U.S. Department of Transportation
Federal Highway Administration

COMPONENT B

EXTERNAL COLLABORATION & COORDINATION

This chapter provides assistance to transportation agencies with the "External Collaboration and Coordination" component of Transportation Performance Management (TPM). It discusses where the component occurs within the TPM Framework, describes how it interrelates with the other nine components, presents definitions for associated terminology, provides links to regulatory resources, and includes an action plan exercise. Key implementation steps are the focus of the chapter. Guidebook users should take the TPM Capability Maturity Self-Assessment (located in the TPM Toolbox at www.tpmtools.org) as a starting point for enhancing TPM activities. It is important to note that federal regulations for external collaboration and coordination may differ from what is included in this chapter.

B External Collaboration & Coordination

B.1 Planning & Programming
B.2 Monitoring & Reporting

External Collaboration and Coordination refers to established processes to collaborate and coordinate with agency partners and stakeholders on planning/visioning, target setting, programming, data sharing, and reporting. External collaboration allows agencies to leverage partner resources and capabilities, as well as increase understanding of how activities impact and are impacted by external factors.

INTRODUCTION

The implementation steps in this component will assist an agency in establishing processes to collaborate and coordinate with partner agencies and the public to establish goals, objectives, and performance measures (Component 01); set targets (Component 02); develop planning documents (Component 03); and program projects (Component 04). This chapter also addresses collaboration for data sharing (Components C and D), monitoring (Component 05) and reporting (Component 06).

As defined in Table B-2, collaboration and coordination are different, but related:

- **Collaboration:** Efforts to organize people or groups to enable them to work together effectively.
- **Coordination:** To work with another person or group in order to accomplish a task.

While these two terms are closely related, they are defined separately to ensure clarity. Collaboration refers to how people or groups across stakeholders are engaged, such as through working groups. Coordination is the work itself, but can also refer to activities seeking to define and develop collaborative efforts.

Collaboration with external partners and stakeholders offers opportunities. A transportation agency may be able to coordinate data collection or reporting to more efficiently use resources. There may be opportunities to track multiple goals with a single measure or to create new measures that will be used by multiple agencies to track a goal that was previously unquantifiable.

Because transportation agency results are impacted by influencing factors such as economic growth, and in turn affect areas such as public and environmental health, coordination with stakeholders that focus in such areas can provide transportation agency staff greater understanding of these relationships. Understanding these complex interactions will enable agencies to set more accurate targets, better reflect regional priorities in planning documents, and more strategically program projects to achieve desired outcomes. For more information, refer to Step 2.1.3, Identify influencing factors and assess risk (internal and external) in Component 02, Target Setting.

Collaboration with the public through scenario planning can also assist agencies in setting relevant goals and ensuring resource allocation will make progress toward those goals. Understanding what the public desires will be important as the agency reports performance results so that communication is tailored and provides the proper context for reports to be understood by the general public. Lawmakers are an additional external group who should be consulted to ensure that funding levels and performance outcomes are aligned. Elected officials should have a realistic understanding of what is achievable within current and projected funding environments. As with the public, understanding this group's desires and expectations will assist in later reporting.

External collaboration and coordination will be most successful when agency staff:

- Provide leadership to reward collaboration and set expectations for coordination
- Continually look for opportunities to collaborate and improve coordination
- Build on existing collaboration practices

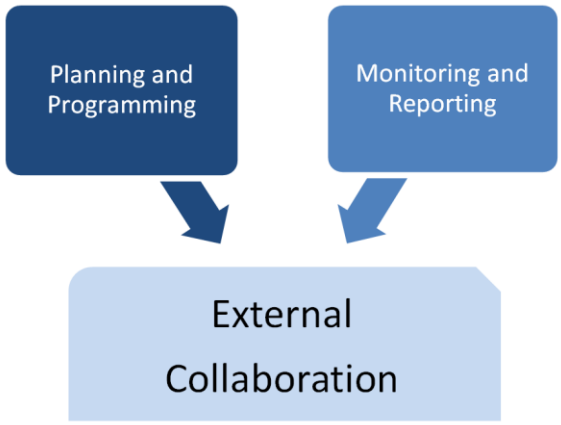
Most importantly, agencies should seek to build on existing collaboration and coordination. Many requirements concerning external coordination and collaboration exist and agencies have been undertaking these activities; staff should look for ways to further leverage these existing collaboration efforts. For example, regulations require the use of a documented public participation process through development of the long-range transportation plan. Because agencies are already fulfilling this requirement, additional engagement can easily build from the relationships established through this process.[1]

[1] 23 CFR § 450.210 (a)(1)(vii) and 316 (a)(1)(vii)

SUBCOMPONENTS AND IMPLEMENTATION STEPS

Figure B-1: Subcomponents for External Collaboration and Coordination

Source: Federal Highway Administration



The definition for External Collaboration and Coordination is: established processes to collaborate and coordinate with agency partners and stakeholders on planning/visioning, target setting, programming, data sharing, and reporting. External collaboration allows agencies to leverage partner resources and capabilities, as well as increase understanding of how activities impact and are impacted by external factors. The component is comprised of two subcomponents (Figure B-1):

- **Planning and Programming:** Coordinating and collaborating with external agency partners to establish goals, objectives, performance measures, and targets and to program projects to achieve established performance targets.
- **Monitoring and Reporting:** Coordinating and collaborating with external agency partners on performance monitoring and reporting.

Collaboration and coordination during planning and programming processes begins as the agency defines its strategic direction (Component 01) by establishing goals, objectives, and measures. These elements should be integrated across partner agencies and performance-based plans and the LRTP to form a cohesive regional strategic direction. Achieving performance targets that have been agreed upon through coordination among agencies will require fewer resources if programming decisions are also coordinated. Completing particular projects together can prevent duplicative effort.

Collaboration and coordination for monitoring and reporting processes produces benefits from data sharing among agencies. Consistent measures across agencies reduce the collective costs of monitoring and reporting. Likewise, agencies can coordinate reporting efforts by releasing combined reports, such as Washington State DOT's Corridor Capacity Report that includes both transit and road network performance data to provide a holistic perspective on corridor mobility.[2] This will align data collection timelines and more fully link partner agency processes that will produce further efficiencies.

The implementation steps in Table B-1 will assist an agency in collaborating more effectively with external partners and stakeholders. Additional information concerning external collaboration and coordination can be found throughout the other Components of this guidebook, including:

- Component 01: Strategic Direction
- Component 02: Target Setting
- Component 03: Performance-Based Planning
- Component 04: Performance-Based Programming
- Component 05: Monitoring and Adjustment
- Component 06: Reporting and Communication

[2] 2015 Corridor Capacity Report. June 14, 2016. http://www.wsdot.wa.gov/Accountability/Congestion/2015.htm

Table B-1: External Collaboration and Coordination Implementation Steps

Source: Federal Highway Administration

Planning and Programming	Monitoring and Reporting
1. Engage with external stakeholders to establish goals, objectives, and measures	1. Implement data sharing protocols
2. Collaboratively establish targets	2. Review and discuss content of reports to ensure consistent messaging
3. Develop and implement strategies in a collaborative manner	3. Formalize process for monitoring and reporting

CLARIFYING TERMINOLOGY

Table B-2 presents definitions for some of the terms used in this guidebook. A full list of common TPM terminology and definitions is included in Appendix C: Glossary.

Table B-2: External Collaboration and Coordination: Defining Common TPM Terminology

Source: Federal Highway Administration

Common Terms	Definition	Example
Collaboration	Efforts to organize people or groups to enable them to work together effectively.	Establishment of a target setting working group to set common targets in a bi-state urbanized area.
Coordination	To work with another person or group in order to accomplish a task.	Undertaking work to set common targets.
Customer	Users of an agency's services.	For a transit agency, riders of buses, light rail, and other transit modes. For a DOT, drivers, walkers, bicyclists, and others.
Goal	A broad statement of a desired end condition or outcome; a unique piece of the agency's vision.	A safe transportation system.
Monitoring	The identification and diagnosis of performance systems and programs.	Freeway and Arterial System of Transportation (FAST), a real-time traffic condition dashboard that enables detailed analysis on request.
Objective	A specific, measurable statement that supports achievement of a goal.	Reduce the number of motor vehicle fatalities.
Outcome	Results or impacts of a particular activity, most of interest to system users. Focus of subcomponent 5.1 System Level Monitoring and Adjustment.	Transit travel time reliability, fatality rate, percent of assets within useful life.
Output	Quantity of activity delivered through a project or program. Focus of subcomponent 5.2 Program/Project Level Monitoring and Adjustment.	Miles of pavement repaved, miles of new guardrail put into place, the number of bridges rehabilitated, the number of new buses purchased.

Common Terms	Definition	Example
Partner	An organization involved in administering transportation programs and policies, whether directly or indirectly. Involvement includes, but is not limited to, target setting, planning, programming, monitoring, and reporting.	Transportation agencies, emergency personnel, chambers of commerce, local government.
Performance Measure	Performance measures are based on a metric that is used to track progress toward goals, objectives, and achievement of established targets. They should be manageable, sustainable, and based on collaboration with partners. Measures provide an effective basis for evaluating strategies for performance improvement.	Transit passenger trips per revenue hour.
Reporting	Summary documentation of performance trends for either internal or external audiences.	WSDOT Gray Notebook.
Stakeholder	Person or group affected by, or who believe themselves to be affected by, a transportation agency's activities. This includes, but is not limited to, customers and partners.	In developing the long-range transportation plan, agencies must engage the general public and representatives of system users such as bicyclists, freight shippers, and public transportation riders.
Transportation Performance Management	A strategic approach that uses system information to make investment and policy decisions to achieve performance goals.	Determining what results are to be pursued and using information from past performance levels and forecasted conditions to guide investments.

RELATIONSHIP TO TPM COMPONENTS

The ten TPM components are interconnected and often interdependent. Subcomponents for External Collaboration and Coordination are closely intertwined with other components: subcomponent B.1 relates to Component 01: Strategic Direction, Component 02: Target Setting, Component 03: Performance-Based Planning, and Component 04: Performance-Based Programming. Subcomponent B.2 relates to Component 05: Monitoring and Adjustment and Component 06: Reporting and Communication. Table B-3 highlights these relationships.

