



Accelerated Innovation Deployment (AID) Demonstration Project

Final Report Template Instructions / Guidelines



U.S. Department of Transportation
Federal Highway Administration

AID Demo
Accelerated Innovation Deployment

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Template Summary

The Accelerated Innovation Deployment (AID) Demonstration final report template is designed to lend structure to and provide a framework for project reporting and ensure consistency in content and format from one AID Demonstration project final report to another. This template contains major sections representing information that is required for every AID Demonstration project final report.

This template is designed so that you can easily insert the required reporting information. The sections with **Heading Level 1** style and **HEADING LEVEL 2** style are prescribed. To keep the report as succinct as possible, you are encouraged to include any additional information (i.e., surveys, web resources, references) that will assist in providing further understanding of the project in the Appendix.

We encourage agencies to ensure the AID Demonstration final report has completed your internal review and approval process before it is released to the Federal Highway Administration (FHWA). If not, please notify us so that we can work to complete the process in a concurrent manner. As you develop the report, please guarantee that you have the approval to use all photographs included in the report and ensure both photographs and charts are 508 compliant. If the report has been published on your website, please share this information when you submit the document. Once FHWA has accepted the final report and it is approved for FHWA dissemination, the report may be posted or linked to the Center for Accelerating Innovation or AID Demonstration web page.

We look forward to working with as you prepare the project final report so that it tells a technically oriented “story” in a dynamic fashion. We hope your experience will encourage others to consider implementing innovation. **If you have questions about the project final report template, please feel free to contact Fawn Thompson at fawn.thompson@dot.gov or 404-895-6229 for assistance.**

Template Directions

When using this template, please do not change colors, font styles, or apply any special formatting to the text. The following styles are used in the template. When pasting text into sections, select “keep text only” to maintain template style.

Heading Level 1 (style = Heading 1)

HEADING LEVEL 2 (style = Heading 2)

Text (Style = Normal)

Template Section Descriptions

Below you will find narrative to support development of the project final report. The template is prescriptive and has been developed to help guide you in the reporting process to ensure all required information is included.

Executive Summary

Provide a preview of the report. The executive summary can be written in a non-technical manner. It should provide project highlights and summarize recommendations. The executive summary should not exceed two typed pages in the template.

Introduction

The Accelerated Innovation Deployment (AID) Demonstration Grants section has been standardized. Please include written narrative. The Report Scope and Organization section has required inputs, please update accordingly.

ACCELERATED INNOVATION DEPLOYMENT (AID) DEMONSTRATION GRANTS

The Federal Highway Administration (FHWA) AID Demonstration Grants Program, which is administered through the FHWA Center for Accelerating Innovation (CAI), provides incentive funding and other resources for eligible entities to offset the risk of trying an innovation and to accelerate the implementation and adoption of that innovation in highway transportation. Entities eligible to apply include State departments of transportation (DOTs), Federal land management agencies, and tribal governments as well as metropolitan planning organizations and local governments which apply through the State DOT as subrecipients.

The AID Demonstration program is one aspect of the multi-faceted Technology and Innovation Deployment Program (TIDP). AID Demonstration funds are available for any project eligible for assistance under title 23, United States Code. Projects eligible for funding shall include proven innovative practices or technologies such as those included in the Every Day Counts (EDC) initiative. Innovations may include infrastructure and non-infrastructure strategies or activities, which the award recipient intends to implement and adopt as a significant improvement from their conventional practice.

REPORT SCOPE AND ORGANIZATION

This report documents the (insert recipient or subrecipient) demonstration grant award for (insert project description) using (insert innovation employed). The report presents details relevant to the employed project innovation(s), the overarching TIDP goals, performance metrics measurement and analysis, lessons learned, and the status of activities related to adoption of (insert innovation) as conventional practice by (insert

recipient or subrecipient). (As applicable, please include technology transfer activities that took place to disseminate the project results.)

Project Overview

This information was included in the AID Demonstration grant application narrative. This should include a brief discussion about alignment with individual TIDP/AID goals, as applicable, for improving highway efficiency, safety, mobility, reliability, service life, environmental protection, sustainability, and quality while reducing project completion/construction time.

Project Details

BACKGROUND

The project involved (insert project description information from project narrative. Focus and expand upon: current state of the practice, the innovation used, and prior experience using the innovation.) Figure 1 shows the project location. (Insert map depicting location of deployed innovation, as applicable.)

