ADAC Activities
- Real world based integrated road safety -

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ADAC accident research

The ADAC accident research is a co-operational project of ADAC airmedical service and ADAC technical centre

ADAC Luftrettung GmbH

ADAC airmed service

app. 40,000 flight missions per year with ~35.000 patients

handles app. 4,000 road accidents p.a.

2,200 accidents stored in the data base of ADAC accident research

Dataset completed by the co operation of many partners

ADAC accident research

Cases

- Severe accidents (severe Injuries)
- Focus on accidents outside urban areas

Objectives of the project

- Accident causation
- Documentation of injury causes and injury severity
- Further development of the existing European consumer protection programme based on the findings from accident research
- Improvement of technical rescue
- Interdisciplinary analyses (medical-technical projects)

ADAC Safety Research – Applied accidentology

What happened

With simple tests the passive safety could be improved significantly within the last 20 years

Everything is fine?

Still today thousands of people are killed due to a road accident in Europe.

The overall safety has to be developed further

What to do?

Develop crashtests with direkt llink to real world accidents.

Implementation active safety features into the NCAP assessment.

Example 1: Advanced Emergency Braking Systems Test

Motivation:

- Active systems for the prevention of accidents and the mitigation are very important.

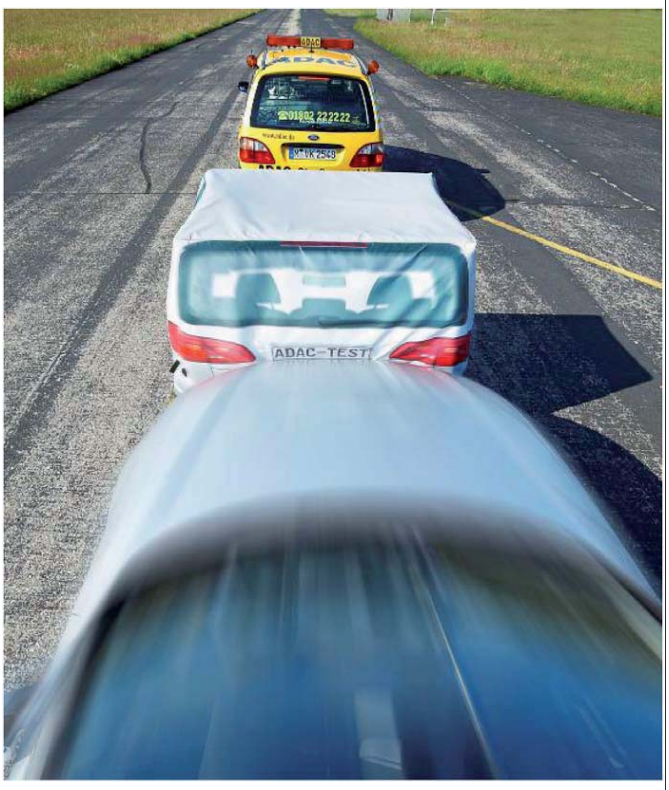
- Rear-end impacts are among the most common types of road accidents involving injury.

Objective

-Providing technical advice and competent information about the systems available on the market.

- Reliable comparative tests that are based on standardised test criteria

- Motivation of the automotive manufacturers and suppliers to further develop their safety systems.



Example 1: Advanced Emergency Braking Systems Test

General accident scenarios

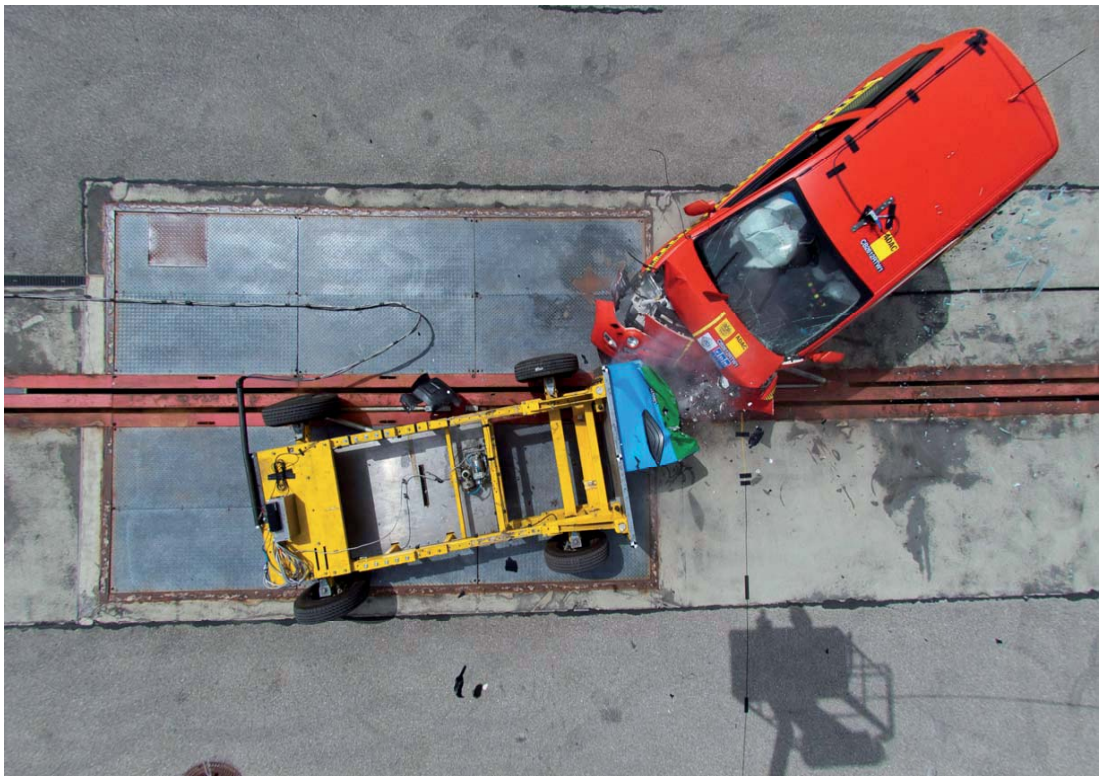
The development of general accident scenarios includes:

- **conflict situation**
- **speed range**
- **overlap**

Based on the accident data, the most frequent conflict situations are set out:

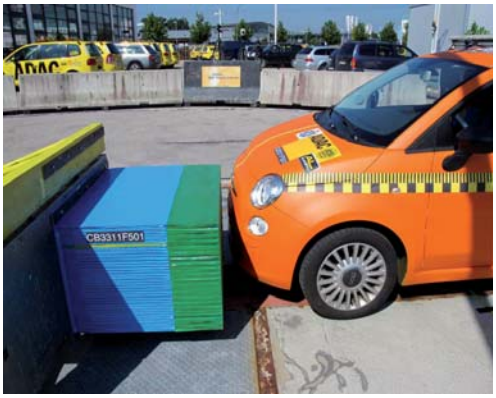
- Approaching a slow-moving vehicle
- Approaching a braking, strongly decelerated or stationary vehicle (traffic jam tail end, waiting traffic)
- The relevant initial vehicle speed (before the rear-end collision) between 50 and 70kph. Since injury risk is increased in accidents in extra-urban traffic, speeds around 100kph are also essential in relation to AEBS.
- Overlap upon impact usually is >67% of the vehicle width.

Example 2: ADAC Compatibility Crashtest

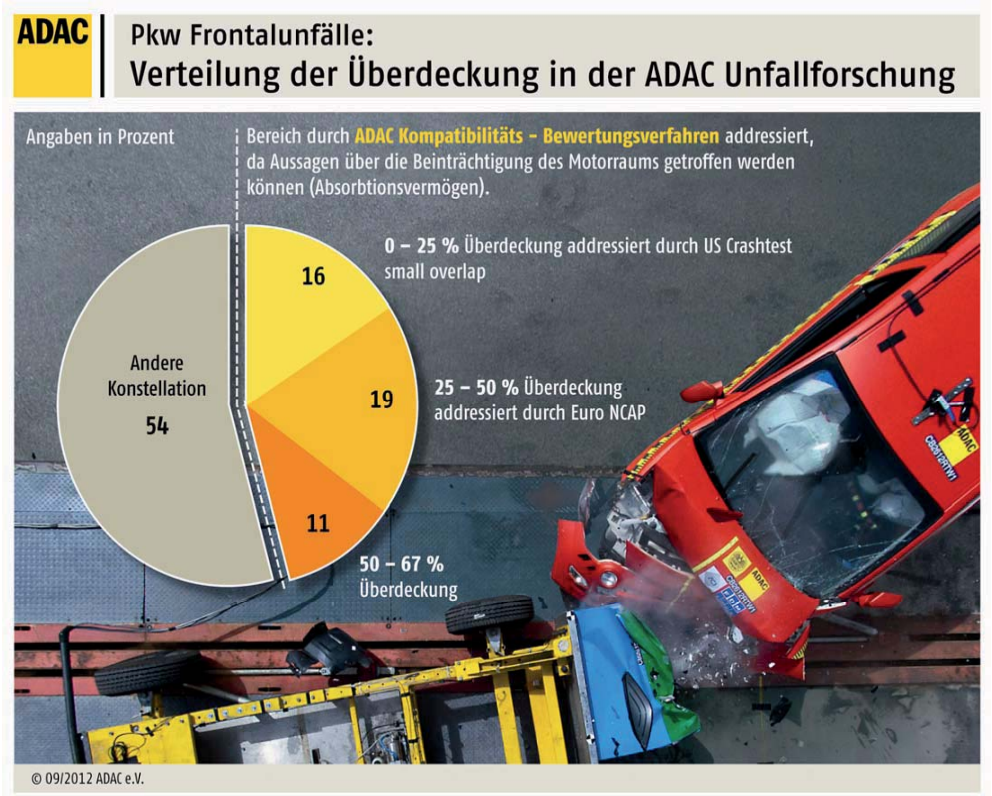


ADAC Test procedure

- car and MPDB run at 50 km/h
- mass of the MPDB 1.390 kg
- 50% overlap
- car to car crashtest between Fiat 500 and Audi Q7 is used as reference
- the compatibility of both cars should be rated objectively



Real life based procedure - covered collisions



Thank You