

AUSTRIAN ROAD SAFETY PROGRAMME

2002 – 2010

Edition 2009

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On behalf of the Austrian Road Safety Fund in the Federal Ministry for Transport, Innovation and Technology



Foreword

Over six years ago the Austrian Road Safety Programme 2002–2010 appeared for the first time. Now, on occasion of the third edition, it is time to take stock and adapt the programme to the new challenges being faced.

The Austrian Road Safety Programme is a success story, as the collaborative efforts of the past years have shown a clear impact. Since the start of the programme the numbers of road traffic deaths have decreased year by year and are altogether lower than those at the beginning of official statistics in the early 60s.

A structured and targeted approach has proven to be the right way to tackle the problem. Many of the measures are already implemented, such as graduated driver training for novice drivers, who are especially at risk, the penalty points system for high-risk drivers, the nationwide introduction of quick-testing alcohol breathalysers and Section Controls.

Nevertheless, the major drawback remains that the ambitious goal of halving the number of traffic deaths by 2010 is still not in sight. The start and the interim went well, but many more efforts need to be made for the end phase in the coming years!

That is why now, in the final phase of the Road Safety Programme, it is important to combine our strength in order to reach the best results. The catalogue of measures was adapted in this present third edition and expanded in numerous ways. The effort is worth it for every life saved and for preventing the suffering of victims, their families and friends. Our motto has not changed: every road death or severe injury is one too many!



Doris Bures

Minister for Transport, Innovation and Technology



Executive Summary

Road accidents result in a large social and economic loss for society. In the last 25 years programmes have been developed in many countries in order to raise road safety standards. As a result some Member States of the European Union have managed to reduce the number of road-related deaths to half the number reported in Austria. Therefore, the Austrian government decided to carry out a comprehensive road safety programme starting in January 2002. The goal of this programme is to halve the current traffic deaths by 2010.

This brochure presents the basis for the Austrian Road Safety Programme and its comprehensive list of measures, some of which have immediately been carried out as part of a framework of initial measures known as the „start package“. This programme creates a structured approach for road safety work and presents an overview of possible steps to reduce these accidents. The basis of this work comes from the scientific and interdisciplinary work of the Austrian Road Safety Board (KfV).

The primary objective of this effort is the reduction of deaths and injuries. This will be achieved by effective implementation and financing, securing political and social acceptance, as well as providing evidence of the cost-effectiveness of such a programme.

Successful road safety programmes distinguish themselves through long-term and clearly worked-out methods and a detailed catalogue of measures and evaluation plans. Such programmes should be further supported by passing the relevant road safety legislation, setting clear definite reduction goals and ensuring the necessary financing is readily available. Just as important are ongoing measures of effectiveness and transparency. In order for this programme to be successful it is necessary to have a platform in which experiences can be exchanged and for gaining the support of these measures at the national, regional and local levels.

Historically there has always been the tendency to establish road safety measures that focus on driver or technology failures as the accident cause. Today there is an international trend to implement a failure tolerant road safety system. The Austrian Road Safety Programme also follows this trend. Drivers should not solely be made responsible for accidents since other aspects of the road environment, such as infrastructure planning and the preparedness for handling traffic demand, traffic flows and traffic conflicts are also responsible in certain respects.

In this safety programme four basic fields of action come into focus: human behaviour, infrastructure, vehicles and transport policy and legal framework. Altogether there are 31 priority areas and over a hundred concrete specific measures that are at the heart of this programme:

- The area of human behaviour focuses on restraint systems, alcohol and other drugs, driving speed, basic driver education and advanced driver training, pedestrian safety, driver fatigue, motorised two-wheeled vehicles, following distances, daytime running lights and traffic education.
- The area of infrastructure focuses on the following areas: black spot treatment, safety on rural roads, tunnel safety, wrong-way driving on motorways, safety management in urban areas, Road Safety Audit, Road Safety Inspection, motorway roadwork zones, the properties of road surfaces, road-side telematics and railway level crossings.
- The area of vehicles includes the areas of accident data recorder, heavy goods vehicle safety as well as active and passive vehicle safety.
- The area of transport policy and legal framework covers the themes of European Road Safety Charter, Austrian Road Safety Council, independent accident investigation, heavy goods transport, legislation, land use planning and influencing modal choice.

In the start package some of the main points of this programme were implemented in the short term, with parts of these packages already being carried out in 2002. These comprise measures on seat belts and child restraints, driving under the influence of drugs, following distances, driving speed, motorised two-wheelers, pedestrian safety, black spots, tunnel safety and motorway roadwork zones.

The premise that underlies the Austrian Road Safety Programme is:

- Every death and serious injury resulting from road accidents is one too many.
- The effective safety work in the rail aviation and work safety sectors should serve as a model for road transport.
- A healthy economy has, on pure economic grounds alone, to reduce accident costs.

By the year 2010 this programme should contribute to the eventual reduction of road fatalities by 50% and the reduction of injury accidents by 20%.



Résumé

Les accidents de la route ont un coût économique et social important pour la société. Ces vingt dernières années, des programmes ont été développés dans de nombreux pays pour améliorer les niveaux de la sécurité routière. Ainsi, certains Etats membres de l'Union européenne ont réussi à diminuer le nombre de tués sur les routes à un niveau qui représente la moitié du nombre de morts signalés en Autriche.

C'est pourquoi le gouvernement autrichien a décidé en janvier 2002 de mener à bien un programme de sécurité routière complet. L'objectif chiffré de ce programme est de diminuer de moitié le nombre actuel de tués sur la route d'ici 2010.

Cette brochure présente les bases du programme autrichien de sécurité routière et une liste détaillée de mesures, une partie desquelles sont déjà en train d'être réalisées dans le cadre des mesures initiales (connues sous le nom de « paquet initial »).

Ce programme est une approche structurée pour le travail en matière de sécurité routière et présentera une vue d'ensemble des démarches possibles pour réduire les accidents. Les bases de ce travail viennent du travail à la fois scientifique et interdisciplinaire du Bureau autrichien pour la sécurité routière (KfV).

Le premier objectif de cet effort sera la réduction du nombre de morts et de blessés par une mise en oeuvre et un financement efficaces, une acceptation politique et sociale et un bon rapport coût-efficacité. Les programmes de sécurité routière couronnés de succès se distinguent par des méthodes réussies et de long terme ainsi que par un catalogue détaillé de mesures et de plans d'évaluation. De tels programmes devraient être renforcés en adoptant la législation de sécurité routière adéquate ainsi qu'en définissant des objectifs clairs et en mettant en place dans les plus courts délais les financements nécessaires pour les programmes. Un contrôle de la transparence et de l'efficacité d'un tel effort est aussi important. De plus, la présence d'une plate-forme dans laquelle les expériences peuvent être échangées et l'obtention du soutien pour ces mesures au niveau fédéral et local sont des défis majeurs pour la réussite de ce programme.

Historiquement, la tendance a toujours été de concentrer les mesures de sécurité routière sur le conducteur ou les erreurs technologiques, en tant que cause de l'accident. Aujourd'hui, il y a une tendance internationale à mettre en oeuvre un système de sécurité routière tolérant à l'erreur. Le programme autrichien de sécurité routière suit également cette tendance. Les conducteurs ne devraient pas dans l'avenir être tenus pour seuls responsables des accidents puisque d'autres aspects du système de circulation, comme la planification des infrastructures, la capacité de gestion du trafic routier, l'écoulement de la circulation et les conflits de trafic sont également responsable à certains égards.

Dans ce programme de sécurité routière, on portera l'attention sur quatre champs d'action: les personnes, les véhicules, les infrastructures, les politiques de circulation et la législation. Au total, il y a 31 domaines prioritaires et plus d'une centaine de mesures spécifiques qui sont au coeur de ce programme:

- Le domaine du comportement humain se concentre sur les systèmes de retenue, l'alcool et les autres drogues, les vitesses de conduite, l'éducation et la formation avancée du conducteur, la protection des piétons, la fatigue du conducteur, les conducteurs des deux roues motorisées, les distances de sécurité, les phares de jour et l'éducation routière.
- Le domaine des infrastructures se concentre sur les domaines suivant: le traitement des points noirs, la sécurité sur les routes de campagne, la sécurité des tunnels, la

conduite en sens inverse sur les autoroutes, la gestion de la sécurité dans les zones urbaines, les audits de sécurité, les travaux sur les autoroutes, les propriétés des matériaux de recouvrement des routes et la télématique appliquée à la route.

- Le domaine des véhicules inclue: l'enregistrement des données d'accidents, la sécurité des poids lourds et la sécurité passive des véhicules.
- Le domaine de la circulation routière et de la législation couvrent les thèmes de la circulation des poids lourds, la loi, la planification du territoire et l'influence sur le choix du mode de transport.

Dans le « paquet initial » plusieurs des mesures de ce programme sont mis en oeuvre sur le court terme, avec une partie déjà réalisée en 2002. Cela comprend des mesures sur les ceintures de sécurité et les dispositifs de retenue pour les enfants, la conduite sous l'influence de drogues, les distances de sécurité, les vitesses de conduite, les deux roues motorisées, la protection des piétons, les points noirs, la sécurité des tunnels et les travaux sur les autoroutes.

Les prémisses à la base du programme de sécurité routière autrichien sont :

- Chaque mort et chaque blessé grave de la route sont un de trop.
- L'efficacité du travail sur la sécurité dans les domaines du rail et de l'aviation devrait servir de modèle pour le transport routier.
- Une économie saine doit, déjà seulement sur des critères économiques, réduire le coût des accidents.

D'ici 2010 le programme devrait contribuer à une réduction de 50% du nombre de tués sur les routes et à une réduction de 20% du nombre d'accidents graves.



Introduction

Traffic accidents result in a large social and economic loss for society. In the last 25 years programmes have been developed in many countries in order to raise road safety standards. As a result some Member States of the European Union have managed to reduce the number of traffic related deaths to half the number reported in Austria.

The Ministry for Transport, Innovation and Technology presented the first Austrian Road Safety Programme in 2002 based on a scientific as well as interdisciplinary analysis by the Austrian Road Safety Board (KfV). The primary objective of this effort is the reduction of deaths and injuries to be achieved by effective implementation and financing of cost-effective safety measures, as well as securing political and social acceptance. This third edition of the programme represents the implementation status in 2009 and shows the challenges ahead till the end of 2010.

Philosophy

Road safety as a management process

Road safety is a complex management process which must be planned, implemented and evaluated according to market-oriented principles. Successful programmes distinguish themselves through long-term and clearly worked-out methods as well as through a detailed catalogue of measures and evaluation plans.

The efficiency of such programmes should be guaranteed by engaging support from political decision-makers. Reduction goals must be in place and the necessary financing made available.

Just as important is an ongoing measure of effectiveness. Thereby one must delineate guidelines in order to evaluate each new measure for its effectiveness on improving road safety. Thus, successful activities can be strengthened and one can learn from mistakes.

Having a platform in which experience can be exchanged, as well as gaining agreement on these measures at the national, regional and local levels, is key for these programmes to be successful.

Furthermore, continuous public relation activities during the entire duration of the programme ensure a broad support by the public, decision-makers and professionals at all levels.

Structure

International trend: failure tolerant traffic system

There is practically no road safety measure which has to be re-invented. Since the start of motorisation there has been a high rate of reported accidents as well as a history of countermeasures. Over decades there has always been the tendency to focus either on driver or technology failures as the cause of accidents. Today, there is an international trend to implement a failure tolerant transport system. Responsibility for accidents should not only be placed on drivers but also on other elements that make up the transport system, such as those concerned with infrastructure planning and maintenance, the car industry, municipalities, ministries, the media and politicians. The Austrian Road Safety Programme also follows this trend.

Basis of the programme: overview of international programmes and problem analysis in Austria

A **literature review** was made of international road safety programmes from around the world, including those of Belgium, Denmark, Germany, Finland, France, United Kingdom, Ireland, Italy, the Netherlands, Portugal, Sweden, Slovenia, Spain, Australia and Canada.

Austrian road accidents and trend developments were further analysed and compared with international data. Additionally, socio-economic costs of accidents were taken into account and an investigation was made into the attitudes of Austrians regarding risky behaviour in traffic situations, as well as the acceptability of various road safety measures.

The measures fall into four basic categories: human behaviour, infrastructure, vehicles and transport policy and legal framework. A list of 31 priority areas as well as over a hundred specific measures along with scientific evaluations and a ranking of priorities have been carried out:

31 priority areas

Priority Areas of the Austrian Road Safety Programme

Human Behaviour	Infrastructure	Vehicles	Policy + Frameworks
Restraint systems and safety equipment	Black spot treatment	Accident data recorder	European Road Safety Charter
Alcohol and other drugs	Safety on rural roads	Heavy goods vehicle safety	Austrian Road Safety Council
Driving speed	Tunnel safety	Active and passive vehicle safety	Independent accident investigation
Basic driver education and advanced driver training	Wrong-way driving on motorways		Heavy goods transport
Pedestrian safety: focus on crossings	Safety management in urban areas		Legislation
Driver fatigue and distraction	Road Safety Audit		Land use planning
Drivers of motorized two-wheeled vehicles	Road Safety Inspection		Influencing modal choice
Following distances	Motorway roadwork zones: two-way traffic areas		
Daytime running lights	Material properties of road surfaces		
Traffic education	Road-side telematics		
	Railway level crossings		 = NEW

Starting in 2002 some major points of this programme have been carried out in the form of a **start package** over a short-term period. This includes measures that fall under the categories of seat belts and child restraints, driving under the influence, following distances between vehicles, driving speed, motorised two-wheeled vehicles, pedestrian safety, accident black spots, tunnel safety and motorway roadwork zones. Until now notable measures such as graduated driver training, penalty points system, use of quick-testing alcohol breathalysers, Section Controls and successful media campaigns for seat belts and child restraint systems were implemented.

