

NCHRP Projects

NCHRP 20-59(54), "Transportation System Resilience: Research Roadmap and White Papers"

NCHRP Project 20-59(55), "Transportation System Resilience: CEO Primer & Engagement"

NCHRP 20-117, "Deploying Transportation Resilience Practices in State DOTs"

Tuesday, October 9, 2018

8:00 to 9:00	State DOT Leadership Track for Summit: Opening Plenary: AASHTO/TRB/USDOT: Welcome FHWA Speaker (invited), Speaker on organization of the Summit
9:15 to 10:30	<p><i>How Resilience Can Help You Sleep Better at Night</i></p> <p><i>What is Resilience (and a Resilience Culture)? Perspectives on resilience; Speaker briefly lays out areas of state DOT functions where resilience can be considered; different perspectives on steps in considering resilience.</i></p> <p><i>FHWA Perspective on Resilience and Resources: Speaker from FHWA lays out resilience perspective from the agency's activities, policies, and guidance.</i></p> <p><i>Perspectives on Resilience. Key Points to include:</i></p> <ul style="list-style-type: none"><i>• Resilience tie-in to agency mission, its relationship with safety, resilience is "objectives multiplier"</i><i>• benefits to you (can "help you sleep better" – address issues on CEO cards from initial activity)</i><i>• benefits to community and economy</i><i>• cross-cutting, "silo busting" aspect of resilience</i>

11:00 to 12:30	<p><i>How to Become Resilient (in State DOTs)</i> <i>Three State DOT Speakers: Perspective is on what a state DOT resilience “culture” looks like; facilitated discussion follows</i></p> <p><i>Oregon DOT (for seismic)</i> <i>Maryland DOT (for cyber)</i> <i>Another State DOT (for Climate)</i></p>
12:30 to 1:30	<p>Luncheon Speaker: Mike Lewis, Colorado DOT</p>
1:45 to 3:15	<p><i>Resilience Starts at Home: How to Build on What You Are Already Doing and Fill Any Gaps</i></p> <p><i>Key Points to include:</i></p> <ul style="list-style-type: none"> • <i>Sharing of current practices and identification of gaps (resilience assessment) - (planning, design, operations, maintenance, asset management, emergency response)</i> • <i>Touch on all resilience-related aspects including interactions with external stakeholders and discuss communications activities/approaches(who and how, how what you are already doing translates into resilience)</i> • <i>Share examples proactive O&M practices like sealants, clearing culverts and trimming trees, regional coordination and co-benefits, as well as capital strategies (bring out cards on What You Are Most Proud Of).</i> • <i>Share examples on working with legislators, governor’s office, business community, press, public and other stakeholders- successful partnerships? Lessons on what not to do? Include impacts on funding requests.</i>



3:45 to 4:30	Multi-agency, Multi-sector, Multi-participant Resilience: Mayor of Calgary and City Business Leaders
4:45 to 6:00	<p><i>Making the Case for Resilience: How Do We Get What We Need?</i> <i>(Overview presentation on analysis-supported decisions then a facilitated discussion by former CEO panel): High-level discussion on how to identify and articulate the benefits of resilience, including making the case for different groups – internal and external.</i></p> <p><i>Share examples on:</i></p> <ul style="list-style-type: none"> • <i>how to express the overall community social and economic benefits to different audiences working with legislators, governor’s office, business community, press, public and other stakeholders- successful partnerships? Lessons on what not to do? Include impacts on funding requests.</i> • <i>Importance of linking to agency decision-making (e.g., asset management in general terms, risk management); agency benefits. (If time?)</i> • <i>Financial and program development interests: Approaches to benefit cost analyses: identifying cost effective actions and strategies-project options.</i>

Poster Session and Reception



Wednesday, October 10, 2018

Make it Last: Incorporating and Sustaining Resilience in Agency Functions and Operations:

How to implement resilience in your agency and how to sustain or institutionalize it so it continues beyond CEO tenure. Examples of how to incorporate resilience into your agency and collaboration with others in making them happen

Facilitated Discussion with CEOs (First states to call upon identified beforehand)

8:30 to
10:00

- *Institutionalizing resilience such as Incorporating resilience practices into SOPs for long-term: Call upon LA and VT*
- *Planning: Vulnerability and risk analyses (Identify likely hazards and threats): Call upon CA and MA*
- *Projects: Resilient design criteria and risk-based design: Call upon MN, WA and CO*
- *Operations: Flexibility in system operations and emergency response: Call upon ID, FL, NC and GA*
- *Maintenance: Preventing future problems: Call upon WA and VT*

At a glance

10:30 to 11:00	Plenary Session: Senior VP Walmart, Resilience from a Company's Perspective
11:15 to 12:30	<i>Incorporating Resilience into Decision-making</i> How to incorporate resilience into risk-based asset management along with risk-based investment decision making and performance metrics. <ul style="list-style-type: none">– <i>Risk-based asset management programs and plans</i>– <i>Risk-based investment decision making</i>– <i>Performance metrics</i> <i>Two state presentations: Utah DOT and Colorado DOT</i>
1:30 to 2:45	Developing an Action Plan and Implementation Strategy: <i>Small group discussions among states on what steps each can (and will) take to enhance resilience culture in their agencies. Identifying early wins. How to get ahead of the curve in media relations on resilience- e.g., documenting what you have already done for resilience/ adaptation/ mitigation, what you are doing now.</i>
2:45 to 3:30	New Resilience Resources Available to State DOTs: CEO Primer, NCHRP 20-117, Research Roadmaps: <i>Plenary presentation from research project representatives</i>
3:30 to 4:30	Final Panel with Lessons Learned from the Summit: Key Messages, Research Needs and Change Strategies



The Rest of the Summit.....

