



Virginia Department of Rail and Public Transportation

# Transit Technology and the Future of Mobility

Richmond Region Transportation Forum

November 29, 2018

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# Integrated and Shared Mobility



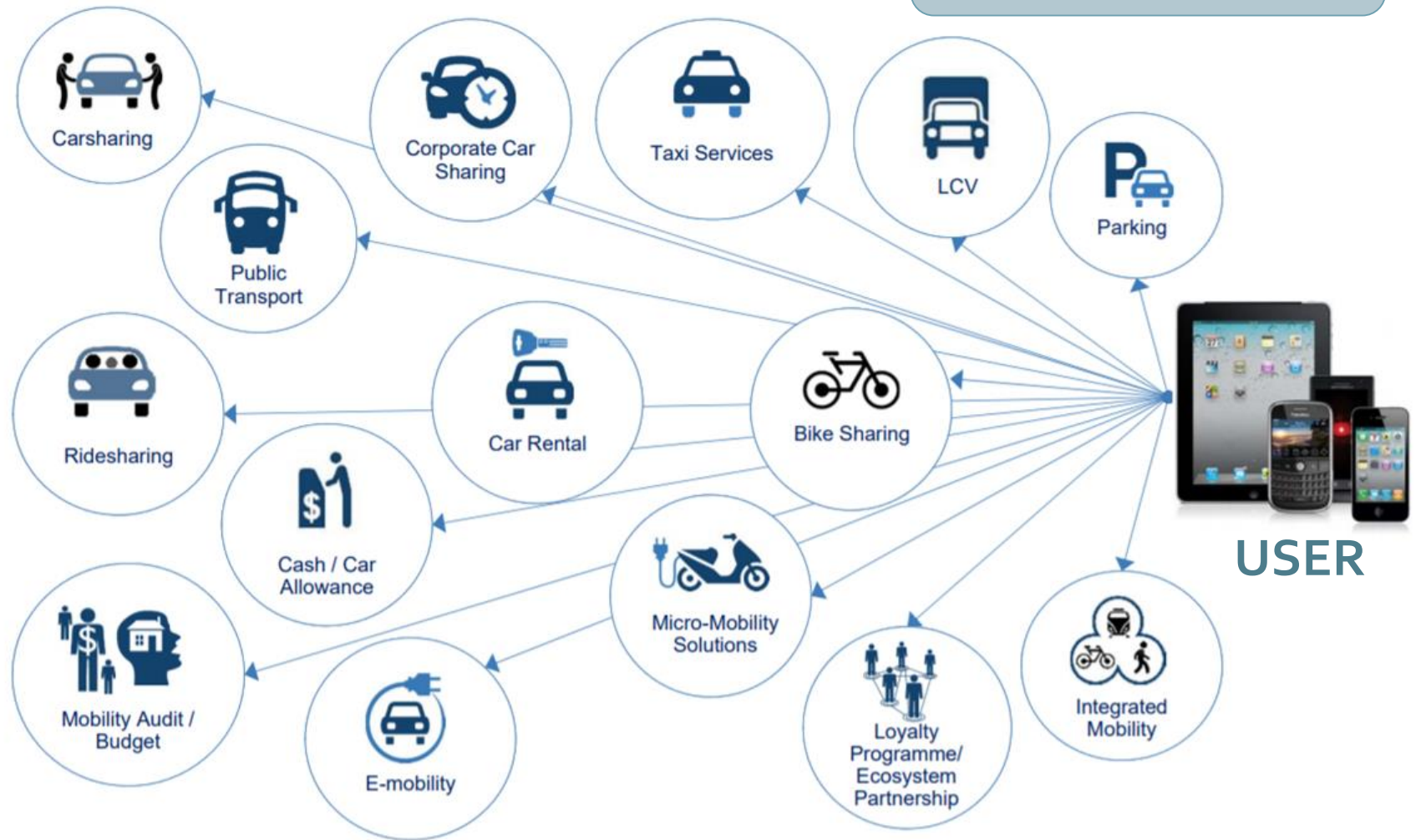
- Shared use of a vehicle or other mode
- Often enabled by technology
- Provides access on an “as needed” basis
- Examples:
  - Technology-enabled shuttle services (microtransit)
  - On-demand ride services (TNCs)
  - Bikesharing
  - Carsharing
  - Scooter-sharing





