



INLAND TRANSPORT COMMITTEE



# **The World Forum for the Harmonization of Vehicle Regulations (WP.29)**

## **The UN 1997 Agreement**

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# United Nations Economic Commission for Europe UNECE

UNECE is:

- a United Nations agency
- part of the UN Secretariat
- One of the five regional economic commissions of the United Nations established under UN ECOSOC
- Custodian of 59 Conventions for inland transport



# World Forum For Harmonization of Vehicle Regulations, WP.29

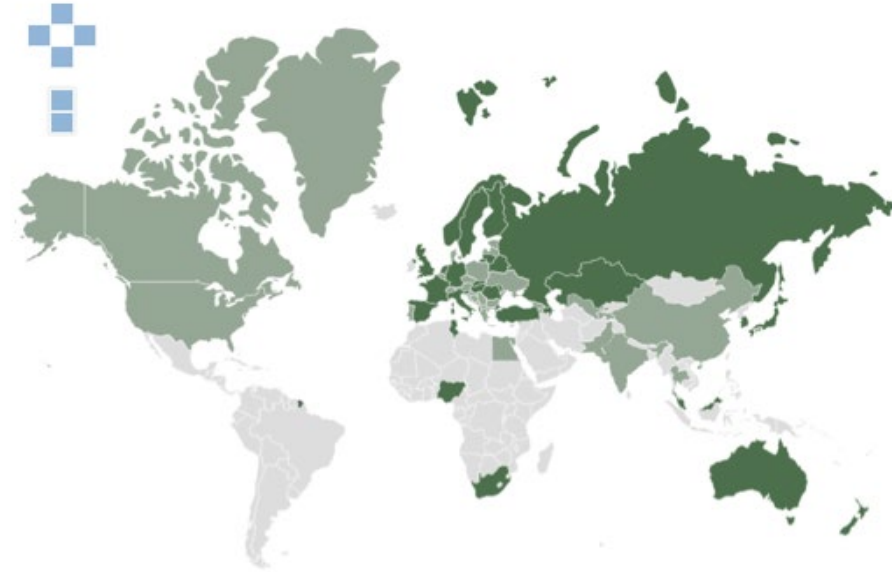
- UNECE Sustainable Transport Division: secretariat to WP.29 for more than 50 years
- WP.29 is:
  - the unique worldwide regulatory forum for the automotive sector
  - administrating three Multilateral UN Agreements



**Construction regulations**  
**1958 Agreement** – Type Approval Regulations with mutual recognition of the type approvals  
**1998 Agreement** – Global Technical Regulations



**In Use PTI regulations**  
**1997 Agreement** – Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of Such Inspection



## What is WP.29 doing?



Emissions of pollutants and CO<sub>2</sub>



General safety



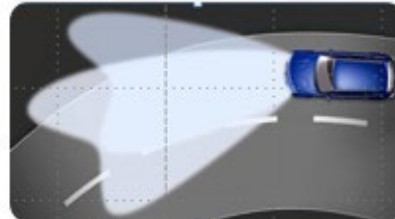
Passive safety



Noise and tyres



Automated/autonomous and connected vehicles



Lighting and light signalling

## WP.29 and SDGs



# Periodic Technical Inspection PTI

## 1997 Agreement



# Why Periodic Technical Inspections

- So called “low hanging fruit”
- Immediate effect on road safety
- Covers existing fleet