Start package 2002



Targets

Road safety is last but not least a question of economics. We cannot afford to continue having accident rates in Austria that result in socio-economic costs currently amounting to 10 billion Euros annually. Therefore, the long-term principles of Austrian road safety policy are:

Every death and serious injury resulting from road accidents is one too many.
The effective safety work in the rail, aviation and work safety sectors should serve as a model for road transport.
A healthy economy has, on pure economic grounds alone, to reduce accident costs.

*Targets till 2010:
-50% road fatalities
-20% injury accidents*

Up until the year 2010 the number of fatalities resulting from road accidents should be reduced by 50%. This ambitious goal is in accordance with numerous national targets within the EU and also corresponds with the long-term reduction target of the European Commission. For the year 2004 a reduction of 25% for all road related deaths was set, since based on experience from other programmes in the first years after a safety programme has been introduced the reduction potential is usually higher than in the following years. This statement could not be proven, as inertia at the start of this process was underestimated.

Mid-term targets for 2004 not reached

Another target is a 20% reduction of injury accidents by the year 2010. The mid-term target for the year 2004 was a 10% reduction. Unfortunately, until now the number of injury accidents has not significantly improved.

<p><u>Target till 2010:</u></p> <p>-50% fatalities*</p> <p><u>Sub-target:</u></p> <p>-20% Injury accidents*</p>	<p><u>Target till 2004:</u></p> <p>-25% fatalities*</p> <p><u>Sub-target:</u></p> <p>-10% Injury accidents*</p>
<p>* Basis: average 1998-2000</p>	

Characteristics of successful road safety programmes

Elements of successful road safety programmes

The international analysis of road safety programmes indicates that the following points make up a successful road safety programme:

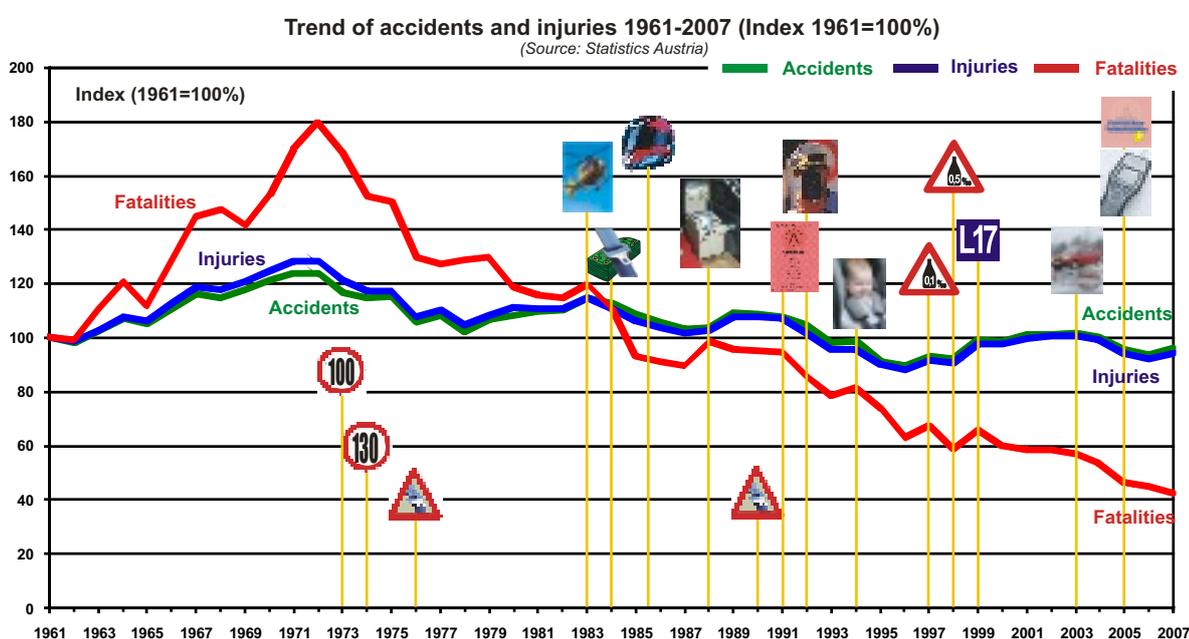
- Developing a long-term strategy in road safety policy that is based on a clear philosophy
- Establishing quantified and manageable targets
- Passing the programme at the parliamentary/governmental level
- Achieving close co-operation between authorities at all levels
- Having a federal programme budget that is complemented by funding from regional and local budgets

- Establishing a continuous communication framework between actors and citizens: public relations, civic participation
- Establishing problem-oriented measures
- Regularly collecting relevant safety performance indicators such as speed levels, seat belt use and alcohol levels
- Continuously evaluating and improving the programme in sight of target achievement

An overview of Austrian accidents

Over time there has been a noticeable downward trend in the number of deaths, while at the same time the number of injuries and accidents has stagnated. The strong downward trend of death rates throughout western and northern Europe is primarily due to improved passive safety features of vehicles, advances in post-impact care and shorter response time of emergency medical services.

*Decline in fatalities
Number of accidents and injuries stagnates*



1973: Speed limit of 100 km/h on national roads	1992: Probative driving licence
1974: Speed limit of 130 km/h on motorways	First use of laser speed detectors
1976: Mandatory seat belt use without a fine	1994: Mandatory use of child restraint systems
1983: Start of emergency helicopter usage	1997: Max. blood alcohol of 0,1% per ml. for moped, bus and lorry
1984: Mandatory seat belt use with fine	1998: Max. blood alcohol of 0,5 % per ml.
1985/86: Mandatory helmet use	1999: B-Driving licence starting 17 years of age (L17)
1988: First use of alcohol breathalysers	2003: Introduction of graduated driver training
1990: Mandatory seat belt use in all seats	2005: Introduction of the penalty points system
1991: Graduated driving licence and licences for mopeds	Introduction of quick-testing alcohol breathalysers

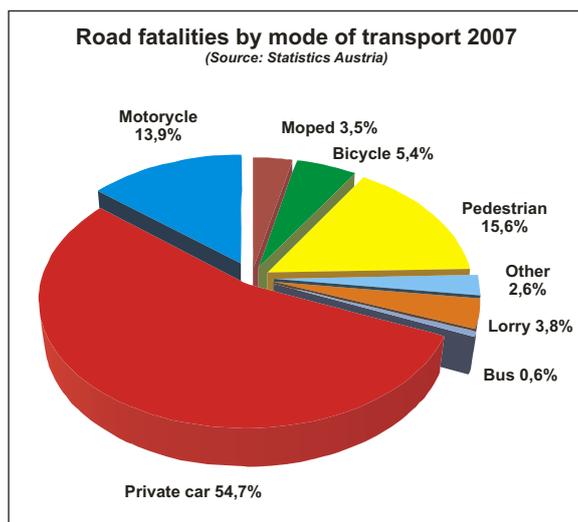
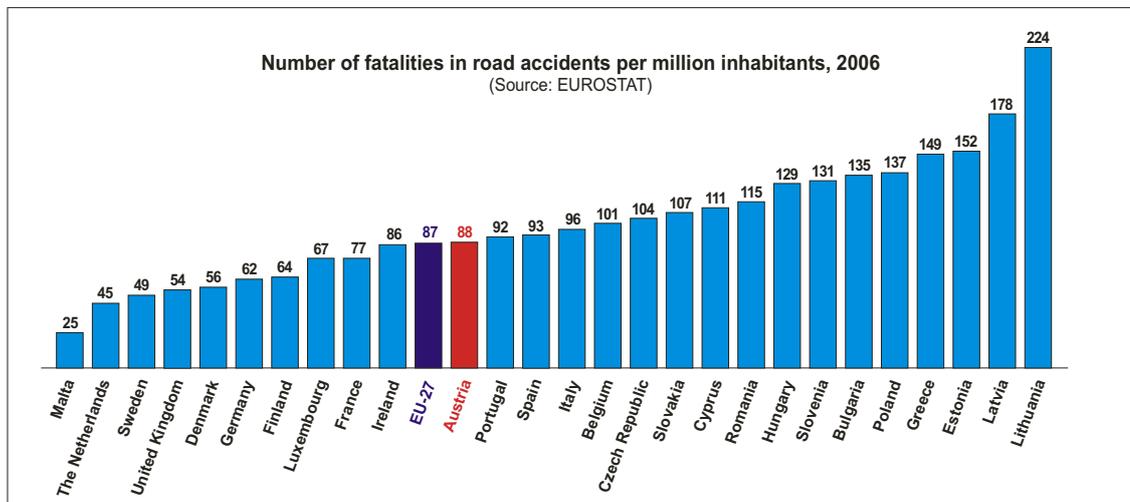
The development of accident statistics in Austria:

The number of accidents and injuries has changed very little since 1961 while the number of deaths has declined to less than one-fourth since the peak in 1972.

	Accidents	Injuries	Fatalities
1961	42.653	56.491	1.640
1972	52.696	72.336	2.948
1980	46.214	62.625	1.951
1990	46.338	60.650	1.558
2000	42.126	54.929	976
2005	40.896	53.234	768
2006	39.884	51.930	730
2007	41.096	53.211	691

By European comparisons it can be seen that Austria lies in the middle. The "best" countries have death rates nearly half as those in Austria.

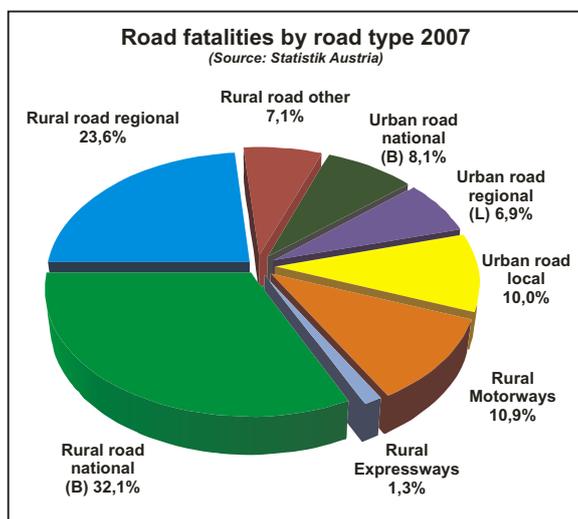
Austria only ranks average



By comparing the death toll among all road users, car occupants account for 54,7% of all fatalities and lead by a large margin over the other groups. Next are pedestrians (15,6%), motorcyclists and their passenger riders (13,9%) and bicyclists (5,4%).

A consideration of the trend development shows an increase especially for motorcyclists. The number of fatalities in the other modes of transport could mostly be reduced (especially those of car occupants).

Increases for accidents and injuries are shown for mopeds and bicycles as well as for motorcycles and pedestrians.



At approximately 65% the majority of deaths occur on rural roads. A fourth of the fatal accidents occur in urban areas and 11% on motorways.

The trend for fatalities shows an improvement for all road types (in urban as well as rural areas), whereby on national rural roads the largest decline is seen.

For accidents and injuries the reductions are limited to rural roads, while the numbers in urban areas are stagnating. The least improvement in the last years is seen on local urban roads.

Socio-economic costs of road accidents

The following socio-economic costs have contributed the most to the total costs of Austrian road accidents:

- Cost of human suffering (49%)
- Cost of property damage (22%)
- Loss of economic potential (18%)
- Insurance administrative costs (7%)
- Legal costs (2%)
- Cost of medical care (1%)

By adding each individual cost unit, the following accident costs arise according to injury severity and type of property damage. The total costs for road accidents in Austria amount to five billion Euros annually. This number rises to over ten billion Euros when also the cost of human suffering is included, which has become an international standard for calculating costs.

