

Committee on Transportation System Operations (CTSO)

CTSO Webinar Meeting

January 30, 2018

4-5 PM Eastern



Webinar Purpose

- Convene the CTSO membership for the first time since the new committee was formed
- Provide an overview the new committee structure
- Recruit additional volunteers into active committee roles (e.g. working groups)

Work to Date

- 3 committees have come together into one cohesive CTSO committee
- A Task Force has been working since September to flesh out new committee structure, begin drafting strategic plan
- Looking to the full CTSO committee members for further input and actions

Webinar Agenda

- **Welcome and Webinar Overview**
 - Russ Buchholz, John Nisbet, Matt Hedge
- **New CTSO Structure**
 - Gordon Proctor
- **Subcommittees and Groups – Roles/Goals**
 - Subcommittee Co-Chairs, Research Coordinators, CoP Lead
- **CTSO Annual Meeting**
 - Gummada Murthy
- **Recruitment and Q/A**
 - Pat Zelinski, All

AASHTO Committee Reorganization: Desired Outcomes

1. **Organizational Structure:** Provide an organizational structure that ensures committees can operate efficiently and be nimble, adaptable, and forward looking.
2. **Organizational Focus:** Broaden multimodal perspectives of committees and their coverage.
3. **Committee Priorities:** Prioritize committee activities and the resources required to support and conduct these activities while representing the diverse views of the member departments.
4. **Cross-Committee Interactions:** Provide for increased communication between committees.

Comprehensive Committee Review (CCR) Procedural Recommendations

- Better define committee roles and responsibilities
- Increase/improve direction from parent committees
- Establish steering committees to ensure nimbleness, address strategic and emerging issues
- Identify cross-cutting issues and appoint liaisons for coordination and communication

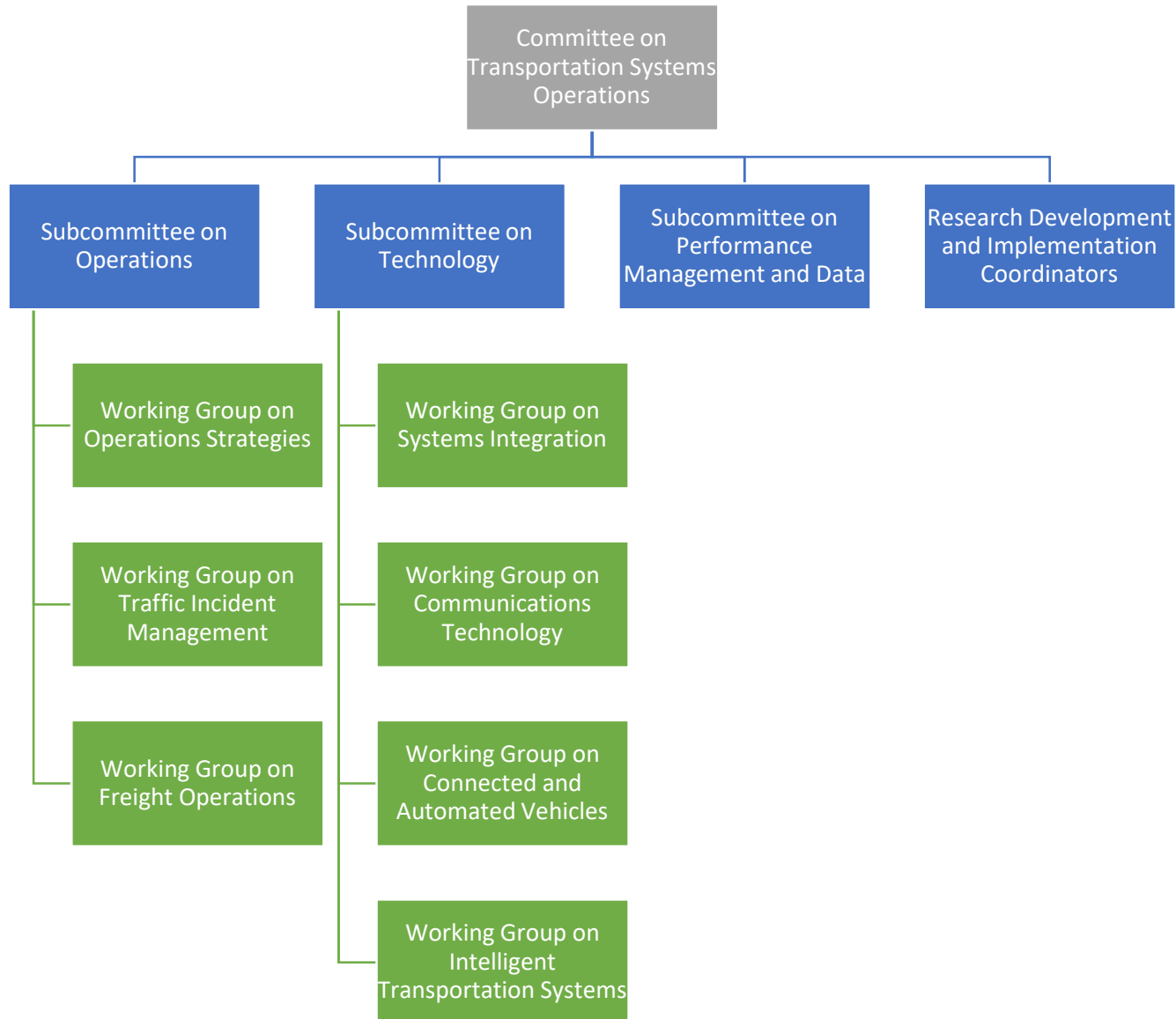
Procedural Recommendations (cont'd)

- Establish communities of practice for discipline and topical areas to extend reach, value, and impact of member departments
- Establish ad-hoc, short-term task forces to address specific issues
- Formalize role of associate members

