

Columbus

A roadmap to drive smart city progress in Columbus, Ohio



Deloitte's Smart City Initiative

Around the globe, cities are adapting to technology in ways that bridge the promise of the future with the unique character each has built over the generations. While no two have the same experience, many are learning the same lesson: The path ahead is determined not by how many technologies are in use but by how well they work together.

The Deloitte 360° Smart City Framework allows city stakeholders to speak a common language as they decide together how new tools can improve the experience of city life. Across the domains of economy, mobility, security, education, living, and environment, Smart Cities expand the definition of "infrastructure" and find new connections between old challenges.

In each client story, and in the many more that will follow, people are finding a way to make their environments healthier, greener, more prosperous, and more responsive to residents' everyday needs. What can we learn from their example?

The city of Columbus, Ohio made national headlines in June 2016 when it won the U.S. Department of Transportation's smart city challenge. Columbus was in competition with 77 other cities, but was selected after showcasing a holistic and comprehensive vision of "how technology can help all residents move better and access opportunity."¹

The vision was based on mobility as it impacted life in Columbus. For example, the city's proposal included a goal to "reduce infant mortality by 40 percent by creating smart corridors and smart payment projects that improve access to pre-natal care..."²

The smart city challenge provided a grant of \$40 million from the federal Department of Transportation (DoT), and another \$10 million from Vulcan Inc., a philanthropy based in Seattle.³ A Smart Columbus team was created which included participation from the city, private sector, and academia to support Columbus's vision, which is "to be the model for connected cities of the future," with mobility as a key item.

The city developed four foundational goals for their smart city journey:

1. Drive economic growth
2. Improve people's quality of life
3. Foster sustainability
4. Improve safety

Based on these foundational goals, the Smart Columbus team crafted a road map for moving ahead.

A key aspect of the roadmap is to build a single digital platform for the city where all smart city applications can be integrated. The city is calling it a "Smart Columbus Operating System" which would be a system-of-systems that integrates relevant data into an overarching data platform. The city has begun building the platform that will connect data related to physical infrastructure (roads, traffic signal systems), various modes of transport (such as mass transit) and transportation service providers (aggregators, and others) into an integrated platform.⁴

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Winning the DoT award and crafting a roadmap for the future has proven to be a catalyst in driving smart city investment in Columbus. The city has been able to showcase its smart city plans to various stakeholders and growing number of partners in the smart-city ecosystem. The city has grown its initial funding of \$50 million to nearly \$500 million through the end of 2017, and has set a goal of growing it to \$1 billion by 2020⁵ through close coordination with the Columbus Partnership.

This sort of inter-connected ecosystem of innovation—as well as funding sources from multiple public and private sources—inevitably makes for a complicated governance structure. No single authority controls all the resources, which can make rapid decision-making a challenge. Whether looking to execute on data-governance, cyber-security, or prioritization of infrastructure deployment, having many perspectives at the table is a positive development while also a challenge that requires mature governance. Now it is time for the city to focus on implementation.

Columbus clearly aspires to be a leading smart city in the United States, and winning the DoT Smart City Challenge boosted their efforts. Since winning that grant in June of 2016 and completing the roadmap in May 2017, they have been able to secure significant additional funding, added a number of key ecosystem partners, and crafted a roadmap for the future. Now, “Smart Columbus” has a chance to create a smart city playbook for other aspiring cities in the United States as it executes on its vision.

How Deloitte helped

Creating the model for a connected city of the future was a bold vision, and to realize that vision, Columbus needed a comprehensive plan. Working with the Columbus Partnership and hearing from involved stakeholders, including city of Columbus, Deloitte developed an integrated road map to strategize and coordinate the execution of multiple mobility, energy, and other projects in a complex ecosystem of stakeholders.

Deloitte’s road map proposed a future state, which includes a digital platform that integrates data from various systems, including mobility applications, and forms an underlying foundation for the future state vision. Over an eight-week period, Deloitte created a comprehensive view of the city’s portfolio of projects, enabling the city to effectively execute against the road map, identify interdependencies, and track progress of the overall initiative.

Additionally, Deloitte developed three workstream charters to address critical aspects of implementation, such as scope, benefits, metrics, roles, partners, timelines, and funding.

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Endnotes

1. U.S. Department of Transportation, “Smart City Challenge,” accessed November 17, 2017, <https://www.transportation.gov/sites/dot.gov/files/docs/Smart%20City%20Challenge%20Lessons%20Learned.pdf>.
2. U.S. Department of Transportation, “Smart City Challenge,” accessed November 17, 2017, <https://www.transportation.gov/sites/dot.gov/files/docs/Smart%20City%20Challenge%20Lessons%20Learned.pdf>.
3. Teena Maddox, “How Columbus, Ohio parlayed \$50 million into \$500 million for a smart city transportation network,” Tech Republic, May 10, 2017, <https://www.techrepublic.com/article/how-columbus-ohio-parlayed-50-million-into-500-million-for-a-smart-city-transportation-network/>.
4. Interview with Deloitte Columbus project team, November 14, 2017.
5. Teena Maddox, “How Columbus, Ohio parlayed \$50 million into \$500 million for a smart city transportation network,” Tech Republic, May 10, 2017, <https://www.techrepublic.com/article/how-columbus-ohio-parlayed-50-million-into-500-million-for-a-smart-city-transportation-network/>.

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