



PENNSYLVANIA STATE TRANSPORTATION INNOVATION COUNCIL

A Guidebook for the STIC Members

December 2015

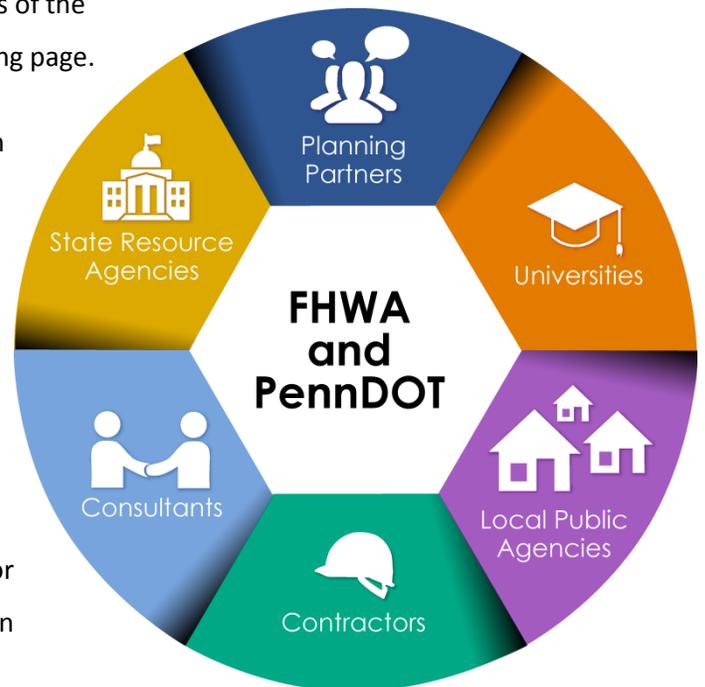
Prepared by
Federal Highway Administration and
Pennsylvania Department of Transportation

INTRODUCTION

In 2010, the Federal Highway Administration (FHWA) launched Every Day Counts (EDC) to shorten project delivery and expedite the deployment of proven technologies. To expand the EDC initiative, FHWA introduced the concept of creating State Transportation Innovation Councils (STIC) to foster ownership and pride in establishing a process in which ideas, innovative techniques, and processes can be evaluated and implemented quickly and proficiently. Pennsylvania held its inaugural STIC meeting, March 2012, just a few short weeks after the concept and has become a national model for innovation and collaboration.

The Pennsylvania STIC is a multi-stakeholder leadership team that works together to forge an environment of innovation, imagination, and ingenuity to pursue specific initiatives and their rapid implementation to deliver a modern, high-quality transportation system to the citizens of the Commonwealth. The STIC preamble is found on the following page.

The STIC is co-chaired by the Secretary of Transportation and the FHWA Division Administrator. There are twenty-five appointed members who serve on the STIC and represent a balanced cross-section of the transportation industry. Representatives include PennDOT, FHWA, Local Technical Assistance Program (LTAP), Local Public Agencies, Planning Partners, Contractors, Consultants, Federal and/or State Resource Agencies, and University Transportation Centers or Higher Education Institutions. For the full membership list, please see the State Transportation Innovation Council (STIC) Members page.



CHARTER

Preamble

The Pennsylvania Department of Transportation (PennDOT), Pennsylvania Turnpike Commission (PTC) and Local Public Agencies (LTA) own the transportation system and make key decisions on how to deliver projects, as well as what techniques and technologies to use in its operation and safety. The State Transportation Innovation Council (STIC) is intended to bring together stakeholders that represent market forces to work together to lead innovation in the Pennsylvania state transportation program.

Purpose

This Charter establishes the State Transportation Innovation Council (STIC) and defines its mission, scope, responsibility, membership, and administration.

Vision

The State Transportation Innovation Council (STIC) will foster a collaborative culture for rapid implementation of ready to deploy and beneficial innovations to efficiently deliver the public a modern, high quality transportation system.

Mission

Facilitate the rapid implementation of technology, tactics and techniques among transportation program delivery professionals at all levels of state government and throughout the private and non-profit sector to ensure smart, efficient investment in Pennsylvania's highway infrastructure.