Tuesday, October 9, 2018

Opening Plenary: AASHTO/TRB/USDOT: Welcome: FHWA Speaker (invited)
 Speaker on organization of the Summit

9:15 – 10:30	TRB Executive Committee Resilience and Sustainability Task Force: Challenges, Recommendations, and the Way Forward	Overall Frameworks for Resilience Strategies: Part A	Approaches to Cyber Security and Man-made Disruptions: Part A
11:00 - 12:30	Considering Resilience in Transportation Planning: Laying the Groundwork	Frameworks for Resilience Strategies: Part B, Dutch Experience with Resilience	Approaches to Cyber Security and Man-made Disruptions, cont'd: Part B
1:45- 3:15	How to Incorporate Resilience into Project Development: Risk-based Design	Capability Maturity Self-Assessment Tools/ Education and Training Needs	How to Incorporate Resilience into Asset Management
4:45 - 6:15	Interdependent Infrastructures (e.g., electrical grid and transportation)	Multi-sector Partnerships	All-Hazards and Operations Approach to Disruptions



At a glance

Wednesday, October 10, 2018			
8:30 – 10:00	Workshop on Community Resilience Approaches and Considerations:	Application of Technology to Enhance Asset Resilience	Fostering Researcher/Practitioner Partnerships
11:15 – 12:30	How to Define Benefits of Resilience Actions, Moderator	Social and Economic Considerations and the Value of Transportation in Risk Determination	Disruptions due to Man-made and Natural Causes: Multiple benefits of Adaptation Strategies
1:30 – 3:15	Benefit Cost Assessments for Infrastructure Resilience: Tools and Approaches	Communications and Outreach Strategies	Securing the Supply Chain/Freight Flows

Field Trip to the Eisenhower Tunnel

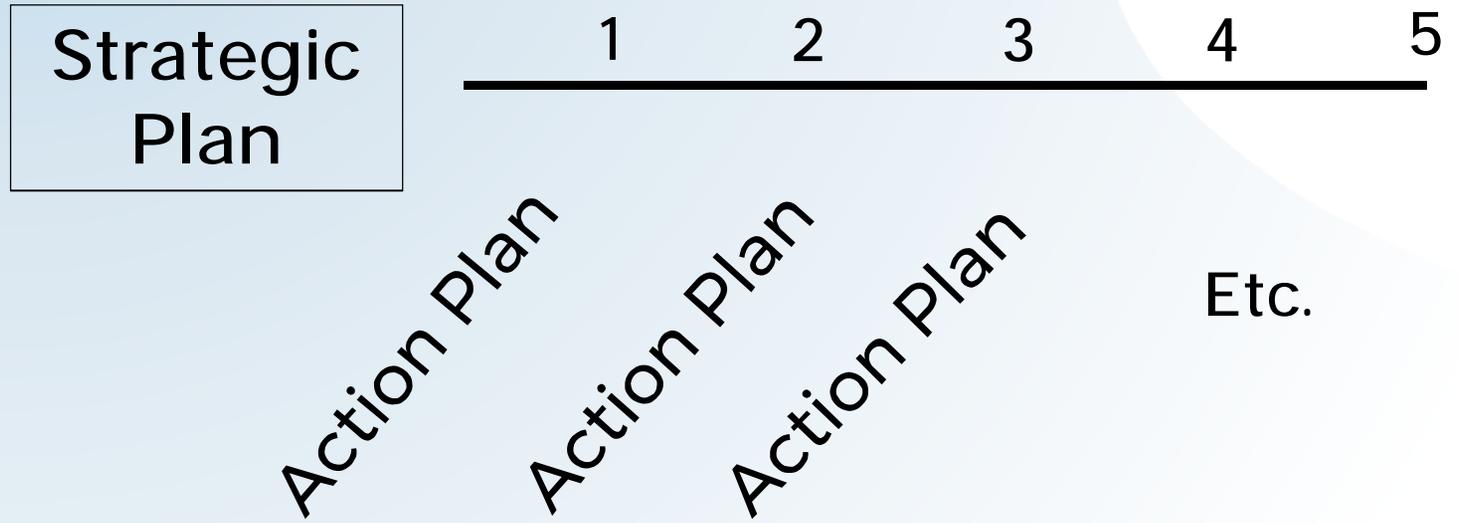
TSA Ramming Vehicle Workshop



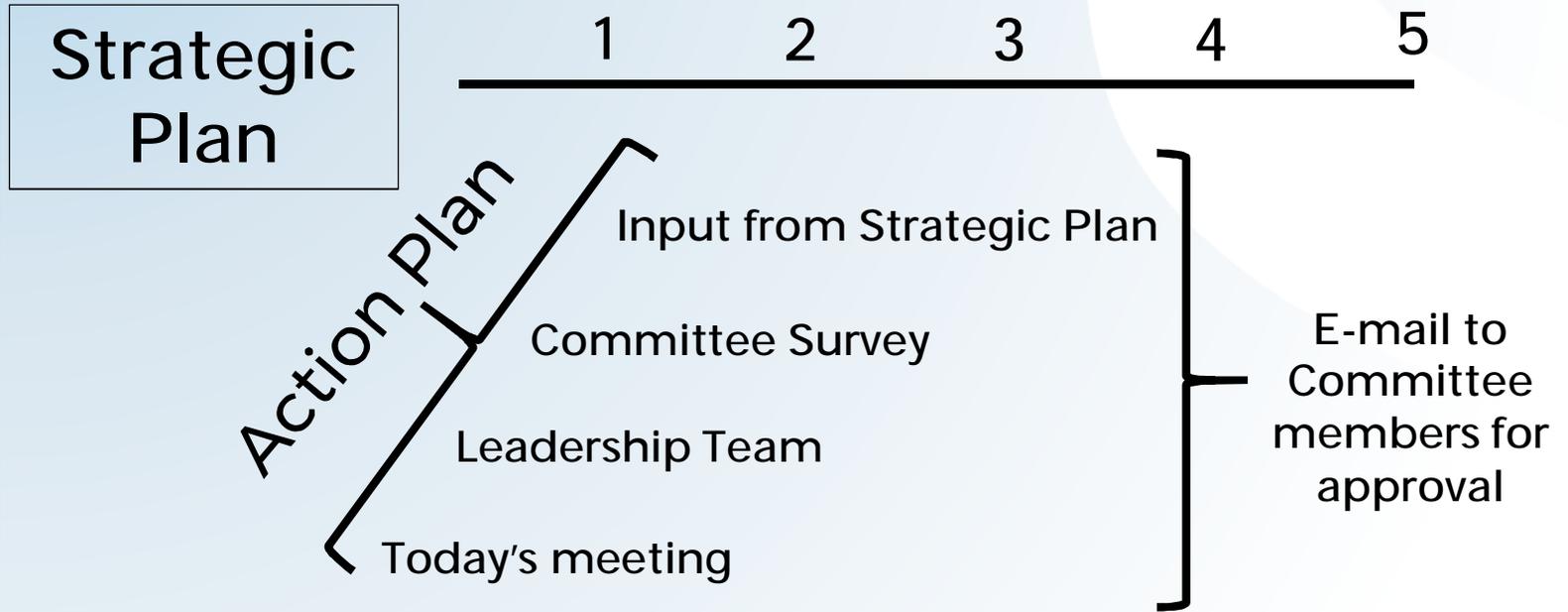
Results of the TSSR Survey and Draft Action Plan

At a glance

What are we doing today?



What are we doing today?



