SUMMARY OF

SENATE COMMERCE, SCIENCE, AND TRANSPORTATION COMMITTEE

SURFACE TRANSPORTATION INVESTMENT ACT OF 2021

JUNE 17, 2021

The U.S. Senate Committee on Commerce, Science, and Transportation approved on June 16, 2021 its five-year $78 billion surface transportation bill. The final vote for the bipartisan Surface Transportation Investment (STIA) Act of 2021 (S. 2016) was 25-3. Senators Ted Cruz (R-TX), Mike Lee (R-UT), and Rick Scott (R-FL) voted against the legislation. 244 amendments were filed and 50 were accepted.

The bill provides $78 billion in funding for multimodal surface transportation, rail, freight, and safety programs under the Committee's surface transportation jurisdiction. The bill is an increase over the Fixing America's Surface Transportation (FAST) Act authorization levels. This legislation creates new programs and updates existing programs. At a high-level, the bill calls for:

- $28 billion for multimodal grant programs
- $13 billion for safety programs, including $6 billion for the National Highway Traffic Safety Administration (NHTSA) and 4.6 billion for the Federal Motor Carrier Safety Administration (FMCSA)
- $1 billion for research programs
- $36 billion for rail programs

SUMMARY

The STIA includes many ITS America priorities. It provides $10 billion in grants over five years for projects of national significance by establishing the National Infrastructure Project Assistance Program. In selecting project grants, the **Department of Transportation will take into consideration technologies that will allow for future connectivity and automation.**

It authorizes $1.5 billion a year from the general fund for the Local and Regional Project Assistance Program (the RAISE/BUILD program) for surface transportation projects that will have significant local or regional impacts. In selecting project grants, **the Department of Transportation will consider the extent to which the project adopts innovative technologies.**

The bill would authorize an average of $1.2 billion each year in addition to funds provided through the Highway Trust Fund for the Nationally Significant Freight and Highway Projects grant program (commonly referred to as INFRA).

STIA establishes a Safe Streets and Roads for All Grant Program for "Vision Zero" or "Toward Zero Deaths" initiatives. It authorizes $1 billion over five years. **The Department of Transportation is required to consider the extent to which an eligible project seeks to adopt innovative technologies or strategies to promote safety.**

The bill establishes the Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program to provide grants to **projects that incorporate innovative transportation technologies or uses of data, including coordinated automation, connected vehicles, and intelligent sensor-based infrastructure.** The bill would authorize $100 million annually for the program.

STIA renames the Advanced Transportation and Congestion Management Technologies Deployment as the Advanced Transportation Technology Deployment Program and expands the program's objectives to include improving the mobility of people and goods, improving the durability, and extending the life of transportation infrastructure, and preserving the environment, among other objectives. The bill **makes vehicle-to-pedestrian technology eligible**. It is funded at $60 million annually.

The bill increases **investment in research** and adds a **cybersecurity focus to the University Transportation Centers Program**. STIA **reauthorizes the Intelligent Transportation Systems Program Advisory Committee** and expands areas of expertise.

AMENDMENTS

ITS America was tracking several amendments. The final bill includes an amendment from Senator Cynthia Lummis (R-WY) that would make retrofitting dedicated short-range communications (DSRC) technology deployed as part of an existing pilot program to cellular vehicle-to-everything (C-V2X) technology, subject to the condition that the retrofitted technology operates only with the existing spectrum allocation for connected vehicle systems eligible for funding under the Advanced Transportation Technology Deployment Program.

ITS America is concerned that the Federal Communications Commission (FCC) will use even a small amount of funding in the reauthorization of the FAST Act as an excuse not to set up a dedicated reimbursement fund. As a result, ITS America requested that the following language be included in the bill's Committee Report:

"The Committee believes that funding should be provided to share the costs of any transition of dedicated short range communications (DSRC) technology deployed as of the date of this legislation to cellular vehicle-to-everything (C-V2X) technology required due to legislative or regulatory actions of the Federal Government. The Committee is providing expanded eligibility for such projects under existing transportation programs. This eligibility is not expected to

cover the full costs of transitioning this technology, but is intended to supplement any other funding provided for that purpose. The Committee notes that there is Federal Communications Commission precedent for establishing a reimbursement mechanism to cover the transition costs incurred by incumbent licensees when spectrum is reallocated."

ITS America received commitments from Senator Lummis' office as well as Committee Chair Maria Cantwell's (D-WA) staff and Committee Ranking Member Roger Wicker's (R-MS) staff that this language would be in the Committee Report.

