

PLENARY SESSION THREE

Presentation 2

**Area of conflict between type approval and PTI
requirements in field of exhaust emission**

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Area of conflict between type approval - and PTI - requirements in the field of exhaust emission

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- Introduction
- Current situation about the relationship between PTI - and Type approval - requirements
- Conceptions to integrate PTI requirements into type approval requirements
- Role of CITA in the area of conflict
- Conclusion

- During the last decades the improvement of the exhaust emission legislation in Europe played a major role.
- The focus was, to improve the type approval regulations

Stage	Date	Limit value				
		HC+NO _x (g/km)	NO _x (g/km)	PM (g/km)	PN (#/km)	Smoke (m ⁻¹)
Passenger cars						
Euro 1	1992.07	0.97	-	0.14	-	-
Euro 2 IDI	1996.01	0.7	-	0.08	-	-
Euro 2 DI	1996.01	0.9	-	0.10	-	-
Euro 3	2000.01	0.56	0.50	0.050	-	-
Euro 4	2005.01	0.30	0.25	0.025	-	-
Euro 5a	2009.09	0.23	0.28	0.005 ^(a)	-	-
Euro 5b	2011.09	0.23	0.18	0.005 ^(a)	6 x 10 ¹¹	-
Euro 6	2014.09	0.17	0.08	0.005 ^(a)	6 x 10 ¹¹	-
Heavy-duty engines						
Euro I	1992	-	8.0	0.612 ^(b)	-	-
Euro II	1996.10	-	7.0	0.25/0.15 ^(c)	-	-
Euro III	1999.10 ^(d)	-	2.0	0.02	-	0.15
	2000.10	-	5.0	0.10 ^(e)	-	0.8
Euro IV	2005.10	-	3.5	0.02	-	0.5
Euro V	2008.10	-	2.0	0.02	-	0.5
Euro VI	2013.01	-	0.4	0.01	-	-

- (a) 0.0045 g/km using PMP measurement procedure.
 (b) 0.36 g/km for engines > 85 kW
 (c) New limit introduced 1998.10.

- (a) EEVs only
 (b) 0.13 g/km for engines of less than 0.75 dm³ swept volume per cylinder and a rated power speed of more than 3000 min⁻¹

