

Traffic Incident Management Program Assessment and Performance Measures



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Background

- ❑ Traffic Incident Management (TIM) involves more than just incident clearance; it involves managing the traffic affected by the incident.
- ❑ The span of traffic incident could be broad, ranging from simple roadside debris incidents to major natural or manmade incidents.
- ❑ As incidents increase in complexity and scale, so do the number and types of responders involved.
- ❑ Due to the involvement of multidisciplinary agencies, a framework is required where all levels of TIM component are defined based on hierarchy.

Project Tasks

- ❑ Develop a TIM assessment framework
 - consistent and applicable at national level
 - allows for incorporating specific techniques for the assessment for specific locales

- ❑ Benchmark analysis

- ❑ Evaluate the District's program



Significant Past Efforts on TIM

- National Incident Management Coalition (1990)
- National Highway Institute Training (1998)
- National Conference on TIM (2002)
- National Traffic Incident Management Coalition (2002)
- TIM Self Assessment (2002)
- National Incident Management System (2003)
- TIM Performance Measure Focus States Initiative (TIM PM FSI) (2005)



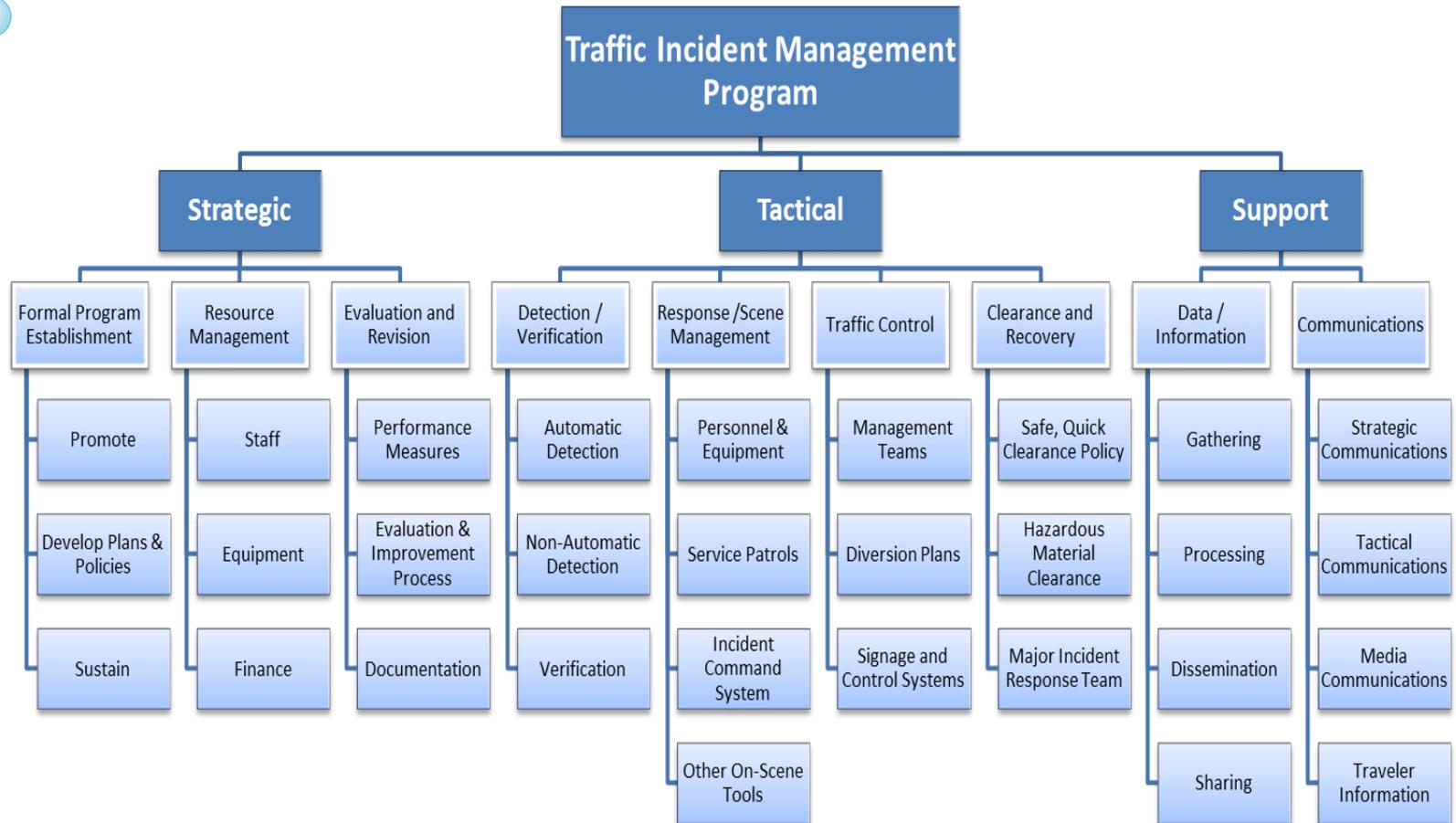
TIM Partner Agency

- Emergency Medical Services
- Fire
- Law Enforcement
- Public Safety Communications (911)
- Towing and recovery
- Transportation Practitioners