An amendment from Senator John Thune (R-SD) would have incorporated the AV Start Act, S. 1885 (115), which the committee unanimously approved in 2017. It was defeated 14-14. Chair Maria Cantwell expressed her hope that the committee would be able to address the automated vehicle legislation by the end of the year.

The final bill did not include Senator Mike Lee's (R-UT) Amendment 111, which would have required National Telecommunications and Information Administration and Department of Transportation to estimate the value of spectrum based on if the spectrum were reallocated with the highest potential value of licensed or unlicensed commercial wireless services. Due to strong opposition across the transportation industry, which ITS America can take some credit for, Senator Lee did not offer his amendment at the markup of the bill.

An amendment from Senator Lee did make it into the final bill that would require the Assistant Secretary of Commerce for Communications and Information and the Secretary of Transportation to audit the Department of Transportation spectrum. ITS America had called for modifications to the amendment that would have considered future spectrum use by the Department of Transportation and such spectrum designations internationally. ITS America's suggestions were not accepted.

An amendment from Senator Gary Peters (D-MI) added smart technology traffic signals to the SMART grants and require the Comptroller General of the United States to study the efficiency of traffic systems. The amendment was included in the final bill.

Lastly, an amendment from Senator Deb Fischer (R-NE) requires the Secretary of Transportation to develop and regularly update best practices from eligible entities that received SMART grants. The amendment was included in the final bill.

The list of approved amendments are as follows:

a. Cantwell-Wicker substitute (modified)

b. Baldwin 1 (modified)

c. Blackburn 2 (modified)

d. Blumenthal 1 (modified)

e. Blumenthal 2 (modified)

f. Blumenthal 3 (modified)

g. Duckworth 1

h. Duckworth 8 (modified)

i. Fischer 1 modified by Cantwell 1 to Fischer 1 (modified)

j. Fischer 4

k. Fischer 5

l. Hickenlooper 1 (modified)

m. Klobuchar 1 (modified)

n. Klobuchar-Thune 2 (modified)

o. Klobuchar 3

p. Lee 6

q. Lee 21 (modified)

r. Lee 22

s. Lee 32

t. Lee 61

u. Lee 76

v. Lee 77

w. Lee 81

x. Lee 97

y. Lee 103

z. Lee 104

aa. Lee 108

bb. Lee 109

cc. Lee 112 (modified)

dd. Lee 119

ee. Lummis 2

ff. Markey 1

gg. Markey 2

hh. Moran-Thune 1 (modified)

ii. Peters 1 (modified)

jj. Rosen 1 (modified)

kk. Rosen 3 modified by Rosen 3 (modified)

ll. Rosen 5

mm. Scott 2 (modified)

nn. Scott 11

oo. Scott 23

pp. Scott 30

qq. Scott 39

rr. Scott 49 (modified)

ss. Scott 50 (modified)

tt. Sinema 1

uu. Tester 1 (modified)

vv. Tester 2 modified by Tester 2 (modified)

