General

U.S. Department of Transportation

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- Participant ID: 459530

- Passcode: 859433

- International numbers available: https://usdot.zoomgov.com/u/ab1XdP5VSM

Questions for Presenters

- Please type your questions into the chat box at the bottom of your screen. We will review and answer questions after the presentation portion of the webinar.

All participants automatically join on mute and with cameras off.

Today's Presenters

Madeline Zhu

Policy Advisor, SMART Grants program

Jesse Long

Librarian, Bureau of Transportation Statistics

Anna Solow-Collins

Economist, Volpe Center

Stan Caldwell

SMART Grants Program Director

Thy Nguyen

Lead Grants Management Specialist

Alfreda Johnson, Raine Pike

Grants Management Specialists

Chat:

Daniel 'Mac' Lang

Volpe center

Agenda

1. Welcome to SMART!
2. Calendar Milestones
3. Milestone Progress Reports
4. Evaluation Plan
5. Data Management Plan
6. Promotion and Events
7. Questions

Welcome to SMART!

Updated Contacts

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Key Contacts Form

OMB Number: 4040-0010
Expiration Date: 12/31/2026

* Applicant Organization Name:

Enter the individual's role on the project (e.g., project manager, fiscal contact).

* Contact 1 Project Role:

Prefix:

* First Name:

Middle Name:

* Last Name:

Suffix:

Title:

Organizational Affiliation:

- **We need your help to keep up to date with your contacts.**

- Has someone left your project team? New staff assigned? New consultants or partners joined? **Let us know.**

- Resubmit the **key contacts** form with updated project contacts. We need a program contact and a grants management contact. **Please let us know when your staff changes!**

Grantee Deliverables: FY23

Deliverable	Due Date	Where to Submit
Milestone Progress Report #1 (for the period from 7/1/24 - 9/30/24) Federal Financial Report #1	10/30/24	Link to form Email document to smartreports@dot.gov
Evaluation Plan	12/15/24	Email a Microsoft Word document to smartreports@dot.gov
Data Management Plan	12/15/24	Online portal
Milestone Progress Report #2 (for the period from 10/1/24 - 12/31/24) Federal Financial Report #2	1/31/25	Link to form Email document to smartreports@dot.gov
Milestone Progress Report #3 (for the period from 1/1/25 - 3/31/25)	4/30/25	Link to form Email document to smartreports@dot.gov

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Home \ Grants

SMART Grants Program
Applying to SMART
Awarded Projects
Grants Management
    Resources for all Grantees
    Deadlines for FY22 Grantees
    Deadlines for FY23 Grantees

Deadlines for FY23 Grantees

Recently announced FY23 grantees will receive individual communications from the SMART team to set up individual grant agreements. Please continue to work with the Grants Management Specialist who you have been in touch with to sign your grant agreement.

Reporting Due Dates

These due dates do **not** apply to grantees until their grant agreement is signed. Invoices should be submitted to Delphi. Invoices can be submitted up to monthly, based on when you need reimbursements.

Milestone Progress Reporting

Reports are tracked by your applicant name (the organization that received the grant).

Each report is reviewed by SMEs, SMART staff, and discussed.

We have posted a word version of the Milestone Progress questions on the website so you can prep and save your responses. **You must still submit through the online form.**

USDOT SMART Progress Reporting Form

The Bipartisan Infrastructure Law (BIL) established the Strengthening Mobility and Revolutionizing Transportation (SMART) discretionary grant program in order for eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems. Grant-funded projects should improve transportation efficiency and safety.

If you reached this page, you are a grant recipient responsible for reporting. Quarterly reporting periods end on 3/31, 6/30, 9/30, and 12/31, regardless of budget period start dates. Deadlines for quarterly and semi-annual reports are no later than 30 days after the end of the reporting period.

* Required

Awardee Information

1. Lead Applicant Name *

Enter your answer

FAIN Numbers are no longer required.

Quarterly Financial Reporting

Each project should submit the Federal Financial Forms each quarter, regardless of whether you are seeking reimbursement that quarter.

Thy will **reach out to each project separately** to arrange a time to review financial reporting in detail. Please make sure to include the *person who will be submitting your FFRs in that call.*

FFRs should be submitted to smartreports@dot.gov.

Data Management Plans
Due: 12/15/24

Data Management Plans

- DMPs are due to https://dmptool.org/ on 12/15/24.
- All DMPs are evaluated by the Data Services staff from the Bureau of Transportation Statistic's National Transportation Library.

