

Austrian Road Safety Programme 2011 – 2020



2nd Edition
2016

Austrian Road Safety Programme 2011 – 2020

Legal Notice

Proprietor and publisher:

bmvit – Federal Ministry for Transport, Innovation
and Technology
Radetzkystraße 2, 1030 Vienna

Content:

bmvit – Dept. IV/IVVS2 "Technology & Road Safety"
in cooperation with the members of the Austrian Road
Safety Advisory Council's Roads Task Force and with
special support from the Austrian Road Safety Board
(KFV) and Austrian Mobility Research (FGM-AMOR)

Graphic Design:

FGM-AMOR

Photos:

Cover: FGM-AMOR (7), iStock (3), ÖBB (1), Schiffer (1)
Foreword: Johannes Zinner

Print:

Medienfabrik Graz"

2nd edition:
2016

Financed through the Austrian Road Safety Fund at the Federal
Ministry for Transport, Innovation and Technology.

This work and all parts of this work are subject to copyright.
Any use other than for purposes permitted by copyright law
requires the express prior consent of the copyright holder..



Contents

Foreword	5
----------------	---

1	ROAD SAFETY TRENDS IN AUSTRIA: INTERIM REPORT 2016	6
1.1	Review	8
1.2	Analysis of Accident Statistics: Interim Report 2015	11

2	INTEGRATED ROAD SAFETY MANAGEMENT 2011 – 2020	18
2.1	Strategic Focus & Targets	20
2.2	Strategic Guiding Principles	24
2.3	Organisation, Implementation & Quality Assurance	32

3	CATALOGUE OF MEASURES	38
	17 Fields of Action at a Glance	39
	Detailed List of Measures	40
	Legend	42
	Potential in Selected Areas of Intervention	44

**Austrian
Road Safety Programme
2011 – 2020**

Foreword

Towards zero fatalities on our roads



We have set ourselves a clear objective in traffic policy: zero fatalities on Austria's roads. For decades, the number of people killed on the roads in our country has been decreasing. Last year, however, we recorded a rise in traffic fatalities for the first time again. Moreover, the interim targets to reduce the number of fatalities, injured road users and injury accidents were narrowly missed. As a result, the Road Safety Programme has been evaluated and updated.

In addition to immediate measures that will quickly improve the safety of all road users, we have also embarked on a number of new projects that will have a long-term impact. We plan to achieve our interim targets in just a few years: the goal is to halve the number of traffic fatalities by 2020, and also to reduce the number of seriously injured road users by 40 % and the number of injury accidents by 20 %. Our aim is to make Austria one of the five safest countries in Europe in terms of road safety.

To this end, a two-pronged approach is needed: firstly, an effective combination of awareness raising measures in conjunction with the implementation and monitoring of relevant legislation, and secondly, good cooperation between all organisations involved in improving traffic safety on our roads. These organisations include the Federal Ministry for Transport, Innovation and Technology (bmvi), federal states and municipalities, science and research, special interest groups and automobile clubs, all emergency services and, last but not least, the road users themselves.

I would therefore like to take this opportunity to thank all those involved in implementing the Road Safety Programme on our roads, helping everyone to enjoy safe and accident-free travel.



Jörg Leichtfried

Federal Minister for Transport, Innovation and Technology

1

Road Safety Trends in Austria: Interim Report 2015

Austrian
Road Safety Programme
2011 – 2020

bm 

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, the 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.

This 2nd edition of the Austrian Road Safety Programme (2011 – 2020) has been updated based on the results of a comprehensive interim evaluation conducted in 2015 and adapted in line with the latest trends in road transport and traffic accident statistics.

CONTENT CHAPTER 1

1.1	REVIEW	P. 8
1.2	ANALYSIS OF ACCIDENT STATISTICS: INTERIM REPORT 2015	P. 11

1.1

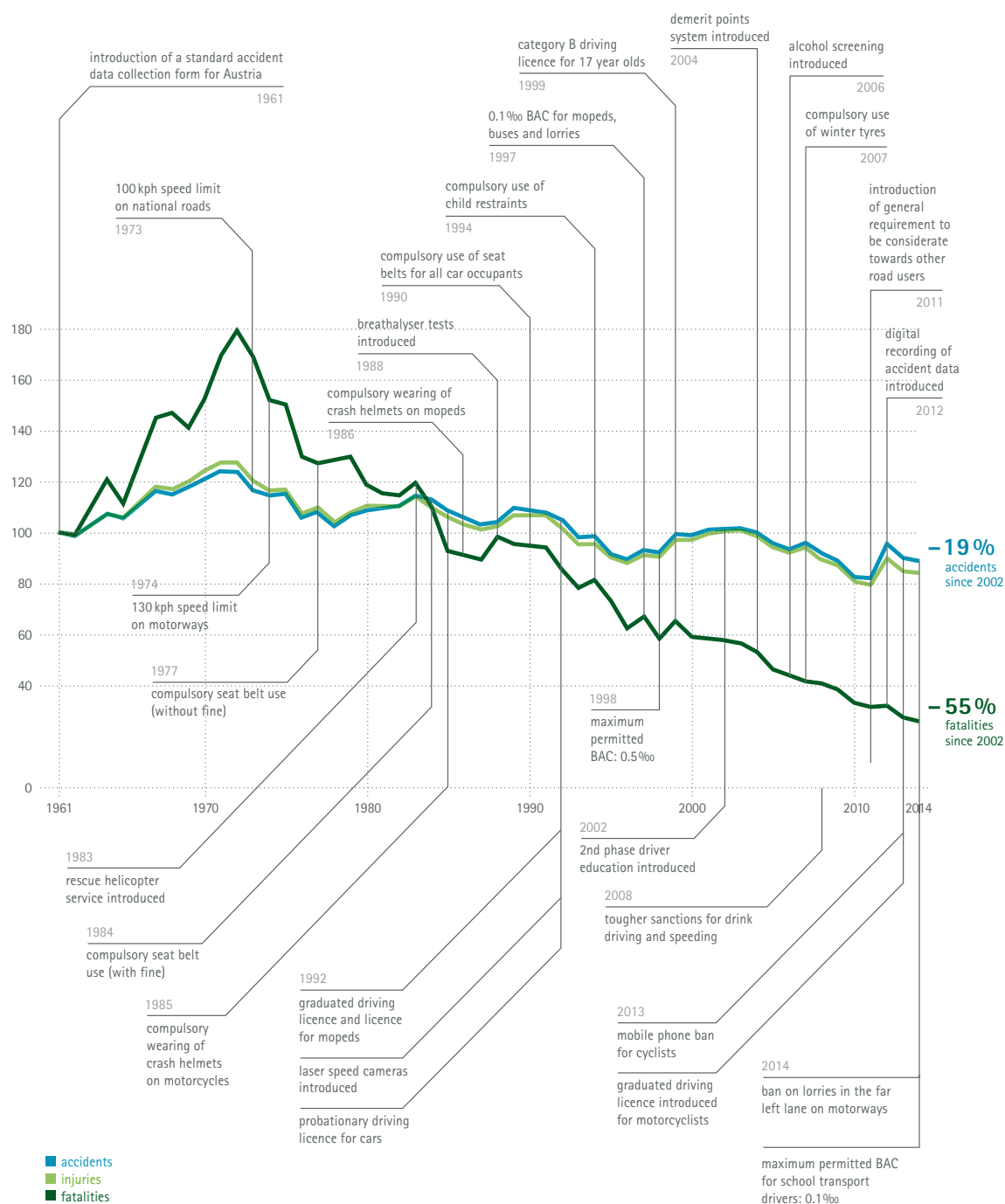
Review

➔ 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 from 1961



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 figures for 2009 lying at around 38,000 (28 % since 1972) and 49,000 (–32 % since 1972) respectively. Around 55 % of injured road users were male.

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

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, although the number of people who suffer a potentially permanent disability has not decreased.¹

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/DE/Projekte/abgeschlossen-vor-2010/fp-abgeschlossen-f2.html>

1.2

Analysis of Accident Statistics: Interim Report

The analysis of accident statistics and their corresponding trends remains one of the central elements in the development of this 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. The change in accident data recording (ADM – Accident Data Management; see Package of Measures 3.17.4, p. 128) from 2012 must be taken into account in all analyses. In general, it should be noted that accident and injury data prior to 2012 cannot be directly compared with accident and injury data after 2012. Although the Austrian Road Safety Programme has been implemented since 2011, 2009 is used below as the reference or comparison year for the number of fatalities for reasons of data continuity, since the data from 2009 formed the basis for the development of measures in the 1st edition of the Austrian Road Safety Programme (2011 – 2020).

