



Austrian Road Safety Programme 2011–2020

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Foreword



It gives me great pleasure to introduce the new Austrian Road Safety Programme for the years 2011–2020, a programme which takes the Federal Ministry of Transport, Innovation and Technology bmvit into its second decade of integrated road safety management. The first Austrian Road Safety Programme (2002–2010) already made a clear impact – since 2002, some 1,400 fewer fatalities have been recorded on Austria’s roads.

Yet no matter how pleased we might be about our achievements so far, compared to other countries, we still have a long way to go. There were 633 fatalities on Austria’s roads in 2009, yet if road safety levels had been similar to those in Switzerland, this figure would have been “only” 380, i.e. 40 % lower. Our goal now is therefore to reduce the number of fatalities on our roads by a further 50 % in the coming decade. We would also particularly like to reduce the number of serious injuries on our roads, i.e. the number of people who suffer a potentially permanent disability, by at least 40 %.

Safety levels for car occupants have improved significantly in recent years. We will therefore be putting additional focus on improving the situation for vulnerable road users in the coming decade.

The 2011–2020 Road Safety Programme contains over 250 measures and is the result of a year-long cooperation between bmvit and the members of the Austrian Road Safety Advisory Council’s Roads Task Force. I would like to take this opportunity to extend my sincere gratitude to all the many institutions and experts involved in this project for their tireless efforts!

The more closely we all work together – from parliament and the police force to planners and road users – to improve road safety, the more successful this programme will be. I will therefore be placing special emphasis on ensuring that the cooperation between all parties responsible for road safety in Austria is further intensified in the course of this programme.

I would also like to thank all our partners, especially the federal states, municipalities and local authorities, for their support in implementing this programme. Our mutual efforts will continue to improve road safety for all citizens of this country.

Doris Bures

Federal Minister for Transport, Innovation and Technology

1

Road Safety Trends in Austria to 2010



AUSTRIAN
ROAD SAFETY PROGRAMME
2011–2020

The Austrian Federal Government, in particular the Federal Ministry for Transport, Innovation and Technology (bmvit) as the main government body responsible for road safety, have set themselves the target of making Austria's roads among the safest in the EU.

Significant progress has already been achieved through the first Austrian Road Safety Programme (2002–2010), but road safety figures for Austria are still only average for the EU as a whole, and even below average for the EU-15 countries. As a result, bmvit has worked in close cooperation with the members of the Austrian Road Safety Advisory Council's Roads Task Force to develop a new Road Safety Programme for the years 2011–2020.

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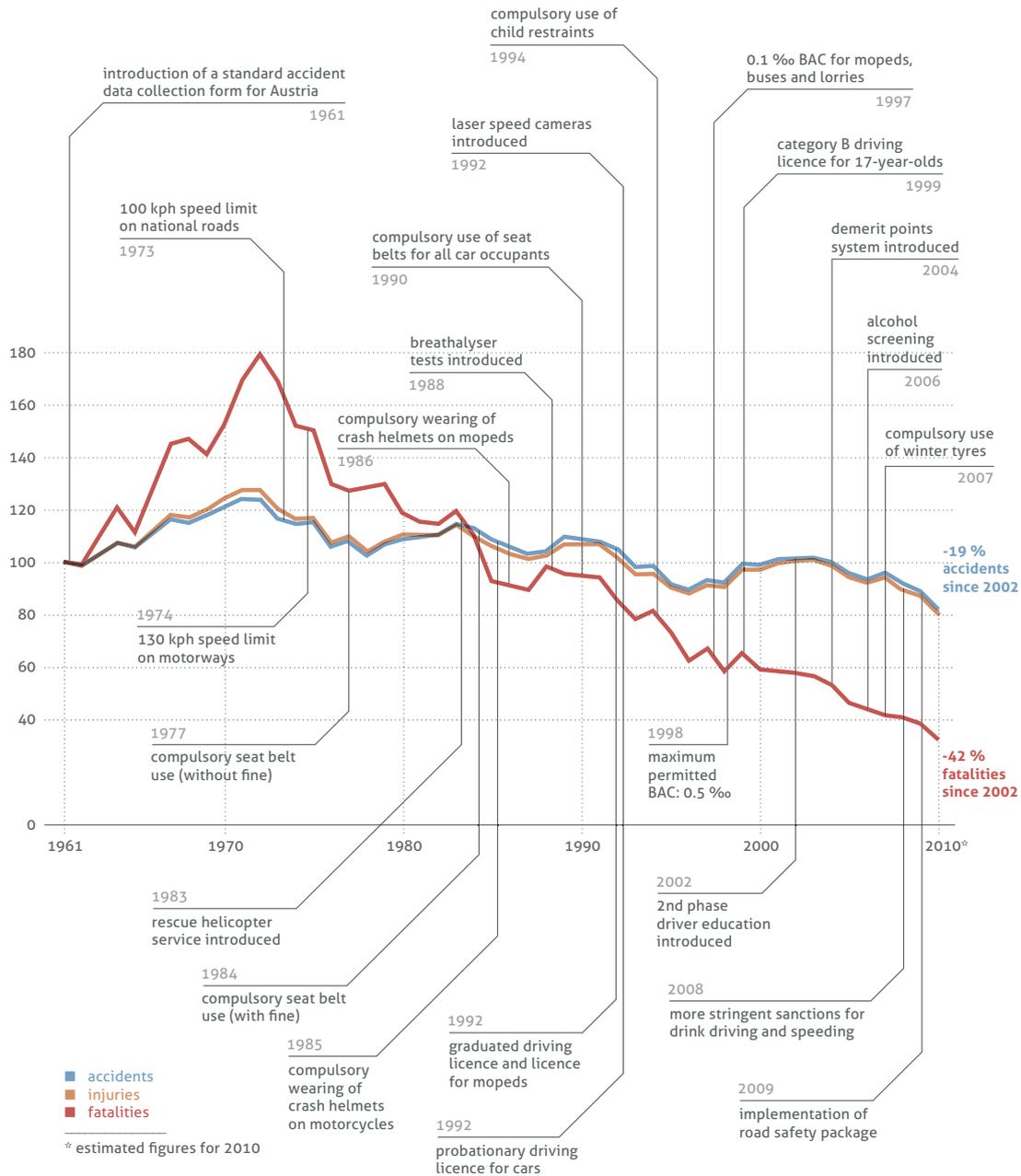
1.1 Review

→ Austrian Road Safety Programme 2002 – 2010

The first Austrian Road Safety Programme was published in 2002. The programme, which contained a total of 31 fields of action and 219 measures, was evaluated in 2004 and 2009. The most important measures in this programme included the introduction of 2nd phase driver education, the demerit points system, road safety coaching for drink driving offenders and alcohol screening, as well as the major road safety campaigns on the use of seat belts, child restraints and the dangers of drink driving.



➔ **Road Safety Measures and Accident Statistics Trends 1961 to 2010**



Source: KfV, Data source: Statistics Austria. Index 1961 = 100

The number of fatalities was significantly reduced – from a historic high of just under 3,000 in 1972 to 633 in 2009 (-79 %). Three quarters of all fatalities were men. Given the strong increase in traffic density over the period in question, the number of injury accidents and injuries to road users only showed a marginal change, with the last reported figures lying at around 38,000 (28 % since 1972) and 49,000 (-32 % since 1972) respectively. Around 55 % of injured road users are male.

According to a German study, the notable reductions in the number of fatalities are however partly linked to improvements in the passive safety of cars and modern emergency medical services, whereby the number of people who suffer a potentially permanent disability has not decreased.¹

**Road Safety Measures and
Accident Statistics Trends
1961 to 2009**

Consequently, the new 10-year Road Safety Programme was developed with an increased focus on reducing the number of serious injuries on Austrian roads. It also places particular emphasis on the needs of vulnerable road users, especially pedestrians and cyclists.

1 http://www.bast.de/cln_005/nn_40694/DE/Publikationen/Infos/2009-2008/10-2009.html

1.2

Analysis of Accident Statistics for 2009

The analysis of accident statistics and their corresponding trends remains one of the central elements in the development of the new Road Safety Programme. Along with the analysis of behavioural data as well as legal and institutional requirements, this forms the basis for the catalogue of measures contained in the programme.

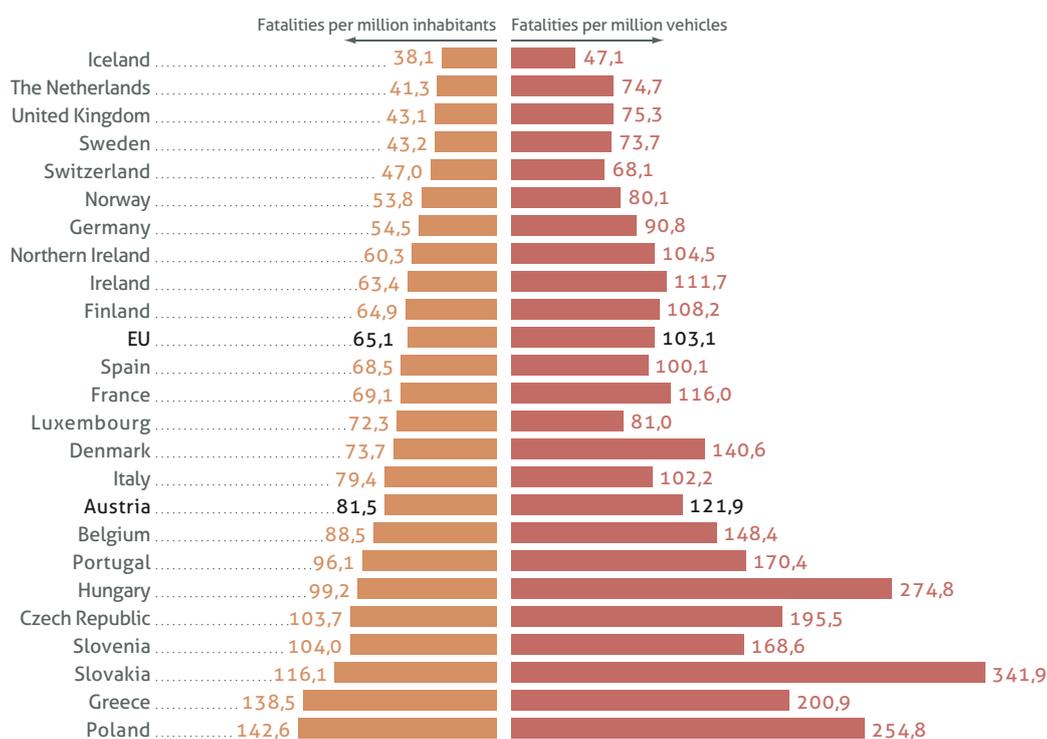
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Source (unless otherwise indicated): STATISTICS AUSTRIA

→ Austria in International Comparison

In a comparison of fundamental accident parameters, figures for Austria are still around average for the EU-27 countries and approximately 15 % below average for the EU-15 countries. The difference between Austria and Switzerland, where the landscape, vehicle fleet and road network are to all intents and purposes comparable, is particularly striking. Despite these similarities, the mortality rate (fatalities per million inhabitants) and the number of fatalities per million vehicles differ between the two countries by over 40 %.

Fatalities per million inhabitants and per million vehicles in European countries

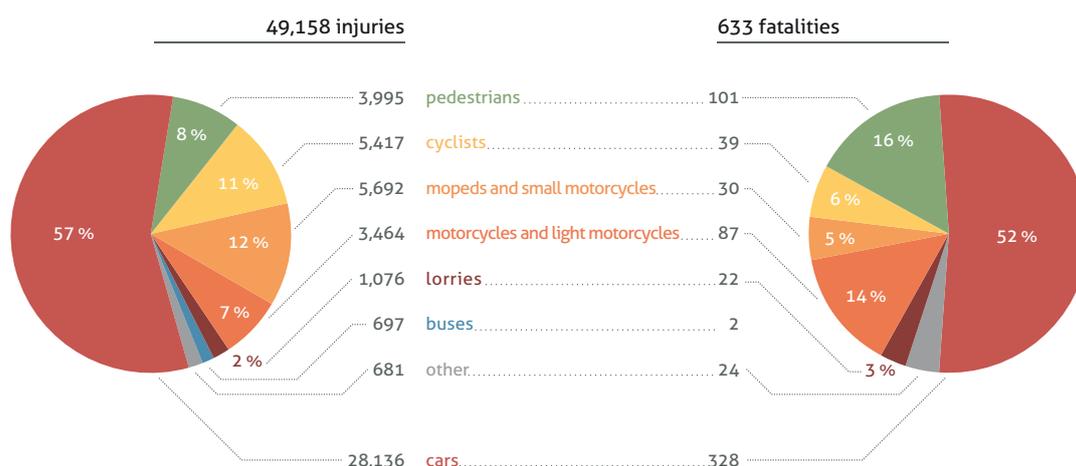


Source: CARE, IRTAD, EUROSTAT.
Latest available data, primarily from 2008

→ Accidents by Type of Road Use

With 57 % of injuries and 52 % of fatalities, the car still accounts for the largest number of casualties on Austria’s roads, but it is also the mode of transport for which the highest reductions have been achieved since the year 2000. In 2009, a further 16 % of the fatalities on Austrian roads were pedestrians, 14 % were motorcyclists and 6 % were cyclists. The number of injuries stagnated or decreased for most modes of transport, with the exception of injuries to moped riders and passengers, which have risen markedly since 2004.

Injuries and Fatalities in 2009



→ Accidents by Type of Accident

Given their high average severity, single vehicle accidents account for 37 % of all fatalities, followed by head-on collisions (24 %) and accidents involving pedestrians (15 %). On average, there are 2.76 fatalities for every 100 single vehicle accidents. The corresponding figures for head-on collisions and pedestrian accidents lie at 5.30 and 2.37 respectively. Between 2000 and 2009, the number of single vehicle accident fatalities dropped by 132, while the number of fatalities in head-on collisions fell by 116.

→ Gender Specific Accident Statistics

While male (active and passive) road users account for 56 % of all injuries, the percentage of males among fatalities lies at 75 %. Men are significantly more frequently involved in serious accidents: 80–85 % of drivers in fatal car accidents in the period from 2000–2008 were men; this figure was even higher for the 30–34 age group, where men account for up to 90 % of all fatalities.

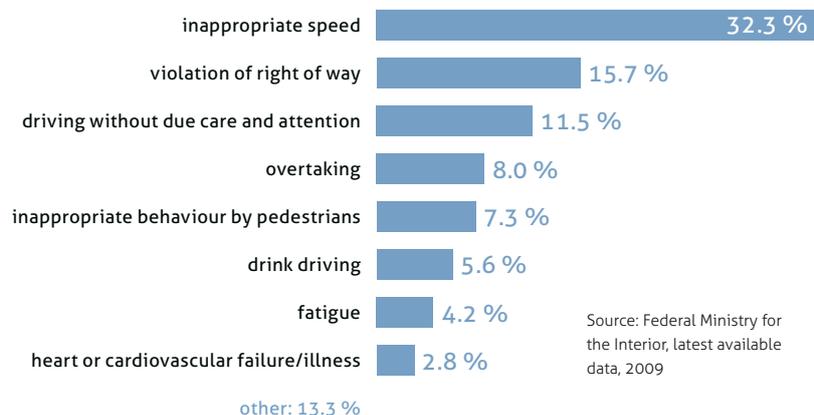
This disparity cannot be attributed to an increased use of rural roads, but is instead the result of men's greater willingness to take risks: while the percentage of men involved in accidents lies at around 60 % for both built-up and rural areas, the percentage of male fatalities rises to over 78 %.

Although seat belt wearing rates are almost identical for men and women, the picture is totally different for fatal car accidents: of the 145 car occupants killed in road accidents in 2008 who were not wearing seat belts, over three quarters were men!

→ Main Causes of Accidents

The Federal Ministry of the Interior (BM.I) compiles statistics on the probable main causes of fatal road accidents. This ranking, which is based on the assessment made by police officers at the scene of the accident, has always been dominated by drivers travelling at an inappropriate speed.

Probable Main Causes of Fatal Road Accidents in 2009

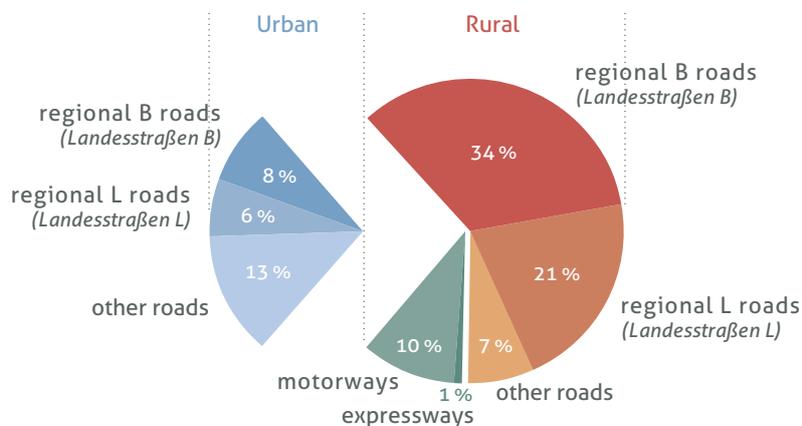


→ Accidents by Urban Area, Rural Area and Road Category

Almost two thirds (63 %) of all injury accidents occur on roads in urban areas. However, given the higher collision speeds, accidents outside urban areas (including motorways) account for almost three quarters (73 %) of all fatalities. One third of these occur on regional B roads (Landesstraße B) and a further 21 % on regional L roads (Landesstraße L). Accidents on motorways and expressways account for 11 %.

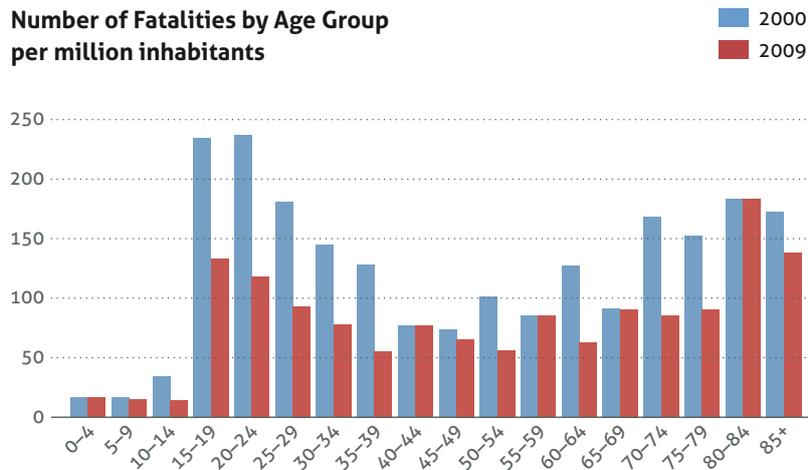
The number of fatalities on rural roads has decreased by 40 % since 2000, while a reduction of only approximately 19 % was achieved on urban roads. The notable reduction in the number of fatalities on rural roads was largely achieved in accidents involving cars. While the number of car accidents on rural roads dropped by 2,414 (18 %), the number of fatalities amongst car occupants dropped by 199 (40 %).

