Note by the secretariat

Working Paper **VCTF-02-03**
2nd TF on VC session, 23 June 2023
Provisional agenda item 3(a)

Terms of Reference for the
Task Force on Vehicular Communications (TF on VC)

I. Introduction

1.   The beginning of Vehicle-to-Vehicle (V2V) communication and, more generally vehicular communications, goes back to the 1970s, when first route guidance systems were developed in Japan and the United States of America.

2.   Several countries initiated pre-regulatory activities to support the deployment of vehicular communications. For example, the U.S. Department of Transportation's (DOT) National Highway Traffic Safety Administration (NHTSA) released an Advance Notice of Proposed Rulemaking (ANPRM)[1] and a supporting comprehensive research report on V2V communications technology in August 2014[2].

3.   These activities highlighted the potential of the technology to increase road safety e.g. for an unprotected left turn scenario and an intersection crossing scenario.

4.   Recent WP.29 activities highlighted the potential of this technology to support automated driving systems in certain scenarios. WP.29 agreed to establish a Task Force on Vehicular Communication to explore the potential role of WP.29 in that field, for which this document provides terms of reference and rules of procedures.

II. Mandate

A. *Extract from 85th ITC report (February 2023) – ECE/TRANS/328*

"70.   Welcomed ECE/TRANS/2023/23 entitled "Taking stock of new trends towards electric vehicle charging infrastructure", prepared by the Sustainable Transport Division in close consultation with the Sustainable Energy Division as requested at the Committee's eighty-fourth session; endorsed the preliminary ideas formulated in the document for a stronger role by ITC and its relevant Working Parties and in this regard:

- *…*

- *Requested* WP.29 to make proposals on possible future activities on regulatory tools for harmonized communication between vehicles and Electrical Vehicle Supply Equipment (EVSE), taking into consideration already existing related standards and/ or protocols.

- *…"*

B. Extract from the 189th WP.29 Report (March 2023)

"26.   The ... the group proposed that a task force be established under the IWG on ITS to further analyse the potential role of WP.29 in vehicular communications....

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[1] NHTSA, https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/v2v_pria_12-12-16_clean.pdf, accessed 14 December 2022
[2] NHTSA, https://www.nhtsa.gov/staticfiles/rulemaking/pdf/V2V/Readiness-of-V2V-Technology-for-Application-812014.pdf, accessed 14 December 2022

*27.	WP.29 agreed to establish a Task Force under the IWG on ITS and to transmit WP.29-189-18/Rev.1 to the task force."*

*"36.	The Chair highlighted the overall positive support by ITC for WP.29 activities and opened discussion on ITC decision No. 55. The Chair of GRVA proposed that the IWG on ITS address the ITC request on communication protocols between Electric Vehicles (EVs) and recharging infrastructure, in a similar way as done for the request to address V2V communication.*

*37.	The Chair of the IWG on ITS supported such approach to have the IWG on ITS first consider the issue and to propose WP.29 a way forward, including potential distribution of activities among the relevant GRs. The Chair of GRPE supported this idea.*

*38.	WP.29 agreed that the IWG on ITS would address the ITC request related to the communication protocols between EVs and their recharging infrastructure."*

## C.	Extract from WP.29-189-18/Rev.1

"How to organize the work within the subsidiary bodies of WP.29?

29. This paper suggests, as a prerequisite to GRVA and other GR's with V2X activities, that the IWG on ITS:

*(a)	Performs an evaluation of the work done by Standard Development Organisations (SDOs) and partnerships dealing with vehicular communications.*

*(b)	Explores telecommunication, Information and Communication Technologies and vehicle lifecycles in order to avoid situations where safety systems would rapidly become ineffective as the technology would become obsolete.*

*(c)	Defines potential strategies on how to address legacy risks and cross-cutting issues such as privacy and data-protection. Focus on a use case e.g. merging?*

*(d)	Identify roles and responsibilities for stakeholders (WP.29, ITU-R, etc.) dealing with infrastructure (roads, telecommunication providers), vehicles, suppliers etc.*

*(e)	Elaborate a summary of important studies showing how V2X, and V2V in particular, can contribute to vehicle safety, sustainability and other use cases."*

# II.	Rules of Procedure

5.	The Task Force is a sub-group of the IWG on ITS and is open to all participants of WP29 including contracting parties and non-governmental organizations to the 1958 and 1998 agreements. The leadership of the Task Force may invite experts to the meetings, including non-participants of WP.29 from relevant standard developing organizations and partnerships involved in vehicular communications, on demand.

6.	The Task Force will report to the IWG on ITS.

7.	The Task Force is Co-Chaired by the Chairs of the IWG on ITS (Japan, UK and USA). The Vice-Chair of the Task Force is from China. The Secretaries of the Task Force will be provided by SAE International and UNECE.

8.	The working language of the Task Force will be English.

9.	An agenda and related documents will be circulated to all members of the Task Force in advance of all scheduled meetings.

10.   All documents of the Task Force should be submitted to the secretariat of the group at least five working days before the meeting. The group may refuse to discuss any item or proposal which has not been circulated as required.

11.   All documents shall be provided in digital format. The secretariat shall publish the documents on the dedicated website provided by the UNECE.

12.   Decisions of the group shall be reached by consensus of the participating contracting parties based upon written proposals and technical rationale. When consensus cannot be reached, the chair of the group may present the different points of view and seek guidance from the IWG on ITS, as appropriate.

13.   Meetings of the Task Force shall be held at a frequency set by the secretariat, with the agreement of the leadership.

14.   A provisional agenda shall be drawn up by the leadership. The first item of the provisional agenda for each session shall be the adoption of the agenda. The second item shall be the minutes of the previous session followed by technical discussions and miscellaneous items.

III.   Timeline and deliverables

15.   The TF VC shall examine ways that V2X might:

(a)   Improve sustainability and provide a report to the ITS Informal Group in time for the ITS Informal Group to handle such report and provide it to WP.29 at its November 2023 meeting if the ITS Informal Group so choses. Such report will identify areas to improve sustainability that can be addressed entirely by WP.29 and that WP.29 needs a partner to handle communications that are between vehicles and non-vehicle entities.

(b)   Improve safety and provide a report to the ITS Informal Group in time for the ITS Informal Group to handle such report and provide it to WP.29 at its March 2024 meeting if the ITS Informal Group so choses. Such report will identify areas to improve safety that can be addressed entirely by WP.29 and that WP.29 needs a partner to handle communications that are between vehicles and non-vehicle entities.

(c)   Support automated driving and provide a report to the ITS Informal Group in time for the ITS Informal Group to handle such report and provide it to WP.29 at its June 2024 meeting if the ITS Informal Group so choses. Such report will identify areas to support automated driving that can be addressed entirely by WP.29 and that WP.29 needs a partner to handle communications that are between vehicles and non-vehicle entities.

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