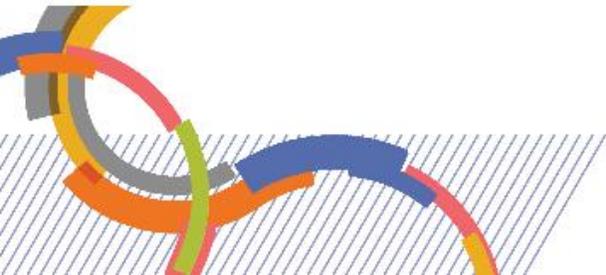


Automated Bus Consortium

Greg Walker

AECOM, Senior Manager

Phoenix, Arizona



Concept Summary

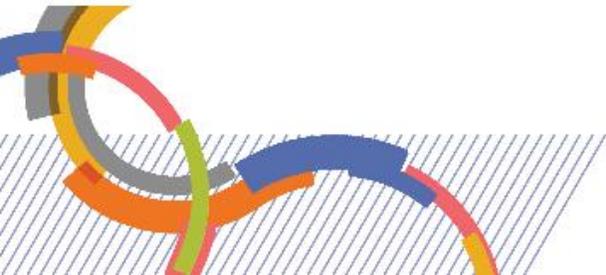
- Automated small vehicle shuttle technology is proven
- Appears feasible to transfer AV shuttle technology to full-sized buses
- Vendors need a market to cost-effectively produce these buses
- Concept: Joint procurement of 75-100 buses by 12 agencies



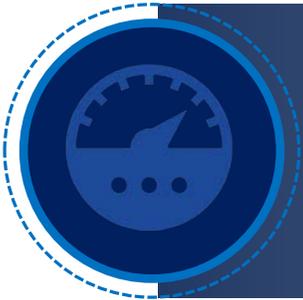
Consortium Goal

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



Foothill Transit



- 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

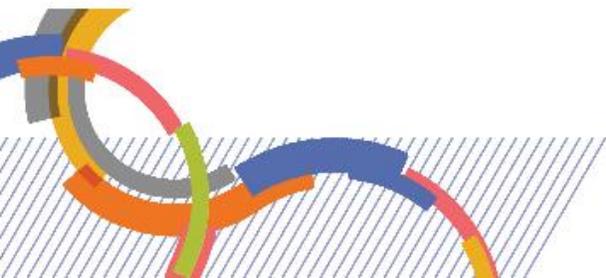
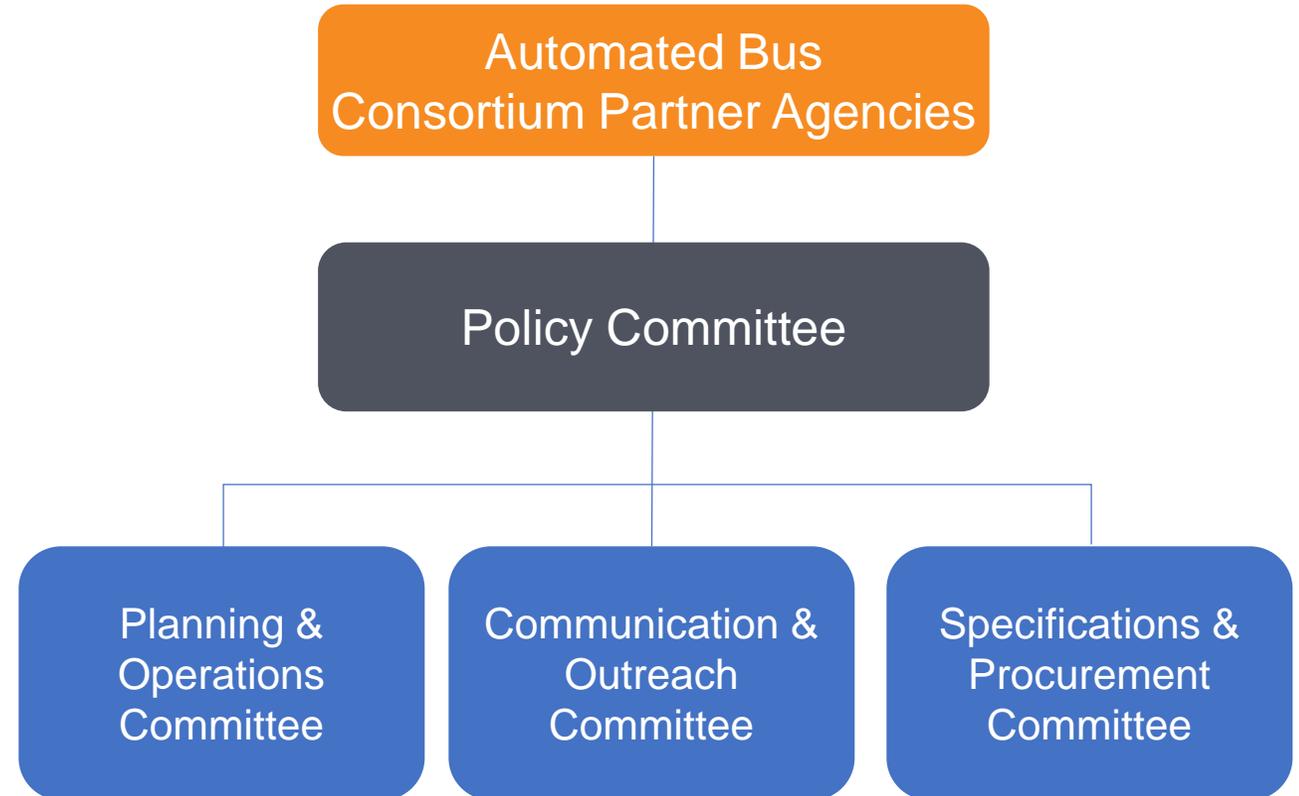
Comprehensive Development Agreement

- 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 27th, 2019 (Dallas, TX)
 - Battery-electric bus selected
 - Risk register
- Planning and Operations Committee – July 16th, 2019 (Minneapolis, MN)
 - Preferred pilot routes selected
- Policy Committee Kickoff – August 14th, 2019 (Washington, DC)
- Industry Forum – September 12th, 2019 (Detroit, MI)
- Initiated route refinement and implementation planning – October 2019
- Next Planning & Operations Committee – November 2019



Potential Risks

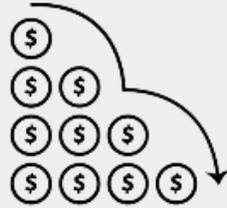
- Insurance
- Labor
- Legislative Meddling
- Safety
- Regulatory approval
- Funding
- Liability
- Driver Certifications / Requirements to Drive AV
- Cyber Attacks
- Cost / Benefit Analysis Proof of Value and Benefit
- Acceptability of Use / Public Buy in
- Infrastructure Costs
- Electric Infrastructure Challenges (with Power Grid)
- Data Sharing from 3rd 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**



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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

