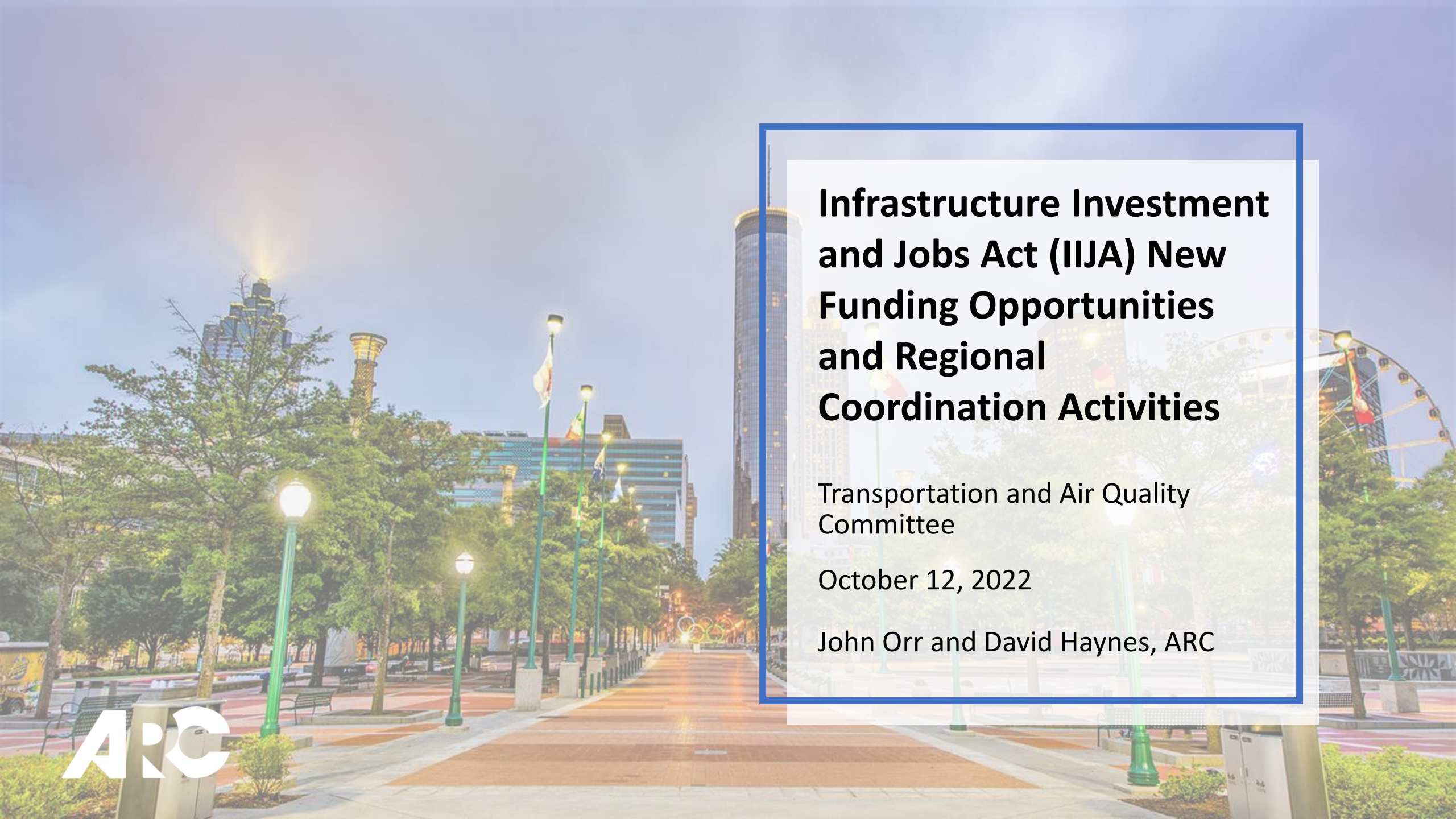


Infrastructure Investment and Jobs Act (IIJA) New Funding Opportunities and Regional Coordination Activities

