

***Pre-event to the Global Ministerial Conference on Road Safety
UNECE Global Forum for Road Traffic Safety and Russian Federation***

***Driver's and road user's safety: from the current policies to
automated driving***

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Road Safety - A multi-sectoral approach: the French experience

- *The Interministerial Delegate for Road Safety, appointed by the Prime Minister, is under the authority of the Minister of the Interior*
- *Technical advisers made available by other ministries involved in the road safety policy: Justice, National Education, Health, Labour, etc..*
- *A National Interministerial Observatory of Road Safety*
- *This organisation since 1972*

The major axis of the road safety policy – WP 1 activities

■ *Behaviour*

- *Training and education (in schools and driving schools) + driving licence issuance systems*
- *Enforcement (automatised procedure): more than 4000 devices in France (speeding, red traffic light, etc..)*
- *Campaigning*

■ *Infrastructure*

- *Road infrastructure safety management – Focus in the EU on the protection of the most vulnerable users*

■ *Vehicles safety:*

- *Promotion of safety devices in the car such as ABS, ESP, etc..*

Automation: Public interest – Media - Institutions

- *People like new technologies, automation and robotization: autonomous driving is making a dream come true.*
- *Media often provide information on this issue, keeping people dreaming.*
- *Institutions of all countries are mobilized to face this challenge: automation and autonomous driving represent a « revolution » in the automotive industry and above all, for road safety policies.*

Are institutions ready?

- *First of all, institutions think about legislation and regulations;*
- *At international level: UNECE legal instruments, namely Technical Agreements and Conventions on Road Traffic;*
- *Lot of meetings of groups and sub-groups...*
- *The regulatory framework has to be prepared « in parallel » to the arrival of new technologies/automated functions in the vehicles;*
- *The administrative time shall be more connected to the industry time...sometimes nowadays, the first seems to be quicker than the second;*

International Conventions on Road Traffic

- *Convention of 24 April 1926 of Paris on road traffic and of 30 March 1931 of Paris on road signs and signals.*
- *Convention of 1943 on Inter-American road traffic.*
- *Both of those Conventions have merged → Conventions of 19 septembre 1949 of Geneva on road traffic and road signs + « it is necessary to ensure also road safety... ».*
- *To go further on harmonisation: the Geneva Convention → Conventions of 8 November 1968 of Vienna (same objectives).*

International Conventions on Road Traffic

- **2 Conventions on road traffic « managed » by WP 1: Geneva 1949 and Vienna 1968;**
- **Objectives: harmonisation of traffic rules and road safety;**
- **Article 8 of Vienna Convention: driver in control, what was the meaning?**
- **During the 71st WP 1 session (October 2015) an informal group of experts on automated driving (IGEAD) has been set up;**
- **European countries + Japan + USA + Canada are members; countries + European Commission (observer) + OICA + CLEPA.**

International Conventions on road traffic: towards automated driving

- **Article 8.1**
“Every moving vehicle or combination of vehicles shall have a driver.”
- **Article 1, (v)**
“Driver” means any person who drives a motor vehicle or other vehicle (including a cycle), or who guides cattle, singly or in herds, or flocks, or draught, pack or saddle animals on a road;
- **Article 8.6**
“A driver of a vehicle shall at all times minimize any activity other than driving. Domestic legislation should lay down rules on the use of phones by drivers of vehicles. In any case, legislation shall prohibit the use by a driver of a motor vehicle or moped of a hand-held phone while the vehicle is in motion.”
- **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.”



International Conventions on road traffic vs Advanced Driver Assistance Systems (ADAS)/Automated driving - Achievements

- April 2014 : Global Forum adopts amendments of Article 8 and 39 of the 1968 Convention on Road Traffic (23 March 2016 into force);

*“8.5bis. Vehicle systems which influence the way vehicles are driven shall be deemed to be in conformity with paragraph 5 of this Article and with paragraph 1 of Article 13, when they are in conformity with the conditions of construction, fitting and utilization according to international legal instruments concerning wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles**

Vehicle systems which influence the way vehicles are driven and are not in conformity with the aforementioned conditions of construction, fitting and utilization, shall be deemed to be in conformity with paragraph 5 of this Article and with paragraph 1 of Article 13, when such systems can be overridden or switched off by the driver.”

International Conventions on road traffic vs Advanced Driver Assistance Systems (ADAS)/Automated driving - Achievements

*“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 systems, parts and equipment that are in conformity with the conditions of construction, fitting and utilization according to technical provisions of international legal instruments referred to in Article 8, paragraph 5bis of this Convention, they shall be deemed to be in conformity with Annex 5.**”*



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International Conventions on road traffic vs automated driving - Achievements

April 2016 : Experiments.

- *“Decision” of the global forum for road traffic safety:*
- *“there is no need for amendments of the conventions of 1949 and 1968 for experiments with automated vehicles under the condition that a person is ready and able to take control of the vehicle (in or outside the vehicle).”*



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International Conventions on road traffic vs automated driving - Achievements

March 2017 : other activities than driving

“Decision” of the global forum for road traffic safety:

“When the vehicle is driven by vehicle systems that do not require the driver to perform the driving task, the driver can engage in activities other than driving as long as:

Principle 1: these activities do not prevent the driver from responding to demands from the vehicle systems for taking over the driving task, and

Principle 2: these activities are consistent with the prescribed use of the vehicle systems and their defined functions.”

International Conventions on road traffic vs automated driving - Achievements

- ***October 2018 : Global Forum adopts resolution on the deployment of highly and fully automated vehicles in traffic.***

IV. Recommendations for automated driving systems in highly and fully automated vehicles

- ***make road safety a priority;***
- ***endeavour to safely tolerate errors of the vehicles' users, inside and outside of the vehicle, and of other road users in order to minimize potential effects of such errors;***
- ***comply with traffic rules;***
- ***Only operate within their ODD.***

International Conventions on road traffic vs automated driving - Achievements

V. Recommendations for users of automated driving systems in highly and fully automated vehicles

- *be aware and informed of their proper use prior to starting the journey;*
- *meet the requirements for their safe use and follow the procedures for their use;*
- *understand if, and when, it is necessary to exercise dynamic control to complete a journey. If the user is required to exercise dynamic control, or chooses to do so, they must:*
 - hold the necessary driving permits;*
 - comply with traffic rules.*
 - act lawfully at all times so as not to compromise road safety regardless of whether they or automated driving systems are exercising the dynamic control.*



International Conventions on road traffic vs automated driving

- Perspectives

- ***September 2019 : some countries can start automated driving in interpreting the Vienna Convention, some need to amend the Convention;***
- ***“Decision” taken:***
 - ***to continue discussing an amendment to the Vienna Convention, for countries needing it;***
 - ***to submit a joint proposal at the next session, i.e. in March 2020, which does not hinder some other countries from “interpreting” the Conventions;***
 - ***to set up a formal group of experts on preparing a new Convention on the use of automated vehicles in road traffic.***

Automated driving in WP 1 - Perspectives

Next issues:

- *Information of the driver;*
- *New technologies to be included in the training of the driving licence applicant?*
- *What, when, by whom?*
- *New practical training?*
- *New driving licence issuing standards?*
- *All manufacturers work on that ;*
- *For sure it is an issue to be addressed by WP 1, but also at European level = the European Commission (DL Directive) and at national level as well.*

<http://www.securite-routiere.gouv.fr/>

Thank you for your attention