ww. Thune 2

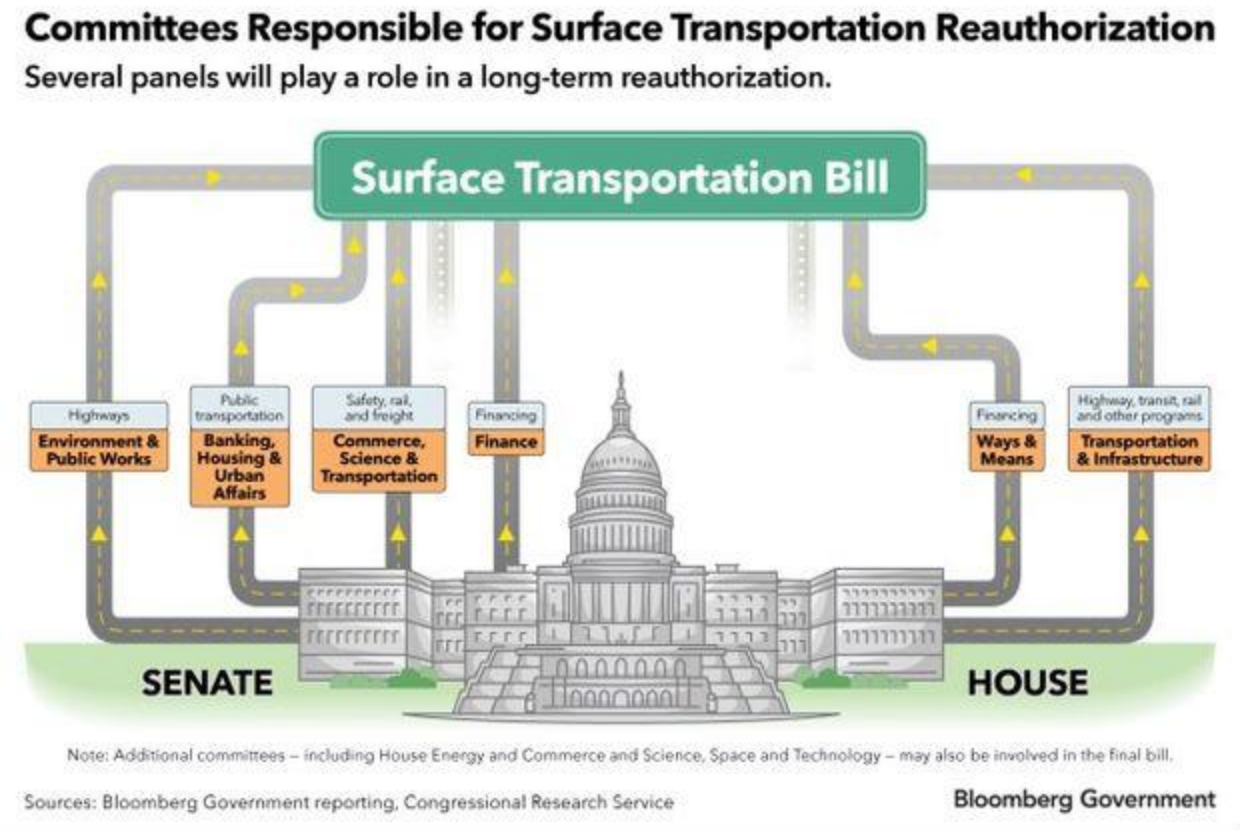
xx. Young 1 modified by Cantwell 1 to Young 1 (modified)

NEXT STEPS FOR THE REAUTHORIZATION OF THE FAST ACT

With the passage of the STIA, the INVEST in America Act in the House Committee on Transportation and Infrastructure on June 10, and the Surface Transportation Reauthorization (STRA) Act of 2021 in the Senate Committee on Environment and Public Works on May 26, 2021, the Congress is moving with the urgency needed to complete the reauthorization by September 30. The Senate Banking, Housing, and Urban Affairs Committee, which has oversight of transit, is planning a markup of their bill within the next few weeks.

Congress is hitting key milestones for completing a reauthorization of the nation's surface transportation programs before the current extension expires on September 30, 2021, with the passage of the Senate Committees on Environment and Public Works and Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure FAST Act reauthorization bills.

STIA and STRA now waits for the Senate Banking, Housing, and Urban Affairs Committee to report the transit title. The Senate Finance Committee, which has the hardest job of all, will need to determine how to pay for the reauthorization.



A Committee summary of the legislation is available here, a section-by-section can be found here, and the full text of the bill can be read here. ITS America's summary of House Committee on Transportation and Infrastructure INVEST in America Act is here. ITS America's summary of the Senate Committee on Environment and Public Works Surface Transportation Reauthorization Act or 2021 is here. ITS America's FAST Act reauthorization platform is here.

Title I – Multimodal and Freight Transportation

SUBTITLE B – MULTIMODAL INVESTMENT

The bill establishes the **National Infrastructure Project Assistance** Program (1201) at $10 billion over five years from the general fund. This program would provide single- or multi-year grants to projects generating national or regional economic, mobility, or safety benefits for large and smaller-scale projects. Eligible projects include highway or bridge projects, freight intermodal or freight rail projects, railway-highway grade separation or elimination projects, intercity passenger rail projects, and certain public transportation

projects. In selecting project grants, the USDOT will take into consideration technologies that will allow for future connectivity and automation.

The bill authorizes $1.5 billion a year from the general fund for the **Local and Regional Project Assistance Program (the RAISE/BUILD program)** (1202) for surface transportation projects that will have significant local or regional impacts. Eligible projects include highway or bridge projects, passenger or freight rail projects, port infrastructure projects, and surface transportation components of airport projects, among other surface transportation projects. In selecting project grants, the USDOT will take into consideration the extent to which the project adopts innovative technologies. The section would limit the size of each grant to $25 million and provide an equal split between rural and urban areas.

The bill would authorize an average of $1.2 billion in general funds each year in addition to funds provided through the Highway Trust Fund for the **Nationally Significant Freight and Highway Projects grant program (commonly referred to as INFRA)** (1204). This section would increase the amount of funds that can go towards multimodal freight projects.