Submitted to AASHTO by August 1st

At a glance

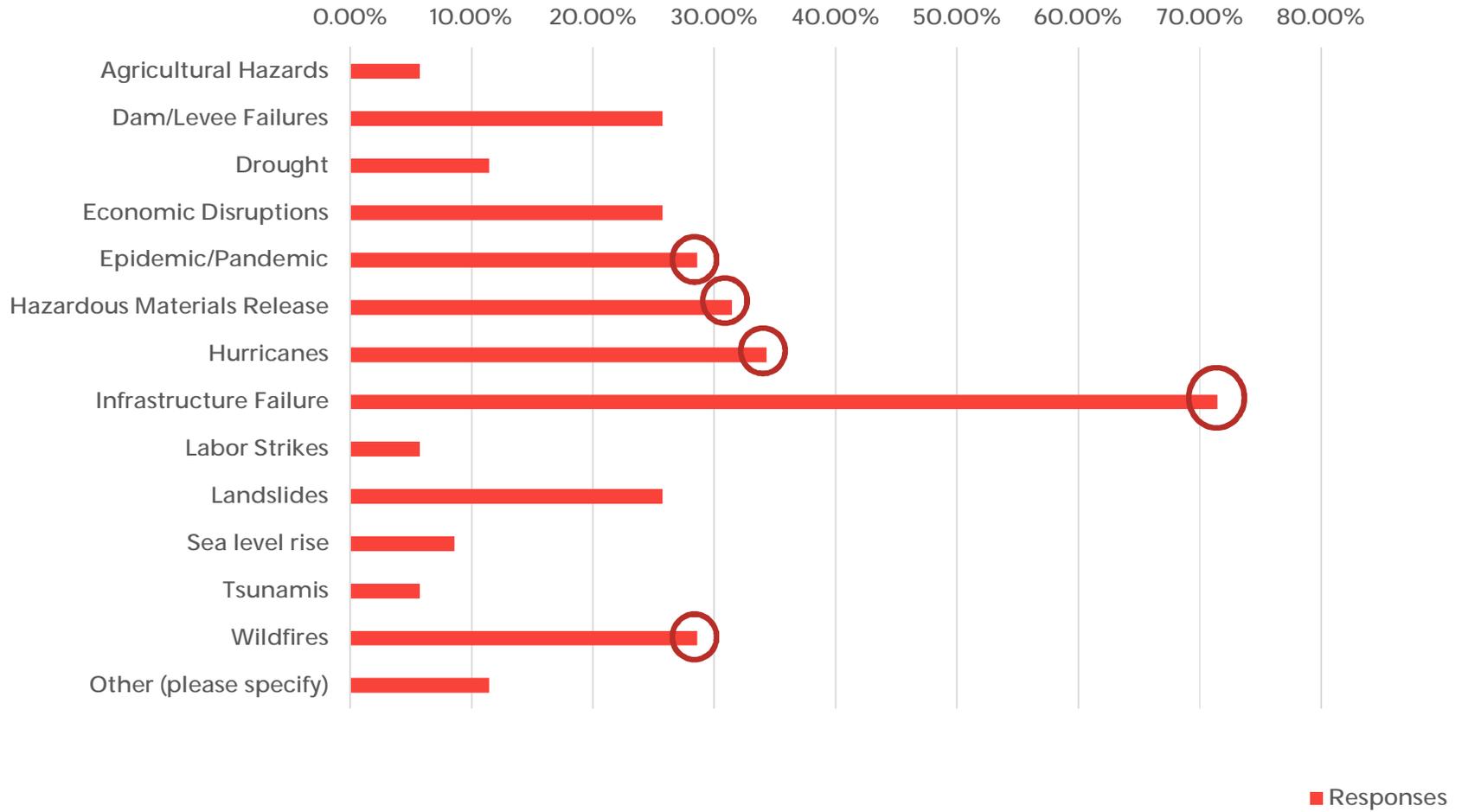
Survey

- 34 responses from 28 different states (including District of Columbia)
- Questions related to Strategic Plan strategies
- Top priority (this Action Plan); medium priority (next Action Plan); low priority (beyond second Action Plan)

Q1:

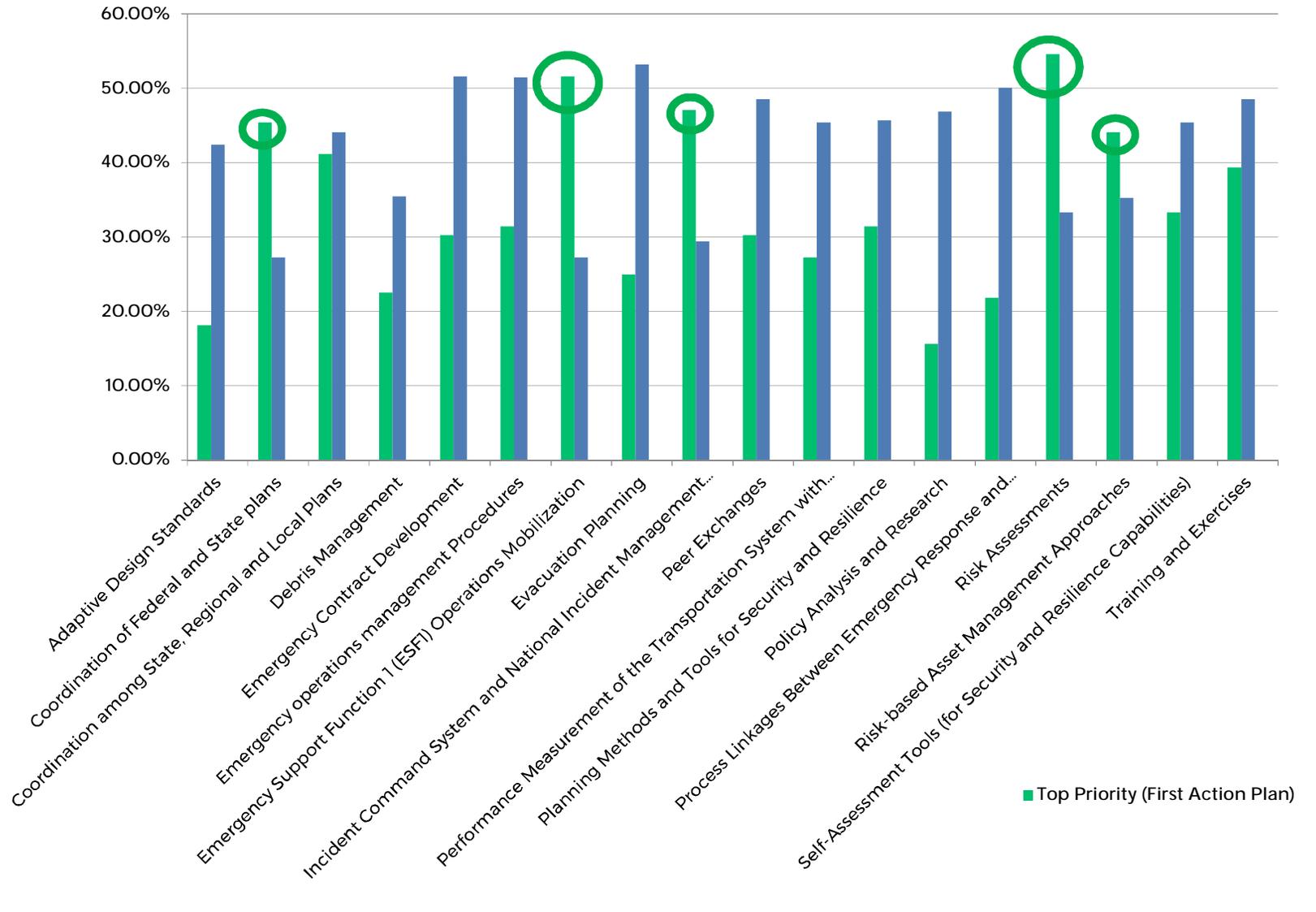
In addition to the top five hazards identified in the Strategic Plan survey (flooding, terrorism, cyber attacks, winter storms and earthquake), which additional hazards should CTSSR focus on (choose three)?

