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Convention on Road Traffic (1968):

Automated driving-

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

Convention on Road Traffic (1968)

Submitted by Chair ITU Focus Group on AI for Autonomous and Assisted Driving (FG-AI4AD)*

This document accompanies the presentation covering the updated work of the ITU Focus Group on AI for Autonomous and Assisted Driving (FG-AI4AD) which introduces The Molly Problem and places it in the context of UNECE WP.1 and WP.29 conventions and regulations for highly automated driving. The presentation makes reference to the 32 articles and 132 clauses of the 1968 Convention on Road Traffic which specifically relate to the behavioural expectations of drivers and relevant road users. This informal document provides background as to why these articles and clauses remain relevant for “non-human” drivers and provides some principles, suggestions and references for amending the 1968 Convention on Road Traffic or for inclusion within a new legal instrument.

* The document is reproduced as submitted.

1968 Convention on Road Traffic – Amendments for non-human drivers

Background reasoning

Driverless, self-driving, automated driving system, driving automation systems all point to a future where the dynamic *driving* task can be executed without the need for *human driver* intervention.

The collective technology goal is simple; replace the human as the *driver*.

Academia, specialist companies, and business units of existing companies, are all researching and developing the technology required to create these non-human *drivers*.

Some companies are building integrated systems of software, sensors and computers and retrofitting them to existing vehicles, where these automated driving systems replace the human *driver*.

Other companies are building new robotic vehicle platforms combining software, sensors, computers and actuators. These robotic vehicle platforms are to be *driven* by automated *driving* algorithms which can be fully integrated by the manufacturer or supplied by a third-party ecosystem.

Different manifestations of these non-human *drivers* will continually evolve in line with technology innovation and economic constraints. Yet the conceptual separation between *driver* and vehicle is still remains; drivers drive, vehicles are driven. However, despite the different manifestations it's clear that these new class of *drivers* will always be *non-human*.

The introduction of these non-human *drivers* must improve safety on our roads and therefore, at minimum, they must conform to the same behavioural expectations of *drivers* and *road users* as specified within the Convention on Road Traffic.

Principles for proposed amendment for non-human drivers.

An amendment for non-human drivers should;

- I. maintain the equivalence in behavioural expectations between **all drivers** as a central tenet of Convention on Road Traffic to which all contracting parties accede.
- II. deem a non-human driver to satisfy Article 8.1 only if the non-human entity fulfils the expectations of a driver or relevant road user roles in accordance with the existing Articles of the Convention
- III. include reference to the specific expectations and requirements for drivers or road users within the Convention that must met by "persons" and which remain relevant for non-human drivers
- IV. be located at the end of Chapter IV - DRIVERS OF MOTOR VEHICLES to create clarity that a non-human entity may fulfil the role of a *driver* of motor vehicles
- V. clearly define the physical abilities expected of a driver, within Article 8.3, as being a vehicle attribute to maintain the clear and obvious separation between drivers and vehicles within the Convention.
- VI. clearly define the mental capabilities expected of a driver, within Article 8.3, as being a driver attribute that is equally applicable to non-human drivers.
- VII. require a domestic licensing scheme for non-human drivers (Note: this non-human driving permit would not meet the personal detail requirements laid out in Annex 6, or Annex 7, and would therefore be invalid for driving in international road traffic. Harmonisation of specific non-human driving permits could be considered within future legal instruments).
- VIII. preserve the primacy of the Convention on Road Traffic in establishing the behavioural, safety and performance expectations of drivers
- IX. focus upon the safety related behavioural expectations of the non-human drivers during execution of the driving task within road traffic (post-deployment) to complement existing efforts with UNECE WP.29/GRVA related to verification and validation (pre-deployment) of automated vehicles.

Example amendment for non-human drivers

Chapter I - GENERAL PROVISIONS - ARTICLE 1 Definitions;

- (ab) “Non-human driver” means any entity, other than a person, which drives a motor vehicle or other vehicle (including a cycle) on a road.

Chapter IV - DRIVERS OF MOTOR VEHICLES

Article 43 bis – Non-Human Drivers - The requirements of Article 8.1, that every moving vehicle or combination of vehicles shall have a driver is deemed to be satisfied when a non-human driver substantively meets or exceeds the specifications of the following articles of this Convention;

