Status report

‘Sub group 2’: Real world road test

Arjan Dijkhuizen (RDW, NL)
Geneva, September 2018
Content

• Background ‘Sub group 2’
• Timeline
• Summary 2nd meeting
  – ToR
  – AV driving behaviour measurement
  – AEBS on trucks
• More information
Background

• How to test and assess the functionality of automated driving systems?

*Early 2018*

- WP.29
- IWG_ITS/AD
- TF ‘Auto Veh’

*Sep 2018*

- WP.29
- GRRF
- GRVA

- SG_1
- SG_2
- SG_1
- SG_2
Timeline

In conjunction with Sub group_1:

• 1\textsuperscript{st} meeting: The Hague, 4-5 June 2018
• 2\textsuperscript{nd} meeting: Paris, 3-4 September 2018

• 3\textsuperscript{rd} meeting: Niigata (Japan), 23-25 October 2018
• 4\textsuperscript{th} meeting: Beijing, 14-15 January 2019 (to be confirmed)
• 5\textsuperscript{th} meeting: Washington D.C., 1-3 April 2019

➢ Mandate until December 2020
Summary 2nd meeting

Terms of reference

• Approach based on three pillars:

  - **Audit**
    - Incl. simulation
    - Virtual testing
  - **Test track**
    - Assessment in a controlled environment
  - **Real world**
    - General testing

**Sub group 1**
Chair: Onoda-san
Secretary: Oshita-san

**Sub group 2**
Chair: P. Striekwold
Secretary: W. Gouse
Summary 2nd meeting

Terms of reference – cont.

• Testing coverage:

![Graph showing testing coverage categories: Typical Driving, Real World Test Drive, Demanding Traffic Scenarios, Physical Tests, Edge Cases, Simulation]
Summary 2nd meeting

Terms of reference – cont.

• As part of the ‘3 pillar approach’, to (Cat M, N on L3 – 5):
  – Develop real world road tests to assess automated systems in order to ensure road safety
  – Demonstrate system compliance with traffic laws

• Develop requirements based on test scenarios
• Focus on urban traffic and motorway/highway traffic
• Consideration on ISC measures during the vehicle’s life

➢ Implementation to be decided by WP.29 (Regulation, GTR, guideline or best practice)
Summary 2nd meeting

Presentations

1. AV driving behaviour measurement (*McLaren/Meridian*)
   - Driving a vehicle on the public road requires ‘perception’, ‘planning’ and ‘command’. Perception is the most difficult, human behaviour is not a mechanical system
   - Human examiner is well equipped to spot the unusual but not good at monitoring a list of items

2. AEBS on trucks (*Dutch ‘Rijkswaterstaat’*)
   - Test results of trucks approaching road work barriers, appealing to the relevance of real world road tests
More information

• ToR: informal document GRVA-01-11
• Wiki: https://wiki.unece.org/display/trans/SG-2+Real+World+Test+Drive

• **Chair**: Peter Striekwold (RDW, Netherlands)  
  pstriekwold@rdw.nl

• **Secretary**: Bill Gouse (SAE, US)  
  s.william.gouse@sae.org

• Arjan Dijkhuizen (RDW, Netherlands)  
  adijkhuizen@rdw.nl