ITS STRATEGIC PLAN 2015–2019

EMERGING CAPABILITIES

ABOUT EMERGING CAPABILITIES

As the scale of connected vehicle implementation grows and automation of transportation systems increases, vehicle manufacturers, infrastructure providers, innovators, and entrepreneurs will discover new opportunities to use the technologies and data generated, while also protecting consumer privacy. Technological advances, new functionality, new applications, new operational concepts, and disruptive innovations will result.

The U.S. Department of Transportation (USDOT) will track technological, market, and demographic trends throughout the globe and across industries to seek and evaluate emerging capabilities that demonstrate the potential to transform transportation. The USDOT will be a partner to guide research, development, and technology adoption in a systematic manner.

THE BENEFITS OF EMERGING CAPABILITIES

There are several potential benefits of Emerging Capabilities, including:

• Forging stronger relationships and partnerships with the private industry and universities
• Providing the Intelligent Transportation Systems Joint Program Office (ITS JPO) with the ability to adapt existing or upcoming programs to accommodate new ITS technologies
• Stimulating economic growth through innovation and technological leadership.
RESEARCH ACTIVITIES

The USDOT’s emerging capabilities program will focus on future generations of transportation systems. A leading research activity in this area is the Accessible Transportation Technologies Research Initiative (ATTRI), which focuses on research to improve the mobility of travelers with disabilities through the use of ITS and other advanced technologies. ATTRI aims to work cooperatively with research partners to leverage technologies and innovations from federal ITS and related disability research and development activities to improve accessible transportation for travelers with disabilities, and extend these benefits to all travelers.

The ATTRI program leads the research, development, and implementation of transformative solutions, applications, or systems for all people, including those with disabilities, to effectively plan their travel. ATTRI will enhance the capability of these travelers to reliably, safely, and independently execute their travel plans. ATTRI leverages recent advances in vehicle, infrastructure, and pedestrian-based technologies, as well as accessible data, mobile computing, robotics, artificial intelligence, object detection, and navigation. The technology is enabled by wireless communications that connect travelers, their mobile devices, vehicles, and the infrastructure. These technologies can provide near-ubiquitous access to a wealth of real-time situational data sources, including transportation, municipal, points of interest, crowd-sourced, and accessibility data.

ABOUT THE ITS STRATEGIC PLAN

The USDOT has long been a leader and strong supporter of research, development, adoption, and deployment of ITS around the nation. Learn more about the ITS Strategic Plan 2015-2019.

FOR QUESTIONS ABOUT THE USDOT’S EMERGING CAPABILITIES PROGRAM, CONTACT:

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LOOKING AHEAD:
What’s Next for Emerging Capabilities?

Technological advances, new functionality, new applications, new operational concepts, and disruptive innovations will result. The USDOT will track technological, market, and demographic trends throughout the globe and across industries to seek and evaluate emerging capabilities that demonstrate the potential to transform transportation. As this happens, the USDOT will be positioned and engaged as a partner to guide research, development, and technology adoption in a systematic manner.