Scope and Responsibility

The State Transportation Innovation Council (STIC) shall provide multi-stakeholder leadership to perpetuate the rapid deployment of innovation in Pennsylvania. The objectives and duties of the STIC shall be to identify and recommend ways to ensure that the State responds to key issues and challenges that impact the highway program. The STIC will act as a catalyst for rapid deployment of those national and State identified technologies, techniques and tactics that have been demonstrated in "real world" applications and can offer improved performance/effectiveness in Pennsylvania.



Scope and Responsibility (cont.)

The STIC will:

- Advise the PennDOT Secretary and FHWA Division Administrator.
- Provide a means of ensuring regular contact between the State DOT, Local Public Agencies, and highway sector.
- Report to the PennDOT Secretary and FHWA Division Administrator on the status of implementing *Every Day Counts* initiatives and related matters.
- Provide leadership to promote and support rapid deployment of selected technologies, tactics and techniques.
- Provide a forum for discussing and proposing solutions to transportation-related problems.
- Act as a liaison among the stakeholders represented by the membership, and may provide a forum for those stakeholders on current and emerging issues in the transportation sector.
- Develop a process to select technologies, tactics and techniques on which to focus implementation efforts.
- Identify and mobilize champions within Technical Advisory Groups (TAG) who are committed to the deployment of chosen technologies, tactics and techniques.
- Assist in the development of resource loaded deployment plans.
- Monitor performance metrics to ensure priority initiatives move into standard practice.
- Share information with all state stakeholders through meetings, workshops and conferences.



2016 - 2017 State Transportation Innovation Council (STIC) Members

Name	Organization
Leslie Richards, Co-Chair	Pennsylvania Department of Transportation
Renee Sigel, Co-Chair	Federal Highway Administration
Bechara Abboud	Temple University
Emin Aktan	Drexel University
Rodney Bender	Pennsylvania Public Utility Commission
Will Clark	York County Planning Commission
Mark Compton	Pennsylvania Turnpike Commission
Crystalann Deardorff	Women in Transportation Seminar
Nathan Flood	Pennsylvania Department of Conservation and Natural Resources
Douglas George	American Society of Highway Engineers
Charlie Goodhart	Pennsylvania Asphalt Pavement Association
Mark Hartle	Pennsylvania Fish and Boat Commission
Kelly Heffner	Pennsylvania Department of Environmental Protection
Brad Heigel	Pennsylvania Turnpike Commission
Elam Herr	Pennsylvania State Association of Township Supervisors
Steve Howsare	Southern Alleghenies Planning & Development Commission
Doug McLearen	Pennsylvania Historical Museum Commission
Seri Park	Villanova University
Jim Runk	Pennsylvania Motor Truck Association
Megan Ryerson	University of Pennsylvania
Richard Sause	Lehigh University
Clayton Stahl	American Concrete Pavement Association
Scott Sternberger	American Council of Engineering Companies
Darlene Stringos-Walker	Pennsylvania Association of Environmental Professionals
Peter Vlahos	Pennsylvania Aggregates and Concrete Association
Jason Wagner	Associated Pennsylvania Contractors
Sherri Zimmerman	American Public Works Association

The STIC members serve as a liaison to communicate the STIC innovations and foster the development of new ideas within their constituencies. Members are encouraged to represent the STIC at industry events, present information of innovations, and share STIC materials and publications. STIC members are required to participate in quarterly meetings to review new White Papers, discuss the status of innovation deployment, and promote new ideas.



STIC Technical Advisory Group
(TAG) Members

Construction TAG

Ben LaParne	TAG Chair
Joe Robinson	PennDOT Facilitator
John Bork	FHWA Facilitator

Design TAG

Steve Bolt	TAG Chair
Vince Greenland	PennDOT Facilitator
Cory Donahue	FHWA Facilitator

Environmental TAG

Angela Schreffler	TAG Co- Chair
Virginia Bailey	TAG Co- Chair
Mark Lombard	PennDOT Facilitator
Barbara Shaffer	FHWA Facilitator

Facilities TAG

Jack Christensen	TAG Chair
Terry Pearsall	PennDOT Facilitator
Melissa Furlong	FHWA Facilitator
Bob Kleimenhagen	PTC Facilitator