Fatalities by Road Category in 2009



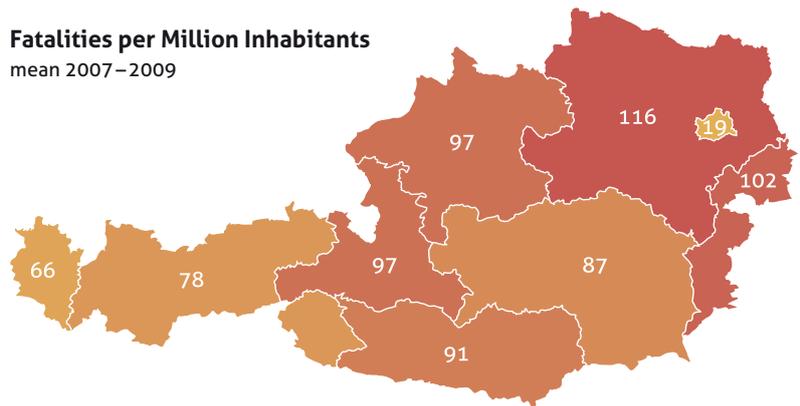
➔ **Fatalities by Age Group**

The mortality rate (fatalities per million inhabitants) shows significant improvements among road users in the 15–39 age group. It is important to note that the fatality rate for older age groups (particularly the over-80s) exceeds that of younger road users, albeit with a significantly lower number of accidents per person.



➔ **Fatalities by Region**

With 116 road fatalities per million inhabitants, the risk of being killed on Austria’s roads is highest in Lower Austria. However, between 2000 and 2009, the highest reduction in the mortality rate – over 40 % – was also achieved in this region. With 102 fatalities, the figure for Burgenland is also comparatively high. The national mortality rate is “only” 84 fatalities, primarily as a result of the relatively low figures (and high population) for Vienna (19 fatalities per million inhabitants).



→ Socio-Economic Accident Costs

In a project financed by the Austrian Road Safety Fund¹, the costs resulting from road accidents in Austria were recalculated in 2008, whereby the equivalent costs of human suffering were also included for the first time. These so-called intangible costs (physical and psychological pain, shock, suffering, fear, loss of joie de vivre and reduction in quality of life) are usually measured in economic terms by the factor “willingness to pay”. The aim of this kind of calculation is to determine how willing the population (or each individual member of the population) is to pay for the reduction in the probability of a risk. For the purposes of this recalculation, the findings of the HEATCO EU project² were applied to Austria. The costs of human suffering make up almost half of accident costs (49 %), while the most important other costs are material damages (22 %), loss in achievement potential (18 %), insurance administration (7 %) and legal (2 %) costs. Medical treatment accounts for only 1 % of the total costs. Consequently, the costs of accidents alone amounted to over seven billion euro in Austria in 2008!

AVERAGE ACCIDENT COSTS PER COST UNIT OR TYPE OF LOSS IN 2008

Accident Costs in EUR	2008 Prices (excl. human suffering)	2008 Prices (incl. human suffering)
Fatalities	1,539,897	2,944,994
Severe injuries (SI)	66,914	348,510
Minor injuries (MI)	3,340	25,003
Material damages (per accident)	4,876	4,876

COSTS (EUR) OF INJURY ACCIDENTS IN 2008 IN ECONOMIC TERMS (INCL. COSTS OF HUMAN SUFFERING)

	Number	Average costs per accident	Accident costs 2008
Fatalities	679	2,944,994	1,999,650,598
SI (incl. 90 % of IUS)	11,510	348,510	4,011,285,275
MI (incl. 10 % of IUS)	39,011	25,003	975,379,011
Material damages (per IA)	39,173	4,876	190,996,814
			7,177,311,699

SI: severe injuries; MI: minor injuries; IUS: injuries with unknown severity; IA: injury accidents

- 1 Herry, M. et al: Unfallkostenrechnung Straße 2007 unter Berücksichtigung des menschlichen Leids, 2008. Forschungsarbeiten aus dem Verkehrswesen Band 177. bmvit 2008
- 2 HEATCO (2006) – Developing Harmonised European Approaches for Transport Costing and Project Assessment, EU-FP6

2

Integrated Road Safety Management 2011–2020



**AUSTRIAN
ROAD SAFETY PROGRAMME
2011–2020**

→ Economic Context

There are 703 motorised vehicles per 1,000 inhabitants in Austria, one of the highest rates in the EU. The size of the country's vehicle fleet rose steadily through to 2008, with around 75,000 new motorised vehicles registered each year. Austria's gross domestic product has increased by approximately 36 % since the year 2000; the number of vehicle kilometres grew by 16 % by 2008. Even the (post-2008) world economic crisis had no significant effect on the continual rise in the number of vehicle kilometres. It is therefore all the more important to have an effective road safety programme in place to counteract the potential rise in the risk of accidents that results from growing traffic density.

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2.1

Strategic Focus & Targets

Philosophy

Working together to create a safe system for all road users in Austria (Safe System Approach)

Strategy

Strategic guiding principles for the implementation of the programme
→ see also 2.2 (p. 24)

Implementation & process quality assurance
→ see also 2.3 (p. 32)

Targets

Principal targets to 2020

Interim targets to 2015

Implementation

Step-by-step implementation of the catalogue of measures: over 250 measures in 17 fields of action

→ Philosophy

Road safety is a fundamental human right. All members of society should be encouraged and motivated to contribute to improving road safety – from decision makers to experts, from road network providers to planners, and from emergency services to road users.

But to achieve this improvement, society has to question established practices, examine the feasibility and applicability of international best practices and have the courage to experiment. The United Nations Decade of Action for Road Safety (2011–2020) should help to also bring Austria a significant step forward in saving human life and avoiding human suffering.

*United Nations Decade
of Action for Road Safety
2011–2020*

“ **Responsible cooperation, shared responsibility and joint action come together to create a safe environment for ALL users of the Austrian road transport system (Safe System Approach).** ”

The philosophy behind the “Safe System Approach” builds on the Swedish “Vision Zero” and the Dutch “Sustainable Safety” philosophies.

*Working together to
create a SAFE system*

Basic principles of the “Safe System Approach”:

- **Accidents through human error** will always happen.
- The road transport system should be designed to **minimise accidents which result in fatality or serious injury**.
- The **providers** of the road transport system **share responsibility** for its safety.
- All **users** of the road transport system have an obligation to **share responsibility, respect the rules** and accept the limitations of the system.
- All **road safety measures** are aligned to achieving the **long-term numerical reduction targets** (see p. 23).
- **Road safety targets** shall be **aligned to targets in other domains**, e.g. to environmental, economic and sociological targets.
- The implementation process shall be accompanied by **continual evaluation, analysis, controlling, adjustment, reporting and adaptation** throughout the duration of the programme.

→ Strategy

While road safety in Austria has improved appreciably in recent years, a great deal of effort is still required if Austria is to catch up with the leading countries in Europe. To achieve this, our guiding principle for road safety activities for the years 2011–2020 is as follows:

“ Let’s make Austria one of the five safest countries in Europe! ”

At the strategy level, the nine guiding principles outlined in section 2.2 form the basis for a safe road transport system for all road users.

→ See also p. 24

Alongside these guiding principles, the implementation of the Road Safety Programme and the corresponding quality assurance activities are also of key strategic importance. The rigorous implementation of structures and processes to realise the Road Safety Programme will be the key to its success.

→ See also 2.3 (p. 32)

→ Numerical Targets

Our task is not just to reduce the enormous human suffering caused by road accidents, but also to strengthen Austria's position as a safe business location. Since Austria has set itself the goal of catching up with the top road safety countries in Europe in this decade, we also need ambitious targets which conform both with European Union targets and with the recommendations of the European Transport Safety Council¹.

**50 % fewer fatalities
by 2020**

(Based on an average for the years 2008–2010)

*Interim
target: 25 %
fewer by
2015*

The traditional EU top performers – The Netherlands, Great Britain and Sweden – offer an indication of the (as yet) untapped possibilities. Switzerland also has around 40 % fewer fatalities per million inhabitants than Austria.

**40 % fewer serious injuries
by 2020**

(Based on an average for the years 2008–2010)

*Interim
target: 20 %
fewer by
2015*

The number of serious injuries on Austria's roads only dropped by around 20 % in the period from 2000 to 2009, i.e. notably less than the 35 % reduction achieved in fatalities. Austria has therefore set itself the target of reducing the number of people who suffer a potentially permanent disability in road accidents.

**20 % fewer injury accidents
by 2020**

(Based on an average for the years 2008–2010)

*Interim
target: 10 %
fewer by
2015*

The number of injury accidents only dropped by 12 % in the period from 2002 to 2009, although the target reduction was 20 %. Continued priority will therefore be given to accident prevention.

¹ ETSC – European Transport Safety Council, Brussels

2.2

Strategic Guiding Principles

The following strategic guiding principles form the basis for the actual implementation of the Road Safety Programme 2011 – 2020. They thus establish the basis for the development of a safe road transport system for all road users.

- ➔ **ROAD SAFETY MANAGEMENT IN CITIES AND MUNICIPALITIES** P. 25
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- ➔ **WORK-RELATED ROAD SAFETY** P. 30
- ➔ **ROAD SAFETY IN URBAN AND REGIONAL PLANNING** P. 31

→ Road Safety Management in Cities and Municipalities

The many different requirements road users all come together in urban areas; it is also here that the majority of road accidents occur. We therefore need to develop a holistic approach to road safety management in our cities and municipalities. As part of the Road Safety Programme, we shall continue initiatives like those introduced by the Austrian Association for Research on Road – Rail – Transport (FSV) and the Associations of Austrian Cities and Municipalities to promote safety in the community (e.g. the “Road Safety Guidelines for Cities and Municipalities” issued by the Association of Austrian Cities). Municipalities shall also be provided with information on best practices to support their road safety activities.

A holistic approach

The “Best Practice Municipalities” (“Best-Practice-Gemeinden”) project funded by the Austrian Road Safety Fund can provide valuable input on this approach. The successful “Safe Municipalities” (“Sichere Gemeinden”) initiative in Vorarlberg also serves as a best practice example for the whole of Austria.

Best practices

In 2009, the European Commission produced an Action Plan on Urban Mobility¹ outlining the key themes in urban road safety management.

Action Plan on Urban Mobility

Promising concepts already successfully implemented in other countries will be assessed – initially through pilot tests – for their feasibility and effects on road safety. They will be subsequently implemented quickly and on a broad scale if the results of these tests are positive.

Encounter zones, city centre zones, community zones and Shared Space

→ Strengthening Individual Responsibility

The regional authorities show their commitment to improving road safety through their individual road safety programmes. However, they also rely on the cooperation of all road users – from private individuals through to commercial enterprises. Consequently, efforts must be made to strengthen the level of individual responsibility assumed by all road users for their own safety on the roads – be it through individual, customised measures to raise awareness in different user groups or through accelerated participation in the European Road Safety Charter. → See also p. 30

¹ http://ec.europa.eu/transport/urban/urban_mobility/doc/com_2009_490_5_action_plan_on_urban_mobility.pdf

→ Road Safety and Mobility Education

“Educating” (young) people in sustainable and environmentally-friendly mobility is the one particular measure that will probably make the largest long-term contribution to reducing the number of vehicles on the roads and thereby increasing road safety. Today’s schoolchildren are tomorrow’s public transport users, cyclists and motorists; educating them in road safety can have a significant influence on the future distribution of these modes of transport.

Sustainable and environmentally-friendly mobility

Nursery, primary and secondary schools should all increasingly educate children in how to behave in motorised traffic, thereby equipping them with a sound understanding of road ethics, i.e. a safe attitude to the “rights” and “wrongs” of road conduct from a very early age. Road safety education, information and training courses should also be extended to all age groups (following the principle of “lifelong learning”).

Principle of “lifelong learning”

→ Road Hierarchy

A clear road hierarchy provides indicators for differentiated codes of conduct or rules (e.g. speed limits) for different categories of roads. As part of the “Sustainable Safety” philosophy in The Netherlands, the country’s entire road network has been totally recategorised since 1998. By the year 2002, 20,000 km of new 30 kph zones and 12,500 km of new 60 kph zones (on rural roads) had been established to ensure safe mixed traffic. Dutch accident figures, which have decreased appreciably in the last decade, offer an indication of just how “sustainable” this system has actually proven to be.

Sustainable Safety

→ see also “Austria in International Comparison” (p. 12).

The introduction of a new road hierarchy system is one of the biggest challenges facing Austria’s Road Safety Programme. For example, the principle of mixing or separating traffic modes with different speeds has so far only seen limited implementation. An evaluation of the technical standards is therefore required to take account of changing traffic requirements and composition.

Principle of mixing or separating traffic modes with different speeds

→ Self-Explaining Roads and Forgiving Roadsides

Responsible behaviour on the part of every individual driver is the basis for safety on the roads. However, since drivers are human and do make mistakes, roads should be designed, equipped and operated in a manner that not only promotes safe driving and appropriate speed choice, but also – whenever possible – mitigates the consequences of accidents when mistakes are made. A key basis for this is an understanding of the links between infrastructure and driver behaviour. The following aspects need to be considered:

Links between infrastructure and driver behaviour

- Predictability
- Clear, recognisable design and use criteria
- Separate lanes or roadways for different speed traffic modes
- Keeping the roadway clear/securing objects at the roadside
- Adjustment of speed limits to the local infrastructure and conditions

Our physiological ability to perceive information (e.g. traffic signs) is limited. When the information density is too high, important information may no longer be fully taken on board, especially by the growing number of non-resident and/or older drivers on the roads. More attention should therefore be given to the following issues:

Ability to perceive information

- Reducing information density in “sensitive” areas
- Evaluating the use of alternatives to traffic signs (e.g. road markings for stationary traffic)
- Limiting the total number of traffic signs in one area (regardless of how they are mounted)
- Assessing the comprehensibility of route indicators on the regional and national road network for foreign visitors or people who are not familiar with the area
- Increasing the use of pictograms to improve comprehensibility for non-German-speakers (see also the results of the EU’s IN-Safety¹ project)

¹ <http://www.insafety-eu.org/>



Accessibility – Safe and Attractive Pedestrian Facilities

The attractiveness of walking depends strongly on the safety and attractiveness of the infrastructure provided. Consequently, particular attention should be given, for example, to the quality of lowered/dropped curbs, the provision of crossing aids, waiting times at signalised pedestrian crossings, as well as to general safety and comfort on pavements. After all, accessibility also makes walking a more attractive option even for people without special needs! By informing them about the associated health benefits and providing them with information about pedestrian networks and facilities, people can be encouraged to walk. Particular emphasis should be given to:

Attractiveness of walking

- Providing accessibility to roads and all public facilities (stations, public buildings)
- Maintaining safety levels/condition of facilities (e.g. potholes in pavements)
- Providing signs for pedestrians at construction sites
- Offering additional aids for people with reduced mobility (acoustic signals, tactile aids, etc.)
- Gritting and clearing of pavements, cycle paths and public areas

In future, increased emphasis will be placed on ensuring that road infrastructure and vehicle design meets the needs of elderly road users. Particular attention should be given here to preventing falls that are particularly common among the elderly.

Needs of elderly road users

→ Mobility and Intermodality

Experts maintain that road safety initiatives are particularly successful in those countries where the road transport system is handled as an intermodal total system. In such a system, road safety is frequently included as part of an integrated total transport concept.

Intermodal total system

Providing sustainable mobility and making public transport more attractive are two further guiding principles in the Austrian Road Safety Programme. Activities in this area include:

Making public transport more attractive

- Promoting environmentally-friendly alternatives through targeted information, incentives and inclusion in traffic and road safety education programmes
- Designing safe stations and stops for public transport
- Expanding and consolidating the public transport network
- Making public transport a more attractive option, above all for commuters
- Creating attractive intermodal links (Park&Ride, Bike&Ride)

The higher the proportion of cyclists and pedestrians among road users, the greater their personal safety on the roads. Accordingly, the Austrian Road Safety Programme seeks not only to increase the safety of these modes of transport, but also to support and encourage a shift in traffic towards cycling and walking. To achieve this, a paradigm change is required in many areas to once again create adequate space in our motorised vehicle oriented road transport system for (environmentally-, climate- and cost-friendly) non-motorised modes of transport and ensure a genuine sharing of the roads and mutual consideration among all road users.

Cyclists and pedestrians

Children nowadays are increasingly transported by car and walk less frequently than they did in the past. This has a number of negative effects, e.g., on their physical development, and is also reflected in altered injury patterns in health statistics. Consequently, initiatives should be launched to make walking and cycling more attractive again to children (and their parents). Consideration should also be given as to how – from an infrastructure perspective – the areas around schools and nurseries can be made attractive, safe and pedestrian-friendly.

Making walking and cycling more attractive for children (and parents)

→ Work-Related Road Safety

Accidents in the workplace – or on the way to work – account for up to one third of all accidents. For this reason, special consideration will in future be given to work-related road safety.

Road safety in the workplace

The current draft ISO 39001 standard will be the first industrial standard covering road traffic safety management in an organisational or workplace context.

Industrial standard for road traffic safety management in organisations

The European Commission's European Road Safety Charter¹ provides companies and institutions with the opportunity to “share responsibility” by committing themselves to activities aimed at improving road safety in their particular sector or locality. With several thousand signatories, the charter can be viewed as a success. The bmvit will continue to encourage organisations in Austria to sign this charter.

European Commission Road Safety Charter

The European Commission (DG MOVE) supports the PRAISE² project run by the ETSC³, which seeks to develop workplace road safety guidelines and publish examples of best practices in this field. Where appropriate and feasible, the project results will also be implemented in Austria.

Workplace guidelines and best practice examples

-
- 1 <http://www.erscharter.eu>
 - 2 <http://www.etsc.eu/PRAISE.php>
 - 3 ETSC – European Transport Safety Council, Brussels

→ Road Safety in Urban and Regional Planning

Key foundations for road safety are already laid during the planning of residential and commercial zones. Many far-reaching decisions can be taken in this phase, for example with regard to transport demands and the number of potential conflicts. Legal requirements for zoning and construction (land-use) plans in Austria are covered by regional law. Road safety concepts should be included in any drafts or amendments to such plans, whereby the requirements for these road safety concepts will first need to be defined on a scientific level. Pilot projects will be used to validate the use of this methodology in practice.

Road safety concepts

2.3

Organisation, Implementation & Quality Assurance

A rigorous implementation of the structures and processes required to realise the Road Safety Programme is the key to its success. The implementation process will be accompanied by continual evaluation, analysis, controlling, adjustment, reporting and adaptation of the programme.

- INSTITUTIONAL FRAMEWORK P. 33
- ROAD SAFETY ADVISORY COUNCIL
ROADS TASK FORCE P. 35
- ROLE OF
ROADS TASK FORCE P. 36

→ Institutional Framework

Primary responsibility for road safety in Austria lies with the Federal Ministry for Transport, Innovation and Technology (bmvit). However, since road safety activities can only be successfully realised through intensive cooperation at all levels, bmvit will continue to expand and intensify its existing good cooperation with the Federal Ministry of the Interior (BM.I) and other government ministries, regional and local authorities, interest groups, chambers of commerce and industry, trade and labour associations and road safety organisations through the Road Safety Programme.

**Federal Ministry for
Transport, Innovation and
Technology (bmvit)**

The Road Safety Advisory Council established at bmvit serves as the institutional platform for the cooperation partners in the Road Safety Programme. In 2006, the Road Safety Advisory Council was established as the forum for decision makers in matters relating to road safety and, in particular, for the preparation, ongoing evaluation and development of road safety programmes for all modes of transport (Art. 23 Accident Investigation Act; Unfalluntersuchungsgesetz UUG). Its members are made up of the transport spokespersons for the parliamentary political parties, safety experts for all modes of transport and representatives of government ministries, local and regional authorities, automobile clubs, chambers of commerce and industry, trade and labour associations, interest groups and research institutions.

