# Collaboration on ITS Communication Standards

## 13 October 2013, Tokyo, Japan

### Meeting report

1. **Introduction**

The meeting of the Collaboration on ITS Communication Standards (“Collaboration”) took place on 13 October 2013 at TTC headquarters in Tokyo, Japan.

Russell Shields of Ygomi LLC chaired the meeting.

The intent of the Collaboration is to provide a globally recognized forum for the creation of an internationally accepted, globally harmonized set of ITS communication standards of the highest quality in the most expeditious manner possible to enable the rapid deployment of fully interoperable ITS communication-related products and services in the global marketplace.[[1]](#footnote-1)

1. **Opening of meeting, introductions and adoption of the agenda**

The Chairman welcomed the participants (20 on-site, 2 remote; the final list of participants is reproduced in Doc 007) and gave introduction to the objectives of the Collaboration (see [website](http://www.itu.int/en/ITU-T/extcoop/cits/)).

The agenda approved by the meeting is reproduced in Doc 001.

1. **Review of past actions**

The list of open actions (Doc 004) was reviewed. The following updates and comments were made:

Geneva#1:

* In addition to contributing radio interfaces to ITU-R WP5A, SDOs and member states are invited to submit their simple statements (e.g., expressions of concerns) on the 5.9 GHz issue. The same deadline applies: 11 November 2013, 1600 hrs UTC

Geneva#2:

* András Csepinszky pointed to [Directive 2007/46/EC](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:263:0001:01:EN:HTML) and [COMMISSION REGULATION (EC) No 1400/2002](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:l:2002:203:0030:0041:en:PDF), which both offer a range of definitions. The information was shared with Paul Najarian and Scott Pennock after the meeting. The item can be removed from the list.

Geneva#3:

* The item can be removed from the list.

Geneva#4:

* TTC elaborated on the gap analysis in Doc 005. The item can be removed from the list.

Geneva#5-6:

* The meeting agreed that there is no sufficient interest/participation to moving this issue forward. The items can be removed from the list.

Geneva#7:

* Participants mentioned sustainability / economic viability as key challenges for ITS solutions in developing countries.
* ITU/TSB will ask UNECE WP.29 for input on priority applications in developing countries before the next meeting.

Geneva#8:

* Dick Schnacke wondered what UNECE’s interest is in ITS. Russ pointed out that ITS is on the WP.29 agenda, but the ITS communications aspects are largely neglected. Steps are taken to change that and highlight the importance of harmonization of ITS communications. The UNECE secretariat has been very supportive in increasing cooperation. The activities are to be followed closely, and the item can be removed from the list.

Geneva#9:

* ITU-T Study Group 2 [calls for contributions](http://www.itu.int/md/T13-SG02-130917-TD-GEN-0260/en) on the need of creating a dedicated mobile country code ([MCC](https://en.wikipedia.org/wiki/Mobile_country_code)) for the purpose of M2M or automated in-vehicle emergency call systems. The item can be removed from the list.

Geneva#10:

* ITU/TSB will improve the wording of the [working procedures](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20120626-Munich/006%20-%20Draft%20working%20procedures.docx) before the next meeting.

Geneva#11:

* ITU-T Study Group 17 submitted Doc 002 to the meeting. The item can be removed from the list.

Geneva#12-14:

* Scott Pennock noted that the initiative to hold a webinar had to be discontinued due to the lack of interest / feedback from the organizations reached out.
* Participants wondered if the relevant topics and content could be identified from information available in the public domain. The [iMobility platform](http://www.imobilitysupport.eu/) was mentioned as one possible source of information. Considering the amount of information available, some filtering and mapping of available content and content of interest may be required.
* It was agreed to create a new action item reflecting the above.
* Action (1) Scott Pennock: Review information available in the public domain related to vehicle gateway platforms, filter and map available content to Q27 needs.

Beijing#1:

* ITU/TSB to follow up with China Unicom before next meeting.