Transportation and Air Quality Committee

October 12, 2022

John Orr and David Haynes, ARC

Agenda

1 Overview and Recap

2 Infrastructure Consortium

3 SMART Grant Planning Pilot

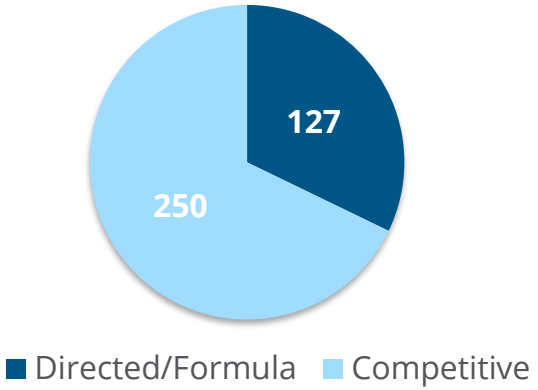
4 Next steps

Recap from September TAQC and ARC Board Meeting

IIJA: Unprecedented Scope & Opportunity

IIJA includes an unprecedented $850B of infrastructure funding split between directed, formula and competitive grants over 5 years

Number of IIJA Grants By Type



Important IIJA Characteristics

- Funding for more than 350 new & existing programs.
- Most IIJA programs are competitive, with annual Notices of Funding Opportunity.
- Funding is administered by multiple federal agencies.
- IIJA emphasis on workforce development, equity, climate, and resilience.

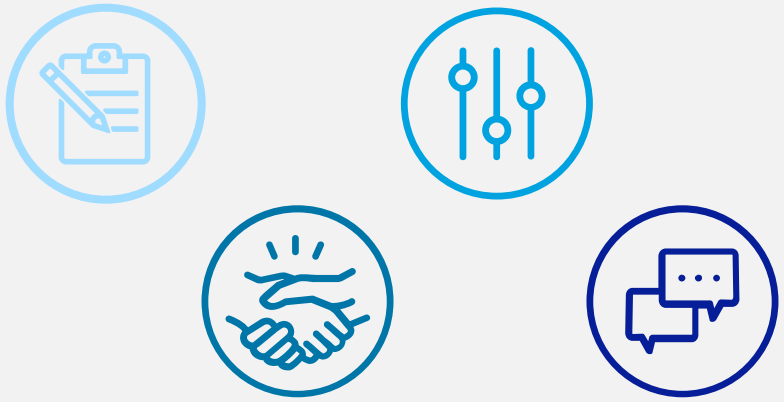
Implications for Local Governments

- Many new competitive programs with new objectives, technical specifications and reporting requirements.
- Analyzing and understanding the full breadth of opportunities will require significant resources.
- Quick turn-around times between NOFOs and applications challenges a reactive planning approach.
- Competition for funding will require projects to align closely to grant criteria and demonstrate compelling benefits.

Local agencies can mitigate some of these challenges by coordinating on a regional basis and leveraging technical support to identify and pursue priority competitive grants.

Reminder: ARC's Proposed Win Plan

Four important moves that could position the region for IIJA success



EXPERTISE

Establish an Infrastructure Consortium that leverages agency expertise across the major IIJA priority areas to assess, prioritize **and recommend projects** for competitive IIJA grant programs.

GOVERNANCE

Establish an Infrastructure Caucus of elected members of the ARC Board **to guide staff and approve recommendations** from the Infrastructure Consortium.

APPLICATION SUPPORT

Provide the region and local jurisdictions with a clear process, **technical assistance**, research, **grant writing** and raising capital for match funding.

ADVOCACY

Convene a monthly meeting of Georgia's federal delegation, and present recommended projects **to build support for the region's approach**.

