



# 64<sup>th</sup> GRB

## *EU Regulation on AVAS requirements*

*Presentation by the European Commission expert*

## **Detailing requirements of Acoustic Vehicle Alerting System (AVAS)**

- **Commission empowered to detail by 1/7/2017 AVAS requirements that are already in Annex VIII to Reg. (EU) No 540/2014**
- **Commission Delegated Regulation taking into account the UNECE relevant work (UN R138 on QRTV)**

## UNECE Regulation No 138

- M and N QRTVs concerned
- **AVAS requirements included** – only acoustic devices addressed to
  - A) Technical
    - Definitions, speed range of operation, min vehicle sound for at least two 1/3 octave bands, max vehicle sound 75 dB(A) in forward motion, frequency shift, tests for sound emission (forward and reverse), stationary sound (optional), AVAS pause function (switch): optional
  - B) Administrative
    - Type approval (procedures for application, modification, extension and related certificate and marking), CoP, penalties, Technical Services data
    - Communication and marking models in Annexes 1 & 2

## EU Regulation on AVAS requirements:

**Commission Delegated Regulation amending Regulation (EU) No 540/2014 of the European Parliament and of the Council as regards the Acoustic Vehicle Alerting System requirements for vehicle EU type-approval**

➤ ***Legal obligations:***

- ***to detail the requirements in Annex VIII by completing them only***
- ***to have the AVAS mandatory on all new EV and HEV types by 1/7/2019 and all new EV and HEV by 1/7/2021***

• **Articles**

- 1) Amendment of Annex VIII to Reg. 540/2014
- 2) Entry into force

## EU Regulation on AVAS requirements

- **Annex**
  - Based on the technical requirements drafting in Annex VIII, Reg. 540/2014
  - Completing the *technical* requirements of Annex VIII, Reg. 540/2014 by *referring* to requirements of UN R138
  - *Copying* the necessary *admin* requirements from UN R138

## EU Regulation on AVAS requirements

- **Annex (cont'd)**

### ***A) Technical requirements***

- 1) Accepting from UN R138 the definitions of "Pause function" and "Frequency shift"
  - 2) The AVAS sound generation requirement in forward motion and reverse as in Reg. 540/2014
- ✚ from UN R138: requirements on testing, min vehicle sound level and frequency shift when no AVAS in reverse, due to vehicle warning alarm

## EU Regulation on AVAS requirements

- **Annex (cont'd)**

- 3) Pause switch

From UN R138

- + Pause function (new term)

- + Optional – to be amended following the UN Reg. final decision

- + Complying with the requirements in UN R138

- 4) Attenuation

- Requirement from Reg. 540/2014

- + from UN R138 : min sound level & frequency shift

## EU Regulation on AVAS requirements

- **Annex (cont'd)**

- 5) Sound produced

As in Reg. 540/2014

- Continuous to warn pedestrians and other road users
- Indicative of the vehicle operation

From UN R138:

- + Frequency shift

- + Optional stationary noise, complying with the attenuation requirements of this Regulation, if attenuated

- + Driver selectable sounds



## EU Regulation on AVAS requirements

- **Annex (cont'd)**

- 6) Sound volume

As in Reg. 540/2014

- ✚ from UN R138: overall vehicle sound level 75 dB(A) in forward motion

- 7) Transitional provisions

- ✚ On test track: from ISO 10844:1994 (till 30 June 2019) to ISO 10844:2014

- (from UN R138)

## EU Regulation on AVAS requirements

- **Annex (cont'd)**

- B) Administrative requirements copied from the UN R138***

- +** Communication (type-approval certificate ) & its model

- +** Marking on vehicle & its model

## Next steps

- First comments from MVWG done
- New draft incorporating comments September 2016
- Discussion of new draft in dedicated MSEG and / or  
comments in writing October 2016
- ISC end 2016-start 2017
- Adoption Q1 2017



**Thank you for your  
attention**

**DG GROW – Unit C4**

**Further information:**

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