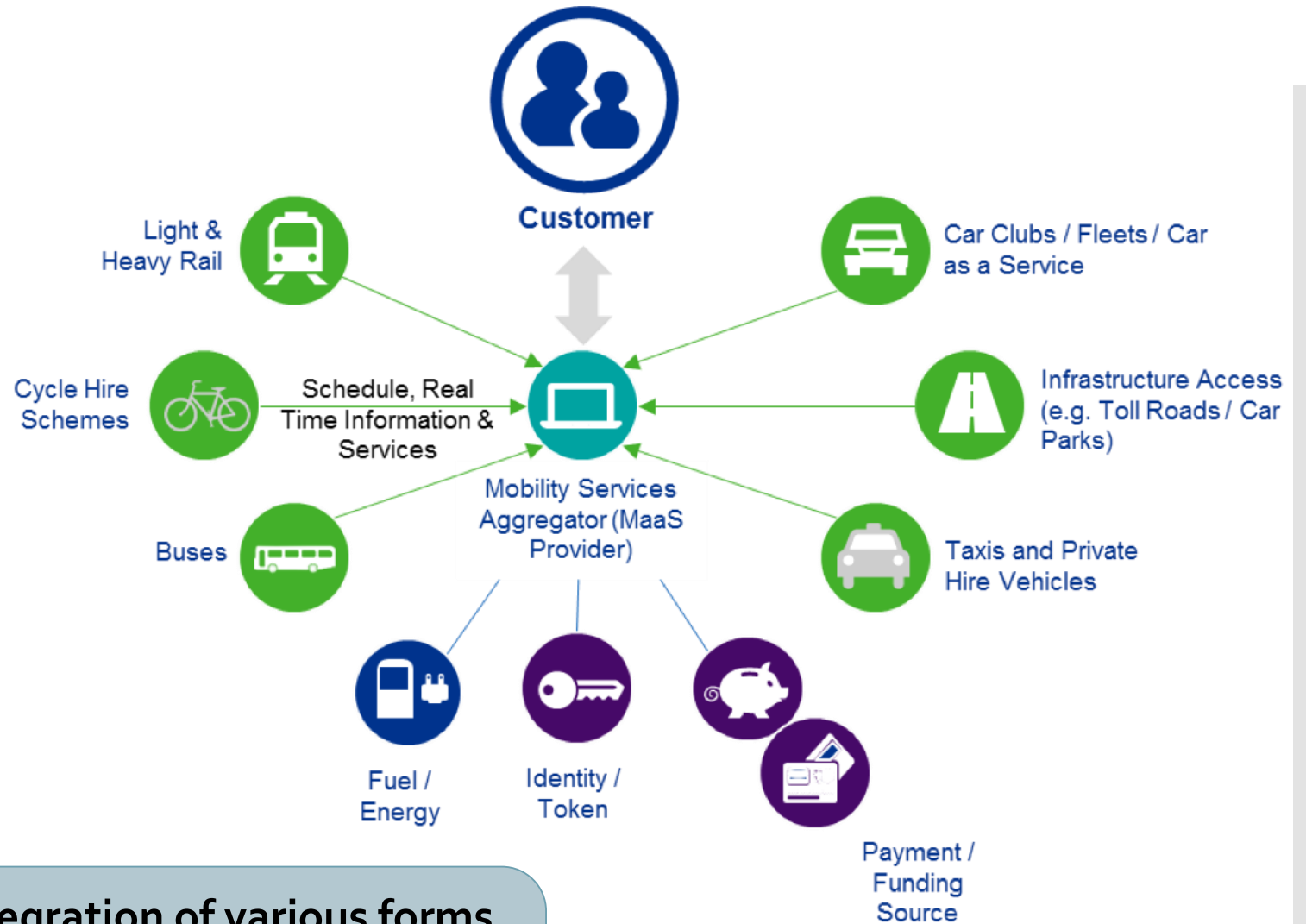
# Mobility on Demand (MoD)

## As-needed access to mobility providers



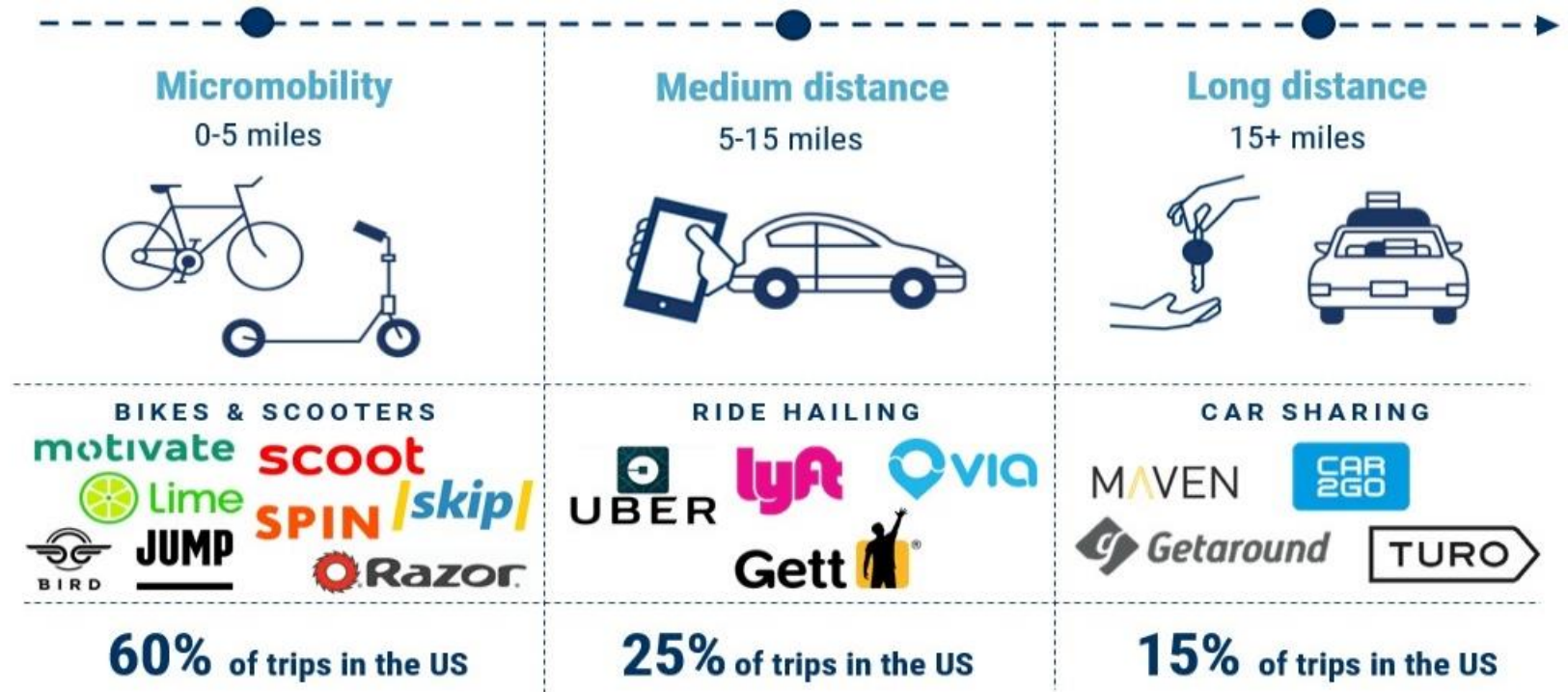
# Trends in Mobility

## Mobility as a Service (MaaS)



“Integration of various forms of transportation services into a single mobility service accessible on demand”

