

# Safety Assessment and Autonomous Driving Regulation – a UNECE WP.1\WP.29 perspective

Henrik Främmunds, Senior Officer, Automated Vehicles

Hans-Yngve Berg, M.Sc., Ph.D

Associate Professor

# Status, Vehicle regulations for Type approval (TA)

- EC Type Approval, "EU", Framework directive 2018/858
  - Automated driving system (ADS) of fully automated vehicles (Small series) 2022/1426, In Force
  - **Ongoing activities:** TA Guideline, Unlimited series
- ECE Type Approval, UN WP29, Regulations, according to 1958 agreement
  - ALKS R157, In Force (Jan 2021)
  - Amendment R157, Jan 2023
  - **Ongoing activities:** [FRAV & VMAD] Guideline for requirements and validation methods for AD vehicles

# My presentation

- The UNECE Inland Transport Committee
- The Global Forum For Road Traffic Safety (WP.1)



# The UNECE Inland Transport Committee (ITC)

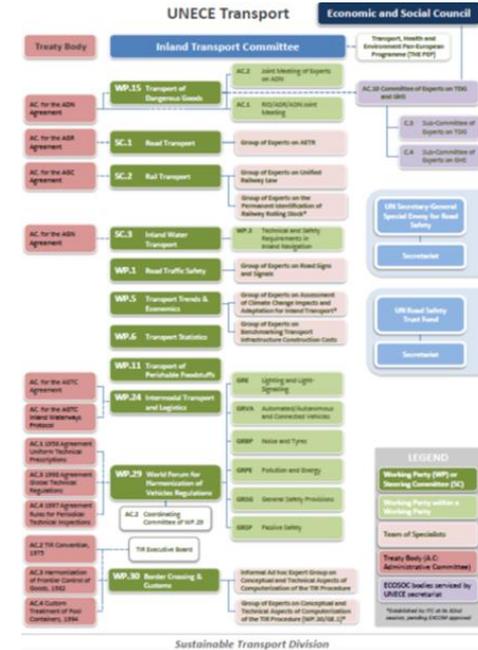
- One committee of five regional commissions under the jurisdiction of **United Nations Economic Commission for Europe (ECE or UNECE)** (1947).
- Platform for states to come together to forge tools for economic cooperation, integration, negotiations and adopt international legal instruments.
- Aiming to develop efficient, harmonized and integrated, safe and sustainable inland transport systems.
- Of the 193 United Nations Member States, 151 States (78%) are Contracting Parties to at least one legal instrument on inland transport.



# The UNECE Inland Transport Committee

The actual work in ITC is carried out by subsidiary bodies:

- Working parties (WP)
- Active Committees (AC)
- Sub Committees (SC)
- Expert groups (GE)
- Informal working groups (IG)
- Collaboration between contracting parties



# Examples of subsidiary bodies

- Harmonization of Vehicle Regulations (WP.29)
- Transport of Perishable Foodstuffs (WP.11)
- Transport of Dangerous Goods (WP.15)
- Transport Trends and Economics (WP.5)
- Transport Statistics (WP.6)
- Road Transport (SC.1)
- Road Traffic Safety (WP.1)
- Rail Transport (SC.2)
- Intermodal Transport and Logistics (WP.24)
- Inland Water Transport (SC.3)
- Customs Questions affecting Transport (WP.30)
- Etc.....

# The legal instruments – the most powerful toolbox

## Legally binding

- Conventions
- Protocols
- Global Technical Regulations
- Agreements
- Standards

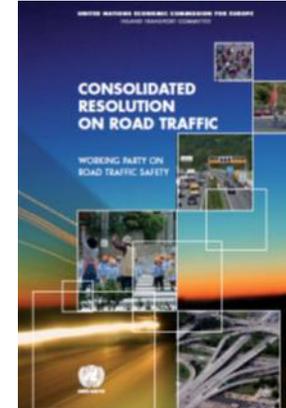
## Not legally binding

- Resolutions
- Recommendations
- Handbooks
- Etc.



