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Good Morning, my name is Jennifer Gallagher and I am the Director of the Department of Public Service for the City of Columbus, Ohio. I want to start out my testimony by thanking Chairman Latta, Vice-Chairman Harper, Ranking Member Schakowsky and all members of the Subcommittee on Digital Commerce and Consumer Protection, on behalf of Mayor Andrew J. Ginther, for providing me the opportunity to represent my city and the work we are doing on behalf of the Smart Columbus Demonstration Project.

I appreciate the Subcommittee's looking ahead of the curve at disruptive technologies and I am delighted to have the opportunity to talk about what my community is doing with the complete and collaborative support of our local governments, research institutions, and the private sector. This hearing is hopefully part of many activities that will help disseminate what works (and even what doesn't) as communities address these same challenges. Keep the spotlight on! We want to make sure that lessons learned in Columbus can empower cost-effective technology enabled solutions across the country. And hopefully inform public policy decisions going into the next decade.

Mayor Ginther's vision for Columbus is for shared prosperity for our residents, he is working to make the City of Columbus "America's Opportunity City." In the Mayor's vision, Columbus will be the place where you're more likely to move from the middle class and beyond than anywhere else in the nation. We believe access to transportation is a key component in turning that vision into a reality.

Our application for the U.S. Department of Transportation's (US DOT) Smart Cities Challenge focused not on how to move people from point A to point B, but instead how to move people onto ladders of opportunity. We believe our focus on opportunity was key to our success, beating out 77 other great American Cities.

This federal grant has changed our city. Cities in the competition, including some represented in this panel, challenged themselves to push for innovative and sustainable solutions in the transportation and energy sectors. Throughout the process, the competing cities learned from one –another and we continue to learn from them today.

Smart Columbus has 3 goals:

Improve access to jobs through expanded mobility options in major job centers.

Connect Columbus residents to safe, reliable transportation that can be accessed by all.

Develop a more sustainable transportation system.



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Smart Columbus includes projects across our city. But we do not stop at our city limits, the State of Ohio is making a significant fiber investment along State Route 33, a major trucking corridor, and our suburban neighbor, the City of Dublin will be implementing their new transportation grant surrounding congestion mitigation. All of our technologies will interface with one another, turning central Ohio into a smart mobility hub unseen across our nation.

Within our project, we will be implementing two enabling technologies across 4 project districts.

An Integrated Data Exchange, or IDE, is a dynamic, cloud-based platform that integrates data from multiple sources, including planned smart city technologies, traditional transportation data, and data from other community partners, such as food pantries and medical service providers. This facilitates better decision-making and problem-solving. The IDE is a key component to creating an ecosystem of innovation in Columbus; this ecosystem will be where we engage citizens, businesses, non-profits and visitors to make Columbus America's Opportunity City for all.

Columbus Connected Transportation Network will connect people, vehicles, infrastructure and transportation providers in a safe, secure and seamless manner. Specifics include connected vehicles, smart street lights and a transit-pedestrian collision avoidance system for buses. Congress and DOT have already recognized the need to do more to make these technologies talk to each other, and we're going to demonstrate this at a comprehensive level.

Our Four Districts represent critical population and logistic situations needing next level transportation options and programming. All of our work in these districts will be tested, scalable and replicable:

#1) Residential (Linden): Trip planning and payment options will be integrated into a single application so residents have more convenient access to jobs, school, fresh food and doctor appointments. The Linden neighborhood is facing significant barriers to jobs, health care, fresh foods and where infant mortality is among the highest in the state. We are beginning our work in this neighborhood in an effort to provide a ladder of opportunity to the residents. Transportation to employment centers, well-checks for mothers and their infants, and so much more, will lift the neighborhood and it's residents to a place where they can experience the exact same opportunities our residents in other parts of the city experience.



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#2) Commercial (Easton, major job hub): One of the most significant barriers to transportation is something referred to as the “First/Last mile”. This is the first mile between someone’s home to public transportation and the last mile to their destination from their public transportation stop. We will look to projects such as autonomous transit shuttles and other disruptive transportation. We have created a public/private partnership to enable this demonstration of autonomous vehicles and other transportation technologies to enable this bold project.

#3) Downtown (the heart of the city): An event parking system will allow travelers to plan, reserve and book a parking space for large events. We are home to the All American Quarter Horse Congress, which attracts more than 650,000 people to the Columbus area, The Arnold Sports Festival, which is the largest multi-sport event in the world, attracting competitors from over 80 countries, and other significant events like Ohio State football, in short, we have a lot visitors to our great city who are not necessarily familiar with navigating it. Our parking system will be a partnership with our local tourism office to ensure critical transportation and parking information can be shared with our visitors and residents with up-to-date information to provide some relief to these heavily trafficked times.

