

A GUIDEBOOK FOR THE Executive Committee of the AASHTO Technology Implementation Group (TIG)

February 2008



AMERICAN ASSOCIATION OF
STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

AASHTO
THE VOICE OF TRANSPORTATION

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PREFACE

This guidebook documents the operating procedures of the executive committee of the AASHTO Technology Implementation Group.



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CHAPTER 1

Introduction

Purpose of This Guidebook

This guidebook documents the operating procedures of the executive committee of the Technology Implementation Group (TIG) of the American Association of State Highway and Transportation Officials (AASHTO). It has been prepared to facilitate consistency in TIG executive committee practice as well as orientation of new executive committee members and AASHTO staff.

Definitions

The following definitions provide a common understanding of terms used in this guidebook and in the operations and meetings of the AASHTO TIG executive committee. Bracketed information following a term indicates whether the term applies to TIG executive committee activities or to lead states team activities.

AASHTO Program Manager. The staff member in the AASHTO headquarters office providing day-to-day assistance to the TIG executive committee and lead states teams.

AASHTO TIG. A technical service initiative established by the AASHTO Board of Directors and the Standing Committee on Highways (SCOH) to identify and expand the use of new, high-payoff, ready-to-use technologies. Primary components of this initiative are the TIG executive committee and the lead states teams appointed by the TIG executive committee.

AASHTO TIG Program. Activities of the TIG executive committee and the lead states teams to identify and champion nationwide use of new, high-payoff, ready-to-use technologies.

Budget [Lead States Team]. A section of the marketing plan documenting costs to execute the plan.

Budget [TIG Executive Committee]. A document describing anticipated AASHTO TIG program income and expenses for a fiscal year.

Closeout Report [Lead States Team]. A brief documentation of lead states team activities, performance measurement, lessons learned, transition plan, and final expenditure summary, prepared by the lead states team upon completion of its activities prior to team deactivation.

Communications Plan [Lead States Team]. A section of the marketing plan which describes lead states team communications with targeted agencies, any related AASHTO committees or groups, suppliers of the focus technology, and others who may be involved.

Demonstration Workshop [Lead States Team]. A well-advertised opportunity for representatives of interested agencies, industry, and other professionals to learn about a new technology and to observe a demonstration of its use. A demonstration workshop is sometimes called a technology showcase.

Focus Technology. A highly valuable but largely unrecognized procedure, process, software, device, or other physical entity that has been adopted by at least one agency, that is market ready and available for acquisition by other interested agencies, and that has been selected by the TIG executive committee for a lead states team nationwide implementation effort.

Lead States Team. A group of individuals representing a consortium of like-minded transportation agencies, industry, and other professionals, each with focus technology experience or knowledge and committed to supporting broad implementation of the focus technology.

Local Technical Assistance Program (LTAP). A nationwide effort which functions as a partnership to share best solutions and transfer knowledge.

Marketing Analysis [Lead States Team]. A written compilation of information necessary to prepare an effective and well-targeted marketing plan. The marketing analysis to be developed by each lead states team documents and evaluates the target audience, opportunities and barriers to technology adoption, and the proposed use of promotional tools to implement opportunities and overcome barriers.

Marketing Plan [Lead States Team]. A detailed work plan, communications plan, performance measurement plan, schedule, and budget prepared by the lead states team describing each activity being proposed to promote expanded use of the focus technology.

Nomination Review Task Group. A group of several executive committee members appointed by the executive committee chair who work with the AASHTO program manager to evaluate nominated technologies and to create a short list of nominations to be further considered by the entire executive committee. The evaluation is primarily a review of information provided with each nomination.

Performance Measurement Plan [Lead States Team]. A section of the marketing plan that documents the method(s) to be used to measure the effectiveness of the lead states team's implementation activities. The outcomes of this performance measurement are included in the closeout report.

Schedule [Lead States Team]. A section of the marketing plan that documents the time period anticipated for each task included in the plan.

Second-Level Evaluator. An individual selected to perform an in-depth evaluation of technologies on the short list created by the nomination review task group and approved by the entire executive committee. This evaluation involves direct contact with as many current users of each technology as feasible to increase understanding of benefits and challenges involved with implementing each technology.

Technology. As defined to establish the boundaries of TIG interest and involvement, a technology may be a procedure, process, software, device, or other physical entity.

Technology Adoption. The inclusion of a focus technology as a requirement or as an alternative or option within the policies, procedures, or specifications of an agency.

Technology Implementation. The use of a focus technology by an agency beyond that use required for research and development.

TIG Executive Committee. A steering group composed primarily of AASHTO SCOH members which provides direction and oversight for the AASHTO TIG program.

TIG Fiscal Year. July 1 through June 30.

TIG Liaison. A member of the TIG Executive Committee appointed to help select the lead states team chair and to provide oversight to the team.

Transition Plan [Lead States Team]. A section of the closeout report which lists activities recommended by the lead states team to continue technical support for implementation efforts and expanded adoption of the focus technology after deactivation of the lead states team.

Tribal Technical Assistance Program (TTAP). A nationwide effort which functions as a partnership to share best solutions and transfer knowledge, particularly among tribal organizations.

Work Plan [Lead States Team]. A section of the marketing plan that documents the activities of the lead states team.

AASHTO TIG Authorization

The AASHTO TIG initiative was authorized by the AASHTO Board of Directors under Policy Resolution AR-1-98 and Administrative Resolution AR-3-99. It was formally established by the AASHTO Standing Committee on Highways (SCOH) with Policy Resolution SCOH-99AM-2 in 1999. AASHTO TIG operation commenced at the AASHTO 2000 Annual Meeting. The responsibility assigned to the AASHTO TIG is to facilitate the implementation of high-payoff, ready-to-use, innovative technologies. Authorization documents are included as Appendix A.

AASHTO TIG Vision

A culture where rapid advancement and implementation of high-payoff, innovative technologies is the expectation of the transportation community.

AASHTO TIG Mission

To champion the implementation of technology among AASHTO member agencies, local agencies, and their industry partners to improve the nation's transportation system.

Overview of Operations

The TIG executive committee annually solicits AASHTO member agencies and others for nominations of new technologies that have recently been adopted by one or more AASHTO member states and found to be highly beneficial. The TIG executive committee evaluates these nominations and normally selects three which offer particular promise to benefit other transportation agencies. These three become focus technologies for the AASHTO TIG for that year. A lead states team is formed for each focus technology to plan and carry out marketing and implementation support activities. The TIG executive committee approves lead state team marketing plans including budgets and then monitors lead state team activities. The final step in the process is the review and approval of the lead states team closeout report.



CHAPTER 2

Program Administration

TIG Executive Committee

The TIG executive committee administers the AASHTO TIG program and reports regularly to the AASHTO SCOH through the committee chair. The organizational structure of AASHTO as it pertains to the TIG executive committee is provided in Figures 1 and 2.

Officers

The TIG executive committee is chaired by a SCOH member. Primary chair activities include:

- Providing leadership within the AASHTO community toward the rapid advancement of high-payoff, innovative technologies,
- Reporting AASHTO TIG activities at least annually to the SCOH,
- Establishing TIG executive committee meeting agendas in cooperation with the AASHTO program manager,
- Chairing the meetings of the TIG executive committee,
- Requesting SCOH permission to solicit voluntary contributions, as needed, and
- Working with AASHTO staff to fill vacant committee positions.

The vice-chair is an AASHTO TIG member who may be a member of the AASHTO Standing Committee on Research (SCOR), although it is not a requirement. Vice-chair activities include assisting the chair as requested or in the absence of the chair.

The secretary will be provided by the Federal Highway Administration (FHWA) from among FHWA participants in TIG executive committee activities. The secretary is responsible for preparing minutes for TIG executive committee meetings and for performing other duties assigned by the chair.

Members

AASHTO Member States

Each of the four AASHTO regions has two SCOH member representatives on the AASHTO TIG. In making selections, AASHTO should give some consideration to appoint SCOH members who are also members of the SCOR. In addition, one or more members of the AASHTO Research Advisory Committee (RAC) may be appointed as RAC liaisons to the TIG executive committee.

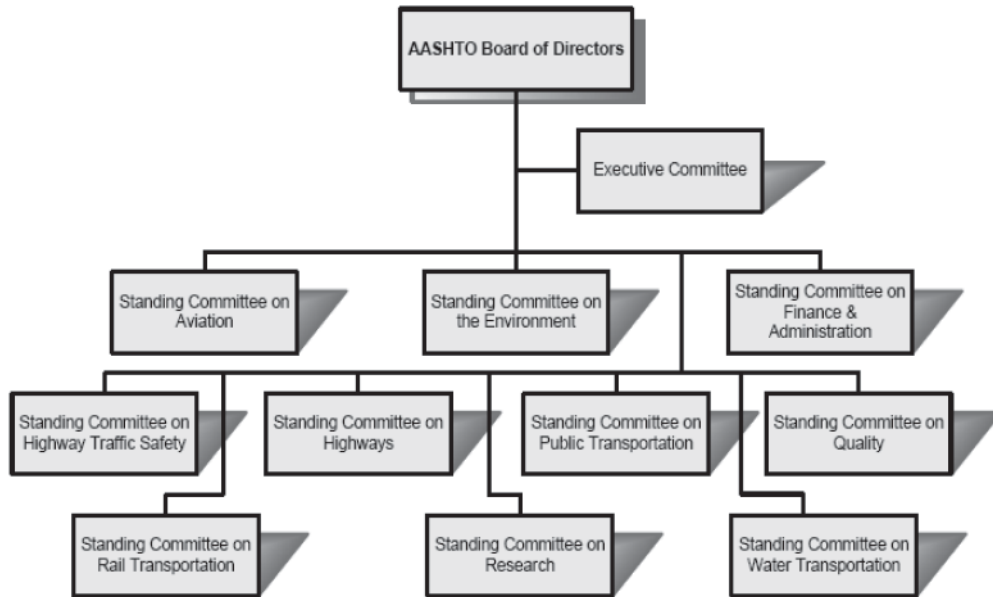


Figure 1. AASHTO Committees Reporting to the Board of Directors (AASHTO, 2007)

