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**Convention on Road Traffic (1968)-Automated driving:**

**Amendment proposal to Article 8 in the 1968 Convention on Road Traffic**

### **Discussion document for a package of article-by-article amendments to the 1968 Convention on Road Traffic to support the use of automated vehicles**

**Submitted by the United Kingdom of Great Britain and Northern Ireland\***

This document is an updated version of Informal document No. 2 (March 2019), which proposes amendments to several articles of the 1968 Convention on Road Traffic and poses questions about other articles (and annexes) where changes may be considered.

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\* This work is not a statement of UK Government Policy.

## I. Introduction

1. The UK government position is that neither the 1968 Vienna Convention on Road Traffic or its predecessor, the 1949 Geneva Convention on Road Traffic, need to be amended to enable the use of automated vehicles. That said, a future amendment – or even a new convention – is a valuable option that cannot and should not be dismissed out of hand. The UK recognises the desire of some states-parties to the 1968 Vienna Convention to amend that Convention to provide clarity on the legal use of automated vehicles, and ensure a level playing field that supports the safe deployment of automated vehicles. (notwithstanding the legal status of the Resolution with respect to article 31 of the Vienna Convention on the Law of Treaties).
2. A successful amendment should, in resolving issues experienced by some contracting parties, not create new problems for those contracting parties who are not experiencing those issues, regardless of whether they are contracting parties to the 1968 Convention, 1949 Convention, or both.
3. Trying to change Article 8 alone is unlikely to deliver that clarity and is likely to create contradictions within the 1968 Convention. A successful amendment for automated vehicles should either provide domestic freedoms or consider each provision of the conventions and how they may apply or may not apply to the use of automated vehicles, and then determine how they may need to be amended or supplemented to provide the desired legal clarity.
4. The text below only begins the task of identifying areas where changes or supplements to the existing text are needed. Where those areas have been identified a proposal has been made (drawing from the Resolution, and other amendment proposals). Other elements of the 1968 convention may/will need to be considered in detail as this work is not intended to be a definitive list of changes or areas where change may be needed. A similar exercise will be needed for the 1949 Convention, potentially through a new Protocol or Agreement, to ensure that the Conventions do not diverge unnecessarily.
5. In addition to the initial set of amendments, an annotated version of the list has been provided that explains the rationale for the inclusion, and/or asks questions that will need to be considered.

## II. Identifying areas for change

6. Text in **bold** represents an amendment to the existing text of the 1968 Convention. Deleted text is not included for the sake of clarity. This should not be read as an exhaustive list of the necessary amendments to support the use of automated Vehicles.

Definitions:

(t) “Combination of vehicles” means two or more vehicles, that are coupled through mechanical or other means, which travel on the road as a unit.

(v) “Driver” means any person who, **from inside or outside of the vehicle**, drives a motor vehicle or other vehicle (including **a vehicle with an ADS or a cycle**) **or combination of vehicles**, or who guides cattle, singly or in herds, or flocks, or draught, pack or saddle animals on a road.

(ab) “Dynamic control” means **carrying out all the real-time operational and tactical functions required to manoeuvre a vehicle, including 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.**

(ac) “Driver assistance system” means the combination of hardware and software that assists, but does not replace, the driver in exercising dynamic control.

(ad) “Automated driving system” (ADS) means the combination of hardware and software to safely exercise dynamic control of an automated vehicle on a sustained basis on behalf of the driver.

(ae) “Automated vehicle” means to a motor vehicle equipped with an ADS which operates for some, or all, of the journey.

(af) “road-user” means any person who uses a road, such as a pedestrian, cyclist or driver, and by extension an ADS that has been activated by a driver.

Article 6

2. Road-users, **including drivers and their automated vehicles if the ADS is active**, shall promptly **comply with** all instructions **from law enforcement authorities, and those authorised to direct** traffic.

Article 7

1. Road-users, **including drivers and their automated vehicles if the ADS is active**, shall avoid any behaviour likely to endanger or obstruct traffic, to endanger persons, or to cause damage to public or private property.

