LONG-RANGE TRANSPORTATION PLAN 2040

Your Safety • Your Mobility
Your Economic Opportunity

LETTER FROM THE DIRECTOR

The Idaho Transportation Department (ITD) is committed to our mission of improving your safety, your mobility and your economic opportunity. At ITD, we help sustain Idaho's high quality of life while providing the safest transportation system possible. Transportation planning plays a fundamental role in the future of our state, region, and community.

Through a series of online surveys, ITD engaged the public for feedback on transportation priorities and conducted meetings with transportation-related working groups to ask for input on future of transportation in Idaho. This feedback resulted in the development of the long-range transportation plan.

The following document provides a condensed version of the long-range plan adopted by the agency in 2019. This plan articulates a long-term vision for Idaho's state highway system and will guide us as we make decisions on modernizing our systems and collaborating with local transportation partners to address demand. Idaho has been the fastest growing state for three years in a row and so it is crucial for ITD to implement a long-range plan that supports the needs of the growing population. In order to keep up with Idaho's rapid growth, we are planning for the future.

To be ready for future demand, we are developing our workforce by continually empowering employees and implementing innovative business practices. To do this, ITD enables strong leaders, develops a stable workforce to reduce turnover in key positions and improve ITD's organizational culture.

By partnering with stakeholders and the public, ITD works hard to ensure the safety and mobility for all users of Idaho roadways, including motorists, bikers and pedestrians. We are ready to help move Idaho forward and achieve our vision of becoming the best transportation department in the country.

Sincerely,
Brian Ness
Director, Idaho Transportation Department

Your Safety • Your Mobility • Your Economic Opportunity

MISSION, STRATEGIC GOALS & PERFORMANCE MEASURES

The Idaho Transportation Department is responsible for...

12,315 miles of highway + **1,830** bridges + **12** ports of entry + **34** rest areas

Source: 2019 ITD Quick Facts

across the state of Idaho. Everything ITD does supports its mission of **Your Safety, Your Mobility and Your Economic Opportunity.**

ITD's Long-Term Goals (LTG) — From Strategic Plan

Safety	Economic Mobility	Innovation
LTG-1	LTG-2	LTG-3
Commit to providing the safest transportation system possible.	**Provide a mobility-focused transportation system that drives economic opportunity.**	**Become the best organization by continually developing employees and implementing innovative business practices.**

Performance Measures

Reduce the five-year fatality rate to under 1.38 per 100 million vehicle miles traveled by 2021.	**Maintain at least 73% unimpeded mobility for the winter season.**	**Sustain 80% of all State Highway System roads and bridges in good or fair condition.**

PUBLIC INVOLVEMENT

Public involvement is crucial to long-range transportation planning (LRTP) efforts. ITD regularly engages with stakeholders and citizens statewide through workshops, speaking opportunities and online surveys.

On March 5, 2018, ITD launched an online public survey to get user feedback on transportation priorities, budget allocation, and trade-offs as part of the LRTP update process. The survey asked respondents to rank priority areas from most to least important. At the statewide level, participants selected Congestion & Delay Relief as the top priority area according to average rank, while Preservation & Maintenance was ranked the most times.

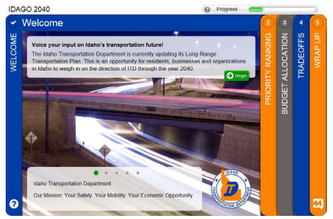
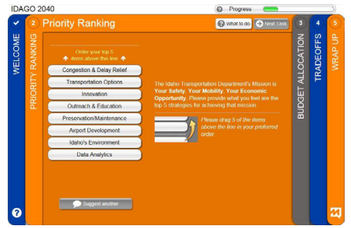


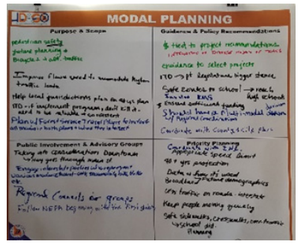
Table 7 Priority Ranking Summary

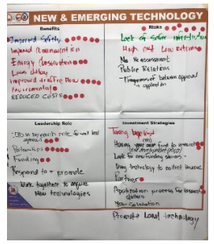
Priority Area	Average Rank						
	State	D1	D2	D3	D4	D5	D6
Congestion & Delay Relief	**2.20**	2.57	3.42	**1.90**	3.00	2.33	3.20
Preservation & Maintenance	2.56	2.43	**2.05**	2.86	**1.82**	2.75	**2.00**
Idaho's Environment	2.75	**2.30**	2.53	3.02	2.50	**1.00**	2.87
Transportation Options	2.77	2.78	2.85	2.71	4.11	2.50	2.75
Innovation	3.61	3.72	3.26	3.63	3.11	4.00	3.26
Airport Development	3.66	4.00	4.43	3.48	3.67	4.00	4.40
Data Analytics	3.75	4.00	3.90	3.80	3.00	5.00	3.40
Outreach & Education	3.85	4.14	3.08	3.95	3.50	3.00	3.56