CONTENT CHAPTER 1.2

➔ AUSTRIA IN INTERNATIONAL COMPARISON	P. 12
➔ ACCIDENTS BY TYPE OF ROAD USE	P. 13
➔ ACCIDENTS BY TYPE OF ACCIDENT	P. 13
➔ GENDER SPECIFIC ACCIDENT STATISTICS	P. 14
➔ MAIN CAUSES OF ACCIDENTS	P. 14
➔ ACCIDENTS BY URBAN AREA, RURAL AREA AND ROAD CATEGORY	P. 15
➔ FATALITIES BY AGE GROUP	P. 16
➔ FATALITIES BY FEDERAL STATE	P. 16
➔ SOCIO-ECONOMIC ACCIDENT COSTS	P. 17

Source (unless otherwise indicated): STATISTICS AUSTRIA



Austria in International Comparison

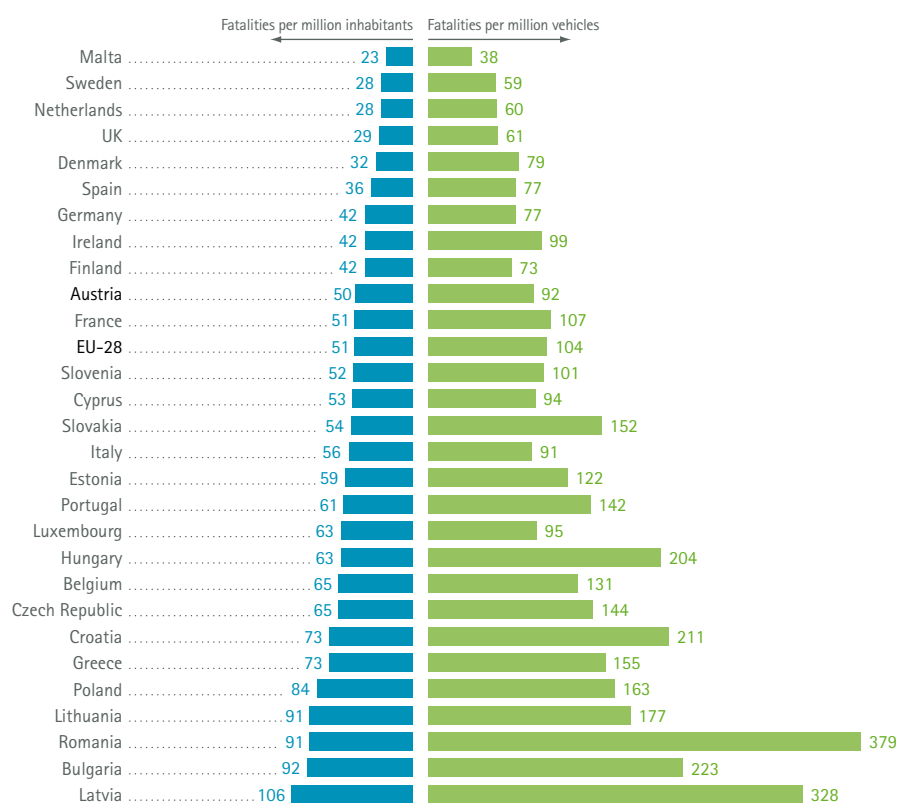
In a comparison of fundamental accident parameters across all 28 EU countries, figures for Austria have improved since 2009 and, with 50 road traffic fatalities per million inhabitants in 2014, Austria was below the EU average of 51 – putting it in 10th place in the EU-28 ranking. In terms of fatalities per 10 billion passenger kilometres, Austria is just above the EU-28 average of 53 with 55 fatalities. With 92 fatalities¹ per 1 million vehicles, Austria is below the EU average of 104 and thus once again in 10th place within the EU. At pan-European level, the difference between Austria and Switzerland, where the landscape, vehicle fleet and road network are, to all intents and purposes, comparable, is particularly striking. 29 fatalities per 1 million inhabitants were recorded in Switzerland in 2014 – 42 % less than in Austria.²

¹ EU transport in figures. Statistical Pocketbook 2016

² Statistical Atlas of Switzerland 2014:

https://www.atlas.bfs.admin.ch/maps/13/de/10967_72_71_70/18223.html

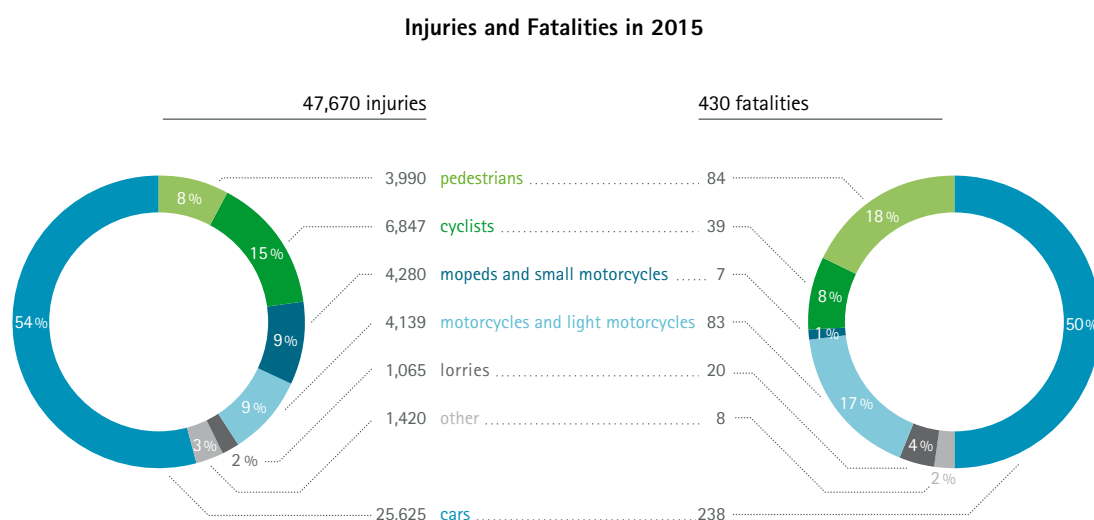
**Fatalities per million inhabitants and
per million vehicles in European countries**



Source: EU transport in figures. Statistical Pocketbook 2016 (data for 2014)

→ Accidents by Type of Road Use

With 54 % of injuries and 50 % 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 2009. In 2015, a further 18 % of the fatalities on Austrian roads were pedestrians, 17 % were motorcyclists and 8 % were cyclists. After car occupants, cyclists account for the highest percentage of injured road users (14 %), followed by riders of mopeds (including small motorcycles) and motorcycles (including light motorcycles) at 9 % each.



→ Accidents by Type of Accident

Given their high average severity, single vehicle accidents account for 35 % of all fatalities, followed by head-on collisions (26 %) and accidents involving pedestrians (18 %). On average, there are 1.6 fatalities for every 100 single vehicle accidents. The corresponding figures for head-on collisions and pedestrian accidents lie at 4.9 and 2.0 respectively. Since 2009, the number of single vehicle accident fatalities has dropped by 74, while the number of fatalities in head-on collisions has fallen by 23.



Gender Specific Accident Statistics

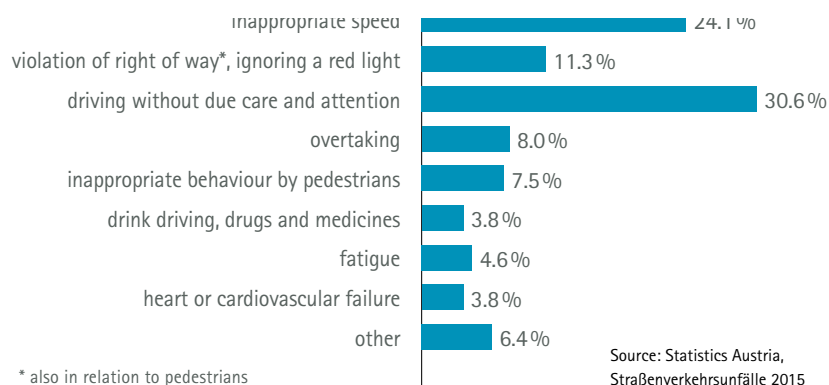
While male (active and passive) road users account for 55 % of all injuries, the percentage of males among fatalities lies at 72 %. Men are significantly more frequently involved in serious accidents: 74 % of drivers in fatal car accidents in 2015 were men; this figure was even higher for the 25-34 age group, where men account for up to 84 % 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 56 % for both built-up and rural areas, the percentage of male fatalities in rural areas 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 76 car occupants killed in road accidents in 2015 who were not wearing seat belts, over three quarters were men.



