

ADVANCED TRANSPORTATION TECHNOLOGY AND INNOVATION PROGRAM (ATTAIN)  
FUNDING RECIPIENT ANNUAL REPORT TEMPLATE

The purpose of this template is to assist grantees in preparing uniform Annual Reports for the Advanced Transportation Technologies and Innovative Mobility Deployment program, also known as the Advanced Transportation Technology and Innovation (ATTAIN) program. This template, while not required, is highly recommended, as the Federal Highway Administration intends to use the information from the grantees' Annual Reports to prepare the required Program Level Reports on the effectiveness of the grant recipients in meeting their projected deployment plans.

### Reporting Requirement

23 U.S.C. 503(c)(4)(F) says, "For each eligible entity that receives a grant under this paragraph, not later than 1 year after the entity receives the grant, and every year thereafter, the entity shall submit a report to the Secretary that describes—

(i) deployment and operational costs of the project compared to the benefits and savings the project provides; and

(ii) how the project has met the original expectations projected in the deployment plan submitted with the application, such as—

- I. data on how the project has helped reduce traffic crashes, congestion, costs, and other benefits of the deployed systems;
- II. data on the effect of measuring and improving transportation system performance through the deployment of advanced technologies;
- III. the effectiveness of providing real-time integrated traffic, transit, and multimodal transportation information to the public to make informed travel decisions; and
- IV. lessons learned and recommendations for future deployment strategies to optimize transportation mobility, efficiency, multimodal system performance, and payment system performance."

As data collection nears completion, please consult your evaluation plan and [the final report template](#) for guidance on summarizing the evaluation.

This template has three parts:

- Part 1 of 3: Introduction and Overview
- Part 2 of 3: Evaluation/Research Activities and Findings
- Part 3 of 3: Wrap-up



U.S. Department of Transportation  
Federal Highway Administration

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**PART 1 of 3: INTRODUCTION AND OVERVIEW**

<b>Project Title:</b>
<b>Grant Award Recipient:</b>
<b>Annual Report Period</b> <i>[insert date range]:</i>
<b>Prepared by</b> <i>[name, agency, and title]:</i>
<p>Note: Responses to questions 1–7 should reflect the <b>current</b> project scope and goals. If there have been no changes in project scope or goals since the previous Annual Report, responses to questions 1–7 should be the same as in the previous Annual Report. Responses to questions 8 and 9 should be updated with each Annual Report.</p> <ol style="list-style-type: none"><li><b>1. Please provide a <i>high-level</i> description of your current project, including intended beneficiaries.</b> <i>(Please limit to approximately 350 words or less.)</i></li> <li><b>2. Please note any prior approved deviations (provide date approved) or changes in scope from the original proposal. These may include changes due to project-driven outcomes or unforeseen performance challenges such as unforeseen legal or administrative constraints, difficulty obtaining necessary resources or support, or executive decisions to alter course.</b></li> <li><b>3. Do you consider any aspects of your project cutting-edge, noteworthy, or innovative? If yes, please describe.</b></li></ol>

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**4. Please indicate which ATTAIN-targeted technologies your project covers, and briefly describe the technologies in a few sentences. (Check all that apply and briefly describe.)**

- Advanced traveler information systems (e.g., real-time information)

**Please describe:**

- Advanced transportation management technologies

**Please describe:**

- Advanced transportation technologies to improve emergency evacuation and response by Federal, State, and local authorities

**Please describe:**

- Infrastructure maintenance, monitoring, and condition assessment

**Please describe:**

- Advanced public transportation systems

**Please describe:**

- Transportation system performance monitoring, data collection, analysis, and dissemination (e.g., artificial intelligence, machine learning, advanced analytics)

**Please describe:**

- Advanced safety systems—including vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), and vehicle-to-pedestrian communication—and associated technologies that would enable V2V or V2I communication, including cellular or other technology

**Please describe:**

- Advanced safety systems, including autonomous vehicle development or deployment

**Please describe:**

- Integration of intelligent transportation systems using smart grid or similar energy distribution and charging systems

**Please describe:**

- Electronic pricing, toll collection, and payment systems

**Please describe:**

*[List continues on next page.]*

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**4. Please indicate which ATTAIN-targeted technologies your project covers, and briefly describe the technologies in a few sentences. (Check all that apply and briefly describe.) (continuation)**

- Integrated corridor management systems

**Please describe:**

- Advanced parking reservation or variable-pricing systems

**Please describe:**

- Technology that enhances high-occupancy-vehicle toll lanes, cordon pricing, or congestion pricing

**Please describe:**

- Integration of transportation service payment systems

**Please describe:**

- Advanced mobility, access, and on-demand transportation service technologies such as dynamic ride-sharing and other shared-use mobility applications and information systems to support human services for older people, people with disabilities, or disenfranchised individuals

