

Albania Road Safety Performance Review Capacity Building Workshop

Hotel Palace, Dürres, Albania 6-7 February 2018

UN vehicle regulations agreements

- *1958 Agreement*
- *1997 Agreement*
- *1998 Agreement*

François E. Guichard

Mechanical Engineer

Vehicle Regulations and Transport Innovations
Secretary of the Working Party “WP.29/GRRF”
Focal Point ITS/AD



RSPR
Albania



Content

- I. WP.29
 - a) WP.29 Activities
 - b) WP.29 scope and organization

- II. The legal instruments managed by WP.29
 - a) Vehicle approval: the 1958 Agreement
 - b) Vehicle certification: the 1998 Agreement
 - c) Periodic technical inspections (PTI): the 1997 Agreement

- III. Better vehicles by implementation of the UN Vehicle Agreements



Content

I. WP.29

a) WP.29 Activities

b) WP.29 scope and organization

II. The tools of WP.29

a) Vehicle approval: the 1958 Agreement

b) Vehicle certification: the 1998 Agreement

c) Periodic technical inspections (PTI): the 1997 Agreement

III. Better vehicles by implementation of the UN Vehicle Agreements



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.



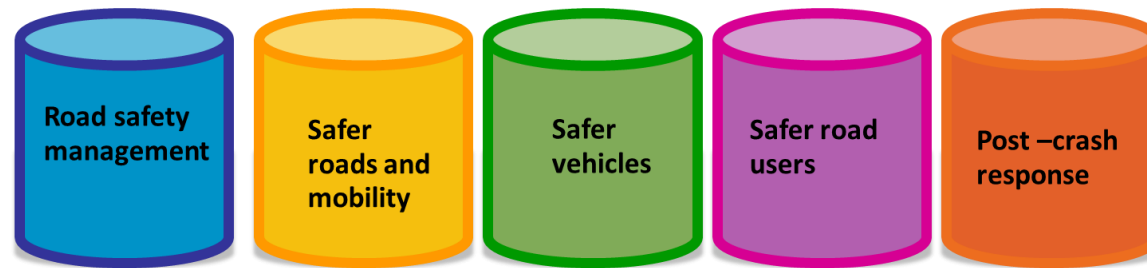
UN decade of action for road safety 2011-2020



The plan



The 5 pillars



X

X

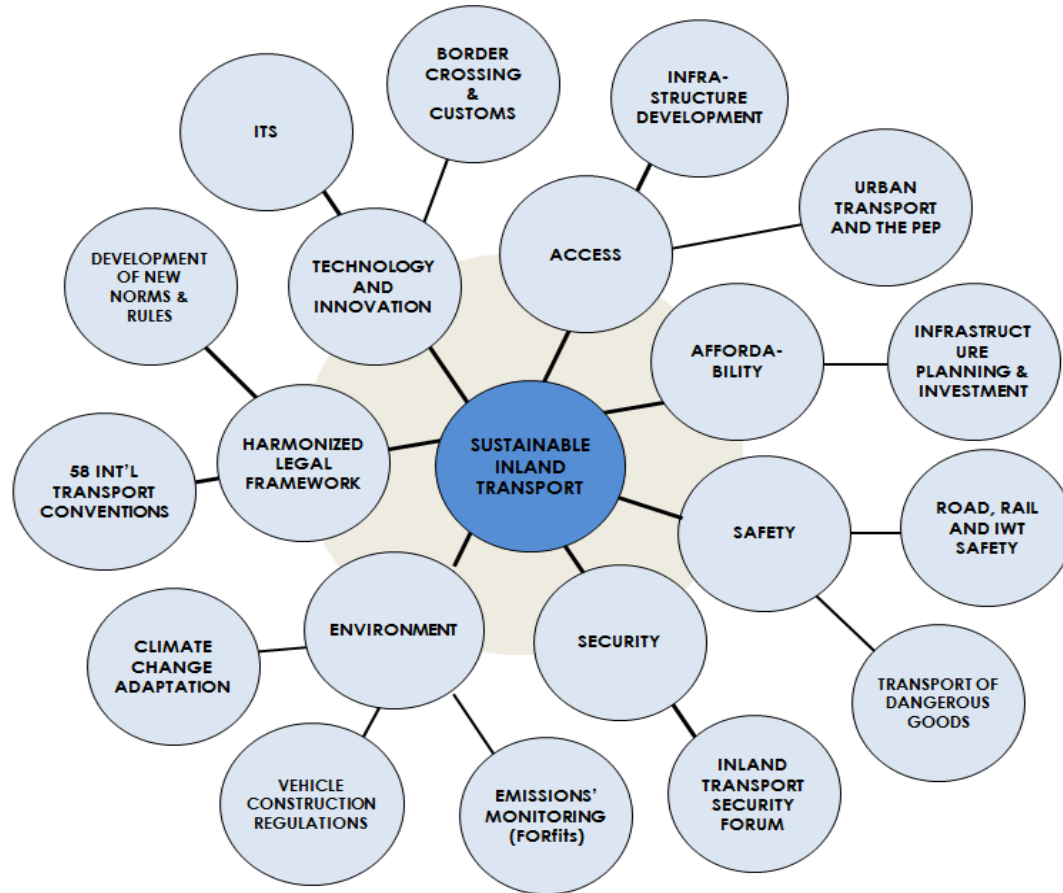


Safe system approach

- A new approach for a safe system:
 - Because it is unacceptable to die or get heavily injured because of our mobility needs
 - Because the perfect driver does not exist. Human being can fail and are vulnerable
 - Safe system means: a system in which a mistake doesn't mean Crash, and if any crash happen, it should not lead to death or injuries
- Levers:
 - Safer roads («self explanatory roads», «segregating road users», «forgiving roads»)
 - Appropriate speed (low speed if no traffic segregation e.g. in urban areas)
 - Safer vehicles (construction, equipment and maintenance)
 - Safer usage of streets (traffic reduction, education etc.)