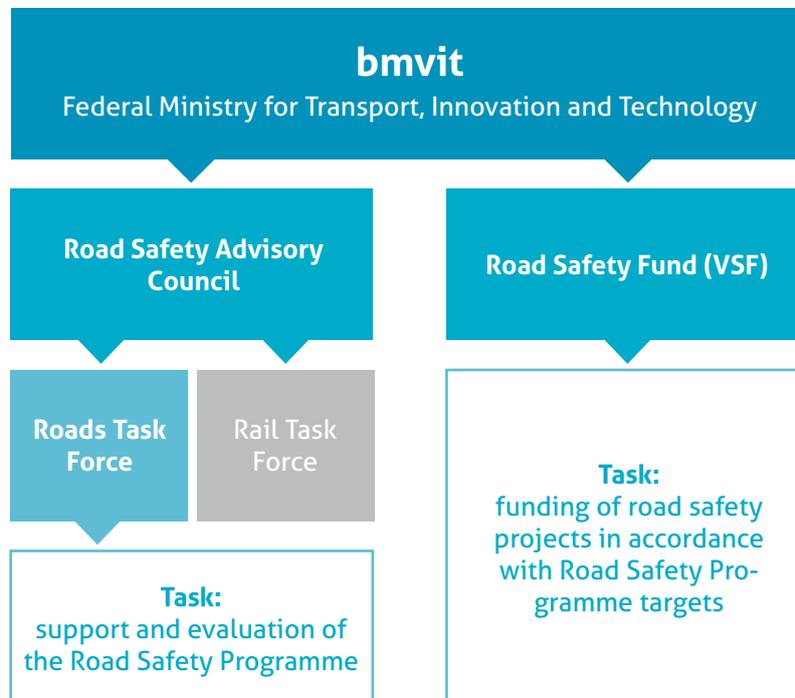
**Road Safety Advisory
Council**

Two special task forces – the Roads Task Force and the Rail Task Force – have been set up in the Road Safety Advisory Council. The Roads Task Force will support and evaluate the Austrian Road Safety Programme 2011–2020 throughout its duration and serves as the platform for all key players in the programme.

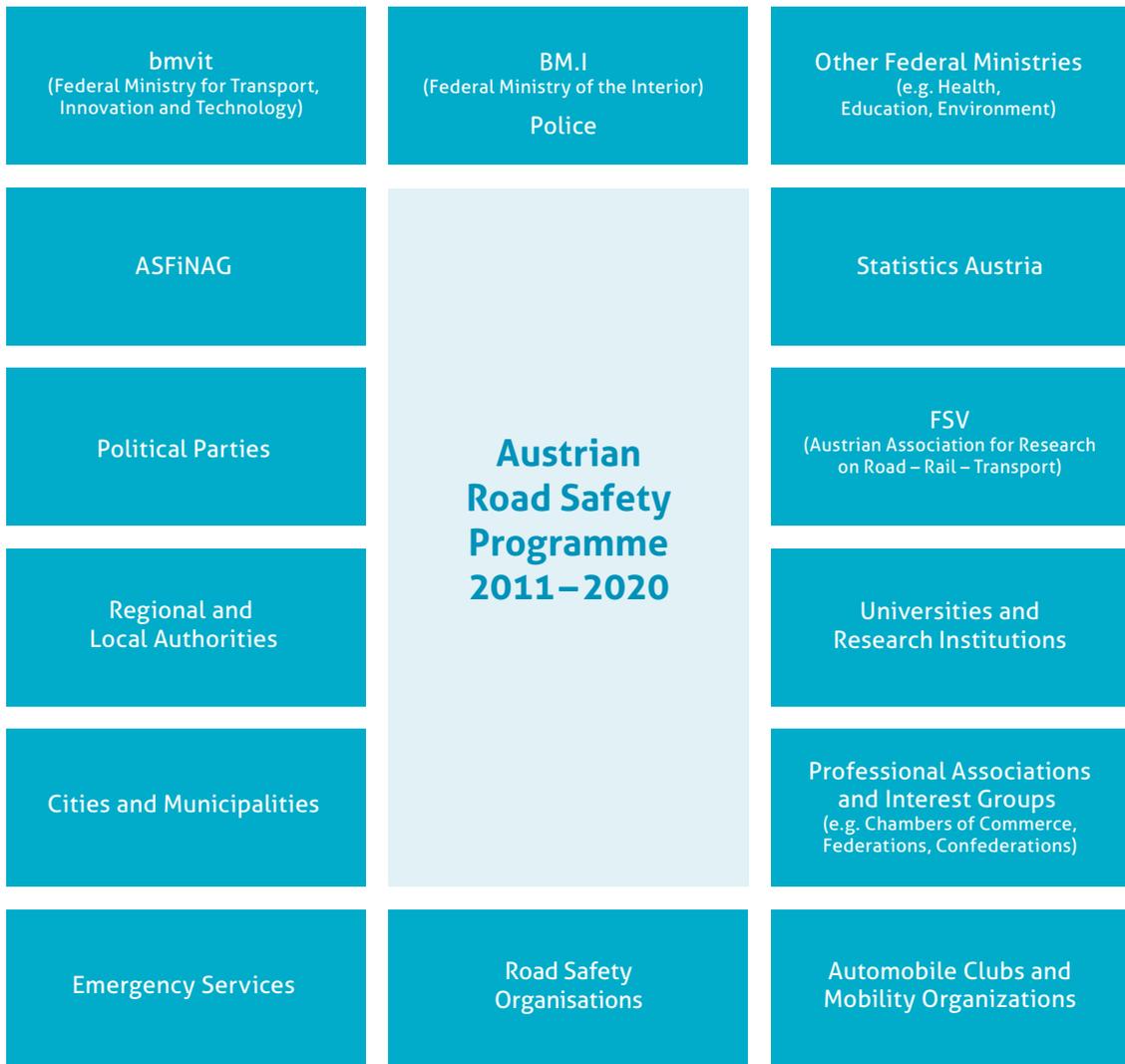
Roads Task Force

The Austrian Road Safety Fund, also established at bmvit, was set up with the aim of promoting and furthering road safety in the country. The Road Safety Fund draws its funding from the road safety contribution which motorists are required to pay when they order personalised vehicle number plates. The Road Safety Fund plays a key role in funding road safety related research and in financing activities relating to the Road Safety Programme. Its funding priorities are likewise aligned to Road Safety Programme targets.

Austrian Road Safety Fund (VSF)



➔ **Road Safety Advisory Council
Roads Task Force**



→ Role of the Roads Task Force

To ensure the Road Safety Programme is successfully implemented, the Roads Task Force will provide support in all 17 fields of action (see p. 39) throughout the entire duration of the programme. It will also gather and discuss the available annual accident statistics, behaviour parameters and safety indicators. Based on this information, measures can be modified as required to accommodate changes in road behaviour and accidents.

**Contribution to work
in the fields of action and
interim reports**

Implementing many of the programme's measures requires more than just the support of bmvit or other government ministries (e.g. the Ministries for the Interior, Justice, Education, Health or Defence). The success of the programme ultimately hinges on its implementation at regional, municipal and local level. The Roads Task Force will therefore intensify its coordination activities with local authorities and provide them with increased access to information on best practices, e.g. regarding road safety audits, road safety inspections, treating high accident concentration sections, roundabouts, lighting on pedestrian crossings and enforcement. The Roads Task Force will also coordinate the contents of the national road safety programme and the related regional and local road safety programmes derived from this national programme to suit the individual regional and local situation and requirements. However, road safety activities will not only be performed by the ministries and local authorities, they will also be carried out by numerous associations and interest groups. The Roads Task Force also assumes the role of identifying the appropriate key organisations to work with on individual topics and themes.

**Coordination with regional
and local authorities and
interest groups**

A European method for cost-benefit and cost-effectiveness analysis of road safety activities was developed in the EU's ROSEBUD¹ project. This method will now form the basis for the prioritization of measures by the Roads Task Force. The use of this method will also be extended to local authority decision makers.

Cost-Benefit Analyses

¹ <http://partnet.vtt.fi/rosebud/>

In recent years, two particular methods have proved most practical for analysing the effectiveness of road safety measures:

- **Cost-Effectiveness Analysis (CEA):**
this method analyses how much money has to be spent on a particular measure to achieve a specific road safety target (e.g. euro per avoided fatality).
- **Cost-Benefit Analysis (CBA):**
this method compares the costs required to carry out a measure (investment, sustainment, training, etc.) with the benefits achieved (e.g. in the reduction of accidents, pollution, noise, etc.).

The United Nations has now launched a “Decade for Action for Road Safety”. In Austria, targeted public relations activities will be used to ensure that Austrians – both road users and experts alike – are kept informed about the content and progress of the new Road Safety Programme. Indeed, the general public was already involved on an ongoing basis in the preparation of the programme.

Public Relations

Contact details for road safety programmes, service providers, access to download materials and relevant links will also be published on a dedicated internet site.

Numerous studies indicate that road safety campaigns are particularly effective if they are designed with specific target groups in mind, thoroughly tested and closely enforced throughout the campaign. Consequently, all future bmvit campaigns will be evaluated and coordinated with the enforcement activities carried out by the BM.I and the regional authorities.

3

Catalogue of Measures



AUSTRIAN
ROAD SAFETY PROGRAMME
2011–2020



Fields of Action & Measures

17 Fields of Action at a Glance

Over 250 measures are categorised into the following 17 fields of action:

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3.8	BICYCLES	P. 75
3.9	MOTORCYCLES	P. 78
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3.11	LORRIES	P. 85
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Fields of Action & Measures

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Fields of Action & Measures

Legend

KEY PLAYERS

Abbreviations for listed organisations/levels of responsibility:

ASFiNAG	Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft (the company which plans, finances, maintains and tolls Austrian motorways and expressways)
BH	District Authorities
BL	Federal States
BMG	Federal Ministry of Health
BM.I	Federal Ministry of the Interior
BMJ	Federal Ministry of Justice
BMLFUW	Federal Ministry of Agriculture, Forestry, Environment and Water Management
BMLVS	Federal Ministry of Defence and Sports
BMUKK	Federal Ministry for Education, Arts and Culture
bmvit	Federal Ministry for Transport, Innovation and Technology
BMWFJ	Federal Ministry of Economy, Family and Youth
Clubs	Automobile and Mobility Clubs
FS	Driving Schools
FSV	Austrian Association for Research on Road – Rail – Transport
G	Municipalities
ÖBB	Österreichische Bundesbahnen
WK	Chamber of Commerce

CATEGORIES OF MEASURES

- Measure to avoid accidents
- Measure to reduce the consequences of accidents
- Measure as basis for further measures
- Lobbying at EU level

START OF IMPLEMENTATION

●○○○	→ Start Package	2011
○●○○	→ short-term	2012 – 2014
○○●○	→ medium-term	2015 – 2017
○○○●	→ long-term	2018 – 2020

SOURCES

Some of the measures included in the fields of action were drawn from the following sources:

ELVIK, R. et al. 2009: The Handbook of Road Safety Measures, Second Edition. Emerald Group Publishing Limited. Howard House, UK.

ROSEBUD Road Safety and Environmental Benefit-Cost and Cost-Effectiveness Analysis for Use in Decision-Making. Deliverable 7 – WP5 – Recommendations. December 2005: <http://partnet.vtt.fi/rosebud/>

SUPREME Best Practices in Road Safety. Handbook for Measures at the Country Level. Final Report Part C. June 2007: http://ec.europa.eu/transport/roadsafety_library/publications/supreme_c_en.pdf

→ Potential in Selected Areas of Intervention

The following areas of intervention hold the greatest potential for reducing the number of fatalities on Austria's roads.

AREA OF INTERVENTION	STATUS / POTENTIAL	→ SEE MEASURES
Alcohol & drugs	160 fatalities per year as a result of drink driving related accidents in Austria (according to European Commission estimations)	3.3.2 p. 56 3.3.5 p. 59 3.3.6 p. 59 3.11.3 p. 87 3.14.1 p. 99 3.16.3 p. 112 3.17.6 p. 122
Specific road user groups	Share of fatalities (average figures for 2005–2009) 2.5 % children 23.0 % young drivers 22.0 % elderly road users 15.0 % pedestrians 7.0 % cyclists 5.0 % moped riders	3.4 p. 63 3.5 p. 66 3.6 p. 69 3.7 p. 72 3.8 p. 75 3.10 p. 82
Seat belts	135 fatalities per year among car occupants not wearing seat belts (average figure for 2008–2009); over three quarters are men	3.1.3 p. 48 3.3.4 p. 58 3.16.3 p. 112

AREA OF INTERVENTION	STATUS / POTENTIAL	→ SEE MEASURES
Motorcycle accidents	Currently account for 13 % of all fatalities (average figure for 2005–2009)	3.9 p. 78
High accident concentration sections and integrated road network safety management	Around 110 fatalities per year at high accident concentration sections	3.15.1 p. 101 3.15.2 p. 102
Accidents on level crossings	15–30 fatalities per year on level crossings	3.12 p. 90
Fatigue and lack of due care and attention	7 % of all fatal accidents are caused by fatigue (16 % on motorways)	3.3.10 p. 62 3.11.1 p. 86
Speed management on rural roads	A 5 % reduction in average speed results in: -10 % injury accidents -16 % serious injuries -25 % fatalities	3.3.7 p. 60 3.15.3 p. 103
Enforcement	Reduction in accident numbers through enforcement: – Speed: by 18 % <i>(of which 34 % through local speed cameras; 11 % through manual enforcement)</i> – Drink driving: by 15 % through alcohol screening devices Increase in the average number of people wearing seat belts by 13 %	3.3.4 p. 58 3.3.5 p. 59 3.3.7 p. 60
Driver education	Around 32 young drivers (18–19-year-olds) killed each year	3.2 p. 49



Field of Action

Road Safety Education and Campaigns

1

→ Developing a “**road safety culture**”, i.e. a general supportive attitude among the population towards road safety issues, is one of the processes in road safety policy and programmes which takes the longest time. It is therefore important to start teaching children the principles of road safety from a very early age and continually widen their knowledge during their entire schooling – and beyond.

→ The previous key focus of classic road safety education – safety and social etiquette – will be enhanced to promote such a new “road safety culture”. Key elements in this new culture are a **genuine sharing** of the roads and **mutual consideration** among all road users. A **social learning programme for road safety education** will be developed. New concepts for **road safety work with adolescents**, such as the “peer group” approach and the “Close To” and “lifelong learning” principles, will be increasingly applied.

→ Future road **safety campaigns** will address the main causes of accidents and injuries and will always be tested on the target group(s) prior to their launch and evaluated upon completion.

3.1.1 Road Safety Education in Schools

The evaluation completed on the lesson-based approach to road safety education indicates the importance of complementing road safety skills with other competences and applying both in practice in everyday school activities (e.g. mobility competences, risk competences).

The EU's AdRisk¹ project drew up relevant proposals on how traditional road safety education in schools can be developed at all levels into a form of **risk competency training**, which doesn't lecture children on the rules of road safety, but instead teaches them how to deal with and assess risks.

Road safety education shall be included in teacher training and intensified in further education programmes for teachers.

START	MEASURES	KEY PLAYERS
Package of Measures: Road Safety Education in Schools		
●○○○	Expansion of the existing and newly developed road safety education options for schoolchildren in grades 5 and above	BMUKK
○●○○	Inclusion of road safety education in teacher training programmes	BMUKK
○●○○	Broadening of the road safety training elements in further education programmes for teachers	BMUKK
○●○○	Social learning Development of a programme that equips young people with the necessary social competences and practical experience in road use	bmvit, BMUKK
○●○○	Development and integration of new competences in everyday school activities (e.g. mobility competence, risk competence)	bmvit, BMUKK

3.1.2 Lifelong Learning

Given the evident aging of the population already apparent in accident statistics and the fact that people are now still actively driving much later in life, traditional methods of teaching road safety have become inadequate.

START	MEASURES	KEY PLAYERS
Package of Measures: Lifelong Learning		
○○●○	Principle of "lifelong learning" – development of information and training options to ensure lifelong learning in an aging population	bmvit, BMLVS, FS, Clubs
○○○●	Initial qualification and further training for road safety policy multipliers , especially in schools and workplaces	bmvit, BMWFJ, BMLVS, WK, FS

¹ <http://www.kfv.at/departement-home-leisure-sports/adrisk/>

3.1.3 Awareness Raising and Campaigns

Numerous studies indicate that road safety campaigns are particularly effective if they are designed with specific target groups in mind, thoroughly tested and closely monitored throughout. Consequently, all future bmvit campaigns will be evaluated and coordinated with the enforcement activities carried out by the BM.I and in the regions.

Future campaigns organised as part of the Road Safety Programme should therefore also primarily address the specific **target groups** and key problem areas identified in accident statistics and be linked to key actions taken by the police. These include, for example, the topics of **seat belts** (above all for young drivers), **drink driving** and the road behaviour of young male drivers in general. Awareness raising campaigns on the use of seat belts and child restraints will be organised for people with a **migrant background** – wherever possible in their native languages.

A comprehensive methodology for successfully **creating, testing and evaluating campaigns** was developed and validated as part of the EU's CAST² project. In future, all awareness raising campaigns in Austria should be based on the CAST methodology, as is already standard practice, for example, **in Germany**. This method includes:

- Behavioural change model for the campaign
- Pre-tests with target group(s)
- Before/after comparison and evaluation of results, taking into consideration attitude, behaviour and accident parameters
- Process analysis and assessment of reach/recognition level

START	MEASURES	KEY PLAYERS
Package of Measures: Road Safety Campaigns		
●○○○	Awareness raising campaigns primarily among the target groups and key problem areas identified from accident statistics	bmvit
○●○○	Scientific evaluation of campaigns using the CAST methodology	bmvit
○●○○	Linking of campaigns to enforcement activities (→ see also <i>Field of Action "Enforcement", 3.3</i>)	bmvit, BM.I

² www.cast-eu.org



Field of Action

Driver Training

2

→ The 3rd European Driving Licence Directive reforms driver training. When implementing this directive, Austria will use the opportunity to maximise its road safety potential. In doing so, the focus will lie not only on **improving the training** provided to pupils in driving schools, but also on **quality assurance for driving instructors, examiners and driving tests**. New approaches, such as **experience-based learning** and the use of driving simulators, will also be tested.

→ The extremely successful **2nd phase driver training/education principle** will also be developed further.

3.2.1 General Driver Training

The 3rd European Driving Licence Directive is to be incorporated into Austrian law in 2011. Doing so also represents an important opportunity to improve road safety.

START	MEASURES	KEY PLAYERS
Package of Measures: Reform of Driver Training		
●○○○	Implementation of the 3rd Driving Licence Directive Particular focus will be placed on quality assurance in the driving instruction and driving test system, the format of medical checks and first aid courses, the prevention of driving licence tourism and the phased provision of access to different types of motorised two-wheeled vehicles	bmvit
●○○○	Guaranteeing provision of high quality initial training in authorised training facilities and introduction of regular further training for drivers, driving safety instructors and driving test examiners	bmvit, BL

3.2.2 Driving Practice and Simulation

Driving theory training often fall short when it comes to **experience-based learning** (“developing traffic sense”) and personal risk management.

