

Stage 1 Data Management Plan Guidance

The purpose of this guidance is to assist grant recipients in developing their Stage 1 Data Management Plans (DMP) for the Strengthening Mobility and Revolutionizing Transportation (SMART) grant program.

The objectives of the DMP are to fulfill the reporting requirements and in accordance with the USDOT Public Access Plan, help prepare you for the implementation report and provide access to data so others may learn from your project. Grant recipients must consider, budget for, and implement appropriate data management for data and information outputs acquired or generated during the grant.

The SMART program is using a web-based Data Management Plan tool, [DMPTool](#), for grant recipients to develop and submit their plans. Instructions on how to create an account and access the SMART Grants Template can be found in the next section of this report.

Reporting Requirement:

The SMART grant agreement states that Stage 1 grant recipients must submit a Data Management Plan within 90 calendar days of receiving the grant. For the FY22 SMART grant recipients, this deadline has been extended until **December 15, 2023**.

To fulfill the reporting requirements and in accordance with the USDOT Public Access Plan, award recipients must consider, budget for, and implement appropriate data management for data and information outputs acquired or generated during the grant. Applicants are expected to account for data and performance reporting including:

- Default to open access when appropriate (exceptions include protecting personally identifiable information [PII], Indigenous data sovereignty, or confidential business information [CBI]).
- Protect PII, intellectual property rights, and CBI.
- Utilize, when possible, open licenses and protect USDOT's non-exclusive copyright to data and corresponding outputs.
- Make the source code or tools necessary to analyze the data available to the public, if relevant.
- Provide relevant metadata (in a DCAT-US file, and, optionally, a discipline-appropriate metadata standard file), and data documentation (README.txt files, data dictionaries, code books, supporting files, imputation tables, etc.); and
- Where applicable, consider contributing data to voluntary resources such as NHTSA's AV TEST Initiative.
- Projects should implement data management best practices including, but not limited to, implementation of published data specifications and standards (formal and informal); increasing data discoverability and data sharing; and enabling interaction of systems, interoperability, and integration of data system

Further guidance will be provided to assist applicants selected for a Stage 2 Grant to update their Data Management Plan.

Instructions

Accessing the DMPTool and Creating a SMART Data Management Plan

1. Navigate to DMPTool at <https://dmptool.org/>
2. Go to the “Sign in / Sign up” box
3. Enter your email address
4. Click “Continue” button
5. You will go to “New Account” Sign Up page.
6. Enter First and Last Name
7. In “Institution” field, type and select: “United States Department of Transportation”
8. Create a Password
9. Accept terms and conditions
10. Click “Sign up” button
11. You will be taken to “My Dashboard” page
12. On the dashboard page, select the “Create plan” button
13. You will be taken to a new page to create a DMP plan.

The following instructions will guide you in answering the questions on this page.

- **What project are you planning?**
 - *Enter the name of your SMART project*
- **Select the primary organization**
 - *Enter “United States Department of Transportation”*
- **Select the primary funding organization**
 - *Enter “United States Department of Transportation”*
- **Which DMP template would you like to use?**
 - *Select “SMART Grants Stage 1” from the list*

14. Click “Create plan” button.

After completing these steps, you have now successfully created a SMART template that you can populate with your Data Management Plan. The following sections of this guidance document will provide you with a description of each element of the DMP template by section.

Part 1 of 6: Project Details tab

- **Project title:** This is the title of your SMART Grants award.
- **Project abstract:** The brief project description submitted as part of your SMART applicant can be used for the abstract. Please ensure it still accurately reflects your project and make any changes as necessary.
- **Research domain:** You may select one of the research domains from the list or leave this field blank.
- **Project Start:** This is the date your period of performance began.
- **Project End:** This is the date your period of performance will end.
- **Funder:** This should be pre-populated with “United States Department of Transportation”
- **Funding Status:** Select the “funded” option from the dropdown.
- **Funding opportunity number:** DOT-SMART-FY22-01
- **Grant number/url:** Insert the FAIN listed on your grant agreement.

Save this page and move on to the “Collaborators” tab at the top of the page.

Part 2 of 6: Collaborators tab

- **Add a contributor:** Contributors are the lead administrator(s) on your project and/or those responsible for data management. When you press “add a contributor,” you will be asked to provide the name, email, and role of contributors on your project. Note: ORCID is not required for SMART.
- **Invite collaborators:** Collaborators are specific people who can read, edit, or administer your plan. If you invite a collaborator, they will receive an email notification that they have access to this plan. To invite a collaborator, insert their email address and select which permissions to grant them.

Save this page and move on to the “Write Plan” tab at the top of the page.

Part 3 of 6: Write Plan tab

Each section of the DMPTool template can be expanded, where award recipients will see a prompt to provide more information on a specific topic. Each section of the DMP will provide a detailed description of what should be included. The DMP template includes the following topics:

1. Dataset and Contact Information
2. Data Description
3. Data Format and Metadata Standards Employed
4. Access Policies
5. Re-use, Redistribution, and Derivatives Products Policies
6. Archiving and Preservation Plan

Save each section of the DMP by pressing the “save” button within that section. Once all sections are completed, click the “Request Feedback Tab” at the top of the screen.