Shaded cells indicate lowest rank (highest priority) for each geographic area. Statewide values exclude entries with zip code marked as 1. District results are based on reported home zip codes.



ITD hosted a series of stakeholder meetings in each district to encourage participation in the long-range planning process and to ask for input on future planning scenarios related to safety, mobility, and economic opportunity.





ITD had an open invitation to transportation-related work groups, agencies, or professional organizations across the state during the development of the Long-Range Transportation Plan. In addition to the stakeholder meetings, ITD met with approximately 500 professionals across the state who are involved with transportation.

Table 4 Invitational LRTP Presentations

Group/Presentation	Date	Location	Attendance
ITD Tribal Summit	8/3/2017	Boise	~25
Bicycle and Pedestrian Advisory Committee	3/29/2017	Boise/Conference Call	~10
Bicycle and Pedestrian Advisory Committee	2/1/2018	Boise/Conference Call	5
Boise Metro Chamber of Commerce	3/21/2018	Boise	~20
Idaho Freight Summit	4/10/2018	Boise	~50
Foundation for Ada/Canyon Trail System, Inc.	5/23/2018	Meridian	8
Nez Perce Tribe	3/17/2018	Lewiston	3
Public Transportation Advisory Council	7/24/2019	Boise	15
Southeast Idaho Five County Coalition	7/19/2018	Malad	120
Relevance2 Retreat	7/25/2018	Boise	15
Public Transit Summit	8/21/2018	Boise	81
Presentations After Draft Plan Published			
COMPASS - RTAC	2/27/2019	Meridian	37
LHTAC Council	3/7/2019	Boise	22
Valley Regional Transit	3/14/2019	Boise	7
Bonneville MPO - RTAC	3/14/2019	Idaho Falls	25
Mini-Cassia Transportation Committee	4/10/2019	Burley	24
Aeronautics Advisory Board	4/15/2019	Coeur D'Alene	15
Idaho Smart Growth & Idaho Walk Bike Alliance	4/29/2019	Boise	4
Public Transportation Advisory Council	6/26/2019	Boise	10
		Total	**~500**

How did ITD use this input?

The most common input from the general public (GP) was in four categories:

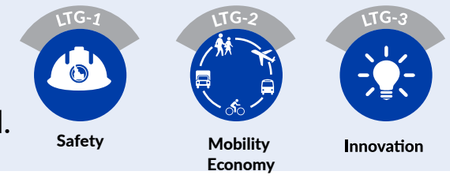
1. Congestion Relief & Preservation
2. Highway Use Options
3. Quality of Life
4. Public Transportation

The most common input from professional stakeholders (S) was in three categories:

1. Engage stakeholders early and often in planning and projects
2. Consider all modes of transportation
3. Provide transportation leadership in Idaho

In the 2040 Long-Range Transportation Plan

ITD created icons to identify where public input, stakeholder, and business practices are addressed.



An excerpt from the 2040 Long-Range Transportation Plan (Chapter III, page 38) demonstrating the use of the public and stakeholder input icons.

> ***Travel Data***
>
> The current state of travel data collection, reporting, and modeling can be cumbersome and incomplete. Technologies are not well integrated; however, methods are emerging that will most likely change these relationships. Ultimately, ongoing improvements support ITD's twenty-year vision for the future of travel data:
>
> 1. To become a clearinghouse of collected and modeled travel data in the state of Idaho
> 2. To develop a safer and more efficient means of collecting and maintaining travel data, using emerging technologies and analysis methods

STATE OF TRANSPORTATION

Idaho is the fastest growing state by percent of population for three consecutive years.