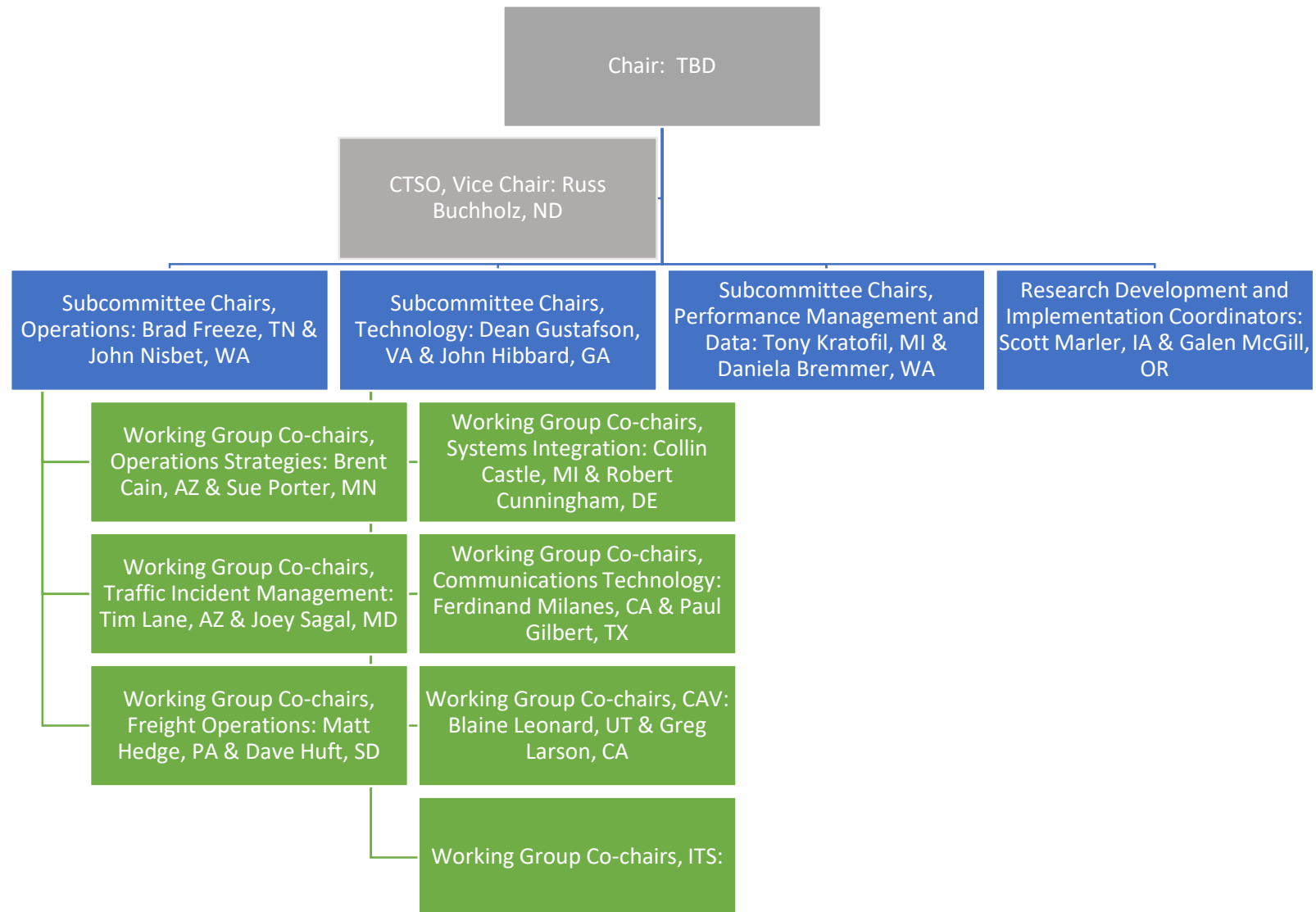
CTSO Committee Purpose

- **Committee on Transportation System Operations (CTSO)** focuses on three areas:
 - Operations, wireless communication, and highway transport
 - Responsible for all aspects of vehicle operations, communications, and systems management on the highway system
 - Strives to transform the national transportation community to a transportation systems management and operations (TSMO) culture:
 - ❖ With a focus on effectively managing and operating the surface transportation system
 - Guides the National Operations Center of Excellence and the Operations Technical Service Program, in collaboration with ITE and ITS America.