The positive experiences with the Austrian “L17 accompanied driver training scheme” indicate that learner drivers who have practical driving experience and have driven a high number of so-called training kilometres are better equipped in their risk avoidance strategies than “classic” driving school pupils who have to “make do” with a comparatively limited number of practical driving lessons.

Surveys show that some drivers feel uncomfortable when driving through **tunnels**. Their level of knowledge of the technical safety equipment and code of conduct for self-rescue is low. A significant proportion of motorists admit to having ignored stop signs at **level crossings**. This is accompanied by an inherent misinterpretation of the risks associated with trains. Accordingly, practicing driving through tunnels and over level crossings, as well as corresponding instruction on technology, risks and accident avoidance strategies, should be compulsory in driving school training and courses.

Nonetheless, learner drivers generally only rarely have the opportunity to drive on motorways, through tunnels or over level crossings at night, in winter road conditions or in fog. They also are rarely confronted with traffic conflict situations. In The Netherlands, there are currently some 150 **driving simulators** in use in driver training facilities to train drivers to cope with these kinds of “abnormal” or “extreme” situations.

Driving Practice and Simulation (continued)

The Swedish “**Safety Halls**” approach (also referred to as “**Halls of Consequence**”) not only trains learner drivers in the correct use of available safety equipment, it also uses practical exercises to demonstrate the physical forces that come into play in accident situations. Group discussions help participants to process and assimilate what they have learned and experienced. “Safety Halls” are typically located in the driver training centres where Swedish learner drivers complete part of their training.

START	MEASURES	KEY PLAYERS
Package of Measures: Increasing and Improving Driving Practice for Learner Drivers		
○○●○	More driving practice for learner drivers Increase in the current numbers of compulsory driving lessons for category A and B driving licences	bmvit
○○●○	Stronger linking of theory and practice and streamlining of lessons in driving theory	bmvit
○○●○	Developing traffic sense (“experience-based learning”) in driving schools e.g. test of the use of the Swedish “Safety Hall” system	bmvit
○○●○	Learning to drive on high risk sections of road or in abnormal conditions Inclusion of practical experience in driving over level crossings and through tunnels – with corresponding instruction on technology, correct behaviour and accident avoidance strategies – in driving school courses and training. (→ see also Field of Action “Level Crossings”, 3.12.2)	bmvit
○○○●	Use of simulators in driver training Study of the learning benefits of using high quality simulators in driver training and clarification of the legal and practical implications of the use of driving simulators (→ see also Field of Action “Motorcycles”, 3.9.4)	bmvit
○○●○	Mutual understanding among road users Inclusion of “changes in perspective” (e.g. towards non-motorised road users, moped/motorcycle riders, etc.) in the practical elements of driver training for category B, C and D driving licences	bmvit

3.2.3 Driving Tests

The quality of driving tests is a decisive factor in road safety and will therefore be put on a new footing.

START	MEASURES	KEY PLAYERS
Package of Measures: Quality Enhancement in Driving Tests		
●○○○	Coordinated implementation of the requirements of the 3rd Driving Licence Directive by a central body to provide unified, nationwide standards with optimal levels of safety and quality	bmvit
○●○○	Discussion and test of the use of electronic logging systems during the practical part of the driving test	bmvit

3.2.4 2nd Phase Driver Education

Both the 2nd phase driver education system and the probationary driving licence introduced in 1992 have had positive effects on accident statistics for young drivers. Nonetheless, Austria still lags behind other countries in this regard. Consequently, the possibility of extending the length of the probationary driving licence period in line with the results of accident statistics analyses should be examined. The evaluation of the successful 2nd phase driver education system for category B driving licences also indicates potential for improvement in various areas.

START	MEASURES	KEY PLAYERS
Package of Measures: Enhancement of 2nd Phase Driver Education		
●○○○	Further development and quality assurance of 2nd phase driver education with a particular focus on initial qualification and further training for trainers, instructors and psychologists, reflection on the consequences of accidents for others, optimisation of training centre facilities and the size of training groups; development of a quality management system for staff and infrastructure (→ see also <i>Field of Action "Motorcycles", 3.9.4</i>)	bmvit, Clubs
○●○○	Evaluation of the possibility of extending the probation period for young drivers	bmvit

3.2.5 Moped Training

The provision of easier access to mopeds for 15-year-olds resulted in a dramatic increase in accidents in this age group. As a result, moped training was reformed in 2009. This reform needs to be evaluated in the medium-term and corresponding proposals for improvement drawn up where required.

→ see also
Field of Action
"Mopeds",
3.10.1

START	MEASURES	KEY PLAYERS
○○●○	Evaluation of moped training	bmvit



Field of Action

Enforcement

3

→ The efficient **enforcement of traffic rules** and the application of appropriate sanctions are key criteria both for the success of the Road Safety Programme, and also for the long-term level of road safety in all regions of the country. The regionalised **finer** system should be harmonised and the associated **administrative processes** simplified. The **demerit points system** – currently implemented as a warning system without points – shall be further developed and a pilot **alcohol interlock** test introduced.

→ From a legal, technical and logistics perspective, the provision of **support to the police** is a key priority, particularly in the following areas:

- Seat belts
- Drink driving
- Drugs and medicines
- Speed
- Following distance
- Mobile telephones
- Fatigue
- Lights (use at dusk/dawn and in poor visibility)
- Willingness to stop at pedestrian crossings

There are close links between the enforcement activities of the BM.I or the regional authorities and the measure in this programme to **link road safety campaigns with enforcement**.

→ *see also Field of Action "Road Safety Education and Campaigns", 3.1.3*

3.3.1 Fines

Austria **remains one of the “cheapest” countries** in Europe when it comes to **traffic fines**. Obviously, fines which are considered annoying, but do not particularly “hurt”, can have no real lasting effects on the behaviour of drivers.³

Efforts must also be made to redefine **the use and distribution of fines in traffic regulations**. The current regulations differ, for example, in their provisions regarding the distribution of collected fines. In some cases, they do not even regulate this issue at all. The goal in this respect is to establish a unified provision in all traffic regulations which distributes collected fines to the specified beneficiaries according to a uniform key.

A draft European Commission directive on the **cross-border enforcement of traffic fines** (such as for speeding, drink driving and seat belt violations) was supported by the European Parliament in 2009, but did not obtain a majority in the European Council. The legal foundations for this directive have been simplified by the signing of the Lisbon Treaty.

START	MEASURES	KEY PLAYERS
Package of Measures: Catalogues of Fines and Fine Levels		
○○●○	Unification of the catalogues of fines (in close cooperation with regional and district authorities), especially for infringements that cause accidents: speed, following distance, drink driving, lack of due care and attention	bmvit, BL, BM.I
○●○○	Clear increases in minimum fines , e.g. for speeding	bmvit, BL, BM.I
○●○○	Redefinition of the use and distribution of fines in traffic regulations	bmvit, BL, BM.I
Package of Measures: Simplification of Administrative Processes for Traffic Fines		
○●○○	Linking of all regional administration offices to the police force’s electronic reporting system	BM.I, BH
○○●○	Investigation of new process automation possibilities	bmvit, BL, BH, BM.I
●○○○	Active support for and implementation of the EU Directive on Cross-Border Enforcement of Traffic Fines	bmvit
○●○○	Creation of an inter-ministerial platform which includes representatives of the regions to handle the legal and technical questions related to the cross-border enforcement of traffic fines	bmvit, BM.I

3 HÖSSINGER, R. et al: VIVAT: Analyse des Handlungsspielraums zur Erhöhung der Verkehrssicherheit durch die Optimierung von Information, Verkehrsüberwachung, Sanktionierung und sozialer Akzeptanz, 2009. Forschungsarbeiten aus dem Verkehrswesen Band 185. bmvit 2009

START	MEASURES	KEY PLAYERS
Package of Measures: Determination of the Allocation and Use of Collected fines		
○○●○	Increase in the percentage of funds collected from fines allocated to road safety activities	bmvit
○○●○	Revision of the allocation of collected fines in the Motor Vehicles Act (Kraftfahrgegesetz – KFG), the Driving Licence Act (Führerscheingesezt – FSG) and (at least to the extent relevant to road safety) the Air Quality Protection Act (Immissionsschutzgesetz-Luft – IG-L) according to a uniform key	bmvit, BMLFUW

3.3.2 High-Risk Drivers

The evaluation of the **demerit points system** indicates that – when compared to other countries – there is room for improvement in the catalogue of fines in Austria. A bmvit expert commission has already substantiated the proposals for improving this catalogue.

The use of **alternatives to fines or prison** sentences should be examined, particularly for persistent, repeat offenders. The socially constructive elements of the **punishment** (e.g. compulsory attendance of courses, etc.) should be increased in future to achieve a positive influence on drivers.

START	MEASURES	KEY PLAYERS
Package of Measures: Enhancement of the Demerit Points System		
●○○○	Implementation of results of the evaluation of the demerit points system Improvement potential in the catalogue of fines and the number of driving bans issued; repeat evaluation after a transition period.	bmvit
○○○●	Extension of the current “warning system” into a fully-fledged penalty points driving licence (which includes common infringements); in line with similar systems already implemented (e.g. in Germany, Italy, France, Great Britain and Spain)	bmvit
○●○○	Provision of special courses for drivers who have received demerit points for serious technical vehicle defects	bmvit
○●○○	Coordination/linking of the demerit points system and driving ban register	bmvit
●○○○	Establishment of the legal framework for a pilot alcohol interlock test (and its potential introduction) (→ see also <i>Fields of Action “Rehabilitation and Diagnostics”, 3.14.1; “Vehicle Safety and Equipment”, 3.16.3; alcohol interlock is also mentioned under Field of Action “Lorries”, 3.11.3</i>)	bmvit
○●○○	Evaluation of alternatives to fines	bmvit, BM.I

3.3.3 Enforcement Technology, Coordination of Controls

A **subjective** impression of high **enforcement density** among road users ensures adherence to traffic regulations and is thus a key factor in road safety activities. Targeted public relations efforts and the increased **visibility of controls** can help to strengthen this factor using current staff levels.

Structured control plans for infringements which lead to accidents or injuries (drink driving, seat belt, helmet, mobile telephone infringements, etc.) with a nationwide control density and methodology can further increase the beneficial effects of police enforcement campaigns. This goes hand-in-hand with the **geographical selection of enforcement hot spots** based on accident statistics, the provision of suitable **lorry control sites** and (**general**) **enforcement sites**, as well as Austria's increased cooperation and involvement in Europe-wide and cross-border enforcement campaigns.

Key enforcement periods should also be set to those times of the day when many of the serious single vehicle accidents happen, i. e. in the **early hours of the morning on Fridays, Saturdays and Sundays**. These periods should likewise be defined based on a geographical analysis of statistics in the accident database.

The **efficiency of police road safety campaigns** (also with regard to their application to foreign road users) can be significantly increased using current staff levels through the use of modern technologies. Increased attention will be placed on ensuring that the Austrian police force is equipped with state-of-the-art **enforcement technology** for use in **road surveillance, enforcement and control activities**.

START	MEASURES	KEY PLAYERS
Package of Measures: Coordinated, Intensified Enforcement		
○●○○	Development of an efficient and effective enforcement strategy in line with the applicable legislative framework and distribution of competences	bmvit, BM.I, BL
○●○○	Increase in subjective enforcement density (as a deterrent; subjective feeling among drivers that they could be stopped and controlled at any time)	BM.I, BL
○●○○	Police control plans and enforcement hot spots (for infringements which lead to accidents and/or injuries; with a coordinated, nationwide control density and methodology)	BM.I, BL
○●○○	Optimisation of the choice of location for controls	BM.I, BL
○●○○	Use of latest generation enforcement technologies after appropriate testing and cost-efficiency analysis, e.g. mobile licence plate recognition, fully automatic time and distance measuring devices, red light cameras (also at level crossings), front view speed cameras	BM.I, bmvit

3.3.4 Seat Belts

While seat belt wearing rates have risen in general in Austria, they continue to remain below the European average. This is all the more disconcerting given that 125 (around 38 %) of the 328 car occupants fatally injured on Austria's roads in 2009 were not wearing a seat belt. More than three quarters of these were men. The seat belt wearing rate for rear seats is particularly poor.

The seat belt wearing rate differs notably from region to region. With rates of 91 % each, Tyrol and Styria rank highest for seat belt wearing, while Carinthia only achieves a rate of just 76 %. The average for Austria as a whole is 87 %.

The enforcement of seat belt wearing can currently only be achieved by stopping vehicles, which significantly decreases the probability of detection.

For purposes of **raising awareness**, it is recommended that the general benefits of wearing seat belts also be communicated to police officers, not least to establish a solid basis for the enforcement of the corresponding regulation among other road users.

START	MEASURES	KEY PLAYERS
○○●○	Removal of barriers to enforcing seat belt use Enabling the use of all forms of control also permissible for other infringements (e.g. photographic evidence)	bmvit, BM.I

3.3.5 Drink Driving

According to official accident statistics, less than 10 % of accidents involving injuries and fatalities are the result of drink driving. However, it is generally assumed that the real figure is considerably higher. Indeed, experts estimate that the actual percentage of accidents caused by drink driving is over 25%.

Several EU countries regularly use **spot checks** to screen driver **alcohol levels** in normal traffic at **defined sites**. The data obtained through such screening serves as an important indicator of the relevance of drink driving and its development over time. In Austria, the broad introduction of **alcohol screening devices** since 2006 has led to a significant increase in drink driving control density.

START	MEASURES	KEY PLAYERS
Package of Measures: Drink Driving Controls		
○●○○	Regular, scientifically monitored screening of driver alcohol levels in normal traffic in close cooperation with the police force	bmvit, BM.I
●○○○	Equipping of all police vehicles with alcohol screening devices	BM.I

3.3.6 Drugs, Medicines

Based on the approximate anticipated results for the year 2012 obtained by the EU's DRUID⁴ project, a three-pillar approach to driving under the influence of drugs is to be implemented in Austria, which differentiates between different substances:

1. **Zero tolerance** in the case of drugs for which no meaningful prescriptive limits can be defined.
2. **Prescriptive limits** for those drugs which can be assumed to have impairing effects on driver ability.
3. **Impairment approach**, i.e. sanctions only taken in the case of proven impairment to driver ability.

The classification system for medicines according to their potential adverse effects on road safety developed in the DRUID project and approved by the European Medicines Agency (EMA) must now be adopted by the Member States.

⁴ www.druid-project.eu
http://ec.europa.eu/transport/road_safety/pdf/projects/druid.pdf

START	MEASURES	KEY PLAYERS
Package of Measures: Combatting Driving under the Influence of Drugs		
○●○○	Implementation of a three-pillar approach based on the results of the EU's DRUID project	bmvit, BM.I
○●○○	Procurement of drug screening devices (as soon as available)	BM.I
○●○○	Extension of the network of doctors used to identify drug use and meet the necessary organisational and financial requirements to attract the commitment of sufficient doctors to perform this task	BM.I, Medical Chamber
○●○○	Regular training courses for police officers in identifying motorists who are under the influence of drugs	BM.I, Medical Chamber
Package of Measures: Combatting Driving under the Influence of Medicines		
○○●○	Lobbying for an obligation on the part of doctors and pharmacists to warn patients explicitly when prescribing or handing over medicines which could have negative effects on fitness to drive	Clubs
○●○○	Implementation of the EMEA classification system for medicines according to their potential adverse effects on road safety	Medical Chamber, State Sickness Funds

3.3.7 Speed

The control of average speeds on particular sections of the motorway network ("Section Control") has proved one of the most efficient measures introduced by the Austrian Road Safety Programme 2002 – 2010.

START	MEASURES	KEY PLAYERS
Package of Measures: Speed Controls		
○●○○	Expansion plan for section controls on particular sections of road	ASFiNAG, bmvit, BL
○○●○	Use of mobile speed display signs (to raise awareness)	BL, G

3.3.8 Following Distance

Following too close is one of the most common causes of accidents, particularly on motorways and expressways. Common reasons for such behaviour are inattentiveness or wrong assessment of reaction times and braking distances.

START	MEASURES	KEY PLAYERS
○●○○	Increased enforcement of appropriate following distances; increased monitoring through controls from bridges that provide clear evidence of following distances; notification to motorists of such control activities (and the corresponding graduated sanctions)	BM.I, BL

3.3.9 Mobile Telephones

The police currently have to stop vehicles in order to control infringements of regulations relating to the use of mobile telephones. New technologies to support the securing of evidence of the use of mobile telephones will be tested.

START	MEASURES	KEY PLAYERS
○●○○	Testing of the capabilities offered by new technologies in supporting the securing of evidence of the use of mobile telephones	bmvit, BM.I

3.3.10 Fatigue

BM.I statistics indicate that fatigue is the cause of around 4 % of accidents on Austria's roads. However, detailed studies show that this figure could actually be as high as one third of all accidents and fatalities. An in-depth study⁵ indicated fatigue to be the cause of at least 7 % of fatal accidents on the complete road network and 16 % of such accidents on motorways and expressways.

START	MEASURES	KEY PLAYERS
Package of Measures: Fatigue		
●○○○	Increase in the number of lorry control sites and rest areas for lorries (→ see also Field of Action "Lorries", 3.11.1)	ASFiNAG
●○○○	Telematics-based information on available parking spaces for heavy goods vehicles – also to ensure adherence to driving and rest times (→ see also Field of Action "Lorries", 3.11.1)	ASFiNAG
○●○○	Scientific study, pilot testing and, where applicable, legal implementation of professional lorry drivers controls using (calibrated) fatigue detection devices	bmvit
○●○○	Targeted education campaigns to teach motorists to react appropriately to the first signs of fatigue	bmvit, Clubs
○○○●	Development to production maturity of technical solutions to provide motorists with advance warning of the risk of fatigue or micro sleeping (monitoring of pupil reactions – optical and acoustic warning devices)	Automotive Industry

3.3.11 Lights

Since the obligation to drive with dipped headlights during daylight hours was lifted in Austria, an increasing number of motorists can be observed driving without lights in poor visibility, at dawn/dusk or in tunnels.

START	MEASURES	KEY PLAYERS
○●○○	Driving with lights in poor visibility or at dawn/dusk – awareness raising measures and controls	bmvit, BM.I, Clubs

5 STEFAN, C. et al.: "In-Depth Analysis of Fatalities – Tiefenanalyse tödlicher Verkehrsunfälle", In: Forschungsarbeiten aus dem Verkehrswesen, Band 176, Federal Ministry for Transport, Innovation and Technology (ed.). Vienna, 2008



Field of Action

Children

4

→ **Children (up to 14 years old) assume a lesser role in road accident statistics, accounting for 7 % of injuries and 2-3 % of fatalities.** Given the fact that they constitute around 15 % of the population, this can be seen as an indication of an above-average level of safety for road users in this age group – or of a below-average level of road use. In 2009, 15 children were killed and around 3,000 injured on Austria's roads.

→ The **majority of children involved in accidents were passengers in cars**; around 25 % were injured as pedestrians. Accident statistics for both groups have shown a positive trend since the year 2000.

→ Despite the comparatively low number of children involved in accidents, child safety should be further intensified at all levels: the successful **safe way to school maps** concept will be expanded further and extended to include **safety inspections** in secondary schools. The content of **cycling proficiency training** in schools will be revised.

→ In line with latest findings from Sweden, the use of rearward-facing **child restraints** will also be advocated **for children up to the age of 4**.

