



Online Tool Invests Highway Projects with Sustainability

BENJAMIN COTTON

In October 2012, the Federal Highway Administration (FHWA) launched a voluntary online tool to help agencies identify opportunities for incorporating sustainability into transportation projects and programs. INVEST 1.0 consists of a collection of sustainability best practices, called criteria, in three modules—system planning, project development, and operations and maintenance—that address the full life cycle of a highway.

With this web-based tool, an agency can evaluate each module independently and receive a score based on the points achieved for each criterion. Beyond the score, however, INVEST 1.0 meets an identified need for a collaborative virtual workspace that promotes communication and encourages participation by a range of sustainability-minded practitioners, including transportation planners, engineers, construction specialists, asset managers, ecologists, economists, maintenance technicians, and executive leaders.

Incorporating Feedback

INVEST 1.0 underwent an extensive review process during development. When the beta version was released in 2010, FHWA sought feedback from all potential users and stakeholder organizations, including the American Association of State Highway and Transportation Officials, the Association of Metropolitan Planning Organizations, federal partners—such as the Federal Transit Administration and the Environmental Protection Agency—and many state departments of transportation.

A pilot test version was released in 2011 and 2012, and 17 transportation agencies around the country tested the tool and provided feedback to FHWA. The development team received more than 2,000 comments from the beta and pilot testing, addressed all, and incorporated many into INVEST 1.0.



Central Federal Lands Highway is using the online tool INVEST to evaluate the sustainability of transportation projects in the Don Edwards San Francisco Bay National Wildlife Refuge in California.

Flexibility and Functionality

The pilot tests led to a significant change in the project development module of INVEST 1.0. Users suggested that the module, designed to evaluate specific highway projects, should be more flexible and customizable, so that all types of highway projects could have the opportunity to score points. FHWA created multiple scorecards for the module, acknowledging differences in project setting and scope. The revision allows for an urban pavement rehabilitation project, for

example, to have a unique set of criteria tailored to its sustainability needs, and a large, rural highway project to have its own set of criteria. The module offers an option to create a custom scorecard around certain base criteria.

The pilot test also yielded valuable input for the tool's functionality. FHWA requested that each agency participating in the pilot test send its evaluation team to a scoring workshop covering each criterion and its scoring. A representative from FHWA attended the workshops to observe the process, answer questions, and record feedback. The workshops offered insights into the user-friendliness of INVEST and into ways for improving the online working environment.

Version 1.0 incorporates several new features as a result. Every user now has access to a project work space, which can store multiple project scorecards. In addition, supporting documents can be uploaded into the system, along with notes that reflect the scoring rationales.

To learn more about INVEST 1.0 or to try out the tool, visit www.sustainablehighways.org.



The Innerbelt 90 project in Cleveland, Ohio, received a gold score from the INVEST pilot. The bridge replacement project aimed for sustainability in several categories, such as energy efficiency, waste reduction, and project administration.

The author is Community Planner, Transportation Systems Planning and Assessment, Volpe National Transportation Systems Center, Cambridge, Massachusetts.