

Making the Business Case for Traffic Incident Management

Technical Presentation



U.S. Department of Transportation
Federal Highway Administration

Overview of Presentation

- What is a business case?
- Why develop a business case for traffic incident management (TIM)?
- Four-phase process to develop a TIM business case
- Key activities in each phase
- Additional resources

What is a Business Case?

*A well-reasoned argument
designed to convince decision-makers
of the benefits of an investment
while educating them
of the associated changes, costs, and risks.*

Business Case Product vs. Process

A business case is both a product and a process.

- The product articulates and demonstrates the business case through writing, numbers, analyses, graphs, charts, embedded videos, and images.
- The process helps to formalize and institutionalize the proposed initiative.

The TIM business case *products* begin with the business case report and should include other communications media, such as briefings or videos, to target key stakeholders.



The Business Case for Responder Training

Your Organization and TIM Logos



The TIM business case development *process*.



Why Develop a Business Case for TIM?

- To establish, maintain, and grow a TIM program, the value of TIM must be accurately estimated and effectively communicated.
- To transform a TIM program or project from a stand-alone effort to a sustaining core function of an agency.

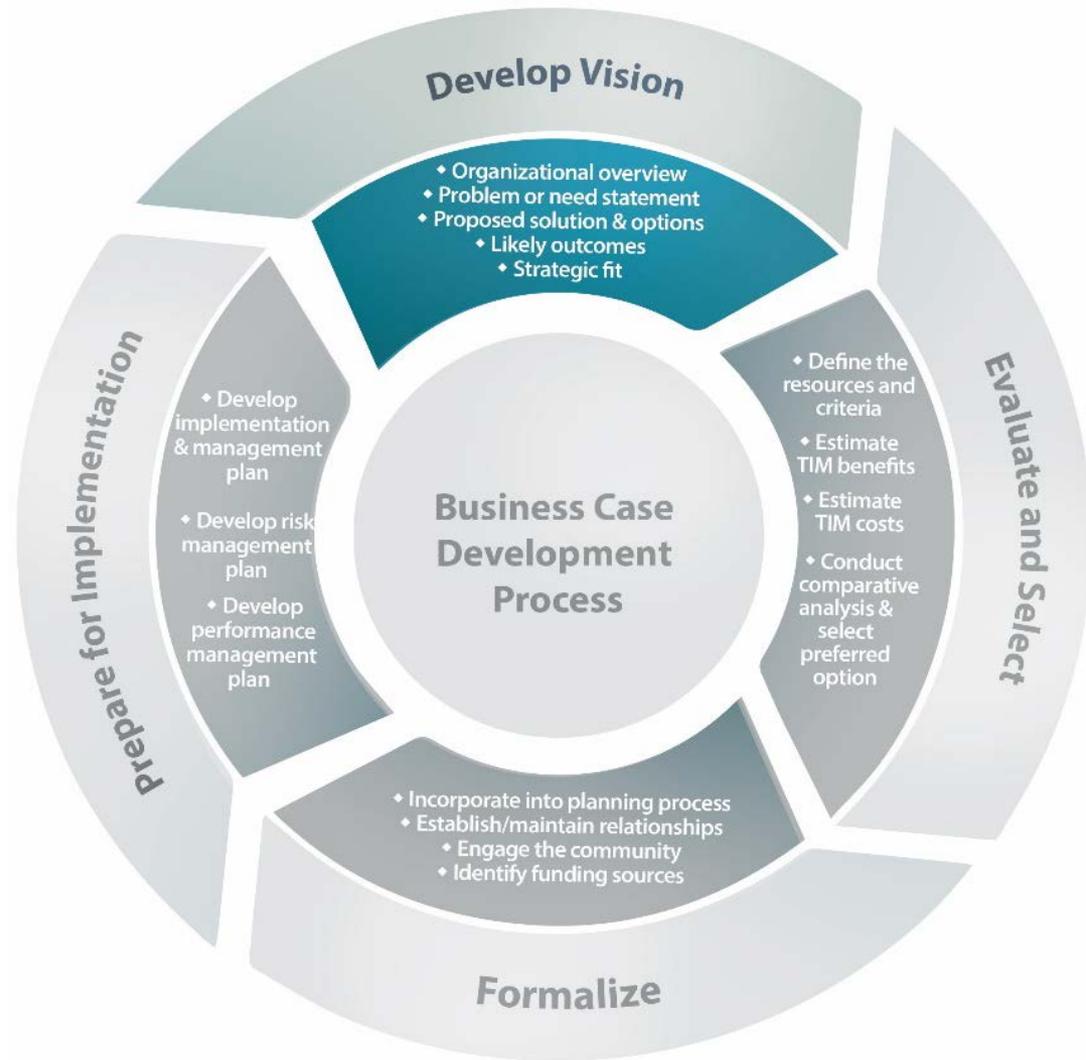
Scoping and Living the Business Case

- Scoping the business case means:
 - Recognizing that the evaluation should align with TIM program costs, as well as the data available.
 - Understanding the timeline for investment decision-making.
 - Identifying what business case products will be needed.
- Living the business case means:
 - Developing, adhering to, and updating the TIM program plan.
 - Establishing, documenting, and following processes with an eye to the future right-sizing of the program.

DEVELOP VISION

Key elements of the vision:

- Organizational overview
- Problem or need statement
- Drivers for change
- Proposed solution and options
- Desired outcomes
- Strategic fit of the project in the agency



Provide Organizational Overview

- An organizational overview will include:
 - Organizational structure
 - Business objectives
 - Current activities, services, audiences, and stakeholders

State the Need and Drivers for Change

- Develop a brief, compelling, service-oriented problem or needs statement:
 - Presented in the context of the current environment
 - No more than 1-2 sentences
- Identify what has triggered the investment proposal.

