Smart DC Information Session

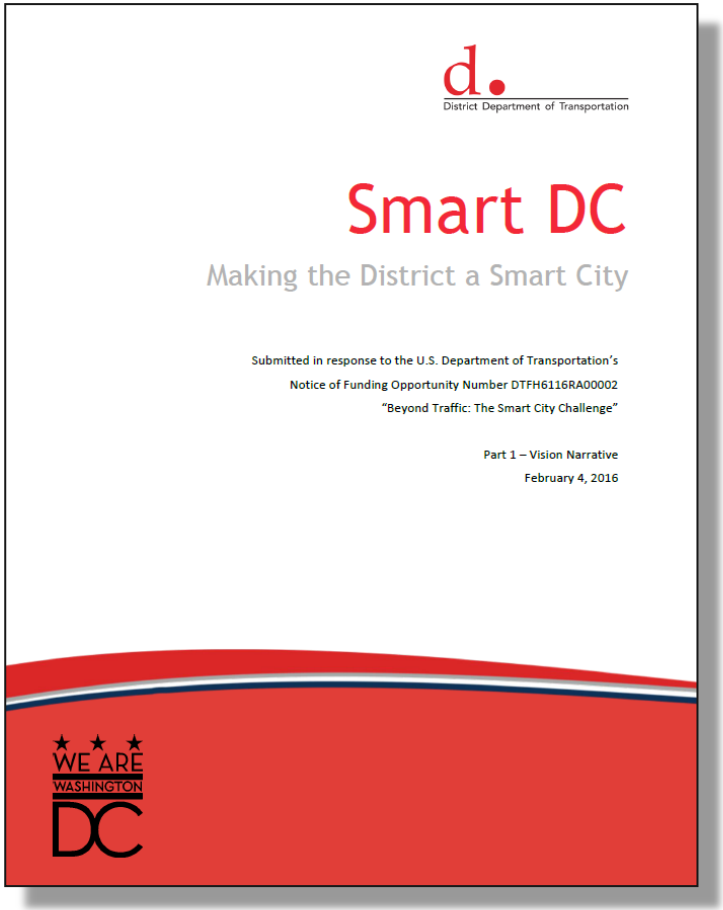
#SmartDC

February 24, 2016

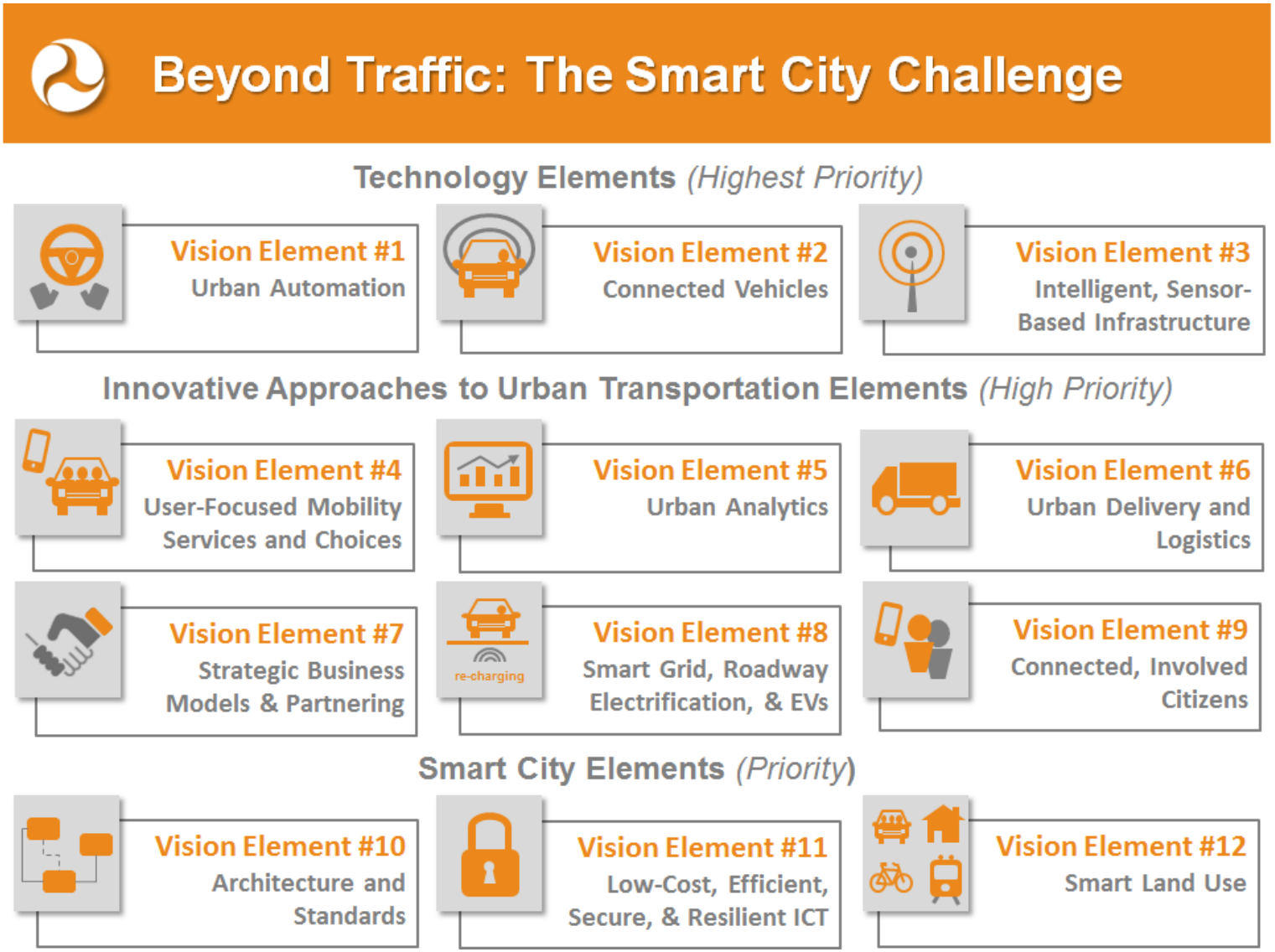
WELCOME AND INTRODUCTIONS

DDOT's Smart City Challenge Application

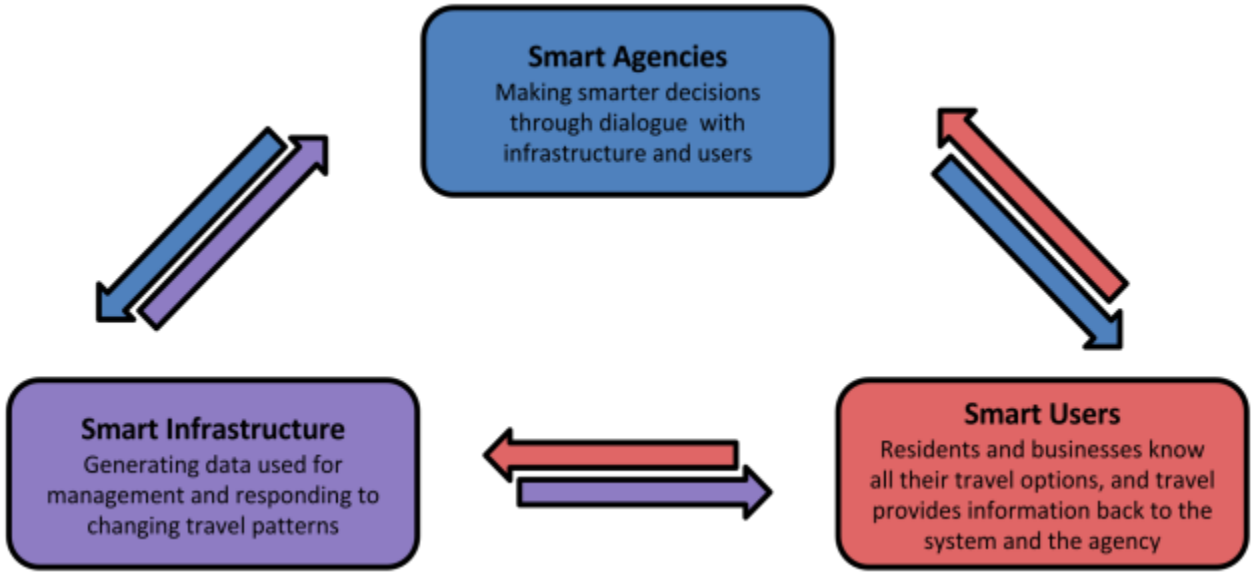
- Recognizing this important opportunity, staff quickly convened a team to complete an application
- This effort brought together 20 internal contributors and engaged several external partners
- Despite the short timeframe and interruptions due to the winter holidays, TRB, and weather events, the team successfully submitted an application



