



## SUSTAINABLE INLAND TRANSPORT



# UNECE

Antonio Erario WP.29 Vice-Chair 20 I 02 I 2020, Geneva

# Latest Developments in Vehicle Regulations

Report by the WP.29 Vice-Chair

**Vehicle Automation** 

#### 

#### Vehicle automation

- Restructuring of WP.29 and establishment of the Working Party on Automated/Autonomous and Connected Vehicles, GRVA
- Framework Document on Automated/Autonomous Vehicles
  - Safety and security of automated vehicles of SAE levels 3 and higher
  - Fosters performance based and technical neutral provisions, not restricting future developments
  - Provisions in agreement neutral way as basis for regulative acts under the three vehicle agreements
    - Safety vision for automated vehicles
    - Common principles (system safety, failsafe response, object detection and response, operational domain, cyber security, software updates or data storage systems)
- Establishment of four new Informal Working Groups (IWG)
  - Functional requirements for automated vehicles
  - Validation methods for automated driving technologies
  - Data Storage System for Automated driving (DSSAD)
  - Cyber Security and Software updates, including Over-the-Air



**1958 Agreement** 

#### **INLAND TRANSPORT COMMITTEE**

- Lightning Regulations Simplification
  - Twenty-one individual UN Regulations now covered by three new UN Regulations
    - UN Regulation No. 148 on Light Signaling devices
    - UN Regulation No. 149 on Road Illumination Devices
    - UN Regulation No. 150 on Retro-Reflective Devices
- Advanced Driver Assistant Systems
  - New UN Regulation No. 151 (Blind-Spot Information System) for detection of bicycles by heavy duty vehicles
  - New UN Regulation No. 152 on Advanced Emergency Braking Systems (M<sub>1</sub>/N<sub>1</sub>) for active crash avoidance (stationary and moving objects and pedestrian)
- Update of existing UN Regulations
  - 139 amendments to existing UN Regulations adopted to keep pace with technological innovations and introduce more stringent limits for increased safety and environmental performance of vehicles.





**1997 Agreement** 

#### INLAND TRANSPORT COMMITTEE

- Amendments to the 1997 Agreement entered into force
  - Enhanced clarity of provisions
    - Introduction of new definitions
  - Digitalization
    - Possibility for electronic international inspection certificate
  - Enhanced level of quality
    - Introduction of requirements for the conformity of the periodic technical inspection process

#### Two new UN Rules annexed to the 1997 Agreement entered into force

- UN Rule No. 3 on periodic technical inspections of CNG/LPG/LNG powered vehicles
- UN Rule No. 4 on periodic technical inspections for electric and hybrid-electric vehicles







**1998 Agreement** 

#### **INLAND TRANSPORT COMMITTEE**

- Amendments to Global technical Regulations (UN GTRs)
  - UN GTR No. 2 on Worldwide Motorcycle emission Test Cycle (WMTC)
  - UN GTR No. 15 on Worldwide harmonized Light vehicle Test Procedure (WLTP)
  - UN GTR No. 19 on Evaporate Emission Test for Worldwide harmonized Light Duty Test Procedure (WLTP EVAP)
- New draft UN GTR on the Determination of Electrified Vehicle Power





# $\mathbf{\mathbf{k}}$

**INLAND TRANSPORT COMMITTEE** 



# **Thank you!**