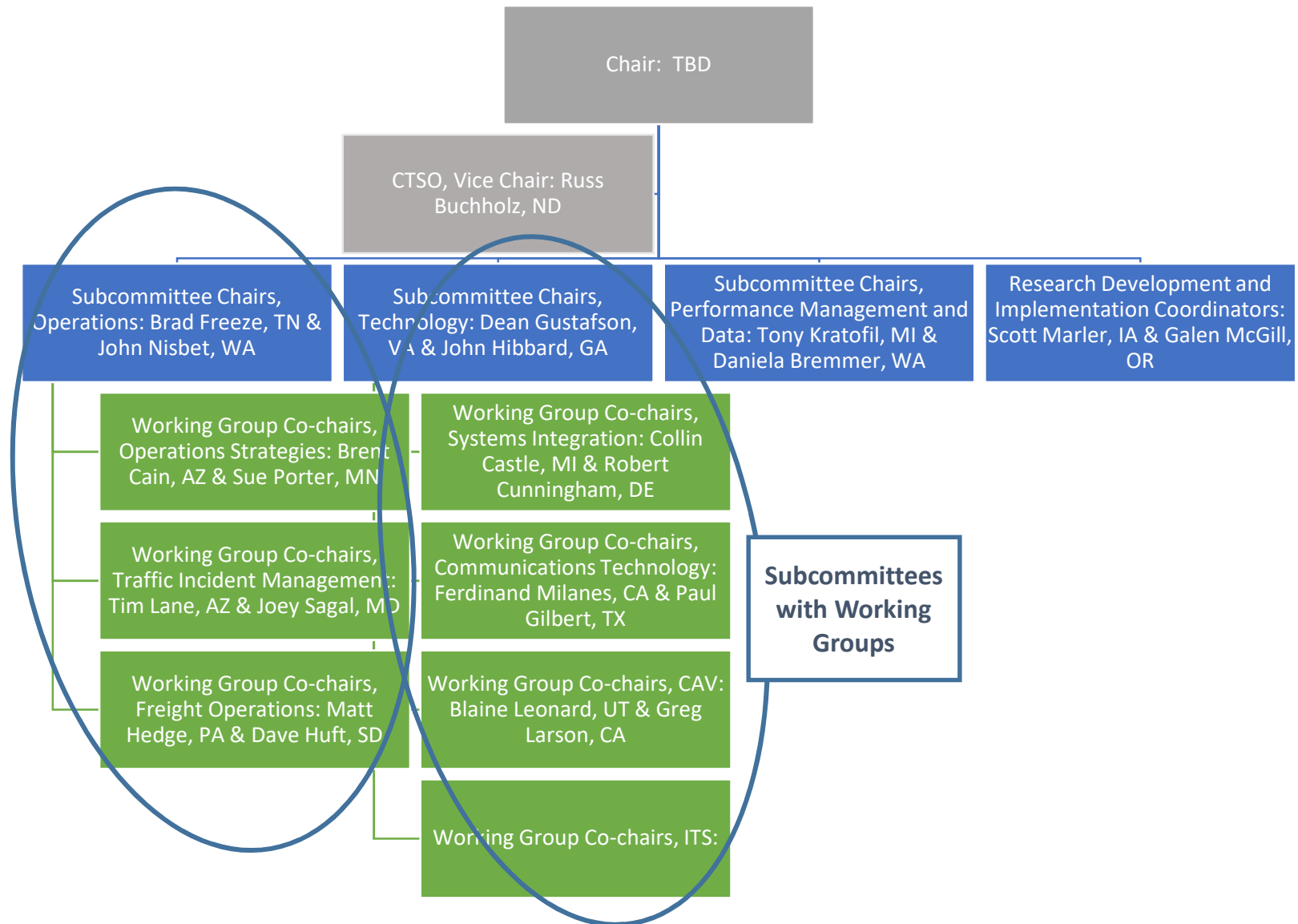
CTSO – Organizational Structure



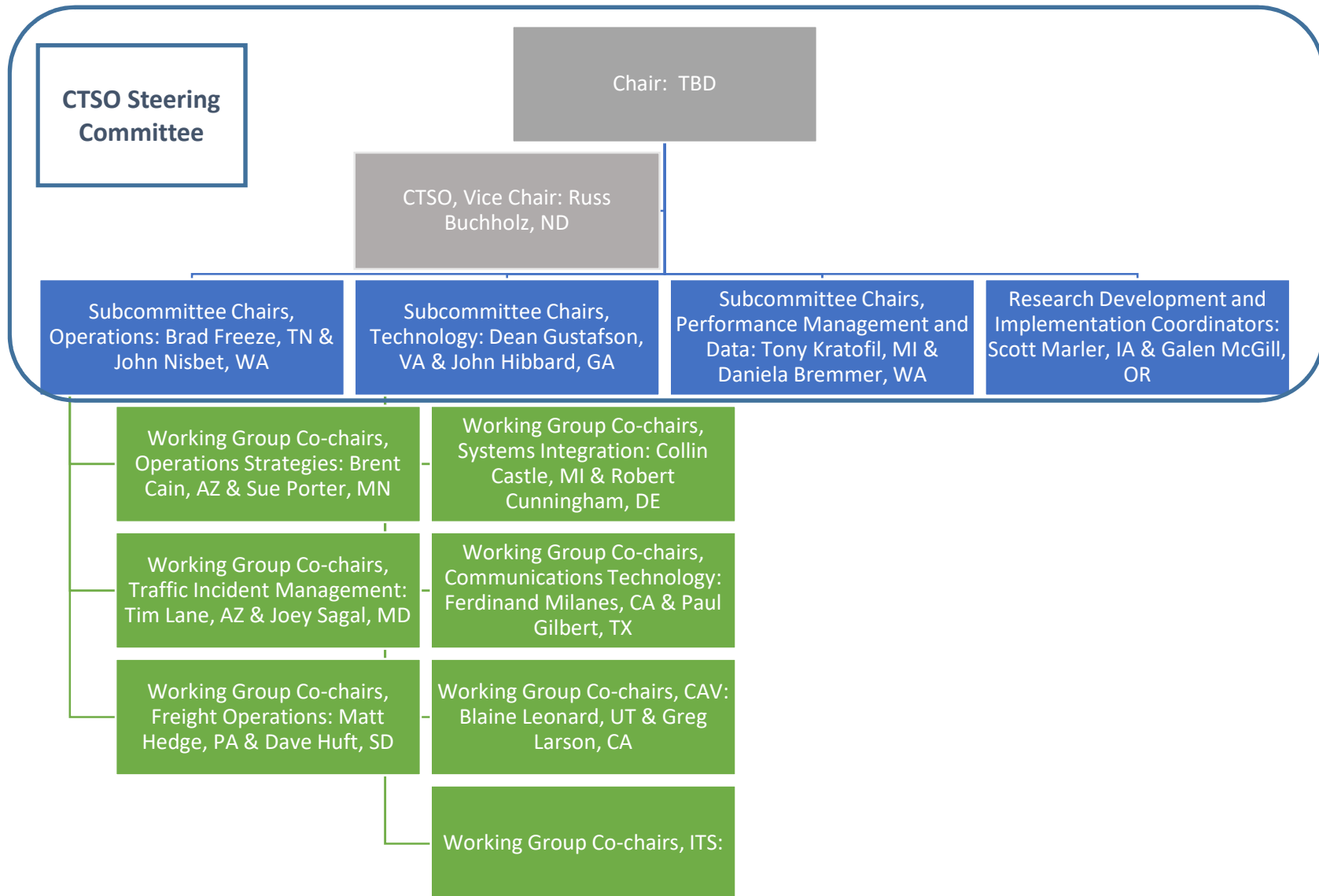
