Regional Transportation System Management and Operations (TSMO) Vision and Regional ITS Architecture Update

TSMO Workshop #4 – Strategic Plan

December 5, 2019

Agenda

1. Welcome and Introductions
2. Regional TSMO Vision and Goals
3. Assessment of Existing Regional Strengths and Opportunities
4. Breakout Groups: Developing Priorities for the Strategic Plan
5. Report Backs
6. Prioritizing Actions
7. Wrap Up and Next Steps

Regional TSMO Vision and Goals

Regional TSMO Vision Development

Regional "Win the Future" Vision and Supporting Plans

Stakeholder TSMO Survey

Input from over 100 respondents on strengths and challenges, and visions

TSMO Visioning Workshop

Held December 2018; participants from public and private sectors

Regional TSMO Vision

Transportation systems across the Atlanta region are managed and operated to optimize safe, reliable, and efficient travel for all system users – people and freight – contributing to sustainable economic growth and a high quality of life.

Vision Components

Key Outcomes (Goals)

Optimizing safety
Applying technology and context-sensitive approaches to achieve zero fatalities

Reliable travel times
Managing planned and unplanned disruptions to reduce unexpected delays

Equitable access
People of all ages, abilities, languages, backgrounds, and incomes have access to safe, reliable, efficient mobility options

Efficient, seamless travel
Coordinated systems across jurisdictions and modes; accessible, real-time travel information

Environmental benefits
Applying technology to reduce energy consumption, improve air quality, and reduce greenhouse gas emissions

Vision Components

Foundational Elements

Operations philosophy focuses on moving people and goods, rather than vehicles

Data sharing across public and private data providers and users

Collaboration across jurisdictional boundaries, public and private sectors, and service providers

Fostering a culture of innovation and adaptability to change

Assessment of Existing Regional Strengths and Opportunities

Highlights of Overall Assessment: Current State in Relation to TSMO Vision

TSMO Goals

OPTIMIZING SAFETY

RELIABLE TRAVEL TIMES

EFFICIENT, SEAMLESS TRAVEL

EQUITABLE ACCESS

ENVIRONMENTAL BENEFITS

Foundational Elements

Philosophy focused on moving people and goods

Data sharing

Collaboration

Culture of innovation

Optimizing Safety

Applying technology and context-sensitive approaches to achieve zero fatalities.

- **Strengths**
  - Strong programs focused on incident management.
  - On-going modernization efforts to expand transit safety features.
- **Opportunities**
  - Technology deployment focused specifically on pedestrian and bicyclist safety.
  - CV Technologies to enhance incident response and safety.
  - Safety warning systems.
  - Speed harmonization.

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Reliable Travel Times

Managing planned and unplanned disruptions to reduce unexpected delays.

- **Strengths**
  - Real time monitoring of traffic on state roads.
  - Strong programs focused on incident management.
  - Traffic signal detection on all major arterials.
  - Expanding network of priced managed lanes.
  - Effective management of special events.
- **Opportunities**
  - Transit Signal Priority (TSP).
  - Work zone management and road weather management services.

Efficient, Seamless Travel

Coordinated systems across jurisdictions and modes; accessible, real-time travel information.

- **Strengths**
  - Mature collaboration to optimize coordination of traffic signals.
  - ITS Architecture includes a wide array of traffic management/network system services.
  - Robust regional TDM program.
  - Proliferation of shared-use bike and micro-mobility vehicles.

Efficient, Seamless Travel

Coordinated systems across jurisdictions and modes; accessible, real-time travel information.

- **Opportunities**
  - Integrated multi-modal electronic payment and reservations system.
  - Multimodal trip planning tools.
  - Application of active demand management strategies and integration of transit and other modes in corridor management.
  - Policies to address the use and interaction of new mobility options.
  - Active parking management.
  - TSMO initiatives focused on freight movement and operations.

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Equitable Access

People of all ages, abilities, languages, backgrounds and incomes have access to safe, reliable, efficient mobility options.

- **Strengths**
  - Strong focus on equity in ARC's planning.
  - Policies to include a wider public, such as PeachPass payments and free HOV-3.
  - Voucher programs that subsidize curb-to-curb trips.
- **Opportunities**
  - Coverage of paratransit services and affordability of first mile-last mile options.
  - Further partnerships across transit agencies and private sector service providers.
  - Communication of state of good repair and infrastructure.
  - Technology to enhance access to transit and detection of vulnerable users.