Table B-3: External Collaboration and Coordination Relationship to TPM Components

Source: Federal Highway Administration

Component	Summary Definition	Relationship to External Collaboration
01. Strategic Direction	The establishment of an agency's focus through well-defined goals/objectives and a set of aligned performance measures.	Goals should be supportive across agencies to ensure agency activities are aligned while shared measures maximize efficiency in data collection and monitoring efforts.
02. Target Setting	The use of baseline data, information on possible strategies, resource constraints and forecasting tools to collaboratively set targets.	Collaboration in target setting ensures targets reflect influencing factors as understood by partners.

Component	Summary Definition	Relationship to External Collaboration
03. Performance-Based Planning	Use of a strategic direction to drive development and documentation of agency strategies and priorities in the long-range transportation plan and other plans.	With coordinated goals and measures across partners and reflective of public priorities, planning documents will also be aligned to promote synergistic progress toward goals.
04. Performance-Based Programming	Allocation of resources to projects to achieve strategic goals, objectives and performance targets. Clear linkages established between investments made and their expected performance outputs and outcomes.	With agencies allocating resources in a coordinated manner, strategic goals are more likely to be achieved. Regional priorities reflected in strategic goals will be reflected in activities undertaken by partner agencies.
05. Monitoring and Adjustment	Processes to monitor and assess actions taken and outcomes achieved. Establishes a feedback loop to adjust programming, planning, and benchmarking/target setting decisions. Provides key insight into the efficacy of investments.	Shared monitoring can significantly improve TPM efficiency by eliminating the need for duplicative data collection and management systems across agencies. Coordinated systems support cross-agency discussions regarding strategy adjustments.
06. Reporting and Communication	Products, techniques, and processes to communicate performance information to different audiences for maximum impact.	Partners can increase public understanding of TPM results and processes by maintaining consistent messaging, as well as reduce resources required for reporting.
A. TPM Organization and Culture	Institutionalization of a TPM culture within the organization, as evidenced by leadership support, employee buy-in, and embedded organizational structures and processes that support TPM.	As external collaboration becomes part of the agency's culture, future coordination activities will become streamlined. A supportive culture in turn promotes more robust collaboration in subsequent iterations of TPM processes.
C. Data Management	Established processes to ensure data quality and accessibility, and to maximize efficiency of data acquisition and integration for transportation performance management.	Data collection efficiencies gained through external collaboration can reduce resource use or enable expanded measurement capabilities.
D. Data Usability and Analysis	Existence of useful and valuable data sets and analysis capabilities, provided in usable, convenient forms to support TPM.	Coordination for data analysis is a primary area of focus for external collaboration, especially during target setting and monitoring.

REGULATORY RESOURCES

This Guidebook is intended only to assist agencies with implementing transportation performance management in a general sense and not to provide guidance on compliance and fulfillment of Federal regulations. However, it is important to consider legislative requirements and regulations when using the Guidebook. In many cases, use of this Guidebook will bring an agency in alignment with Federal requirements; however, the following sources should be considered the authority on such requirements:

Federal Highway Administration

- Transportation Performance Management: http://www.fhwa.dot.gov/tpm/links_fhwa.cfm
- Fact Sheets on Fixing America's Surface Transportation (FAST) Act: https://www.fhwa.dot.gov/fastact/factsheets/
- Fact Sheets on Moving Ahead for Progress in the 21st Century (MAP-21): https://www.fhwa.dot.gov/map21/factsheets/
- Resources on MAP-21 Rulemaking: https://www.fhwa.dot.gov/tpm/rule.cfm

Federal Transit Administration

- Fact Sheets on FAST Act: https://www.transit.dot.gov/funding/grants/fta-program-fact-sheets-under-fast-act
- Resources on MAP-21: https://www.transit.dot.gov/regulations-and-guidance/legislation/map-21/map-21-program-fact-sheets

IMPLEMENTATION STEPS

B.1 PLANNING AND PROGRAMMING

The steps in this subcomponent will assist an agency in collaboration with partners to establish a strategic direction and guide planning and programming processes. For this subcomponent, each implementation step is cross-referenced with other implementation steps from other subcomponents.

1. Engage with external stakeholders to establish goals, objectives, and measures
2. Collaboratively establish targets
3. Develop and implement strategies in a collaborative manner

> "Specifically, State DOTs, MPOs, RTPOs, and transit agencies need to align their goals, objectives, measures, and targets with one another. This does not mean that each agency must use the same goals, objectives, and measures… However, it is important that goals and objectives of various transportation agencies working in the same areas are supportive of each other."
>
> Source: FHWA, Performance Based Planning and Programming Guidebook

STEP B.1.1	Engage with external stakeholders to establish goals, objectives, and measures
Description	**Goals and Objectives** Before beginning the process of selecting goals, objectives, and measures, staff should have an understanding of how the transportation system is performing to frame the discussion about long-term transportation trends, needs, and desired future conditions. Collaboration with external agencies is a key way to obtain this understanding from a broad set of perspectives. Agencies should engage partners and stakeholders like State DOTs, MPOs, RTPOs, and transit agencies as well as local government, the business community, and economic development organizations. Examples of engagement with such partners and stakeholders can be found in FHWA's PlanWorks resource.[3] Discussions should include historical, current, and forecasted performance conditions. Discussions should also cover varying interests and needs for development of performance-based plans such as the Transportation Asset Management Plan (TAMP), Strategic Highway Safety Plan (SHSP), and Freight Plan in addition to development of long-range plans. SHSPs are an example of where effective collaboration and coordination among law enforcement, transportation engineers, and policy makers has produced results. Crash reporting by law enforcement provides the data necessary for transportation agencies to identify high crash areas. With this information, agencies can develop strategies to improve safety and reduce crashes. SHSPs establish goals, objectives, and strategies related to safety. Goals and objectives should be discussed with partner agencies to ensure activities undertaken by partners are supportive of each others' goals. "It took a full year working with local partners, consultants, stakeholders and the public, but we now have a collaborative performance framework for the region." - Monique de los Rios-Urban, Maricopa Association of Governments

[3] FHWA. PlanWorks, LRP-2: Approve Vision and Goals. https://fhwaapps.fhwa.dot.gov/planworks/DecisionGuide/Step/2

STEP B.1.1	Engage with external stakeholders to establish goals, objectives, and measures

The public and other stakeholders must also be engaged through the goal-setting process to ensure agency goals reflect regional priorities, particularly during long-range plan development. Stakeholder engagement is also an opportunity for the agency to clarify the linkage between core agency functions and broader societal concerns and discuss the relative priority of goals. Input from stakeholders should be used to refine goals and objectives so that they resonate outside of the agency.

> "The biggest barriers to collaborative performance-based planning and programming are organizational and institutional. Therefore, strong support from upper management can make a significant impact."
>
> Source: NCHRP 8-36 (104), Performance-Based Planning and Programming Pilots

In addition to making the goal-setting process more relevant, external engagement is also Federally required as part of the transportation plan development process.[4] For example, MPOs developing the MTP must consult, as appropriate, "…State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation."[5] States developing the LRTP must consult with MPOs, regional transportation planning organizations (RTPOs), Tribal governments, and state and local agencies.[6] Any interested parties should be included, as well as the general public, transportation providers, and representatives of system users.[7]

Items to keep in mind when collaborating and coordinating on the development of goals and objectives:

- Document planning timelines to more easily identify opportunities for collaboration
- Ensure a diverse group of stakeholders are invited to participate
- Establish working groups or similar structures with the primary purpose to develop goals and objectives
- Consider how each agency or partner will value particular goals
- Support staff participating in collaborative efforts by reducing workload temporarily

Cross reference: Component 01: Strategic Direction, Step 1.1.3

Measures

Once the agency has established goals and objectives and understands what data are available, partners can be engaged to identify and define performance measures. Obtaining input from various groups will help identify opportunities to use the same measure across multiple agencies, which can streamline how data are collected, managed, and analyzed. In some cases, it is feasible to reconcile similar measures used by partners into common measures. Be prepared for situations where partner agencies, while using similarly-named measures, are actually using different underlying calculations. Even though using the same measures across agencies may improve data interoperability, agencies should be careful not to

[4] 23 CFR § 450.210 (a)(1)(vii) 316 (a)(1)(vii). 49 CFR 613.
[5] 23 USC § 134 (i)(5)
[6] 23 USC § 135 (f)(2)
[7] 23 USC § 134 (i)(6) and 23 USC § 135 (f)(3)

STEP B.1.1	Engage with external stakeholders to establish goals, objectives, and measures

use measures only because data already exist or the measures are more affordable. Measures must be meaningful and add value to the later processes of target setting, planning, programming, and monitoring to produce results that meet the expectations for the traveling public, businesses, and communities. It is also important to consider how readily understood measures will be by the public. Reporting will be easier if measures are inherently straightforward; however, some measures that are good for public consumption fail to be useful for internal agency management.

Collaboration and coordination between State DOTs and MPOs can be beneficial because these agencies have traditionally used measures for different purposes: State DOTs to track trends in asset condition and direct outputs, and MPOs for forecasting and alternatives planning. A robust TPM practice requires both.

Discussion with partners should:

- Engage technical and nontechnical individuals
- Determine whether measures are forecastable or measurable with existing tools and data

Cross reference: Component 01: Strategic Direction, Step 1.2.2

Examples

Public Engagement for Goal Setting: Binghamton MPO[8]

Spurred by a declining population and the need to update the LRTP, the Binghamton Metropolitan Transportation Study (BMTS), the MPO for the Binghamton, NY region, undertook an extensive external engagement process to identify community goals. Their first step was to create a Community Vision Team that included a representative cross-section of the community:

- Students and administrators from Binghamton University
- Human service providers
- Elected officials
- Business and economic development representatives
- BMTS staff

Facilitators presented the team with summaries of goals from local planning and economic development documents to discuss in a series of meetings. While there were some challenges in keeping all members of the team continuously engaged, the biggest challenge was convincing local elected officials and planning staff from different agencies to participate in a cooperative dialogue.