# Shared Mobility Alternatives



Source: NHTS

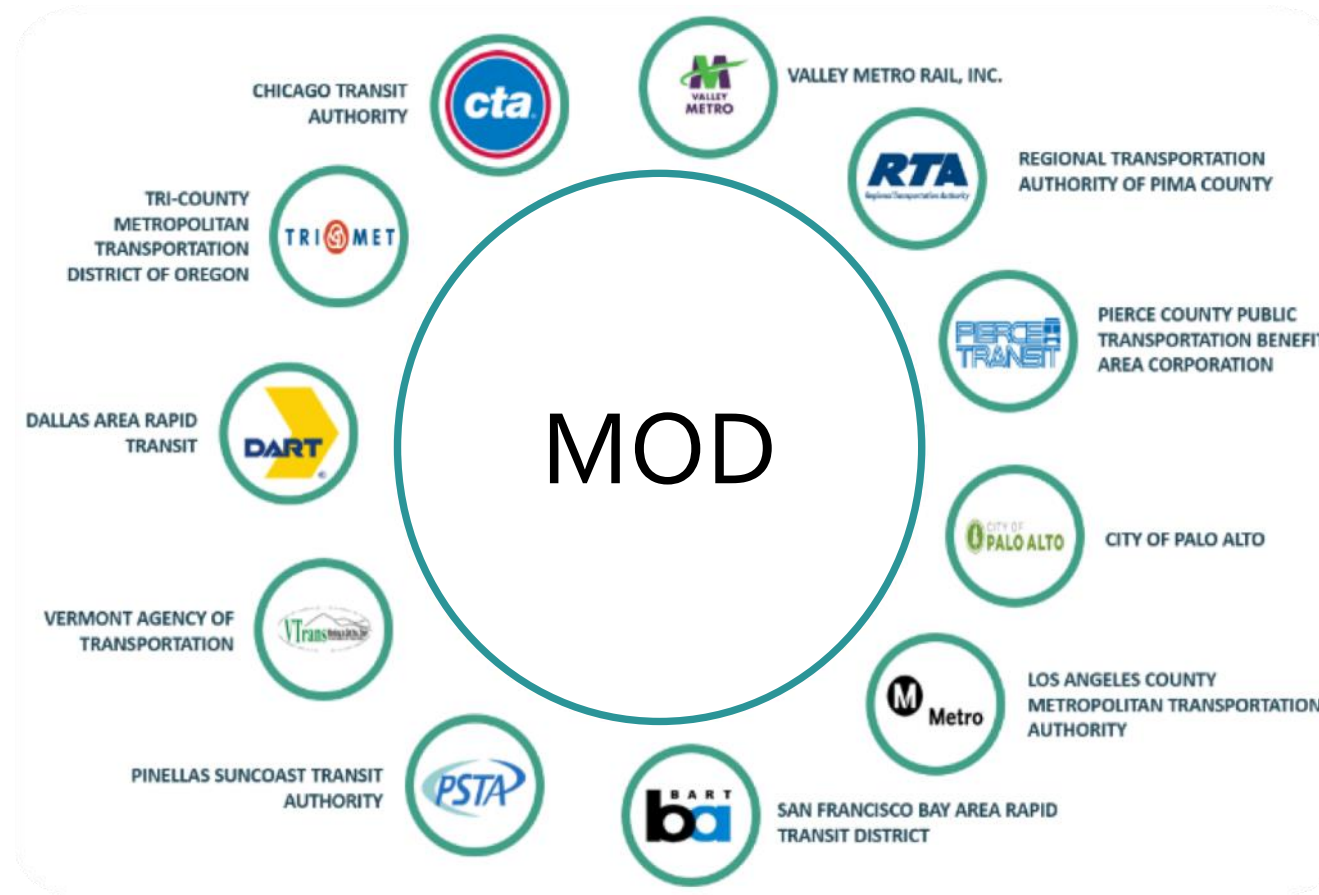
CBINSIGHTS



# US Agencies and Shared Mobility



## Most projects exploring Mobility on Demand



Majority of shared mobility partnerships fall into the following categories:

1. First-mile/last-mile service connections
2. Gap service
3. Special purpose/Paratransit services

Total Mobility -  
related revenues  
in the US are

\$2T

“a fundamentally  
new business  
ecosystem is  
emerging”