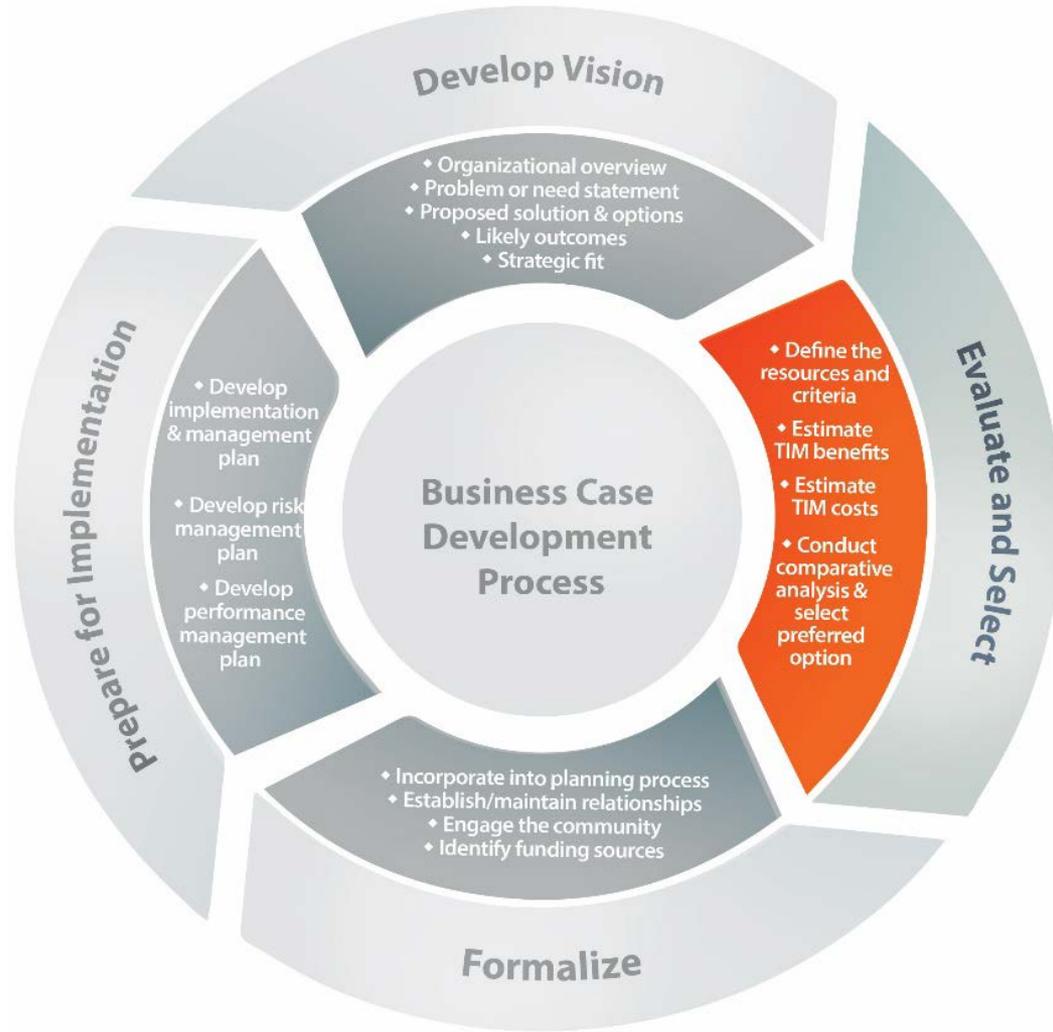
Propose Solution and Likely Outcomes

- Introduce the proposed solution and options considered.
- Articulate the investment boundaries for each option.
- Present the likely business outcomes as expected benefits (e.g. mobility, safety).

EVALUATE AND SELECT

This phase includes the following steps:

- Develop evaluation criteria
- Estimate benefits and costs
- Conduct comparative analysis
- Recommend one preferred alternative



Develop Evaluation Criteria

- Ensure that the alternatives have a common basis for analysis (e.g., lifecycle vs. single-year).
- Define a common framework for comparison that includes cost, schedule, risk, and expertise for each alternative.
- Finalize a consistent set of evaluation criteria:
 - Criteria should be strategically and contextually relevant to both the organization and relevant stakeholders.

Estimate TIM Benefits

- TIM benefits fall into 5 categories: mobility, safety, efficiency, environmental, and traveler satisfaction.
- The quantification of TIM benefits (expected or observed) is a key activity in developing the business case:
 - Select estimation methods and tools based on the scope of the proposed investment, data availability, time and expertise.
- The monetization of TIM benefits is also a key component of the business case.

Estimate TIM Costs

- Cost estimation is typically agency specific.
- Common cost delineation includes two areas:
 - Capital investment costs
 - Recurring operations and maintenance (O&M) costs
- Tracking O&M costs can be complex, because resources are often shared between program areas.
- Always present cost estimates of options in the same constant base year.