Infrastructure Consortium

Infrastructure Consortium

Why

Help provide regional expertise, review, and recommendations to ARC staff across all aspects of IIJA, including prioritizing grants and project sourcing – including multijurisdictional opportunities.

What

Guidance and input on development and implementation of coordination steps, including:

- Regional grant prioritization
- Support project sourcing and review
- Fostering coordination on larger, transformational IIJA opportunities

Who

- Representatives from the Transportation Coordinating Committee (TCC).
- Staff from agencies who can provide technical and regional perspectives on water, energy, and broadband programs.

When

Biweekly meetings to discuss progress and support ARC staff on coordination activities

**Meeting cadence to be determined*

Key tasks

Grant Prioritization

Helping to develop criteria that can narrow the focus of coordination efforts on those IIJA grants that are most closely aligned with the priorities of the region

Project Sourcing

Helping to identify regional project opportunities, including multijurisdictional opportunities, that align with the federal criteria for priority IIJA programs

Coordination

Helping to coordinate the development of applications and work with jurisdictions to develop a proactive approach to pursuing discretionary funds

SMART Grant Planning Pilot

SMART Grant Planning Pilot

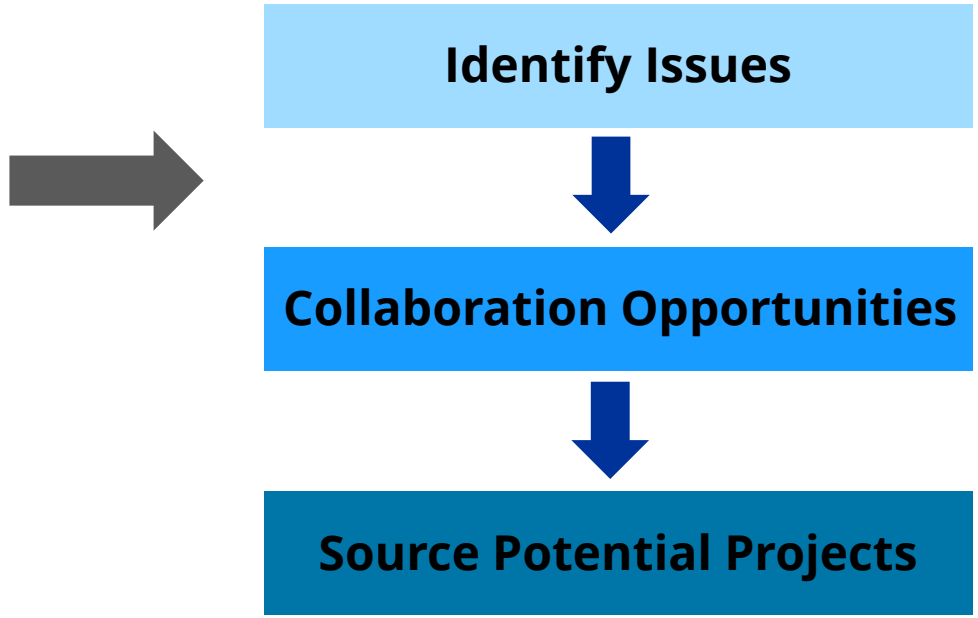
The SMART program lends itself as an opportunity to pilot a coordinated regional approach and develop insights to support 2023 efforts

Seeking and Building Partnerships is Key

"SMART recognizes that many public sector agencies are challenged to find the resources and personnel to engage with new technologies; this is reflected in the program design, which builds in the time and support needed for projects to succeed"

"Successful projects will seek to build sustainable partnerships across sectors and levels of government as well as collaborate with industry, academia, nonprofits, and other traditional and non-traditional partners."

