U.S. Department of Transportation

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USDOT International Collaborative Research

The USDOT aims to foster cooperative international research of ITS and to support international harmonization of ITS standards.

We are collaborating with Europe and Japan to facilitate trilateral exchange on ITS topics of shared interest:

- European Commission (EC) Directorate General (DG):
  - Communication Networks, Content and Technology (CONNECT)
  - Mobility and Transport (MOVE)
  - Research and Innovation (RTD)
- Japanese Ministry of Land, Infrastructure, Transportation and Tourism (MLIT)

Collaborative Research with Europe

In January 2009, the USDOT and the EC signed an Implementing Arrangement to develop coordinated research programs, focusing on intelligent transportation systems.

Highlights of Accomplishment :

- Developed a substantially harmonized core safety message set—the EU Cooperative Awareness Message (CAM) and the U.S. Basic Safety Message (BSM)
- Completed the US-EU Inattention Taxonomy report on driver distraction and human-machine interaction
- Completed 10 final reports on security protocols, publicly available via the EC website
- Developed extensive recommendations for harmonization, feedback to standards development organizations, identified gaps and issues, and documented lessons learned from the process

Collaborative Research with Europe (cont.)

We have started a dialogue with DG MOVE that focuses on exchange of ITS deployment practices:

- A new area of shared interest, initiated by agreement in January 2014
- With the objective of expanding and accelerating the adoption of ITS and connected vehicles systems throughout Europe and the United States
- Work plan being developed; will be formally proposed for approval later this year

Collaborative Research with Japan

In 2010, the USDOT and the MLIT of Japan signed a Memorandum of Cooperation to enhance bilateral cooperation and further the development and implementation of global ITS activities. Bilateral efforts focus on three main areas:

- International Standards
- Evaluation Tools and Methods
- Probe Data

Highlights of Accomplishment :

- Jointly developed a shared understanding regarding differences in terminology for cooperative ITS system evaluation
- Jointly developed a high-level definition of probe data
- Conducted comparative analysis on system configuration, data format, and application of probe data systems
- Jointly identified probe data-enabled applications in which both USDOT and MLIT have strong common interests

Trilateral Collaborative Research with the EU and Japan

- Our trilateral exchange supports the activities of an EU-US-Japan Working Group on Automation in Road Transportation. We have identified six areas for cooperation:
  - Human factors
  - Evaluation and benefits
  - Digital infrastructure
  - Cybersecurity
  - Connectivity
  - Testing methodology

Each region is developing its own vehicle automation roadmaps.

- We also have trilateral working groups addressing safety and probe data.

Collaborative Research with Korea

The USDOT recently signed an Implementing Arrangement with the Korean Ministry of Land, Transport and Maritime Affairs (MLTM) to collaborate on ITS research.

We are initiating collaborations that focus on sharing information and experiences from our new **Connected Vehicle Pilot Deployment Program**, which aims to spur the implementation of connected vehicle technology deployed in real-world settings.

Other International Collaborative Research

We are also working with Canada, Mexico, Australia, Brazil, Finland, and Sweden to initiate collaboration on ITS research.

The Benefits of International Collaboration

ITS and cooperative vehicle systems can deliver significant societal benefits for road users worldwide in terms of safer, more energy-efficient, less congested, and environmentally friendly transportation.

Coordinated ITS research can:

- Preclude the development and adoption of redundant standards
- Provide significant cost savings
- Support and accelerate the deployment and adoption of cooperative vehicle systems