Title IV – Highway and Motor Vehicle Safety

SUBTITLE A—HIGHWAY TRAFFIC SAFETY

The bill creates new **Highway Safety Program** (4102) eligibilities to educate drivers to prevent misuse or misunderstanding of new vehicle technology.

The bill would establish a **Safe Streets and Roads for All Grant Program** (4112) to develop and carry out comprehensive safety plans to prevent death and injury on roads and streets, commonly known as “Vision Zero” or “Toward Zero Deaths” initiatives. The section would authorize $1 billion over five years in general fund dollars for this program, with no less than 40 percent allocated to support the development of comprehensive safety plans. Safety plans may include a data-driven approach to identify projects or strategies to prevent fatalities and serious injuries in a locality, such as those involving new vehicle or other transportation-related technologies. The USDOT is required to consider the extent to which an eligible entity and each eligible project proposed to be carried out by the eligible entity, as applicable, seeks to adopt innovative technologies or strategies to promote safety.

SUBTITLE B–VEHICLE SAFETY

Crash Avoidance Technology (4208) section requires the Secretary of Transportation to promulgate a rule to establish minimum performance standards with respect to crash avoidance technology and require all new motor vehicles to be equipped with a forward collision warning and automatic emergency braking system that alerts the driver if the distance to a vehicle ahead or an object in the path of travel ahead is closing too quickly; and a collision is imminent; and automatically applies the brakes if the driver fails to do

so; and a lane departure warning and lane keeping assist system that—warns the driver to maintain the lane of travel; and corrects the course of travel if the driver fails to do so.

The **Reduction of Driver Distraction** (4209) section requires the Secretary to conduct research regarding the installation and use on motor vehicles of driver monitoring systems to minimize or eliminate driver distraction; driver disengagement; automation complacency by drivers; and foreseeable misuse of advanced driver-assist systems., and, if warranted based on the results of the study, require a rulemaking.

The **Hood and Bumper Standards** (4214) section requires the Secretary to examine updating hood and bumper safety standards for motor vehicles considering, in particular, crash avoidance technologies and technologies to prevent injuries and fatalities suffered by pedestrians, bicyclists, or other vulnerable road users.

The **Research on Connected Vehicle Technology** (4219) section requires the USDOT to conduct research to examine how connected vehicle systems can safely account for bicyclists and other vulnerable road users. The Administrator of the National Highway Traffic Safety Administration, in collaboration with the head of the Intelligent Transportation Systems Joint Program Office and the Administrator of the Federal Highway Administration, shall—

> (1) not later than 180 days after the date of enactment of this Act, expand vehicle-to-pedestrian research efforts to ensure that bicyclists and other vulnerable road users will be incorporated into the safe deployment of connected vehicle systems; and
> (2) not later than 2 years after the date of enactment of this Act, submit to Congress and make publicly available a report describing the findings of the research efforts.

Title V – Research and Innovation

The bill reauthorizes and expands the membership of the **Intelligent Transportation Systems Program Advisory Committee** (5001) to include additional areas of expertise and experience, sets member terms at three years, and provides for virtual meetings.

Section 5002, **Smart Community Resource Center**, requires the Secretary to create a website with resources on intelligent transportation system projects and smart community transportation projects—projects that use innovative technologies, data, and other means to address local challenges—including technical assistance, training, and examples of projects.

The bill establishes the **Strengthening Mobility and Revolutionizing Transportation Grant Program** (5005) to provide grants to projects that incorporate innovative transportation technologies or uses of data, including coordinated automation, connected vehicles, and intelligent sensor-based infrastructure. The Secretary is directed to consider geographic diversity and select projects across rural, midsized, and large

communities (no population cap). A SMART grant may be used to carry out a project that:

- Demonstrates the 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.
- 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.
- The 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.
- The integration of intelligent transportation systems with other existing systems and other advanced transportation technologies.
- 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.

The bill would authorize $100 million annually from the general fund for the program.

This section would establish a 25-member **Electric Vehicle Working Group** (5006), comprising a variety of Federal and non-Federal stakeholders, to provide Federal guidance and strategy for the development, adoption, and integration of electric vehicles into the nation's transportation and energy systems. The Secretaries of Transportation and Energy will lead the working group, and the working group is required to prepare a series of reports to Congress on barriers to electric vehicle adoption and possible opportunities and solutions.

This section would codify the **Nontraditional and Emerging Transportation Technology Council** (5008), which improves agency coordination to enable and regulate new and novel transportation technologies through adoption of best practices and identification of a lead modal administration for a given technology.