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Environmental Benefits

Applying technology to reduce energy consumption, improve air quality, and reduce greenhouse gas emissions.

- **Strengths**
  - Successful TSMO initiatives, including RTOP, the HERO incident management program, and NaviGAtor.
  - Strong travel demand management programs.
  - Strong EV charging stations infrastructure and culture.
- **Opportunities**
  - Shift from "car-culture" by optimizing people movement via shared modes, including transit and ridesharing.
  - Integrate smart eco-friendly infrastructure into the region's transportation system.

Foundational Elements — Strengths

Strong collaboration within the region via RTOP.

Strong venue for coordination across transit services via the Atlanta-Region Transit Link Authority (ATL).

The 2040 Regional Transportation Plan places an important focus on TSMO, including TDM, and on solutions such as trip planning, wayfinding, and real-time information for transit travel.

The region has focused on advanced technology.

Strong foundation for data sharing with GDOT's Connected Data Platform.

Foundational Elements — Opportunities

There is no dedicated on-going ARC working group or committee focused on TSMO.

Inconsistent understanding of TSMO across the region and among many partners.

Early efforts in developing a data governance framework.

No centralized data hub to distribute modal information.

Existing Regional Strengths and Opportunities

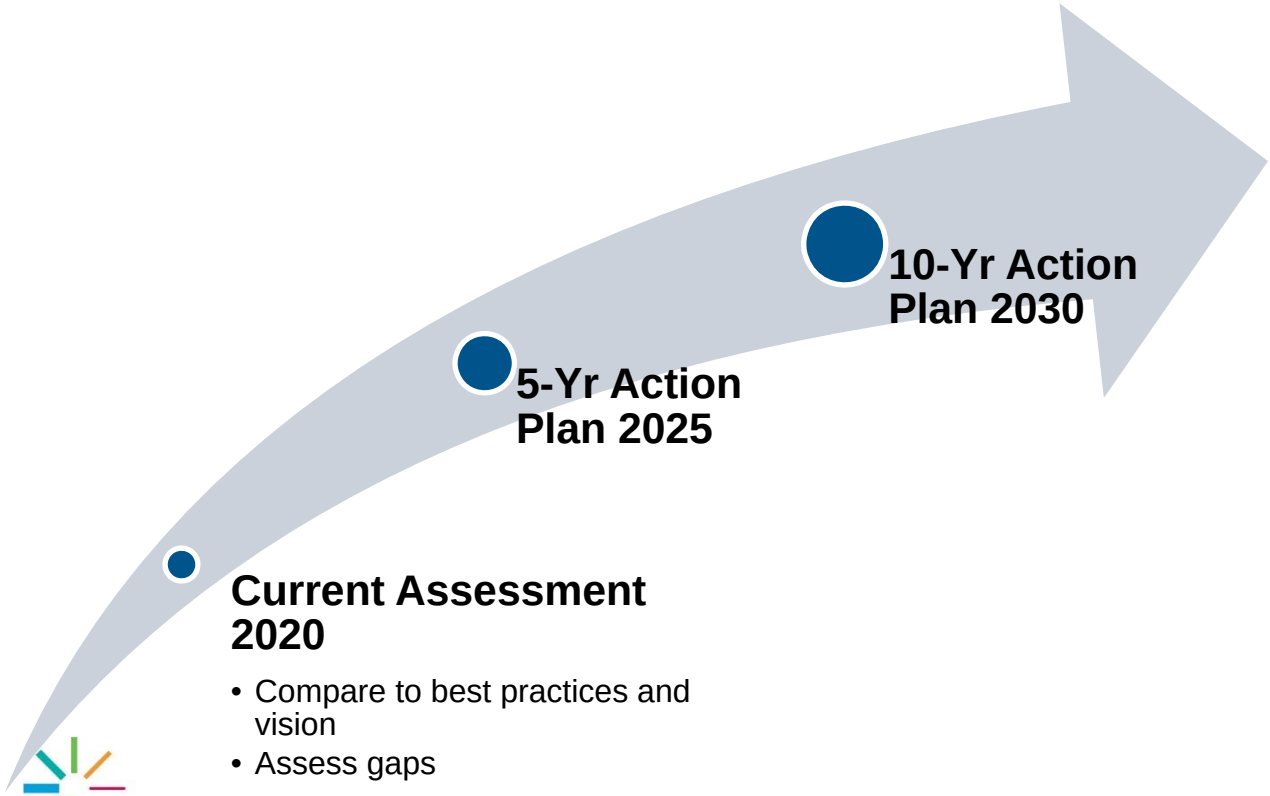
- Do you agree with this assessment?

