



Activities of the United Nations in Road (Vehicle) Safety: Global Framework Plan of Action for Road Safety UN Vehicle Agreements

**1st Road Safety Technical Committee meeting
2 - 3 October 2019, Podgorica**

Sustainable Transport Division



UNECE

The Agenda 2030 and Road Safety

The Sustainable Development Goals (SDGs)

Two targets are directly relevant for road safety



3.6. By 2020, halve the number of global deaths and injuries from road traffic accidents.



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.

WP.29 and SDGs



UN and Road Safety

UN decade of action for road safety 2011-2020

The plan



The 5 pillars



UN Secretary General's Special Envoy on Road Safety

- United Nations Secretary-General Ban Ki-moon announced on 29 April 2015 the appointment of Jean Todt as his Special Envoy for Road Safety.
- to help mobilize sustained political commitment at the global level towards making road safety a priority worldwide
- UNECE, which is the custodian of the UN road safety legal instruments, will act as the secretariat for the Special Envoy.



UN Road Safety Trust Fund



UNRSTF Global Framework Plan of Action for Road Safety

- Adopted under the United Nations Road Safety Trust Fund
- Will guide project financing and coordination under the Trust Fund



Foundation

- Holistic approach with the Safe System principles
(Consultation paper for the establishment of UNRSTF, 2017, p. 10)

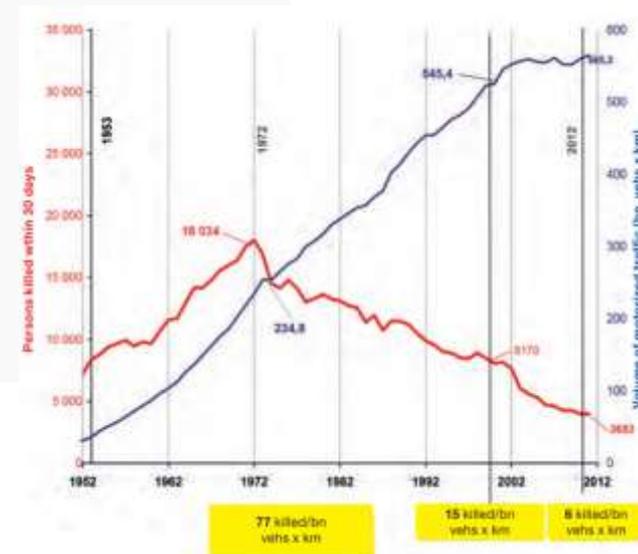
- Holistic and integrated approach recognizing the Safe System principles and promoting costs-efficient approaches
(Terms of Reference for UNRSTF, p. 4)

- Performance of a fund greatly depends on the quality of its allocation decisions, the fund results framework and its underlying theory of change
(UNDG Guidance on Establishing, Managing and Closing Multi-donor Trust Fund, p.14)