CTSO – Organizational Structure



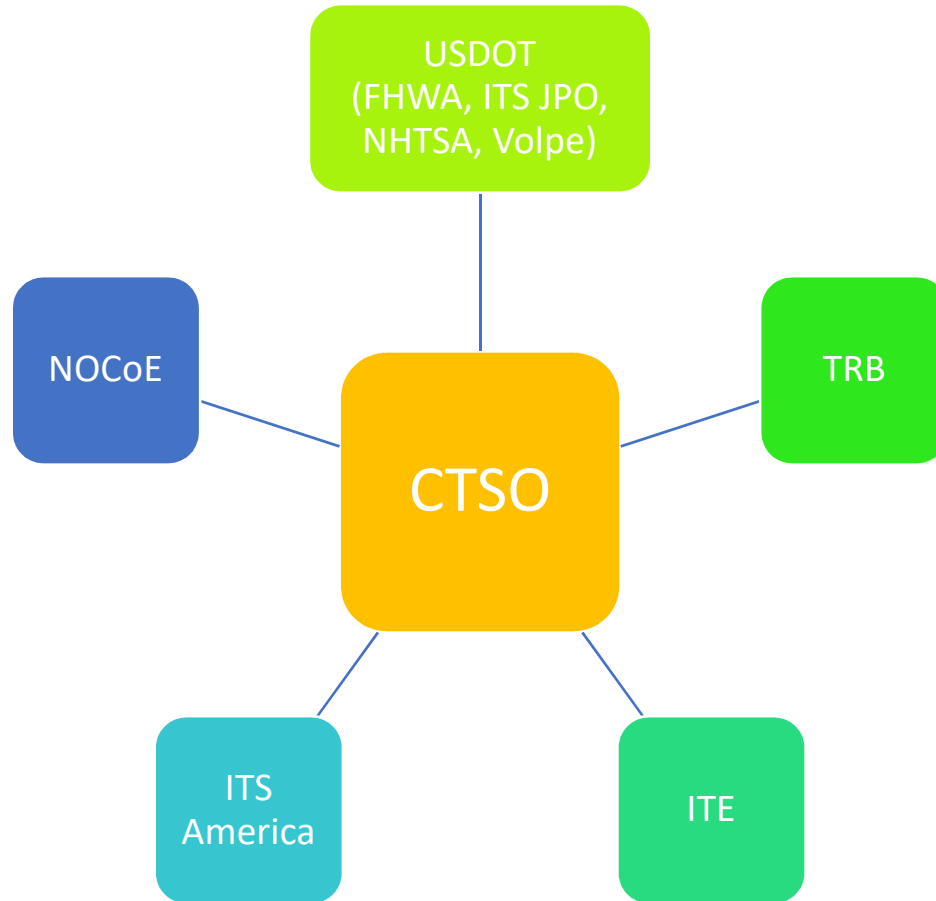
CTSO – Coordination



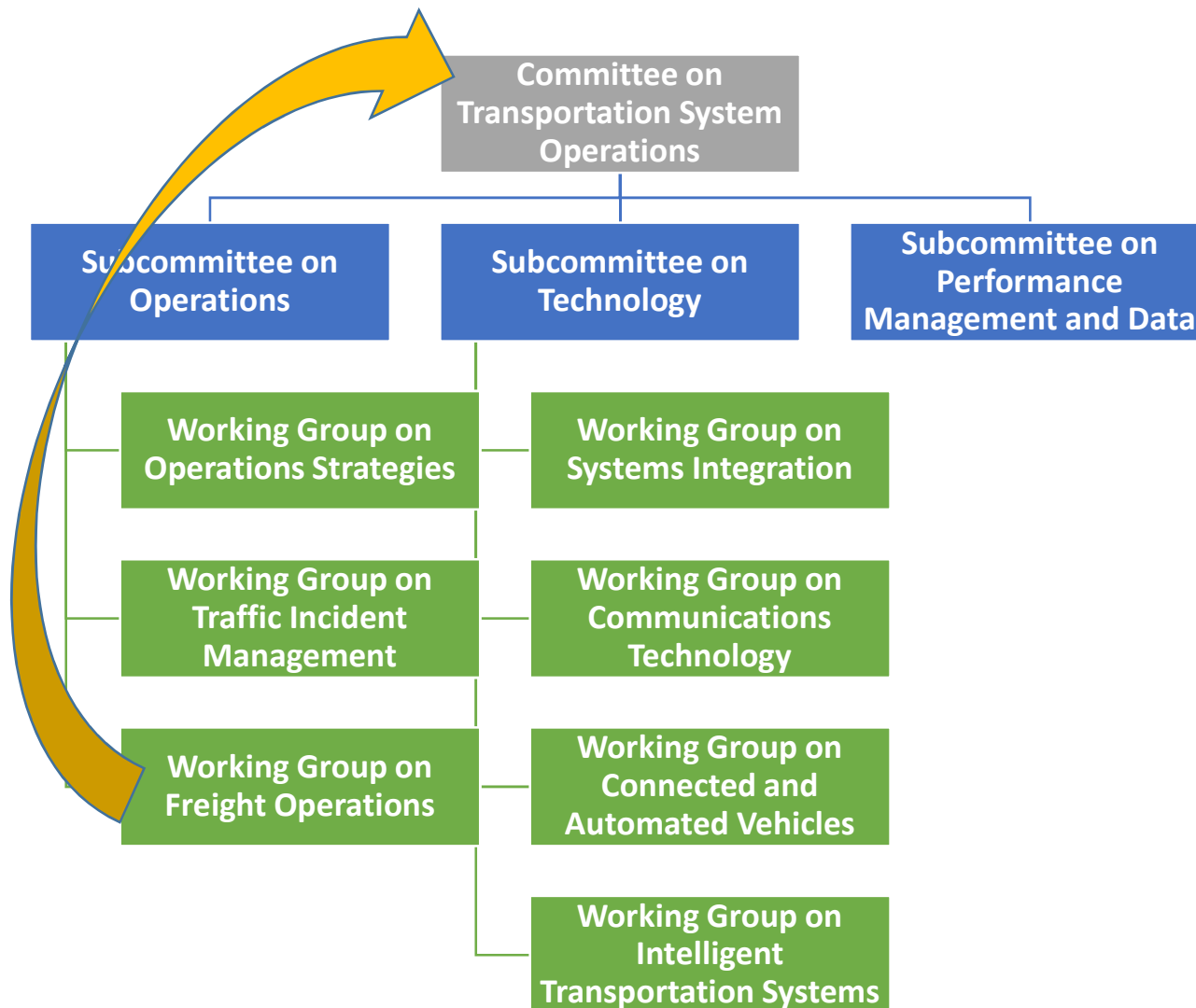
