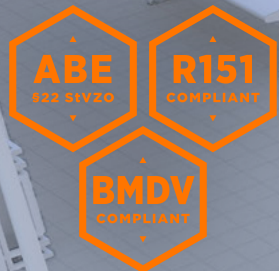
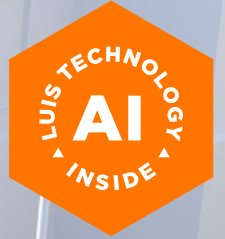


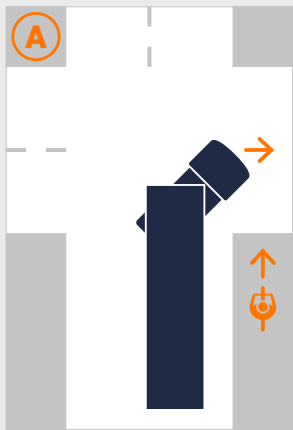
# LUIS TURN ASSISTANT

## OEM & RETROFIT



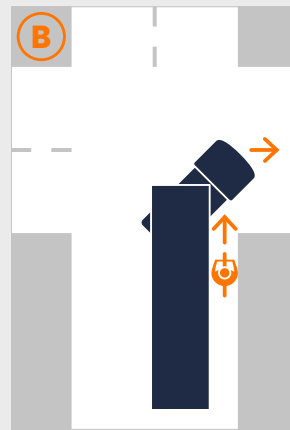
# AVOID 60% OF TURNING ACCIDENTS

70% OF WHICH INVOLVE CASUALTIES WITH CYCLISTS IN A 2<sup>ND</sup> LANE



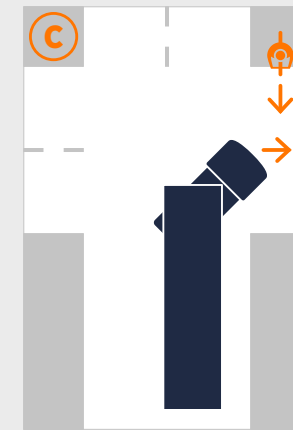
## ACCIDENT TYPE 243

- › The cyclist is travelling in a separate cycling lane
- › Frequently obscured by parked cars or green spaces
- › Distance to the truck is 2–5 m (6.6–16.4 ft)
- › **70% of casualties investigated**



## ACCIDENT TYPE 232

- › The cyclist is travelling next to the truck in the same lane
- › Distance to the truck is 0–2 m (0–6.6 ft)
- › **20% of casualties investigated**



## ACCIDENT TYPE 244

- › The cyclist is travelling in the opposite direction, meeting the vehicle head-on
- › Their paths cross when the vehicle turns a corner
- › **0% of casualties investigated**

**SOURCE:** UDV, Unfallforschung der Versicherungen, 16.11.2016 (Accident Research by Insurance Companies, 16 November 2016); BG Verkehr, Kamera-Monitor-Systeme (KMS) zur Vermeidung von Abbiegeunfällen, 14.9.2016 (Mutual Employer Safety and Liability Insurance for the German Traffic and Transport Sector, Camera-Monitor-Systems (CMS) to Prevent Turning Accidents, 14 September 2016); Abbiege-Assistenzsystem für Lkw – Grundlagen eines Testverfahrens B. Schreck, P. Seiniger; BASt-Bericht F 104, 2015 (Driver Assistance System for Right-Turning Trucks – Foundations of a Test Procedure, B. Schreck, P. Seiniger, BASt Report F 104, 2015)

**NOTE:** In addition to the above accident types, 6 road users were killed by trucks of  $\geq 7.5$  t (and 2 by trucks of  $< 7.5$  t), while 23 road users were seriously injured by trucks  $\geq 7.5$  t (and 72 by trucks  $< 7.5$  t); time period/ location of the BASt study: 2008 to 2012, German federal states of Lower Saxony, North Rhine-Westphalia, Rheinland-Pfalz, Saarland. A total of 5,728 accidents resulted in 98 casualties, 1,034 people suffering serious injuries and 4,596 people suffering minor injuries. Of these, turning accidents caused 57 casualties, 305 cases of serious injuries and 1,276 cases of minor injuries

