ETSC PIN Webinar

Successful implementation of vehicle safety

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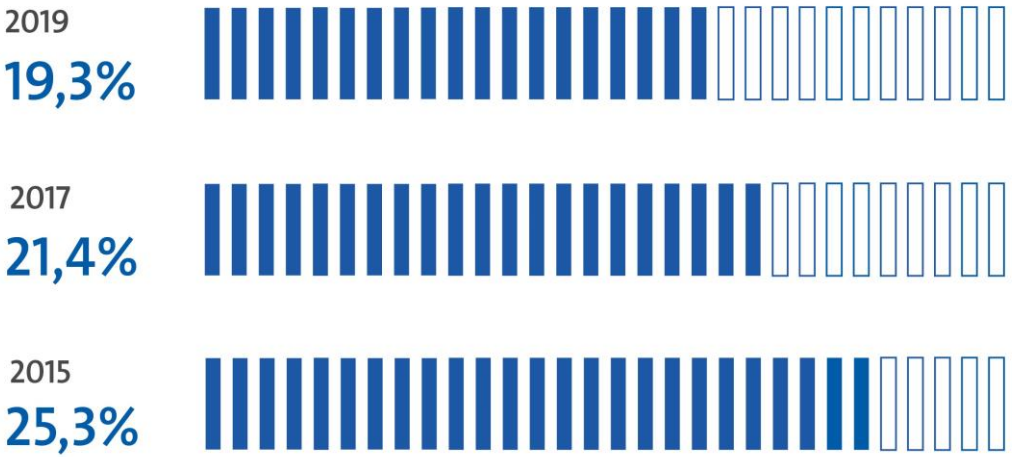
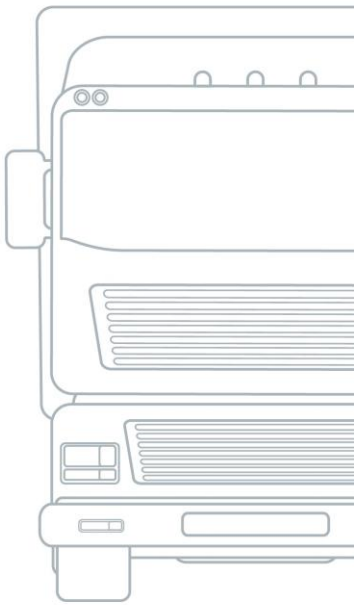
Results of roadworthiness test in Germany

TÜV – Goods Vehicles Report *(biennial)*

Every fifth goods vehicle fails the roadworthiness test (PTI)

Proportion of goods vehicles with major deficiencies in the PTI* (failure rate)