CTSO – Coordination



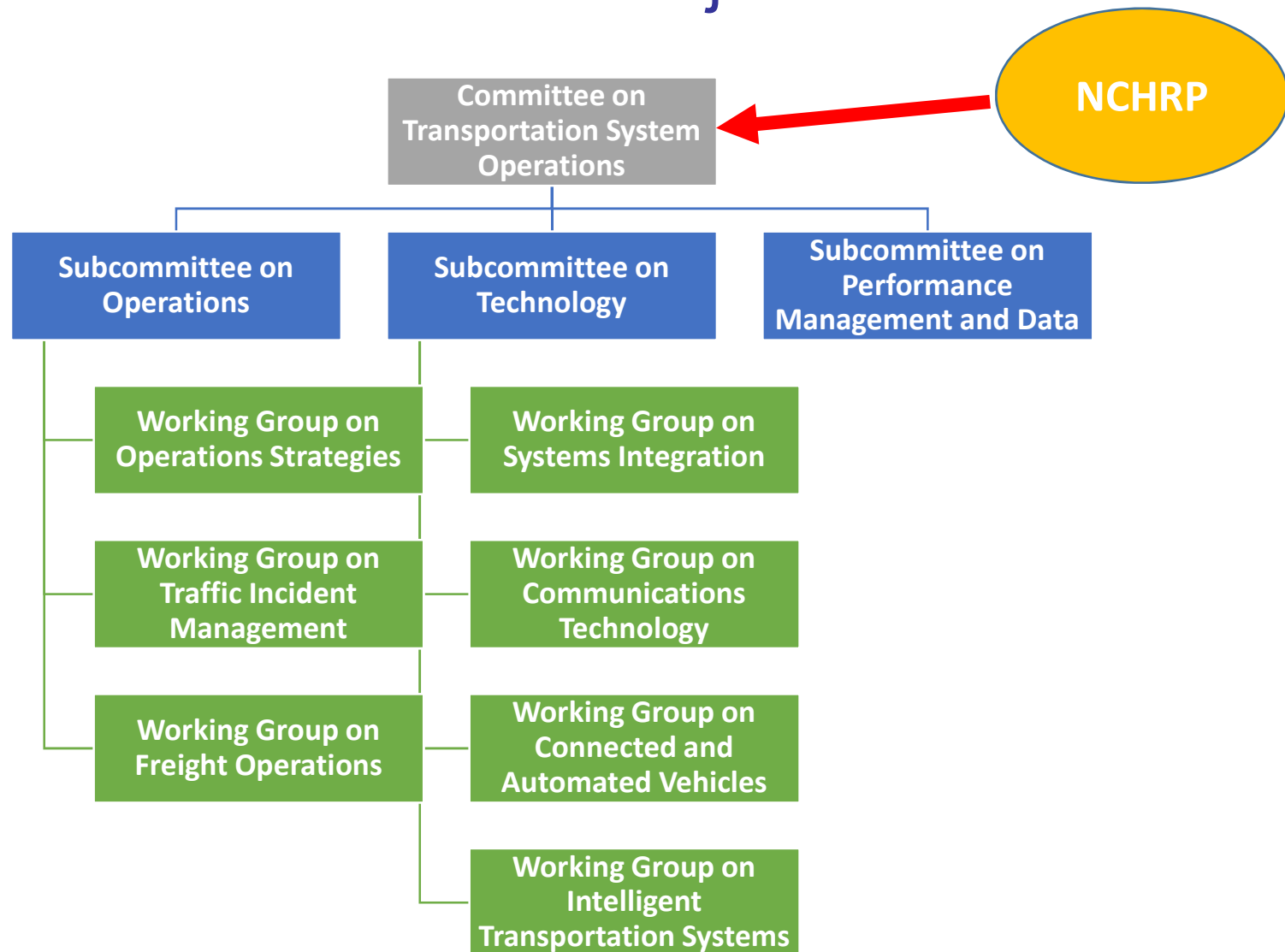
CTSO – External Partners



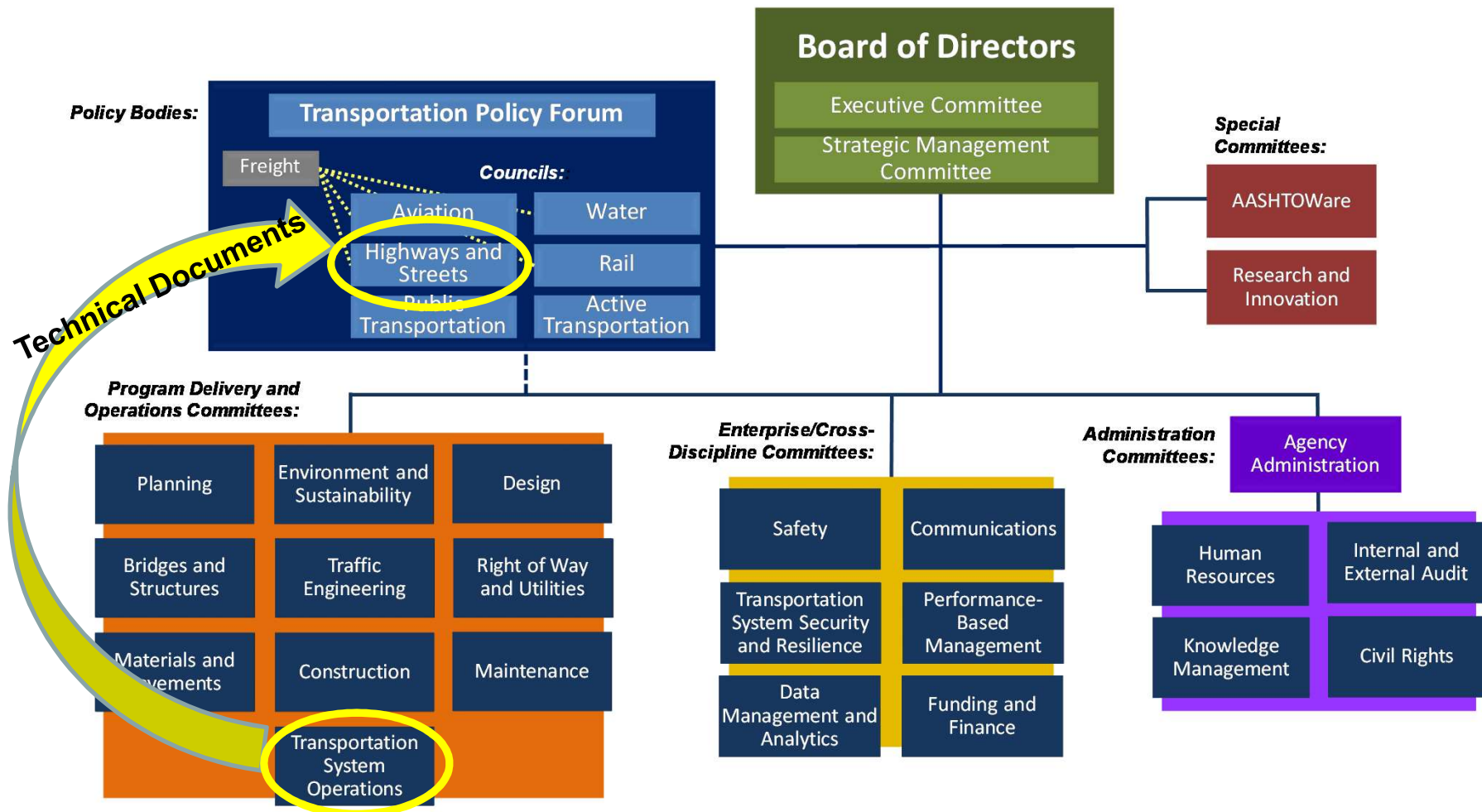
