

German Insurance Association



More Safety in Road Traffic

German Insurers Accident Research



Active against Accidents:

Interdisciplinary Research for More Safety in Road Traffic

Many aspects of safety on Germany's roads or in its vehicles have long become a matter of course for road users. However, the fact that those elements result from specific development processes by acknowledged experts is not widely known. As one of the most important disseminators of know-how, GDV's German Insurers Accident Research ("Unfallforschung der Versicherer" or UDV) has been instrumental for over fifty years in improving safety and preventing accidents on German roads. UDV's premise: road safety can only be improved using a comprehensive approach. That is why the UDV interdisciplinary approach includes every aspect of traffic safety, namely:

- the road;
- the vehicle; and
- the human factor.

Through active communication with political and administrative decision-makers German Insurers Accident Research is rooted in practical aspects. It supports the police forces of the German federal states in evaluating accidents and eliminating hazards (through the accident commission). In addition, further training measures in the field of traffic safety are organized for decision makers in politics and authorities. This dialogue also includes vehicle manufacturers. Through vehicle-specific investigation of accidents, technical measures and legal requirements can be examined for effectiveness and improved where necessary.



Safety on the roads can be improved only if the human factor is considered too. This is why traffic instruction approaches are designed to teach everyone involved in traffic – from the nursery-school child to the professional lorry driver – optimum behaviour and safety awareness on the road.

An accident data base of unique size and detail permits in-depth investigation of accidents from diverse interdisciplinary viewpoints.

As the legislative competencies of the EU grow, co-operation with European institutions is expanding as well.



Who is behind German Insurers Accident Research?

German Insurers Accident Research (UDV) is part of the German Insurance Association (GDV). The GDV is the umbrella organisation of private insurers in Germany and represents the interests of some 450 members with regard to politics, the economy, media, and science.



In 2004 the competences of the Vehicle Safety Institute (Munich) and the Road Traffic Institute (Cologne) were combined into the “Verkehrstechnisches Institut der deutschen Versicherer” (VTIV: Institute for Traffic Engineering of German Insurers). To deal with future challenges, tasks, and goals even more effectively, the Verkehrstechnisches Institut was renamed “Unfallforschung der Versicherer” (UDV, German Insurers Accident Research) in 2006

and divided into the following sections:

- traffic infrastructure;
- vehicle safety; and
- traffic behaviour and training.



Traffic Safety –
the sections introduce themselves:

Different competencies, one common goal



The three sections of accident research combine their competencies to the benefit of effective and well-founded research. One particular aspect is the interdisciplinary approach in projects. The insights thus acquired, are tested for practical application and made available for use.



In that way, extensive data from the various areas of traffic safety can be collected, analysed, and processed, and the outcome made available to policymakers. Vital insights acquire their practical value for everyday life in traffic particularly through active co-operation between the departments.



Section Traffic Infrastructure

The main focus of the traffic infrastructure section is on providing instruments for safe operation of road traffic installations. Safety measures relating to road construction and traffic engineering are tested for effectiveness and further developed.

Responsibilities and Competencies

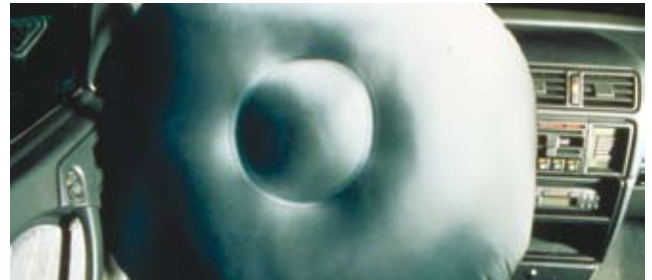
- Safety evaluation during planning, design, and operation of roads (residential roads, major roads, or motorways)
- Safety analyses of road networks
- Safety evaluation of infrastructure and of road-construction measures including cost-benefit analyses
- Further development of safety measures for pedestrians and cyclists, particularly for children and the elderly
- Development of the electronic accident type map (“Elektronische Unfalltypen-Steckkarte”: EUSka) in co-operation with the home ministries and police authorities
- Assessment of the effectiveness of speed-monitoring measures
- Evaluation of the safety of rural roads, intersections, and road sections

Different competencies,
one common goal

Section Vehicle Safety



The vehicle safety section analyses accidents between vehicles or between vehicles and pedestrians and assesses their effects. This department is a competent resource in all issues concerning vehicle safety. Thanks to comprehensive data analysis, technical safety systems can be examined for effectiveness and developed further if necessary.