- *the cognitive ability, knowledge and skill required to execute dynamic control expected of the driver specified in Articles 8.3, 8.4, 8.5. The physical abilities expected of a driver specified in 8.3 are deemed to be a vehicle attribute.*
- *the compliance expected of road users to signs and signals specified in Articles 5.1 and 5.2*
- *the obedience of road users with instructions given by authorised officials specified in Articles 6.2, 6.3 a, b and c, 6.4.*
- *the behavioural expectations for road-users and drivers specified in Articles 7.1, 7.2, 7.3 and 7.4.*
- *the position on the carriageway expectations of drivers specified in Articles 10.1, 10.3, 10.4, 10.5a, 10.5b and 10.6*
- *the movement in traffic and overtaking expectations of drivers specified in Article 11 (all paragraphs: 11.1a, 11.1b, 11.2a, 11.2b, 11.2c, 11.2d, 11.3, 11.4, 11.5a, 11.5b, 11.6, 11.6a, 11.6b, 11.7, 11.8a, 11.8b, 11.9, 11.10, 11.11a and 11.11b)*
- *the passing of oncoming traffic expectations of drivers specified in Article 12 (all paragraphs 12.1 and 12.2)*
- *the speed and distance control expectations of drivers specified in Article 13 (all paragraphs 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.6a and 13.6b)*
- *the maneuverer expectations of drivers specified in Article 14 (all paragraphs 14.1, 14.2 and 14.3)*
- *the expectations for interaction with public transport vehicles specified in Article 15*
- *the change of direction expectations of drivers specified in Article 16 (all paragraphs 16.1, 16.1a, 16.1b and 16.2)*
- *the slowing down expectations of drivers specified in Article 17 (all paragraphs 17.1 and 17.2)*
- *the behavioural expectations at intersections and obligations to give way for drivers specified in Article 18 (all paragraphs 18.1, 18.2, 18.3, 18.4a, 18.4b, 18.5, 18.6 and 18.7)*
- *the behavioural expectations of drivers and road-users at level crossings specified in Article 19 (all paragraphs 19a, 19b, 19c, 19d, 19e)*
- *the behavioural towards pedestrians’ expectations for drivers specified in Article 21 (all paragraphs 21.1 21.2a, 21.2b, 21.3, 21.4)*
- *the behavioural expectations in the presence of islands on the carriageway for drivers specified in Article 22*
- *the standing and parking expectations of drivers specified in Articles 23.1, 23.2a, 23.2b, 23.3a, 23.3b, 23.3c and 23.4*
- *the behavioural expectations of drivers on motorways of similar roads specified in Articles 25.1.b, 25.2, 25.3*
- *the behavioural expectations of drivers in tunnels specified in Article 25 bis (all paragraphs)*
- *the behavioural expectations of road users related to processions specified in Article 26.1*
- *the audible and luminous warning expectations of drivers specified in Article 28.1a, 28.1b and 28.2*
- *the behavioural expectations of road-users interacting with rail-borne vehicles specified in Article 29.1*
- *the requirement of drivers to ensure permissible mass is not exceeded as specified in Article 30.1*
- *the requirements of drivers for the carriage of passengers specified in Article 30 bis*
- *the behavioural expectations of drivers in the case of accident specified in Articles 31.1 a, b, c, d*
- *the requirements on the use of lamps by drivers specified in Article 32.1a, 32.1b, 32.2 a, b and c, 32.3, 32.4, 32.5, 32.7, 32.8, 32.9a, b and c, 32.10 a and b, 32.11, 32.12, 32.13 a and b, 32.14 a and b, 32.15.*
- *the requirements of drivers for use of lighting on other vehicles as specified in Article 33.1*
- *the behavioural expectations of drivers when interacting with priority vehicles specified in Article 34.1*
- *the behavioural expectations of drivers while driving a priority vehicle specified in Article 34.2*
- *the behavioural expectations of drivers when interacting with construction, repair and maintenance road users specified in Article 34.4*
- *the requirements for a driver to hold a driving permit specified in Article 41 a, b, c,*
- *the requirement for a driver to adhere to territory regulations in order to retain a driving permit specified in Article 42.1*

Full List of Articles referenced by example amendment for non-human drivers

The following list includes 32 Articles and 132 Clauses that relate directly to the behavioural expectations of human “drivers” and relevant “road users” which should apply equally to non-human drivers.

Chapter II - RULES OF THE ROAD

ARTICLE 5 - Status of signs and signals

the compliance expected of road users to signs and signals specified in Articles 5.1 and 5.2

1. Road-users shall comply with the instructions conveyed by road signs, traffic light signals and road markings even if the said instructions appear to contradict other traffic regulations.
2. Instructions conveyed by traffic light signals shall take precedence over those conveyed by road signs regulating priority.

ARTICLE 6 - Instructions given by authorized officials

the obedience of road users with instructions given by authorised officials specified in Articles 6.2, 6.3 a, b and c, 6.4.

2. Road-users shall promptly obey all instructions given by authorized officials directing traffic.
3. It is recommended that domestic legislation should provide that directions given by authorized officials directing traffic shall include the following:
 - (a) Arm raised upright: this gesture shall mean "attention, stop" for all road-users except drivers who are no longer able to stop with sufficient safety; further, if made at an intersection, this gesture shall not require drivers already on the intersection to stop;
 - (b) Arm or arms outstretched horizontally; this gesture shall constitute a stop signal for all road-users approaching from any direction which would cut across that indicated by the outstretched arm or arms; after making this gesture, the authorized official directing traffic may lower his arm or arms; this gesture shall likewise constitute a stop signal for drivers in front of or behind the official;
 - (c) Swinging red light: this gesture shall constitute a stop signal for road-users towards whom the light is directed.
4. The instructions given by authorized officials directing traffic shall take precedence over those conveyed by road signs, traffic light signals and road markings, and over traffic regulations.

ARTICLE 7 - General rules

the behavioural expectations for road-users and drivers specified in Articles 7.1, 7.2, 7.3 and 7.4.

1. Road-users 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 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 have been unable to avoid creating an obstruction or danger in that way, they shall take the necessary steps to remove it as soon as possible and, if they cannot remove it immediately, to warn other road-users of its presence.
3. Drivers shall show extra care in relation to the most vulnerable road-users, such as pedestrians and cyclists and in particular children, elderly persons and the disabled.

4. Drivers 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 Drivers

the cognitive ability, knowledge and skill required to execute dynamic control expected of the driver specified in Articles 8.3, 8.4, 8.5. The physical abilities expected of a driver specified in 8.3 are deemed to be a vehicle attribute.

Article 43 bis – Non-Human Drivers - The requirements of Article 8.1, that every moving vehicle or combination of vehicles shall have a driver is deemed to be satisfied when a non-human driver substantively meets or exceeds the specifications of referenced Articles of the Convention.

1. Every moving vehicle or combination of vehicles shall have a driver.
3. 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 shall possess the knowledge and skill necessary for driving the vehicle; however, this requirement shall not be a bar to driving practice by learner-drivers in conformity with domestic legislation.
5. Every driver shall at all times be able to control his vehicle or to guide his animals.