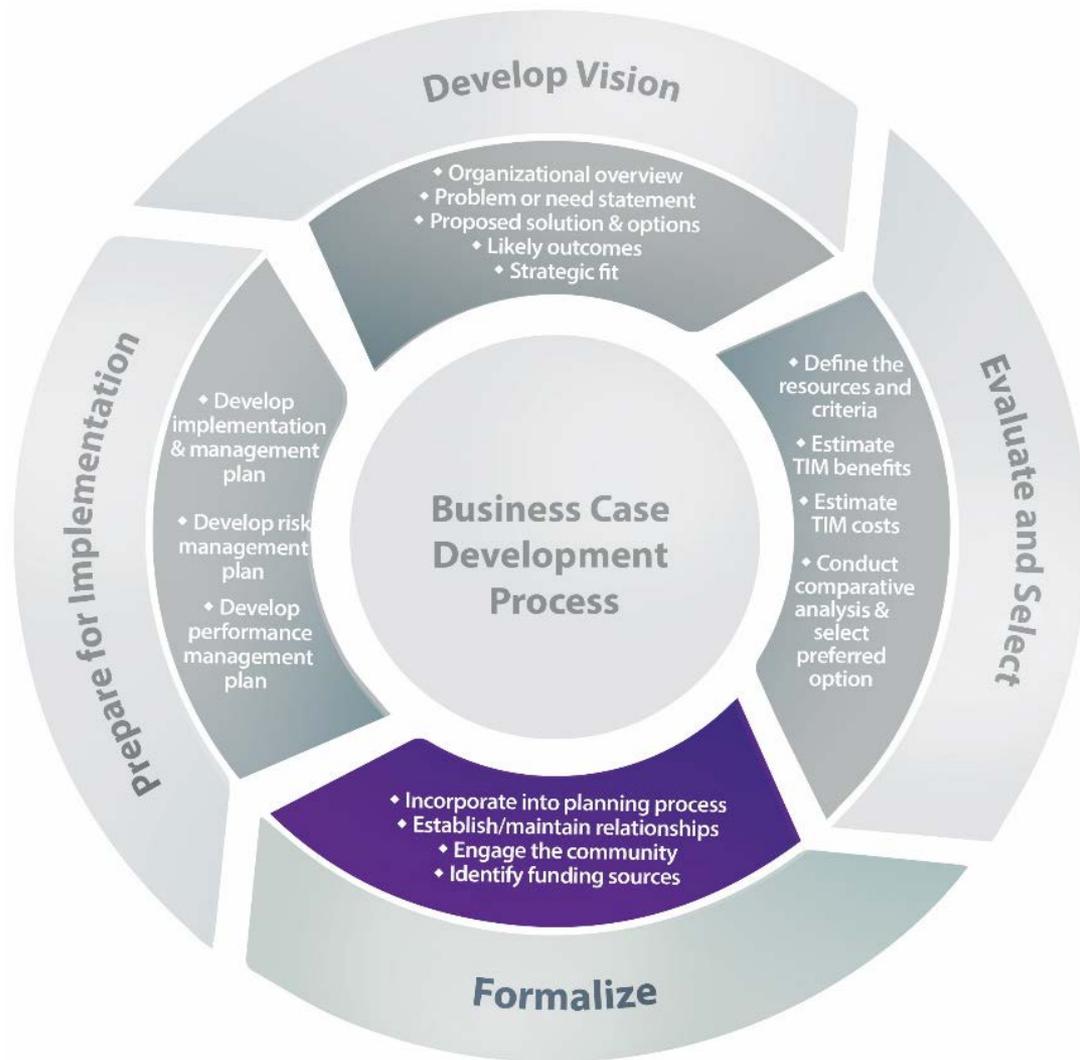
Conduct Comparative Analysis

- The benefit-cost ratio (BCR) is the most essential step to the comparative analysis.
- Because some benefits are difficult to quantify, also develop and include a summary of all benefits.
- Demonstrate the analytics and strategic basis for selecting the preferred option.
- Further clarify the recommended preferred option, including an approach to implementation.

FORMALIZE

Key activities in this phase include:

- Incorporate TIM into the planning process
- Establish and maintain relationships with partners
- Involve and engage the community
- Work to improve the organization's overall TIM processes and capabilities
- Identify funding sources



TIM in the Planning Process

- Develop a focused TIM strategic plan.
- Add TIM as an emphasis area or key strategy in planning documents such as:
 - Strategic Highway Safety Plan (SHSP)
 - Statewide Transportation Improvement Program (STIP)
 - Long range plan (LRP)
- Include TIM as a point of discussion when planning construction and maintenance projects.

Strengthen Stakeholder Relationships

- TIM partnerships and relationships demonstrate commitment and program strength to decision-makers.
- Formalized TIM partnerships foster efficient data sharing, benefiting the overall TIM program.
- Public involvement and engagement promotes broader acceptance of and support for TIM initiatives.