Responsibilities and Competencies

- Accident analysis of various road vehicles and road users (e.g. automobiles, motorcyclists, vehicle occupants, pedestrians, cyclists) to determine measures needed
- Investigation of collisions between various types of vehicles (compatibility) and accidents between vehicles and unprotected road users, such as pedestrians
- Investigation of the effectiveness of passive and active safety systems
- Analysis of the effectiveness of legal requirements
- Protection of children in vehicles, e.g. development of recommendations for the correct use of child restraint systems in vehicles
- Optimization of rescue from accident vehicles
- Improvement of passenger safety in buses

Different competencies, one common goal

Section Traffic Behaviour and Training



The traffic behaviour and training section develops ideas and behaviour guidelines for road users: for pedestrians and cyclists as well as car and motorcycle drivers. It also provides authorities with corresponding insights, e.g. on the safe design of school routes. Since the data of the accident commission constitutes an important foundation for the work done by German Insurers Accident Research, initial and further training measures are planned and implemented for members of accident commissions. By granting the safety award to the most successful accident commission, the attention of the population is directed to this as yet neglected field..



Responsibilities and Competencies

- Informing the appropriate authorities about design measures for safe school routes
- Preparation of findings on safety along the way to school and instruction for parents
- Development of concepts with high educational value for cyclists
- Development of recommendations for the safe use of child restraint systems in vehicles
- Acknowledgement of the quality of the accident commission through the safety award
- Initial and further training for instructors teaching accident commissions
- Co-operation with authorities and police on the effectiveness analysis of speed limits and speed monitoring, as well as on the investigation of cyclists' and children's accidents
- Development of safety recommendations for the elderly

Successes in accident research:

Where you encounter us in daily life



It's true, speed-reducing measures like new 30 kph zones or safe traffic-light intervals are noticed by road users. And yet, hardly anyone is aware that the experts from German Insurers Accident Research (UDV) are significantly involved in numerous measures.

Vehicle technology is also affected by accident research. The introduction of mandatory seat belt use, the increase of ABS in motorcycles, the development of ISOFIX child car-seat anchorage, or equipment of all new vehicles in series production with ESP

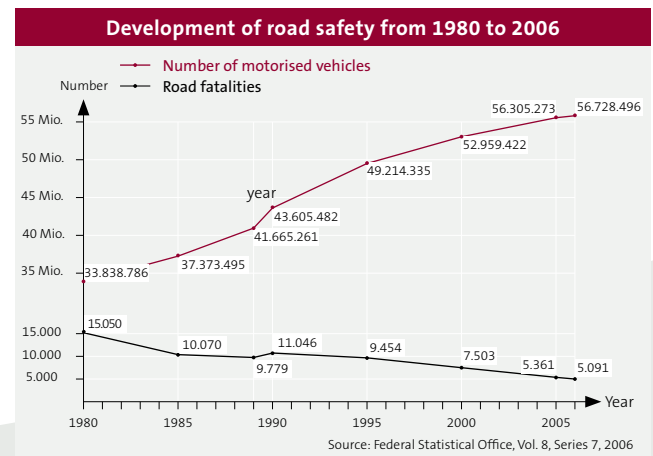
are examples of technical innovations that derive from the commitment and co-operation of the accident researchers of German insurers.

When investigating accident hot spots, the accident data material and traffic systems of the roads concerned are analysed. Proposals for modifications may result and be transmitted to the relevant authorities.

When a child gets its "bicycle riding license," he or she was most probably prepared for safely participating in road traf-

fic in accordance with the guidelines of UDV and the "Deutsche Verkehrswacht", a German road safety organization. And possibly, road features along the child's way to school were designed according to suggestions from the German Insurers Accident Research.

Such initiatives surely do not fuel as intense or even fiery discussions as did the introduction of the mandatory use of seat belts. And yet, they contribute significantly to reducing the risk of road accidents.



Looking into the Future:

Perspectives and Goals

To be able to act as comprehensively as possible also in future on behalf of road safety, future developments must be considered in addition to the accurate collection of accident data, which, at best, only ever reflects a current moment in time.

Challenges to accident prevention may arise, for example, from further growth of traffic volume, or from the increasing average age of the population; how must traffic installations be designed to meet such developments?

Those and other questions will be faced by German Insurers Accident Research.

As the legislative ability of EU authorities increases, carrying out investigations and analyses at the national level is no longer sufficient. That is why existing co-operation with European authorities is being intensified, so that findings in accident research can continue to be applied in practice. After all, the best way to change behaviour is to know the correct behaviour.

The rate at which driver assistance systems, for example, are adopted into serial production depends not least on acceptance and demand.





German Insurance Association – GDV
Wilhelmstrasse 43/43 G • 10117 Berlin

P.O. Box 08 02 64 • 10002 Berlin

Phone +49 (0) 30.2020-5000

Fax +49 (0) 30.2020-6000

unfallforschung@gdv.de

www.gdv.de

www.udv.de

www.unfallforschung-der-versicherer.de

Editing: Klaus Brandenstein

Translation: Kerstin Jackisch

Concept & design:

pensiero KG • www.pensiero.eu

Pictures:

Title page inner pages: Vera Stadler (pensiero); page 2: Deutscher Verkehrssicherheitsrat e.V. (DVR); top of page 3: DVR; page 4: DVR; top and centre of page 6: DVR; top and bottom of page 8: DVR; page 9: DVR; bottom of page 10: DVR; top and bottom of page 14: DVR; page 15: DVR; the usage rights for all other photographs shown in this leaflet are with GDV.