ARTICLE 10 - Position on the carriageway

the position on the carriageway expectations of drivers specified in Articles 10.1, 10.3, 10.4, 10.5a, 10.5b and 10.6

1. The direction of traffic shall be the same on all roads in a State except, where appropriate, on the roads used solely or principally by through traffic between two other States.
3. Without prejudice to the provisions to the contrary of Article 7, paragraph 1, Article 11, paragraph 6, and to other provisions of this Convention to the contrary, every driver of a vehicle shall, to the extent permitted by circumstances, keep his vehicle near the edge of the carriageway appropriate to the direction of traffic. However, Contracting Parties or subdivisions thereof may lay down more precise rules concerning the position of goods vehicles on the carriageway.
4. Where a road comprises two or three carriageways, no driver shall take the carriageway situated on the side opposite to that appropriate to the direction of traffic.
5. (a) On two-way carriageways having four or more lanes, no driver shall take the lanes situated entirely on the half of the carriageway opposite to the side appropriate to the direction of traffic.
(b) On two-way carriageways having three lanes, no driver shall take the lane situated at the edge of the carriageway opposite to that appropriate to the direction of traffic.
6. Without prejudice to the provisions of Article 11 and when an additional lane is indicated by a sign, drivers of vehicles moving slowly shall use that lane.

ARTICLE 11 - Overtaking and movement of traffic in lines

the movement in traffic and overtaking expectations of drivers specified in Article 11 (all paragraphs: 11.1a, 11.1b, 11.2a, 11.2b, 11.2c, 11.2d, 11.3, 11.4, 11.5a, 11.5b, 11.6, 11.6a, 11.6b, 11.7, 11.8a, 11.8b, 11.9, 11.10, 11.11a and 11.11b)

1. (a) Drivers overtaking shall do so on the side opposite to that appropriate to the direction of traffic.
(b) However drivers shall overtake on the side appropriate to the direction of traffic if the driver to be overtaken has signalled his intention to turn to the side of the carriageway opposite to that appropriate to the direction of traffic and has moved his vehicle or animals over towards that side in order to turn to that side for the purpose of taking another road, to enter a property bordering on the road, or to stop on that side.
2. Before overtaking, every driver shall, without prejudice to the provisions of Article 7, paragraph 1, or to those of Article 14, of this Convention, make sure:
 - (a) That no driver who is following him has begun to overtake him;
 - (b) That the driver ahead of him in the same lane has not given warning of his intention to overtake another;
 - (c) That he can do it without endangering or interfering with the oncoming traffic making sure in particular that the lane which he will enter is free over a sufficient distance and that the relative speed of the two vehicles allows overtaking within a sufficiently short time; and
 - (d) That, except when using a lane closed to oncoming traffic, he will be able, without inconvenience to the road-user or road-users overtaken, to resume the position prescribed in Article 10, paragraph 3, of this Convention.
3. In pursuance of the provisions of paragraph 2 of this Article, overtaking on two-way carriageways is in particular prohibited when approaching the crest of a hill and, if visibility is inadequate, on bends, unless there are at these points lanes defined by longitudinal road markings and overtaking is carried out without leaving the lanes marked as closed to oncoming traffic.
4. When overtaking, a driver shall give the road-user or road-users overtaken a sufficiently wide berth.
5. (a) On carriageways with at least two lanes reserved for traffic moving in the direction in which he is proceeding, a driver who should be obliged, immediately or shortly after moving back to the position prescribed by Article 10, paragraph 3, of this Convention, to overtake again may, in order to perform that manoeuvre, and provided he makes sure he can do so without undue inconvenience to the drivers of faster vehicles approaching from behind, remain in the lane he has occupied for the first overtaking manoeuvre.
(b) However, Contracting Parties or subdivisions thereof shall be free not to apply the provisions of this paragraph to the drivers of cycles, mopeds, motor cycles and vehicles which are not motor vehicles within the meaning of this Convention, or to the drivers of motor vehicles whose permissible maximum mass exceeds 3,500 kg or whose maximum speed, by design, cannot exceed 40 km (25 miles) per hour.
6. Where the provisions of subparagraph 5 (a) of this Article are applicable and the density of traffic is such that vehicles not only occupy the entire width of the carriageway reserved for traffic taking the direction in which they are moving but also are moving only at a speed which is governed by that of the vehicle preceding them in the line:
 - (a) Without prejudice to the provisions of paragraph 9 of this Article, the movement of the vehicles in one line at a higher speed than that of those in another shall not be deemed to constitute overtaking within the meaning of this Article;
 - (b) A driver not in the lane nearest to the edge of the carriageway appropriate to the direction of traffic may change lanes only in order to

- prepare to turn right or left or to park; however, this requirement shall not apply to changes of lane effected by drivers in accordance with domestic legislation resulting from the application of the provisions of paragraph 5 (b) of this Article.
7. When moving in lines as described in paragraphs 5 and 6 of this Article, drivers are forbidden, if the lanes are indicated on the carriageway by longitudinal markings, to straddle these markings.
 8. Without prejudice to the provisions of paragraph 2 of this Article and to other restrictions which Contracting Parties or subdivisions thereof may lay down concerning overtaking at intersections and at level-crossings, no driver of a vehicle shall overtake a vehicle other than a two-wheeled cycle, a two-wheeled moped or a two-wheeled motor cycle without side-car:
 - (a) Immediately before or on an intersection other than a roundabout, except:
 - (i) In the case provided for in paragraph 1 (b) of this Article;
 - (ii) Where the road on which overtaking takes place has priority at the intersection;
 - (iii) Where traffic is directed at the intersection by an authorized official or by traffic light signals;
 - (b) Immediately before or on a level-crossing not equipped with gates or half-gates, provided however that Contracting Parties or subdivisions thereof shall be free to permit such overtaking at a level-crossing where road traffic is regulated by traffic light signals incorporating a positive signal authorizing vehicles to proceed.
 9. A vehicle shall not overtake another vehicle which is approaching a pedestrian crossing marked on the carriageway or signposted as such, or which is stopped immediately before the crossing, otherwise than at a speed low enough to enable it to stop immediately if a pedestrian is on the crossing. Nothing in this paragraph shall be construed as preventing Contracting Parties or subdivisions thereof from prohibiting overtaking within a prescribed distance from a pedestrian crossing, or from imposing stricter requirements on a driver of a vehicle proposing to overtake another vehicle stopped immediately before such a crossing.
 10. A driver who perceives that a driver following him wishes to overtake him shall, except in the case provided for in Article 16, paragraph 1 (b) of this Convention, keep close to the edge of the carriageway appropriate to the direction of traffic and refrain from accelerating. If, owing to the narrowness, profile or condition of the carriageway, taken in conjunction with the density of oncoming traffic, a vehicle which is slow or bulky or is required to observe a speed limit cannot be easily and safely overtaken, the driver of such vehicle shall slow down and if necessary pull in to the side as soon as possible in order to allow vehicles following him to overtake.
 11. (a) Contracting Parties or subdivisions thereof may, on one-way carriageways and on two-way carriageways where at least two lanes in built-up areas and three lanes outside built-up areas are reserved for traffic in the same direction and are indicated by longitudinal markings:
 - (i) Allow vehicles in one lane to overtake on the side appropriate to the direction of traffic vehicles in another lane; and
 - (ii) Make inapplicable the provisions of Article 10, paragraph 3, of this Convention;

