

Strategic Miami Area Rapid Transit SMART Plan

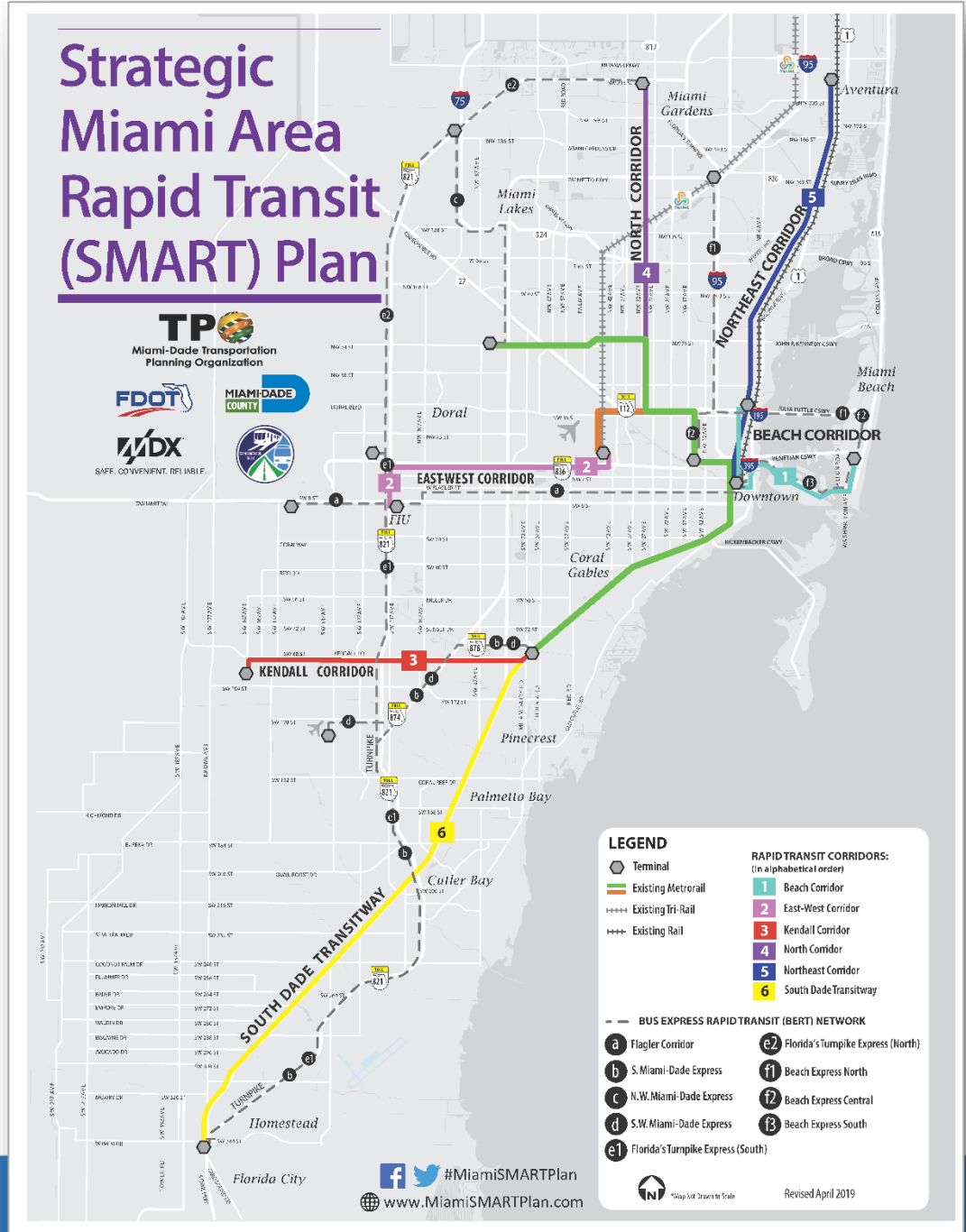


ACES Vehicles Subcommittee

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Miami-Dade Transportation Planning Organization
November 20, 2019

ACES Vehicles Subcommittee

- ✓ Critical multimodal transportation needs
- ✓ Increasing congestion and system unreliability
- ✓ Era of transformation in technology and travel
- ✓ Emergence of CAV & social network transportation providers, e-commerce, advanced logistics & new mobility services
- ✓ Changing models in mobility/land-use, public/private partnerships & government regulation