Smart City Vision Elements



Smart DC Elements



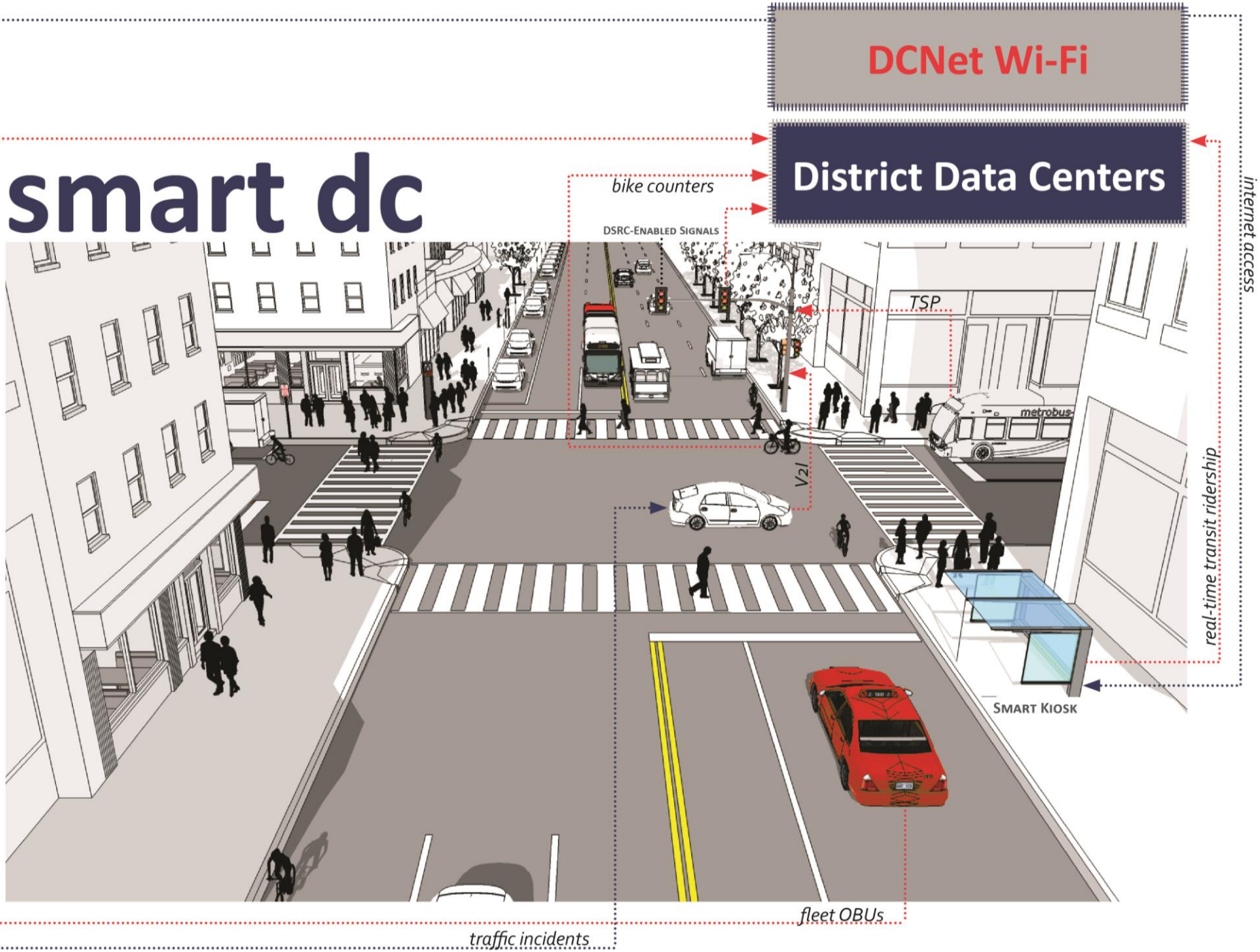
Connected by:

- **Data** - each element of the smart city is both a generator and consumer of data
- **Feedback and adaptation** - Better information will lead to faster and more effective change by each component in Smart DC
- **Equity** - interconnections will and improve mobility and provide added accessibility
- **Access to opportunity** - transcending transportation, leading to sustainable land use choices, an engaged and productive workforce, and revitalized communities

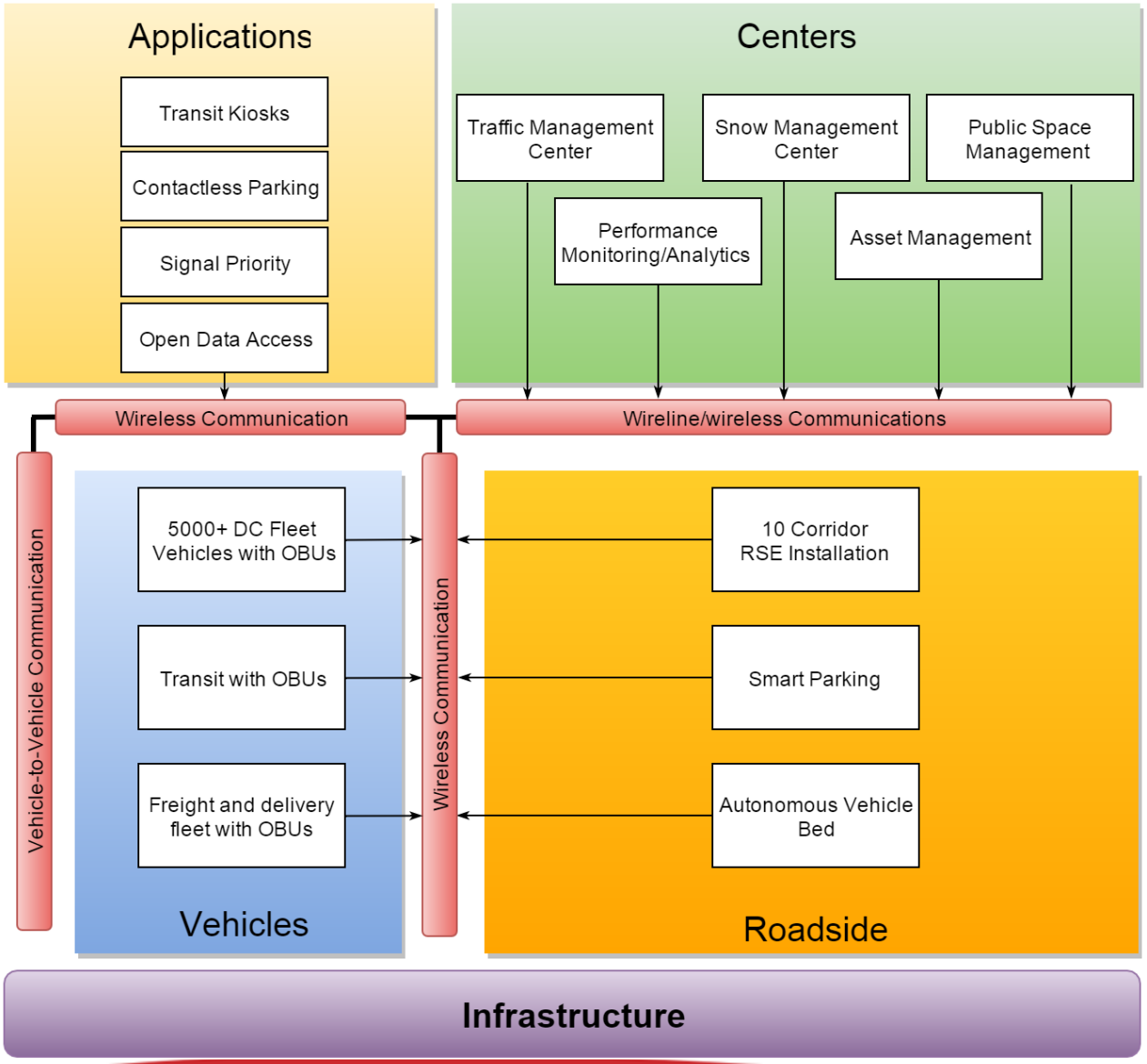
Smart DC Investments

- **Roadside and roadway infrastructure** that communicates with individual vehicles and transportation systems, providing users with communication access
- **Vehicle-based infrastructure** on both public and private fleets that communicates with roadside systems and transportation management centers
- **Transportation management centers and organizational investments** take in data and prioritize asset management, communicating real-time information to end users
- **Data and user-based infrastructure** provides access portals and real time information to individuals and businesses.

