Faster, Smarter, Better?
Evolution of Contracting Strategies

Snapshots from Washington, DC

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Presentation Outline

- Background
- Innovative Contracting Approaches
  - Parking Pilots
  - Pilot Vetting Process
  - “Sandbox” Approach for Ped Bike Safety
  - Automated Traffic Enforcement Pilots
- Wrap-Up

About DDOT

The District Department of Transportation's mission is to equitably deliver a safe, sustainable and reliable multimodal transportation network for all residents and visitors of the District of Columbia.

Nearly everything you see in this picture is part of DDOT's responsibilities!

DDOT build, maintains, manages and operates everything from building line to building line in Washington, DC. DDOT's assets are valued at $50 billion and are used by 1.25 million users every day.

Salient Characteristics

- Traits of state, local and municipal DOT
- Multiple travel options – goal 75% non-SOV mode by 2032
- Population doubles during daytime
- Unfamiliar users – 125,000 tourists on a typical day
- Arterial system – 1700 signals, less than 1% of mileage freeways
- Safety, especially for vulnerable users
- Equity for all users
- Sustainable, environmental-friendly solutions
- Reliable transportation options
- ***"Aggressive incrementalism" philosophy to adoption of new technology***

PARKING PILOTS

Initiated & completed 2010

DDOT Parking Pilots 2010

Technology	Vendor	Functionality	Location
Pay-by-cell	Verrus	Patrons pay using cellular phone call	700 spaces in Dupont Circle, K Street, Union Station
Pay-by-cell and mobile application	Parkmobile	Pay using cellular phone call or mobile applications on Smartphones	1000 spaces in Foggy Bottom, GU Hospital, Baseball Stadium Area (SE)
Pay-by-space multi-space meter with occupancy sensors	Parkeon & Duncan	Patrons enter space # and pay for parking. Information uploaded to enforcement handheld Targeted enforcement	900 to 1200 block of Independence Avenue SW, Friendship Heights
Pay-by-license plate multi-space meter with occupancy sensors	Cale	Patrons pay at meter using license plate. Enforcement using drive-by license plate recognition	1300 block of U Street NW
Credit card accepting, networked single space meter	IPS	Pay using coins and credit cards Real time transaction and operations monitoring	50 metered spaces throughout the District

9 concurrent competitive pilots to test state-of-the-art in meter technology, meter payment options and sensor technology.
Procured through a traditional RFP process

Pilot Assessment

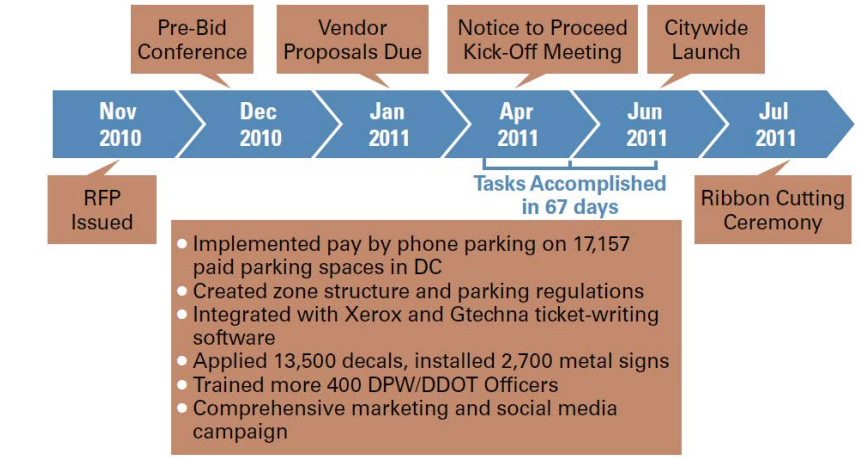
Program Goals	Pay –by-cell	In car meter	Smart SSM	Smart MSM	Space Occupancy
Multiple payment options	☑	☑	☑	☑	
Customer convenience	☑	☑	☑	☑	☑
Real time parking availability					☑
Fewer broken meters			☑	☑	
Dynamic Pricing					☑
Real-time operational status			☑	☑	
Better uptime	☑	☑	☑	☑	
Lower operation cost	☑	☑	☑	☑	
Minimize coin transaction	☑	☑	☑	☑	
Real-time auditing	☑	☑	☑	☑	☑