3.4.1 Safe Way to School

The successful **safe way to school maps model** will be extended to all primary schools nationwide. **Safety inspections** for all modes of transport will also be introduced in secondary schools.

Since many parents consider the road situation in the vicinity of schools to be “too unsafe”, the number of schoolchildren being driven to school by car is steadily increasing. The consequences of this trend are increased volumes of car traffic and a deterioration in road safety in the vicinity of schools. It also deprives schoolchildren of the opportunity to gradually gain experience in the use of more environmentally-friendly modes of transport (e.g. public transport, bicycles, walking) and safe road use.

As a result, the action and advice programme “**Mobility Management for Schools**” will be offered in schools via the Austrian climate protection initiative “**klima:aktiv mobil**”⁶. The analysis of the corresponding pilot project confirms a permanent increase of 11 % in the use of environmentally-friendly forms of transport by pupils in participating schools. The percentage of pupils driven to school by car was reduced as a result of the project from 20 % to 9 %. A significant increase in road safety and mobility skills could also be observed among the participating schoolchildren.

The organisational and technological proposals to improve the safety of school transport developed in the course of the EU’s “**SafeWay2School**”⁷ project (e.g. “intelligent school bus stops”) will also be implemented in Austria.

START	MEASURES	KEY PLAYERS
Package of Measures: Safe Way to School		
●○○○	Nationwide implementation of safe way to school maps for primary schools	BL, G
○●○○	Introduction of safety inspections for all modes of transport in secondary schools	BL, G
○●○○	Extension of the “ Mobility Management for Schools ” pilot project	bmvit, BMLFUW
○○○●	Implementation of the organisational and technological proposals to improve the safety of school transport developed in the EU’s “ SafeWay2School ” project	bmvit
○●○○	Expansion of bicycle storage facilities in and around schools	BMUKK, G

6 www.klimaaktiv.at

7 <http://safeway2school-eu.org>

3.4.2 Cycling Proficiency

Road safety education in schools also includes the preparation for and carrying out of cycling proficiency tests at the teacher's discretion and in consultation with parents or legal guardians. The cycling proficiency test is voluntary and requires the permission of the pupil's parents or legal guardians. To improve road safety, a unified, nationwide quality level should be established for cycling proficiency tests in line with the regional (rural and urban) situation and circumstances.

→ see also
Field of Action
"Bicycles", 3.8

START	MEASURES	KEY PLAYERS
Package of Measures: Cycling Proficiency Training/Test		
○○●○	Nationwide, unified cycling proficiency training , introduction of consistent quality criteria	BMUKK
○○●○	Reform of the cycling proficiency test	BMUKK
○●○○	Increased involvement of parents in cycling proficiency training	BMUKK

3.4.3 Child Restraints

The use of **rearward-facing child restraints** will be supported (in line with the Swedish model), since findings show that this significantly reduces injury severity.

START	MEASURES	KEY PLAYERS
○●○○	Support for the use of rearward-facing child restraints (for children up to the age of 4 – age groups 0, 0+ and 1)	bmvit, Clubs



Field of Action

Young Road Users

5

→ When young people start using motorised forms of transport, they are confronted with challenges that they are less able to cope with in comparison to older road users: the **15 – 24 year-old age group accounts for 31 % of injuries and almost one quarter of fatalities on the roads**, despite the fact that they make up only around 12 % of the population. These figures are particularly high in comparison to other countries and require a package of measures that should be expedited with utmost priority.

→ **Overestimation of their own capabilities and consumption of alcohol** as well as **inappropriate speed choice** prove to be key problems for road users in this age group. Consequently, increased alcohol prevention measures will be introduced in schools, driving schools and extracurricular establishments in cooperation with the institutes for addiction prevention.

In addition, the Fields of Action “Road Safety Education and Campaigns”, “Driver Training” and “Rehabilitation and Diagnostics” **also include numerous measures that are of particular benefit to this age group.**

3.5.1 Safe Way Home

In light of the results of the analysis of accident statistics, focus will also be placed on providing young road users with a “safe way home” **from discos, bars and events**; the gathering and provision of best practice models can provide local authorities with valuable details of possible incentives and solutions. Attractive options to avoid drink driving will be made increasingly available, e.g. shuttle buses, taxi vouchers or extended public transport services.

START	MEASURES	KEY PLAYERS
Package of Measures: Alcohol Prevention among Young Drivers		
○●○○	Alcohol prevention in schools and driving schools including the gathering and provision of best practice models for local authorities	bmvit, BL, FS, BMUKK
○●○○	“Safe way home” from discos, bars and events	BL, G
○○●○	Increased involvement of bars, restaurants, etc.: attractive prices for non-alcoholic drinks and incentives for bars, restaurants, etc., e.g. offering discounted alcohol-free drinks to the designated driver in a group	bmvit, BL, G

3.5.2 New Approaches

Road safety campaigns for adolescents often have one thing in common: they have little impact on the actual target group. Latest findings indicate that when road safety issues are communicated to adolescents by adults, the process often only has limited success. It can be far more effective and efficient to design and prepare materials and campaigns in cooperation with adolescents or using the approach taken in the EU’s **Close To**⁸ project, where young traffic offenders talk directly to driving school pupils about their worst experiences. Likewise, approaches to raising awareness which specifically target passengers should also be investigated, (“You won’t catch me getting into a car that’s being driven by someone drunk.”)

START	MEASURES	KEY PLAYERS
Package of Measures: New Approaches to Road Safety Work with Adolescents		
●○○○	Peer group approach Preparation of materials/campaigns in cooperation with adolescents to ensure they address the needs and demands of the target group	bmvit, FS
●○○○	Establishment of the “Close To” principle Adolescent traffic offenders talk directly to driving school pupils about their experiences	bmvit, BL, FS

8 <http://www.close-to.net/>

3.5.3 Extracurricular Youth Programmes

Working with extracurricular youth programmes will help to bring preventive measures and road safety campaigns to a wider adolescent audience. Proven successful models can also be adopted and adapted for this purpose.

START	MEASURES	KEY PLAYERS
●○○○	Extracurricular youth work on the topic of road safety addressing issues like addiction prevention and driving under the influence of alcohol and/or drugs	FS, Clubs



Field of Action

Elderly Road Users

6

→ **Road users over the age of 65 account for 9 % of all injuries, but around one quarter of all fatalities.** The reason for this comparatively high accident severity lies primarily in the increasing physical fragility of elderly people: collisions and falls which would only cause minor injuries for younger road users can result in permanent injury or even have fatal consequences for elderly people – a situation which deteriorates with age.

→ Since over half of all pedestrian fatalities, especially those which occur between **dusk and dawn**, lie in this age group, the Road Safety Programme will support measures to improve the conspicuity of pedestrians.

→ Vehicle drivers in particular need to be made aware of the increasing **cognitive and physiological limitations** that are linked to getting older and should be provided with suitable advice and counseling on how to deal with this situation. The **advantages and disadvantages of compulsory regular medical checks** will also be thoroughly examined. Likewise, the **presentation and delivery of information on the roads** should also be aligned to the needs of elderly road users.

3.6.1 Conspicuity

More than half of pedestrian fatalities are elderly road users, with the highest numbers of accidents occurring in conditions of poor visibility.

START	MEASURES	KEY PLAYERS
○●○○	<p>Encouraging the use of reflective materials (both the wearing of reflective clothing and the incorporation of reflective materials into products by textile manufacturers) (→ see also Field of Action "Pedestrians", 3.7.3; reflective materials are also mentioned under Field of Action "Bicycles", 3.8.2)</p>	bmvit, WK

3.6.2 Raising Awareness of Cognitive and Physiological Limitations

Elderly motorists are subject to increasing **cognitive and physiological limitations**. The Road Safety Programme should therefore also identify the basic elements required to deal with an age-related reduction in driving ability. This goes hand-in-hand with a strengthening of the role played by **general practitioners** in the early detection of developments in patients' health which could potentially reduce their fitness to drive and raise road safety issues. General practitioners or other suitable people could also serve as **road safety and mobility advisors** for elderly road users.

Care should be taken to make any **specific road safety education measures** offered to elderly people as attractive as possible to ensure the target group actually makes use of them and does not consider them as a form of discrimination.

Several EU countries now require motorists to **complete a medical check** (e.g. eyesight test, diabetes test, etc.) before a driving licence can be extended. This measure is being increasingly used for all age groups and thus also applies to elderly people. Elderly driving licence holders should be given information on the growing cognitive and physiological limitations linked to aging. Similarly, they should also be provided with more information on the design and equipment of "age-friendly vehicles".

The **presentation and delivery of information** on the actual roads should give due consideration to the fact that not all motorists share the same level of cognitive processing capacity.

START	MEASURES	KEY PLAYERS
	Package of Measures: Raising Awareness of Cognitive and Physiological Limitations	
○●○○	Development of basic principles for dealing with an age-related reduction in driving ability	bmvit
○○●○	Definition of the necessary medical prerequisites for driving motorised vehicles (“fitness to drive”)	bmvit
○○●○	Strengthening of the role of general practitioners in the early detection of health developments which could reduce a patient’s fitness to drive and raise road safety issues: development of a handbook and organisation of training seminars in cooperation with medical/psychologist associations	bmvit, Medical Chamber
○○●○	Assessment of options regarding medical and traffic psychology related checks for motorists	bmvit
○●○○	Encouragement of voluntary participation in training and education measures and voluntary regular medical and reaction time checks	Clubs, FS
○●○○	Provision of targeted driving safety training courses which include information on technological developments and on how to use such new systems; provision of mobility counselling/advice	Clubs, FS
○○●○	Assessment of the way information is presented to motorists on the roads using cognitive ability criteria (e.g. recognisability of several adjacent variable traffic signs or the number of syllables on information panels)	bmvit, BL, G, ASFINAG



Field of Action

Pedestrians

7

➔ According to official accident statistics, on average pedestrians account for **8 % of injuries and 15 % of fatalities on Austria's roads**. The high proportion of fatalities is a result of the high average severity of accidents involving pedestrians. Around 68 % of pedestrian fatalities and over 90 % of injuries to pedestrians occur on urban roads. However, the actual extent of accidents involving pedestrians is only partly reflected in the official statistics, since in a significant number of such cases the police are not involved. Indeed, estimates based on figures from the EU's Injury Database (IDB) suggest that the actual **number of accidents exceeds official statistics by a multiple order of magnitude**.

➔ Since many of the accidents involving pedestrians occur during the winter months, increased emphasis will be placed on encouraging the **use of reflective materials**. The technical properties of **pedestrian crossings** will be tested across Austria, particularly with regard to **line of sight and lighting**.

3.7.1 Legislative Changes

A study will be carried out to determine whether the clarity of the current formulation of provisions relating to pedestrian crossings in the Austrian Road Traffic Act (Straßenverkehrsordnung) needs to be revised to improve pedestrian safety.

START	MEASURES	KEY PLAYERS
○○●○	Clear right of way for pedestrians on pedestrian crossings	bmvit

3.7.2 Pedestrian Crossings

Unsignalised pedestrian crossings in Austria should be tested with regard to their technical safety and conformity with the applicable guidelines, e.g. with regard to line of sight and lighting. Furthermore, measures to address non-compliant pedestrian crossings and identify potential alternative constructions (e.g. pavement build-outs, central islands, raised plateaus) should also be discussed.

START	MEASURES	KEY PLAYERS
Package of Measures: Pedestrian Crossings		
●○○○	Assessment of unsignalised pedestrian crossings for technical safety and conformity with applicable guidelines (e.g. line of sight and lighting; use of new technologies)	BL, G
○●○○	Discussion of measures to counter the non-compliant use of pedestrian crossings and examination of the use of alternative construction designs	BL, G
●○○○	Provision of information on appropriate pedestrian behaviour on the roads	bmvit, Clubs

3.7.3 Conspicuity

The wearing of **reflective materials** can help to reduce accidents involving pedestrians – particularly in the “dark” months of the year. Such materials can be integrated into or worn over clothing (e.g. reflective strips, flashing lights, etc.).

START	MEASURES	KEY PLAYERS
○●○○	<p>Encouraging the use of reflective materials (both the wearing of reflective clothing and the incorporation of reflective materials into products by textile manufacturers) (→ see also <i>Fields of Action “Elderly Road Users”, 3.6.1;</i> <i>reflective materials are also mentioned under Field of Action “Bicycles”, 3.8.2)</i></p>	bmvit, WK



Field of Action

Bicycles



→ On average, cyclists account for **11 % of all injuries on Austria's roads and 7 % of all fatalities**. 82 % of accidents involving bicycles and half of these fatalities occur on urban roads. It can be assumed – as in the case of accidents involving pedestrians – that a large number of bicycle accidents do not appear in official statistics; indeed, estimates suggest that around 35,000 cyclists are injured annually (compared to the approximately 5,000 accidents involving bicycles recorded in the official statistics). However, it should be noted that these include accidents both on and off the roads.

→ Measures must be taken to enforce the **wearing of cycle helmets** and **improve the conspicuity of cyclists**.

Measures relating to cycling proficiency training and tests for children can be found under “Children”, 3.4.2.

3.8.1 Cycle Helmets

Around 15 % of all injuries to cyclists are head injuries. For children up to the age 14, the percentage (33 %) is higher than for any other age group. Since international studies suggest that (correctly worn) cycle helmets can reduce the risk of injuries to the head and the brain by 45 %, measures will be taken here to **raise awareness**, while the possibility of making the **wearing of cycle helmets compulsory** for children will be examined in detail.

START	MEASURES	KEY PLAYERS
Package of Measures: Cycle Helmets		
●○○○	Positive raising of awareness for the wearing of cycle helmets by all age groups, especially children; raising awareness among adults of their role model function in this field	bmvit, BL, BMUKK
●○○○	Detailed examination of the possibility of making the wearing of cycle helmets compulsory for children	bmvit

3.8.2 Conspicuity

Greater efforts will be taken to encourage cyclists to wear **reflective clothing** and to ensure that their **bicycles are equipped** with legally compliant lights and reflective materials.

START	MEASURES	KEY PLAYERS
Package of Measures: Conspicuity		
○●○○	Promotion of the topic "Get Yourself Seen" (both the wearing of reflective clothing and the incorporation of reflective materials into products by textile manufacturers) <i>(→ reflective materials are also mentioned under the Fields of Action "Elderly Road Users", 3.6.1, and "Pedestrians", 3.7.3)</i>	bmvit, BL, BMUKK, WK
○●○○	Priority actions to control the visibility of cyclists and check that they are equipped with lights (with explanation, but no sanctions)	bmvit, WK, Clubs

3.8.3 Elderly Cyclists

Larger numbers of elderly road users will also use bicycles in future. Appropriate measures must be taken to positively influence road safety for elderly cyclists.

START	MEASURES	KEY PLAYERS
○●○○	Adult education through measures like courses on the safe use of bicycles in traffic (with a special focus on elderly cyclists)	Clubs, bmvit

3.8.4 Legislative Changes

The current regulations for bicycle traffic are complex (e.g. the special rules regarding right of way) and are also interpreted differently in different regions. This is not conducive to bicycle road safety. Consequently, the regulations for bicycle traffic in the Road Traffic Act (Straßenverkehrsordnung, StVO) will be simplified and unified. In this process, the obligation to use cycle paths will be made more flexible and “bicycle-only roads” will be introduced (i.e. roads intended solely for bicycle traffic to increase the appeal of this mode of transport). In addition, the law regulating the design and use of bicycles (Fahrradverordnung) will be updated, e.g. to reflect new types of bicycles and lights.

START	MEASURES	KEY PLAYERS
Package of Measures: Legislative Changes		
●○○○	Simplification and unification of regulations for bicycle traffic in the Road Traffic Act	bmvit
●○○○	Establishment of a duty of care in the Road Traffic Act	bmvit
●○○○	More flexibility regarding the obligation to use cycle paths	bmvit
●○○○	Introduction of bicycle-only roads	bmvit
●○○○	Revision of the law regulating the design and use of bicycles (new types of bicycle, lights, equipment, transport of children)	bmvit



Field of Action

Motorcycles

9

→ **Approximately 7 % of all injuries on the road are to motorcyclists.** However, the average severity of accidents involving motorcycles (number of fatalities per accident) is higher than for any other form of motorised transport and reaches the same level as for accidents involving pedestrians, which result on average in 13 % of all fatalities. This is all the more striking given that according to ETSC estimates motorcycles account for only about 2 % of total vehicle kilometres in Europe.

→ The **treatment of sections of road designated as high risk accident sites for motorcycles** will be given top priority. The installation of **electronic passive safety devices** (e.g. ABS) and the wearing of **protective clothing** on motorcycles will be advocated.

→ New aspects will be included in **driver training for motorcyclists** and special training courses offered to newly **returning** motorcyclists who are particularly at risk of having an accident. The **graduated driving licence system** for higher cubic capacity (cc) motorcycles will be revised.

→ **45 % of motorcycle fatalities occur in collisions with cars.** Accordingly, warnings about the typical risks of collision with motorcycles will in future be integrated into driving instruction programmes for car drivers.

→ In order to reach the members of this target group and address their needs directly, greater use will be made of focus groups and **cooperation activities with motorcycle associations and interest groups** will be intensified.

3.9.1 Treatment of Accident-Prone Road Sections

Detailed analyses show that serious accidents involving motorcycles tend to be concentrated on a limited number of sections of road. Priority should therefore be given to the treatment of these road sections.

START	MEASURES	KEY PLAYERS
Package of measures: Treatment of Accident-Prone Sections of Road and Junctions		
●○○○	Treatment priority for accident-prone sections of road and junctions	BL
○●○○	Use of new roadside restraint systems and removal of objects at the side of the road	BL
○○●○	Avoidance of changes in grip on the road surface	BL
○●○○	Road sweeping plans at the start of the motorcycle season with priority given to the removal of grit	BL
○○●○	More underride protection/barriers for safety restraints on roads with high volumes of motorcycle traffic	BL
○○●○	Clear road and roadway markings based on the “self-explaining road” principle	BL

3.9.2 Passive Safety Devices

A number of studies indicate that antilock brake systems (ABS) on motorcycles can prevent an appreciable proportion of motorcycle accidents.

START	MEASURES	KEY PLAYERS
Package of Measures: ABS on Motorcycles		
○●○○	Creation of incentives, e.g. tax advantages, for motorcycles with ABS	BMF
○○●○	If necessary, lobbying for ABS or other advanced brake systems at an EU level	bmvit
○○●○	Research into passive safety devices for motorcycles (e.g. airbags, safety belts)	bmvit

3.9.3 Protective Clothing

Although it might be assumed that 100 % of motorcyclists wear helmets, some riders who are not wearing **helmets** do die each year. **Protective clothing** can appreciably reduce the severity of injuries. Time and again, serious accidents are reported that are the result of riders “test driving” a friend’s motorcycle – without any protective clothing whatsoever.

START	MEASURES	KEY PLAYERS
●○○○	Use of helmets and helmet straps – raising awareness and enforcement	bmvit, BM.I, Clubs
○●○○	Raising awareness for protective clothing	bmvit, BM.I, Clubs
○●○○	Creating awareness for “garishly” coloured clothing	bmvit, Clubs

3.9.4 Education and Training

Given the dramatic increase in the number of accidents involving middle-aged motorcyclists, increased attention should be given to this aspect.

The new **graduated driving licence system** being introduced in line with the 3rd Driving Licence Directive will take account of accident statistics and typical vehicle kilometres for novice drivers; the **2nd phase driver education programme** will be enhanced.

