

# Spark to Square (S2S) Cap East Connector Route: Project Scope and Outlook

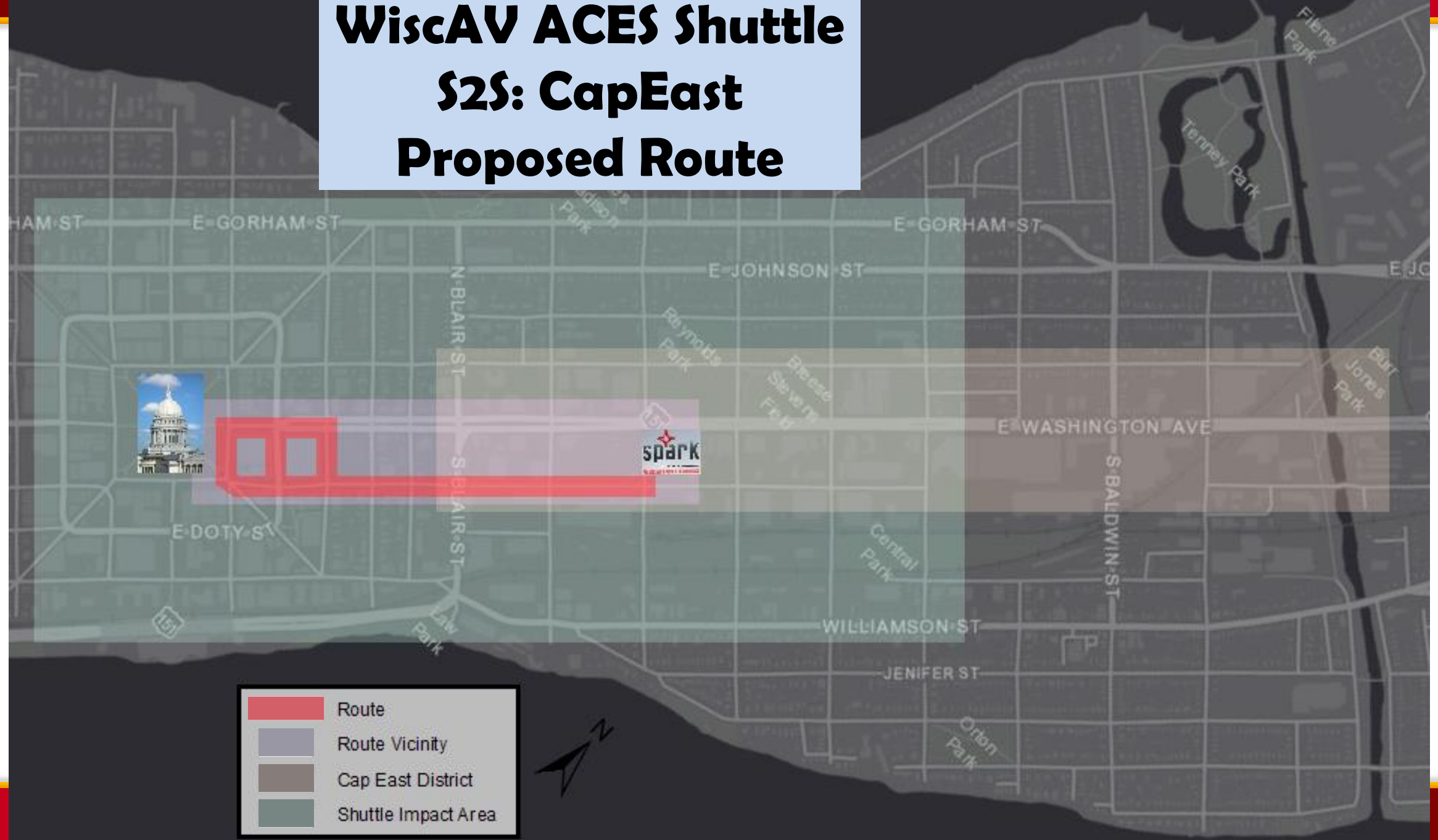
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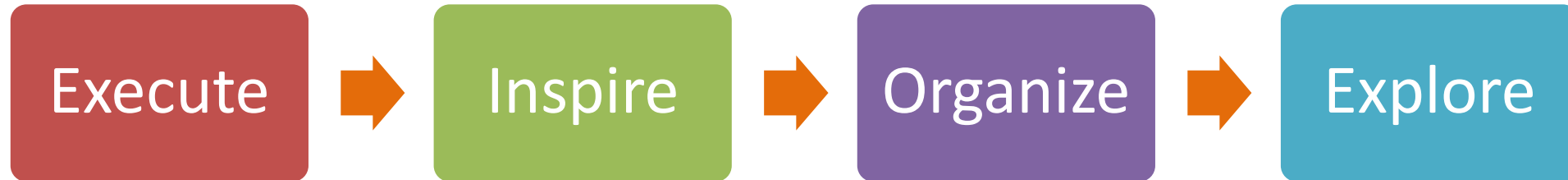
# Bringing an Automated Vehicle to Madison



