The Bipartisan Infrastructure Law and Innovation

Supporting Innovation Across America's Transportation System

The Bipartisan Infrastructure Law advances innovation in transportation. It includes policies, investments, and partnerships that enable technologies, data systems, research and development, technology transfer, and workforce development. These activities support the Biden-Harris Administration priorities of fighting climate change, advancing racial equity, and creating good-paying jobs for American workers. The Department of Transportation is announcing new Innovation Principles that will guide how the Department implements these investments.

Innovation-focused activity enabled by the Bipartisan Infrastructure Law will include a range of approaches across transportation modes in communities throughout the country. This work relies on the strength and creativity of partners across the ecosystem, including state, local, and tribal governments; universities, community colleges, and research labs; organized labor; and industry partners, such as small businesses and entrepreneurs.

Activity will include research and deployments that enhance surface and aviation **safety**, including high standards for vehicle safety; solutions that address **climate** priorities like transit routing and electrification; approaches that address **equity**, like mobility solutions for first-mile and last-mile transportation or improved accessibility; and investments that support **economic strength and global competitiveness**, like enhancing data systems for logistics and supply chain.

The Bipartisan Infrastructure Law includes numerous programs that are centered on innovation, including key programs supporting technology deployments and advanced research. These investments serve as foundational pillars in a future-proofed transportation system that is data-driven and evidence-based. Key programs include:

- **Strengthening Mobility and Revolutionizing Transportation (SMART) Grants ($1B, new) –** This new competitive grant program supports state, local, and tribal governments in conducting demonstration projects to advance smart city or community technologies and systems to improve transportation efficiency and safety, along with priorities like climate mitigation, resilience, and equity.
- **University Transportation Centers (UTCs) ($500M, expanded) –** Competitive grant program that advances transportation expertise and U.S. technology in the field of transportation at two- and four-year colleges and universities. The program awards competitive grants to university consortia across the country to support the state-of-the-art in transportation research, enable technology transfer, and invest in the next generation of transportation professionals, including at Historically Black Colleges and Universities and other Minority Serving Institutions.
- **Advanced Research Projects Agency-Infrastructure (ARPA-I) (new) –** A new agency modeled after the Department of Defense's DARPA and the Department of Energy's ARPA-E focused on leveraging science and technology to address efficiency, safety, and climate goals for our nation's transportation infrastructure. ARPA-I will support advanced research and deployment, innovative partnerships, and technology transfer activities across sectors. ARPA-I is authorized in the Bipartisan Infrastructure Law, but funding has not yet been appropriated.
- **Open Research Initiative (authorized at $250M, new):** Establishment of an advanced transportation research pilot program that supports states, local governments, universities, nonprofit organizations, and private sector organizations by enabling them to submit unsolicited research proposals addressing unmet DOT research needs. The Open Research Initiative is authorized in the Bipartisan Infrastructure Law, but funding has not yet been appropriated.

- **Nontraditional and Emerging Transportation Technology Council (institutionalized)** – Establishment of the Nontraditional and Emerging Transportation Technology (NETT) Council in law that will identify and resolve jurisdictional and regulatory gaps associated with nontraditional or emerging transportation technologies, including issues related to safety, environmental review, and funding and financing.
- **Transportation Research and Development 5-year Strategic Plan (renewed)** – The *USDOT Research, Development and Technology Strategic Plan* guides Federal transportation research and development activities; it guides Federal transportation research and development activities, including all DOT modal research programs, and informs specific research and innovation programs like UTCs and SMART Grants. There are forthcoming opportunities for public input to the Department's research, development and technology goals.
- **Smart Community Resource Center (new)** – An online resource, established by DOT in partnership with Operating Administrations and other Federal Agencies, on intelligent transportation system and smart communities approaches for use by state, local and tribal governments.
- **Joint Office of Energy and Transportation (new)** – A joint office in the Department of Transportation and the Department of Energy to study, plan, coordinate, and implement issues of joint concern between the two agencies, focused on the deployment, operation, and maintenance of zero emission vehicle charging and refueling infrastructure, and related activities.
- **More than $4.5 Billion in Research Activities across DOT's Operating Administrations** focused on a range of key priorities, including research on vulnerable road users, the impacts on roads from self-driving vehicles, reduction of driver distractions, and emerging alternative fuel vehicles and infrastructure. This work also includes policy directions and investments in cybersecurity, investments in data infrastructure and data collection, and activities supporting workforce development in technology-related transportation fields.

The Bipartisan Infrastructure Law also includes numerous programs that offer platforms to support innovative transportation projects. Many of these programs support national objectives like safety, climate mitigation, equity, and economic strength and global competitiveness and will leverage innovation to better achieve these aims, through technology deployments, data investments, or support for new approaches to persistent challenges. Project applicants will be well-served to consider ways that innovation will allow them to accelerate, implement, and measure results. Key programs that offer opportunities to drive innovation:

- **MEGA Projects ($15B, new)** – This new National Infrastructure Project Assistance grant program will support multi-modal, multi-jurisdictional projects of national or regional significance that support overarching priorities like safety and economic competitiveness.
- **Safe Streets for All ($6B, new) –** This program will provide funding directly to local and tribal governments to support their efforts to advance "vision zero" plans and other improvements to reduce crashes and fatalities, especially for cyclists and pedestrians.
- **Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Program ($8.7B, new)** – PROTECT will provide $7.3 billion in formula funding to states and $1.4 billion in competitive grants to eligible entities to increase the resilience of our transportation system. This includes funding for evacuation routes, coastal resilience, making existing infrastructure more resilient, or efforts to move infrastructure to nearby locations not continuously impacted by extreme weather and natural disasters.
- **Charging and fueling infrastructure discretionary grants (Up to $2.5B, new)** – This discretionary grant program will provide up to $2.5 billion in funding to provide convenient

charging where people live, work, and shop, helping reduce emissions across the transportation system.

- **Federal Highway Administration (FHWA) competitive grants for nationally significant bridges and other bridges ($12.5B, new)** – This new competitive grant program will assist state, local, federal, and tribal entities in rehabilitating or replacing bridges, including culverts. Large projects and bundling of smaller bridge projects will be eligible for funding.
- **Reconnecting Communities Pilot Program ($1B, new)** – This new competitive program will provide dedicated funding to state, local, and tribal governments and Metropolitan Planning Organizations (MPO) for planning, design, demolition, and reconstruction of street grids, parks, or other infrastructure.
- **Rural Surface Transportation Grant Program ($2B, new)** – This new competitive grant program will improve and expand surface transportation infrastructure in rural areas, increasing connectivity, improving safety and reliability of the movement of people and freight, and generating regional economic growth.
- **FTA All Station Accessibility Program ($1.75B, new)** – This competitive grant program will provide funding to legacy transit and commuter rail authorities to upgrade existing stations to meet or exceed accessibility standards under the Americans with Disabilities Act.
- **Port Infrastructure Development Program ($2.25B, expanded)** – The Bipartisan Infrastructure Law will increase investment in America's coastal ports and inland waterways, helping to improve the supply chain and enhancing the resilience of our shipping industry. The law doubles the level of investment in port infrastructure and waterways, helping strengthen our supply chain and reduce pollution.
- **Electric or Low Emitting Ferry Program ($500M, new)** – This competitive grant program will support the transition of passenger ferries to low or zero emission technologies.