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| **TSAG** | |
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| **TD** | | | | | |
| **Source:** | | | Chairman, Collaboration on ITS Communication Standards | | |
| **Title:** | | | Report on Collaboration on ITS Communication Standards and ITS-related activities | | |
| **Purpose:** | | | Information | | |
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| **Keywords:** | ITS; collaboration; standards; SDOs; connected vehicles; |
| **Abstract:** | The document summarizes ITU-T activities in the field of ITS communications since the last meeting of TSAG. |

# Action required

TSAG is invited to note the report.

ITU-T Study Groups with activities related to ITS communications (SG12, SG16, SG17, SG20) are invited to provide regular updates on their ITS work items to the Collaboration on ITS Communication Standards (CITS).

# OUTLINE

**1) Collaboration on ITS Communication Standards (CITS)**

**1.1) CITS-related events**

**2) ITU-T Focus Group on Vehicular Multimedia (FG-VM)**

**2.1) FG-VM-related events**

**1 Collaboration on ITS Communication Standards (CITS)**

A CITS meeting was held in Geneva, Switzerland on 8 March 2019 (ITU premises), in collocation with the [ITU Symposium on the Future Networked Car (FNC-2019)](https://www.itu.int/en/fnc/2019/Pages/default.aspx) , held at the Geneva Motor Show (7 March 2019). The FNC-2019 was co-organized with UNECE. Detailed programme of FNC-2019 is available [here](https://www.itu.int/en/fnc/2019/Pages/programme.aspx). The meeting of the Collaboration on ITS Communication Standards reviewed standardization activities in the various SDOs through progress reports submitted for the occasion. The documents of the meeting, including a detailed report (DOC 27), are available [here](https://www.itu.int/en/ITU-T/extcoop/cits/Pages/meeting-documents.aspx?RootFolder=%2Fen%2FITU-T%2Fextcoop%2Fcits%2FDocuments%2FMeeting-20190308-Geneva&FolderCTID=0x0120008D91490DA7927C4D8A0BB5A73929B07D&View=%7B73BE16B3-22C9-43D5-A9FD-D8BC067A87FF%7D).

During the CITS meeting, it was agreed to develop an [online database](https://www.itu.int/net4/ITU-T/landscape#?topic=0.131&workgroup=1&searchValue=&page=1&sort=Revelance) for ITS Communication Standards. At the same meeting, CITS agreed to request TSB to include in the database all the standards from other SDOs that were available in the various progress reports from SDOs to CITS.

It was also agreed to propose to the various SDOs to appoint an expert responsible to further furnish the database with updates on their standards. To this end, liaison statements were sent from CITS to the various involved SDOs.

Since then, several standards have been included in the [online database](https://www.itu.int/net4/ITU-T/landscape#?topic=0.131&workgroup=1&searchValue=&page=1&sort=Revelance). Currently, the database contains ITS Communication Standards developed by ITU, ISO, IEEE, SAE International, TTC and W3C among others.

CITS continued to provide the link between ITU and the [UNECE World Forum for Harmonization of Vehicle Regulations (WP.29)](http://www.unece.org/trans/main/welcwp29.html). To this end, a mini-workshop on “Cyber Security Challenges in Automated Driving” was held on 26 August 2019, preceding the ITU-T Study Group 17 meeting (27 August – 5 September 2019). This mini-workshop had a range of participants, including members from CITS, delegates of UNECE WP29 and delegates of Q13/17 meetings.

ITU delegates interested in participating in UNECE WP.29 activities are invited to consult the meeting schedule at <http://www.unece.org/trans/main/wp29/meetings_events.html> and to contact Mr Stefano Polidori (ITU/TSB) at [stefano.polidori@itu.int](mailto:stefano.polidori@itu.int) for additional information and coordination. CITS will continue reviewing and discussing the progress in WP.29 and coordinate any ITS communications related input.

The CITS also supported the organization of an additional workshop held in Budapest, Hungary on 10 September 2019, during Telecom World: Workshop on ["The Turing Test for Autonomous Driving - A Global Performance Standard for AI on our Roads"](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/092019/Pages/default.aspx), which was co-organized with Autonomous Drivers Alliance (ADA). The objective of this event was to explore standardization activities for services and applications enabled by AI systems in autonomous and assisted driving. The workshop concluded with the identified need of a global platform for collaboration and sharing of expertise towards international harmonisation of the definition of a universal minimal performance threshold for AI enabled driving functions (such as AI as a Driver), which is essential to building the global public trust required for widespread deployment of AI on our roads. CITS will continue to monitor developments in ITU in within this domain.

**1.1 CITS-related events**

CITS has convened one meeting and facilitated the organization of workshops and events since the last TSAG:

* **Geneva, Switzerland, 7-8 March 2019:** CITS meeting was held in collocation with the [ITU Symposium on the Future Networked Car (FNC-2019)](https://www.itu.int/en/fnc/2019/Pages/default.aspx) at Geneva Motor Show (7 March 2019). The FNC-2019 was co-organized with UNECE. Detailed programme of FNC-2019 is available [here](https://www.itu.int/en/fnc/2019/Pages/programme.aspx). The meeting of the Collaboration on ITS Communication Standards took place at the ITU premises on 8 March 2019. The documents of the meeting are available [here](https://www.itu.int/en/ITU-T/extcoop/cits/Pages/meeting-documents.aspx?RootFolder=%2Fen%2FITU-T%2Fextcoop%2Fcits%2FDocuments%2FMeeting-20190308-Geneva&FolderCTID=0x0120008D91490DA7927C4D8A0BB5A73929B07D&View=%7B73BE16B3-22C9-43D5-A9FD-D8BC067A87FF%7D).
* **Geneva, Switzerland, 26 August 2019:** A mini-workshop on “Cyber Security Challenges in Automated Driving” was held on 26 August 2019, preceding ITU-T Study Group 17 meeting (27 August – 5 September 2019).
* **Budapest, Hungary 10 September 2019:** The [ITU Workshop on "The Turing Test for Autonomous Driving - A Global Performance Standard for AI on our Roads"](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/092019/Pages/default.aspx) was held in collocation with the ITU Telecom World (9-12 September 2019), which was co-organized with Autonomous Drivers Alliance (ADA). The detailed program of the International Forum on Intelligent Transport Systems is available [here](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/092019/Pages/programme.aspx).