Source: Wall Street Journal

# UBER



U.S. Transit Agencies  
27 Million Daily Trips



75 Million  
Riders



4 Billion  
Annual Trips



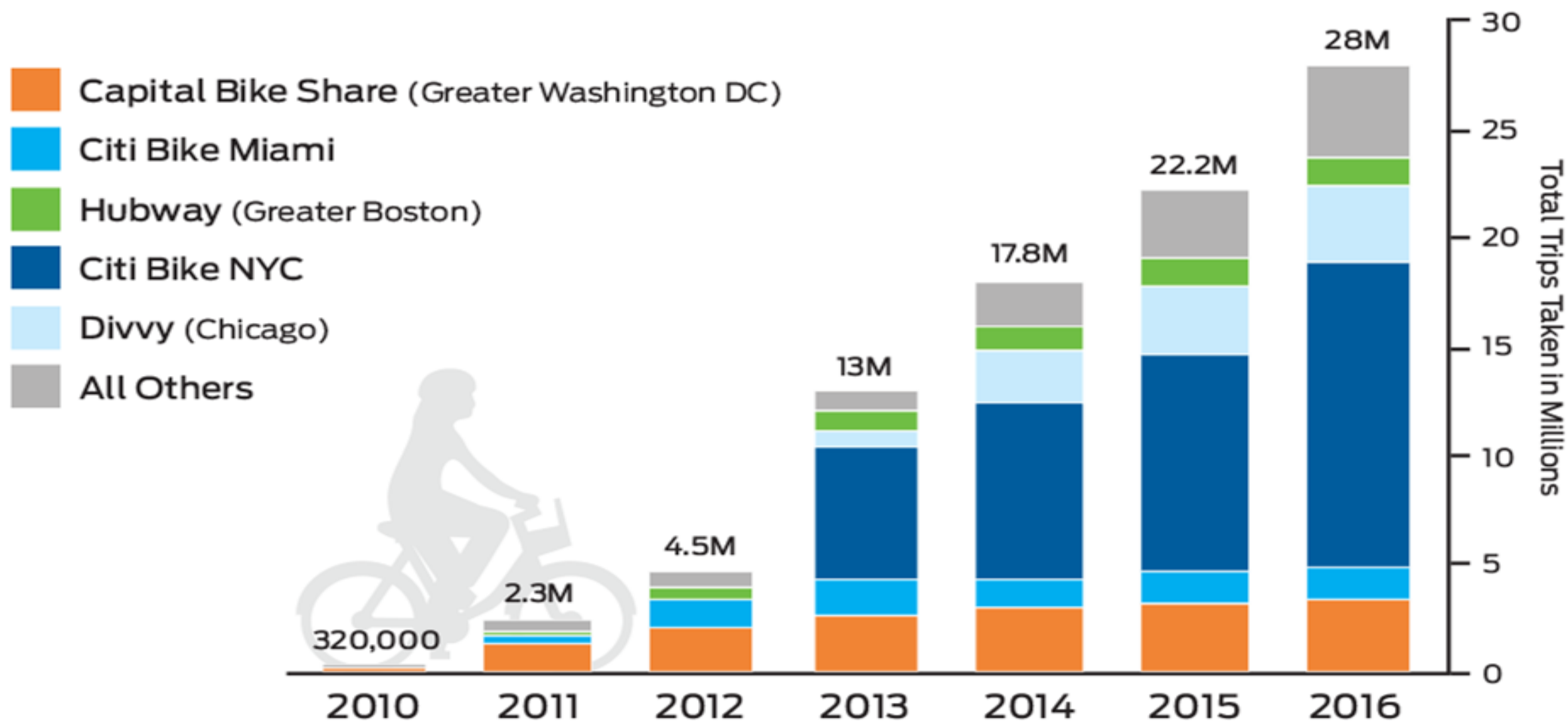
65 Countries  
600+ Cities



15 Million  
Daily Trips

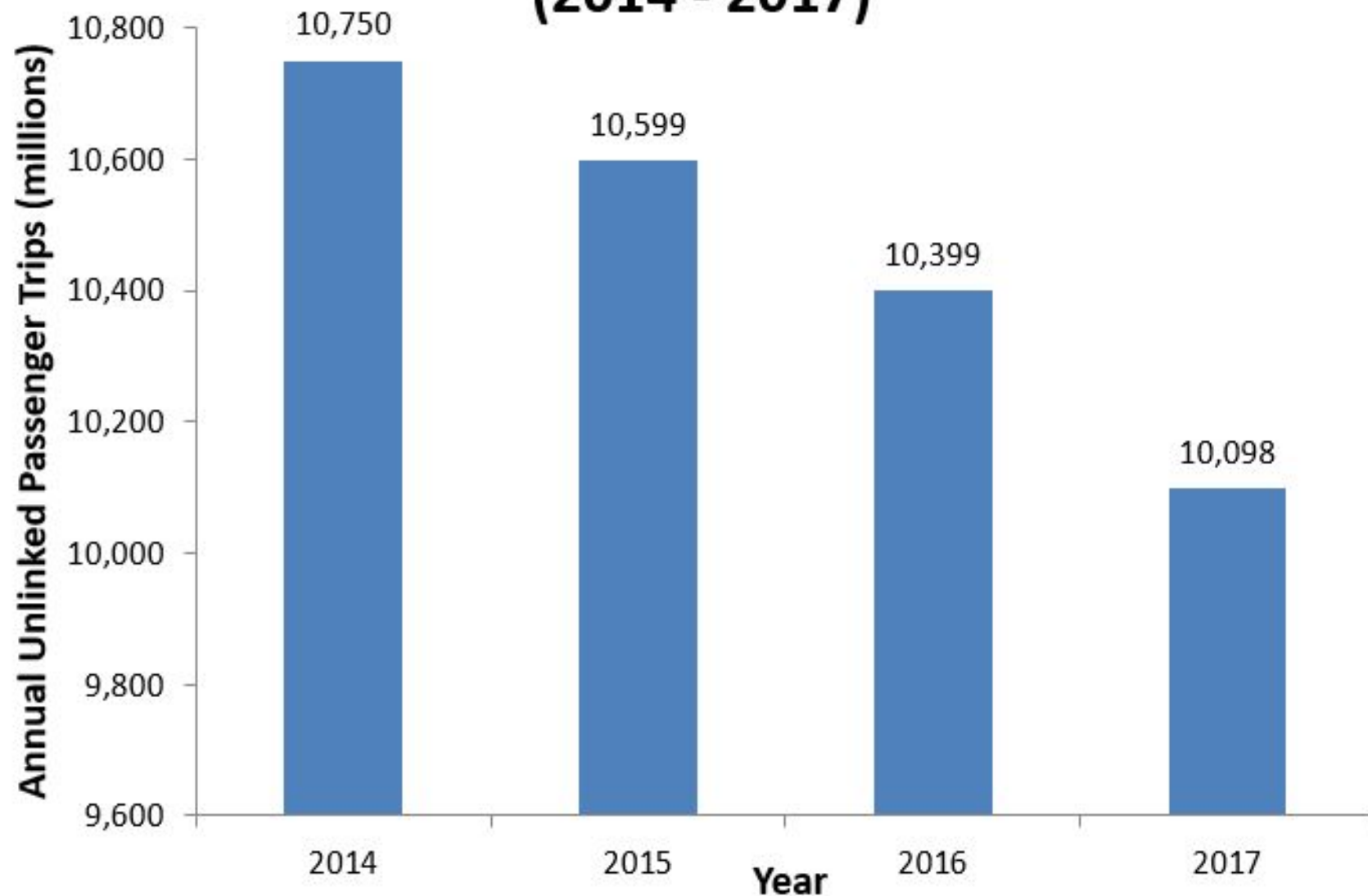