Identification of Critical Component

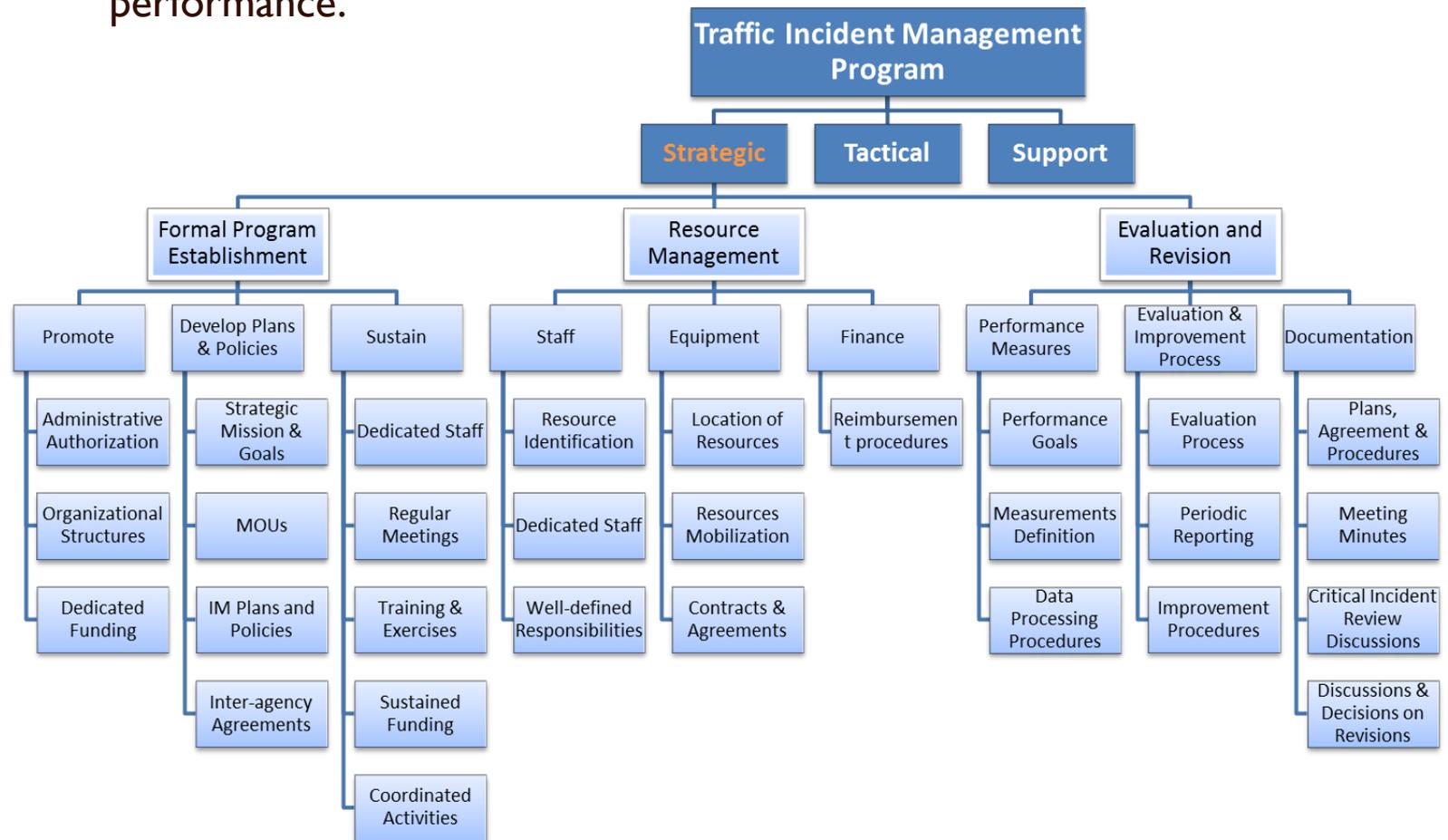
- Successful TIM program
 - Factors
- Identification Philosophy
 - Why they deserve to be in the framework
 - Challenges involved in implementing these elements
- Source for Framework
 - Federal guidance

TIM Framework



Strategic Component

- Strategic components focus on how to plan, prepare for, and measure performance.