Main Causes of Accidents

On 1 January 2012, Austria switched over to electronic accident data recording as part of the ADM (Accident Data Management) project. The main causes of accidents are recorded electronically and decentrally by police officers at the scene and forwarded to Statistics Austria by the Federal Ministry of the Interior (BM.I). Driving at an inappropriate speed has always been an important main cause of accidents. In addition, driving without due care and attention has gained considerable importance as a main cause of accidents as a result of the changeover to electronic accident data recording in 2012 and the associated expansion of the list of characteristics when an accident is recorded (for more details, see Package of Measures 3.17.4, p. 128)³.

Probable Main Causes of Fatal Road Accidents in 2015



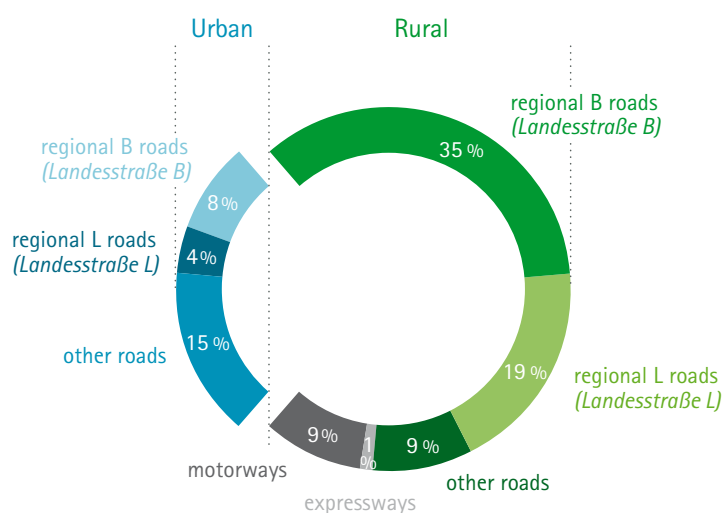
3 http://www.bmi.gv.at/cms/BMI_Verkehr/jahresstatistik/start.aspx

→ Accidents by Urban Area, Rural Area and Road Category

Almost two thirds (64 %) 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. Slightly more than one third of these occur on regional B roads (Landesstraße B) and a further 19 % on regional L roads (Landesstraße L). Accidents on motorways and expressways account for 10 %.

The number of fatalities on rural roads has decreased by 24 % since 2009, while a reduction of approximately 26 % was recorded on urban roads. The reduction in the number of fatalities on rural roads was largely achieved in accidents involving cars and mopeds. There were 90 fewer car accident fatalities (a 31 % decrease), while the number of fatalities involving mopeds dropped by 71 % from 17 to 5 fatalities.

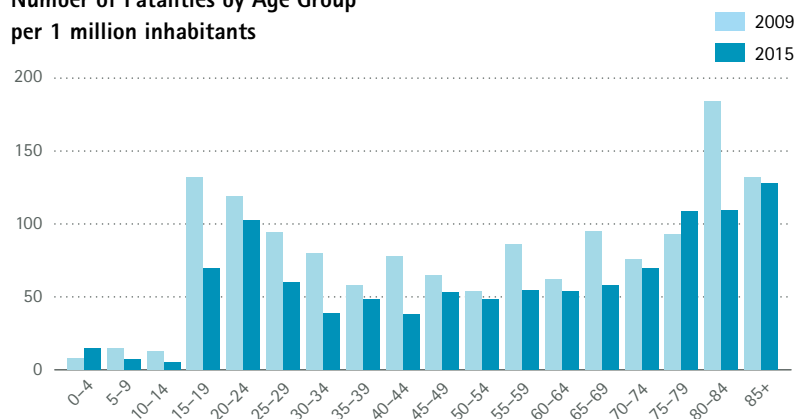
Fatalities by Road Category in 2015



→ Fatalities by Age Group

The mortality rate (fatalities per million inhabitants) shows significant improvements in particular among young road users in the 10–19 age group and among 80 to 84 year olds. There are also remarkable reductions in the 30–34 and 40–44 age groups. It is important to note that the fatality rate for older age groups (particularly the over 80s) exceeds that of young road users.

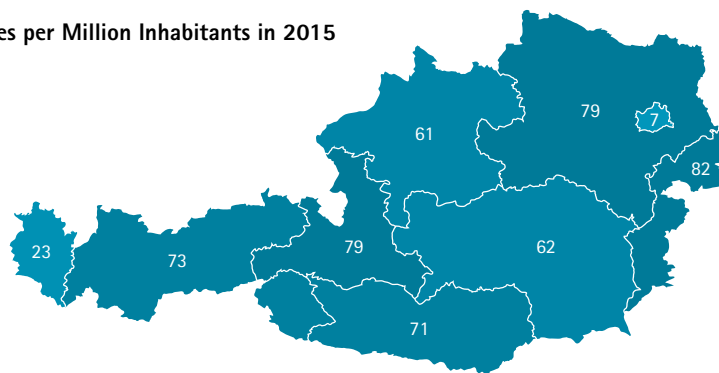
**Number of Fatalities by Age Group
per 1 million inhabitants**



→ Fatalities by Federal State

The number of fatalities has decreased in almost all federal states since 2009. With 82 road fatalities per 1 million inhabitants, the risk of being killed on Austria's roads is highest in Burgenland. In a comparison of all federal states the risk is lowest in Vienna, where there are 7 fatalities per million inhabitants. The highest reductions in the number of fatalities per million inhabitants since 2009 have been achieved primarily in Vorarlberg (70%) and Vienna (63%). Overall, the total figure for Austria in 2015 was 55 fatalities per million inhabitants.

Fatalities per Million Inhabitants in 2015





Socio-Economic Accident Costs

In a project⁴ financed by the Austrian Road Safety Fund, the costs resulting from road accidents in Austria were recalculated in 2012, based on the accident figures for 2011. The equivalent costs of human suffering were also included. 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. The costs of human suffering make up almost half of accident costs (47 %), while the most important other costs are material damages (25 %), loss of achievement potential (15 %), insurance administration costs (8 %) and legal costs (2 %). Medical treatment accounts for only 1 % of the total costs. Consequently, the costs of all injury accidents in Austria amounted to 6.7 billion euros in 2011. In 2008, the costs amounted to 7.2 billion euros.

AVERAGE ACCIDENT COSTS PER COST UNIT OR TYPE OF LOSS IN 2011		
Accident Costs in EUR	2011 prices (excl. human suffering)	2011 prices (incl. human suffering)
Fatalities	1,401,085	3,016,194
Severe injuries (SI)	80,166	381,480
Minor injuries (MI)	3,716	26,894
Material damages (per accident)	5,245	5,245

COSTS OF INJURY ACCIDENTS IN 2011 IN ECONOMIC TERMS (INCL. COSTS OF HUMAN SUFFERING)			
	Number	Average costs per accident	Accident costs 2011
Fatalities	523	3,016,194	1,577,469,462
SI (incl. 90 % of HI)	10,502	381,480	4,006,302,960
MI (incl. 10 % of HI)	34,522	26,894	928,434,668
Material damages (per IA)	53,129	5,245	184,251,605
			6,696,458,695

SI: severe injuries; MI: minor injuries; HI: hidden injuries; IA: injury accidents

⁴ Herry, M. et al 2012: Unfallkostenrechnung Straße 2012. Forschungsarbeiten des österreichischen Verkehrssicherheitsfonds, Band 016. bmvt 2012

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 % until 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.

CONTENT CHAPTER 2

2.1	STRATEGIC FOCUS & TARGETS	P. 20
2.2	STRATEGIC GUIDING PRINCIPLES	P. 24
2.3	ORGANISATION, IMPLEMENTATION & QUALITY ASSURANCE	P. 32

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 lives and preventing 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.

¹ ETSC, based in Brussels

50% fewer traffic fatalities by 2020

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

*Interim
target: 25%
fewer by
2015*

-23%
achieved by
31.12.2015

According to provisional figures released by the Federal Ministry of the Interior (BM.I), the number of fatalities on Austria's roads increased by 10.5% from 2014 to 2015. With 479 fatalities recorded, the interim target for 2015 of 466 traffic fatalities was thus narrowly missed.²

40% fewer serious injuries by 2020

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

*Interim
target: 20%
fewer by
2015*

-16%³
achieved by
31.12.2015

The number of serious injuries on Austria's roads only dropped by around 20% in the period from 2002 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*

-7%³
achieved by
31.12.2015

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.

