CEO Leadership Forum

for State Departments of Transportation

May 2003

State Strategic Initiatives

A companion to the forum summary report

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- Transportation Research Board of the National Academies
- Federal Highway Administration

FUNDED BY
- National Cooperative Highway Research Program

HOSTED BY
- Center for Transportation Studies, University of Minnesota

PREPARED BY
- Center for Transportation Studies, University of Minnesota

This document is a companion to ***CEO Leadership Forum for State Departments of Transportation, May 2003: A Summary Report.*** It contains unedited summaries of state DOT initiatives, prepared as material for the CEO Leadership Forum in Minneapolis on May 4-6, 2003.

In preparation for the forum, each state DOT was invited to submit examples of completed or ongoing strategic initiatives that they had undertaken in each of three forum topic areas:

- Strategic Leadership
- Program Delivery
- System Operations

Eighteen states responded and this information was compiled and provided to forum participants to enhance the event's discussion and dialogue.

This document and the summary report are available online from AASHTO at: **www.transportation.org**.

Contents

ARIZONA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.

Focusing on more communication and team building with the core senior leaders.

Enhancing strategic direction and review with the senior leaders through retreats and monthly core senior team meetings.

Established strategic issues: congestion management, Motor Vehicle division retention of employees and attraction and bringing environmental stewardship to our agency.

What challenges has your organization encountered in implementing these initiatives?

- Diversity of the areas and responsibilities within the agency. For example, our broad areas of responsibilities that range from highways to motor vehicle division.
- Time management - balancing the need to meet face to face with our leadership team vs. the challenge that the daily activities offer to the team members.
- Continue to think strategically while concurrently addressing solving operational or daily problems.
- Balancing the need to review strategic initiatives and implementing actions and 'culture' adjustment within the agency to meet the strategy.
- Implementing a change in culture that has been developed over years and years – being a 'change agent' to the agency.
- The strategic initiative of congestion offers to our state challenge in regards to establishing a feasible small town / rural setting congestion measurement in comparison to large urban congestion measuring.

What lessons have been learned during this process?

- Need to bring a diverse group of individuals together to solve strategic initiatives.
- Continue to review for process improvement and review for which actions the agency will implement.
- Listen to the customer, listen to staff and work with the top core senior leaders.
- Having key focus areas for review of challenges is important. Provide for ways to overcome the 'challenges'.
- Support from the highest level is important to the success of the strategy becoming part of the organization's next steps.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

- Continue to provide training, workshops, seminars to enhance leadership skills.
- Provide for a networking and mentoring programs that can support the diversity and skill level requirements of our agency's leaders.
- Review for common themes and interests among all state DOTs for common threads. Provide opportunities to learn about and to receive training to offset these challenges.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topicarea.

Continue to meet our goals for each fiscal year for program delivery – currently achieving over 95% in compliance of delivery.

Continue to stress the importance of delivery of the program internally – adding to the strategy that we are reviewing scope, schedule, budget – and due to some concerns by team members we are adding "Quality" review and improvement initiative to the measurements and delivery of the program.

What challenges has your organization encountered in implementing these initiatives?

- Staff believes that the project management culture is not being totally implemented due to the urgency to deliver the program.
- Skill level / technical competence / transfer of knowledge continues to challenge our agency.
- Schedule drives the project. The staff at the end seem to be impacted by deadlines, thus focus is given to them if not delivered on time.
- Implementing a process for shared ownership of errors and omissions within the plans, and specifications between the agency and the consultants who worked on the drawings.

What lessons have been learned during this process?

Something could be jeopardized when focusing only on the end result, such as quality may be reduced, project management process may not be utilized to the degree desired and staff may feel challenged with only having the 'end in mind'.

When the agency established a goal of meeting over a 95% delivery of the program the staff and teams very clearly heard the message and delivered the program.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

Support for recruitment of technical staff to support the delivery of our program.

Continue to support environmental streamlining and reducing times for all documents.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.

Continue to improve upon response time and clean up of incidents.

Continue to partner with key stakeholders to review for opportunities and improvements in the operation of our transportation systems. Enhance upon technology to assist with operations of the system, such as 511.

What challenges has your organization encountered in implementing these initiatives?

The continuation of working in partnership with stakeholders to meet the need to improve upon operations of the transportation systems. Having the same focus / goals with the stakeholders.

Getting the financial support to operate the system in a manner expected by staff and our customers.

What lessons have been learned during this process?

- Marketing the right message is important to get support for operational funding.
- Working with others is vital to success.
- Share stories and examples of ways to improve upon processes and procedures.
- Partner with your stakeholders to stress the need for system operations.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

- Continue to market to states examples of programs that illustrate a different way to do business,
- Showcase good examples and models for state DOTs on ways to do things better.
- Continue to exemplify process improvements and management techniques for system operations.
- Share stories.

CONNECTICUT

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.

The Department's top three strategic goals include transportation safety issues, maintaining the existing system in a state of good repair and enhancing system capacity.

In implementing the second and third goals (maintaining existing system and enhanced system capacity) the Department has encouraged partnerships with regional planning agencies and local officials to address the transportation issues on a regional and multi-modal basis. As an example, in order to mitigate congestion, it is frequently required to address roadway improvements across many town lines as well as include mass transit improvements in the congestion mitigation plans. The agency also includes other state agencies with interest in areas such as economic development, tourism and land use planning to incorporate the impacts of land use on the transportation system.

What challenges has your organization encountered in implementing these initiatives?

Perhaps the largest challenge faced in this area is to educate the planning and local officials that the first priority for available limited funding must be to maintain the existing system so that it operates in a safe and efficient manner. It is also difficult to convince regional and local officials that they have to look beyond their "home rule" philosophy for a global solution to the transportation congestion issues that face many areas of the state and our nation.

What lessons have been learned during this process?

The process of educating officials is often a slow and difficult process. This is exacerbated by the fact that in many cases there is a relatively high level of turnover in the decision-makers at the local and regional levels requiring that the education process be an ongoing endeavor.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

By providing technical reports and being involved in the process of educating the public decision-makers in the need for both system preservation and expansion, AASHTO, FHWA and TRB can provide invaluable assistance to state agencies. Further involvement in identifying the need for regional based solutions to the transportation capacity dilemma would be beneficial.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.

Implementation of Context Sensitive Solutions (CSS) as a part of the project development process. CSS is a col-

laborative, interdisciplinary approach to project development involving all stakeholders at the earliest phase of a project. The goals of the CSS process is to ensure that transportation projects are in harmony with the community and preserve those attributes that are important to the community.

What challenges has your organization encountered in implementing these initiatives?
The CSS process requires that DOT personnel and external stakeholders change their attitudes with respect to the project development process. The training of DOT and external stakeholders is perhaps the most critical challenge in implementing the CSS process due to the need to change attitudes. All participants must be able to understand the CSS process and realize that the process is collaborative in nature and therefore requires a high level of communication and participation. Engineers must learn to communicate – both by speaking and listening – in lay terms that the public can understand.

External stakeholders must understand that the DOT is willing to participate in discussions that will lead to a project in harmony with the community concerns. The adversarial roles of both groups need to change and both internal DOT and external stakeholders need to work in a cooperative fashion for the good of the community and the project's purpose and need.

Developing a purpose and need for the transportation project that adequately defines and addresses both the transportation and community requirements is another challenge facing implementation of a CSS process.

What lessons have been learned during this process?
Communication is the key to the success of a CSS process. Training of both internal and external stakeholders is an ongoing process that must be maintained for the process to be successful. The process also requires that DOT management have a high level of commitment and involvement in the process and this involvement must become a part of the culture of the agency.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Continued involvement and support of agency initiatives in the CSS area. AASHTO, FHWA and TRB have the ability to provide forums for introducing the process to both agencies and the public. Development of best practices and continual updating of information on the CSS process and its implementation will help all parties to the project development process improve the relationships that are critical for bring projects to fruition in a timely and appropriate manner.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
Implementation of the Connecticut Highway Assistance Motorist Patrol (CHAMP). This program was implemented as a part of the Connecticut Incident Management system to reduce congestion through early detection and removal of highway incidents. The program is operated with department forces in specially equipped vehicles that patrol the more congested areas of the highway system during peak travel periods.

What challenges has your organization encountered in implementing these initiatives?
Challenges that were faced in implementing the CHAMP system included resource allocation (fiscal and personnel) and opposition from the private towing and wrecker industry.

What lessons have been learned during this process?
When implementing any new program, development of a detailed action plan is critical to the success of the program. The action plan needs to address all of the potential issues that could impact program implementation and provide a methodology for resolving those issues that could impact the success of the program.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Continued support, both from a technical and fiscal aspect is critical for agencies attempting to implement new or innovative programs. By participating in forums for sharing of information and knowledge, transportation agencies are able to identify and begin implementation of programs that best fit into their particular state needs. Flexibility in financing under the federal highway program also is a key element to developing experimental applications that have the potential to provide operational improvements to benefit the travelling public to the maximum extent.

DISTRICT OF COLUMBIA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
District-wide Strategic Plan with performance based budgeting including accountability reporting based on pre-established measures of accomplishment.

What challenges has your organization encountered in implementing these initiatives?
Defining performance measures in all areas that go beyond counting and track achievement, progress and where corrective actions are needed.

What lessons have been learned during this process?
We have had to maintain the structural budget with performance measures as well as the strategic performance based budget.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Success stories on effective performance based budgeting. Assistance with developing the most effective measurement tools.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
Initiated geographic based management teams for project initiation, development and implementation. These teams are lead by design engineers and consist of individuals from all departmental disciplines (planning, traffic operations, inspections, etc.).

What challenges has your organization encountered in implementing these initiatives?
Integration of operations across disciplines toward comprehensive program implementation.

What lessons have been learned during this process?
Improvements realized in customer service, accountability, professional development and leadership. Change is a lengthy process, tools are needed to ensure the process is continuous and progressive.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Success stories on effective team structures in other states, jurisdictions and business operations. Management tools to facilitate program and project development and implementation across disciplines.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
Completed the Transportation section of the District's Emergency Response Plan (Emergency Services Function #1, ESF#1, Transportation). Completed operating structure for emergency function preparation, initiation and continuous operations. Deployed technological and other operational improvements to improve responsiveness.

What challenges has your organization encountered in implementing these initiatives?
Ensuring our ability to maintain operations during emergency functions. Maintaining knowledge base of individuals in this area because it is not their daily function. Continuing to put improvements in place quickly to maintain and improve public confidence and performance. Prioritization of resources that provide emergency preparedness yet have daily benefit.

What lessons have been learned during this process?
Coordination with other agencies is even more critical for emergency operations than it for daily operations yet is more difficult. Transportation, unlike any other emergency function, is just as concerned about the public around the incident, not just in it, making our mission more critical and difficult.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Lessons learned, awareness building, working with other types of organizations (not just transportation) to better understand the inter-relationships.

GEORGIA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
A.Strategic Management: GDOT hired a consultant to assist with the development of its 2003 Strategic Plan. The 2003 Strategic Plan includes newly adopted goals and objectives for the Department. In 2003 Georgia DOT also introduced Strategic Management into our strategic planning process. GDOT is one of the very few Georgia state agencies to use a strategic management system that enables the Department to focuses on performance, outcomes and accountability. GDOT is beginning to develop a balanced scorecard approach that will be the center of our strategic management system and will help the Department

become a strategy focused organization. It also provides a holistic view of our Department and allows for control and monitoring of organizational performance against our strategic objectives.

In conjunction with our Strategic Management System and Balanced Scorecard approach, GDOT is also developing a Performance Measurement System that will further enable leadership to proactively manage the performance of our current operations and strategic initiatives.

Another change we have implemented has been the re-reorganization of the Strategic Planning Branch. The unit has been moved from the Office of Planning to the Commissioner's Office. This organizational change, not only demonstrates the Department's commitment to strategic planning, but also enables the staff to better respond to issues and challenges that cut across division lines.

B. The Vital Few Partnership: In FY03 the Georgia DOT and FHWA entered into an agreement to work together to achieve the goals in three vital areas: Safety, Congestion Mitigation and Environmental Streamlining. GDOT's partnering approach is unique to other State DOTs, as we are advancing FHWA's national goals through our Department's Strategic Plan and activities.

What challenges has your organization encountered in implementing these initiatives?

One of our biggest challenges has been to make strategic planning a priority with Department managers. Many managers are burdened with heavy workloads so finding time to spend on focusing on the future has been difficult. Once the scheduling challenge was overcome the process was off to smooth start resulting in a very productive 6 months of strategic management.

What lessons have been learned during this process?

It is still too early to tell if we have the right strategies and measures in place to accomplish our goals. We have learned that social, political or contextual issues that may have little linkage to planning or budgeting still tend to drive decisions.

We have also learned that involving management early and often in the strategic planning process produce much better results. In pervious iterations of strategic plan development a staff team drafted the plan and submitted it to management of approval. In this current cycle of the plan managers have been involved in every step of the process.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

There should be additional training for managers in strategic plan implementation and more research on effective performance measures and high achievement organizations. There also needs to be continued priority on strategic planning implementation.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.

Workforce Planning: Our approach begins with facilitated sessions with a small set of leaders and managers in each functional area of the department. We bring summary reports of current staffing levels workforce demographics by title to that meeting. The goal of the meeting is to review changes and challenges expected during the next 3 to 5 years, and to evaluate the impact these changes and challenges will have on workforce requirements, taking anticipated turnover into account.

Organizational responses include targeted recruitment, training current staff in existing training programs, creating new training programs, creating new jobs and/or new job levels, compensation adjustments, moving positions within the Department, creating training programs outside the Department in Georgia Technical Colleges, succession planning, employee on-boarding programs.

What challenges has your organization encountered in implementing these initiatives?

These initiatives have a very different implementation time lines. Compensation adjustments can be done quickly but resources sharply limit this option to critical areas. New jobs or new job levels can be created inside of a couple of months. New training programs take six to eighteen months to develop and implement. With respect to college programs, development of these takes even longer, plus, the further upstream you reach the longer the lag time for the benefits.

