Setting a Strategic Direction for TMSs

Matt Junak
HNTB

Session 1 Presentations:

1 | Opportunities to Plan for Next Generation TMSs

2 | Setting a Strategic Direction for TMSs

3 | Planning and Plans to Support TMS Improvements

4 | Identifying Needed TMS Improvements and Resources

Setting a Strategic Direction for TMSs

What does *setting a strategic direction* mean?

- Identifies a clear and **common understanding** of what TMS aims to achieve
- Frames how TMSs fit within an agency and region's vision, mission, and future direction
- Answers the question of **"why"** TMS is important and **"value or benefits"**
- Identifies high-level TMS **goals** and **performance measures**
- Uses SMART goals
  - Specific
  - Measurable
  - Achievable
  - Relevant
  - Time-bound
- Establishes a **baselines** to assess future TMS evolution, capabilities and performance
- Establishes process to evaluate **future TMS outcomes** (i.e., success indicators, services, service areas)
- Identifies needed future improvements and **funding**
- Estimates **resource needs** (e.g., staffing, operations, maintenance, repairs, equipment)

Setting a Strategic Direction for TMSs

What might be a *motivation or value* for developing a TMS strategic direction?

- Ensures TMSs align with and supports **agency goals**, priorities, and resource allocation
- Provides **link to regional planning** process, plans, priorities, and resource allocation
- Establishes the TMS **vision, mission, and business case**
- Sets realistic **goals**, performance measures, and targets or outcomes
- Provides a tool for **effective communication**, collaboration, and coordination
- Builds **consensus** on the direction and priority of TMS within an agency and region
- Identifies **priorities** for future improvements to services provided, functions, actions, and resources needed to management and operate TMS
- Frames and prioritizes **future improvements** to system, capabilities, and resources
- Puts assumptions in writing, **reduces inconsistencies**, and obtain needed support

Setting a Strategic Direction for TMSs

Developing a *business case* for *T*MSs:

- Define **internal** motivation for TMSs within an agency
  - Why is TMS important for the agency?
  - What are the benefits of a TMS?
- Define value of TMS to **customers** (e.g., traveling public)
  - Why is TMS important to the traveling public and communities?
- Issues to consider when developing a business case and justification for TMSs:
  - Transportation **challenges** facing the region or area
  - Role and charge of TMSs in support of regional and agency **TSMO** programs
  - **Cost-effectiveness** of TMS, operational strategies it supports, and services provided
  - Anticipated **future transportation issues** and potential for TMS solution
  - **Future opportunities** to improve TMSs role, capabilities, and performance (e.g., use new sources of data, technologies)
  - **Reporting** of TMS benefits and performance (e.g., regular monitoring, evaluating, reporting)

Setting a Strategic Direction for TMSs

What *issues* might you consider when *establishing a strategic direction* for a TMS?

Does a strategic plan exist? If it exists, should it be updated?

Identify and understand all agency level planning activities and their schedules

Ensure that both internal and external partner agencies/stakeholders are included in developing the strategic direction assessment process

Is TMS incorporated into:

-Strategic direction and plans of the agency or TSMO program

-TSMO plan, vision, concept of operations, scenarios, strategies, or planned improvements?

-Regions Strategic and Program Plans?

-

Does a baseline of current or desired future TMSs capabilities, services, and performance exist?

Is an assessment needed to be develop a baseline?

Setting a Strategic Direction for TMSs

What *process might you follow* to set a strategic direction?

- Improve TMS performance

- Enhance future improvements and use of resources

- Meet current and future needs to agency and region

- Identify how TMS supports:
  - Agency strategic direction and TSMO Program or Plan
  - Region's Plans (e.g., congestion mitigation, TSMO or ITS Plans)

- Frame future capabilities and trajectory of system

- Provides a blueprint and needed resources to guide improvements
  or improve services, capabilities, or functions

- What to consider in a strategic TMS Plan?
  - *Strategic elements* – vision, goals, objectives, etc.
  - *Programmatic elements* – staffing, finances, policies, business
    processes, organizational structure, etc.
  - *Tactical elements* – prioritized project list, budgetary
    allocations, implementation timeline, etc.