² Source: Federal Ministry of the Interior (BM.I)

³ In order to enable a statistical comparison of accident figures before and after 2012 despite the change in accident data recording (see Package of Measures 3.17.4, p. 128), data on accidents and serious injuries prior to 2012 was adjusted by a factor of 1.085 or 1.213 respectively.

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.

CONTENT CHAPTER 2.2

- ➔ ROAD SAFETY MANAGEMENT IN CITIES AND MUNICIPALITIES P. 25
- ➔ STRENGTHENING INDIVIDUAL RESPONSIBILITY P. 25
- ➔ ROAD SAFETY AND MOBILITY EDUCATION P. 26
- ➔ ROAD HIERARCHY P. 26
- ➔ SELF-EXPLAINING ROADS AND FORGIVING ROADSIDES P. 27
- ➔ ACCESSIBILITY – SAFE AND ATTRACTIVE PEDESTRIAN FACILITIES P. 28
- ➔ MOBILITY AND INTERMODALITY P. 29
- ➔ 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 of 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 to promote safety in the community; see, for example, the "Road Safety Guidelines for Cities and Municipalities" (2nd edition 2006)⁴ 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 Mobility⁵ 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

⁴ <https://www.staedtebund.gv.at/services/publikationen/studien-im-auftrag-des-oesterreichischen-staedtebundes.html>

⁵ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009DC0490&from=EN>



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 on 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-Safety⁶ project)

⁶ <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 and 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 to 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 ISO 39001 standard is 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 Charter⁷ 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 bmvi will continue to encourage organisations in Austria to sign this charter.

European Commission Road Safety Charter

The European Commission (DG MOVE) supports the PRAISE⁸ project run by the ETSC⁹, 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

⁷ <http://www.erscharter.eu>

⁸ <http://etsc.eu/projects/praise>

⁹ 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. *Road safety concepts*

Many preliminary 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.

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.

CONTENT CHAPTER 2.3

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

→ Institutional Framework

Primary responsibility for road safety in Austria lies with the Federal Ministry for Transport, Innovation and Technology (bmvi). However, since road safety activities can only be successfully realised through intensive cooperation at all levels, the bmvi 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 (bmvi)*

The Road Safety Advisory Council established at the bmvi serves as the institutional platform for the co-operation 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. 25 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.

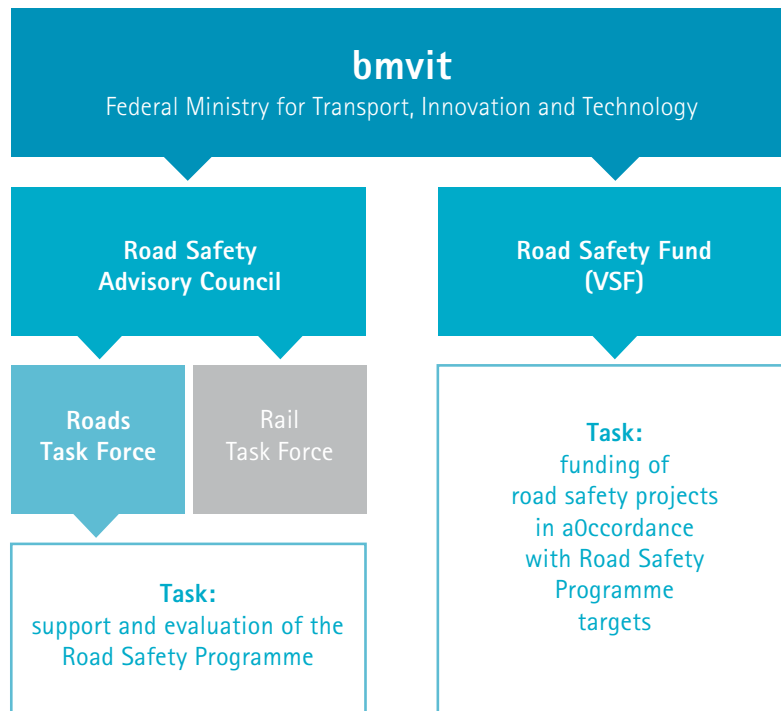
*Road Safety Advisory
Council*

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 the bmvi, 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 accident statistics, behaviour parameters and safety indicators every year. 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 the 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 federal state, 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 ROSEBUD¹⁰ project. This method will now form the basis for the prioritisation of measures by the Roads Task Force. The use of this method will also be extended to local authority decision makers.

Cost-Benefit Analyses

¹⁰ https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/projects/rosebud.pdf

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.

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 bmvi campaigns will be evaluated and coordinated with the enforcement activities carried out by the Federal Ministry of the Interior (BM.I) and the regional authorities.

Public Relations

3

Catalogue of Measures

Austrian
Road Safety Programme
2011–2020

bm 



Fields of Action & Measures

17 Fields of Action at a Glance

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

3.1	ROAD SAFETY EDUCATION AND CAMPAIGNS	P. 46
3.2	DRIVER TRAINING	P. 50
3.3	ENFORCEMENT	P. 56
3.4	CHILDREN	P. 67
3.5	YOUNG ROAD USERS	P. 71
3.6	ELDERLY ROAD USERS	P. 74
3.7	PEDESTRIANS	P. 77
3.8	BICYCLES	P. 80
3.9	MOTORCYCLES	P. 84
3.10	MOPEDS	P. 88
3.11	LORRIES	P. 91
3.12	LEVEL CROSSINGS	P. 96
3.13	POST ACCIDENT CARE	P. 99
3.14	REHABILITATION AND DIAGNOSTICS	P.104
3.15	INFRASTRUCTURE AND ROADSIDE TELEMATICS	P.106
3.16	VEHICLE SAFETY AND EQUIPMENT	P.117
3.17	DATABASES AND ACCIDENT DATA COLLECTION	P.125

SOURCES

A number of measures within the fields of action have been derived 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: https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/projects/rosebud.pdf
- SUPREME Best Practices in Road Safety. Handbook for Measures at the Country Level. Final Report Part C. June 2007: https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/projects/supreme.pdf



Fields of Action & Measures

Detailed List of Measures

Legend	42	3.4	Children	67
Potential in Selected Areas of Intervention	44	3.4.1	Safe Way to School	68
3.1 Road Safety Education and Campaigns	46	3.4.2	Cycling Proficiency	69
3.1.1 Road Safety Education in Schools and Preschools	47	3.4.3	Child Restraints	69
3.1.2 Lifelong Learning	48	3.4.4	Conspicuity	70
3.1.3 Awareness Raising and Campaigns	49	3.5	Young Road Users	71
3.2 Driver Training	50	3.5.1	Safe Way Home	72
3.2.1 General Driver Training	51	3.5.2	New Approaches	72
3.2.2 Driving Practice and Simulation	51	3.5.3	Extracurricular Youth Programmes	73
3.2.3 Driving Tests	53	3.6	Elderly Road Users	74
3.2.4 2nd Phase Driver Education	54	3.6.1	Conspicuity	75
3.2.5 Moped Training	55	3.6.2	Raising Awareness of Cognitive and Physiological Limitations	75
3.3 Enforcement	56	3.7	Pedestrians	77
3.3.1 Fines	57	3.7.1	Legislative Changes	78
3.3.2 High-Risk Drivers	59	3.7.2	Pedestrian Crossings	78
3.3.3 Enforcement Technology, Coordination of Controls	60	3.7.3	Conspicuity	79
3.3.4 Seat Belts	61	3.8	Bicycles	80
3.3.5 Drink Driving	62	3.8.1	Cycle Helmets	81
3.3.6 Drugs, Medicines	63	3.8.2	Conspicuity	81
3.3.7 Speed	64	3.8.3	Elderly Cyclists	82
3.3.8 Following Distance	64	3.8.4	Legislative Changes	82
3.3.9 Mobile Telephones	64	3.8.5	Cycling Infrastructure	83
3.3.10 Fatigue	65			
3.3.11 Lights	66			