What lessons have been learned during this process?

Be prepared to invest time, resources and imagination over a long period.

Pay particular attention to establishing effective collaborative relationships with others in the organization and to establishing partnerships among other stakeholders outside your state agency.

An un-expectedly significant challenge to succession planning, at least at the leadership level, has proven to be getting the leaders genuinely committed to the effort. This commitment is in two basic areas: 1) time and energy spent to learn how to do it and time and energy to devote to the recurring process cycle of doing it, and 2) the transient sacrifice of allowing the group as a whole to use job vacancies in their respective areas for developmental purposes.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

FHWA: Continue the — % STP support for training and education; support increase in % share in this program as is in proposed re-authorization; add courses to NHI offerings

AASHTO/FHWA/TRB: Develop courses, including all supporting materials, and for delivery by state staff, in paraprofessional/technical areas such as construction inspection, traffic operations, maintenance, bridge inspection.

AASHTO might want to sponsor a two-day workshop in succession planning. Such a workshop would begin with discussing the important benefits of succession planning, then the functional mechanics that must be mastered: competency assessment and development planning.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.

Strategic initiative – Improved regional incident management. The Georgia Department of Transportation (GDOT) recognized the importance of a coordinated, unified approach to addressing the very serious issue of incident management in the Metro Atlanta region. Over 50% of the congestion in the region is caused by non-recurring incidents. Incident-related congestion problems are expected to worsen as growth in the Atlanta region continues. Efficient and coordinated management of incidents will reduce incident detection, response, and clearance time, which directly reduces the adverse impacts of traffic incidents on congestion, public safety, incident responder safety, air quality, and the local economy.

GDOT has spearheaded the implementation of a regional incident management program for the Metro Atlanta area known as **TIME** – ***T***raffic Incident ***M***anagement ***E***nhancement. This program addresses issues of congestion management, security, and safety by the establishment of a multi-agency, multi-jurisdictional TIME Task Force that addresses the institutional, operational, and technological issues surrounding incident management. GDOT is the leader in this incident management initiative, and has secured the participation of the Atlanta Regional Commission (ARC), the City of Atlanta, the Federal Highway Administration (FHWA), the Georgia Emergency Management Agency (GEMA), the Governor's Office of Highway Safety (GOHS), the Georgia Regional Transportation Authority (GRTA), as well as local transportation, fire, police, emergency medical services, and towing and recovery agencies from throughout the region.

The mission statement that was developed at the first TIME Task Force meeting is "To develop and sustain a region-wide incident management program to provide the safest and fastest clearance of incidents, to lessen the impact to the public and emergency responders". Through regularly scheduled meetings and activities, the TIME Task Force seeks: (1) to improve inter-agency coordination, communication, and cooperation, (2) to create an opportunity for multi-agency training which promotes teamwork, and (3) to serve as a platform for participants to develop common operation strategies and a better understanding of other agencies' roles and responsibilities. The establishment of this body will also enhance coordinated response to emergencies due to natural and man-made disasters.

GDOT representatives also perform local Incident Management Briefings throughout the region. During these briefings, GDOT Traffic Operations personnel visit county and/or city transportation agencies, 911 centers, fire departments, police departments, etc. to educate them about incident management, discuss the importance of it, describe what GDOT and the TIME Task Force are doing to address it, and what they can do locally to improve their response to incidents. We encourage their participation in the regional TIME program. During these local meetings GDOT also conducts de-briefs on recent incidents that have occurred locally, and discuss how they were handled and how incident management could have been improved.

What challenges has your organization encountered in implementing these initiatives?

The primary challenge faced by GDOT in the implementation of this initiative is securing buy-in and continued support and participation by all involved agencies. Participation of local agencies is not where it should be. Local jurisdictions and incident responders, most of which are operating with limited financial and human resources, have differing priorities that may seem at odds with the goal of "quick clearance". The challenge falls on GDOT to try to educate local agencies that they can do their jobs efficiently, and above all safely, while still restoring the roadway to normal flow as quickly as possible.

Other challenges involve funding for a regional program such as this – "Who foots the bill to implement the strategies that are developed?"

What lessons have been learned during this process?

GDOT has learned that a formal program with a defined organizational structure, regular meetings, with a clear vision and mission, and clearly detailed goals

and objectives, is key to a successful multi-agency, multi-jurisdictional incident management program. GDOT has learned that is important for one agency to take the lead, while still encouraging participation and support from all agencies.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
More research needed on measuring the success of incident management.

HAWAII

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
Governor's High-Level Task Force of Elected Officials (Legislators, Councilmembers and Mayor of the City and County of Honolulu) and other high-level government agency officials has been meeting to cooperatively discuss various options to address traffic congestion within the City and County of Honolulu.

What challenges has your organization encountered in implementing these initiatives?
Variety of transportation alternatives and identification of Federal/State funding sources.

What lessons have been learned during this process?
We need State/City consensus for political viability at the national level. With identification of common interests and goals, positive partnerships will strengthen the probability of success.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Information regarding similar experiences, successes and failures in other parts of the country. We need to protect funding "firewalls" for donnee states.
FHWA/FTA establishing expert technical term to assist City/State transportation proposals for solutions within the Leeward Corridor.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
Additional sources for Local Funding:
A. Innovative Financing Program – Federal funds are used to match private funds (from Developers) to construct highway improvements. The Developers then pay back the amount of the Federal funds to the State DOT overtime, as spelled out in an agreement. These funds can then be used as local funds for other projects.
B. Impact Fees –Developers in Ewa are assessed a fee for every building permit. These fees are used to supplement fundings for needed highway improvements in the area.
C. With impact fees, dealing with the County, which collects the fees for us.

What challenges has your organization encountered in implementing these initiatives?
Many challenges:
A. Working with the various interests of the private sector.
B. Working on many details with attorneys.

What lessons have been learned during this process?
These programs take a lot of time and resources to develop and require much cooperation with the many interested parties. Political consensus of State/City/Developer stakeholders is critical to success.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Information regarding similar experiences, successes and failures in other parts of the country.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
Maximize the capacity of our existing highway system by:
A. Use of shoulder lanes during peak periods.
B. Use of contraflow lanes during peak periods.
C. Use of movable concrete barriers on our freeway for a contraflow operation.
D. Use of computer simulation modeling to test possible alternatives to improve traffic flow.
E. Development of the Metro Honolulu Regional ITS Architecture.

What challenges has your organization encountered in implementing these initiatives?
The biggest challenge was to obtain Federal approval to use some of these techniques and to obtain design exceptions.
ITS – Integration of existing traffic management systems for seamless operations.

What lessons have been learned during this process?
These initiatives provide relatively quick, low-cost ways to provide some relief to our traffic congestions problems.
ITS – Local politics and personal agenda can be brutal in the process.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Information regarding similar experiences, successes and failures in other parts of the country.
ITS – AASHTO/TRB/FHWA's continuous assistance with State-of-the-art technology and national experience (good/not so good) is always appreciated.

INDIANA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Developed new criteria for strategic plan initiatives
- Developed criteria for performance measures
- Applied performance measures to pre-existing strategic plan initiatives
- Applied the balanced scorecard to pre-existing strategic plan initiatives
- Developed performance measures database & reporting procedures
- Developed a Strategic Plan Task Group for monitoring, measures and updating the strategic plan

What challenges has your organization encountered in implementing these initiatives?
Apathy, reluctance, failure to see relevance, resistance to accountability

What lessons have been learned during this process?
Lessons learned center around organizational change management, dealing with residue from implementation of prior concepts such as total quality management, management by objectives, etc. Most important lessons learned - identify strong supporters early and utilize them to develop project, build consensus on individual level before introduction to larger groups.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
The provision of a database or inventory of best practices, anecdotes, examples, communicated through periodic emails.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
Implement a new scheduling system to upgrade our ability to track project development/progress and costs

What challenges has your organization encountered in implementing these initiatives?
One of the biggest challenges was to diagram the flow of activity for all possible scenarios. Also, making changes to an age-old process was difficult to overcome.

What lessons have been learned during this process?
Regardless of the quality of the production scheduling system in place, it takes good management to make it work.

Reduce the amount of time in running and maintaining dual systems to the minimum.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
INDOT and the FHWA - Ind. Div. have prepared and are following an environmental streamlining policy for all EIS/EA. This was done in coordination with the regulatory agencies. Likewise we have developed a Planning/EA study process that incorporates planning and NEPA into one process.

What challenges has your organization encountered in implementing these initiatives?
Actually, thus far the environmental streamlining process has worked well.
The Planning/EA study process has had a few minor problems, but we are revising our policy to address these.

What lessons have been learned during this process?
Work early, often with resource agencies.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
Hoosier Helper Freeway Service Patrol – What makes this system unique is that INDOT's Hoosier Helpers can operate the ATMS from their vehicles via laptop and modem. This allows for a better response time should they come upon an incident. A database has been developed at the TMC that will automatically develop and display text messages on appropriate DMSs (both permanent and portable) within a certain area of influence, based on a simple interactive menu the Hoosier Helpers answer. These messages are also transmitted to Highway Advisory Radios.

What challenges has your organization encountered in implementing these initiatives?
Communications integration as well as keeping current with rapidly changing technology.

What lessons have been learned during this process?
ITS is a relatively new way of doing business. Educating District Office forces on its operational benefits and how the system works has been a challenge. People are resistant to change. Progress continues to be made in this area.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Generally speaking, AASHTO should continue educating our elected officials in Washington about the operational benefits of ITS and the need for greater flexibility in the use of federal funds for operational purposes. TRB should continue to promote on-going research efforts. FHWA has been very supportive assisting in implementation, education, and general support.

KANSAS

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.

Internal and External Survey Development and Execution

As an outgrowth of KDOT's continuing emphasis on strategic management, quality improvement, and customer satisfaction, the Agency has conducted a series of Internal and External Surveys in alternating years. Since 1998, the results of Internal and External Surveys have been compared with prior surveys to evaluate KDOT performance as well as to identify new areas for Agency emphasis.

Internal Surveys

Internal Surveys measure employee perceptions, like attitude and behavior. The Agency conducted a third Internal Survey in 2002. The purpose of the survey was to measure employee perceptions of how well KDOT's performance reflects the Core Values as stated in the Agency's Strategic Management Plan. Surveys were distributed by means of internal mail to all Agency employees during April 2002. The responses collected in the 2002 Internal Survey represented the total population of KDOT employees at a 95 percent confidence level. Based on the findings of the 2002 Internal Survey, KDOT has three agencywide priority initiatives to focus on in order to achieve the goals established in the Strategic Management Plan:

1. KDOT will examine and ensure that our processes and systems for external business partner accountability are adequate and effective,
2. KDOT will continue to emphasize meaningful employee performance feedback and to hold supervisors/managers accountable for reacting to poor employee performance, and
3. KDOT will encourage its employee to use resources wisely.

External Surveys

External Surveys measure customer satisfaction. The Agency has conducted extensive research on how satisfied Kansas citizens are with the activities performed by the Agency in various locations. The research also considered the public's perception of the importance of specific construction and maintenance activities and correlated the perceptions of road conditions to engineering measurement of the conditions.

In December 2000, a random sample of Kansas residents statewide received telephone calls asking them to participate in a KDOT External Survey. The External Survey assessed the public's satisfaction with a variety of transportation services in Kansas. It also asked residents about various transportation priorities. Participants were selected at random from all 105 counties in the state.

Road Rallies

In addition to the 2000 External Survey, six Road Rallies were held in the summer of 2001 across Kansas that received input from local residents, special interest groups/stakeholders, and Agency personnel. Each Road Rally covered a 45- to 60 mile course selected by KDOT managers and comprised of a variety of segmented highway types and classifications geographically distributed across Kansas.

What challenges has your organization encountered in implementing these initiatives?

Internal Surveys

- Internal Surveys presented several challenges. These included:
- Getting employees to participate in the surveys.
- Interpreting employee perceptions of KDOT.
- Confidentiality of employee responses. The survey was designed in a manner that there would be no way to link responses with an individual employee.
- Getting managers to take the survey seriously in addressing and following up on the priority initiatives identified in the Internal Survey.
- Communicating to KDOT employees the ongoing improvements.

External Surveys

The External Surveys presented the following challenges:

- Focusing in on areas that KDOT could make meaningful.
- The public's responses to the External Survey were general in nature.
- Gathering input from Kansas residents about the wide range of transportation issues, for example: public transit/alternatives to the automobile, rural issues, economic development issues, airport and rail issues, and Funding Options.

Road Rallies

To better focus highway user satisfaction with different types of highway facilities, KDOT asked randomly selected individuals to participate in newly developed Road Rally evaluations of specific state highway segments. Participants were asked to provide their perceived level of satisfaction with specific highway features such as pavement condition, smoothness, lane width, sight distance, shoulder condition, horizontal alignment, center striping, roadside striping, traffic flow, ease of getting on/off the highway, signage, landscaping, and width of bridges for each individual segment of the Road Rally courses. KDOT provided existing technical data for each segment of the highway including: type of surface/number of lanes, IRI (international roughness index or similar rating), pavement condition rating, width of shoulders, width of lanes, date of last striping/paint type, bridge width, traffic counts, and/or other data that was available, for each segment of the selected highways.

The technical data for each section of highway and participant ratings from the Road Rallies was analyzed and compared. From the analysis, KDOT was provided outputs that included identification of the importance of highway features by type of highway, identification of expectations for the condition of highway features by type of highway, and identification of highways features that most strongly impact customer satisfaction with state highways. A final report of the Road Rallies results was made available to KDOT managers in November 2001.