UNECE

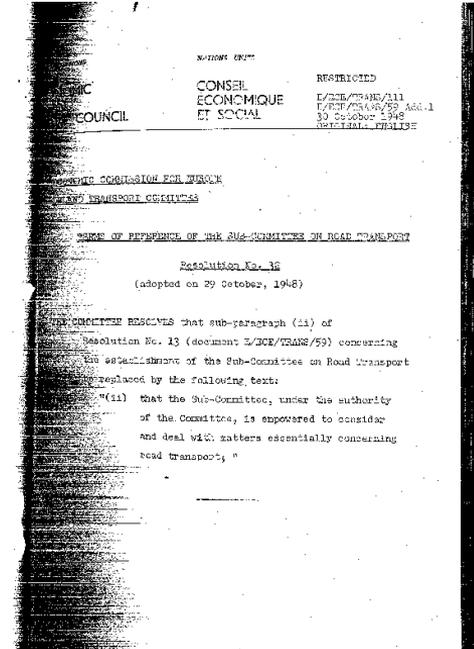
Global Forum for Road Traffic Safety (WP.1)  
Resolution on the Deployment of Highly and Fully Automated Vehicles in Road Traffic



# The Global Forum For Road Traffic Safety (WP.1)

*"that the Sub-Committee, under the authority of the Committee, is empowered to consider and deal with matters essentially concerning road transport"*

From: ITC Resolution No. 12,  
October 29, 1948



# UN Sustainable Development Goals

## The task for WP.1 in the ITC-strategy 2020-2030



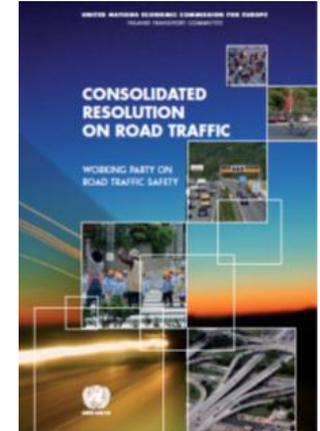
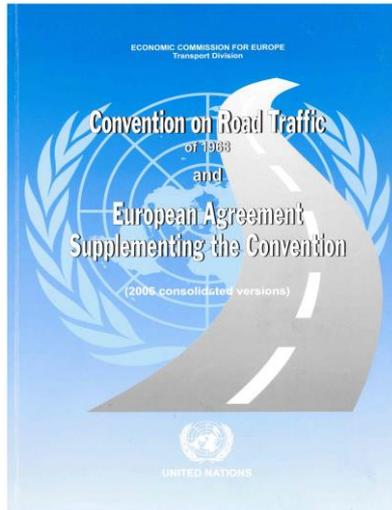
Goal 3.6: By 2020\*, halve the number of *global deaths and injuries* from road traffic accidents

Goal 11.2: By 2030, provide access to *safe*, affordable, accessible and sustainable transport systems for all. Improving road safety – notably by expanding public transport – with special attention to the needs of those in vulnerable situations: women, children, persons with disabilities and older persons

**\*UN resolution 74/299 - Improving global road safety**  
“Proclaims the period 2021–2030 as the Second Decade of Action for Road Safety, with a goal of reducing road traffic deaths and injuries by at least 50 per cent from 2021 to 2030....”  
<https://undocs.org/en/A/RES/74/299>

<https://sustainabledevelopment.un.org/?menu=1300>

# WP.1: The Global Forum for Road Traffic Safety, 1968 and 1949 conventions on road traffic and resolutions



# Article 8 paragraph 1 in the 1968 convention on road traffic

Only human drivers!

## Drivers

§1. *Every moving vehicle or combination of vehicles shall have a driver.*



# Amendment to the 1968 convention on road traffic - new article 34bis

## § 34bis

### **Automated driving**

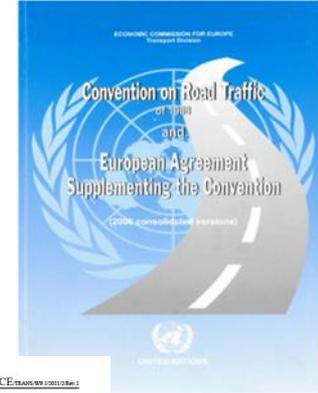
*The requirement that every moving vehicle or combination of vehicles shall have a driver is deemed to be satisfied while the vehicle is using an automated driving system which complies with:*

- (a) domestic technical regulations, and any applicable international legal instrument, concerning wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles, and*
- (b) domestic legislation governing operation.*

*The effect of this article is limited to the territory of the contracting party where the relevant domestic technical regulations and legislation governing operation apply."*

# What is ongoing in WP.1 regarding AV?

- New article 34bis (in force from July 2022)
- Drafting of a new Legal Instrument on the use of Automated Vehicles in traffic (LIAV)
- Resolution "Other activities" (Adopted September 2022)
- Remote operation as a complement to AVS
- Etc.



