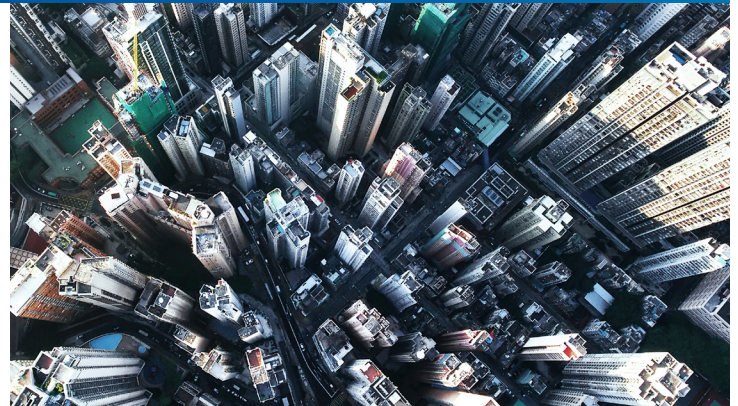


Johnson Controls conducted its second annual smart city indicator survey to track key drivers, organizational barriers, technology trends, and the status of smart city solution implementations around the world. The survey queried over 330 city leaders in 20 countries, including over 50 from China, India, Japan, and South Korea. Survey findings show that cities are increasingly looking to implement applications that will improve sustainability and the environment while creating jobs, improving public safety and reducing costs.



MOST CITIES ARE EARLY IN THE PROCESS OF IMPLEMENTING THEIR SMART CITY STRATEGY

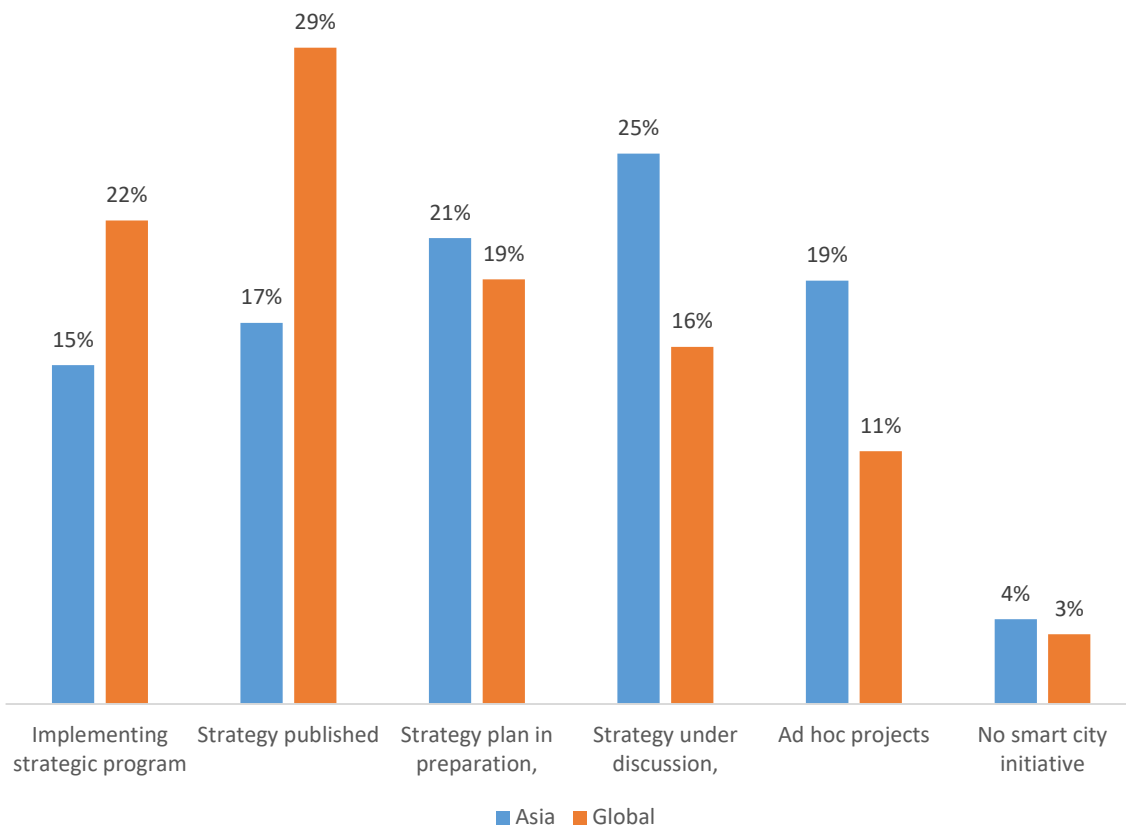
Asia

46% of respondents indicated their strategy is either under discussion or in the preparation phase.

17% have published their smart city strategy and **15%** are implementing their strategic program.

Global

Globally, cities are further along with **29%** having published their smart city strategy and **22%** in the implementation phase.



TOP BARRIERS TO INVESTMENT

- 19%** lack of private sector engagement
- 15%** lack of standards
- 13%** availability of funding

The biggest barrier globally is lack of proven business cases.

UNAVAILABILITY OF APPROPRIATE FINANCING OPTIONS

42% of respondents identify unavailability of appropriate financing options as the top financial barrier.

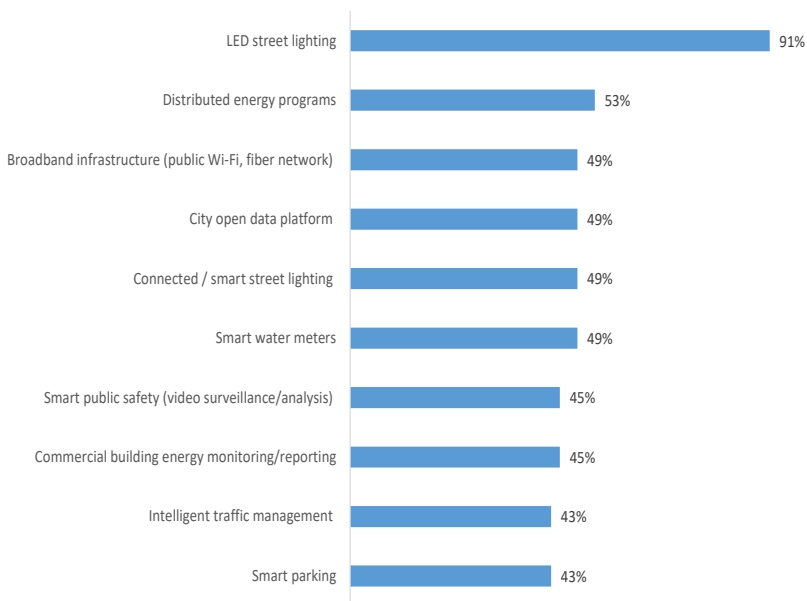
METHODS FOR FINANCING SMART CITY PROJECTS

- 45%** State and federal government funding of cities
- 36%** Public-private partnerships
- 34%** City funding
- 17%** Utility funded
- 6%** Private sector funded
- 6%** User funded

TECHNOLOGY TRENDS EXPECTED TO HAVE IMPACT OVER THE NEXT FIVE YEARS

1. The Internet of Things (IoT)
2. Data analytics
3. AI / Machine learning
4. Cybersecurity
5. Systems Interoperability Standards

Smart City Application Implementation



Percentage of cities in the implementation phase by smart city application

2018 Survey Demographics

To qualify, respondents must review or approve smart city initiatives in their municipality. The survey was administered anonymously by a third party research partner. For the 2018 survey, there was a representative mix of global respondents from medium to large cities.