1. Creating your DMP with the SMART Grants template
2. Writing the DMP and How to be Compliant
3. Requesting Feedback
4. Resources

DMPTool: Create a DMP Direct Link

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Use the following link to create a new DMP with the SMART Grants Stage 1 DMP Template. By clicking the link, you will automatically be taken into the DMP Template within the "Project Details" tab:

http://tinyurl.com/mw68b3z2

If you have any issues, please reach out to me at jesse.long@dot.gov and I will help with any questions or concerns.

DMPTool: Project Details Tab

1. Fill in Project Details Tab as best as you can

2. For Abstract, use your project proposal

3. For Funding Status, choose "Planned"

4. Enter Funding info if you know it

5. Click "Save" button

6. Once Saved, click on Collaborators Tab

Automated Shared-Use Path Conflict Point Analysis

| Project Details | Collaborators | Write Plan | Research outputs | Request feedback | Finalize | Download |

Project title *

Automated Shared-Use Path Conflict Point Analysis

☐ mock project for testing, practice, or educational purposes

Project abstract

B *I*   12pt   **A**   ...

We will set up automated trail cameras at reported and suspected conflict points on area shared use trails to record the types of "conflict" interactions that occur. Typical trail user conflict reports include cyclist encounters with leashed dogs blocking trails; walkers being taken by surprise by cyclists suddenly appearing before or behind; slick spots on trail that lead to cyclist or skater crashes or "wipe outs"' among others. Using this video and still data, paired with weather condition data, we will come up with mitigation strategies. Currently we expect that warning signs, limb clearing, and trail user education will help to reduce trail conflicts.

Press Alt 0 or Option 0 for help using the rich text editor with keyboard only.

Select Guidance

To help you write your plan, DMPTool can show you guidance from a variety of organizations.

Select up to 6 organizations to see their guidance.

☑ DMPTool

Find guidance from additional organizations below

See the full list

Save

Research domain

Civil engineering

Project Start   **Project End**

01/01/2024   The estimated date on which you will begin this project.

Funder

United States Department of Transportation (DOT) (transportation.gov)

☐ I cannot find my funder in the list

Funding status

Planned

Funding opportunity number

NOFO #20.941

Grant number/url

https://www.transportation.gov/grants/smart/fy23-smart-stage-1

Save

DMPTool: Collaborators Tab

To Add Project Contributors (Top of Page):

1. Add new Collaborators as needed
2. Need an ORCID? Go to https://orcid.org/ to register for one. (not required)
3. If you affiliation cannot be found? Check the "I cannot find my affiliation…" box and enter your agency in the new field
4. Apply Roles to Contributors (Data Manager, Principal Investigator, Project Administrator, or Other.)
5. Click "Save" button

Automated Shared-Use Path Conflict Point Analysis

| Project Details | Collaborators | Write Plan | Research outputs | Request feedback | Finalize | Download |

Project Contributors

Please list the project's Principal Investigator(s) and those responsible for data management.

Name	ORCID	Email	Affiliation
Jesse Long	0000-0002-4962-1380	jesse.long.ctr@dot.gov	United States Department of Transportation (DOT) (transportation.gov)
Leighton Christiansen	0000-0002-0543-4268	leighton.christiansen@dot.gov	United States Department of Transportation (DOT) (transportation.gov)

Add a contributor

New contributor

Name *

Email *

ORCID

Affiliation

United States Department of Transportation (DOT) (transportation.gov)

☐ I cannot find my affiliation in the list

* Roles

Select each role that applies to the contributor.

☐ Data Manager   ☐ Principal Investigator   ☐ Project Administrator

Save   Cancel

To Add DMP Collaborators (Bottom of Page):

This allows you to Invite specific people to read, edit, or co-own the plan. Invitees will receive an email notification that they have access to this plan. The person who created the plan will automatically show with the permission of "Owner."

1. Under the table of current collaborators, you can invite someone to work/view the DMP by entering their email and assigning them permissions, either Co-owner, Editor, or Read Only.
    - **Co-owner**: has admin rights to the plan (can invite other users, view the plan, answer questions, or comment)
    - **Editor**: has edit rights to the plan (can view the plan, answer questions, or comment)
    - **Read Only:** has read rights to the plan (can view the plan or comment)
2. After inputting an email and selecting permissions you will want to click on the "Submit" button to send the invite to your intended collaborator.

DMP Collaborators

Invite specific people to read, edit, or administer your plan. Invitees will receive an email notification that they have access to this plan.