Strategic Component

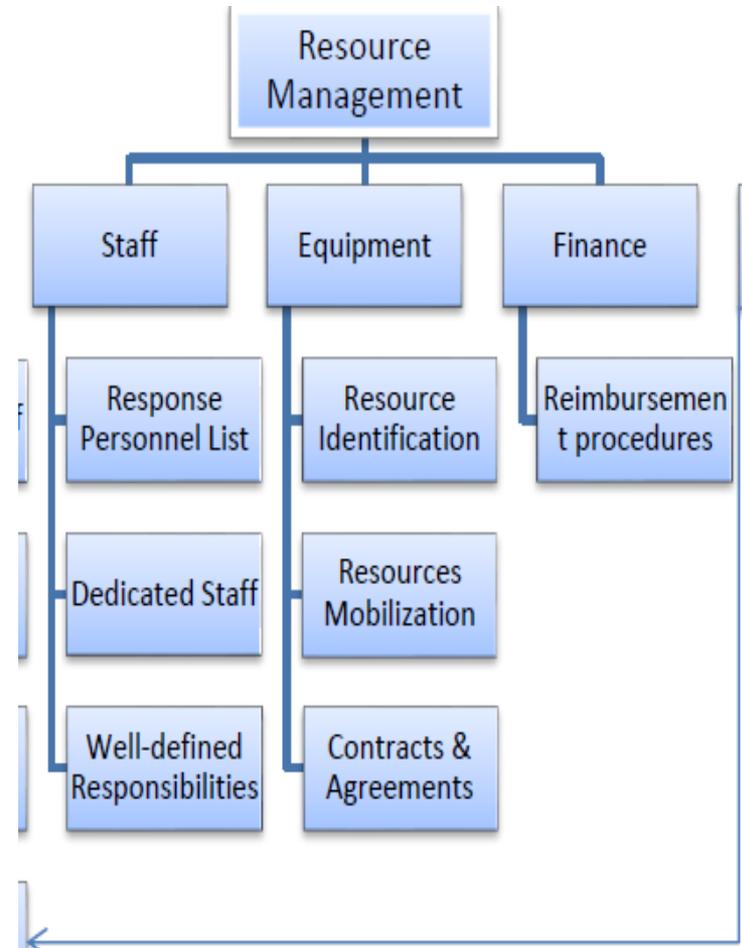
□ Formal Program Establishment

- Coordination efforts for TIM activities among partnering agencies.
- Formalized programmatic structure that facilitates policy and procedure development, resource sharing and program evaluation.
- Calls for the actions of Promote, Develop Plans & Policies, and Sustain.



Strategic Component

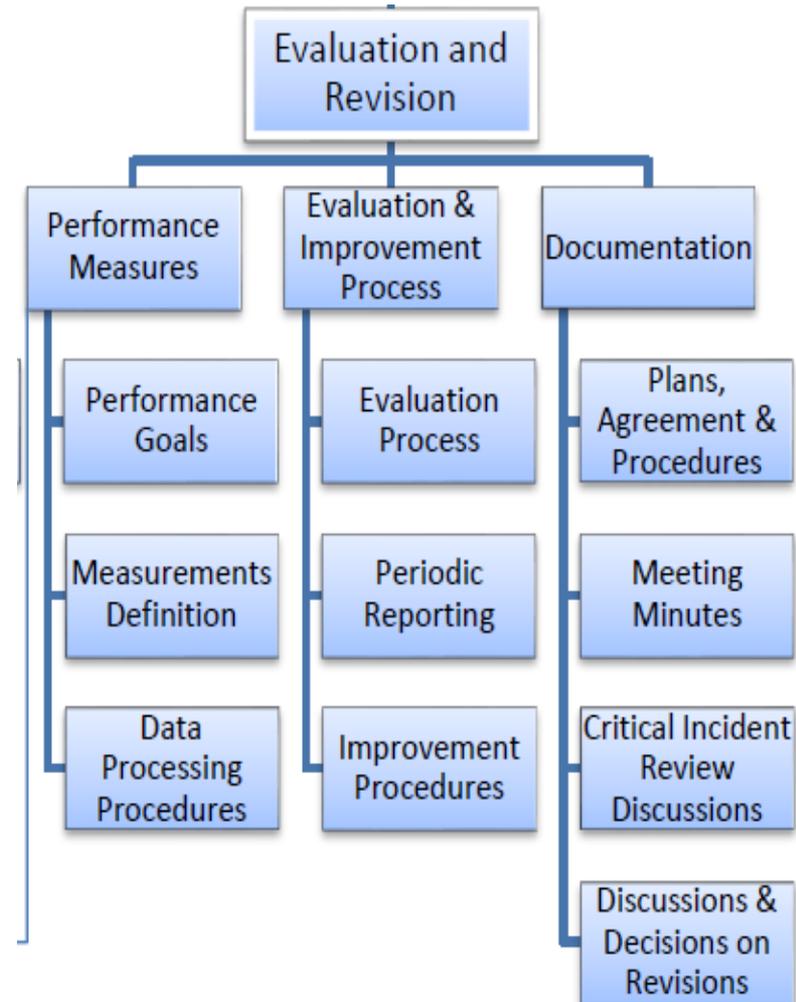
- ❑ Resource Management
 - Efficient and effective TIM resource management relies upon the utilization of
 - appropriate personnel
 - appropriate equipment
 - appropriate technology
 - Reduction in overall resources required through reduced redundancy across disciplines.



