



## AASHTO Subcommittee on Design

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U.S. Department of Transportation  
Federal Highway Administration

AMERICAN ASSOCIATION OF  
STATE HIGHWAY AND  
TRANSPORTATION OFFICIALS  
**AASHTO**  
THE VOICE OF TRANSPORTATION



# What Can SHRP2 Solutions Do For You?

- Bridges replaced over weekends
- Traffic accidents removed more quickly and safely
- More miles of urban pavement maintained with less money
- Fewer backups and less congestion for hundreds of thousands of urban motorists



# What is SHRP2?

## **Save lives. Save money. Save time.**



- \$232 million, federally funded research program to address critical transportation challenges:

- Making highways safer
- Fixing deteriorating infrastructure
- Reducing congestion



- Collaborative effort of AASHTO, FHWA, and TRB



- Aims to advance innovative ways to plan, renew, operate, and improve safety on the Nation's highways

# Who will benefit?

- Motorists
- State/local transportation agencies
- Metropolitan Planning Organizations
- Highway designers, suppliers, and construction contractors
- Freight industry
- Environmental agencies
- Communities and businesses
- Emergency medical services
- Railroads



# Focus Areas



**Safety:** fostering safer driving through analysis of driver, roadway and vehicle factors in crashes, near crashes, and ordinary driving



**Renewal:** maintaining and repairing the deteriorating infrastructure using already-available resources



**Reliability:** managing non-recurring events to create more predictable travel times



**Capacity:** building a highway system that creates minimum disruption and meets the environmental, and economic needs of the community.

# Research to Implementation



Research and Development

Implementation

Research responds to known transportation challenges

A research product emerges and is refined through pilots and other activities

Potential implementation explored through knowledge transfer

Partner agencies select, prioritize, and prepare product for implementation

Product is marketed to users and integrated into standard practice



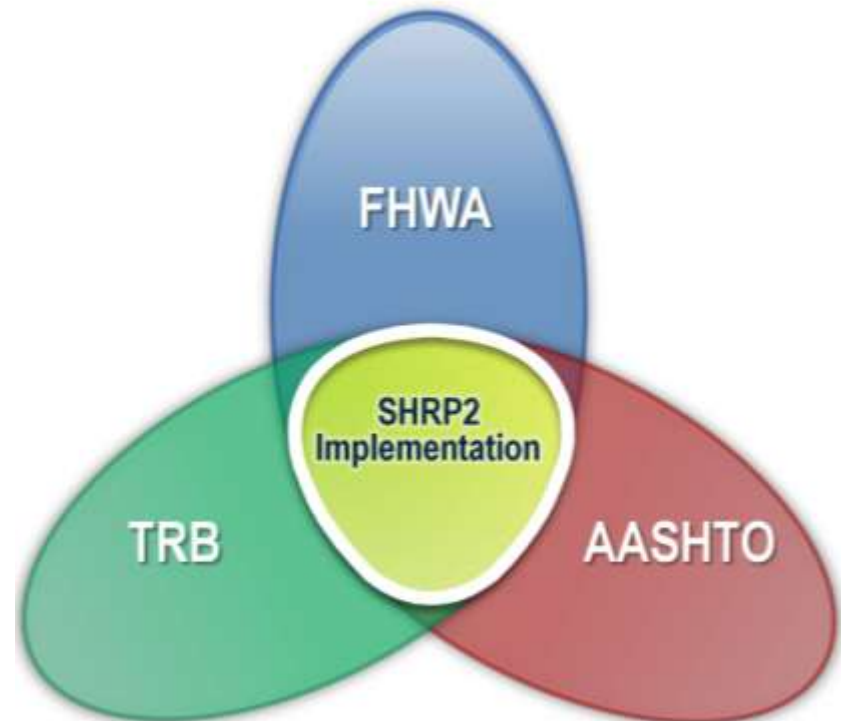
# What Is Implementation?



1. Implementation is the **routine use** of a SHRP2 product
2. Carried out by **State DOTs** and other implementing agencies
3. Focus on **high-priority products** for national adoption, with lesser efforts on other products

# Efforts are Collaborative

- Implementation is cooperative. It engages:
  - AASHTO
  - FHWA
  - SHRP2/TRB staff
- States are the customers of AASHTO implementation
- FHWA, TRB also serve locals, academia, MPOs





# SHRP2 Plan of Action



## **Research (2007 - 2013)**

- 100+ research projects
- Administered by TRB

## **Transition (Now through 2015)**

- Pilots and demonstrations
- Testing and refinement of products emerging from research

## **Implementation (2012 - forward)**

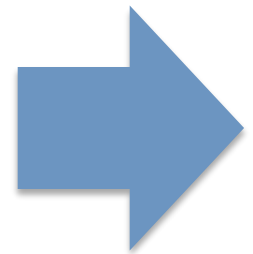
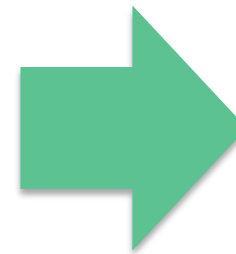
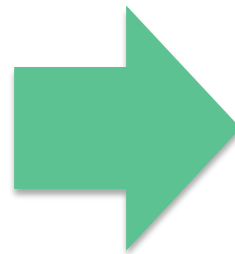
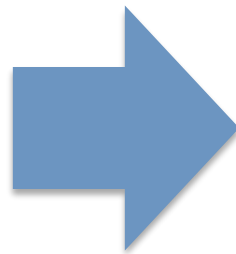
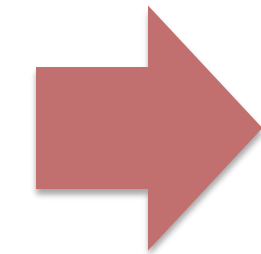
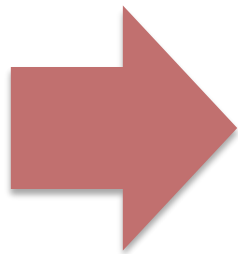
- Partner agencies prioritize products for implementation
- Selected products integrated into current transportation practices

