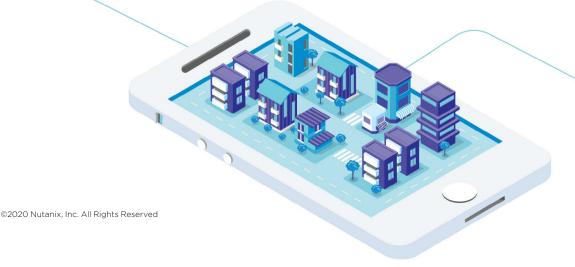


Amsterdam, the capital of The Netherlands, is a world-renowned financial and cultural center. It has also established itself as a perennial smart city leader. It ranked 3rd out of 174 cities in the 2019 IESE Cities in Motion Index, and 3rd in the EasyPark Smart Cities index. For the latter, Amsterdam scored highly across several dimensions, including services for smart parking and car-sharing, the blockchain ecosystem, citizen participation, digitalization of government, and urban planning.

Amsterdam has a wide array of smart city projects underway, many of which are captured in The Amsterdam Smart City portal. This online platform enables citizens, local government, and businesses to collaborate on smart projects focused on fostering sustainable growth. The portal divides the projects into themes-- Digital City, Energy, Mobility, Circular City, Governance & Education, Citizens & Living, and Smart City Academy. To achieve their smart city goals, leaders decreed their desire for the "city [to be] an open platform." These initiatives rely on open-source, shareable data that partners can contribute to and draw on to fuel innovation.

Despite these achievements, Amsterdam's citizens and business executives are somewhat less enthusiastic about the benefits of smart city initiatives. In a survey exploring smart city expectations of 19 cities around the globe, conducted by The Economist Intelligence Unit and sponsored by Nutanix, only 62% of citizens agree that smart city initiatives make their city a more appealing place to live (compared to 71% globally), while 75% of business executives agree that these initiatives make Amsterdam a more appealing place to do business, as compared to 81% globally.



Even so, Amsterdam's citizens and business executives are considerably more willing than their regional counterparts to pay for these projects, in terms of money, data, and time--this may be a more accurate measure of their feelings about the value of smart city initiatives.

It may be that the relatively mature state of Amsterdam's smart city investments has made its citizens and business executives more realistic about the effects of these projects. For example, the "Climate Street" project saw the city working with local businesses and corporations to test sustainable solutions on a major shopping avenue. The initiatives included energy-efficient lighting, waste reduction, and recyclable tram stops. The project helped cut energy use by 10%. These results are positive, and they could have material benefits over the long term if implemented on a larger scale. The numbers, however, may appear modest in light of the hyped rhetoric that often accompanies discourse about the transformative potential of digital technologies.

Projects such as Climate Street are focused on the outcomes that Amsterdam's citizens care about. 1 in 3 citizens hope for greater environmental sustainability, while 34% hope that urban intelligence can make the city more affordable. Business executives are also seeking greater environmental sustainability (31%), as well as greater efficiency and reliability of services, such as transport and utilities (38%), and higher workforce quality (31%).

## Citizen Priorities: Make Amsterdam More Affordable and More Green

Specifically, citizens believe that smart city projects can help improve environmental sustainability by prioritizing more efficient waste recovery, such as recycling (34%). 32% named expanding the availability of renewable energy sources, such as wind and solar power.

Citizens also consider improving air and water quality a top priority for improving personal health and safety (30%), 1 in 4 named safeguarding against terrorism--the third highest globally.



Another citizen priority is making Amsterdam more affordable. To do this, 36% of citizens believe that smart city projects should prioritize helping increase low-cost transportation options, while 35% named improving the energy efficiency of buildings.

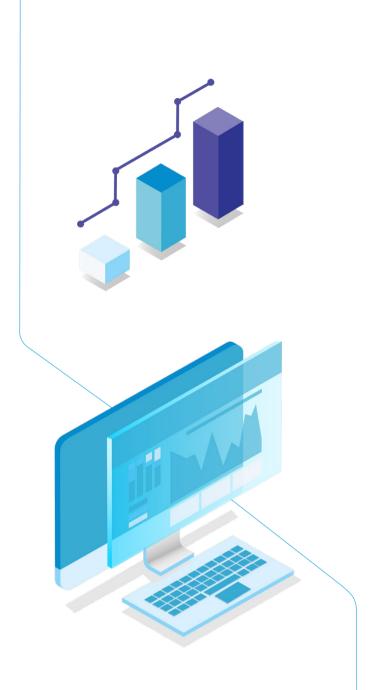
30% of citizens believe that to improve job opportunities in Amsterdam, smart city projects should prioritize attracting large technology companies to establish operations in the city. 26% point to expanding digital-skills training in primary and secondary schools.

**Business Priorities: Improving Services, the** Workforce, and the Environment



The top smart city priorities of business executives will also, they believe, make Amsterdam more affordable. 46% want these projects to prioritize improving the ability of energy and water utilities to vary pricing according to usage or time of day--the second highest globally. 35% want smart city projects to encourage the growth of bicycle, scooter, and other low-cost transportation options for workers--also the second highest average globally.

In order to make more talent available for businesses, 26% of executives want smart city projects to focus on expanding consultation between educational institutions and businesses on skill requirements. The same percentage wants a focus on greater availability of affordable housing for workers.



When it comes to greater market opportunities, 40% of business executives hope that smart city initiatives will lead to more invitations to tender for public contracts to deliver smart city solutions or services.

36% of business executives are hoping that urban intelligence will help them partner with large technology companies. In order to improve Amsterdam's innovation environment, 44% believe smart city projects should focus on attracting large technology companies to establish operations in the city.

While 62% agree that innovations spearheaded by the private sector are essential to the success of smart city initiatives, this percentage is actually lower than that of any other city surveyed. This number suggests a belief that the city government has done a fairly good job in taking the lead on these projects.

## Trade Offs: Citizens and Business Executives See the Value of Smart **City Initiatives**

Most of Amsterdam's citizens and business executives are willing to pay to get the benefits of urban intelligence, in terms of money, data, and time. Citizens are in line with global averages for these areas. However, in terms of paying higher taxes and fees, they are actually much more willing than their regional peers.

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



Key Takeaway: Although both citizens and business executives are somewhat measured in their belief that smart city initiatives will make Amsterdam a more appealing place to live and do business (as compared to other surveyed cities), they also evince a recognition of the value of their city's investment in smart city projects by being fairly willing to pay for those initiatives with their time and data. This alignment among stakeholders (government, citizens, and business executives) may arise partly from reasonably effective communication. 46% of citizens believe that the city provides sufficient information about these initiatives and 64% of executives agree that the city has taken a proactive role in including the business community in development of its smart city projects. Both of these numbers also show room for growth, and thus the possibility of even greater citizen and business executive commitment to and participation in smart city development. For example, 42% of executives (the highest percentage globally) believe that the government needs to improve the sharing of government data with citizens and businesses to encourage innovation. Thus, as we can see, at this point the idea that Amsterdam is an "open platform" remains largely aspirational.