In-Depth Accident Data and Product Development

European Conference on Road Safety Data and
Knowledge-based Policy-making
2012-11-23, Athens

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Mercedes-Benz

Brief History of In-Depth Accident Data at Mercedes

- Since 1968: Mercedes internal accident database DBCars

    - Current Mercedes car models

    - Southern Germany

- Since 1999: GIDAS (German In-Depth Accident Study)

    - Representative with respect to German national statistic

    - Two spots: Hanover, Dresden

- Since 2011: iGLAD project

    - Goal is the harmonization of in-depth data from different countries, building a common database

    - European countries, USA, Australia, India, China, OECD national data

    - Based on already available data, no new data is generated

There is a need for continuously collected data with a broadened focus (e.g. more international, more aspects covered like pre-crash phase) for Mercedes accident research activities.

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Accident Data Usage in Product Development

- Development of safety systems

  - Monitor and improve existing systems

  - Identify most relevant accident scenarios and design appropriate systems

  - Design realistic scenarios for driving simulator

  - Sensor and actuator demands / specification

- Benefit assessment of safety systems

  - Virtual testing of safety systems with real world accident scenarios (simulation)

  - Communication (e.g. ESC introduction in model year 2000)

  - Ratings (e.g. EuroNCAP Advanced Dossier)

- Testing of safety systems

  - Design of crash tests (e.g. new propulsion technology)

  - Test procedures for active safety systems

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