360° approach of UNECE



- **Regulatory work**
To ensure widest possible geographical coverage of UN road safety international legal instruments
- **Policy dialogue**
To strengthen road safety management and coordination
- **Analytical work**
To assist in the identification of best practices
- **Technical Assistance**
To assist countries in the ECE region and beyond to implement international transport and road traffic safety legislation



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

- UNECE Sustainable Transport Division: secretariat to WP.29 for more than 70 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

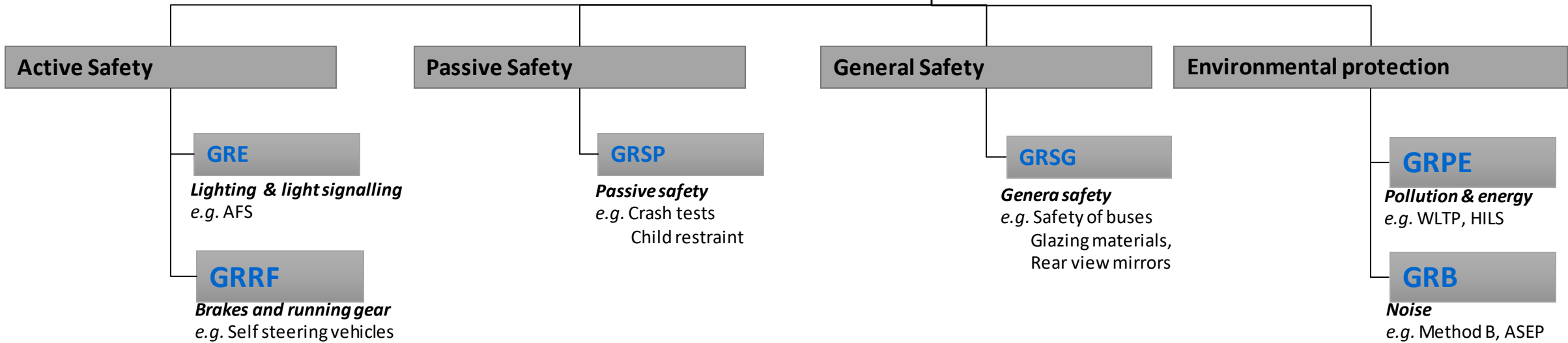


The WP.29 structure

Committee for the 1958 Agreement (AC.1)
Committee for the 1998 Agreement (AC.3)
Committee for the 1997 Agreement (AC.4)

Committee for
Coordination of Work
(AC.2)

World Forum for Harmonization of Vehicle Regulations (WP.29)



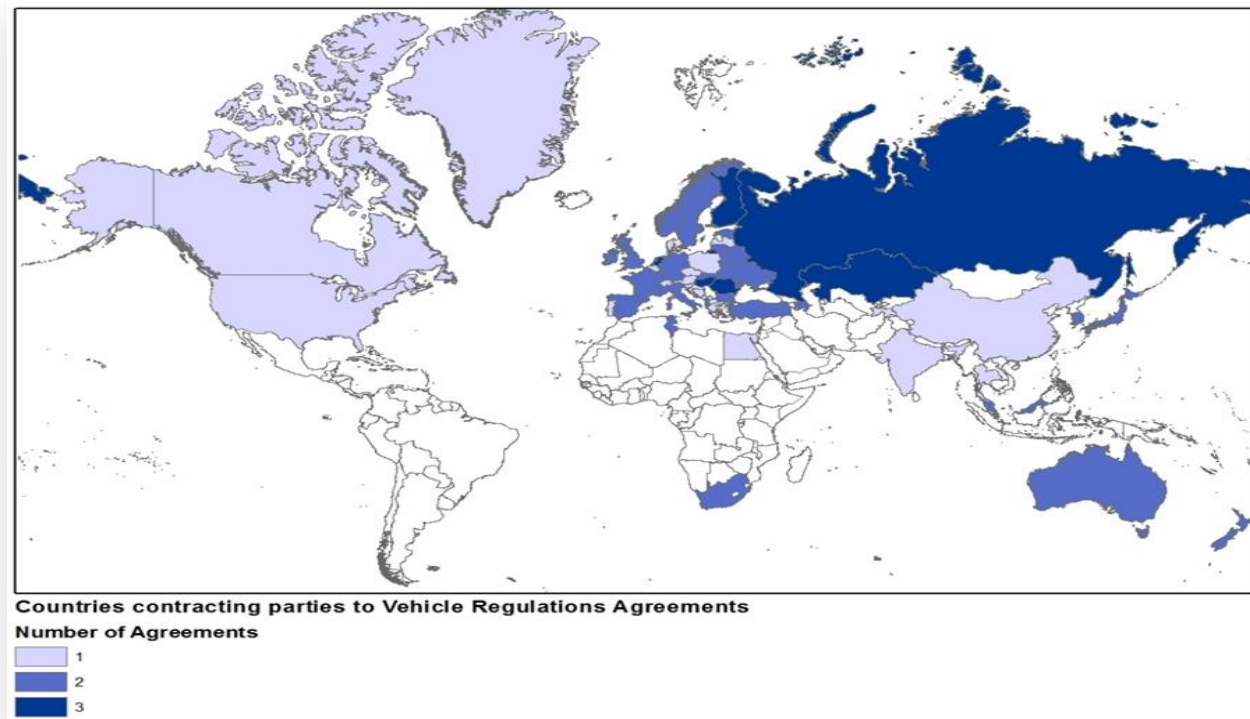
and ~40 non-permanent technical groups



WP.29 is worldwide, unique and transparent

- Agreements open to all Nations of the UN
- Participation open to States, Governmental Organizations (GOs) and NGOs, but

**Decisions are taken by Governments
(of CPs)**



No other worldwide organization covers this area



What is WP.29 doing?