Proposed Approach



SMART Grant Planning Pilot

Key Points

- USDOT's Strengthening Mobility and Revolutionizing Transportation (SMART) program is a **new** initiative under IIJA.
- The program includes Stage 1 (planning and prototyping) grants and Stage 2 (implementation) grants.
- The 2022 NOFO is only seeking applications for Stage 1 (planning and prototyping) applications.
- USDOT anticipates awarding 30 – 50 Stage 1 grants of up to $2M in 2022. There is **no match** funding requirements for Stage 1 applications.
- **Only** recipients of Stage 1 grants will be eligible to apply for Stage 2 grants, beginning in 2023.
- Program was established to conduct **demonstration projects** focused on advanced smart city or community technologies and systems that will **improve transportation efficiency and safety**.
- Multiple eligible entities may **apply together**.
- Project **applications may incorporate partners**, including academic institutions, Federal organizations such as national laboratories, non-profit groups, state and local government agencies, utility providers, or private sector organizations.

Program Summary

Purpose

Established by IIJA, the purpose of the SMART Grants Program is to conduct demonstration projects focused on advanced smart city or community technologies and systems in a variety of communities to improve transportation efficiency and safety. The program funds projects that are focused on using technology interventions to solve real-world challenges and build data and technology capacity and expertise in the public sector

Funding

- IIJA made $100,000,000 for FY 2022 grants.
- Anticipated project funding of up to $2,000,000 per project for Stage 1
- DOT expects to award between 30 and 50 projects in 2022
- Cost sharing or matching is not required for Stage I: Planning and Prototyping

Allocation parameters:
- not more than 40 percent of funds shall be used to primarily benefit large communities;
- not more than 30 percent shall be provided for eligible projects that primarily benefit midsized communities;
- and not more than 30 percent shall be used to provide grants to rural communities or regional partnerships

Program Structure

Stage 1 Planning and Prototyping Grants (Stage 1 grants)

Stage 2 Implementation Grants (Stage 2 grants)

Application Deadline

November 18, 2022 at 5PM ET

Eligible Applicants

- A State;
- a political subdivision of a State;
- a federally recognized Tribal government;
- a public transit agency or authority;
- a public toll authority;
- **a metropolitan planning organization**; or
- a group of two or more eligible entities listed above
- applying through a single lead applicant (Group Application).

Reporting Requirements & Data Management

- Award recipients must consider, budget for, and implement appropriate data management for data and information outputs acquired or generated during the grant
- Examples of data management include protecting personal information, intellectual property rights, and confidential business information
- In addition, an eligible entity may not use more than three percent of the amount of a SMART grant for each fiscal year to achieve compliance with applicable planning and reporting requirements

Eligible Activities

Eligible Activities

Technology Area	Definition
Coordinated Automation	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.
Connected Vehicles	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.
Intelligent, Sensor Based Infrastructure	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
Systems Integration	**Integration of intelligent transportation systems with other existing systems** and other advanced transportation technologies.
Commerce Delivery and Logistics	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.
Leveraging Use of Innovative Aviation Technology	Leveraging the **use of innovative aviation technologies**, such as unmanned aircraft systems, **to support transportation safety and efficiencies**, including traffic monitoring and infrastructure inspection.
Smart Grid	Developing a **programmable and efficient energy transmission and distribution system** to support the adoption or expansion of energy capture, electric vehicle deployment, or freight or commercial fleet fuel efficiency.
Smart Technology Traffic Signals	Improving the active management and functioning of traffic signals, including through: • Use of **automated traffic signal performance measures;** • Implementing strategies, activities, and projects that support **active management of traffic signal operations**, including through optimization of corridor timing; improved vehicle, pedestrian, and bicycle detection at traffic signals; or the use of connected vehicle technologies; • **Replacement of outdated traffic signals**; or • For an eligible entity serving a population of less than 500,000, paying the costs of temporary staffing hours dedicated to updating traffic signal technology

Program Priorities

Safety and reliability:

Improve the safety of systems for pedestrians, bicyclists, and the broader traveling public. Improve **emergency response**.

Resiliency:

Increase the reliability and resiliency of the transportation system, including **cybersecurity and resiliency to climate change effects**.