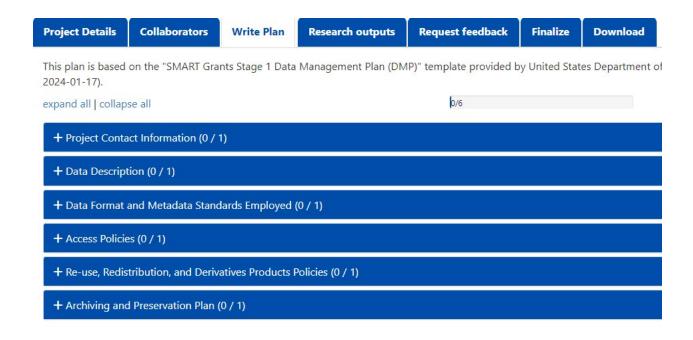| Email address	Permissions	
jesse.long.ctr@dot.gov	Owner	
leighton.christiansen@dot.gov	Co-owner ▾	Remove
peyton.tvrdy.ctr@dot.gov	Co-owner ▾	Remove

Invite collaborators

Email *

Permissions *

○ Co-owner
○ Editor
○ Read only

Submit

DMPTool: Write Plan Tab

1. Dataset and Contact Information
   - General information about the project and person in charge of the DMP.

2. Data Description
   - Information about the data this is going to be collected and/or used for the project and its long-term value.

3. Data Format and Metadata Standards Employed
   - Include/list anticipated file formats (proprietary vs. nonproprietary) and metadata standards.

4. Access Policies
   - Sensitive data and/or privacy concerns for the data.

5. Re-Use, Redistribution, and Derivative Products Policies
   - The sharing and use of the data following the project's completion.

6. Archiving and Preservation Plan
   - Where the data is going to be at the end of a research project so we know the public can be able to find it without restriction, and the requirements for that repository storage location.

Project Details	Collaborators	**Write Plan**	Research outputs	Request feedback	Finalize	Download

This plan is based on the "SMART Grants Stage 1 Data Management Plan (DMP)" template provided by United States Department of 2024-01-17).

expand all | collapse all   0/6

➕ Project Contact Information (0 / 1)

➕ Data Description (0 / 1)

➕ Data Format and Metadata Standards Employed (0 / 1)

➕ Access Policies (0 / 1)

➕ Re-use, Redistribution, and Derivatives Products Policies (0 / 1)

➕ Archiving and Preservation Plan (0 / 1)

DMPTool: Write Plan Tab

1. Fill in each section to best of ability

2. Each section includes guidance as to what information is requested

3. Each section has a single text box for your reply

4. Click "Save" button at end of each section

5. Once all sections are Saved, click on Request Feedback Tab

DMPTool: How to be Compliant

I highly recommend each grantee looking over the US DOT Public Access Plan (https://doi.org/10.21949/1503646), to sure you are compliant with federal regulations when writing your DMP.

Sections Impacted by Public Access:

- 3. Data Format and Metadata Standards Employed:

- 4. Access Policies

- 5. Re-Use, Redistribution, and Derivative Products Policies

- 6. Archiving and Preservation Plan:

We are going to now cover these to help increase you understanding and prepare you for writing the DMP.

DMPTool: How to be Compliant

Section 3. Data Format and Metadata Standards Employed:

- Non-proprietary vs. Proprietary Formats

- If proprietary formats are used there needs to be documentation explaining the reason and the software needed for a user to open and view the data or documentation files.

Proprietary	Non-proprietary
software that is privately owned, controlled, and distributed under specific licensing terms that restricts its usage and often requires a fee or subscription to be used.	software that has no patent or copyright conditions associated with it. Nonproprietary software is publicly available software that can be freely installed and used.

- Also, remember that although Microsoft Office is for the most part widely available it is proprietary software that requires purchase. Instead, you could use .csv for Excel files and .txt or pdf. for Word files.

What to Write in your Plan:

- A general statement regarding open-access formats vs. proprietary formats. Just a general stance that you aim to be as open-access as possible with the release of the data to the public.
- List of file formats, and if any are proprietary you need documentation addressing why and the software and version needed for a user to open and view the files.

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Section 3. Data Format and Metadata Standards Employed:

- DCAT-US v.1.1 Metadata Schema (https://resources.data.gov/resources/dcat-us/)
  - The federal standard for data search and discovery, and a requirement for all federally funded datasets.
  - A .JSON file.