SMART Demonstration Program

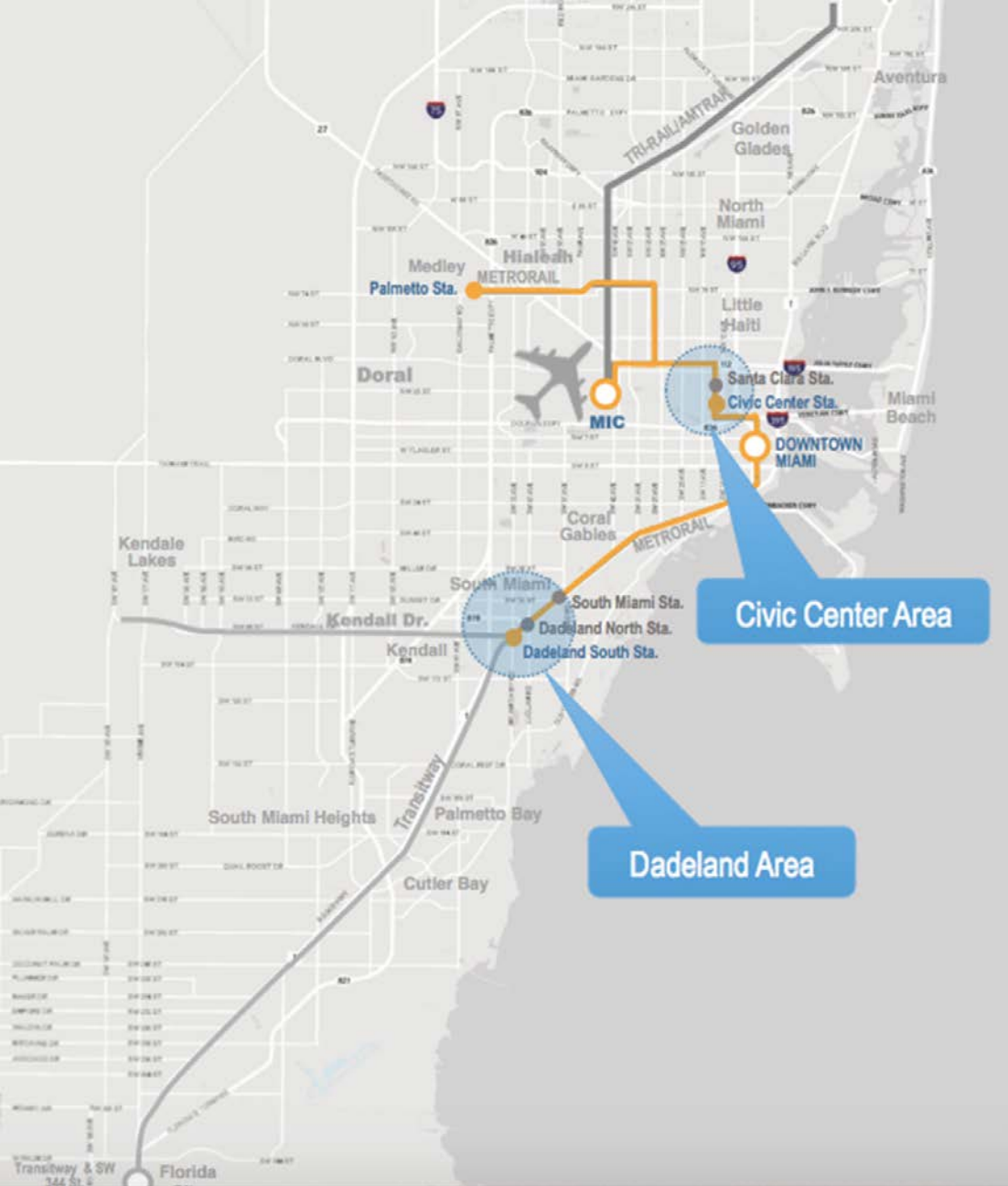
- Recognize disruption-investments & operations
- Encourage innovation at local level
- Capture wide range of stakeholders
- Form new Public/Private Partnerships
- Emphasize flexibility, adaptability and integration
- Urban mobility test-ground