United Nations  
Economic and Social Council  
E/CN.3/WP.1/2022/Rev.1  
Date Issued:  
29 June 2022  
Original: English

Economic Commission for Europe  
Inland Transport Committee  
Global Forum for Road Traffic Safety  
Eighty-fifth session  
Geneva, 30-31 September 2022  
Item 10(i) (2) of the provisional agenda  
Convention on Road Traffic (1949)  
Automated driving: Vehicles with automated driving systems:  
The coverage of activities other than driving

Global Forum for Road Traffic Safety (WP.1) resolution on safety considerations for activities other than driving undertaken by drivers when automated driving systems issuing transition demands exercise dynamic control

Submitted by Canada, Finland, France, Germany, Japan, Luxembourg, Netherlands, Sweden, and United Kingdom

At its last session, WP.1 completed its discussion and agreed on the text of ECE/TRANS/WP.1/2022/Rev.1, which is contained in the annexed paper ECE/TRANS/WP.1/2022/Rev.1 in English, French, and Russian in a parallel table of this session. This document contains WP.1 resolution on "activities other than driving" in the context of automated driving.

08.22-10112022

Please visit 

# ”Automated Driving Systems in SE

## REGULATIONS

### COMMISSION IMPLEMENTING REGULATION (EU) 2022/1426 of 5 August 2022

laying down rules for the application of Regulation (EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of the automated driving system (ADS) of fully automated vehicles



(7)

Subject to the provisions of Regulation (EU) 2018/858 and any relevant EU legislation, this regulation is without prejudice to the right of Member States to regulate the circulation and the safety of operation of fully automated vehicles in traffic and the safety of operation of those vehicles in local transport services.....

# Necessary for automated traffic in Sweden (or not)?



## § 34bis

### Automated driving

*The requirement that every moving vehicle or combination of vehicles shall have a driver is deemed to be satisfied while the vehicle is using an automated driving system which complies with*

*(a) domestic technical regulations, and any applicable international legal instrument, concerning wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles, and*

*(b) domestic legislation governing operation.*

*The effect of this article is limited to the territory of the contracting party where the relevant domestic technical regulations and legislation governing operation apply."*

## Liability

Ansvarsfrågan vid automatiserad körning samt nya regler i syfte att främja en ökad användning av geostaket

Ds 2021:28

Vägen till självkörande fordon  
– introduktion, Del 1



STYRETTENAMNET AV  
UPPDRAGS- OCH  
FORSKNING  
FÖRORDNINGEN  
2021:28

SWEDISH  
TRANSPORT  
AGENCY  
2021-08-18

Regulate the circulation and the safety of operation of fully automated vehicles in traffic and the safety of operation of those vehicles in local transport services

# Why a new legal instrument as opposed to an amendment to the existing conventions?

- It is very difficult to make amendments to the Geneva Convention and if only the Vienna Convention is amended, there would be divergence between the conventions.
- *A complement* to the Geneva Convention and the Vienna Convention

# WP.1/GE.3 - LIAV

WP.1 has established that both the Geneva and Vienna (as amended) Conventions do not prevent deployment of automated vehicles but their provisions are focused on a human driver. By this an international legal instrument setting binding requirements on its parties is needed to:

- 1) harmonising rules on use of these vehicles to ensure safe use in international road traffic;
- 2) provide clear expectations on vehicle capability for manufacturers to ensure they meet requirements for driver delegation of responsibilities;
- 3) support enforcement of road traffic rules for vehicles registered in other countries, namely regarding access to data needed to determine liabilities;
- 4) ensure a flexible international legal framework which enables safe deployment without stifling innovation
- 5) address the risks identified by contracting parties including those relating to the role and responsibility of driver and vehicle

**Thank you!**