

Joint Research Centre

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*Serving society
Stimulating innovation
Supporting legislation*

UNECE IWG on EPPR for L-category vehicles

State of play

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Outline

- ✓ **Background**
- ✓ **State of play**
 - GTR on Evaporative and Crankcase emissions
 - GTR on OBD-1
 - GTR2
- ✓ **Request for clarification**
- ✓ **Next Steps /Roadmap**
- ✓ **Past and next meetings**





Background

ToR and mandate

- ✓ **Priority to work under 1998 Agreement but will also work under 1958 Agreement**
- ✓ **Amend GTR No2 and develop new GTRs with respect to Environmental and Propulsion unit Performance Requirements**
- ✓ **Create synergies with 58th Agreement and where possible develop common requirements in form of UN Reg(s)**
- ✓ **Exchange information on current and future regulatory requirements for 'light vehicles'**
- ✓ **Adopted at WP29 Nov 2013**
- ✓ **Extended at WP29 Jun 2015 (2016 to 2020)
(ECE/TRANS/WP.29/AC.3/36/Rev.1)**



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Background

Topics to be covered by EPPR

➤ **Environmental performance:**

- Type I: Tailpipe emissions test after cold start (revision);
- Type II: Tailpipe emissions test at (increased) idle / free acceleration;
- ✓ Type III: Emission test of crankcase gases;
- ✓ Type IV: Evaporative emissions test;
- Type V: Durability testing of pollution control devices;
- Type VII: Measurement of CO₂ emissions, fuel consumption, electric energy consumption and electric range determination;
- ✓ Type VIII: On-board diagnostics environmental verification tests.

➤ **Propulsion unit performance:**

- Unified rules and test procedures to measure power and torque for propulsion technologies fitted on L-category vehicles
- unified measurement of maximum design vehicle speed and/or power for restricted L-category vehicles should be developed and agreed upon.



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Stay of Play

Evaporative and Crankcase emissions

✓ **8 March 2017 (ECE/TRANS/180/Add.17)**

Global Registry

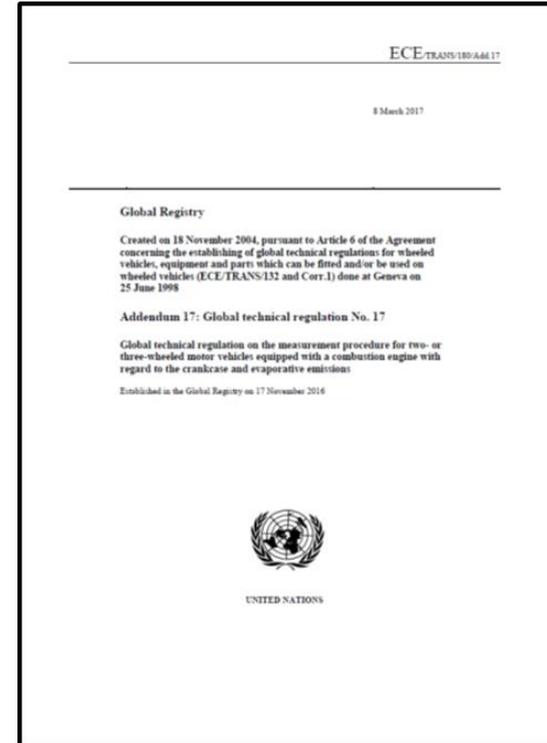
Created on 18 November 2004, pursuant to Article 6 of the Agreement concerning the establishing of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles (ECE/TRANS/132 and Corr.1) done at Geneva on 25 June 1998