2. It is recommended that domestic legislation should provide that road-users, **including drivers and their automated vehicles if the ADS is active**, shall not obstruct traffic or risk making it dangerous by throwing, depositing or leaving any object or substance on the road or by creating any other obstruction on the road. If road-users, **including drivers and their vehicles if the ADS is active**, have been unable to avoid creating an obstruction or danger in that way, they shall take the necessary steps to remove it, **or have it removed**, as soon as possible and, if they cannot remove it immediately, to warn other road-users of its presence.

3. Drivers, **and their automated vehicles if the ADS is active**, shall show extra care, **behaving in a safe and appropriate way** in relation to the most vulnerable road-users, such as pedestrians and cyclists and in particular children, elderly persons and the disabled.

4. Drivers, **and their automated vehicles if the ADS is active**, shall take care that their vehicles do not inconvenience road-users or the occupants of properties bordering on the road, for example, by causing noise or raising dust or smoke where they can avoid doing so.

## Article 8

1. Every moving vehicle, **including those with an ADS**, or combination of vehicles shall have a driver. **The driver may exercise dynamic control himself, with or without the help of a Driver Assistance System, or may delegate dynamic control to an ADS. The driver must be able to activate or deactivate the ADS by way of express command.**

**1bis.** The provisions of this Convention linked to exercising dynamic control do not apply to the driver if the ADS of his vehicle is active.

**1ter.** The ADS, when active, shall comply with the provisions of Chapter II (Rules of the road) applicable to exercising dynamic control.

**1quater.** Any reference in Chapter II to a driver or road user shall, where appropriate to exercising dynamic control, also apply to an automated vehicle and its ADS, when active. An exception is made for the provisions of Article 27, unless the vehicle is a moped, or motorcycle with an ADS.

**1quinquies.** The ADS shall achieve a state that maximises road safety for all road users and supports smooth flow of traffic if:

(a) the ADS requests that driver resumes dynamic control, and he fails to do so within an appropriate time; or

(b) the ADS is forced to terminate its own operation, for whatever reason.

**1sexies.** A driver resuming the dynamic control must continue to fulfil all the requirements which apply to drivers.

2. Every driver shall possess the necessary physical and mental ability and be in a fit physical and mental condition to drive.

4. Every driver of a power-driven vehicle, **including those with an ADS**, shall possess the knowledge and skill necessary for driving his vehicle **including if it is fitted with a driver assistance system or ADS, and have awareness of how to use an ADS should he wish to do so**; however, this requirement shall not be a bar to driving practice by learner-drivers in conformity with domestic legislation.

5. Every driver, regardless of whether inside or outside his vehicle, shall at all times be able to control it, including if using a driver assistance system, or through the use of an ADS, and

(a) shall be acquainted with road traffic and safety regulations;

(b) should be aware of the factors which may affect his ability to control his vehicle such as fatigue, consumption of alcohol or drugs, and taking of medication; and

(c) should be aware of factors that may distract him from exercising control of his vehicle, and/or activating and deactivating his vehicle's ADS

**5bis.** When using a driver assistance system or an ADS, a driver shall be aware and informed of its proper use, meet the requirements for using it, and follow the procedures for its safe use.

**5ter.** Every driver shall at all times be able to guide his animals.

6. A driver of a vehicle shall at all times minimize any activity other than driving. A driver, when his ADS is active, may undertake activities other than driving provided these activities do not prevent him/her from responding safely to demands from the ADS for taking over the driving task, if there is an obligation to do so, Domestic legislation should lay down rules in this.

**6bis** Domestic legislation should lay down rules on the use of mobile telecommunication devices by drivers of vehicles, including when that device is used to command, or remotely exercise dynamic control of, the vehicle. In any case, domestic legislation shall prohibit the driver of that vehicle from holding a mobile telecommunication device while the vehicle is in motion unless in an automated vehicle where the ADS is active.

