ITS DATA ACCESS AND EXCHANGES

Access to ITS data is critical for public agencies, private companies, and academia to conduct research and create new ITS innovations and services. Consistent and timely access to data increases the return on federal investment in ITS research and demonstration projects while helping to inform future investment decisions, which speeds deployment of innovative ITS technologies and produces widespread benefits.

The ITS Data Access and Exchanges Program focuses on enabling access to core transportation data across the ITS ecosystem. Access to harmonized data is essential to the integration of connected vehicles, automated vehicles, and other emerging ITS areas that are highly data-dependent. This research area seeks to foster the adoption of modern technology best practices essential to trusted data exchanges. As vehicles and travelers cross jurisdictional boundaries, exchanges are a key component of data access and are crucial for the next generation of interoperable transportation.

**RESEARCH ACTIVITIES**

The ITS Joint Program Office (JPO) is positioned to work across the U.S. DOT modes and Office of the Secretary offices to develop and coordinate research on data access and exchanges, including:

- Helping to eliminate data silos and establish interoperable interfaces between infrastructure owners and operators (IOOs), original equipment manufacturers, and data brokers on key elements such as digital maps or system-wide operational data
- Facilitating consensus definitions on what constitutes core data
- Researching scalable solutions for trusted data exchanges across jurisdictional boundaries
- Providing technical assistance and funding to IOOs to help them conform to data best practices.
DAVI
Access to data is a critical enabler for the safe deployment of automated vehicles, while lack of access could impede actions to accommodate automated vehicles and thereby delay their introduction. As part of efforts to avoid these pitfalls, the U.S. DOT is committed to identifying multimodal priorities for data exchange to accelerate safe integration of automated vehicles and enable consistent U.S. DOT automated vehicle data policies and research plans. The Department is working to convene multimodal stakeholders to refine all parties’ common understanding of priorities for data exchange, as well as the appropriate federal role therein. These meetings will also provide opportunities to launch multimodal projects to accelerate development of data exchanges in priority areas, such as work zones, cybersecurity, and scenarios.

As part of this mission to increase access to data through exchanges, this research area will also incubate and drive the adoption of modern technology best practices and consistent data access and evaluation across all U.S. DOT-funded ITS research and deployment projects. This, in turn, will increase return on federal investment in research and demonstration projects and accelerate multimodal, data-driven, trusted evaluations of potential safety, mobility, and other benefits to inform future policy and investment decisions.

Access to Data
The U.S. DOT is committed to providing timely access to public research data to support third-party research, evaluation, and application development to maximize the ITS JPO’s investment in ITS research initiatives. ITS DataHub provides a single point of entry to discover the U.S. DOT’s publicly available ITS research data, including connected vehicle data. By providing access to these data, the U.S. DOT aims to enable third-party research into the effectiveness of emerging ITS technologies, preliminary development of third-party applications, and harmonization of data across similar collections. Data accessible through ITS DataHub is quality-checked, well-documented, and freely available to the public.

To discover reusable, open ITS data and contribute to ITS DataHub, visit: https://www.its.dot.gov/data

DATA FOR AUTOMATED VEHICLE INTEGRATION (DAVI) FRAMEWORK

1. Identify needs for data exchange
2. Prioritize data exchanges
3. Monitor emergence of market-based solutions
4. Address barriers or market failures preventing priority data exchanges

WORK ZONE DATA EXCHANGE (WZDx)

Improving access to work zone data is one of the top needs identified through the U.S. DOT’s DAVI initiative. The U.S. DOT launched the WZDx Specification to jumpstart the voluntary adoption of a basic work zone data specification through collaboration with data producers and data users. The WZDx Specification enables IOOs to make harmonized work zone data available for third-party use. The intent is to make travel on public roads safer and more efficient through ubiquitous access to data on work zone activity. Specifically, the project aims to get data on work zones into vehicles to help automated driving systems and human drivers navigate more safely.

To learn more about this program, visit: https://www.its.dot.gov/research_areas/enterprise.htm

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