The previous LRTP lacked a clear community vision, but the updated plan reflects the goals proposed by the Community Vision Team, emphasizing how external engagement can link community goals to agency planning. In a reminder that internal buy-in is also critical, those involved noted that success hinged on the support of the MPO leadership who approved a departure from traditional methodology.

Cross reference: Component 01: Strategic Direction, Step 1.1.3

[8] FHWA PlanWorks Application. *Binghamton Metropolitan Transportation Study: Scenario Planning Yields Community Vision of Revitalized Urban Centers*. https://fhwaapps.fhwa.dot.gov/planworks/Reference/CaseStudy/Show/12.

STEP B.1.1	Engage with external stakeholders to establish goals, objectives, and measures

Partner and Public Engagement: MTC PlanBayArea 2040

The Metropolitan Transportation Commission, the MPO for the San Francisco Bay Area, is currently updating its Regional Transportation Plan, known as Plan Bay Area 2040. To engage external stakeholders, MTC assembled a Performance Working Group comprised of representatives from cities; counties; transit agencies; congestion management agencies; the state; economic, equity, and environmental organizations; and members of the Policy Advisory Committee, made up of citizen representatives. This comprehensive group was engaged to develop goals and performance targets for the plan update.

To inform the working group, staff led public workshops during which goals from the original Plan Bay Area (adopted in 2013) were presented as a starting point; attendees voted for their top three most important. Once voting was complete, individuals were asked what goals were missing and wrote their ideas on sticky notes to assemble on the wall. This low-tech word cloud was assembled into the digital version shown in Figure B-2, with word size indicating the relative number of comments posted by participants.[9]

Figure B-2: MTC Collaborative Goal Setting

Source: Plan Bay Area 2040 Spring 2015 Public Engagement Report[10]

[9] Metropolitan Transportation Commission and Association of Bay Area Governments. (2015). Plan Bay Area 2040 Spring 2015 Public Engagement Report. http://planbayarea.org/file10232.html

[10] Metropolitan Transportation Commission and Association of Bay Area Governments. (2015). Plan Bay Area 2040 Spring 2015 Public Engagement Report. http://planbayarea.org/file10232.html

STEP B.1.1	Engage with external stakeholders to establish goals, objectives, and measures

Water was a top goal area because of the ongoing drought. MTC staff noted that social equity, in terms of affordable housing, was elevated as a major concern in this RTP cycle, while economic vitality was a lower priority because of the current strength of the area's economy. This engagement process demonstrates how important it is for an agency to engage stakeholders on an ongoing basis because priorities can and do shift based on changing conditions. Staff also note that stakeholder understanding of the impact of this process has increased each cycle; selection of goals can be contentious because stakeholders know that plan goals do in fact determine which projects are funded and how discretionary funding is allocated.

Cross reference: Component 01: Strategic Direction, Step 1.1.3

Measure Selection: Maryland Attainment Report Advisory Committee

As of 2000, Maryland law requires publication of an annual Attainment Report that includes performance indicators to track progress toward achievement of goals and objectives in the Maryland Transportation Plan (LRTP) and the Consolidated Transportation Program (6-year capital budget).[11] The law was updated in 2010 to create an Attainment Report Advisory Committee comprised of specific stakeholders such as:

- A representative of rural interests
- A representative of an auto users group
- A representative of a transit-user's group
- A nationally recognized expert on pedestrian and bicycle transportation
- A nationally recognized expert on transportation performance management
- And others

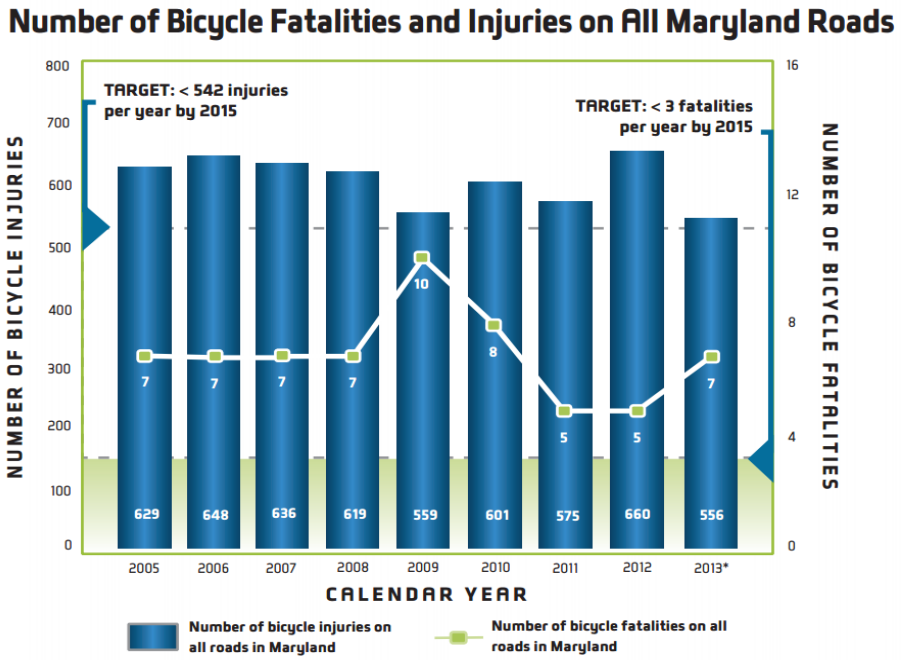
The committee is charged with reviewing use of performance measures in other states to advise MDOT on goals, benchmarks, and performance measures. An example of such a measure is below in Figure B-3. MDOT staff as well as staff from the modal administrations within the department work with the committee to develop performance measures each time Maryland's long-range plan is updated or every three years.

[11] Transportation Article Section 2-103.1 of the Annotated Code of Maryland.

STEP B.1.1	Engage with external stakeholders to establish goals, objectives, and measures

Figure B-3: Measuring Safety for Bicycle and Pedestrians at MDOT

Source: 2015 Annual Attainment Report[12]



Cross reference: Component 01: Strategic Direction, Step 1.2.2

Linkages to Other TPM Components	Component 01: Strategic Direction Component 02: Target Setting Component 03: Performance-Based Planning	(See TPM Framework)

STEP B.1.2	Collaboratively establish targets

Description

The first step in establishing targets is to assemble data to develop a baseline for selected performance measures. Partner agencies should initiate discussions to determine what data are available within each agency's data system. Understanding what data are available will be helpful to determine what information can be considered as a baseline is established.

Working groups can be established to coordinate target setting; members of these groups should include DOT, MPO, and transit agency staff, as well as staff from other partners. With a formalized group dedicated to cross-agency collaboration, work is more likely to be sustained. Ensure working group members have support from management and leadership to dedicate the necessary time to such working groups so that each meeting can be productive. For performance areas that are heavily affected by influencing factors, consider including

[12] Maryland Department of Transportation. (2015). 2015 Annual Attainment Report. Baltimore, MD. http://www.mdot.maryland.gov/Office_of_Planning_and_Capital_Programming/CTP/CTP_15_20/CTP_Documents/2015_Final_AR.pdf

STEP B.1.2	Collaboratively establish targets

representatives from non-transportation partners to understand the impact of these influencing factors on historical and projected performance. Often these partners will bring information to the table that allows understanding of why trend data varied over time.

Working groups should continue to meet even after targets have been established. This will promote closer collaboration in the future as targets are updated and performance data are monitored to determine target attainment.

Consider starting with a single performance area to build the processes and structures for collaboration and coordination. Once any challenges have been addressed, expand to other performance areas.

Data consistency can be an obstacle to collaborative target setting. If partners are using different data sets, baselines and forecasts may differ. To overcome this obstacle, consider using grant money or other funding to make a single data set available to all partners.

Collaboration in target setting could also take the form of benchmarking with peer agencies. Gathering target information from peer agencies can clarify regional and national trends in specific performance areas, create a context for a target, and help explain a proposed target's value to external stakeholders. However, to properly bring external target values into an internal agency's target setting process requires accurately identifying peer agencies (or clearly explaining the differences), confirming that similar data sources were used, and ensuring consistent measure definitions were applied.

As with any process in TPM, it is vital to document the steps taken, staff involved, and roles and responsibilities. Because targets will need to be updated regularly, having this information documented will make updates straightforward and efficient.

Other collaboration and coordination techniques include:

- Obtain agreement among partners concerning assumptions and inputs to models
- Hold working group meetings on a regular basis to prevent coordination from losing momentum
- Invite State DOT representatives to sit on MPO boards
- Compose a joint statement of understanding regarding data sources, desired outcomes, and other assumptions
- Promote data consistency by using grant money or other funding to make data available to all partners
- Define roles and responsibilities both within and across agencies to ensure all offices are engaged[13]

[13] Federal Highway Administration. (2014). *Target Setting Peer Exchange: Summary Report*. https://www.planning.dot.gov/Peer/Arizona/scottsdale_6-17-14_FHWA_target_setting.pdf

STEP B.1.2	Collaboratively establish targets

Examples

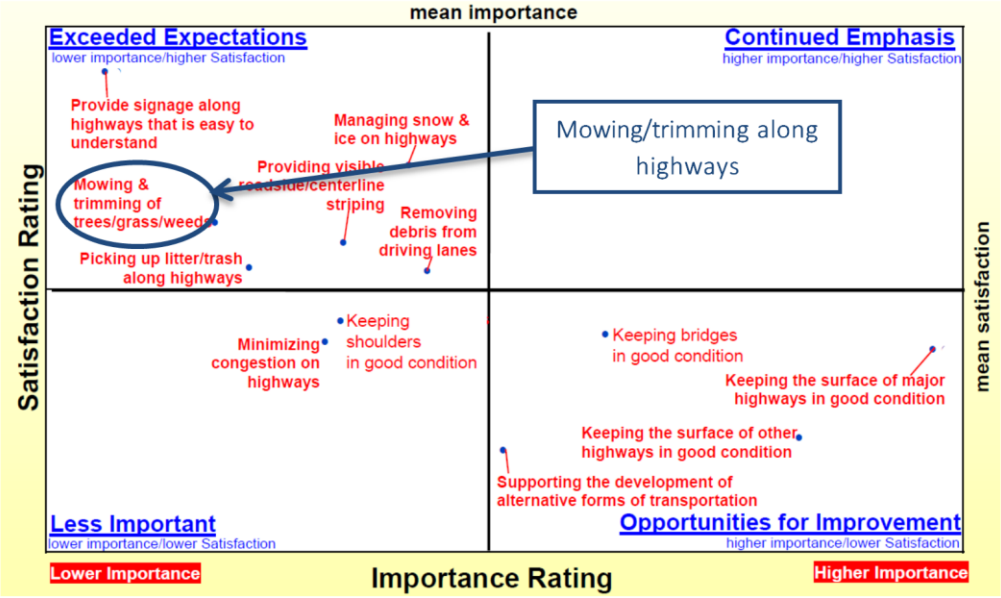
Understanding Tolerable Thresholds: MoDOT