ITS TAG

Dan Corey	TAG Co- Chair
Laurie Matkowski	TAG Co- Chair
Doug Tomlinson	PennDOT Facilitator
James Paral	FHWA Facilitator

Maintenance TAG

Mike Fleming	TAG Chair
David Mallin	PennDOT Facilitator
Clint Beck	FHWA Facilitator

Materials TAG

Gary Hoffman	TAG Co- Chair
Peter Vlahos	TAG Co- Chair
Robert Horwhat	PennDOT Facilitator
Jennifer Albert	FHWA Facilitator

Project Delivery TAG

Gregory Lebo	TAG Co- Chair
Todd Morris	TAG Co- Chair
Melissa Batula	PennDOT Facilitator
Bren George	FHWA Facilitator

Safety TAG

Eric Donnell	TAG Chair
Gavin Gray	PennDOT Facilitator
Mike Castellano	FHWA Facilitator

Structures TAG

Rhett Heiple	TAG Chair
Justin Bruner	PennDOT Facilitator
Wendy McAbee	FHWA Facilitator

*Roster with contact information can be found in Appendix A



The Technical Advisory Groups (TAGs) assist the STIC to evaluate applications of new initiatives. The TAGs are responsible for developing a deployment plan to guide and track the implementation of each innovation. Each TAG is led by a PennDOT facilitator, FHWA facilitator, and TAG Chair or Co-Chair. TAG members are selected by the TAG leadership. TAG membership is inclusive, not exclusive, and varies depending on topics and the need of subject matter experts. For the list of TAG leaders with contact information, please see Appendix A.

The day-to-day operations of the STIC are coordinated by a **Management Team** led by the Bureau of Planning and Research. In addition to staff from the Bureau of Planning and Research, the STIC Management Team is comprised of representatives from the FHWA Division Office, PennDOT Bureau of Highway Administration, the PennDOT Press Office, the Bureau of Innovations, and consultant support.

▶ **If you have any questions, please contact**

Kenita Honesty, STIC Manager

(717) 214-8685

khonesty@pa.gov



PennDOT and FHWA Facilitator Roles

- Solicit interest among volunteer TAG members to select a chairperson(s)
- Assist the chairperson by providing PennDOT and FHWA materials, publications, policy, and procedures
- Recognize and assist the TAG in identifying goals, resolving debate and evaluating actions
- Work with the chairperson to keep TAG activities advancing
- Be informed about the subject matter being pursued by the TAG
- Act as a liaison for agency resources that are needed by the TAG such as trainers and specialists

Chairperson Roles

- Schedule TAG meetings and conference calls, and establish the frequency of the meetings
- Determine who will write the meeting minutes
- Routinely communicate to TAG members
- Determining the TAG's mode of decision making (consensus, majority, other)
- Provide agendas for meetings to TAG members
- Review Initiative Nomination forms prior to meetings for missing information
- Lead discussion to vet Initiative Nominations among TAG members
- Present White Paper to STIC or select subject matter expert to present
- Track the progress of each initiative and ensure it is meeting the goals established, including timeline
- Provide status reports to STIC on initiatives being pursued
- Seek assistance from PennDOT and FHWA facilitators, when necessary

Tag Member Roles

- Participate in TAG meetings
- Suggest new initiatives
- Champion initiatives for deployment
- Report back to TAG on progress of innovation deployment



How an Idea becomes an Innovation



*The primary **goal** of the STIC is to **promote the deployment of proven innovative ideas and to support the implementation of Every Day Counts initiatives**. The STIC encourages the submission of proven innovative ideas to the PennDOT, the TAGs, and the STIC. This process outlines the steps required to advance an idea to become a STIC-supported innovation. The STIC is not for unproven ideas, research, or new product testing.*



Initiative Vetting Process

STEP 1
Initiative Submission

- A STIC or TAG Member suggests a well-researched and proven technology, or technique and submits the Initiative Nomination Form located in the STIC SharePoint site to the STIC Management Team.
- The STIC Management Team reviews the nomination and assigns it to the appropriate TAG.

