

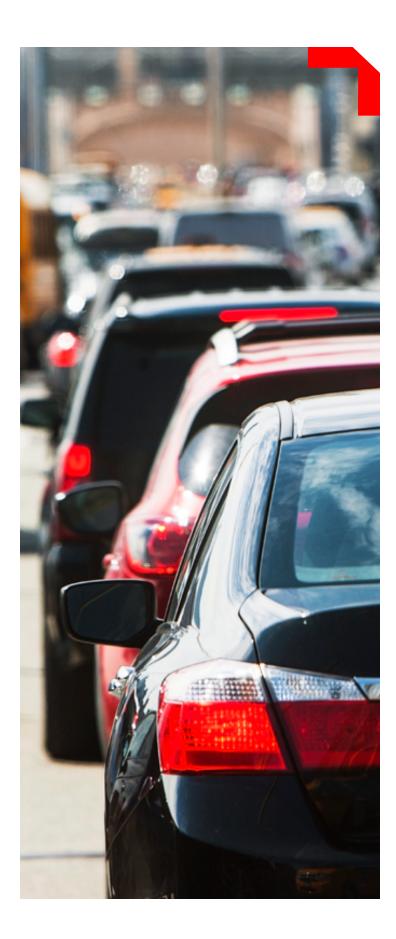
FUNDING GUIDE

A transportation agency's guide to sourcing data funding



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Whether you work for a state or local Department of Transportation (DOT), a Metropolitan Planning Organization (MPO) or a regional transportation commission, high-quality data can help you improve mobility in your region. In turn, it can help improve everyday road conditions for residents, help the economy thrive and help keep people safe. But before you can unleash the power of intelligent transportation data, you need to find funding to obtain it. And as you know, this can be far from a simple task.

With so many funding options available, and an overwhelming amount of information to sort through, it can be challenging to find the right ones for your agency. The way you secure funding may be completely different to the way others go about the same task – even if they work for a transportation agency in the city or state over.

Through conversations with our customers, partners and industry associations, we've gained a deep understanding of how different transportation agencies secure funding for their data analytics projects and initiatives. In this guide, we'll share a selection of what we've uncovered and the different ways to embark on this mission.

Plenty of funding opportunities and spending are wrapped up in the Infrastructure Investment and Jobs Act (IIJA). We'll explore this in depth as well as how to unlock federal funding, how state DOTs gain funding and how local agencies can leverage funding through their state.



Read on to identify new funding opportunities and determine which would be the best fit for your agency.

Operating budgets

All transportation agencies across the country rely on operating budgets to help achieve their objectives. You'll already be familiar with the process: building your value propositions and business cases, presenting them to council, having your budgets reviewed and (hopefully) receiving the funds you requested.

So in this guide, we'll be focusing elsewhere - on other pools of funding that you may or may not be familiar with.

Alternative funding

With the announcement of the Infrastructure Investment and Jobs Act, many new funding opportunities became available under this \$1.2 trillion umbrella. Projects for the Federal Highway Administration, Joint Office of Energy and Transportation as well as many USDOT initiatives are now all funded in one place with IIJA. This widens your options but also acts as a one-stop-shop for funding.

There are plenty of opportunities to deploy intelligent transportation technologies within IIJA including smart infrastructure, automation for safety, mobility on demand as well as sustainability initiatives. All of these can be significantly bolstered with transportation analytics data as part of your funding proposal.

Additional funding can come from a range of sources - some of which we've listed here. Some are federal, others are state level or granted at the MPO level. As you probably know, you can bid for state funding for regional purposes, and states can bid for federal funding too. For each funding type, we've provided a couple of relevant use cases that might act as inspiration for your next application.







Federal funding for state and local agencies

The Infrastructure Investment and Jobs Act

The Biden administration promised a "once-in-a-generation investment" in our transportation infrastructure, after signing the Infrastructure Investment and Jobs Act (IIJA) back in November 2021. The \$1.2 trillion investment for roads, bridges and other major projects has \$350 billion earmarked for federal highway programs through 2026. Most of the funding will be allocated at state level depending on federal formulas and laws but there's also a wide range of funding that will be up for grabs in competitive grant programs.