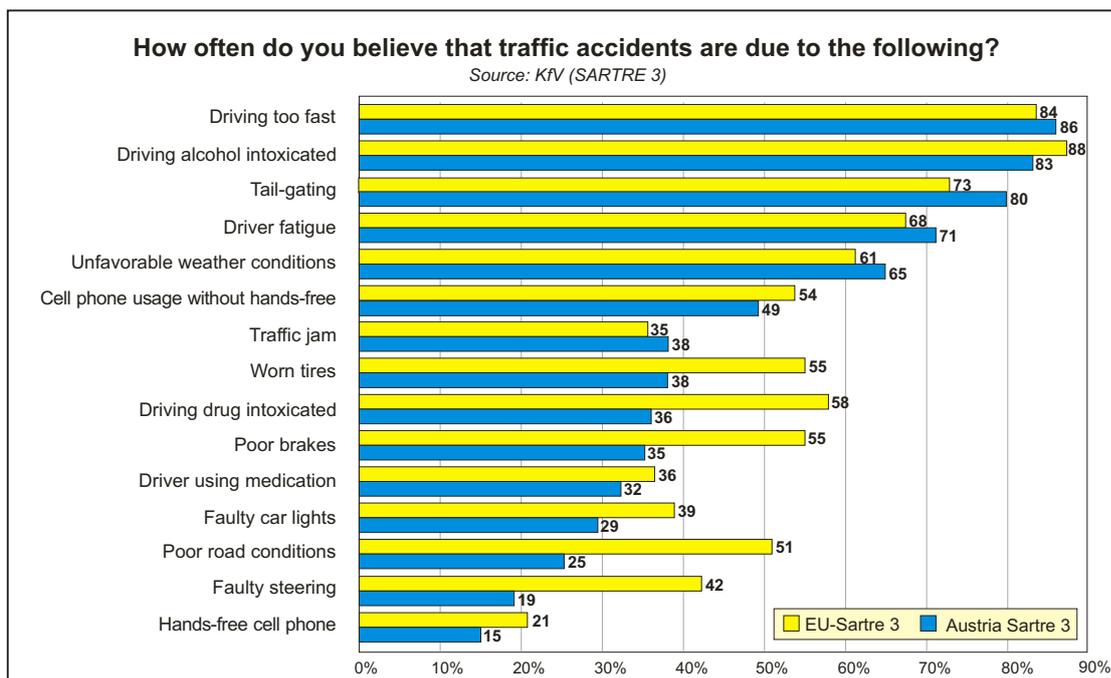
10 billion Euros accident costs annually (including the cost of human suffering)

Cost unit	Costs (€), incl. human suffering	Costs (€), without human suffering
Death	2.461.345	1.287.004
Serious injury	291.275	55.925
Slight injury	20.896	2.792
Property damage (per accident)	4.075	4.075

Source: Herry Consult, Zentrum Transportwirtschaft und Logistik (ZTL), Austrian Road Safety Board (KfV): Unfallkostenrechnung Straße 2007 unter Berücksichtigung des menschlichen Leids (Willingness to Pay), on behalf of the Austrian Road Safety Fund in the Federal Ministry for Transport, Innovation and Technology, Vienna 2007

Analysis of the attitudes of road users

The Austrian Road Safety Board (KfV), within the framework of the European-wide study "SARTRE 3" surveyed Austrian driver opinions regarding the possible causes of car accidents. The results were as follows:



Austrians realistically estimate the main causes of accidents

Certain offenses are unwillingly admitted

In total Austrian drivers are concerned about road accidents similarly to their concern for employment loss. The actual causes of road accidents are realistically estimated: high speeds, excess alcohol, overly short following distances and fatigue. Nevertheless, Austrian drivers are less likely to admit doing certain risky driving maneuvers, such as driving across an intersection on yellow light, overtaking in short distances or tail-gating, compared to drivers from other European countries.

There is a general agreement in Austria regarding the measures that need to be introduced in order to improve road safety:

There is support for increased enforcement and tougher penalties

- More than two-thirds of persons interviewed agree that enforcement and punishment of traffic violations are useful and call for increased enforcement of traffic laws, as well as tougher penalties for traffic offenses. There is more support for this measure in Austria than in other European countries.
- Four out of five persons interviewed approve tougher fines for drivers under the influence of alcohol and for lowering the current alcohol limit by approximately one third. Yet Austria is next to last in the rankings for support of this. In the majority of the other European countries the support for this measure is significantly higher.
- About three-fourths of Austrian drivers agree with the European Union goal of reducing road traffic deaths by at least 50% until 2010. This value is also lower than in many other EU countries.
- Comparing the opinions of Austrian drivers with those of drivers in other countries shows that Austrians tend to be more sceptical about newer technologically advanced equipment for improving road safety, such as speed limiters, alcohol interlocks, navigation or congestion warning systems.

Austrians rather sceptical about new traffic technology



Priority Areas for Human Behaviour

Human Behaviour

Restraint systems and safety equipment



By means of specific measures one target will be to increase seat belt use to the level of the best in Europe. Special attention needs to be given to encouraging rear-seat passengers to fasten their seat belts. Widespread awareness-raising campaigns will be carried out in parallel to other measures. This will include the use of all forms of media. The first step was made with the seat belt campaigns „Sind Sie sicher“ (2001) and „Gurte retten Leben“ (2005/06) prepared by the Ministry for Transport. In addition to further large-scale campaigns, a co-ordinated control plan will increase police enforcement of usage.

Goal: increase seat belt use to the level of the best in Europe

The development of systems that prompt all vehicle passengers to use their seat belts is supported at the EU level.

Seat belt warning systems

A further goal will be to increase the use of child restraints to at least 95%. The measures in the field of child safety are linked to those on seat belts. Additional measures for correct usage of child restraint systems must be implemented in order to reduce the high rate of misuse. The European campaign EUCHIRES targets the safety of children between seven and twelve years of age and is since 2007 also successfully implemented in Austria (www.gordy.at). Lack of use or misuse of child restraint systems is since 2005 prosecuted under the penalty points system.

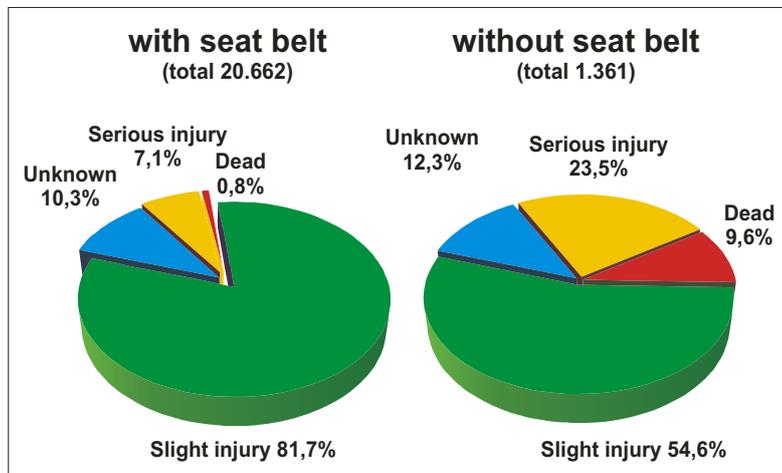
Target: child restraint use 95%

Although currently no mandatory bicycle helmet law is planned, awareness campaigns for parents about the effectiveness of helmets in reducing injuries – particularly for children – should be emphasised.

Bicycle helmets

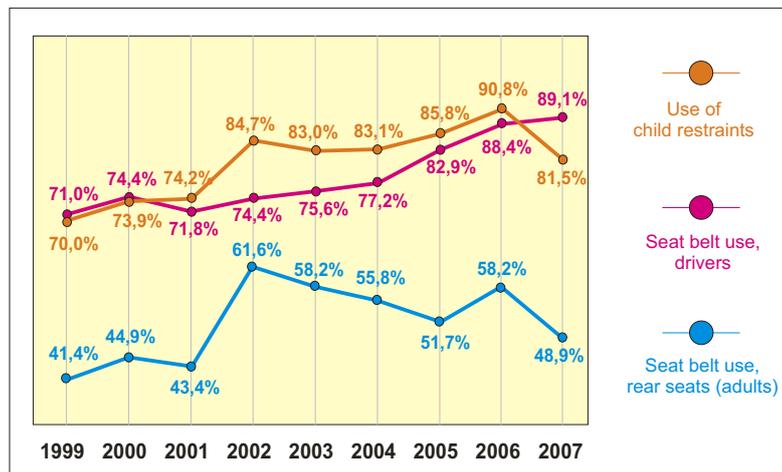
Severity of injury for all car passengers involved in an accident 2007 (Source: KfV)

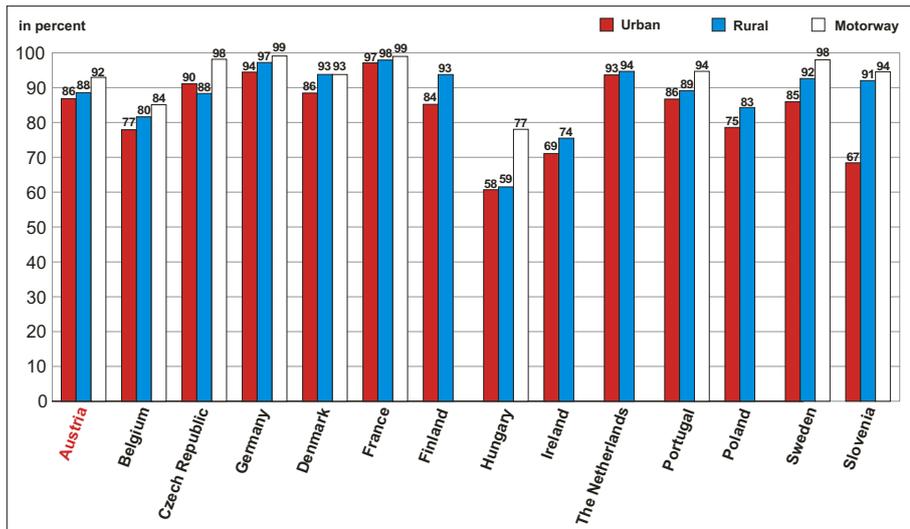
9,6% of all car drivers involved in an accident in 2007 who were not wearing a seat belt were killed (23,5% were seriously injured). Of those drivers involved in an accident who did wear a seat belt only 0,8% were killed and 7,1% seriously injured.



Seat belts and child restraints 1999-2007 (Source: KfV)

The seat belt is still not maximised: despite a rise in the past years with 89% of drivers and front-seat passengers using a seat belt, it is shocking to see that only 49% of rear seat passengers are using a seat belt. The number of children in restraint systems decreased to 82% in 2007.





Seat belt use of car drivers by international comparison 2006

(Source: IRTAD, KfV)

Ireland 2001;
Portugal 2004/2005;
Hungary 2005

A comparison with other EU countries shows that Austria lies in the middle.

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓			
✓	✓		
✓	✓		
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	✓
✓	✓	✓	✓

Examples of particular measures in the area of restraint systems:

- Information brochure and folder on the proper use of child restraints widely distributed, including child restraint stores; new edition 2008
- Creation and maintenance of a website (www.autokindersitz.at)
- Campaigns: „Sind Sie sicher“, „Gurte retten Leben“, EUCHIRES (Gordy)
- Lack or misuse of child restraint systems prosecuted under the penalty points system
- Goal-oriented and intensified enforcement
- Continuous evaluation of seat belt use
- Basic training for child restraint sales personnel and key people (such as police, midwives, or pediatricians)
- Information brochures on child safety for non-German speaking drivers in 10 languages, for distribution to child restraint sales personnel, automobile clubs and driving schools
- Supporting EU-wide initiatives in the area of seat belt warning systems
- Bicycle helmet: marketing initiatives

Annual potential reduction of up to 90 deaths



Alcohol and other drugs



The offence of **driving under the influence of alcohol** has been among the leading causes of accidents and a high number of unreported cases remains unknown.

As a preventative measure, alcohol testing was administered to all vehicle drivers involved in an injury accident.

The use of **quick-testing alcohol breathalysers** is a significant help to the police in the surveillance of drunk driving and was tested in a pilot project. Due to the large success of the pilot, additional units will be acquired in order to increase the control density.

The public should continuously be informed about this. **Regularly assessing the blood alcohol content** of the driver population (roadside checks) provides an essential safety indicator and should be implemented in Austria, as it is a standard in many EU countries.

The European **"BOB"-Campaign** is underway in Austria under the title „0,0 for friends“. The „friend“ is the individual member in the group who will not drink alcohol in order to drive the others home. In Lower Austria and Styria such campaigns were successfully implemented in 2006/07 (www.forfriends.org). The aim is to expand the campaign to all of Austria.

The **Alcohol Interlock System** causes the driver of a vehicle to undertake an alcohol-test (built-in breathalyser). The vehicle can only be driven when the test indicates that the driver does not have alcohol content above the legal limit. In Austria the requirements for a pilot project should be investigated (alcohol-interlocks as part of a psychological (long-term) rehabilitation for drivers caught under the influence of alcohol and a basis for the necessary legal framework).

A penalty model will be designed which is graded according to the severity of the violation.

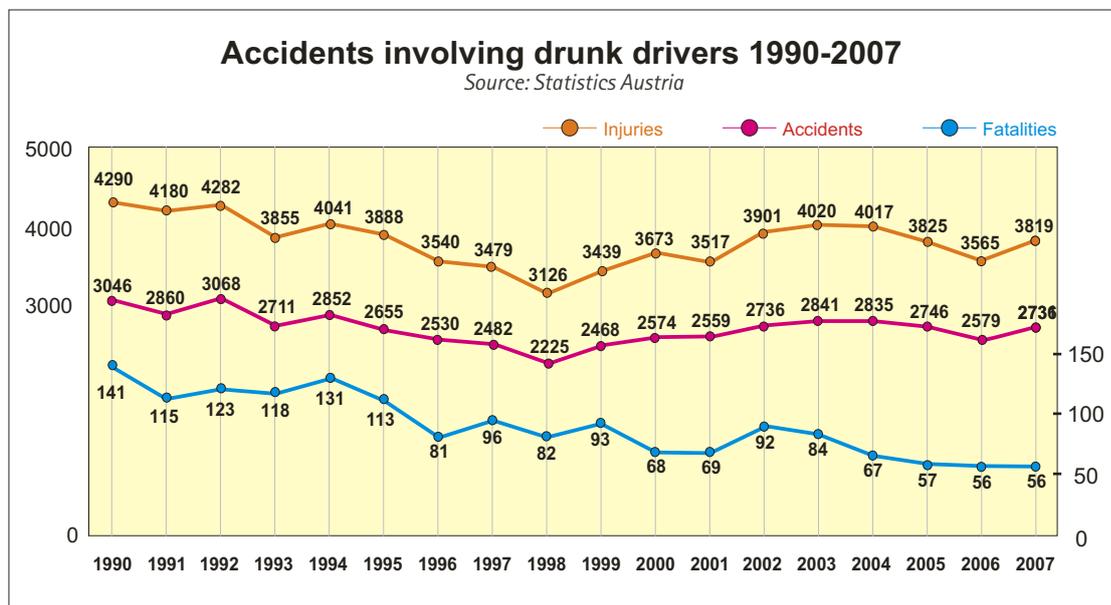
Mandatory alcohol checks for all drivers involved in an injury accident

Quick-testing alcohol breathalysers

"0,0 for friends": the one driving stays sober

Alcohol Interlock System

Graded penalties according to alcohol intoxication level



When it comes to driving under the influence of alcohol, there exists an important difference between official statistics and the results of detailed studies made by the Austrian Road Safety Board (KfV): At least 15% of all participants in fatal accidents are influenced by alcohol. In cases of single vehicle accidents, this percentage rises to as much as 30%. At 44%, single vehicle accidents on rural roads constitute the largest category among fatal drunk driving accidents. A large proportion (45%) of these accidents involves drivers between the ages of 15 to 24 years. Every fifth drunk driver is already known on record by the authorities due to past drunken driving violations. Some of these drivers have had their driving licences revoked due to previous alcohol violations.