Source: Cita Teddie Study

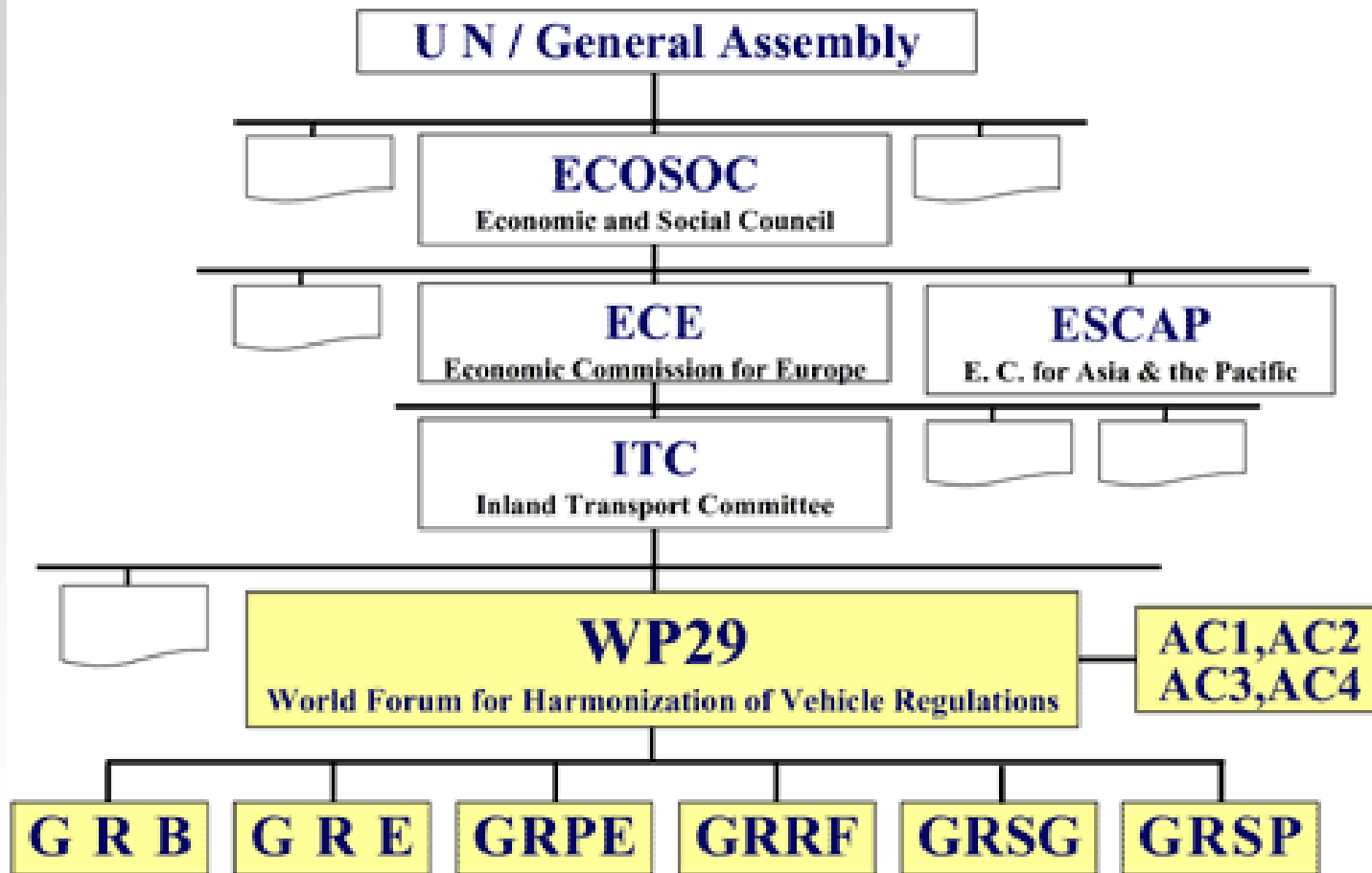
- **The improvement of the type approval requirement includes also regimes to check the conformity of production and the in use compliance**
- **The introduction of OBD - and its incorporation into standards, technical specifications and type approval regulations (from Euro 3 to Euro 6, as well as the WWHOBD) – has been an important step forward in the drive to reduce emissions from road vehicles**
- **PTI emission test requirements have not kept pace with developments in vehicle technology and type approval procedures**
- **Updates to the legislation, instruments and procedures would therefore seem appropriate**

Principles of improving regulation concerning exhaust emissions

- **Type approval regulation will be discussed in WP 29 / GRPE (working party on pollution and energy) in Geneva and DG Enterprise in Brussels**
- **The focus in the development of regulations is in WP 29/GRPE**
- **The World Forum WP.29 also established (and continues to establish) a number of Informal Working Groups (IWGs) with a time-limited mandate to deal with certain technical issues. Depending on the case and the terms of reference under which they are conceived, such groups report their work to one of the GRs or directly to WP.29. Informal Working Groups can be structured in subgroups, performing detailed tasks within the primary mandate.**