Outcomes of Lessons Learned from Parking Pilots

- Migrated to all networked assets
- Provided three way for customers to pay at each parking meter
- Pivoted maintenance strategy from reactive to proactive
- Increased revenue capture rate 200%
- Increased customer satisfaction
- Piloted demand based pricing and real time parking availability
- Better utilization of curbside space
- ***Framework for an innovation culture***

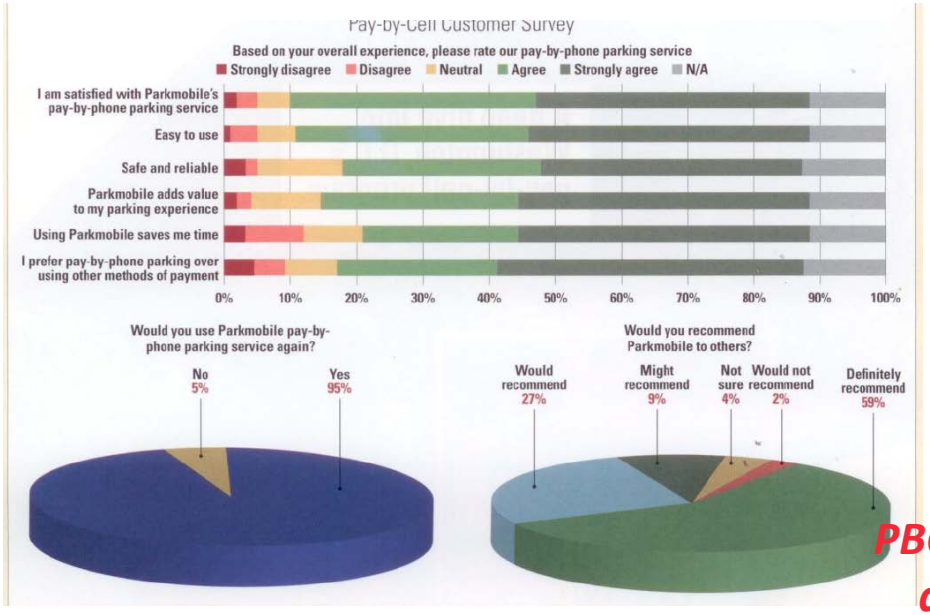
Revamped on-street parking meter program

