US Ignite Comments on Non-Traditional and Emerging Transportation Technology (NETT)

Docket Number DOT-OST-2019-0165

On behalf of US Ignite, thank you for the opportunity to submit the following comments in response to Docket Number DOT-OST-2019-0165. While this request for comments deals primarily with in-depth regulatory questions, we hope to shed light on the alternative approaches role at the core of the Non-Traditional and Emerging Transportation Technology (NETT) Council's mission – particularly regarding the following questions:

> *9. How can Federal policies, regulations, or legislation be used to foster mobility service providers, remove barriers to new non-traditional and emerging transport operations, or promote safe, efficient, environmentally sound and user-friendly mobility systems? Please explain, using specific examples where feasible.*
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> *11. Technology Companies/Innovators: What actions can the NETT Council take to support your work, while maintaining its safety focus?*

US Ignite is a catalyst for communications network advancement, and for innovation in smart community services that are powered by a new generation of technologies. With ongoing partnerships with the National Science Foundation (NSF) and the Department of Defense, US Ignite's work in the deployment of emerging transportation technology as a testbed facilitator and trusted partner in smart community development is unparalleled. Through these partnerships, US Ignite has created testbeds and pilot programs for the deployment of connected vehicles and infrastructure while also enabling researchers to conduct advanced research without having to spend capital to develop their own R&D infrastructure.

As the NETT continues to define its role in the support and regulation of innovative and emerging technologies, the NETT should support the creation of or partner with organizations operating existing wireless testbeds to decrease the barriers to entry for innovators in the space of connected and autonomous vehicles and connected infrastructure. US Ignite encourages NETT to engage with the Office of the Secretary of Transportation (OST) and other areas of the Department of Transportation (DOT) to identify how the NETT can develop and support this capacity. Particularly as DOT moves away from the autonomous vehicle (AV) proving grounds that had been previously designated to enable testing and information sharing, having testbeds either in tandem or in the absence of these proving grounds would be beneficial for the advancement of non-traditional and emerging technologies.

Leveraging these testbeds would allow NETT to build into its relationships with innovators the capacity to offer a structured ecosystem to conduct testing of emerging technologies. This capacity allows NETT to better ensure that smaller companies can enter the marketplace by decreasing the barriers to entry

related to the development of R&D infrastructure. Developing testbeds that are accessible to organizations of all sizes would also enhance NETT's ability to pursue its safety objectives by giving the Council increased standardization in the R&D process as well as increased interaction with innovators working at scale in real communities. The use of predictable testing processes inherently decreases risk in the R&D process and augments the ability of NETT to ensure the development of safer products for consumers.

American cities today are grappling with a diverse set of complex problems: public safety, natural and manmade disasters, cybersecurity threats, increasing congestion, aging infrastructure, challenges with connectivity, air pollution, unemployment, increasing waste, access to mobility, increasing demands for limited energy, and increasing operational costs. The term "smart communities" is often applied to the use of new technology solutions to solve some of these problems. The foundation of any smart community will be a faster, lower latency, more sliceable wireless communications network. These networks, which are critical to the integration of new technologies such as autonomous vehicles and connected infrastructure, will require significant advances in wireless networking technology. US efforts to develop these technologies have been greatly accelerated with the creation of living laboratories where researchers and entrepreneurs can test, at scale in real cities, new technology including connected vehicles and infrastructure. US Ignite, in partnership with Northeastern University, manages the $100 million Platforms for Advanced Wireless Research (PAWR) program (advancedwireless.org), funded by NSF and a consortium of 30 leading wireless networking and equipment companies. PAWR has facilitated the creation and manages four of these living laboratories in cities across the United States. Currently, US Ignite facilitates three testbeds in New York City, Salt Lake City and the North Carolina Research Triangle, and is currently competing a fourth testbed dedicated to rural broadband deployment and accompanying applications, such as autonomous vehicles.

US Ignite looks forward to working with NETT and OST to discuss how the Council and the Department can work with testbeds to accomplish the safety and development goals of the NETT.

US Ignite is accelerating the smart city movement – and creating value for an entire ecosystem – by guiding communities into the connected future, creating a path for private sector growth, and advancing technology research that's at the heart of smart city development. Read more at https://www.us-ignite.org/.