As new intelligent transportation systems (ITS) technologies and systems evolve into market-ready products, the U.S. Department of Transportation (USDOT) ITS Program must address questions associated with adoption and deployment.

Adoption occurs after testing, when technologies are ready for initial implementation in the “real world.” Full-scale deployments are not possible at the outset of this phase; thus, the adoption phase is seen as the critical nascent stage of getting technologies into the market. This stage includes solicitation of early adopters; support and training of the adopters; marketing and communications to encourage and increase awareness and understanding of the value of the new technologies; and, of course, the actual initial implementation of the new technology. Interaction with adopters must be strong to understand the challenges that local agencies and other transportation organizations face.

**MAKING ADOPTION HAPPEN**

Adoption can happen when:

- Early adopters communicate positive feedback about technology benefits.
- Understanding of the technology is broader than just the initial adopter community.
- The value of the technology is clear and has been realized.
- Tactical deployment plans exist and can be shared with additional operators.
- Training for the technology exists and is accessible to future operators.
- Actual pilot implementation is feasible, which is an indication of the maturity of the technology.
RESEARCH ACTIVITIES

As new ITS technologies and systems evolve into market-ready products, the ITS Program must address issues associated with adoption and deployment. Adoption occurs when technologies are ready for initial implementation in the “real world.” As technologies transition from adoption to large-scale deployment, support for operators and deployers shifts from research and development to operations. Ensuring a smooth transition from initial adoption (seen as part of the overall research and development lifecycle) to widespread deployment and working closely with deployers to understand and manage that transition require special attention and detailed programs.

The leading way the USDOT will help to accelerate deployment is the Professional Capacity Building (PCB) Program. It is the primary mechanism for educating the public sector’s transportation workforce about ITS. Housed in the USDOT’s ITS Joint Program Office (JPO), the program supports activities that deliver multimodal ITS learning opportunities to the public sector workforce by coordinating outreach related to the ITS JPO’s research initiatives, providing technical assistance to public-sector ITS deployers through ITS Peer-to-Peer (P2P) and Talking Technology Transportation (T3) webinar programs, and delivering ITS training through partners.

Over the past 15 years, the transportation workforce has developed sophisticated ITS knowledge, skills, and technologies. ITS is now a critical component of multimodal transportation operations. The ITS PCB Program aims to build ITS professional capacity and develop the future ITS workforce. It also seeks to leverage innovative technologies to ensure a multimodal transportation system for the nation that provides travelers and businesses with safe, secure, efficient, and environmentally sustainable choices.

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.

Looking Ahead: What’s Next for Accelerating Deployment?

As technologies transition from adoption to large-scale deployment, support for operators and deployers shifts from the responsibility of the ITS JPO to that of other agencies within the USDOT and even across other government departments and agencies.

Although state, local, and commercial organizations will carry out the adoption of ITS technologies, the ITS JPO will play a support, training, communications, and outreach role during this phase. The main goal of the adoption phase is to gain market support of, understanding of, and commitment to the new technologies.