The bill renames the Advanced Transportation and Congestion Management Technologies Deployment as the **Advanced Transportation Technology Deployment Program** (5011) and recodify the program in title 49. The bill would also expand the program's objectives to include improving the mobility of people and goods, improving the durability and extending the life of transportation infrastructure, and preserving the environment, among other objectives. The bill makes vehicle-to-pedestrian technology eligible. It is funded at $60 million annually.

The bill establishes the **Safety Data Initiative** (512) through which the Secretary can conduct demonstration projects, award grants, and use other strategies that develop new data visualization, sharing, and analytic tools that Federal, State, and local entities can use to enhance surface transportation safety. Activities include the sharing of data

between and among Federal, State, and local transportation agencies; and leverage data from private sector entities. The goals of the data sharing activities include:

- The creation of data ecosystems to reduce barriers to the efficient integration and analysis of relevant datasets for use by safety professionals.
- The establishment of procedures adequate to ensure sufficient security, privacy, and confidentiality as needed to promote the sharing of sensitive or proprietary data.

The bill establishes the **Advanced Research Projects Agency-Infrastructure (ARPA-I)** (5013) to fund research and development on advanced transportation infrastructure technologies. ARPA-I would support novel, early stage research as well as advance conceptual research into testing and development. The goals are to advance the transportation infrastructure of the United States by:

- Developing innovative science and technology solutions that lower the long-term costs of infrastructure development, including costs of planning, construction, and maintenance.
- Reduce the lifecycle impacts of transportation infrastructure on the environment, including through the reduction of greenhouse gas emissions.
- Contribute significantly to improving the safe, secure, and efficient movement of goods and people; and promote the resilience of infrastructure from physical and cyber threats.

The section would provide for a Director to lead ARPA-I, and require that the Director ensure that the activities of ARPA-I do not duplicate other DOT research activities and programs. This section would require an evaluation of how well ARPA-I is achieving its goals within three years.

The bill establishes the **Open Research Initiative** (5014) for universities, nonprofit organizations, and other entities can submit research proposals to the Secretary. This section would require the Secretary to coordinate any research carried out under the pilot program with other DOT research activities to avoid duplication of efforts.

Section 5015, **Transportation Research and Development Strategic Plan**, requires the plan to be updated every five years. This section also would amend the Strategic Plan to include reducing transportation cybersecurity risks.

Research Planning Modifications (5016) section would require that annual research plans for the modal administrations describe the proposed research for the upcoming years and the potential impact of this proposed research. This section would also require DOT to publish a database with information on individual research projects, including the objectives of a research project and the amount of funds provided to a research project.

Sec. 5017, **Incorporation of Department of Transportation Research**, would require the Secretary to review the results of research conducted by DOT every five years to

identify opportunities to inform changes to laws, regulations, and policies that would improve the safety or efficiency of the transportation system. In conducting a review, the Secretary of Transportation shall identify any innovative practices, materials, or technologies that have demonstrable benefits to the transportation system and determine whether the practices, materials, or technologies require any statutory or regulatory modifications for adoption. The section would require the Secretary to report to Congress on changes made as a result of research conducted by DOT, as well as any additional changes to statute or regulation.

The bill would make technical revisions related to **University Transportation Centers Program** (5018) and would require the Secretary to publish a description of the process used to select University Transportation Centers on the DOT's website. The bill adds cybersecurity focus to connected vehicles, connected infrastructure, and autonomous vehicles. New language:

> *"Focused research.--The Secretary shall make a grant to 1 of the 10 regional university transportation centers established under this paragraph for the purpose of furthering the objectives described in subsection (a)(2) in the field of comprehensive transportation safety, congestion, connected vehicles, connected infrastructure, and autonomous vehicles* ***including the cybersecurity implications of technologies relating to connected vehicles, connected infrastructure, and autonomous vehicles****;"*

Section 5021, **Transportation Workforce Development**, would call for a National Academy of Sciences study on the workforce needs of intelligent transportation technologies and systems industry. Using the results of this study, the section would require the Secretary to create a working group and a plan to address the recommendations and issues outlined in the National Academy of Sciences' study. This section would also require the Secretary to conduct a public service announcement campaign to increase awareness of career opportunities in the transportation sector across diverse segments of the population.

Section 5023, **GAO Cybersecurity Recommendations**, requires the Secretary to implement GAO recommendations related to cybersecurity risk management and cybersecurity workforce needs. GAO would also be required to study DOT's approach to managing cybersecurity for its systems and information, including the roles, responsibilities, and reporting relationships of senior officials with respect to cybersecurity.

For more information on ITS America's Summary of the Surface Transportation Investment Act of 2021, please contact ITS America's Vice President of Public Policy and Legislative Affairs Ron Thaniel at rthaniel@itsa.org.