What lessons have been learned during this process?
KDOT has learned that it is important to develop a communications plan to keep internal and external customers informed. Articles pertaining to best practices are communicated at Agency meetings, in KDOT's employee newsletter, through the use of e-mail, and the final report recommendations to the Agency's Executive Committee. Implementing an ongoing initiative plan and keeping KDOT's customers informed of what was going on is critical to meeting the needs of both internal and external customers.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
KDOT encourages the continued support for strategic management and quality improvement programs from AASHTO, TRB, and FHWA.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
KDOT's Public Involvement Program was formally created in 1997, although the Agency had undertaken public involvement activities for many years. KDOT developed the program with the guidance of public involvement consultants from the firm of URS, formally called Woodward-Clyde Associates. The consultants created a public involvement plan called Communication - A Key to Success. The Plan included a detailed analysis of KDOT business operations relating to the public, recommendations for action, a review of effective public involvement activities and tools, and an extensive staff training program.

The recommendations in the Plan were designed to address the following evaluation of the needs of the Agency's Public Involvement Program:

1. KDOT's organizational structure and culture must be expanded to be more responsive to the public's communication needs, including empowering employees at local levels to address communication issues on a local level.
2. The project planning and development process must be changed so the public can participate in a timely and meaningful way in transportation decision-making.
3. Public involvement training is needed to increase awareness of what public involvement is and provide

KDOT employees with the tools necessary to successfully complete their jobs.
4. Internal communication between functions must be improved so that public concerns and issues are addressed throughout the transportation process.

The program is guided by the Bureau of Public Involvement in the Division of Public Affairs. A Public Involvement Administrator oversees the bureau, guides the program statewide, and supervises two Headquarters Public Involvement Liaisons. The Headquarters Public Involvement Liaisons assist engineers in the Division of Engineering and Design with public involvement activities for projects in development. The program is further strengthened by a District Public Involvement Liaison in each of the Agency's six districts. The District Engineer for that district supervises each District Public Involvement Liaison. The District Liaisons focus on local and regional public involvement for construction and maintenance projects, assist with public involvement for projects in development, work with local news media, and foster relationships with citizens and businesses at local levels.

What challenges has your organization encountered in implementing these initiatives?

Implementing the public involvement program has presented several challenges. These include:
1. Shifting the Agency culture away from presenting nearly completed concepts and plans to the public to one of early involvement in the decision-making process.
2. Finding the proper niche for district public involvement liaisons, who deal principally with projects close to or under construction.
3. Developing the internal business practices to ensure effective communication with other Agency divisions.
4. Finding and retaining qualified public involvement professionals

What lessons have been learned during this process?

Lessons we have learned include:
1. The importance of getting buy-in from throughout KDOT.
2. The importance of providing initial and on-going public involvement training not only for public involvement staff, but also for engineering staff.
3. That Agency culture can and will change if the rewards can be demonstrated.
4. Public involvement can make the decision-making process harder or easier, depending on the circumstances. In either case, the results are usually better public acceptance of projects.
5. Public involvement efforts are appreciated by the public, even if the project is controversial.
6. The importance of support from the highest authorities in the Agency.

What followup actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

While TRB and FHWA have supported public involvement outright, AASHTO should consider separating public involvement from public relations to give it more importance in the organization. Public involvement must be accepted as being an important activity in the engineering process in order for it to be effective.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.

Congestion Management and Security – KC Scout

KDOT is currently deploying a joint Advanced Traffic Management System (ATMS) with the Missouri Department of Transportation (MDOT). KC Scout is currently 70% constructed with a completion date of October 2003. The network will be used to manage approximately 75 miles of freeways in the Kansas City Metropolitan Area. This system includes Closed Circuit TV (CCTV) cameras for monitoring and surveillance, Dynamic Message Signs for traffic management and traveler information, Vehicle Detection Stations for incident detection and traffic management, and a Traffic Operations Center located in Lee's Summit, MO., for central operations of the system. The CCTV system was designed to provide 100% coverage of KC Scout the 75 miles, which will also assist with security and safety.

Congestion Management – Kansas Speedway

The Agency has deployed CCTV cameras at five major interchanges of the highway system to assist with traffic management near the Kansas Speedway, located West of the Kansas City Metropolitan Area. This system is used mainly by the Kansas Highway Patrol for event and traffic management. This is accomplished by monitoring the traffic and providing information to the officers in the field and to portable variable message signs placed along selected roadways.

This system has improved KDOT's response time to an incident and has allowed the Agency to provide information to travelers to assist them in making an informed decision.

What challenges has your organization encountered in implementing these initiatives?

There have been numerous challenges with this project, but the one that really stands out is the lack of expertise within the DOT's. This project is different from the normal type of projects. Most DOT's employ Civil Engineers and this type of project focuses on hardware, software, and communications. The challenge was finding staff within KDOT that could assist with those aspects of the project.

Other challenges that are present include procurement methods, dedicated staff, product approvals, and tracking of the equipment and warranties. All of these have caused problems throughout the project and some of them remain undecided at this time.

What lessons have been learned during this process?

A lot has been learned from this project. Both MDOT and KDOT have learned more about the procurement processes, system engineering approach, and technical specifications, etc. The most important lesson was getting the proper personnel involved to complete a task and realizing that you needed their expertise.

What followup actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

The most important action that needs to happen is the continuation of funding support for training. As mentioned above, most state DOT's employ Civil Engineers and training is definitely needed to assist them in these types of endeavors. The training that has been developed by the National Highway Institute and others has been helpful to assist states through an IT type process but it has lacked in the technical aspects of ITS deployments and operations of an ATMS.

It would also be very helpful if the ITS standards were finished, but KDOT realizes that these standards will take some time to complete. The key items to keep in mind, the states are already using standards that are available and most of them are still in the development stage.

MICHIGAN

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.

Development of the Five-Year Road & Bridge Program

The Michigan Department of Transportation (MDOT) published its first "Five-Year Road and Bridge Program" in February 1999. Every year since that time the department has published a rolling five year program which implements the first year and adds a new fifth year to the program. This document has been a valuable communication tool informing the public of MDOT's goals, investment strategies and planned project investments during the five year time frame. The combination of highway and bridge capital projects included in the plan pursue the direction set by the Governor, MDOT Director, and the Commission and are intended to improve Michigan highways through a coordinated effort to achieve specific long-term goals for the system.

MDOT's road and bridge programs (Volumes I - IV) can be attributed to increased transportation revenue received from passage of the Build Michigan II and Build Michigan III programs, passage of the federal transportation bill TEA-21, and the department's reorganization and streamlining efforts. The Five Year Road and Bridge Program, Volume V (2003 to 2007) to be released this Spring, will reflect Governor Granholm, Director Jeff, and the Transportation Commission's Preserve First program which increases emphasis on preserving our transportation system. This program will significantly aid in reaching the department's pavement and bridge condition goals.

Integral to the development of the five-year program is the annual Integrated Road and Bridge Call for Projects process. This process is the methodology used to develop strategies to achieve the pavement and bridge condition goals and identify the specific projects to implement the strategies. This process is initiated each year and is used to confirm the strategies, reassess (or re-affirm) the remaining four-year projects, and add the fifth year project selections.

All MDOT road improvement projects are based on long-term asset management strategies providing for a balanced program of long term fixes (reconstruction), intermediate fixes (resurfacing), an aggressive capital preventive maintenance program, and routine maintenance of the system. The bridge program also incorporates a variety of fixes including Capital Scheduled Maintenance which targets projects and activities that keep our good bridges good, Capital Preventive Maintenance which targets projects that keep our fair bridges fair, and finally rehabilitation and replacement projects which targets our poor (structurally deficient) bridges.

In order to minimize the impact on our customers, we use a corridor approach, grouping road and bridge projects together to accomplish more work in fewer construction seasons. We strive to keep as many lanes open as possible during construction, reduce the length of time contractors have to affect traffic, and improve communications efforts to make sure motorists have the best, up-to-date information available. We are pushing forward to require warranties on projects, ensuring that the investments we make on behalf of taxpayers offer the best protection against any future deterioration.

What challenges has your organization encountered in implementing these initiatives?

Need for Increased Funding

Michigan has one of the oldest networks of roads and bridges in the nation. In order to serve generations into the future it must be modernized. Modernization of the urban area systems is costly, therefore, it is critical that funds be increased so important highway and bridge preservation work can proceed. MDOT is focusing the majority of its capital funds on the existing transportation system and just recently initiated the Preserve First program. These funds will help us to achieve our condition goals but our needs extend beyond the funding available. Increased federal dollars are required to modernize our systems and implement the capacity enhancing projects that support Michigan's economy.

Bridge Under Clearance Issue

Many of Michigan's bridges are less than the 16' under clearance required for the STRANET. This is especially true in the urbanized areas where as stated previously, are some of the oldest and built prior to this requirement. Implementing this policy has impacts on our ability to coordinate road and bridge work which has proven to be cost-effective in implementing our Five Year Program and is a competing need to our Preserve First philosophy.

Federal Bridge (HBRRP) Funds

The FHWA division office has encouraged and worked with us to develop a systematic plan for the management and maintenance of our bridges, and they have given us the flexibility to use HBRRP funds for certain capital preventive maintenance activities on bridges carrying federal-aid eligible highways. This is greatly appreciated, however, we will be even more effective at meeting our strategic goals and improving our network if MDOT and local agencies can be given this same flexibility on off-system bridges.

What lessons have been learned during this process?

Publishing a multi-year program is an effective communication tool to inform our customers and suppliers of the department's programmatic intent. It has also been an effective way of initiating and incorporating local input early in the program development process.

At the conclusion of each Call for Projects (CFP) cycle, the process, methodology, and coordination are critiqued to assess the effectiveness and identify potential areas of improvement. This feed back has been instrumental in improving coordination among the Regions and central office staff and identifying best practices which are shared within the group. In addition, it has lead to enhancements to the technological tools and identification of other program areas that might benefit by being integrated into the CFP process.

Coordination and timing of processes is essential in order to efficiently and effectively develop the Five Year Program. An annual timeline has been development and shared with department staff to better coordinated the efforts and interdependencies related to the 5YP/CFP/STIP development.

Early Metropolitan Planning Organization/local input is important in order to identify project candidates and coordinate work.

Building relationships with resource/regulatory agencies through cooperative research, stewardship efforts and informal consultation has expedited environmental clearance.

Follow-up actions needed from AASHTO, TRB or FHWA that would help support these initiatives:

Need for Increased Funding

Increase federal highway and transit funding to Michigan to address the huge preservation, safety, and capacity needs that exist.

Preserve TEA-21 funding guarantees and firewalls and fix the Revenue Aligned Budget Authority (RABA) mechanism to TEA-21 to avoid radical shifts in funding.

Provide each state with, at minimum, a 95 percent return on its contributions to both the transit and highway accounts of the Highway Trust Fund.

Bridge Under Clearance Issue

Work with FHWA to set reasonable and consistent priorities that can be achieved within funding resources.

Federal Bridge (HBRRP) Funds

Additional flexibility in the use of federal bridge funds to meet strategic goals and systematically improve the condition of trunkline and local network off-system bridges.

NEPA and the Planning Process

Continued efforts to integrate NEPA into the planning process would benefit project production.

Streamline federal planning environmental review requirements to speed up program delivery without negatively impacting the public involvement process or by passing environmental safeguards.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.

Land Use Council

In an effort to preserve the character of Michigan, Governor Granholm appointed a 26-member council charged with addressing the trends, causes, and consequences of unmanaged growth and development in Michigan. The council will provide recommendations to the governor and the legislature designed to minimize the impact of current land use trends on Michigan's environment and economy.

The panel consists of representatives from the public and private sector with an interest in Michigan Land Use, with nonvoting representation from six State Departments. The council will hold public hearings throughout the state in April, and will meet monthly through August, 2003. The Council's report and recommendations are due to the Governor by August 15, 2003.

What challenges has your organization encountered in implementing these initiatives?

The council is comprised of representatives of organizations from both sides of the economic development vs. sprawl argument, and their opinions on issues are likely to diverge. One of the greatest challenges in achieving the council's goals will be finding consensus among the members of the group. Implementing their recommendations may also prove challenging, depending on what they are, as Michigan has a long history as a home-rule state with local control over land use decisions.

What lessons have been learned during this process?

None so far, the council has only just had its second meeting.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

To be determined.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.

Canada-U.S.-Ontario-Michigan Transportation Border Partnership

The members are Transport Canada (TC), Ontario Ministry of Transportation (MTO), the Federal Highway Administration (FHWA), and MDOT. The purpose of the Partnership is to develop a long term strategy that will ensure safe and efficient movement of people, goods, and services between Southeastern Michigan and Southwestern Ontario. The Partnership is conducting a feasibility study for a new border crossing in Detroit/Windsor.

What challenges has your organization encountered in implementing these initiatives?

Effectively coordinating different U.S. and Canada planning and environmental review processes presents many challenges. While many similarities exist between U.S. and Canadian transportation planning processes, there are major differences in the requirements for public involvement, environmental clearance, and local agency participation.

The inability of states to enter directly into contractual agreements with Canadian governmental agencies for joint transportation studies makes it very cumbersome and time consuming to plan and undertake joint border studies.

Involving both U.S. and Canadian border inspection agencies in the border transportation planning processes creates numerous challenges and obstacles because of different agency missions, different planning and project approval processes, and decision-making structures.

Implementing a common communications and public information strategy is difficult because of the very different approaches by federal, state, and provincial planning agencies in communicating project-related information to the public, and to state, local and federal political officials.

What lessons have been learned during this process?

Particularly in the early phases of bi-national planning initiatives, a significant amount of time must be devoted to understanding each other's political and planning processes.

For bi-national project planning to be successful, a high level of trust must be developed between partners. This occurs when partners communicate with each other on a regular basis and openly share information on project-related issues, both political and technical, in a timely fashion.Under current U.S. laws and regulations there is no easy way for states to enter into joint project agreements/contracts with our Canadian counterparts.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

Advocate changes in federal law (TEA-21) that would allow states to sign agreements/contracts for transportation planning studies with their Canadian/Mexican counterparts.

Within AASHTO, establish a border-states committee to help develop unified state DOT positions on a wide range of border issues, including security, border station planning, and border transportation needs, and to promote best practices related to border planning and project development.

Involve state DOTs directly in border facilities planning processes such as the Border Station Partnership Council, federal border facilities planning and coordinating body which has FHWA participation, but no state participation.

