San Francisco Smart City Challenge



What is the Smart City Challenge?

- Fully integrate innovative technologies into transportation network
- Serve as national leader to provide playbook to all cities in the nation and the world
- Outcomes: Improve Safety, Enhance Mobility, Enhance Ladders of Opportunity, Address Climate Change
- \$40M USDOT + \$10M Vulcan Foundation = \$50M

DOT Smart City Challenge



Key Reasons San Francisco is Responding to the Smart City Challenge



18% of household income goes to mobility.* *Based on average private vehicle costs



San Francisco is experiencing an affordability crisis.



Fragmented network that doesn't meet needs of all users



Thirty people lost their lives in 2015 in tragic, preventable, traffic fatalities.



Transportation comprises more than 40% of San Francisco's greenhouse gas pollution.

Shared Electric Connected Automated Meets Smart City Goals





Phase 1: Current Ownership Model

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Phase 2: On-Demand Services Model

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Phase 3: Shared On-Demand Model



Phase 4: Shared & Connected Model

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Phase 5: Shared, Electric, Connected and Automated Model

Our Goal: The Power of a 10% Shift



Shift up to 10 percent of single-occupancy vehicle trips to transit, shared and active modes.





Reduce collisions and fatalities 10 percent by leveraging our Vision Zero investments.



Reduce how much lower-income residents spend on transportation by 10 percent.



Reduce transportation emissions 10 percent through electrification and demand management. Our Approach: Work with the community, utilize technology and pilots to shift behavior

San Francisco Smart City Demonstration Areas			
Shared	Electric	Connected	Automated
Transport as a Service Platform	EV Charging EV City Fleet	Connected Carpooling	AV First/Last Mile Accessible Shuttle
Late Night Work Shuttle	EV Fleet & Deliveries	Transit & Taxi Wi-Fi Mesh	AV Municipal Vehicle
Shared School Shuttle		Vision Zero Large Vehicles	AV Delivery Service

Three-Tiered Approach to Create A "Model" Platform



Regional

City Wide

Neighborhood

CleanDriveSF: Vulcan Smart City Challenge

Focus: Reduce GHGs in transportation sector

- Decarbonize energy supply
- Electrify fleets
- Promote alternative transportation and public transit
- Develop necessary infrastructure



Smart City Pitch and DC Experience

Part One – USDOT DC Office

- Six person team
- 45 minute presentation
- 30 minute Q&A

Part Two – Public Event

- Mayoral presentations
- Three-minute video premiere





Working on the Smart City Challenge: Experience & Lessons Learned

- Smart Cities is an increasingly popular concept and source of funding
- Federal Government expects change initiated at local level
- Local governments need a holistic approach to embrace new technology in transportation
- Private-Public-Academic Partnerships
- Culture Change