SERVICE AREA MAP

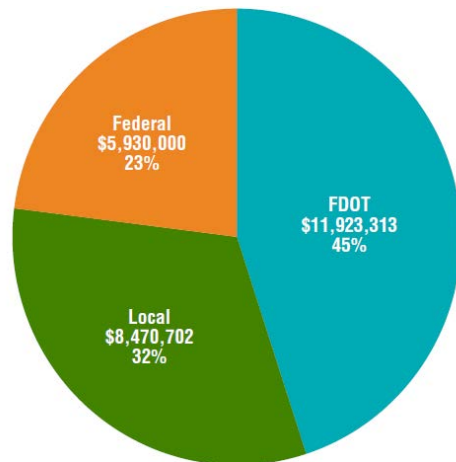
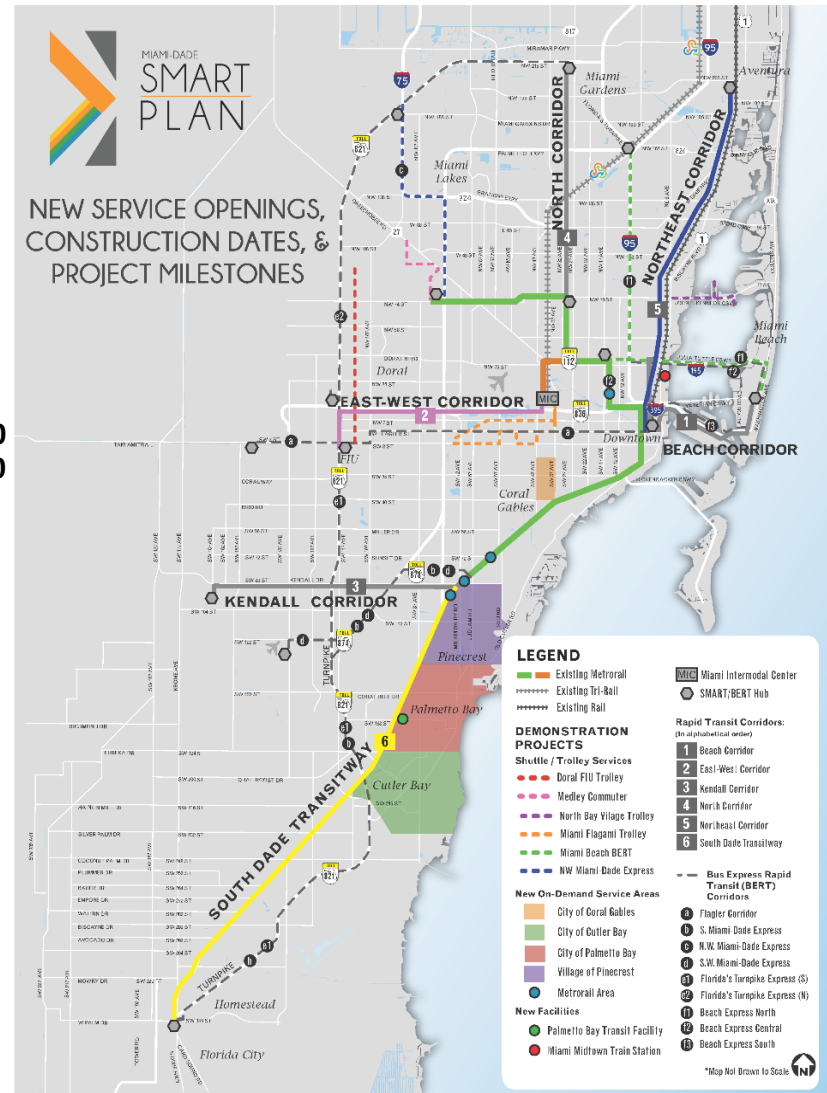
FIRST/LAST MILE SOLUTIONS

- Partnership driven:
 - Private licensing on-demand technology
 - Private transit operator
- Shared, blue door-to-door rides for transit users from/to Metrorail stations within designated service areas:
 - Civic Center area
 - Dadeland area:
South Miami, Dadeland North and Dadeland South stations
- Real-time ride matching and dynamically routed rides