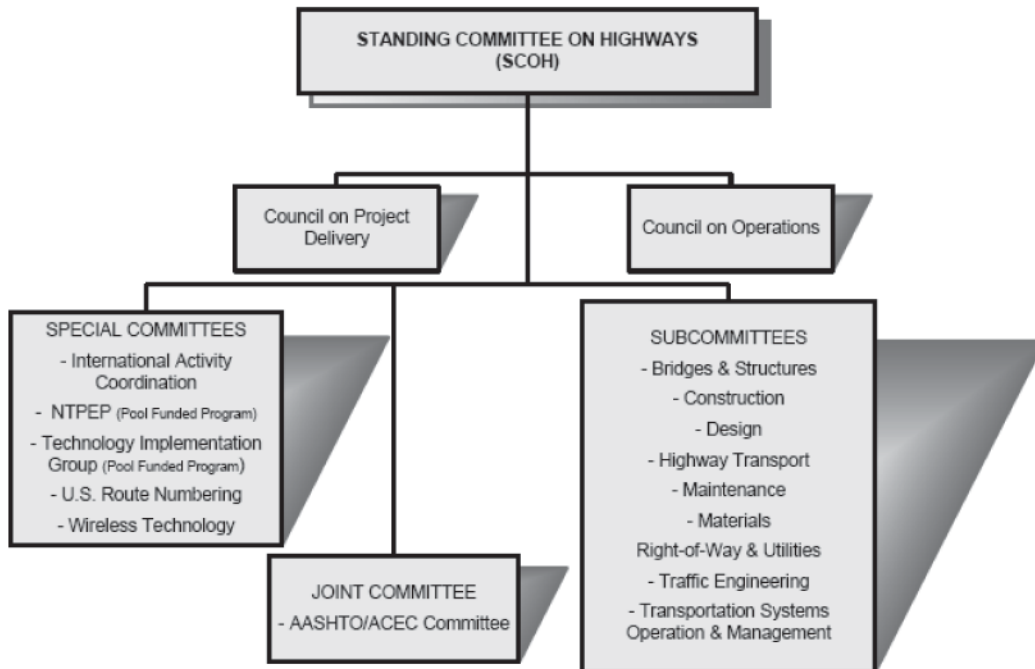


Figure 2. Groups Reporting to the Standing Committee on Highways (AASHTO, 2007)

FHWA

Member(s) will be appointed to represent FHWA on the TIG executive committee. FHWA members assure coordination with new technology deployment activities of the FHWA and bring additional national perspective to meeting deliberations.

Associates

Associates will be appointed to represent other transportation entities, local governments, and the private sector, as appropriate. These may include but are not limited to:

- The AASHTO Finance and Administrative Subcommittee on Public Affairs,
- The AASHTOWare Cooperative Software Development Program, as a pass-off mechanism for maintenance of focus technologies after lead states team deactivation,
- The Transportation Research Board and National Cooperative Highway Research Program,
- The National Association of County Engineers,
- The Local and Tribal Technology Assistance Programs, and
- Private industry.

Member Replacement

The process of selecting new members was informal and not always fully documented during early years. The following processes are established for this important function. Actions involving new member selections will be documented in AASHTO TIG executive committee meeting minutes.

AASHTO Members

The process for naming a new TIG executive committee AASHTO member begins with the identification of possible candidates. Current TIG executive committee members, the chair, associates, and AASHTO staff may suggest candidates for consideration. Any Standing Committee on Highways member may be a candidate. If only one candidate is brought forth, the TIG executive committee chair and vice-chair have the authority to approve the single nominee for membership. If more than one candidate is brought forth, the chair and vice chair will request a brief bio from each candidate. These bios will be distributed to the TIG executive committee, and a vote will be taken. The candidate obtaining the most votes will be the new TIG executive committee member. An example nominee bio can be found in Appendix B.

Associate Members

Since these positions on the TIG executive committee come from outside the Standing Committee on Highways, a vacancy in one of these positions warrants review of continued need of the position by the TIG executive committee prior to a replacement being obtained. After need for continued involvement has been determined, the subcommittee, organization, or association being represented by the leaving associate will be contacted and asked to appoint a replacement associate should they have continued desire for involvement on the TIG executive committee. There are no requirements or formal guidelines for TIG associate memberships.

Voting

Voting authority on decisions before the TIG executive committee rests with members representing AASHTO member states and the FHWA.

Meetings and Communications

Executive Committee Meetings

The TIG executive committee holds regular meetings in the spring and fall of each year. The meeting dates are selected to provide timely decision-making in the process of reviewing and selecting new focus technologies. Generally, the executive committee meetings are scheduled on the Thursday prior to the AASHTO Annual and Spring Meetings, to minimize time demands and travel expenses for participation. The meeting agenda is usually distributed three weeks in advance of the meeting date. Any meeting documents required for these meetings will be posted on the TIG web site at least seven days prior to the meeting date.

A primary objective of the fall meeting is the preliminary review and discussion of nominated technologies. A desired outcome of the meeting is a short list of nominated technologies to be more fully evaluated prior to final selection of focus technologies. A primary objective of the spring meeting is the review of short-listed technologies and the selection of focus technologies to be showcased by the TIG. Lead states team formation is begun for each new focus technology during this meeting. A detailed description of the technology selection process is provided in Chapter 3.

Meeting procedures will follow Robert's Rules of Orders. Minutes for these meeting are kept by the secretary, and posted to the TIG web site within 30 days of the meeting. Examples of an executive committee meeting agenda and meeting minutes are included in Appendix C.

Ad-Hoc Executive Committee Meetings

Meetings in addition to the spring and fall meetings will be scheduled when required. The Transportation Research Board Annual Meeting each January in Washington, D.C., has provided a timely opportunity for an abbreviated TIG executive committee meeting on many occasions.

Electronic Conferences

Telephone and other electronic conferencing methods are utilized when brief discussions and decisions of the TIG executive committee are required between scheduled meetings. The AASHTO program manager will assist the executive committee chair in scheduling these meetings and will provide necessary conferencing arrangements.

Agendas will be prepared and distributed in advance of executive committee meetings held by electronic conference. Meeting minutes, usually taken by the AASHTO program manager, are kept to document decisions and actions of the committee during these meetings.

Web Services

The AASHTO program manager will maintain a web site to provide information about the TIG executive committee, its activities, and selected technologies to all AASHTO member states and the public at large. The lead states teams will provide the AASHTO program manager with the information to be posted on the web site about focus technologies. The information to be provided by the lead states teams is described in Chapter 5 of the *Guidebook for Lead States Teams of the AASHTO Technology Implementation Group*.

The web site will also serve to make guidance information, forms, and templates available to TIG executive committee and lead states team members.

Financial Administration

Program Funding

Funding for the AASHTO TIG program is provided by annual solicitation for voluntary contributions from AASHTO member states. Funding solicitations require advance approval by the AASHTO SCOH. Solicitations have historically been in the amount of \$6,000 per member state.

The AASHTO TIG executive committee prepares and approves an annual operating budget prior to the beginning of each fiscal year. The annual budget assesses expected funding availability for the coming year and allocates projected available resources among categories of operations. These categories of operations include, but are not limited to:

- New and continuing focus technology marketing plans,
- Other selected technology marketing,
- TIG executive committee meetings,
- AASHTO program manager administration, and
- Support subcontracts.

A template for the AASHTO TIG fiscal year budget is included in Appendix D.

Annual Budget Management

The AASHTO TIG executive committee will review the income for the program and expenditures in each active project at the fall and spring meetings of the committee. The AASHTO program manager will prepare the budget status reports. Any lead states team requests for budget adjustments will be considered by the TIG executive committee at those times. A by-product of semiannual budget reviews is the early determination of need for future funding solicitation requests.

Executive Committee Member Travel

AASHTO will reimburse TIG executive committee members for necessary travel expenses incurred to attend TIG executive committee meetings. Travel expenses may also be reimbursed when TIG liaison attendance is necessary at lead states team meetings. Members travel to attend a concurrent AASHTO meeting in conjunction with the TIG executive committee or lead states team meeting may be reimbursed from the TIG program budget; however, this expense to the TIG program should be avoided when possible. The travel expenses of FHWA and private industry representatives on the executive committee will not be reimbursed by AASHTO.

Travel expenses of other invited meeting attendees may be reimbursed when specifically approved in advance by the AASHTO program manager.

Guidelines for travel reimbursement and required travel reimbursement claim forms are found on the AASHTO TIG web site at <http://www.aashtotig.org/?siteid=57&pageid=966>. TIG executive committee members should note the expense limitations and the requirements for receipts for certain types of expenses.

Completed travel reimbursement claims are to be legible and submitted with all required documentation within 30 days of completion of the travel. The completed form and attachments may be scanned and submitted by e-mail to the AASHTO program manager or they may be mailed to the following address.

AASHTO TIG Program Manager
American Association of State Highway & Transportation Officials
444 North Capitol Street, N.W., Suite 249
Washington, DC 20001

Questions regarding lead states team travel limitations, documentation, and reimbursement claims should be directed to the AASHTO program manager.

Committee Meeting Facility Expenses

Executive committee meeting facilities will be provided at no charge by an agency represented on the committee or will be arranged by the AASHTO program manager with payment by the AASHTO office.

Executive Committee Reports

Annual Technology Report

The TIG executive committee annually submits a report to SCOH to summarize the activities of the AASHTO TIG program. The annual report is prepared by the AASHTO program manager and is usually reviewed and approved during the spring TIG executive committee meeting. The annual report includes a list of the new technologies which have been selected by the TIG executive committee as particularly beneficial to transportation agencies. It is updated each year to include the most recently selected technologies.

The annual report may also contain estimations of the benefits to be obtained by states adopting use of new technologies. It is suggested that the TIG executive committee use a tool, such as the Research Performance Measurement (RPM) System developed under NCHRP 20-63, as a way to provide a projection of total benefits to be obtained from implemented technologies.