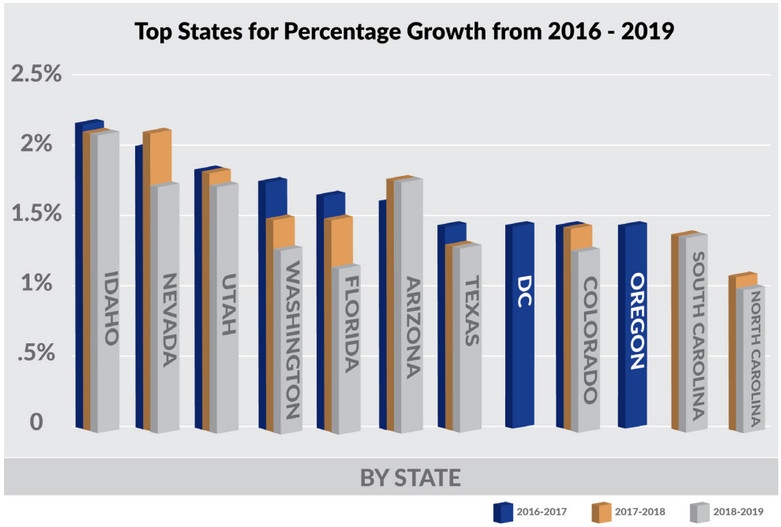



Photo credit: Mike Thyeson

GROWTH IMPACTS ON TRANSPORTATION

Population and economic growth both have impacts to the transportation system

1. **Short Term:** Minor single family housing, infill development and small commercial developments will require traffic signal construction and intersection improvements.
2. **Mid-Term:** Larger commercial and housing developments will require highway expansion in coordination with local partners, innovative intersection improvements, enhanced transportation options and minor construction of new highways.
3. **Long-Term:** High rise residential, industrial and commercial development that impacts commodity flow will require interstate capacity improvements, new transportation options, and major new highway construction.

SUMMARY OF RECOMMENDATIONS

- **Develop** a customer-friendly performance measure for congestion.
- **Inform and train** transportation professionals about the impacts of population and economic growth on the State Highway System and statewide trends in travel patterns.
- **Use guidance** from this plan to reinforce best practices in long-term land-use and transportation planning when invited to participate in local land-use work-groups or decisions.
- **Partner with stakeholders and the public** to best modify, adjust or expand the State Highway System.
- **Collaborate** with local transportation agencies on travel demand management strategies and public transit options that reduce trips on the State Highway System.

TRANSPORTATION FUNDING

MISSION **Your Safety • Your Mobility Your Economic Opportunity**

Fiscal Year 2019 Annual Report

Investing in Idaho's Future

86 Percent — **Safety** — ITD maintenance crews kept Idaho's state highways free of snow and ice 86 percent of the time during storms in the 2018/2019 winter, greatly reducing the number of vehicle "slide-offs" and crashes.

32 Projects — **Mobility** — The department completed 32 bridge projects and improved 1,143 lane miles of the State Highway System in Fiscal Year 2019 to improve mobility across the state.

$13 Million — **Economic Opportunity** — A $13 million State Tax Anticipated Revenue (STAR) project for a new COSTCO store in Meridian will widen Chinden Blvd. and Ten Mile Road to four lanes to increase traffic capacity and economic activity in the rural area.

Savings and Efficiency Improvements

$100 Thousand — ITD developed a new type of high-strength concrete to link bridge girders for accelerated bridge construction. The new concrete mix saved $100,000 on the Bear River Bridge west of Preston.

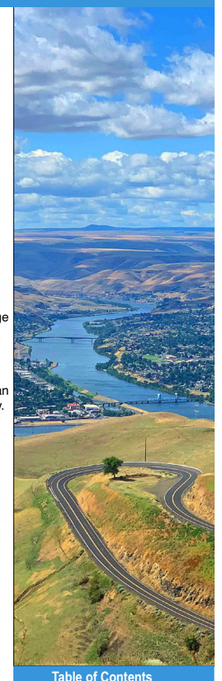
$21 Thousand — The Caldwell maintenance crew developed a hydraulic system for straightening Jersey Barriers that will save their crew alone an estimated 1,000 hours and $21,000 in equipment costs annually.

$1 Million — An ITD team streamlined and consolidated the department's software and hardware requirements, which improved cybersecurity and saved nearly $1 million in equipment costs.