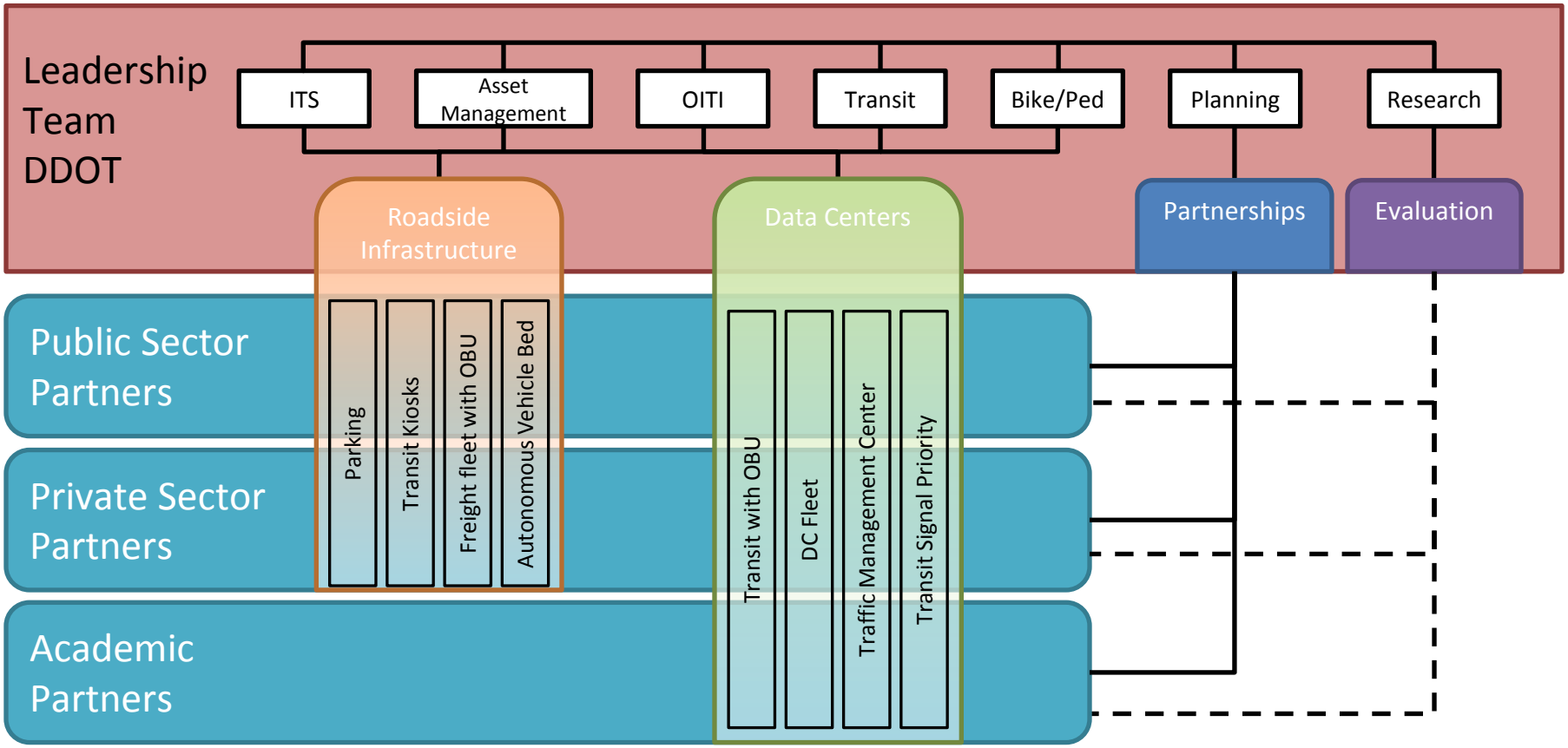
smart dc


DCNet Wi-Fi
District Data Centers
bike counters
DSRC-Enabled Signals
TSP
V2I
metrobus
Smart Kiosk
internet access
real-time transit ridership
fleet OBUs
traffic incidents

