



Traffic Management Center Pooled-Fund Study

What are traffic management systems (TMSs) and Traffic Management Centers (TMCs)? TMSs and TMCs are critical resources that offer agencies the potential to improve the safety and mobility of travel on the surface transportation system. TMSs have also been deployed or are being enhanced to assist agencies in fulfilling the ever-increasing transportation needs of travelers (e.g., travel times), service providers (e.g., transit and emergency services), other agencies, and the public (e.g., incidents). A TMS consists of a complex, integrated blend of hardware, software, operational strategies, processes, and people performing a range of functions and actions.

Why is it important to pursue improvements? TMSs typically consist of multiple subsystems, which may include functionality such as ramp metering, traffic signal control, dynamic message signs, data, software, and communication. The deployment, integration, operation, management, and maintenance required to operate TMSs, TMCs, and subsystems is very complex, as the supporting technologies and components continue to evolve.

What is the TMC Pooled-Fund Study (PFS)? The TMC PFS is a group of public agencies and organizations that voluntarily pool funds each year to address the key challenges and issues they face to improve performance, capabilities, management, and operation of their TMSs. TMC PFS members collaborate by using funds they contribute to pursue projects that develop technical resources and advance activities to address the key challenges and issues they collectively face. Currently, more than 20 members (e.g., State departments of transportation (DOTs) and other public agencies) and organizations (e.g., regional operating agencies and toll authorities) contribute funding and work in partnership with the Federal Highway Administration (FHWA) to identify, select, initiate, and develop technical resources and facilitate the distribution of information and practices.

Who can join the TMC PFS? Any noncommercial agency or organization responsible for planning, designing, installing, operating, or maintaining a TMS for travel on any portion of the surface transportation system is eligible to join and participate in the PFS. These agencies or organizations may include cities, counties, toll authorities, turnpike authorities, port authorities, and corridor coalitions. The TMC PFS is coled by three representatives from member agencies. FHWA provides the staff and resources (e.g., administrative, technical, and project management) to facilitate all the TMC PFS activities and develop the technical resources for each project. One hundred percent of the funds provided to the TMC PFS go directly to the projects selected by members.

Recent projects. TMC PFS projects have addressed issues such as technologies, policies, processes, methods, and options agencies may consider for improving the capabilities, capacity, coverage, management, operation, and performance of TMSs. More than 40 projects have been completed that developed technical resources on topics including the day-to-day management and operation of TMCs (e.g., staffing), maintenance, asset

Alex Wassman, Missouri DOT;
TMC PFS Chair

“Being able to collectively identify issues, provide insights into projects, and help shape resources that the TMC PFS is developing, along with having regular interaction with other TMC managers experiencing similar technical issues has proven to be invaluable to the Missouri DOT”
(<https://tmc pfs.ops.fhwa.dot.gov/>).

Josh Brown, Tennessee DOT (TDOT);
TMC PFS Cochair

“The TMC Pooled-Fund Study holds great importance for TDOT as we continuously strive to enhance the efficiency and effectiveness of Tennessee’s statewide transportation systems. Participating in the PFS has provided us with invaluable opportunities to enhance our professional experience by engaging in networking and collaborative efforts with leaders from States that have notable advancements in both technical and operational aspects. These interactions have made a substantial impact on our ability to deliver high-quality services to the public through our TMCs.”

Ryan McNary, Pennsylvania DOT
(PennDOT);
TMC PFS Co-Chair

“The TMC Pooled-Fund Study initiatives, and the peer-to-peer conversations they promote, have helped shape how PennDOT moves its TMC operations forward. The outcomes from these relationships have not only benefited Pennsylvania’s TMCs, but they’ve also contributed to improving [Transportation Systems Management and Operations] statewide. Member States are at varying levels of developing innovative projects and organizational changes that any agency can gain insight from.”



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management, planning, design, implementation, configuration, and enhancements to TMSs. The TMC PFS remains successful because of its commitment to sharing experiences and information, improving practices through the development of technical resources, and advancing activities to meet the needs and challenges agreed to by its members. The following lists some of those projects:

- [Inventorying, Documenting, and Configuring TMS Assets and Resources](#)
- [Sharing Information on TMS Emerging Topics](#)
- [Sharing and Using Different Types of Data in TMS](#)
- [Planning to Frame TMS' Strategic Direction and Future Investments](#)
- [Using Information from Social Media to Improve the Operation of TMS](#)

The full list of completed TMS projects is available on the [TMC PFS](#) website.

New activities and projects. The following are the latest projects selected to advance using TMC PFS member funding:

- Methods to identify staffing needs and developing or updating staffing plans for TMS
- Sharing and using open source or agency-Owned software and application programming interfaces (APIs)
- Classifying, measuring, collecting, and using information on the conditions of TMS assets
- Locating and placing TMS field devices

High-priority issues to address in the future. TMC PFS members have identified the need to develop resources to assist in evaluating and benchmarking the capabilities and desired levels of performance for the existing and next generation of TMSs. Technical resources are needed to assist in the planning, designing, procuring, developing, implementing, testing, operating, and evaluating of possible improvements to these systems. Additionally, TMC PFS members identified the lack of technical resources to assist in the planning for and identification of the resources needed to pursue the next generation of TMS. The lack of current plans, limited funding, and complexity of these systems, which involve advanced technologies for which staff may have limited experience, presents a challenge for many agencies.

FHWA facilitates the process of identifying and prioritizing new projects for the TMC PFS to advance, with members typically identifying ideas for possible projects that address issues and challenges as they relate to four key areas, including:

- Assessing and reporting on TMS capabilities and performance
- Planning, designing, procuring, and developing TMS
- Managing and operating TMS
- TMS staffing, support resources, and capacity building

For more information on the TMC PFS or how to join:

TMC PFS website—<https://tmcpfs.ops.fhwa.dot.gov/>

National Operations Center of Excellence portal—<https://transportationops.org/traffic-management-systems-and-centers>

Contact Jon Obenberger, FHWA, at Jon.Obenberger@dot.gov.

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