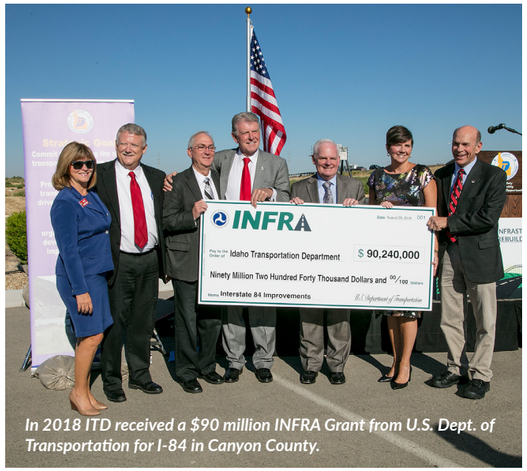
Five-Year Idaho Growth Rates

	Idaho Population	Licensed Drivers	Vehicle Registrations	Annual Miles Driven	Tons of Freight Moved
	6.1%	10.2 %	9.4 %	9.7%	4.13%
2019	1.75 Million*	1.27 Million	1.86 Million	17.71 Billion**	224.8 Million**
2015	1.65 Million	1.15 Million	1.70 Million	16.15 Billion**	215.5 Million**

*As of July 1, 2019 **On State Highways



Scan this code with your smart phone camera to view the 2040 Long-Range Plan.



In 2018 ITD received a $90 million INFRA Grant from U.S. Dept. of Transportation for I-84 in Canyon County.

ITD will continue to pursue competitive grant opportunities to address the transportation funding shortfall. ITD will continue to support local transportation agencies in pursuing grant opportunities.

ITD's funding snapshot is reported in its annual report. The report can be found at: itd.idaho.gov/itd.

State of Transportation

- **Continue** to work with Idaho's Congressional delegation to secure ongoing support for federal funding to meet diverse transportation needs; continue aggressively pursuing federal discretionary grants and other funding opportunities.
- **Continue** to build relationships with the Idaho Legislature to assure support for new and additional funding sources to meet expanding statewide transportation needs.
- **Further** invest in training, technologies, and services that can provide the best possible information regarding the condition and performance of state highways.
- **Prepare** for an updated assessment of transportation funding in Idaho by preparing estimates for the costs to maintain various levels of service for mobility and state of good repair while accounting for aging infrastructure.

MODAL PLANNING

"The Idaho Transportation Board is committed to achieving a safe, effective, and balanced multimodal transportation system that includes accommodations for bicyclists, pedestrians, and pedestrians with disabilities where they are appropriate for the context and function of the transportation facility along with motorized transportation modes."

- Idaho Transportation Board Policy

Multi-Modal Pedestrian walkway built in Lava Hot Springs.

Active Transportation

Active Transportation includes walking, biking and other human-powered assisted mobility devices. The department promotes several programs that fund active transportation infrastructure.

Aeronautics

The Division of Aeronautics recognizes the significance of a proactive approach to ensuring aviation's role in the statewide transportation system and oversees a variety of airports, including commercial service.

Freight

ITD developed a Statewide Freight & Strategic Plan that supports agriculture, industry and commerce transportation needs. The State Rail Plan identifies railroad specific issues. The 129k truck program is an important aspect of freight management.

Privately-Owned Vehicles

Promotion of safety and mobility is a key component of privately-owned vehicles and their use within the state highway system.

