Draft Proposal for Terms of Reference of ITS/Automated driving informal working group

I. Introduction

1. Automated driving technology for road vehicles is increasingly featuring in vehicle manufacturers technology plans and this is creating a higher level of media and public interest in many markets across the world. Inevitably this type of technology due to the potential scale of impact on drivers, road users and wider society creates many uncertainties but also offers huge potential benefits for a safer and more efficient road transport network. Capturing these benefits while enhancing the promotion of technology in the international market is a key objective for the international regulatory community – tackling both the vehicle regulations as well as taking into account the responsibilities for drivers.

2. The work of the WP29 ITS informal working group has so far developed our understanding of topics relating to automated driving such as the definitions of automated driving technology, Guidelines on establishing requirements for high-priority warning signals, and Design principles for Control Systems of Advanced Driver Assistance System (ADAS), etc.

3. In response to growing interest and application of these technologies, as well as recognizing the recent amendment of the 1968 Vienna Convention, it is proposed that the ITS Informal Group, should refocus its discussion on automated driving technology and, as a result, change its name accordingly to "Informal Group on ITS/Automated Driving (IG-AD)" , and that IG-AD, while keeping in mind establishment of internationally harmonized technical regulations in the future, discuss relevant issues for the practical application of this technology and, where appropriate, to consider administrative legal and social aspect :

II. Items to be covered

4. Discussion is expected to be taken forward on two groups levels and these could require two separate sub-groups to be established.

5. As the first step, the relevant issues for the practical application of Highly Automated Driving technologies (HAD) which are nevertheless still designed to assist drivers will be identified and the group will intensively consider the current regulatory measures and identify and propose areas for consideration by WP29. WP29 may then, taking into consideration the recommendation, propose to the appropriate GR to consider developing an internationally harmonized regulation for that HAD technology in parallel with IG-AD.
6. At the second step, discussion on Exchange of views and information on fully autonomous driving technologies (driverless vehicles) will also be taken forward. This latter activity might be concurrent with step 1 (above discussion on HAD).

7. In detail, discussion on the following items will be made in each step:

(a) Definition of Automated Driving Technologies (in the first step)
   (i) comparison of already existing definitions
   (ii) determine the differences between HAD and full autonomous driving
        *Clarification of terms of “Driver in the loop” / “Driver out of the loop (driver less OK)”
   (iii) list up identify typical systems / (use case scenario) that would be assumed as HAD,
   (iv) relationship of HAD and those technologies subject to the Vienna Convention and possible advantages of categorizing HAD in groups from a legal perspective of view
   (v) advantages of categorizing HAD in groups from a legal point of view,
   (vi) consider revisions of existing guidelines such as high priority warning signals, and the Design principles for Control Systems of Advanced Driver Assistance System (ADAS)

(b) Determine Necessary discussion items for establishment of internationally harmonized regulations on HAD (in the first steps)
   (i) The principle on how to make regulations for individual systems and Clarification of the area to be covered by WP29.
   (ii) recommendation to WP29 regarding mandate to each GR based on the above consideration, possibly including recommendations to the other entities for topics beyond on what WP29’s remit/scope may not be able to cover
   (iii) consider and recommend broader concept (ideas) to ensure adequate of the vehicle countermeasures against cyber security (prevention of hacking, tampering) and malfunction for vehicle systems
   (iv) necessity of system to check the function of new measures to ensure that HAD systems retain their integrity and operation Automated Driving System in-use (such as OBD)
   (v) recommendation to the other entities on what WP29 may not be able to cover (Example: recommendation regarding standardization of the communication environment)
(c) **Others**

(i) Consideration of guidance regarding HAD when requested to WP29 by GRs

(d) Consideration of possible overlaps with the Vienna Convention and the Geneva Convention (in the second step)

(e) Others (in the first and second steps)

(ii) Exchange of views and information in each Contracting Party about the most advanced technology including full autonomous driving technology (driverless vehicles), such as, research results including field tests, in each CP.

(iii) Each CP’s information on events, conventions, etc. for the state-of-the-art HAD.
III. Timeline

(a) Approval process

November 2014  Submission of draft TOR of IG-AD to WP29 for consideration
March 2015  Formal approval of TOR of IG-AD
2015-2017  1st STEP: discussions for HADS (excluding full autonomous driving)
2016-2020  2nd STEP: discussions for full autonomous driving

(b) Definition of Automated Driving Technology and recommendation regarding mandate to each GR

March 2015  Submission of outline
June 2015  Submission of preliminary draft
November 2015  Submission of draft Definition and recommendation

March 2015  Submission of outline
June 2015  Submission of preliminary draft
November 2015  Submission of draft Definition

(c) Others

Necessary discussion will be made at appropriate times.