Equity and access:

Connect or expand **access for underserved or disadvantaged populations**. Improve access to jobs, education, and essential services.

Data sharing, cybersecurity, and privacy:

Promote public and private sharing of data and best practices and the use of open platforms, open data formats, technology-neutral requirements, and interoperability. Promote industry **best practices regarding cybersecurity and technology standards**. Safeguard individual privacy.

Partnerships:

Contribute to **economic competitiveness and incentivize private sector investments** or partnerships, including technical and financial commitments on the proposed solution. Demonstrate committed leadership and capacity from the applicant, partners, and community.

Integration:

Improve integration of systems and **promote connectivity of infrastructure**, connected vehicles, pedestrians, bicyclists, and the broader traveling public.

Climate:

Reduce congestion and/or **air pollution**, including **greenhouse gases**. Improve energy efficiency.

Workforce development :

Promote a **skilled and inclusive workforce.**

Fit, scale, and adoption:

Right-size the proposed solution to population density and demographics, the physical attributes of the community and transportation system, and the transportation needs of the community. Confirm technologies are capable of being integrated with existing transportation systems, including transit. **Leverage technologies in repeatable ways that can be scaled and adopted by communities**.

Measurement and validation:

Allow for the measurement and validation of the cost savings and **performance improvements** associated with the installation and use of smart city or **community technologies and practices**.

Use Cases

Safety and Reliability

- Increase **worker safety** and **reduce crashes** and traffic incidents
- Improve safety and reduce costs related to minor collisions with Advanced Driver Assistance Systems (ADAS) for public fleet
- Improve state-of-good-repair, reduce costs, and improve safety with the use of sensors, small UAS, or other technologies
- **Prioritize emergency vehicles, buses, and other public fleets** through traffic signal priority.
- Protect workers and the traveling public and **reduce travel delays through the implementation of the Workzone Data Exchange standard**
- Keep streets and sidewalks clear for safe travel through ADS for automated maintenance vehicles
- Enable active grade crossing detection
- Leverage rail trespassing detection

Equity and Access

- Get reduced-fare transit to people who need it by **streamlining income-based transit fare programs**
- Use technology to assess infrastructure that **supports mobility,** including sidewalks, bus shelters, bike lanes, and curb cuts.
- **Improve equity** with the integration of climate, public health, and socioeconomic data into transportation operations
- Improve responsiveness, flexibility, and efficiency of paratransit services with booking, scheduling, and routing systems
- Enhance transportation for passengers in wheelchairs

Use Cases

Climate and Resiliency

- **Reduce port gate congestion** and truck-related emissions with truck reservation systems at ports
- Support local goals such as zero-emission zones or shared streets with digital tools
- **Increase grid capacity** or offer power into the grid during peaks or outages with the deployment of Vehicle-to-Grid (V2G) technologies
- Reduce congestion by leveraging trajectory analysis along a corridor to adjust signal timing to current conditions
- **Improve mobility and infrastructure resilience** with tools that map and monitor environmental conditions

Integration

- Support local economies, improve mobility, and reduce congestion by **digitalization of curb management** to optimize use across purposes and modes, including freight, pick-up drop-off, and transit usage.
- Facilitate on-demand **conversion of right-of-way for pedestrians and cyclists**
- Improve operations and **monitor real-time conditions of pavement** quality, signage, and crosswalks
- Leverage advanced tools such as **AI and digital twins**
- Make safety and mobility improvements through sensors that **collect continuous traffic data** for passenger vehicles, trucks and buses, cyclists, and pedestrians, and **integrate with traffic signalization systems**
- Develop evaluation criteria that support agency goals leveraging Automated Traffic Signal Performance Measure (ATSPM)-equipped signals.