STEP 2
Initiative Assessment

- The TAG holds a meeting or conference call to evaluate the feasibility of the initiative and decides to accept, dismiss, or request more information.
 - Acceptance:** Write White Paper (executive brief) on the value, cost, and time to deploy the initiative.
 - Dismiss:** The initiative is already underway, contrary to PennDOT's mission, prone to negatively impact citizens or the environment, or unable to expedite project delivery.
 - Need more information:** Set a schedule to retrieve more information from the Initiative Sponsor.
- The TAG Chair will formally document the TAG's decision on the STIC SharePoint Site.

STEP 3
Initiative Preparation & Presentation

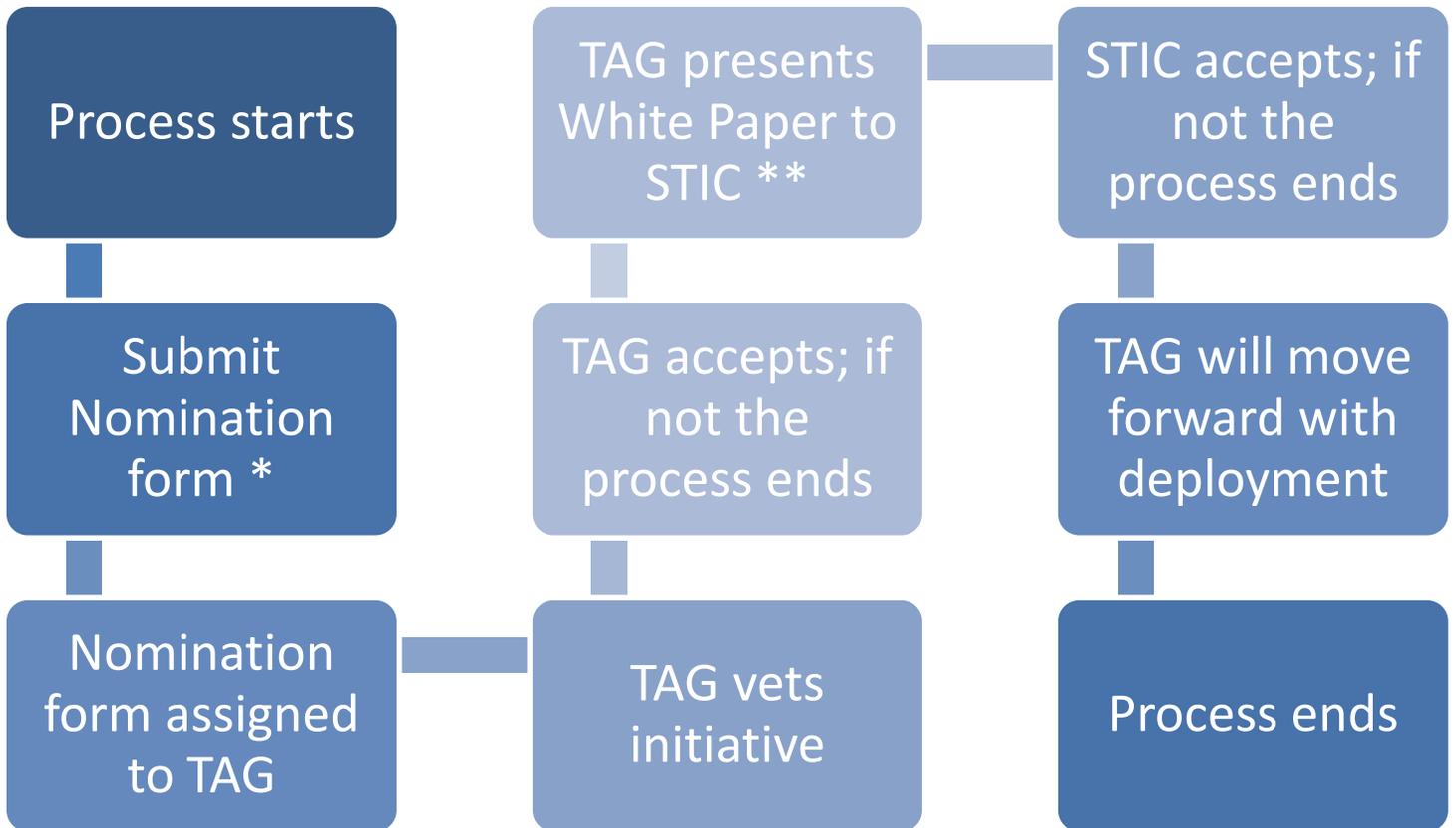
- If the TAG decides to accept the initiative, the TAG develops a White Paper. The White Paper template is found on the SharePoint Site. The TAG must submit the White Paper to the STIC Management Team at least 2 weeks before the next STIC meeting.
- The STIC Management Team reviews the White Paper and contacts the TAG Chair to confirm the presentation of the White Paper at the next STIC meeting.
- The TAG Chair or subject matter expert presents the White Paper at the next STIC meeting.