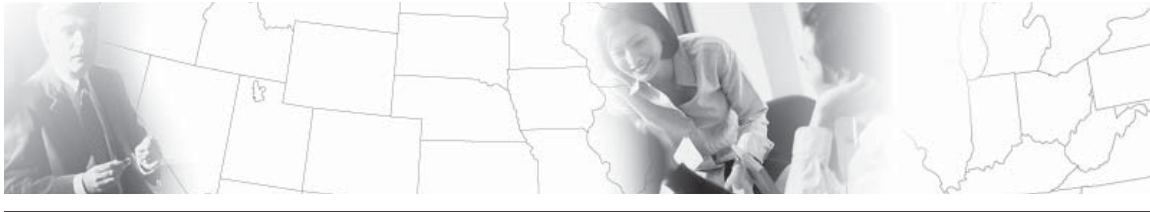
Performance Assessment

The TIG executive committee will annually assess the productivity of TIG activities and verify the on-going effectiveness of operational methods. The performance assessment will include the following information, as a minimum:

- The number of technology nominations received during each of the three most recent years,
- For each of the three most recent years, the number of AASHTO member states submitting at least one technology nomination,
- The number of focus technologies selected in each of the three most recent years,
- The number of additional technologies selected in each of the three most recent years, and

- Based on lead states team closeout reports received during the prior three years:
 - the total number of transportation agencies that have tried focus technologies for the first time during lead states team activities, and
 - the total number of new agencies that have adopted the focus technologies as standard procedures as of the lead states team closeout report.

To enhance performance assessment, the TIG executive committee may periodically survey transportation agencies a year or more after termination of lead states team activities, thereby gaining more complete assessment of the level of adoption of new technologies which has occurred. A format for this survey is included in Appendix I.



CHAPTER 3

Focus Technology Selection Process

Annual Technology Selection Schedule

The TIG executive committee annually solicits new technology nominations, evaluates the nominations, and selects the technologies deemed to offer the greatest potential benefits from increased implementation among the AASHTO member states. The schedule of activities shown in Table 1 has been developed to accomplish efficient and effective technology selection.

Table 1. Technology Selection Schedule

Activity	Schedule	Responsibility
Technology Nomination Solicitation	Early July	AASHTO Program Manager
Distribution of Nominations to Nomination Review Task Group	Early September	AASHTO Program Manager
Prioritization of Nominations by Nomination Review Task Group (Dependant upon the number of Proposals received)	September—October	Nomination Review Task Group
Distribution of Prioritization Information	Two Weeks Prior to Fall TIG Executive Committee Meeting	AASHTO Program Manager
Short List of Technologies Selected for Further Consideration	Fall TIG Executive Committee Meeting	TIG Executive Committee
Second-Level Evaluation of Short-Listed Technologies	December—February	Second-Level Evaluator
Distribution of Second-Level Evaluation Summaries	Two Weeks Prior to Spring TIG Executive Committee Meeting	Second-Level Evaluator
Selection of Focus Technologies and Additionally Selected Technologies	Spring TIG Executive Committee Meeting	Executive Committee
Notification of Prospective Lead States Team Chairs and Members	March	TIG Liaisons, AASHTO Program Manager, and Lead States Team Chairs
Notification of Nominators of Non-Selected Technologies	April—May	AASHTO Program Manager

Technology Nomination Procedures

Technology nominations are annually solicited from all AASHTO member states, AASHTO Committees and Subcommittees, the FHWA, and other agencies and organizations determined eligible by the TIG executive committee. AASHTO Committees and Subcommittees are listed in Appendix E. While the nomination information forms may be prepared by public or private organizations, nominations must be submitted by an AASHTO member state, the FHWA, or an AASHTO committee. The nominating agency should be willing to participate in lead states team activities. Nominations should be electronically submitted to the AASHTO program manager via the TIG web site.

A nomination form is distributed with the solicitation to facilitate submittal of necessary information. The nomination form is included in Appendix F. An electronic nomination form is available at http://www.transportation1.org/tig_solicitation/Blank.aspx.

The TIG executive committee does not automatically carry forward non-selected technology nominations to the next year. Nominating states are encouraged to resubmit technologies with additional benefit and experience information in subsequent years.

Technology Selection Procedures

The TIG executive committee has adopted a two-phased technology evaluation method. The initial technology evaluation is performed primarily from the information provided on the nomination form. The second phase of evaluation, performed only on short-listed technologies emerging from the first evaluation phase, is based on information obtained from contacting as many initial users and suppliers of the technology as possible.

Initial Technology Evaluation

Prioritization by Nomination Review Task Group

The TIG executive committee chair appoints a nomination review task group to prioritize all technology nominations received each year. The nomination review task group is typically composed of the AASHTO program manager, a RAC liaison member of the TIG executive committee, and one or more SCOH members of the TIG executive committee. The task group should evaluate the nominations using the established TIG rating form, included in Appendix G. Nominations meeting the stage 1 qualification requirements are prioritized by the task group based on their opinion of potential for AASHTO member state benefit from broadened implementation. The evaluation form offers a numerical scoring system to assist in this prioritization.

The results of the prioritization are submitted to the AASHTO program manager for distribution to the entire TIG executive committee.

If the number of nominations received is fewer than 20, the chair may decide not to form a Nomination Review Task Group, instead distributing all nominations to each member of the TIG executive committee for review and rating.

Short-List Selection by TIG Executive Committee

The prioritized list of technology nominations are discussed in detail by the TIG executive committee at the fall meeting. The prioritization by the nomination review task group determines the order in which technologies are discussed. Task group members provide commentary and share the reasons that they individually ranked technologies considerably higher or lower than other technologies. Other members of the TIG executive committee often have a degree of

personal knowledge about a technology to offer to the discussion. The result of these discussions is the selection of a short list of technologies to be further considered. Typically eight to twelve technologies are selected for the second-level evaluation each year.

Second-Level Technology Evaluation

The objectives of the second-level evaluation are to further substantiate merits of the technologies on the short list and to identify additional challenges which may be associated with implementing these technologies. Second-level evaluations are provided by an independent contractor when so directed by the TIG executive committee.

Second-level technology evaluations generally include the following steps.

- Contact with the technology nominator and any listed technical contacts from that agency to obtain the following information:
 - verification of contact information—attempt to locate a new contact individual if the original individual is no longer with the agency,
 - an updated status of the technology’s implementation within that agency if the technology had been nominated in a prior year,
 - a determination if the agency’s original assessment of value being obtained from the technology is still valid and if new benefits have been discovered since preparation of the nomination,
 - an assessment and substantiation of benefit information provided on the nomination form,
 - a determination if there are additional challenges (legal, cost, safety, political) to use of the new technology which were not mentioned in the original nomination,
 - an assessment and substantiation of challenges to implementation mentioned on the nomination form,
 - names of additional agencies or individuals who may have tried the new technology since the nomination was submitted,
 - copies of recent literature prepared by the nominating agency concerning the technology,
 - determine continued interest by the agency to participate in a national technology transfer effort should the TIG executive committee be able to fund that effort, and
 - pursue specific questions, as directed by the TIG executive committee.
- Contact with other agencies and individuals who have tried or currently use the new technology, if any. Determine:
 - current implementation status by their agency,
 - if experience of their agency correlates to that of the nominating agency,
 - their assessment of probable value to other agencies currently not using the technology,
 - if they have been confronted with challenges in their implementation effort that are not mentioned by the nominating agency, and
 - if their agency would assist in a national technology transfer effort should the TIG executive committee determine to pursue national implementation.

- Perform a Transportation Research Information Services (TRIS) search to determine if new literature concerning the nominated technology has recently become available. Perform a cursory review of any recently published literature concerning the new technology.
- Prepare an assessment summary, generally as shown in Figure 3, for each evaluated technology. The assessment summaries will be provided to the AASHTO program manager for further distribution to the TIG executive committee. Information to be included in the assessment summary includes:
 - an assessment of the status of the product’s development, i.e., is the product truly “ready to go” in its current form,
 - an assessment of current product technology transfer, i.e., how widely is the product already known and/or used, nationwide,
 - discussion on magnitude and types of benefits potentially derivable from a TIG technology transfer effort,
 - descriptions of additional challenges or potential benefits to national technology transfer that were identified, if any,
 - a list of additional “champion” agencies, if any discovered,
 - a list of new literature references, if any, with brief comments on content, and
 - any other discovered information of potential interest to the TIG executive committee.

Selection of Focus Technologies

The assessment summaries are distributed to the TIG executive committee and discussed with the individual(s) preparing the summaries at the spring TIG executive committee meeting or during an electronic conference. Based on these discussions, focus technologies for the TIG are selected. Upon selection, the TIG executive committee considers candidates to chair the lead states team for each focus technology. A TIG executive committee member is assigned as a liaison for each technology and assists the AASHTO program manager in contacting and enlisting the services of the chair.

Additionally Selected Technologies

In addition to focus technologies, for which a full marketing and implementation effort will be pursued by a lead states team, the TIG executive committee may also select one or more other technologies of considerable merit but that which do not require a full marketing effort and formation of a lead states team. These technologies will be showcased through marketing efforts on the AASHTO TIG web site and other limited avenues determined by the TIG executive committee.

ASSESSMENT SUMMARY—Name of Technology			
Is technology adequately field tested?	YES/NO	Describe here the amount of routine use of the technology that has occurred to date.	Information Sources: Contacts 1. Name, transportation agency 2. Name, transportation agency 3. Name, transportation agency 4. Name, transportation agency 5. Name, transportation agency 6. Name, vendor 7. Name, vendor 8. Name, service provider 9. Name, service provider Literature and Other 1. Publication name 2. Publication name 3. Web site 4. Web site
Are potential benefits substantial?	YES/NO	Describe here the types of potential benefits together with an assessment of magnitude of potential benefits.	
Are benefits applicable to many others?	YES/NO	Assess number of member states that have not tried this technology and may benefit from implementation.	
Is technology push really needed?	YES/NO	Describe here the extent that this technology has already been marketed.	
Expected benefits?	1. List expected benefits 2. 3.		
Primary implementation challenges?	1. List primary challenges 2. 3.		
Potential “champion” agencies?	1. List agencies which are potential champions for the technology 2. 3.		
Patent situation?	Describe the patent situation and number of providers of the technology here.		
Possibility that a limited marketing effort would meet needs?	VH/H/M/L	Reviewer’s comments on the potential selection of this technology for a limited marketing effort.	
Apparent desirability for AASHTO TIG selection as a Focus Technology?	VH/H/M/L	Summary comments from the reviewer on overall desirability of selecting this technology.	

Figure 3. Second-Level Technology Assessment Summary Format



CHAPTER 4

Lead States Team Operations

Lead States Team Formation

Whenever new technologies or engineering procedures are introduced, there are always several state transportation agencies ahead of the pack in adopting these innovations. In numerous cases, the leading states played a role in developing the new technology and therefore gained a deeper understanding of the innovation and its advantages. The Strategic Highway Research Program (SHRP) implementation experience found these leading states to be effective champions of the new technologies. The TIG executive committee adopted the use of lead states teams as the primary means of marketing focus technologies and offering assistance to states desiring to learn about and try the new technologies.