# Bike Share Ridership in the US by System



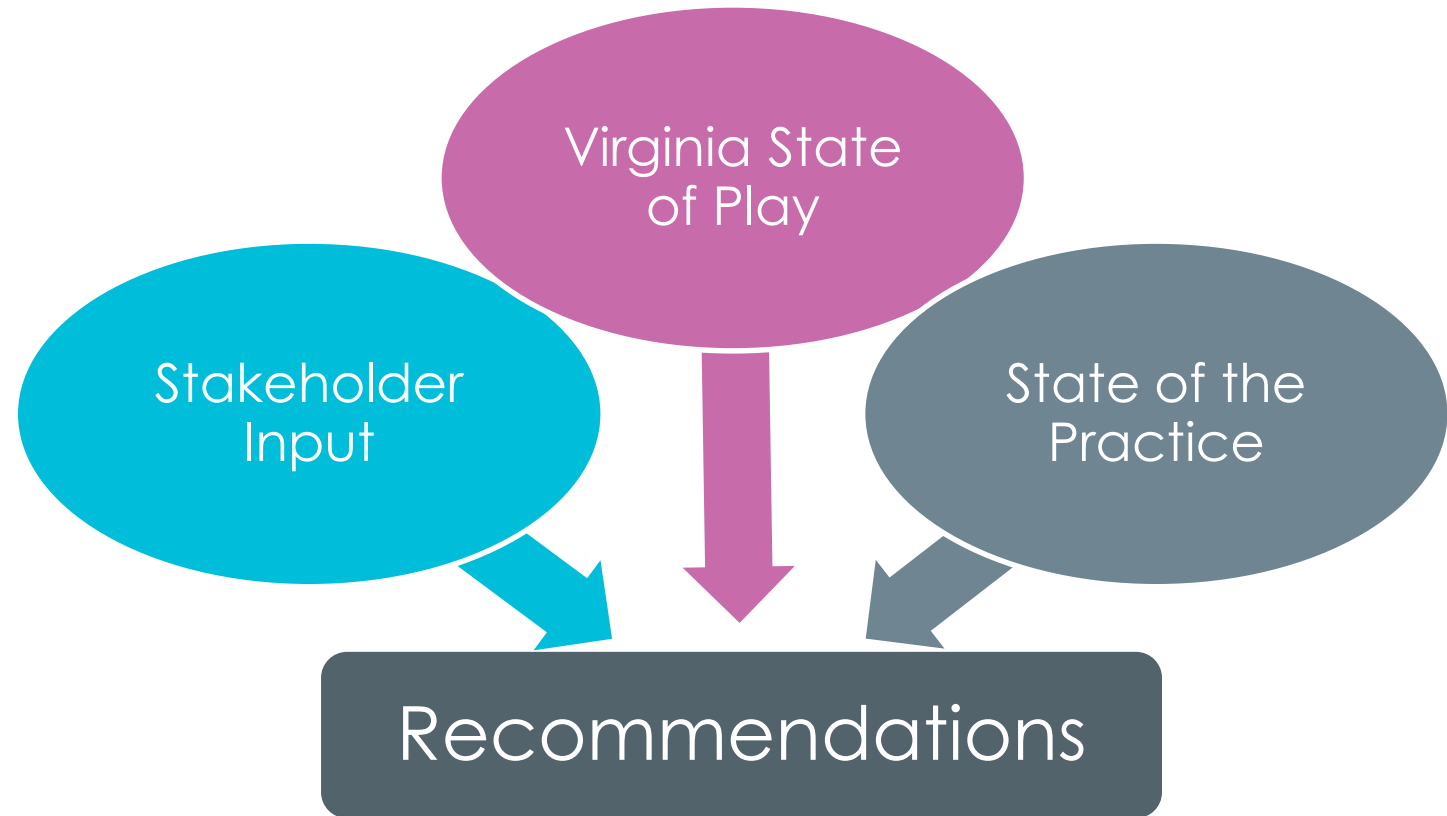
Source: NACTO

## Declining Annual U.S. Transit Ridership (2014 - 2017)



**Sources:** American Public Transportation Association; Federal Transit Administration

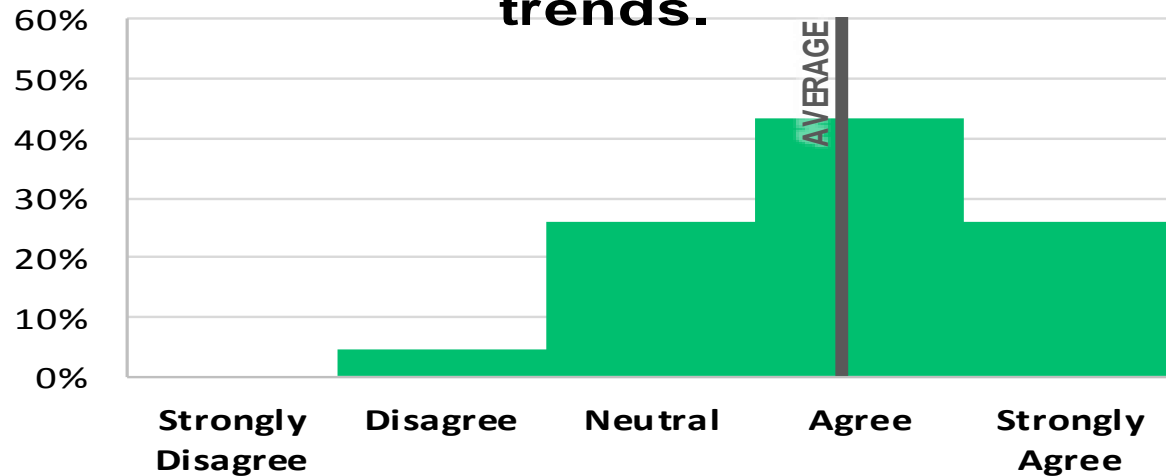
# Statewide Integrated Mobility Initiative