7. **A driver of an automated vehicle shall be able to activate or deactivate his vehicle's ADS, and be able to communicate with it so as to be able to command it.**

8. **Passengers in a vehicle shall comply with any safety instructions given by the driver, or ADS, as appropriate. Passengers should not distract the driver, unnecessarily, nor should they interfere with the proper operation of the ADS.**

#### Article 13

1. Every driver of a vehicle, **or combination of vehicles**, shall in all circumstances exercise due and proper care and to be at all times in a position to perform all manoeuvres required of him **either**

(a) **by exercising dynamic control** of his vehicle **or combination of vehicles, including when using a driver assistance system; or**

(b) **by delegating dynamic control to his automated vehicle's ADS.**

**1bis.** The driver, **or his automated vehicle when the ADS is active**, shall when adjusting the speed of the vehicle, pay constant regard to the circumstances, in particular the lie of the land, the state of the road, the condition and load of the vehicle, the weather conditions and the density of traffic, so as to be able to stop the vehicle within the range of their forward vision, or sensors, and short of any foreseeable obstruction. The driver, **or his automated vehicle when the ADS is active**, shall slow down and if necessary stop whenever circumstances so require, and particularly **when their awareness of the road traffic environment** is not good.

#### Article 30bis

Passengers shall not be carried in such numbers or in such a way as to interfere with driving or obstruct the driver's view **or interfere with the proper operation of an ADS when it is active.**

#### Article 39

1. Every motor vehicle, every trailer and every combination of vehicles in international traffic shall satisfy the provisions of Annex 5 to this Convention. It shall also be in good working order. When these vehicles are fitted **with driver assistance systems, and/or ADS that are in conformity with nationally and/or internationally recognized vehicle standards relating to construction, performance, and where appropriate approval, and validation**, they shall be deemed to be in conformity with Annex 5.

#### 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 prejudice or prejudice [the interpretation of] any other Convention listed here.**

#### Annex 1

**10. Contracting Parties may refuse to admit to their territories in international traffic, motor vehicles, trailers or combinations of vehicles, including automated vehicles, that are only in conformity with national vehicle standards and not internationally recognized vehicle standards.**

### III. Annotated suggested amendments

Text in **bold** represents an amendment to the existing text of the 1968 Convention. Deleted text is not included for the sake of clarity. This should not be read as an exhaustive list of the necessary amendments to support the use of AVs. Annotations are provided in square brackets with a ‘Note’ prefix, as follows [Note: example text], or with a ‘Question’ prefix, as follows [Question: example text]?

Definitions:

[Note 1: if WP.1 is to amend the 1968 Convention for automated vehicles there are definitions that need to be changed or included as well to accommodate automated vehicles, and other new technology such as platooning. The text below is either proposals for amendment or inclusions].

[Note 2: terminology is going to be key here and as the IGEAD has discussed, the SAE terminology has not worked as well for WP1 or WP29 as it might have done. The joint meeting in February 2019 began the process of codifying a common language, and any amendment should properly reflect that to avoid confusion. To facilitate this document, language from the Resolution has been used].

(t) “Combination of vehicles” means two **or more** vehicles, **that are coupled through mechanical or other means**, which travel on the road as a unit. [Note 3: included to make clear that coupling could be achieved via LIDAR, SONAR, and/or radio-frequency communications as well as through a mechanical connection like a tow bar].

(v) “Driver” means any person who, **from inside or outside of the vehicle**, drives a motor vehicle or other vehicle (including **a vehicle with an ADS or a cycle**) or **combination of vehicles**, or who guides cattle, singly or in herds, or flocks, or draught, pack or saddle animals on a road. [Note 4: this is included to make it clear that remote driving (and remotely commanding an ADS) is acceptable] .

(ab) “Dynamic control” means **carrying out all the real-time operational and tactical functions required to manoeuvre a vehicle, including 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**. [Note 5: using the term dynamic control to align with the Resolution].

(ac) “Driver assistance system” means **the combination of hardware and software that assists, but does not replace, the driver in exercising dynamic control**. [Note 6: included for clarity over what a driver assistance system is and avoid confusion with an ADS].

(ad) “Automated driving system” (ADS) means **the combination of hardware and software to safely exercise dynamic control of an automated vehicle on a sustained basis on behalf of the driver**. [Note 7: included for clarity over what an ADS is. This definition would cover all automated vehicles, rather than just highly and fully automated, and is adapted from the recent Resolution. It also includes the word “safely” to help encourage road traffic safety]

(ae) “Automated vehicle” means **to a motor vehicle equipped with an ADS which operates for some, or all, of the journey**. [Note 8: This definition would cover all automated vehicles, rather than just highly and fully automated, and is adapted from the recent Resolution].