- Build on the experience of best performers



National Road Safety Systems



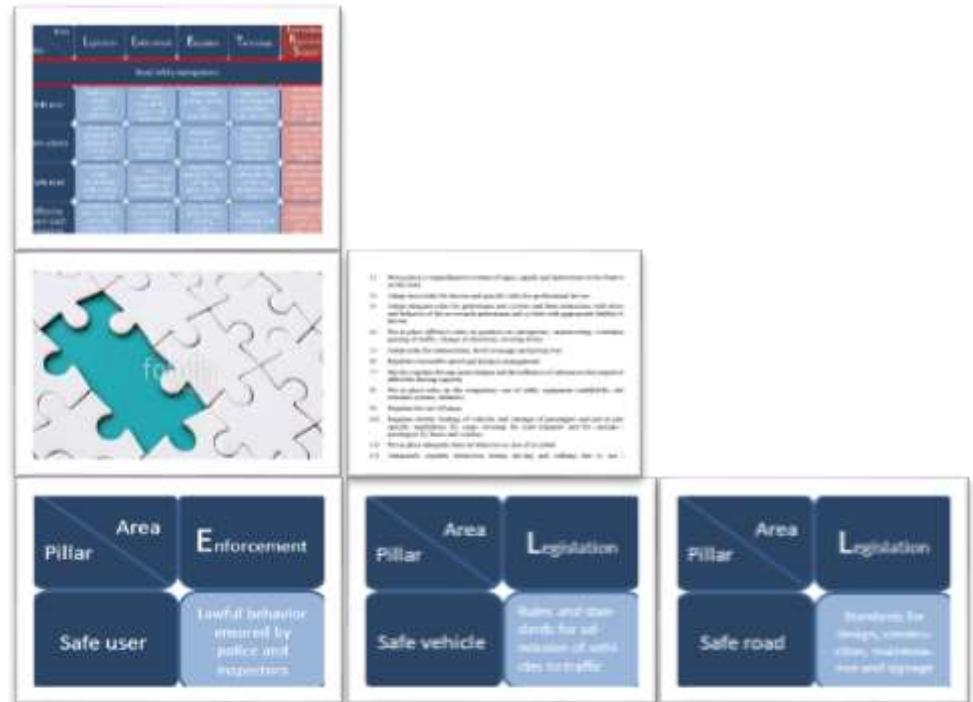
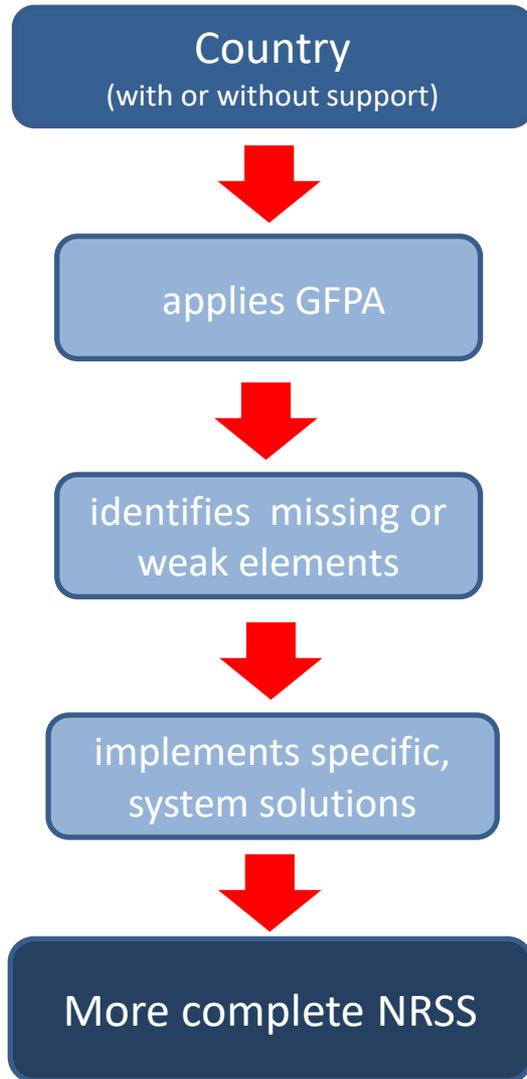
Where to start?

Global Framework Plan of Action for Road Safety

Pillar \ Area	L	E	E	T	I
	egislation	enforcement	ducation	echnology	nternational Regulatory Support
Road safety management					
Safe user	Traffic rules drivers pedestrians	Lawful behavior ensured by police and inspectors	Awareness raising, training and examination	Supportive technology and equipment, rules reminders	UN RS legal instruments and resolu- tions, WP.1, SC.1, WP.15
Safe vehicle	Rules and standards for admission of vehicles to traffic	Certification and inspections by qualified inspectors	Awareness raising for users, training for inspectors	Supportive technology and equipment, compliance reminders	UN RS legal instruments and resolu- tions, WP.1, WP.29
Safe road	Standards for design, construction, maintenance and signage	Audit and inspection by qualified inspectors	Awareness raising for users, training for inspectors	Forgiving road design, intelligent road systems	UN RS legal in- struments and resolutions, int. standards WP.1, SC.1
Effective post-crash response	Standards for post-crash response and for crash investigation	Oversight of rescue services, investigators investigating crashes	First aid and rescue service training, investigators training	Supportive technology and equipment	Consolidated resolution, int. standards, WP.1, SC.1