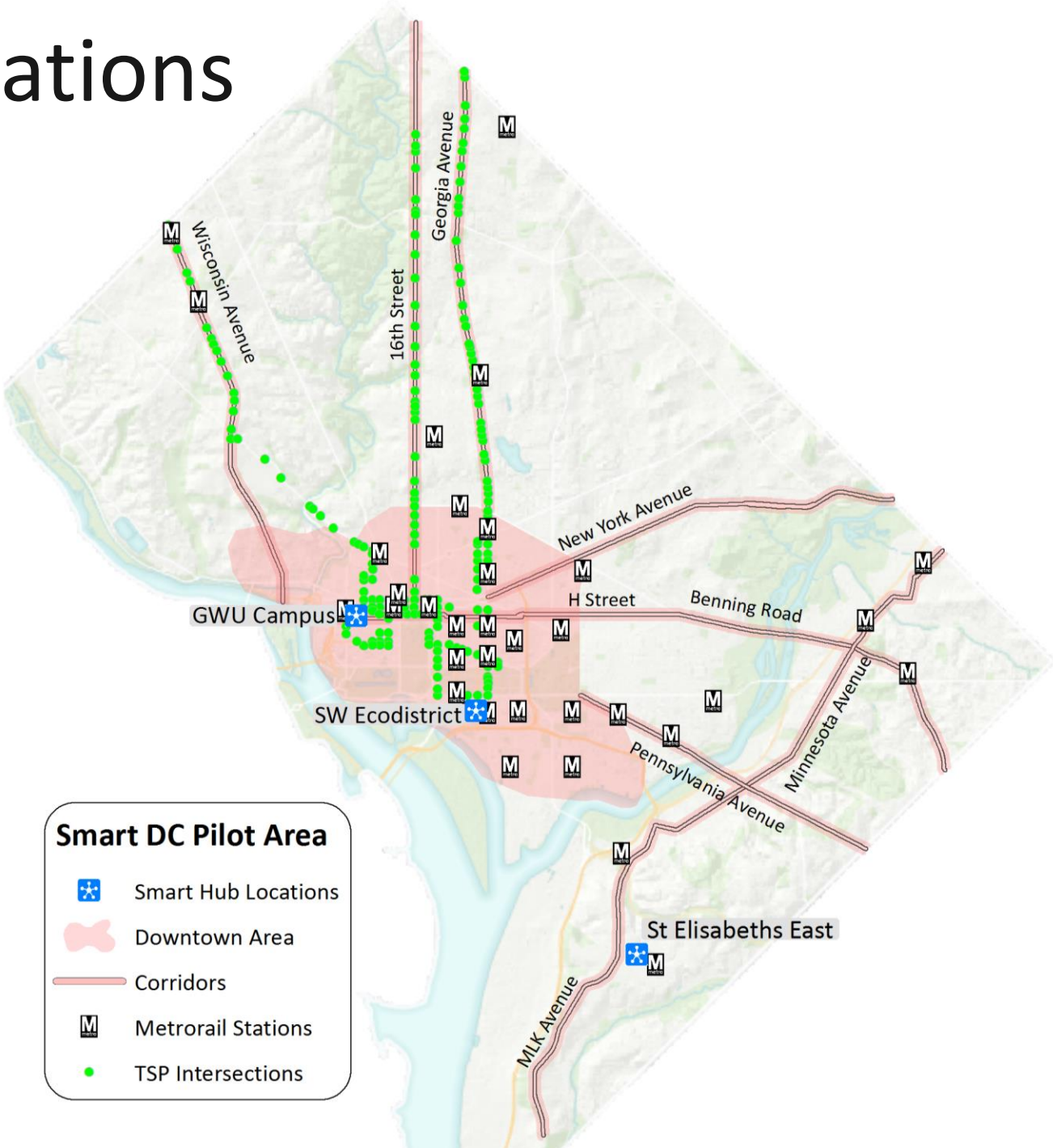
Pilot Infrastructure Diagram



Pilot Project Management Structure



Pilot Locations



Data and Integration

Capital Data
- Continuously open, shareable and mappable since 2007
- Building real-time availability
- Including pedestrian, bicycle, and bus data

Infused and Enriched
- Integrated across transportation business systems