(af) “road-user” means **any person who uses a road, such as a pedestrian, cyclist or driver, and by extension an ADS that has been activated by a driver**. [Note 9: not previously included, so included for clarity and to make sure that rules about dynamic control can apply to an ADS].

Article 6

2. Road-users, **including drivers and their automated vehicles if the ADS is active**, shall promptly **comply with** all instructions **from law enforcement authorities, and those authorised to direct** traffic. [Note 10: change suggested to reflect provisions of the

resolution and avoid teleological arguments] [Question 1: should other references, including the title, to ‘authorised officials’ in Article 6 be adapted in a similar fashion]?

#### Article 7

1. Road-users, **including drivers and their automated vehicles if the ADS is active, shall avoid** any behaviour likely to endanger or obstruct traffic, to endanger persons, or to cause damage to public or private property. [Note 11: change suggested to reflect provisions of the resolution].

2. It is recommended that domestic legislation should provide that road-users, **including drivers and their automated vehicles if the ADS is active**, shall not obstruct traffic or risk making it dangerous by throwing, depositing or leaving any object or substance on the road or by creating any other obstruction on the road. If road-users, **including drivers and their vehicles if the ADS is active**, have been unable to avoid creating an obstruction or danger in that way, they shall take the necessary steps to remove it, **or have it removed**, as soon as possible and, if they cannot remove it immediately, to warn other road-users of its presence. [Note 12: change to ensure the smooth flow of traffic; automated vehicles should not be subject to a lower standard than human drivers].

3. Drivers, **and their automated vehicles if the ADS is active**, shall show extra care, **behaving in a safe and appropriate way** in relation to the most vulnerable road-users, such as pedestrians and cyclists and in particular children, elderly persons and the disabled. [Note 13: change suggested to reflect desirable outcomes]

4. Drivers, **and their automated vehicles if the ADS is active**, shall take care that their vehicles do not inconvenience road-users or the occupants of properties bordering on the road, for example, by causing noise or raising dust or smoke where they can avoid doing so. [Note 14: change suggested to ensure consistency].

#### Article 8

[note 15: changes expand upon suggestions from other amendment proposals].

[note 16: there is a general question about terminology. This document uses terminology from the resolution without drawing too heavily from the SAE and where possible reflects initial thoughts from the UK WP.29 representatives to help create language that reconciles WP1 and WP.29 ambitions].

[note 17: while these proposals are drafted to be agnostic to the level of automation, we note that many people have raised the concerns about the use of conditionally automated vehicles and more discussions may be needed, including with respect to the proposed Resolution on Other Activities].

1. Every moving vehicle, **including those with an ADS**, or combination of vehicles shall have a driver. **The driver may exercise dynamic control himself, with or without the help of a Driver Assistance System or may delegate dynamic control to an ADS. The driver must be able to activate or deactivate the ADS by way of express command.** [Note 18: change suggested to make it clear that an ADS can be used].

**Ibis** The provisions of this Convention linked to exercising dynamic control do not apply to the driver if the ADS of his vehicle is active. [Note 19: change suggested to make it clear that a driver is not exercising dynamic control when his ADS is active].

**Iter** The ADS, when active, shall comply with the provisions of Chapter II (Rules of the road) applicable to exercising dynamic control. [Note 20: reflecting the provisions of the Resolution].

**Iquater** Any reference in Chapter II to a driver or road user shall, where appropriate to exercising dynamic control, also apply to an automated vehicle and its ADS, when active. An exception is made for the provisions of Article 27, unless the vehicle is a moped, or motorcycle with an ADS. [Note 21: included for consistency. The reference to article 27 is to avoid a contradiction].