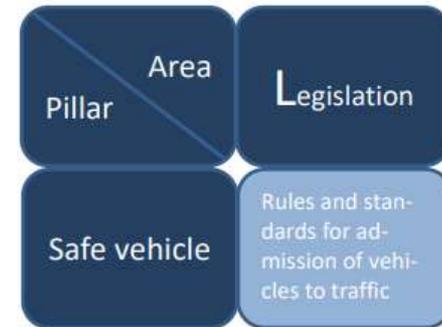
- Evolves from the Global Plan for the Decade of Action for Road Safety:
 - five pillars for road safety as the essential blocks for creating sound national road safety systems
 - safe system approach
- Is specific on (interconnected) actions across areas to be taken by different actors
- Covers any action necessary for attaining the 12 road safety performance targets

Global Framework Plan of Action for Road Safety in action



Area	Legislation	Enforcement	Education	Technology	Research Roadside Support
Road safety management					
Safe use	Safe road	Safe vehicle	Effective post-crash response		

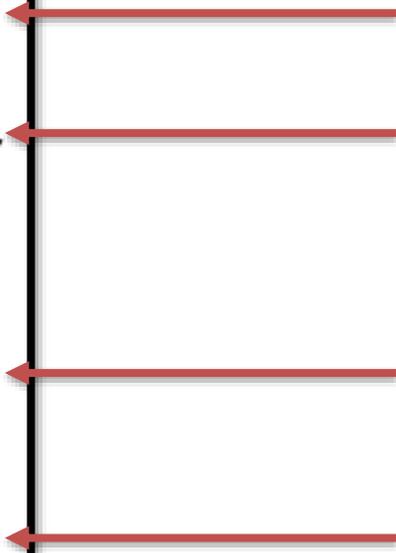
Global Framework Plan of Action for Road Safety



Actions - Legislation

This area focused on rules and standards for admission of vehicles to traffic should comprise the following action:

- 1) Adopt rules for registration of vehicles that include strict vehicle inspection schemes
- 2) Adopt rules on vehicle's identification marks
- 3) Establish vehicle's minimum safety requirements for admission to traffic, both for new and/or imported second hand vehicles (braking, electronic stability control, steering, tires, lighting and lighting devices, safety belts, child restraint anchorages (ISOfix), crash protection against front-, lateral- and pole-side- impact, pedestrian protection, child restraint systems and helmets, front and rear underrun protection, safety glazing)
- 4) Put in place a regime for vehicle certification for both new and/or imported second hand vehicles with requirements for the certification processes, designation of technical services and/or inspectors, their facilities and knowledge, quality control and conformity of production and/or market surveillance.
- 5) Put in place a regime for periodic technical inspection of vehicles in use (registered) with requirements of scope, frequency of inspections, inspection items, test methods



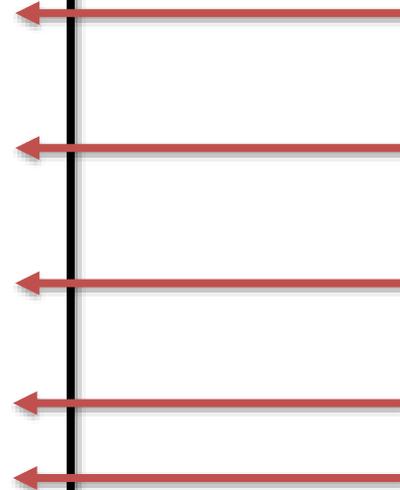
Area	Legislation	Enforcement	Evidence	Technology	Education	Research	Support
Road safety management							
Safe use
Safe vehicle
Safe road
Effective post-crash response