Emissions of pollutants and CO₂



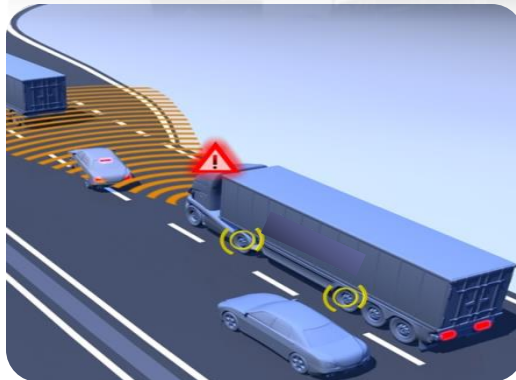
General safety



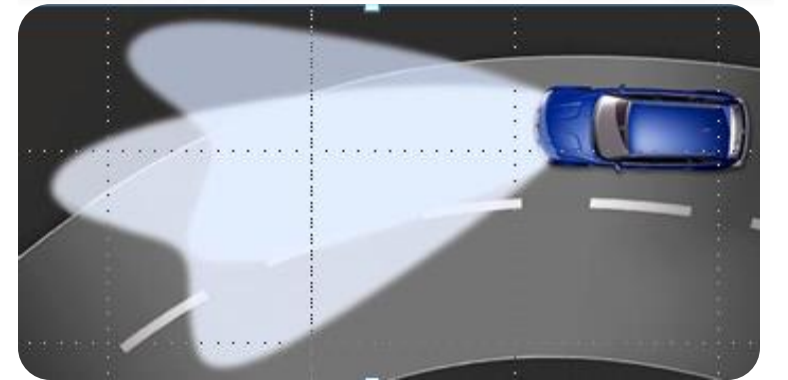
Passive safety



Noise



Active safety



Lighting and light signalling

Content

- I. WP.29
 - a) WP.29 Activities
 - b) WP.29 scope and organization

- II. The tools of WP.29*
 - a) Vehicle approval: the 1958 Agreement*
 - b) Vehicle certification: the 1998 Agreement*
 - c) Periodic technical inspections (PTI): the 1997 Agreement*

- III. Better vehicles by implementation of the UN Vehicle Agreements



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 the vehicle construction

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

Elimination of barriers to trade



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



E stands for Excellence Effective Economic Efficient...

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

Current status

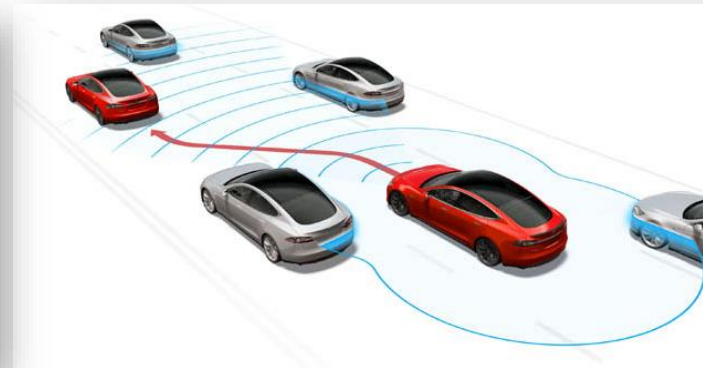
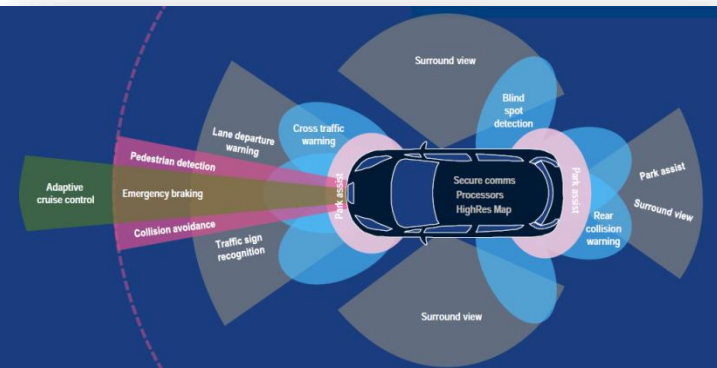
- More than 140 Regulations annexed to the 1958 Agreement
- Covering all kind of products and their parts



- Evolution of the Agreement (Revision 3):
 - Entry into force: 14 September 2017
 - Possibility to apply former versions of a UN Regulation (e.g. possibility to use EURO 4 or EURO 5 while we are now at EURO 6)
 - Stricter requirements for the nomination of Technical Services
 - DETA (Database of the exchange of Type Approval documentation) - *forthcoming*

Latest Developments in Vehicle Regulations

WP.29 is the forum in which are defined the performance requirements and the technical regulations applicable to automated vehicles :