#4) Logistics (Rickenbacker Airport and shipping): The Columbus Region ranks first among inland and coastal ports in population concentration within a one-day drive. The region is crossed by eight major Interstate highways. The City of Columbus itself is within a 10-hour drive of 47 percent of the country, and serves as a hub for long-haul trucks. Freight-induced congestion and queuing will be addressed through Truck Platooning and Freight Signal Prioritization. Major incidents at overpasses and narrow streets will be avoided through a comprehensive bridge and street inventory and routing application. Long distance truck parking will be addressed through data integration and information dissemination using a web-enabled device.

Making It Happen

How will we make all of this happen? Through partnerships, government does not hold all the answers, no single sector does. Government, Business, Universities, even local Civic Associations all came together to help us put together this plan and they will be key in executing it. Our Smart Cities grant gives us \$40 million from the US DOT and \$10 million from Vulcan Inc. Today, our pledges from across sectors have reached an additional \$360 million – and counting – these additional partners, are becoming champions of Smart Columbus as well.

Columbus has built an unprecedented culture of collaboration. We are so good at it that the Harvard Business School teaches a course called The Columbus Way. We have



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great partners such as Ohio State University, the Columbus Partnership, American Electric Power (AEP), and Battelle Laboratories. For example, AEP recently held a Ride and Share event to help educate drivers about electric vehicles. They brought in electric vehicles from many car makers and allowed people to get the experience of driving an electric car.

We are supported by public funds from Franklin County too because we all know that a strong central Ohio region that does not end at the city limits is best for all of us.

Community engagement is critical. In order to design and implement projects that create the impacts we desire, it is imperative to engage the community along the way.

All urban communities struggle with Air Quality and Congestion Mitigation. Our approach to this is through electrification. This is easier said than done, but we have our local utility (AEP) and its leadership a full partner in this effort.

The city will lead the way to provide base density -- Government fleets will acquire 300 electric vehicles. Specific commitments include City of Columbus, The Ohio State University, City of Dublin and Franklin County.

Smart Columbus will collaborate with private fleets to obtain purchase agreements totaling 450 more electric vehicles. This will allow the initial outlay for grid modernization, electric vehicle adoption and installation of a charging infrastructure achieve economies of scale.

The City of Columbus was named No. 1 among Leading Fleets, an award sponsored by Ford to recognize public fleet operations that demonstrate innovative leadership, operational efficiency, vision for the future and successfully overcoming challenges. We've led the way in compressed natural gas and infrastructure – and will lead the way in this next sector.

Steps We Have Taken

Our team has established 19 “working groups” that convene on a routine basis to discuss and problem solve some of most significant issues. Some include “Data and Analytics”, “Autonomous Vehicles”, “Mobility Assistance” and “Connected Travelers, these groups along with others are comprised on both industry experts and government employees to address the question of “How can we make this happen?” not “Can we make this happen?”. We will find the solutions we need to grow next level



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transportation with the City of Columbus because we are taking the time to bring partners, community members and decision makers to the table so we can move forward together.

Recently we convened our first "Connect Linden" session; hundreds of residents chose to spend their weekend with us providing insight and guidance to us on our project and implementation plans. This information is critical to the overall success of our project with our residents.

We have hosted and attended multiple events and meetings across the nation, topics include Engineering Processing and the development of an Integrated Data Exchange. In addition, our team has hosted the Norwegian Transportation Minister and a delegation from the Netherlands, both looking to our technology goals and offering insights into their advancements.

Moving Forward

New President, new congress – how can they help support the new mobility and infrastructure agenda for America's cities? World class cities – lessons to learn from other global cities?

I am encouraged that Congress and the President have been talking about infrastructure. For urban areas, the key to continued growth in the future isn't just building more highways or adding more lanes to the highways we have. We want to make sure that discussion provides flexibility and options for disruptive technologies and the cities that want to move that direction.

Right now Columbus has about 850,000 people. Some estimates have the region growing to 3 million people by 2050.

We have to be smart in order to be sustainable – which is why what we're doing in Columbus is so important to the future of mobility.

What we learn and put into action over the next few years won't just change transportation in Columbus. It will be adaptable and scalable to cities around the country, around the world.

Technology we have learned, indeed disruptive technology is an enabler, but not the end-all of our efforts to do a few simple important things. As this demonstration project comes into fruition, we look forward to reporting to you and your colleagues our best practices and our pitfalls. As your Committee considers the development of new standards as these technologies emerge, the City of Columbus looks forward to providing you information on our experience and best practices to better inform you on your decision-making process.



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Mr. Chairman, Ranking Member Schakowsky, and members of the Subcommittee on Digital Commerce and Consumer Protection, thank you for your time this morning. I am happy to answer any questions you might have.