Q1



Q2:

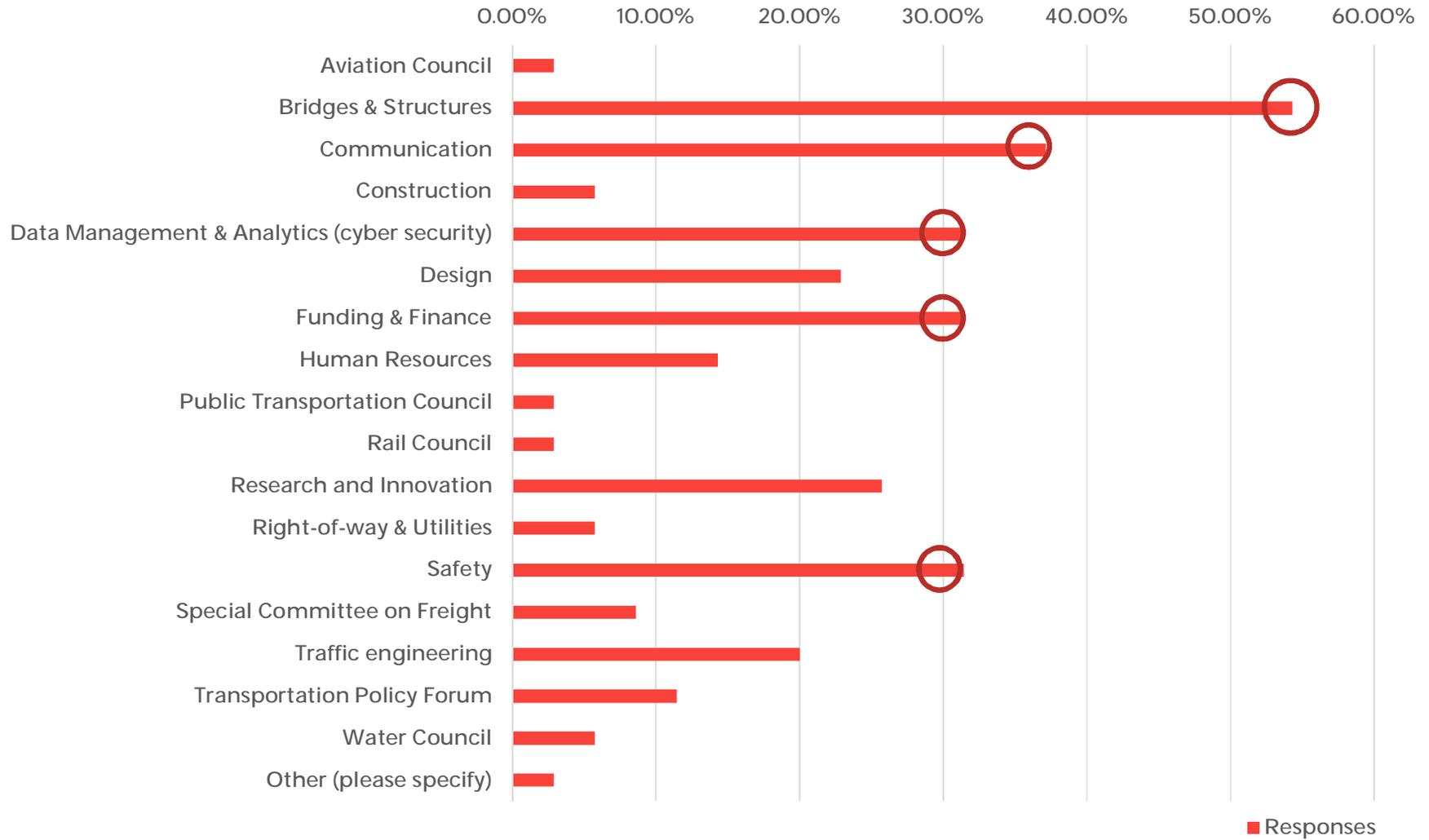
What are the priorities for the following tools/techniques/methods that the CTSSR should focus on with respect to information dissemination, research and peer exchanges in addition to those identified in the Strategic Plan survey (i.e., communication, threat identification/assessment, continuity of operations actions, best practice case studies and vulnerability assessments)?



Q3:

Which AASHTO committees in addition to those identified in the Strategic Plan survey (Planning, Transportation System Operations, Environment and Sustainability, Maintenance and Performance-based Management/Risk Management Subcommittee) should CTSSR strategically interact with?