Addendum 17: Global technical regulation No. 17

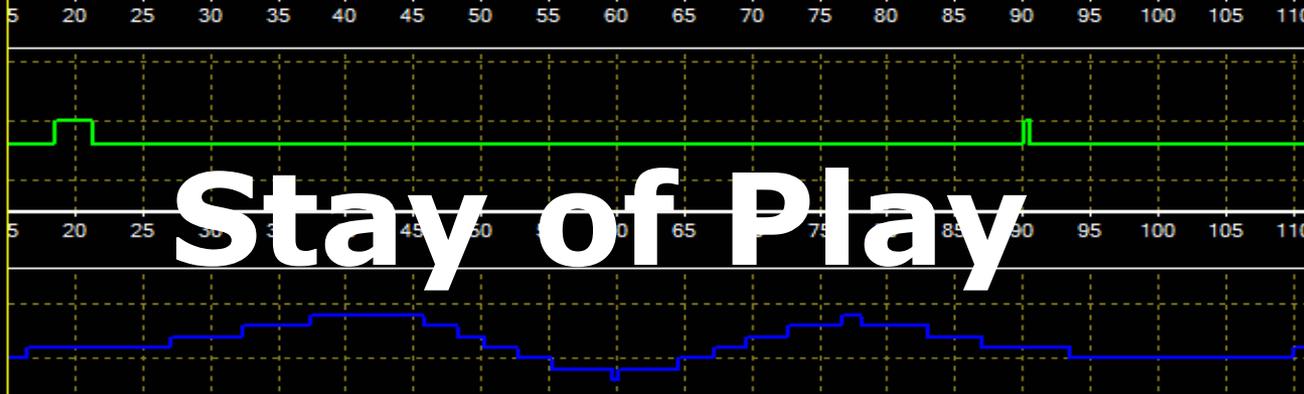
Global technical regulation on the measurement procedure for two- or three-wheeled motor vehicles equipped with a combustion engine with regard to the crankcase and evaporative emissions

Established in the Global Registry on 17 November 2016

<http://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29wgs/wp29gen/wp29registry/ECE-TRANS-180a17e.pdf>



IACV pulse counter
 IAC command
 EDT sensor
 TCP sensor
 AP sensor
 RAC valve direction
 O2 sensor voltage #1
 O2 sensor heater #1
 ST fuel trim #1
 O2 sensor voltage #2
 O2 sensor heater #2
 ST fuel trim #2
 Bank angle sensor input voltage
 EGCV position input
 EGCV position target
 EGCV load value
 Linear solenoid current value
 Linear solenoid target value



Minimum: 118.0
 Maximum: 120.0
 Actual: ---
 Minimum: 77.0
 Maximum: 84.0
 Actual: ---

OBD-I

❑ 8 March 2017 (ECE/TRANS/180/Add.18)

Global Registry

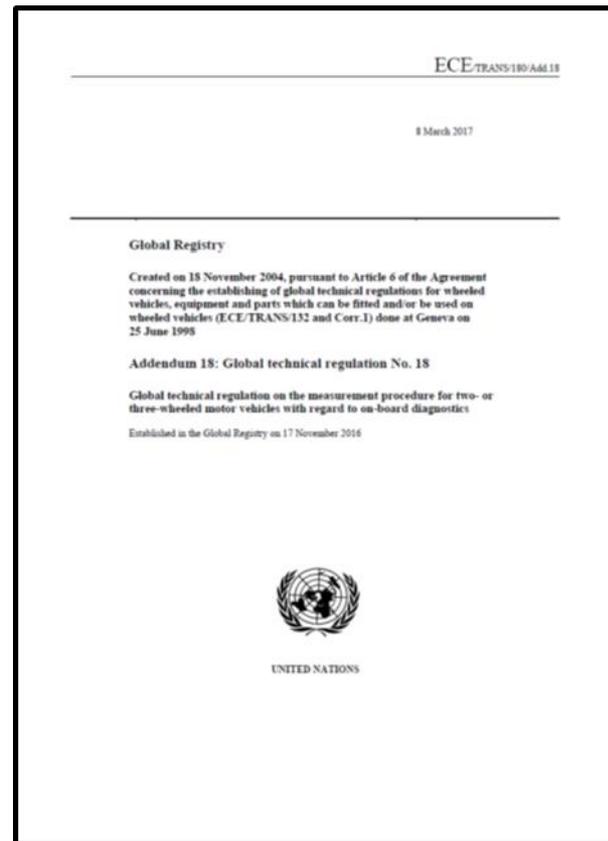
Created on 18 November 2004, pursuant to Article 6 of the Agreement concerning the establishing of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles (ECE/TRANS/132 and Corr.1) done at Geneva on 25 June 1998

Addendum 18: Global technical regulation No. 18

Global technical regulation on the measurement procedure for two- or three-wheeled motor vehicles with regard to on-board diagnostics