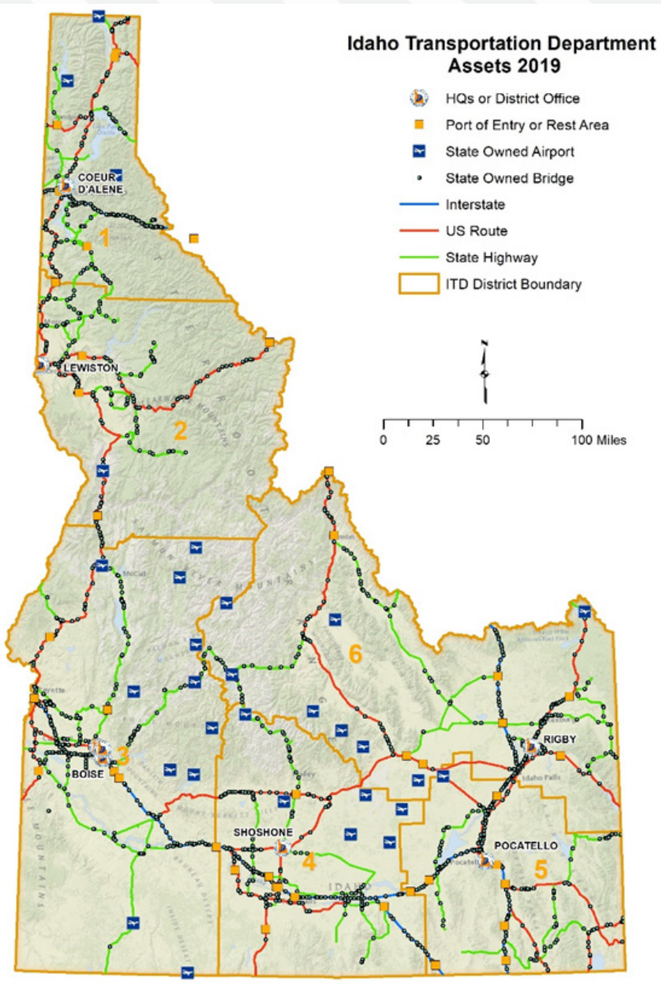
Public Transportation

Public Transportation planning efforts are vital. Transit provides options for moving people, services, and goods.

Pocatello Regional Transit facility, Pocatello, ID.

Public transportation spans state highways and local roads. ITD provides a statewide Public Transportation Plan that is updated every 5 years.


Mountain Rides operating on SH-75 connecting the Wood River Valley.



SUMMARY OF RECOMMENDATIONS

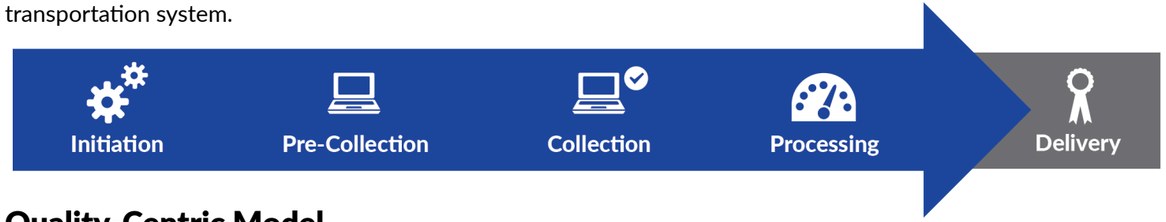
Modal Planning

- **Develop** an up-to-date statewide planning document for every transportation mode.
- **Reaffirm** ITD's commitment to include local, regional, and statewide stakeholders in the modal planning process.
- **Coordinate** internally to focus resources on a single effort when engaged in the development of a statewide modal plan.
- **Implement** a collaborative planning approach.

HIGHWAY DATA ANALYTICS

Introduction to Highway Data Analytics

Highway data plays a large role in decision making and advances ITD's goals of providing a safe and mobility focused transportation system.



Quality-Centric Model

ITD's Quality-Centric Model focuses on connections between people, process, and technology by looking at actions and concepts that bring them together. People must have training to use technology. Technology advances quickly and requires training to continue delivering quality products. Along with this there must be processes that are in line with technology in use.

Highway Data Collection

The first step is initiation. This is to test, measure, and confirm data collection systems. It also is for carrying out training and creating ways to make sure equipment stays in working condition throughout data collection. The second is Pre-Collection. Making sure the data collection equipment can record accurate, consistent data and plan to collect data at the correct place and time. The third step is Collection. This is the recording of events or conditions. Fourth is Processing. Conducting quality assurance activities to check that data meets standards. The final step is Delivery. Putting fresh data into useable plans.

HIGHWAY INFORMATION

Topics on Highway Data and Information

Highway data and information can be over-analyzed. To avoid this, ITD limits the level of source data reviewed, and also relies on automated, travel, and third-party information. This wide-ranging information guides the department through the planning process.

PathRunner

The PathRunner inertial profiler is an automated pavement data collection vehicle designed to collect network-level roadways at highway speeds. The ITD van "Vinny" is customized with the following subsystems: Pathway 3D System, Roadway Imaging, Inertial Road Profiler, GPS-Based Collection and Road Geometrics.

SUMMARY OF RECOMMENDATIONS

Highway Data Analytics

- **Adopt** the Quality-Centric model for tasks and services, which create or use data and information.
- **Pursue** data analytics to provide cost savings, discover new and relevant information, improve decision making ability, and provide information to the public.
- **Pursue** or create applications, which allow local agencies to participate in ITD's data and information collection, sharing, production, or editing.
- **Pursue** third-party data if there is a cost savings, safety benefit, or new relevant information and the third-party data meets ITD's data and information guidelines.