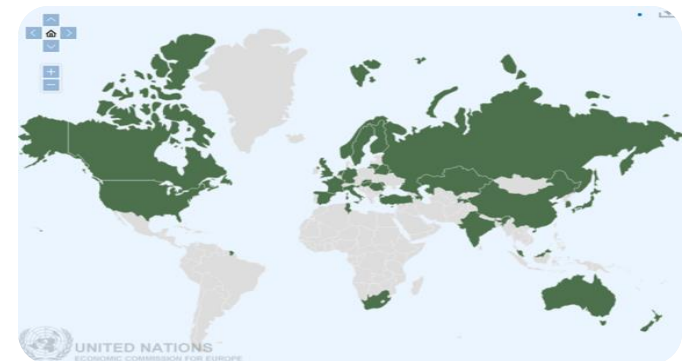
WP.29 committed to continue improving the safety and environmental performance of vehicles:

- Blind Spot Monitoring
- Safety of Electric Vehicles
- WLTP...

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 -

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



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

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



Principal Elements of the 1997 Agreement

1997 Agreement

UN Rule No. 1

For environmental issues

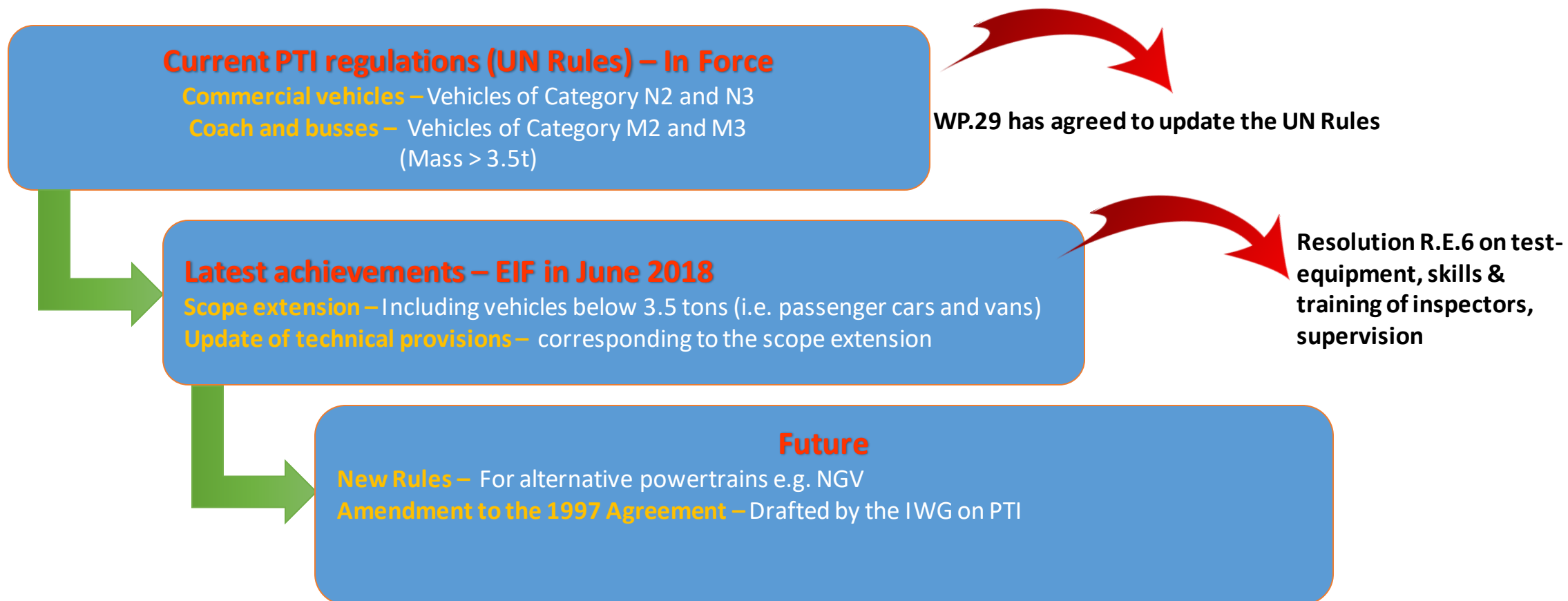


UN Rule No. 2

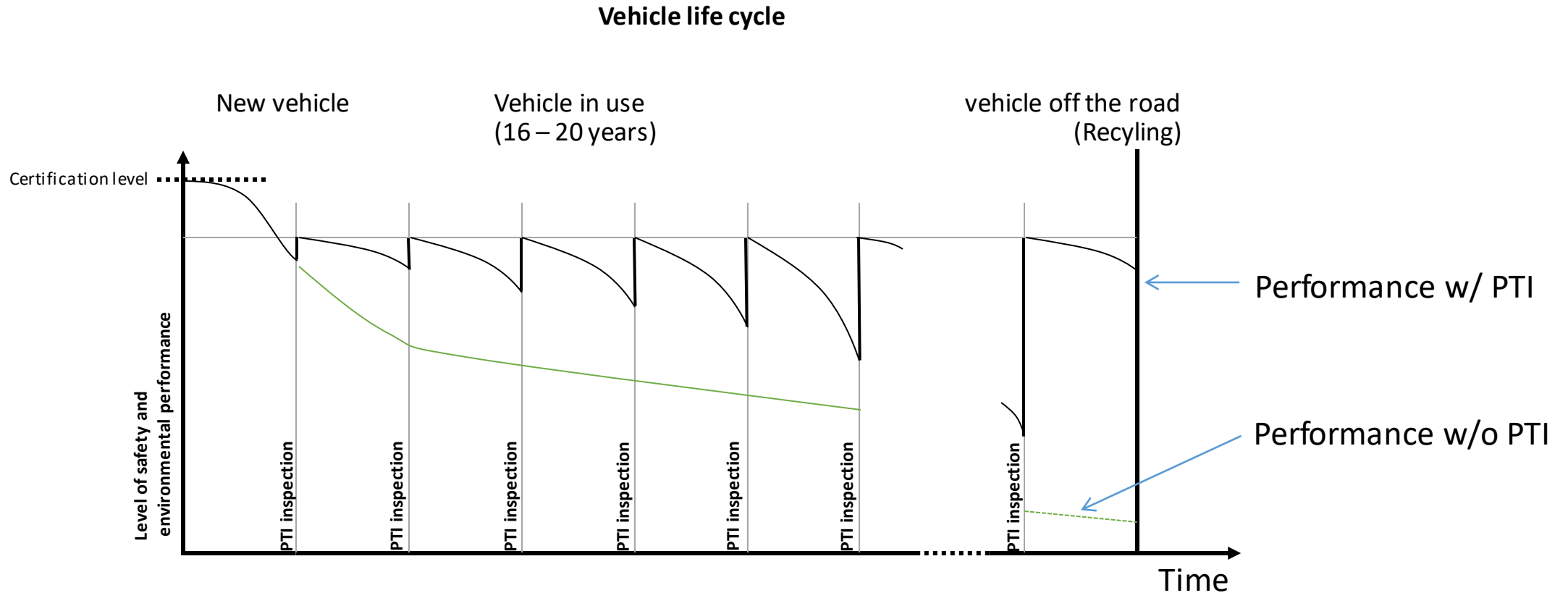
For safety inspection



Status of the 1997 Agreement



Aim of the Periodic Technical Inspection



Complement to the 1997 Agreement

Resolution R.E.6 on

- test-equipment,
- skills of inspectors,
- training of inspectors,
- Supervision of test centers.

Aim: address the reasons that often defeat PTI

Aligned with the Directive 2014/45 (Roadworthiness / PTI)



Content

- I. WP.29
 - a) WP.29 Activities
 - b) WP.29 scope and organization

- II. The tools of WP.29
 - a) Vehicle approval: the 1958 Agreement
 - b) Vehicle certification: the 1998 Agreement
 - c) Periodic technical inspections(PTI): the 1997 Agreement

III. Better vehicles by implementation of the UN Vehicle Agreements



Implementation of 1998 Agreement

- Amendments to national legislation
 - Full transposition of the UN GTR into national legislation
 - Introduce provisions for self-certification or homologation
 - Requirements for vehicle registration (e.g. vehicle certification as pre-requisit)
 - Responsibilities and sanctions
- National Authority for market surveillance and enforcement of production compliance
 - Procedures for market surveillance and enforcement of production compliance
 - Technical capacity for performing compliance tests once vehicle models are put on the market
 - Enforcement of re-call activities and sanctions against manufacturers
 - Acting as liaison point to the WP.29 secretariat
 - Mandatory status report to AC.3



Implementation of 1997 Agreement

- Amendments to national legislation
 - Requirements for periodic technical inspection (e.g. reference to UN Rules and R.E.6)
 - Requirements for reciprocal recognition of PTI certificates for cross border traffic
 - Requirements for vehicle registration (e.g. PTI as pre-requisit)
 - Responsibilities and sanctions
- National PTI Authority
 - Administrative procedures for granting, extending, suspension of authorization for PTI test centres and for inspectors
 - Requirements for test centres, equipment, skills & training of inspectors and supervision of test centres
 - Acting as liaison point to other PTI Authorities and the WP.29 secretariat
- Test Centres