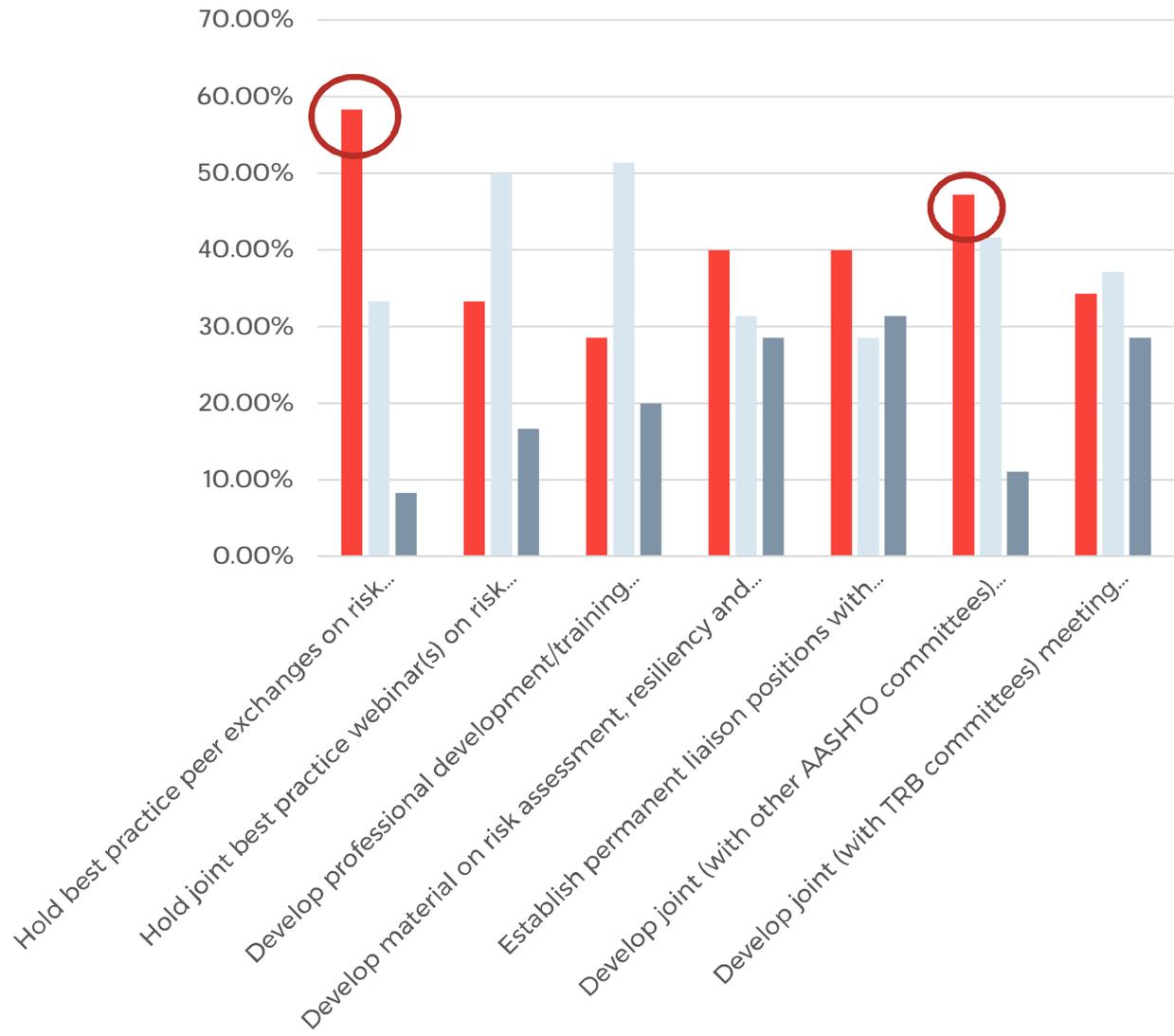
Q3



Q4:

For collaborating with other committees and external groups, what should be the priority for the following strategies?

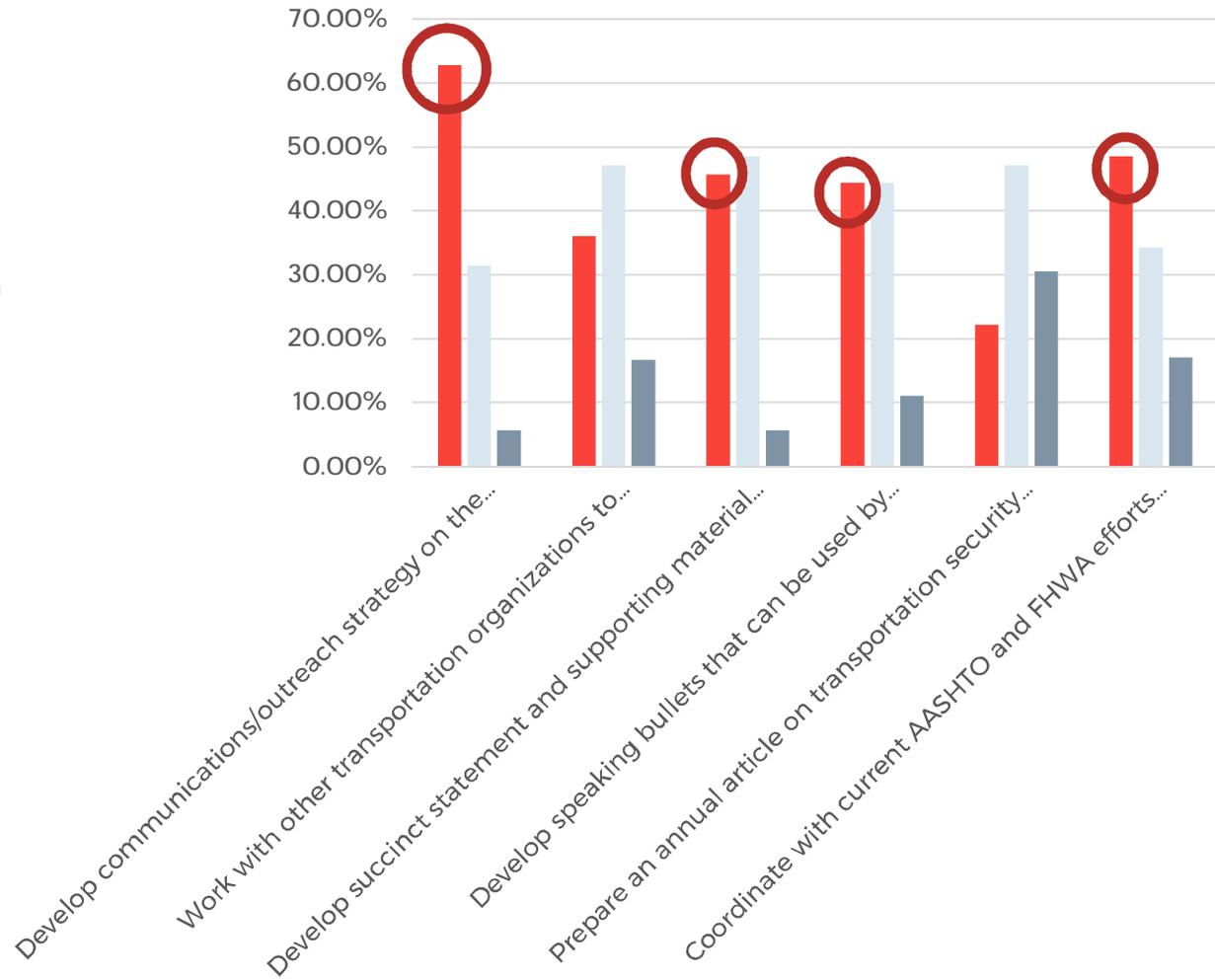
- Top Priority (First Action Plan)
- Medium Priority (Second Action Plan)
- Low Priority (Wait to beyond Second Action Plan)



Q5:

For communicating a business case with other committees and external groups, what should be the priority for the following strategies?