Other:

MDOT's Strategic Objectives for Michigan's International Border Crossings:

- Improve the movement of people, goods and services in a safe, secure and efficient manner across the

U.S./Canada border to connect with existing national, provincial, and regional transportation corridors.
- Improve vehicle flows on Michigan's highway and rail corridors, enhancing safety and security, reducing travel times, and increasing their predictability to support the fast-growing international trade in the region.
- Expand and improve collaboration and coordination with U.S. border inspection agencies in the development and construction of border facilities that impact the efficient movement of people and goods between Michigan and Canada.
- Expand and improve collaboration and coordination of planning, programming, and border operations with Canada to expedite cross-border vehicle and cargo movements.
- Conduct research, planning, feasibility studies and pilot projects related to trade corridors and border crossings. These projects include origin and destination studies, border and traffic forecasts, projections of infrastructure capacity needs, innovative border processing technologies, and strategies for enhancing bi-national cooperation and transportation planning.
- Support changes to federal laws, regulations and policies that improve the flow of trade across the U.S./Canada border while maintaining national security, including border inspection and processing policies and border staffing needs.
- Support the development and implementation of Intelligent Transportation Systems that enhance border-crossing efficiency and improve vehicle movement on Michigan's trade corridors.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.

Detroit Intermodal Freight Terminal Project

The purpose of the Detroit Intermodal Freight Terminal project is to support the economic competitiveness of southeastern Michigan and the State by improving freight transportation opportunities and efficiencies for business and industry. The goal is to ensure that Southeast Michigan has a facility, or facilities, with sufficient capacity to provide for existing and future intermodal demand.

Another purpose of the Detroit Intermodal Freight Terminal Project is to support America's national defense. National defense mobilization and deployment is increasingly reliant on intermodal connectors to project U.S. military power abroad to meet the challenges of regional conflicts. The military anticipates that it will rely on commercial providers for 90 percent of its peacetime movements and 85 percent of its wartime movements. The U.S. armed forces depend on rail as a critical element in the logistics chain. As the chief of the Military Traffic Management Command put it in testimony before the Surface Transportation Board on March 7, 2000 "...our nation's military goes to war on rails."

What challenges has your organization encountered in implementing these initiatives?

Agreements

The principal challenge associated with the DIFT Project is forming partnerships among the railroad companies and between them and MDOT. Four competing railroads must agree on trackage rights to allow intermodal transportation to improve in the Greater Detroit Area. Additionally, because MDOT will invest state/federal money in improvements to one or several intermodal terminals, an agreement between MDOT and the railroads is necessary to ensure the project's objectives are met.

Cities of Detroit and Ferndale

The City of Detroit and the City of Ferndale may be affected by this project. Each City's support is essential to advancing the project to implementation.

Funding

Achieving an agreement with the four rail companies is essential to satisfying the federal government's goal of equitable treatment of these private companies, which are competitors, in order for implementation funding to be approved.

What lessons have been learned during this process?

The project has lost momentum several times for various reasons. For example, the sale of Conrail's assets in 1997/1998 made impossible the use of the Livernois-Junction Yard for a consolidated intermodal terminal while the ownership of the facility was finalized—a period of two years. Also, getting "buy-in" of the railroads to the forecasts that underlie the project did not begin until lately. So, the lessons learned are: 1) time is an enemy of advancing a project as many "external forces" affect its course; and, 2) cooperation with the private parties that are affected directly by government investments must begin early and continue on a regular/thorough basis.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

A set of guidelines is needed to guide those unique projects that involve/affect major private players. Projects like the DIFT, the Ambassador Bridge Gateway and the Bi-National Border Crossing, would benefit by an additional set of PPMs to address:

1. How to involve the private sector;
2. How and when to resolve business issues; and,
3. The need for a Memorandum of Agreement.

A set of such guidelines already exists on issues like public involvement and environmental issues assessment. A similar set to address involvement of the business sector is likewise needed.

MINNESOTA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.

Performance-based Planning – performance measurement has been utilized by Mn/DOT as the basis for both short- and long-term organizational planning, including work plans, business plans, and as the basis for Minnesota's 20-year policy-based transportation plan. The state's long range plan establishes a performance-based policy framework for the state's transportation systems planning and program and also sets out performance measures, targets, and strategies.

What challenges has your organization encountered in implementing these initiatives?

In the development of the statewide transportation plan, the need to winnow the array of reasonable performance measures to the essential few that would become the framework for the plan was a challenge. This work was eased because of the agency's widespread application of performance measurement and planning. Experience in developing work plans and business plans helped to focus on the appropriate level at which different measures apply and to reach consensus on those of overarching significance.

MnDOT is still developing the capability to set efficient targets for all measures due to limited information about the cost to achieved target levels. This will be the critical next step in moving toward performance management.

What lessons have been learned during this process?

Performance- based planning is more useful and effective, if performance management is being used at all levels in the organization. CEO commitment to performance measurement and management is especially important.

Gaining department wide understanding and consensus regarding the performance-based plan is time consuming and painstaking, but is essential to the success of the plan.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

Support for performance measurement and management; continued development of performance measurement tools; identification and sharing of best practices; training; organizational support for the concept and practice of performance based planning and management.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Legislative mandate completed requiring an environmental streamlining team led by Mn/DOT to explore costs of mitigation and recommend improvements in process.
- Internal streamlining efforts focused on environment, right-of-way, and design processes. Implementing 42 recommendations.

What challenges has your organization encountered in implementing these initiatives?
- Environmental agencies with different missions than DOT only reacted to Mn/DOT proposals, bringing no ideas of their own to the table.
- Internal efforts at streamlining have had difficulty tracking progress of change in the organization.

What lessons have been learned during this process?
- Changing practices and the way the business is done is very difficult without measures to reflect progress.
- Working with agencies with a different mission is likely to be futile unless there is a strong top down directive and a clear agency in charge of streamlining.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- Continue efforts to communicate best practices and/or "breakthroughs" at both state and federal level.
- Support enactment of AASHTO's Environmental Stewardship and Streamlining provisions outlined in *Transportation: Invest in America – TEA-21 Reauthorization Policy Recommendations.*

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.

Organizational Streamlining – over the past two years, Mn/DOT has instituted structural organizational and procedural changes that have expedited Mn/DOT's program delivery capabilities and that have substantially streamlined the organization's management and work-

force, culminating in the recently instituted reorganization under which six divisions report to a single deputy commissioner–improving accountability and focus on mission.

What challenges has your organization encountered in implementing these initiatives?
Changing the functions and responsibilities of offices within MnDOT involved redefining long standing roles and relationships. Offices had to give up activities for which they had developed expertise and competency over many years. This was difficult for many individuals. Many felt their expertise was not valued and they would lose control over important activities. At the same time Districts receiving these new responsibilities worried that they did not have adequate staff or resources with which to perform their new duties.

What lessons have been learned during this process?
In the conduct of Mn/DOT's organizational streamlining process, decisions were made at an early stage to make the process as transparent as possible. This resulted in ready availability of information about the nature of the process, its status, the basis on which decisions were being made, etc. Although substantial change is difficult to effect and to accept, the approach of making the process transparent, greatly contributed to the success of the effort because it was perceived as being objective, predictable, and fair.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Identification and sharing of best practices; training in change management.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
High Occupancy Vehicle (HOV) Lanes/High Occupancy Toll (HOT) Lanes – In February 2002 the Mn/DOT - Metro Division completed a study titled the Twin Cities HOV Study. This study was done in response to a mandate by the Minnesota State Legislature that directed Mn/DOT to conduct a study of how opening the HOV lanes on I-35W and I-394 to general-purpose traffic would impact traffic flow and safety. The study concluded, in part, that the HOV lanes should remain in operation as HOV lanes but that consideration should be given to making changes that would increase their effectiveness including the possibility of High Occupancy Toll lanes.

Mn/DOT - Metro Division is currently facilitating an evaluation of the I-35W and I-394 HOV systems. The evaluation will culminate with the completion of a High Occupancy Vehicle Operations Management Plan (HOV-OMP). The purpose of the plan is to develop options for modifying the HOV system that improve the person and vehicle carrying capabilities of the HOV lanes during the morning and afternoon peak periods. The plan will guide future management decisions relating to the HOV lanes. To this end, the HOV-OMP will be based, in part, on implementing the findings and recommendations of the HOV Twin Cities Study.

What challenges has your organization encountered in implementing these initiatives?
A significant challenge relating the Twin Cities HOV Study was that it relied on market research and methods for modeling traffic flow and congestion, calculating transit (bus) and HOV (carpool) use including mode shift, and estimating safety impacts associated with opening the HOV lanes to general traffic on I-394 and I-35W as well as on the region as a whole. A major undertaking of the study included compiling research regarding the benefits and costs of HOV lanes, identifying the public's perception of opening the HOV lanes, and providing secondary research on congestion pricing.

Although the HOV-OMP is still in draft form, there will be several challenges in implementing the recommendations including the need to secure funding for needed improvements, conducting additional analysis for possible geometric improvements, and marketing changes to the public.

What lessons have been learned during this process?
With respect to the Twin Cities HOV Study, many lessons were learned which can be applied in the future either to the existing HOV lanes (with some challenges), to extensions of the existing lanes, or completely new lanes. The research conducted as part of this study included a number of strategies which can be implemented to maintain the goals and policies of the region. These include the importance of barrier separation, effective enforcement, and the development of strategies to ensure that the HOV lanes are fully utilized.

The study also includes recommendations in several areas including hours of operation, geometrics, types of vehicles allowed, law enforcement, ITS improvements, and marketing. The diversity of issues required an intelligent and dedicated task force to undertake and successfully address the various issues contained in the plan.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Ongoing support from the FHWA will be important in order to implement the changes of the OMP including any necessary marketing. In addition, ongoing monitoring of the HOV system or its conversion to a HOT function will require access to resources and expertise of the FHWA, TRB and AASHTO.

Expanded capacity in the Interstate system, whether through conversion of HOV lanes to HOT lanes or through construction of new general use lanes, should be facilitated by changes in federal law. For example, we urge support of Congressman Mark Kennedy's recent proposal (H.R. 1767) to allow construction of user based-fee lanes (fast lane financing) to expand capacity on interstate highways.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic
Mn/DOT recently completed the construction of its Regional Transportation Management Center (RTMC) in Minneapolis/St. Paul metro area. The RTMC is a true joint operation facility with Freeway Operations, Signal Operations, Maintenance Operations, State Patrol Dispatch, and Radio Broadcasting (Traveler Information) sharing one Operation Center.

The RTMC is directly responsible for congestion management, traveler information, DOT homeland security coordination, and public safety. The RTMC will also be linked to 9 statewide Traffic Operations Communication Centers and will play a key role in coordinating statewide traveler information and security/emergency events.

What challenges has your organization encountered in implementing these initiatives?
- Funding
- Maintaining operations during transition from existing Centers to RTMC
- Technology integration
- Determining best design of shared work spaces
- Team building around co-location of separate work units

What lessons have been learned during this process?
- Advanced planning of technology can minimize disruptions to on-going operations
- Early apprehension from co-location of activities can be overcome by a building shared vision
- It is important to do site visits to other similar operations (TMCs) and of operations that use similar critical technologies but may be in a different field (Ex. Visit security centers to learn best practices about video technologies)
- Do not look to maximize co-location benefits (i.e. resource sharing) until after all functions are up and running in the new facility
- The design of the building should build on lessons learned from the past but have flexibility for change built into it to accommodate evolution of operations in the long term.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- Document and summarize key lessons learned
- Create opportunities for those planning TMCs to visit and learn from recently built centers.

MISSOURI

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
Performance Measures:

The Missouri Department of Transportation first identified organizational performance measures in 2001 with the first report completed for the month of July 2001. These monthly reports provided leadership with the necessary information to manage resources as well as performance. They have shown us the level of accomplishment and progress toward goals and specific strategies outlined in our strategic plan in the areas of program delivery, system preservation, safety, financial services and human resources.

After almost two years, the department has decided to filter those organizational performance measures using the Dashboard and Scorecard tools. The Dashboard is the high-level measurements that will allow the department to assess their overall progress and demonstrate its accountability. The Scorecards will be used by the business units to determine progress within their individual unit.

What challenges has your organization encountered in implementing these initiatives?
We found a cultural shift was necessary to occur before staff was able to realize the benefit of performance measurement. Many managers and supervisors needed to understand the performance measures and strategic planning model were not created to decrease empowerment, simply to coordinate focused decision making throughout the organization. The entire organization needed to see that this plan and measures will be a way of doing business and evolve as necessary to help us achieve our goals and show accountability to our customer, the citizens of Missouri.

What lessons have been learned during the process?
We have dispensed with some myths about performance measures. The first one was *"measures are primarily used by leadership to support decision-making"*. We learned measures have multiple functions:
a) communicating with employees, partners and customers,
b) business management, and
c) supporting strategic decisions.

The second myth was "a handful of measures exist that could be used in every state to manage change". We found that a one-size-fits-all approach to performance measures does not work and that each state's needs are unique. Our performance measurements need to balance across priorities, various external influences and reflect employee values.

The third lesson we learned was that managing strategic direction requires more than just the right measures. Although the right measures are important, the implementation framework is equally critical. Leadership must support and create a culture where the entire organization believes measuring our performance is critical to obtaining credibility, both internally & externally. We must remain flexible as priorities change and the process evolves. If one measure doesn't work, we need to seek out another one.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
At this point, many state DOTs are struggling to find the key organizational performance indicators to measure success, and the best way to measure them. It is important to share best practices. If AASHTO, TRB or FHWA were able to define what will accurately measure success through certain indicators, it would be immensely helpful.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
Workforce:
MoDOT recently completed a comprehensive job study evaluating all job titles, updating skill and experience requirements and determining appropriate market driven salary rates. This was to insure job descriptions matched duties and responsibilities as necessary steps to insuring internal consistency in pay grades and consistency of pay grades to external market rates.