provided that there are adequate restrictions on the possibility of changing lanes;

 - (b) In the case referred to in subparagraph (a) of this paragraph, without prejudice to the provisions of paragraph 9 of this Article, the

manner of driving provided for shall not be deemed to constitute overtaking within the meaning of this Convention.

ARTICLE 12 - Passing of oncoming traffic

the passing of oncoming traffic expectations of drivers specified in Article 12 (all paragraphs 12.1 and 12.2)

1. When passing oncoming traffic, a driver shall leave sufficient lateral space and, if necessary, move close to the edge of the carriageway appropriate to the direction of traffic. If in so doing he finds his progress impeded by an obstruction or by the presence of other road-users, he shall slow down and if necessary stop to allow the oncoming road-user or road-users to pass.
2. On mountain roads and steep roads with characteristics similar to those of mountain roads, where the passing of oncoming traffic is impossible or difficult, it is the driver of the vehicle travelling downhill who should pull in to the side of the road in order to allow any vehicle proceeding uphill to pass, except where the arrangement of lay-bys to enable vehicles to pull in to the side of the road is such that, having regard to the speed and position of the vehicles, the vehicle proceeding uphill has a lay-by ahead of it and the need for one of the vehicles to reverse could be avoided if the vehicle proceeding uphill pulled in to that lay-by. Where one of the two vehicles which are about to pass is obliged to reverse in order to make passing possible, this manoeuvre shall be performed by the driver of the vehicle proceeding downhill unless it can manifestly be more easily performed by the driver of the vehicle proceeding uphill. However, Contracting Parties or subdivisions thereof may prescribe for certain vehicles or certain roads or sections of roads special rules differing from those laid down in this paragraph.

ARTICLE 13 - Speed and distance between vehicles

the speed and distance control expectations of drivers specified in Article 13 (all paragraphs 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.6a and 13.6b)

1. Every driver of a vehicle shall in all circumstances have his vehicle under control so as to be able to exercise due and proper care and to be at all times in a position to perform all manoeuvres required of him. He shall, when adjusting the speed of his vehicle, pay constant regard to the circumstances, in particular the lie of the land, the state of the road, the condition and load of his vehicle, the weather conditions and the density of traffic, so as to be able to stop his vehicle within his range of forward vision and short of any foreseeable obstruction. He shall slow down and if necessary stop whenever circumstances so require, and particularly when visibility is not good.
2. Domestic legislation shall establish maximum speed limits for all roads. Domestic legislation shall also determine special speed limits applicable to certain categories of vehicles presenting a special danger, in particular by reason of their mass or their load. They may establish similar provisions for certain categories of drivers, in particular for new drivers.
3. The provisions set out in the first sentence of paragraph 2 may not apply to drivers of priority vehicles referred to in article 34, paragraph 2, or vehicles treated as such in domestic legislation.
4. No driver shall impede the normal progress of other vehicles by travelling abnormally slowly without proper cause.
5. The driver of a vehicle moving behind another vehicle shall keep at a sufficient distance from that other vehicle to avoid collision if the vehicle in front should suddenly slow down or stop.
6. Outside built-up areas, in order to facilitate overtaking, drivers of vehicles or combinations of vehicles of more than 3,500 kg permissible maximum mass, or of more than 10 m overall length, shall, except when they are overtaking or preparing to overtake, keep at such distance from power-driven vehicles ahead of them that other vehicles overtaking them can without danger move into the space in front of the overtaken vehicle. However, this provision shall not apply in very dense traffic or in circumstances where overtaking is prohibited. In addition:
 - (a) The competent authorities may exempt certain conveyances of vehicles from this provision, or may similarly make it inapplicable on roads where two lanes are allotted to traffic in the direction concerned;
 - (b) Contracting Parties and subdivisions thereof may prescribe different figures from those given in this paragraph with respect to the vehicle characteristics concerned.

ARTICLE 14 - General requirements governing manoeuvres

the maneuverer expectations of drivers specified in Article 14 (all paragraphs 14.1, 14.2 and 14.3)

1. Any driver wishing to perform a manoeuvre such as pulling out of or into a line of parked vehicles, moving over to the right or to the left on the carriageway, or turning left or right into another road or into a property bordering on the road, shall first make sure that he can do so without risk of endangering other road-users travelling behind or ahead of him or about to pass him, having regard to their position, direction and speed.
2. Any driver wishing to make a U-turn or to reverse shall first make sure that he can do so without endangering or impeding other road-users.
3. Before turning or before a manoeuvre which involves moving laterally, the driver shall give clear and sufficient warning of his intention by means of the direction-indicator or direction-indicators on his vehicle, or, failing this, by giving if possible an appropriate signal with his arm. The warning given by the direction-indicator or direction-indicators shall continue to be given throughout the manoeuvre and shall cease as soon as the manoeuvre is completed.