Balloting Process from a Working Group



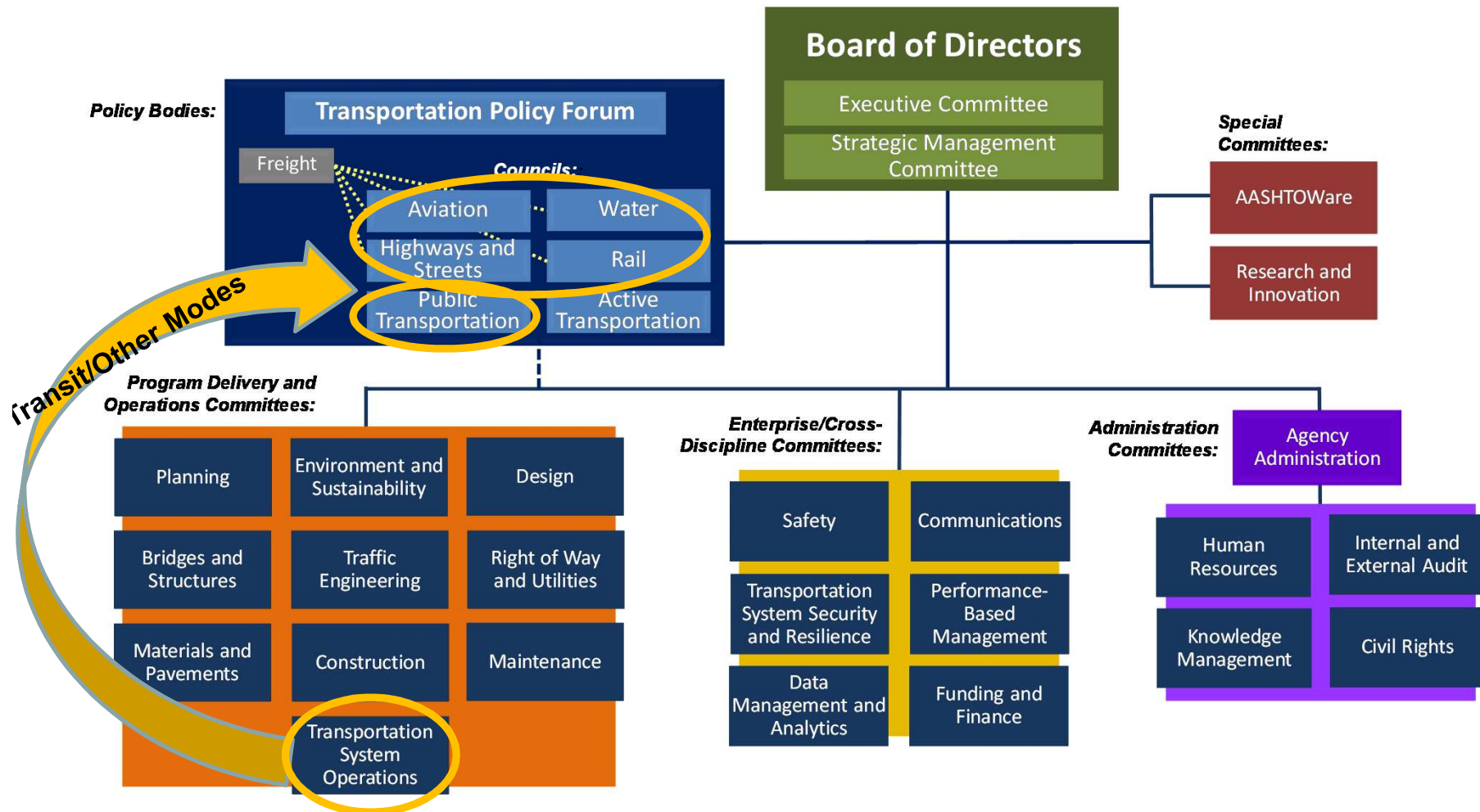
Balloting Process from CTSO Sponsored Research Project