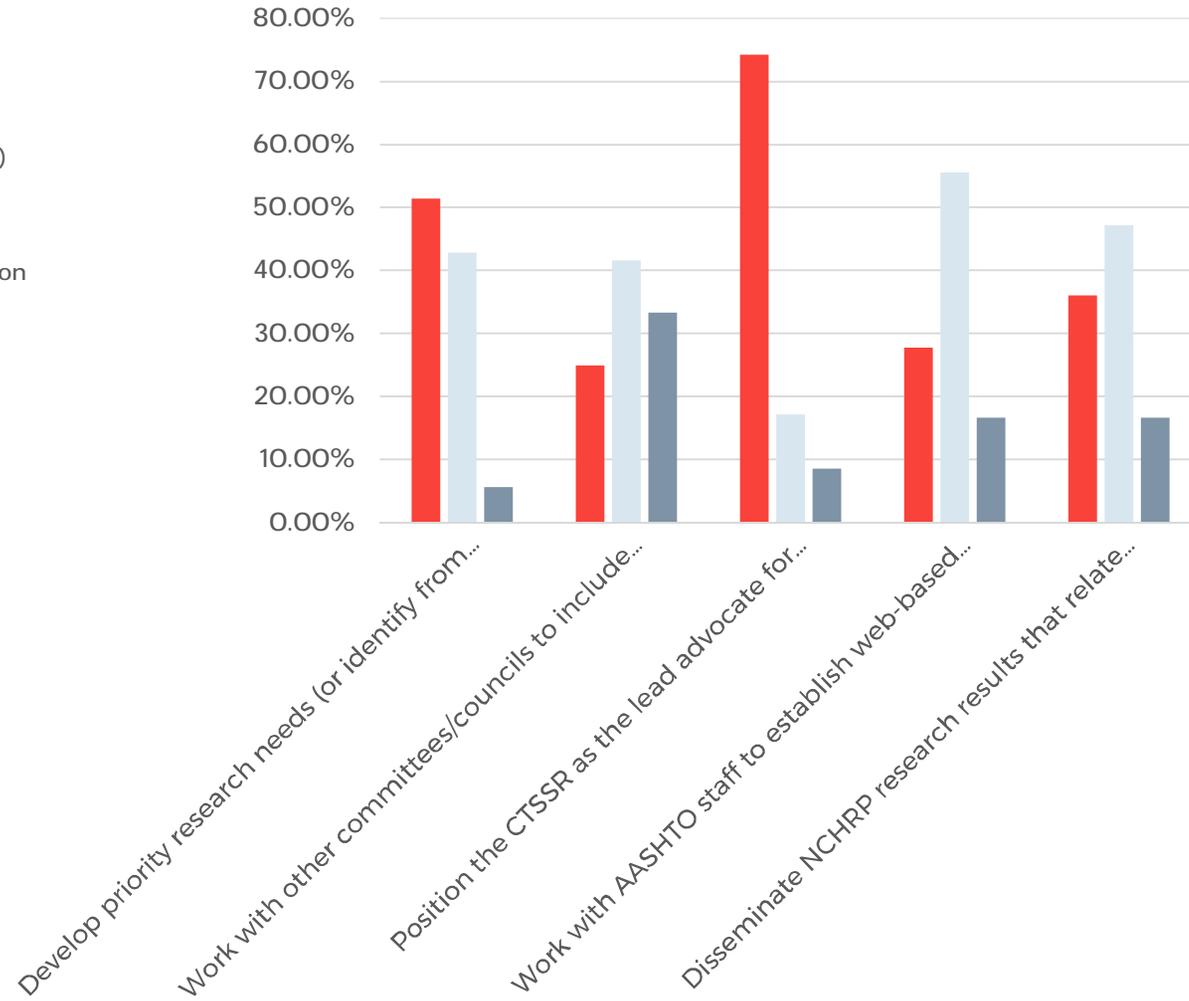
- Top Priority (First Action Plan)
- Medium Priority (Second Action Plan)
- Low Priority (Wait to beyond Second Action Plan)



Q6:

For research, what should be the priority for the following strategies?