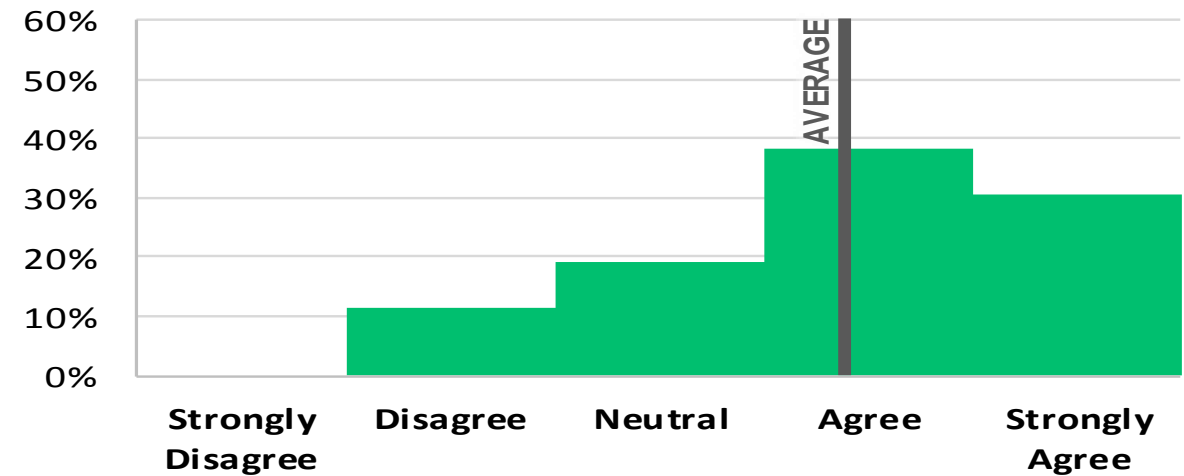


# There is clear perception of a problem with ridership trends and the effectiveness of traditional transit services in certain areas

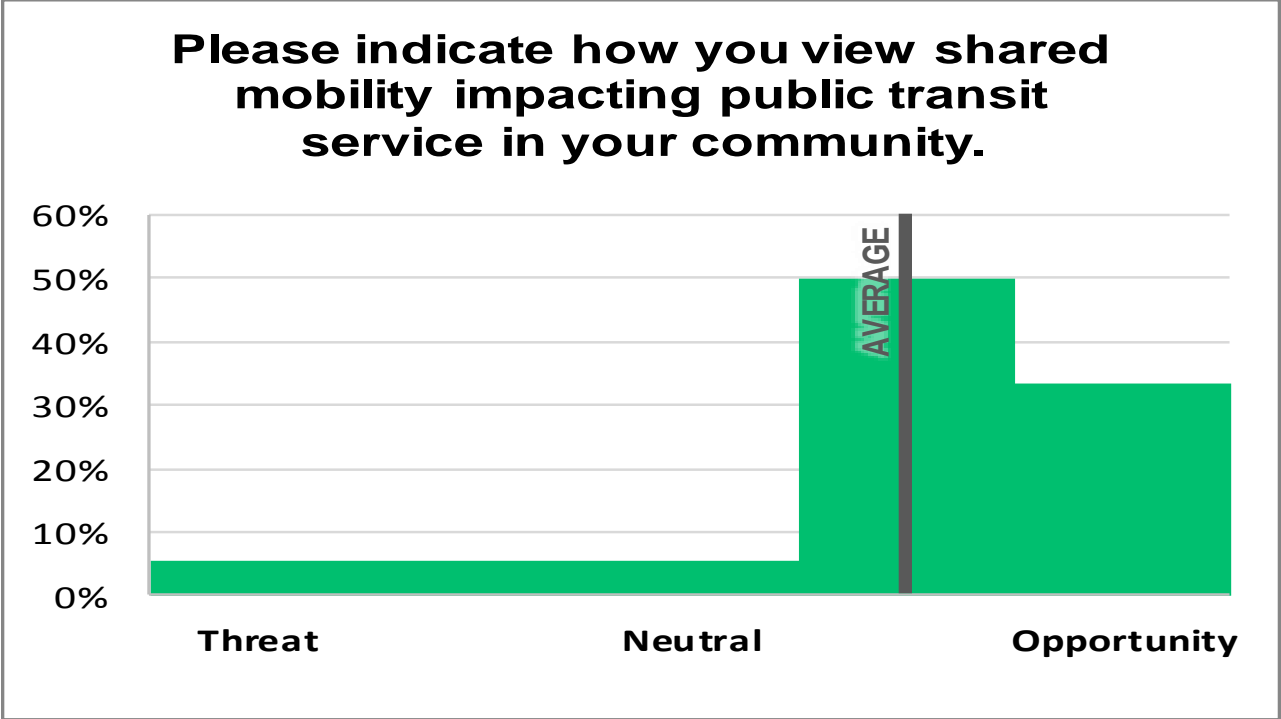
**My agency is aware of recent ridership trends and the underlying causes of these trends.**