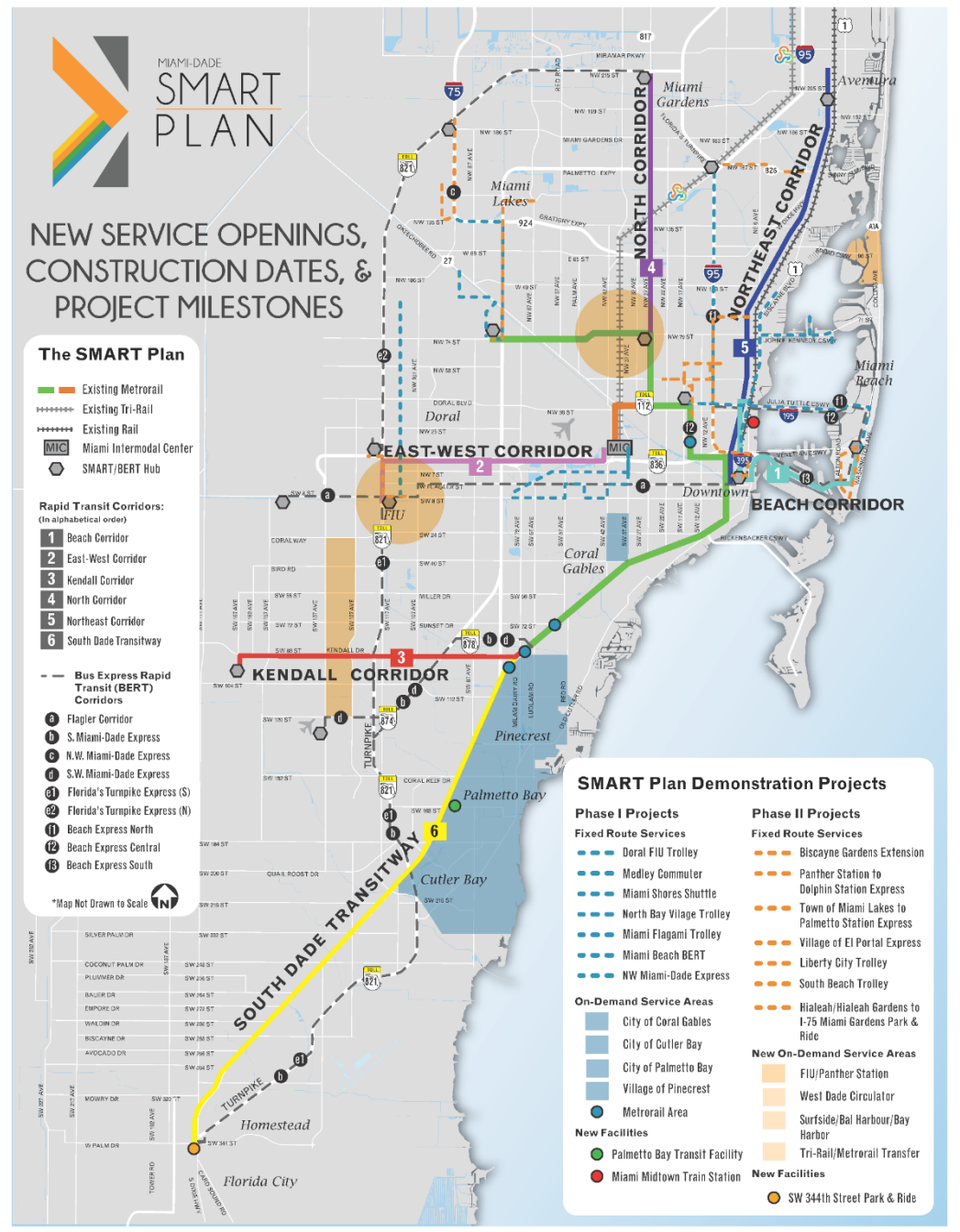
2018 SMART Demonstration Projects

Current Status



2019 SMART Demonstration Program Projects

- Biscayne Gardens Transit Extension
- Tri-Rail/Metrorail Transfer Station On-Demand Service
- West Dade Circulator On-Demand Service
- SW 344th Park and Ride Station (Construction)
- Panther Station to Dolphin Station Express Service
- Town of Miami Lakes Express Service to Palmetto Metrorail Station
- Surfside/Bal Harbour/Bay Harbor On-Demand Service
- Village of El Portal Express Service
- FIU/Panther Station On-Demand Service
- City of Hialeah/Hialeah Gardens to I-75 Miami Gardens Park & Ride
- City of Miami Liberty City Trolley Service
- City of Miami Beach South Beach Trolley Service



SMART

Demonstration
Program
Evaluation
Criteria &
Monitoring
Methodology

Define the Evaluation Process:

- Develop Performance Framework for Assessing Projects
- Work with State & Municipal Partners for Framework Selection and Endorsement
- Collect Existing Data from Phase I Projects
- Develop Data Collection Guidelines



