Getting Smart about "Smart Cities"

**The promise is enticing: Use smart city technologies —
Big Data, civic engagement apps, and more — to help cities achieve sustainability goals.**

But the reality is confusing and daunting: understanding the technologies and what they can and cannot do; navigating through the claims of technology vendors; establishing a city's vision and plan for using these technologies; addressing barriers such as data silos in government departments, balky procurement processes, and privacy issues; and more. With a grant from the USDN Innovation Fund, 10 cities came together with selected experts to study the problem and develop a path forward for themselves and other cities.

Led by Laura Spanjian, Houston's sustainability director, and supported by consultant Melanie Nutter (former director of the San Francisco Department of the Environment), the Institute for Sustainable Communities (ISC), Presidio Graduate School, and an Innovation Fund grant, USDN cities' sustainability directors, along with their chief technology and innovation officers, met for nearly two days in August to share stories and insights about the potential and pitfalls of "smart city" technologies. The goal: Figure out what cities might do together to ensure the potential is realized.

ISC put together a briefing book for the session, based partly on pre-meeting interviews with the cities' participants that identified challenges, promising practices, and open questions, including:

- **Data Silos.** City departments tend to establish separate data and management systems with little cross-departmental coordination. This limits governments' ability to scale cross-cutting initiatives and innovations and often results in isolated, legacy operations and data systems. This makes it hard to find synergies across departments, sectors, and even jurisdictions that can advance technology and sustainability goals simultaneously.

- **Navigating Smart City Change.** With the rise of smart city initiatives, sustainability directors and information technology directors are developing new program priorities and staff capacities and are working together to usher in new leadership and change.

- **Bridging City Government Needs and Smart City Offerings.** Given the speed of smart city market offerings, there is often a disconnect between a local government's way of doing business and what the market is offering. The challenge comes down to navigating the gap between what particular governments need and what outside groups can do, especially as private sector solutions are not always designed for the unique needs of city government.

- **Adapting Procurement.** There is a clear mismatch between the purchasing habits of local government and the rapidly evolving smart city market. This gap is not insurmountable, but it does require a fundamental re-examination of the rationale behind city governments' ways of doing business.

- **Working with Public Service Utilities.** Smart city technologies are well suited to municipal governments because of their potential to use public data to advance sustainability and the public good. Yet city governments have to address a data access barrier if they don't own their own utility, transportation, or waste management systems. With utilities managed in the private sector, there is less incentive to make data available if it threatens intellectual property. Cities are implementing unique strategies to obtain data from private utilities and continue to seek opportunities to own their own utilities.

- **Getting Smart about Data.** The fuel for smart cities is data, and that fuel has become a highly valuable public good. Yet, decentralized departments and legacy systems are constraining governments' ability to access and analyze data and limiting their capacity to foster new innovations in the public sphere.

- **Civic Engagement through Technology.** So-called "bottom up" applications – like Mindmixer and SeeFixClick that are positioning social media and crowd-sourcing as new outreach channels – are increasing day-to-day interactions between governments and citizens. Yet, as these new platforms are rolled out, cities are experiencing new challenges and even unintended consequences.

- **Ensuring Data Privacy.** While there is a clear benefit to making city data available for smart city technologies, cities need to be cognizant of risks to privacy.

Stay tuned: the USDN group has been developing recommendations based on its convening and a workshop it sponsored at the USDN Annual Meeting in September 2014.