What to Write in your DMP:

- First list any other potential metadata schemas you might use, if relevant. Then include a statement, such as:
  - "The final data will have a DCAT-US v1.1 (https://resources.data.gov/resources/dcat-us/) .JSON metadata file, which is the federal standard for data search and discovery in compliance with the USDOT Public Access Plan."

The NTL Data Services has recently developed a tool to help with the creation of these files. Using the tool is simple, you just need to feel out the form completely and click on "Generate JSON," at the bottom. This will create a complete DCAT-US metadata file that is ready for submission.

https://transportation.libguides.com/researchdatamanagement/datapackages

DCAT-US Generator

DCAT-US Version 1.1 JSON Generator

DCAT-US Generator Project on GitHub

Title:

Title

Description or Abstract:

Description

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Section 4. Access Policies

- In general, data from DOT-funded projects must be made publicly accessible. Exceptions to this policy are, data that contain personally identifiable information (PII) that cannot be anonymized, confidential business information, and classified information.

What to Write in your DMP:

- Address these issues and outline the efforts you will take to provide informed consent statements to participants, the steps you will take to protect privacy and confidentiality prior to archiving the data, and any additional concerns.
- If these potential access issues do not apply to your project, you can have a simple statement, such as:
  - This project will not collect any personally identifiable information (PII) or is subject to confidential business information or classified information."

Section 5. Re-Use, Redistribution, and Derivative Products Policies

- Data cannot by copyrighted.
- Project data must be shared with the public.
- By accepting US DOT funding through this grant, the US DOT is granted a comprehensive non-exclusive, paid-up, royalty-free copyright license for all project outputs (publications, datasets, software, code, etc.). This includes all rights under copyright, including, but not limited to the rights to copy, distribute, prepare derivative works, and the right to display and/or perform a work in public.

What to Write in your DMP:

- Include the above statement, "By accepting...."

Section 6. Archiving and Preservation Plan:

- Public Access for Research Data
  - Recipients must comply with the US DOT Public Access Plan, meaning, among other requirements, **project data must be shared with the public**, if possible, either by the researchers or by US DOT.

- Conformant Repositories and Persistent Identifiers
  - The final data should be deposited into a publicly accessible repository (no payment requirements), provide persistent identifiers or captures them if you personally provide one to the data, and the repository should support the capture and provision of the US Federal Government DCAT-US Metadata Schema.

- **What to Write in the DMP:**
  - You can find a list of pre-approved data repositories that are conformant with the US DOT Public Access Plan at https://doi.org/10.21949/1520566. All data repositories on this list meet the Persistent Identifiers and DCAT-US requirement, so if you select one of them you would only need to add a brief sentence, such as "The repository _____ does provide persistent identifiers to their published data and supports the capture and provision of the DCAT-US Metadata Schema."
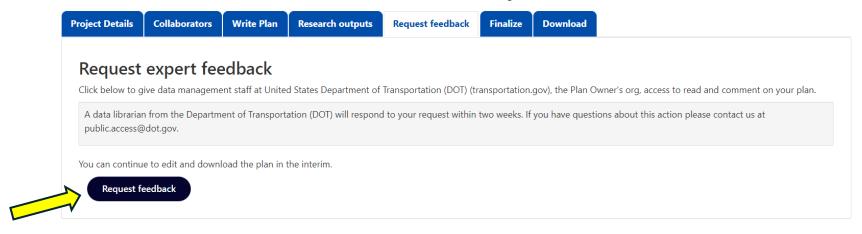
DMPTool: Request Feedback Tab

Once you have completed writing your DMP you will go to the "Request Feedback" tab and hit the "Request feedback" button. This will notify the NTL Data Services Team that there is a DMP in need of review.
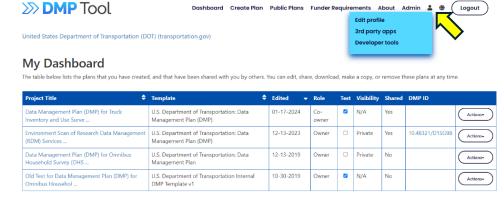
DMPTool: Request Feedback Tips

If you cannot see the 'Request feedback' tab, there are two possible issues:

1. **Verify the institution** listed under your profile:
    *   Top right-hand corner of the dashboard
    *   Edit profile
    *   Institution should be "United States Department of Transportation (DOT) (transportation.gov)."