START	MEASURES	KEY PLAYERS
●○○○	Development of measures to raise the road safety of “returning motorcyclists” (detailed accident studies, gathering of exposure data, implementation of targeted training models for returning motorcyclists)	bmvit, Clubs
●○○○	Redefinition of the graduated driving licence system (new driving licence categories introduced by the 3rd European Driving Licence Directive)	bmvit
●○○○	Enhancement of 2nd phase driver education A: Implementation of evaluation results and the 3rd European Driving Licence Directive (→ see also <i>Field of Action “Driver Training”, 3.2.4</i>)	bmvit
●○○○	Investigation of insurance premium incentives for participation in a road safety training course	bmvit
○○○●	Investigation of possibilities for the use of driving simulators in category A driving licence education (→ see also <i>Field of Action “Driver Training”, 3.2.2</i>)	bmvit

3.9.5 Raising Awareness

Since motorcyclists are only solely to blame for around half the fatal collisions, **education for car drivers** – who are by far the most common other parties in such accidents – will in future also have to include instruction on classic accident/crash scenarios.

Contact with the target group – or more specifically with **motorcycle associations and interest groups** – will be intensified.

START	MEASURES	KEY PLAYERS
○●○○	Informing car drivers of the danger of accidents with motorcyclists	bmvit, FS
○●○○	Raising awareness – working with focus groups and cooperation activities with associations and interest groups	bmvit



Field of Action

Mopeds

10

→ **Every ninth person injured on Austria's roads was riding a moped.** The comparatively low number of fatalities (4-5 %) and low severity of accidents in comparison to motor-cycles result primarily from the lower speeds involved.

→ **Moped driver training** and the **minimum age** for driving a moped will therefore continue to be monitored carefully and amended if required. Young moped riders will also be offered **extracurricular moped workshops**. Measures to counter the **illegal tuning** of mopeds and the import of vehicles which already significantly exceed the maximum permissible speed when delivered will be advocated and enforced.

→ Given the fact that a high proportion of the fatalities among moped riders were not **wearing a helmet, the wearing of helmets with proven results in crash tests** – will be advocated.

3.10.1 Driver Training

Instruction and training for moped riders was reformed in 2009. In addition to this “formal” training, adolescents should also be taught about issues like road safety and risk behaviour in a workshop setting.

→ see also
Field of Action
“Driver Training”, 3.2.5

START	MEASURES	KEY PLAYERS
Package of Measures: Driver Training		
○●○○	Extracurricular moped workshops for young moped riders (road safety, risk assessment, first aid and legal aspects)	Clubs, FS

3.10.2 Tuning

There are mopeds being sold in Austria that already **significantly exceed the maximum permissible speed** when they are brand new or which can be easily tuned to do so. Furthermore, **tuning (and chip tuning) kits** are being sold in stores with virtually no legal restrictions.

START	MEASURES	KEY PLAYERS
Package of Measures: Tuning		
○●○○	Development of measures to prevent tuning and the sale of new vehicles which do not comply with the stipulated norms (e.g. improvement in MOT tests, ban on the sale and purchase of such vehicles, police training)	bmvit
○●○○	Unified regulation of (police enforced) technical controls of mopeds and dynamometer tolerances	bmvit, BM.I
○●○○	Education for young people on the risks associated with riding illegal mopeds	bmvit, Clubs

3.10.3 Helmets

A quarter of moped riders killed on Austria's roads are not wearing a helmet at the time of the accident. Austria will support ETSC demands for Euro NCAP crash tests for helmets; there are both excellent and totally unsuitable models available in all price categories.

START	MEASURES	KEY PLAYERS
●○○○	Raising awareness and enforcement of the use of helmets and helmet straps by moped riders (above all in schools)	bmvit, BM.I, Clubs
○○●○	Support for demands for crash tests for helmets (on a par with Euro NCAP standards)	bmvit, Clubs



Field of Action

Lorries

11

- Accidents involving lorries account for **around 5 % of all accidents**. However, given the high moving masses involved, the accident severity is higher for lorry accidents than for any other mode of transport with **15 % of all fatalities**.
- **Almost one in two fatalities is the result of a head-on collision with a lorry**; one in five are killed in rear-end collisions, which at almost 50 % are also the most common form of accident involving lorries; a further 13 % of fatalities in lorry accidents were pedestrians.
- An increased number of **rest areas** and **control sites** will be introduced along the major road network to both ensure and also enforce **adherence to driving and rest times** (and thus reduce the number of accidents caused by fatigue). The intensity of **technical controls** (spot checks) will also be raised. The existing **bans on overtaking by lorries on motorways** will be evaluated and modified as required.
- bmvit will approach targeted companies to increase the **safety of corporate vehicle fleets**. The ministry will also repeat its efforts to encourage companies and organisations to **sign the European Road Safety Charter**.
- Support will be provided for a range of technical (vehicle) and legislative measures, including the **lowering of rear underrun protection devices**, the retrofitting with **blind spot mirrors**, the installation of modern **control and assistance systems** and the extension of the EU lorry regulations to **“vans”** (transporters).
- bmvit will also continue to lobby **against the licensing of so-called “GigaLiners” in Austria**, since the associated road safety concerns and enormous infrastructure investments required speak against such a move.

3.11.1 Policies, Guidelines and Controls

The European Directive on the **Initial Qualification and Further Training** of professional lorry drivers represents a milestone in road safety for heavy goods vehicles. Of interest in this context are the practical effects of the directive on road safety.

Adherence to **driving and rest times** is crucial for the prevention of the numerous accidents caused by fatigue. The necessary **infrastructure** must therefore be established and the **control network** extended. The existing bans on overtaking by lorries will be evaluated.

START	MEASURES	KEY PLAYERS
Package of Measures: Prevention of Lorry Accidents caused by Driver Fatigue and Lack of Due Care and Attention		
●○○○	Provision of an adequate number of traffic control sites and rest areas (for carrying out technical controls and for enforcing adherence to driving and rest times) <i>(→ see also Field of Action "Enforcement", 3.3.10)</i>	ASFiNAG
●○○○	Telematics-based information on available parking spaces for heavy goods vehicles (and to ensure adherence to driving and rest times) <i>(→ see also Field of Action "Enforcement", 3.3.10)</i>	ASFiNAG
○○●○	Testing of new methods to control whether lorry drivers are being distracted by other activities while driving	bmvit, BM.I
○●○○	Regular evaluation of existing bans on overtaking by lorries on motorways and introduction of any necessary revisions	bmvit

3.11.2 Public Relations

Heavy goods transport companies are important partners in road safety activities. It is therefore crucial to promote the benefits of corporate road safety for the well-being of all and reduce the pressure to perform that is exerted on professional lorry drivers. Efforts should also be taken to promote the “sharing of the roads” by drivers of heavy and light vehicles.

START	MEASURES	KEY PLAYERS
Package of Measures: Public Relations for Lorries		
○●○○	Public relations activities for (transport) companies <ul style="list-style-type: none"> — Explanation of the economic advantages of fewer accidents for transport fleets — Official recognition for successful in-house road safety programmes — Reduction in the pressure to perform that is exerted on lorry drivers through “fair” remuneration (without “mileage bonuses”) 	bmvit, WK
○●○○	Public relations activities for other road users <ul style="list-style-type: none"> — Improving the image of lorry drivers (“kings of the road”) — Breaking down the image of the “lorry” as the enemy on the roads – measures to increase understanding between car and lorry drivers 	bmvit, WK

3.11.3 Vehicle Fittings, Technical Retrofitting

An EU directive makes **blind spot mirrors** compulsory on new vehicles, and measures should be taken to encourage the retrofitting of vehicles already on the roads.

Tyre pressure control systems are compulsory on new models of cars from 2012, but not on lorries. Since lorries are however equally at risk from insufficient tyre pressure, these systems must be made compulsory for lorries as well.

The main focus when it comes to tyres for heavy goods vehicles (HGVs) is to ensure that they last as long as possible. Increased efforts should therefore be made to also raise the relevance of safety aspects. Despite the introduction of compulsory winter tyres for heavy goods vehicles, lorries still get stuck on uphill stretches of road or even slide off the road in winter conditions.

START	MEASURES	KEY PLAYERS
Package of Measures: Vehicle Fittings		
○●○○	Lowering of rear underrun protection (400 mm) and use of energy absorbing designs – advocacy of a modification of existing standards at European level	bmvit
○●○○	Retrofitting of lorries that are currently in use – and will remain on the roads for the next 10 years – with blind spot mirrors through lobbying in the EU and incentive systems	bmvit
○●○○	Compulsory tyre pressure control systems for heavy goods vehicles	bmvit, Clubs
○●○○	Compulsory inclusion of eCall systems on all new lorry models (→ <i>eCall systems are also mentioned in the Fields of Action "Post-Accident Care", 3.13.1, and "Vehicle Safety and Equipment", 3.16.1</i>)	bmvit
●○○○	Alcohol interlock: pilot test prior to a possible introduction for quality assurance purposes in freight transport fleets (→ <i>see also Field of Action "Vehicle Safety and Equipment", 3.16.3; alcohol interlock is also mentioned in the Fields of Action "Enforcement", 3.3.2, and "Rehabilitation and Diagnostics", 3.14.1</i>)	bmvit, WK
Package of Measures: Lorry Safety in Winter		
○●○○	Strict control of tyres and adherence to requirements to carry snow chains	BM.I, BL
○○●○	Creation of the necessary organisational requirements (e.g. prepared traffic signs and regulations) to allow the imposing of swiftly enforceable compulsory use of snow chains or road closures on uphill sections of road	bmvit
○○●○	Creation of additional sites for fitting snow chains before uphill sections of road	ASFiNAG
○○●○	Introduction of quality standards for lorry tyre wet grip	Clubs
○○●○	Introduction of quality standards regarding the suitability for use in winter of lorry tyres	Clubs
○○○●	Raising awareness regarding the build-up of "ice avalanches" on lorry tarpaulins to ensure these are either avoided or can be removed without hazard	bmvit, WK

3.11.4 “Vans” and Longer and Heavier Goods Vehicles (“GigaLiners”)

To date, many EU lorry regulations, such as those covering tachographs, speed limiters, driving and rest times or initial driver qualification and further training, do not apply to commercial transport “vans”, i.e. lorries < 3,5 t.

Austria will therefore lobby at EU level for an extension of these regulations to all lorries.

Longer and heavier goods vehicles (LHVs, max. 60 t, referred to colloquially as “GigaLiners”) require special infrastructure: in many cases the existing traffic infrastructure (curve radii, emergency lay-bys, guardrails, bridges, tunnels, rest areas, etc.) does not meet the necessary requirements. These vehicles obstruct the vision of car drivers and require longer overtaking times. The introduction of these vehicles would lead to increased accident severity.

→ see also
Field of Action
“Vehicle Safety
and Equip-
ment”, 3.16.7

START	MEASURES	KEY PLAYERS
Package of Measures: Vans and GigaLiners		
○●○○	Extension of the EU lorry regulations to “vans” (transporters) used in commercial transport; speed limiters, driving and rest times, initial driver qualification and further training	bmvit
●○○○	Ban on “GigaLiners”: prevention of the licensing of such vehicles in Austria and their use on Austrian roads in unison with the majority of countries in Europe.	bmvit



Field of Action

Level Crossings

12

- In comparison with other countries, Austria has a **high number (around 7,000)** of level crossings, a large proportion of which are unprotected (i.e. not secured by technical means). From **2005 to 2009**, there were **106 fatalities on level crossings**, 54 of which occurred on unprotected crossings.
- Accidents on level crossings account for around 0.2% of all road accidents. However, the **risk of injury or fatality is 12 times as high as for other modes of transport**. The number of fatalities varies greatly from year to year and reached its highest level in 2007 with 29 fatalities (2009: 15).
- Optimal methods for protecting level crossings will be calculated in future using a new **statistical risk model**. **Improved data** on level crossing accidents provides a key basis for this model.
- High priority will continue to be given to the treatment of **accident hot spots**, and a long-term **strategy to reduce the number of level crossings** will be developed.
- The legal basis for the **automatic surveillance of level crossings** will be established and activities to raise awareness of correct behaviour on level crossings will be increased.

3.12.1 Accident Analysis, Treatment and Securing

The Austrian Federal Railways, (Osterreichische Bundesbahnen, ÖBB) is preparing a **statistical risk model** for level crossings. This describes the accident risk in combination with various road and rail parameters and thus forms the basis for the determination of optimal methods for protecting level crossings with due consideration to cost-benefit aspects.

Data on accidents on level crossings is scarce, especially with regard to localisation and the causes of such accidents. It is often very difficult to establish links between railway operator databases and official road accident statistics.

START	MEASURES	KEY PLAYERS
	Package of Measures: Protecting of Level Crossings and Accident Analysis	
○●○○	Implementation of the ÖBB risk model ÖBB will support the implementation of this model (in cooperation with regional and local authorities)	ÖBB, bmvit, BL, G
●○○○	High priority identification, assessment and treatment of accident hot spots	bmvit, BL
○○●○	Long-term strategy to reduce the number of level crossings or protect such facilities by technical means in accordance with the new regulations for level crossings (Eisenbahnkreuzungsverordnung, EKVO)	bmvit, BL, G, ÖBB
●○○○	Extension of pilot tests on automatic surveillance systems for level crossings (e.g. with red light cameras) and development of strategies for the broad use of such systems which make maximum use of the legal framework	bmvit
○●○○	Improvement of accident databases (in particular localisation (GPS), categories of accident causes, harmonised data collection)	ÖBB, other Railway Undertakings

3.12.2 Raising Awareness

The French Railways (SNCF) provide road users with targeted information on the fact that **cars can easily break through closed full barriers** at level crossings. This service could also be used in Austria to prevent some of those tragic accidents in which vehicles get trapped between the barriers and hit by trains.

Participation of the ÖBB and as many other Austrian rail operators as possible in the European “**Level Crossing Awareness Day**”, which was held for the first time in 2009, will be continued in the future.

START	MEASURES	KEY PLAYERS
Package of Measures: Raising Awareness		
○●○○	Provision of information on predetermined breaking points on full barriers at level crossings (in a similar manner to the approach used in France)	ÖBB, Clubs, bmvit
●○○○	Active participation in the European “ Level Crossing Awareness Day ”	ÖBB
○●○○	Targeted raising of awareness of correct behaviour on level crossings , also in driving school courses (→ see also <i>Field of Action “Driver Training”, 3.2.2</i>)	ÖBB, bmvit, FS



Field of Action

Post-Accident Care

13

- The new Austrian road safety programme includes the issue of post-accident care for the first time. The purpose of doing so is not to prevent accidents, but to provide quick and efficient post-accident care nationwide in order to **mitigate the consequences of accidents**.
- Top priority will be given to establishing the necessary infrastructure for **eCall**. **In future, accident sites should be cleared more quickly** to avoid secondary accidents.
- A quality assurance system should be set up for emergency services **response times** and the **quality of post-accident care**, the continuation of the **helicopter system** ensured and the “**emergency vehicle corridor**” principle introduced on motorways.
- Efforts to provide initial qualification and further training in **first aid** will be intensified.

3.13.1 eCall

For eCall, i.e. the automatic sending of **emergency calls with GPS coordinates** from vehicles, to work properly, emergency services must be equipped with the necessary infrastructure. Incoming emergency calls must be localised and communication established with the accident victims immediately, whenever possible in their native language.

→ see also *Fields of Action "Vehicle Safety and Equipment", 3.16.1, and "Lorries", 3.11.3*

START	MEASURES	KEY PLAYERS
○●○○	Implementation of eCall Creation of the necessary infrastructure for the emergency services	bmvit, Emergency Services

3.13.2 Roads with High Traffic Loads: Emergency Services Access – Clearing of Accident Sites

To provide emergency services vehicles with quick access to accident sites in traffic jams, so-called **"emergency vehicle corridors"** (an obligation for all other drivers to form a "virtual" lane for emergency vehicles, following the German model) will be established.

When accidents occur on major roads – particularly on sections of road with high traffic loads – emphasis will be placed on **clearing the accident sites** as quickly as possible to avoid secondary accidents. The possibility of creating or opening of **special access routes for the emergency services and tow vehicles** on motorways should be considered – taking into account local circumstances and reports from the road maintenance authorities.

START	MEASURES	KEY PLAYERS
●○○○	Introduction of "emergency vehicle corridors"	bmvit
Package of Measures: Rapid Clearance of Roads with High Traffic Loads after Accidents		
○○●○	Use of new (photographic) technologies and new accident data collection processes based on models implemented in Germany (GIDAS: German In-Depth Accident Study), Great Britain and The Netherlands	bmvit
○○○●	Posting of tow vehicles at strategic points on motorways to allow the clearance of accident sites as quickly as possible (similar approach to the one used in The Netherlands)	ASFiNAG, Clubs
○○●○	Emergency access routes for emergency services and tow vehicles in high risk and critical areas	ASFiNAG

3.13.3 Emergency Services Response Times

The time between the receipt of an emergency call and the arrival of the emergency services at the scene of the accident is a decisive factor in the chances of survival for seriously injured accident victims.

To **reduce risks on emergency services call-outs**, a package of measures will be put together for drivers of emergency services vehicles. These will include road safety training.

START	MEASURES	KEY PLAYERS
Package of Measures: Emergency Services Response Times		
○○●○	Cross-service quality assurance system for emergency services response times	Emergency Services
○○●○	Gradual introduction of a unified digital radio network for all emergency services organisations	Emergency Services
○○●○	Development and implementation of a training concept to reduce the risks to emergency services personnel, especially fire engine and ambulance drivers	bmvit

3.13.4 Nationwide Level of Quality in Emergency Services

In Austria, the nationwide rescue helicopter system is a cornerstone of the country's road safety work and is widely regarded as one of the best helicopter rescue systems in Europe. In recent years, the financing of this system has been the subject of public debate.

In Austria, broad use is made of emergency ambulances (EA) both in emergency rescue and patient transport. In general, these vehicles correspond to the DIN EN 1789 Type B (Emergency Ambulance) specification and are therefore not as extensively equipped for emergency rescue purposes as DIN EN 1789 Type C vehicles (Mobile Intensive Care Unit – MICU).

Despite the high number of people injured in road accidents and the diverse medical and health issues associated with fitness to drive, there is still no specific occupational profile for the job of “road transport physician” in Austria.

START	MEASURES	KEY PLAYERS
	Package of Measures: Provision of a Nationwide Level of Quality in Emergency Services	
●○○○	Safeguarding of the air rescue system – quality assurance and financing	BL, State Sick-ness Funds
○○●○	Emergency rescue ambulances analysis of accuracy in equipping rescue vehicles with medical equipment, supplies and personnel; introduction of improvements where necessary	bmvit, Rescue Services
○○●○	Further optimisation of the provision of land-based emergency services (accident hot spot analysis)	BL, Rescue Services
○○○●	Creation of an occupational profile for “emergency road transport physicians” incl. the establishment of corresponding Chairs of Road Transport Medicine and definition of initial qualification and further training requirements in conjunction with the universities and the medical association	Medical Chamber

3.13.5 Rescue from Vehicles

Developments in passive vehicle safety technologies have led to the increased inclusion of reinforcing elements in vehicle bodies. These elements make it more difficult for the fire and rescue services personnel to get into a vehicle. As a result, the average rescue time for newer models of car is now significantly longer. So-called **rescue cards** help the emergency services to rescue people from vehicles after an accident, because they indicate the best places on a vehicle to use rescue spreaders and cutters, as well as the position of batteries and airbags.