Some portions of this funding can be used to invest in transportation analytics data, including:



Sec. 25005 Strengthening Mobility and Revolutionizing Transportation (SMART)

Over the next 5 years, \$500 million will be spent on "advancing smart city technology and systems to improve transportation efficiency and safety." Strengthening Mobility and Revolutionizing Transportation (SMART) provides supplemental funding grants to rural, mid-sized and large communities to conduct demonstration projects. These projects are focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety including:

- Commerce Delivery and Logistics
- Smart Technology Traffic Signals that support active management of traffic signal operations



Sec. 11114. National highway freight program

The NHFP aims to improve the efficient movement of freight on the National Highway Freight Network. Over the next 5 years, the program has \$7.15 billion at its disposal to support several goals, including:

- Investing in infrastructure and operational improvements that strengthen economic competitiveness, reduce congestion, reduce the cost of freight transportation, improve reliability and increase productivity
- Improving the safety, security, efficiency and resiliency of freight transportation in rural and urban areas
- Improving state flexibility to support multi-state corridor planning and address highway freight connectivity
- Reducing the environmental impacts of freight movement

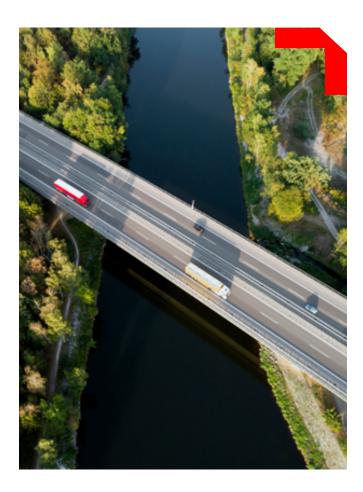
Funds are distributed to states using predetermined formulas for eligible activities, such as construction, operational improvements, freight planning and performance measurement. Eligible states must have a State Freight Plan (compliant with 49 U.S.C. 70202 and approved by DOT) in order to unlock NHFP funds.



The INFRA Grants Program

(formerly known as the Nationally Significant Freight and Highway Projects program)

The IIJA authorized Highway Trust Fund (HTF) transfers totaling \$4.8 billion and provided advance appropriations of \$3.2 billion. An additional \$6 billion is authorized for future appropriations, meaning that the program is funded at \$8 billion and could see as much as \$14 billion with future appropriations.



"The IIJA authorized \$15 billion for the Local and Regional Project Assistance Program to fund projects that "will have a significant local or regional impact and improve transportation infrastructure."

The IIJA renamed the Nationally Significant Freight and Highway Projects program as the Nationally Significant Multimodal Freight and Highway Projects program, which is commonly referred to as INFRA. The program seeks to fund projects that generally cost at least \$100 million and that:

- Improve the safety, efficiency and reliability of the movement of freight and people
- Generate national or regional economic benefits and an increase in the global economic competitiveness
- Reduce highway congestion and bottlenecks
- Improve connectivity between modes of freight transportation
- Enhance the resiliency of critical highway infrastructure and help protect the environment
- Address the impact of population growth on the movement of people and freight

The USDOT issued the Notice of Funding Opportunity for the INFRA program through the Multimodal Project Discretionary Grant NOFO.

Regional and Local Project Assistance (RAISE) Discretionary Grants

The grants awarded under this program must be at least \$1 million for rural areas and \$5 million for urban areas with no more than 15% of the funds available going to any one state in a single year. Additionally, the program requires a 50-50 split between urban and rural projects and requires that at least 1% of available funds go toward projects in historically disadvantaged communities or areas of persistent poverty, as defined by the IIJA.





Sec. 11204. Prioritization process pilot program for transportation planning

Transportation Improvement Programs (TIP) are 4-5 year rolling capital plans for the cities and towns Metropolitan Planning Organization's (MPO) planning area. The TIP outlines all transportation projects that will receive federal funding in the region over the course of the plan. The purpose of the prioritization process pilot program is to support data-driven approaches to transportation planning that, on completion, can be evaluated for public benefit. This program is offering total funding of \$10 million for each fiscal year from 2022 through to 2026, with a maximum grant of \$2 million.