**Planned events:**

* Collaboration on ITS Communication Standards (CITS) meeting, 28 October 2019 (e‑meeting).
* Workshop on *“How Communications will Change Vehicles and Transport”*, 26 November 2019, Detroit, USA.
* Symposium on the Future Networked Car (FNC-2020) and co-located Collaboration on ITS Communication Standards (CITS) meeting, 5-6 March 2020, Geneva Switzerland.

Delegates are invited to consult the CITS website for further updates and information: <http://itu.int/go/ITScomms>.

**2 ITU-T Focus Group on Vehicular Multimedia (FG-VM)**

The [ITU-T Focus Group on Vehicular Multimedia (FG-VM)](https://www.itu.int/en/ITU-T/focusgroups/vm/Pages/default.aspx) was established by ITU-T Study Group 16 at its meeting in Ljubljana, 9-20 July 2018

* The Focus Group analyzes and identifies gaps in the vehicular multimedia standardization landscape and draft technical reports and specifications covering, among others, vehicular multimedia use cases, requirements, applications, interfaces, protocols, architectures and security.

Following the 1st meeting of the ITU-T FG-VM held on 11 October 2018 in Ottawa, Canada, five additional meetings of the FG-VM were convened:

* 2nd FG-VM Meeting, 23-25 January 2019, Tokyo, Japan
* 3rd FG-VM Meeting, 18-19 March 2019, Geneva, Switzerland
* 4th FG-VM Meeting, 16-17 May 2019, e-Meeting
* 5th FG-VM Meeting, 11-12 July 2019, Changchun, China
* 6th FG-VM Meeting, 11-12 September 2019, Budapest, Hungary

All the documents of the FG-VM meetings are available [here](https://extranet.itu.int/sites/itu-t/focusgroups/vm/Documents/Forms/).

The main achievements of the FG-VM since the 1st meeting include:

* The Technical Report on “Use Cases and Requirements for the Vehicular Multimedia Networks” has been finalized under Working Group 1.
* The [Call for proposals for a VM Architecture](https://www.itu.int/en/ITU-T/focusgroups/vm/Documents/FGVM_CallForProposals.pdf) has been published to encourage contributions to the activities of Working Group 2. This call for proposals was also mentioned in the [ITU Newlog](https://news.itu.int/call-for-proposals-vehicular-multimedia-architecture/) on 29 July 2019.
* Working Group 2 on VM Architecture initiated its work during the 6th meeting and will advance on its work through additional contributions at the upcoming meetings.

The current management team of the FG-VM includes:

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| **Position** | **Name** | **Organization** |
| FG-VM Chair: | Jun (Harry) Li | TIAA, People's Republic of China |
| FG-VM Vice-Chair/Working Group 1 Chair: | Gaëlle Martin-Cocher | Blackberry, Canada |
| Vice-Chair/Working Group 1 Vice-Chair: | Kaname Tokita | Honda, Japan |
| Working Group 1 Vice-Chair | Lu Yu | Changan Automobile Co, LTD, China |
| Working Group 1 Vice-Chair | Guo Yansong | Great Wall Motor Co, LTD, China​ |
| Working Group 2 Chair | Yajun Kou | Global Fusion Media Technology and Development Co. Ltd, China |
| Working Group 2 Vice-Chair: | Dimitri Konstantas | University of Geneva, Switzerland |
| Working Group 2 Vice-Chair | Jie Li | China Telecom, China |
| * FG-VM Advisor | [Stefano Polidori](mailto:tsbfgvm@itu.int) | ITU/TSB |

**2.1 FG-VM-related events**

The following workshops were collocated with the FG-VM meetings:

* **Tokyo, Japan, 23 January 2019:** The ITU Workshop on “[The Future of Vehicular Multimedia](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20190123/Pages/default.aspx)” hosted by the Telecommunication Technology Committee (TTC), was held on 23 January 2019 in Tokyo, Japan. The detailed programme of the workshop is available [here](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20190123/Pages/Programme.aspx). The workshop was followed by the 2nd FG-VM meeting, 23-25 January 2019.
* **Budapest, Hungary, 11 September 2019**: A half-day workshop on “[The Future of Vehicular Multimedia](https://www.itu.int/en/ITU-T/focusgroups/vm/Pages/11-9_wsp.aspx)” preceded the 6th FG-VM meeting, 11-12 September 2019. The detailed programme of the workshop is available [here](https://www.itu.int/en/ITU-T/focusgroups/vm/Pages/11-9_wsp.aspx). The workshop was held during [ITU Telecom World 2019](https://telecomworld.itu.int/).

The next FG-VM meeting is planned in Geneva, Switzerland, 12-13 December 2019. More info will be available in FG-VM webpage:

<https://www.itu.int/en/ITU-T/focusgroups/vm/Pages/default.aspx>

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