Strategic Component

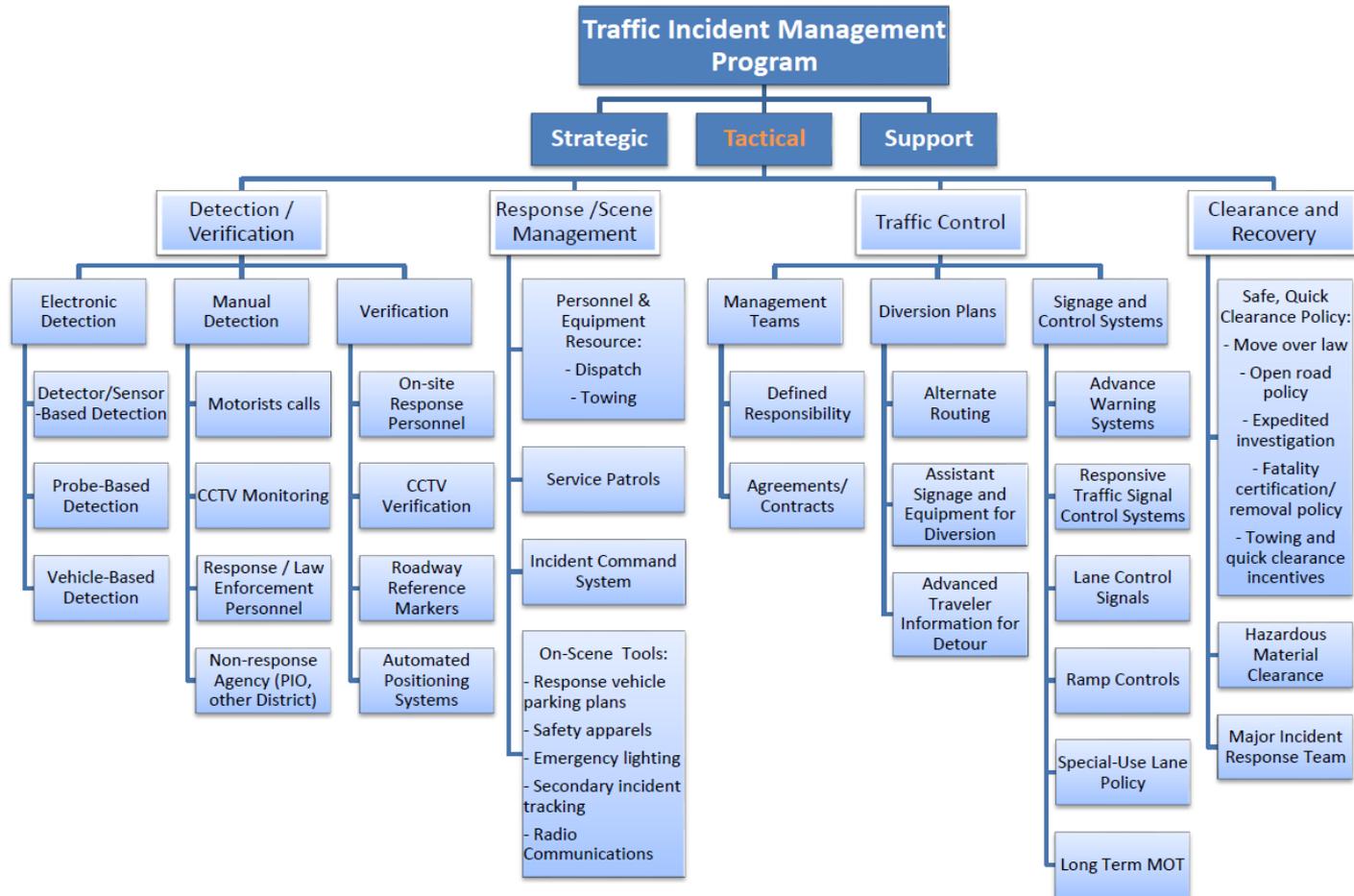
□ Evaluation and Revision

- Assess progress in achieving successful multi-agency TIM programs.
- Help TIM program managers to identify areas where additional resources could be deployed to improve program performance.