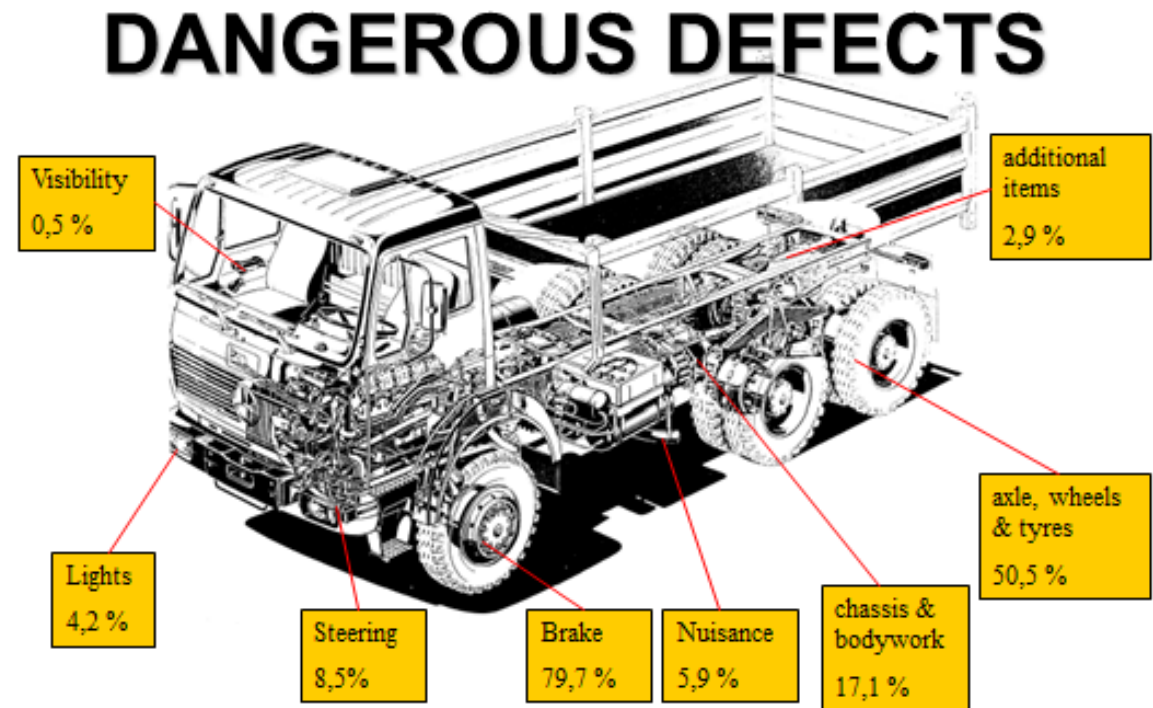


# Why does it matter?

## Why PTI ?

- Evidence base:
  - Technical defects related to fatal accidents (based on in-depth accident analysis)
    - 8 to 15% in high income countries (EU)
    - 15 to 25% in middle income countries
- 1997 Agreement?
  - New specifications for new technologies

Example of results of technical roadside inspections  
(Austria '08)

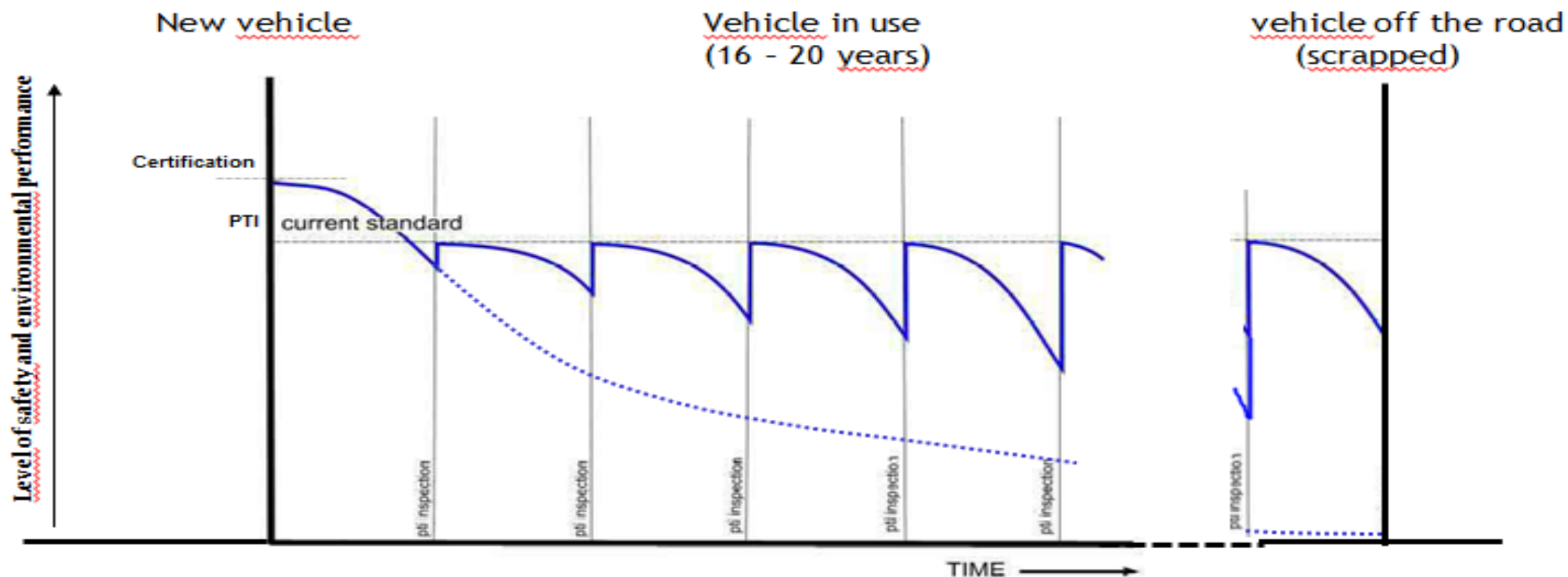


# Why Periodic Technical Inspections

## Vehicle Lifecycle

Vehicle certification

Periodic Technical Inspection



# Principal Elements of the 1997 Agreement

Eligible Contracting Parties to the 1997 Agreement:

Members of UN



The 1997 Agreement provides:

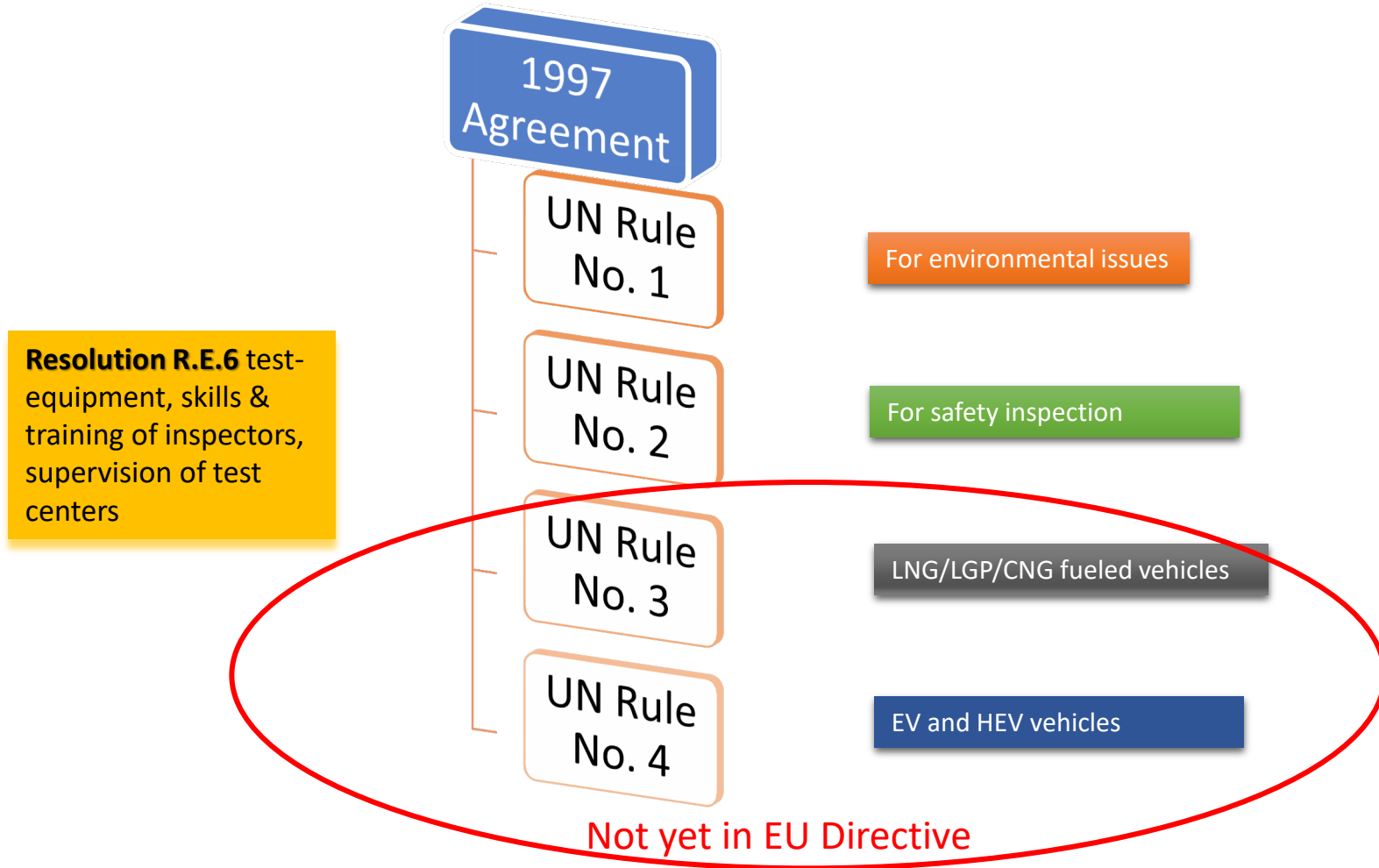
Legal framework for the adoption of uniform UN Rules for PTI of vehicles in use - cars, vans, trucks, buses and heavy trailers  
(Test frequency, test items, test methods, examples of main defects, assessment of defects according to risk)