- What do you see as key gaps or opportunities for reaching the region's vision for TSMO?

Breakout Groups: Developing Priorities for the Strategic Plan

Creating a Regional TSMO Strategic Plan

Creating a plan to proactively advance the region's vision for TSMO



Win the Future

Strategic Vision

- Goals
- Institutional drivers
- Guiding principles

10-Yr Action Plan 2030

5-Yr Action Plan 2025

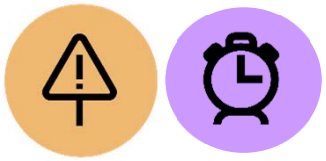
Current Assessment 2020

- Compare to best practices and vision
- Assess gaps

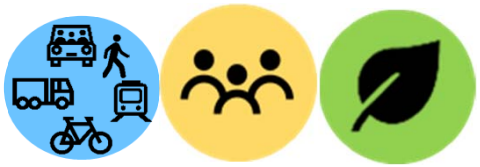
Break Out Groups

- **Identify possible actions to include in the Strategic Plan (5-year or 10-year horizon)**
  - Technology deployment priorities
  - TSMO strategies for increased regional implementation
  - Policy development
  - Institutional support
- **Consider: Who would be responsible for each action or priority?**

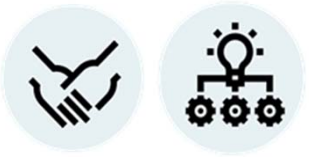
Groups



Group 1: Safety and Reliability



Group 2: Efficient, Seamless Travel; Equitable Access; and Environmental Benefit



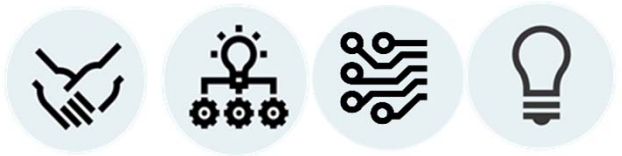
Group 3: Collaboration and Data Sharing

Group 4: Operations Philosophy, Innovation, and Integration in Planning and Project Development

Initial Concepts for Deployment Priorities

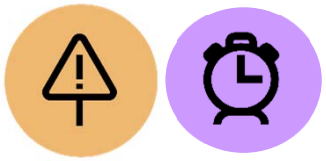
- Transit-roadway-demand management integration.
- Pedestrian and bicycle-focused efforts.
- Policies related to micromobility management and curb space management.
- Integrated payment systems.
- Connected vehicle technologies.
- Advanced traffic management strategies.
- Equity focused initiatives.

Initial Concepts for Foundational Elements



- Define performance metrics.
- Initiate discussion on viability of IoT platform to collect sensor data.
- Establish a data governance framework.
- Develop a standing committee focused on TSMO.
- Adjust TIP program categories and/or prioritization factors.
- Consider ways of soliciting and funding new pilot project concepts.

Groups



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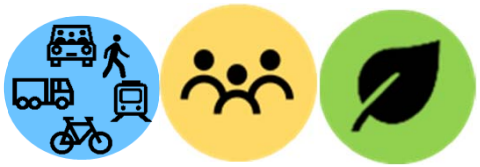

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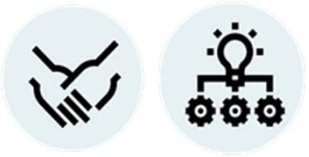

Group 3: Collaboration and Data Sharing

Group 4: Operations Philosophy, Innovation, Integration in Planning & Project Development

Report Backs

- What were key actions or priorities identified?

Priorities

Priorities

- What are the most important near-term priorities or actions?

- Consider:
  - Who would be responsible?
  - What is needed to advance these priorities?

Next Steps

Next Steps

Stakeholder Engagement

Developing a Common Vision

Establish a TSMO vision for the region

Develop operations goals and objectives

Defining the Building Blocks

Develop a baseline inventory of ITS and ATMS infrastructure

Explore best practices in transportation data governance and data exchange

Update the regional ITS Architecture

Conduct technological assessment

Leading to Effective Deployment

Identify pilot concepts

Develop ITS/TSMO Local Agency Deployment Guide

Develop 5-year and 10-year Action Plans