



# SHRP 2 Reliability L34 e-Tool



## THE CHALLENGE

The second Strategic Highway Research Program (SHRP 2) Reliability Research area targets travel time variation and congestion reduction. By mitigating the effects of incidents, weather, work zones, special events, traffic control devices, fluctuations in demand, and bottlenecks, agencies can reduce travel time variability and congestion.

In 2008, SHRP2 sponsored the L01 study to identify and report on successful practices that integrate business processes to improve travel time reliability. A final product of this research was a guide for transportation agency managers, which incorporated a 7-step process to assess business processes within a transportation agency.

To increase the likelihood that transportation agencies would use the products from the L01 project, AEM worked with TRB to develop an educational and useful electronic tool (e-tool). The e-tool was to help agencies understand and evaluate their current business processes that affect travel time reliability.

## PROJECT GOALS

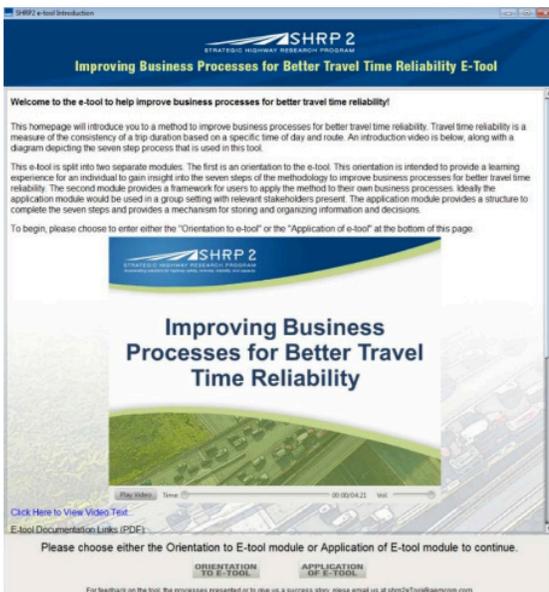
AEM focused on the following goals:

- Complete a best practices review of existing e-tools to provide input into the development of functional requirements and architecture recommendations for the L34 e-tool
- Develop and test a prototype e-tool
- Develop and Develop and e-tool
- Host the e-tool through the end of SHRP 2

## THE AEM APPROACH

Utilizing combined expertise in transportation research and software development, AEM transformed the SHRP2 L01 research products into an innovative, stand-alone e-tool that can be used by practitioners for planning, implementing, integrating, and analyzing business processes to improve travel time reliability.

Focusing on the 7-step process utilized in the L01 research, AEM took a multi-module approach to the e-tool. The approach included the development of two unique modules within the e-tool.



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## Orientation module

This module is for individual training/e-learning to educate technical and non-technical employees so that they can identify how to evaluate/change business processes and overcome obstacles that will result in an advancement of operations.

## Application Module

This module is intended to support the integration of business processes within and between agencies working towards a common reliability goal through group interaction in an electronic environment.

## THE AEM DIFFERENCE

After extensive testing of the e-tool, AEM organized and conducted two pilot tests of the e-tool in Texas and New Hampshire with representatives from State DOTs, Metropolitan Planning Organizations (MPO), local law enforcement, emergency medical services (EMS)/fire, and other agencies.

Based on the feedback obtained from the pilot testing, practitioners indicated that the e-tool will help by providing valuable outputs that can be used by agencies to allocate resources and funding to advance operations. The agencies also acknowledged that the e-tool pilot sessions provided an opportunity to identify areas where operations might be improved or better integrated through business processing mapping.

### AEM's work resulted in a user-friendly software tool that will help transportation professionals:

- Learn more about the concept of business process mapping
- Facilitate stakeholder meetings, and
- Increase inter-agency collaboration to map current business processes

