

# A comprehensive approach for road safety – The example of Germany

## User Related Measures

(TRAINING AND EDUCATION, TRAFFIC LAW, INCENTIVES, ENFORCEMENT)



1966	Introduction of a 1.3‰ legal blood alcohol limit
1970	Introduction of the principle of defensive driving
1970	Compulsory use of turn signal (blinking) in urban areas
1973	Revision of legal blood alcohol limit to 0.8‰
1974	Accumulating credit system for traffic offenses
1974	Introduction of recommended speed limit on motorways (Autobahnen) – 130 km/h
1975	Use of seatbelt and helmet becomes compulsory
1976	Introduction of 100 km/h speed limit outside of built-up areas
1980	Introduction of fines for riding motorcycles without helmet
1984	Introduction of fines for driving without fastened seatbelt
1986	2-year trial period for new drivers
1986	Minimum age for driving heavy motorbikes raised to 20 years
1988	Introduction of minimum distance to trucks and buses
1993	Mandatory use of child safety seats for children in cars
1995	Compulsory speed limit for vehicles that drive past standing buses (walking speed)
1998	Revision of legal blood alcohol limit to 0.5‰
2001	Introduction of fines for using mobile phones while driving
2007	Blood alcohol limit of 0.0‰ for novice drivers and persons under the age of 21
2010	Introduction of accompanied driving from the age of 17

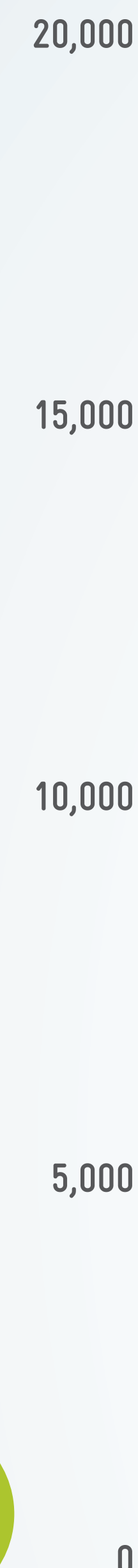
## Organization

(PLANNING, FINANCING, CONTROLLING)



1956	Regular Road Safety Inspection for roads becomes obligatory in road traffic regulations (VwV-StVO)
1961	Regular vehicle safety inspections (TÜV) become mandatory
1969	The German Road Safety Council (DVR) is founded, bundling the efforts of all parties involved in road safety in order to achieve efficient action
1969	Publication of the German Road and Transportation Research Association (FGSV) bulletin on local transport plans (introduction of accident analyses, consideration of non-motorized transport)
1971	Adoption of the Municipal Transport Financing Law, introducing federal financing schemes for urban transport and mandatory local transport plans
1979	Introduction of target-oriented transport planning instead of supply-oriented planning in guidelines for local transport plans
2002	Introduction of safety audits to avoid shortcomings with regard to road safety during the planning process
2008	Directive 2008/96/EC of the European Parliament and of the Council of 19 November 2008 on road infrastructure safety management
1973, 1984, 2001 and 2011	Road Safety Programmes of the Federal Government

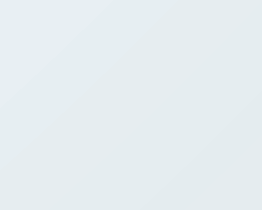
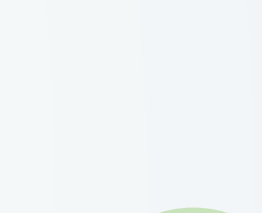
Fatalities



Injuries

## Infrastructure Related Measures

(ROAD DESIGN, ROAD CONSTRUCTION, MAINTENANCE)