High number of unreported cases of drug-related accidents

The number of unreported cases of drug-related accidents is much higher than by alcohol. Only through special education the police can identify the signs of drivers who are under the influence of drugs. Also, medical personnel require special training to investigate the possible influences of drugs on driving. The Austrian so-called „pool of doctors regulation“ will assist in improving the number of doctors available for drug testing. Enforcement should be intensified and target-oriented.

Within the framework of the EU-wide research project DRUID in which a number of Austrian institutions take part, the possible ways to ascertain drug thresholds are being investigated and methods for drug-screening worked on. The results will appear in 2010 and should be directly utilized in Austria's next steps.

Research project DRUID

In DRUID a comparison of European rehabilitation models for drivers under the influence of alcohol or drugs is being made and the „best practices“ will be shared.

Alcohol intoxication of drivers is punishable within the penalty points system since 2005.

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓			
✓	✓	✓	
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✓			

Examples of specific measures in the area of alcohol and other drugs:

- Alcohol tests for all drivers involved in injury accidents
- Quick-testing alcohol breathalysers: pilot study, increase the number of units and intensify media work
- Regularly assess alcohol levels using scientific methodology
- Implement the internationally successful "BOB"-Campaign as „0,0 for friends"
- Alcohol interlock: investigate the requirements for a pilot project (rehabilitation, legal framework), support the initiatives in the area at the EU level
- Adapted, graded penalty model for drunk drivers
- Police training in the area of drug-use recognition
- Training of medical personnel in drug-use recognition (pilot study) and increase the network
- Increase police enforcement
- Drug thresholds and quick-testing drug breathalysers: research and development in the EU project DRUID
- Rehabilitation models for drivers under the influence of alcohol or other drugs (DRUID)
- Alcohol intoxication while driving as infringement in the penalty points system

Annual reduction potential of up to 100 deaths



Driving speed



Compliance with speed limits increases with the driver's subjective experience of enforcement. Future enforcement campaigns should be communicated more („do well and tell others about it“), in the media as well as on the spot. This goes hand in hand with continuous evaluation and increasing the efficiency of enforcement measures. As a general prevention measure the fines for speed violators will be increased.

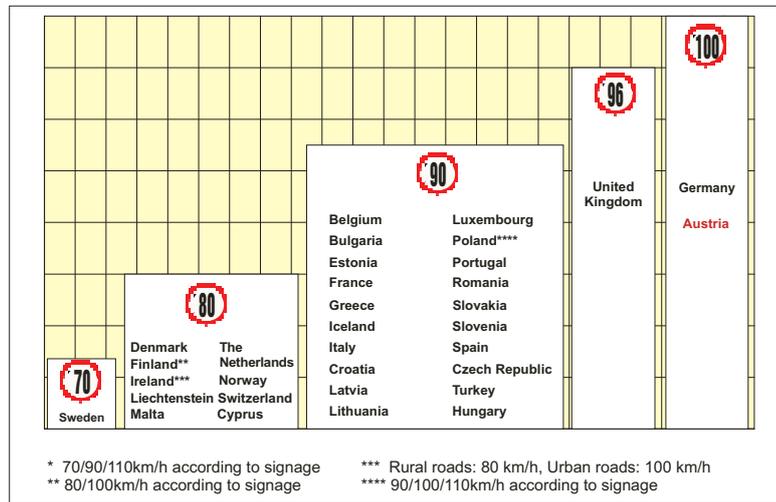
Speed limits better maintained when driver's subjective experience of enforcement is high

There are a number of models for reducing speed limits on rural roads according to road layout in different regions and their impact will be evaluated. Consequently, a standardised nationwide approach for the adaptation of speed limits with regard to road layout is sought.

Systems for speed surveillance along a whole section of road (Section Control) have been shown to be highly effective. This technology should be used for accident-prone road sections and along construction zones on motorways, whereby special attention must be paid to the question of legal security and data protection.

Section Control for accident-prone road sections

Statistics show that inappropriate high speeds are by far the leading cause of accidents. Internationally, it could be concluded that a reduction of average speeds of 1 km/h can reduce accidents on average by about 3%.



An important measure for reducing accidents in populated areas is the installation of Intelligent Speed Assistance (ISA). Drivers are informed about locally established speed limits and warned when they surpass these limits. This technology was successfully tested in Austria within the Technology Initiative "I2-Intelligent Infrastructure" of the Ministry for Transport (www.roncalli-telematics.com).

Intelligent Speed Assistance

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓	✓	✓

Examples of particular measures in the area of driving speed:

- Increase public awareness of enforcement priorities
- Introduce higher fines for speeding
- Continuous evaluation and increase the efficiency of enforcement measures
- Set appropriate speed limits on rural roads based on road layout
- Introduce "Section Control"
- Pilot "Intelligent Speed Assistance": Project RONCALLI

Annual potential reduction of up to 250 deaths

Basic driver education and advanced driver training



Multi-phase training

A new training model was implemented in 2003, in which young drivers are supervised for one year after taking their driving licence test. The **multi-phase training** follows the motto: "awareness-raising, self-assessment, longer supervision and active integration of drivers".

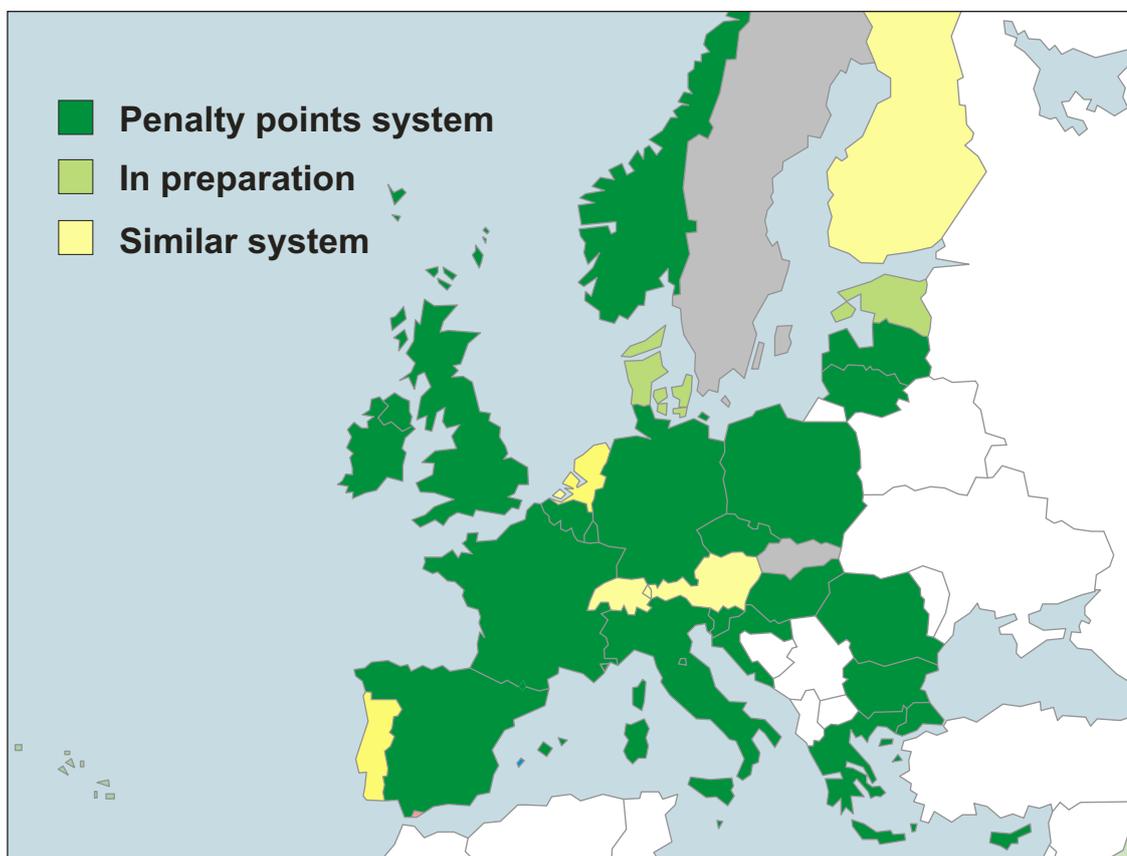
The successful evaluation shows the potential for further **optimising** this model for all car drivers. Already now accidents by novice drivers were reduced by 30%. It is a scientifically proven fact that accidents are not evenly distributed over the population. Instead, a small percentage of drivers cause a comparably high number of accidents. This small group corresponds well to that of repeat offenders.

Penalty points system

The **penalty points system** is an efficient and unbureaucratic model for prosecution of high-risk drivers in order to protect the general public, as these drivers need **stricter sanctions and additional driver improvement measures**. Models of this kind exist in a number of European countries. A catalogue of offence-specific guidelines for trainings was designed. The penalty points system has undergone an evaluation.

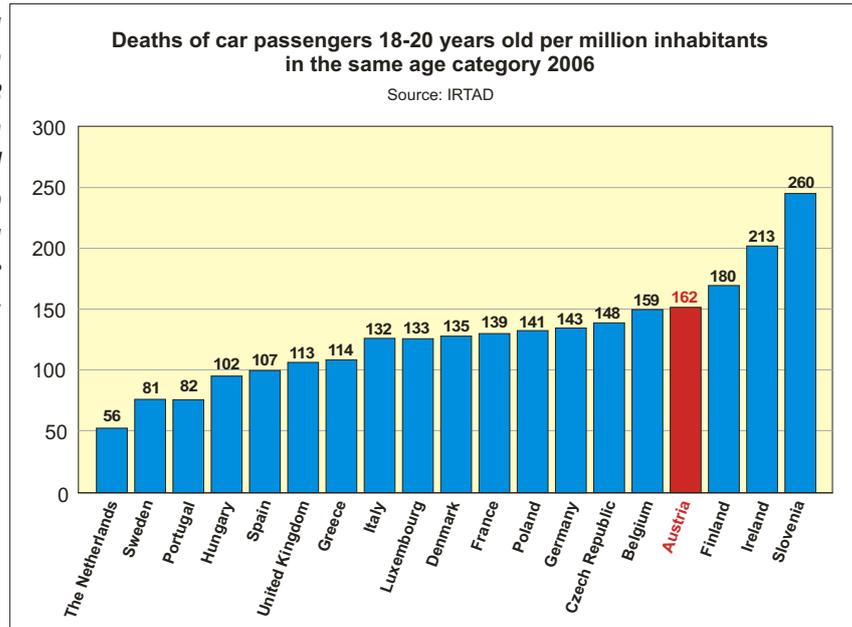
In accordance with EU law it is necessary to regularly renew driver licences in order to ensure protection against forgery.

Penalty points systems in the European Union



Among the young drivers who died in 2006 there were 48 18-19 year olds which accounts for 7% of all deaths in these two age groups. Austria still seems to be at the tail end of EU performance.

* Hungary 2003, Italy/Luxembourg 2004, Ireland 2005



Preparations are underway to significantly reform the moped driver education. In doing so, the requirements for obtaining a moped driving licence for all age categories will be standardized. Regarding the practical training, driving hours on the road shall be foreseen.

Reform of moped driver education

In twelve European countries the project Close-To follows the approach of confronting learner drivers with drivers who have caused road accidents. This successful method should be expanded till 2010 (www.close-to.net).

„Close-To“: drivers involved in accidents share their traumatic experiences in driving schools

Implementation			
implemented	on-going	priority 2008-2010	long-term
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		✓	

Example of particular measures in the area of basic driver education and advanced driver training:

- Introduction of the multi-phase driving licence
- Evaluation of multi-phase driving licence for car drivers
- Evaluation of multi-phase driving licence for motorcycle drivers
- Introduction of the penalty points system
- Evaluation of the penalty points system
- Regular renewal of driving licences in co-ordination with the EU
- Reform measures for moped driver education
- Implementation of the project „Close-To“: peer education for learner drivers

Annual reduction potential of up to 150 deaths



Pedestrian safety: focus on crossings



Awareness-raising campaigns and increasing fines

To protect pedestrians the minimum fine for disobeying their priority on crosswalks was increased. Endangering pedestrians on street crossings is punishable in the penalty points system since 2005. Furthermore, an awareness-raising campaign based on the theme "Consideration of non-motorised road users" is being carried out throughout Austria. Existing regulations are being reviewed and the technical safety aspects of existing crossings inspected.

