered approach means that the social, environmental and financial development of Hong Kong must be appropriately balanced. AmCham recommends the following:

- **Update the blueprint to include more SMART (specific, measurable, achievable, relevant & timely) goals.** Plans change and new technologies emerge, so the blueprint must be flexible and adaptable. Importantly, it must avoid vagueness. While some elements of the plan have deadlines and figures to indicate success (e.g. the goal of 1,200 traffic detectors by 2020), others, like promoting “retro-commissioning and building-based smart/IT technologies” remain nebulous. The Government should implement key performance indicators, or KPIs, to set targets that enable measurement of progress, which could include GDP, life expectancy, unemployment, etc. KPIs

¹² Juniper Research, “Smart Cities - What’s in it for citizens?” <https://newsroom.intel.com/wp-content/uploads/sites/11/2018/03/smart-cities-whats-in-it-for-citizens.pdf>

would allow the Government to convey a metric for holding themselves accountable (thus enhancing confidence) and also ensure that technology will tangibly benefit the people of Hong Kong.

- **Update the smart city website (smartcity.gov.hk) and use it as a centralized platform to share smart city initiatives.** Currently, news about smart city trickles from the sites of the Chief Information Officer, Legislative Council, and disparate webpages belonging to different departments. Given that a smart city requires cooperation from many government actors, there needs to be a central channel for people to keep abreast of developments. If businesses or consumers are unaware of the Government's smart city initiatives, confidence in the city's technological progress will remain subdued. From the URL alone, "smartcity.gov.hk" should be a website that contains all relevant information about Hong Kong's smart city drive, but it currently houses only the blueprint. Like the smart city it promulgates, the website must constantly and dynamically evolve to convey the successes of government projects. Amsterdam's smart city webpage provides a good model.¹³ Immediately upon entering the site, the user feels that they have a place in the smart city project. There are links to social channels (e.g. Facebook, YouTube), a comments section, and updated news. Content-wise, they have pages for events, projects, a map with locations of all their different initiatives, and more. Having a lively webpage with pertinent information is not just a marketing exercise, but a way to show commitment to long-term goals and to show communities that they have exciting roles to play in forging a people-centric smart city.¹⁴
- **Be bold.** The Government should not err too far on the side of caution. In the time it takes to determine if a certain technology works, that technology will likely be outclassed by something better given the rapidity of modern innovation. Like how trailing cyclists burst into the lead using the slipstream of those in front, Hong Kong should learn from the numerous precedents and natural experiments around the globe to get ahead rather than funding completely new studies. Prudence will always be a virtue, but sometimes speed, combined with the willingness to make mistakes and to modify in the field is the better course of action. For example, instead of testing a few multifunctional lampposts in Science Park, rolling out a large number across busier areas in Hong Kong (such as the center of Mongkok) will allow testing in a more realistic environment while simultaneously benefitting from the technology in the meantime.

Smart Government

Cybersecurity

While consumers and businesses are generally eager to partake in trends such as e-commerce, blockchain, and contactless payments, shortfalls in cybersecurity prevent Hong Kong from advancing faster into the digital age. Sub-optimal cybersecurity not only renders smart cities vulnerable to attack (e.g. the 2017 hacks against stockbrokers costing HK\$110 million), but reduces trust in new technologies, dissuading people from using them for fear of data breaches. Currently, Hong Kong businesses spend only 7-9 percent of their IT budget on cybersecurity.¹⁵ AmCham thus recommends the following:

- **Build a center for cybersecurity innovation, with channels connecting multiple actors from businesses to academia.** Hong Kong's many institutions, like the Hong Kong Monetary Authority and the police force, are ramping up their cybersecurity. A dedicated center will pool

¹³ <https://amsterdamsmartcity.com/>

¹⁴ <http://smartcities.gov.in/content/>

¹⁵ "Smart Digital City" White Paper by Google and Nielsen Hong Kong.

https://services.google.com/fh/files/misc/2017_google_nielsen_smarter_digital_city_whitepaper.pdf

technologies and knowledge from the public and private sectors to enhance Hong Kong's cybersecurity framework across the board and make it easier for businesses to innovate. The UK's National Cyber Security Center opened in 2016 to provide companies with cybersecurity advice. There are plans to launch another center in 2018, forecast to create 2,000 jobs in cybersecurity. Creating one such center in Hong Kong will be a solid step in strengthening the city's digital prowess.