Missouri DOT's customer report card includes an importance-satisfaction analysis that plots the percentage of Missourians who indicated a service offered by MoDOT as very important against the percentage of Missourians who were very satisfied (or dissatified) with that service. The simple graphic provides guidance on where to focus resources. For example, in 2010 when the agency was facing a notable funding shortfall, the importance-satisfaction chart highlighted an opportunity to shift resources from one service to another. As the figure below from 2010 illustrates, Missourians were relatively satisfied with MoDOT's mowing/trimming services, but overall this was of less importance to citizens than other services. Subsequently, MoDOT reduced its mowing practices from four to three times a year resulting in $2.5 million in savings that was reallocated to other system performance areas. The next survey showed this maintenance practice change had zero effect on customer satisfaction. This information is important to know as the agency sets targets for performance in various areas.

> "Public opinion surveys can also be helpful in the target-setting process to understand the relationship between different transportation system performance levels and the level of inconvenience or discomfort perceived by users."
>
> Source: NCHRP 551: Performance Measures and Targets for Transportation Asset Management (Vol II, pg. 34)

Figure B-4: Satisfaction v. Importance of Agency Activities

Source: Adapted from A Report Card From Missourians (2010)[14]



Cross reference: Component 02: Target Setting, Step 2.2.4

[14] Missouri Department of Transportation. (2010). A Report Card From Missourians – Appendix A: I-S Analysis. Jefferson City, MO. https://library.modot.mo.gov/RDT/reports/Rd08018/or11001apdxA.pdf

STEP B.1.2	Collaboratively establish targets

Target Setting Collaboration: WSDOT[15]

The Washington State DOT has established three groups to facilitate collaborative target setting. The Target Setting Framework Group includes representatives from WSDOT and directors of MPOs and meets quarterly to address issues in three categories: process, data, and target setting.

- Process: the group will decide when and how often WSDOT and MPOs should engage and how to engage.
- Data: the group will determine what types of data to use, establish roles and responsibilities for data collection and analysis, and the process MPOs should use to report targets and results.
- Target setting: the group will advise on target setting decisions, with final recommendations forwarded to MPOs, WSDOT's Executive Leadership Team, and the Secretary of Transportation. Agencies can adopt or modify the targets, but the Secretary must ensure they align with the Governor's strategic directions.

The Target Setting Working Group, a smaller group comprised of WSDOT and MPO staff, meets monthly to discuss policy and process issues more in depth to prepare recommendations for the Framework Group.

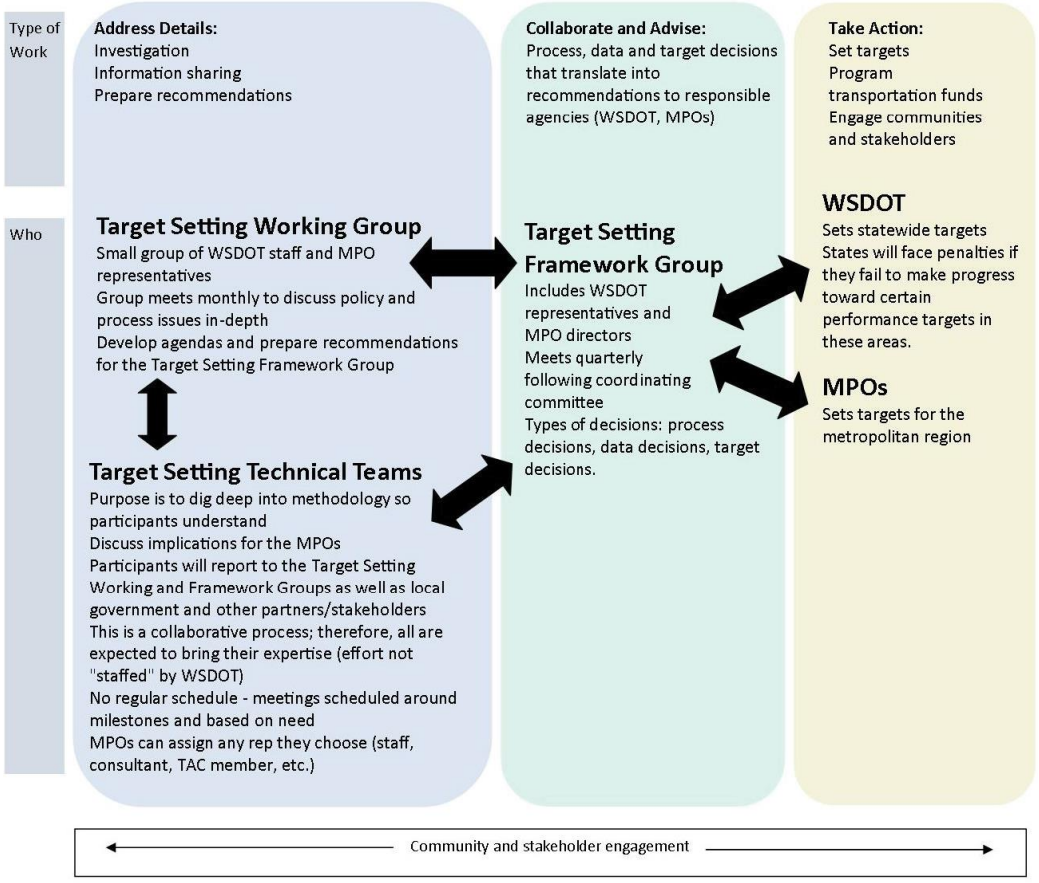
Target Setting Technical Teams go into more detail, using NPRMs to prepare for new requirements by analyzing and vetting WSDOT proposed targets. Each national performance area has a technical team that reports to the Working Group and Framework Group and individual members report back to WSDOT, their MPO, and local government partners. Technical Teams meet as needed, mainly around milestones.

[15] Washington State DOT. *MAP-21 Collaboration*. May 2015 – Edition 1. http://wsdot.wa.gov/NR/rdonlyres/31492B5E-0908-4B44-B910-8669DBEB0E37/0/CollaborationMAP21WSDOTFolio.pdf

STEP B.1.2	Collaboratively establish targets

Figure B-5: WSDOT Target Setting Collaboration Structure

Source: MAP-21 Collaboration, May 2015 – Edition 1[16]



Coordination in Target Setting for California Greenhouse Gas Emissions Reduction

California has formally established performance targets related to greenhouse gas (GHG) emissions reductions. This was done largely as a result of state legislation requiring GHG reduction targets, which resulted in a statewide effort to identify a set of common performance measures.

As a result of the legislation, the California Air Resources Board convened an MPO and state agency working group to talk through the target setting process. An advisory committee of 21 members with representatives from MPOs, housing agencies, ARB, environmental justice groups, and others provided recommendations on how to establish targets. It was important to all these agencies that target setting not be done in a top-down manner. Throughout this process, each MPO conducted modeling to report on the GHG reduction progress it expected to achieve. For example, San Diego Association of Governments, the MPO for San Diego, had

[16] Washington State DOT. *MAP-21 Collaboration*. May 2015 – Edition 1. http://wsdot.wa.gov/NR/rdonlyres/31492B5E-0908-4B44-B910-8669DBEB0E37/0/CollaborationMAP21WSDOTFolio.pdf

STEP B.1.2	Collaboratively establish targets
	relatively sophisticated modeling and forecasting capabilities and therefore was able to analyze various pricing strategies and model expected impacts on GHG reduction targets for cars and trucks. In addition to the working group's efforts, bi-monthly meetings of planning directors from all MPOs in California kept the momentum going for a collaborative target setting process, while the executive directors of large MPOs meet quarterly to exchange assumptions and talk through the key issues they are facing. Even though all regions have now set GHG performance targets, the working group continues to meet. The various coordination efforts between state agencies and MPO to set GHG targets has positioned Caltrans and California's MPOs to work within existing structures for strong coordination in setting other performance targets.
Linkages to Other TPM Components	Component 02: Target Setting (See TPM Framework)

STEP B.1.3	Develop and implement strategies in a collaborative manner
Description	While selecting goals and measures and establishing targets in collaboration with partners is important, it is critically important that collaboration and coordination continues through the development and implementation of strategies. Major efficiencies can be leveraged through coordination in this realm especially concerning cross-jurisdictional and multimodal projects. The issue of internal and external agency silos is a common problem, and staff should attempt robust collaboration to overcome this obstacle. Proactive communication through programming will enable partners to capitalize on synergies and avoid conflicts. A resurfacing project can be combined with pedestrian improvements undertaken by the transit agency around a station to avoid construction disruption over two separate time periods. Or reevaluation of traffic signal timing can be coordinated with a bike lane and signal installation study. A formal input process for collecting project information should be established to simplify the process. Once effective processes for communication, collaboration, and coordination have been identified, document how they were completed. This will ensure proactive communication continues despite staff or other changes. "The collaboration issue is huge – however, to be successful you need to identify and address the institutional barriers within agencies that prevent it from happening." - Susan Sharp, Sharp & Company Agencies that have begun this process of collaborative planning and programming agree that incremental process improvements are valuable, and agencies should not wait until the ideal approach is possible. Additionally, collaboration seems to break down at the point when one agency becomes responsible for funding and implementing a particular project because results

STEP B.1.3	Develop and implement strategies in a collaborative manner

of collaboration must compete with other priorities within the agency. To combat this, an agency should try to maintain coordination at both upper management and technical levels.[17]