1. Dataset and Contact Information

Please provide as much of the the following information as possible:

1. Name of the project;
2. Grant number;
3. Name of the person submitting this DMP;
4. **OPTIONAL:** ORCID of the person submitting this DMP;
5. Email and phone number of the person submitting this DMP;
6. Name of the organization for which the person submitting this DMP is working;
7. Email and phone number for the organization;
8. Link to organization or project website, if applicable; and,
9. Date the DMP was written.

2. Data Description

Please provide as much information as possible:

1. Provide a description of the data that you will be gathering in the course of your project or data from a third party that you will re-use, if any;
 - a. If there will be no data collected or re-used from another source, state that this is case;
2. Address the expected nature, scope, and scale of the data that will be collected, as best as you can at this stage;
3. As best as you can, describe the characteristics of the data, their relationship to other data, and provide sufficient detail so that reviewers will understand any disclosure risks that may apply;
 - a. If data might be sensitive, please describe how you will protect privacy and security, if you

- know that now;
 - b. You may need to update your DMP later to add more detail;
4. Discuss the expected value of the data over the long-term.

3. Data Format and Metadata Standards Employed

Please provide as much information as you can:

1. Describe the anticipated file formats of your data and related files;
2. To the maximum extent practicable, your DMP should address how you will use platform-independent and non-proprietary formats to ensure maximum utility of the data in the future;
 - a. If you are unable to use platform-independent and non-proprietary formats, you should specify the standards and formats that will be used and the rationale for using those standards and formats.
3. Identify the metadata standards you will use to describe the data.
 - a. At least one metadata file should be a DCAT-US v1.1 (<https://resources.data.gov/resources/dcat-us/>) .JSON file, the federal standard for data search and discovery.

4. Access Policies

Please provide as much information as possible:

1. Describe any sensitive data that may be collected or used;
2. Describe how you will protect PII or other sensitive data, including IRB review, application of CARE Principles guidelines, or other ethical norms and practices;
 - a. If you will not be able to deidentify the data in a manner that protects privacy and confidentiality while maintaining the utility of the dataset, you should describe the necessary restrictions on access and use;
3. Describe any access restrictions that may apply to your data;
4. If necessary, describe any division of responsibilities for stewarding and protecting the data among Principal Investigators or other project staff.

5. Re-use, Redistribution, and Derivatives Products Policies

Please provide as much information as possible:

1. Describe who will hold the intellectual property rights for the data created or used during the project;
2. Describe whether you will transfer those rights to a data archive, if appropriate;
 - a. Identify whether any licenses apply to the data;
 - b. If you will be enforcing terms of use or a requirement for data citation through a license, indicate as much in your DMP;
 - c. Describe any other legal requirements that might need to be addressed.

6. Archiving and Preservation Plan

Please provide as much information as possible:

1. State where you intend to archive your data and why you have chosen that particular option;
2. Provide a link to the repository;
3. You must describe the dataset that is being archived with a minimum amount of metadata that ensures its discoverability;
 - a. Whatever archive option you choose, that archive should support the capture and

provision of the US Federal Government DCAT-US Metadata Schema
<https://resources.data.gov/resources/dcat-us/>

4. In addition, the archive you choose should support the creation and maintenance of persistent identifiers (e.g., DOIs, handles, etc.) and must provide for maintenance of those identifiers throughout the preservation lifecycle of the data;
5. Your plan should address how your archiving and preservation choices meet these requirements.

Save each section of the DMP by pressing the “save” button within that section. Once all sections are completed, click the “Request Feedback Tab” at the top of the screen.

NOTE: Research Outputs tab

This section of the DMP template does not need to be completed by SMART Grant recipients, unless there are specific research outputs that recipients wish to make part of their DMP.

Part 4 of 5: Request Feedback Tab

Once you have completed Parts 1-3 of the DMPTool, navigate through the “request feedback” tab to ensure all information submitted will be accurate. Once ready, save each section and click “Request Feedback.” Once you have clicked “Request Feedback”, you have formally submitted your DMP.

Once complete, move to the “Finalize” tab at the top of the screen.

**Remember to click the “Request Feedback” button.
This is how you formally submit your Data Management Plan.**

Part 5 of 6: Finalize Tab

No settings need to be changed from the default on this page. However, if you would like to make your DMP public you may toggle the options on this screen to do so. The SMART Grants program does not require that you make your DMP public.

- Once complete, move to the “Download Tab” at the top of the screen.

Part 6 of 6: Download Tab

- **Format:** Select one of the six available file options from the drop-down menu.
- **Download settings:** Select all or some of the pages you would like to include in the report.
- **Font:** Select the font style and size you would like the report to reflect.

Once complete, select the Download Plan button to save a copy of your DMP for your own recordkeeping.