What challenges has your organization encountered in implementing these initiatives?
Employee interest/concern was high. The process took a year longer than originally anticipated, heightening employee concern. Employee expectations were not rational and, therefore, hard to manage. On one hand most thought their jobs were currently rated to below market and expected a salary increase, yet many felt they were vulnerable to a salary reduction. Full implementation was not possible due to funding constraints.

What lessons have been learned during this process?
- Manage employee expectations.
- Allow more time for contingencies in project plan.
- Job studies need updating more frequently than every 12 years.
- Most compensation models lose effectiveness and can completely break down without funding required for regular salary adjustments.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
None

NEBRASKA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Systems Management (Asset Management)
  —Systems Development
  —Systems Operations
- Leadership and Succession Planning

What challenges has your organization encountered in implementing these initiatives?
- Institutional change
- Data management

What lessons have been learned during this process?
- It's all about people.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- Systems development
- Institutional changes to facilitate the future

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Project Delivery Review
- Joint Contractor/NDOR Committees

What challenges has your organization encountered in implementing these initiatives?
- Institutional change
- Sufficient data for good decision-making

What lessons have been learned during this process?
- It's all about people.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- Systems management
- Institutional arrangements

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Aggressive ITS Program incorporated into our state Surface Transportation Program.
- Pioneer Net and High Plains Coalition to optimize surface transportation system.

What challenges has your organization encountered in implementing these initiatives?
- Institutional change
- Data management

What lessons have been learned during this process?
- It's all about people.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- Systems development
- Institutional changes to facilitate the future

NEW MEXICO

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Develop an integrated department wide Strategic Business Plan.
- Re-designing our Compass to reflect departments strategic object.

What challenges has your organization encountered in implementing these initiatives?
- Educating and communicating
- Expanding our vision from being a highway department to a Multi Model Agency of Transportation

What lessons have been learned during this process?
Old successful practices and attitudes may no longer be applicable with new vision initiatives.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Continue participation in AASHTO leadership on these types of endeavors.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
WEB Based Training to encourage and improve employee participation in training activities.

What challenges has your organization encountered in implementing these initiatives?
Use of and familiarity with Web site accessibility as we have varying levels of computer literacy through out our 100 plus locations state wide.

What lessons have been learned during this process?
Deployment of WEB Based training has not reduced our dependency on human element.

While WEB Based can and has enhanced training participation it does not replace the need for live classroom instruction.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Have AASHTO establish a forum for more information on how to best use this tool.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
The challenge of selecting the right IT technology to integrate with management objectives in order to receive the right information when we need it.

What challenges has your organization encountered in implementing these initiatives?
- Evaluating /testing ever changing IT technology.
- Integration into department operations, systems wise and training wise.
- Retaining the IT people we spend time and money training.

What lessons have been learned during this process?

The challenge of deciding, "what it is that we need to know" in a constantly changing state of revenue and political objectives that direct our vision and mission.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
• Establishment of National performance measures that could serve as a comprehensive management platform for all DOTs.

NEW YORK

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
The Department has embarked upon a two-year effort where we are focusing on what our future organization will be based upon striving for five key result areas:
- Improving Mobility & Reliability
- Increasing Safety
- Improving Environmental Conditions
- Promoting Economic Sustainability
- Enhancing Security

What challenges has your organization encountered in implementing these initiatives?
- Communication to over 9,500 employees of our transformation efforts.
- Keeping the organization operating, meeting our existing goals, and trying to transform the organization at the same time…it's like changing the tire on our bicycle while we're still riding it.

What lessons have been learned during this process?
1. We cannot undercommunicate.
2. We needed outside facilitators to aid us in the process – people that will challenge us and keep us on track.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
We are open to suggestions!

NORTH DAKOTA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Orchestrated the development of a Statewide Strategic Transportation Plan (SSTP) (TransAction) – More customer/stakeholder involvement and input into the process.
- Revitalized our departmental Strategic Planning effort and incorporated promoting economic growth into the department's vision statement.
- Initiating a Performance Measure development effort that is integral to the strategic management cycle.
- Four Bears Bridge: Working with tribal governments and major bridge project.

What challenges has your organization encountered in implementing these initiatives?
- SSTP: Getting departments, organizations, and entities outside the NDDOT's realm of authority to carry out initiatives.
- NDDOT Strategic Business Plan: Obtaining adequate resources to carry out recommendations from work teams.
- Past experience – Minimal success with initial 1990s Strategic Planning effort. Some things were effectively implemented and are now part of the organizational culture – otherwise the plan "sat on the shelf."
- Organizational Culture in general – resistance to change – just another program of the month – this initiative won't last. "We tried that before and it didn't work – why would we think it would work now?"

What lessons have been learned during this process?
- Easy to lose momentum as priorities change.
- The importance of active involvement from across all levels of the entire organization.
- Communication, communication, communication.
- Listen, listen, listen.
- Celebrate even smallest successes to maintain the energy level.
- Don't wait to have the perfect plan/measurement – start with something small and adjust whenever necessary (a measure that is pretty good and we are able to use now is better than a perfect measure that we won't be able to use until two years from now).

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Coordinate or consolidate the numerous standing committees activities to keep them working in collaboration with each other – rather than going in different directions. For example, Quality committees (AASHTO, TRB, FHWA, NCHRP, NPHQ, etc.) all appear to have their own independent leadership, direction, processes, etc., and very little effort to focus and synergize these individual efforts for the collective benefit of the at-large transportation community.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Developed an Investment strategy based on a Highway Performance Classification System (HPCS) to allocate construction financial resources.
- Developed a Strategic Business Plan (SBP) component which deals with employee development and customer and stakeholder relationships (internal document).
- Initiated a pavement preservation concept. (Utilizing federal funds for long-term preventive maintenance program to change emphasis from rehabilitation and reconstruction to preservation.)
- Electronic Document Management System (EDMS) Project: Flow charting NDDOT processes to streamline work flow.
- Understanding the complexity of processes in NDDOT.

What challenges has your organization encountered in implementing these initiatives?
- Adequate resources to carry out desired activities.
- Getting NDDOT managers to change traditional ways of thinking.

What lessons have been learned during this process?
- Buy in of internal employees takes longer than anticipated.
- Developing specific initiatives within new program concepts is more time consuming than originally anticipated.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
FHWA and AASHTO continue sponsoring best practices workshops and peer-to-peer exchanges.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
- Safety and security work teams (Strategic Business Plan) developed to coordinate annual report on NHTSA, Hazard Elimination System, and employee safety initiatives. Intent is to enhance management coordination of safety resources by executive offices and eliminate islands of safety activities.
- NDDOT working actively with State Homeland Security Office.

What challenges has your organization encountered in implementing these initiatives?
- Getting adequate time and training devoted to projects.
- Budget needs.

What lessons have been learned during this process?
- Need to work together.
- Budget crunches make it difficult to implement new initiatives.
- Transportation infrastructure difficult to monitor regarding security issues.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- Training on security issues.
- Flexibility in utilizing safety funding.
- AASHTO and FHWA coordinate best practices and peer-to-peer exchanges.

PENNSYLVANIA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
PENNDOT Strategic Management Process
PENNDOT's latest strategic agenda was created through a five step strategic planning process which included (1) establishing the leadership direction, (2) identifying customer expectations, (3) assessing the department's customer service capabilities, (4) developing priority tasks and strategies, and (5) finalizing plans and performance targets. While this is a straightforward process, it was also iterative at every step, with "working drafts" created and then shared widely to ensure technical rigor and encourage broad participation, with feedback taken into consideration in subsequent revisions. The strategic agenda is summarized in an enterprise level scorecard which contains the department's highest level goals, strategic objectives, performance measures for each objective, and target levels to be achieved on those measures, as well as "owners" and "leaders" who are responsible for achieving those targets.

What challenges has your organization encountered in implementing this initiative?
The implementation component of the strategic management process involves the six deputates and the eleven districts, and in some cases central office

bureaus and county maintenance units, in developing organization level scorecards, complete with their own strategic objectives, performance measures, targets, and owners and leaders, which are tied directly to the enterprise level scorecard. The deputates, districts, and other organizational units then develop and execute business plans and attendant budgets designed to accomplish their strategic objectives.

Challenges in implementation:

- Drilling the strategic management process down into all parts of the organization.
- Gathering and analyzing strategic planning data on a more frequent basis to continue to focus on priority customer areas.
- Emphasizing the benchmarking process in order to assure that PENNDOT's strategic planning and business planning processes incorporate the most aggressive, feasible objectives and targets, and the most effective strategies possible.
- Strengthening the collective ownership of the overall strategic agenda, especially with respect to some of the more cross-cutting strategic initiatives (customer focus, employee satisfaction, etc.).

What lessons have you learned during this process?

- Articulating top leadership's strategic goals and objectives and clearly communicating expectations to all managers and employees has been an effective tool in driving leadership direction.
- Enforcing alignment from strategic focus areas and high level goals down to strategic objectives and targets at the operating level through the business planning process has created a solid framework for aligning the organization to the individual employee.
- Orienting major decisions to meet customer expectations has sent a message that is consistent with PENNDOTs Baldrige initiative.
- Identifying Senior Leadership as owners of strategic objectives, and holding them accountable for accomplishing them has helped to keep the organization focused on its strategic agenda.

What follow-up actions are needed from AASHTO, TRB, FHWA that would help support this initiative?

- Continue to update and communicate the AASHTO,TRB and FHWA strategic plans so that the states can align with the national direction.
- AASHTO should continue to strive to develop a framework of performance measures for state to state and region to region benchmarking purposes. An effort is underway through NCHRP Project 20-24 (20) in this regard.
- AASHTO should continue to advocate transportation issues at a national level.
- AASHTO, TRB and FHWA could consider providing technical assistance on the gathering and analysis of data for state strategic planning purposes.

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area?

PENNDOT offers an award winning business strategy to improve service performance through strengthened relationships with employees, customers and partners. The genesis of this strategy is called "Agility." This strategy encompasses four key principles, first recognized by the Iacocca Institute at Lehigh University (Bethlehem, PA) as the key to organizations who successfully master change. The four principles are:

- Value people, skills, information and technology
- Create an adaptive organization and culture
- Enable customer enrichment
- Cooperate in virtual relationships

PENNDOT initiated Agility in 1996 and it has proven to be a classic example of two levels of government working together by coordinating the shared service arrangements between our County Maintenance Offices (the backbone of our transportation operations) and local governments by creating agile relationships. These agile relationships lead to the exchange of services of equal value between both parties and resulted in a more satisfied motoring public. The agility arrangements improved efficiencies, improved cooperation within communities, and provided an increased level of service to the taxpayers and communities. The results reflect the Department's commitment to work efficiently with taxpayer dollars and to cultivate trusting relationships within its communities.

Integrating the above principles into our operations was accomplished by "recasting" the job duties of our foremen and assistant county maintenance managers and ultimately a change of perception among upper management. Through recasting, our foremen were delegated greater responsibilities (e.g., completing payrolls, managing overtime equalization, conducting and recording inventories, etc.) thereby freeing up time for the Assistant County Maintenance Managers' to develop and maintain relationships with our external partners.

Marketing was new to the Assistant County Maintenance ManAgers but building the trust in the community with each local government with this outreach was the way for agility agreements to be formed. Greater productivity resulted, redirected savings were realized and continuous feedback has been accomplished through improved accessibility. The public perception of their DOT has changed through community involvement. Over 1400 of the 2567 local governments participate in the agility program and some 350 other 'non-traditional' partners, such as school districts, municipal authorities, volunteer fire departments also participate in this innovative program. The cumulative redirected savings accrued between PENNDOT and its partners totals an estimated $10 million.

What challenges has your organization encountered in implementing these initiatives?

Building support for doing business the Agility way required a cultural shift among local and state governments, much like the "recasting" efforts itself. Prior to Agility, state and local governments guarded their turfs and established clear lines of responsibility. From the customers' perspectives, this made no sense when the plow lifted to cross a road that was not "ours." Today's agile relationships with local and state governments have collectively increased our trust and respect for each other and have fostered mutual care of a transportation system that all citizens use.

Initially, department attorneys were rightfully skeptical of the Program. Given our stringent procurement laws, it took persistence and fortitude to find a legal basis to enter into "Agility Agreements" with partners by exchanging services. The focus on services in lieu of money enabled the processing of such Agreements to occur quicker than what the traditional contracts allow for. Now, changes to our new procurement code, provide a basis for entering into such arrangements with eligible agility partners (i.e., school districts, charitable hospitals, ambulance and volunteer fire departments and local governments.) Breaking through the barriers of bureaucracy was successful!

The Department realized that all governmental entities had a funding shortage; the customers' expectations rose and resource and expertise sharing were the solution. Agility brings together the public entities that have natural overlaps in responsibilities related to road maintenance. Expanding beyond maintenance into the Department's Construction, Design and Traffic Units is being facilitated by an agile collaboratory—a method that brings together functional units to solve common problems faced by all stakeholders within a process.

What lessons have been learned during this process?

The most important lesson learned was obtaining union support early in the process. AFSCME has been an equal partner in an unprecedented labor/management effort to work together. From design through implementation, ideas have been mutually embraced before they were implemented.

Additional "lessons learned" include:

- Invest time in building advocates
- Share credit freely among all stakeholders to obtain buy-in.
- Integrate with other initiatives so that our business reflects the strengths of programs learned along the way. Demonstrate synergies, overlap, commonalities, and opportunities.
- Manage risk appropriately. Don't try to avoid it completely since some degree of risk is inherent in change for improvement.
- Avoid bureaucracy

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?

Any or all organizations may benefit from publishing articles and hosting workshops on PENNDOT's successful experience with Agility. These articles and/or workshops would focus on sharing ideas, examples, and lessons learned. Initiatives like these would encourage other states to undertake similar initiatives and would provide an accessible model to serve as a basis.

Another follow-up action would be to provide research funds to exclusively "pilot" this same concept in other transportation and non-transportation state agencies. Such action would be a "stretch goal" relative to populating other agencies with the Agility principles.

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.