The public and partners both will play a key role in examining alternative investment and policy scenarios, and partners will provide input to inform the selection of preferred strategies. Within this process, stakeholders can rely upon performance information and the results of analysis from the agency to help in understanding the implications of different investment and policy scenarios, and can react to these results and express preference.[18]

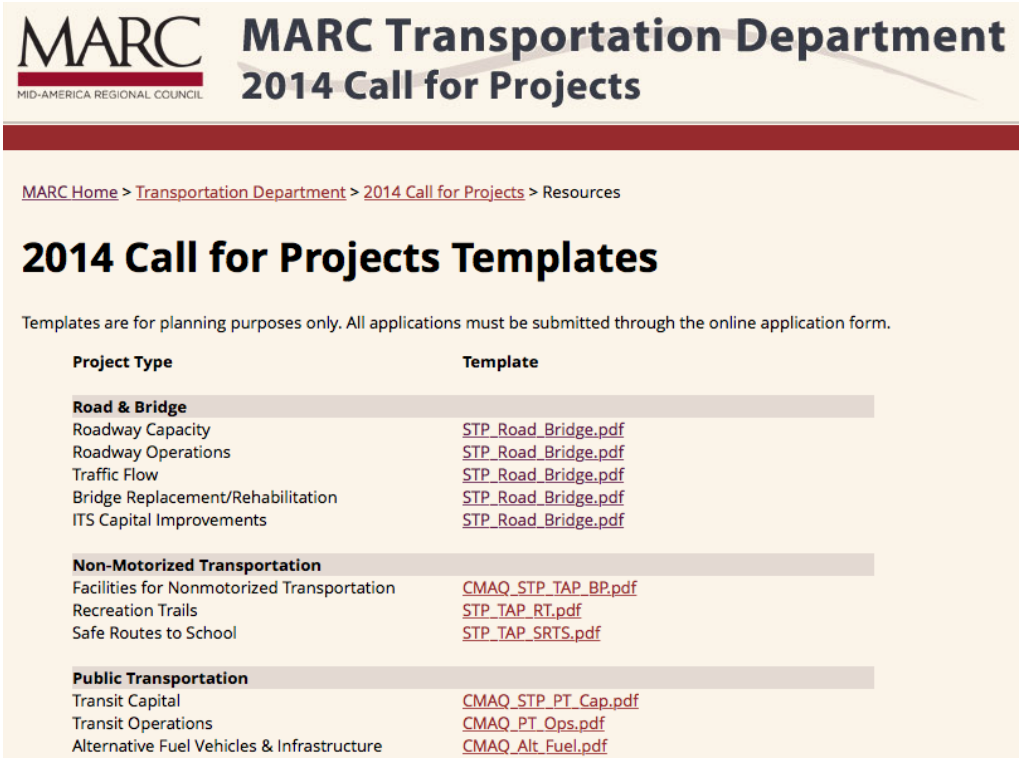
> "There is a lot of emphasis on external collaboration during transportation planning, but it seems to fall off during programming. Agencies should do as much during programming as they do during planning."
>
> - FHWA planning staff

Examples

Staff at the **Mid-America Regional Council (MARC)**, the MPO for the greater Kansas City area, developed an online template library to gather calls for projects for programming efforts.

Figure B-6: MARC Project Templates

Source: MARC Transportation Department[19]



MARC
MID-AMERICA REGIONAL COUNCIL

MARC Transportation Department
2014 Call for Projects

MARC Home > Transportation Department > 2014 Call for Projects > Resources

2014 Call for Projects Templates

Templates are for planning purposes only. All applications must be submitted through the online application form.

Project Type	Template
Road & Bridge	
Roadway Capacity	STP_Road_Bridge.pdf
Roadway Operations	STP_Road_Bridge.pdf
Traffic Flow	STP_Road_Bridge.pdf
Bridge Replacement/Rehabilitation	STP_Road_Bridge.pdf
ITS Capital Improvements	STP_Road_Bridge.pdf
Non-Motorized Transportation	
Facilities for Nonmotorized Transportation	CMAQ_STP_TAP_BP.pdf
Recreation Trails	STP_TAP_RT.pdf
Safe Routes to School	STP_TAP_SRTS.pdf
Public Transportation	
Transit Capital	CMAQ_STP_PT_Cap.pdf
Transit Operations	CMAQ_PT_Ops.pdf
Alternative Fuel Vehicles & Infrastructure	CMAQ_Alt_Fuel.pdf

[17] American Association of State Highway and Transportation Officials, Standing Committee on Planning. (2012). *Performance-Based Planning and Programming Pilots* (NCHRP Report 08-26, Task 104).
[18] FHWA. (2014). *Model Long-Range Transportation Plans: A Guide for Incorporating Performance-Based Planning*. FHWA-HEP-14-046.
[19] Mid-American Regional Council Transportation Department. (2014). Kansas City, MO.

STEP B.1.3	Develop and implement strategies in a collaborative manner

The online call for projects page is currently in use for multiple plans, including MARC's Surface Transportation Program 2017-2018, Transportation Alternatives (TAP) 2014-2018, and Congestion Mitigation and Air Quality Improvement Program 2015-2018. Projects are evaluated based on how closely they align with policy goals, making clear the connection between goals and programmed projects.

The input uses a menu to gather basic information on the project such as program, location, need, modes, description, usage, and relationship to or inclusion in a number of other plans. This allows MARC to receive a large amount of information from a large number of users while simultaneously organizing it into a database-friendly format that allows staff to see connections between projects that could be opportunities for collaboration.[20]

Cross reference: Component 04: Performance-Based Programming, Step 4.1.3

Massachusetts Department of Transportation (MassDOT)

Section 11 of Chapter 46 of the Acts of 2013 established a Project Selection Advisory Council charged with developing uniform project selection criteria for cross-modal programming.[21] MassDOT integrated separate transit, highways, aeronautics, and a division of motor vehicles into a fully multimodal agency; collaboration among the divisions is a critical factor for success as the agency moves toward cross-modal prioritization in programming.

Council members were appointed by the legislature, with the MassDOT Secretary as chair. Members comprised representatives from MassDOT, such as the General Manager of the Massachusetts Bay Transportation Authority (MBTA) as well as representatives from external organizations. The Council included a policy and planning expert, a transportation finance expert, an engineer, a regional planning association representative, and a municipal representative.

Over an 18-month period, the Council met regularly and consulted with the public and legislature. On July 1, 2015, "Recommendations for MassDOT Project Selection Criteria" was delivered, focusing primarily on modernization and capacity projects.

As a result of the Council's final report, a Stakeholder Advisory Committee was created to include key external stakeholders (RTAs, MPOs, and municipalities) who would be impacted by implementation. An internal Implementation Committee was also created as a result of the Council's final report. With assistance from the Stakeholder Advisory Committee, the Implementation Committee is responsible for developing guidance for project scoring and managing implementation of the framework as a whole within the agency.

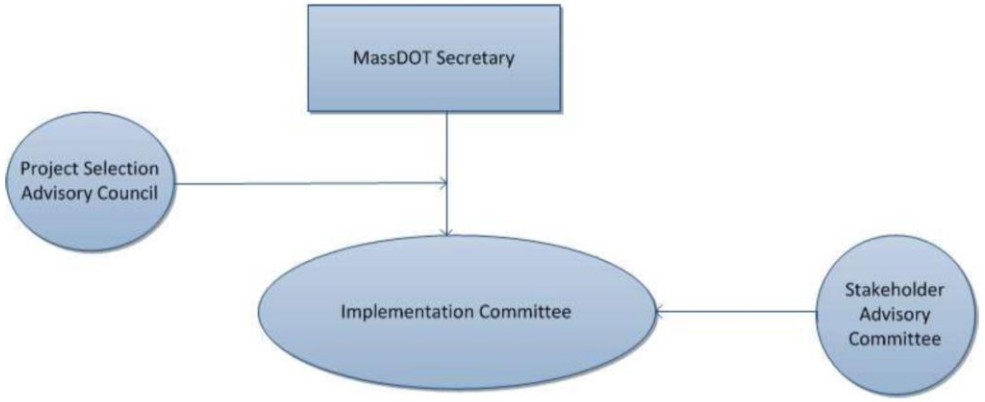
[20] Mid-America Regional Council. Congestion Mitigation/Air Quality Surface Transportation Program Transportation Alternatives Program http://www.marc2.org/tr-call/index.aspx and 2014 Call for Project Templates http://www.marc2.org/tr-call/templates.aspx

[21] Massachusetts Department of Transportation. (2015). Recommendations for MassDOT Project Selection Criteria. Boston, MA. https://www.massdot.state.ma.us/Portals/0/docs/PSAC/Report_Recom.pdf

STEP B.1.3	Develop and implement strategies in a collaborative manner

Figure B-7: MassDOT Collaboration Structure

Source: Recommendations for MassDOT Project Selection Criteria[22]



Agency Collaboration in the Washington, DC Region[23]

A pilot program facilitated by the American Association of State Highway and Transportation Officials (AASHTO) sought to establish methods to collaboratively identify and implement multimodal, cross-agency congestion reduction strategies with a number of agencies in the Washington, DC area:

- MD State Highway Administration
- National Capital Regional Transportation Planning Board/Metropolitan Washington Council of Governments
- Washington Metropolitan Area Transit Authority
- Maryland National Capital Park and Planning Commission
- Montgomery County

The research team facilitated discussion among the agencies to determine a six-step methodology for identifying, prioritizing, and implementing multimodal congestion strategies in a "hotspot" location. One location was selected from a larger list of bus priority hotspots compiled based on frequency and speed data as well as ridership and agency assessments. The final location was selected through discussions between agency representatives who prioritized the list from their agency's perspective, avoiding locations where projects were already underway, and prioritizing locations where bus and auto needs aligned, and where data were available to assess the auto perspective.

The methodology established is detailed in Table B-4, and further detail about how steps were conducted is provided in Figure B-8.

[22] Massachusetts Department of Transportation. (2015). Recommendations for MassDOT Project Selection Criteria. Boston, MA. https://www.massdot.state.ma.us/Portals/0/docs/PSAC/Report_Recom.pdf

[23] American Association of State Highway and Transportation Officials, Standing Committee on Planning. (2012). *Performance-Based Planning and Programming Pilots* (NCHRP Report 08-26, Task 104).