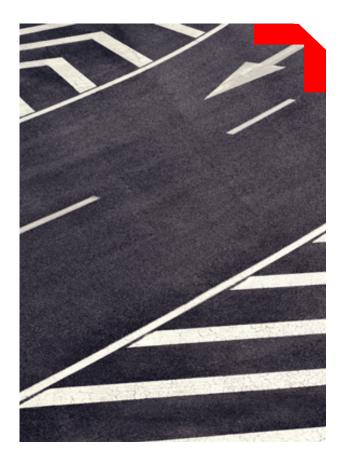
Sec. 11404. Congestion Relief Program

\$250 million (\$50 million for each fiscal year from 2022 through 2026) is allocated to the Congestion Relief Program, which aims to use integrated technologies to relieve traffic congestion - along with the associated economic and environmental costs - in the most congested metropolitan areas in the United States. This includes funding for regional Integrated Congestion Management Systems which offer traffic incident management, work zone management, traffic signal timing, lane management, real-time traveler information and active traffic management. These systems must be designed to: "maximize the capacity of all facilities and modes across the applicable region."

These funds can be used for planning, design, implementation and construction activities to achieve the program goals, including:

- Deployment and operation of integrated congestion management systems
- Systems that implement or enforce high occupancy vehicle toll lanes, pricing strategies or mobility services
- Incentive programs that encourage carpooling, non-highway travel during peak periods, or travel during non-peak periods

Because the program is limited to only the most congested metropolitan areas in the U.S., states or metropolitan planning organizations may only apply to fund projects occurring in urbanized areas with a population of 1 million or more. The minimum grant size for the program is \$10 million.







Sec. 11403. Carbon Reduction Program

\$6.3 billion is set aside for the Carbon Reduction Program (CRP), which provides funds for projects designed to reduce transportation emissions, defined as carbon dioxide (CO2) emissions from on-road highway sources.

CRP funds may be obligated for projects that support the reduction of transportation emissions, including, but not limited to:

- A project described to establish or operate a traffic monitoring, management and control facility or program, including advanced truck stop electrification systems;
- A project for advanced transportation and congestion management technologies;
- Development of a carbon reduction strategy developed by a state
- Efforts to reduce the environmental and community impacts of freight movement

This program provides a flexible funding source to state and local governments for transportation projects and programs that help to meet requirements of the Clean Air Act. The CMAQ program has been a key funding mechanism for helping urban areas to meet air quality goals. It also supports investments that encourage alternatives to driving alone and improve traffic flow. As part of the IIJA bill, an additional \$13.2 billion in funding has been set aside for this program.

One example of an agency using CMAQ funding to improve conditions in their jurisdiction is the City of Nashua, New Hampshire. In 2019 it was awarded \$1.2M for intersection and roadway improvements along the Canal Street/Franklin Street / Main Street intersection in the Railroad Square area.

Find out more about eligibility requirements on pages 23-26 of this document.



Sec. 11109. Surface Transportation Block Grant (STBG) program

\$70.3 billion is set aside for the Surface Transportation Block Grant (STBG) which provides flexible funding that may be used by state and local governments for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road including the installation and deployment of current and emerging intelligent transportation technologies. The Georgia DOT receives around \$80 million per year of funding through STBG. This allows them to use intelligent data to predict the performance outcomes of their proposed projects.

Find out more about eligibility requirements on pages 158-167 of this document.



Sec. 11111. Highway Safety Improvement Plan (HISP)

The Highway Safety Improvement Program was created with the purpose of achieving a significant reduction in traffic fatalities and serious injuries on all public roads, including non-state-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all roads with a focus on performance. The IIJA is offering \$15.5 billion in funds to eligible projects including:

- Intersection safety improvements that provide for the safety of all road users, as appropriate, including multimodal roundabouts
- Construction or installation of features, measures and road designs to calm traffic and reduce vehicle speeds





Sec. 11201. Metropolitan Planning Program

The IIJA continues the Metropolitan Planning Program which establishes a cooperative, continuous and comprehensive framework for making transportation investment decisions in metropolitan areas. \$2.3 billion in funds are available for this program which includes initiatives focused on travel demand data and modeling to:

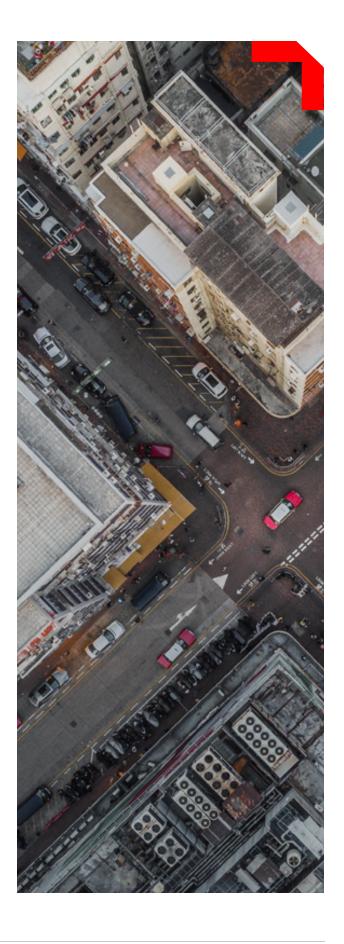
- Carry out a study that gathers travel data and travel demand forecasts from a representative sample of states and MPOs and compares travel demand forecasts with observed data: and to use this information to develop best practices or guidance for States and MPOs to use in forecasting travel demand for future investments in transportation improvements
- Seek opportunities to support States' and MPOs' transportation planning processes by providing data to improve the quality of transportation plans, models and travel demand forecasts



Sec. 24112. Safe Streets and Roads for **All Grant Program**

The IIJA authorizes \$200 million per year, subject to annual appropriations, and provides advance appropriations of \$1 billion per year, making up to \$6 billion available for the Safe Streets and Roads for All grant program. The grant program supports local initiatives to prevent death and serious injury on roads and streets, commonly referred to as "Vision Zero" or "Toward Zero Deaths" initiatives. Eligible activities include:

- Developing a comprehensive safety action plan;
- Conducting planning, design and development activities for projects and strategies identified in a comprehensive safety action plan; or
- Executing projects and strategies identified in a comprehensive safety action plan





Where else can you look for funding opportunities?

While the programs and funding initiatives available within the IIJA listed above are extensive, there are other funding opportunities available at all levels of government. Let's explore some of these alternative pools of funding:

The Federal Highway Administration

The Federal Highway Administration (FHWA) is responsible for ensuring that America's roads and highways continue to be among the safest and most technologically sound in the world. In order to achieve this, they offer financial and technical assistance to state and local governments. FHWA funds are flexible grants that can be spent on investments for roads and highways.

State Transportation Innovation Council

State Transportation Innovation Councils (STICs) are intended to bring together public and private transportation stakeholders to evaluate innovations and spearhead their deployment in each state. The STIC Incentive program offers federal funding of up to \$100,000 per state, per year to support or offset some of the costs of standardizing innovative practices in a state transportation agency or a public-sector STIC stakeholder. STIC Incentive funds provide a federal share of 80%, and the 20% non-federal match may come from project sponsors or other permitted funding sources.

The STIC, or an equivalent group, comprehensively and strategically considers sources of innovation, before selecting those innovations that best fit its unique program needs and then works quickly to put those innovations into practice. A formalized council or group affirms a state's commitment to innovation, ensuring that it remains ingrained as a business practice for years to come.

The STIC Incentive program has helped many agencies achieve their objectives. For example:

- Florida DOT received \$100,000 in 2020 to develop a multi-regional planning effort to advance Transportation Systems Management and Operations (TSMO) along the I-4 corridor.
- North Dakota DOT received \$100,000 in 2020 to measure the time required to return to normal speeds after a storm. They achieved this by automating the collection of speed data.
- Tennessee DOT received \$100,000 in 2019 to develop new guidance that will establish an innovative process for selecting intersection and interchange configurations that are needs based, data-driven and free of any perceived institutional bias.

Visit this site for full guidance on the STIC Incentive Program.

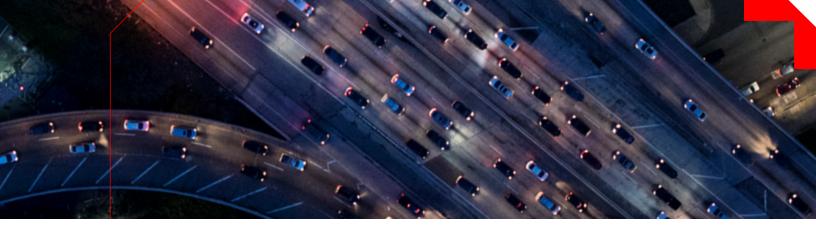


To explore the USDOT grants that are currently available, please visit:

https://www.grants.gov/web/grants/search-grants.html

Set the agency filter to 'All Department of Transportation [DOT]'.