**Please describe:**

- Retrofitting dedicated short-range communications technology deployed as part of an existing pilot program to cellular vehicle-to-everything technology, subject to the condition that the retrofitted technology operate only within the existing spectrum allocations for connected vehicle systems

**Please describe:**

- Other: \_\_\_\_\_

**Please describe:**

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5. Please provide a high-level description of the relevant use case(s) for your project. Each use case may include one or more technologies that are designed to solve the same problem (or set of problems). The use case description should include the relevant technologies being deployed, the goals of the deployment, and how the goals will be achieved. In addition, the population who will be affected by the technologies (or group of technologies) should be described (e.g., pedestrians, bicyclists, and commercial vehicle drivers). Please describe as many use cases as relevant.

**Example Use Case: Integrated Corridor Management (ICM)**

In the ICM use case, ICM strategies are being deployed to reroute drivers following an incident, with the goal of reducing travel times and improving safety. Improved traveler information will be provided to drivers on the highway, informing them of incidents and providing information on alternate routes. Two key technologies are being deployed on the arterial in the corridor to improve capacity: intersection movement count technology to adjust traffic signal timing in realtime and traffic signal priority technology for local buses. Rerouting drivers following an incident will divert traffic from locations with higher risks of secondary crashes and thus improve safety. Expanding capacity on the arterial in the corridor through improved signal timing and signal priority for buses will relieve congestion and improve travel time reliability both during peak periods generally and following an incident.

**Use Case 1. [insert name]**

**Use Case 2. [insert name]**

**Etc. (Add more Use Cases, if applicable)**

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**6. What are your project's goals? (Check all that apply.)**

Note: For each goal identified, you will be asked in part 2 of 3 to map your project's performance measures and findings to date.

**Outcome-Related Goals**

- Improved safety
- Improved mobility
- Reduced environmental impacts
- Effectiveness of realtime transportation information
- Reduced costs
- Improved access to transportation alternatives
- Economic benefits
- Other goals and benefits (Please describe): \_\_\_\_\_

**Output-Based Goals**

- Improved network performance (optimized multimodal system performance)
- Extended asset life
- Enhanced monitoring of assets
- Incentivized travelers to share or shift trips
- Other goals and benefits (Please describe): \_\_\_\_\_

**Other Goals Stated in the Bipartisan Infrastructure Law**

- Facilitated account-based payments
- Accelerated the deployment of connected and autonomous vehicle technologies

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**7. Please indicate which service models or modes your project(s) is(are) designed to address.**  
*(Check all that apply.)*

- Passenger vehicle
- Pedestrian or bicycle
- Transit
- Freight
- Mobility on demand
- Other (Please describe): \_\_\_\_\_

**8. Have any of the answers to questions 1–7 changed since the previous Annual Report?**

- Yes
- No
- This is the first Annual Report.

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**9. What is the current status of your project, and what activities are you currently engaged in?** (For each use case, check all that apply.)

Note: If your project has multiple use cases or technologies that are at different stages, list the key use cases in the first column, and check the boxes for each column accordingly. Add more rows as necessary.

Key Project Use Cases	Project Status/Activities
Use Case 1: <i>[insert name]</i>	<input type="checkbox"/> Planning/Design <input type="checkbox"/> Concept of Operations Development <input type="checkbox"/> Technology/Equipment Procurement <input type="checkbox"/> Baseline Data Collection or Analysis <input type="checkbox"/> Piloting/Testing/Partial Deployment <input type="checkbox"/> Installation/Implementation for Full Deployment <input type="checkbox"/> Completed Deployment <input type="checkbox"/> Evaluation (Postdeployment Data Collection or Analysis) <input type="checkbox"/> Project Completed in Full
Use Case 2: <i>[insert name]</i>	<input type="checkbox"/> Planning/Design <input type="checkbox"/> Concept of Operations Development <input type="checkbox"/> Technology/Equipment Procurement <input type="checkbox"/> Baseline Data Collection or Analysis <input type="checkbox"/> Piloting/Testing/Partial Deployment <input type="checkbox"/> Installation/Implementation for Full Deployment <input type="checkbox"/> Completed Deployment <input type="checkbox"/> Evaluation (Postdeployment Data Collection or Analysis) <input type="checkbox"/> Project Completed in Full
Use Case 3: <i>[insert name]</i>	<input type="checkbox"/> Planning/Design <input type="checkbox"/> Concept of Operations Development <input type="checkbox"/> Technology/Equipment Procurement <input type="checkbox"/> Baseline Data Collection or Analysis <input type="checkbox"/> Piloting/Testing/Partial Deployment <input type="checkbox"/> Installation/Implementation for Full Deployment <input type="checkbox"/> Completed Deployment <input type="checkbox"/> Evaluation (Postdeployment Data Collection or Analysis) <input type="checkbox"/> Project Completed in Full

Note: Please add new rows for additional use cases as needed.