Establish Vision, Mission, Goals, & Performance Measures

Establish Performance Measures & Targets

Identify TMS Operations Needs & Mitigating Strategies

Develop TMS Concept of Operations (ConOps)

Develop System Requirements

Identify Resources (financial, human)

Develop Multi-year TMS Plan (e.g., Resources, Projects) & Roadmap

Source: FHWA

Setting a Strategic Direction for TMSs

What issues might you consider with *revising or developing a vision, mission, and goals* for a TMS:

- How does TMS support an agencies or region's TSMO :
  -Vision, mission, and focus areas
  -Concept of operations and use cases
  -Current and proposed operational strategies
  -Goals and actions
- What is TMSs role, responsibility, capabilities, and
   resources expected to support:
  -Day-to-day management of traffic and coordination in
   response to incidents
  -Emergencies
  -Planned special events
- What improvements may be needed to TMS capabilities, functions, services, or resources to meet current and future agency or region's priorities for improvements

Setting a Strategic Direction for TMSs

What might be a *motivation for developing a multi-year plan* documenting the strategic direction for a TMS?

- Documents the desired future direction and role for a TMS within an agency
- Identifies what an agency may hope to achieve with its TMS in the future (vision)
- Identifies goals, performance measures, and outcomes to assess and report on performance and benefits of TMS
- Establishes proposed improvements and resource needs to support programming of future funding, work-plans, or improvement projects
- Supports the development of a holistic and integrated agency and regional approach to planning and considering TMSs

Setting a Strategic Direction for TMSs

What to consider including in a TMSs strategic multi-year plan?

- Summarizes planning process, stakeholders involved, analyses conducted, and deliberations
- Highlights strategic direction and planned future trajectory of TMS capabilities, services supported, and performance
- Identifies links and basis for connecting
- Multi-year plan to support agency or regional planning efforts and decisions to support current and future TMS needs, improvements, and resources:

  -Vision, mission, goals, and performance measures

  -Frame current capabilities, performance, and resources

  -Identify proposed future capabilities, performance, resources, and services

  -Policies, procedures, roles, and responsibilities within agency and region

  -Concept of operations, scenarios and use cases, requirements, and functions and actions

  -System architecture, functions, services, and actions

  -Staffing plan to support TMS management, operations, and services

  -Frame future trajectory of TMS and proposed improvement projects

  -Resources needs (e.g., staffing, funding for improvements, operations)

Setting a Strategic Direction for TMSs

What issues to consider when assessing TMSs capabilities, performance, and strategic direction?

- *Why*? Assess current and identify list of issues or actions to improve capabilities and performance to desired levels
- *What?* issues to consider when preparing for, conducting, or summarizing the results of a TMS assessment?
- TMS system infrastructure, interfaces, and information sharing covered in **"System and Technology" dimension**
- Enabling program for TMSs, policies, procedures, services, planning, plans, and support resources considered in the other "**7 dimensions**"

Source: FHWA

Dimensions or Process Areas	What is it
Business Process	Plans, Programs, Budget
Systems & Tech	Approach to Building Systems
Performance Measurement	Use of Performance Measures
Workforce	Improving Capability of Workforce
Culture	Changing Culture and Building Champions
Collaboration	Improving Working Relatiohsips
Day-to-Day Management & Operation	Managing and Operating daily
Day-to-Day Maintenance & Repair	Conducting Daily Maintenance and Repairs

Setting a Strategic Direction for TMSs

Available Resources:

- Traffic management capability maturity framework tool (https://ops.fhwa.dot.gov/tsmoframeworktool/tool/traffic_mgmt/index.htm)
- A Primer for Program Planning - TSMO (FHWA-HOP-17-017)
- Performance-Based Planning and Programming Guidebook (FHWA-HEP-13-041))
- Project Programming & Resource Allocation
  Examples:
  -Michigan DOT
  -Wisconsin DOT
  -Ohio DOTs

Setting a Strategic Direction for TMSs

Thank you!