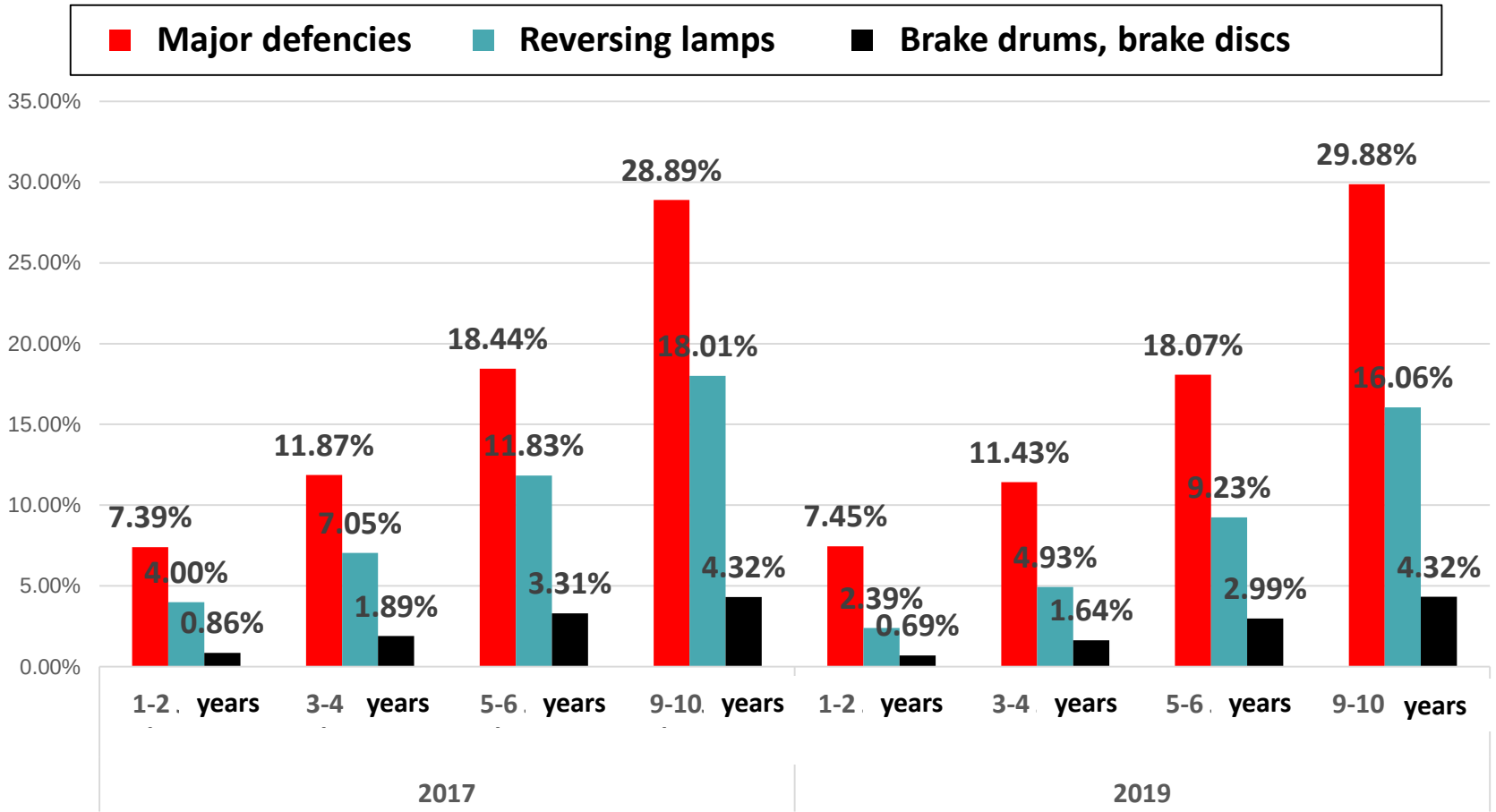




*Basis: ~ 1,85 Mio. PTI tests in 2019 in Germany

In focus N_1-vehicles*: Take deficiencies more seriously! Deficiency rates increase with age!

Deficiencies N_1-vehicles <3,5ts



› Remarkably high rates for **brakes** and **reversing lamps** - responsibility of the owner!

› Relatively **high failure rate** at LGV - responsibility of the policy (test frequency)!

*Vehicles used for the carriage of goods and having a maximum mass not exceeding 3.5 tonnes

Implementation of the new General Safety Regulation

- The **Periodic Technical Inspection** is an essential component of road safety: PTI identifies and fixes deficiencies!
- **Early disclosure of a deficiency** in the roadworthiness of a vehicle would help to remedy that deficiency and hence prevent accidents.

Currently discussed in the Motor Vehicles Working Group (MVWG):

- **Intelligent speed Assistance (ISA)**
- **Emergency Lane-Keeping Assistance (ELKS)**
- **Driver Drowsiness and Attention Warning (DDAW)**
- **Tyre Pressure Monitoring Systems (TPMS)**

The requirements will apply to new types from Mid 2022, and to new vehicles from Mid 2024. Estimated to save **25,000 lives** (2022-2037)

Provisions for Roadworthiness

Example: Driver Drowsiness and Attention Warning (DDAW)

As a safety-relevant system DDAW requires the highest possible level of reliability. Therefore, the correct functioning of the systems has to be ensured over **the whole lifetime of the vehicle**.

https://www.hyundai.com/lb/en/find-a-car/i30n/safety

Failure warning indicator lamps are designed to **indicate critical failures to the driver** based on self-diagnosis.

But the indicator lamp is limited and will **not cover** e.g.:

- Manipulation and deactivation of the system
- Degradation, damage and incorrect maintenance of components

➔ **Not suitable for Roadworthiness Testing**

Recommended adjustments for Roadworthiness Testing

- The specific roadworthiness **test methods for DDAW systems** or other ADAS codified by GSR II should be addressed in the directive **2014/45/EU**, but **vehicle approval has to facilitate the access**.

- The Roadworthiness Tests will be a **reasonable** combination of:
  - **Visual inspection** of components
  - Validation of the **software version and software integrity, results of system's self-dignosis** and
  - **Functional tests** (e.g. a target-based test, requiring sensor data)

- As safety-relevant electronic systems ADAS have to be checked independently via the **electronic vehicle interface.** A **scan-tool is required in all Member States latest from 2023.**

- Considering further **tightening of the testing regime** of vehicles in **category N1 (LGV)** used for commercial road haulage purposes

Thank you for your attention!

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