STEP 4
Initiative Action

- STIC decides to accept, dismiss, or request more information:
 - Acceptance:** The TAG will move forward with deployment.
 - Dismiss:** The initiative is already underway, contrary to PennDOT's mission, prone to negatively impact citizens or the environment, or unable to expedite project delivery.
 - Need more information:** Set a schedule to retrieve more information from the TAG.



Initiative Vetting Guidelines



*Nomination form template found in Appendix B

**White Paper template found in Appendix C



Deployment Plan Process

STEP 1 STIC Acceptance

- At the meeting, the STIC accepts the initiative for immediate deployment. The action may result in the full implementation or a pilot study of the initiative.

STEP 2 Deployment Team

- A Champion is selected (typically PennDOT staff), and key contributors are identified who will aid in the initiative's deployment.
- At this time, the TAG still owns the initiative and is responsible for deployment; however, their actions are buttressed with PennDOT staff. This is the Deployment Team.

STEP 3 Kick-Off Meeting

- A kick-off meeting is held with TAG representatives and the STIC Management Team.
- The intent is to create a high-level plan that sets a clear mission and desired results.

STEP 4 Deployment Plan

- The TAG will provide the Deployment Plan to the STIC Management Team for their review, acceptance, or modification.

STEP 5 Implement Key Actions

- The Deployment Team implements the appropriate action items as listed in the deployment plan.
- Status tracking occurs by the TAG and consists of two basic elements:
 - 1) The progress and reporting of completed action items, and
 - 2) Identification of hurdles or challenges towards full implementation.
- Action items may include steps taken to update a manual or publication, changes to policies or procedures, or construction of a (pilot) project.