START	MEASURES	KEY PLAYERS
●○○○	Advocacy of the introduction of unified rescue cards for all vehicles	Emergency Services, Clubs
●○○○	Compulsory issue of rescue cards for all new vehicles	bmvit, Clubs

3.13.6 First Aid

Even with first aid training, motorists rarely know the appropriate action to take in the event of an accident and the order in which they should secure the vehicle, call the emergency services and administer first aid.

START	MEASURES	KEY PLAYERS
Package of Measures: First Aid		
○○●○	Creation of incentives to motorists to attend regular first aid refresher courses <ul style="list-style-type: none"> — Examination of the possibility of offering incentives to employers to provide regular first aid courses for their staff — Examination of the possibility of offering incentives to encourage as many motorists as possible to attend the refresher courses in “life saving first aid” offered by authorised emergency services organisations. The content of these courses should also focus more on accident management (e.g. securing the site). 	bmvit, Emergency Services
○○●○	First aid stickers in vehicles Stickers in vehicles with pictogram-based instructions can be a major help in indicating the order of the actions to be taken after an accident – secure the vehicle, call the emergency services, provide first aid.	bmvit, Clubs



Field of Action

Rehabilitation and Diagnostics

14

→ A small proportion of motorists can be classed as repeat traffic offenders. One of the most common traffic offences is drink driving. The **alcohol interlock system**, which is to undergo a pilot test in Austria, can prevent motorists from driving under the influence and thus reduce the risk of accident without the need for a permanent driving ban.

→ The efficiency of the **traffic psychology assessment and driver improvement course** methods that have been established nationwide should be assessed. Evaluations should also be carried out on the **traffic coaching provided for drink driving** offenders and the new **child restraint course** (demerit points system).

3.14.1 Drink Driving

Alcohol interlocks ensure that repeat drink driving offenders can keep their driving licences yet still be successfully prevented from driving their vehicles under the influence of alcohol. The devices themselves have no therapeutic effect, but can nonetheless be used to successfully support other forms of treatment.

START	MEASURES	KEY PLAYERS
●○○○	Alcohol interlock pilot test Examination of the technical, legal, medical and psychological aspects (→ see also <i>Fields of Action "Enforcement"</i> , 3.3.2, and <i>"Vehicle Safety and Equipment"</i> , 3.16.3; alcohol interlock is also mentioned in <i>Field of Action "Lorries"</i> , 3.11.3)	bmvit

3.14.2 Efficiency Analysis

A range of individual measures will be tested for their effects on road safety in order to identify any potential for improvement.

The latest measures to be introduced under the Road Safety Programme 2002 – 2010 were **traffic coaching** and **child restraint courses**. Driver improvement courses and **traffic psychology assessments** have been internationally recognised elements of Austrian road safety policy for many years and were also named as European best practice examples by the EU's SUPREME⁹ (Summary and Publication of Best Practices in Road Safety in the Member States) project.

START	MEASURES	KEY PLAYERS
Package of Measures: Efficiency Tests for Training Measures		
●○○○	Assessment of the efficiency of traffic coaching and child restraint courses and prompt implementation of any necessary changes	bmvit
○●○○	Cross-organizational, nationwide assessment of the efficiency of driver improvement courses and traffic psychology assessments	bmvit

⁹ http://ec.europa.eu/transport/road_safety/projects/doc/supreme.pdf



Field of Action

Infrastructure and Roadside Telematics

15

→ The design and condition of our roads have a key influence on road safety. That's why we are introducing an **integrated infrastructure safety management system** in Austria. Road safety issues will be assessed at the construction planning stage, existing roads will be inspected regularly and high accident concentration sections will be identified and treated in a unified process.

→ Given the relatively high **speed limits on rural roads** (excluding motorways) in comparison with other EU countries, speed should be reduced by setting speed limits which take account of the relevance of the road and are better adjusted to its actual design and surroundings. A reduction in speed should also be achieved not only at high accident concentration sections, but also on those sections of road where the potential to reduce accident costs is highest. The **system used to indicate** speed limits will also be redesigned and improved in line with latest comprehensibility findings.

→ Safety will be enhanced on stretches of road where drivers frequently **collide with trees** and a strategy is being drawn up to combat the numerous accidents involving wildlife. Increased attention will be given to easing the situation at accident-prone **junctions**. **Rumble strips** will help to reduce accidents caused by fatigue or lack of due care and attention. **Traffic signs** should be made easier to understand, e.g. by using symbols or pictograms, a measure that will also benefit non-German-speaking drivers. **Road surface grip and ruts** will be measured at regular intervals to ensure prompt corrective action can be taken.

→ The retrofitting of Austria's extensive **tunnel system** with state-of-the-art safety equipment will be continued. Work will also be continued on improving motorway junctions to avoid the risk of **motorists driving the wrong way**. The standards of **safety restraints at roadworks** will be further improved, and the use of modern **transport telematics** on major roads will be accelerated.

3.15.1 Infrastructure Safety Management

The European Commission's directive on improving the safety of the European road network¹⁰, which was to be implemented by the Member States by the end of 2010, represents an important initial step towards common quality management in infrastructure safety in Europe. The directive currently only applies to the Trans-European road network (TEN) and thus only to a part of the ASFiNAG network. However, the aim is to ultimately apply the directive to the complete **motorway and expressway network as well as other roads** (like the regional *Landesstraße* B and L roads).

The procedures covered by the directive include:

- Road Safety Impact Assessments (RSIA)
- Road Safety Audits (RSA)
- Road Safety Inspections (RSI)
- Network Safety Management (NSM)

START	MEASURES	KEY PLAYERS
Package of Measures: Implementation of the Infrastructure Directive including on Regional Roads		
●○○○	Training of auditors and inspectors through certified training institutes	bmvit, FSV
○●○○	Road safety audits (safety assessments in planning phases) for all relevant construction or reconstruction projects , including those outside the major road network	ASFiNAG, BL
○●○○	Regular road safety inspections , including roads outside the major road network	ASFiNAG, BL
○●○○	Treatment of high accident concentration sections to a unified standard across the whole of Austria (→ <i>see also 3.15.2</i>)	ASFiNAG, BL
○○●○	Network safety management analyses including prioritisation and investment in sections of road where the potential to reduce the number of accidents is highest	ASFiNAG, BL
○●○○	Road safety impact assessments in the early project planning phases	ASFiNAG, BL
○○●○	Best practices platform for infrastructure measures	bmvit

¹⁰ http://ec.europa.eu/transport/road_safety/topics/infrastructure/index_en.htm

3.15.2 High Accident Concentration Sections

In the years 2006 – 2008, there were **3,226 high accident concentration sections** in Austria at which over 26,000 accidents occurred, some 35,300 people were injured and 324 killed. This means that 36 % of accidents and injuries and 19 % of all fatalities occurred at high risk sites. These statistics show a broad spread across the regions, and the treatment of high risk sites is currently also being pursued with different levels of intensity in different regions. As part of the Road Safety Programme, a policy should be agreed with the regions and jointly implemented.

At present, **treatment** is largely restricted to those roads in the network with distance markers (i.e. motorways, expressways and regional B and L roads), since accident clusters can be easily determined from the kilometre reference (“window” of 250 m). In urban areas, analysis was disproportionately more complex in the past, since information on the relative position of house numbers – especially in so-called “chronological” municipalities (where houses are numbered in the order they were built) – was not available. However, since geographical references are now available for all houses in Austria, there should be no further barriers to the treatment of high accident concentration sections on municipal roads. If necessary, the applicable RVS 02.02.21 guidelines and regulations for roads will be revised.

Around one quarter of fatalities on Austria’s roads occur in single vehicle accidents on rural roads (excluding motorways). Although a large proportion of these accidents is the result of driver error, an accident hot spot analysis should be carried out to identify those stretches of road which could be made safer by improving their infrastructure.

START	MEASURES	KEY PLAYERS
Package of Measures: Treatment of High Accident Concentration Sections across Austria and on the Entire Road Network		
○○●○	Actual treatment of roads using the same standard across Austria and for the entire road network (based on RVS 02.02.21) (→ see also 3.15.1)	BL, ASFİNAG
○●○○	Development of systems and processes to allow the Federal Office of Transport to meet its legal obligations with regard to the global analysis and treatment of high accident concentration sections	bmvit, BL
○●○○	Preparation of digital maps of all high accident concentration sections in Austria	BL, bmvit
○○●○	Revision and specification (e.g. rural road, urban area) of the calculation basis for high accident concentration sections and distribution of information on such sections for the relevant parts of the road network	BL
○○●○	Treatment of high accident concentration sections on roads without distance markers (municipal roads); a corresponding methodology is currently being developed in a pilot project in St. Pölten	G, BL
○●○○	Improvement of road safety on sections of rural road with high (road related) single vehicle accident concentrations: use of hot spot analysis to identify sections of rural road with particularly high single vehicle accident concentrations where road safety could be increased through road improvement measures and giving priority to subsequent treatment of these road sections	BL

3.15.3 Speed

Austria and Germany are the only two remaining countries in Europe with a general speed limit of 100 kph on rural roads, a fact reflected in the high accident severity on these roads in comparison with other countries. In Austria, almost 60 % of all fatalities occur on rural roads, and the fatality rate for accidents on rural roads lies above the European average. In many countries in Europe, it is now standard practice to make speed limits on rural roads dependent on the characteristics of the road (e.g. width, curve radii) and safety infrastructure (e.g. roadside restraints, run-off areas).

Consequently, Austria will look to reduce speed on its roads by setting speed limits which take account of the actual relevance of the road and are better adjusted to the actual characteristics. A reduction in speed should also be achieved not only on high accident concentration sections, but also on those sections of road where the potential to reduce accident costs is highest.

Many motorists do not understand the current system in use in Austria to indicate speed limits. If, for example, a 70 kph zone on a rural road is followed by a place name sign, around 50 % of motorists are uncertain what speed limit applies. In this case, the traffic sign denoting “end of a speed limit” indicates that the speed limit has been reduced to 50 kph. However, on rural roads, the same traffic sign can also serve to raise the speed limit to 100 kph. It is particularly alarming to note that at least a quarter of drivers on rural roads either do not notice a sign posted speed limit or do not know which limit currently applies.

As part of the GONZALES¹¹ project and with the support of the bmvit, a team of Austrian experts designed an improved speed limit notification system that ensures motorists cannot misinterpret the current applicable speed limit. The system is based on the following criteria:

- homogeneous, explicit speed limits for zones, direction of traffic and road lanes
- the principle of positive signposting (at the start not the end of a (speed) restriction)
- applicability even when other restrictions apply (e.g. for lorries)

By making it easier for road users to identify speed limits, it can also be assumed that this system will have a positive effect on road safety.

¹¹ Developed under the I2 programme (bmvit); http://www.kfv.at/verkehr-mobilitaet/strassenraum/beschilderung/back_id/965/

START	MEASURES	KEY PLAYERS
Package of Measures: Speed		
●○○○	Matching of speed limits on rural roads to the characteristics of the road (e.g. width, curve radii) and the safety infrastructure (e.g. roadside restraints, run-off areas) to reflect the relevance of the road	BL
○●○○	Reduction in speeds at high accident concentration sections (when speed is a contributory factor to accident frequency) as well as on those sections of road where the potential to reduce accident costs is highest	BL
○○○●	Improvement in the system used to indicate speed limits (based on the results of the GONZALES ¹²) project	bmvit

3.15.4 Collisions with Trees

Almost 9 % of fatal road accidents in Lower Austria are collisions with trees. No corresponding figures for the other regions are currently available. Priority will be given to identifying and treating those sections of road with a particularly high density of tree collisions. The French approach to treating such sections of road¹³ – identified as a “promising practice” in the EU’s SUPREME project – could serve as a model here; see also the RVS 02.02.41 guidelines and regulations for roads, which are currently being finalised. Efforts should be made to establish a unified procedure in the regions, which also considers the function of the trees from a traffic, landscaping and cultural/historic perspective.

START	MEASURES	KEY PLAYERS
Package of Measures: Collisions with Trees		
○●○○	Collection of data on collisions with trees in all regions of Austria	BL
○○●○	Identification of sections of road with a particularly high density of tree collisions (hot spots) and priority treatment of these sections	BL, BH

12 <http://www.kfv.at/fileadmin/webcontent/Publikationen/Studien/VM/GONZALES-Endbericht.pdf>

13 http://ec.europa.eu/transport/roadsafety_library/publications/supreme_c_handbook_for_measures_at_the_country_level.pdf

3.15.5 Collisions with Wildlife

Between 2005 and 2009, almost 1,000 people were injured and six were killed in collisions with wildlife on Austria's roads. Countermeasures introduced will be assessed and the RVS 04.03.12 guidelines and regulations for roads revised as necessary.

START	MEASURES	KEY PLAYERS
○○●○	Comprehensive evaluation of national and international countermeasures and subsequent revision of the guidelines and regulations for roads (wildlife warning reflectors, "scent fences", wildlife warning systems and routes)	bmvit, FSV

3.15.6 Junctions

The **introduction of roundabouts to alleviate the situation at accident-prone junctions** became standard practice during the 2002 – 2010 Road Safety Programme. However, at **junctions on rural roads** – where around 3,500 injury accidents and 60 fatalities occur each year – roundabouts are not yet being introduced at the same level of intensity in all regions of Austria. Attention must also be given to ensuring that roundabouts are simple to navigate, clearly laid out and suitable for large vehicles (e.g. lorries, trailers, buses, etc.).

START	MEASURES	KEY PLAYERS
Package of Measures: Roundabouts		
○●○○	Roundabouts as a safety measure at junctions on rural roads	BL, BH
○○●○	Evaluation of the practicability of latest insights relating to "mini roundabouts", bypass solutions and multi-lane roundabouts (e.g. "turbo roundabouts")	FSV, BL
○○●○	Optimal lighting at roundabouts	BL

3.15.7 Road Markings

Road markings serve as important indicators to motorists, especially at night and at other times when visibility is poor. The conspicuity and/or **reflectability** of conventional road marking products deteriorate considerably in the wet, which can also lead to a decrease in safety levels.

Milled (or marked) **rumble strips** are increasingly becoming the international standard, since their use can appreciably reduce the number of accidents (single vehicle accidents, head-on collisions).

START	MEASURES	KEY PLAYERS
Package of Measures: Road Markings		
○○○●	Testing of new road markings products (e.g. structured road markings) with improved reflectability even in rain for the feasibility of their broad use; where necessary, creation of the legal basis for such tests	bmvit, ASFiNAG, BL, bmvit
○○○●	Keep a Safe Distance: raising awareness among motorists of the “ counting seconds ” method of checking safe following distances and testing of new, easier to understand, optical aids for measuring distance	ASFiNAG
○●○○	Rumble strips on the major road network as the basis for evaluations of the potential use of rumble strips on rural roads	ASFiNAG, BL

3.15.8 Road Surface Conditions

Numerous studies suggest a link between accident frequency and road surface characteristics like **grip and ruts**. The surface conditions on the entire motorway and expressway network in Austria will now be checked at regular intervals. Monitoring activities of this kind were previously only carried out on an isolated basis in some individual regions.

START	MEASURES	KEY PLAYERS
○○●○	Grip and Ruts Definition of a common procedure to extend the monitoring of road surface conditions on the regional road network to increase the national road safety management standard on regional B and L roads.	BL

3.15.9 Safety in Tunnels

More resources have been invested in upgrading the safety of Austria's tunnel network and the construction of second tunnel tubes than in any other safety measure. Since 2006, all events in tunnels on the ASFiNAG road network are recorded by tunnel supervisors in a dedicated **database** and synchronised with Statistics Austria's accident data.

START	MEASURES	KEY PLAYERS
Package of Measures: Safety in Tunnels		
○○●○	Recording of events in tunnels on regional roads in the tunnel database	bmvit, ASFiNAG, BL
○○○●	Nationwide harmonisation of the design of tunnel portals	ASFiNAG, BL
○○○●	Adherence to the safety standards in the Road Tunnels Safety Act (<i>Straßentunnelsicherheitsgesetz</i>) and prompt reaction in the event of any deficits	ASFiNAG, BL

3.15.10 Roadworks

While high safety standards now apply on the ASFiNAG road network following several serious accidents at roadworks at the beginning of the millennium, the quality of safety restraints at roadworks on the rest of the road network frequently leaves a lot to be desired.

START	MEASURES	KEY PLAYERS
Package of Measures: Safety Restraints at Roadworks		
○○●○	Application of existing standards for safety restraints at roadworks to the entire road network and adaption where necessary (provision of support to regional and local authorities in the form of instruction materials, training courses and checks)	BL, G, bmvit
○●○○	Road safety audit for roadworks plans and monitoring of long-term roadworks on high traffic roads (and the major road network)	ASFiNAG, BL, G

3.15.11 Wrong Way Drivers

Accidents involving motorists who are driving the wrong way on motorways are extremely rare, but always attract the attention of the media. The implementation of the RVS 05.06.31 guidelines and regulations for roads which came into force in 2002 has largely been completed on the part of ASFiNAG, but the required reconstruction of numerous motorway junctions has still to be carried out in a joint effort between ASFiNAG and the regional authorities.

START	MEASURES	KEY PLAYERS
○○●○	Implementation of the road guidelines and regulations relating to wrong way drivers in a joint effort between the regional authorities and ASFiNAG: complete implementation of the provisions of the RVS 05.06.31 (in particular the required reconstruction of numerous motorway junctions; measures in the regional road network)	ASFiNAG, BL

3.15.12 Transport Telematics

The European Commission has prepared an **Action Plan for Intelligent Transport Systems (ITS)** and is currently discussing a corresponding directive with the Member States. The new Road Safety Programme will also be used to make use of the **safety potential offered by new technologies** in Austria and give greater consideration to the human factor in the design of such systems.

The display of **dynamic speed limits** or overtaking restrictions for lorries with explanatory weather and traffic information can significantly improve the level of safety on accident-prone sections of motorways. ASFiNAG will continue to press forward with the introduction of dynamic traffic control systems. However, the use of such systems should not remain restricted to motorways, but should also be considered for the **secondary road network**.

As part of the EU's **EasyWay** programme, ITS solutions will be implemented on sections of the **Trans-European Road Network (TERN)** in the **Alpine Region**. These solutions should also generally have positive effects on road safety. EasyWay focuses primarily on the provision of travel information and traffic management, and provides freight traffic and logistics services.

START	MEASURES	KEY PLAYERS
Package of Measures: Transport Telematics		
○○●○	New ITS action plan for Austria , with greater consideration given to the human factor in the design of such systems, e.g. cross-provider collection, linking and provision of dynamic road and traffic data (safety-related, multimodal traffic information in real time), implementation of eCall and telematics-supported logistics for lorry rest areas on motorways	bmvit, ASFiNAG, Emergency Services
○●○○	Deployment Plan and installation of dynamic traffic control systems based on the results of scientific evaluation; also as required in the secondary road network, e.g. in front of schools and kindergartens	ASFiNAG, BL, G
○○●○	Regular information on the implementation status and insights from the EasyWay project	ASFiNAG, bmvit



Field of Action

Vehicle Safety and Equipment

16

→ **Improvements in the passive safety of cars played the greatest role in reducing the number of road fatalities in the last decade.** Although further improvements here are generally being handled on a pan-European basis, Austria still has some opportunities to take a proactive approach at national level through the Road Safety Programme.