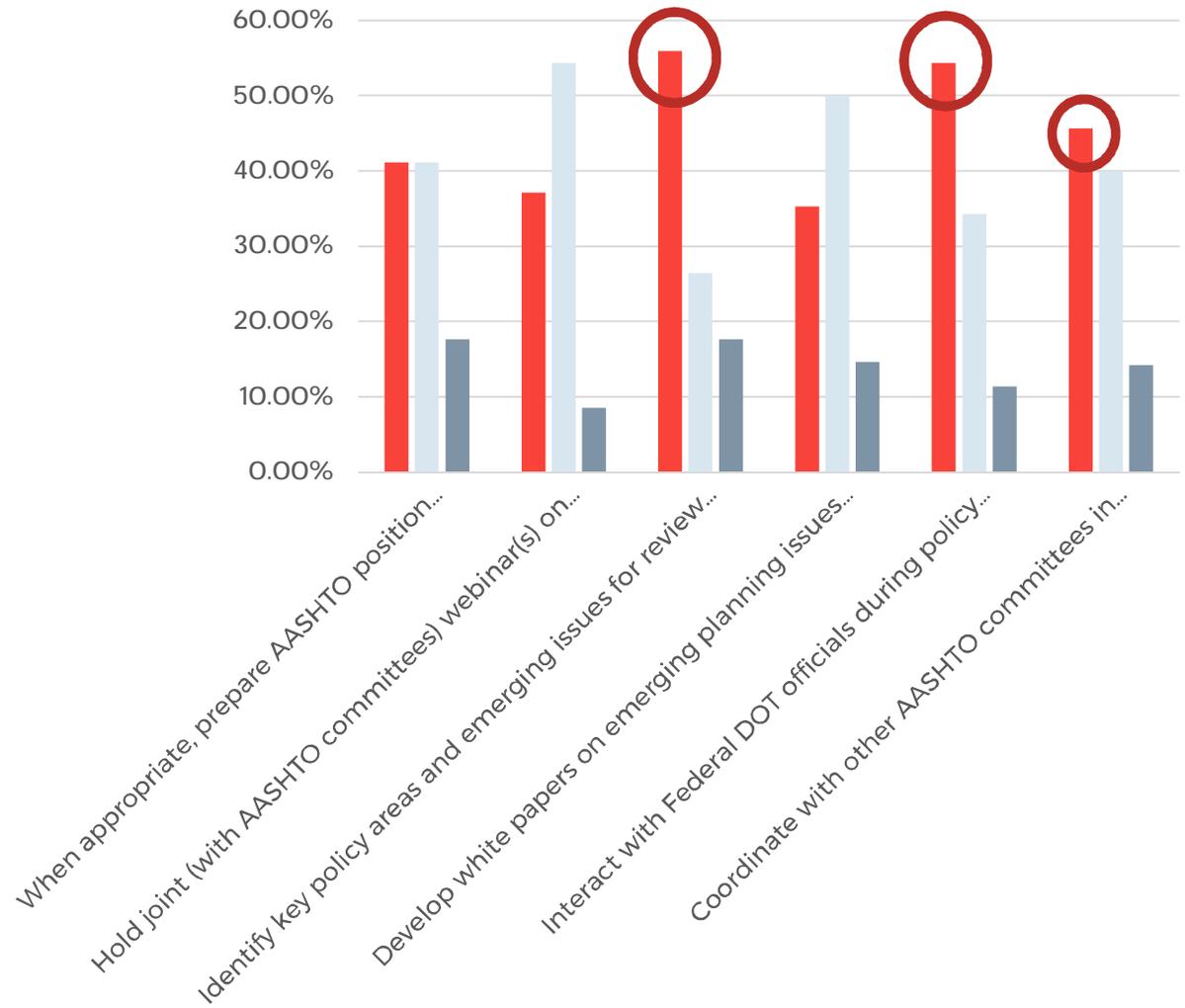
- Top Priority (First Action Plan)
- Medium Priority (Second Action Plan)
- Low Priority (Wait to beyond Second Action Plan)



Q7:

For viewing and providing input on proposed federal policies of national concern, what should be the priority for the following strategies?

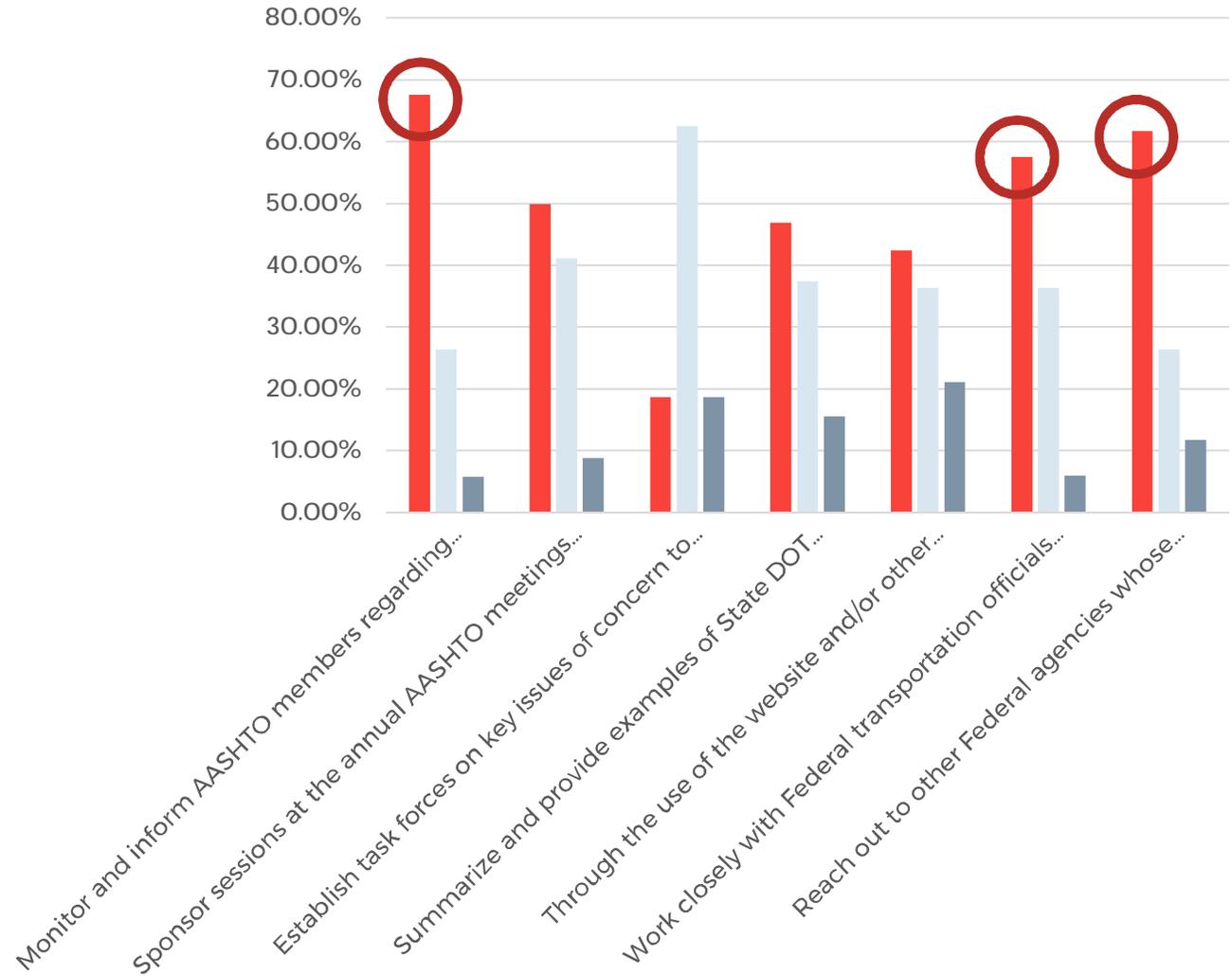
- Top Priority (First Action Plan)
- Medium Priority (Second Action Plan)
- Low Priority (Wait to beyond Second Action Plan)



Q8:

For communicating proposed federal policies of national concern to member states, what should be the priority for the following strategies?