ARTICLE 15 - Special regulations relating to regular public-transport service vehicles

the expectations for interaction with public transport vehicles specified in Article 15

It is recommended that domestic legislation should provide that in built-up areas, in order to facilitate the movement of regular public-transport service vehicles, the drivers of other vehicles shall, subject to the provisions of Article 17, paragraph 1, of this Convention, slow down and if necessary stop in order to allow the public-transport vehicles to perform the manoeuvre required for moving off from stops marked as such. The provisions thus laid down by Contracting Parties or subdivisions thereof shall in no way affect the duty incumbent on drivers of public-transport vehicles to take, after having given warning by means of their direction-indicators of their intention to move off, the precautions necessary to avoid any risk of accident.

ARTICLE 16 - Change of direction

the change of direction expectations of drivers specified in Article 16 (all paragraphs 16.1, 16.1a, 16.1b and 16.2)

1. Before turning right or left for the purpose of entering another road or entering a property bordering on the road, a driver shall, without prejudice to the provisions of Article 7, paragraph 1, and of Article 14, of this Convention:
 - (a) If he wishes to turn off on the side appropriate to the direction of traffic, keep as close as possible to the edge of the carriageway appropriate to that direction and make as tight a turn as possible;
 - (b) If he wishes to turn off on the other side, and subject to such other provisions as Contracting Parties or subdivisions thereof may enact for cycles and mopeds, move as close as possible to the centreline of the carriageway if it is a two-way carriageway or to the edge opposite to the side appropriate to the direction of traffic if it is a one-way carriageway and, if he wishes to enter another two-way road, make his turn so as to enter the carriageway of such other road on the side appropriate to the direction of traffic.

2. While changing direction, the driver shall, without prejudice to the provisions of Article 21 of this Convention regarding pedestrians, allow oncoming vehicles on the carriageway he is preparing to leave, and cycles and mopeds moving on cycle tracks crossing the carriageway he is about to enter, to pass.

ARTICLE 17 - Slowing down

the slowing down expectations of drivers specified in Article 17 (all paragraphs 17.1 and 17.2)

1. No driver of a vehicle shall brake abruptly unless it is necessary to do so for safety reasons.
2. Every driver intending to slow down to an appreciable extent shall, except where his slowing down is in response to an imminent danger, first make sure that he can do so without danger or undue inconvenience to other drivers. He shall also, unless he has made sure that there is no vehicle following him or that any following vehicle is a long way behind, give clear and timely warning of his intention by making an appropriate signal with his arm. However, this provision shall not apply if warning of slowing down is given by the vehicle's stop lights, referred to in Annex 5, paragraph 31, of this Convention.

ARTICLE 18 - Intersections and obligation to give way

the behavioural expectations at intersections and obligations to give way for drivers specified in Article 18 (all paragraphs 18.1, 18.2, 18.3, 18.4a, 18.4b, 18.5, 18.6 and 18.7)

1. Every driver approaching an intersection shall exercise such extra care as may be appropriate to local conditions. Drivers of vehicles shall, in particular, drive at such a speed as to be able to stop to allow vehicles having the right of way to pass.
2. Every driver emerging from a path or an earth-track (dirt road) on to a road other than a path or an earth-track shall give way to vehicles travelling on that road. For the purposes of this Article the terms "path" and "earth-track" (dirt road) may be defined in domestic legislation.
3. Every driver emerging on to a road from a property bordering thereon shall give way to vehicles travelling on that road.
4. Subject to the provisions of paragraph 7 of this Article:
 - (a) In States where traffic keeps to the right the driver of a vehicle shall give way, at intersections other than those specified in paragraph 2 of this Article and in Article 25, paragraphs 2 and 4 of this Convention, to vehicles approaching from his right;
 - (b) Contracting Parties or subdivisions thereof in whose territories traffic keeps to the left shall be free to regulate the right of way at intersections as they see fit.
5. Even if traffic light signals authorize him to do so, a driver shall not enter an intersection if the density of traffic is such that he will probably be obliged to stop on the intersection, thereby obstructing or preventing the passage of cross traffic.
6. A driver who has entered an intersection where traffic is regulated by traffic light signals may clear the intersection without waiting for the way to be opened in the direction in which he wishes to proceed, provided that this does not impede the progress of other road-users moving in the open direction.
7. Drivers of vehicles not moving on rails shall give way to rail-borne vehicles

ARTICLE 19 - Level-crossings

the behavioural expectations of drivers and road-users at level crossings specified in Article 19 (all paragraphs 19a, 19b, 19c, 19d, 19e)

Road-users shall exercise extra care in approaching and traversing level-crossings. In particular:

- (a) Every driver of a vehicle shall drive at a moderate speed;
- (b) Without prejudice to the obligation to obey an instruction to stop given by a light signal or a sound signal, no road-user shall enter a level-crossing at which the gates or half-gates are across the road or in process of being placed across the road, or at which the half-gates are in process of being raised;
- (c) If a level-crossing is not equipped with gates, half-gates or light signals, no road-user shall enter it without making sure that no rail-borne vehicle is approaching;
- (d) No driver shall enter a level-crossing without first ascertaining that he may not be obliged to stop on it;
- (e) No road-user shall linger while traversing a level crossing; if a vehicle is compelled to stop, its driver shall endeavour to move it off the track, and, if he is unable to do so, immediately do everything he can to ensure that the drivers of rail-borne vehicles are warned of the danger in time.