Improved visibility between drivers and pedestrians

The start package also provides local improvements in visibility at pedestrian crossings. This implies the need to intensify construction of street build outs. Also, enforcing relevant no parking regulations in the vicinity of crossings is necessary. Increased enforcement by police plays an important part in raising awareness about pedestrian safety.



Improved design of pedestrian crossings

A research project evaluated 19 different additional measures for pedestrian crossings. The before and after comparison showed that constructional measures (e.g. central islands, raised crosswalks) are the most suitable for increasing the willingness to stop of car drivers, followed by various forms of signals and road markings.

Improved road lighting at crosswalks

Improved road lighting at crosswalks will be pushed in a project in the Tyrol supported by the Austrian Road Safety Fund which shall serve as a model for municipalities in all of Austria.

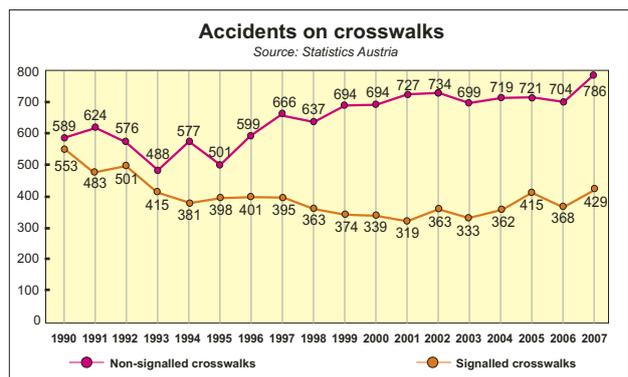
Way-to-school maps

Within the initiative way-to-school maps, street maps and danger warnings are being developed and distributed to students for their daily commute to and from school.

Speed limits in front of nursery schools and schools

In the future there will be time-specific speed limits, for example in front of nursery schools and schools during opening hours, whereby modern variable message signs should replace the stationary signs.

After a reduction in the mid-90's the number of accidents on non-signalised crosswalks is again increasing. The priority for pedestrians on crosswalks is anchored in legislation since 1994. Nonetheless, the situation since then has not improved.



Implementation			
implemented	on-going	priority 2008-2010	long-term
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Examples of particular measures in the area of pedestrian safety:

- Higher minimum fines for disobeying pedestrian priority on crossings
- Awareness raising efforts throughout all of Austria
- Review of existing crossings and updating relevant guidelines
- Improve visibility at pedestrian crossings
- Investigate additional safety-raising equipment for crosswalks
- Strengthen police enforcement of crossings in accordance with the other measures
- Way-to-school maps
- Time-specific speed limits in front of nursery schools and schools
- Endangering pedestrians on crossings as infringement in the penalty points system

Annual potential reduction of up to 10 deaths

Driver fatigue and distraction



Austria supported the European Commission in its efforts to modify legislation that deals with **uniform driving and rest periods**. These apply also to independent freight hauliers.

Uniform driving and rest periods

Austria also supported the European Commission's implementation of a mandate for all lorry drivers who operate cross-border freight within the EU to acquire an **EU Driver Certificate**. This measure should prevent EU hauliers from bypassing European laws and safety standards by employing drivers from third countries.

EU Driver Certificate for cross-border lorry drivers

Furthermore, Austria supported the European Commission's introduction of the **Digital Tachograph**. The anti-tampering version of the classic tachograph is a meaningful step to ensure adequate control over driving limits and rest periods.

Digital Tachograph

Intensive **enforcement** of driving and rest periods by the Austrian police and Work Safety Inspectorate will contribute greatly to reducing lorry accidents. Therefore, it is necessary to comply with all EU regulations, particularly concerning the number of roadside checks made.

It would also be desirable to have the involvement of trained and available **doctors** for the clarification of the effects of fatigue.

The development of a "**weariness-test**" is currently underway. Suitable test procedures should be developed that will make it possible in the future for the police to objectively determine a driver's state of fatigue. Within a pilot phase two different measuring devices ("Pupillomats") are being tested regarding validity and sensibility and the possibility of adjustments investigated.



Weariness test with „Pupillomat“

Rest areas along the motorways

Rest areas are to be built along motorways by the Austrian Motorway Administration (ASFINAG) in order to provide adequate opportunities for breaks and rest periods, particularly for lorry drivers.

Lorry control sites

In addition, along transit roads in both traffic directions there should be an increase in lorry control sites.

Research on cell phoning while driving

The use of cell phones while driving can cause accidents. In order to have a basis for a fact-oriented approach in Austria, numerous international research results are being analysed and research on the accident causes in this field strengthened. The fines for phoning while driving were already increased to 50 Euros.

Implementation			
implemented	on-going	priority 2008-2010	long-term
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✓			

Examples of particular measures in the area of driver fatigue and distraction at the wheel:

- Supporting the modification of legislation 3820/85 (driving and rest periods) by the European Commission
- Supporting the introduction of the EU Driver Certificate by the European Commission (in accordance with the implementation of the „Professional Driver Directive“ (2003/59/EG))
- Supporting the introduction of the Digital Tachograph by the European Commission
- Intensified control of driving and rest periods for professional drivers
- Development of a „weariness test“ in collaboration with the Austrian police
- Pilot testing of weariness measuring devices (“Pupillomats”)
- Construction of rest areas along the motorways
- Push for lorry control sites along transit roads
- Cell phones while driving: analyse international research results, strengthen research on accident causes
- Increased fines for phoning while driving

Annual potential reduction of up to 30 deaths

Drivers of motorised two-wheeled vehicles



Increase the number of training hours for better vehicle control

Studies have shown that motorcycle drivers have specific problems with control of their vehicles. As a first measure, the minimum training time to obtain a driving licence was raised to 12 hours.

Motorcyclists often – especially on well-established accident-prone motorcycle routes – disregard many requirements, such as driving at speeds that allow them to stop within visible distances, driving sufficiently to the right side of the road and avoiding inappropriate noise. Therefore, motorcyclist behaviour must be better monitored by the police in order to target general prevention effects.

Awareness-raising measures

It has been shown that personal contact with motorcycle drivers and mediation given to encourage strategies for safer driving has had positive responses. Therefore, awareness-building efforts will be continuously promoted during the whole period of the Austrian Road Safety Programme.s

Increased control of tuned mopeds

The number of “tuned” mopeds is escalating. Also on the increase is the number of models that feature extremely high maximum speeds as standard. Countermeasures will include increased enforcement and penalties for offering „tuned” mopeds.

On behalf of the Ministry for Transport, Technologie and Innovation two detailed studies on accident statistics and legal cases involving motorcycles were carried out. The results of these studies, in which detailed information about the causes of motorcycle accidents were given, will be used as a basis for further measures in this area.



For the past years "born again bikers" are often involved in accidents. A targeted practical training will be designed for this group. In general it is also necessary to promote voluntary participation in regular driver trainings at the start of the season („warm-ups“). The demand for motorcycles with anti-lock braking systems (ABS) should increase through incentives.

Practical training for "born again bikers"

The new Austrian Guideline for infrastructure measures for motorcycle drivers deals with the following themes: road friction, objects at the roadside, sight barriers and alignment as well as alternative guard rail models in critical areas

New guideline

Implementation			
implemented	on-going	priority 2008-2010	long-term
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✓	✓	✓	
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✓		✓	

Example of particular measures in the area of motorised two-wheeled vehicles:

- Increase the number of practice hours required for driving licence training
- Develop a surveillance model for monitoring speeds, driving behaviour and noise emissions
- Continuous and target-group specific awareness campaigns
- Introduce measures against the marketing and operation of mopeds that, through standard features (or after tuning), can reach considerably high maximum speeds
- Penalties for offering tuned parts
- Scientific studies, e.g. „Motorcycle accidents“, IDAF (In-Depth Analysis of Fatal Accidents), motivational research and interviews on accident causes of drivers of two-wheeled vehicles
- Practical refresher trainings for motorcycle drivers
- Promote voluntary participation on regular driver trainings at the start of the season („Warm-Ups“)
- Increase the demand for motorcycles with anti-lock braking systems (ABS)
- Austrian Guideline for infrastructure measures for motorcycles

Annual potential for reduction of up to 20 deaths

Following distances



Intensive enforcement

The high percentage of rear-end collisions on high-speed road networks is directly related to the gaps that drivers maintain between themselves and other vehicles. Therefore, **national uniform standards** will be established on police enforcement methods and on a unified system of penalties in all provinces. The **enforcement** necessary to uphold these new standards and their take-up into the penalty points system will be essential in order for them to be effective. Currently a following distance from 0,2 to 0,4 seconds is considered an infringement under the penalty points system. By even shorter distances the driver licence is immediately revoked.

Media campaign

To strengthen awareness a **media campaign** will accompany these measures together with the introduction of the new standards.

The police should start to use appropriate **electronic surveillance equipment** on motorway bridges and tunnels to monitor following distances. In the long-term this should be extended to cover the entire high-level road network.



Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓	✓ ✓	✓

Examples of particular measures in the area of following distances:

- Establishing improved, uniform standards for maintaining safe following distances
- Include the new standards in the penalty points system
- Provide police with surveillance equipment
- Targeted enforcement of following distances; media campaign
- Extend the enforcement of safe distances to the entire high-level road network

Annual potential reduction of up to 5 deaths

Daytime running lights



Daytime running lights

A growing number of European countries are accepting the benefits of daytime running lights. In a comprehensive EU study it was proven, based on the numerous international studies available, to have a positive effect on reducing accidents.

The existing standard ECE R87 plans for an equipment regulation of powered vehicles for the fitment of daytime running lights that have a lower level of power consumption. Austria will support the implementation of this standard by the European Commission.

Until all new vehicles are equipped with daytime running lights, awareness-raising activities will be increased to educate drivers on the correct use of dimmed headlights during the day (at dawn, certain weather conditions, in tunnels).

Implementation			
implemented	on-going	priority 2008-2010	long-term
		✓ ✓	✓

Examples of particular measures in the area of daytime running lights:

- Support the implementation of the standard ECE R87 for mandatory use of daytime running lights with a lower level of power consumption
- Correct use of dimmed headlights during the day: awareness-raising measures

Annual potential for reduction of up to 20 deaths

Traffic education



Traffic education should be provided to people of all age groups. Parents of **small children** (from 12 to 14 months) must also be made aware of the importance of traffic education during the child's early years and their own behaviour in traffic as role models. A brochure with instructions and background knowledge should keep parents of small children informed on such protective measures.

Early awareness-raising of parents to the needs of small children

Holding obligatory evening meetings in **nursery schools and preschools** for parents to discuss the theme of road safety has proven to be successful. A presentation package (overhead sheets, videos, brochures, etc.) will be made available at such meetings. „The little witch 4x4“ is a new game, method and informational package for nursery schools. This is a way to integrate traffic and mobility education in the daily routine.

„The little witch 4x4“ for nursery schools

For over 25 years the traffic education mascot **Helmi** motivates children and parents in a television programme and on the Internet about road safety. Helmi, the only one of its kind in all of Europe, underwent a relaunch in 2005 and deals with up-to-date safety issues.

Helmi



For mandatory traffic education teaching from the **1st to the 4th grade**, comprehensive teaching material on mobility was newly developed. In addition to exciting stories to use for speaking, reading and social studies, the collection also contains instructions for teachers and work material for children. The Ministry for Transport in collaboration with the Ministry for Education developed a book with funny and educative way-to-school stories for broad dissemination to grade schools.

New teaching materials for traffic education

The EU project **ROSE-25** led by the Austrian Road Safety Board (KfV) collected and analysed efficient traffic education measures in the entire EU. A "Good Practice Handbook" explains the optimal implementation of the measures in ten steps and supports these with examples from the Member States (ec.europa.eu/transport/rose25).

Collection of EU-wide „Good Practices“

A **mandatory traffic education module** aimed at all children and young adolescents in all middle schools, junior and senior high schools as well as technical training academies is aspired. The main traffic education principles which are pertinent for all grade levels will be included in teaching material and training media, starting the 5th grade. At the „Road Safety Days“ of the Austrian

Mandatory traffic education starting the 5th grade

military, soldiers completing their compulsory military service receive a CD-ROM which contains about 40 articles on traffic themes such as alcohol, drugs and speeding.

Initiatives and information must be increased and made more available for the elderly who need to protect themselves better. Therefore, training courses as well as information campaigns with practical tips will be offered for elderly drivers and pedestrians.

