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
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.
UN and Road Safety

UN decade of action for road safety 2011-2020

The plan.

The 5 pillars:
- Road user behaviour
- Quality road networks
- Road safety

UN Road Safety Trust Fund

UN Secretary General's Special Envoy on Road Safety

- United Nations Secretary-General Ban Ki-moon announced on 26 April 2012 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.
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
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
Where to start?

Global Framework Plan of Action for Road Safety

- 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

1. Country (with or without support)
2. Applies GFPA
3. Identifies missing or weak elements
4. Implements specific, system solutions
5. More complete NRSS
Global Framework Plan of Action for Road Safety

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
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
Global Framework Plan of Action for Road Safety

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, \textbf{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) \textbf{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
Global Framework Plan of Action for Road Safety

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.

**E stands for Excellence Effective Economic Efficient...**

- 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)

38 Contracting Parties
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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Passenger cars</th>
<th>PTWs</th>
<th>Commercial vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UN Regulation</td>
<td>UN Regulation</td>
<td>UN Regulation</td>
</tr>
<tr>
<td><strong>Active safety</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brakes</td>
<td>R13 H (incl. ABS)</td>
<td>R 78 (incl. ABS) GTR 3</td>
<td>R 13 (incl. EVSC)</td>
</tr>
<tr>
<td>Electronic Stability Control</td>
<td>R 140 GTR 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steering</td>
<td>R 79</td>
<td></td>
<td>R 79</td>
</tr>
<tr>
<td>Tyres</td>
<td>R 30/ GTR 16</td>
<td>R 75</td>
<td>R 54</td>
</tr>
<tr>
<td>Mechanical couplings</td>
<td>R 30/ GTR 16</td>
<td></td>
<td>R 55</td>
</tr>
<tr>
<td><strong>Passive safety</strong></td>
<td></td>
<td>R22</td>
<td></td>
</tr>
<tr>
<td>Helmets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety belts anchorages</td>
<td>R 14</td>
<td></td>
<td>R 14</td>
</tr>
<tr>
<td>Safety belts</td>
<td>R 16</td>
<td></td>
<td>R 16</td>
</tr>
<tr>
<td>Seats/ head restraints</td>
<td>R 17, R 25/ GTR 7</td>
<td>R 94</td>
<td></td>
</tr>
<tr>
<td>Frontal collision</td>
<td>R 94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral collision/ pole side impact</td>
<td>R 95</td>
<td>R 135/ GTR 14</td>
<td></td>
</tr>
<tr>
<td>Pedestrian safety</td>
<td>R 127/ GTR 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child restraints</td>
<td>R 44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric PTW safety</td>
<td>R 136</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabs strength</td>
<td></td>
<td></td>
<td>R 29</td>
</tr>
<tr>
<td><strong>General safety</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buses and coaches</td>
<td>R 107</td>
<td></td>
<td>R 107</td>
</tr>
<tr>
<td>Safety glazing</td>
<td>R 43/ GTR 6</td>
<td></td>
<td>R 43</td>
</tr>
<tr>
<td>Devices for indirect vision</td>
<td>R 46</td>
<td></td>
<td>R 46</td>
</tr>
<tr>
<td>Underrun protection</td>
<td>R 58 R 93</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lighting and light installation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation of lighting</td>
<td>R 48</td>
<td>R 53, R 74</td>
<td>R 48</td>
</tr>
</tbody>
</table>
The most important UN Vehicle Regulations to make a change to road safety

<table>
<thead>
<tr>
<th>Topic</th>
<th>Passenger cars</th>
<th>PTWs</th>
<th>Commercial vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UN Regulation</td>
<td>UN Regulation</td>
<td>UN Regulation</td>
</tr>
<tr>
<td>Brakes</td>
<td>R13 H 2</td>
<td>R 77 (incl. ABS) GTR 3</td>
<td>R 13 (incl. EVSC)</td>
</tr>
<tr>
<td>Electronic Stability Control</td>
<td>R 12/GTR 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steering</td>
<td>R 79</td>
<td>R 79</td>
<td>R 79</td>
</tr>
<tr>
<td>Tyres</td>
<td>R 30/GTR 16</td>
<td>R 75</td>
<td>R 54</td>
</tr>
<tr>
<td>Mechanical couplings</td>
<td>R 55</td>
<td>R 55</td>
<td>R 55</td>
</tr>
<tr>
<td>Helmets</td>
<td>R 14</td>
<td>R 14</td>
<td></td>
</tr>
<tr>
<td>Safety belts anchorages</td>
<td>R 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety belts</td>
<td>R 16</td>
<td>R 16</td>
<td></td>
</tr>
<tr>
<td>Seats/ head restraints</td>
<td>R 25/GTR 17</td>
<td>R 94</td>
<td>R 95</td>
</tr>
<tr>
<td>Frontal collision</td>
<td>R 94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral collision/ pole side impact</td>
<td>R 135/GTR 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrian safety</td>
<td>R 127/GTR 9</td>
<td>R 127</td>
<td>R 127</td>
</tr>
<tr>
<td>Child restraints</td>
<td>R 44</td>
<td>R 44</td>
<td>R 44</td>
</tr>
<tr>
<td>Crash strength</td>
<td>R 8</td>
<td>R 8</td>
<td>R 8</td>
</tr>
<tr>
<td>General safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buses and coaches</td>
<td>R 43/GTR 6</td>
<td></td>
<td>R 107</td>
</tr>
<tr>
<td>Safety glazing</td>
<td>R 43</td>
<td></td>
<td>R 43</td>
</tr>
<tr>
<td>Devices for indirect vision</td>
<td>R 46</td>
<td></td>
<td>R 46</td>
</tr>
<tr>
<td>Underrun protection</td>
<td>R 58 R 93</td>
<td></td>
<td>R 58 R 93</td>
</tr>
<tr>
<td>Installation of lighting</td>
<td>R 48</td>
<td>R 53, R 74</td>
<td>R 48</td>
</tr>
</tbody>
</table>

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

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

DANGEROUS DEFECTS

Vehicle Lifecycle
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

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

For environmental issues

For safety inspection

LNG/LGP/CNG fueled vehicles

EV and HEV vehicles
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)

**DANGEROUS DEFECTS**

- Visibility: 0.5%
- Additional items: 2.9%
- Lights: 4.2%
- Steering: 8.5%
- Brake: 19.7%
- Nuisance: 5.9%
- Chassis & bodywork: 17.1%
- Axle, wheels & tyres: 59.5%