PENNDOT's Strategic Environmental Management Program (SEMP) has been undertaken inour maintenance community to promote environmental stewardship, pollution prevention, andenergy efficiency in an effort to become ISO 14001 certified. ISO 14001 is an internationa standard that provides a framework and describes a process to be followed to continually improve our environmental performance. We have chosen the maintenance area because the vast majority of our staff work in county maintenance organizations, where we spend a considerable amount of our annual budget on staff, equipment, and road and bridge infrastructure, and where we have the greatest potential to improve environmental performance. One of our 11 Engineering District Offices has already become ISO 14001 certified, 4 more are in the process of becoming ISO certified, and the remaining 6 will become ISO certified in the next several years. We have created a Strategic Environmental Management Program group in our Central Office and, with consultant assistance, are managing the ISO certification process for all 11 District Offices.

What challenges has your organization encountered in implementing these initiatives?

"Selling" the benefits of ISO 14001 certification to all

the Districts has been a challenge. We had to enlist a "champion" District to pilot the process, but that District has been an excellent promoter of ISO certification with the other 10 Districts, and they are extremely proud of having achieved their ISO certification. Within each District, there must be an ISO Champion as well - a person who will ensure that all the implementation steps are addressed, that training needs are identified and training is completed, and that all action items are identified and follow-up actions
are taken. We also needed to convince the maintenance staff that being good environmental stewards was the right thing to do every day, and that they all had a part in that stewardship effort.

What lessons have been learned during this process?
We became aware that we had to change the culture of our maintenance community and sell them on the benefits of each of them becoming an environmental steward, as well as learning and implementing the processes that support environmental stewardship and ISO 14001 certification. They really did not understand how their day to day activities impacted the environment. We also had to make sure they were proactive in avoiding environmental impacts rather than being reactive to environmental violations. Considerable training and championing of this effort is necessary to becoming certified and to pass the recertification test. We also realized that dedicated staff and a consultant with ISO 14001 experience were needed to work with the Districts on a day to day basis as they each worked toward ISO certification. We also believe that following ISO practices can actually save money in the long term.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Promoting the merits of ISO 14001 and its principles with all state DOT's could place all DOT's in better standing with environmental resource and environmental permitting agencies and with the public at large.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
PENNDOT has a monthly Agency Coordination Meeting (ACM) that brings together PENNDOT (or other transportation agencies such as the PA Turnpike Commission, Transit Authority, etc.) and environmental resource and permitting agencies (eg. PA Department of Environmental Resources, US Army Corps of Engineers, US Environmental Protection Agency, US Fish and Wildlife Service, PA Fish and Boat Commission, etc.) to discuss project development issues for projects requiring an Environmental Impact Statement or an Environmental Assessment. At those meetings, the various steps in the project development process are discussed and project issues are presented and resolved. Field views are scheduled between the transportation agency and the agencies as needed to supplement the discussions and supporting material provided at the ACM. PENNDOT has found our monthly ACM to be quite useful in expediting decision making and resolving issues among the agencies. A total of approximately 10 agencies are represented at the ACM's.

What challenges has your organization encountered in implementing these initiatives?
Because of the diverse and special interests and responsibilities of the various agencies, it is sometimes difficult to reach consensus on Project Need, Alternatives To Be Developed in Detail, Impacts, the Preferred Alternative, and appropriate mitigation for the Selected Alternative. Attendance of these agencies at field views has also been an issue at times. Timeliness of agency reviews of project documents can be an issue as well.

What lessons have been learned during this process?
PENNDOT and their consultants can work with the environmental resource and permitting agencies in resolving project issues, although resolution of difficult issues may take some time. We have had to "teach" the agencies about the balancing act that a DOT must consider in the preliminary design/environmental document process. We have also learned to identify environmental features before developing any alternatives so that we can be more sensitive to those issues during development of alternatives.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
AASHTO, TRB, and the FHWA should continue to endorse and pursue environmental streamlining and revision of appropriate regulations, policies, and laws so that DOT's are not spending millions of dollars and wasting years of project development time studying, in far too much detail, project needs, whether alternatives should be dismissed and what mitigation is appropriate for a project. Additionally, there needs to be an emphasis on making cultural resource consultation, Section 4(f) evaluation, threatened and endangered species consultation, and wetlands consultation more efficient and effective.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
On October 6, 2001, Pennsylvania Governor Mark S. Schweiker issued a Governor's Executive Order to implement a Task Force on Security to assess Pennsylvania's weaknesses, level of preparedness, and ability to provide a coordinated response. Currently the Pennsylvania Emergency Management Agency's State Emergency Operations Plan identifies operational support issues and tasks for each state agency to support a wide and diverse list of contingencies and threats the Commonwealth could face.

The Governor's Security Task Force formed several "subcommittees" to focus on various statewide security issues. PENNDOT was asked to participate on two of these subcommittees:

Control and Monitoring the Borders of the Commonwealth of Pennsylvania

The purpose of this task force was to assess existing plans and to develop the coordination and integration of activities and responsibilities relating to the control/monitoring of Pennsylvania's borders to include Land, Air and Water.

Critical Infrastructure

This subcommittee specifically focused on the Commonwealth's "Critical Infrastructure", describing these facilities or assets, and how their vulnerability could be addressed.

Final reports from both of these subcommittees were submitted to the Governor's Security Task Force in late fall 2001.

In response to the Governor's Executive Order and the subcommittee involvement, PENNDOT empanelled a high level Transportation Security Task Force to interface with the Pennsylvania Emergency Management Agency and the PA Homeland Security Office. A Transportation Security Plan has been developed with several early action items implemented. The Task Force meets monthly to monitor progress on the action items.

What challenges has your organization encountered in implementing these initiatives?
- Externally, the Department has experienced difficulties in determining who has the lead emergency management responsibility and how the interface is effected when multiple state agencies are involved.
- Internally, Highway Administration is primarily responsible for implementation of the security plan; however, the Deputy Secretaries for Administration and Safety Administration are responsible for important aspects of the plan. The challenge is to effectively implement the plan across Deputate areas.

What lessons have been learned during this process?
Don't wait until "all the pieces" are in place before beginning to develop a security plan, but be sensitive to national and state direction from responsible and support agencies.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- A National Synthesis to identify best practices, particularly in Homeland Security, to help everyone implement their state's Transportation Security Plan more quickly and efficiently.
- Changes in the Freedom of Information Act to ensure the security of critical information – particularly National Bridge Inspection System data.

UTAH

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
The Department is implementing a Strategic Planning Initiative which:
- Focuses the mission of the Department on the expectations of stakeholders and customers.
- Prepares and implements strategic goals, strategies and objectives which all employees connect to and assume ownership for.
- Assures every employee has an annual Performance Plan that ties his/her work to the organization's Strategic Direction.
- Drives the identification of operational focus areas in which priority functions and projects are selected, performance standards set, resources allocated, performance results measured and management conducted.

What challenges has your organization encountered in implementing these initiatives?
In designing and implementing this initiative the Department has encountered the following challenges:
- Leaders and employees accomplishing the paradigm shift from the Department's traditional approach to strategic planning and implementation.
- Preparing Strategic Direction that leaders and employees can remember, identify with, and assume ownership for.
- Maintaining a reasonable balance between strategic priorities of the organization and other work that must be accomplished.
- Preparation of results focused performance standards to drive resource allocation and measuring.
- Design and effective use of results focused perform-

ance measures.
- Committing adequate time to this initiative in light of all other work priorities of the organization.

What lessons have been learned during this process?
- Departments of Transportation will not be able to respond effectively to future transportation user expectations without more strategic and innovative planning and direction.
- Executive leadership of the Department must identify the need for and drive the strategic planning of the organization.
- Department leaders must be trained, prepared and assume ownership for the design and implementation of the organization's Strategic Direction.
- Achieving effective strategic planning and performance management is a journey which requires on going attention and enhancement.
- Employees want to understand the organization's Strategic Direction and have the opportunity to help shape it.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Sharing of information concerning the following:
- Strategic planning approaches and their results.
- Performance standards and their results.
- Results focused Performance measures.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
A key initiative for the dept since 1995 has been Project Management. The primary driver for this initiative was a Department desire to strengthen our ability to deliver our program. Project Management was seen by UDOT as a way to ensure that our projects were delivered on time, under budget and within scope. With efforts such as an attached "Lessons Learned " process and Database and the inherent 'Cradle to Grave " philosophy of Project Management, the initiative has also improved efficiency and given UDOT a way to enhance quality. Most importantly UDOT is now able to deliver a very high percentage of our projects on time.

For those projects that meet unforeseen obstacles, UDOT is able to detect early and explain, thus managing expectations and trust. In the last public opinion poll, UDOT received ratings of Good and Excellent from 62% of the population. An additional 29% gave us a rating of Fair. The Department believes a large portion of this approval is due to the success of Project Management.

What challenges has your organization encountered in implementing these initiatives?
Project Management has been a huge success, but not without some growing pains. Early in the process, the new delivery date based philosophy was a hard sell and hard for Project managers to adapt to. The process to transition from inception to acceptance was two to three years, with some aspects taking longer.

Another large challenge was implementation of a computer based Project Management System (PPMS). This challenge has been ongoing, and continues to be something we want to improve – both the system and our project manager's effective use of the system. The PPMS system used a standard network of standard preconstruction activities to model project development. The relative inflexibility of this approach to project management has at times and for some projects been problematic. Due to advances in computer technology, and the desire to update the system and improve the network, UDOT has just completed a rewrite and implementation of a web based system called ePM. It is early to judge implementation of the system, but an early success story is that the Multiple Project Scheduling module that runs once every two weeks now takes 4 minutes to run – this is a process that used to take 40 minutes to schedule around 150 projects. This alone is a mainframe processing savings of $106,000 per year for UDOT.

Early in the process there was a struggle involving the roles of the previous line supervisors and the emergence of Project Management. This has continued. The transition to a matrix management system where PM's are in charge of the projects, but line supervisors control the resources has been difficult, but has been solved over time and through experience.

Another Project Management challenge has been the role of Project Managers in construction. UDOT's traditional design roles had ended at bid, with a strong construction division taking over after bidding. Project Managers roles have crossed these boundaries slowly. A process that has helped with this is a "Lessons Learned" procedure tied to change orders that requires each change order to provide feedback through the PM, back to the design process. With the new ePM system, this process will become web based, and thus allow Maintenance as well as Construction to provide feedback to design.

Another challenge UDOT faced while implementing was the philosophical question of what size project should be in the system – what size project does the cost of administration of the Project Management system outweigh the benefits of having it be entered into the system? This question was incorrectly answered at first as we tried to ease into the Project Management program without entering all projects. The correct answer that we later discovered is all projects should be in the system and assigned to Project Managers.

Processes that are hard to assign realistic time durations to have been problematic to Project Management. Things like environmental, right of way acquisition, railroad and utility relocation negotiations have proven to be difficulties for Project Mangers and system modeling.

What lessons have been learned during this process?
Early success and strong change management initiatives helped smooth the transition to Project Management. Holding Project Managers and functional team members accountable as a team for project delivery dates as a team is key. It is also important to be realistic with expectations regarding program delivery – there will be problem projects with valid reasons for delays. The key is to be fair and consistent.

Other lessons learned include making sure the system is useful to Project Managers, as well as Program Managers. This means that all levels of management must use the system and that the focus be on delivering the projects on time, under budget, and within scope. Everyone who is part of the project delivery process should be using the system – the more you use the system the better the information.

Training and skill building of Project Managers is key to the success of the program. The skill set of successful Project Managers is not limited to traditional management skills or system knowledge – it must include such things a negotiation skills, collaboration skills, public involvement techniques etc. Successful PM's are a valuable and precious resource.

Project Managers need help from functional units and Functional Unit Managers. Functional Managers who assume the role of consultants to PM's have shown to be successful – even to the point of negotiating delivery dates, and juggling workloads, and being realistic about advice on when outsourcing is appropriate. Functional Managers that proactively negotiate (i.e. look for projects and PM's who need their services) have been more successful than those who wait for PM's to contact them.

Some Functional Managers will resist the change to Project Management. The Department developed strategies to deal with these situations.

Project Management has been a very successful endeavor for UDOT. In fiscal year 2002, UDOT reported that 100% of our program had been bid on time. Our Design costs were at a historic low of 7.42 %, and our Change orders due to design have decreased. Implementing Project Management has not been without effort, but has proven to be worthwhile.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Unknown

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.

Finance and Work Force Management:
The Department has initiated development of an asset management approach to optimizing its finance and work force management. This approach focuses on achieving strategic management of assets within and across asset groups.
- The objective of the initiative within asset groups is to achieve an optimal level of effectiveness and efficiency of operations and use of resources.
- The objective of the initiative across asset groups is to prioritize and optimize the allocation and use of all Department assets and resources.

Operational Performance Management:
The Department is implementing the following process within operational asset groups (areas):
- The Department's Strategic Direction drives the identification of operational focus areas.
- Results focused performance standards are identified to guide the allocation of resources and performance measuring in each focus area.
- Prioritized functions and projects are identified for completion within each of the focus areas.
- Resources are prioritized and allocated to support achievement of the established performance standards.
- Performance measuring is focused on the results of work accomplished to meet the performance standards.
- Performance adjustments are based on measured results.

Strategic Asset Management:
The Department is designing and developing a Strategic Asset Management process and support system across asset groups, in parallel with the Operational Performance Management initiative.
- This system is being designed and will be developed incrementally. It will focus first on selected asset groups on the basis of their priority in the Department's Strategic Direction, and availability of compatible support systems.
- Additional asset groups will be added to the system as processes and support systems are enhanced.

What challenges has your organization encountered in implementing these initiatives?
In planning and designing this initiative, the Department has encountered the following challenges:

- Understanding asset/performance management principles and establishing clear strategic objectives concerning how they will be applied in the organization.
- Designing a development process which allows the organization to implement asset management incrementally, and achieve potential benefits.
- Development of appropriate internal business and technical structures to support the managed growth of the initiative.
- Making informed decisions concerning the selection and prioritized use of automated support systems.