**My community has underserved areas that are not well-suited to traditional transit service.**

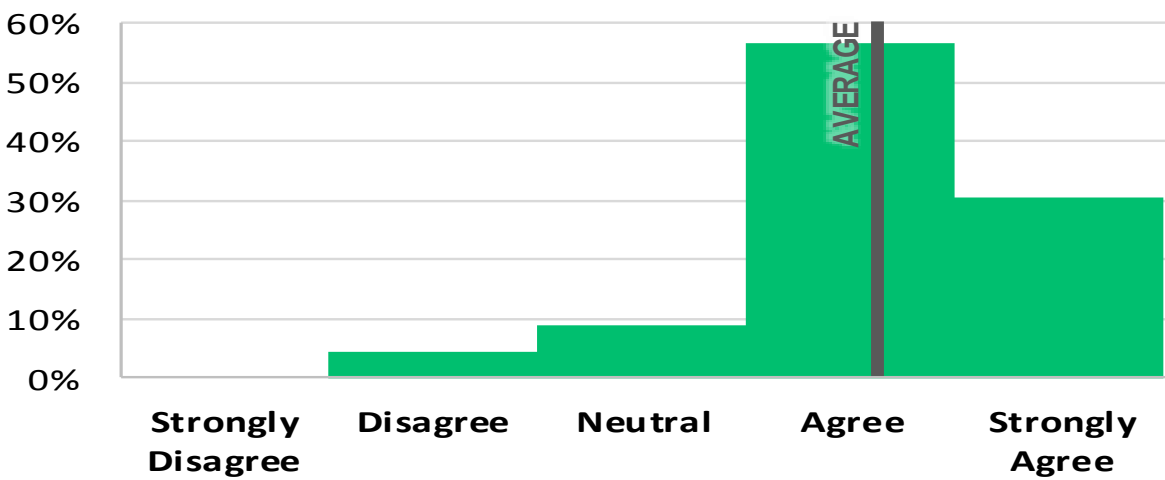


# Shared mobility services are seen more as an opportunity rather than a threat to public transit service in Virginia

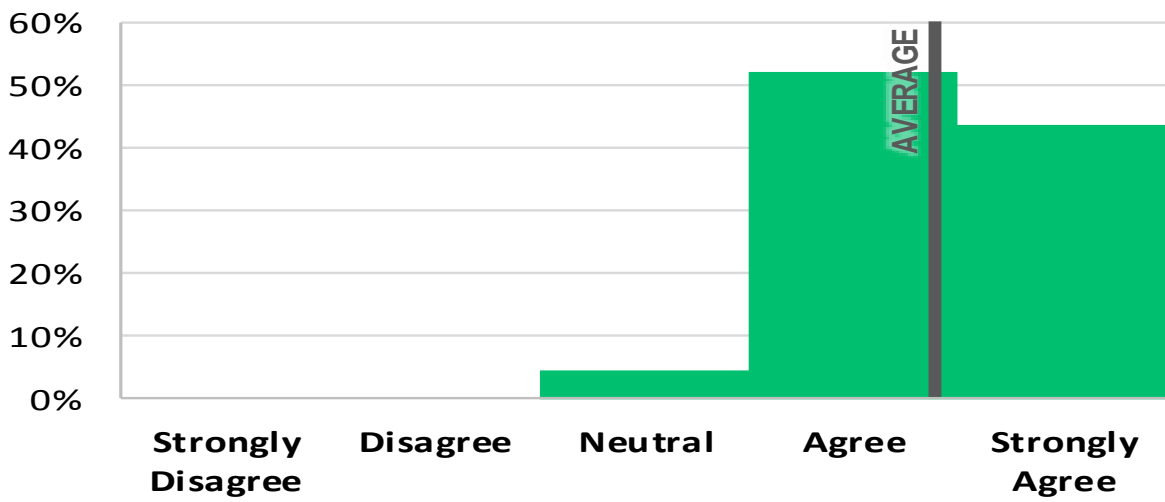


# There is a collective view that transit will change in the future.

**I see shared mobility services as changing the way we provide transit service in the future.**

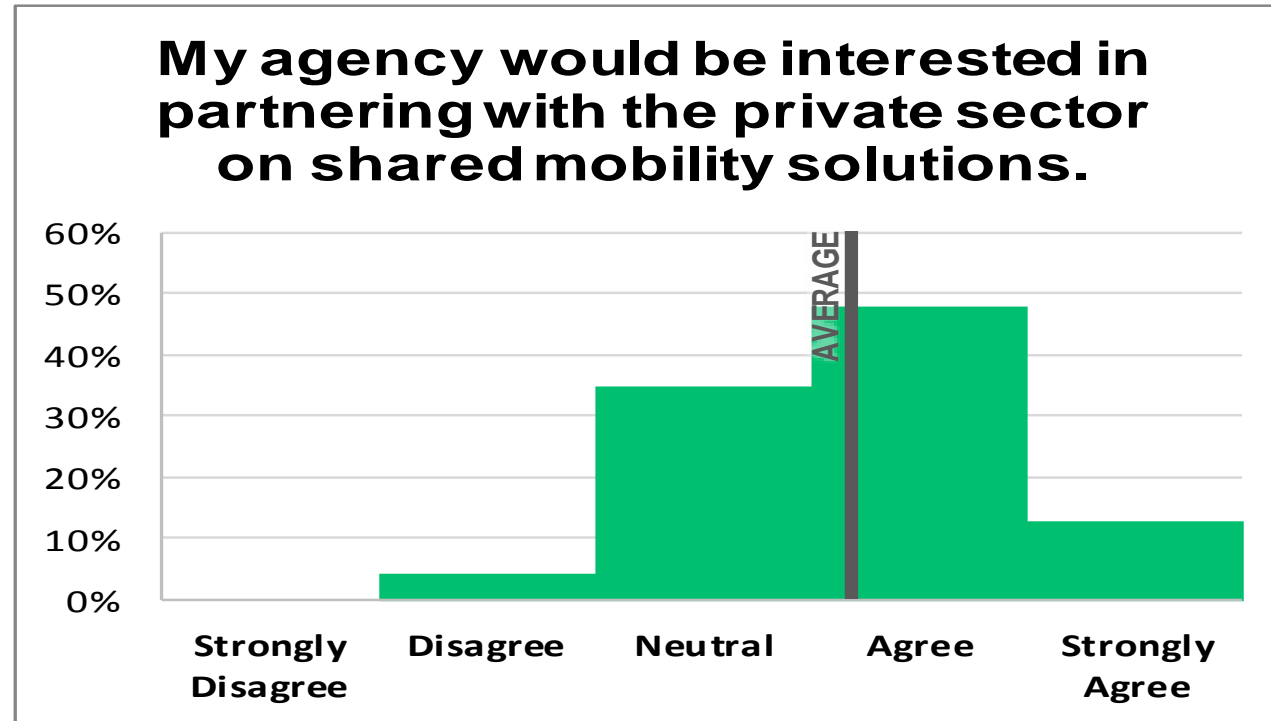


**I see shared mobility services as changing what technology is needed on transit vehicles in the future.**





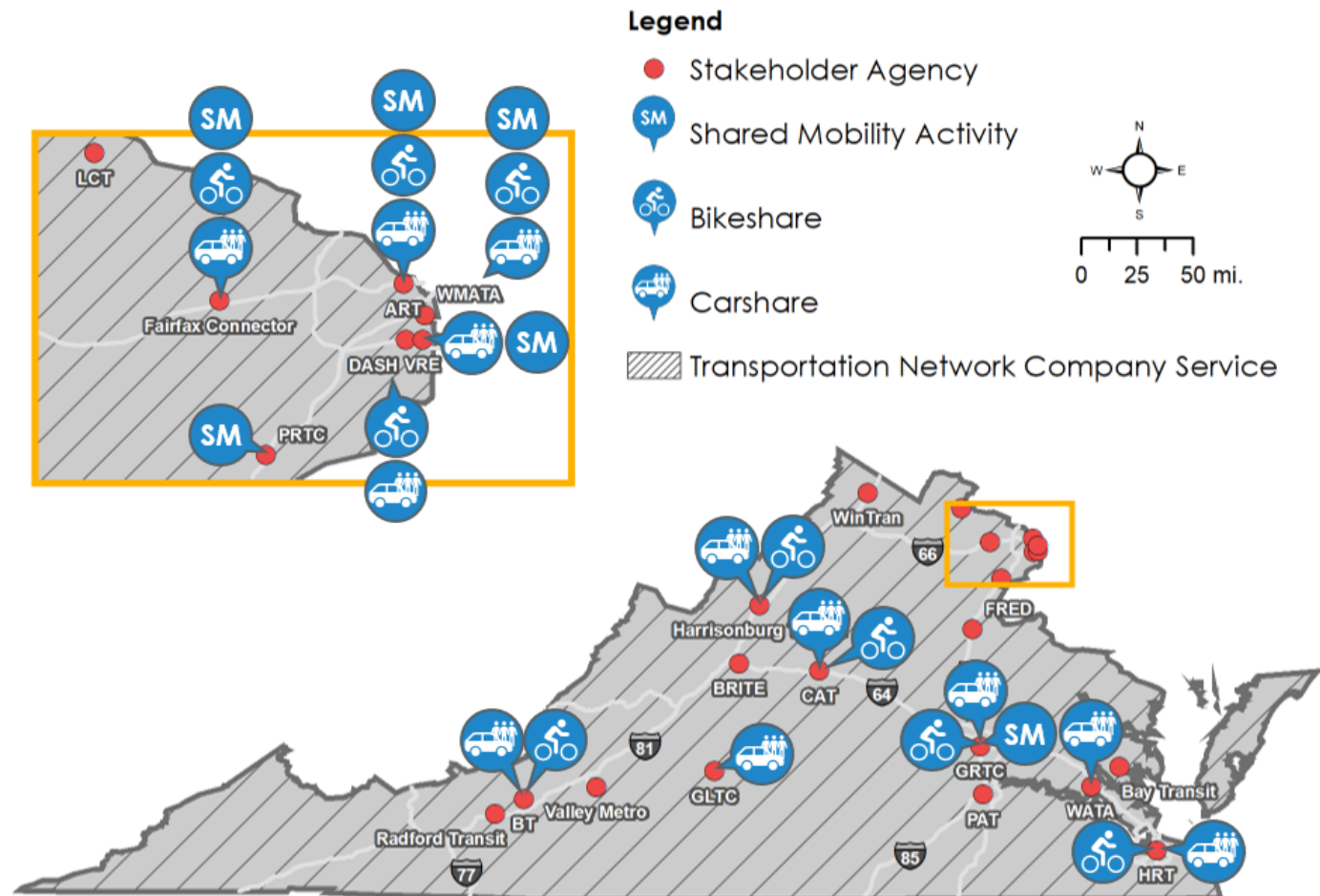
# There is a mix of agency interest, readiness, and executive support for partnering with shared mobility providers



# Active Work in Virginia



Traditional demand response is viewed as the extent of shared mobility services in many communities



Note: Shared mobility services as of September 2018; TNC service availability varies based on supply of drivers.

Several transit agencies are beginning to explore alternative transit services or partnerships

# Active Work in Virginia



- **GRTC CARE Program (Paratransit) – Partnerships with UZURV and Roundtrip**