**Iquinquies** The ADS shall achieve a state that maximises road safety for all road users and supports smooth flow of traffic if:

(a) **the ADS requests that driver resumes dynamic control, and he fails to do so within an appropriate time; or**

(b) **the ADS is forced to terminate its own operation, for whatever reason.**

[Note 22: this reflects comments about the need for a fail-safe or fail-operate where the driver does not resume control within the operational domain (conditionally automated), or when the vehicle leaves the operational domain (highly automated)].

**1sexies A driver resuming the dynamic control must continue to fulfil all the requirements which apply to drivers.** [Note 23: this reflects the Resolution].

2. Every driver shall possess the necessary physical and mental ability and be in a fit physical and mental condition to drive. [Question 2: do we need an equivalent requirement for an automated driving system? What about keeping software up to date, periodic roadworthiness tests, and data storage systems? WP.29 will have thoughts].

4. Every driver of a power-driven vehicle, **including those with an ADS**, shall possess the knowledge and skill necessary for driving **his vehicle including if it is fitted with a driver assistance system or ADS, and have awareness of how to use an ADS should he wish to do so**; however, this requirement shall not be a bar to driving practice by learner-drivers in conformity with domestic legislation. [Note 24: changed for consistency].

5. **Every driver, regardless of whether inside or outside his vehicle, shall at all times be able to control it, including if using a driver assistance system, or through the use of an ADS, and**

(a) **shall be acquainted with road traffic and safety regulations;**

(b) **should be aware of the factors which may affect his ability to control his vehicle such as fatigue, consumption of alcohol or drugs, and taking of medication; and**

(c) **should be aware of factors that may distract him from exercising control of his vehicle, and/or activating and deactivating his vehicle's ADS.**

**5bis. When using a driver assistance system or an ADS, a driver shall be aware and informed of its proper use, meet the requirements for using it, and follow the procedures for its safe use.** [note 25: the amended 5 and 5bis reflect and expand on the provisions of the resolution whereby users need to be able to use the ADS safely].

**5ter Every driver shall at all times be able to guide his animals.** [Note 26: this splits out the role of driver of vehicle and driver of animals to support clarity].

6. A driver of a vehicle shall at all times minimize any activity other than driving. **A driver, when his ADS is active, may undertake activities other than driving provided these activities do not prevent him/her from responding safely to demands from the ADS for taking over the driving task, if there is an obligation to do so, Domestic legislation should lay down rules in this.** [Note 27: this issue is still under discussion by the IGEAD and WP1, and it is far from clear what activities would be safe in that they do not prevent a driver from resuming proper and safe dynamic control. Additional independent, scientifically valid, peer reviewed evidence is needed, and **WP1 agreed that the conventions did not need to be changed to reflect these principles.** However, this formulation reflects the latest thinking from the IGEAD].

**6bis Domestic legislation should lay down rules on the use of mobile telecommunication devices by drivers of vehicles, including when that device is used to command, or remotely exercise dynamic control of, the vehicle.** In any case, domestic legislation shall prohibit **the driver of that vehicle from holding a mobile telecommunication device while the vehicle is in motion unless in an automated vehicle where the ADS is active.** [Note 28: changed from phone to mobile telecommunication device to reflect and cover technological development such as smartphones, tablets, and other internet connected devices, and reflect the use of remote control to facilitate remote drivers for example in remote-control parking functionality].

7. **A driver of an automated vehicle shall be able to activate or deactivate his vehicle's ADS, and be able to communicate with it so as to be able to command it.** [Note 29: change suggested to reflect provisions of the resolution.] [Question 3: WP.29 will have

views on this point; should the emphasis be on the ADS communicating with the driver? This would infer standardised symbols and signals plus, where appropriate, local language options which would support road traffic safety by reducing user confusion. All of this would fall to WP.29 to deliver but WP.1 may be able to facilitate with mirroring text].

8. **Passengers in a vehicle shall comply with any safety instructions given by the driver, or ADS, as appropriate. Passengers should not distract the driver, unnecessarily, nor should they interfere with the proper operation of the ADS.** [Note 30: change suggested to help ensure that passengers, including in an automated vehicle, are less likely to act in a way that reduces road safety].