# WiscAV ACES Shuttle S2S: CapEast Proposed Route



# WiscAV ACES Shuttle – Project Vision



**Execute:** Deploy shuttle safely and visibly

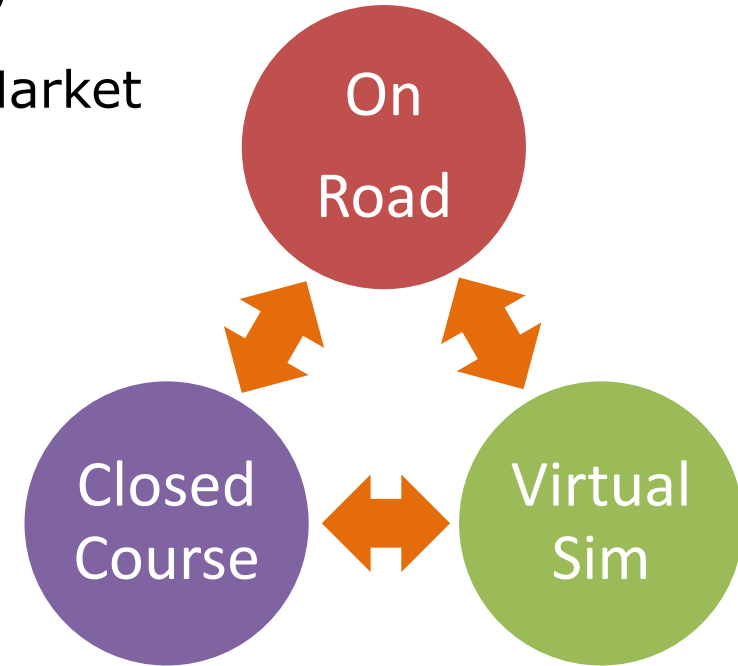
**Inspire:** Engage community and invigorate entrepreneurial endeavors

**Organize:** Catalyze R&D in automated and connected vehicles

**Explore:** Collect and translate data into meaningful information

# Deployment Strategy – Near Term

- Limited S2S service beginning Fall 2019
  - Saturdays for the Dane County Farmers' Market
  - Other special events
  - User-group demo days
  - Emphasis on safety
- Establish data collection system
- Closed-course testing
- Virtual Simulation
- Secure funding for additional research, testing, and deployment



# Operational Plan – Safety and Mobility Data

## ROADWAY INTERACTIONS



Other Vehicles

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Pedestrians

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Bicyclists

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Infrastructure

## USER INTERACTIONS



User Acceptance

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Passenger Comfort

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Usage Statistics

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Survey Responses

## SYSTEM DATA



Basic Vehicle Data

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Sensor Data

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Operating Data

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Vehicle Security

## OPERATIONAL DATA



Operating Limitations

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Obstacle Detection

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Winter Performance

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Changing Traffic Patterns

## CONNECTED DATA



Vehicle to Infrastructure

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Vehicle to Anything

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External Sensors

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Data Processing

# How to Get Involved

- Comprehensive AV Shuttle Test – Diversity of usage scenarios
  - Urban core
  - Campus
  - First/last mile
  - Site/event specific routes
    - airport, retirement community, large venues, sporting events, etc.
  - Innovate business models
- Research funding opportunities
  - USDOT ADS Grant Proposal
  - Future grants
- Community partnerships
- Additional vehicles and/or technologies

We want this to be a community-engaged effort. If you have ideas on innovative shuttle operations, let us know!