Reciprocal recognition of certificates of such inspections for cross-border use of vehicles





# Principal Elements of the 1997 Agreement



# 1997 Agreement alignment with Directive 2014/45/EU

- Amendments to the agreement
  - Including definitions of roadworthiness and approval,
  - Deficiencies, inspector, competent authority
  - Test center and supervising body
  - ....
- Possibility of electronic Inspection Certificates
- Amendment to content of inspection certificate (mileage at test)
- New Appendix on Conformity of periodic technical inspection process
  - System for authorisation, supervision, withdrawal, suspension or cancellation of authorisation including requirements for
  - Testing facilities and equipment; testing centres, inspectors and supervision



# 1997 Agreement – Rules Nos. 1 and 2

- Rule 1 focuses on environmental issues
  - Pollutant emissions, noise and leakages
- Rule 2 focuses on safety related issues
  - Identification of the vehicle;
  - Braking equipment;
  - Steering;
  - Visibility;
  - Lighting equipment and parts of electric system;
  - Axles, wheels, tyres, suspension;
  - Chassis and chassis attachments;
  - Other equipment;
  - Additional inspections of vehicles for the commercial carriage of passengers.
- Contains: scope, test frequency, inspection items, test methods, reason for failures and guidance on assessment of defects



# 1997 Agreement – Rules Nos. 1 and 2

- Latest amendments to the Rules
  - Extend scope to M1 and N1 vehicles
  - Maximum intervals between two consecutive inspections (M1, N1: 4-2-2; N2,N3,M2,M3,O3,O4 and taxis & ambulances 1-1-1)
  - System of severity of defects (minor-major dangerous)
  - Clear assessment of defects according to their severity
  - Final assessment of vehicle in accordance with the most severe defect (taking into consideration combined effects of defects)
  - Introduce testing of electronic controlled systems



# 1997 Agreement – Rule 1 & Rule 2

## 3. Periodicity of technical inspections

<i>Vehicle Categories</i>	<i>Maximum Inspection Intervals</i>
<b>Passenger-carrying motor vehicles: M<sub>1</sub>, except taxis and ambulances</b>	<b>Four years after the first entry into service of the first registration and every two years thereafter</b>
<b>Goods vehicles: N<sub>1</sub></b>	
Passenger-carrying motor vehicles: M <sub>1</sub> used as taxi or ambulances, M <sub>2</sub> and M <sub>3</sub>	One year after the first entry into service of <b>the first</b> registration and annually thereafter-
Goods vehicles: N <sub>2</sub> and N <sub>3</sub>	
<b>Trailers: O<sub>3</sub> and O<sub>4</sub></b>	



# 1997 Agreement – Rule 1 & Rule 2


**7.2. Deficiencies that are found during periodic testings of vehicles shall be categorised in one of the following groups:**

- (a) "*Minor deficiencies*" having no significant effect on the safety of the vehicle or impact on the environment, and other minor non-compliances;**
- (b) "*Major deficiencies*" that may prejudice the safety of the vehicle or have an impact on the environment or put other road users at risk, or other more significant non-compliances;**
- (c) "*Dangerous deficiencies*", constituting a direct and immediate risk to road safety or having an impact on the environment which justifies that, a Member State or its competent authorities may prohibit the use of the vehicle on public roads.**

**7.3. A vehicle having deficiencies falling into more than one of the deficiency groups referred to in paragraph 7.2. above shall be classified in the group corresponding to the more serious deficiency. A vehicle showing several deficiencies within the same inspection area as identified in the scope of the test referred to in paragraph 2 of Annex I, may be classified in the next most serious deficiency group if it can be demonstrated that the combined effect of those deficiencies results in a higher risk to road safety.**



