

# Automated Bus Consortium

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# Concept Summary

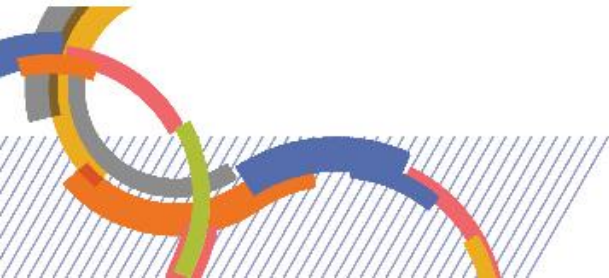
- Automated small vehicle shuttle technology is proven
- Appears feasible to transfer AV shuttle technology to full-sized buses
- Vendors need a market to cost-effectively produce these buses
- Concept: Joint procurement of 75-100 buses by 12 agencies



# Consortium Goal

Deploy full-sized, full-speed automated buses:

- In a variety of geographies and applications to advance the industry understanding of the technology
- Leverage the technology to improve safety, reliability, operating efficiency and customer experience



# Consortium Objectives



## Accelerate Automated Transit Technology

- Induce the technology market with a potential joint procurement
- Work with the Industry to better define near term Deployable Automated transit technologies



## Collaborate Across the Nation with Transit Agencies

- Develop a single Future Bus Specification to test and validate new automated technologies
- Work across Agencies to reduce cost by developing a single bus specification for potential joint procurement



## Demonstrate Automated Technologies in Real Service Environments

- Develop 1 pilot project per agency to test the proposed automated bus technology
- Use pilot program results to better influence the market and technology development

# Consortium Partners



- Dallas Area Rapid Transit (DART)
- Department of Rail and Public Transportation (DRPT) / Hampton Roads Transit (HRT)
- Foothill Transit
- Houston Metro
- Long Beach Transit Authority (LBTA)
- Los Angeles County Metropolitan Transit Authority (LA METRO)
- Metrolink (Moline)
- Metropolitan Atlanta Rapid Transit Authority (MARTA)
- Michigan DOT/Planet M
- Minnesota DOT
- Pinellas Suncoast Transit Authority (PSTA/FDOT)

# Phased Approach from Feasibility to Implementation

1

## Preliminary Development Agreement

- Service Visioning/Pilot Projects
- National & Local Outreach
- Vehicle and Infrastructure Technology
- Industry Forum
- Financial Planning
- Regulations
- Implementation Strategy