DC Pay by Implementation



Project Timeline

Outreach



Customer Satisfaction

Media Coverage

PBC accounts for 60% of meter revenues and over 50% of meter transactions

PILOT VETTING PROCESS

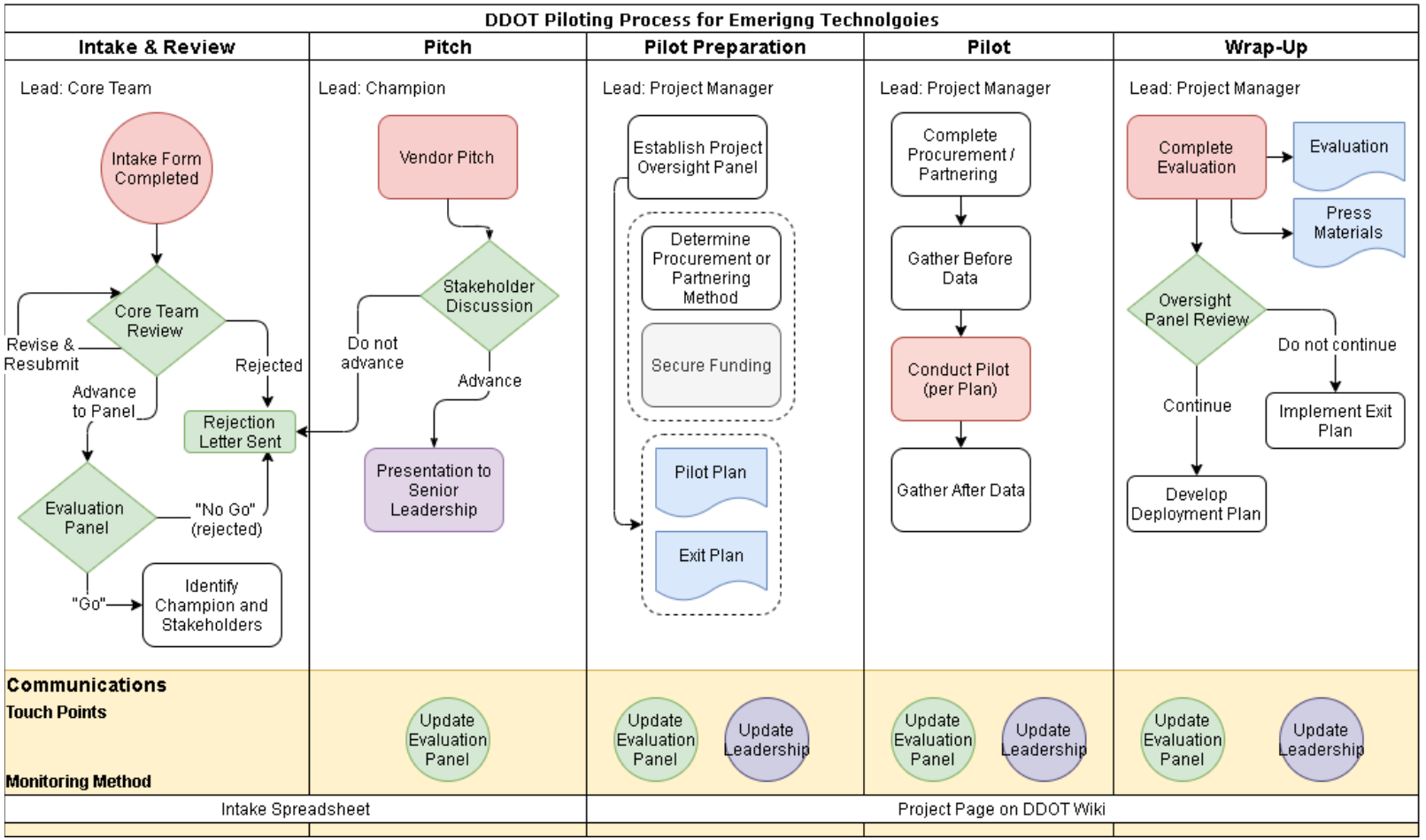
Initiated 2019; On-going

Emerging Technologies and Innovation

- DDOT staff are regularly approached with ideas for pilots, tests, and demonstrations of emerging transportation technologies and concepts in the District.
- Starting in late 2019, DDOT now has a vetting process brings a more consistent, strategic approach to responding to those requests.
- Components of the 'pilot vetting' effort are:
  - A **Strategic Framework** for Vetting Emerging Technology Pilots, Testing, and Demonstrations that require support or approval from DDOT
  - Online portal with a common **application** for vendors to submit pitches for emerging technology projects
  - An approach for convening **Evaluation Panels** and a voting/scoring system for assessing emerging technology pitches based on the strategic framework
  - **Standard Operating Procedure** for Vetting Emerging Technology Pilots, Testing, and Demonstrations that provides guidance to DDOT staff on how to champion a pilot, test, or demonstration following initial vetting

Online portal with a common application: https://forms.gle/hCH1inh8ERUfqu7C6 .

Pilot Evaluation and Screening



28 concepts entered through the intake process; 8 advanced to vendor pitch

SANDBOX CORRIDORS

On-going

“Sandbox” Approach to New Technology Testing

- Program management and evaluation with consultant support
- Consultant oversees a set of pilots for technologies related to intersection safety for bikes and peds
  - Hoping that if one or more technologies works well, our process will satisfy some or all the competition requirements for a larger procurement
- Developing “sandbox” corridors for demonstration and evaluation of emerging technologies
  - Starting with solutions for pedestrians and cyclists in intersections
- RFI for vendors to “play” in the sandbox currently announced (closes May 31, 2021)
  - Invites technology providers with emerging technology solutions that seek to improve pedestrian and cyclist safety to respond to this Request for Information (RFI).
  - http://app.ocp.dc.gov/RUI/information/scf/solicitation_detail.asp?solicitation=DCKA-2021-I-0049

AUTOMATED TRAFFIC ENFORCEMENT (ATE)

On-Going

Building DC's NextGen ATE Program

Current ATE Program

- 120 assets mostly focused on
  - Red light
  - Speed
  - Stop sign
- Some opportunities for redeployment
- Challenges with equipment weight, footprint, power requirements
- Older assets have limited night-time capability