3.9	Motorcycles	84	3.15	Infrastructure and Roadside Telematics	106
3.9.1	Treatment of Accident-Prone Road Sections	85	3.15.1	Infrastructure Safety Management	107
3.9.2	Passive Safety Devices	85	3.15.2	High Accident Concentration Sections	108
3.9.3	Protective Clothing	86	3.15.3	Speed	110
3.9.4	Education and Training	87	3.15.4	Collisions with Trees	111
3.9.5	Raising Awareness	87	3.15.5	Collisions with Wildlife	112
3.10	Mopeds	88	3.15.6	Junctions	112
3.10.1	Training and Workshops	89	3.15.7	Road Markings	113
3.10.2	Tuning	89	3.15.8	Road Surface Conditions	114
3.10.3	Helmets	90	3.15.9	Safety in Tunnels	114
3.11	Lorries	91	3.15.10	Roadworks	115
3.11.1	Policies, Guidelines and Controls	92	3.15.11	Wrong Way Drivers	115
3.11.2	Public Relations	93	3.15.12	Transport Telematics	116
3.11.3	Vehicle Fittings, Technical Retrofitting	93	3.16	Vehicle Safety and Equipment	117
3.11.4	"Vans" and Longer and Heavier Goods Vehicles ("GigaLiners")	95	3.16.1	eCall	118
3.12	Level Crossings	96	3.16.2	Accident Data Recorders	118
3.12.1	Accident Analysis, Treatment and Securing	97	3.16.3	Automatic Control Systems	119
3.12.2	Raising Awareness	98	3.16.4	Auxiliary Equipment, Vehicle Lights	120
3.13	Post-Accident Care	99	3.16.5	Securing Cargo	121
3.13.1	eCall	100	3.16.6	Advanced Driver Assistance Systems	122
3.13.2	Roads with High Traffic Loads: Emergency Services Access – Clearing of Accident Sites	100	3.16.7	"Vans" (Transporters)	123
3.13.3	Emergency Services: Response Times	101	3.16.8	Electric Vehicles	123
3.13.4	Nationwide Level of Quality in Emergency Services	102	3.16.9	Tyres	124
3.13.5	Rescue from Vehicles	103	3.16.10	Passenger Safety and Pedestrian-Friendly Vehicle Fronts	124
3.13.6	First Aid	103	3.17	Databases and Accident Data Collection	125
3.14	Rehabilitation and Diagnostics	104	3.17.1	Databases	126
3.14.1	Drink Driving	105	3.17.2	Accident Investigation	127
3.14.2	Efficiency Analysis	105	3.17.3	In-depth Accident Investigation	128
			3.17.4	Accident Data Recording	128
			3.17.5	Mobility Surveys	129
			3.17.6	Safety Performance Indicators	130



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)
AUVA	General Accident Insurance Institution
BH	District Authorities
BL	Federal States
BMB	Federal Ministry of Education
BMGF	Federal Ministry of Health and Women's Affairs
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
bmvit	Federal Ministry for Transport, Innovation and Technology
BMFJ	Federal Ministry of Families and Youth
Clubs	Automobile and Mobility Clubs
FS	Driving Schools
FSV	Austrian Association for Research on Road – Rail –Transport
G	Municipalities
VO	Road Safety Organisations
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: SCHEDULE FOR BEGINNING OF IMPLEMENTATION OF MEASURES

●○○○	Start package	2011
○●○○	Short term	2012 – 2014
○○●○	Medium term	2015 – 2017
○○○●	Long term	2018 – 2020

STATUS

	Measure completed
	Ongoing measure
	Measure to be implemented between 2016 and 2020

→ 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	Drink driving related accidents account for one third of annual traffic fatalities in Austria (according to European Commission estimations)	3.3.2 p. 59 3.3.5 p. 62 3.3.6 p. 63 3.11.3 p. 93 3.14.1 p. 105 3.16.3 p. 119 3.17.6 p. 130
Specific road user groups	Share of fatalities (average figures for 2010 – 2014): 2.0 % children 19.3 % young drivers 28.1 % elderly road users 16.8 % pedestrians 8.9 % cyclists 3.3 % moped riders	3.4 p. 67 3.5 p. 71 3.6 p. 74 3.7 p. 77 3.8 p. 80 3.10 p. 88 3.16.6 p. 122
Seat belts	66 fatalities per year among car occupants not wearing seat belts (average figure for 2013 – 2014) over three quarters are men	3.1.3 p. 49 3.3.4 p. 61 3.16.3 p. 119

AREA OF INTERVENTION	STATUS / POTENTIAL	→ SEE MEASURES
Motorcycle accidents	Currently account for 15 % of all fatalities (average figure for 2010 – 2014)	3.9 p. 84
High accident concentration sections and integrated road network safety management	Approximately 20 % of fatalities per year	3.15.1 p. 107 3.15.2 p. 108
Accidents on level crossings	10 – 20 fatalities per year on level crossings	3.12 p. 96
Fatigue and lack of due care and attention	3.2 % of all fatal accidents caused by fatigue 31.5 % of all fatal accidents caused by lack of due care and attention	3.3.10 p. 65 3.11.1 p. 92
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. 64 3.15.3 p. 110
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 Number of people wearing seat belts increased by an average of 13 %	3.3.4 p. 61 3.3.5 p. 62 3.3.7 p. 64
Driver education	Around 6 young drivers (18 – 19 year olds) killed each year	3.2 p. 50



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 traditional road safety education – safety and social etiquette – will be enhanced to promote 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.

→ A **basic knowledge of traffic psychology** leads to an improved understanding of the actions of road users in traffic. Consequently, this knowledge should be an important part of lifelong road safety education.

→ **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. Increased use should also be made of modern awareness raising channels, such as social media and apps, to communicate the message of road safety campaigns.

3.1.1 Road Safety Education in Schools and Preschools



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 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.

There should be a focus on road safety education in grades 5 and above, which should also include moped and bike safety.

Road safety education should be included in teacher training and intensified in further education programmes for teachers, with the programme content incorporating traffic psychology aspects.

Package of Measures: Road Safety Education in Schools and Preschools

START	STATUS	MEASURES	KEY PLAYERS
●○○○		Expansion of the existing and newly developed road safety education programme for schoolchildren in grades 5 and above, with a focus on moped riding in grades 8 and above	BMB, VO
○●○○	★	Inclusion of road safety education in teacher training programmes	BMB, AUVA, VO
○●○○	★	Broadening of the road safety training elements in further education programmes for teachers	BMB, AUVA, VO
○●○○	★	Social learning Development of a programme that equips young people with the necessary social competences and practical experience in road use	bmvit, BMB, VO
○●○○		Development and integration of new competences in everyday school activities (e.g. mobility competences, risk competences)	bmvit, BMB, VO
○●○○	★	Expansion of the existing programmes and new road safety education programmes to be developed for preschool children	bmvit, BMB, VO

1 http://www.enetosh.net/webcom/show_article.php/_c-71/_nr-25/_p-1/i.html




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 that focus solely on children and adolescents have become inadequate.

"Lifelong learning" involves all age groups, not just the elderly, and is also relevant to parents or legal guardians and people with reduced mobility.

Training concepts and courses on safe cycling and walking, the use of public transport and new forms of mobility (such as electric bicycles) are becoming increasingly important in this context.

Package of Measures: Lifelong Learning

START	STATUS	MEASURES	KEY PLAYERS
○○●○		Principle of "lifelong learning" – development of information and training programmes to ensure lifelong learning in an aging population	bmvit, BMLVS, FS, Clubs, AUVA, VO
○○●○		Initial qualification and further training for road safety policy multipliers, especially in schools, workplaces and local authorities	bmvit, BMFJ, BMLVS, WK, FS, AUVA, VO, G
○○●○		Integration of road safety activities for parents in nurseries	BMB, AUVA, VO

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 bmvi 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 issues of **distraction** at the wheel, inappropriate speed and **civil behaviour** on the road (tailgating, consideration for other road users). Awareness raising campaigns on the use of seat belts, child restraints and the compulsory wearing of cycle helmets 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
- Attitude, behaviour and accident parameters
- Process analysis and assessment of reach/recognition level

Package of Measures: Road Safety Campaigns

START	STATUS	MEASURES	KEY PLAYERS
●○○○		Awareness raising campaigns primarily among the target groups and key problem areas identified from accident statistics, such as distraction, inappropriate speed	bmvi
○●○○		Scientific evaluation of campaigns using the CAST methodology	bmvi
○●○○		Linking of campaigns to enforcement activities → see also Field of Action "Enforcement", 3.3	bmvi, BM.I

² <http://ec.europa.eu>



Field of Action

Driver Training

2

→ The 3rd European Driving Licence Directive has already been implemented successfully. This has initiated the process of reforming driver training and using the opportunity to maximise road safety potential.