Established in the Global Registry on 17 November 2016

<http://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29wgs/wp29gen/wp29registry/ECE-TRANS-180a18e.pdf>



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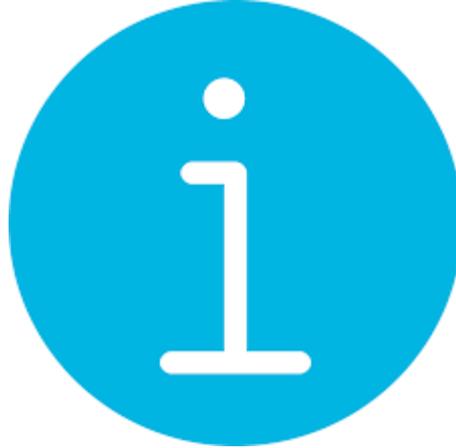
Stay of Play

GTR2

- ❑ **EPPR-11-15 Rev1 = proposal EC**
- ❑ **IMMA has identified the differences between current GTR2 & EPPR-11-15 Rev1**
- ❑ **Extensive document. Split the work, during 2016 and 2017**
- ❑ **Intentions to present an informal documents to GRPE (January 2018)**



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Request for clarification

Temperature units

- Kelvin or °C
- If Kelvin then 273.15 or $273.2 = 0^{\circ}\text{C}$



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Next steps

- ✓ **OBD 2**

- ✓ Start full work on this item from beginning 2018 (agreed by all parties)