#### Article 13

1. Every driver of a vehicle, **or combination of vehicles**, shall in all circumstances exercise due and proper care and to be at all times in a position to perform all manoeuvres required of him **either:**

(a) **by exercising dynamic control of his vehicle or combination of vehicles, including when using a driver assistance system; or**

(b) **by delegating dynamic control to his automated vehicle's ADS.** [Note 31: change suggested to ensure consistency] [Question 4: there is an open question about whether or not the ADS may be better placed to make judgements – particularly in critical situations. Therefore, WP1 must take care not to rule out possibilities to improve road safety].

**1bis.** The driver, **or his automated vehicle when the ADS is active**, shall when adjusting the speed of the vehicle, pay constant regard to the circumstances, in particular the lie of the land, the state of the road, the condition and load of the vehicle, the weather conditions and the density of traffic, so as to be able to stop the vehicle within the range of their forward vision, or sensors, and short of any foreseeable obstruction. The driver, **or his automated vehicle when the ADS is active**, shall slow down and if necessary stop whenever circumstances so require, and particularly **when their awareness of the road traffic environment** is not good. [Note 32: change suggested to ensure consistency].

#### Article 20

[Question 5: do we need to make specific rules about stopping pedestrians and other road users from “teasing” automated vehicles? This may necessitate changes to the jaywalking rules while recognising that national circumstances may vary].

#### Article 30bis

Passengers shall not be carried in such numbers or in such a way as to interfere with driving or obstruct the driver's view **or interfere with the proper operation of an ADS when it is active.** [Note 33: change suggested to ensure consistency of outcomes between manually driven vehicles and those using an ADS].

#### Chapter 3

#### Article 35

[Question 6: does this need to be amended to record if the vehicle is an automated vehicle or not? WP.29 will have views; it is understood that the current expectation is that this will be able to be determined by the approval of the vehicle and discernible from documentation at the time of registration, but this would only apply in countries that use Type approval, so we should be as flexible as possible to accommodate different market entry routes].

#### Article 39

1. Every motor vehicle, every trailer and every combination of vehicles in international traffic shall satisfy the provisions of Annex 5 to this Convention. It shall also be in good working order. When these vehicles are fitted **with driver assistance systems, and/or ADS that are in conformity with nationally and/or internationally recognized vehicle standards relating to construction, performance, and where appropriate approval, and validation**, they shall be deemed to be in conformity with Annex 5. [Note 34: restriction to the 1958 or 1998 agreement standards may not be appropriate – especially if there is a desire to capture vehicles built to national standards that deliver equivalent levels of safety to the

UNECE standards, for example, USA Federal Motor Vehicle Safety Standards, and may enable the EU to bring forward vehicles via Article 20 of Framework Directive 2007. This change reflects that. See also text for inclusion to annex 1 below. This is an area for discussion with WP.29].

#### 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 prejudice or prejudice [the interpretation of] any other Convention listed here.** [Note 35: This amendment would give comfort to the Geneva only parties that an explicit change to Vienna would not represent an implicit change to Geneva – this could thus help reduce divergence between the two conventions. This amendment would cover all the provisions of the 1968 Convention, not just automated vehicles] [Question 7: would the inclusion of the words ‘the interpretation of’ improve this amendment]?

#### Annex 1

**10. Contracting Parties may refuse to admit to their territories in international traffic, motor vehicles, trailers or combinations of vehicles, including automated vehicles, that are only in conformity with national vehicle standards and not internationally recognized vehicle standards** [Note 34: included as a counterpoint to the proposed article 39 changes].

#### Annex 4

[Question 8: does this need to be amended to enable us to record whether a vehicle has an ADS or not? This would facilitate the work of traffic management and enforcement organisations, and other aspects of domestic policy work].

#### Annex 5

[Question 9: Several commentators have suggested that automated vehicles should indicate whether they are under ADS control (in other words, in automated mode) or under human control. The indication may be visual (so everyone is aware), or via some other means, for example, a radio beacon (so that only the authorities are aware). Does this need to be included here? WP.29 will have views. WP.1 should note that an indication that is visible to everyone may encourage other road users to “tease” an automated vehicle. That said, options such as a tell-tale light in the driver side rear view mirror – like the blind spot detection warning for the driver are available. WP.1 should engage with WP.29 on this issue].

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