2. **Only the owner of co-owner can request feedback**
    *   Editors are unable to submit
    *   Owners can make editors and/or co-owners on the Collaborators tab

DMPTool Handout: Receiving Feedback

Once the NTL Data Services Team has reviewed your DMP and made comments the DMP will be returned, and you should receive an email like the one below: (it will come from the DMPTool)

Hello Ntl Doi

Leighton Christiansen has finished providing feedback on the plan "Automated Shared-Use Path Conflict Point Analysis". Comments can be found in the 'Write plan' tab on the right side of the page (Guidance/Comments).

Thank you,
The DMPTool team
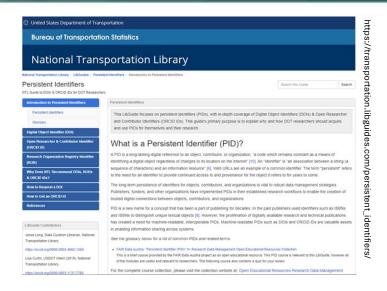
You may change your notification preferences on your profile page. Please do not reply to this email. If you have any questions or need help, please contact us at dmptool@ucop.edu or visit https://dmptool.org/contact-us

Please go in and review all the comments and make changes, as needed. Once you have addressed all the comments once again go back to the "Request feedback" tab and submit it again for review by the NTL Data Services team. This process should be repeated until an NTL Data Services team member comments that the DMP is now approved.

Feel free to email me at any point regarding questions (jesse.long@dot.gov) or to check in on the status of you DMP.
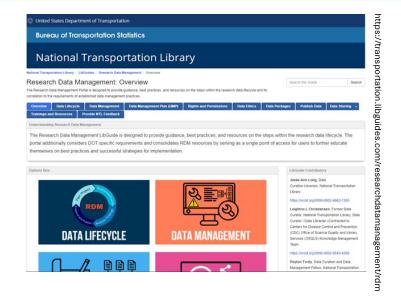
Data Management Plans: Resources

Things Covered in the Guide:
- What is a Persistent Identifier (PID)?
- Different Types of PIDs
  - DOIs
  - ORCID iDs
  - RORs
- How to Request a DOI
- How to Get an ORCID iD

Things Covered in the Guide:
- Data Lifecycle
- Data Management and DMPs
- US DOT's Public Access Plan
- Data Ethics
- Data Packages
- Publishing Data
- Data Sharing
- Trainings and Resources

Things Covered in the Guide:
- The Fundamentals of Data Management Plans
- Required Metadata
- Proprietary vs. Nonproprietary (file formats)
- Choosing a Repository
- Persistent Identifiers
- Requesting Feedback on Your DMP

Data Management Plans
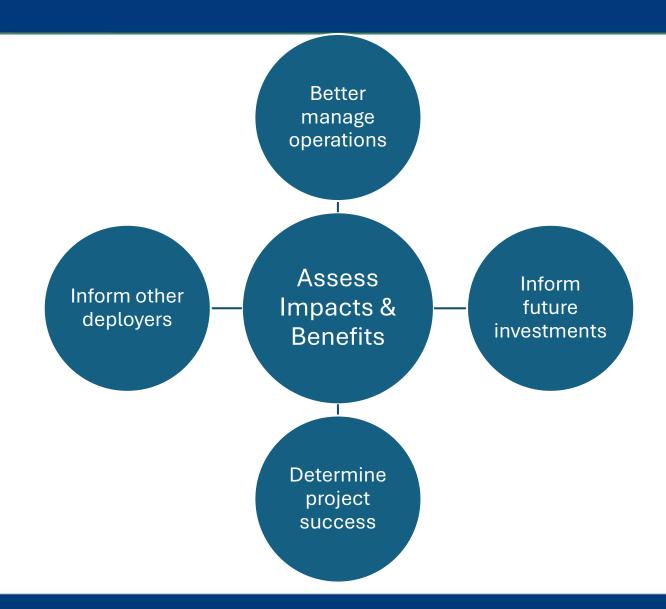
- Questions?