Tactical Component

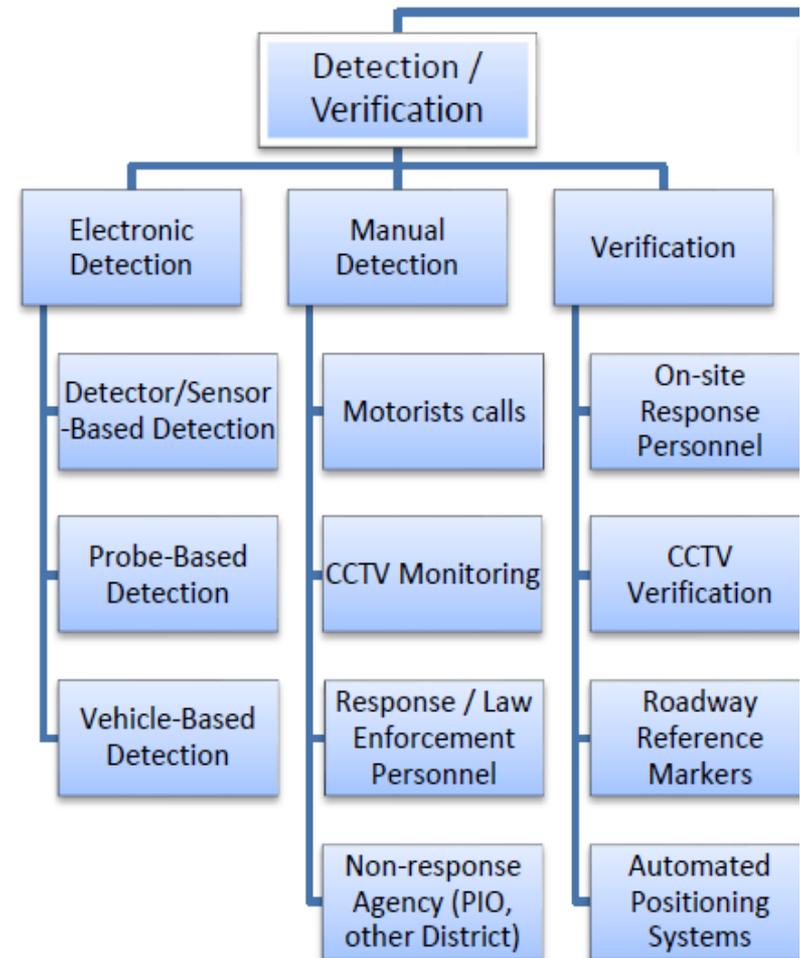
- Tactical Components focus on how to execute the plan



Tactical Component

□ Detection/Verification

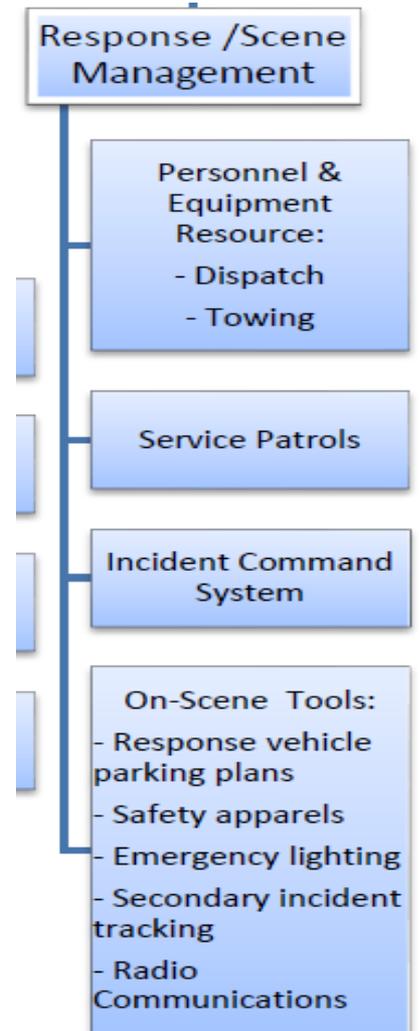
- Incident detection is the process that brings an incident to the attention of the agencies responsible for maintaining traffic flow and safe operation on the facility.
- Incident verification is the process that confirms occurrence of an incident, determines exact location of an incident, and obtains and assesses as many details about the incident as possible.