STEP 6 STIC Update

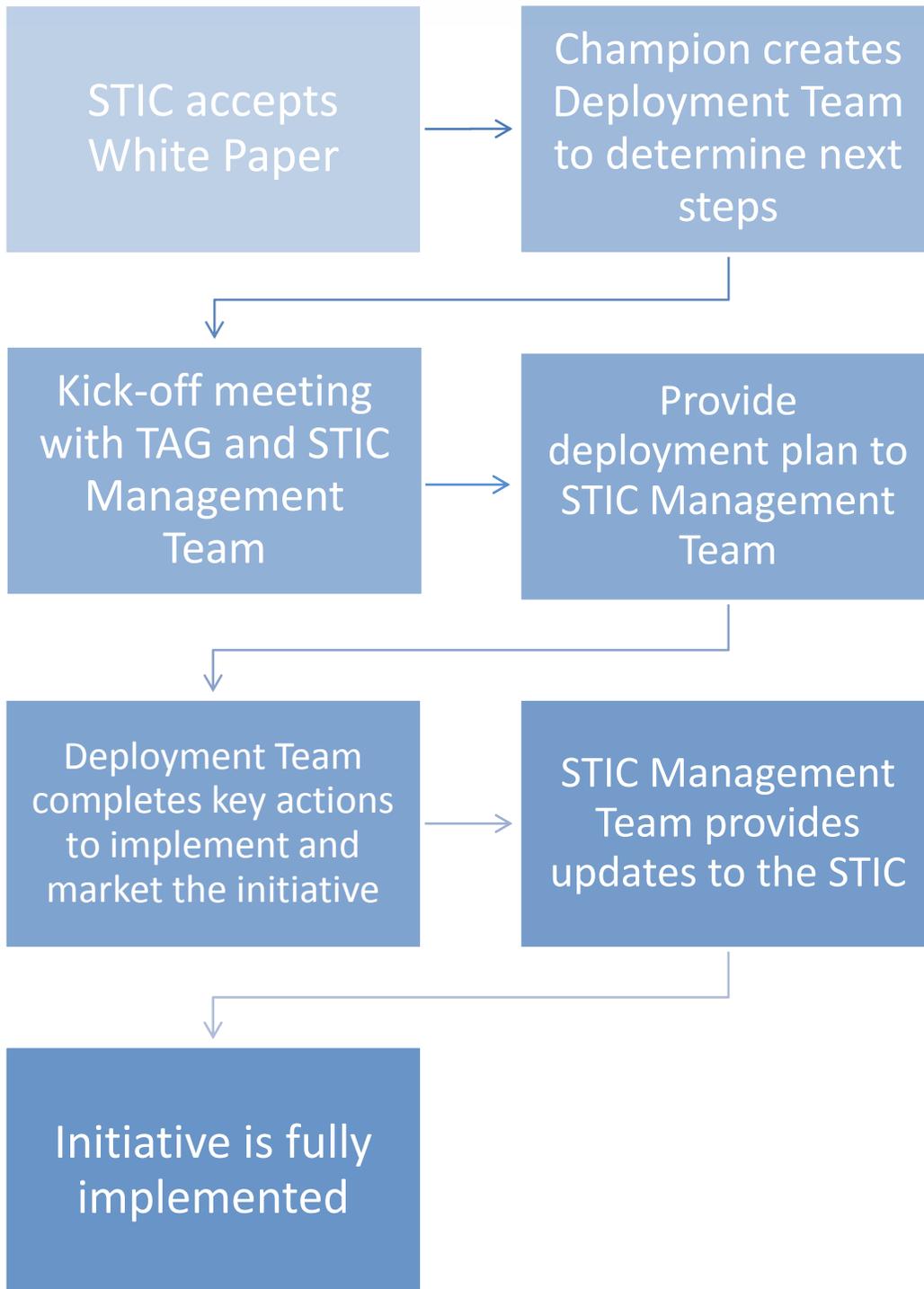
- The Champion(s) will be notified by the STIC Manager of the next scheduled STIC meeting, which is used as a periodic (quarterly) target for reporting. The Champion(s) are responsible to report progress to the STIC Manager.
- The Champion(s) are responsible for collecting updates on the status of the action items (as listed in the Deployment Plan) and update any other relevant information in the Deployment Plan (e.g. completion date, estimated cost).
- The Champion(s) are responsible for reporting the status of the Deployment Plan, key actions, accomplishments, barriers (and proposed solutions).

STEP 7 Initiative is Fully Implemented

- The initiative is considered fully implemented when all of the action items are completed.
- At this time, the STIC Management Team determines how best to communicate the results to the transportation industry.



Initiative Deployment Plan Guidelines



2015 STIC Initiatives Examples

A **roundabout** is a type of circular intersection or junction in which traffic flows continuously in a counterclockwise direction around a central island. Roundabouts provide for increased capacity of vehicles through an intersection because they allow traffic to continuously flow, yielding only until a gap in traffic is available. Roundabouts also offer improved safety over other forms of intersections by eliminating most head-on, left-turning across oncoming traffic, and right angle crashes.

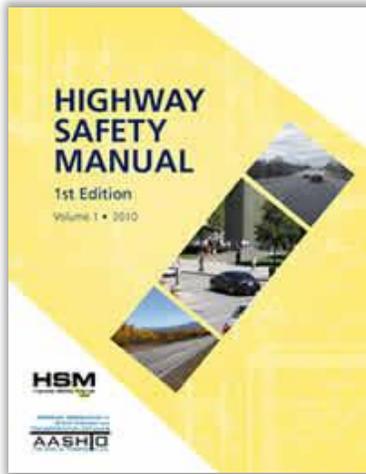


Adaptive Signal Control Technology (ASCT) adjusts the timing of red, yellow, and green lights to more effectively manage changing traffic patterns and reduce traffic congestion. The technology determines which lights should be red and which should be green through data received from strategically placed sensors. The data collection and analysis are done automatically, and signal timing updates are made continually as different traffic situations occur. Adaptive signal control technologies are also associated with the FHWA Every Day Counts program.