- GIS is front and center

Live Data Streams
- TIES data published as GIS web services to ensure use in workflows
- Planning transactional data systems

ITS Standards and Architecture

Regional ITS Architecture

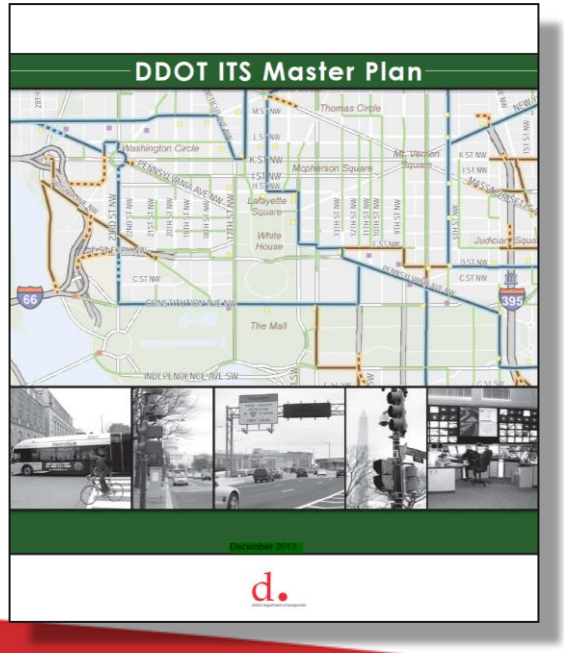
- Identifies data flows between components like centers and devices
- To be updated by incorporating new connected vehicle data

