

The United States Department of Transportation's (USDOT) Research and Innovative Technology Administration (RITA) and the European Commission's (EC) Directorate General for Information Society and Media (EC DG INFSO) are pleased to announce the approval of the Harmonization Action Plan for the EC - US Standards Harmonization Working Group (SWG).

The USDOT RITA and DG INFSO previously signed a *Joint Declaration of Intent on Research Cooperation in Cooperative Systems*. This declaration includes a commitment to develop globally harmonized open standards in order to ensure the worldwide interoperability of cooperative systems. The standards harmonization work is carried out through the SWG, which is staffed and co-chaired by representatives of the USDOT and EC. As described in the enclosed plan, the development and adoption of harmonized international standards will:

- Improve interoperability and interchangeability of Intelligent Transportation Systems (ITS) across operational boundaries;
- Reduce development and deployment costs for manufacturers;
- Provide manufacturers with greater accessibility to international markets;
- Increase competition and innovation amongst manufacturers, which can help lower costs and expand service for consumers;
- Accelerate the deployment and adoption of ITS services;
- Leverage international expertise and reduce redundant efforts.


The Harmonization Action Plan provides the basis for all future US - EC work in this area. The work will be conducted along five tracks:

- High level assessment
- Detailed agreement for harmonization procedures
- Gap-Overlap analysis for future standards
- Facilitate harmonization of specific standards
- Proposals for cooperation on future standards development

These tracks define the steps to be taken to identify and prioritize areas for standards harmonization, lay out the approach for harmonizing selected regional standards, and identify joint principles for achieving global harmonization of new standards as they are developed.

Recognizing the importance of global cooperation, both the European Commission and the United States welcome the participation of other countries and regions in the work of the Standards Harmonization Working Group, particularly those of the Asia Pacific region.

Approval of the Harmonization Action Plan represents an important milestone along the path to globally harmonized standards.



---

Mr. Juhani Jääskeläinen, EC DG INFSO

Ms. Shelley Row, USDOT RITA JPO

# EU-US Cooperative Systems Standards Harmonization Action Plan (HAP)

## **PURPOSE:**

In November 2009 the United States Department of Transportation (USDOT) and Directorate General for Information Society and Media (DG INFSO) signed a Joint Declaration of Intent on Research Cooperation. The goal of the declaration is to:

**“Support, wherever possible, global open standards in order to ensure interoperability of cooperative systems worldwide and to preclude the development and adoption of redundant standards.”**

This harmonization effort is intended to contribute to deployment of interoperable cooperative vehicle and infrastructure systems. “Standards Harmonization” is a process through which various stakeholders — vehicle and equipment manufacturers, technical standards development organizations (SDOs), and governments — work together to achieve the optimum level of harmonization needed for efficient deployment of Cooperative ITS. The United States (US) and European Union (EU) participate in international standards harmonization activities focusing on technical standards “around the vehicle platform,” that is, standards needed to provide connectivity between vehicles and between vehicles and infrastructure. Harmonization research for ITS technical standards complements, and will be a key enabler for, the efficient deployment of Vehicle-to-Vehicle (V2V) and Vehicle-to-Infrastructure (V2I) technologies.

Development and adoption of coordinated harmonized international technical standards contribute to the following benefits:

- Improved interoperability and interchangeability of Intelligent Transportation Systems (ITS) across operational boundaries;
- Reduced development and deployment costs for manufacturers;
- Greater accessibility to international markets for manufacturers of connectivity equipment;
- Increased competition and innovation amongst manufacturers which can help lower costs and expand service for consumers;
- The potential for a more rapid deployment of ITS systems;
- Leveraging of international expertise and reducing redundant efforts.

## **BACKGROUND:**

Standards for Cooperative ITS are developed under the auspices of Standards Development Organizations (SDO) including the European Committee for Standardization (CEN), IEEE, European Telecommunications Standards Institute (ETSI), Internet Engineering Task Force (IETF), International Organization for Standardization (ISO) and SAE International as well as national standardization organizations in countries such as Japan and China. Some standards have already been finalized and published while others are in the development or approval process. The intention of the harmonization activities should be to create globally coordinated and harmonized standards as appropriate.

In order to support the goals established within the Joint Declaration, a Joint Intelligent Transportation Systems (ITS) Technical Task Force was established under the leadership of USDOT and DG INFSO. The Technical Task Force created a number of working groups, including the ITS Standardization Working

# EU-US Cooperative Systems Standards Harmonization Action Plan (HAP)

Group (SWG), which are staffed and co-chaired by representatives of the USDOT and the European Commission (EC). The ITS Standardization Working Group was initiated with a guiding policy directive to act as supporting partner to the other working groups with respect to standardization issues and to explore and act upon opportunities for harmonizing ITS standards internationally. This working group is led by Wolfgang Hoefs, European Commission, and Steve Sill, USDOT.

The ITS SWG held meetings 2010 to draft the Harmonization Opportunities Assessment Plan (HOAP). This plan includes three primary activity tracks:

- Track 1: Identify where harmonization opportunities may exist between Cooperative Systems technical standards being developed within the EU and US
- Track 2: Identify and agree upon a means by which governmental bodies can incentivize harmonization should opportunities be identified
- Track 3: Identify gaps in technical standards required for deployment of cooperative systems where the development of a single harmonized standard may be beneficial

During meetings and discussions in early 2011, the working group determined that a recast of the HOAP into a broader action plan was needed. The new EU-US Cooperative Systems Standards Harmonization Action Plan (HAP) recognizes the change in landscape since the HOAP was originally drafted and takes into consideration recommendations from working group experts.

