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 2 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) will be identified and the group will 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 fully autonomous driving technologies (driverless vehicle) will be taken forward. This latter activity might be concurrent with step 1 (above).

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

   (a)   Definition of Automated Driving (in the first step)
      (i)   Difference between HAD and full autonomous driving
            *Clarification of terms of "Driver in the loop" / "Driver out of the loop (driver less OK)"
      (ii) List up typical systems / (use case scenario) that would be assumed as HAD
      (iii) Relationship of HAD and those technologies subject to the Vienna Convention
      (iv) Advantages of categorizing HAD in groups from a legal point of view
      (v)   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) 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
      (iii) Broader concept (idea) of the vehicle countermeasures against cyber security (prevention of hacking, tampering)
      (iv) Necessity of system to check the function of 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) Consideration of guidance regarding HAD 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)
      (i)   Exchange of information about the most advanced technology, research results including field tests in each CP.
      (ii) Each CP's information on the national legal system and measures.
      (iii) Each CP's information on events, conventions, etc. for the state-of-the-art HAD.

III. Timeline

November 2014	Submission draft TOR of IG-AD to WP29
March 2015	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