Lead State Designation Requirements

For a transportation agency to be selected as a lead state, two qualities are necessary: experience with the technology and enthusiasm to share lessons learned. In most cases, the state is routinely using the technology in one or more applications. Just as importantly, the senior management of the agency should be committed to the championing effort. This commitment is essential because the effort will require that one or more of the agency's most knowledgeable and valuable individuals in this technical area will invest time in sharing experiences and knowledge with individuals from other transportation agencies.

Lead States Team Responsibilities

The primary responsibility of a lead states team is to share their states' knowledge about the focus technology in order to advise potential users across the country of the possible benefits available to them. A secondary responsibility is to shorten the learning period for agencies choosing to implement and adopt the focus technology.

To accomplish these responsibilities, the lead states team develops a marketing plan and executes that plan within the approved budget. Detailed information about the development of the marketing plan and its approval process is provided in Chapter 3 and Chapter 4, respectively, of the *Guidebook for Lead States Teams of the AASHTO Technology Implementation Group*.

The goal of the lead states team is to provide transportation agencies enough information about the focus technology to allow sound implementation decisions. While the primary target audience for the marketing plan is other state transportation agencies, potential technology users in cities, counties, and regional and federal transportation-related agencies should also be included in communications and invitations.

Selection of Lead States Team Chairs

The TIG executive committee carefully considers the selection of lead states team chairs. The enlistment of a chair dedicated to the effort is critical to the success of the implementation initiative. Desirable credentials for the lead states team chair include:

- a high level of decision-making authority in their state,
- recognition and respect of peers in other transportation agencies,
- personal experience with use of the focus technology,
- enthusiasm for the focus technology,
- excellent communication skills, and
- good work group organizational and leadership skills.

The TIG liaison for the lead states team or the AASHTO program manager will contact the prospective lead states team chair, explaining responsibilities, and enlisting the individual's service.

The responsibilities and expectations of the team chair include enlisting lead states team members in cooperation with the AASHTO program manager and TIG liaison. Other responsibilities are described in detail in the *Guidebook for Lead States Teams of the AASHTO Technology Implementation Group (TIG)*.

Selection of Lead States Team Members

Composition of lead states teams will be unique, depending on the nature of the technology, available expertise, intended user groups, and technology transfer techniques likely to be used by the team. Completing the formation of the lead states team is the cooperative responsibility of the lead states team chair, the AASHTO program manager, and the TIG liaison. These individuals will discuss possible members and develop a tentative list of members.

A typical lead states team will have seven to ten members, primarily representatives of AASHTO member organizations. Each lead states team should include at least one member with professional marketing, communications, and/or technology transfer experience, to assist the lead states team in the development of their marketing plan. The public information offices and technology transfer offices of the lead states are possible sources for obtaining this member. A leading technical expert from FHWA should be included on the lead states team to ensure continuation of the implementation after team closeout. Including a representative of a Local Technical Assistance Program (LTAP) or a Tribal Technical Assistance Program (TTAP) center serving one of the lead states is also recommended whenever the new technology is applicable to the groups served by LTAP/TTAP.

Industry representatives as well as representatives of local, regional, or federal transportation agencies and other professionals may also be included on the team. Representatives of non-AASHTO member organizations should be advised that any travel expenses incurred during their involvement can not be reimbursed by AASHTO.

Industry representation is particularly recommended when private industry will be among those purchasing and using the new technology being implemented by transportation agencies. For example, including a representative of the American Road and Transportation Builders Association (ARTBA) and/or Associated General Contractors (AGC) is important if the focus technology will change conventional construction, e.g., compaction equipment. Representatives of trade associations involved with the focus technology may also be included as members. Caution should be taken if representatives of specific manufacturers are included on the team. It is not AASHTO's intent to favor any manufacturer over another, so an attempt to include all manufacturers fairly is expected. An alternative to including a trade association representative

or manufacturers as team members is to notify all manufacturers of the team's existence and purpose, and to ask each of them to provide the team with a representative's contact information, should the team desire additional information about that manufacturer's product. In that manner, the team can solicit identical information and give identical levels of input to all manufacturers without including manufacturer representatives in team meetings on a routine basis.

Another consideration in selecting lead states team members is geographical distribution of lead states. Broad distribution is often advantageous during championing activities. However, consideration should be given to whether the technology is applicable and practical in all areas of the country.

Prospective members of the lead states team will be selected by the lead states team chair, with consultation from both the TIG Liaison and the AASHTO program manager. Once a team member has been identified, the AASHTO program manager will contact the prospective team member, and the AASHTO Standing Committee on Highways member from that member agency, to determine their availability and desire to serve in this role. The AASHTO program manager will then provide the lead states team chair with the confirmed list of lead states team members, their organizations, and contact information as soon as formation of the team has been completed.

Additional lead state team members may be added by the team chair at any time, as approved by the AASHTO program manager and TIG liaison.

The responsibilities and expectations of team members are described in detail in the *Guidebook for Lead States Teams of the AASHTO Technology Implementation Group (TIG)*.

Training for Lead States Teams

The *Guidebook for Lead States Teams of the AASHTO Technology Implementation Group (TIG)* is a comprehensive manual explaining the objectives, procedures, and methods for the lead states teams to complete their assignments. It is provided to all lead states team members. It also includes forms, templates, and examples of most products expected from the lead states teams.

When possible, a training meeting of all recently appointed team chairs will be held by the AASHTO program manager. The *Guidebook for Lead States Teams of the AASHTO Technology Implementation Group (TIG)* can be used as the outline for information to be covered. In the interest of minimizing the amount of time demand on team chairs, providing training by teleconference or web conference will be pursued when practical.

Support to Lead States Teams

AASHTO Program Manager Support

The AASHTO program manager provides valuable support for the lead states teams. The lead states team chair may contact the AASHTO program manager with questions at any time, particularly concerning administrative matters. Travel reimbursement claims, invoice payments, semi-annual report submission, and web site information posting are just several examples of areas where the AASHTO program manager is able to offer assistance.

Immediately after the lead states team chair's appointment, the AASHTO program manager will work with the team chair to conduct an initial survey of the AASHTO member organizations. This survey will identify previous and planned uses of the focus technology and obtain contact information for follow up. The AASHTO program manager will administer the web-based survey and compile the results. The survey results report will then be sent to the lead states team members prior to their initial team meeting. A template for the initial survey is shown in Appendix H.

The AASHTO program manager will normally attend at least portions of the initial lead states team meeting. Meeting participation may also be by telephone or video conference.

The lead states team chair submits the team's proposed marketing plan along with the informational marketing analysis document to the AASHTO program manager within 30 calendar days of the initial lead states team meeting. After a cursory review for completeness, the AASHTO program manager forwards the proposed marketing plan and supporting marketing analysis to the TIG executive committee members for their review and approval. The AASHTO program manager promptly transmits the TIG executive committee's response by email to the lead states team chair.

AASHTO Headquarters Office Support

The AASHTO program manager is the contact for a number of AASHTO office services to be considered by the lead states team. These services include full-scale editing, layout design, and printing. AASHTO editing will be provided at no cost to the lead states teams, while the layout design and printing will be performed at cost. The lead states team is not required to use available AASHTO services if practicality or cost dictates greater advantage to using other service providers.

TIG Executive Committee Support

The TIG executive committee reviews the lead states team marketing plan and informational marketing analysis, concluding its review either during a conference call or during discussion at the next scheduled TIG executive committee meeting. The intent of the TIG executive committee is to respond to the proposal within 30 days of receipt.

Since the TIG executive committee has a number of active lead states teams at any point in time, the TIG executive committee chair appoints an executive committee member to serve as a liaison for each new focus technology. The TIG liaison is primarily involved with lead states team formation and oversight to assure proper team direction. The TIG liaison usually has particular interest in and may also have experience with the focus technology. These liaisons offer valuable abilities and perspectives to assist the AASHTO program manager as the lead states team is assembled, oriented to their task, and as the lead states team carries out their work. Some of the areas in which the TIG liaison may assist include:

- Procuring the services of a lead states team chair,
- Assisting the lead states team chair in procuring the services of lead states team members,
- Assisting in orienting the newly formed lead states team to their tasks,
- Providing the lead states team the perspective of the TIG executive committee concerning the technology they will be promoting, and
- Reviewing semi-annual progress reports to assess progress of the lead states team.

After the lead states team has been formed, the TIG liaison attends portions of the initial lead states team meeting to assure that the team's assignment, responsibilities, and available assets are well understood. Meeting participation by the TIG liaison may be by telephone or video conference.

In some cases, the liaison will work closely with the lead states team throughout its life. Normally, after initiation of lead states team activities, the TIG liaison involvement diminishes to monitoring lead states team activity progress, with the AASHTO program manager becoming the primary support contact.

Monitoring Lead States Team Activities

The AASHTO program manager and TIG liaison continue lead states team monitoring from initial team meeting to team closeout. Monitoring activities include:

- Review and approval of the lead states team marketing analysis and marketing plan,
- Semi-annual budget activity review by the AASHTO program manager,
- Review of lead states team semi-annual progress reports by the AASHTO program manager and the TIG liaison,
- Discussions of lead states team progress at each regular spring and fall meeting of the executive committee, and
- AASHTO program manager or TIG liaison attendance of lead states team meetings or marketing events, when possible.

Closing Out Lead States Teams

Lead states teams are deactivated upon completion and approval of their closeout report by the AASHTO TIG executive committee. The content and format for the closeout report are provided in Chapter 6 of the *Guidebook for Lead States Teams of the AASHTO Technology Implementation Group* (TIG).