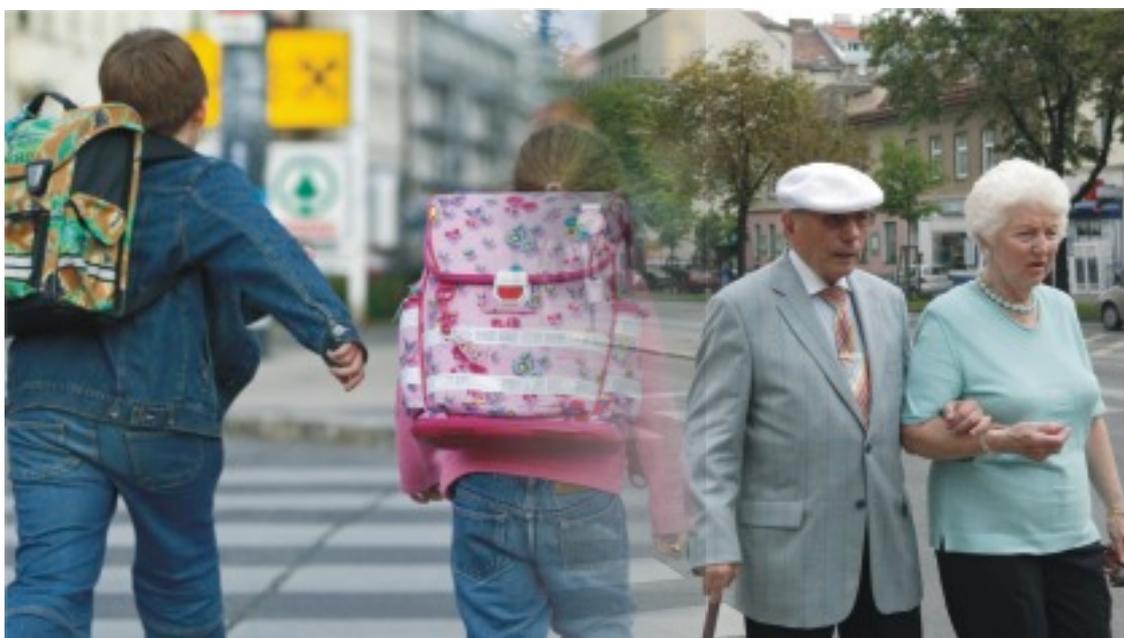
Information for older persons and persons with disabilities

People with disabilities should obtain better opportunities for mobility. On the one hand, there is a need to implement an adequate transport system, on the other hand, those affected need to have their own mobility training. In order to carry out effective information events it is necessary to provide the appropriate presentation material.

Implementation			
implemented	on-going	priority 2008-2010	long-term
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✓		✓	
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Examples of particular measures in the area of traffic education:

- Early awareness-raising of parents of small children (from 12-14 months old)
- Nursery school and preschool: creation of new teaching material and training aids for teachers as well as the police
- Support Helmi, the traffic education mascot
- Grade school: create new teaching materials
- Way-to-school stories for grade-schoolers „Wir gehen zur Schule“, „Flocki Flott“
- EU project ROSE-25: Good Practice Handbook for Traffic Education
- Creating training materials (starting the 5th grade) for traffic education principles
- Mandatory traffic education for middle schools, junior and senior high schools as well as technical training academies
- CD-ROM for military service soldiers
- Traffic education for the elderly through training courses and information campaigns
- Mobility training for the disabled as a requirement for integration



Priority Areas for Infrastructure

Infrastructure

Black spot treatment



Up to a quarter of all accidents occur at black spots. The Highway Code §96 calls for the treatment of black spots. The exact definition of a black spot exists only in a non-binding guideline. It is therefore necessary to formulate and establish legally binding standards to determine where black spots exist and to establish a procedure for their detection and treatment.

Mandatory standards for definition and treatment of black spots



For flexible and timely treatment of black spots, close co-operation between the Federal Office of Transport, the Ministry for Transport and responsible authorities at the state and local levels will be sought. The Federal Office of Transport is continuously improving and extending the management of black spots.

It is crucial to perform **before and after studies of black spot treatments** based on scientific methodology.

In the mid-term, the management of black spots needs to be included in a **Network Safety Management**, in which roads and sections with higher risks are regularly investigated and – based on the cost-efficiency calculation – priority lists are developed for the treatment of these sections.

The future: Network Safety Management

Many accident circumstances cannot be well determined from the current, available statistical information. Therefore the so-called police accident data sheet will be made available in an electronic form and adapted to the new requirements. In addition accident data collection will be supported by a **geographical information system** which will significantly improve the accurateness of the accident coordinates (project UDM – Accident data management).

Electronic collection of accident data: Project UDM

The target should be a **failure tolerant transport system** which assists in alleviating the consequences of unintentional errors of road users. A major step in this direction is informing the driver about the different safety levels of certain road sections. In the EU project EuroRAP (European Road Assessment Programme) road maps with risk information were created for Austrian roads as well as for many other European countries (www.eurorap.org).

Information to the driver about safety levels of roads

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓		✓ ✓ ✓ ✓ ✓	<p>Examples of particular measures in the area of black spot treatment:</p> <ul style="list-style-type: none"> • Establish legally binding standards to define a black spot (Austrian Guideline for Road Construction) • Achieve close co-operation between national, regional, and local authorities in black spot treatment, and perform efficiency controls of the measures: central data analysis by the Federal Office of Transport • Scientific before and after investigations • Implement a „Network Safety Management“ • Collection of accidents by the police using a geographical information system and adapted accident data sheet in electronic form (project UDM) • EU project EuroRAP for information to road drivers about different road safety levels for certain road sections

Annual potential reduction of up to 70 deaths

Safety on rural roads



Two-thirds of road accident fatalities on rural roads

Nearly two-thirds of road accident fatalities are reported on rural roads (roads outside of urban areas and apart from the motorways and expressways). This is an international problem, which can only be tackled by an integrated package of measures. The national road administrations of Sweden and The Netherlands have presented a new concept of how to design rural roads based on the "Vision Zero" and "Sustainable Safety" philosophies in order both to prevent accidents and, where they occur, alleviate their consequences.

Road hierarchy: self-explaining roads

A stringent **road hierarchy** (main roads, thoroughfares, local distributor roads, side roads) provides clearly identifiable criteria of design and use for the driver in order to bring about appropriate driving behaviour and speed choice ("self-explaining road").

Adaption of speed limits based on local design parameters

This also means a creation of **separate carriageways** for vehicles and road users travelling at different speeds („separation principle"). In doing so it will be possible to aim for, last but not least, adaptation of **speed limits** based on the local design parameters.

The safety of potential overthrow spaces is ensured by protecting or removing objects like trees, lampposts, large signposts or concrete canal apertures („forgiving roadsides").

Guideline for the reduction of tree accidents

The new **Austrian Guideline „Protection from accidents with stationary objects"** provides the basis for further work in Austria. Important would be a harmonized strategy between the regions.

Median barriers should be designed to prevent breaches – even by heavy vehicles. Safeguards on the roadsides should be designed in accordance with local requirements and equipped with state-of-the-art restraint systems.



Safe intersections due to roundabouts

Research and experience internationally shows that **roundabouts** rank among the most efficient safety measures at intersections. Upgrading of high-risk rural intersections to roundabouts can significantly reduce the likelihood of accidents.

Adaptation of road cross sections

So called **overly wide cross sections** are currently being retrofitted into 2+1 cross sections, where necessary with median barriers, or remarked as narrower (1+1) road widths.

Implementation			
implemented	on-going	priority 2008-2010	long-term
		✓	✓
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✓	✓		✓

Example of particular measures in the area of safety on rural roads:

- Principle of the Swedish „Vision Zero" and the Dutch "Sustainable Safety" as basis for future direction in Austria: "self-explaining roads", separation principle, forgiving roadsides, median barriers, roundabouts
- Austrian Guideline for Road Construction „Protection from accidents with stationary objects": harmonised future approach by the regions
- Road hierarchy and adapted speed limits based on road design parameters
- Redesign of overly wide cross sections

Annual potential reduction of up to 100 deaths

Tunnel safety

The Ministry for Transport has set up an expert commission to produce a **comprehensive package for safety improvements in road tunnels**. The work was based on activities of expert groups of the Ministry for Transport as well as those of the Austrian Association for Research on Road-Rail-Transport (FSV). It includes, among others, ventilation, illumination, marking of emergency escapes, brightening of emergency bays, rumble strips (especially on centre lines in two-way tunnels), LED curb markings, renewal of paint coating for tunnel walls, crash cushions at portals, clearly designed tunnel entrances as well as improving the fail-safety of radio facilities.

Comprehensive package for more safety in tunnels

Other important surveillance measures such as average-velocity based **speed enforcement** (Section Control) as well as enforcement of vehicle following distances before tunnel entrances are being implemented. Furthermore, a pilot study for **automatic recognition** and monitoring of dangerous goods has been carried out. For a speedy and practical implementation the research must be intensified.

Increased enforcement

Automatic recognition of dangerous goods



In addition, **information campaigns** on appropriate driver behaviour for tunnel users including professional drivers can contribute to an increase in tunnel safety. **Driver training** concerning appropriate behaviour in tunnels (especially in the event of an accident) was intensified (CD "Behaviour in tunnels").

Regular training of tunnel operators and emergency personnel to cope with the event of an emergency or a catastrophe as well as periodic exercises are of great importance. Random assessment of operational status and safety facilities in tunnels guarantee a high safety level.

Trainings in case of catastrophes

The European Tunnel Safety Directive (2004/54/EG) was implemented by way of the new Austrian Tunnel Safety Regulation, which since 2006 applies to all motorway and expressway tunnels, as well as – for certain traffic quantities – to tunnels on national highways. In accordance with the regulation mono-tube tunnels are continuously upgraded into **dual-tube tunnels**, for each tunnel the safety issues are taken into account already in the planning phase, a safety certificate is issued prior to traffic approval and a tunnel safety inspector appointed.

Tunnel safety regulation

Implementation			
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Examples of particular measures in the area of tunnel safety:

- Improved lighting systems
- Improved marking of escape routes
- Improved design of tunnel walls, curbs and entrances
- Improvement of fail-safety of radio facilities
- Speed- and following distance controls; Section Control
- Tactile guidance by rumble strips „structure marking“
- Standardised training of tunnel operators and emergency personnel and periodical exercises
- Improving emergency action plans of police, fire and rescue services
- Informational campaigns and intensifying driver education regarding appropriate behaviour in the event of a tunnel accident
- Automatic recognition of dangerous goods: increase research
- Austrian Tunnel Safety Regulation implemented - European Tunnel Safety Directive (2004/54/EG)
- Construction of dual-tube tunnels for those in frequent use

Annual potential for reduction of up to 5 deaths

Wrong-way driving on motorways



Improved optical guidance

A group of experts has developed a **package of measures** to address the various causes of wrong-way driving. This includes measures to improve driver orientation through improved route guidance, signing and road markings for motorway slip roads as well as entrances and exits of rest and parking areas.

Behaviour when receiving warnings about wrong-way drivers within a driver education module

The **"appropriate"** behaviour of other drivers on receiving radio warnings about wrong-way drivers on the road can reduce accidents. Therefore, this theme was incorporated into the material for driver education and in a training video.



Implementation			
implemented	on-going	priority 2008-2010	long-term
✓			
✓			
✓			

Examples of particular measures for reducing wrong-way driving:

- Implementation of the „Wrong-Way Driving Guideline“ (Austrian Guideline for Road Construction)
- Integrate behavioural recommendations how to avoid collisions with wrong-way drivers in driver education
- Creation of a training video

Annual potential reduction of up to 3 deaths

Safety management in urban areas



Local concepts for local needs

Many evaluation studies have shown the benefits of good road design towards safety, environment and quality of life. **Community safety concepts** need to be formulated at the **local level** to be able to meet local needs. The degree of detail required for analysis and planning exceeds by far what could be set in a national road safety programme.

Large potential by redesigning urban thoroughfares

Currently, there is a great accident reduction potential in Austria by **redesigning urban thoroughfares**, as these bear the most of the traffic problems: high traffic densities in connection



with high velocities and road user conflicts. In particular, their characteristics with regard to speed moderation need to be scrutinised and enforced with structural measures where necessary.

Since accidents occur not just on thoroughfares but scattered throughout the road network, area-wide measures should be applied as well.

Since 2006 the **Road Safety Academy** of the Austrian Association of Municipalities offers civil servants the option to receive road safety training via e-learning. The module is comprised of topics on the way to school, safety of roadwork zones, road patrol, traffic signs and cargo securing (www.kommunalnet.at).

Together with the Austrian Association of Municipalities the Austrian Road Safety Board (KfV) arranges the competition „**Best Practice Municipalities**“ which awards prizes to efficient road safety measures at the municipality level and makes them public. A “Best Practice Database” for the communities is set up in co-operation with the Ministry for Transport and will be provided at www.kommunalnet.at.

In 2006 the Austrian Association of Municipalities updated and reprinted the 2002 **Handbook for road safety** in cities and municipalities.

Competition and handbook

Within the EU project „**Shared Space**“ a new approach towards use of public space was developed, taking after The Netherlands as role model, in which traffic, pausing and other space functions are balanced together. The concept was tested in 7 European cities from 2004 to 2008. The Ministry for Transport will support Shared Space pilot projects scientifically, in order to test the applicability of the principle as well as the legal and technical implications for Austria.

„Shared Space“ tested in 7 European cities

Implementation			
implemented	on-going	priority 2008-2010	long-term
	✓		
✓		✓	
✓		✓	
			✓

Examples of particular measures in the area of safety management in urban areas:

- Road Safety Academy of the Austrian Association of Municipalities: road safety e-learning
- Competition for Community Best Practices
- “Best Practice Database” – “Road Safety Measures for Communities”
- Handbook for road safety in cities and municipalities
- Shared Space pilot projects

Annual potential reduction of up to 50 deaths

Road Safety Audit

A **mandatory safety check** should be introduced in various phases – from the planning to shortly after the traffic approval phases – of all road building and reconstruction projects. This should include an audit of the road equipment and the securing of roadwork zones. A so-called “**Road Safety Audit**” (RSA) covers road safety issues exclusively and points out safety deficiencies in an audit report. If certain deficiencies are not corrected, the reasons for this have to be disclosed in written form by the building authority. A corresponding **guideline** was created and declared **binding**.