- **Set guidelines consistent with global best practices and encourage businesses to follow.** Hong Kong's "2016 Guide to Enhanced Competency Framework on Cybersecurity" crucially lays out standards for cybersecurity talent, but the guide could be expanded into other areas. The United States' National Institute of Standards and Technology brings together cybersecurity leaders to publish and update a "Framework for Improving Critical Infrastructure Cybersecurity," with guidelines on identifying and dealing with different kinds of threats, as well as on how to self-evaluate a company's cyber infrastructure.¹⁶ Hong Kong should provide similar benchmarks for its companies to give them better direction, inclusive of elements consistent with global examples. Updating those frameworks is essential, again for signaling a commitment to lead the way, but also to keep up with emerging threats.
- **Integrate good internet practices into school learning.** Cybersecurity need not be so esoteric. A study by Symantec suggests that many consumers fall victim to cybercrime for basic missteps: bad passwords, accessing personal information on public networks, opening unsolicited messages, etc.¹⁷ Given that an estimated two million Hong Kongers were affected by cybercrime in 2017, encouraging people from as early as lower secondary school to use technologies like multifactor authentication to protect passwords (not a time intensive activity) will significantly reduce susceptibility.¹⁸

Big Data

Big data enables businesses and consumers to make more informed and efficient decisions, and the Government has an enormous role to play being a prime collector of information. The Smart City Blueprint lays out open data as an initiative, but with a third of government departments not uploading their data for public access, this can and should proceed at a much faster rate.¹⁹

- **Proactively encourage more government departments to open up their data.** The OGCIO should continue to encourage more government bureaus to contribute to the Government's centralized data portal, data.gov.hk. Those already contributing should provide as detailed and as updated data sets as possible. This improves efficiency, enables opportunities for further research by businesses and academics, and symbolizes a strong commitment by the Government to uphold its smart city promises.
- **Collaborate with the private sector to increase access to data.** The Philippines has cooperated with ride sharing companies like Grab to gain access to their GPS data for better traffic

¹⁶ National Institute of Standards and Technology. "Framework for Improving Critical Infrastructure Cybersecurity." Version 1.1. 16 April, 2018. <https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.04162018.pdf>

¹⁷ Symantec. "2017 Norton Cyber Security Insights Report." <https://www.symantec.com/content/dam/symantec/docs/about/2017-ncsir-global-results-en.pdf>

¹⁸ Su, Xinqi. "At least 2 million internet users in Hong Kong were hit by cybercrime in a 12-month period, survey says." <http://www.scmp.com/news/hong-kong/community/article/2139170/least-2-million-internet-users-hong-kong-were-hit>

¹⁹ Audit Commission, "OGCIO's Programmes and Projects in Promoting the Wider Use of IT in the Community." https://www.aud.gov.hk/pdf_e/e70ch06sum.pdf

management. Hong Kong should engage with its taxi (and other transport) companies to do the same, or work with utility companies to obtain data that could improve environmental management. Currently, only up to eight private companies have uploaded their data to *data.gov.hk*. Industry collaboration here is essential, as businesses provide key information that synergizes with public sector data (e.g. information collected by the Government's multifunctional lamp posts) for a more comprehensive picture.

- **Update and clarify data regulations.** The availability of massive swathes of data demands sensitivity to privacy. One step toward striking this balance is to update data protection regulations. For example, the Interception of Communications and Surveillance Ordinance lacks guidelines on government requests for metadata. Implementing guidelines for newer forms of data reduces uncertainty as businesses have a definable path to tread within the field. Moreover, when the Government clarifies what it can and cannot do with data, businesses will be more willing to share theirs. Another example is setting boundaries on the collection of user data from e-government applications such as the planned electronic ID or the use of facial recognition, which will further enhance trust in and hence the use of those services.

A Sharing Economy

The essence of the sharing economy is to maximize the benefits of underutilized resources and assets – empty cars, empty living quarters, empty bicycle seats. Neglecting the sharing economy, therefore, is an opportunity wasted. While the Government has signaled some possibility for openness on the issue, legislation remains far behind that found in many countries around the world.

To fully utilize the city's resources, AmCham recommends the Government open up legislation for peer-to-peer ridesharing services. As a city that values competition, Hong Kong should cultivate a favorable environment for ridesharing companies. For example, the Government could expand and streamline the application process for car hire permits, and create a distinct legal category for the regulation of those services. The Canadian Province of Quebec gave Uber a one-year operating license under a pilot project in 2016. If Hong Kong is nervous about the safety risks, it should pursue a similar program to test the waters. Being more flexible on ridesharing does not preclude regulations like training or criminal background checks to protect consumers, and is better than a legal void. Importantly, ridesharing incentivizes taxi companies to do better. That Hong Kong's taxis are frequently lampooned by the media and complained about by users demonstrates the need for improvement, and competition will do exactly that.

Looking Ahead

At the heart of a smart city are people. To succeed, the Government must include Hong Kongers in all stages of the development process, and AmCham endeavors to provide multiple suggestions toward that end, from protecting consumer data to unleashing the potential of women in STEM, to making technology aesthetically appealing. AmCham encourages the Government to be flexible and take risks, because a rapidly changing world has no place for an entrenched mindset beholden to the status quo. For this reason, the very blueprint itself must continue to change, incorporating key performance indicators and having room for emerging technologies. Risk-taking entails a willingness to move faster, to take challenges and opportunities head on instead of spending years skirting around them. While we preach a futuristic mindset, in some ways this *is* a call to return to Hong Kong's past, in which the city's unwavering audacity has weathered the storms of global pandemic, financial crisis, and political transition. If Hong Kong can recuperate its hunger for change, then the world will again look to us for guidance.