NEW AND EMERGING TECHNOLOGIES

The future of transportation around the country is changing due to independent and connected vehicles.

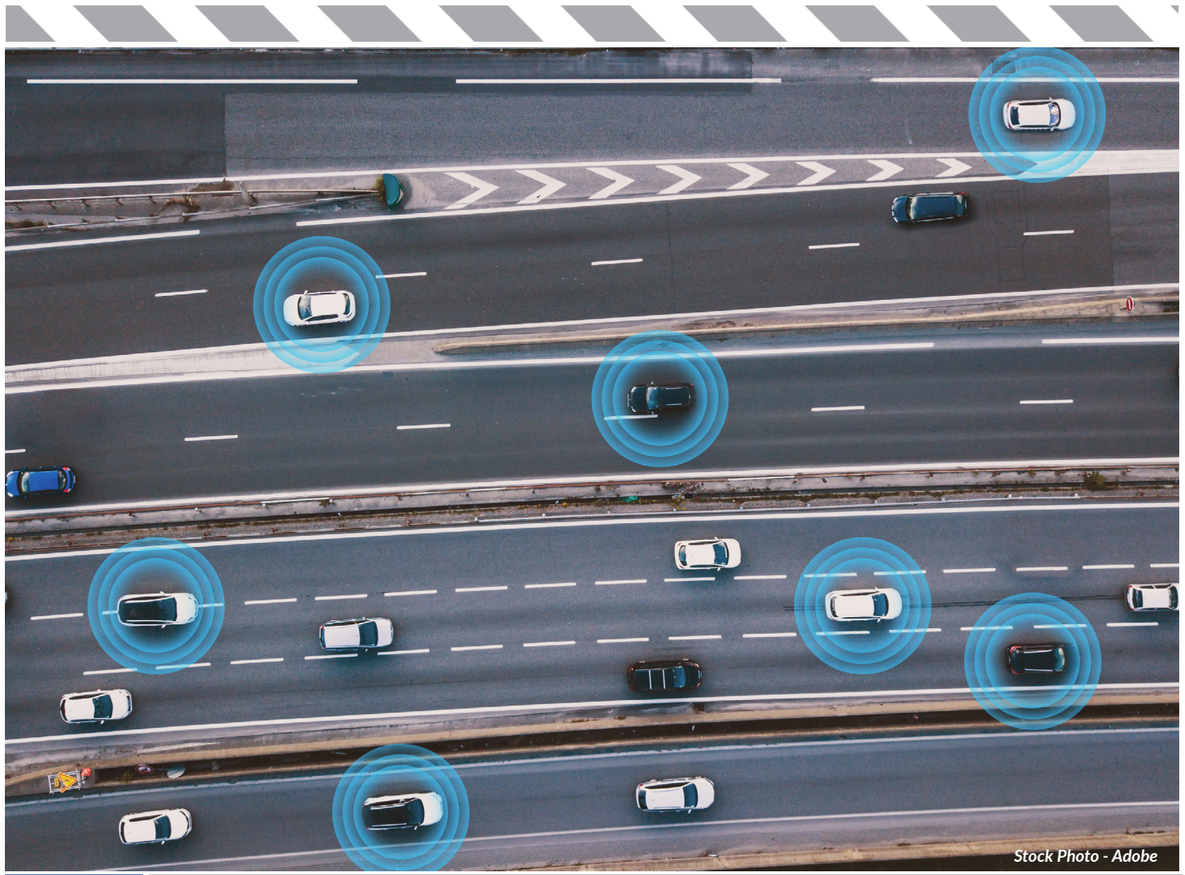
Vehicles and Other Technologies

A number of companies are developing autonomous vehicles. To stay current on this technology, ITD will employ a Cooperative Automated Transportation (CAT) system. Other transportation modes, including bikes and scooters will also be studied. ITD will work with the public to gather feedback on these evolving modes of transportation.

Fuels

Petroleum-based fuels account for 95.5% of transportation energy in Idaho. That percentage will decrease to 78% in 2050. Plug-ins for hybrid electric cars will increase from 4% to 19%.

Collaborating with statewide stakeholders, ITD identified nine possible routes for near-future alternative fuel vehicles on Idaho's highways. Continued public involvement and education will remain critical as transportation modes evolve.