Funding Sources

- Federal-aid programs, such as the National Highway System (NHS) and Congestion Mitigation and Air Quality (CMAQ) Programs, are an important TIM funding source.
- New potential funding sources may be identified under the MAP-21 Fixing America's Surface Transportation (FAST) Act.
- Grants, as well as local and state funding, are also used for TIM programs and strategies:
 - Grants.gov is the main source of federal grant information.

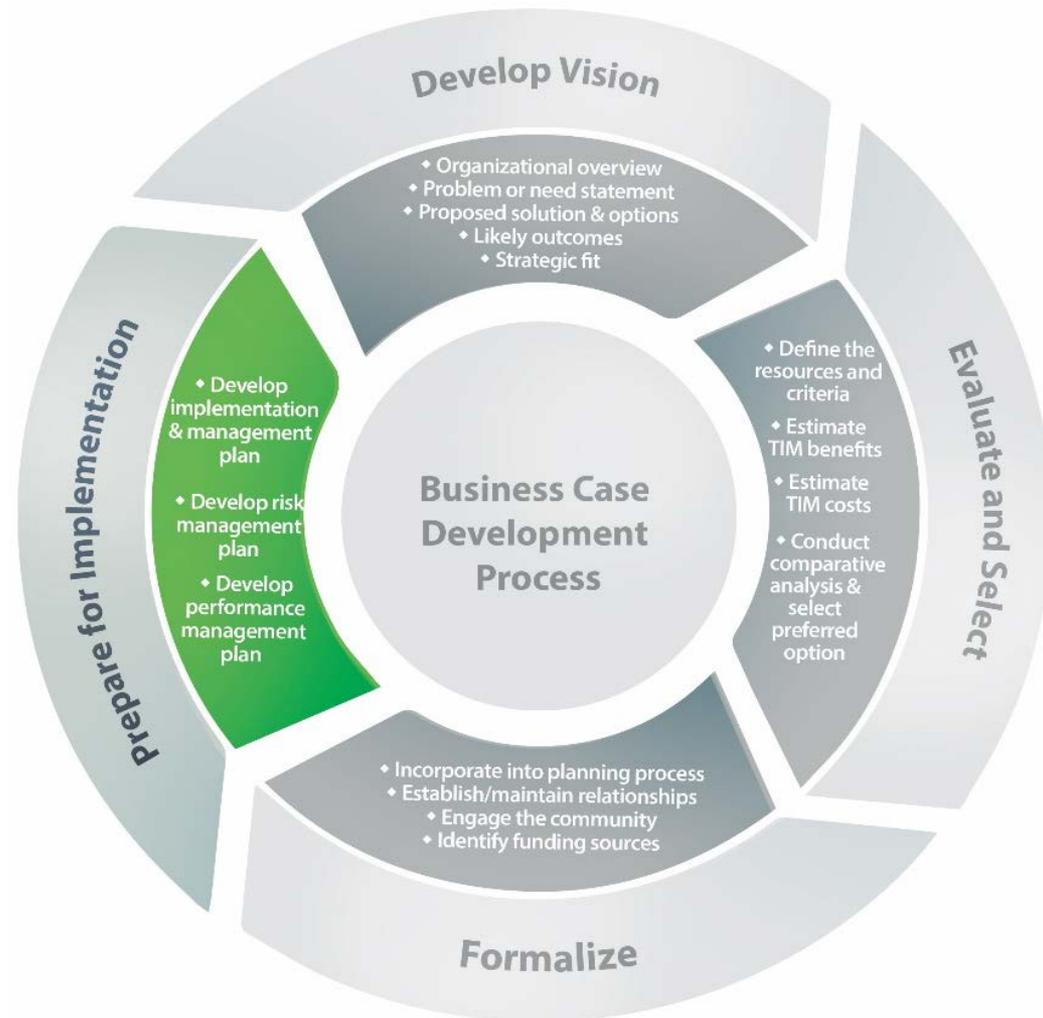
Capability Maturity Framework (CMF)