ITS Master Plan

- Prepared in 2013, proposes new infrastructure for the next 15 years
- Planning to use national standards in further ITS design and implementation

Documentation Sharing

- Smart DC will involve development of an open, accessible portal



Goals and Objectives

Goal: For the District **to become a connected city that benefits all components of the transportation systems**

- **Agencies** will have more informed decision-making capabilities, save time deploying resources, and improve system performance
- **Users** will have equitable access to information to make real-time travel decisions and will be an active part of the solution by feeding data back to the system
- **Infrastructure** will communicate its status to help users know when to alter their travel choices and to provide data for agencies to better hone their services

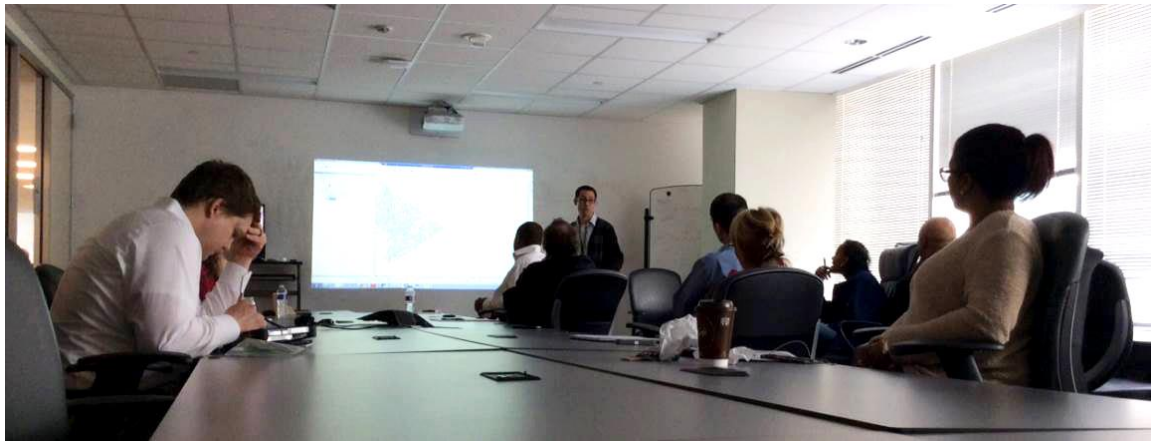
Objective: To **build the foundation to integrate 21st-century technology into the District's transportation systems.**

What's Next

Share your ideas for how to make DC a smart city:

- What partners and groups should we reach out to?
- What technology should we look at?
- How can we improve and refine our pilot application ideas?
- What smart city applications did we miss that we should consider?

We're committed to making DC a smarter city even if we don't win the Challenge



Talk to Us

Circulate around the room to talk to DDOT representatives about:

- Vision and Management
  - John Thomas, Chief Performance Officer
  - David Koch, Capital City Fellow
- Policy and Planning
  - Sam Zimbabwe, PPSA Associate Director
  - Ryan Westrom, Senior Transportation Planner/Engineer
- Technology and Data
  - Chris Quay, Technical Writer/Business Analyst
- Research and Evaluation
  - Stephanie Dock, Research Program Specialist
- ITS and Signals
  - Rakesh Nune, Systems Engineer
- Transit
  - Raka Choudhury, Citywide Transportation Planner
  - Colleen Hawkinson, Strategic Planning Manager
- Bikes and Pedestrians
  - Darren Buck, Bicycle Program Specialist
- Parking
  - Benito Perez, Parking Planner
- Freight
  - Laura Richards, Transportation Planner

Questions?

DOT Smart City Challenge

1,400 local officials, companies, academics and non-profits joined our webinars

800 people participated in our Smart City Forum

300 companies have expressed interest in partnering

77 applications received for the Smart City Challenge

5 Smart City Challenge Finalists to be announced in March at SXSW

1 Smart City Challenge Winner announced in June