# LUIS TURN DETECT® 4.0

## UN ECE R151 TURN ASSISTANT

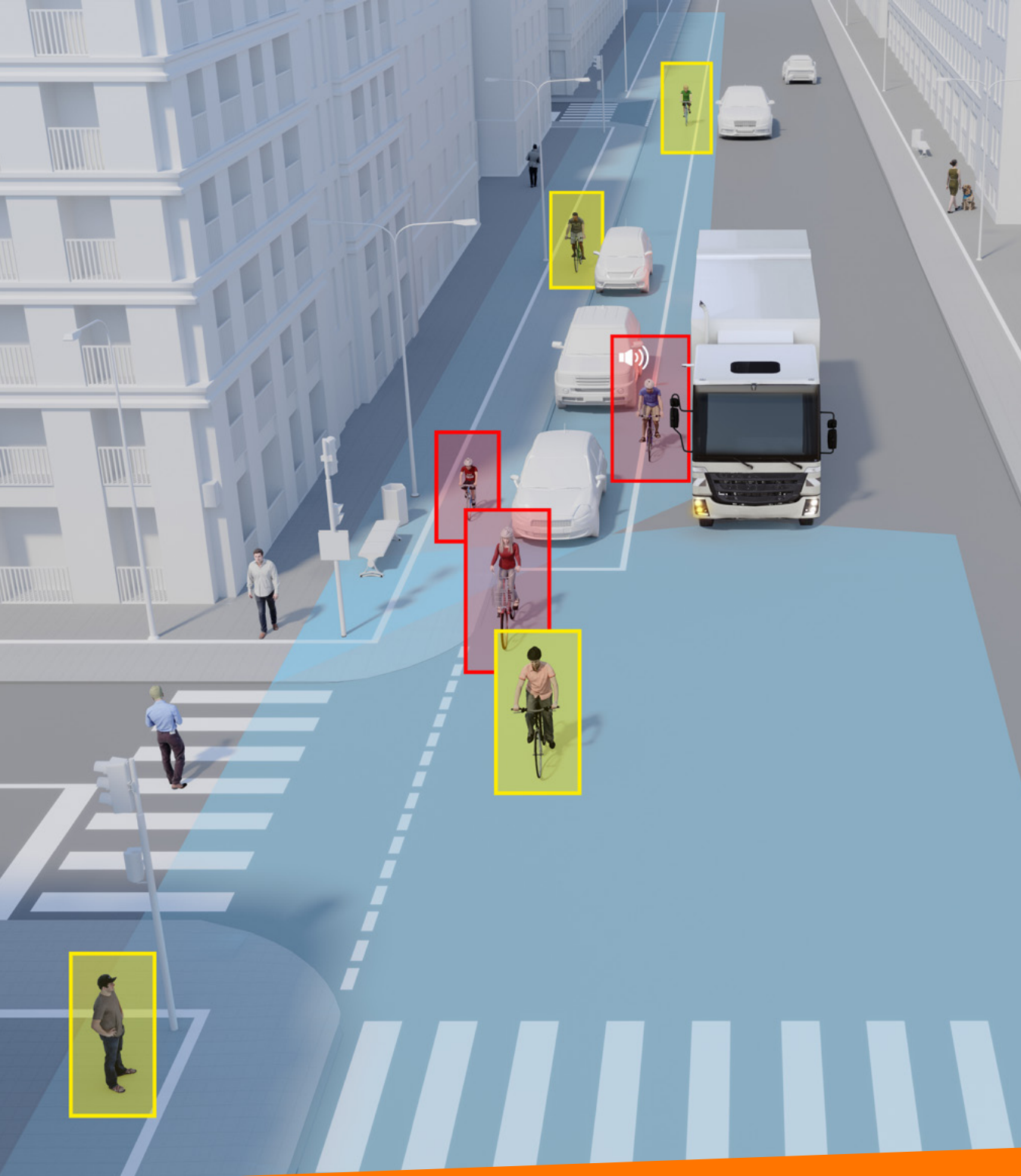
### BENEFITS

- › Reliable classification of Vulnerable Road Users (VRU)
- › Detection of cyclists – even in the 2nd row, for example behind parked cars
- › Detection even of stationary VRU
- › No detection of other objects such as moving or parked cars to minimize false alarms
- › Meets both the European-wide ECE R151 and German BMDV recommendation
- › 3-stage escalated warning to reduce distraction
- › Extendable for compliance with ECE R159
- › Full range of functions even in the dark
- › Short installation time



**ENGINEERED  
IN GERMANY**





# LUIS TURN DETECT® 4.0

ECE R151 BSIS AND ECE R159 MOIS

The LUIS TURN DETECT® assistant (BSIS: Blind Spot Information system) has been completely redeveloped and comply with UN ECE R151. It can be expanded to include a moving-off assistant (MOIS) according to UN ECE R159.

The AI-based system recognizes bicyclists and pedestrians up to 40 meters behind and 10 meters in front of the vehicle and can reliably distinguish them from other, mostly static objects (classification). The warning occurs in three stages, both visually and acoustically. It is possible to use a monitor with OSD display of the warnings or a pure LED indicator. The LUIS TURN DETECT® is controlled via a CAN interface or vehicle signals (I/O).

To comply with UN ECE R159, the turn assistant can be expanded to include a front camera to prevent accidents involving people when driving off. Especially with high vehicle cabs in front of the vehicle (field of vision VI), a blind spot is created which can become a hazard when the vehicle pulls away.

All components meet the high automotive requirements for temperature, shock and vibration.

**MOVING  
SAFELY ▲**

**WE ARE HAPPY TO HELP!**  
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