Tactical Component

□ Response/Scene Management

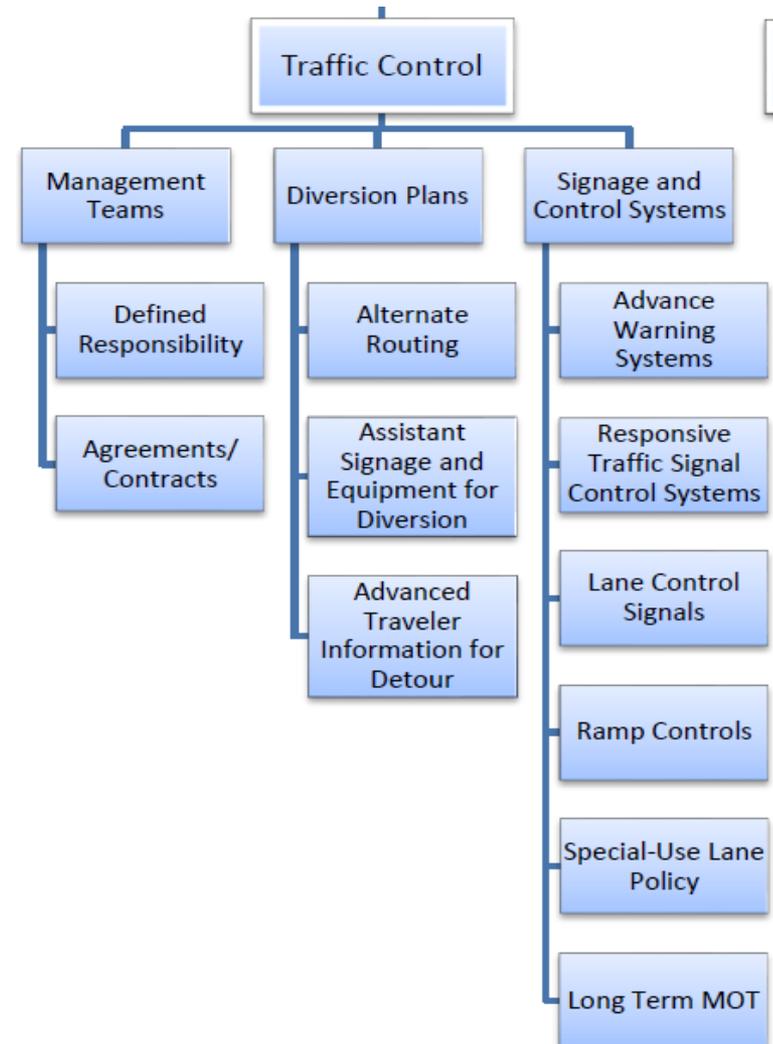
- The effective incident response depends on both – how well suited the response technique has been selected and how well response personnel manage incident scene.
- A proper response should have planned strategy for the safe and rapid deployment of the most appropriate personnel and resources to the incident scene.
- Site management is the process of effective coordination and management of resources and activities at or near the incident scene.



Tactical Component

□ Traffic Control

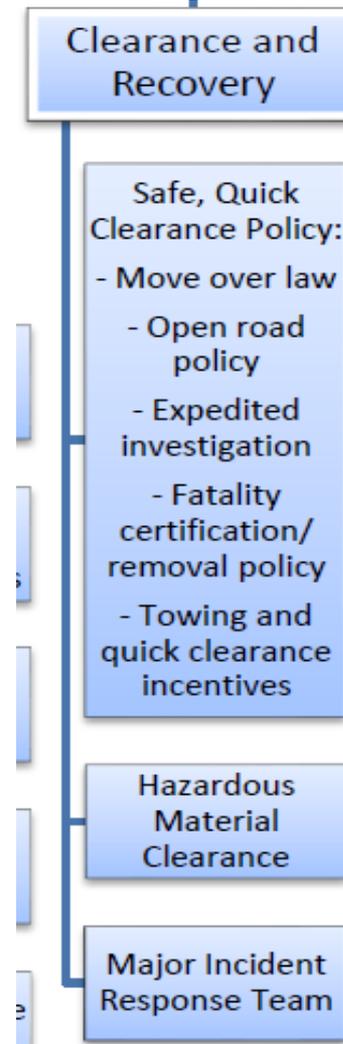
- Application of traffic control measures at the incident site and on facilities affected by the incident.
- The goals are to minimize traffic disruption while maintaining a safe workplace for responders.