Accelerated Innovation Deployment (AID) Program

The AID Program provides up to \$1 million of funding as an incentive for agencies to accelerate innovation in highway transportation. Eligible entities include state DOTs, federal lands management agencies and tribal governments. State DOTs may also apply on behalf of metropolitan planning organizations and local governments. Funding is available for projects that:

- Significantly accelerate the adoption of innovative technologies by the surface transportation community;
- Improve highway efficiency, safety, mobility, reliability, service life, environmental protection and sustainability
- Develop and deploy new tools, techniques and practices to accelerate the adoption of innovation in all aspects of highway transportation



Since its creation in 2014, the AID Demonstration Program has awarded more than \$86 million for 117 grants to accelerate the use of innovative practices and improve safety throughout the nation.

Here are just a few use cases:

Montana DOT

- Awarded \$816,000 in 2015 to use systems engineering analysis for a state-wide traffic signal system evaluation project.
- The DOT was able to accurately analyze corridors in their seven largest urban areas - giving them the insight they needed to make informed and effective improvements to their signal control technology.

Kentucky DOT

- Awarded \$1 million in 2017 for their traffic signal performance measures corridor project.
- This enabled them to analyze and improve the Warren County/Richmond Bypass in Madison County.

Unnamed DOT

- Bundling a number of bridge projects on local routes.
- Bundling is a delivery method supported by FHWA that covers several projects under one contract.
- Benefits include streamlined coordination and permitting, increased economies of scale and improved bridge conditions on local routes.

Learn more about the Accelerate Innovation Program and its application process here.



How can local agencies access these federal funding options?

Pooled funding

The Federal Highway Administration (FHWA) administers the Transportation Pooled Fund (TPF) Program as a means for states, the FHWA, and other organizations to partner when they share an interest in solving transportation-related issues. Partners may pool funds and other resources to solve these problems through research, planning and technology transfer activities.

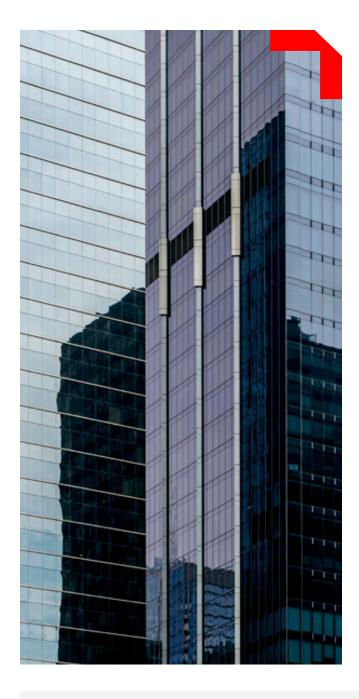
To qualify as a pooled fund study, more than one qualifying entity must commit funds or other resources towards the research, planning and technology transfer related to the activity. Eligible entities include state transportation agencies, federal agencies, municipal and metropolitan agencies, colleges, universities and private companies.

Pooled funds are a great opportunity for MPOs who face limited access to transportation and research funding. With a pooled approach, they can access funding which would otherwise only be available at state level.

One recent pooled funding study, titled Moving Forward with Next Generation Travel Behavior Data Collection and Processing, received total commitments of \$4 million over a 4-year period from the following sponsor organizations:

- DOTs: AZ, CA, GA, MI, OH, OR, VA, WI, TN, SC, OK, NC, NY, HI
- The Maricopa Association of Government
- Oahu MPO
- The Environmental Protection Agency
- The Metropolitan Washington Council of Governments
- The Atlanta Regional Commission
- Capital Area MPO

The primary objective of the Next Generation Travel Behavior Data Initiative is to collect, process, estimate and report national, state and local travel behavior data on an annual basis. They also aim to enable and facilitate state transportation departments, MPOs and other entities' participation in the new local data gathering program with high efficiency and great flexibility.