STEP B.1.3	Develop and implement strategies in a collaborative manner

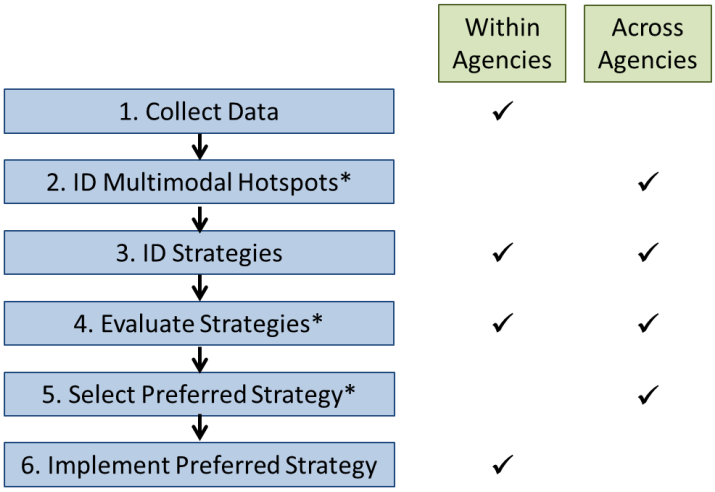
Table B-4: AASHTO Collaborative Congestion Reduction Steps

Source: Performance-Based Planning and Programming Pilots[24]

Step	Description
1. Collect Data	Individual agencies collect data to support evaluation of their systems.
2. Identify Hotspots	Inventory data across agencies and collaborate to identify shared priorities. Use totality of data to identify a large list of multimodal hotspots and afterwards obtain input from roadway agencies.
3. Identify Strategies	All agencies suggest potential strategies and provide guidance on viability and effectiveness of each. Filter projects that are not possible or appropriate for context.
4. Evaluate Strategies	Come to agreement on evaluation methodology, criteria, and performance measures to use to compare and prioritize strategies.
5. Select Preferred Strategy	Select preferred strategy collaboratively, based on evaluation of expected performance and costs.
6. Implement Preferred Strategy	The appropriate implementing agency programs, funds, constructs, and operates the strategy.

Figure B-8: AASHTO Collaborative Congestion Reduction Process Flowchart

Source: Performance-Based Planning and Programming Pilots[25]



[24] American Association of State Highway and Transportation Officials, Standing Committee on Planning. (2012). *Performance-Based Planning and Programming Pilots* (NCHRP Report 08-26, Task 104).

[25] American Association of State Highway and Transportation Officials, Standing Committee on Planning. (2012). *Performance-Based Planning and Programming Pilots* (NCHRP Report 08-26, Task 104).

STEP B.1.3	Develop and implement strategies in a collaborative manner
	After the pilot, agency representatives were interviewed concerning challenges and potential solutions. Some of the important themes included: • A desire to combine roadway and transit measures to develop person-based, mode-neutral measures such as delay per traveler. This would make evaluation of multimodal projects easier. • Identification that the biggest challenge within the process is moving from step 5 to 6, when the implementing agency must follow through to program and fund selected projects. Possible solutions included 1) implementing agencies create line item programs specifically for collaboratively-identified projects, 2) agencies maintain a list of priorities and attach improvement to large, mode-specific projects as they are programmed, 3) develop communications techniques to target decision makers at implementing agencies to highlight the performance implications of preferred strategies, and 4) include key staff from implementing agencies early in the process to establish buy-in.
Linkages to Other TPM Components	Component 04: Performance-Based Programming (See TPM Framework)

B.2 MONITORING AND REPORTING

Steps in this subcomponent will assist agencies in external collaboration and coordination related to monitoring and reporting.

1. Implement data sharing protocols
2. Review and discuss content of reports to ensure consistent messaging
3. Formalize process for monitoring and reporting

> "Coordination between agencies can be especially helpful, given the vast amount of data being collected by different agencies… [and the need to] balance the need for frequent information updates with the need to use resources [efficiently]."
>
> Source: FHWA, Performance Based Planning and Programming Guidebook

STEP B.2.1	Implement data sharing protocols
Description	Successful monitoring depends on data collection and usability; therefore, a fundamental aspect of external collaboration and coordination within TPM is data sharing. Data collaboration and coordination opportunities can be pursued to lower costs of existing data programs or to investigate ways of tapping into additional data sources from partner agencies to supplement what is already collected. With respect to existing data programs, a logical starting point for identifying opportunities for data collection efficiencies is a compilation of existing initiatives and their costs. This information can help the agency to target areas with substantial costs. Resiliency to severe weather incidents is becoming a prominent concern, and preparing for such events will require partnership with external agencies to obtain climate forecasts.

> "It became readily apparent that different departments were collecting duplicate data sets and that working together we could invest in a data set worthy of… our goals."
>
> - Stan Burns, Utah DOT

Specific opportunities can be sought for data collaboration and coordination to make best use of available resources.

These may include:

- Consolidating data collection initiatives–for example, collection of curve and grade data for safety analysis as part of automated pavement data collection.
- Utilizing video-logs or LiDAR imagery to extract multiple data attributes.
- Designating responsibilities for updating data about highway inventory and condition as an integral part of construction project closeout and maintenance management processes–to reduce the need for complete re-collection of data.
- Establishing a data clearinghouse that facilitates sharing of data collected by multiple agencies.
- Maintaining an agency data catalog and requesting that staff check existing data availability prior to embarking on new data collection efforts.
- Establishing data sharing agreements with private sector organizations–for example, to obtain real time travel information in exchange for information about construction schedules and reported incidents.
- Collaborating with regional partners to share costs of acquiring data sets of common interest.
- Coordination of data collection across multiple jurisdictions through a regional or

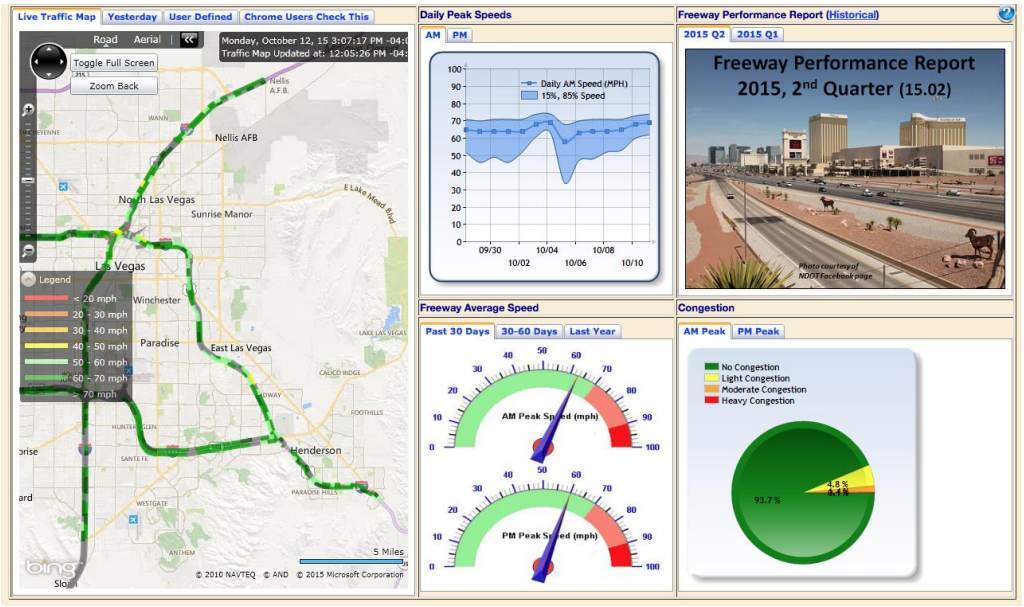
STEP B.2.1	Implement data sharing protocols
	statewide body that sets standards and provides support for consistent data collection and reporting, and consolidates the reported data. • Incorporating a system-wide, multimodal view by integrating data from various modal agencies or divisions. Once appropriate strategies are identified, work will be required to negotiate agreements. Data sharing agreements need to lay out processes, roles, responsibilities, and financial arrangements (each party's contribution–both direct and in-kind). Negotiations will typically also involve discussions to ensure that each party's data requirements will be addressed–considering accuracy, precision, and fit with reporting and analysis timetables. After implementing data sharing agreements, the initiatives should be continuously monitored to ensure they are fulfilling agency needs. If possible, include a reevaluation trigger or time period within the agreement.
Examples	**Collaborative Monitoring: Freeway and Arterial System of Transportation (FAST)** The FAST system is a comprehensive monitoring effort that develops, implements, and maintains an Intelligent Transportation System (ITS) administered by the Regional Transportation Commission (RTC) in conjunction with the Nevada Department of Transportation (NDOT). The system includes coordinated traffic monitoring cameras, signal timing, and a portfolio of projects such as ramp metering and informative signage aimed at reducing congestion and improving user experience along major corridors. The RTC elected board develops policies for FAST, while transportation strategies are set by the Operations Management Committee (OMC), comprised of representatives from RTC, Clark County, NDOT and the cities of Henderson, Las Vegas, and North Las Vegas. RTC staff is responsible for the Arterial Management Section, which includes all arterial streets and roadways, and the Freeway Management Section, which includes the entire freeway network.[26] Recent analysis of incidents on FAST revealed the impacts of large downtown conventions on the traffic patterns of Las Vegas' major corridors. Closely examining these patterns enables RTC and partners in NDOT and the Metropolitan Police to better manage such large events and the traffic demands they entail. This includes the impact of police traffic direction, which assists by prioritizing access to and from event locations, but also contributes to corridor delays and beyond.

[26] Freeway and Arterial System of Transportation (FAST). June 14, 2016. http://www.rtcsnv.com/planning-engineering/freeway-arterial-system-of-transportation-fast/

STEP B.2.1	Implement data sharing protocols

Figure B-9: NDOT Coordinated Traffic Monitoring Interface

Source: FAST Dashboard[27]



Cross reference: Component 05: Monitoring and Adjustment, Step 5.2.1

Shared Database: Metro Regional Centerline Collaborative (MRCC)[28]

The MRCC is a joint collaborative project involving GIS technical and managerial staff from the seven-county Minneapolis-St. Paul metropolitan area, the Metropolitan Emergency Services Board, and the Metropolitan Council, the area's MPO. This group is facilitating the development and maintenance of an authoritative, inter-jurisdictional, publicly available road centerline data model and data set. It is doing this by having each county provide data according to specified standards.