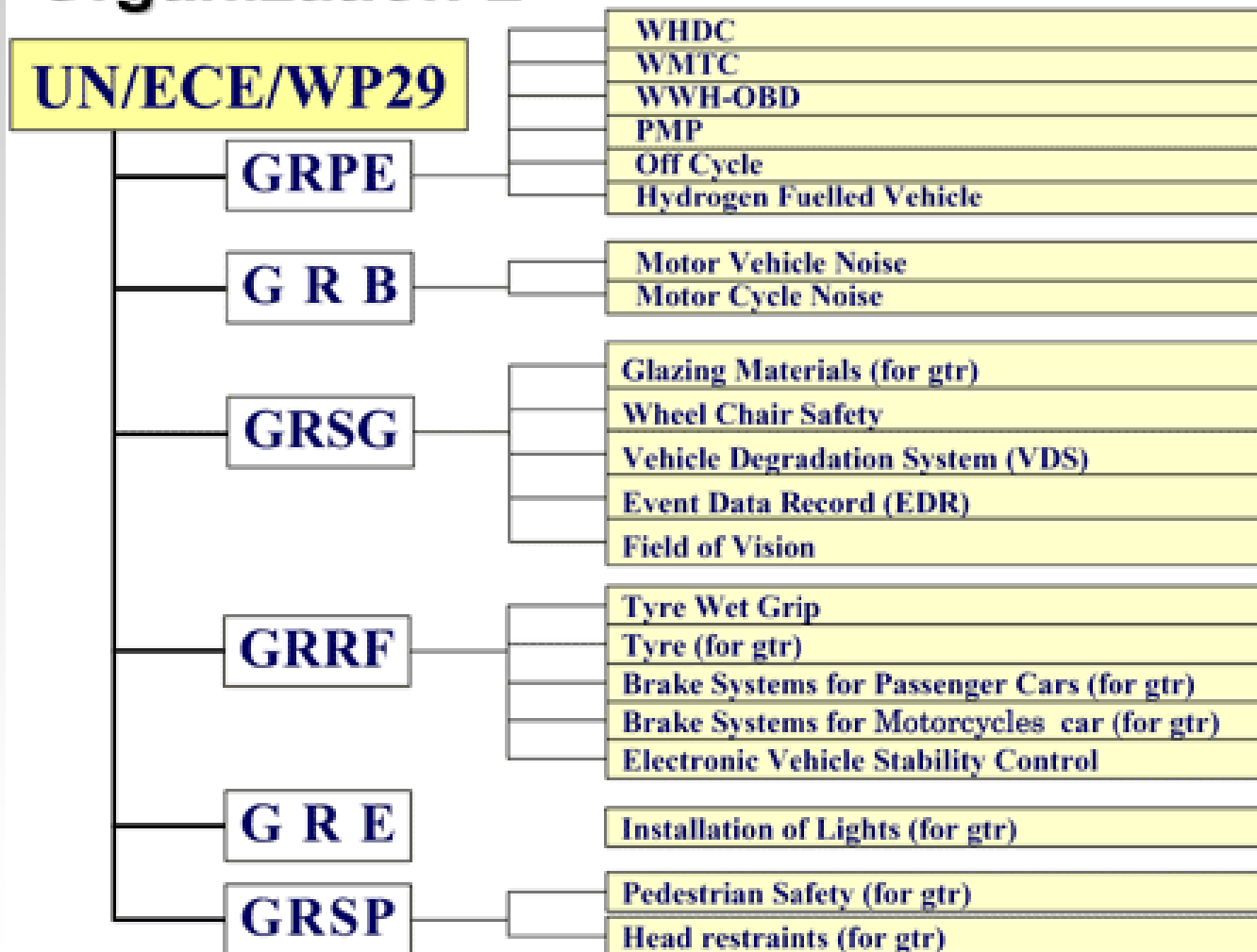
Current situation about the relationship between PTI - and Type approval - requirements

WP29 Organization-1



Current situation about the relationship between PTI - and Type approval - requirements

Organization-2



- **Interested Stakeholders and involved organizations on type approval regulations**

- The Working Party is open to the governmental experts from any member country of the United Nations, and to any regional economic integration organization set up by member countries of the United Nations, and to experts of governmental organizations. Experts of non-governmental organizations (NGOs) may participate in a consultative capacity. Final decisions are taken by Government representatives by vote at the World Forum WP.29 level
- GRPE convenes officially twice a year and entrusts informal groups with specific problems that need to be solved urgently or that require special expertise. More than 120 experts participate at the sessions of GRPE

Principles of improving regulations concerning exhaust emissions

- For the session in the GRPE 3-7 June 2013 one item 15 is a discussion about PTI

15. 1997 Agreement (periodical technical inspections): UN Rule No. 1 (environment protection)

Proposal for draft amendment to Rule No. 1 on uniform provisions for periodical technical inspections of wheeled vehicles with regard to the protection of the environment.