# Prioritization Process



**Safety implementation efforts underway by:**

- NHTSA
- FHWA
- AASHTO
- TRB



**Survey of Chief Engineers**

**Implementation Task Force**

**FHWA Priorities**

**Collaboration  
TRB, AASHTO,  
FHWA**

**3-Year Plan**

**Endorsement by  
FACA  
Committee**

# Achieving Success

5-6 States adopt as standard practice

Additional states follow the lead

AASHTO and FHWA provide  
continuing support

Private sector buy-in

Positive impact on practice

Cost-effective use of products

# Key Assumptions

Product is ready

Audience is ready

DOTs have capacity  
to implement

AASHTO and FHWA  
have resources

Priority solutions have  
broad appeal

Related products are bundled  
for ease of use

3-yr plan is financially  
constrained

All solutions are accessible

Plan is revisited annually



# 2012 Starts

- **Project Management Tools** **\$0.5M**
    - R09 Managing Risk in Rapid Renewal Contracts
    - R10 Managing Complex Projects
  - **R04 Bridge Designs for Rapid Renewal (2011)** **\$4.2M**
  - **R26 Preservation on High Volume Roadways (2011)** **\$3.2M**
  - **L12 Training for Traffic Incident Responders (2011)** **\$4.4M**
  - **Organizing for Reliability** **\$6.6M**
    - L31 CEO Workshop on Operations (2011)
    - L17 Knowledge Transfer System
    - L06 Organizing Agencies for Systems Operations and Mgt.
    - L01 Business Processes for Reliability
  - **C06 Integrating Ecosystem & Highway Planning** **\$1.5M**
- \$20.4M**

# 2013 Starts – Estimated

- **TCAPP** **\$6 – 7M**
  - C01 TCAPP
  - C02 Performance Measures
  - C19 Expedited Project Delivery
- **R07 Performance Specs for Rapid Renewal** **\$.2 –.5M**
- **R15B Integrating Utility/Transportation (2011)** **\$2 – 3M**
- **R16 Railroad Agreements (2011)** **\$1 – 2M**
- **R23 Long-Life Pavements (2011)** **\$1 – 2M**
- **R06 Web Tool for Non-destructive Testing** **\$1 – 2M**
- **Estimated costs** **~ \$14M**



# 2014 Starts - Estimated

• <b>Economic Impact Tools</b>	<b>\$1 – 2M</b>
– C03 Economic Impact Case Studies	
– C11 Economic Impact Analysis Tools	
• <b>C10 Travel Demand and Network Models</b>	<b>\$3 – 4M</b>
• <b>C15 Freight Planning Guide</b>	<b>\$1 – 2M</b>
• <b>Reliability Analysis Tools</b>	<b>\$3 – 4M</b>
– L02 Monitoring Programs for Reliability	
– L05 Planning/Programming for Reliability	
– L08 Reliability in the Highway Capacity Manual	
• <b>L36 Regional Operations Forum</b>	<b>\$.5 – 1M</b>
• <b>R19A Bridges Beyond 100 Years</b>	<b>\$1 – 2M</b>
• <b>Pavement Technologies</b>	
– R05 Modular Pavement Solutions	
– R21 Composite Pavement Systems	
<b>Estimated costs</b>	<b>TBD</b>
	<hr/>
	<b>~ \$11M</b>

# Implementation Activities

- Knowledge Transfer Workshops
- Implementation Planning Workshops
  - Engages stakeholders from state and local DOTs, AASHTO Committees, the industry, FHWA, TRB and others
  - Identifies target audiences, strategies, tactics, marketing plans and budgets
- Outreach to AASHTO Committees
- Development of Lead State Demonstration Projects
- Information Technology Product Development

# Other Tactics

- Multiple tactics will be used to encourage implementing agencies to adopt SHRP2 products:
  - Financial support
  - Evaluations
  - Training / technical assistance
  - Showcases
  - Seminars
  - Workshops
  - Webinars
  - Marketing Plans



# What's Your Role?

- Develop specifications, policies, standards
- Identify key technical stakeholders and advocates within your states
- Carry the message back to your colleagues and peers
- Identify and promote “lead states”
- Provide panel members for Implementation Planning Workshops
- Support travel for training relating to SHRP2 Solutions
- Participate in webinars, workshops, and other outreach activities





# Get Involved

- Become a lead state or product champion
- Watch for pilot project and demonstration opportunities
- Engage in peer-to-peer exchange programs
- Participate in focus groups, surveys and other product research
- Subscribe to SHRP2 news at [www.TRB.org/SHRP2/news](http://www.TRB.org/SHRP2/news)
- Learn about research requests for proposals (RFPs) from TRB





# Questions?

## Stay informed and stay tuned!

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For more information: [www.trb.org/SHRP2](http://www.trb.org/SHRP2)