

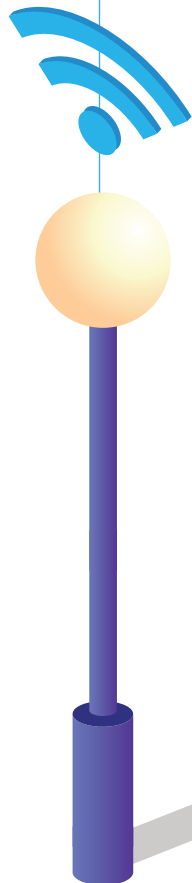
Hong Kong: A Smart Cities Leader Aims to Clear the Air

Hong Kong is a special administrative region in southern China, and one of the most densely populated cities in the world--around 7.5 million people live within a territory of 1,104 square kilometers. It is a major financial center and commercial port, with one of the highest per capita incomes in the world, including both the world's largest concentration of ultra high-net-worth individuals as well as severe income inequality.

Hong Kong ranks 11th out of 174 cities in the 2019 [Cities in Motion Index \(CIMI\)](#)--scoring as high as 2 in categories such as Technology, and as low as 140 in Social Cohesion--evidenced plainly by the months-long pro-democracy protests of 2019.

Hong Kong is a leading smart city, as indicated by its high CIMI ranking. In 2017, they announced their Smart City Blueprint, which addresses such areas as mobility, living, environment, people, government, and economy. Possibly its best known initiative is the "[multi-functional smart lampposts pilot scheme](#)." Each lamppost includes a 5G base station, a weather station, thermal traffic detector, free Wi-Fi, and surveillance cameras. This latter feature has made the lampposts targets for protesters, however, who believe the government is using them to spy on their activities.

Hong Kong's citizens and businesses are much more familiar with their city's smart city initiatives than the global average: 72 and 71 percent, respectively. The citizens' top priorities are greater efficiency and reliability of public services (36 percent) and improved environmental sustainability (28 percent). Business executives share an investment in greater efficiency and reliability of services--at 55 percent, more than any other city surveyed. Business executives are also invested in improving internet connectivity--43 percent--despite the fact that Hong Kong already enjoys this vital service at a comparatively high level.



Citizen priorities: Go green.

34%

34 percent of citizens believe that to improve environmental sustainability, smart city initiatives should prioritize expanding the availability of renewable energy sources, such as wind and solar power. There's plenty of room for improvement here, given that renewable energy currently accounts for only about 1 percent of the city's electricity.

32%

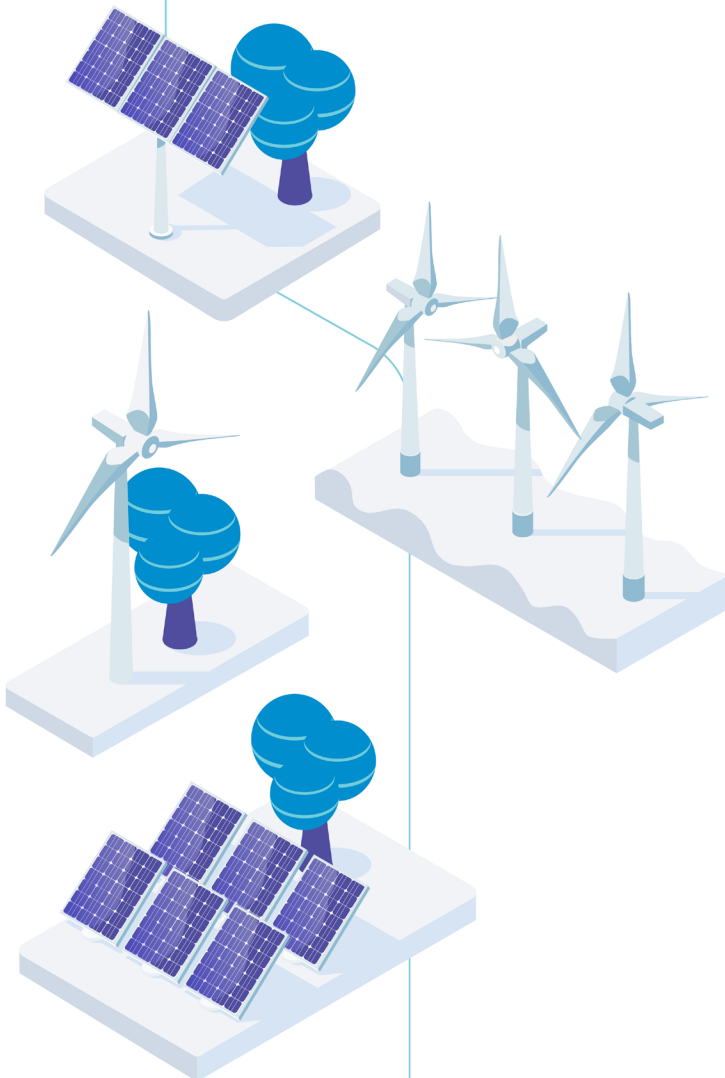
32 percent of citizens believe that projects should improve the efficiency of waste recovery through activities such as recycling. Reducing road congestion through more efficient traffic management is also a priority--cited by 30 percent.

26%

The use of fossil fuels for the city's electricity and vehicles has led to serious concerns about Hong Kong's air quality (this issue is exacerbated by pollution being blown in from mainland China as well). As a result, it's no surprise that improving air and water quality was cited as a top priority for improving the health and safety of citizens. Just over a quarter (26 percent) believe that smart city initiatives should prioritize improving the crime fighting capabilities of police.

1 in 3

Hong Kong has been labeled the most unaffordable city in the world, largely due to real estate costs. This is likely why, regarding smart city initiatives, 1 in 3 prioritize improving the residential planning capabilities of city authorities through better data collection and analysis.



