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Convention on Road Traffic (1968)-Automated driving:

Amendment proposal to Article 34 in the 1968 Convention on Road Traffic

Automated driving

Submitted by Belgium, Finland, Luxembourg, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland

This document proposes draft text for amendments to the 1968 Convention on Road Traffic enabling the introduction of automated driving in the territory of Contracting Parties to the Convention.

I. Introduction

- 1. Following the outcomes of the seventy-eight session of WP.1 session (March 2019) and the discussions triggered by the approach of an amendment of the Vienna Convention, bearing in mind that there is an agreement on the general objectives and hence on the need to find quickly a consensus at WP.1, without imposing views to any Party, the WP.1-Informal Group of Experts on Automated Driving (IGEAD) came to the conclusion that an approach, which could trigger common understanding, seems to be the addition of a new article 34 Bis in the Vienna Convention.
- 2. Such approach however can be developed following to paths, namely "Option A" and "Option B" detailed below, accompanied by their respective explanatory memorandum.
- 3. Both proposals are combined into one document in order to reach consensus in the 79th WP.1 session, aiming an adoption of a final text as fast as possible, based on the approach that the final proposal should be at least acceptable to all contracting parties to the Vienna Convention.
- 4. The UK's endorsement of this paper should not necessarily be seen as support for option A.

The enabling amendment

Option A

A. Proposal

- 5. Insert a new Article 34bis, to read:
 - "Article 34bis. Domestic legislation may, for highly or fully automated vehicles, lay down rules, which disregard the requirement that every moving vehicle or combination of vehicles shall have a driver. The following definitions apply:
 - "Automated driving system" refers to a vehicle system that uses both hardware and software to exercise dynamic control of a vehicle on a sustained basis. This system shall comply with all relevant traffic laws and rules applicable to exercising dynamic control.
 - "Highly automated vehicle" refers to a vehicle equipped with an automated driving system. This automated driving system operates within a specific operational design domain for some or all of the journey, without the need for human intervention as a fallback to ensure road safety.
 - "Fully automated vehicle" refers to a vehicle equipped with an automated driving system. This automated driving system operates without any operational design domain limitations for some or all of the journey, without the need for human intervention as a fall-back to ensure road safety.
 - "Dynamic control" refers to carrying out all the real-time operational and tactical functions required to move the vehicle. This includes controlling the vehicle's lateral and longitudinal motion, monitoring the road environment, responding to events in the road traffic environment, and planning and signalling for manoeuvres."

B. Explanatory memorandum

6. At this stage of technological development, and due to the interpretative differences between contracting parties, the legal issues related to regulating vehicle automation should be preferably left to domestic legislation, in a way that it can be taken in consideration the particular infrastructural, cultural and economic reality of every contracting party. In a second phase, when there is more clarity and certainty on what the technology is really capable of, a more general amendment of the convention with the aim of more harmonization between the contracting parties may be envisaged; the exemption of Art. 34 can then, if deemed necessary, be abrogated.

7. Some countries foresee that for fully automated vehicles there will always be a driver, being it a strategic (i.e. choosing the destination) one. Other countries are of the opinion that in fully automated vehicles there is no driver. The consequence of this different view is that these latter countries are blocked by Article 8, §1 of the convention stating that "every vehicle shall have a driver" while the countries who use the "strategic" driver are in conformity with the convention. This exemption is therefore necessary to give the possibility to countries, that are of the view that in fully automated vehicles there is no driver, to adapt their national legislation in order to admit the use of fully automated vehicles without a driver and still being in line with the convention. The purpose of this amendment is thus to create a level playing field between the countries that have different opinions on the obligation to have a driver or not in case of fully automated vehicles. This amendment means to facilitate the domestic regulatory work of countries bound by a determined interpretation of the term "driver" without harming the regulatory work of countries that have a different interpretation thereof.

Option B

A. Proposal

8. Insert a new Article 34bis, to read:

"Article 34bis.

Domestic legislation may set out the rules and exemptions, including those relating to the driver, when the automated driving system of an automated vehicle is active. These rules and exemptions shall conform in substance to the principles of this Convention.

The following definitions apply:

- -"Automated vehicle" refers to a vehicle equipped with an automated driving system which operates for some, or all, of the journey.
- -"Automated driving system" refers to a vehicle system that uses both hardware and software to safely exercise dynamic control of an automated vehicle on a sustained basis.
- -"Dynamic control" refers to carrying out all the real-time operational and tactical functions required to move a vehicle. This includes controlling the vehicle's lateral and longitudinal motion, monitoring the road environment, responding to events in the road traffic environment, and planning and signalling for manoeuvres."

Amend Article 48, to read:

"Article 48

Upon its entry into force, this Convention shall terminate and replace, in relations between the Contracting Parties, the International Convention relative to Motor Traffic and the International Convention relative to Road Traffic, both signed at Paris on 24 April 1926, the Convention on the Regulation of Inter -American Automotive Traffic, opened for signature at Washington on 15 December 1943, and the Convention on Road Traffic, opened for signature at Geneva on 19 September 1949. Nothing in this Convention shall prejudge or prejudice [the interpretation of] any other Convention listed here".

B. Explanatory memorandum

9. The development of automated vehicle technologies is currently at a nascent stage, and there are interpretative differences between contracting parties as to what the 1968 Convention on Road Traffic allows. Therefore, in this early phase it is preferable that the legal issues related to regulating situations where the automated driving system of an automated vehicle is active, and thus exercising dynamic control, should be left to domestic legislation. In this way, contracting parties will be able to create new traffic regulation that

takes consideration of their infrastructural, cultural, legal, and economic factors of every contracting party.

- 10. Any domestic legislation regarding automated vehicles, road traffic flow, and road traffic safety should continue to respect the functional outcomes envisaged by the provisions of the 1968 Convention. Contracting parties should, while recognising the non-binding status of Resolutions, consider any relevant Resolution issued by the Global Forum for Road Traffic Safety.
- 11. The evidence gained from real world use can thus support a second phase of international legislative reform, when there is more clarity and certainty on what the technology is capable of. A more general amendment of the convention, or even a new legally binding instrument that sits alongside or replaces the 1968 Convention, may be developed with the aim of more harmonisation between the contracting parties. In this case, the new Article 34bis, can be abrogated if deemed necessary.
- 12. In addition, this package of amendment seeks to reduce the risk of the inclusion of explicit provisions within the 1968 Convention being perceived as implicit prohibitions within the 1949 Convention on Road Traffic. This change would apply to all provisions, not just those applying to automated vehicles.