High Friction Surface Treatments (HFST) are pavement surfacing systems with exceptional skid-resistant properties not typically provided by conventional materials. When applied to locations that exhibit a higher propensity for wet pavement curve-related crashes, steep downgrades or are approaches to intersections, the treatment increases friction and assists in preventing vehicles from skidding.



2015 STIC Initiatives Examples (cont.)



The **Highway Safety Manual (HSM)** uses traffic and crash data to establish quantitative safety practices to ensure the maximum benefit is obtained from safety investments. AASHTO created the Highway Safety Manual to be valuable to all transportation professionals as it assists them in making decisions that have a positive impact on highway safety. The HSM supports regional, state, and national goals for reducing fatalities, as well as shared goals of better mobility and improved environment. PennDOT has begun implementing the concepts of the Highway Safety Manual into its design publications and policies.

Warm-mix asphalt is produced at temperatures up to 120 degrees Fahrenheit, cooler than traditional asphalt mixing. This allows for both environmental and performance benefits and proves to be an innovative alternative for paving, especially on low-volume roadways. The process requires less effort to mix and compact, thus increasing production efficiency during the mixing, paving, and rolling operations. PennDOT is working with local governments and municipal partners to educate and encourage the use of this beneficial alternative to paving standards.



2016 STIC Meeting Schedule

March 9, 2016

Location to
be determine

June 15, 2016

Location to
be determine

September 21, 2016

Location to
be determine

December 7, 2016

Location to
be determined

TAGs hold meeting as needed, which are called by the Chairperson(s).



SharePoint 101

SharePoint is a powerful tool available to all State Transportation Innovation Council (STIC) and Technical Advisory Group (TAG) members to store, organize, share, and manage electronic documents and track innovation deployment.

To access the site, please visit:

<https://sportal.dot.pa.gov/Planning/STIC/Pages/STIC-Home.aspx>

How to Use Sharepoint

The home page provides quick access to:

- administrative documents
- nomination forms
- deployment plans
- status reports

The overview page links users to:

- upcoming events calendar
- discussion boards
- nomination tracking table

Share New Ideas

Share new initiatives and ideas by submitting a nomination through the SharePoint site. Simply click the **nomination form** button, fill in the fields, and click submit. STIC Management Team will assign the idea to the appropriate TAG.

Connect with TAG Progress

On the left side navigation bar, click on the TAG links to navigate to the individual TAG pages for deployment plans and documents specific to the TAG's work.



SharePoint Tips

1. Download and review the **SharePoint User Guide** available by clicking on the home page documents link.
2. Write your **username** and **password** for future reference.

Username: _____

Password: _____

3. Forgot your password? Please follow this link to reset:
<https://www.login.state.pa.us/login/login.aspx>

Contact Kenita Honesty for SharePoint questions, concerns and password help: (717) 214-8685 or via email at khonesty@pa.gov.



Appendix A – List of TAG Members with Contact Information

Construction TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Joe Robinson	717-787-4794	josrobinso@pa.gov
FHWA Facilitator	John Bork	717-221-3723	john.bork@dot.gov
TAG Chair	Ben LaParne	814-765-0451	blaparne@pa.gov

Design TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Vince Greenland	814-696-7151	vgreenland@pa.gov
FHWA Facilitator	Cory Donahue	717-221-4423	cory.donahue@dot.gov
TAG Chair	Steve Bolt	215-275-5301	SBolt@burns-group.com

Environmental TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Mark Lombard	717-772-2569	mlombard@pa.gov
FHWA Facilitator	Barbara Shaffer	717-221-3704	barbara.shaffer@dot.gov
TAG Co-Chair	Angela Schreffler	717-540-6040	amschreffler@mccormicktaylor.com
TAG Co-Chair	Virginia Bailey	717-540-6040	vmbailey@mccormicktaylor.com

Facilities TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Terry Pearsall	717-787-0466	tpearsall@pa.gov
FHWA Facilitator	Melissa Furlong	717-221-3442	melissa.furlong@dot.gov
PTC Facilitator	Bob Kleimenhagen	717-831-7455	rkleimen@paturnpike.com
TAG Chair	Jack Christensen	717-831-7570	jchrste@paturnpike.com

