Smart Mobility Toolbox: Strategies for a Smarter Capital Region
“A smart city is a designation given to a city that incorporates information and communication technologies to enhance the quality and performance of urban services such as energy, transportation and utilities in order to reduce resource consumption, wastage and overall costs. The overarching aim of a smart city is to enhance the quality of living for its citizens through smart technology.”

Techopedia
Project Process

- Review Local Smart Community Plans
- Stakeholder Workshops
- Peer City Best Practices
- Draft Toolbox
- Public Engagement
- Final Toolbox
Smart Community Tool Focus Areas

- Non-Vehicular Mobility
- Traffic Management
- Energy & Infrastructure
- Parking Management

- Smart Transit
- Electric, Connected, and Autonomous Vehicles
Non-Vehicular Mobility

- Micromobility
- Smart Mobility Hub
- Universally Designed Intersections
- Smart Cycle Track

Smart Cycle Track, Bicycle Priority Intersection
Source: WSP
Traffic Management

- Curbside Management
- Lane Management
- Transportation Systems Management and Operations (TSMO)

Coord Smart Zones dashboard
Source: Sandiego.gov
Energy and Infrastructure

- LED Streetlight Conversions
- Smart Sensors
- Community Wi-Fi and Broadband Expansion

A phone booth served as a free Wi-Fi hot spot
Source: NPR

LED Light and Sensor Unit in San Diego
Source: Sandiego.gov
Parking Management

- Parking Management Applications
- Dynamic Parking

San Francisco Park Application
Source: San Francisco Municipal Transportation Agency
Smart Transit

- Expanded Public Transit Website
- Asset Management and Maintenance Applications
- Mobility as a Service (MaaS)
- Microtransit Services

Massachusetts Bay Transportation Authority Trip Planner
Source: Massachusetts Bay Transportation Authority
Electric, Connected, and Autonomous Vehicles

- Electric Vehicles
- Charging Stations and On Street Vehicle Supply Equipment
- Connected Vehicles
- Autonomous Shuttles

Smart City Sensors and Traffic Management Infrastructure on North Avenue in Atlanta
Source: Atkins Global
Implementation Roadmap

SIMPLE STRATEGIES

ADVANCED STRATEGIES

DYNAMIC STRATEGIES
Simple Strategies

- Micromobility
- Smart Mobility Hubs
- Smart Sensors
- LED Streetlight Conversions
- Electric Charging Stations
- Electric Vehicle Fleets
- Influence Future Transit Services
Advanced Strategies

- Microtransit Services
- Parking Management Applications
- Enhanced Transit Website
- Asset Management and Maintenance Applications
- Smart Cycle Track
- Universally Designed Intersections
Dynamic Strategies

- Curbside Management
- Dynamic Lane Management
- Transportation Systems Management and Operations (TSMO)
- Mobility as a Service (MaaS)
- Deploy Roadside Units to Prepare Corridors for Connected Vehicles
- Autonomous Shuttles
- Dynamic Parking
Funding and Resources

Federal Funding

State Funding

Private Sector Funding
Federal Funding

- Transportation Alternatives Program
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Carbon Reduction Program
- National Electric Vehicle Infrastructure Program (NEVI)
- Promoting Resilient Operations for Transformative, Efficient, and Cost Saving Transportation
- Bus and Bus Facilities Program
- Low or No Emission Grant Program (LoNo)
- Urbanized Area Formula Grant Program
- Active Transportation Infrastructure Investment Program
- Rebuilding American Infrastructure with Sustainability and Equity (Raise)
- Advanced Transportation and Congestion Management Technologies Deployment Program
- Strengthening Mobility and Revolutionizing Transportation Grant Program (SMART)
- Congestion Relief Program
State and Private Funding

- Smart Street Lighting Grant
- Municipal Alternative Vehicle Program
- Public Transportation Modernization and Enhancement Program
- Climate Smart Communities Grant
- NYSERDA Clean Energy Communities Program
- Better Bike Share Mini Grants
Stakeholder and Public Engagement

- Regional Operations and Safety Advisory (ROSAC) Committee
- Project Website
- Focus Group Sessions
- Stakeholder Interviews
- Survey Input and Public Comments
Key Comments and Suggestions

- Basic traffic management systems are something most towns can use – good place to start
- Barrier of adequate funding for maintenance and upgrades
- Importance of addressing equity issues
- Challenges of proprietary data
- How smart technologies can help connect places in a more transit/bike/ped-oriented way
- EV-related recommendations re: charging stations and infrastructure, including in rural areas
- Survey respondents indicated being comfortable with the pace at which technologies are being introduced
- Some concern expressed about privacy and data collected related to new smart technologies
- Curb management and alternative freight programs (cargo bicycles) are important – active transportation user experiences & safety
- “Smart tech” is great, but concern expressed that this should not come at the expense of existing transportation technology
Final Report

http://projectupdate.wixsite.com/cdtcsmartmobility
Thank you!