

Fact Sheet: The Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program

Overview

Sec. 25005 of the Bipartisan Infrastructure Law (BIL) establishes the Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program to “conduct demonstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety.” The program is appropriated at \$100M annually for fiscal years 2022-2026.

To accomplish the objectives identified in BIL, the SMART Grants Program will fund projects that focus on using technology interventions to solve real-world challenges facing communities today. This will require creativity and local experimentation. The SMART Program will support a range of approaches: new transportation applications of existing and emerging technologies; expanded and systematized use of proven technologies; and deep integration of solutions with existing transportation systems.

SMART funds purpose-driven innovation and discourages investment in technologies that do not provide a clear improvement over the status quo. The program puts [DOT’s Innovation Principles](#) into practice. The Department has outlined these six key, purpose-driven principles established to guide DOT in fostering innovation that serves the Biden-Harris Administration’s policy priorities. Successful projects will seek to build sustainable partnerships across sectors and levels of government as well as collaborate with industry, academia, nonprofits, and other traditional and non-traditional partners. Successful projects will also support the creation of good-paying jobs with the free and fair choice to join a union.

SMART is a demonstration program. It is not designed to support fundamental research. In general, the systems and technologies demonstrated should be sufficiently developed such that there is good reason to anticipate public benefits from their deployment, but their application in public sector settings is not yet widespread. Proposals seeking funding for systems and technologies which are already well-established and broadly adopted will be less competitive.

SMART focuses on building data and technology capacity and experience for State, local, and Tribal governments. Technology investment is most beneficial when tailored to the needs of the community. SMART recognizes that many public sector agencies are challenged to find the resources and personnel to engage with new technologies. The program bridges this gap by providing a required planning phase, to help communities gain experience with innovative technologies. SMART supports a strong, diverse, and local workforce.



SMART is divided into two stages. The program structure is based on a belief that *planning, prototyping, and teambuilding are critical* to advancing the state of the practice for data and technology projects in the public sector. USDOT anticipates that only recipients of Stage 1 Planning and Prototyping Grants will be eligible for Stage 2 Implementation Grants.

During Stage 1, public sector project leaders should build internal buy-in and partnerships with public, private, academic, nonprofit, and community organizations and community networks to refine and prototype their concepts, and report on results. At the conclusion of Stage 1, awardees should have the information to either create a fully realized implementation plan with robust performance metrics or to make an informed decision not to proceed with the concept. Stage 1 results may uncover previously unknown institutional barriers, technical limitations, or poor performance relative to conventional solutions. The SMART Program hopes to document lessons learned from Stage 1 projects, knowing that these findings will be broadly beneficial to the transportation sector.

Stage 2 implementation projects should result in a scaled-up demonstration of the concept, integrating it with the existing transportation system, and refining the concept such that it could be replicated by others. If demonstration at-scale identifies critical challenges, gaps, or negative impacts, they should be clearly stated and documented so that other communities that take on similar projects can learn from them and adapt.

Program Information

Summary Statutory Parameters

Program Objective: To conduct demonstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety.

Type of Program: Discretionary grant program.

Eligible Entities:

- State
- Political subdivision of a State
- Tribal government
- Public Transit Agency or Authority
- Public Toll Authority
- Metropolitan Planning Organization
- A group comprised of the above 2 or more eligible entities

Geographic Funding Allocation:

Grantee type	Maximum funding (by Fiscal Year)
Large communities	Not more than 40%
Midsized communities	Not more than 30%
Rural communities or regional partnerships	Not more than 30%

Eligible Projects:

The statute outlines eight technology domains for SMART Grants. Each is complex and includes a wide range of technology inputs, data systems, and integrations with the transportation system. Recipients of SMART Grants are not expected to seek solutions in all eight technology domains through a single project. Teams will be required to identify at least one technology domain for their project, though some projects may naturally address two, three, or even four of the technology domains.

- **Coordinated Automation**—Use of automated transportation and autonomous vehicles while working to minimize the impact on the accessibility of any other user group or mode of travel.
- **Connected Vehicles**—Vehicles that send and receive information regarding vehicle movements in the network and use vehicle-to-vehicle and vehicle-to-everything communications to provide advanced and reliable connectivity.
- **Intelligent, Sensor-based Infrastructure**—Deployment and use of a collective intelligent infrastructure that allows sensors to collect and report real-time data to inform everyday transportation-related operations and performance.
- **Systems Integration**—Integration of intelligent transportation systems with other existing systems and other advanced transportation technologies.
- **Commerce Delivery and Logistics**—Innovative data and technological solutions supporting efficient goods movement, such as connected vehicle probe data, road weather data, or global positioning data to improve on-time pickup and delivery, improved travel time reliability, reduced fuel consumption and emissions, and reduced labor and vehicle maintenance costs.
- **Leveraging Use of Innovative Aviation Technology**—Leveraging the use of innovative aviation technologies, such as unmanned aircraft systems, to support transportation safety and efficiencies, including traffic monitoring and infrastructure inspection.
- **Smart Grid**—Developing a programmable and efficient energy transmission and distribution system to support the adoption or expansion of energy capture, electric vehicle deployment, or freight or commercial fleet fuel efficiency.
- **Smart Technology Traffic Signals**—Improving the active management and functioning of traffic signals, including through:
 - Use of automated traffic signal performance measures;
 - Implementing strategies, activities, and projects that support active management of traffic signal operations, including through optimization of corridor timing; improved vehicle, pedestrian, and bicycle detection at traffic signals; or the use of connected vehicle technologies;
 - Replacement of outdated traffic signals; or
 - For an eligible entity serving a population of less than 500,000, paying the costs of temporary staffing hours dedicated to updating traffic signal technology.