

### CAV Policy and Programming – DDOT's Perspective



#### DDOT's Approach

- Shaped by unique characteristics
  - Highly visible environment
  - High proportion of out-of-state travel
  - Many stakeholders
  - High non-vehicle mode share
  - Arterial roadway network
- Guiding principles
  - Strategic, goal-oriented planning and coordination
  - Limited physical infrastructure investment
  - Piloting before full-scale implementation

#### **POLICIES**

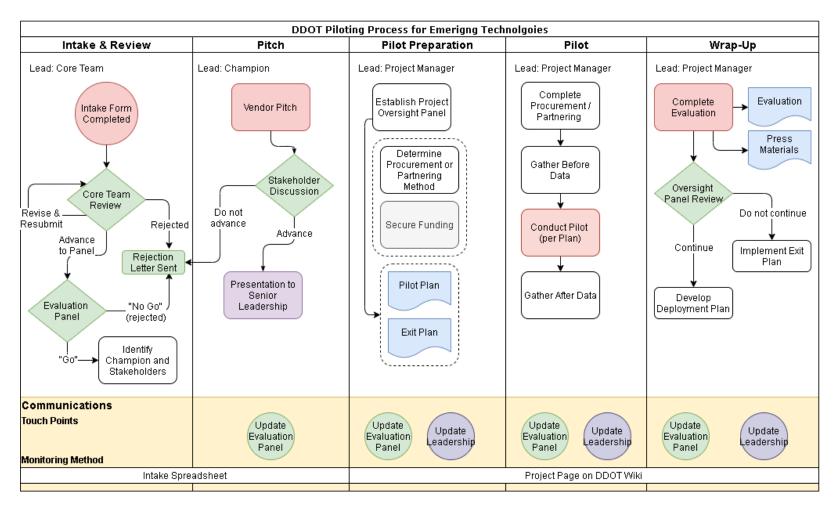
## AV Testing Program Rulemaking

- Background
  - 2012 Autonomous Vehicle Act (Law)
  - 2014 DMV Proposed Regulations (Draft)
  - 2019 Autonomous Vehicles Testing Program Amendment Act of 2019 (Bill)
- Autonomous Vehicle Testing Program Rulemaking (Draft)
  - Permitting process
  - Framework for testing
  - Includes sections on testing with safety operators, driverless testing, testing with non-traditional vehicles, and data sharing

## Pilot Evaluation and Screening

- Consistent, strategic approach for emerging technology pilots and demonstrations
- Components
  - Strategic Framework
  - Online portal with a common application:
    <a href="https://forms.gle/hCH1inh8ERUfqu7C6">https://forms.gle/hCH1inh8ERUfqu7C6</a>
  - Evaluation panels and a voting/scoring system
  - Standard Operating Procedure

## Pilot Evaluation and Screening



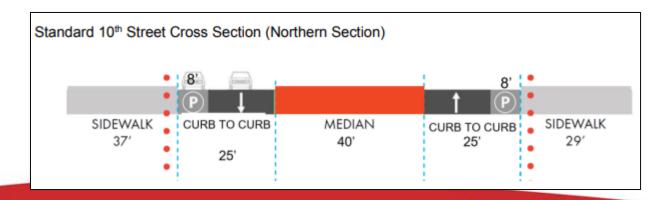
#### **PARTNERSHIPS**

#### Working Groups

- Citywide AV Working Group
  - Broad range of stakeholders led by DMPED
  - Principles Statement and Impact Matrix developed October 2018
- DDOT AV Working Group
  - Venue to improve internal awareness and opportunities for collaboration
  - Key stakeholder groups include operations, research, planning, safety, parking, policy, and senior leadership
- Involvement in a variety of national and regional working groups on CAV



- Southwest Business Improvement District interest in deploying AV shuttle to connect L'Enfant Plaza and the Wharf
- RFI released February 2018
- DDOT, in conjunction with SWBID and other District agencies:
  - Advised on RFI language
  - Developed a comprehensive set of interview questions to assess potential operators
  - Carried out interviews
- Ultimately did not move forward



#### Ford/Argo

- DC entered partnership with Ford/Argo in October 2018 that includes:
  - On-road testing
  - Job training
  - Commercial service



"Through this partnership with Ford, we can ensure that as self-driving technology advances, we're introducing it in a way that works for our community and our residents"

Mayor Muriel Bowser

#### **ACTIVITIES**

#### Study on Effects of AVs

- Scenario-planning approach used to analyze range of potential effects
- Report includes policy, research, operational and organizational, and data recommendations
- Publicly available as of April 2020:

https://lims.dccouncil.us/downloads/LIMS/44545/Introduction/RC23-0172-Introduction.pdf

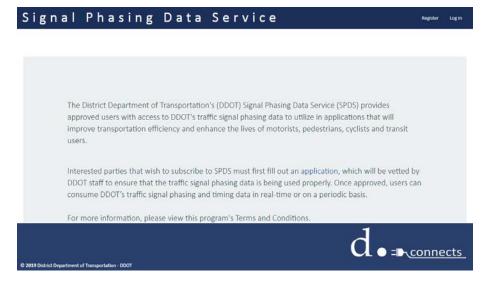


#### "Sandbox" Corridors

- Developing "sandbox" corridors for demonstration and evaluation of emerging technologies
  - Starting with solutions for pedestrians and cyclists in intersections
- Program management and evaluation with consultant support

#### **SPaT Portal**

- Portal established January 2018:
  - API for real-time traffic signal data
  - Shared with third parties who sign data use agreement
- Study completed in January 2020 documents:
  - Value proposition
  - Financial, policy and institutional implications of continued investment
  - Information from peer agencies





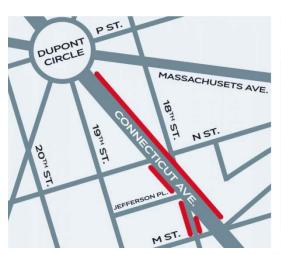
#### Personal Delivery Device Pilot

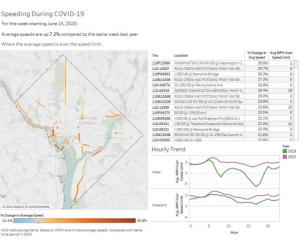
- Sidewalk robots for last-mile food delivery
- Managed and monitored via public-right-of-way occupancy permit since 2017



#### Adjacent Innovations

- Other emerging technology solutions provide framework and insight for future CAV deployment
  - Dedicated pick-up/drop-off zones for use by transit, taxis, and TNCs
  - Demand-based parking
  - Dockless vehicle operations
  - Transit signal priority
  - Use of probe vehicle data to inform planning and operational decision making







#### Challenges

- Understanding and addressing infrastructure investment and maintenance needs
- Being strategic about pilots, projects, and other investments
- Finding workarounds to traditional procurement
- Workforce development

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District Department of Transportation