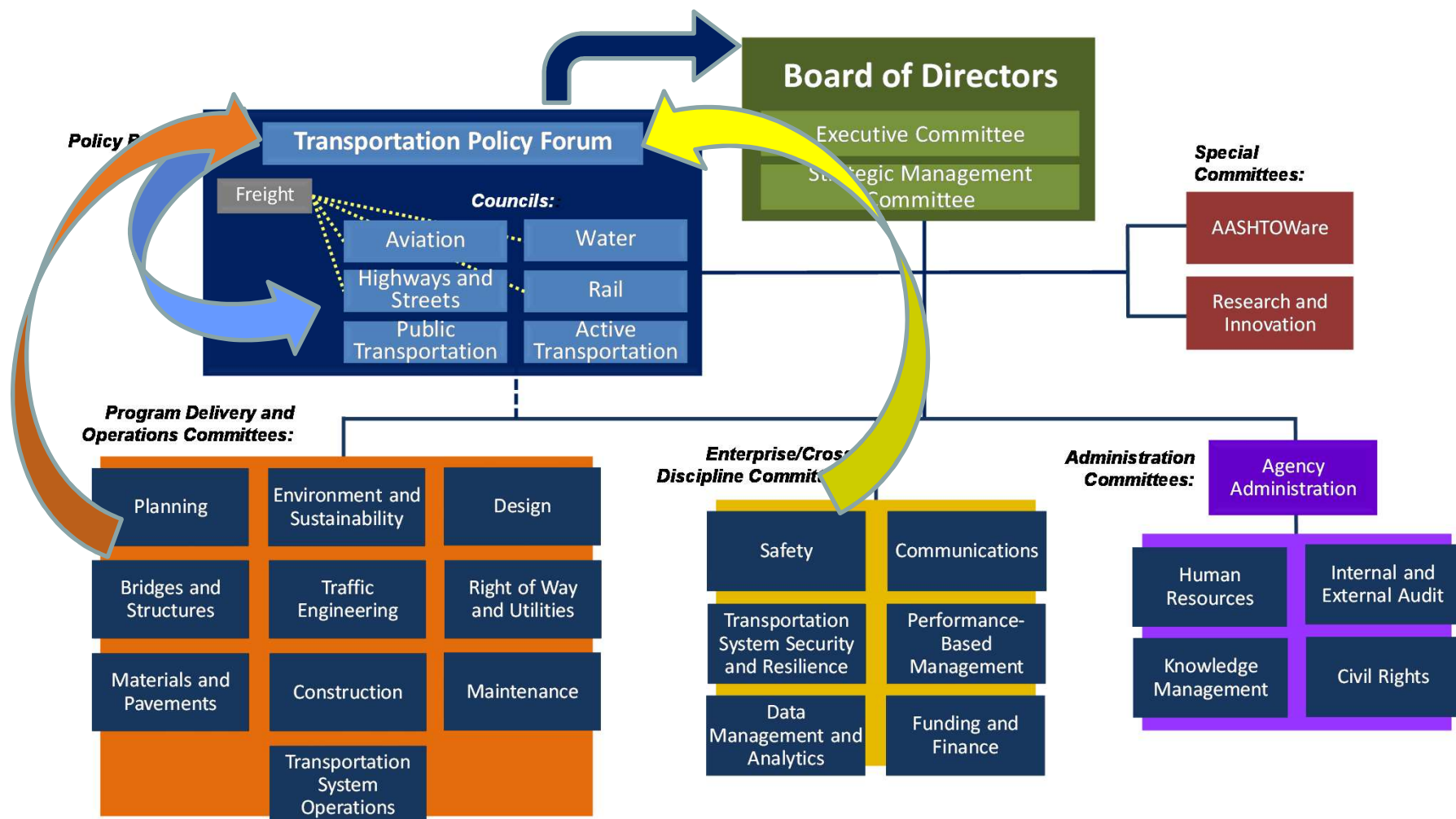
Technical Issues



Technical Issues (multi-modal)



Policy Issues



CTSO - Strategic Planning

- Initial Strategic Planning conducted through a Task Force of CTSO members
- Moving forward to convene the various groups to gather input and complete goals, strategies, and actions
- Recruiting for volunteers – from CTSO membership and others in your organization – to actively participate in subcommittees/working groups

CTSO Subcommittees and Groups

Co-chairs will provide an overview of each group:

- Subcommittee on Operations
- Subcommittee on Technology
- Subcommittee on Performance Management and Data
- Research Development and Implementation Coordinators
- Community of Practice on Road Weather Management

CTSO Subcommittee on Operations

Scope of Subcommittee:

To advance the state of practice relative to System Operations programs and strategies, Freight Operations, and Traffic Incident Management across State DOT's

Operations Working Groups	Leads
Operations Strategies	<ul style="list-style-type: none">• Brent Cain, AZ• Sue Porter, MN
Freight Operations	<ul style="list-style-type: none">• Matt Hedge, PA• Dave Huft, SD
Traffic Incident Management	<ul style="list-style-type: none">• Tim Lane, AZ• Joey Sagal, MD

Working Group on Operations Strategies

Working Group Scope/Topics:

To advance the state of practice and deployment of system operations strategies and TSMO program development nationally

Key Activities

- Collaborate with the NOCoE to support workforce development efforts
- Support phase II of the Operations guidebook development
- Develop and deliver focus area priority roundtable webinars to share best practices

Working Group on Freight Operations

Working Group Scope/Topics:

Facilitates the safe, efficient movement of freight by truck and promote national coordination of federal freight movement mandates

Key Activities

- Coordinate with the commercial vehicle industry regarding vehicle design, standards, and practices
- Establish best practices and promote deployment of emerging technologies for safe and efficient freight operations
- Collaborate with regional highway transport committees

Working Group on Traffic Incident Management

Working Group Scope/Topics:

To advance the state of practice and performance of traffic incident management nationally.

Key Activities

- Support SHRP 2 TIM Training
- Represent AASHTO on FHWA's Executive Leadership Group regarding TIM initiatives
- Develop guidelines and best practices for TIM deployment and performance management
- Analyze and develop a tool to predict the probability of a secondary crash during the incident timeline.

CTSO Subcommittee on Technology

- Scope of Subcommittee:
 - Focus on the technology that supports Transportation System Operations through policy, standards, sharing best practices and deployment guidance.