ARTICLE 21 - Behaviour of drivers towards pedestrians

the behavioural towards pedestrians' expectations for drivers specified in Article 21 (all paragraphs 21.1 21.2a, 21.2b, 21.3, 21.4)

1. Every driver shall avoid behaviour likely to endanger pedestrians.
2. Without prejudice to the provisions of Article 7, paragraph 1, Article 11, paragraph 9, and Article 13, paragraph 1, of this Convention, where there is on the carriageway a pedestrian crossing signposted as such or indicated by markings on the carriageway:
 - (a) If vehicular traffic is regulated at that crossing by traffic light signals or by an authorized official, drivers forbidden to proceed shall stop short of the crossing or the transverse markings preceding it and, when they are permitted to proceed, shall not prevent or obstruct the passage of pedestrians who have stepped on to it; drivers turning into another road at the entrance to which there is a pedestrian crossing shall do so slowly and give way, if necessary stopping for this purpose, to pedestrians already using, or about to use, the crossing;
 - (b) If vehicular traffic is not regulated at that crossing by traffic light signals or by an authorized official, drivers shall approach the crossing only at a speed low enough not to endanger pedestrians using, or about to use, it; if necessary, they shall stop to allow such pedestrians to cross.
3. No provision of this Article shall be construed as preventing Contracting Parties or subdivisions thereof from:

Requiring drivers of vehicles to stop in all cases when pedestrians are using, or about to use, a pedestrian crossing signposted as such or indicated by markings on the carriageway in the conditions laid down in Article 20 of this Convention, or

Prohibiting them from preventing or obstructing the passage of pedestrians who are crossing the carriageway at or very near an intersection even if

there is at that point no pedestrian crossing signposted as such or indicated by markings on the carriageway.

4. Drivers intending to overtake, on the side appropriate to the direction of traffic, a public transport vehicle at a stop marked as such shall slow down and if necessary stop to allow passengers to board or alight from that vehicle.

ARTICLE 22 - Islands on the carriageway

the behavioural expectations in the presence of islands on the carriageway for drivers specified in Article 22

Without prejudice to the provisions of Article 10 of this Convention, a driver may pass to the left or to the right of islands, posts and other devices set up on the carriageway on which he is travelling, except in the following cases:

- (a) Where the side on which the island, post or device shall be passed is indicated by a sign;
- (b) Where the island, post or device is on the centre-line of a two-way carriageway; in this case the driver shall keep to the side of the island, post or device corresponding to the direction of traffic.

ARTICLE 23 - Standing and parking

the standing and parking expectations of drivers specified in Articles 23.1, 23.2a, 23.2b, 23.3a, 23.3b, 23.3c and 23.4

1. Outside built-up areas, standing or parked vehicles and halted animals shall so far as possible be stationed elsewhere than on the carriageway. In and outside built-up areas they shall not be stationed on cycle tracks, on pavements or on verges specially provided for pedestrian traffic, save where applicable domestic legislation so permits.
2. (a) Animals halted and vehicles standing or parked on the carriageway shall be kept as close as possible to the edge of the carriageway. A driver shall not stand or park his vehicle on a carriageway save on the side appropriate, for him, to the direction of traffic; nevertheless, standing or parking on the other side shall be permitted where standing or parking on the side appropriate to the direction of traffic is prevented by the presence of rail tracks. Moreover, Contracting Parties or subdivisions thereof may:
 - (i) Refrain from prohibiting standing and parking on one side or the other in certain conditions, for instance where standing on the side appropriate to the direction of traffic is prohibited by road signs;
 - (ii) On one-way carriageways, authorize standing and parking on the other side as well as or instead of on the side appropriate to the direction of traffic;
 - (iii) Authorize standing and parking in the middle of the carriageway at places specially marked;
- (b) Save where domestic legislation provides otherwise, vehicles other than two-wheeled cycles, two-wheeled mopeds and two-wheeled motor cycles without side-car shall not stand or be parked two abreast on the carriageway. Standing or parked vehicles shall, unless the layout of the area permits otherwise, be placed parallel to the edge of the carriageway.
3. (a) The standing or parking of a vehicle on the carriageway shall be prohibited:
 - (i) On pedestrian crossings, on crossings for cyclists, and on level-crossings;

- (ii) On tramway or railway tracks on a road or so close to such tracks that the movement of trams or trains might be impeded, and also, subject to the possibility for Contracting Parties or subdivisions thereof to provide otherwise, on pavements and cycle tracks;
- (b) The standing or parking of a vehicle at any point where it would constitute a danger shall be prohibited, more particularly:
- (i) Save in such spaces as may be specially marked, under flyovers and in tunnels;
 - (ii) On the carriageway, close to the crests of hills, and on bends where visibility is not sufficient for the vehicle to be overtaken in complete safety, having regard to the speed of vehicles on the section of the road in question;
 - (iii) On a carriageway beside a longitudinal road marking, where subparagraph (b) (ii) of this paragraph does not apply but the width of the carriageway between the marking and the vehicle is less than 3 m and the marking is such that vehicles approaching it on the same side are forbidden to cross it;
 - (iv) At any place where the vehicle would conceal road signs or traffic light signals from the view of road-users;
 - (v) On an additional lane indicated by a sign for slowly moving vehicles;
- (c) The parking of a vehicle on the carriageway shall be prohibited:
- (i) On approaches to level-crossings, to intersections and to bus, trolley-bus or rail-vehicle stops; within the distances prescribed by domestic legislation;
 - (ii) In front of vehicle entries to properties;
 - (iii) At any point where the parked vehicle would prevent access to another vehicle properly parked or prevent such other vehicle from moving out;
 - (iv) On the central carriageway of three-carriageway roads and, outside built-up areas, on the carriageways of roads marked as priority roads by appropriate signs.
4. A driver shall not leave his vehicle or his animals without having taken all suitable precautions to avoid any accident and, in the case of a motor vehicle, to prevent its unauthorized use.