1964	Introduction of zebra crossings for pedestrians
1973	Introduction of standards for geometric layout, gradients, cross sections and design speeds to be integrated into design guidelines
1977	Introduction of general principles of road network design, classification of roads according to road categories (i.e. interstate, arterial, collector, local) and connection type (urban vs rural, expected volume etc.)
1980	Introduction of zones with traffic calming („Spielstraßen“, or play streets), designed to be oriented towards pedestrians
1981	Publication of German Road and Transportation Research Association (FGSV) recommendations on traffic calming in residential areas
1982	Introduction of guidelines on cross-sections for roads (RAS-Q) including determining the dimensions of the roadway components based on physical and volume characteristics
1983	First trials for zones with 30 km/h speed limit in residential areas
1990	Increasing use of roundabouts as alternative form of intersection
1993	New design recommendations for urban main roads (including consideration of urban design and requirements of pedestrians and cyclists)
1995	Revised guidelines on road alignment including updates on overtaking sight distance requirements
1996	Introduction of 2+1 lane road design for high level rural roads to prevent overtaking accidents
2006	Introduction of concepts for self-explaining (i.e. standardized) roads and forgiving roadsides in design guidelines
2007	Dedicated recommendations on improving road safety on popular motorbike routes through improved road design and enforcement measures
2008	First shared space project in Germany (City of Bohmte)
2011	Introduction of „Design for All“ principle to provide accessible transportation facilities (HBVA)

## Vehicle Related Measures

(ACTIVE SAFETY, PASSIVE SAFETY, TELEMATICS)

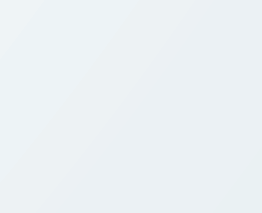
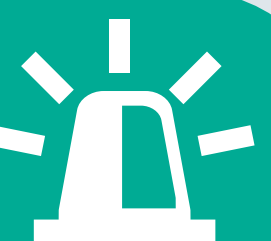


1959	Introduction of three point seat belt
1963	Introduction of energy absorbing steering column (avoiding excessive injuries to the driver in the event of a heavy frontal impact)
1978	Introduction of anti-lock braking system
1980	First introduction of an air bag (in driver seat only) for a Mercedes car
1990	Mandatory introduction of side guards on trucks above 3.5 tons to protect two-wheel drivers and pedestrians
1996	Introduction of Brake Assist System (BAS)

1996	Introduction of Euro.NCAP testing procedures for vehicle passive safety devices
1998	Increasing use of windowbags (protecting passengers from head injuries)
2004	Commitment by European car manufacturing industry to equip all new cars with anti-lock braking system
2011	Mandatory introduction of Electronic Stability Control in all new cars and trucks in the EU

## Rescue Services

(ALERT, RESCUE)



1970	First permanent HEMS (Helicopter Emergency Medical Services) base is established in Munich
1971	Introduction of emergency telephones along highways and major roads
1973	Introduction of country-wide emergency call numbers 110 (police) and 112 (fire brigade), although regional numbers for EMS continue to exist
1974	First EMS law introduced in the Federal State of Bavaria, outlining requirements for staff, equipment and response times. Other federal states follow soon.
1998	EU-wide mandatory introduction of emergency call number 112 for EMS

The challenge of road safety

About 3,400 people die every day in road traffic accidents around the world. A further 50 million people are injured every year. Despite comparatively low levels of individual motorization, emerging economies and developing countries in Africa, the Middle East and Asia are particularly affected, with more than 90 per cent of traffic-related deaths occurring in these countries. If current trends continue, road accidents will overtake HIV/AIDS and tuberculosis to become the world's third most significant health hazard by 2030.

By launching the Decade of Action for Road Safety 2011-2020, the United Nations have called on the member states to step up their efforts to improve road safety. This infographic illustrates the comprehensive approach that Germany has taken as a response to sharply rising fatality rates since the 1950s. Along with many other European countries, Germany has succeeded in reducing fatalities significantly – thanks to a bundle of measures that can be replicated elsewhere.

Further information and the infographic as pdf



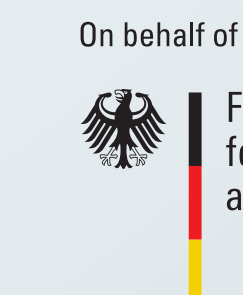
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