ITS TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Doug Tomlinson	717-787-3657	dtomlinson@pa.gov
FHWA Facilitator	James Paral	717-221-3465	james.paral@dot.gov
TAG Co-Chair	Dan Corey	215-789-2124	daniel.corey@aecom.com
TAG Co-Chair	Laurie Matkowski	215-592-1800	lmatkowski@dvrpc.org



Appendix A – List of TAG Members with Contact Information (continued)

Maintenance TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	David Mallin	717-787-3090	damallin@pa.gov
FHWA Facilitator	Clint Beck	717-221-3718	clint.beck@dot.gov
TAG Chair	Mike Fleming	717-683-9891	mflaming508@comcast.net

Materials TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Robert Horwhat	717-705-3847	rhorwhat@pa.gov
FHWA Facilitator	Jennifer Albert	717-221-3410	jennifer.albert@dot.gov
TAG Co-Chair	Gary Hoffman	717-657-1881	gary@pa-asphalt.org
TAG Co-Chair	Peter Vlahos	717-234-2603	peter@pacaweb.org

Project Delivery TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Melissa Batula	717-214-8734	mbatula@pa.gov
FHWA Facilitator	Bren George	717-221-3759	bgeorge@dot.gov
TAG Co-Chair	Gregory Lebo	717-796-0625	gilebo@urbanengineers.com
TAG Co-Chair	Todd Morris	717-975-6481	tmorris@pennoni.com

Safety TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Gavin Gray	717-783-1190	gagray@pa.gov
FHWA Facilitator	Mike Castellano	717-221-4517	mcastellano@dot.gov
TAG Chair	Eric Donnell	814-963-7304	edonnell@enr.psu.edu

Structures TAG			
TAG Role	TAG Member	Phone	Email
PennDOT Facilitator	Justin Bruner	717-783-8444	jbruner@pa.gov
FHWA Facilitator	Wendy McAbee	717-221-4541	wendy.mcabee@dot.gov
TAG Chair	Rhett Heiple	717-763-7211	rheiple@gfnet.com



Appendix B – Initiative Nomination Form

	Initiative Nomination Form	
Title	<input type="text"/>	*
Date	<input type="text"/>	* 
Describe the scope of this Initiative	<input type="text"/>	*
Is this a continuation of a previous STIC related Initiative ?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Not sure	
What need(s) will be met ?	<input type="text"/>	*
What tangible benefit(s) will this Initiative yield ?	<input type="text"/>	*
Please add any additional comments, including research results, to support this Initiative	<input type="text"/>	
Proposed TAG	<input type="text"/>	▼
Contact Name	<input type="text"/>	*
Email Address	<input type="text"/>	*
Organization	<input type="text"/>	*
Phone Number	<input type="text"/>	*
Supporting Documents	<input type="button" value="Click here to attach a file"/>	
	<input checked="" type="checkbox"/> Insert Attachment.	
	<input type="button" value="Submit"/>	<input type="button" value="Cancel"/>
<p><i>If you need any assistance completing this form, please contact Kenita Honesty at (717)214-8685 or via email at RA-PDPennDOTSTIC@pa.gov</i></p>		



	STIC White Paper	
Title :	Tracking Number:	
TAG :		
Project Scope:	<input type="text"/>	
View Initiative Form		Edit Initiative Form
I. Background		
What are the needs/problems/benefits of the Initiative and who experienced them ?		
<input type="text"/>		
To justify the initiative, what are the national or international research results or best practices ?		
<input type="text"/>		
II. Purpose		
What is the purpose of the Initiative?		
<input type="text"/>		
What immediate or long-range results are expected?		
<input type="text"/>		
III. Outcomes		
What is the estimated cost of implementing the Initiative?		
<input type="text"/>		
What is the estimated time line to deploy the Initiative?		
<input type="text"/>		
What performance measure(s) would gauge success?		
<input type="text"/>		
Who would be involved in implementing the Idea?		
<input type="text"/>		
IV. Options		
Is there more than one option for deploying the Initiative?		
<input type="text"/>		
Submit		Cancel
<small>If you need any assistance completing this form, please contact Kenita Honesty at (717)214-8685 or via email at RA-PDPennDOTSTIC@pa.gov</small>		