GO/NO-GO

2

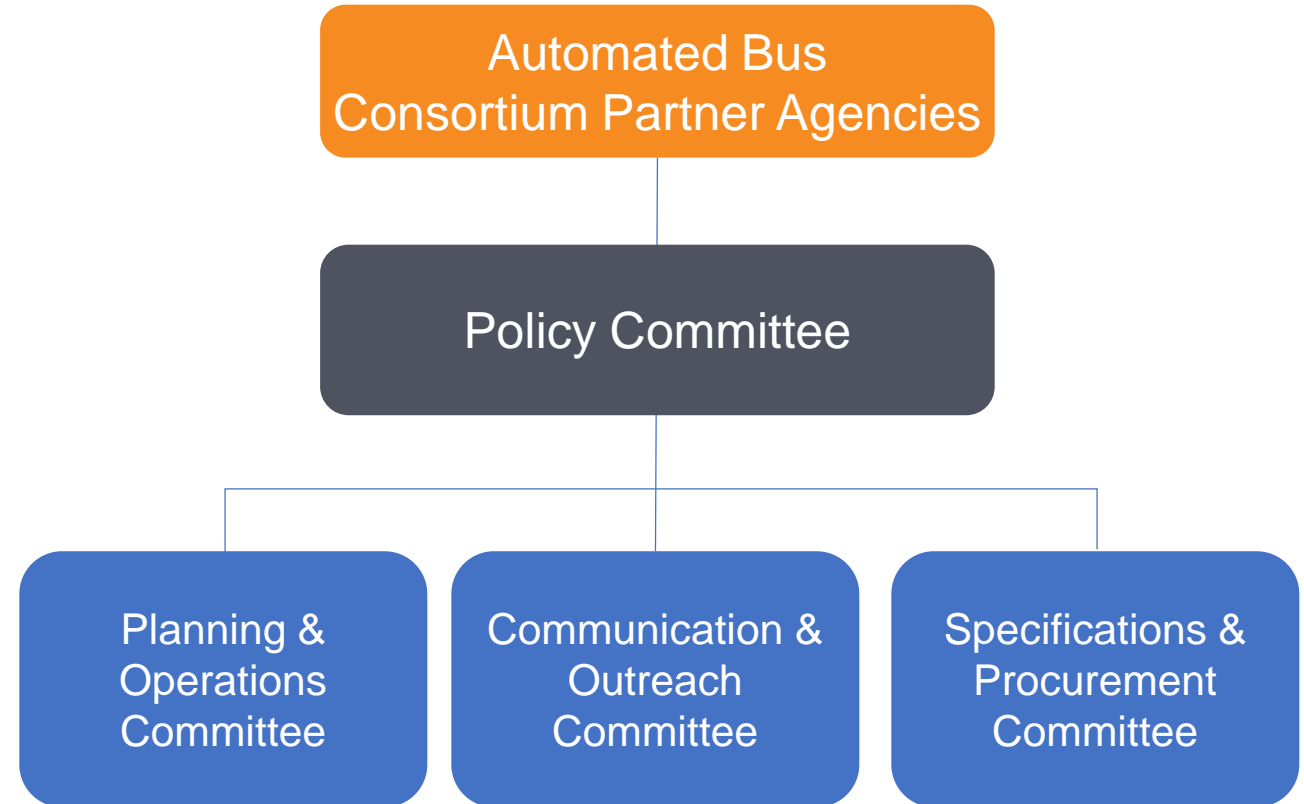
## Comprehensive Development Agreement

- Procurement of Buses
- Infrastructure Design
- Technology Testing
- Deployment/Construction
- Evaluation
- Next Steps

# Consortium Governance

## Consortium Structure

- Developed to drive decision making
- Policy Committee – agency executives make final decisions
- Technical Committees – drive work plan and recommendations





# Activities to Date

- Agency Kickoff Meetings – April-May, 2019
- Agency Pilot Project Workshops – May-June, 2019
- Specifications and Procurement Committee – June 27<sup>th</sup>, 2019 (Dallas, TX)
  - Battery-electric bus selected
  - Risk register
- Planning and Operations Committee – July 16<sup>th</sup>, 2019 (Minneapolis, MN)
  - Preferred pilot routes selected
- Policy Committee Kickoff – August 14<sup>th</sup>, 2019 (Washington, DC)
- Industry Forum – September 12<sup>th</sup>, 2019 (Detroit, MI)
- Initiated route refinement and implementation planning – October 2019
- Next Planning & Operations Committee – November 2019





# Potential Risks

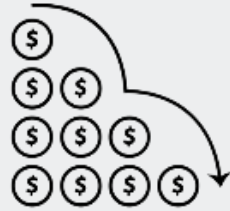
- Insurance
- Labor
- Legislative Meddling
- Safety
- Regulatory approval
- Funding
- Liability
- Driver Certifications / Requirements to Drive AV
- Cyber Attacks
- Cost / Benefit Analysis Proof of Value and Benefit
- Acceptability of Use / Public Buy in
- Infrastructure Costs
- Electric Infrastructure Challenges (with Power Grid)
- Data Sharing from 3<sup>rd</sup> AV Parties
- Software / Technology Upgrades
- Software Viruses and Glitches and How to Address and Override
- Promotion of AV Bus Safety and Proof of Testing Certifications
- Industry Ability to Deliver Quality Product



# Potential Value of the Consortium



**Accelerate  
Technology  
Development and  
Deployment**



**Reduce Planning  
and Procurement  
Costs**



**Stimulate  
Technology  
Demand**



**Shared Lessons  
Learned**



# Website

## [automatedbusconsortium.com](http://automatedbusconsortium.com)

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### About the Automated Bus Consortium

With rapid advancement of driverless technologies and the urgent need to improve mobility options while safely and effectively mitigating congestion in cities across the United States, the Consortium's collaborative effort to leverage its combined resources and launch its pilot deployment program of full-sized buses is groundbreaking. Using cost-efficient and standardized methodologies and assessment, the Consortium will lead the nation's effort to test and evaluate driverless bus technology.

# Automated Bus Consortium Program Overview

**Thank You**

Accelerating automated technology for transit  
services