Next steps

SMART Pilot Next Steps

Sourcing

Think about potential issues, collaboration opportunities, and projects that could be good candidates for application(s)

Outreach

TCC members will also be invited to identify potential issues and opportunities that might be a good fit

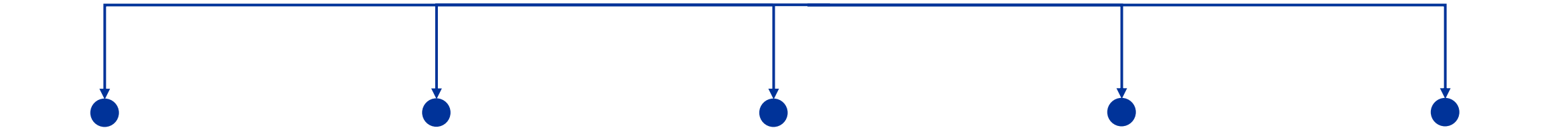
Review

This group will be tasked with helping to gather and review opportunities for a potential submission

Collaboration

Based on the assessment of identified opportunities, develop application by Nov. 18 deadline

Consortium Next Steps



9/23

Brief TCC on the proposed IIJA coordination plan and next steps

Today

Initial meeting of TCC consortium members to review goals and initiate SMART grant planning

Mid-Oct.

Initial review of grant prioritization criteria and follow-up discussion of SMART opportunities

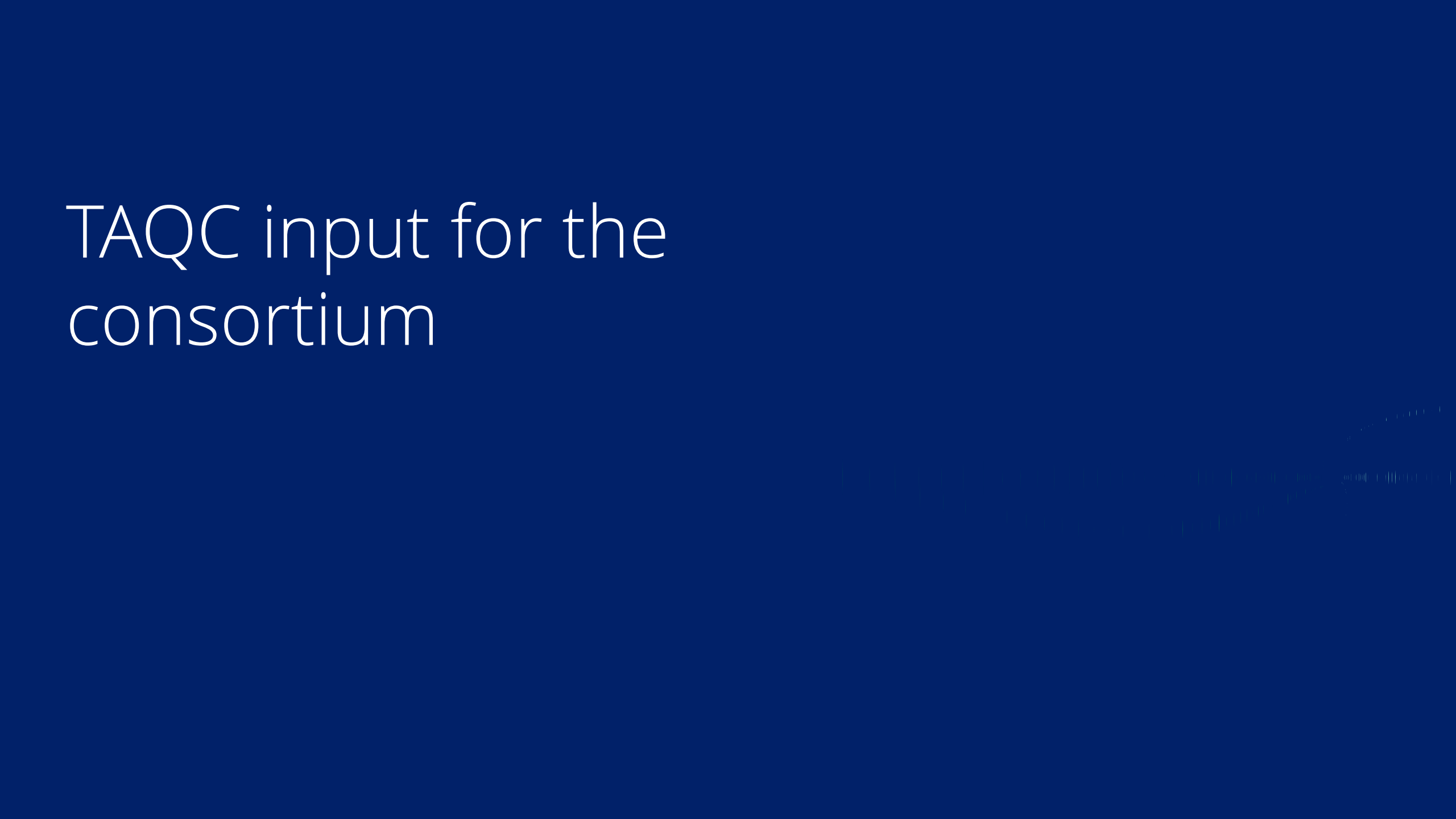
Late-Oct.