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**PART 2 of 3: EVALUATION/RESEARCH ACTIVITIES AND FINDINGS**

**1. Please complete the following table regarding your evaluation activities. For each goal area that is applicable to your project—and for each use case that addresses each goal—provide a list of the performance measures and a status update on your research activities. The update should include the status of baseline data collection, if applicable, and any challenges or data limitations. If performance measurement is complete, please briefly describe the findings.**

Goal Area	Performance Measures: Quantitative and Qualitative	Research Update (e.g., baseline data collection, challenges, milestones achieved, and findings including data that support any findings)
Example row: Improved safety	<p><b>Use Case: CV/Pedestrian Mobile App</b></p> <ol style="list-style-type: none"> <li>1. Rate of pedestrian/bicycle crashes</li> <li>2. Rate of near-miss pedestrian/bicycle crashes</li> <li>3. Satisfaction rating from a user survey</li> </ol> <p><b>Use Case: V2I Curve Speed Warning System</b></p> <ol style="list-style-type: none"> <li>1. Change in speed before/after the warning activated</li> <li>2. Rate at which the warning was perceived as helpful from the driver survey</li> </ol>	Baseline data collection is underway – we are acquiring crash data and analyzing video data for near misses. The App is being tested and refined. We anticipate the start of the evaluation in approximately 5 to 6 months.
Improved safety	<p>Use Case: <i>[insert name]</i></p> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol> <p>Use Case: <i>[insert name]</i></p> <ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol> <p>Etc.</p>	
<i>[List continues on next page.]</i>		

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Goal Area	Performance Measures: Quantitative and Qualitative	Research Update (e.g., baseline data collection, challenges, milestones achieved, and findings including data that support any findings)
Improved mobility	Use Case: <i>[insert name]</i> 1. 2. 3. Etc.	
Reduced environmental impacts	Use Case: <i>[insert name]</i> 1. 2. 3. Etc.	
Effectiveness of realtime transportation information	Use Case: <i>[insert name]</i> 1. 2. 3. Etc.	
Improved access to transportation alternatives	Use Case: <i>[insert name]</i> 1. 2. 3. Etc.	
Reduced costs	Use Case: <i>[insert name]</i> 1. 2. 3. Etc.	
<i>[List continues on next page.]</i>		

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Goal Area	Performance Measures: Quantitative and Qualitative	Research Update (e.g., baseline data collection, challenges, milestones achieved, and findings including data that support any findings)
Economic benefits	Use Case: <i>[insert name]</i> 1. 2. 3. Etc.	
Improved network performance	Use Case: <i>[insert name]</i> 1. 2. 3. Etc.	
Other goals (Please describe):	Use case: <i>[insert name]</i> 1. 2. 3. Etc.	
Other goals (Please describe):	Use case: <i>[insert name]</i> 1. 2. 3. Etc.	
Other goals <i>[ADD IF NEEDED]</i> (Please describe):	Use case: <i>[insert name]</i> 1. 2. 3. Etc.	

**PART 3 of 3: WRAP-UP**

**1. In your view, how is the project doing with respect to meeting original expectations (i.e., as stated in the project proposal)?**

**2. How do deployment and operational costs of the project compare with the benefits and savings the project provides; that is, can you provide an objective benefit–cost analysis or alternative subjective comparison?**

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**3. Challenges may arise throughout the project development, deployment, and operational phases. Grantees have faced challenges related to procurement, stakeholder coordination, regulatory requirements, technology, and evaluation, among others.**

**Please complete the following table regarding challenges and lessons learned from your deployment since your previous Annual Report. To the best of your ability, provide a description of specific challenges, lessons learned from the experience, and recommendations, if any, for future deployers. The lessons learned should include recommendations for future deployment strategies to optimize transportation mobility, efficiency, multimodal system performance, and payment system performance. (Add more rows as necessary.)**

**The challenges listed in the following table should be limited to those faced in the past year—whether new, continuing, or recurring.**

<b>Challenge</b>	<b>Description of the Challenge</b>	<b>Lessons Learned from the Challenge and/or Recommendations for Future Deployers</b>	
Example row	The procurement process has taken longer than initially anticipated	The request for proposal and equipment procurement process can lead to project delays. Try to reduce the total number of contracts issued, and include a system integration team as early as possible in the process.	
a.			
b.			
c.			

**4. Do you have other recommendations that are not related to challenges?**

**5. Do you have any final comments or feedback?**

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