Once completed, intended use of the data model and data set will include:

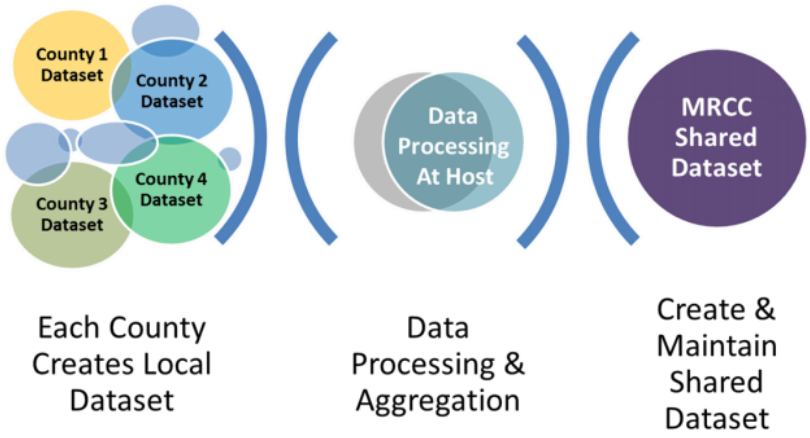
- Vehicle routing;
- Address geocoding;
- Next Generation 911 call routing and location validation;
- Emergency services dispatching;
- Linear referencing system use; and
- Cartographic road feature representation.

[27] Nevada Department of Transportation - RTC FAST Dashboard. March 2, 2016. http://bugatti.nvfast.org/Default.aspx
[28] MetroGIS, Metro Regional Centerline Collaborative. http://metrogis.org/projects/centerlines-initiative.aspx.

STEP B.2.1	Implement data sharing protocols

Figure B-10: MRCC Data Pooling Methodology

Source: MRCC Regional Data Maintenance Project [29]



Cross reference: Component C: Data Management, Step C.4.1

UPlan: Utah Department of Transportation:[30]

Utah DOT has created the UPlan interactive mapping platform to improve data sharing. UDOT can integrate any publicly-available spatial data into UPlan. Stakeholders can also share geospatial layers with UDOT, which improves collaborative decision-making by ensuring that the agency and stakeholders can view the same information (e.g., for assessing project impacts). UDOT can change access permissions, enabling it to use and share different data sources securely.

[29] Metro Regional Centerline Collaborative. (2015). MRCC Regional Data Maintenance Project. Minneapolis, MN. http://www.metrogis.org/getmedia/61cfce67-2f56-4095-980b-42bd4c257f1f/MRCC-First-Build-Charter-2015_08_03.pdf.aspx

[30] Federal Highway Administration. "Utah's GIS Database Enhancing Transportation Performance Management," TPM Noteworthy Practice Series http://www.fhwa.dot.gov/tpm/noteworthy/hif13022.pdf.

STEP B.2.1	Implement data sharing protocols

Figure B-11: UDOT Project Templates

Source: UPlan: UDOT Map Center [31]

Cross reference: Component C: Data Management, Step C.4.1

Linkages to Other TPM Components	Component 05: Monitoring and Adjustment (See TPM Framework) Component C: Data Management Component D: Data Usability and Analysis

STEP B.2.2	Review and discuss content of reports to ensure consistent messaging

Description

Before an agency reports performance results to external audiences, staff should coordinate with partners to ensure consistent messaging across agencies. These partners at time may be part of the discussion; at other times they may be recipients of reporting. Regardless, stakeholders desire information that is easy to understand, and conflicting messages from different agencies does not fulfill that desire. Agencies must also tailor reporting to external audiences; what makes sense internally will not often translate to the public and elected officials.

In addition, reporting by one agency will impact another when targets are exceeded, attained, or missed. For example, one agency could attain a target, while another falls short of a similar target. When these agencies are within the same region, they are typically subject to similar influencing factors. Stakeholders may not understand why one target could be attained and the other missed. Partners also impact the reporting agency's performance; these impacts should be discussed in the report. Engagement benefits the agency by potentially reducing negative attention stemming from poor performance.

[31] UPlan: UDOT Map Center. June 14, 2016. http://uplan.maps.arcgis.com/home/

STEP B.2.2	Review and discuss content of reports to ensure consistent messaging

While agencies could simply provide a draft for comment by partners, ideally collaboration and coordination starts earlier and is more robust. Agencies can integrate reporting, using the same schedule and the same format while still reporting individual data. Partners should collaborate to develop a communications plan that lays out presentation methods, formats, and approaches to ensure messaging is consistent, unified, and cohesive across communications products

> "Measuring performance is of no value unless results are reported to the appropriate audiences in a way that makes the information readily understandable."
>
> Source: NCHRP Report 446: A Guidebook for Performance-Based Transportation Planning

All reports should include interpretation of results using economic indicators, weather events, and other factors, as well as what actions the agency has taken to achieve outcomes. In light of positive or negative performance, agencies should spell out next steps either to continue or correct trends to demonstrate commitment to the public and elected officials. A discussion of coordination between partner agencies can help show that resources are being used effectively and agencies are not working at cross-purposes.

Cross reference: Component 06: Reporting and Communication, Step 6.2.3

Examples

Communicating Performance Website[32]

Hosted by AASHTO, the Communicating Performance website is a library of effective communication pieces tagged by audience, performance area, message, messenger, type, reporting period, and others elements. By applying filters, users can find example resources that can provide direction and inspiration for creation of reports.

Vital Signs Report: Coordinated Reporting Across Partners[33]

The Metropolitan Transportation Commission, the MPO for the San Francisco Bay Area, collaborated with the Association of Bay Area Governments to write PlanBayArea, a comprehensive housing, transportation, and land use strategy document that includes the 2040 RTP. Beyond being a logical combination of integrated issues, the work was prompted by SB 375, the California Sustainable Communities and Climate Protection Act of 2008. This required that every metropolitan area draft a Sustainable Communities Strategy to reduce greenhouse gas emissions from vehicles in part by promoting compact, mixed-use development near transit. PlanBayArea is the Bay Area's Strategy.

PlanBayArea contains a number of regional performance measures which are presented to the public via the Vital Signs portal, a user-friendly and interactive website. The format of the website gives the public a clear understanding of what the performance measures are, what

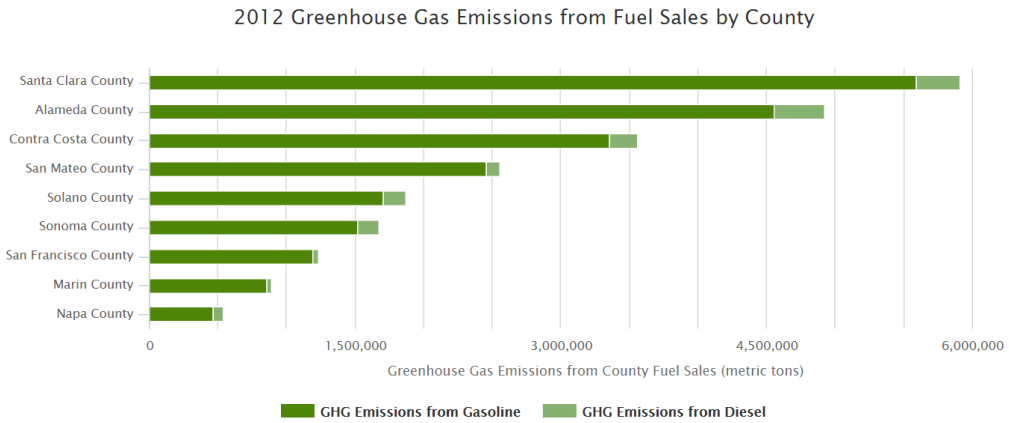
[32] www.communicatingperformance.com
[33] Metropolitan Transportation Commission. *Vital Signs.* http://www.vitalsigns.mtc.ca.gov/

STEP B.2.2	Review and discuss content of reports to ensure consistent messaging

they mean, and how they link to community concerns. It integrates measures from MTC, the Association of Bay Area Governments, the Bay Area Air Quality Management District, and the San Francisco Conservation and Development Commission, enabling external audiences a one-stop shop for these organizations' reporting and thereby maintaining consistent messaging.

Figure B-12: S.F. Bay Area MPO 2012 Greenhouse Gas Emissions from Fuel Sales by County

Source: Vital Signs[34]



Cross reference: Component 06: Reporting and Communication, Step 6.2.3

Incorporating Partner Agency Performance in Reporting: WSDOT

The Washington State DOT publishes The Gray Notebook, a quarterly performance report. It includes a Corridor Capacity Report that communicates not only congestion on highways, but transit and Amtrak ridership. WSDOT has taken a multimodal, holistic approach to reporting by incorporating performance data from other agencies such as Amtrak and Sound Transit and reporting a number of measures for a single commute corridor. Sound Transit and others were interested in coordinating for this report because it was a chance to tell their stories, especially because the report garners significant attention. This document is an example of multiple agencies coordinating in a single format, yet communicating individual data. At the same time, this information works well in a coordinated report and provides greater context to the performance results being reported.