Tactical Component

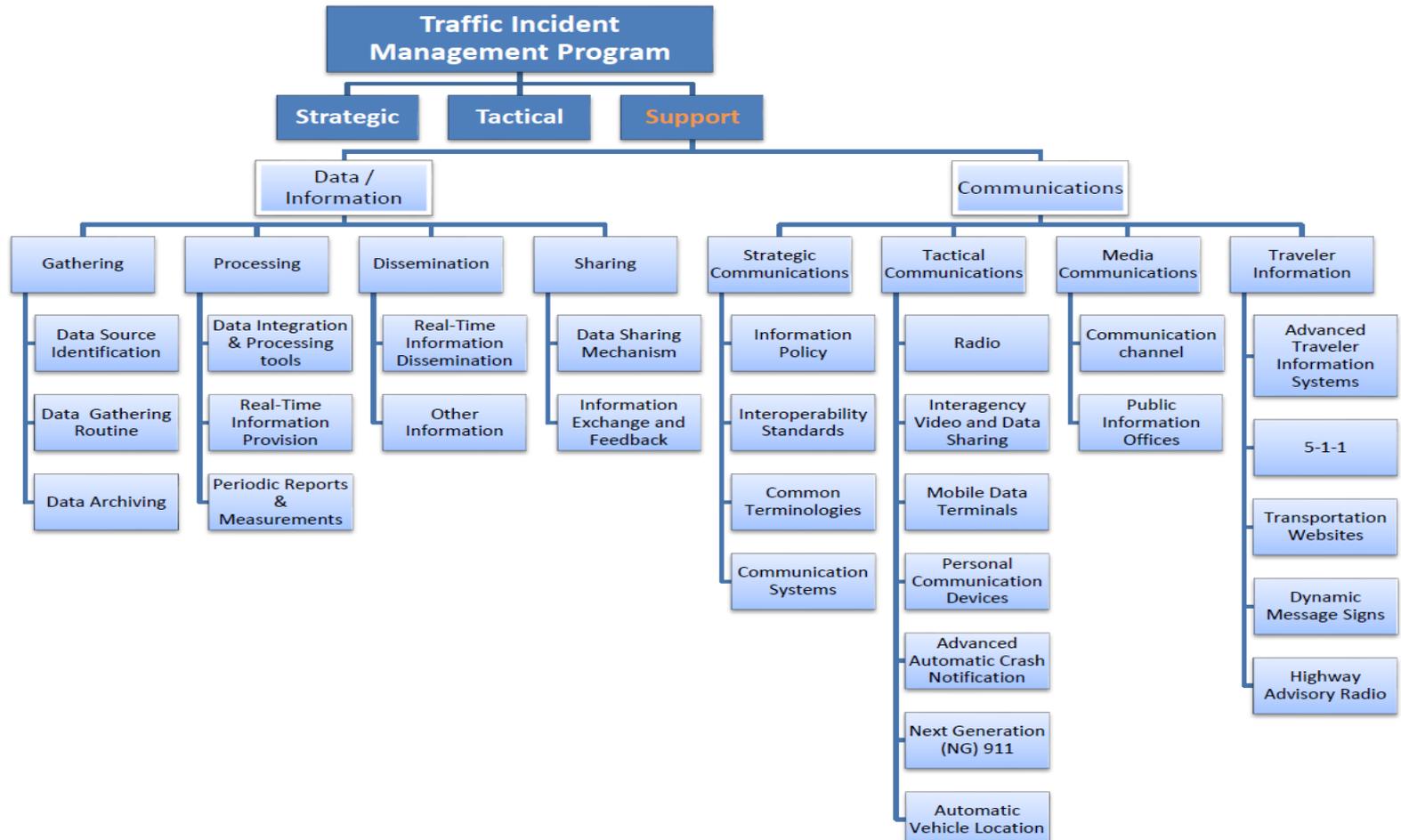
□ Clearance and Recovery

- Clearance refers to the safe and timely removal of any wreckage, debris, or spilled material from the roadway and the immediate area.
- Recovery refers to the restoration of the roadway to its full capacity.
- An incident should not be publicly reported as clear until the traffic back up has fully cleared.



Support Component

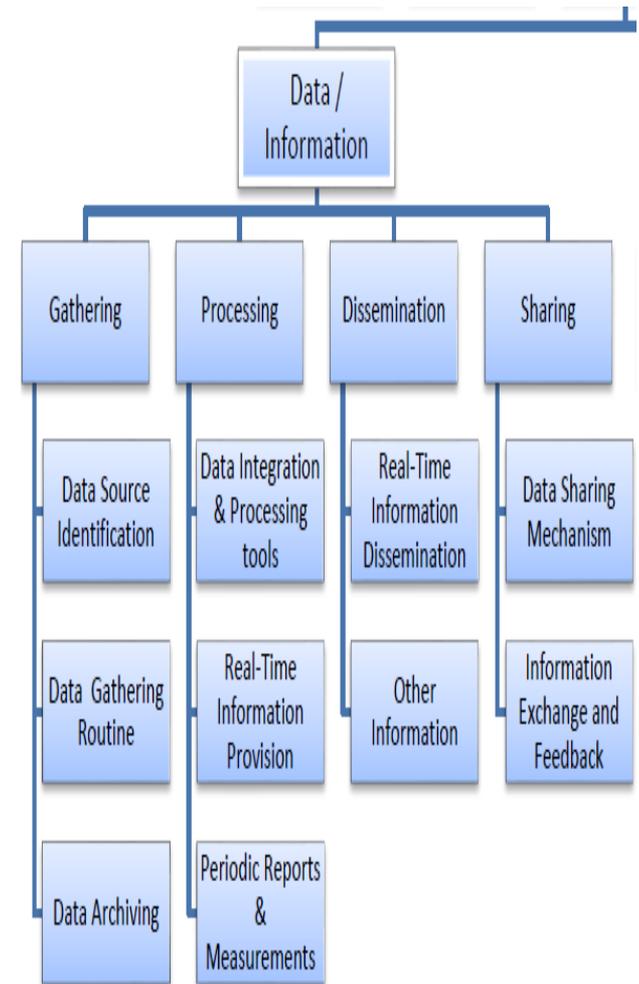
- Support components focus on communication and technical aspects of successful TIM programs.