Global Framework Plan of Action for Road Safety



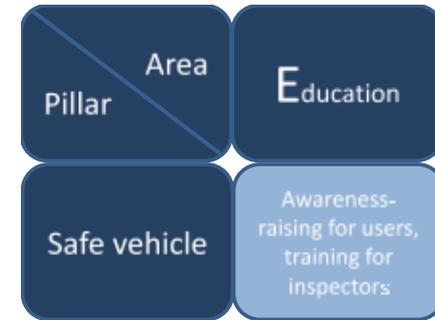
Actions - Enforcement

- This area focused on certification and inspections by qualified inspectors should comprise the following action:
- 1) Authorize inspection centers, which may include privately operated workshops, for technical inspections and supervise and audit inspection centers
 - 2) Carry out road side technical checks including load securing (police and technical inspectors, enforcement technology e.g. mobile testing stations, portable inspection tools)
 - 3) Establish and interlink databases for vehicle registration, periodic technical inspection and technical roadside inspections
 - 4) **Undertake import/export control on new and used vehicles**
 - 5) Apply effectively penalties for use of vehicles with expired certificates
 - 6) Apply effectively penalties to inspection centers and use anti-corruption mechanism
 - 7) Assess effectiveness of vehicle enforcement activities by use of appropriate indicators
 - 8) Ensure sufficient budget for inspection, supervision and audit



Area	Legislation	Enforcement	Education	Technology	Provisional Resources Support
Road safety management					
Safe user
Safe vehicle
Safe road
Effective post-crash response

Global Framework Plan of Action for Road Safety



Actions - Education

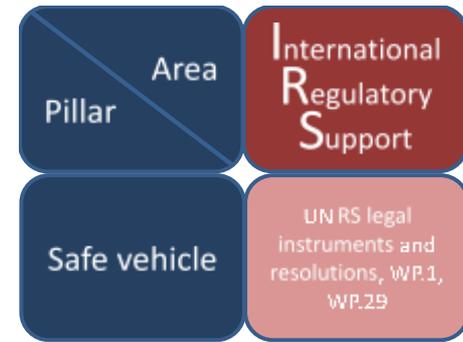
This area focused on awareness-raising for users and training for inspectors should comprise the following action:

- 1) Conduct campaigns to raise general awareness of safety benefits from safety systems of vehicles and proper equipment, **importance of continuous vehicle-maintenance** and proper use of safety related systems and equipment.
- 2) Carry out targeted campaigns for specific groups of users (e.g. equipment for safe transport of children in vehicles, motorcycle helmets)
- 3) **Train, re-train and test inspectors to carry out high quality inspection and technical check**
- 4) Assess effectiveness of education activities by use of appropriate indicators
- 5) Ensure adequate budget for education and training



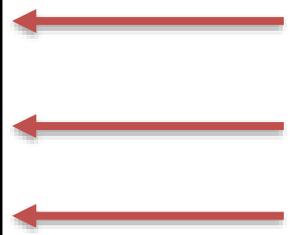
Area	Lighting	Entertainment	Education	Technology	International Regulatory Support
Road safety management					
Safe user	Safe vehicle	Safe road	Effective post-crash response		

Global Framework Plan of Action for Road Safety



Actions - International regulatory support

- Core United Nations conventions on road safety**
- 1949 Convention on Road Traffic
 - 1968 Convention on Road Traffic
 - 1968 Convention on Road Signs and Signals
 - 1970 European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport
 - **1958 Agreement concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations (Revision 3)**
 - **1997 Agreement concerning the Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of Such Inspections**
 - **1998 Agreement concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts which can be fitted and / or be used on Wheeled Vehicles**
 - 1957 European Agreement concerning the International Carriage of Dangerous Goods by Road