Finalize prioritization approach and SMART grant pilot next steps

Nov. -

Review anticipated 2023 timeline of priority grants and identify coordination steps

TAQC input for the consortium



Current Competitive Funding Opportunities

USDOT/FRA	Railroad Crossing Elimination	$573 million	October 11, 2022
USDOT/FRA	Consolidated Rail Infrastructure & Safety	$1.4 billion	December 1, 2022
USDOT/FHWA	Reconnecting Communities	$195 million	October 13, 2022
USDOT/OTS	SMART	$100 million	November 18, 2022
USDOT/FHWA	ATTIMD/ATTAIN	$60 million	November 18, 2022
USDOT/FTA	Public Transportation Innovation	$6.5 million	November 21, 2022
DHS/FEMA	Building Resilient Infrastructure & Communities	$2.3 billion	January 27, 2023
DHS	Flood Mitigation Assistance Grants	$800 million	January 27, 2023
DOE	Carbon Capture Demonstration Projects	$189 million	December 5, 2022
DHS	State and Local Cybersecurity Grants	$185 million	November 15, 2022
DOE	Regional Clean Hydrogen Hubs	$8 billion	April 7, 2023
DOE	Solar Improvement Research & Development	$26 million	November 17, 2022
	Wind Energy Technology		
DOE	Carbon Storage Validation & Testing	$2.25 billion	November 28, 2022

Highlighted rows represent new funding opportunities announced within the past two weeks

Potential Key Transportation Programs for the Region

- 23 USC 503(c)(4) - Advanced Transportation Technologies and Innovation Mobility Deployment Program (ATTIMD) / Advanced Transportation Technology and Innovation Program (ATTAIN)
- Bridge Investment Program
- Charging & Fueling Infrastructure Grants (Corridor Charging)
- Charging and Fueling Infrastructure Grants (Community Charging)
- Clean School Bus Program
- FTA 5309 Program - Capital Investment Grants
- Healthy Streets Program
- Local and Regional Project Assistance Grants (RAISE)
- National Infrastructure Project Assistance (Megaprojects)
- Nationally Significant Freight & Highway Projects (INFRA)
- Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT)
- Railroad Crossing Elimination Program
- Reconnecting Communities Pilot Program
- Safe Streets and Roads for All
- Strengthening Mobility and Revolutionizing Transportation (SMART) Grants

Opportunities for Regional SMART Application

- Public safety response times
- Pedestrian and bicyclist safety in the vicinity of bus stops
- Reckless driving and street “takeovers”
- School zone traffic and queueing
- Mitigating the need for signal system overrides during major events
- Truck parking
- Adaptive signal control
- Artificial Intelligence application for pedestrian safety and traffic control
- Other ideas?