- The TIM CMF complements and intersects the business case:
 - Advancing through the CMF readies a TIM program to articulate a strong business case.
 - In developing the TIM business case, agencies give attention to key concepts within the CMF.
- Expected benefits of using the CMF tool for TIM include:
 - Jumpstarting the program-level improvement process
 - Providing justification for program support and direction
 - Improving consistency and collaboration among agencies and between jurisdictions
 - Continuing program improvement

PREPARE FOR IMPLEMENTATION

This phase includes the following steps:

- Develop an implementation plan
- Develop a risk management plan
- Develop a performance management plan



Readying for Implementation

- Best practices in program management recommend the development of a number of “plans” to ensure a successful and efficient implementation. Three such plans include:
 - **Implementation Management Plan** – illustrates in detail the critical steps in starting and developing the project
 - **Risk Management Plan** – identifies risks, estimates impacts, and defines responses to issues if they arise
 - **Performance Management Plan** – addresses how success will be measured and demonstrates transparency and accountability

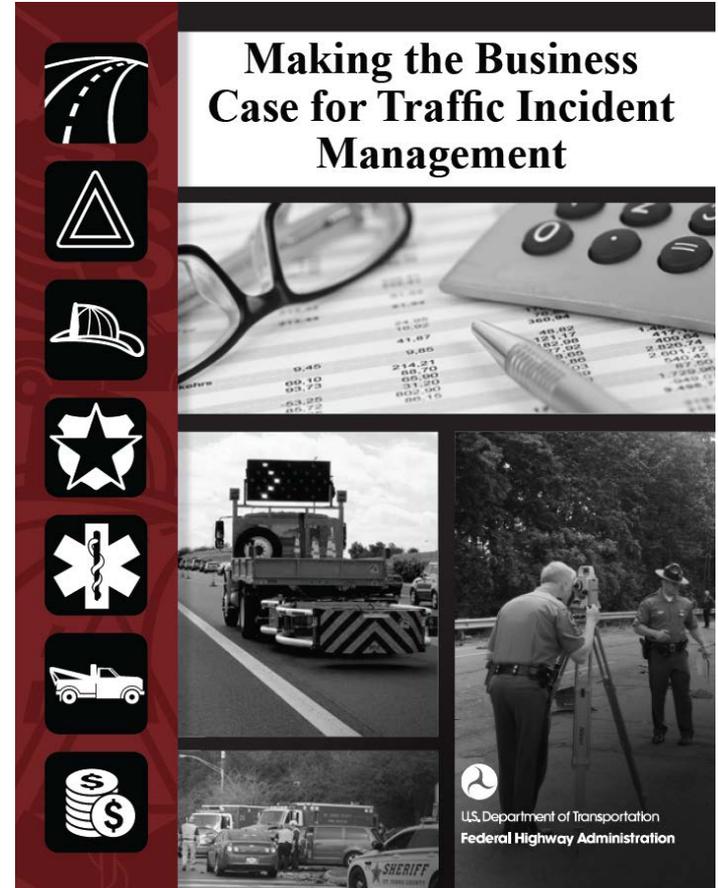
Final Report

The final report

Making the Business Case for Traffic Incident Management

will be posted on the FHWA

Office of Operations webpage:
www.ops.fhwa.dot.gov.



Available Resources

- NCHRP 07-20: Guidance for Implementation of Traffic Incident Management Performance Measurement
- Online Traffic Incident Management Performance Measurement (TIM PM) tool: <http://nchrptimpm.timnetwork.org/>
- FHWA Process for Establishing, Implementing, and Institutionalizing a Traffic Incident Management Performance Measures Program
- NCHRP 03-108: Guidance on Quantifying Benefits of TIM Strategies
- Analysis, Modeling, and Simulation for Traffic Incident Management Applications
- Traffic Incident Management Benefit-Cost (TIM-BC) Tool: <https://www.fhwa.dot.gov/software/research/operations/timbc/>

Questions/Discussion

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