Beijing#2-3, 6:

* The items have been completed and can be removed from the list.

Washington#3, 5:

* The items have been completed and can be removed from the list.

Washington#6:

* It was clarified that this item is related to smart grid and PEVs. Tom Kurihara mentioned the IEEE Transportation Electrification Initiative ([website](http://electricvehicle.ieee.org/)).
* ITU/TSB to follow up with Jim Frazer before next meeting.
1. **ITS communications requirements – Work Item 1**

András presented the Doc 003, a report commissioned by the European Commission describing requirements for a EU-wide deployment of Cooperative ITS and makes a number of recommendations (pp.116 ff.) for follow up. The report highlights the importance of 5.9 GHz and mobile cellular networks for ITS communications, the need of back offices and roadside infrastructure. The report was published in 2011.

Participants explained that the [Cooperative ITS Corridor](http://www.fot-net.eu/en/news__events/news/ministers_cooperative_systems_corridor_.htm) encompassing three countries (The Netherlands, Germany, Austria) and two use cases (roadwork warnings, probe data) was a logical next step following the report.

Participants pointed to similar documents in other regions, e.g.,

* Briefing on [Safety Pilot Model Deployment in Ann Arbor](http://www.safetypilot.us/);
* [Amsterdam Group Roadmap](https://amsterdamgroup.mett.nl/Downloads/downloads_getfilem.aspx?id=312793); and
* [ITS Spot Japan](http://www.mlit.go.jp/road/ITS/topindex/ITSSpot.pdf).

It was recommended to review and map the recommendations made in Doc 003 to today’s European context, and in view of the other documents, i.e., harmonization of the recommendations in a global context.

1. **Gap analysis – Work Item 2**

Yasubumi Chimura presented TTC’s Doc 005 which describes an approach for the standards’ gap analysis. The discussion focused on slide 5 and the aspects of ITS safety communications for vulnerable road users, e.g., pedestrians and bicyclists.

Participants noted that the topic is high on the agendas of various organizations (e.g., WHO, European Commission DG Move) and that systems to reduce accidents with those road users are beginning to appear.

TTC was asked to revise the document and elaborate on

* the differences between vehicle-to-person and vehicle-to-bicycle communication links,
* the absence of direct links between vulnerable road users and roadside infrastructure,
* the absence of direct communication links between different pieces of infrastructure,
* the link between driver and vehicle interface.

The importance of a direct link for safety communications was highlighted. It was agreed to first build the background and requirements and then look at technology.

Action (2) TTC: Revise document and elaborate on ITS safety communications for vulnerable road users based on comments and discussion, by end of 2013.

1. **ITS communications security – Work Item 4**

Koji Nakao presented Doc002, a Liaison Statement from ITU-T Study Group 17 (Security) to SG16. SG17 is seeking input to be submitted for review before end of November 2013 from SG16 and others (on ITS use cases and information about a general ITS architecture in order to initiate a risk analysis and threat/vulnerability assessment for V2V and V2I communications).

Participants noted that there is a huge amount of related material available, from different organizations, with different scope and depth. The aim should not be to duplicate what exists already, but to collect, synthesize, analyse and assess this material.

Related material mentioned by participants included:

* IEEE risk analysis in the area of 5.9 GHz, e.g., C. Laurendeau and M. Barbeau: “[Threats to Security in DSRC/WAVE](http://rd.springer.com/chapter/10.1007/11814764_22)”, 2006;
* [ETSI ITS security standards roadmap](http://docbox.etsi.org/ITS/ITSWG5/05-CONTRIBUTIONS/2013/ITSWG5%2813%29000055_ITS_Security_Standards_Roadmap.docx); and
* eSafety Forum eSecurity working group document on [vulnerabilities in electronics and communications in road transport](http://www.imobilitysupport.eu/working-groups/esecurity/library/documents-9/1342-esec-wg-vulnerabilities-in-electronics-and-communications-in-road-transport/file)

Security aspects of GPS and automotive radar, as well as the issue of privacy are other areas that have been recently highlighted in the media and need to be researched.