The 6 most important Conventions for Road Safety



- 1949 and 1968 Convention on Road Traffic
- 1968 Convention on Road Signs and Signals
- **1958 Agreement concerning the Adoption of Harmonized Technical United Nations Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these United Nations Regulations**
- **1997 Agreement Concerning the Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of Such Inspections**
- **1998 Agreement on Global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles**
- 1957 European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)

Vehicle Approval / Certification

- **1958 Agreement – Type Approval**



1998 Agreement – Self Certification



Why does it matter?

Why vehicle regulations (new vehicles) ?

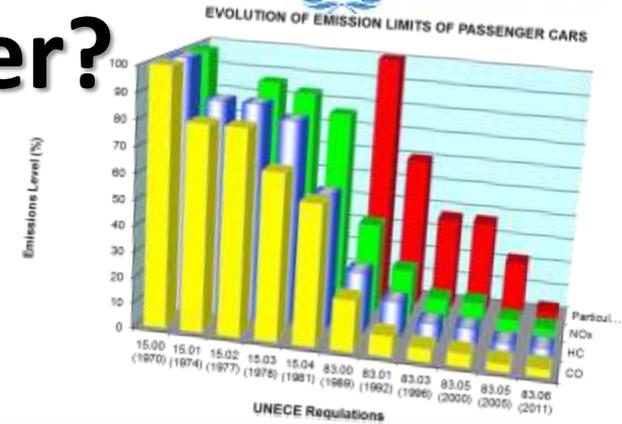
Several versions of a given model are built, because:

- Left Hand Drive
- Right Hand Drive
- The US/Canada version
- The Rest of the World (e.g. for countries with low fuel quality)...



Same type
Same model
Same brut price

Different safety depending on national legal requirements (no airbags, lower quality material, less welding points, fewer structure components, etc...)



Principal Elements of the **1958** Agreement

Eligible Contracting Parties to the **1958** Agreement:

Members of UN



The **1958** Agreement provides:

Legal framework for the adoption of
uniform UN Regulations on vehicle approval
(performance and test requirements, conformity of production and administrative provisions)

Reciprocal recognition of Type Approval
Approved once and accepted everywhere (CPs)

Principal Elements of the 1958 Agreement

- All vehicle parts and systems approved according to UN Regulations under the 1958 Agreement bear the unique **E**-marking **E56** Approval mark for Montenegro



- The Type-Approval with an approval number and the approval date + test reports

Principal Elements of the **1998** Agreement

Eligible Contracting Parties to the **1998** Agreement:

Members of UN



The **1998** Agreement provides:

Legal framework for the adoption of uniform Global Technical Regulations
- UN GTRs -

Performance and test requirements no administrative provisions
(for self certification and homologation)

Principal Elements of the **1998** Agreement

Contracting Parties to the **1998** Agreement

Commit themselves to implement a GTR into national legislation, when voting in favour

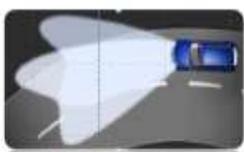
Need a system/agency for market surveillance and enforcement of production compliance

The **1998** Agreement requests

Regular reporting by Contracting Parties on the implementation of GTRs in their national law