Figure 1. Map. Project location.

PROJECT DESCRIPTION

(Restate material from the project narrative in an expanded format. What was the project and its objective?)

(Describe the process of implementing the innovation and how it differed from the standard practice of the recipient/subrecipient. Use photographs, tables, diagrams, charts, and other graphics to emphasize points as applicable.

- Discuss the performance measures established for the project as related to the innovation. Detailed information specific to each topic area should be expanded upon under the “Data Collection and Analysis” section.
- Discuss public outreach and stakeholders, including permitting agencies, and involvement activities. Explain how these efforts may have varied from standard practice.
- Discuss the interactions with FHWA, CAI, and division/Federal lands/program offices during the life of the project.
- Discuss any technology transfer and information dissemination activities associated with the project. Provide supporting documentation in the Appendix.

DATA COLLECTION AND ANALYSIS

Performance measures consistent with the project goals were jointly established for this project by (insert recipient/subrecipient) and FHWA to qualify, not to quantify, the effectiveness of the innovation to inform the AID Demonstration program in working

toward best practices, programmatic performance measures, and future decision making guidelines.

Data was collected to determine the impact of using (insert innovation) on (select as relevant from the following: safety, schedule, cost, quality, and user impacts before, during, and after construction) and demonstrate the ability to:

- Achieve a safer environment for the traveling public and workers
- Reduce overall project delivery time and associated costs
- Reduce life cycle costs through producing a high-quality project
- Reduce impacts to the traveling public and project abutters
- Satisfy the needs and desires of our customers

This section discusses how the (insert recipient or subrecipient) established baseline criteria, monitored and recorded data during the implementation of the innovation, and analyzed and assessed the results for each of the performance measures related to these focus areas.

SAFETY

The (insert recipient or subrecipient) is always concerned with the safety of both the workers delivering the project and the users of our infrastructure during construction. The (insert appropriate time frame) crash history for this (these) location(s) revealed (insert the appropriate information) as seen (in Table X) below.

Historically, a comparable project (on similar type/class of roadway, with similar traffic, etc.) would be expected to experience (insert numbers of work zone related crashes, user injuries, worker injuries) during the life of the project. (Expand upon this. How many seasons, phases, etc. would be required using standard practices?) These figures establish the baseline for our comparison of the innovative and traditional project delivery methods.

- There were (insert number of injuries or incidents) to workers and inspectors during construction. (Provide details as necessary.)
- There were (insert numbers of work zone related crashes, user injuries) during construction. (Provide details as necessary.)

This represents a (quantifiable description) improvement from the established baseline for safety.

SCHEDULE

Streamlining the project delivery process results in earlier project completion. This in turn provides greater service to our end users sooner. The use of this innovation (discuss expectations and benefits or non-impact to schedule).

The method traditionally employed by (insert recipient or subrecipient) to deliver a comparable project such as: (insert two to three examples if possible) would require (insert timeframe). However, by making use of (name of innovation) for this project we could realize a savings of (insert time frame based upon frame of reference; construction, con. + bid & award, con + b&a + design, etc.) The following details how we could achieve these time savings. (Insert tables, graphs, discussion as needed.)

There is also a financial component of time. With few exceptions, the purchasing power of today's money is greater than the purchasing power of the same amount in the future because of inflation; materials, fuel, labor, equipment, and supplies will generally cost more in the future than they do today.

COST

A traditional project of similar scope and scale delivered using our traditional methods was estimated to cost (insert cost). (Provide a copy of engineer's estimate for traditional delivery or at least highlights in table of Appendix). The (insert recipient or subrecipient) estimated that the use of (insert innovation) would result in a cost of (insert cost estimated for innovation).

(Discussion about any special qualifiers, change orders, time extensions, unexpected complications, incentive payments, etc. that affected the overall cost of the project.)

The actual direct financial cost associated with delivery of this project using (insert innovation) resulted in a cost of (insert final cost).

QUALITY

As previously discussed, using traditional project delivery techniques the (insert recipient or subrecipient) would have (reiterate "baseline" process). However, using this innovation we could (insert applicable discussion on; constructability, materials control, elimination of joints, etc. and how that impacts long term service life of infrastructure).

