“Vision Zero” is the goal of road safety experts around the globe. The vision of zero road fatalities may in general still be far off: More than 1.2 million people are killed every year in traffic accidents worldwide. But still, “Vision Zero” is no utopia, as analyses of DEKRA Accident Research show. Not only in Europe, but also in the U.S. and Japan there are by now hundreds of cities that have already achieved the goal of zero road fatalities at least in one year. “If everyone sets this goal for their own area of responsibility, the vision can become a reality in the long run”, said Clemens Klinke, member of the board of DEKRA SE, at the International Transport Forum (ITF) in Leipzig, where he also presented the DEKRA Road Safety Report 2015.

Automotive engineering has made enormous progress in recent years. On new vehicles, assistant systems developed to the level of partially automated driving are now standard equipment in nearly all model classes. In the not too distant future, the vision for autonomous driving could become a technical reality. Many of the effective vehicle safety features of today are built on the milestones of the past. It is against this background that in its latest Road Safety Report, DEKRA does not highlight only the latest developments. The report looks back into the past – and simultaneously into the future. From the perspective of accident research, traffic psychology and vehicle technology, the report highlights the areas with the greatest potential for further reductions in the number of road accident victims in the EU and describes the challenges this involves.

The figures speak for themselves: In the European Union, traffic accidents are claiming fewer lives every year. In 1991, over 75,000 road users died in the countries of the EU, whereas this figure dropped to “only” around 26,000 in 2013. However, the past year saw a setback in this positive trend. According to preliminary data, around 25,700 traffic fatalities occurred on EU roads in 2014, representing a reduction of only around 1.2% compared to the previous year. As a result, the EU Commission’s target of halving the number of traffic fatalities by 2020 compared with 2010 – bringing the number down to below 16,000 – is in serious danger of being missed.

“If we are to achieve this target, tremendous effort is still needed from everyone involved,” said DEKRA board member Klinke. “The status we have achieved so far in terms of vehicle and road safety is thanks to the further development consistently driven forward over the generations with sometimes ground-breaking ideas from individual pioneers. We have to now build on this so that the number of accident victims on Europe’s roads will continue to steadily decline in the future, too.”

→ Milestones in road safety

Electronic driver assistant systems offer tremendous potential to prevent accidents and compensate for hazardous situations that result from carelessness or human error. Vehicle dynamics control, emergency braking

### NUMBER OF TRAFFIC ACCIDENTS IN GERMANY

Following a drastic rise between 1953 and 1970, the number of road accident victims in Germany dropped constantly over the following decades thanks to changing legal framework, among other things.

![Graphic representation of traffic accident data](image-url)

- 1972: Maximum speed 100 km/h on rural roads
- 1973: 0.8 BAC limit
- 1978: Fine for not wearing seat belt
- 1982: Fine for not wearing seat belt
- 1984: Fine for not wearing seat belt
- 1985: New ECE regulations for crash tests
- 2011: Start of mandatory ESP
- 1995/96: New ECE regulations for crash tests
- 1997: 0.0 BAC limit
- 1998: Maximum speed from 90 to 80 km/h on rural roads
- 1999: Fine for not wearing seat belt
- 2001: Start of mandatory ESP
- 2005: Start of mandatory ESP
- 2009: Start of mandatory ESP
- 2013: Start of mandatory ESP

Source: Federal Statistics Office
system, distance control, lane keeping assist, fatigue warning and many more. These systems stand at the end of a long series of milestones that have made enormous contributions towards road safety. This holds just as true for radial tyres and disc brakes as for the rigid passenger cells with crumple zones, safety steering shafts or three-point safety belts. Not to be forgotten are other developments such as air bags, the anti-lock braking systems (ABS) and electronic stability control (ESC). Aside from vehicle technology, measures such as the introduction of speed limits, blood alcohol limits and the installation of guard rails and concrete barriers on roads are also particularly deserving of mention. In addition, periodic vehicle inspections, accident research and public information campaigns are also making important contributions towards increasing road safety.

→ Integrated concepts are creating new safety potential
The measures and technological advances described above were integral to bringing down the number of road accident victims in Germany alone by around 84% from the record high in 1970 to the more than 21,300 fatalities of today. And that is all despite the dramatic increase in the vehicle population and volume of road traffic during this time. Even though it seems that passive safety has now, for the most part, been taken as far as it can go, completely new potential is arising from the opportunities of active safety and, in particular, with the widened perspective of integrated safety. “Integral concepts combine elements of active and passive safety within a carefully thought-out overall system that can prevent accidents or minimise their consequences,” said Clemens Klinke.

→ Even more attention is shifting to the man-machine interface
With the vision of autonomous driving, mobility is now on the verge of a renewed push in innovation. “However, many questions are yet to be answered along the way. Above all, there are numerous legal hurdles to tackle,” explained the member of the DEKRA Management Board. In his view, the challenge of the future lies primarily in capturing other road users and the traffic situation as a whole, besides the situation for the vehicle itself, and initiating the correct countermeasures for the identified conflicts. “This must be appropriate and proportional and must not give rise to new and sometimes even greater risks than already exist due to the original conflict situation,” Klinke pointed out. He believes this is especially important because the development towards automated driving will require a long transitional period. “On the one hand, we will have increasingly automated vehicles on our roads, while on the other, there will still be many vehicles that do not have these systems. The issue of compatibility will play a major role here.”

DEKRA e.V.
DEKRA is one of the world’s leading expert organisations. The company currently maintains a presence in over 50 countries all over Europe as well as in the United States, Brazil, Northern and Southern Africa, the Middle East, Asia and Oceania. More than 35,000 employees are committed to ensuring long-term safety, especially road safety, quality and environmental protection. DEKRA provides professional and innovative services in the fields of vehicle inspections, expert appraisals, international claims management, consulting, industrial testing, product testing, certification, environmental protection as well as expertise in sustainable mobility. Based on the values of integrity, neutrality, and expertise, paired with commitment, dedication, and passion, DEKRA’s goal is to provide safety, quality, sustainability, and profitability.

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THE GERMAN PARTNERSHIP FOR SUSTAINABLE MOBILITY
The German Partnership for Sustainable Mobility is an initiative by the Federal German Ministry for Economic Cooperation and Development (BMZ) and the Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB).

The German Partnership for Sustainable Mobility (GPSM) is serving as a guide for sustainable mobility and green logistics solutions from Germany. As a platform for exchanging knowledge, expertise and experiences, GPSM supports the transformation towards sustainability in developing and emerging countries. It serves as a network of information from academia, businesses, civil society and associations.

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