→ In addition to the associated revision and thus continuous improvement of learner driver training, efforts to ensure the high quality training of driving instructors, driving safety instructors and driving test examiners will continue. The inclusion of traffic psychology in the training programme will play a key role in this context.


→ The extremely successful principle of 2nd phase driver education is already being developed further.

3.2.1 General Driver Training

The 3rd European Driving Licence Directive was incorporated into Austrian law in 2013. This also represents an important opportunity to improve road safety.

Nationwide standardised driving school inspections using electronic support systems will ensure high quality driving instruction and driving tests.

Package of Measures: Reform of Driver Training

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✓	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, VO
●○○○		Guaranteeing provision of high quality initial training in authorised training facilities and introduction of regular further training for driving instructors, driving safety instructors and driving test examiners	bmvit, BL, VO

3.2.2 Driving Practice and Simulation

Driving theory training often falls 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 "training kilometres" are better equipped in their risk avoidance strategies than "traditional" 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, practising 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. ►

„Driving Practice
and Simulation“:
continued

Nonetheless, learner drivers generally only rarely have the opportunity to drive on motorways, through tunnels, over level crossings, at night, in winter road conditions or in fog. They are also 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.

The Swedish Safety Halls approach (also referred to as "Halls of Consequences") not only trains learner drivers in the correct use of available safety equipment, but 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 experienced. Safety Halls are typically located in the driver training centres where Swedish learner drivers complete part of their training.

**Package of Measures: Increasing and Improving Driving Practice
for Learner Drivers**

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✓	More driving practice for learner drivers Increase in the current numbers of compulsory driving lessons	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, AUVA, VO

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.


Package of Measures: Quality Enhancement in Driving Tests

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✓	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
○○●○	★	Revision of the practical training curriculum, training of driving instructors and driving test manual due to revised questions in the theoretical 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, with 80 fatalities among young drivers (aged 18-24) per million inhabitants in Austria in 2014, the number of fatalities in this age group is far higher than the number of fatalities per million inhabitants across all age groups (51). This therefore places Austria in the middle range³ when it is compared with other countries. 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.

Package of Measures: Enhancement of 2nd Phase Driver Education

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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 and 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 EUROPEAN COMMISSION: EU transport in figures. Statistical Pocketbook. Belgium 2015

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 with regard to traffic psychology aspects (to determine suitability/driving maturity, for instance) drawn up where required. To ensure that tests for category AM (moped) licences are standardised nationwide, they should – as is the case for the other categories – be taken on a computer in the presence of a supervisor.

→ see also
Field of Action
"Mopeds",
3.10.1

Package of Measures: Moped Training

START	STATUS	MEASURES	KEY PLAYERS
○○●○		Evaluation of moped training and the theoretical and practical moped test	bmvit
○○●○	★	Revision of the test catalogue and test procedure for moped riders	bmvit
○○●○	★	Analysis of options for access to mopeds and implementation of selected measures to determine the suitability of young road users for moped training	bmvit, AUVA, VO



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 federal states. Harmonisation of the regionalised fines system and simplification of the associated **administrative processes** has already begun. Pilot alcohol interlock tests have also been conducted. The next step is further development of the **demerit points system**.

→ 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 police 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.⁴ An increase in the minimum fine for speeding has already been introduced, with increased fines for other offences set to follow.

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.

The implementation in 2013 of the EU directive (31st amendment to the Motor Vehicles Act [*Kraftfahrgesetz* – KFG], Federal Law Gazette [*Bundesgesetzblatt* – BGBl.] I 2013/43) facilitating the cross-border exchange of information on road safety related traffic offences enables drivers from other EU member states who commit a traffic offence in Austria to be prosecuted.



In 2014, an IT application for the automation-based processing of administrative criminal proceedings (the "VstV-Neu" project) was introduced. Standardised throughout Austria, this application enables administrative criminal proceedings to be conducted in a targeted and resource-saving way while ensuring compliance with legal certainty.

Package of Measures: Catalogues of Fines and Fine Levels

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✱	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
○●○○	✓	Clear increases in minimum fines , e.g. for speeding	bmvit, BL
○○○●	✱	Redefinition of the use and distribution of fines in traffic regulations	bmvit, BL

⁴ 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

Package of Measures: Simplification of Administrative Processes for Traffic Fines

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Linking of all regional administration offices to the police force's electronic reporting system	BM.I, BH
○○●○		Investigation of new process automation possibilities (e.g. the "VstV-Neu" project)	bmvit, BL, BH, BM.I
●○○○	✓	Active support for and implementation of the EU directive on cross-border enforcement of traffic fines	bmvit, BM.I
○●○○	✓	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

Package of Measures: Determination of the Allocation and Use of Collected Fines

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✱	Increase in the percentage of funds collected from fines allocated to road safety activities	bmvit
○○●○	✱	Revision of the allocation of collected fines in, for example, the Motor Vehicles Act (<i>Kraftfahrgesetz</i> – KFG), the Driving Licence Act (<i>Führerscheingesetz</i> – FSG) and (at least to the extent relevant to road safety) the Air Quality Protection Act (<i>Immissionsschutzgesetz-Luft</i> – 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 bmvt 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) will be increased in future to achieve a positive influence on drivers.

Package of Measures: Enhancement of the Demerit Points System

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✱	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	bmvt
○○○●	✓	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)	bmvt
○○○●	✱	Provision of special courses for drivers who have received demerit points for serious technical vehicle defects	bmvt
○○○●	✱	Coordination/linking of the demerit points system and driving ban register	bmvt
●○○○	🏃	Establishment of the legal framework for a pilot alcohol interlock test (and its potential introduction) → see also 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	bmvt
○○○●	✱	Evaluation of alternatives to fines	bmvt

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.

As part of the **"Proactive Road Safety" project**, the Federal Ministry of the Interior (BM.I) is developing a computer-aided accident data collection system for the police force that incorporates a geographic information system into the Logging and Display Data System (LDDS). The provision of GIS data available in the federal states enables a unified, nationwide georeferenced reference system to be created for accident localisation in real time.

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. ►

Package of Measures: Coordinated, Intensified Enforcement

START	STATUS	MEASURES	KEY PLAYERS
○●○○	🚶	Development of an efficient and effective enforcement strategy in line with the applicable legislative framework and distribution of competences	bmvit, BM.I, BL
○○●○	★	Intensification of effective cooperation models for traffic enforcement in municipalities	BL, G, BM.I
○●○○	🚶	Increase in subjective enforcement density (as a deterrent; subjective feeling among drivers that they could be stopped and checked 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) based on the "Proactive Road Safety" project	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

Although the number of fatalities among car occupants not wearing a seat belt has fallen by almost 50 % since 2009, 64 – i.e. around 34 % – of the 189 car occupants who were killed in road accidents in 2014 were not wearing a seat belt. More than three quarters of these were men.

Seat belt wearing rates in Austria rose to 93 % in 2015, which is around average compared to other countries in Europe. However, the belt wearing rate for rear seats is still poorer than for drivers and front seat passengers.


There are only slight regional differences in the seat belt wearing rate. With a rate of 98 %, Tyrol ranks highest for seat belt wearing, while Burgenland achieves a rate of just 88 %.

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

*"Seat Belts":
continued*

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.

Measures: Seat Belts

START	STATUS	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 this screening serves as an important indicator of the relevance of drink driving and its development over time. In Austria, equipping the federal police with **alcohol screening devices** has led to a significant increase in the number of drink driving checks.

Package of Measures: Drink Driving Controls

START	STATUS	MEASURES	KEY PLAYERS
○○○●	✱	Regular, scientifically monitored screening of driver alcohol levels in normal traffic in close cooperation with the police	bmvit
●○○○	✓	Equipping the federal police with alcohol screening devices	BM.I

3.3.6 Drugs, Medicines

Based on the results obtained by the EU's DRUID⁵ 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 be adopted by the Member States.

Package of Measures: Combatting Driving under the Influence of Drugs

START	STATUS	MEASURES	KEY PLAYERS
○○●○	★	Implementation of a three-pillar approach based on the results of the EU's DRUID project	bmvit
○○○●	★	Procurement of drug screening devices (as soon as available)	BM.I
○●○○	🏃	Extension of the network of doctors used to identify drug use and creation of the necessary organisational and financial requirements to attract 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




START	STATUS	MEASURES	KEY PLAYERS
○○●○	🏃	Lobbying for an obligation on the part of doctors and pharmacists to warn patients explicitly when prescribing or dispensing medicines which could have negative effects on fitness to drive	Clubs
○○●○	★	Implementation of the EMA classification system for medicines according to their potential adverse effects on road safety	Medical chamber, Health insurance funds

⁵ www.druid-project.eu
https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/projects/druid.pdf

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. The number of section control units has steadily increased, with 13 units (stationary and mobile roadworks units) in operation by 2015.