  - On-demand/reservation companies which coordinate with private vehicle operators
  - Customer eligibility requirements
  - Customer provides \$6 co-pay and GRTC subsidizes up to \$15
- **PRTC**
  - Completed Mobility On-Demand Healthcare Access Feasibility Study
  - Funding for on-demand shuttles between neighborhoods and park and ride lots
  - Funding for flexible vanpool program





# Active Work in Virginia



- **Arlington County/MWCOG**

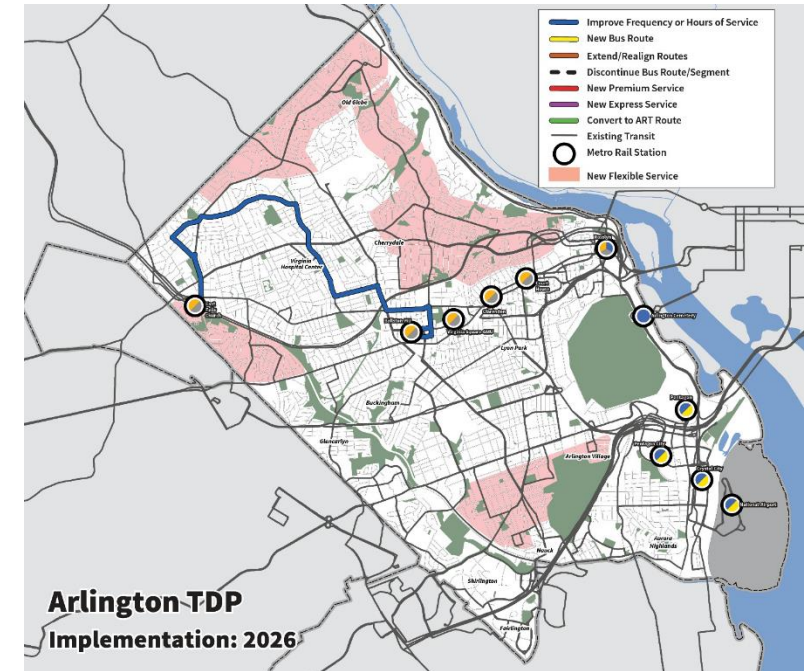
- Looking at a flex service concept for lower density neighborhoods
- Defining parameters, zones, and standards of success

- **Fairfax County**

- Alternative transit study will be looking at a range of flexible, alternative transportation services including autonomous vehicles

- **Virginia Railway Express**

- Updating VRE Mobile to include links to Lyft, Car2Go, Zipcar, and Capital Bikeshare



*Potential Arlington Flex Service Areas*

# What does the future hold?

- Multimodal and TNC services are going to stay
- Several transit agencies are beginning to explore alternative transit services or partnerships
- Uncertainty in the future
- Operations and business change will occur
- Agencies are ready for pilots and funding opportunities





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