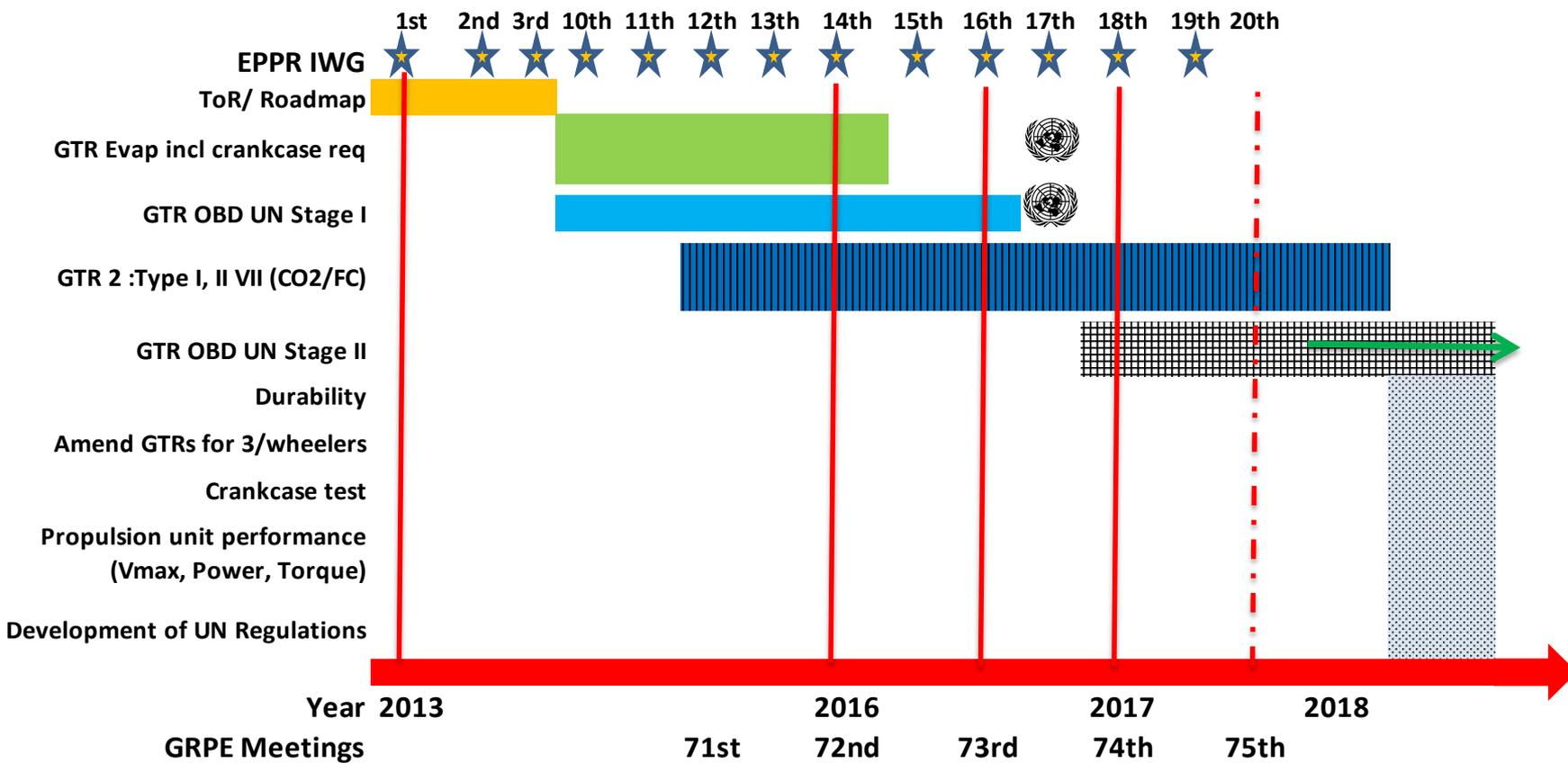
- ✓ **Durability (?)**

- ✓ **GTRs to be transposed into UN Regulations (?)**

- ✓



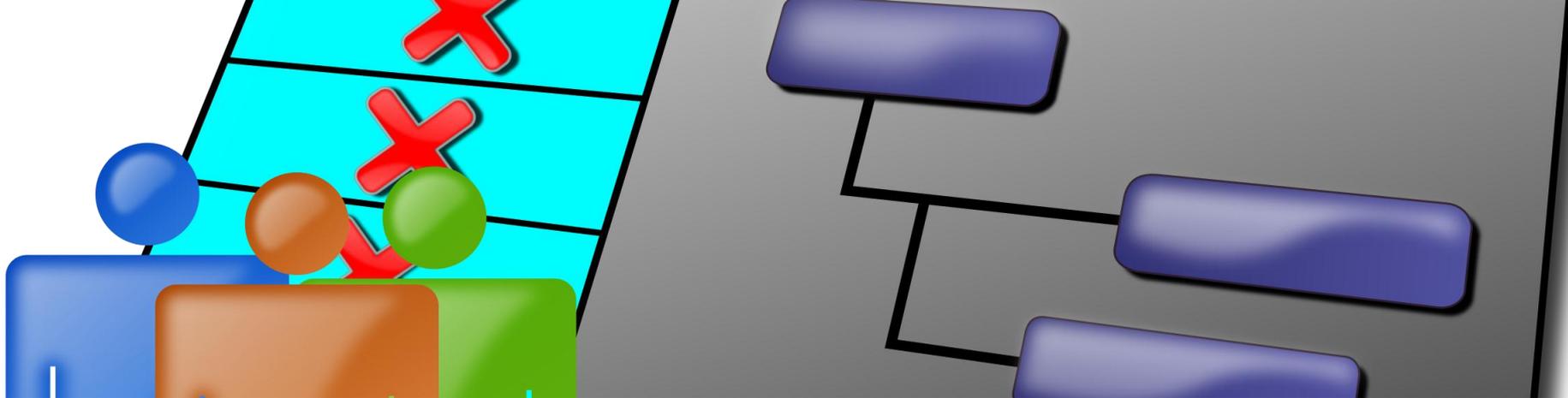
EPPR Roadmap



 GTR approved by WP29/AC2



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Meetings

Past Meetings

18th meeting in Geneva, 9 Jan 2017 (GTR2-OB2)
 audio-web conference, 10 Feb 2017(GTR 2)
 19th meeting in Japan, March 2017 (GTR2)
 audio-web conference, May 2017(GTR 2)

Next Meetings

20th meeting in Geneva, June 2017 (GTR2) *
 audio-web conference, July 2017(GTR 2)
 21st meeting, October 2017 (GTR2)
 audio-web conference, Nov 2017(GTR 2)
 audio-web conference, Dec 2017(GTR 2)
 21st meeting in Geneva, January 2018 (GTR2)



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