The most important UN Vehicle Regulations to make a change to road safety

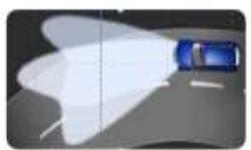
Topic	Passenger cars UN Regulation	PTWs UN Regulation	Commercial vehicles UN Regulation
Active safety			
Brakes	R13 H (incl. ABS)	R 78 (incl. ABS) GTR 3	R 13 (incl. EVSC)
Electronic Stability Control	R 140 GTR 8		
Steering	R 79		R 79
Tyres	R 30/ GTR 16	R75	R 54
Mechanical couplings			R 55
Passive safety			
Helmets		R22	
Safety belts anchorages	R 14		R 14
Safety belts	R 16		R 16
Seats/ head restraints	R 17, R 25/ GTR 7		
Frontal collision	R 94		
Lateral collision/ pole side impact	R 95, R 135/ GTR 14		
Pedestrian safety	R 127/ GTR 9		
Child restraints	R 44		
Electric PTW safety		R 136	
Cabs strength			R 29
General safety			
Buses and coaches			R 107
Safety glazing	R 43/ GTR 6		R 43
Devices for indirect vision			R 46
Underrun protection			R 58 R 93
Lighting and light installation			
Installation of lighting	R 48	R 53, R 74	R 48



The most important UN Vehicle Regulations to make a change to road safety

Topic	Passenger cars UN Regulation	PTWs UN Regulation	Commercial vehicles UN Regulation
	Active safety		
Brakes	R 13 H, R 79	R 77 (ABS) GTR 3	R 13 (incl. EVSC)
Electronic Stability Control	R 14 GTR 8		
Steering	R 79		R 79
Tyres	R 30/ GTR 16	R 75	R 54
Mechanical couplings			R 55
	Passive safety		
Helmets		R 12	
Safety belts anchorages	R 14		R 14
Safety belts	R 16		R 16
Seats/ head restraints	R 17, R 25/ GTR 7		
Frontal collision	R 94		
Lateral collision/ pole side impact	R 95,		
Pedestrian safety	R 135/ GTR 14		
Child restraints	R 127/ GTR 9		
EVs (if applicable)	R 44	R 80	
Crash strength			R 29
	General safety		
Buses and coaches			R 107
Safety glazing	R 43/ GTR 6		R 43
Devices for indirect vision			R 46
Underrun protection			R 58 R 93
	Lighting and light installation		
Installation of lighting	R 48	R 53, R 74	R 48

Effective if supplemented by the right Periodic Technical Inspection



Vehicle Inspection

- **1997 Agreement – Periodic Technical Inspection**



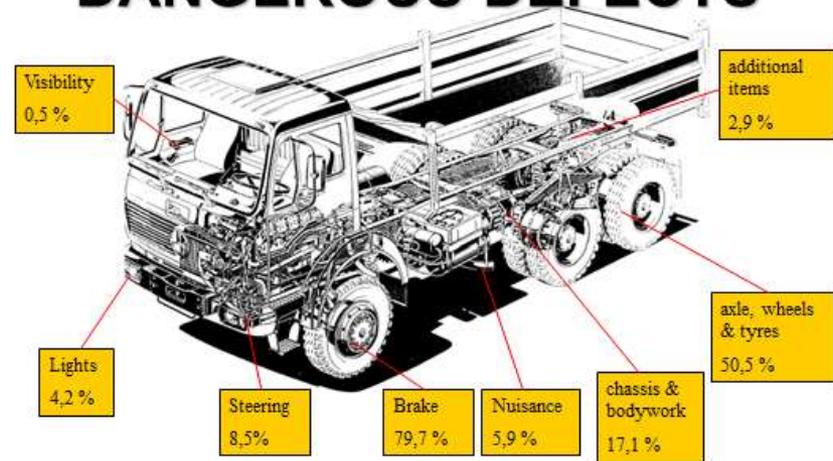
Why does it matter?

Why PTI ?