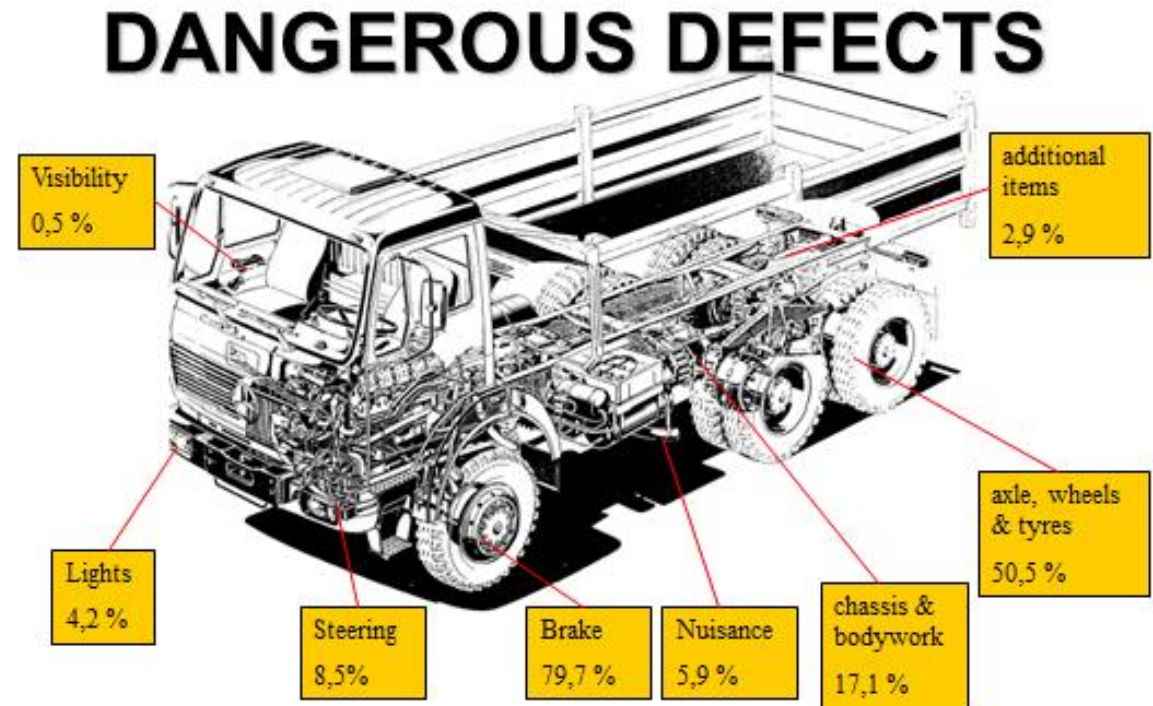


Why does it matter?

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)



Implementation of 1958 Agreement

- Amendments to national legislation
 - Requirements for vehicle approval (e.g. reference to UN Regulations)
 - Requirements for reciprocal recognition of UN Type Approvals
 - Requirements for vehicle registration (e.g. vehicle approval as pre-requisite)
 - Responsibilities and sanctions
- Type Approval Authority
 - Administrative procedures for granting, extending, suspension of approvals
 - Assessment, designation and notification of technical services
 - Conformity of production procedures
 - Acting as liaison point to other TAAs and the WP.29 secretariat
- Technical Services
 - May also be private or located outside the country/in any other Contracting Party



Why does it matter?

Why vehicle regulations?

Several versions of a given model, because:

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



Why does it matter?

The same model of a same brand can have various levels of performance



Euro NCAP hat Global NCAPs Foto geteilt.

2. März 2016 · 🌐

The Groupe Renault is using an unauthorised Euro NCAP logo to promote some of their models (Clio and Mégane) in various countries of Latin America. Most of the cars don't have the same level of safety standards in this region of the world, and therefore the Euro NCAP star rating is not valid. The Renault Clio and Mégane have not been tested by Latin NCAP.



Global NCAP

2. März 2016 · 🌐

Misleading Renault ads in Latin America breach company's code of ethics. Read full letter: <http://bit.ly/1OOXTVr>

TRANSPORT



Type Approval

Testing

- Submission of the information document (documentation of the product)
- Performance of the tests prescribed
- (According to the provisions of the Regulation)

Approval

- Test report and documentation checked
- Type approval issued by the Authority

COP

- Conformity of Production (COP) process and checks (QM / QA)
- COP audit by the Authorities

In Use

- Some regulations require «in use» testing of products (e.g. in the field of emissions)

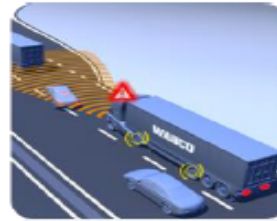
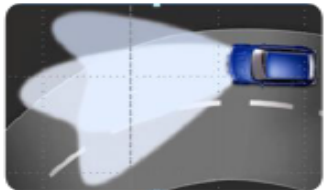
End or life