Road safety audits of road construction projects and reconstruction measures

For practical implementation, a **handbook with integrated checklists** adapted to Austrian requirements is now available. Since 2004, safety audit pilot projects are carried out on the motorway and expressway network.

RSA handbook with checklists

The practicality of the handbook will be tested by extending the pilot projects towards the remaining road network – including urban roads. The experience gathered from these audits will contribute to an instruction and notification system for auditors.

Support the European Infrastructure Directive

Austria supports the European Commission in the implementation of the so-called 'Infrastructure Directive', which includes safety audits and inspections for the Trans-European road network. These should be implemented on the entire Austrian motorway and expressway network and serve as a model for the rest of the road network.

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	

Examples of particular measures in the area of Road Safety Audit:

- Introduction of mandatory, multi-phase Road Safety Audits for all road construction projects and reconstruction measures
- Binding character of the Austrian Guideline on Road Safety Audit
- Creation of a handbook with checklist
- Implementation of pilot projects on the entire road network – also in urban areas
- Evaluation of pilot projects and handbook
- Training and notification of independent inspectors
- Implementation of the European Infrastructure Directive

Annual potential reduction: detail studies show a high cost-efficiency!

Road Safety Inspection



Regular area-wide inspection of the road network

Some countries within the EU already employ the principle of Road Safety Inspection (RSI), which envisages regular area-wide surveys of road safety parameters such as friction, studs, road markings, illumination and visibility of road signs during day and nighttime as well as the design of roadsides and the setting of improvement measures before accidents occur.

RSI Handbook with checklists

In the framework of the Austrian Association for Research on Road-Rail-Transport (FSV) a handbook with a checklist for qualified traffic engineers will be developed. Based on this handbook road authorities should test the principles of the Road Safety Inspection for their practicality in pilot projects. A training system for inspectors should be created.

The Austrian Guideline for Road Construction on RSI was declared mandatory. In the future RSI shall become a standard for the high-level road network.



Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓	✓	
	✓	✓	
		✓	

Examples of particular measures in the area of Road Safety Inspection:

- Creation of a handbook with checklist
- Implementation of pilot projects
- Training of inspectors
- Binding character of the Austrian Guideline on Road Safety Inspection

Annual potential reduction: detail studies show a high cost-efficiency!

Motorway roadwork zones: two-way traffic areas



The compulsory use of median barriers has already proven itself in 2001 and could reduce the number of accidents by half as well as drastically reduce the resulting number of fatalities.

Median barriers and Section Control

The fully automatic speed surveillance system along a whole section of road (**Section Control**) encourages uniform speed levels, which is usually particularly useful in construction areas.

Since construction areas have higher accident rates, all measures have to be taken to finish construction projects in the **shortest time possible**. In addition roadwork plans should undergo multi-stage **Safety Audits** which include an inspection after the opening to traffic.

Safety Audit for road work plans

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓	✓	✓

Examples of particular measures in the area of motorway roadwork zones with two-way traffic areas:

- Implement median barriers
- Automatic speed surveillance (Section Control)
- Continuously optimise construction logistics
- Safety Audit of roadwork plans

Annual potential reduction of up to 5 deaths

Road-side telematics



The **Austrian Motorway Administration (ASFINAG)** has built up a telematics center of the highest technical level in Vienna for traffic management and as an information hub which serves as a model for all of Europe. In 2005 modern line control systems for the Inntal and Brenner motorways in the Tyrol went into operation. Until 2010 a large portion of the Austrian motorway network will be equipped with intelligent **line control systems**. The combination of variable speed limits with congestion and accident warning systems, as well as weather information (i.e. black ice, fog), is likely to secure public acceptance. Information is available on the **Internet** regarding motorway roadwork zones (www.asfinag.at), congestion (roadpilot.asfinag.at) and live traffic pictures (webcams at asfinag.at).

Modern traffic and information system



Photos: ASFINAG

Pilot of a fog warning system

In the lakeland area of Upper Austria a fog warning system was installed on the A1 motorway.

On high-risk sites on the entire road network, dynamic road information and warning systems shall be used.

When using state-of-the-art LED technology for traffic signs it is possible that the high light density that results may blind or distract drivers. The same applies for their use in advertising signage. Potential negative consequences on road safety should be investigated and counter measures implemented.

Telematics Initiative and Master Plan

In 2002 the traffic telematics initiative „ITS Austria“ was launched by the Austrian Ministry for Transport. This should build up the competency and capacity in roadside telematics in Austria and push for its usage in the entire Austrian road system. A central focus of this initiative is the Telematics Master Plan, which was completed in 2004. This plan includes a catalogue of measures and defines the priorities for their implementation. An important target is the creation of interfaces for the further dissemination of traffic information between the authorities and operators involved in Austria.

Within the framework of the Programme I2 (Intelligent Infrastructure) numerous future-oriented research and development projects were supported by the Austrian Ministry for Transport which may make a significant contribution to increase safety.

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓		
✓			
✓			
✓		✓	✓
✓		✓	
✓		✓	

Example of particular measures in the area of telematics:

- Line control by means of variable message signs on high traffic motorway sections, in combination with congestion-, accident-, and weather warnings
- Fog warning system for the A1 in Upper Austria
- Information system on the Internet: motorway roadworks (www.asfinag.at), congestion (roadpilot.asfinag.at) and live traffic pictures (Webcams at www.asfinag.at)
- Information and warning systems on high-risk sites
- LED display with high light density: investigate potential negative consequences
- Roadside Telematics Plan
- Interfaces for further dissemination of traffic information
- Programme I2 (Intelligent Infrastructure)

Annual potential reduction: up to 25% of deaths on equipped sections



Material properties of road surfaces



A major component of modern pavement management is the definition and technical measurement inspection of **mandatory standards** for road surfacing materials used in roadway construction at the time of opening to traffic and during usage. The system of guidelines and specifications was simplified and declared mandatory.

Definition and inspection of requirements

Another requirement for road maintenance is to ensure that pavement material quality does not sink below a pre-defined **level of quality**.

A number of national measurement campaigns were completed on motorways and expressways, as well as on roads in certain regions, to establish a set of parameters. On the basis of the measurement data, the effect of these parameters on accident occurrence will be analysed and a **prediction model** established.

Predicting the effect on accident occurrences

Inspection of road surface properties should occur regularly and should – in agreement with the regional road authorities – also include the network of regional roads.

At **high-risk sites** the investigator will determine whether poor road material properties were the cause of the accidents.

Implementation			
implemented	on-going	priority 2008–2010	long-term
✓			
	✓	✓	
		✓	
			✓

Examples of particular measures in the area of material properties of road surfaces:

- Define and test quality standards for pavement material used in construction and maintenance: simplification and mandatory declaration of the guidelines
- Harmonised procedures for treatment of road sections with poor surfacing
- Implement a diagnostic and predictive model based on accident statistics
- Routine inspection and measurement of the network of motorways, expressways and regional roads
- Measurement of pavement material at high-risk sites

Annual potential reduction of up to 15 deaths

Railway level crossings



In an international comparison Austria has a very high number of railway level crossings, thus the reason for numerous accidents: every 40th road fatality is due to a railway level crossing accident, accident severity is 6,6-fold higher the average accident involving human injury.

Many railway level crossings, high accident severity

In the project **ANDREAS** it was investigated whether enforcement on railway level crossings creates an improvement in road safety. Based on the investigation results a pilot system for red light monitoring of railway level crossings was recommended.

Approaches: safety improvements through inspection or warning systems

Within the project **ISIS-EK** a new warning system was tested for those railway level crossings which were until now not technically protected. Such pilot systems can be considered as precursor for new technical forms of protection for railway level crossings.

The lack of risk awareness by road users is the main reason for the numerous accidents at railway level crossings. Therefore, the Austrian Federal Railways produce an **informational folder** for distribution in driving schools, municipalities, automobile clubs and rescue services. Increased public relation activities also should assist in informing road users about the dangers of railway level crossings.

Priority Areas for Vehicle Technology

Vehicle Technology

Accident data recorder



Accident data recorders (ADR) should first be installed on fleets, specifically those that require high levels of responsibility from drivers. Many vehicles of the rescue services are already equipped with ADR.

Equipping vehicles that require high responsibility from drivers

Since drivers with ADR equipped vehicles have been shown to have a lower accident risk, an appropriate financial incentive model could help to promote their installation and use.



Implementation			
implemented	on-going	priority 2008-2010	long-term
	✓	✓	
		✓	✓

Examples of particular measures in the area of accident data recorders:

- Push installation of ADRs in vehicles that place specific responsibilities on drivers
- Equipping rescue service vehicles with ADR
- Financial incentive models to promote the installation and use of ADRs in cars

Annual potential reduction: up to 5% of deaths in equipped fleets

Heavy goods vehicle safety

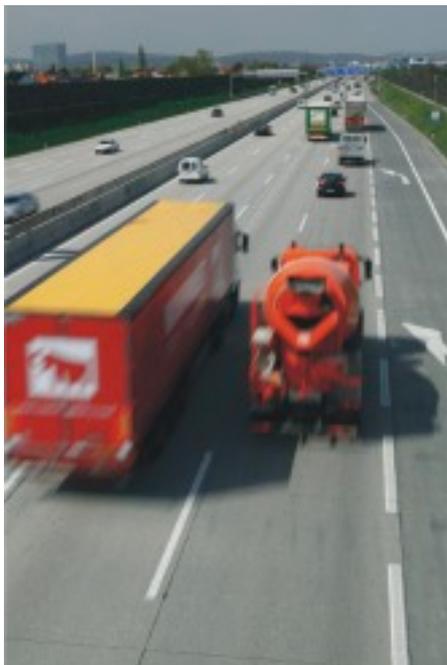


Since 2002 all newly produced buses and lorries weighing over 3,5 tons must be equipped with anti-lock braking systems (ABS) and since 2006 with digital tachographs. Since 2007 so-called „blind spot mirrors“ are required per EU Directive (2007/38/EG).

ABS and digital tachograph

Side and rear cameras in heavy goods vehicles are being investigated in a pilot project.

Side and rear cameras



New regulations for cargo securing were legally anchored. In a detailed by-law in agreement with the industry, clear guidelines will be established to improve legal security of hauliers and simplify controls. Within the implementation of the European Directive 2003/59 (professional driver directive) the securing of cargo should also become a main focus in the professional driver training. A by-law was issued on this topic as well. Since 2005, faulty securing of cargo falls under the penalty points system.

Cargo security

The European Commission has expanded a directive concerning speed limiters for heavy lorries to include all lorries weighing over 3,5 tons. This measure is supported by the Federal Government and at the EU level.

Speed limiters

There is current discussion at the international level about lowering the height of rear underrun protection of all lorries. This measure will also be supported at the EU level.

Underrun protection

Contour markings and automatic tire pressure control

In accordance with ECE Standard No. 104 the placing of contour markings on heavy vehicles will be allowed since it has been shown that they are effective in reducing accidents. In the future a European directive will deal with this topic.

Automatic tire pressure control systems can prevent accidents. In the framework of a draft regulation at the EU level (for type approval of vehicles regarding their general safety) Austria supports implementation of EU standards for serial-production of new vehicles with such systems.



Implementation			
implemented	on-going	priority 2008-2010	long-term
✓			
✓			
✓			✓
✓	✓		
✓	✓		
✓	✓		
✓	✓		
✓		✓	

Examples of particular measures in the area of heavy goods vehicle safety:

- ABS for newly produced buses and lorries over 3,5 tons
- Digital tachograph for newly produced buses and lorries over 3,5 tons
- Pilot project side and rear cameras
- New law for improved cargo securing
- By-law for cargo securing
- Cargo securing as focus of professional driver training
- Faulty securing of cargo sanctioned under the penalty points system
- Speed limiters for lorries over 3,5 tons
- Promote at EU level the lowering of the height of rear underrun protection of all lorries
- Permit use of reflective contour markings for heavy goods vehicles
- EU standards for automatic tire pressure control systems

Active and passive vehicle safety



Strict EuroNCAP-Test criteria for type approval

Through "EuroNCAP" (European New Car Assessment Programme), the results of the crash testing programme have produced objective criteria to assist automobile buyers. At the European level Austria will require the strict EuroNCAP test criteria to be included in the general regulations on type approval.

No selling of vehicles with poor crash stability

In addition it is necessary to have appropriate regulations at the EU level to prevent vehicles with insufficient safety levels from being imported (because of exemptions) and sold in Europe.

The European Enhanced Vehicle–Safety Committee (EEVC) has developed a package of collision tests that has provided an objective measure on the probability of frequent types of injuries sustained by vulnerable road users (i.e. pedestrians, bicyclists). This state-of-the-art technique was included in the current 2004 directive 2003/102.

EEVC standard can save the lives of vulnerable road users

Fast-paced development of telematics will bring about a full range of new applications of information technology in vehicles. The effects of the new technology (e.g. ACC – adaptive cruise control) are currently being discussed and analysed at the EU level in order to incorporate them into a comprehensive evaluation system of vehicles in the framework of EuroNCAP. This safety measure will be supported at the EU level.