Package of Measures: Speed Controls

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Expansion plan for section controls on particular sections of road	ASFINAG, bmvit, BL
○○●○		Use of mobile speed display signs (to raise awareness)	BL, G
○○●○		Measures to raise public awareness and educational campaigns of the positive impact of speed restrictions and the public's obligation to comply with these restrictions, particularly outside schools and nurseries and near pedestrian crossings, bus stops and areas where there are high numbers of pedestrians and/or cyclists	G, BL, VO

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.

Measures: Following Distance

START	STATUS	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. In addition to the infringements detected automatically by traffic monitoring devices, other offences (such as the illegal use of a mobile telephone or non-use of seat belts) can also be detected on photos from the imaging devices used in traffic monitoring (e.g. radars, section control). ▶

*"Mobile
Telephones":
continued*

Under current law, evidence of these **"concurrent/additional offences"** is not legally admissible for data protection reasons. New technologies to support the securing of evidence of use of mobile telephones should be tested.





Measures: Mobile Telephones

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✱	Use of new technologies to support the securing of evidence of the use of mobile telephones ("Concurrent/Additional Offences" project)	bmvit, BM.I
○○●○	✱	Removal of barriers to enforcing ban on mobile telephone use Enabling the use of all forms of control also permissible for other infringements (e.g. photographic evidence)	bmvit, BM.I

3.3.10 Fatigue

BM.I statistics indicate that fatigue is the cause of around 2 % 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 study⁶ 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.

Package of Measures: Fatigue


START	STATUS	MEASURES	KEY PLAYERS
●○○○		Increase in the number of lorry control sites and rest areas for lorries → see also <i>Field of Action "Lorries"</i> , 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 <i>Field of Action "Lorries"</i> , 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

⁶ STEFAN, C. et al.: "In-Depth Analysis of Fatalities – Tiefenanalyse tödlicher Verkehrsunfälle", In: Forschungsarbeiten aus dem Verkehrswesen, Vol. 176, Federal Ministry for Transport, Innovation and Technology (eds.). Vienna, 2008

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 during the day in poor visibility, at dawn/dusk or in tunnels.

Measures: Lights

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Driving with lights during the day in poor visibility or at dawn/dusk – Awareness raising measures and controls, based on the "Proactive Road Safety" project → see also Field of Action "Enforcement Technology, Coordination of Controls", 3.3.3	bmvit, BM.I, Clubs



Field of Action

Children

4

→ Children (up to 14 years old) assume a lesser role in road accident statistics, accounting for 6 % of injuries and 2 % of fatalities. Given the fact that they constitute around 14 % 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 2014, 8 children were killed and around 2,800 injured on Austria's roads.

→ The majority of children involved in accidents were passengers in cars; around 23 % were injured as pedestrians. Accident statistics for both groups have shown a positive trend since 2009.

→ 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 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 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 outside schools 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, cycling, 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"⁷. 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**⁸ project (e.g. "intelligent school bus stops") will also be implemented in Austria. A blood alcohol limit of 0.1 ‰ for all drivers of school transport services has been introduced, while compulsory initial and further training for school transport drivers in future is designed to prepare drivers for their duties and ensure that the way to school is safe for everyone.

Package of Measures: Safe Way to School

START	STATUS	MEASURES	KEY PLAYERS
●○○○		Nationwide implementation of safe way to school maps for primary schools	BL, G, AUVA, VO
○○○●		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	BMB, G
○○●○		Initial and further training for drivers of school transport services	bmvit

⁷ www.klimaaktiv.at/english

⁸ www.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.

→ see also
*Field of Action
"Bicycles",
3.8*

The motivation of teachers to carry out the cycling proficiency test affects the pupils' success rate in the test. There are also differences between urban and rural areas; the success rate tends to be higher in rural areas.

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.

Cycling safety training in a safe practice area as well as on the roads promotes cycling safety and helps children to enjoy independent mobility.


Package of Measures: Cycling Proficiency Training/Test

START	STATUS	MEASURES	KEY PLAYERS
○○●○	★	Nationwide, unified cycling proficiency training , introduction of consistent quality criteria	BMLFUW, BMB, BM.I
○○●○	★	Reform of the cycling proficiency test	BMB, BM.I
○○●○	★	Increased involvement of parents in cycling proficiency training	BMB
○○●○	★	Cycling safety training for children in a safe practice area and on the roads	AUVA, VO, BL, G, bmvit

3.4.3 Child Restraints

The use of **rear-facing child restraints** is supported (in line with the Swedish model), since findings show that this significantly reduces injury severity. Parents are taught about the correct continued use of child restraints and seat belts in parents' cars and minibuses (school buses) in training sessions with their children.

Measures: Child Restraints

START	STATUS	MEASURES	KEY PLAYERS
○○●○		Support for the correct use of child restraints and correct fastening of seat belts for children of all ages	bmvit, Clubs, AUVA
○○●○	★	Safe use of child restraints and seat belts	AUVA, Clubs, VO

3.4.4 Conspicuity

In the autumn and winter months, it is often dark when children walk to and from school. Apart from darkness, parked cars, complex junctions and objects on the road (such as waste containers) can make children more difficult to spot in traffic areas.

Measures: Conspicuity

START	STATUS	MEASURES	KEY PLAYERS
○○●○	★	Promotion of the topic "Get Yourself Seen" among children (both the wearing of reflective clothing and the incorporation of reflective materials into products by textile manufacturers) and additional measures to improve the conspicuity of children for motorists and other road users	bmvit, BL, BMB, WK



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 to 24 year old age group accounts for 28 % of injuries and 17 % 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.

Package of Measures: Alcohol Prevention among Young Drivers

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Alcohol prevention in schools and driving schools including the gathering and provision of best practice models for local authorities	bmvit, BL, FS, BMB, VO
○●○○		"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. The 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**⁹ 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").

Innovative road safety measures tailored to the lifestyle of adolescents should also be implemented in vocational schools. ►

9 www.close-to.at


Package of Measures: New Approaches to Road Safety Work with Adolescents

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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, VO
●○○○		Establishment of the "Close To" principle Adolescent traffic offenders talk directly to driving school pupils about their experiences	bmvit, BMLVS, BL, FS,

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.

Measures: Extracurricular Youth Programmes

START	STATUS	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, VO



Field of Action

Elderly Road Users

6

→ Road users over the age of 65 account for 12 % 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 almost 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 counselling 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

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

Measures: Conspicuity

START	STATUS	MEASURES	KEY PLAYERS
○●○○		<p>Promotion of the topic "Get Yourself Seen" among elderly road users (both the wearing of reflective clothing and the incorporation of reflective materials into products by textile manufacturers) and additional measures to improve the conspicuity of elderly pedestrians for motorists and other road users</p> <p>→ 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, Clubs

3.6.2 Raising Awareness of Cognitive and Physiological Limitations




Whether they are driving, cycling or walking, elderly people 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 and traffic awareness. 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.

Specific road safety education measures that also include the topics of cycling and electric bicycles should be offered to elderly people. Care should be taken to make these measures 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, 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. ►

Package of Measures: Raising Awareness of Cognitive and Physiological Limitations

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Development of basic principles for dealing with an age-related reduction in driving ability and traffic awareness	bmvit, VO, Clubs
○○●○	★	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
○○●○	★	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, BL, VO
○●○○		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 17 % of fatalities on Austria's roads**. The high proportion of fatalities is a result of the high average severity of accidents involving pedestrians. While around 68 % of pedestrian fatalities and over 90 % of injuries to pedestrians occurred on urban roads in 2009, in 2014 approximately the same number of pedestrians were killed in urban areas as on rural 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**. It is important to encourage people to walk due to the principle of "safety in numbers"¹⁰.

→ 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 – on both urban and, to an increased extent, rural roads – particularly with regard to line of sight and lighting.

¹⁰ Safety in Numbers: Das Erreichen einer „kritischen Masse“ an FußgängerInnen erhöht die Sicherheit der FußgängerInnen, lt.: JACOBSEN, P.L. (2003): Safety in Numbers: More walkers and bicyclists, safer walking and bicycling. In: Injury Prevention, 9 (3): 205-209

3.7.1 Legislative Changes

A study will be carried out to determine whether the existing provisions in the Austrian Road Traffic Act (StVO) relating to pedestrian safety – including safety at pedestrian crossings – can be improved even further.