- One regulation is dedicated to the recyclability of vehicles

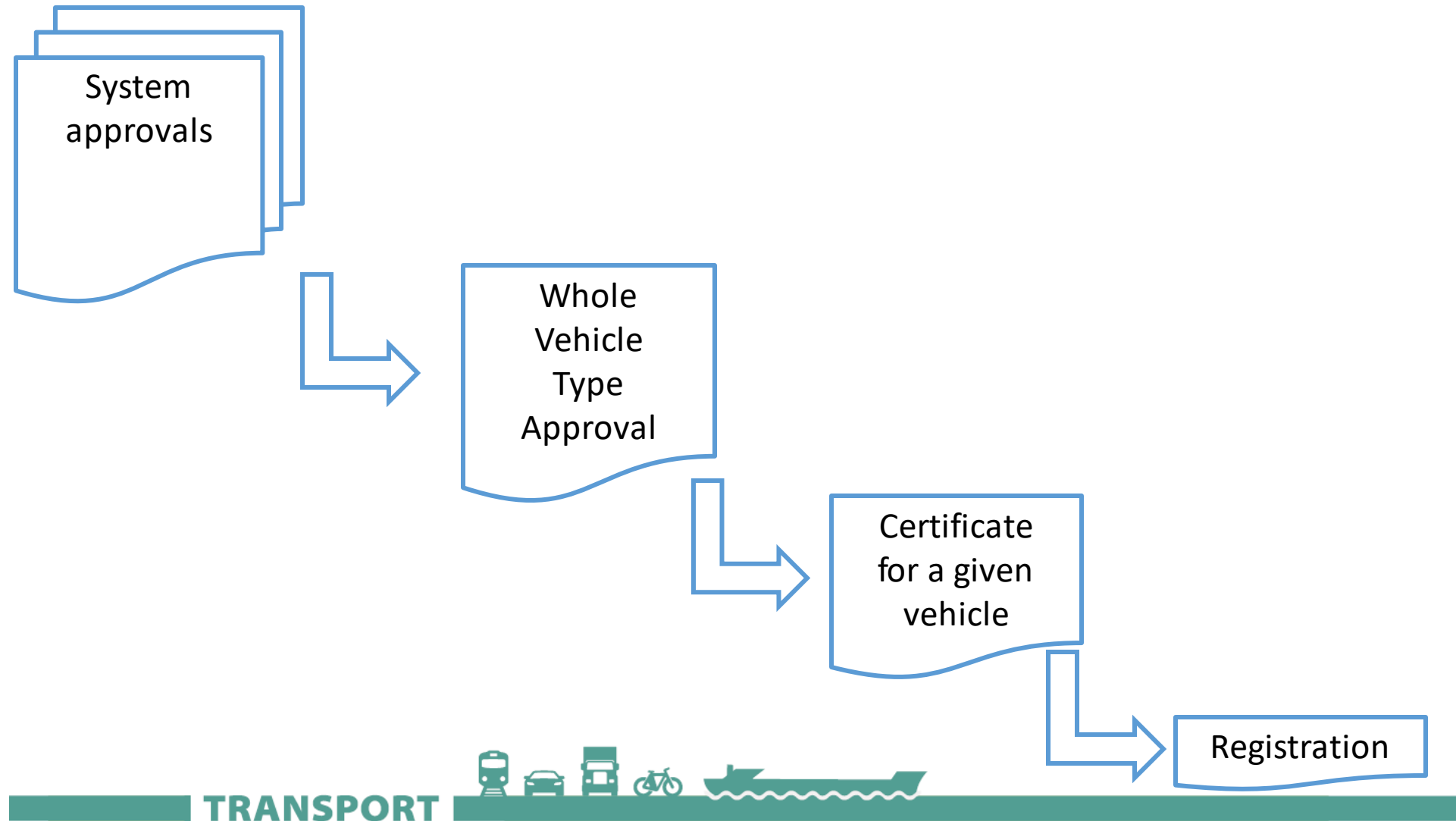


The most important UN Vehicle Regulations to make a change to road safety

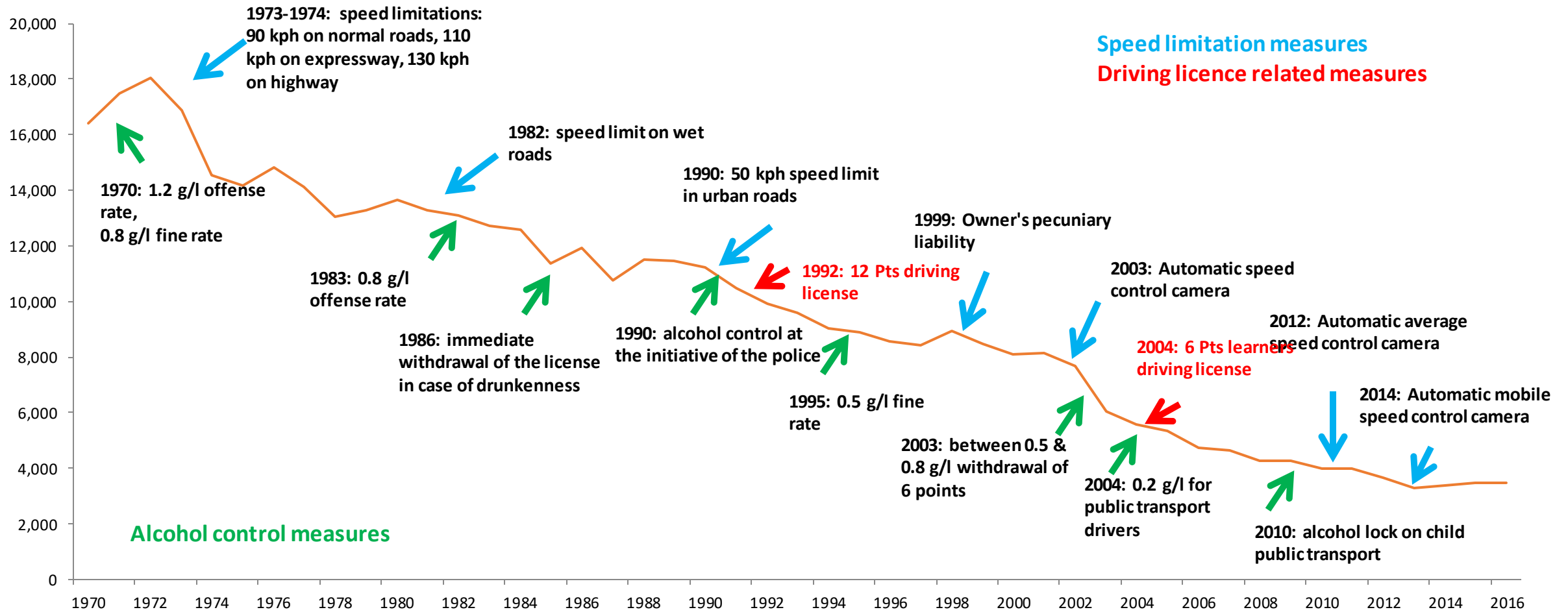
Topic	Passenger cars	PTWs	Commercial vehicles
	UN Regulation	UN Regulation	UN Regulation
Active safety			
Brakes	R13 H (incl. ESC) GTR 8	R 78 (incl. ABS) GTR 3	R 13 (incl. EVSC)
Steering	R 79		R 79
Tyres	R 30/ GTR 16	R75	R 54
Mechanical couplings			R 55
Passive safety			
Helmets		R22	
Safety belts anchorages	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
Rear underrun protection			R 58
Lighting and light installation			
Installation of lighting	R 48	R 53, R 74	R 48



