

## **Proposal for amendments to the proposal for a new UN Regulation on uniform provisions concerning the approval of motor vehicles with regard to the Blind Spot Information System for the Detection of Bicycles**

### **(Amendments to ECE/TRANS/WP.29/GRSG/2018/24)**

#### **I. Proposal**

*Paragraph 5.5.3.*, amend to read:

"5.5.3. The warning signal shall be activated at the earliest when the system detects a potential collision, e.g. by the intention of a turn towards the bicycle, ~~e.g. by evaluating the distance between or trajectory intersection of vehicle and bicycle,~~ direction indicator activation or similar. The strategy will take into consideration the time to collision between the vehicle and the bicycle, e.g. by evaluating the distance between and the trajectory intersection of vehicle and bicycle, and shall be explained in the information referred to in paragraph 6.1. It shall not depend solely on the activation of the direction indicator.

The Technical Service shall verify the operation of the system according to the strategy."

#### **II. Justification**

1. TTC-based warnings are the industry standard and similar to production FCW/AEB systems
  - a. Alerts require immediate attention and a concrete response to prevent an accident. Such approach is especially valuable with HGVs, operating in a limited-view and a complex driving and HMI environment.
  - b. A ttc-based warning is the approach adopted by both industry and with regulation in accident avoidance technologies where are well known to the public (FCW, AEB, LDW/LKA).
  - c. The current draft defines a vague standard relating a 'detection of a potential collision', which does not define specific protection to the cyclist
2. A TTC based warning level is vital to supplement current 1st level of information, insufficient by itself in providing adequate protection in stop & go scenarios beyond the last point of information:
  - a. According to the regulation requirement, the information signal will be displayed last at the last point of information, defined at 15-38m (depending on the relative HGV/cyclist speed, see testing procedures in appendix 1) only, or until the collision is possible. With stop & go movement of the truck, halting after the last point of information, a cyclist approaching from behind will not require the information signal, until he is at the utmost forward front wheel, and only in cases of low lateral separation (0.25 to 0.9m). This information could be too little too late, for example for vehicles pausing their movement at a stop line, a red-light stop, or when stopping to allow a passing bike.