Documentation: ECE/TRANS/WP.29/2013/64

16. Exchange of information on national and international requirements on emissions

Exchange of views on the development of national or regional legislation and international requirements concerning emissions (see ECE/TRANS/WP.29/GRPE/65, paras. 72-75).

Principles of improving regulations concerning exhaust emissions

PTI regulations will be discussed mainly within DG Move

- **Interested Stakeholders and involved organizations on type approval regulations**
 - **Governmental organizations**
 - **PTI organizations, CITA**
 - **Automobile industry**
 - **CLEPA automobile supplier association**
 - **CECRA garage equipment association**
 - **NGOs like consumer protection organizations**
- **Solutions will be found with proposals based on studies (TEDDIE from CITA as an example) and discussions with the governmental organizations in the technical adaptation committee (TAC)**

Principles of improving regulations concerning exhaust emissions

Main concerns from PTI organizations and CITA about the process in defining and improving PTI – and the type approval regulations

- Different stakeholders
- Strong influence from the automobile industry
- Supporting experts for the government, like technical services, are not linked to PTI-requirements
- Different departments in the governmental organizations with different views
- No interest for the type approval stakeholders to involve concrete measures for PTI procedures
- To become influence in the working group it is necessary to have an sustainable involvement with the right person
- Change of involved individuals will influence the process of lobbying negative

Example: OBD

- **Execution of the type approval**
 - catalyst
 - misfiring
 - oxygen sensor
 - one part of the ignition system
 - fuel evaporation system
- **Checks include the test of the MIL (on/off) and setting of the failure**
- **Different engine types can be summarized in families**
- **Thresholds for setting a failure are very high**
 - Euro V: type approval limit for particulates : 4,5 mg/km; threshold: 50 mg/km

Example: OBD

- **Concern for PTI organizations**
 - Only 5 failures possibilities are checked
 - No check of the concrete OBD applications for the vehicle by an independent organization
 - No check of the communication between the car and the garage test equipment
 - No independent check of the OBD system for other emission relevant failures than tested during the type approval procedure
 - For example, speed limitation for diesel engines during free acceleration in type approval should also discussed with the government

- **Basic findings of problems to match type approval regulations with PTI regulations**
 - Communication between the WP29, DG Enterprise, DG Environment and DG Tren has room for improvement
 - The experts, who do technical consulting for the government concerning type approval and PTI should be linked
 - Stakeholders who are in charge of the PTI regulations should have more influence in type approval working groups
 - Problems detected during PTI should be communicated to the type approval stakeholders

- **Concepts to integrate PTI requirements into the type approval legislation**
 - Lobbying in WP 29
 - through experts from technical services
 - communication with the governmental organizations
 - installation of CITA experts in the working groups
 - Lobbying in DG Enterprise, DG Environment and DG Tren
 - CITA can be a forum to bring the stakeholders together (why not organize a symposium with the stakeholders ?)
 - Draft of concrete proposals for type approval requirements (e.g. no speed limitation for free acceleration test)

Role of CITA

- **Involvement of organizations with type approval and PTI background**
- **Identify CITA members, who are involved for years in the process of the type approval legislation together with their governmental administration**
- **Formulate PTI requirements for future vehicle concepts together with people, who are involved in the type approval legislation**
- **Convince CITA members to take the requirements for future PTI procedures into an early stage of type approval legislation process**

- **Today there is a minor acceptance for PTI requirements in the type approval regulations**
- **For the communication between the different stakeholders from the type approval site and the PTI site is room for improvement**
- **For the future improvement of type approval requirements for modern car concepts, it is important to install PTI requirements into type approval**
- **The main challenge for a kind of standardization of type approval - and PTI - requirements is, to sensibilise the different stakeholders in the different areas of the legislation**
- **CITA have members, who have influence in both areas, can play an important role to bring more PTI demands into the type approval process**
- **From my view, CITA needs a decision about a concept, with responsible persons and concrete measures for the next 5 years**

Thank
you for
your intention