Action (3) ALL: By 15 November 2013: send input, background material, links to documents describing a) ITS architecture, b) ITS use cases, and c) considerations on V2V and V2I security.

Action (4) Russ and ITU/TSB: By 30 November 2013: condense material, submit to SG17.

1. **ICTs in vehicles – Work Item 5 / driver distraction**

Scott Pennock gave a quick overview of ITU-T Q27/16 activities. Participants mentioned related activities in ISO TC22 / SC13 / WG8 (“TICS on-board - MMI”) and ISO TC204 / WG17 (Nomadic Devices in ITS Systems). András mentioned the Tele FOT project, <http://telefot.eu/>.

1. **Next meetings**

The next Collaboration meeting will take place on 3 March 2014 at ITU headquarters in Geneva, Switzerland. The ITU Symposium on The Future Networked Car will take place on 5-6 March 2014 at the Geneva International Motor Show. Meeting announcement and logistics will be posted shortly at <http://itu.int/go/ITScomms>.

1. **Close of meeting**

The Chairman thanked the participants for all the discussions.

| Meeting | Action no. | Who | What | Related Work Item | By when | Status |
| --- | --- | --- | --- | --- | --- | --- |
| Tokyo, October 2013 |
| Tokyo | 1 | Scott Pennock | Review information available in the public domain related to vehicle gateway platforms, filter and map available content to Q27 needs. | 5 |  | ongoing |
| Tokyo | 2 | TTC | Revise document and elaborate on ITS safety communications for vulnerable road users based on comments and discussion, by end of 2013. | 1, 2 | End of 2013 |  |
| Tokyo | 3 | All SDOs | Send to ITU/TSB: input, background material, links to documents describing a) ITS architecture, b) ITS use cases, and c) considerations on V2V and V2I security. | 4 | 15 November 2013 |  |
| Tokyo | 4 | Russ Shields, ITU/TSB | Condense material received in Tokyo#4, submit to SG17 | 4 | 30 November 2013 |  |
| Geneva, June 2013 ([meeting report](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201306-Geneva/009%20-%20Meeting%20report.docx)) |
| Geneva | 1 | All SDOs | Submit input on radio interface standards to ITU‑R WP 5A meeting (18-28 November 2013) Edit Tokyo: In addition, SDOs and member states are invited to submit their simple statements (e.g., expressions of concerns) on the 5.9 GHz issue. | 3 | 11 November 2013, 1600 hrs UTC | ongoing |
| Geneva | 7 | ITU/TSB | Follow up with speakers from developing countries / UNECE to identify top 5 ITS applications in their current situation | 1 | March 2014 |  |
| Geneva | 10 | ITU/TSB | Improve the wording of the [working procedures](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20120626-Munich/006%20-%20Draft%20working%20procedures.docx) |  | March 2014 |  |
| Beijing, March 2013 ([meeting report](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-201303-Beijing/006%20-%20Meeting%20report.docx)) |
| Beijing | 1 | China Unicom | Review the use-cases based on the discussions; discuss and evaluate the scenarios with ITS experts | 1 | March 2014 | ITU/TSB to follow up |
| Washington, D.C., December 2012 ([meeting report](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20121217-Washington/006%20-%20Meeting%20report.docx)) |
| Washington, D.C. | 6 | Jim Frazer | Clarify contribution [[Doc 004](http://www.itu.int/en/ITU-T/extcoop/cits/Documents/Meeting-20121217-Washington/004%20-%20References%20to%20V2I%20standard%20SAE%20J2735%20and%20additions%20to%20section%202_1.zip)] with respect to the communications requirements of “management of electric vehicles and electric vehicle charging spots” and “Integration to the Smart Grid”. | 1 | March 2014 | ITU/TSB to follow up |

1. Collaboration website, <http://www.itu.int/en/ITU-T/extcoop/cits/> [↑](#footnote-ref-1)