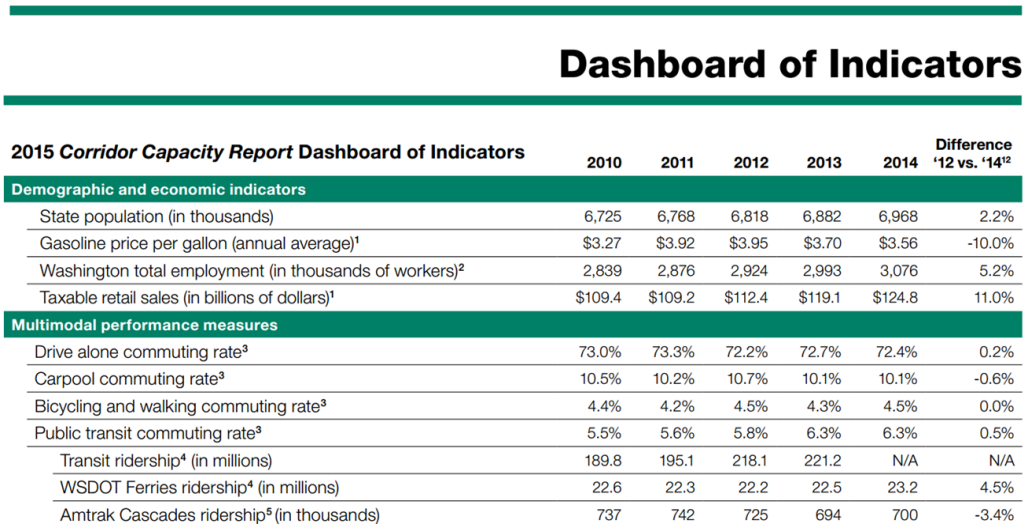
Note how traditional congestion indicators are included along with multimodal performance measures and demographic/economic indicators. Often the public sees congestion as a problem, but in many cases it is an indicator of economic growth as shown in this report. By providing this contextual information, WSDOT is helping the public and partners interpret performance results.

[34] Vital Signs - Greenhouse Gas Emissions. June 2, 2016. http://www.vitalsigns.mtc.ca.gov/greenhouse-gas-emissions

STEP B.2.2	Review and discuss content of reports to ensure consistent messaging

Figure B-13: 2015 WSDOT Corridor Capacity Report

Source: The Gray Notebook Volume 59[35]



Dashboard of Indicators

2015 *Corridor Capacity Report* Dashboard of Indicators	2010	2011	2012	2013	2014	Difference '12 vs. '14[12]
Demographic and economic indicators						
State population (in thousands)	6,725	6,768	6,818	6,882	6,968	2.2%
Gasoline price per gallon (annual average)[1]	$3.27	$3.92	$3.95	$3.70	$3.56	-10.0%
Washington total employment (in thousands of workers)[2]	2,839	2,876	2,924	2,993	3,076	5.2%
Taxable retail sales (in billions of dollars)[1]	$109.4	$109.2	$112.4	$119.1	$124.8	11.0%
Multimodal performance measures						
Drive alone commuting rate[3]	73.0%	73.3%	72.2%	72.7%	72.4%	0.2%
Carpool commuting rate[3]	10.5%	10.2%	10.7%	10.1%	10.1%	-0.6%
Bicycling and walking commuting rate[3]	4.4%	4.2%	4.5%	4.3%	4.5%	0.0%
Public transit commuting rate[3]	5.5%	5.6%	5.8%	6.3%	6.3%	0.5%
Transit ridership[4] (in millions)	189.8	195.1	218.1	221.2	N/A	N/A
WSDOT Ferries ridership[4] (in millions)	22.6	22.3	22.2	22.5	23.2	4.5%
Amtrak Cascades ridership[5] (in thousands)	737	742	725	694	700	-3.4%

Linkages to Other TPM Components

Component 06: Reporting and Communication (See TPM Framework)

STEP B.2.3	Formalize process for monitoring and reporting

Description

Because data collection, management, and software evolve so rapidly, agencies must continually reassess their practices to identify opportunities for collaboration that could leverage partners' capabilities. Staff should meet with partner agency staff to discuss monitoring and reporting activities to identify overlap and then develop a plan to reduce that overlap by working together.

By formally documenting the process for collaboration and coordination, agencies will hold each other accountable for the roles and responsibilities agreed to in the plan. Triggers, in terms of time period or particular event, should be included in such documentation to ensure that continuous reassessment of collaboration is undertaken.

> "We're constantly reevaluating our reports, thinking tactically, strategically, about relevance."
>
> - Daniela Bremmer, WSDOT

Once implemented, any collaborative monitoring and reporting processes should be refined when results do not meet expectations. Avoid scrapping agreements altogether if at first shared responsibility does not work; agencies are used to working separately. Ensure leadership support for collaboration to ensure it is carried through rough spots.

[35] Washington State Department of Transportation. (2015). The Gray Notebook: WSDOT's Quarterly Performance Report on Transportation Systems, Programs, and Department Management (September 30, 2015). Olympia, WA. http://wsdot.wa.gov/publications/fulltext/graynotebook/Sep15.pdf

STEP B.2.3	Formalize process for monitoring and reporting

Examples

Data Use Agreements: I-95 Corridor Coalition

The I-95 Corridor Coalition is a partnership of transportation agencies and related organizations from Maine to Florida. The Coalition provides these agencies and organizations a forum to discuss transportation issues that cross jurisdictional boundaries.

The Coalition began its Vehicle Probe Project in 2008 to provide members with access to reliable travel time and speed data without hardware and sensors. In 2014, the organization has developed a traffic probe data marketplace to enable members to purchase INRIX, HERE, or TomTom data for their jurisdictions based on individual needs.[36] The Coalition negotiated costs for all members, and once a single member purchases data, that particular data set is available to all members for no additional cost. When purchasing data, a member must complete a Data Use Agreement[37] that extends the Coalition license to that member.

Data are used for incident and traffic monitoring both within and across jurisdictional borders and provides travel times for roadway signs, on websites, and for the 511 system. By collaborating and coordinating on data acquisition, the Coalition has enabled coordinated monitoring and reporting as well.

Tri-State Monitoring and Reporting: Collaboration Across State Boundaries[38]

The transportation agencies of Maine, New Hampshire, and Vermont have been collaboratively reporting since 2011. A memorandum of understanding was signed in 2010 stating the intention to develop common performance measures for the transportation system and agency business practices. Since that time, the state departments have published joint quarterly reports on measures including percent on-time delivery of projects, bridge condition index, and others. This common monitoring and reporting framework expanded upon coordination already taking place to share data across state lines using the Managing Assets for Transportation System, a customized software system for operations tracking and reporting. Collaboration on development and

> "Without a doubt, and with 'no fear', the Tri State members recognize the value in collaborating and comparing similar performance measures."
>
> Source: Tri-State Performance Measures: 2013 Annual Report

> "The close and collaborative monitoring of these measures has identified areas for improvement … and left the three states well positioned to meet the requirements [of MAP-21]."
>
> Source: Tri-State Performance Measures: 2013 Annual Report

[36] I-95 Corridor Coalition. A Traffic Probe Data Marketplace for State Partners Overseen by the I-95 Corridor Coalition and University of Maryland. http://i95coalition.org/wp-content/uploads/2015/02/One_Pager_VPP_VPP_Suite-31dec2014-final2.pdf?dd650d

[37] I-95 Corridor Coalition. Traffic Flow Data Program R009, Agreement for Use of Data. http://i95coalition.org/wp-content/uploads/2015/02/VPPII_DUAv9_signed.pdf?dd650d

[38] Maine DOT, New Hampshire DOT, Vermont AOT. *Tri-State Performance Measures: 2013 Annual Report*. http://vtransengineering.vermont.gov/sites/aot_program_development/files/documents/publications/2013%20Tri-State%20Report.pdf

STEP B.2.3	Formalize process for monitoring and reporting
	maintenance of the system has reduced costs and enabled more robust monitoring and reporting capabilities. Vermont AOT holds the contract with the vendor for the software system, but all three states are equal partners in consultation and decision-making. Often they are able, through biweekly conference calls, to manage and troubleshoot the system without relying on the vendor, significantly reducing costs. In addition to these biweekly calls, the agencies use a SharePoint site to document meetings and facilitate data sharing. Collaborative reporting on common measures has also created a framework for peer learning where staff from the three state agencies progress together.
Linkages to Other TPM Components	Component 05: Monitoring and Adjustment (See TPM Framework) Component 06: Reporting and Communication Component C: Data Management Component D: Data Usability and Analysis

RESOURCES

Resource	Year	Link
TPM Toolbox	2016	www.tpmtools.org
Performance Based Planning and Programming Guidebook	2013	http://www.fhwa.dot.gov/planning/performance_based_planning/pbpp_guidebook/
Model Long-Range Transportation Plans: A Guide for Incorporating Performance-Based Planning	2014	http://www.fhwa.dot.gov/planning/performance_based_planning/mlrtp_guidebook/fhwahep14046.pdf
Integrating Business Processes to Improve Travel Time Reliability	2011	http://onlinepubs.trb.org/onlinepubs/shrp2/SHRP2_S2-L01-RR-1.pdf
NCHRP 806: Guide to Cross-Asset Resource Allocation and the Impact on Transportation System Performance	2015	http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_806.pdf
NCHRP Report 660: Transportation Performance Management: Insight from Practitioners	2010	http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_660.pdf
PlanWorks	2015	https://fhwaapps.fhwa.dot.gov/planworks/Home
Target Setting Peer Exchange	2014	https://www.planning.dot.gov/Peer/Arizona/scottsdale_6-17-14_FHWA_target_setting.pdf
Communicating Performance	2015	http://communicatingperformance.com/

ACTION PLAN

1. Of the TPM subcomponents discussed in this chapter, which one would you like to work on?

   ❑ B.1 Planning and Programming ❑ B.2 Monitoring and Reporting

2. What aspect of the TPM process listed above do you want to improve?

3. What "steps" discussed in this chapter do you think could help you address the challenge noted above?

Planning and Programming

- ❑ Engage with external stakeholders to establish goals, objectives, and measures
- ❑ Collaboratively establish targets
- ❑ Develop and implement strategies in a collaborative manner

Monitoring and Reporting

- ❑ Implement data sharing protocols
- ❑ Review and discuss content of reports to ensure consistent messaging
- ❑ Formalize process for monitoring and reporting

4. To implement the "step" identified above, what actions are necessary, who will lead the effort and what interrelationships exist?

Action(s)	Lead Staff	Interrelationships

5. What are some potential barriers to success and what solutions did this guidebook provide?

6. Who is someone (internal and/or external) I will collaborate with to implement this action plan?

7. How will I know if I have made progress (milestones/timeframe/measures)?

FIGURE INDEX

TABLE INDEX