Technology Working Groups	Leads
Systems Integration	<ul style="list-style-type: none">• Collin Castle, MI• Robert Cunningham, DE
Communications Technology	<ul style="list-style-type: none">• Paul Gilbert, TX• Ferdinand Milanes, CA
Connected and Automated Vehicles	<ul style="list-style-type: none">• Blaine Leonard, UT• Greg Larson, CA
Intelligent Transportation Systems (ITS)	<ul style="list-style-type: none">• TBD

Working Group on Systems Integration

- Recognized national lead and support State DOTs in implementation of best practices associated with TSMO system integration, interoperability, standards and cybersecurity.
- Key Activities
 - Integration strategies
 - Interoperability
 - Cybersecurity and credentialing
 - System Standards

Working Group on Communications Technology

- Working Group Scope/Topics:
 - Ensure that communications technology and tools are present and improving for transportation's operational needs.
- Key Activities
 - Spectrum management and FCC Policy
 - Communication infrastructure (land mobile thru fiber optics)
 - Use of property and rights of way for private communication infrastructure
 - Representation on National Committees (PSAC, LMCC, SAFECOM, NPSTC, TIA P25)

Working Group on Connected and Automated Vehicles

- Working Group Scope/Topics:
 - Recognized national leader for state transportation agencies for promoting, disseminating, and sharing information on connected and automated vehicle deployment and impacts.
- Key Activities
 - Deployment support
 - Signal, Phase and Timing (SPaT) Challenge
 - Coordination with other committees and national organizations
 - Monitor emerging technologies and coordinate evaluation

Working Group on Intelligent Transportation Systems

- Working Group Scope/Topics:
 - Identify emerging technologies, quickly design and deploy technology through standardization, and maximize useful life of ITS technologies.
- Key Activities
 - Managing lifecycle of ITS assets including preservation, maintenance, repair, replacement and obsolescence
 - Identifying, addressing emerging and sunseting technologies
 - Engage vendor community to identify emerging technologies, practices, opportunities
 - ITS standards and guidelines

CTSO Subcommittee on Performance Management and Data

Subcommittee Co-Chairs:

- Daniela Bremmer, Washington State DOT
- Tony Kratofil, Michigan DOT

Scope & Purpose of the Subcommittee:

Enable AASHTO members, the CTSO, its Subcommittees and Working Groups to advance transportation system performance and the state of practice with TSMO strategies and technology through the application of data, analytics and performance management techniques.

CTSO Subcommittee on Performance Management and Data

Key Objectives of the Subcommittee:

- Engage with CTSO Subcommittees and Work Groups to understand and fulfill their needs with respect to data, analytics and performance management techniques.
- Liaise with the Committee on Performance-Based Management & the Committee on Data Management and Analytics to ensure alignment with AASHTO policy and direction, coordinate PM&D issues, and to elevate PM&D issues from CTSO.
- Leverage the NOCoE to provide a forum to share practices and experiences and provide guidance with respect to data, analytics, and performance management for TSMO.
- Facilitate the TSMO community's efforts to demonstrate the business case for TSMO strategies and to support decision making for investment in TSMO.
- Assist AASHTO members in compliance with MAP-21 performance measurement rules and regulations regarding system operations and freight performance, and advocate for the collective concerns within the AASHTO community.

CTSO Subcommittee on Performance Management and Data

CTSO Subcommittee or Working Group	Illustrative Areas of Support (as identified in Irvine, CA)
WG on Operations Strategies	PM associated with the Operations Guidebook
WG on Traffic Incident Management	Developing national standards for TIM metrics
WG on System Integration	Guidance on analytics for combining data from differing sources
WG on Intelligent Transportation Systems	Collecting inventory of the “national plant” of ITS technology deployments
WG on Connected & Automated Vehicles	Collecting inventory on the national readiness for V2I capability
CTSO Generally	Sharing & promoting best practices in TSMO data collection and performance-based management
	Supporting members’ needs in MAP-21 compliance
	Compile & report national system operations performance information

CTSO Subcommittee on Performance Management and Data

Executing Our Charge:

- Participation in other Subcommittee/Working Group meetings
 - Subcommittee members assigned liaison responsibilities to specific Working Groups of the other Subcommittees
- Periodic Subcommittee Meetings/Web-conferences
 - Share, coordinate and advance resolution of the needs of the WGs
 - Identify practices to share and promote, leveraging the NOCoE
 - Identify research needs (projects, syntheses, etc.) and priorities relative to PM&D
- Periodic Participation/Coordination with other AASHTO Committees & NOCoE
 - Committee on Performance-Based Management
 - Committee on Data Management & Analytics

CTSO Research Development and Implementation Coordinators

- Coordinators

- Galen McGill, Oregon DOT
- Scott Marler, Iowa DOT

- Overview

- Coordinate, support, and promote TSMO-related research through the development of research problem statements, prioritization of research needs, implementation of research products, and dissemination of research results.

CTSO Research Development and Implementation Coordinators

- Key Activities:
 - Provide on-line database for gathering TSMO research needs at NOCoE.
 - Coordinate with CTSO work groups to identify and prioritize research needs, develop proposals, and promote products
 - Gather input from CTSO on priorities for research
 - Coordinate and collaborate with TRB, AASHTO, USDOT, and others on research
 - Serve as CTSO point of contact for TSMO research

Community of Practice on Road Weather Management

- What is a Community of Practice (CoP)?
 - Established to share information, highlight best practices and resolve common issues as a way to extend the reach, value, and impact of the committee, subcommittees or working groups to member DOTs beyond the formal committee structure.
- Road Weather Management Community of Practice
 - Mission: “Promote the implementation of Road Weather Management (RWM) solutions and strategies that minimize the impacts of weather events on transportation system operations to increase safety and reliability”

Community of Practice on Road Weather Management

Purpose Statement and Strategic Areas of Focus

- Integrate RWM solutions & strategies into CTSO subcommittee essential elements
- Increase the safety of driving during road weather events
- Be the liaison with other AASHTO Committees, PFS, TRB, etc.
- Share RWM best practices and technology transfer
- Share current and future ideas on weather data, information processing, decision support tools, performance mgt, research, etc.
- Consider multiagency priority RWM corridors (i.e., cross jurisdictions, local agencies, multimodal travel considerations, etc.)
- RWM strategies applicable to CTSO: ITS, CAV, Freight, Traffic Management, Work Zones, Emergency Management, Performance Management, Maintenance Management, Asset Management, etc.

Annual Meeting and Recruiting Active Participation

- **CTSO Annual Meeting – Gummada Murthy**
 - Initial planning underway
 - Late August / early September timeframe
- **Recruitment and Q/A – Pat Zelinski / All**
 - Looking for volunteers for CTSO
 - ❖ Working Groups, Performance Management Subcommittee, Community of Practice on Road Weather Management
 - ❖ Initial meetings within the next month, work on completing CTSO Strategic Plan
 - Survey sent to CTSO members
 - ❖ Self-select into one or more groups
 - ❖ Nominate others from your agency to multiple groups