To see all current Transportation Pooled Fund (TFP) studies, visit:

https://www.pooledfund.org/Study/Active

Or for frequently asked questions around TFP, visit:

https://www.pooledfund.org/Home/faq



Helpful resources

- Programming and Funding for Operations website
- **Memo on Procurement of Operational Improvements**
- Federal-aid Authorizations for Non-Construction **ITS and Operations Projects**
- **TSMO Funding Fact Sheets**
- Funding Federal-aid Highways guide
- A list of Transportation Research funds available from the Office of Policy and Governmental Affairs
- A Guide to Federal-Aid Programs and Projects
- Federal aid essentials for local public agencies

How do State DOTs determine how their funding is distributed?

Metropolitan Planning Funds (PL funds) are provided from the Federal Highway Trust Fund and are distributed by state DOTs to MPOs to conduct the planning activities. They all have different methods of determining the best formula for distribution, but most offer a base level of funding to each MPO before considering other factors such as population density. In some cases, local agencies can directly apply for funding to the state agency without having it distributed to them through the MPO.



One interesting example is Wyoming, which has two MPOs. The State DOT divides the PL funds into thirds:

33.3%

is given to each MPO.

33.3%

is retained within the State DOT for planning studies in MPO and non-MPO areas.

Wyoming DOT distributes the 33.3% of funds reserved for additional planning studies through a competitive process, targeted to cities and counties.

A city or county can apply for funding by submitting a letter of request to their district engineer, on a rolling basis. Wyoming DOT, along with the district engineer, review the application to determine whether the project is aligned with their long-range transportation plan goals, and whether it will benefit the community.

How can we help?

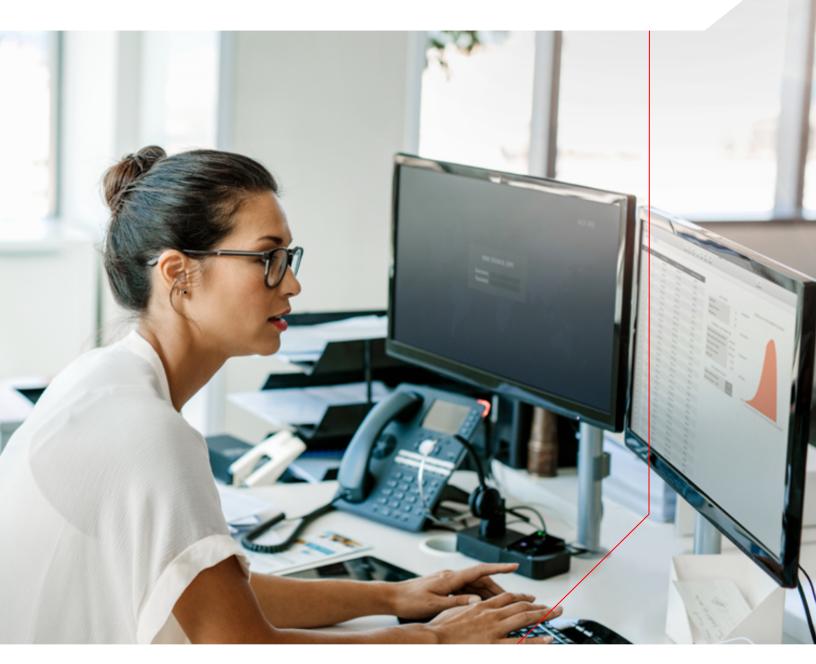
The funding available for transportation data purchases is likely to increase significantly over the next decade. And these funds will give your agency an opportunity to dramatically enhance its transportation planning initiatives.

At Geotab ITS, we provide rich commercial and consumer vehicle insights for smarter traffic planning and management. Our highly contextualized, high-volume, near real-time data is an outstanding tool that informs accurate and reliable insights.

What's more, these insights are based on observed, real-world journeys instead of modeled representations. Fueled by the aggregate data of millions of connected vehicles, we can help you understand the conditions surrounding vehicle journeys in your region. That way, you can improve everyday conditions for residents, help the economy thrive and help keep people safe.



To uncover exactly how we can empower your DOT with our powerful connected vehicle data platform, Altitude, visit its.geotab.com. Alternatively, get in touch at its@geotab.com to find out more about working ith Geotab ITS.



Learn more at its.geotab.com or email us at its@geotab.com