APPENDICES

Appendix A: Authorization Documents

Appendix B: Example of Executive Committee Membership Nominee Bio

Appendix C: Executive Committee Meeting Agenda and Meeting Minutes Examples

Appendix D: TIG Program Budget Status Report

Appendix E: AASHTO Committee List

Appendix F: Technology Nomination Form

Appendix G: Nominated Technology Rating Sheet and Guide

Appendix H: Initial Survey for Selected Focus Technologies

Appendix I: Follow-Up Technology Experience Survey



APPENDIX A

Authorization Documents

Policy Resolution AR-1-98

Recommending an AASHTO Steering Group for Technology Deployment in the Future

WHEREAS, the Strategic Highway Research Program (SHRP) funded by the Highway Trust Fund produced approximately 130 products and technologies; and

WHEREAS, the implementation of these products and technologies has been promoted jointly by the American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration (FHWA) and the National Research Council (NRC); and

WHEREAS, AASHTO established the Task Force on SHRP Implementation to provide leadership and guidance to the member departments for the field use of these products; and

WHEREAS, the Task Force has put in place a basic framework for SHRP Implementation that works; and

WHEREAS, by employing this framework, and by taking innovative and novel approaches, the Task Force has succeeded in getting a large scale acceptance and use of SHRP products; and

WHEREAS, the overall achievements of the Task Force to date suggest that it would essentially complete its mission in the next five years; and

WHEREAS, at the conclusion of the Task Force's mission, which focused on one specific technology, i.e., SHRP, the need for implementing emerging innovative technologies shall continue to exist; and

WHEREAS, the Standing Committee on Highways (SCOH) at its October 1997 meeting asked the Task Force on SHRP Implementation to recommend a model for the management of implementation of high payoff innovative technologies on the basis of the lessons it has learned and the experience it has gained in the deployment of SHRP technology; and

WHEREAS, SCOH recognized that such a framework will provide a good foundation and a starting point for the deployment of those innovative technologies, which will benefit the member departments in the future; and

WHEREAS, in accordance with SCOH's instructions, the Task Force has developed a model for the management of future implementation of new and innovative technologies and products consisting of seven elements, the description of which follows; and

WHEREAS, the first element recommends that within the AASHTO organizational structure, there be established a senior level body (referred as, "Steering Group" in this resolution), and charged it with the responsibility of providing leadership and guidance to the Member Departments on the deployment of selected new technologies; and

WHEREAS, the second element recommends that the Steering Group only focus on the deployment of new, ready-to-use technologies and products which are likely to yield significant economic and qualitative benefits to the users; and

WHEREAS, the third element calls for the Steering Group to reach out to the State DOTs, FHWA, NRC, Local Governments, Industry, Researchers and other Practitioners for assistance in identifying the "ready-to-use" technologies and products on a continuing basis; and

WHEREAS, the fourth element emphasizes that the Steering Group needs to maintain a close coordination with the AASHTO organizational committees, specially the Technical Subcommittees of SCOH and the Standing Committee on Research (SCOR); and

WHEREAS, the fifth element recommends that, for effective coordination, at a minimum, the Chairs of SCOH Technical Subcommittees, and up to two SCOR representatives, be asked to become members of the Steering Group; and

WHEREAS, the sixth element requires the group to develop a communication plan for keeping the Member Departments and other partners informed at all levels; and

WHEREAS, the seventh and final element underscores the need for a sustained financial support of the activities of the Steering Group;

NOW, THEREFORE, BE IT RESOLVED that the AASHTO Board of Directors endorses the proposed model offered by SCOH and the Task Force on the management of future implementation of new, ready-to use technologies, delegates the responsibility for implementation of the model to SCOH, and requests the Executive Director of AASHTO to develop a detailed implementation plan with the review and comments of the SCOR, with such plan to include the Steering Group's recommended membership and the functions and responsibilities of the Group, to be brought to the next SCOH meeting to enable SCOH to inaugurate the model recommended by the Task Force; and

BE IT FURTHER RESOLVED that with the assistance of the current Task Force on SHRP Implementation, the Executive Director then immediately initiate a pilot effort to evaluate the performance of the Steering Group, and report back to SCOH on a regular basis its success and experience.

Administrative Resolution AR-3-99

Establishing Senior Level AASHTO Steering Group for Technology Deployment

WHEREAS, AASHTO Board of Directors, in April 1998, approved the attached policy Resolution AR-1-98 authorizing the formation of a senior level Steering Group charged with the responsibility of facilitating the implementation of high payoff, ready to use innovative technologies in the future; and

WHEREAS, the implementation efforts associated with these technologies will primarily focus on ensuring their rapid use by the member departments, local governments, and their industry partners; and

WHEREAS, the Resolution AR-1-98 recognized the high level of success achieved by the AASHTO Task Force on SHRP Implementation which resulted from the most creative and novel approaches it took in propelling the use of SHRP products at the state level; and

WHEREAS, the Task Force was asked to recommend a model for the management and transfer of innovative technologies in the future on the basis of the lessons it learned in moving forward with the implementation of SHRP technology; and

WHEREAS, the Board directed SCOH to review the Task Force's input and provide guidance to the AASHTO Executive Director in the development of a plan for the deployment of these technologies by making use of the Task Force's model on SHRP implementation or other methods which will encourage and expedite application of new technologies; and

WHEREAS, with the concurrence of AASHTO's Executive Director, the Task Force on SHRP Implementation, at the April meeting of SCOH, informed the committee on the reevaluation of the proposal contained in AR-1-98 and asked for its approval for submission of a revised proposal which will take into account the realities of TEA-21 legislation and its effect on research programs; and

WHEREAS, SCOH endorsed the Task Force's request and asked the Task Force to present the revised proposal at the AASHTO annual meeting in October 1999; and

WHEREAS, the Task Force has developed a revised proposal on Technology Deployment in the Future, which is attached to this resolution; and

WHEREAS, the revised document proposes the mission and the scope of work assigned to the Steering Group, the Group's composition and its organizational structure, and the sources of annual funding support for its operation; and

WHEREAS, this document also recognizes that the AASHTO Task Force on SHRP Implementation expects to complete its mission and report to SCOH at the 2000 AASHTO meeting and, therefore, requests that it be allowed to disband and, in order to fill the gap for the deployment of technologies in the future, the Task Force recommends that the new Group begin its operation at the 2000 annual meeting; and

WHEREAS, the Task Force recommends that the funding support for the program be a 50/50 match of funds between the AASHTO and FHWA with the proposal that the AASHTO's share of funding currently obtained under resolution AR-5-98 through a voluntary contribution of \$6,000/state/year for the operation of the Task Force on SHRP Implementation be continued beyond the authorized date of September 2000, and that these funds be earmarked for the operation of the proposed Technology Deployment Program; and

WHEREAS, SCOH will evaluate the effectiveness of the new program in Fall 2003 with the objective of determining the need and justification for the continuation of the financial support of the program; and

NOW, THEREFORE, BE IT RESOLVED, that SCOH approves the accompanying document, "A Proposal for Establishing Senior Level AASHTO Steering Group for Technology Deployment;"

BE IT FURTHER RESOLVED, that the AASHTO Executive Director with the counsel of the Task Force will prepare for SCOH's approval a list of potential senior-level state officials and other candidates who are qualified to serve the Steering Group.

BE IT FINALLY RESOLVED, that the AASHTO SHRP Implementation Task Force cease its operation and that the new Steering Group begin its operation at the AASHTO 2000 Annual Meeting.



APPENDIX B

Example Nominee Bio for Executive Committee Membership

Nominee: Ethan Diggs, Maine DOT

Ethan is the Main DOT’s Standing Committee on Highways member and the Director of Project Development, in charge of programmatic implementation, business strategy, and engineering solutions. Ethan heads Design and Construction, Materials, Research, Structures, Environmental and ROW. He has over 23 years experience with the Maine DOT, and understands organizational and program implementation.

He has won the AASHTO President’s Award for Research Implementation and the Maine Trailblazer Award—an award for lifetime contributions to transportation research. As the Maine DOT’s TRB lead implementer, he requires Maine DOT attendees to TRB to return and implement ideas. The Maine DOT tracks these ideas, and Ethan leads in the number of ideas implemented and in dollar volume of savings from implemented technologies. The most recent implementation he has assisted in is the accelerated bridge construction method. He has served as speaker for FHWA in ABC workshops in Montana, Oregon, and Utah. He is a frequent speaker at TRB on the same subject. He is one of the drivers of Maine’s SPMT implementation.

He has been published and spoken at TRB on Technology Transfer in Construction. He has lead or been a member of a team leading organizational and industry change—things like Maine’s combination of construction techs and maintenance techs into Transportation Techs and working with industry to promote and develop Design Build and CMGC contracting. Ethan has a wonderful working relationship with AGC and ACEC at implementing business solutions to transportation problems.

Ethan’s prior involvement with AASHTO TIG while serving on the SPMT TIG lead states team is a plus. It has given him first hand experience in lead state team operation and the marketing plan development process. Ethan has attended three TIG executive committee meetings and understands the committee’s purpose and mission.



APPENDIX C

Executive Committee Meeting Agenda and Meeting Minutes Examples

AASHTO TECHNOLOGY IMPLEMENTATION GROUP—Agenda

AASHTO TIG Annual Meeting, September 27, 2007

Milwaukee, Wisconsin

<i>Thursday September 27, 2007</i>			
Time	Topic	Process	Lead/Who
8:00 AM	Welcome	Greet	Prasad
	Introductions		All
8:10 AM	ADMINISTRATIVE ISSUES		
	Agenda Review and Goals for the meeting:	Review/Approve	Prasad
	1) Update of Publication of Lead State Guidebook	Inform	Platte
	2) Update of Guidebooks (Executive Committee)		
	3) Update on 2006 Focus Technologies (SPMT & AMG)		
	4) Budgets: New Projects and Program		
	5) TIG Partnering Possibilities		
	6) Discuss Nomination/Solicitation Process		
8:20 AM	New Member: David Azzuato from PA	Inform	Prasad
8:25 AM	Introduction: Publication of Lead State Guidebook	Inform	Platte
8:30 AM	Presentation/Handout: Update on Executive Committee Guidebook	Inform	Paul Krugler
10:00 AM	Update: Report on the Status of the SPMT and AMG	Inform	Platte/ Prasad/ Polasek
10:30 AM	BREAK		
10:45 AM	Review of TIG Focus Technologies	Updates	All
	Active Focus Technology projects:	Inform	
	1. Road Safety Audits	Platte	
	2. Cable Median Barriers	Platte	
	3. Weigh in Motion	Huft	
	4. Construction Analysis Software Tools	Platte	
	5. Maintenance Decision Support System	Huft	

	6. Prefabricated Concrete Paving Slabs	Platte	
11:00 AM	Budget: Projects and Program	Review/Approve	All
	New Projects		
	1. Self Propelled Modular Transporters		
	2. Automated Machine Guidance		
	Program		
	FY 2008		
12 NOON	LUNCH		
1:00 PM	Discussion of TIG Partnering Possibilities	Inform	Gary Hoffman
	Goal of Discussion: Identify Avenues for Partnering		
2:00 PM	New Form and Rating Guide	Inform	Huft/Polasek
2:30 PM	BREAK		
2:45 PM	Nomination/Solicitation Process	Discussion	All
	Goal of Discussion: Identify Top Ten to hand off to Krugler		
4:00 PM	Review of Activities	Inform	Prasad
4:30 PM	Meeting Adjourned		

Meeting Minutes for the AASHTO—Technology Implementation Group

Portland, Oregon—October 26, 2006
The Convention Center, Room A109

Welcome and Introductions

Ananth Prasad welcomed the members and friends of the Technology Implementation Group, TIG. Ananth introduced himself, gave his background, and the importance of the work of the TIG. He then moved to self-introductions of those in attendance.