ARTICLE 25 - Motorways and similar roads

the behavioural expectations of drivers on motorways of similar roads specified in Articles 25.1.b, 25.2, 25.3

1. On motorways and, if so provided in domestic legislation, on special approach roads to and exit roads from motorways:
 - (b) Drivers shall be forbidden:
 - (i) To have their vehicles standing or parked elsewhere than at marked parking sites; if a vehicle is compelled to stop, its driver shall endeavour to move it off the carriageway and also off the flush verge and, if he is unable to do so, immediately signal the presence of the vehicle at a distance so as to warn approaching drivers in time;
 - (ii) To make U-turns, to travel in reverse, and to drive on to the central dividing strip, including the crossovers linking the two carriageways.

2. Drivers emerging on to a motorway shall give way to vehicles travelling on it. If there is an acceleration lane, they shall use it.
3. A driver leaving a motorway shall move into the traffic lane appropriate to the motorway exit in good time and enter the deceleration lane, if there is one, as soon as he can.

ARTICLE 25 bis - Special regulations for tunnels indicated by special road signs

the behavioural expectations of drivers in tunnels specified in Article 25 bis (all paragraphs)

In tunnels indicated by the special road signs, the following rules shall apply:

1. All drivers are forbidden:
 - (a) to reverse;
 - (b) to make a U-turn;
 - (c) to stop or to park a vehicle except at the places indicated for that purpose.
2. Even if the tunnel is lit, all drivers must switch on the driving or passing lamps.
3. In case of a prolonged stoppage the driver must switch off the engine.

ARTICLE 26 - Special rules applicable to processions and handicapped persons

the behavioural expectations of road users related to processions specified in Article 26.1

1. It shall be prohibited for road-users to cut across troop columns, files of school-children accompanied by a person in charge, and other processions.

ARTICLE 28 - Audible and luminous warnings

the audible and luminous warning expectations of drivers specified in Article 28.1a, 28.1b and 28.2

1. Audible warning devices may be used only:
 - (a) To give due warning with a view to avoiding an accident;
 - (b) Outside built-up areas when it is desirable to warn a driver that he is about to be overtaken.The sounds emitted by audible warning devices shall not be prolonged more than necessary.
2. Motor-vehicle drivers may give the luminous warnings specified in Article 32, paragraph 3, of this Convention, instead of audible warnings, between nightfall and dawn. They may also do so in daylight hours for the purpose indicated in paragraph 1(b) of this Article, if to do so is more appropriate in the prevailing circumstances.

ARTICLE 29 - Rail-borne vehicles

the behavioural expectations of road-users interacting with rail-borne vehicles specified in Article 29.1

1. Where a railway uses a carriageway, every road-user shall, on the approach of a tram or other rail-borne vehicle clear the track as soon as possible to allow the rail-borne vehicle to pass.

ARTICLE 30 - Loading of vehicles

the requirement of drivers to ensure permissible mass is not exceeded as specified in Article 30.1

1. If a permissible maximum mass is laid down for a vehicle, the laden mass of the vehicle shall never exceed the permissible maximum mass.

ARTICLE 30 bis - Carriage of passengers

the requirements of drivers for the carriage of passengers specified in Article 30 bis

Passengers shall not be carried in such numbers or in such a way as to interfere with driving or obstruct the driver's view.

ARTICLE 31 - Behaviour in case of accident

the behavioural expectations of drivers in the case of accident specified in Articles 31.1 a, b, c, d

1. Without prejudice to the provisions of domestic legislation concerning the obligation to assist the injured, every driver or other road-user involved in a traffic accident shall:
 - (a) Stop as soon as he can do so without causing an additional danger to traffic;
 - (b) Endeavour to ensure traffic safety at the site of the accident and, if a person has been killed or seriously injured in the accident, to

prevent, in so far as such action does not affect traffic safety, any change in conditions at the site, including the disappearance of traces which might be useful for determining responsibilities;

(c) If so requested by other persons involved in the accident, identify himself to them;

(d) If a person has been injured or killed in the accident, notify the police and remain on the scene of the accident or return to it and wait there until the arrival of the police, unless he has been authorized by the police to leave or has to assist the injured or to receive attention himself.

ARTICLE 32 - Rules of the use of lamps

the requirements on the use of lamps by drivers specified in Article 32.1a, 32.1b, 32.2 a, b and c, 32.3, 32.4, 32.5, 32.7, 32.8, 32.9a, b and c, 32.10 a and b, 32.11, 32.12, 32.13 a and b, 32.14 a and b, 32.15.

1. Between nightfall and dawn and in any other circumstances when visibility is inadequate on account, for example, of fog, snowfall or heavy rain, the following lamps shall be lit on a moving vehicle:
 - (a) On power-driven vehicles and mopeds the driving lamp(s) or passing lamp(s) and the rear position lamp(s), according to the equipment prescribed by the present Convention for the vehicle of each category;
 - (b) On trailers, front position lamps, if such lamps are required according to Annex 5, paragraph 30, of this Convention, and not less than two rear position lamps.
2. Driving lamps shall be switched off and replaced by passing lamps:
 - (a) In built-up areas where the road is adequately lighted and outside built-up areas where the carriageway is continuously lighted and the lighting is sufficient to enable the driver to see clearly for an adequate distance and to enable other road-users to see the vehicle far enough away;
 - (b) When a driver is about to pass another vehicle, so as to prevent dazzle far enough away to enable the driver of the other vehicle to proceed easily and without danger;
 - (c) In any other circumstances in which it is necessary to avoid dazzling other road-users or the users of a waterway or railway running alongside the road.
3. When, however, a vehicle is following closely behind another vehicle, driving lamps may be used to give a luminous warning as referred to in Article 28, paragraph 2, of the intention to overtake.
4. Fog lamps may be lit only in thick fog, falling snow, heavy rain or similar conditions and, as regards front fog lamps, as a substitute for passing lamps. Domestic legislation may authorize the simultaneous use of front fog lamps and passing lamps and the use of front fog lamps on narrow, winding roads.
5. On vehicles equipped with front position lamps, such lamps shall be used together with the driving lamps, the passing lamps or the front fog lamps.
7. Domestic legislation may make it compulsory for drivers of motor vehicles to use during the day either passing lamps or daytime running lamps. Rear position lamps shall in this case be used together with the front lamps.
8. Between nightfall and dawn and in any other circumstances when visibility is inadequate, the presence of power-driven vehicles and their trailers standing or parked on a road shall be indicated by front and rear position lamps. In thick fog, falling snow, heavy rain or similar conditions