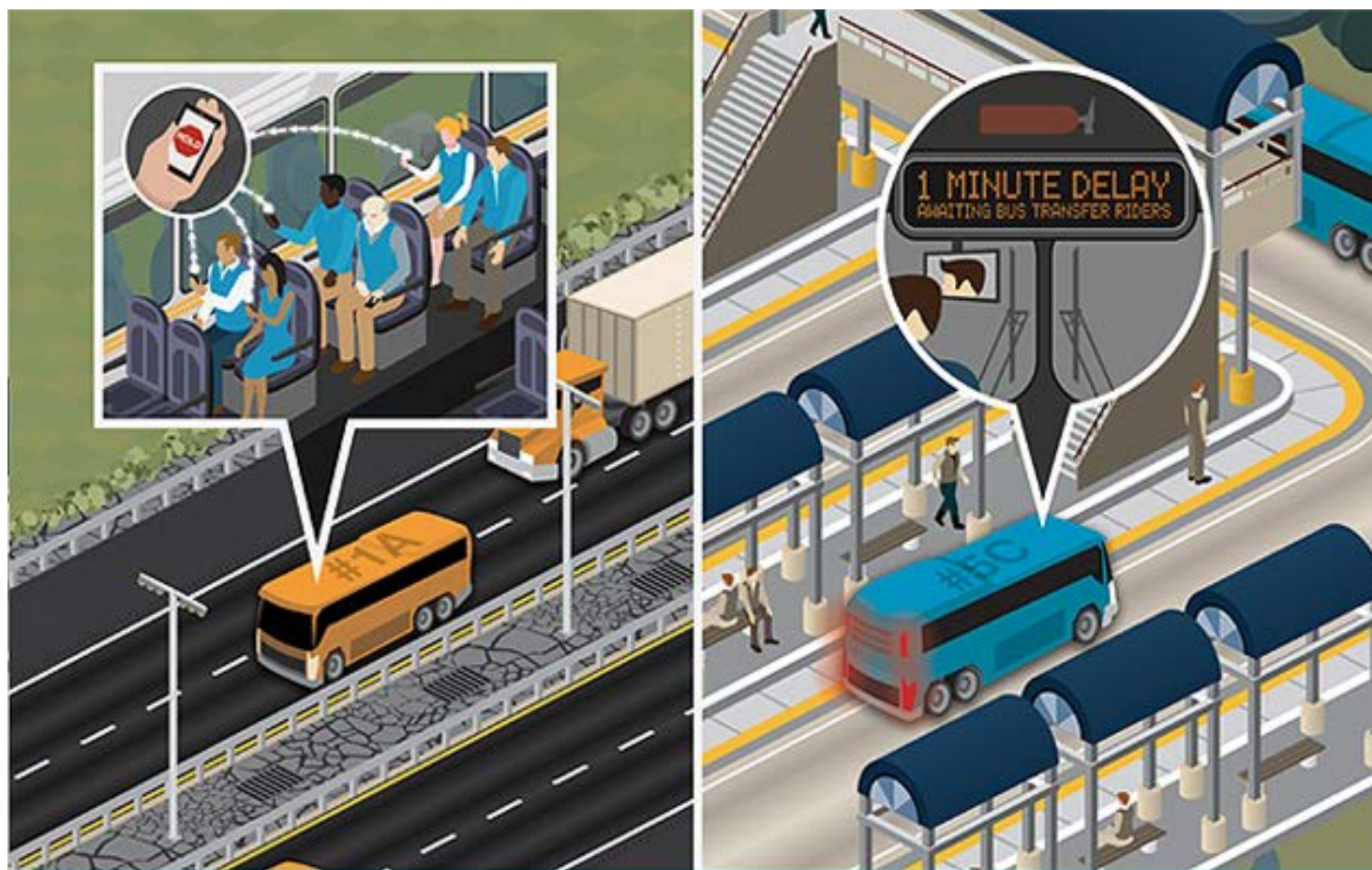
SMART Demonstration Program Evaluation Criteria & Monitoring Methodology

Develop Monitoring Program:

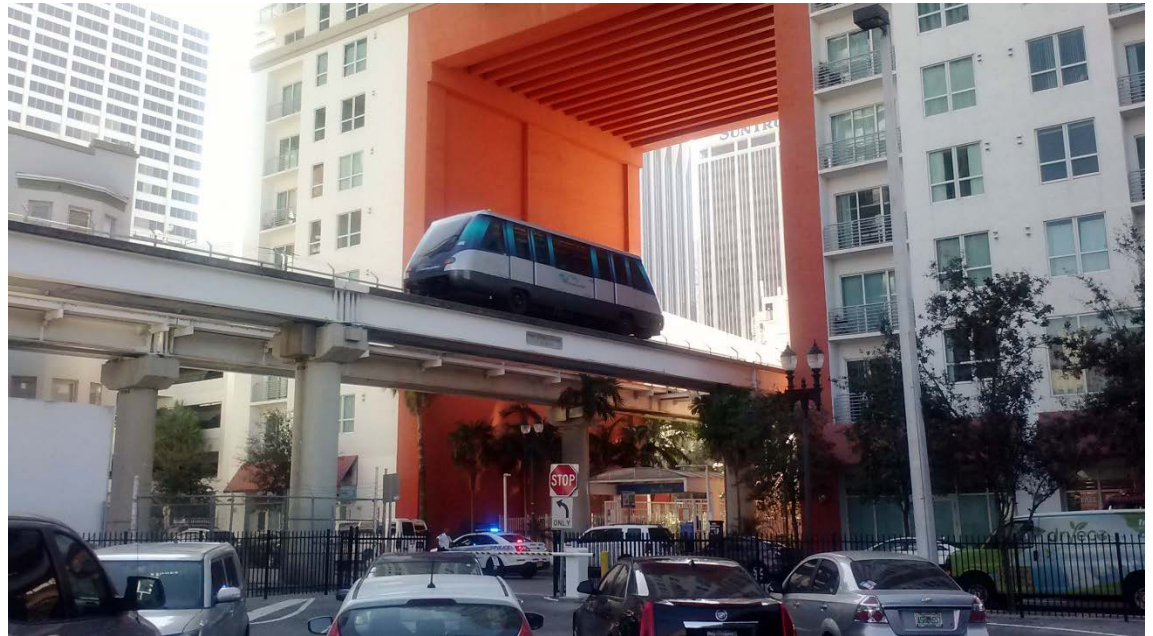
- Travel Time (Total & Savings)
- Total Ridership: LOS for Users
 - Frequency, Service Span, On-Time Performance, Delays, Satisfaction
- Return on Investment
- Reduction in VMT
- Accessibility to Major Activity Centers
 - Population Density, Employment Density
- Multimodal Connectivity



Connected Systems: Vehicle to Infrastructure



Miami-Dade Transportation
Planning Organization



Automated & Connected Systems

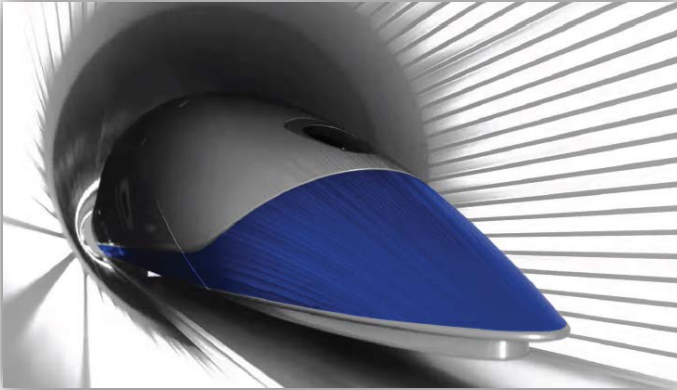
2045 Long Range Transportation Plan

A Focus on Emerging Technologies

- ✓ *Connected & Autonomous Vehicles (CAV)*
- ✓ *Transportation Network Companies/Rideshare*
- ✓ *E-commerce and advanced logistics*
- ✓ *Urban Air Mobility*
- ✓ *Maglev Trains*
- ✓ *Satellite-Based Air Traffic Control Systems*
- ✓ *Smart Roads/Infrastructure*
- ✓ *New mobility services*



2045 Long Range Transportation Plan (related industries)



Hyperloop Transportation Systems



*Automated
Meal Delivery*



Solar Roadways

Drones



Land Development Guidelines to Accommodate ACES Vehicles

- ✓ Miami Beach Pilot Rideshare Loading Zones
- ✓ Parking Garage Standards
- ✓ Reduction in Parking Requirements



Land Development Guidelines to Accommodate ACES Vehicles

- ✓ Electric Vehicle Parking
- ✓ Charging Stations
- ✓ SMART Demo Project: South Beach Trolley



Best Practice in Collaboration

SMART Plan Support from State, Regional & Local



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Questions & Discussion



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