Ken introduced Keith Platte as the new AASHTO staff representative to the TIG.

New members have been appointed to the TIG from New York, Minnesota, Pennsylvania, and Florida (new Chairman):

- Mike Shamma, Chief Engineer
- Douglas Differt, Deputy Commissioner/Chief Engineer
- Ananth Prasad, Chief Engineer

Minutes

The minutes of the last meeting were accepted.

Review of Agenda

The agenda was amended to address the work being done by TTI for the TIG.

Guidebook for Lead States Teams

Paul Krugler, TTI, and Mary Lou Ralls, subcontractor to TTI, discussed the work TTI is performing for the TIG. To develop a guidebook for the Lead State Teams and the TIG oversight committee guide. Paul and Mary Lou were encouraged to review best practices with the successful GPS team and AVA team.

- Members were invited to provide marketing examples. TIG members should contact Paul.
- Paul presented a revised schedule for deliverables to:
 - Phase 1 April–Nov. 2006 (AASHTO TIG)
 - Dec.–Feb. 2007 New Technology selection
 - Phase 2 (NCHRP 20-07) Oct. 2007.
- The TIG discussed the organization and the roles of the team. The liaison from the TIG, AASHTO staff; FHWA participation and the importance of each role for the success of the team. The TIG provided comments to TTI team.
- When a technology is identified as a focus technology, the TIG will conduct a survey of the states to determine their experiences with the technology, contacts, or information sources.

- A marketing team, MT, will be an invitational participant with the Lead State team, LST. The MT should be available to support and assist the LST in the development of the marketing plan.
- The Lead State Team is expected to complete their marketing plans at the initial meeting. Worth and Associates will finalize the marketing plan within 30 days.
- The TIP recognized the importance of:
 - Timely action to review and approve the LST marketing plan including the budget.
 - Support the participation of the resource centers in every Lead State Team. (The Washington support group needs to meet with Joyce Curtis over the role and opportunity for the resource centers to work with the LST.
- The TIG approved the support of TTI to assist in the review and evaluation of the 2007 Focus Technology nominations

(Action Item: All, Final comments from the TIG are due to TTI by 11/10/2006.)

Name Change

The TIG decided to rename the TIG to the Technology Implementation Program, TIP, and the group will be the oversight committee. (Rescinded by action later in the day.)

AASHTOWare

Tony Kane, Director Technology Services Program, AASHTO introduced Jan Edwards, Project Director, of AASHTOWare who presented an introduction on the cooperative software development program. She discussed the potential for AASHTOWare as a pass-off mechanism for completed focus technologies for maintenance of a technology. Jan proposed the establishment of a liaison with the Cooperative Software Development Program on the TIG.

The TIG discussed their role in software promotion and T2. The TIG decided that they will recognize the capabilities of AASHTOWare and will consult them and seek their assistance as appropriate.

Budget Report

Keith presented the status of the budget and finances of the TIG. The TIG congratulated Keith for his diligence in assembling and presenting the financial status of the program. *(Attachment needed.* The solicitation for volunteering contributions went out to the AASHTO states in July, and currently \$204K has been collected.

Highways for LIFE

Byron Lord presented the Highway for LIFE program. He identified several activities that the TIG could provide support and Highways for LIFE can support the TIG.

Name Change

The TIG amended the agenda to address the name change for the TIG to develop a formal proposal to be submitted to SCOH to change the TIG name. A draft motion was provided by Ken Kobetsky. A motion was made to table the discussion to change then name of the TIG until such time as the TIG has had opportunity to receive council from our communications consultant: Worth and Associates. This motion was agreed to by unanimous consent.

Support from LTAP

Doyt Bolling emphasized the willingness of the LTAP Centers to assist TIG in accomplishing their mission. He has offered the support of the LTAP resources for the Lead State Programs, the LTAP of the Chairman or another more appropriate Center to assist the team. The TIG agreed to include this in the guidance. The TIG, using an LTAP will recommend and recruit LTAP centers to be a member of the Lead State Team. There needs to be a change with the center and a state on the team. TTI will include language in the lead state team guidance to address this support.

On-Going Focus Technology Review (Attachment to agenda.)

- Construction Analysis Software Tools, CAST: TIG will authorize up to an additional \$5K to refine the marketing plan. A copy of the latest addition of the guidance for lead state teams will be provided with good examples of good work plans. The TIG was not the LST to develop the marketing plan **(Action Item: Keith)**.

The chairman brought up the need for the TIG to document our activities for the shareholders *of our activities. Need to record and report the actions our activities have resulted in. Also need to identify success stories and report these on our web site.*

- Global Positioning Systems, GPS: The Final Survey is completed and report being prepared.
- Cable Median Barriers. **(Action Item: Ken and Keith will talk with Len Sanderson regarding the benefits of the technology.)**
- Low-Cost Highway Rail Crossing: Minnesota offered to pursue the technology opportunity to address FRA objections to implementation the division accepted this offer. **(Action Item: Doug)**
- Precast Paving Slab: Work Plan approved. NY DOT has agreed to lead with NY LTAP Center. Liaison and will work to include
- RSA: A LST meeting was held last week. There is a report in agenda handout.
- The three other technologies.
 - Baker Beam: Caltrans
 - Safety Edge: PA, GA, NJ
 - Design-Build Traffic: UT

Keith will schedule teleconference for the TIG in early December (**Action Item: Keith**)

(Action Item: All, review and rate the nominations and send to Keith.)

(Action Item: David, John M., Randy, and Ananth by 11/10/06, schedule teleconference. The goal for the teleconference will be to discuss the nominations and ratings and settle on 8-10 for further study by TTI. TTI will provide for further analysis and recommendations to the TIG for the spring meeting.)

(Action Item: Keith, Byron, and John will review milestones of key TIG activities.)

TIG Logo/Artwork

The TIG had a discussion on the use of our logo. Keith needs to get the artwork from Worth and begin to use it for all our activities.

Name of the TIG

The group decided to call ourselves the executive committee of TIG.

Action Items

1. Before TRB, Dave, John P., and Randy will work on developing criteria for what is appropriate for submission for new technologies and review the questionnaire on technology selections.
2. Keith to assemble a package for the new members as well as to aid all members of the executive committee.
3. For the next meeting the Washington Support should arrange a program to show the value of the TIG activities and the outcome for SCOH.
4. Prepare a presentation of success stories at the spring meeting. Valerie will work with Worth to frame out presentation. Need to be able to tell the story.
5. Valerie, Byron, Kathleen, Ananth, and Keith. Review the communication plan. Survey of the standing committees.
6. Keith/Worth. Review closeout reports from completed technologies. Get Worth to put together three to five success stories.
7. NCHRP 20-63. **Performance Measurement Toolbox**. Keith will get a copy of the report from Crawford Jenks.
8. Byron, Keith, and John M. to meet with Joyce Curtis to discuss the role and relationship between the Resource Center and TIG.
9. David Jones, FHWA will be a resource to the LST.
10. Need to get structured reports for each technology by LST chair and TIG liaison.
11. Keith /Ananth, Next Meeting: February 5–6, 2007, Orlando, FL.

Attendance

Participant	Organization	Phone	E-mail
Ananth Prasad (Chairman)	Florida DOT	850-414-5240	Ananth.prasad@dot.state.fl.us
Art Dinitz (Joint Comm. Liaison)	Transpo Industries	914-636-1000	adinitz@transpo.com
Bill Brownlow (Visitor)	AASHTO	202-624-5817	wborwnlow@ashto.org
Boris Schneidermon (Visitor)	Opgimealgeometrics	604-654-1854	bschneidermon@opgimeal.geo.com
Byron Lord (Secretary)	FHWA	202-366-1325	Byron.lord@dot.gov
Dave Huft (Liaison, SCOR/RAC)	SD DOT	605-773-3358	Dave.huft@state.sd.us
Doug Differt (Region 3)	MN DOT	651-296-8532	Douglas.differt@dot.state.mn.us
Douglas A. Bernard (Visitor)	Quixote Transp. Safety	703-960-5874	DougBinDC@aol.com
Doyt Bolling (LTAP Liaison)	Utah LTAP	435-797-2933	doyt@cc.usu.edu
Fred Hejl (Liaison, TRB)	TRB	202-334-2953	fhejl@nas.edu
Gary L. Hoffman (visitor, Past Chairman)	Applied Research Associates	717-448-7601	ghoffman@ara.com
Harry Lee James (Region 2)	MS (mDOT)	601-339-7004	hjames@mdot.state.ms.us
Jan Edwards (AASHTOWare)	AASHTO	202-624-8599	jedwards@ashto.org
Jim Edgerton (Visitor)	Agile Assets	919-573-5219	jedgerton@agileassets.com
Joe Garirey (Visitor)	Agile Assets	512-623-3230	jgarney@agileassets.com
John McCracken (FHWA, Liaison)	FHWA	202-493-3422	John.mccracken@fhwa.dot.gov
John Polasek (Vice Chair)	Michigan DOT	517-294-3998	Polasekj@michigan.gov
Keith Platte (AASHTO Staff)	AASHTO	202-624-7830	kplatte@ashto.org
Ken Kobetsky (AASHTO, Staff)	AASHTO	202-624-5254	Kenk@ashto.org
Mary Lou Ralls (Subcontractor-TTI)	Ralls Newman, LLC	512-422-9080	Ralls-newman@sboglobal.net
Matt Nyland (Visitor)	Citrix Systems	415-883-8174	mattnyland@citrix.com
Michael Shamma (Region 1)	NYS DOT	518-457-4430	mshamma@dot.state.ny.us
Neil Hawks (Visitor, Past Liaison TRB)	TRB	202-334-1430	nhawks@nas.org
Paul Krugler (Contractor-TTI)	TTI	512-467-0952	p-krugler@ttimail.term.edu
Tony Giancola (Liaison, NACE)	NACE	202-393-5041	agianlo@naco.org
Tony Kane (AASHTO Staff)	AASHTO	202-624-5812	akane@ashto.org
Valerie B. Edgar (Liaison, Public Affairs)	MD DOT	410-545-5658	vlourneheedgar@sha.state.md.us