Evaluation Plans
Due: 12/15/24

The Role of Evaluation

Better manage operations

Inform other deployers

Assess Impacts & Benefits

Inform future investments

Determine project success

SMART Grant: The Purpose of the Evaluation and Data Management Plan

- To prepare for the SMART Grant Implementation Report
    - Purpose: To understand what your project has and could achieve, including,
    - Proof-of-Concept or Prototype Evaluation Findings
    - Anticipated Costs and Benefits of At-Scale Implementation
    - Challenges & Lessons Learned
    - Deployment Readiness

- To make the best possible case for how the proof-of-concept or prototype met expectations and whether full implementation would meet program goals

SMART Grant Agreement Requirement

- The plan must provide:
  - An overview of how the proof-of-concept or prototype will be evaluated
  - A summary of how the data collected will be managed and stored
  - A description of the goals of the project if implemented at scale
  - An outline of the methods that will be used to estimate the anticipated benefits and costs if implemented
  - A list of robust performance metrics and measurable targets

SMART Grant: Overview of the Evaluation Plan

- The evaluation plan should have four parts:
    1. Introduction and Project Overview
    2. Project Goals and Objectives for At-Scale Implementation
    3. Performance Measures for the Proof-of-Concept or Prototype
    4. Evaluation Methodology for the Proof-of-Concept or Prototype

- Assume your reader is not familiar with the project but has a high-level understanding of the technologies

- Use language from your grant application, but **review the text and make adjustments for this context**

- Brevity is a virtue

Evaluation Plan: Introduction & Project Overview

(Part 1)

- Description of your project
  - Motivation
  - Technologies
  - Goals

- Overview of the proof-of-concept or prototype
  - Scale of the Stage 1 deployment (e.g., number of units, intersections, corridor length, partners, service area)
  - Anticipated scale of the Stage 2 deployment

- Summary of the evaluation process
  - Who is participating
  - What are their roles

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(Part 2)

- Project goals (baseline performance measurement)
  - Qualitative descriptions of the anticipated impacts of at-scale implementation in each of the listed goal areas
  - Quantitative estimates are encouraged where possible but not required
- Anticipated costs of at-scale implementation
  - The estimated costs of the proof-of-concept or prototype
- Supporting historical data (if available)
  - To inform project goals, performance measures, or performance targets for at-scale implementation
- Challenges, lessons learned, and/or recommendations (so far)

- Focus on your expectations for at-scale implementation of the project (Stage 2)
- The evaluation of the proof-of-concept or prototype can then be tailored to provide informative results and actionable insights

Evaluation Plan: Performance Measures for the Proof-of-Concept or Prototype

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(Part 3)

- Evaluation questions
- Performance measures
- Performance targets

- Focus on the proof-of-concept or prototype being deployed during Stage 1
- One goal is to understand what would be realistically achievable through at-scale implementation
- The evaluation should refine your expectations, so informative performance measures are key

Evaluation Plan: Performance Measures for the Proof-of-Concept or Prototype

(Part 3)

Evaluation Question	Performance Measure	Performance Measure Target
1. How quickly could an alert message be displayed?	Time between detection, confirmation, and alert	3 seconds between detection and confirmation 2 seconds between confirmation and alert
2. Does the system reduce travel time through the intersection?	Travel time through the intersection	Decrease from baseline average
3. How well does the system function during irregular conditions?	Detection rate during extreme temperatures	85% of the detection rate under normal conditions

Evaluation Plan: Evaluation Methodology for the Proof-of-Concept or Prototype

(Part 4)

- Overview of how the proof-of-concept or prototype will be evaluated
  - Are the deployments for this project compared to a pre-deployment baseline, an alternative technology, or industry standards

- Methods to estimate the anticipated benefits and costs associated with at-scale implementation

- Summary of how data will be collected for the evaluation of the proof-of-concept or prototype and plans for data management
  - (e.g., data logging and transmission to the evaluation team if applicable; data storage; data access and privacy protection; data fusion if applicable, data quality checks, etc.)
  - Field data is preferred

- Overview of how challenges, best practices, and recommendations for future deployers will be collected

- Table of technical terms or acronyms and their definitions

Resources

- [Evaluation Resources for SMART Grantees](#) (SMART)

- [ITS Deployment Evaluation Resources](#) (ITS JPO)

- [ATCMTD Evaluation Methods and Techniques](#) (FHWA & Volpe)

- [Transportation Performance Management Toolbox](#) (FHWA)

- [Benefit-Cost Analysis Guidance for Discretionary Grant Programs](#) (USDOT)

- [CMAQ Emissions Calculator Toolkit](#) (FHWA)

Evaluation Plans

- Questions?

Planning to present your SMART Grant work at a conference this year? Let us know!

SMART is seeking opportunities to showcase grantees. Let us know if you are presenting about your project at a conference, and if we can join you.

Programmatic Site Visits: Let us know when exciting milestones are happening for your project.

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Questions