- passing lamps or front fog lamps may be used. Rear fog lamps may in these conditions be used as a supplement to the rear position lamps.
9. Notwithstanding the provisions of paragraph 8 of this Article, within a built-up area the front and rear position lamps may be replaced by parking lamps, provided that:
- (a) The vehicle does not exceed 6 m in length and 2 m in width;
 - (b) No trailer is coupled to the vehicle;
 - (c) The parking lamps are placed on that side of the vehicle which is furthest from the carriageway edge alongside which the vehicle is standing or parked.
10. Notwithstanding the provisions of paragraphs 8 and 9 of this Article, a vehicle may be standing or parked without any lamps lit:
- (a) On a road lit in such a way that the vehicle is clearly visible at an adequate distance;
 - (b) Away from the carriageway and hard shoulder;
11. Domestic legislation may grant exemptions from the provisions of paragraphs 8 and 9 of this Article for vehicles standing or parked in streets in built-up areas where there is very little traffic.
12. Reversing lamps may be used only when the vehicle is reversing or about to reverse.
13. Hazard warning signal may be used only to warn other road-users of a particular danger:
- (a) When a vehicle which has broken down or has been involved in an accident cannot be moved immediately, so that it constitutes an obstacle to other road-users;
 - (b) When indicating to other road-users the risk of an imminent danger.
14. Special warning lamps:
- (a) Displaying a blue light may be used only on priority vehicles when carrying out an urgent mission or when in other cases it is necessary to give warning to other road-users of the presence of the vehicle;
 - (b) Displaying an amber light may be used only when the vehicles genuinely assigned to the specific tasks for which they were equipped with the special warning lamp or when the presence of such vehicles on the road constitutes a danger or inconvenience to other road-users.
- The use of warning lamps displaying other colours may be authorized by domestic legislation.
15. In no circumstances shall a vehicle display a red light to the front or white light to the rear, subject to the exemptions mentioned in Annex 5, paragraph 61. A vehicle shall not be modified or lamps added to it in a way which could conflict with this requirement.

ARTICLE 33 - Rules of lighting of other vehicles than mentioned in Article 32 and of certain road users

the requirements of drivers for use of lighting on other vehicles as specified in Article 33.1

1. Every vehicle or combination of vehicles to which the provisions of Article 32 of this Convention do not apply shall, when on a road between nightfall and dawn, show at least one white or selective-yellow light to the front and at least one red light to the rear. Where there is only one lamp at the front or only one lamp at the rear, the lamp shall be placed

on the centre-line of the vehicle or on the side opposite to that corresponding to the direction of traffic.

ARTICLE 34 - Exemptions

the behavioural expectations of drivers when interacting with priority vehicles specified in Article 34.1, the behavioural expectations of drivers while driving a priority vehicle specified in Article 34.2, the behavioural expectations of drivers when interacting with construction, repair and maintenance road users specified in Article 34.4

1. When warned of the approach of a priority vehicle by its special luminous and audible warning devices every road-user shall leave room clear for it to pass on the carriageway and shall, if necessary, stop.
2. Domestic legislation may provide that drivers of priority vehicles shall not be bound, when warning of their movement is given by the vehicle's special warning devices, and provided that they do not endanger other road-users, to comply with all or any of the provisions of this Chapter II other than those of Article 6, paragraph 2.
4. For the purpose of overtaking or passing the equipment referred to in paragraph 3 of this Article while it is engaged in work on the road, the drivers of other vehicles may, to the extent necessary and on conditions that they take all due precautions, disregard the requirements of Articles 11 and 12 of this Convention.

Chapter IV - DRIVERS OF MOTOR VEHICLES

ARTICLE 41 - Driving permits

the requirements for a driver to hold a driving permit specified in Article 41 a, b, c,

1. (a) Every driver of a motor vehicle must hold a driving permit;
- (b) Contracting Parties undertake to ensure that driving permits are issued only after verification by the competent authorities that the driver possesses the required knowledge and skill;
- (c) Domestic legislation must lay down requirements for obtaining a driving permit;

ARTICLE 42 - Suspension of the validity of driving permits

the requirement for a driver to adhere to territory regulations in order to retain a driving permit specified in Article 42.1

1. Contracting Parties or subdivisions thereof may withdraw from a driver the right to use his domestic or international driving permit in their territories if he commits in their territories a breach of their regulations rendering him liable under their legislations to the forfeiture of his permit. In such a case the competent authority of the Contracting Party or subdivision thereof withdrawing the right to use the permit may:
 - (a) Withdraw and retain the permit until the period of the withdrawal of use expires or until the holder leaves its territory, whichever is the earlier;
 - (b) Notify the withdrawal of the right to use the permit to the authority by or on behalf of which the permit was issued;
 - (c) In the case of an international permit, enter in the space provided for the purpose an endorsement to the effect that the permit is no longer valid in its territories;

(d) Where it has not applied the procedure for which provision is made in subparagraph (a) of this paragraph, supplement the communication referred to in subparagraph (b) by requesting the authority which issued the permit, or on behalf of which the permit was issued, to notify the person concerned of the decision taken with regard to him.