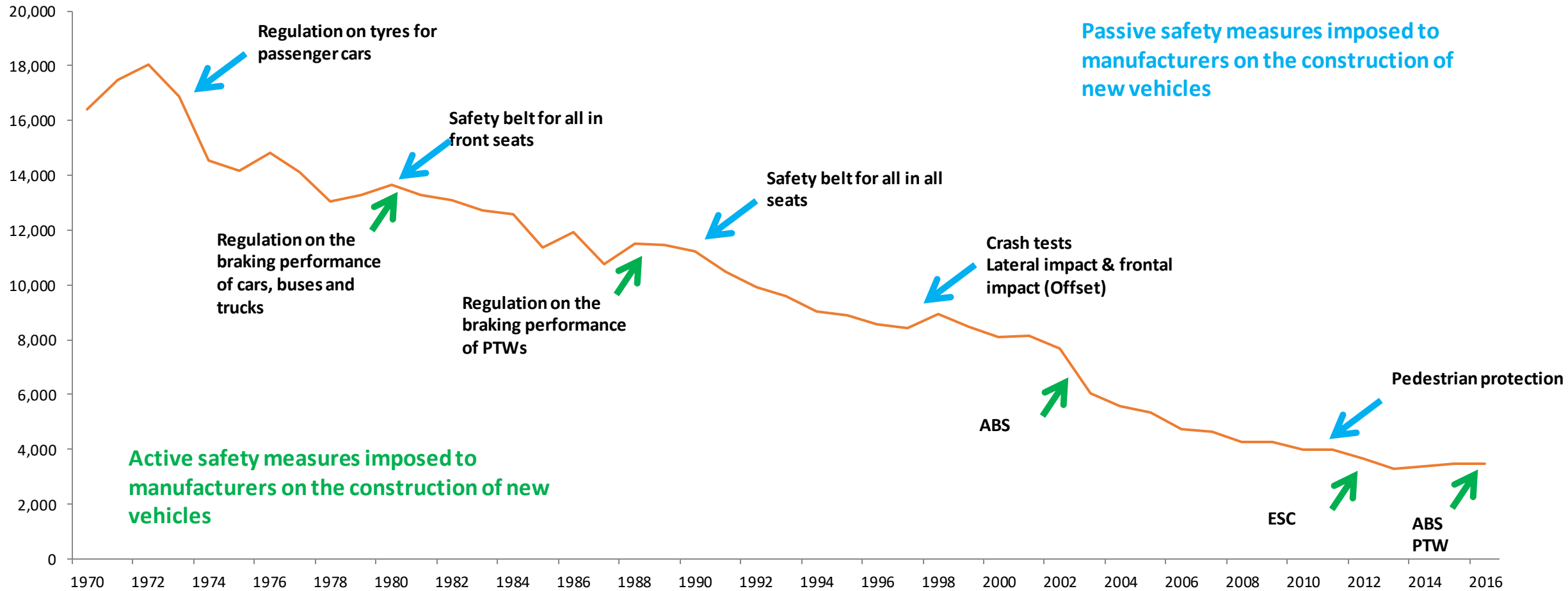
How are used UN type approvals / certificates



Case study: behavioral measures taken in France



Case study: technical measures taken in France



Import of used vehicles

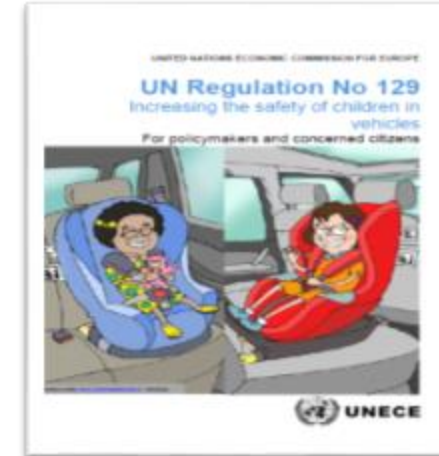
- The age of a vehicle doesn't tell everything about:
 - Its performance
 - Its equipment
- Performance's check of imported vehicles:
 - Periodic Technical Inspection
 - (Verification of approval numbers)



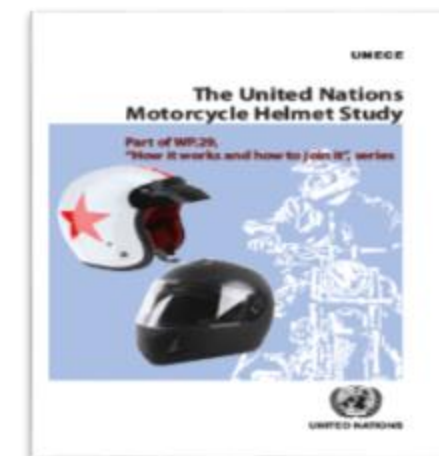
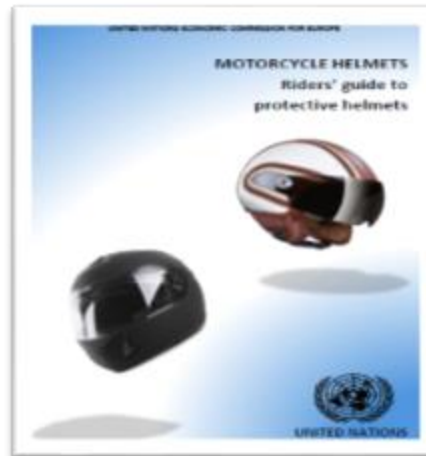
Head restrain performance

Leaflets and Publications

- Child restraint systems



- Motorcycle helmets



**THANK YOU
FOR YOUR ATTENTION**

UNECE Sustainable Transport Division

<http://www.unece.org/trans>

francois.guichard@unece.org