(Since this report is due within six months of project completion, there likely is not time for a full assessment of the "quality" of the final product so extrapolation from baseline of comparable facilities delivered using conventional methods will be necessary for comparison purposes.)

USER COSTS

Generally, the three categories of user costs used in an economic/life cycle cost analysis are vehicle operating costs, delay costs, and safety-related costs/crash costs.

The impacts to the road users, though often underrepresented, are not to be neglected. Generally, user costs are categorized by delay costs, vehicle operating costs, and safety-related costs which incorporate numerous factors including fuel usage, vehicle emissions, distance traveled, point-to-point travel time, accelerated degradation of

detour facilities, decreased levels of service along detour routes, and the viability of alternate routes for non-motorized users.

(Depending upon the type of initiative employed, there exists a great variety of performance measures to monitor and track depending also upon the available resources employed. Average travel speed and traffic counts before, during, and after construction within project corridor as well as detour, official or otherwise, routes will be the primary items to measure. However, the type of facility will also dictate the impacts to freight movement, transit and non-motorized users, and environmental impacts on abutting properties. Secondary economic impacts on businesses are generally not quantified but could be captured as part of “satisfaction surveys.”)

USER SATISFACTION

Recipients of TIDP/AID grants were required to report on specified performance indicators relevant to the individual project’s goals and resource constraints. Formal goals and targets were not predefined for all recipients, including goals for user satisfaction unlike under the FHWA Highways for LIFE program where requirements for user satisfaction included achieving a performance goal of four or more on a Likert scale from one to seven (approximately 57 percent or more participants showing favorable response) for the following two questions:

- How satisfied is the user with the new facility compared with its previous condition?
- How satisfied is the user with the approach used to construct the new facility in terms of minimizing disruption?

A before and after customer satisfaction determination was required of all AID Demonstration grant recipients making use of innovations for construction projects. The (insert name of recipient/subrecipient) collaborated with the FHWA (CAI, division/Federal lands/program office) to develop a method to collect the sense of satisfaction from users of the then current state of the facility, of their experience using the facility, of the (insert name of recipient/subrecipient) performance in managing the facility, and (other measures as applicable) both before and after the construction phase of project delivery.

Results from both before and after construction can be found in the Table/Figure below with more details in the Appendix:

Table. User satisfaction results.

Project Outcomes and Lessons Learned

Through this project, the (insert recipient or subrecipient) gained valuable insights about the innovative (construction techniques and/or materials) used.

Insert summary of outcomes as related identified measures (i.e., time saved, dollars saved, crashes mitigated). Details should have been provided in the “Data Collision and Analysis” section.

Insert list of takeaways using one to two sentences for each describing the innovation's magnitude and scope of impact on conventional practice. More detail can be provided later under the “Project Description,” “Analysis,” and “Recommendations” sections.

Recommendations and Implementation

RECOMMENDATIONS

The (insert recipient/subrecipient) determined from the results of our data analysis and sense of satisfaction from the facility users that (insert information from previous “Lessons Learned” section). We propose adopting (insert innovation) into our standard operating procedures.

However, we also identified the following areas that could be improved upon in future applications of this innovation:

(List areas for improvement in recipient/subrecipient deployment and execution of innovation along with suggested fixes.)

STATUS OF IMPLEMENTATION AND ADOPTION

Since the completion of (insert name of project) the (insert recipient/subrecipient) has undertaken the following activities to implement (insert innovation) into our standard operating procedures as a significant improvement from our traditional practice for similar type projects: (list activities and status).

A proposed plan for full adoption is as follows: (list timeline and activities necessary for adoption).

Appendix

For supporting documentation useful to the understanding of this report please use the Appendix.

TECHNOLOGY TRANSFER

Discuss any workshops, presentation, peer exchanges, publications, or other methods of sharing information related to application of selected innovation, the content of the technology transfer, and sense of reception by audience/participants. Supporting materials may include: publication references with abstracts, photographs, web links, and agendas from conferences and meetings.

USER SATISFACTION SURVEY

(Before and after customer satisfaction determination is a requirement for construction projects under AID. Include discussion on development of survey sample size, survey content to reflect change to baseline methodology through application of innovation, timing and methodology for conducting survey and collecting data, and analysis.)

WEB RESOURCES

Provide links to additional information.

REFERENCES

Identify applicable reference documents as necessary to support analysis and findings related to implementation of innovation on this project.