APPENDIX D

TIG Program Budget Status Report

TIG Program Reserve as of September 14, 2007

\$628,816

Status	Year	Focus Technologies	Initial Approved Budget	Revised Budget	Spent in FY 2007 (July 06-July 07)	Spent in FY 2008 (July 07-August 07)	Current Remaining Budget	Projected Costs in FY 2008	Cost Remaining in FY 2008 (Projected - Spent)	Focus Technology \$ Programmed beyond FY 08	Returned Funds in 2007	Additional Info
Active	2004	RSA	\$167,000	\$99,000	(\$17,731)	\$0	81,037	(\$50,000)	(\$50,000)	\$31,037	\$0	In progress...
Active	2004	WIM	\$50,000		(\$16,184)	\$0	20,830	(\$20,830)	(\$20,830)	\$0	\$0	In progress...
Active	2004	CMB	\$97,400		(\$12,105)	(\$2,605)	81,661	(\$15,000)	(\$12,395)	\$66,661	\$0	In progress...
Active	2005	CAST	\$94,000		(\$8,332)	(\$2,100)	83,568	(\$50,000)	(\$47,900)	\$33,568	\$0	In progress...
Active	2005	MDSS	\$96,700		(\$12,341)	(\$600)	83,759	(\$60,400)	(\$59,800)	\$23,359	\$0	In progress...
Active	2005	PCPS	\$96,625		(\$7,042)		89,583	(\$50,000)	(\$50,000)	\$39,583	\$0	In progress...
Active	2006	SPMTs	\$85,150		\$0	(\$8,607)	76,543	(\$43,300)	(\$34,693)	\$33,243	\$0	In progress...
Active	2006	AMG	\$83,050		\$0	(\$11,643)	71,407	(\$43,750)	(\$32,107)	\$27,657	\$0	In progress...
	2007		\$10,000		\$0		10,000	(\$10,000)		\$0		
	2007		\$10,000		\$0		10,000	(\$10,000)				
	2007		\$10,000		\$0		10,000	(\$10,000)				
Active	2006	AST (non-focus tech)	\$7,950		\$0	(\$150)	7,800	(\$7,800)	(\$7,950)	\$0		
	2007	AST (non-focus tech)					\$0					
		TIG Gen (Other Outside Support)	\$20,000		(\$21,034)	(\$1,038)	(2,072)	(\$10,000)	(\$11,038)		\$0	
		Staff (Overhead & Benefits)			(\$48,926)	(\$43,231)		(\$45,000)	(\$88,231)		\$0	
					(\$143,695)	(\$69,974)	\$440,438	(\$426,080)	(\$414,944)	\$255,108	\$0	

Program Reserve at FY 07: \$496,816
 Collected Funds (FY 08): \$132,000
 FY 07 Expenses: (\$143,695)
 (YTD) FY 08 Expenses: (\$69,974)
Current Program Money Total: \$628,816

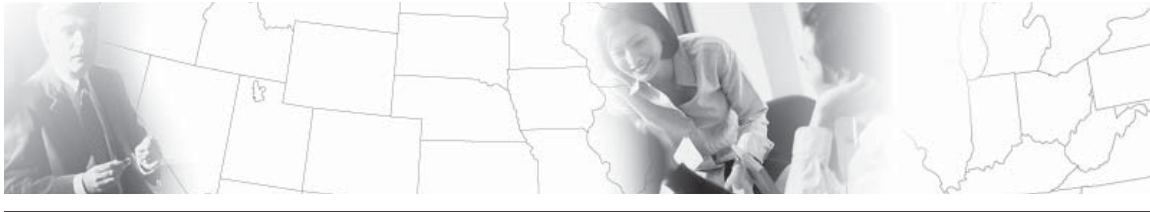
Additions	
Current Program Money Total	\$628,816
Estimated Total FY 08:	(\$426,080)
Estimated Reserve EOY 2008	\$202,736
Deductions	
Focus Techs' \$ Programmed	\$255,108
Sum Deductions:	\$255,108
Est Reserve After FY 2008	-\$52,372



APPENDIX E

List of AASHTO Committees, Subcommittees, and Contacts Receiving the Annual Solicitation E-mail

- Standing Committee on Highways
- Subcommittee on Design
- Subcommittee on Bridges & Structures
- Subcommittee on Traffic Engineering
- Subcommittee on Systems Operation and Management
- Subcommittee on Maintenance
- Subcommittee on Materials
- Subcommittee on Construction
- Subcommittee on Safety Management
- Subcommittee on Right of Way and Utilities
- Subcommittee on Highway Transport
- ACEC Task Force
- Standing Committee on Aviation
- Environmental Technical Assistance Program
- Freight Contacts
- Intermodal Transportation and Economic Expansion Contacts
- National Transportation Training Directors
- National Transportation Product Evaluation Program
- Standing Committee on Rail Transportation
- Research Advisory Committee
- Standing Committee on Research
- Standing Committee on Water Transportation
- Work Zone Safety and Mobility Working Contacts



APPENDIX F

Technology Nomination Form

AASHTO Technology Implementation Group
 Nomination of Technology Ready for Implementation

20__ Nominations Due by September ____, 20__

Sponsor	<i>Nominations must be submitted by an AASHTO member DOT willing to help promote the technology.</i>	1. Sponsoring State DOT:			
		2. Name:			
		Title:			
		Mailing Address:			
		City:	State:	Zip Code:	
		E-mail:	Phone:	Fax:	
		3. Date Submitted:			
4. Is the Sponsoring State DOT willing to promote this technology to other states by participating on a Lead States Team supported by the AASHTO Technology Implementation Group? Please check one: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Technology Description (10 points)	<i>The term "technology" may include processes, products, techniques, procedures, and practices.</i>	5. Name the technology:			
		6. Please describe the technology:			
		7. If appropriate, please attach photographs, diagrams, or other images illustrating the appearance or functionality of the technology. (If electronic, please provide a separate file.) Please check one: <input type="checkbox"/> Yes, images are attached. <input type="checkbox"/> No images are attached.			

State of Development (30 points)	<i>Technologies must be successfully deployed in at least one state DOT. The TIG selection process will favor technologies that have advanced beyond the research stage, at least to the pilot deployment stage, and preferably into routine use.</i>	8. Please describe the history of the technology's development.				
		9. For how long and in approximately how many applications has your state DOT used this technology?				
		10. What additional development is necessary to enable routine deployment of the technology?				
		11. Have other organizations used this technology? Please check one: <input type="checkbox"/> Yes <input type="checkbox"/> No If so, please list organizations and contacts.				
		<i>Organization</i>	<i>Name</i>	<i>Phone</i>	<i>E-mail</i>	
Payoff Potential (30 points)	<i>Payoff is defined as the combination of broad applicability and significant benefit or advantage over other currently available technologies.</i>	12. How does the technology meet customer or stakeholder needs in your state DOT or other organizations that have used it?				
		13. What type and scale of benefits has your DOT realized from using this technology? Include cost savings, safety improvements, transportation efficiency or effectiveness, environmental benefits, or any other advantages over other existing technologies.				
		14. Please describe the potential extent of implementation in terms of geography, organization type (including other branches of government and private industry) and size, or other relevant factors. How broadly might the technology be deployed?				

Market Readiness (30 points)	<i>The TIG selection process will favor technologies that can be adopted with a reasonable amount of effort and cost, commensurate with the payoff potential.</i>	15. What actions would another organization need to take to adopt this technology?	
		16. What is the estimated cost, effort, and length of time required to deploy the technology in another organization?	
		17. What resources-such as technical specifications, training materials, and user guides-are already available to assist deployment?	
		18. What organizations currently supply and provide technical support for the technology?	
		19. Please describe any legal, environmental, social, intellectual property, or other barriers that might affect ease of implementation.	
Submit to AASHTO TIG Contact		Keith Platte Phone: 202.624.7830 Fax: 202.624.5469 kplatte@aaashto.org	American Association of State Highway & Transportation Officials 444 North Capitol Street, NW, Suite 249 Washington, DC 20001



APPENDIX G

Nominated Technology Rating Sheet and Guide

20__ Nominated Technology Rating Sheet

Reviewer Name:

No.	Nominating DOT	Name or Description of Nominated Technology	Stage I Nomination Qualification Assessment (Y or N)				Stage II Technology Assessment					Comments	
			Submitted by State or Local department of transportation, an organizational unit of AASHTO, or the Federal Highway Administration?	Meets TRG Definition of Technology?	Offers Substantial Performance Improvement or Reduced Cost?	Stakeholder Successfully Used Technology?	Technology Description (10 pts max)	State of Development (30 pts max)	Payoff Potential (30 pts max)	Market Readiness (30 pts max)	TOTAL SCORE (100 pts max)		
1												0	
2												0	
3												0	
4												0	
5												0	
6												0	
7												0	
8												0	
9												0	
10												0	
11												0	
12												0	
13												0	
14												0	
15												0	
16												0	

AASHTO TIG Technology Rating Guide

Amplifications and clarifications of questions shown on the Nominated Technology Rating Sheet are provided to assist the rater.

Stage I—Nomination Qualification Assessment

The nomination is first assessed to determine if it appears to meet all AASHTO TIG requirements for nominations. The rater should determine a “Yes” or “No” response for each question below.

1. Was the nomination submitted by a state or local department of transportation, an organizational unit of AASHTO, or the Federal Highway Administration?
2. Does the nomination meet the definition of technology as defined by the AASHTO Technology Implementation Group? (A nominated technology may be a process, product, technique, procedure, or practice.)
3. Does the technology offer either opportunities for substantial improvement in performance or the potential to provide at least the same quality of performance at a substantially reduced cost? (Consider both amount of pay-off per application and the degree of applicability among the state DOTs.)
4. Has a stakeholder successfully used this technology in routine operations, i.e., beyond the use performed during research and development?