Electronic Stability Control (ESC) is a safety technology which helps to prevent skidding. Numerous studies show that vehicles equipped with ESC are involved in fewer accidents. Therefore, Austria will support an EU-wide standard for ESC in all new vehicles.

Electronic stability control as standard equipment

The anti-lock braking system (ABS) is a well-known, effective safety system for four-wheeled vehicles. Not all motorcycle producers offer models equipped with ABS, although faulty brake control is often an accident trigger. That is the reason why targeted public relation activities and incentives should increase the interest. The EU activities for mandatory ABS for all motorcycles are being supported.

ABS for motorcycles

In the future, cars will be able to request help themselves after an accident. The eCall-Initiative of the European Commission aims to have all new vehicles equipped with the necessary units (GSM, GPS, crash sensors) by 2010. Austria signed a memorandum at the EU level for eCall and has tested the system in a pilot project.

Memorandum for an eCall-System in all new vehicles starting 2010



Implementation			
implemented	on-going	priority 2008-2010	long-term
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓

- Examples of particular measures in the area of active and passive vehicle safety:**
- Strict EuroNCAP test guidelines, also for type approval
 - Regulations against import and sale of vehicles with poor crash stability
 - Promote state-of-the-art implementation of "pedestrian friendly car fronts" at the EU level
 - Promote the testing of effects from new information technology in the framework of EuroNCAP
 - Electronic Stability Control (ESC)
 - Anti-lock braking system (ABS) for motorcycles: media work, incentives, support EU activities for mandatory installation
 - eCall system starting 2010 in all new vehicles

Priority Areas for Transport Policy and Legal Framework

Transport Policy and Legal Framework

European Road Safety Charter



Collective responsibility: each one should contribute

In its Action Programme for Road Safety the European Commission states the importance of a contribution by all civil society organisations in Europe in order to increase safety on the road. For this reason the European Road Safety Charter was created. Hundreds of organizations and companies have already joined the Charter and committed themselves to implement road safety measures in their own field.

Also in Austria where 38 companies have already joined, targeted public relations work will be performed to increase participation in the Charter.

Implementation			
implemented	on-going	priority 2008-2010	long-term
		✓	

European Road Safety Charter:

- Publicity for participation in the European Road Safety Charter

Road Safety Council



In 2006 the Ministry for Transport, Innovation and Technology convened the Road Safety Council, a forum for road safety related questions and in particular for the implementation, on-going evaluation and further development of road safety programmes for all transport modes. The Council is composed of safety experts from all transport modes, as well as representatives of ministries and regional authorities, automobile clubs, boards, associations, special interest groups and research-oriented institutions.

The first tasks of the Council are the following:

- Evaluation of the current Road Safety Programme 2002-2010 (including the creation of the edition at hand)
- Development of the basics for a new road safety programme for 2011 to 2020
- Creation of a road safety programme for the rail sector
- Evaluation of the interface between the transport modes road and rail (railway level crossings) with target-oriented measures for improving safety

Implementation			
implemented	on-going	priority 2008-2010	long-term
		✓	

Road Safety Council:

- Creation, on-going evaluation and further development of road safety programmes for all transport modes

Independent accident investigation



The investigation of accidents by independent experts constitutes an international standard that is gaining importance throughout Europe and is required for all modes of transport by the European Commission. Thereby, the **true causes of accidents** and consequences of injuries can be examined more effectively than in lawsuits, as their focus is usually different.

Accident investigation of all transport modes via independent accident investigation centre

The establishment of a multi-modal, **independent accident investigation centre** facilitates



accident analyses for all transport modes in order to improve interdisciplinary accident research and prevention. The centre will present the obtained results in a generally comprehensible form. One of its first tasks shall be the dissemination of findings on the efficient treatment of accident black spots and other measures for the improvement of road safety.

In 2004 the European Commission started the project SafetyNet to work on the creation of a **European Observatory for Road Safety**. The Federal Office of Transport in co-operation with SafetyNet and the Austrian Road Safety Board (KfV) created the Austrian Road Safety Observatory which since 2007 serves as an information platform for all road safety actors and is continuously expanded upon (versa.bmvit.gv.at).

Observatory for Road Safety

Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓		
✓		✓	

Examples of particular measures in the area of independent accident investigation:

- Establish a road safety centre in the Ministry for Transport as a central coordination and information body for road safety work, based on a close, institutionalised collaboration between private sector and state
- Road Safety Observatory

Heavy goods transport



Roadside inspections of heavy goods transports – as required by EU law – constitute an important element of road safety work. The central, nation-wide co-ordination of personnel and technical resources in the form of a lorry control platform as well as the co-ordination with the European Commission is gaining in importance.

Lorry control platform

Maintaining the current regulations regarding the maximum **weight and dimension** of lorries is necessary from the viewpoint of road safety.

Weight and dimension

The **distance-based road pricing** for heavy goods vehicles on motorways and expressways introduced in 2004 is a necessary requirement for preventing unnecessary trips, as well as shifting certain transports to traffic modes with lower accident risks and thus prevent accidents.

Traffic reduction and mode shifting due to distance-based road pricing

To ensure homogeneity of car traffic, specific sections of motorways have been regulated by authorities to **prohibit heavy lorries (>7,5 tons) from overtaking other vehicles**. This regulation

was analysed for its efficiency and expansion of the measure to other sections is considered at regular intervals.

Evaluate the driving ban for lorries

The existing heavy goods vehicle driving bans (weekends, night driving, driving ban calendar, and various exceptions thereof) should be evaluated and become systematic and better communicated in order to facilitate enforcement.

The Austrian "By-law on dangerous goods transports in tunnels" and amendments to the Austrian Dangerous Goods Transport Regulation (GGBG) take account of the latest requirements at regular intervals.



Implementation			
implemented	on-going	priority 2008-2010	long-term
✓			
✓		✓	
		✓	
		✓	
✓			

Examples of particular measures in the area of heavy goods transport:

- Central co-ordination of personnel and technical resources as well as controls in heavy goods transport (lorry control platform)
- Maintaining current regulations for weight and dimension
- Implementation of distance-based road pricing for heavy vehicles on motorways and expressways
- Examine existing lorry passing restrictions and other aspects of lorry/car traffic on motorways
- Heavy goods vehicle driving bans: evaluation
- Modify legal provisions for the transport of dangerous goods in tunnels at regular intervals

Legislation



Accident data collection ensured

The management of a **database** with adequate and correct information on accidents is indispensable and fundamentally important for carrying out road safety work. A new law on accident statistics will assure continuity and good quality of recorded accident data – including those of property damage accidents.

Simplify administrative penal proceedings

The **administrative penal proceedings** should be simplified: experience from outside of Austria shows that new legal and technical work flows which significantly accelerate the proceedings relieve the authorities and can raise acceptance by the public. The main points of such a system are: automating licence plate recognition from surveillance cameras and a quick fine delivery.

Traffic fines directed towards supporting road safety work

In the future all **fine money shall be directed towards supporting road safety work**. In doing so not only important investments can be financed, but also the **acceptance** of enforcement by the public will rise.

Reduction of sign post forest

Speed limits should be applied so that they are understandable to drivers. Frequent speed limit changes along a section of road should be avoided.

A high percentage of inner-city traffic symbols relates to **stopping- and parking restrictions**. A study on "sign post forests" investigated sign reduction potentials. In general traffic signs should be



used sparingly, where useful and not harmful for road safety. Legislative measures should support this principle. For example, it is planned that the self-evident principle whereby a speed limit must not be explicitly ended when two such limits adjoin each other also applies when the second restriction does not result from the street police regulations but from other law provisions, e.g. regulations for immission control.

Legal security must be safeguarded across international frontiers of the EU, such as the prosecution of traffic violations. Austria supports the European Commission in the implementation of the directive for cross-border enforcement. Austria will attempt to customize and adapt this recommendation from the Commission.

International prosecution

New regulations will be developed for the use of photographic devices for enforcement and the respective requirements for data privacy protection. This applies to the methods of speed and distance control, surveillance of adherence to traffic lights, mobile surveillance from vehicles and image transmission for the purpose of traffic control and safety. To increase control density the possibility of frontal photography will be established.

New basis for road surveillance methods

On German motorways cars in congested traffic have to be placed that way that a clear lane for rescue vehicles is formed between the first and second lane („rescue lane“). It needs to be investigated whether such a regulation would be doable in Austria and purposeful.

Rescue lane during congestion

Implementation			
implemented	on-going	priority 2008–2010	long-term
✓	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓
	✓	✓	✓

Examples of particular measures in the area of legislation:

- Create mandatory standards for recording accident data: Accident statistics law
- Simplify the administrative penal proceedings
- All traffic-related fines dedicated to road safety work
- Implement uniform and comprehensive speed limits
- Study on sign post forest
- Legislative measures for efficient use of traffic signs
- Cross-border enforcement: support activities at the EU level
- New legal basis for enforcement methods
- Implement front photography
- Investigate the concept of „rescue lane“ during congestion

Land use planning

In the course of producing a local development programme or development concept, each region should require the creation of a road safety concept. As a basis for creating such a concept, a detailed needs assessment must be developed.

Anchoring the traffic concept into local development programmes

In doing so it will be ensured that already by planning of site developments, a conflict-free, shared use of the road space by all road users will be taken into account.

New, efficient road links create attractive development areas for industrial and business locations as well as new residential zones. In order to prevent an „overgrowth“ of road links, the

number of access roads must be limited and, if necessary, parallel roads feeding into the main roads allocated. In doing so the number of **conflict points** on roads that are traveled upon with higher speeds will be significantly reduced.

In concrete planning of road building projects in the future, Road Safety Audits should also be used for community roads.

Implementation			
implemented	on-going	priority 2008-2010	long-term
		✓	✓
		✓	✓

Example of particular measures in the area of land use planning:

- Development of a detailed needs assessment from road safety concepts in local development programmes
- Road Safety Audit also for structural projects in the community road network

Influencing modal choice



Attractiveness of public transport for main roads

In commuter belts of urban areas and in those corridors with a lot of commuter traffic, concepts for making **public transport attractive** are being devised. Here it would be possible to switch part of the work and school commuting trips to safer forms of mobility. In doing so, public transport stops should undergo a systematic **safety check** and be improved based on a mobility consultation.

More park&ride facilities

Increasing the number of park&ride facilities on the perimeter of urbanised areas and along commuter routes should contribute to lowering traffic levels.

Support car sharing

By supporting **car sharing** traffic volumes could be reduced, thereby improving traffic safety. In addition, this would help tackling problems of congestion.

Coordinated country-wide bicycle facilities concept

Fulfilling various, yet to be developed country-wide traffic safety **quality standards** will be a criterion for receiving financial support for the funding of bicycle facility projects. The design and implementation of a national, regional and multi-regional **concept for bicycle facilities** would be a major development in further improving infrastructure used by bicyclists.



Implementation			
implemented	on-going	priority 2008-2010	long-term
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓

Examples of particular measures in the area of modal choice:

- Improving the attractiveness of public transport
- Safety checks for all public transport stops
- Mobility consultation
- Push park&ride facilities
- Support the creation of car sharing facilities
- Creation of quality standards as a basis for funding cycling facilities project
- Creation of a nation-wide concept for bicycle facilities

Further Information

- Austrian Ministry for Transport, Innovation and Technology:
www.bmvit.gv.at
- Austrian Home Office:
www.bmi.gv.at
- Austrian Ministry for Education, Arts and Culture:
www.bmukk.gv.at
- The Austrian Road Safety Board (KfV):
www.kfv.at
- Statistics Austria:
www.statistik.at
- Information site on child safety in cars:
www.autokindersitz.at
- Automobile, Motorcycle and Bicyclists Club Austria:
www.arboe.at
- The Austrian Automobile, Motorcycle and Touring Club:
www.oeamtc.at
- Transport Club Austria:
www.vcoe.at

Download the Austrian Road Safety Programme 2002–2010

- German: www.bmvit.gv.at/verkehrssicherheitsprogramm
- English: www.bmvit.gv.at/en/roadsafetyprogramme

Download the regional road safety programmes:

- Burgenland:
<http://www.kfv.at/fileadmin/Publikationen/Landesstellen/StudiezumVSPBurgenland.pdf>
- Carinthia: order per E-Mail post.abt7@ktn.gv.at
- Lower Austria: www.noe.gv.at/verkehrsberatung
- Upper Austria:
http://www.land-oberoesterreich.gv.at/cps/rde/xbcr/ooe/Vt_Verkehrssicherheit_low.pdf
- Salzburg: <http://www.salzburg.gv.at/gib8>
- Styria: <http://www.verkehr.steiermark.at/cms/target/11165150/DE/>
- Tyrol:
http://www.tirol.gv.at/fileadmin/www.tirol.gv.at/themen/verkehr/verkehrsrecht/bilder/galerie/FB-VERKEHRSSICHERHEIT/VSP_Brosch_re_2007-2012.pdf
- Vorarlberg (traffic concept with special section on road safety):
http://www.vorarlberg.at/vorarlberg/wirtschaft_verkehr/verkehr/verkehrspolitik/weitereinformationen/verkehrskonzeptvorarlberg.htm
- Vienna: <http://www.wien.gv.at/verkehr/verkehrssicherheit/programm/index.htm>
- City of Linz: http://www.linz.at/images/FOLDER_Verkehrssicherheit_web_2.pdf

