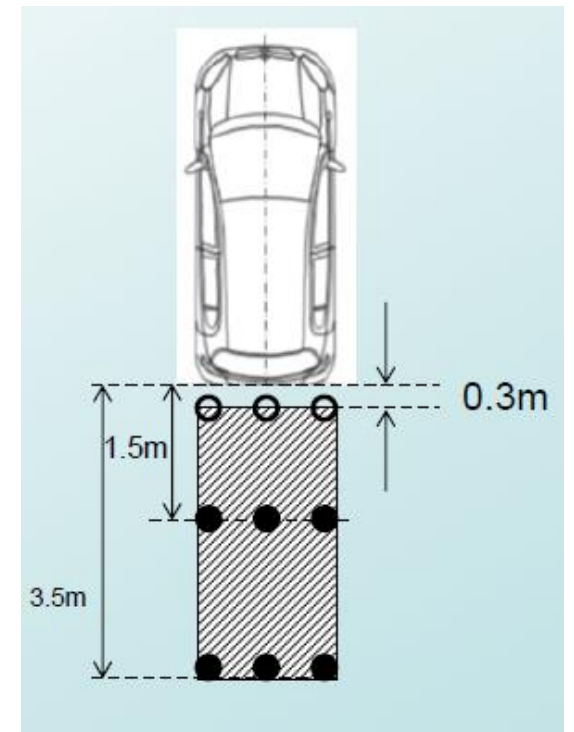


VRU-Proxi Reversing Motion Regulation

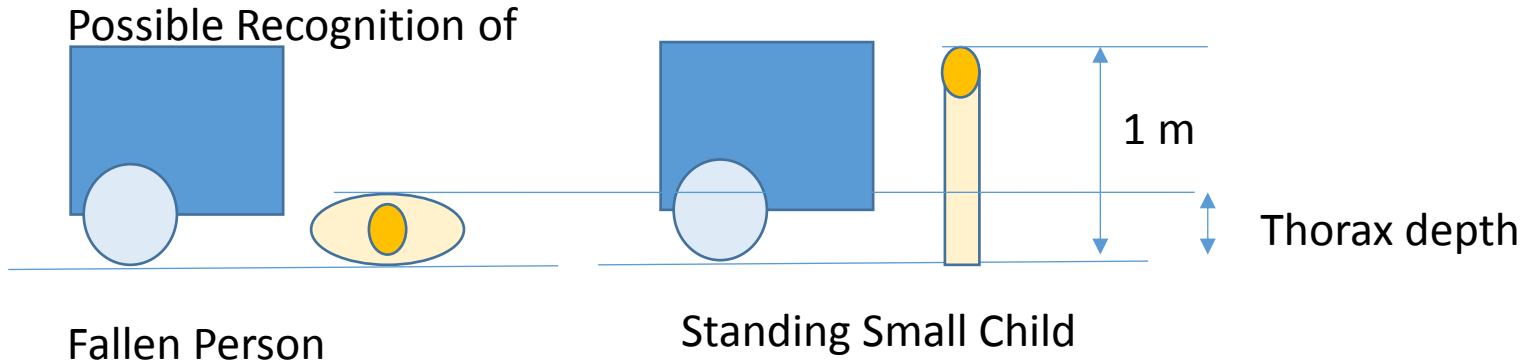
- Regulation framework proposal
- Performance requirements (discussion)
- Main questions

VRU-Proxi Reversing motion regulation framework (compromise proposal)

Part	R46	Rxx (new regulation)
Component	Mirrors (Class I to VII) CMS (Class I to VII)	Detection CMS Class VIII Mirror Class VIII
Installation	CMS (Class I to VII) Mirrors (Class I to VII)	CMS (Class I and VIII) <i>(reference to R46 and Rxx)</i> Mirrors (Class I and VIII) <i>(reference to R46 and Rxx)</i> Detection Direct vision



Performance Requirements (discussion)



Parking Scenarios
< 6 km/h

Portion of Person is sufficient for recognition

Audible Reaction time is shorter than Visual Reaction time

Translates into System Related Requirements

Vision system:

Mirror:

Calculate in
Visual Reaction Time
of Driver

convert to

Floor Area
Vehicle width x 3.5 m

CMS:

Calculate in
Visual Reaction Time of Driver
CMS Latency 0.2 s

convert to

Floor Area
Vehicle width x 3.5 m

Detection system:

Calculate in
Audible Reaction Time of Driver
Detection System Latency [0.2s]

convert to

Horizontal Area above [Thorax depth] m above floor
Vehicle width x [1.5 m]

Main questions

Nr	Main questions	What / who?
1	Fallen person to be taken into account?	Accidentology (ask CP's for in-depth data)
2	Shall detection system give an audible and/or optical warning?	
3	Do we allow direct vision (turning head)?	
4	Do we allow a combination of devices with different type of HMI?	
5	Shall each row of poles (perpendicular to the longitudinal direction of the vehicle) be seen/detected by one (single) device?	CP's to answer
6	Do we allow mirror-to-mirror solution (periscope)?	
7	How to test, static or random position of poles?	
8	Shall exemptions be implemented in the UN Regulation or not?	CP's to answer