



The Infrastructure Voluntary Evaluation Sustainability Tool U.S. DOT Federal Highway Administration

Arizona Department of Transportation (ADOT)

Evaluate, Score, Improve: How INVEST is Helping DOTs Build
Sustainable Transportation Webinar

10/27/2014



ADOT INFRASTRUCTURE HEALTH



Arizona's transportation infrastructure is spread over 114,000 square miles, operates from sea level to 6,000 feet and withstands temperatures that range from below 0° F to over 120° F. Maintaining optimum health and performance of this infrastructure is critical to Arizona's economic vitality, quality of life, and natural and built environments.



Like many transportation agencies around the country, ADOT is in the early stages of injecting sustainable strategies into core planning, operating, design, construction and maintenance activities.

Arizona Asset Universe

140,000 maintenance lane miles

7,800 bridges

1 International border

ADOT Asset Universe

30,000 maintenance lane miles

4,700 bridges

10 Maintenance & Construction Districts

1,500 Facility Buildings

ADOT & INVEST

The Arizona Department of Transportation (ADOT) recognizes the critical need to plan and prioritize resources more efficiently in order to maintain and operate a robust, economically beneficial transportation network. Through continuous improvement practices, ADOT strives to strategically invest resources to achieve the highest possible return. ADOT also recognizes, in relation to investment and return dynamics, the importance of delivering transportation solutions in a more sustainable manner to achieve economic, social and environmental goals.

- 2011 ADOT was a key participant in the beta-test program

ADOT & INVEST 2013

- ADOT's INVEST Implementation Program has been and continues to be a valuable opportunity for ADOT to acquaint itself with an accessible and comprehensive platform for assessing programs and practices using a holistic sustainability lens.
- ADOT's INVEST Working Group (IWG) efforts initiated and subsequently identified a framework to validate strategic directions, increase knowledge across core functions and advance a decision-making framework around sustainability best practices.

- 2013 – IWG identified three (3) separate INVEST implementation goals:
- Score projects in ADOT’s 5-year construction program utilizing the Project Development (PD) Module – with a specific focus on statewide roundabout projects.
 - Develop an internal ADOT INVEST and ADOT / local government INVEST training framework in order to develop new and novel sustainability operational and partnering opportunities.
 - Score multiple projects in the PD Module with an eye on how green infrastructure, low-impact development, multimodal mobility, freight planning and Context Sensitive Solutions (CSS) can be measured and defined, especially as they affect or contribute to ADOT’s high-level, data-driven policy evaluation models and the Agency Strategic Focus Areas.
 - ADOT’s final report scheduled for November 2014

ADOT's Construction Program – Statewide Roundabout INVEST Assessment - Goal 1

- Roundabouts are becoming a cornerstone of traffic safety and congestion management, so it is critical to have a thorough understanding of how future implementation and development directly impact communities' social, environmental and economic systems. In Arizona, at both the state and municipal level, roundabouts have become a popular option in traffic intersection design/development/safety.
- At the project development (PD) level, roundabout planning, design and construction share multiple INVEST elements such as quality construction, designing pavement for longevity, life cycle concepts, recycled materials, stormwater and air quality mitigation benefits, local community enhancement and improved safety.

ADOT's Construction Program – Statewide Roundabout INVEST Assessment - Goal 1

- Score multiple projects in the PD Module
- In addition to over twenty (20) roundabout assessments up to 30 other 5-yr construction projects will be scored to allow a full view for the ADOT IWG to identify meaningful process improvements.
- **ADOT Sustainable Earthwork Plan (ASEP) Case Study**
 - Sustainable Earthwork Plan format identified
 - \$50m H7900 Superior Streets project used as basis
 - Begin documenting, photographing earthwork and blasting work, rough out earthwork BMPs KH sequenced from Stage I to Stage V design plans.
 - Utilize INVEST PD-21 Earthwork Balancing as framework basis

ADOT / Local Government INVEST Training and Scoring - Goal 2 City of Sedona, Arizona

- As part of ADOT's INVEST effort an additional outreach and training element to local governments was incorporated. ADOT identified this local government participation as a great partnering tool, especially for those that had transportation projects administered by ADOT. This is noteworthy, since a portion of ADOT's highway system passes through many of our states local governments. ADOT was conscious that within the Arizona highway system there exist lane miles that act as the sole main arterial access to many of the remote town in the state.
- The City of Sedona, Arizona INVEST training was the first of several outreach and training efforts scheduled by ADOT. The training was an opportunity to develop and refine a local government training framework that would be transportable to other cities around the state.

ADOT / Local Government INVEST Training and Scoring - Goal 2 City of Scottsdale, Arizona



INVEST as a collaboration tool

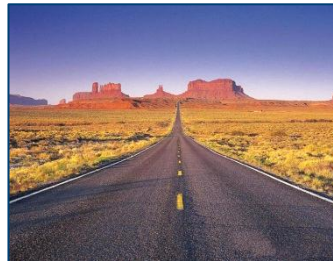
- During ADOT's first internal INVEST training, two person teams were assigned to work together. The teams were comprised of one civil engineer from ADOT's Statewide Project Management team and one environmental planner from ADOT's Environmental Planning Group. Individuals with a civil engineering, analytical background were coupled with those whom possessed an environmental, rules oriented perspective. It quickly became apparent to the training team a new and novel collaboration process had materialized. This collaboration developed a unique perspective centered on applying the tool into the project development process, while simultaneously benefiting from the extensive real time scorer opinions. It was determined that INVEST could be scaled to play a key role in a more "cradle to grave" scoring process - A collaborative approach in which a scoring project is handed off between planning, project and maintenance personnel to score.

Questions

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