What lessons have been learned during this process?
- Establishing a clear executive objective for implementing an asset/ performance management initiative in the organization is critical in 'getting started'.
- Design of the initiative should be focused on an incremental development approach, which can be tested and facilitate controlled growth.
- Development of the business parameters and processes, which will drive the asset management system, is the key element of the initiative.
- Computer software applications selected to support the initiative must have data management, analysis, modeling and related capabilities, within and across asset groups.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Continued information collection and sharing by AASHTO, TRB and FHWA concerning:
- Asset/performance management implementation approaches and results.
- Operations related criteria, characteristics and performance standards.
- Available software, capabilities and results of use in asset management systems development.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.

Safety:

One of the strategic goals established by the Department is to increase safety. The scope of this strategic goal is intentionally broad, encompassing both the safety of the traveling public through improved transportation infrastructure and the safety of our employees through improved plan and control of all work zones. For FY 2004, the Department has adopted specific objectives, targets and performance measures for the following operational focus areas:
- State-funded Traffic Signal program
- Federal funded HES program
- State-funded Spot Improvement program
- Work Zone safety program
- Pedestrian safety program
- School Zone safety program

What challenges has your organization encountered in implementing these initiatives?
- Assuring appropriate weight is given to safety within the "scope, schedule, budget" paradigm
- Obtaining performance measures and realistic "results targets" from historically conservative traffic and safety engineers
- Gathering data and prioritizing potential projects to assure best use of resources
- Improving internal processes to obtain optimal time frames for completion of safety projects
- Implementing a design/build capability
- Assure Traffic Control plans are reviewed carefully well in advance and amended when needed
- Establishing effective review teams and valuable Work Zone Audits

What lessons have been learned during this process?
- Continual focus on measuring outcomes eventually leads to useful performance measures and realistic targets
- Assessing potential safety projects from a state-wide perspective, using accurate data, assures optimal selection and improved results
- A safety awards program sends a clear message to employees and assures innovative ideas about safety will be forthcoming

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Continued collection and sharing of information by AASHTO, TRB and FHWA regarding all aspects of transportation safety

1. Priority Function Description Strategy (targets/performance measures) Resources

A. State-funded Traffic Signal Program
- Install warranted traffic signals and left turn phases; upgrade old or failing traffic signal equipment. Improve state furnished materials process. Complete signal warrant studies.
- Focus area: Intersection safety, crash reduction.

B. Develop 8-month design turnaround tracking process
- Implement design/build capability, additional in-house construction projects.
- 2% reduction in intersection fatalities
- 80% reduction in right-angle crashes at newly signalized intersections
- 20% time reduction in 8-month project delivery
- 100% completion of signal construction in 2-year time frame
- 60% statewide replacement of bulbs with LEDs in FY-04
- UPS system implementation @ SL Co. I-15 SPUIs.

C. Resources Available:
- Funds: $6.8 million
- Staff time: 4 FTE
- Other costs: 2 vehicles

D.Additional resources: 1 additional FTE
- Re-route maintenance cost savings to additional LED investment.

Reallocate state signal construction crew to Signal group.

A. 5-Year Federal funded HES Program
- Identification of 5-yr program of HES projects, similar to the STIP. Projects are prioritized over the 5 yrs to optimize funding. Projects are evaluated yearly to optimize prioritization. Barrier end-treatments are eligible for $400k in FY 03, 04, 05.
- Focus area: run-off-road crashes
- Introduce 5-yr program with FY '05 STIP submittal
- 2% reduction in fatalities
- 50 - 80% reduction in crash type specific rates.
- # of HES projects completed annually
- # of deficiencies corrected
- Internally design 2 projects annually

Resources Available:
- Funds: $6.0 million
- Staff time: 2 FTE

Other costs:

Additional resources: .5 additional FTE 3 State-funded Spot Improvement Program Provide for the programming of funds for safety projects. Complete crash data analysis and project evaluation. Projects are evaluated yearly to optimize prioritization.

Focus area: high accident location mitigation.
- 2% reduction in fatalities
- 50 – 80 % reduction in type –specific crash rates
- 100% of projects completed annually
- # of deficiencies corrected

Resources Available:
- Funds: $2.5 million
- Staff time: 2 FTE
- Other costs: 1 vehicle

Additional resources: .5 vehicle 4 Work Zone safety program Provide for TC plan reviews, implementation of review teams, and WZ audits. Identify and classify work zone crashes and rates; causes of crashes.

Focus area: encroachment crashes, speed related crashes.
- 2% reduction in WZ fatalities.
- 10% reduction in work zone crashes
- 25% of work zones reviewed and audited
- Identify # of work zone crashes by location
- Develop database of types and causes.
- Implement Audit process

Resources Available:
- Funds:
- Staff time: .5 FTE

Other costs:

Additional resources: 5 Pedestrian Safety Program Identify pedestrian fatality locations; causes; implement pedestrian safety mitigation projects through Safe Sidewalk Program

Focus area: High accident location mitigation.
- 2% annual reduction in pedestrian fatalities
- 10% reduction in pedestrian crash rate
- Develop trend information for # of fatalities
- Identify pedestrian fatal locations
- Resources Available:
- Funds: $500,000
- Staff time: .5 FTE

Other costs:

Additional resources: .5 additional FTE 6 School Zone Safety Program Implement school zone evaluation database. Outreach campaign to stress school zone safety, school age pedestrian and bicycle safety.

Focus area: school safe walking route fatalities.
- 2% annual reduction in school zone fatalities
- 10% reduction in school zone crashes
- 100% school zones evaluated
- # of deficiencies, types
- # corrected deficiencies

Resources Available:
- Funds:
- Staff time: 1 FTE
- Other costs:

Additional resources:

VIRGINIA

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area:
- The Department's headquarters office, at the direction of Commissioner Shucet, has been re-organized. Functions have been combined, eliminated and re-aligned to insure responsibility and accountability, and that the Department is most appropriately aligned to meet it's mission.
- Establishment of Key Performance Measures that represents the core functions of the Department.
- As the Department's Leadership becomes "more seasoned", and succession planning becomes even more critical, a VDOT Corporate University has been

established to develop and coordinate all Executive training for the Department.

What challenges has your organization encountered in implementing these initiatives?
- Change is sometimes difficult for employees, and the uncertainty associated with change can potentially create anxiety and apprehension.
- Difficult to identify Performance Measures that are outcome oriented, verifiable, quantifiable and repeatable at the organizational level.

What lessons have been learned during this process?
- Communications is the key to successful change. You simply cannot over communicate. During periods of change, communicate, communicate and communicate again.
- Start out small, identify a small number of key performance measures, and build upon your successes.

What follow-up actions are needed from AASHTO, TRB or FHWA that would help support these initiatives?
- Any research or experiences that may be shared from a change management perspective would be beneficial to VDOT and to other DOT's contemplating or undertaking change.
- Assistance in promoting core or basic performance measures across State DOT's for purposes of comparability.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area:
- Integrated Six-Year Program
- (new) Cost Estimating System
- Project Dashboard

What challenges has your organization encountered in implementing these initiatives?
- Transferring institutional knowledge and experience held by a few key staff members into a well-documented process for use by all.
- Inaccurate, or old data in numerous source systems.
- Many data systems that cannot communicate with one another.
- It was not always clear who was responsible for keeping data current and accurate.
- Ensuring proper testing and training on newly developed systems in a timely manner.

What lessons have been learned during this process?
The Department has the talent and innovation to develop solutions to complicated problems.

What follow-up actions are needed from AASHTO, TRB or FHWA that would help support these initiatives?
- Federal funding numbers come from reports, and must be transcribed and manually put in spreadsheets and systems. If the information was available electronically or web based, we could extract directly to the new programs – as well as match and synchronize data.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area:
- Random Condition Assessment (RCA). This statewide program, using valid statistical sampling techniques, evaluates current field maintenance conditions with approved levels-of-service to identify qualitative ratings on maintenance highways. The overall purpose is to obtain a quality "Report Card" on actual maintenance conditions by highway systems and by transportation districts.

What challenges has your organization encountered in implementing these initiatives?
- The in-depth analyses of the five major asset groups (Pipes & Drainage, Roadside, Traffic Devices, Pavement Structures) and its 29 asset types are complicated because of their inherent nature of differences within each discipline. Each major asset type requires a different maintenance threshold to be evaluated and this threshold is further subdivided by geographic regions, traffic influences, urban vs. rural, seasonal fluctuations of maintenance conditions, and highway systems.
- The integration of the RCA ratings into the Department's financial management system and decision making process is a major challenge.
- Final qualitative ratings also need to be integrated into the Department's wide range of technical applications such as Bridge Management and Pavement Management, which speak two different technical languages. Coordination with the 6-year Virginia Transportation Program also needs to be recognized.

What lessons have been learned during this process?
- Actual comparisons of new, engineered data with known, proven applications should be made on several occasions before formal implementation of the new program.
- The new program's purpose, goals and objectives should be widely distributed at all levels of management. Field crews at lower levels should be given ample opportunities for input and critique.
- Budgetary considerations should be given a high priority as a goal, e.g., analyses should be developed and demonstrated on how the new quality ratings affect the strategic and operational budgets.

What follow-up actions are needed from AASHTO, TRB or FHWA that would help support these initiatives?
Lessons learned need to be clearly identified from all new initiatives, new technologies, and new program advancements. A critical part of each AASHTO, TRB, NCHRP, or FHWA report should have dedicated sections on "lessons learned" and areas for "continuous improvements" so that (1) state DOT's can learn from others and (2) an effective system of "economics of scale" savings recommendations can be applied on a national level.

WISCONSIN

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
As part of our Department's strategic planning efforts, we are pursuing an action to strengthen partnerships. In nearly every one of the department's programs, success is dependent on internal cooperation and the support, cooperation and efforts of people and organizations outside of the DOT. To best serve our customers, we must build and strengthen the partnerships within the department, with local governments and planning agencies, other state and federal agencies, and private sector organizations. In each case, mutual and complimentary goals must be identified, understood and emphasized and working relationships improved.

What challenges has your organization encountered in implementing these initiatives?
We are employing a two-pronged approach to: (1) develop useful partnership guidance; and, (2) improve specific partnerships. The objective of the first part is to produce departmental guidance for identifying the key steps and actions needed for developing and maintaining effective partnerships with external groups. The second part is to develop a process for identifying the department's partners and a methodology for selecting the external partnerships the department will focus on improving initially. Resource constraints do inhibit these efforts. Ironically, it is during these times of workforce reductions and dwindling funds that improved partnerships are critical and most needed. But, there is a danger that these resource reductions can be counterproductive when partners focus on individual rather than common needs.

What lessons have been learned during this process?
Start small and focus on achieving measurable improvement. Solicit involvement from willing and significant partners. Identify strengths and weaknesses of the partnerships at the outset and then mutually develop a plan that builds on the strengths and addresses the weaknesses. Lastly, stick to the plan.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Provide good, clear examples of organizational structures, business models and practices, and business planning approaches that can enhance intergovernmental cooperation. Develop a list of best practices for states to reference.

STRATEGIC LEADERSHIP

Please describe one or two key initiatives that your state has undertaken in this topic area.
Strategic Planning—The cross-functional involvement of employees throughout the strategic planning process, in things like the strategic planning events, we regard as fulfilling the idea of "one department" as opposed to six divisions. Employees are able to participate in developing the Department's future regardless of their job function or location. All stakeholder interests are represented and integrated. Divisional and bureau plans cascade from this initial process. The strategic planning events have been very well received by employees and have created a shared view of the Department's purpose and future.

Performance Measures— The top management team has established departmental performance measures tied to the Strategic Plan Emphasis Areas. A process to use performance measurement data/information and analysis for corporate decision-making has recently been defined. Once a year top management conducts a review of department performance measures, initiates benchmarking, and sets goals/targets for the next year. Senior Managers review departmental performance and review the divisions' operational measures once per year. The top management team reviews operational performance measures twice a year.

What challenges has your organization encountered in implementing these initiatives?
Strategic Planning—Taking over 260 people out of their regular job for 3 days is a challenge to the workplace,

those running the event and the top leadership commitment. Although these were challenges, here is a quote from one of the strategic planning event participants. "I said to myself there's just no way that we will be able to plan a new vision and values in three days with 260 people. This is way too ambitious. I was absolutely amazed whenever we did it. The level of leadership commitment all of the board members was tremendous."

Performance Measures—The department has three lines of business, i.e., customer service transactions, law enforcement and transportation project delivery and operations. This is like merging an insurance company, a security firm and an engineering firm and developing common performance measures. Some products and services are measured in minutes and others in years. The other challenge is trying to compare between DOTs. The performance measure definitions are different and some DOTs don't measure at all. Also many departments don't want to be compared for a variety of political reasons.

What lessons have been learned during this process?
Strategic Planning—There are four lessons we have learned: 1) it is very important to follow up quickly and communicate to the whole organization; 2) it is very hard for individuals to participate in teams to implement the strategic plan because of current workload and 3) it is difficult to translate the strategic planning event experience to others who did not attend; and 4) It is difficult to maintain leadership focus on strategic goals when their attention is constantly redirected to the "current" political demand."

Performance Measures—Unlike the private sector, measuring performance is not commonplace in the public sector. For what's really important in the department, develop measures, set goals and engage the whole organization in achieving them. Also, improving performance has to be made the management priority rather than a management priority.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Establishing a method to compare the different states performance measures and collecting the data would be extremely helpful. Also, a successful practices exchange or website for all areas of our work could save states significant time and funds.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.

Workforce Topic:
We have developed resource models to estimate the amount of program work in future years. The models estimate demand for work (as in the six year program), permanent staff capacity to do work and the gap between demand and staff capacity. Demand and capacity are measured in terms of hours of work and in terms of cost of the work. We measure the gap size for the Division of Transportation Districts as a whole and also the gap size for individual Districts. We use consultants, limited term employees, overtime, work sharing, and no longer doing a type of work to fill the Division gap and level the gap among Districts.