→ Support will be given to the broad introduction of **eCall** based on a unified technical platform across Europe. Austria will also continue to advocate the use of event data recorders. The **alcohol interlock** concept will be tested in a pilot project. The wide-scale implementation of **automatic warning and control systems** (tyre pressure, fire, seat belts) will be lobbied in Brussels along with the need to establish an EU standard regarding **winter tyres**.

→ The importance of **securing cargo** – also for cars – will be widely communicated, while the “vans” used in commercial transport should be subjected to the stricter regulations applicable to lorries.

→ Further studies shall be carried out on the effects of **advanced driver assistance systems** on road safety and the “**collision compatibility**” between vehicle front-ends and pedestrians and cyclists further improved.

3.16.1 eCall

A vehicle equipped with eCall functionality can automatically make an emergency call and transmit its **GPS coordinates** at the same time. While this doesn't reduce the number of accidents, it does help to save lives. The penetration rate for this technology is currently still extremely low.

→ see also *Fields of Action "Post-Accident Care"*, 3.13.1, and "Lorries", 3.11.3

START	MEASURES	KEY PLAYERS
Package of Measures: Promotion of eCall		
●○○○	Definition of technical parameters for the unified implementation of eCall across Europe	bmvit, Clubs
○●○○	Support for the equipping of vehicles with eCall	BM.I, bmvit, Clubs
○○●○	Establishment of the necessary equipment and functionality at emergency services centres	bmvit, ASFiNAG, Police, Emergency Services
○○●○	Lobbying for the compulsory introduction of eCall at EU level	bmvit, Clubs

3.16.2 Event Data Recorders

Fleet studies illustrate the impressive effect of **event data recorders** (EDR) when it comes to improving road safety: operators can expect to redeem their investment within one year. Since the commonly used eCall systems now include practically all the functions found in event data recorders, it would seem sensible to work on **combining the two systems**. The bmvit has already funded a **research project** to analyse the potential uses of event data recorders, and the results of the accompanying study are now to be implemented.

START	MEASURES	KEY PLAYERS
Package of Measures: Event Data Recorders		
○○●○	Lobbying for the compulsory introduction of event data recorders at EU level	bmvit, Clubs
○○○●	Clarification of the legal implications of data access for the police force and accident investigators as well as the general data protection implications (implementation of the study findings)	bmvit

3.16.3 Automatic Control Systems

Alcohol interlocks prevent motorists from driving their vehicles under the influence of alcohol and are used to help rehabilitate repeat drink driving offenders. The alcohol interlock system has also demonstrated its benefits in quality assurance (e.g. in Sweden) for vehicle fleets (taxis, buses, freight transport).

Systems which constantly monitor vehicle tyre pressure can help to reduce road accidents by identifying faulty tyres or tyres whose pressure is always too low. According to estimates from the ÖAMTC (Austrian Automobile, Motorcycle and Touring Club), around **50 % of cars in Austria do not have the correct tyre pressure**. Following the introduction of corresponding legislation in the United States, the EU is now also seeking to pass a regulation requiring all new vehicles to be fitted with automatic tyre pressure gauges from 2012.

To improve passenger safety, all car seats (and not just the driver's seat as is currently the case) should be fitted with optical and acoustic **seat belt reminders** (SBR). Practice has shown that neither education nor enforcement measures can have anything like the same effect in raising seat belt wearing rates.

According to the ÖAMTC, around 2,000 **vehicle fires** are reported in Austria each year. Fires continue to claim the lives of motorists and result in considerable material damage and costs.

START	MEASURES	KEY PLAYERS
Package of Measures: Automatic Control Systems		
●○○○	Alcohol interlock: pilot test prior to a potential introduction; assessment of the technical, legal, medical and psychological aspects. Possible areas of use: support in the rehabilitation of repeat drink driving offenders, quality assurance in vehicle fleets (taxis, buses, freight transport) (→ see also Fields of Action "Enforcement", 3.3.2, and "Rehabilitation and Diagnostics", 3.14.1; Alcohol interlock is also mentioned in Field of Action "Lorries", 3.11.3)	bmvit, WK
○●○○	Tyre pressure control systems – rapid implementation of the new EU standard	bmvit
○●○○	Lobbying at EU level for compulsory seat belt reminders on all seats	Clubs
Package of Measures: Vehicle Fires		
○●○○	Introduction of automatic fire extinguisher systems in engine compartments	Clubs
○●○○	Compulsory installation of heat sensors in critical areas on a vehicle (e.g. the engine, tyres or brakes on a heavy goods vehicle) to reduce the risk of fire	Clubs
○●○○	Shutting off of electricity and fuel supplies in the event of an accident – with the exception of any safety-related equipment and systems, such as eCall systems	Clubs
○●○○	Establishment of an EU standard for portable fire extinguishers in cars (and their mountings): an expiry date sticker should also be compulsory on all such fire extinguishers; consideration should also be given to the issue of how to handle the necessary regular function checks	Clubs

3.16.4 Auxiliary Equipment, Vehicle Lights

At present, each country has its own regulations regarding the compulsory **auxiliary equipment** to be carried in cars (including cars from other countries) on its roads. These regulations should be harmonised across Europe.

From 7.2.2011, all new approved vehicle types will be fitted with **daytime running lights**. Since these do not automatically switch to dipped headlights at dawn/dusk, in the dark or in other poor visibility conditions, there is a risk that drivers will forget to do so.

Traffic spot checks increasingly reveal cars with only one headlight in operation. Modern cars often have to be taken to a garage to have a **light bulb replaced**. In this context, it is also important to ensure that the light setting, or more specifically the range of the dipped headlights, is correct.

Some drivers also use **rear fog lamps** even when light conditions do not require their use. This can dazzle the traffic following the vehicle.

START	MEASURES	KEY PLAYERS
Package of Measures: Safety Equipment		
○○●○	EU-wide assessment and joint definition of what should be classed as safety equipment (e.g. warning triangle, first aid kit, reflective safety waistcoat)	Clubs
○○○●	Subsequent obligation on the part of manufacturers to include appropriate storage facilities and easy accessibility for these safety items in cars	Clubs
○○○●	Obligation on the part of car manufacturers to include an easily accessible and clearly marked place for a portable fire extinguisher in every car	Clubs
○●○○	Lobbying for automatic switching between daytime running lights and dipped headlights , sensor control to automatically switch to dipped headlights at dawn/dusk, in the dark or in poor visibility conditions	Clubs

START	MEASURES	KEY PLAYERS
Package of Measures: Vehicle Lights		
○●○○	Obligation of manufacturers (after corresponding cost analysis) to include an appropriate warning indicator in vehicles notifying drivers of a malfunction in lights with safety implications	Clubs
○●○○	Obligation of manufacturers to supply a set of replacement light bulbs (for lights with safety implications) as standard equipment in new vehicles	Clubs
○●○○	Light bulb changes: ensuring that consumers are easily able to quickly change light bulbs (if these are consumable parts) on a vehicle themselves (without tools); if a light bulb is not a consumable part, the manufacturer must guarantee a minimum service life of seven (7) years or 100,000 km (adaptation of ECE Regulation 48)	Clubs
○●○○	Dipped headlights: creating awareness of the correct manual setting	bmvit, Clubs
○●○○	Dipped headlights: lobbying for an EU-wide automatic regulation of headlight ranges	Clubs
○●○○	Rear fog lamps: lobbying for the inclusion of control lamps for rear fog lamps on the dashboard to ensure these are only used when actually required	Clubs

3.16.5 Securing Cargo

The official accident statistics do not permit any conclusions to be drawn with regard to the impact of inadequately secured cargo on accident frequency. In-depth studies show however that inadequately secured cargo is a causal factor in up to 25 % of lorry accidents. For this reason, inadequate securing of cargo was also included in the demerit points system's catalogue of offences. **Car drivers** are to a great extent still largely unaware of the importance of this issue.

START	MEASURES	KEY PLAYERS
Package of Measures: Securing Cargo		
○●○○	Creating awareness of the need to secure cargo on (and in) cars; incorporation of this topic into the driving school curriculum (for category B driving licences)	FS, Clubs
○●○○	Binding definition (through law or by decree) of the detailed criteria constituting adequately secured cargo (catalogue of deficiencies) in and on a vehicle (also to facilitate enforcement of adherence to the regulations)	bmvit

3.16.6 Advanced Driver Assistance Systems

As part of the RONCALLI¹⁴ project, the principle of “**Intelligent Speed Adaptation**” (ISA) was successfully tested in Austria. ISA informs motorists of the current speed limit at any given time and can also provide warnings if the speed limit is exceeded. Similar pilot tests were carried out in the majority of the EU-15 countries. The results were unanimous and indicate that such systems offer significant potential for reducing accidents and fatalities.

A positive impact on road safety could already be confirmed for some **advanced driver assistance systems**, with impressive results recently achieved with ESC (Electronic Stability Control).

START	MEASURES	KEY PLAYERS
Package of Measures: Continued Support for the “Intelligent Speed Adaptation” Principle		
○●○○	Establishment of the basic requirements: speed limit database for the entire Austrian road network and integrated roads database based on a common geopositioning system (Graph Integration Platform, GIP) (→ see also <i>Field of Action “Databases and Accident Data Collection”, 3.17.1</i>)	bmvit, BL
○●○○	Support for European efforts with regard to “Intelligent Speed Adaptation”	bmvit, Clubs
Package of Measures: Advanced Driver Assistance Systems		
○●○○	Support for the scientific evaluation of advanced driver assistance systems and assessment of the risk of distraction; assessment of the general requirements for vehicle-to-infrastructure and vehicle-to-vehicle communication	bmvit
○○●○	Informing the public of the positive effects	bmvit, Clubs

14 <http://www.roncalli-telematics.com/index.php?module=ContentExpress&func=display&ceid=142>

3.16.7 “Vans” (Transporters)

Neither the EU regulations regarding speed limiters, nor those relating to driving and rest times or initial qualification and further training have as yet been applied to commercial transport vans, i.e. lorries < 3.5 t. Given the increasing number of accidents involving vans, there is a need for action to address this situation.

→ see also Field of Action “Lorries”, 3.11.4

START	MEASURES	KEY PLAYERS
○●○○	Extension of the EU lorry regulations to “vans” (transporters) used in commercial transport (speed limiters, driving and rest times, initial qualification and further training)	bmvit

3.16.8 Electric Vehicles

In future, there will be an increasing number of **fully electric vehicles** on the roads. Since these vehicles are virtually silent, the potential risks need to be examined.

START	MEASURES	KEY PLAYERS
Package of Measures: Electric Vehicles		
○●○○	Regular analysis of statistics for accidents involving electric vehicles	bmvit
○●○○	Assessment of possible technical measures (e.g. “acoustic measures”)	bmvit, Clubs
○●○○	Creating awareness of the potential safety risks	bmvit, Clubs
○●○○	Examination of the crash performance of electric vehicles	bmvit

3.16.9 Tyres

The correct **choice of tyres** often determines whether an unforeseen situation on the road leads to serious consequences or whether an accident can be avoided. There is currently no definition of the required characteristics of a winter tyre. The defined requirement that a winter tyre be marked with the symbol “M+S” (“Mud and Snow”) is not sufficient, since this marking can also be found on summer tyres (with no consequences).

START	MEASURES	KEY PLAYERS
Package of Measures: Choice/Marking of Tyres		
○●○○	Creating awareness of the importance of correct tyre choice	Clubs
○●○○	Lobbying for the introduction of a unified, EU-wide, meaningful marking system for winter tyres and stricter limits for car tyre wet grip	Clubs

3.16.10 Passenger Safety and Pedestrian-Friendly Vehicle Fronts

Vehicle models are sold with different **safety equipment** in different countries of the EU. The equipment standard of the vehicle fleet differs greatly in the individual Member States.

Some cars still offer insufficient protection in the event of collisions with vulnerable road users.

START	MEASURES	KEY PLAYERS
Package of Measures: Occupant Safety		
○●○○	EU-wide common standards for safety equipment (airbags, ESC, SBR, impact reducing headrests, etc.)	bmvit, Clubs
●○○○	Safe seat systems in all new cars	Clubs
○●○○	Pedestrian and Cyclist Safety Lobbying for an EU-wide raising of safety levels for pedestrians and cyclists in the event of a collision with a vehicle (“pedestrian-friendly car fronts”)	bmvit, Clubs



Field of Action

Databases and Accident Data Collection

17

→ Efficient road safety management can only be achieved if the **necessary core data** is available for analysis and evaluation. That is why an **integrated accident analysis system** is being created in Austria and links established between accident, traffic and road data. The **accident data collection system** will also be revised as part of a bmvti and BM.I accident data management project. Furthermore, an international state-of-the-art approach to the **interdisciplinary in-depth investigation** of serious accidents will also be introduced and applied.

→ The practice of not testing the alcohol level of **fatally injured and unconscious accident victims**, which is not used virtually anywhere else in the EU, will be reassessed.

→ Regular **mobility studies** will be conducted in future to identify the mix of transport modes on Austria's roads, as well as typical journey lengths and purposes.

→ The continual collection of **safety performance indicators** – e.g. speed levels and the wearing of seat belts – will be institutionalised and an **accident prediction model** developed for the entire road network to serve as the basis for the prioritisation of road treatment or upgrade measures.

3.17.1 Databases

Integrated road safety management requires an integrated accident analysis system, i.e. the linking of accident, traffic and road data. In Austria, these types of data are currently only available in “distributed” form. The Road Safety Programme 2011 – 2020 will therefore establish a common standard for an **integrated roads database** for Austria. This should include the following (and other) information:

- **register of traffic signs** incl. speed limit signs. This can also be used as an assessment tool in the general debate on “the right amount” of traffic signs and in the regular monitoring of traffic signs required under the provisions of the Road Traffic Act (StVO)
- **road markings**
- **roadside restraints and other safety infrastructure**
- **design parameters** (longitudinal and lateral gradients, horizontal and vertical alignment)
- **cross-section design**
- **grip and ruts**
- **annual average daily traffic**

The common ge positioning system required for this database will be developed in the **Graph Integration Platform (GIP)** project.

→ see also
*Field of Action
“Vehicle Safety
and Equip-
ment”, 3.16.6*

Official accident statistics only reflect a part of the accident situation on public roads, a fact that is particularly evident in the number of accidents recorded involving pedestrians and cyclists. The integration of data from the health care sector, e.g. hospital discharge data, or from the European Injury Database (IDB)¹⁵ can provide valuable indications of the actual extent of the problem and information on injury patterns for different types of collisions.

The evaluation of applicable international injury severity indices, e.g. AIS (Abbreviated Injury Scale), and the derivation of an Index for Austria would deliver additional valuable indications of the trends in injury and disability patterns over time, particularly since virtually no information is currently available on the evident shift from fatalities to seriously/severely injured car occupants in Austria.

START	MEASURES	KEY PLAYERS
Package of Measures: Road (Safety) Databases		
○●○○	Creation of an integrated accident, traffic and roads database for Austria	bmvit, BL, G, ASFiNAG
○○●○	Integration of hospital and traffic accident data	bmvit
○○●○	Evaluation of existing injury severity indices and derivation of an index for Austria	bmvit

¹⁵ <http://www.kfv.at/department-home-leisure-sports/european-injury-database/>

3.17.2 Accident Investigation

The number of accidents and fatalities resulting from drink driving is dramatically underestimated in Austria, primarily as a result of the practice of not testing the alcohol levels of fatally injured and unconscious accident victims and the fact that information regarding the alcohol levels of these persons cannot be included in the accident records. In-depth studies in Austria and comparable figures for other countries indicate that the number of fatalities from drink driving accidents is **four to five times higher than the official figure** and could account for up to one **third of all fatalities**. Consequently, the Road Safety Programme will take steps to ensure that all drink driving accidents are indeed recorded as such.

The **collection** of the official **accident statistics** by the police is still carried out in Austria without a statutory basis. A corresponding legal basis will therefore be established to provide quality assurance and continuity in data collection procedures and public accessibility to the data.

The legislative framework for access to data from Event Data Recorders will be examined, with particular emphasis also placed on adherence to data protection guidelines and provisions.

START	MEASURES	KEY PLAYERS
○●○○	Drink driving accidents; increase in research into the causes of such accidents and assessment of the use of BAC tests for fatally injured and unconscious accident victims	bmvit
○○●○	Examination of the legal framework and requirements for the use of Event Data Recorders	bmvit

3.17.3 In-depth Accident Investigation

In many EU countries, it is standard practice that on-site, in-depth investigations into fatal road accidents are carried out by interdisciplinary teams of experts. These investigations deliver important insights for research into accident causes, especially for road planners, legislators, vehicle manufacturers and the healthcare sector. In Austria, in-depth investigations of this kind are currently only carried out in isolated cases, and research can only draw on the information in police or court records.

The accident data collection procedures used in several EU Member States could serve as models for in-depth accident investigations in Austria. Finland has the longest experience of such procedures and has carried out in-depth on-site investigation of all fatal road accidents in the country since the 1970s. The ROSAT Report¹⁶ also provides valuable information on experiences in other European countries.

START	MEASURES	KEY PLAYERS
○○○●	In-depth accident investigations Interdisciplinary in-depth investigations of fatal road accidents for research into the causes of accidents	bmvit

3.17.4 Accident Data Collection

As part of an accident data management project, the bmvit and the BM.I will work together to develop technical solutions for electronic accident data collection. The use of GPS technology will further facilitate the collection of accident data and largely prevent any errors in the recording of coordinates.

START	MEASURES	KEY PLAYERS
●○○○	Electronic accident data collection (implementation of the results of the accident data management project)	bmvit, BM.I
○○●○	GPS-based localisation of accident sites by the police	bmvit, BM.I

¹⁶ ROAD ACCIDENT INVESTIGATION IN THE EUROPEAN UNION. REVIEW AND RECOMMENDATIONS. 2006, http://ec.europa.eu/transport/road_safety/projects/doc/rosat.pdf

3.17.5 Mobility Surveys

To date, no regular, nationwide mobility surveys have been carried out that could provide details of the modal split and its development. This situation means that an important parameter is missing in the interpretation of accident data and the effects of road safety measures.

START	MEASURES	KEY PLAYERS
●○○○	Introduction of regular mobility surveys across the whole of Austria (“exposure data”) following the example set in several EU countries: identification of the modal split and mobility/exposure data also for non-motorised modes of transport (pedestrians and cyclists) to establish comparisons with the use of cars	bmvit

3.17.6 Safety Performance Indicators

Current road safety programmes in many European countries are now focussing increasingly on the institutionalised collection and targeted monitoring of **road safety performance indicators**. In Sweden, for example, a group of 13 indicators (e.g. speed behaviour, drink driving rates in regular traffic, wearing of seat belts and crash helmets, vehicle safety levels (EuroNCAP), road safety levels (e.g. percentage of median barriers), efficiency of emergency services, proportion of motorists suffering from fatigue, attitude to road safety) will be used in future alongside accident statistics to determine the impact of the country’s road safety strategy.

START	MEASURES	KEY PLAYERS
○●○○	<p>Use of safety performance indicators</p> <p>Definition and regular collection of indicators of the cause of accidents and injuries; institutionalisation of the collection of such indicators, including:</p> <ul style="list-style-type: none"> – Speed levels – Use of seat belts, child restraints – Drink driving rates – Use of mobile telephones while driving <p>As soon as they are available and measurable, further safety related indicators, like drug use and fatigue rates, should also be collected.</p>	bmvit



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