35%

However, an even higher number, 35 percent, identified improving the ability of energy and water utilities to vary pricing according to usage as the top priority.

30%

In terms of improving job opportunities, Hong Kong's citizens focus mainly on improving education: Specifically, citizens cited expanding training in advanced technologies in vocational institutions and in higher education, 30 percent and 27 percent, respectively.

68%

Overall, Hong Kong's citizens believe the pros of smart city initiatives outweigh the cons. 68 percent agree that using facial recognition will do more good than harm, while 67 percent agree that the benefits of these smart city initiatives outweigh the loss of personal privacy--compared with a global average of 54 percent. Just over half, however, believe that these projects could actually exacerbate social inequality in Hong Kong--already a serious problem, as mentioned above.



Business priorities: Making connections

45%

When it comes to spurring innovation in Hong Kong, business executives believe bringing creative minds together should be a top priority--45 percent want smart city initiatives to increase the use of conferences or hack-a-thons to develop technology-enabled solutions to urban challenges (by far the most of all cities surveyed).

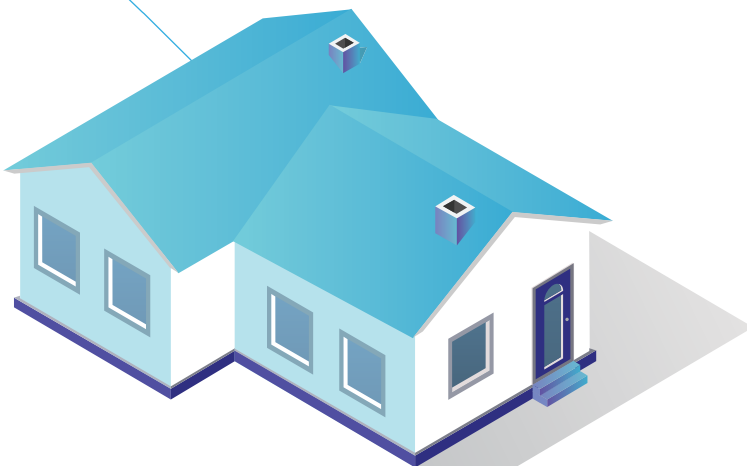


37%

Along the same lines, 37 percent want smart city development to facilitate greater research and development collaboration between universities and businesses. The same number believe that smart projects that help deploy ultra-high-speed broadband networks (such as fibre and 5G mobile) will spur innovation.

53%

Despite the extremely high cost of living in Hong Kong, business executives did not rank more affordable housing as a top priority for improving the affordability of their city. The top priority for smart city initiatives is improving the ability of transport providers to vary fares according to demand or time of day--53 percent, which is the highest of all cities surveyed.



45%

45 percent of business executives also believe that dynamic pricing for energy and water utilities, according to usage or time of day, is top priority.

29%

In order to improve access to talent for their organizations, 29 percent of executives believe that better environmental quality--such as reducing air pollution--should be a priority, while one in three rank expanded training in advanced technologies in higher education.

43%

The main types of market opportunities that business executives hope smart city initiatives will produce are invitations to tender for public contracts to deliver smart-city solutions or services 43 percent, as well as the ability to make use of open-government data to develop new products or services, 37 percent.

88%

The availability of open-government data is one area where the city and business executives are clearly aligned. 88 percent of executives believe that the ability to access Hong Kong's open-government data is vital to their organization.

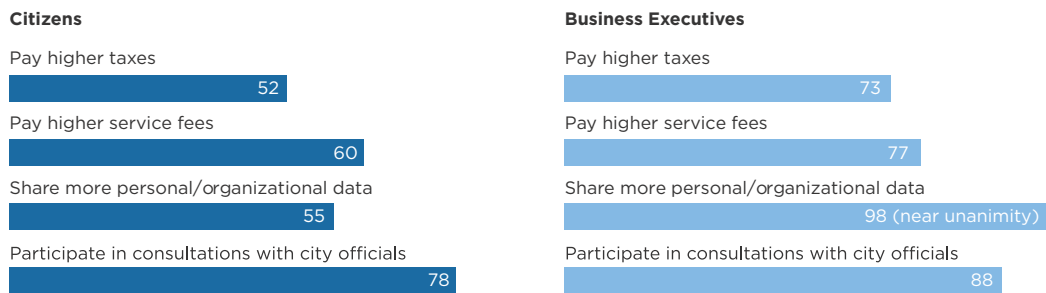
The good news is that Hong Kong has deployed several [web-based dashboards](#) that display real-time dynamic data from the city, covering the environment and weather, transport and traffic, public facilities and services, and a city overview on interactive charts and maps. The city has also released around 4,000 data sets to spur additional smart city development.



Trade offs: Citizens and Business Executives willing to give in order to receive

Both citizens and business executives know that everything has a price, including smart city initiatives, and they are, in general, considerably more willing to give in order to get than respondents from other cities.

In exchange for benefits of smart city initiatives, are you or your organization willing to . . .
(% of respondents)



These numbers are in keeping with the fact that 3 out of 4 citizens believe smart city initiatives make their city a more appealing place to live, while 94 percent of business executives believe these projects make Hong Kong a more appealing place to do business. 80 percent of executives agree that Hong Kong has taken a proactive role in including the business community in developing these initiatives (compared to a global average of only 65 percent) which may partly account for why there appears to be such high executive buy-in.

Key Takeaway: Hong Kong has already succeeded in one crucial aspect of its smart city objectives--they've communicated the value of their initiatives clearly, and secured engagement from the business community to be proactive partners. Given how many data sets have already been made available, the fruits of these projects will be appearing for years to come.