- Top Priority (First Action Plan)
- Medium Priority (Second Action Plan)
- Low Priority (Wait to beyond Second Action Plan)



Key Takeaways

- Position the Committee as the lead for system resilience and security
- Interaction with other AASHTO Committees
- Interaction with key partners (e.g., federal agencies) and esp. non-transportation agencies
- Service to Committee members (e.g., webinars)

At a glance

Draft Action Plan

- Input from leadership committee meeting and survey results
- Somewhat conservative (in terms of aggressive activities this coming year)
- Many of the tasks are relevant to different strategies and are thus cross-referenced

Goal 1:

Integrate the risk assessment, resiliency and security of all aspects of the transportation system, and emergency response Life Cycle into transportation development and delivery

Goal 1

STRATEGY 1.1: Sponsor and track research related to risk assessment, resiliency and security planning and emergency management

1. Adopt the Resilience Research Roadmap (to be finished by the end of 2018) as a framework for identifying security and resilience-related research to propose for the NCHRP program.
2. Submit at least 2 CTSSR security and/or resilience research proposals to the NCHRP Program. Use results of survey to identify priorities. (Due date is November 1, 2018)
3. Submit at least 1 joint CTSSR and another AASHTO committee research proposal on security and/or resilience to the NCHRP program

Goal 1

STRATEGY 1.1: Sponsor and track research related to risk assessment, resiliency and security planning and emergency management

4. Develop an NCHRP Synthesis proposal on post-event guidelines on assessing the impacts of transportation system disruptions
5. Investigate creating a research "portal" that can be used to monitor current research submittals and status; prepare recommendation for implementation in 2019-2020 Action Plan
6. Follow NCHRP projects (e.g., NCHRP 20-117) and incorporate results into future Action Plans

Goal 1

STRATEGY 1.2: Collaborate with key AASHTO committees, FHWA and key external partners to define and describe linkages needed to integrate risk assessment, resiliency and security planning and emergency management into DOT processes

1. Investigate holding a joint committee meeting with another AASHTO committee focusing on transportation system security and resilience; hold such a meeting in 2019
2. Develop a joint CTSSR and other AASHTO committee(s) annual meeting session on a transportation security or system resilience-related topic. See results of Committee survey for possible topics or themes. (see Strategy 1.3)
3. Invite non-USDOT federal agency representative concerned about transportation security and resilience to participate in a CTSSR committee meeting or session.

Goal 1

STRATEGY 1.3: Advance the state of the practice by identifying and disseminating best and emerging practices and building expertise in the integration of the Life Cycle into the full range of DOT transportation development and delivery processes at state DOTs

1. Develop and sponsor a best practice peer exchange on a security/resilience-related topic for early 2019
2. Develop a joint CTSSR and other AASHTO committee(s) annual meeting session on a transportation security or system resilience-related topic
3. Examine the information and recommendations coming from the RISE conference (Oct 8-10, 2018) to determine what should be recommended for CTSSR consideration
4. Investigate the effectiveness and value of a CTSSR website for disseminating information and announcements; recommend action for 2019 Action Plan

Goal 1

STRATEGY 1.4: Create and communicate the business case for the risk assessment, resiliency and security for all aspects of the transportation system and emergency response Life Cycle

1. Develop working paper on the business case for risk assessment, resiliency and security
2. Develop one-page bullet list of key points on transportation system security and resilience that can be used by state DOT officials
3. Develop and sponsor a best practice peer exchange on a security/resilience-related topic for early 2019 (see Strategy 1.3)

Goal 2:

Assist in shaping policy and helping to implement legislation and funding

Goal 2

STRATEGY 2.1: Conduct outreach to key AASHTO committees to assess challenges to and opportunities for advancing the integration of the Life Cycle into practice

1. Meet with representatives from relevant AASHTO Committees to formulate AASHTO positions on security and resilience (see Strategy 2.2 and 3.1)
2. Collaborate with the following AASHTO Committees to establish permanent liaison positions with the CTSSR: Planning, Transportation System Operations, Environment & Sustainability, Maintenance and Performance-based Management/Risk Management Subcommittee (See Strategy 2.2)
3. Investigate holding a joint committee meeting with another AASHTO committee focusing on transportation system security and resilience; hold such a meeting in 2019 (see Strategy 1.2)

Goal 2

STRATEGY 2.2: In cooperation with key AASHTO committees define the role and responsibilities for permanent liaisons and appoint TSSR committee members to serve

1. Collaborate with the following AASHTO Committees to establish permanent liaison positions with the CTSSR: Planning, Transportation System Operations, Environment & Sustainability, Maintenance and Performance-based Management/Risk Management Subcommittee

Goal 2

STRATEGY 2.3: Encourage the sharing of post-event experiences with AASHTO members following major events

1. Develop an NCHRP Synthesis proposal on post-event guidelines on assessing the impacts of transportation system disruptions (See Strategy 1.1)
2. Develop "post-event" snapshots (templates) that can be prepared by state DOTs after an event and published in AASHTO newsletter on website.
3. Develop and sponsor a best practice peer exchange on a security/resilience-related topic for early 2019 (see Strategy 1.3)

Goal 3:

Assist in shaping and implementing federal policy, legislation and funding related to risk assessment, resiliency and security of the transportation system, and emergency management

Goal 3

STRATEGY 3.1: Collaborate with key AASHTO committees to advance policy activities related to risk assessment, resiliency, security and emergency management for the transportation system

1. Develop working paper on key policy areas and emerging issues for review and discussion by the Transportation Policy Forum and Executive Committee as it relates to reauthorization.
2. Invite FHWA officials to CTSSR meeting in 2019 to discuss issues of mutual interest and cooperation
3. Meet with representatives from relevant AASHTO Committees to formulate AASHTO positions on security and resilience (see Strategy 2.2.)
4. Examine the information and recommendations coming from the RISE conference (Oct 8-10, 2018) to determine what should be recommended for federal consideration (See Strategy 1.3)

Need the following information to
complete the Action Plan

Which begs the question...

Assigned to:

"Coordinating Committees/Councils"

Due Date

Comments

COP Structure...maybe

Four subcommittees:

- Subcommittee on Research: Responsible for identifying priority planning-related research and for disseminating and implementing research results. (Kimberly Avery)
- Subcommittee on Professional Development: Responsible for promoting planning professional development and capacity-building opportunities among State DOTs. (Jim Pappas)
- Subcommittee on Policy and Rulemaking: Responsible for reviewing and recommending national-level policies that relate to State transportation planning. (Chair and Vice Chair)
- Subcommittee on Technical Services: Responsible for hosting, promoting and disseminating information on planning-related tools, methods and analysis frameworks. (Shane Marshall and Bryan Haines)

Thank you!

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