# 1997 Agreement – Rule 1 & Rule 2

			<i>Minor</i>	<i>Major</i>	<i>Dangerous</i>
 <p>2.1.2. Steering gear casing attachment</p>	<p>With vehicle on a pit or hoist and the weight of the vehicle road wheels on the ground, rotate steering / handle bar wheel clockwise and anticlockwise or using a specially adapted wheel play detector. Visual inspection of the attachment of gear casing to chassis.</p>	(a) Steering gear casing not properly attached. Attachments dangerously loose or relative movement to chassis/bodywork visible.		X	X
		(b) Elongated fixing holes in chassis. Attachments seriously affected.		X	X
		(c) Missing or fractured fixing bolts. Attachments seriously affected.		X	X
		(d) Steering gear casing fractured. Stability or attachment of casing affected.		X	X
<p>2.1.3. Steering linkage condition</p>	<p>With the vehicle over a pit or on a hoist and with the road wheel on the ground, rock steering wheel clockwise and anticlockwise or using a specially adapted wheel play detector. Visual inspection of steering components for wear, fractures and security.</p>	(a) Relative movement between components which should be fixed. Excessive movement or likely to unlink.		X	X
		(b) Excessive wear at joints. A very serious risk of unlinking.		X	X
		(c) Fractures or deformation of any component. Affecting function.		X	X
		(d) Absence of locking devices.		X	
		(e) Misalignment of components (e.g. Track rod or drag link).		X	
		(f) Unsafe modification <sup>(3)</sup> .		X	



# 1997 Agreement – Resolution R.E.6

- Establishes minimum requirements for a PTI regime and details specific administrative and technical provisions for PTI
- Minimum requirements for technical inspection facilities and test equipment
  - Test lane with pit or lift
  - Equipment for brake testing; wheel play detector; sound meter; emission test devices (4-gas analyser / smoke meter); headlamp aiming device; tread depth meter; OBD scan tool and LPG/CNG/LNG leakage detector
  - Calibration requirements





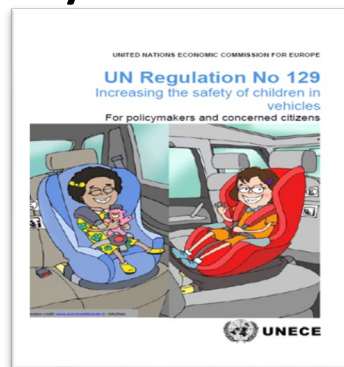
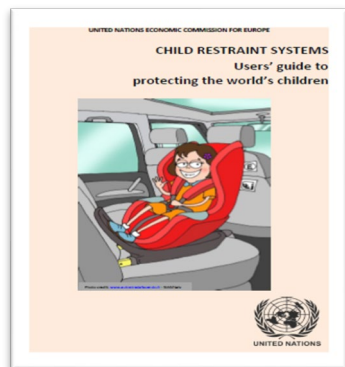
# 1997 Agreement – Resolution R.E.6 (cont.)

- Minimum requirements concerning competence, training and certification of inspectors
  - Areas of knowledge and experience
  - Initial and refresher training / examination
  - Certificate of competence
- Supervising bodies
  - tasks and activities of supervising bodies
  - requirements concerning supervising bodies
  - Contents of rules and procedures

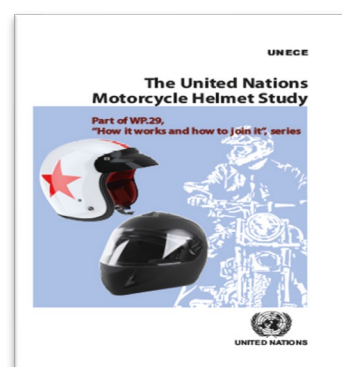
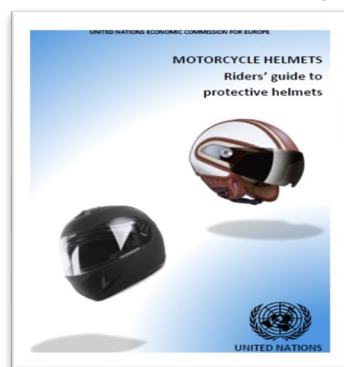


# Leaflets and Publications

- Child restraint systems



- Motorcycle helmets

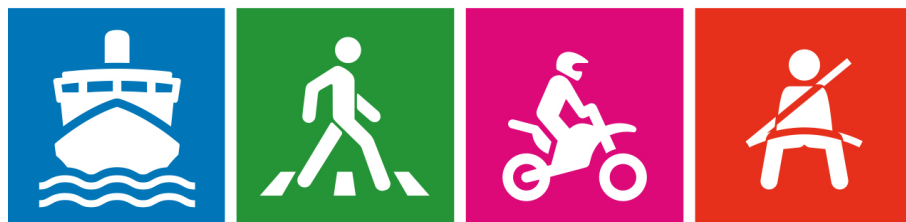


- Roadmap for accession and implementation of UN 1958 and 1997 Agreements



- World Forum for Harmonization of Vehicle Regulations (WP.29) – How It Works, How to Join It





INLAND TRANSPORT COMMITTEE



UNECE

**Thank you!**

<https://unece.org/transport/vehicle-regulations>

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