If the nomination received a “Yes” to all of the above questions, move to Stage II of the rating sheet.

Stage II—Technology Assessment

The lists of questions provided describe desirable information to be included in each section of the nomination. They are provided to assist the rater in determining if all desired information has been provided. Scoring is based on both completeness and the strength of the information which has been provided by the nominator.

Technology Description (Award 0–10 Points)

- What is the significance of the need or problem?
- Who are the intended user groups of the nominated technology?
- Will the technology meet the needs or solve a problem of a customer and/or stakeholders?
- Who are the principal beneficiaries if different from the user groups?
- What is the breadth of the applications and dimensions of the potential market?

State of Development (Award 0–30 points)

- What is the state of the development of the technology?
- Has there been extensive use?
- Are there standards and specifications available?
- What is the scope of experience?
- What is your evaluation of the quality of the completed development process?
 - Who is involved?
 - How long has it been under way and why?
 - Results of field tests, pilots and demonstrations?

Payoff Potential (Award 0–30 points)

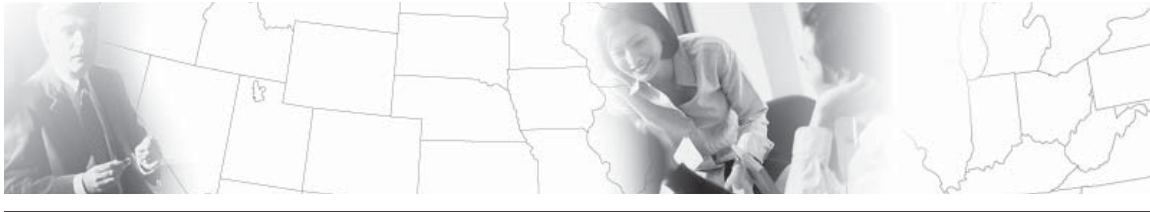
- Is its application regional, national or international?
- Does the focus include users, industry, and/or providers?
- How much of the market is penetrated?
- Does it meet the real needs of stakeholders/customers?
- To what extent does the technology addresses priorities of transportation community?
- Impact on Users and/or Beneficiaries with respect to:
 - Safety
 - Mobility
 - Access
 - Productivity
 - Cost Effectiveness
 - Quality of Life
 - Satisfaction of Mission
- Is the technology proprietary or patented?

Market Readiness (Award 0–30 points)

- What is required to implement this technology?
 - Training
 - Equipment
 - Funding
 - Permits
 - Expert assistance
 - Partners

- How easily will implementation be completed?
- Are there industry impacts, capacity/availability, and cost implications?
- Does it require a major education training initiative to implement?
- Is there availability of funding for implementation of the technology?
- How long would it take to implement this technology?
- Is the applicant willing to aid in the promotion of this technology?
- Is there willingness of customers/stakeholders to promote and support implementation?
- Are there potential partners and how could they contribute?
- What costs are associated with the implementation of the technology?
 - To the implementing agency
 - Start-up costs to the user
 - The industry
 - Maintenance
 - Environmental
 - Social

Are there any legal, environmental, or social implications associated with this technology?



APPENDIX H

Initial Survey for Selected Focus Technologies



Technology Experience and Interest Survey
AASHTO Technology and Implementation Group (TIG)

FY ____ AASHTO TIG Focus Technologies

Three technologies have recently been determined by the AASHTO TIG to have substantial potential for benefiting transportation agencies. Please reply to the brief request for information below concerning your agency's experience with each of these technologies.

Lead states teams are being formed by the AASHTO TIG to assist agencies interested in learning more about these technologies. The information you provide will be forwarded to these lead states teams.

Technology Name:

Description:

1. Our agency's technical contact for this technology is:
(Please list name, mailing address, phone number, and e-mail.)

2. Please check all boxes where the information describes your agency's experience with this technology:
 We have not used this technology.

 We have limited or no knowledge of this technology, and we are interested in receiving information about it.

- We are fairly familiar with this technology but have not yet tried it.
- We plan to try this technology on an upcoming opportunity.
- We have tried this technology and are evaluating its benefits.

3. We have adopted this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

4. We plan to adopt this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

5. We do **not** plan to adopt this technology:

- Based on information we have received about this technology, we do not believe that it will provide substantial benefit to our agency. Briefly describe why this technology is not believed to be of substantial benefit:

- We have experience using this technology and do not plan to use it in the future. Briefly describe the reason you do not plan future use:

Technology Name:

Description:

1. Our agency's technical contact for this technology is:

(Please list name, mailing address, phone number, and e-mail.)

2. Please check all boxes where the information describes your agency's experience with this technology:

We have not used this technology.

We have limited or no knowledge of this technology, and we are interested in receiving information about it.

We are fairly familiar with this technology but have not yet tried it.

We plan to try this technology on an upcoming opportunity.

We have tried this technology and are evaluating its benefits.

3. We have adopted this technology:

and require its use as standard practice.

and require its use in occasional situations.

and allow its use as an option or alternative to other methods.

in a different manner than above. Please describe: _____

and would consider serving as a lead state.

4. We plan to adopt this technology:

and require its use as standard practice.

and require its use in occasional situations.

and allow its use as an option or alternative to other methods.

in a different manner than above. Please describe: _____

and would consider serving as a lead state.

5. We do **not** plan to adopt this technology:

Based on information we have received about this technology, we do not believe that it will provide substantial benefit to our agency. Briefly describe why this technology is not believed to be of substantial benefit:

We have experience using this technology and do not plan to use it in the future. Briefly describe the reason you do not plan future use:

Technology Name:

Description:

1. Our agency's technical contact for this technology is:

(Please list name, mailing address, phone number, and e-mail.)

2. Please check all boxes where the information describes your agency's experience with this technology:

We have not used this technology.

We have limited or no knowledge of this technology, and we are interested in receiving information about it.

We are fairly familiar with this technology but have not yet tried it.

We plan to try this technology on an upcoming opportunity.

We have tried this technology and are evaluating its benefits.

3. We have adopted this technology:

and require its use as standard practice.

and require its use in occasional situations.

and allow its use as an option or alternative to other methods.

in a different manner than above. Please describe: _____

and would consider serving as a lead state.

4. We plan to adopt this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

5. We do not plan to adopt this technology:

- Based on information we have received about this technology, we do not believe that it will provide substantial benefit to our agency. Briefly describe why this technology is not believed to be of substantial benefit:

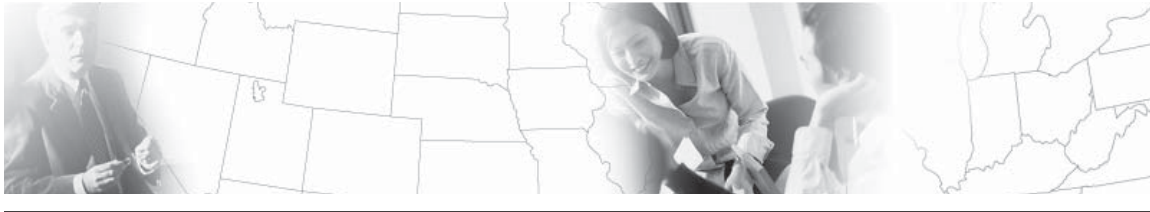
- We have experience using this technology and do not plan to use it in the future. Briefly describe the reason you do not plan future use:

Name of Individual Completing the Survey: _____

Title of Individual Completing the Survey: _____

State or Agency Name: _____

Thank you for your help in assessing current technology use and knowledge level.



APPENDIX I

Follow-Up Technology Experience Survey



Follow-Up Technology Experience Survey AASHTO Technology and Implementation Group (TIG)

The AASHTO TIG has provided transportation agencies information and assistance in recent years through Lead States Teams to encourage experimental use and adoption of new technologies believed to offer substantial potential benefits to users. Please reply to the brief request for information below concerning your agency's experience to date with each of these technologies. Your responses will provide the AASHTO TIG valuable self-evaluation information, thereby assisting us in improving services.

Technology Name:

Description:

1. Please check all boxes where the information describes your agency's experience with this technology:

- We have not used this technology.
- We have limited or no knowledge of this technology, and we are interested in receiving information about it.
- We are fairly familiar with this technology but have not yet tried it.
- We plan to try this technology on an upcoming opportunity.
- We have tried this technology and are evaluating its benefits.

2. We have adopted this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

3. We plan to adopt this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

4. We do **not** plan to adopt this technology:

- Based on information we have received about this technology, we do not believe that it will provide substantial benefit to our agency. Briefly describe why this technology is not believed to be of substantial benefit:

- We have experience using this technology and do not plan to use it in the future. Briefly describe the reason you do not plan future use:

Technology Name:

Description:

1 Please check all boxes where the information describes your agency's experience with this technology:

- We have not used this technology.
- We have limited or no knowledge of this technology, and we are interested in receiving information about it.

- We are fairly familiar with this technology but have not yet tried it.
- We plan to try this technology on an upcoming opportunity.
- We have tried this technology and are evaluating its benefits.

2. We have adopted this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

3. We plan to adopt this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

4. We do **not** plan to adopt this technology:

- Based on information we have received about this technology, we do not believe that it will provide substantial benefit to our agency. Briefly describe why this technology is not believed to be of substantial benefit:

- We have experience using this technology and do not plan to use it in the future. Briefly describe the reason you do not plan future use:

Technology Name:

Description:

1 Please check all boxes where the information describes your agency's experience with this technology:

- We have not used this technology.
- We have limited or no knowledge of this technology, and we are interested in receiving information about it.
- We are fairly familiar with this technology but have not yet tried it.
- We plan to try this technology on an upcoming opportunity.
- We have tried this technology and are evaluating its benefits.

2. We have adopted this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

3. We plan to adopt this technology:

- and require its use as standard practice.
- and require its use in occasional situations.
- and allow its use as an option or alternative to other methods.
- in a different manner than above. Please describe: _____
- and would consider serving as a lead state.

4. We do **not** plan to adopt this technology:

Based on information we have received about this technology, we do not believe that it will provide substantial benefit to our agency. Briefly describe why this technology is not believed to be of substantial benefit:

We have experience using this technology and do not plan to use it in the future. Briefly describe the reason you do not plan future use:

Name of Individual Completing the Survey: _____

Title of Individual Completing the Survey: _____

State or Agency Name: _____

Thank you for helping us evaluate AASHTO TIG performance in recent years.