Future Direction

- Align enforcement with transportation options – bus lane, bike lane, bus stop, loading zones, double parking, etc.
- Agile – Redeploy assets quickly.
- Versatile – Single asset providing multiple functions such as speed, red light, blocking the box, etc.
- Non-Intrusive – Minimize "asks" of city such as power, embedded sensors, etc.
- Inclusion of non-roadside assets – WMATA/Circulator buses
- Light/Minimal Footprint – Explore lighter assets with smaller footprint.
- Enforcement function available 24X7

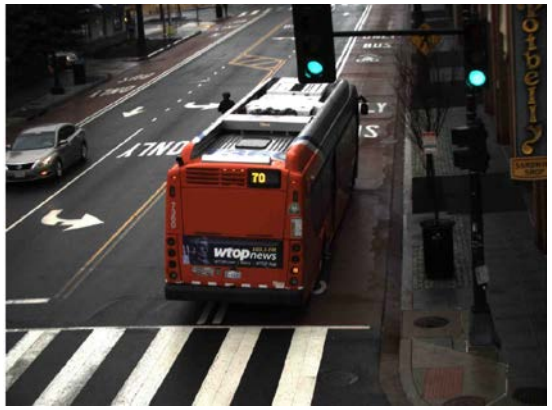
RFP for NextGen ATE Program to be issued Summer 2021

ATE Pilot Process

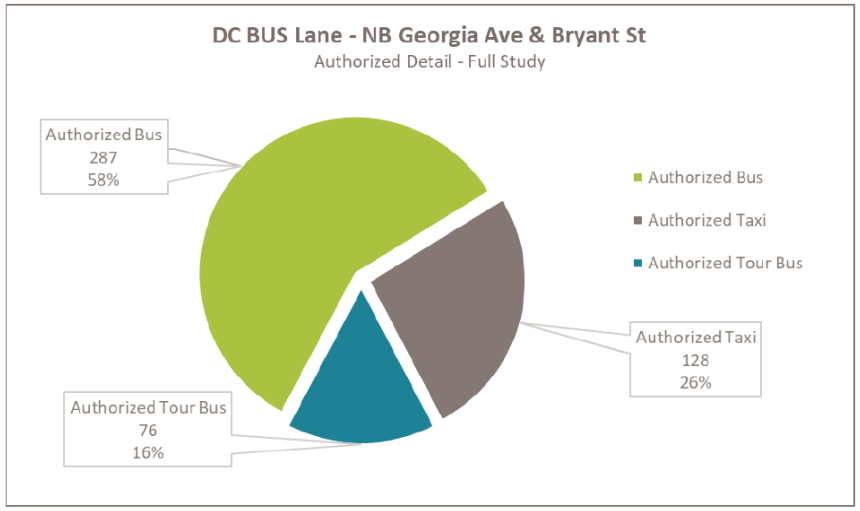
- Vendor completes MOU and donation agreement
- Program shares general business rules for enforcement category
- Pilot deployed based on program specifications
- Vendor provides weekly updates
- Demobilization & final presentation and report

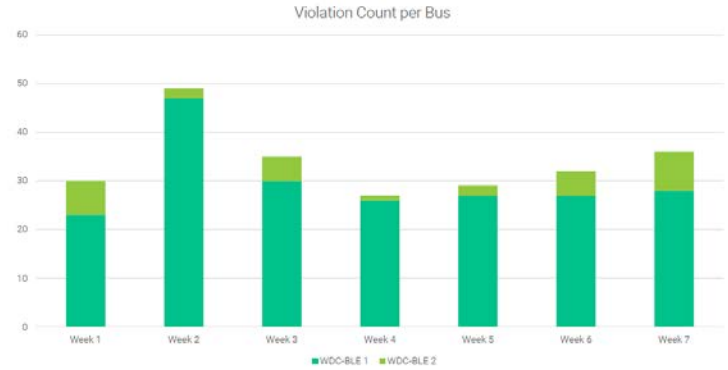
Recent ATE Pilots

Roadside Bus Lane Enforcement



On Bus Enforcement Camera





WRAP-UP

Conclusion

- Evolving in the way we test and apply new and innovative solutions to our programs
- See tremendous value in leveraging the interest vendors have in utilizing DC as a testbed
- Want to be responsive to the needs of the vendors using a streamlined process
  - Clear process for vendors
  - Minimize disruption to staff
- Successful implementations have been needs driven
- No one size fits all

Questions?

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