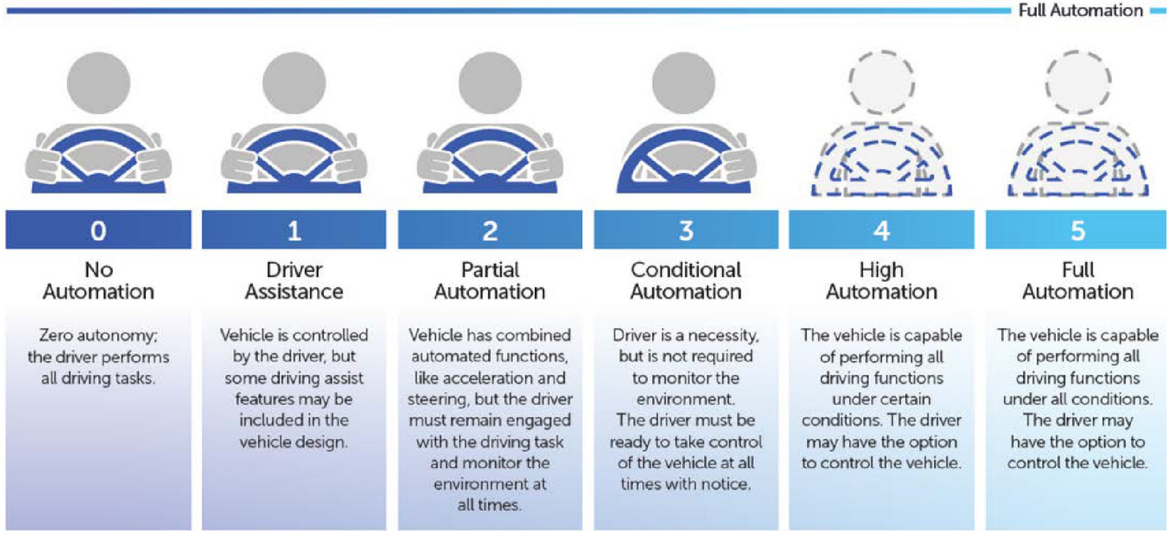


Stock Photo - Adobe

INFRASTRUCTURE AND DRIVER INFORMATION SERVICES

The effects of CAT could take multiple paths. If future vehicles rely on road markings and signs and electronic maps, transport of goods will need to be included.

If future vehicles rely on road markings, signs and electronic maps, then the transport of goods needs to be brought into account during the planning and development of those tools. An entire map file management and delivery system will also need to be developed. Dedicated Short Range Communications (DSRC), cellular, satellite, or a mixture of communication channels may be needed to link to future vehicles.



Source: Society of Automotive Engineers

FUNDING

It is important to understand the impact new and emerging tools will have on funding. Autonomous and connected vehicle systems could decrease the amount of funding state DOT's rely on for preservation and maintenance of the highway system.

To address this, ITD has teamed up with the Western Road User Charge Consortium (RUC West) to investigate new revenue opportunities.

RUC is a funding mechanism that would collect transportation revenue based on the distance or time of travel, rather than the fuel vehicles consume.