Support Component

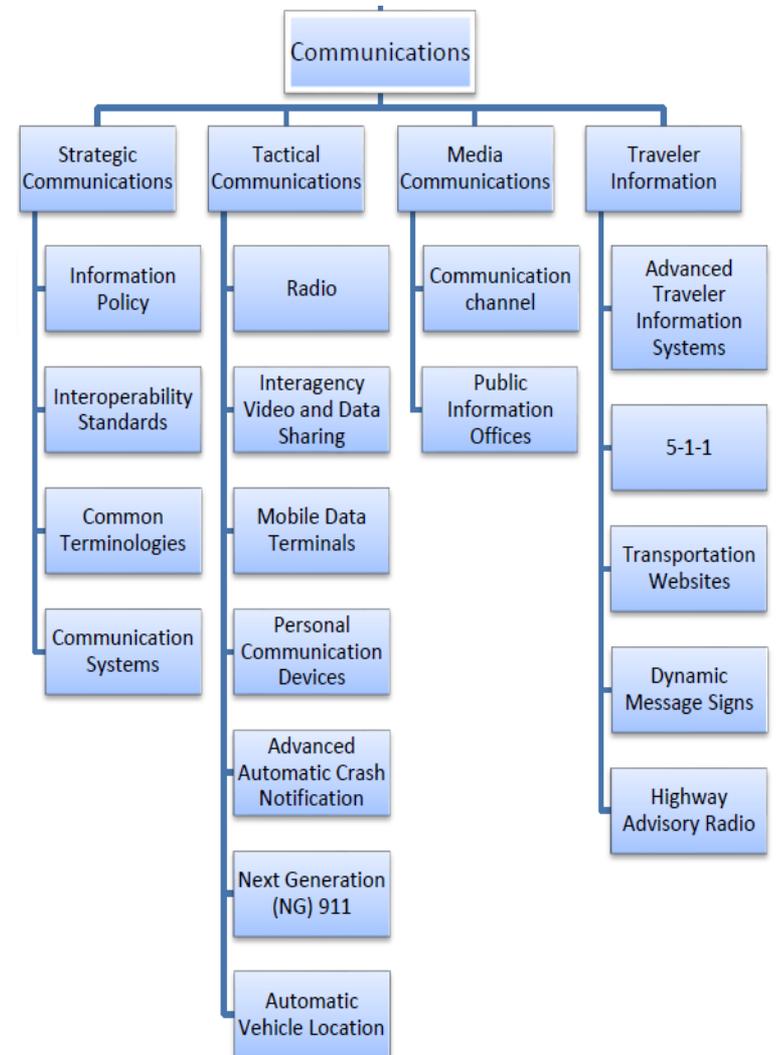
□ Data/Information

- Gathering: Process of discovering, identifying and collecting all the information related the incidents on the roadway system.
- Processing: Perform a series of operations on gathered incident data in order to make an appropriate response.
- Dissemination: Broadcast the incident information to the public and agencies.
- Sharing: Share the incident information among the agencies.



Support Component

- ❑ Communications: It could be strategic, tactical, media or even with the traveler.
- Strategic: among agencies to make long-term or overall policy for traffic incident management
- Tactical: for incident information transfer by specific electronic devices.
- Media: Information transferred by different media
- Traveler: Platforms which can provide incident information to the travelers



Next Step

- ❑ Benchmark analysis
 - Interviews with TMC staff around the nation
 - Summarize best practices, emerging technologies and techniques, and lessons learned

- ❑ Evaluate the District's program
 - Policies
 - Interagency coordination
 - Response team/equipment
 - Communications & Information Management
 - Training
 - Identify potential areas for Improvement

Summary

- ❑ A comprehensive framework facilitates the assessment of all aspects of TIM program and leads to enhanced performance.
- ❑ In the proposed framework, Key TIM program components are categorized into three broad categories: Strategic, Tactical, and Support.
- ❑ This framework could guide TIM practitioners to improve their TIM program to reduce both overall incident duration as well as secondary crashes.