## **APPROACH:**

The HAP is intended to be an action plan whereby the working group discuss and agree on activities - envisioned in the HAP tasks and provide proposals for coordination and harmonization of specific standards without conducting formal analysis. The working group recognizes the efforts many international technical standards bodies have undertaken to harmonize for Cooperative ITS. The working group also recognizes that not everything in this area should or needs to be harmonized. In a high level assessment the working group will determine if a detailed level analysis can be skipped where other standards groups have made harmonization efforts.

The HAP is intended to be a living document allowing for future additions as deemed appropriate by the ITS Standards Working Group. The HAP includes tasks to:

- Facilitate coordination and harmonization where appropriate
- Track 1 / High level assessment
- Track 2 / Detailed agreement for harmonization procedures
- Track 3 / Gap-Overlap analysis for future standards
- Track 4 / Facilitate harmonization of specific standards
- Track 5 / Proposals for cooperation on future standards development

# EU-US Cooperative Systems Standards Harmonization Action Plan (HAP)

## Track 1/ High Level Assessment

An initial high level review of cooperative system ITS standards (published, under development, or new work items) will be conducted. The purpose of the high level assessment will be to provide the working group with a first order review illustrating which existing technical standards appear to address similar functionalities or scopes. Substantial work has been completed as part of responses to the European Mandate M/453. Building on this work, a document will be created to formalize the high level assessment. The document will include:

- A prioritized list of candidate technical standards requiring a detailed level assessment
- A list of candidate technical standards ready for immediate harmonization action
- A list of technical standards that should be excluded from consideration for harmonization (if any)

The US and EU will agree which, if any, recommendations to pursue.

## Track 2/ Detailed Agreement for Harmonization Procedures

Track 2 provides a statement of principles agreed upon by the ITS SWG. These principles will be published in order for the cooperative systems community to understand how the ITS SWG will proceed in the future.

The following principles for executing cooperative systems standards harmonization are:

1. The US and EU will coordinate a unified position on standards harmonization.
2. The US and EU will open the harmonization task group activities to Japanese and other standards groups.
3. The US and EU will encourage SDOs to avoid duplication of efforts during this harmonization effort.
4. The US and EU will encourage their SDOs to not develop redundant standards.
5. The US will contract with international standardization bodies where the EU and US have joint interests.
6. The US and EU will encourage their SDOs to participate in outreach activities (i.e. outreach documentation, facilitate stakeholder meetings on selected topics, develop and deliver presentations at international venues)
7. The US and EU will encourage their SDOs to develop standards, where applicable, containing user needs, requirements and traceability matrices sufficient to assure required interoperability and non-interference. Standards shall be performance-based to the greatest extent possible to permit maximum freedom for equipment and content design and development.
8. Standardization activities for Cooperative ITS should take place within the relevant SDOs based on a general and specific intention to globally coordinate and harmonize standards.

# **EU-US Cooperative Systems Standards Harmonization Action Plan (HAP)**

9. The SDOs may be invited to participate in standards prototyping activities.
10. The SDOs may be invited to participate in standards testing projects by providing subject matter expertise from relevant working groups who will observe testing, lend expertise, and report findings to the SDO, working groups, and the Harmonization Task Group (HTG; see below).

## **Track 3/ Gap-Overlap Analysis for Future Standards**

As future technical standards are developed, the SWG will analyze ITS standards – published as well as standards in development and approval process – to determine overlaps or redundancy in scope and content relative to existing cooperative systems standards. Additionally, any gaps found will be documented. This is an on-going effort and can be leveraged off of existing technical standards development work occurring within various SDOs in both the US and EU. The results of the analyses together with proposals for action will be provided to the EU-US Task Force and the relevant SDOs.

## **Track 4/ Facilitate Harmonization of Specific Standards**

When a potential harmonization opportunity exists, the ITS Standardization Working Group (SWG) will create a Harmonization Task Group (HTG). The HTG will be comprised of appropriate experts who are a subset of the participants on the candidate standards SDO working groups. The ITS SWG will explicitly agree to the HTG membership. This track may require the establishment of research agreements with SDOs.

The ITS SWG will facilitate the HTG meetings as needed. This is likely to include reimbursement for travel expenses and costs of hosting HTG meetings in the US or EU. Additionally, a contractor might be engaged to directly support the HTG, including taking meeting minutes, drafting reports, and/or drafting specific recommendations/draft standards language on behalf of the HTG.

The objective of the HTG is to analyze harmonization opportunities and to recommend to the SDOs to consider changes to standards in order to achieve harmonized standards where appropriate.

## **Track 5/ Planning for the Future**

The ITS HWG will undertake an activity to examine the options available for future technical standards needs, where work has not yet begun, to identify what options might be available for standards that are jointly developed and/or maintained. Options will be determined regarding cooperation of US and EU SDOs, joint publication agreements, intellectual property rights, and such to frame the options that might best meet EU and US governmental needs as well as standards developer and industry needs. This work would consider the current participating SDOs along with the experience and lessons learned from fora such as UN WP29.