SUMMARY OF RECOMMENDATIONS

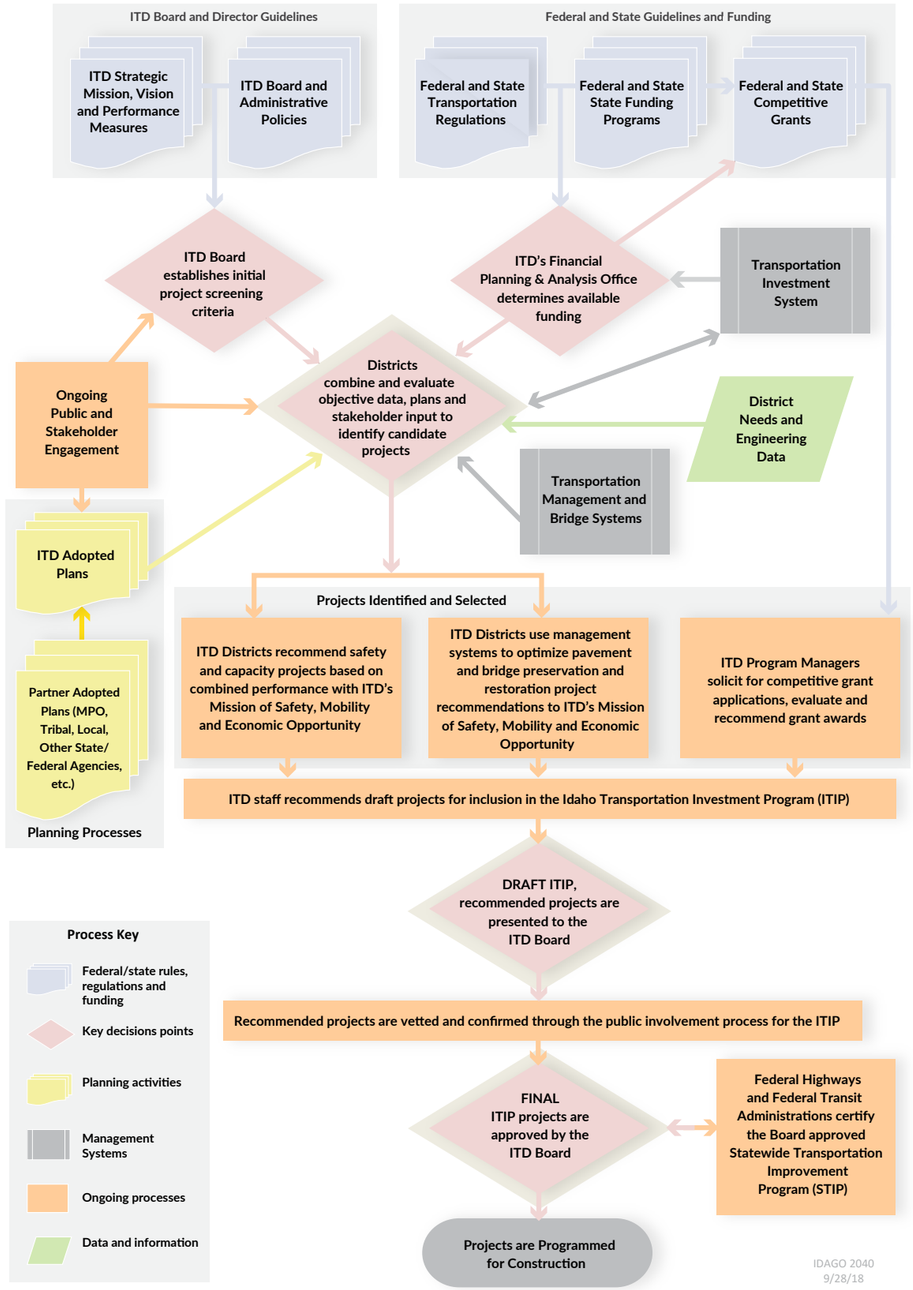
New and Emerging Technologies

- **Continue** public involvement, education and solicitation of feedback into technological advancements.
- **Participate** in research and testing of new potential funding sources.
- **Be mindful** of impacts and costs associated with ever-expanding technologies that affect and drive transportation needs and mobility.

Idaho Transportation Department

PROJECT SELECTION PROCESS

For the State Highway System

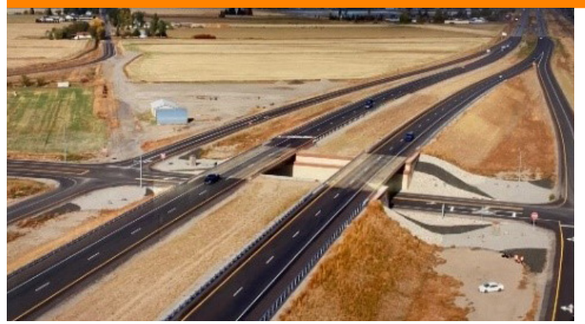


SAFETY

ITD is committed to keeping highways clear of ice and snow as part of a safe transportation system.

ITD's Incident Response team assisting a motorist in need.

MOBILITY



Improving existing infrastructure promotes safety and mobility statewide.

Clearing an avalanche-prone section of highway.

ECONOMIC OPPORTUNITY

Economic opportunity for all users of the highway system is key to ITD's mission.

Maintaining and upgrading Idaho's highway system.

The recommendations outlined in this plan will guide ITD as it pursues its mission of ***YOUR Safety, YOUR Mobility, and YOUR Economic Opportunity.***

Your Safety • Your Mobility
Your Economic Opportunity