Work sharing is used to level the gap among Districts by moving work from one District to another. Work sharing isn't new to the Division but within the last year we have formalized and expanded the practice to bring more flexibility to program delivery. We have three types of work sharing:

- Category 1: Sharing an entire project (anything that has a start and an end) includes project management duties. The border districts are encouraged to utilize category 1.
- Category 2: Sharing a project (anything that has a start and an end) but retaining project manager duties. The border districts are encouraged to utilize category 2.
- Category 3: Sharing a task or any component of a process. All districts are encouraged to utilize category 3.

The process can be used anytime throughout the year, when the need arises. In addition, work sharing is considered a component of the annual budgeting process. Work sharing will be evaluated utilizing a process similar to the consultant evaluation process.

What challenges has your organization encountered in implementing these initiatives?
Challenges experienced with past work sharing efforts were district differences and expectations of the product.

What lessons have been learned during this process?
The work sharing process includes electronic Memorandum of Understanding (MOU) agreements for each category of work sharing to be completed by the giving and the receiving districts to help minimize potential conflicts between districts.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Information about similar work sharing efforts in other states.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.

EIS Screening Worksheets:
The Wisconsin Department of Transportation is conducting a pilot study to use the EIS Screening Worksheets as a new format to address projects which require an Environment Impact Statement. We believe that this will have numerous beneficial effects for EIS authors, reviewing agencies, and the public. The new format is based on one that has been used by WisDOT for over 25 years to document projects that require an Environmental Assessment. This format has stood up under legal and public scrutiny.

The EIS Screening Worksheets build on the quarter century of success with the earlier Screening Worksheets and does so without diminishing environmental scrutiny and protections. The format provides for a high standard of detail and precludes unnecessary discussions of non-issues. It also has the potential to eliminate overly long, detailed discussions of unimportant issues as occurs in the current encyclopedic EISs. This is expected to result in time and cost efficiencies, while more quickly focusing attention and resources on the critical issues.

The format will allow for the easy development of an environmental database that is uniform across the state and will be especially useful to participating agencies because of its standardization. Future iterations will develop into a true "electronic" form that will be able to use the speed of computers and the internet to develop, approve, and send out documents to other agencies and the public for review and comment.

What challenges has your organization encountered in implementing these initiatives?
The major challenge is to put the EIS Screening Worksheets together in a format that is clear and comprehensible to the public. This has resulted in the shuffling of some sections, pages, and questions to present a logical organization as well as an understandable organization.

What lessons have been learned during this process?
The existing Screening Worksheet format is suitable for "small" EIS projects but need to be re-arranged to present a meaningful document.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
The EIS Screening Worksheet initiative is currently reporting progress to NCHRP 25-24—EIS Screening Worksheets Pilot Project. By tracking similar efforts (streamlining the EIS process) in other States, we may be able to exchange information on strategies and successes, and benefit from each other's experiences. In addition, more and more attention is focused on the program and staff costs associated with this activity. An approach that allows states to share cost information would be very helpful in addressing this issue.
Please describe one or two key initiatives that your state has undertaken in this topic area.

PROGRAM DELIVERY

Please describe one or two key initiatives that your state has undertaken in this topic area.
WisDOT has developed an asset management system that guides state trunk highway program development and system planning. The system is called "Meta-Manager" because it includes concepts from many ISTEA management systems such as pavement, bridge, congestion and safety. The goal of the system is to integrate diverse corporate data bases and highway performance models within a framework that allows state priorities to drive the development of mid-range and long-range plans that are consistent with the resources available. The system allows measurement of the performance of alternative improvement programs.

The Meta-Manager system sets specific "needs" thresholds, incorporates system performance measures, sets priorities for competing goals and specifies funding constraints.

What challenges has your organization encountered in implementing these initiatives?
The primary challenge has been to develop agreement and buy-in on the use of a single asset management process for development of improvement programs in eight autonomous districts. This challenge has been overcome and this process is now used to define the level of resources each district should receive consistent with the statewide needs and priorities.

What lessons have been learned during this process?
Anytime a significant process change such as implementing a new asset management system is undertaken, the acceptance of the process must be built on proven performance. Each component must be built with input from all the affected functional areas. When built, each piece must prove its worth in terms of providing additional value to the process. That value can be in many forms. It can reduce the amount of time required to do analysis. It can provide new tools that enhance decision-making and the allocation of resources.

Technology, when applied before it is proven or standardized in the agency, can impede the implementation and progress of acceptance for new processes. Nothing destroys acceptance of a new process faster than having the technology used cause the process to be unreliable.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
Information about similar efforts in other states that lead to best practices.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
Vulnerability Security Assessment of WisDOT's Critical Infrastructures: This effort will identify WisDOT's critical infrastructures (Bridges, Interchanges, Structures, etc.), prioritize these critical infrastructures, and develop countermeasure designs for these critical infrastructures.

Updating WisDOT's Incident Policies and Procedures to include security: This effort will update WisDOT's incident communications Policies and Procedures to include the new Homeland Security Threat Level Conditions.

What challenges has your organization encountered in implementing these initiatives?
- Adequate funding and resources to support these security mandates.
- Determining what specific security actions need to be taken at various threat level conditions.
- Getting a clear understanding of AASHTO, FHWA and Homeland Security expectations of State DOTs in developing security strategies and directions.

What lessons have been learned during this process?
- Enhance existing incident policies and procedures to include security. When additional policies and procedures for security are necessary, maintain reference to those existing incident policies and procedures.
- Contact other states. Don't reinvent the wheel. States are very willing to share their security information.
- Develop internal lines of security communication, both vertical and horizontal. Interest in security has no boundaries. This includes getting input from all interested parties.
- Transportation security activities can be efficiently mainstreamed alongside established and emerging Emergency Highway Operations techniques and business functions. For example, regional and statewide traffic incident management programs can provide a ready basis for and "all hazards" approach to highway emergencies.
- Intelligent Transportation Systems planning and deployment can be incorporated into the mitigation of highway infrastructure vulnerability. ITS can enable and enhance highway system surveillance as well as highway operations and public safety communications interoperability.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
- Advocate for the provision of adequate funding and resources to state DOTs to support security mandates.
- Develop a list of security best practices for states as reference.
- Include as many states as possible in developing and setting security directions and requirements.
- Maintain consistency with the directions set by the Department of Homeland Security.

SYSTEM OPERATIONS

Please describe one or two key initiatives that your state has undertaken in this topic area.
The state of Wisconsin in coordination with FHWA has embarked on several initiatives to enhance travel throughout the state by improving system operations. Beginning as early as the late 1970's the Wisconsin Department of Transportation and the Southeastern Wisconsin Regional Planning Commission identified a need to improve and expand Milwaukee area traffic management capabilities. In August of 1995 the TIME (Traffic Incident Management Enhancement) program began to help identify projects that would achieve the goals of reducing congestion and improving safety thereby helping to better manage existing congestion.

The TIME program engages local professionals from four functional areas to provide direction and insight to achieve the WisDOT goals of providing a safe and efficient transportation system. These four areas are: Emergency Service and Response, Corridor Traffic Management, Public Communications and Outreach, and Special Events and Construction Management. Each of these functional areas is responsible for delivering program plan initiatives that help to manage and mitigate traffic congestion. Some examples of specific initiatives are listed below for two of the four functional areas.

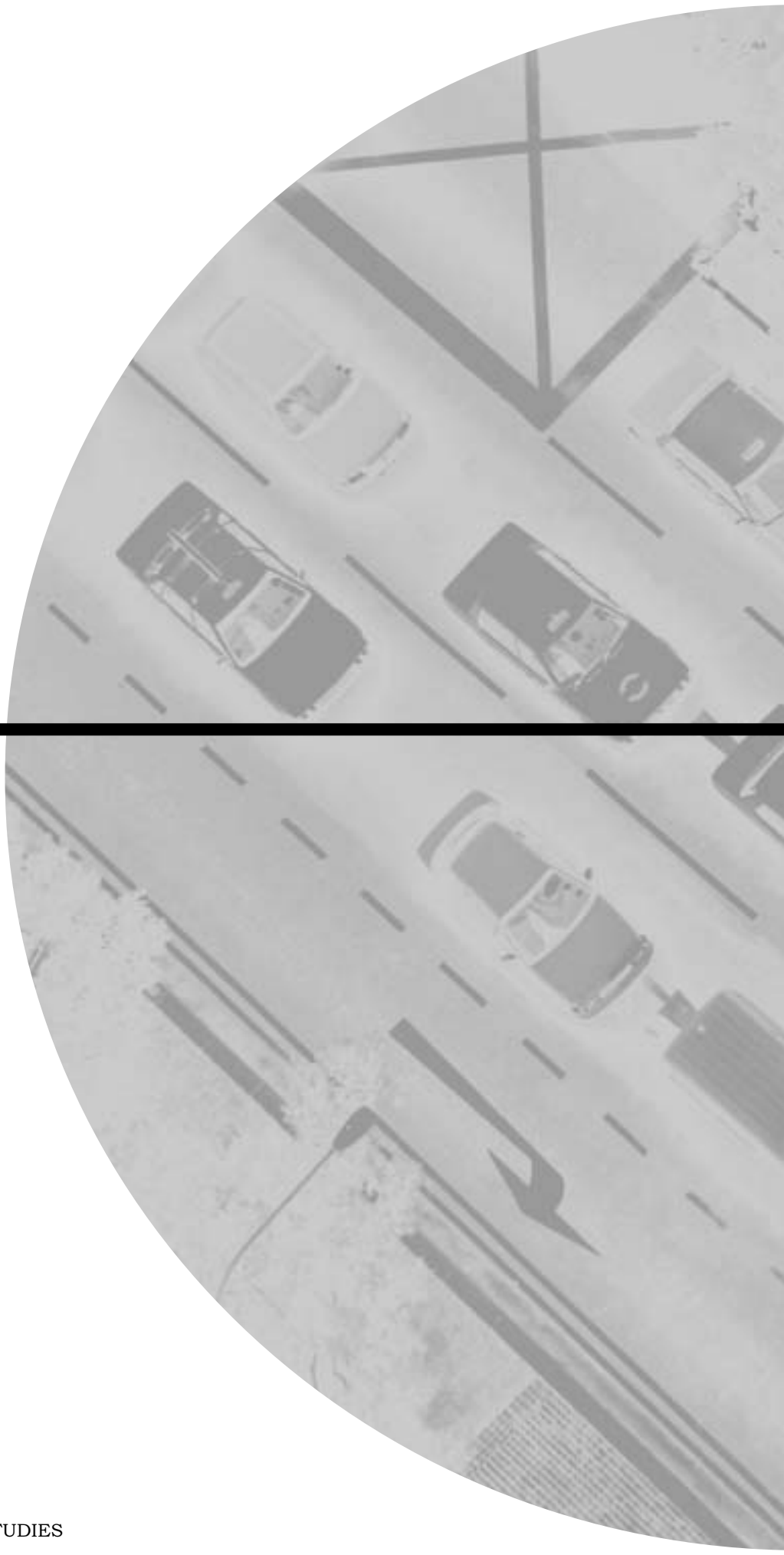
Emergency Service and Response:
It was identified through coordinated research efforts that minor traffic incidents caused both secondary accidents and severe congestion on the freeway network if not attended to and removed in a prompt and efficient manner. This fact prompted the Emergency Service and Response committee to embark on the Gateway and Enhanced Freeway Patrol projects in Southeastern Wisconsin. These projects were developed from national models such as the Illinois DOT Minutemen service in Metro Chicago and the Indiana Hoosier Helpers projects. With help from local law enforcement, Wisconsin State Patrol and local tow agencies, the Department of Transportation was successful in contracting with private tow agencies and the Milwaukee County Sheriff's Department to provide no cost motorist assistance in four counties. This project has become a successful model that has been modified and deployed in other localities in the state to enhance traffic management functions.

Special Events and Construction Management:
Incidents were determined to be a major cause of traffic congestion and system reliability concerns. The definition of "Incident" was expanded to include planned events such as construction activities and large traffic generators like sporting events, concerts, and large annual events. It is the role of the Special Events and Construction Management committee to coordinate services such as law enforcement, county highway maintenance activities and event venue functions to provide the resources necessary to plan for and mitigate any traffic congestion that may come as a part of the event or construction activities. Currently this committee is planning for an expected 500,000 to 750,000 motor-cycle enthusiasts that will be attending events in Southeastern Wisconsin for the Harley-Davidson 100th Anniversary this summer. The planning for this event includes multiple meetings to engage local event representatives, law enforcement, DOT staff, and local municipalities in understanding and preparing for the traffic impacts that will be a part of these events.

What challenges has your organization encountered in implementing these initiatives?
With the success of any program comes the inevitable expansion of interest among participants. With such interest in the area of traffic management and congestion mitigation, it becomes difficult to prioritize goals and ultimately deployment projects. To further challenge this process, State budget cuts have caused more competition for these reduced funds thereby limiting the delivery of the deployment projects identified in the strategic direction of the TIME program. This challenge has somewhat been addressed by utilizing alternate funding sources, better utilizing FHWA grant programs, and identifying more cost effective ways to achieve the goals set forth by the committee.

What lessons have been learned during this process?
The most apparent lesson that has been identified through the eight years of the TIME program is that agency coordination and communications are vital to the success of any traffic management initiative. This is most evident in those areas where multiple jurisdictions have equal levels of concern but may not share similar concepts of a solution. It becomes necessary to develop a single goal and set of processes to achieve that goal that will ultimately address the concerns of the varying agencies involved. This advanced planning and coordination will help to ensure that when an issue arises multiple agencies will react in a predictable way thus reducing the impact of incidents on the traveling public.

What follow-up actions are needed from AASHTO, TRB, or FHWA that would help support these initiatives?
As was identified in the area of perceived challenges, monetary support is always a tool that helps to move initiatives forward and provide needed services. With this being said, it is understood that the State of Wisconsin is not the only governmental agency that currently has monetary constraints. Assistance with recommended procedures and protocols to better utilize existing equipment and provide better services to the traveling public at little or no cost would be helpful.



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