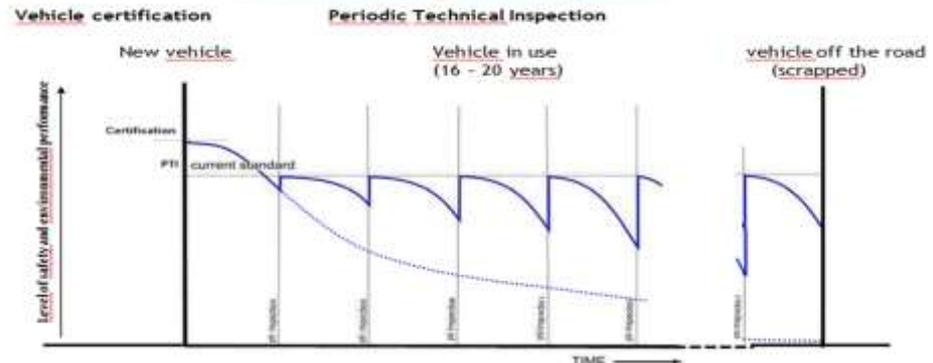
- Evidence base:
 - Technical defects related to fatal accidents (based on in-depth accident analysis)
 - 8 to 15% in high income countries (EU)
 - 15 to 25% in middle income countries

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

DANGEROUS DEFECTS



Vehicle Lifecycle



- 1997 Agreement
 - New specifications for new technologies
 - Towards continuous compliance

Principal Elements of the **1997** Agreement

Eligible Contracting Parties to the **1997** Agreement:

Members of UN



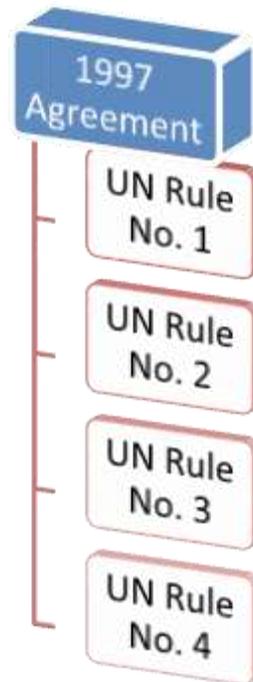
The **1997** Agreement provides:

15 Contracting
Parties

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



For environmental issues

For safety inspection

LNG/LGP/CNG fueled vehicles

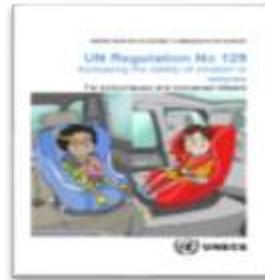
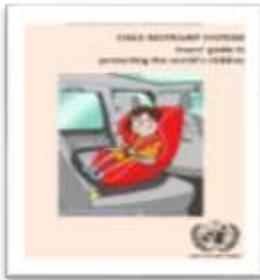
EV and HEV vehicles

Resolution R.E.6 test-equipment, skills & training of inspectors, supervision of test centers

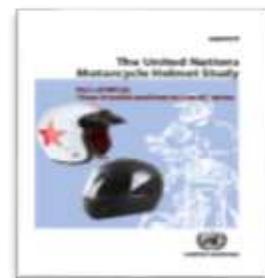
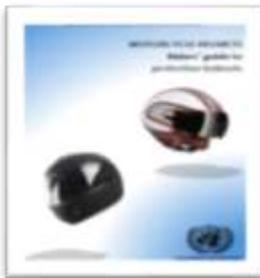


Leaflets and Publications

- **Child restraint systems**



- **Motorcycle helmets**



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



Thank you

Walter.Nissler@un.org



Import/export of used vehicles

- The Inland Transport Committee (ITC) discussed together with UNEP :
 - The safety and environmental issues due to inefficient import/export of used vehicles
 - #roadworthiness, #De-content, #re-use, #spareparts
- Some quick measures are in place
 - E.g. restriction on the age of vehicle and other administrative (paperwork) actions. Effectiveness questioned.
- Technical experts believe in real checks and are exploring the benefits of:
 - PTI before export
 - (Random) PTI at import before vehicle registration (to check against export PTI)
- The technical provisions under the 1997 Agreement provide an excellent basis for such inspections
- Full coverage of various aspects for import/export of used vehicles in the plan of UNRSTF

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)