Measures: Legislative Changes

START	STATUS	MEASURES	KEY PLAYERS
○○●○	★	Evaluation of existing provisions in the Austrian Road Traffic Act (StVO) relating to pedestrian safety – including safety at pedestrian crossings	bmvit

3.7.2 Pedestrian Crossings

Unsignalised pedestrian crossings 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.


Package of Measures: Pedestrian Crossings

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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 for all age groups	bmvit, Clubs
○○●○	★	Provision of information to drivers on appropriate behaviour at pedestrian crossings	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 or pendants).

Measures: Conspicuity

START	STATUS	MEASURES	KEY PLAYERS
○●○○		<p>Promotion of the "Get Yourself Seen" campaign among pedestrians of all age groups (both the wearing of reflective clothing and the incorporation of reflective materials into products by textile manufacturers) and implementation of additional measures to improve the conspicuity of pedestrians for drivers and other road users</p> <p>→ see also <i>Field of Action "Elderly Road Users", 3.6.1; reflective materials are also mentioned under Field of Action "Bicycles", 3.8.2</i></p>	bmvit, WK, Clubs, VO, BL



Field of Action

Bicycles

8

→ On average, cyclists account for **14 % of all injuries on Austria's roads** and **11 % of all fatalities**. 82 % of accidents involving bicycles and almost three quarters of all fatalities (71 %) 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 6,000 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**, to improve the **conspicuity of cyclists** and to encourage cycling in line with the principle of "safety in numbers"¹¹.


¹¹ Safety in Numbers: Das Erreichen einer „kritischen Masse“ an FußgängerInnen erhöht die Sicherheit der FußgängerInnen, lt.: JACOBSEN, P.L. (2003): Safety in Numbers: More walkers and bicyclists, safer walking and bicycling. In: Injury Prevention, 9 (3): 205-209

3.8.1 Cycle Helmets

Around 15 % of all injuries to cyclists are head injuries. For children up to the age of 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 brain by 45 %, the wearing of cycle helmets has been made compulsory for children under 12.

Additional measures to raise awareness of the importance of wearing a cycle helmet should be implemented for all age groups, focusing on how to wear a helmet correctly. A recent study¹² found that only 8 % of children wear their cycle helmet completely correctly.



Package of Measures: Cycle Helmets

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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, BMB, Clubs
●○○○	✓	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.

Package of Measures: Conspicuity


START	STATUS	MEASURES	KEY PLAYERS
○●○○		Promotion of the "Get Yourself Seen" campaign among cyclists of all age groups (both the wearing of reflective clothing and the incorporation of reflective materials into products by textile manufacturers) and implementation of additional measures to improve the conspicuity of cyclists for drivers of motor vehicles and other road users → <i>reflective materials are also mentioned under the Fields of Action "Elderly Road Users", 3.6.1, and "Pedestrians", 3.7.3</i>	bmvit, BMB, BL, WK, Clubs, VO
○●○○		Priority actions to control the visibility of cyclists and check that they are equipped with lights (with explanation, but no sanctions)	bmvit, WK, Clubs

¹² FEIST, F./ KLUG, C./TOMASCH, E.: Cleverer Helm – Optimaler Schutz vor Kopfverletzungen durch verbesserte Testmethoden von Kinder-Fahrradhelmen, Vol. 044, Federal Ministry for Transport, Innovation and Technology (publisher), Vienna, 2015

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.


Measures: Elderly Cyclists

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Adult education through measures like courses on the safe use of bicycles in traffic (with a special focus on elderly cyclists) → see also Field of Action "Lifelong Learning", 3.1.2	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) have been simplified and unified. In this process, the obligation to use cycle paths was made more flexible and "bicycle-only roads" were 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*) has been updated, e.g. to reflect new types of bicycles and lights. Due to increasing rates of use and the unclear legal situation, the next step will be to regulate by law the use of devices that are similar to vehicles (such as miniscooters) and types of bicycle (e.g. freight bicycles).

Package of Measures: Legislative Changes

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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
○○●○	★	Road Traffic Act reform of regulations for children's toys that are similar to vehicles	bmvit

3.8.5 Cycling Infrastructure

The number of cyclists injured by car doors being opened abruptly ("door-ing") has risen in recent years. Measures such as road markings ("sharrows") for moving traffic, which indicate the presence of cyclists, make them more visible and guide them along a safe route, should be tested as a measure to prevent "door-ing". In particular, the aim is to prevent the risk of collisions by car doors being opened suddenly (and cyclists being cut up by overtaking vehicles) along a line of parked vehicles. This should be accompanied by campaigns to make car drivers aware of the problem of "door-ing".

Measures: Cycling Infrastructure

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✱	Implementation of pilot project on arrow markings ("sharrows") to indicate a safe distance from abruptly opened car doors on multipurpose lanes adjacent to parking lanes	BL, bmvit, VO
○○●○	✱	Implementation of alternative measures to prevent dooring accidents, such as the implementation of a pilot project on multipurpose lanes with a safety distance zone	BL, VO



Field of Action

Motorcycles

9

→ **Approximately 8 % 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 results 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 **returning motorcyclists**, who have been particularly at risk of having an accident in recent years. The **graduated driving licence system** for higher cubic capacity (cc) motorcycles will be revised.

→ **50 % 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.

Package of Measures: Treatment of Accident-Prone Sections of Road and Junctions

START	STATUS	MEASURES	KEY PLAYERS
●○○○	★	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 have shown that antilock brake systems (ABS) and other control systems on motorcycles can prevent an appreciable proportion of motorcycle accidents. The effect of passive safety devices, such as airbags and safety belts, should be investigated further.

Package of Measures: ABS on Motorcycles




START	STATUS	MEASURES	HAUPTAKTEURE
○○●○	★	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.

In January 2016, motorcycle equipment was included in the EU regulation on personal protective equipment (PPE). This means that in future, all motorcycle equipment available on the market must meet a minimum safety standard throughout the EU. Motorcyclists should be motivated to use this protective equipment to prevent serious injuries.

Measures: Protective Clothing

START	STATUS	MEASURES	KEY PLAYERS
●○○○		Use of helmets and helmet straps – raising awareness and enforcement	bmvit, BM.I, Clubs
○●○○		Raising positive awareness of the use of protective clothing in accordance with EU safety standards	bmvit, Clubs
○●○○		Creating awareness of the need for brightly coloured and "safe" 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 introduced in line with the 3rd Driving Licence Directive takes account of accident statistics and typical vehicle kilometres for novice drivers; the **2nd phase driver education programme** has been enhanced.

Measures: Education and Training

START	STATUS	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 Field of Action "Driver Training", 3.2.4	bmvit
○○○●	✱	Investigation of possibilities for the use of driving simulators in category A driving licence education → see also Field of Action "Driver Training", 3.2.2	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 typical accident/crash scenarios.

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

Measures: Raising Awareness

START	STATUS	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, VO



Field of Action

Mopeds

10

→ **Every tenth person injured on Austria's roads was riding a moped.** The comparatively low number of fatalities (3 %) and low severity of accidents in comparison to motorcycles 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 moped **workshops in and out of school**. 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.

→ Raising awareness of the importance of wearing a helmet has had an impact: since 2009, there has only been one fatality involving a moped rider not wearing a helmet. Training courses should be extended to cover the topic of riding a moped without due care and attention in addition to the topics of helmets and tuning. Due to the high numbers of accidents in which they are involved, associated measures should be primarily targeted at 15 year olds.

3.10.1 Training and Workshops

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




Package of Measures: Training

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Moped workshops for young moped riders (road safety, risk assessment, due care and attention, first aid and legal aspects) → see also Field of Action "Moped Training", 3.2.5	Clubs, FS, VO

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 kits** (and chip tuning kits) are being sold in stores with virtually no legal restrictions.



Package of Measures: Tuning

START	STATUS	MEASURES	KEY PLAYERS
○○●○		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

Since 2009, there have been hardly any fatalities involving moped riders not wearing a helmet at the time of the accident. Moreover, the number of moped fatalities has halved since 2009. Helmet use has played an important role here and should continue to be advocated. 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.

Measures: Helmets

START	STATUS	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 (> 3.5 tonnes) account for **around 3 % 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 **12 % of all fatalities**.

→ Since 2009 the **number of fatalities in accidents involving heavy goods vehicles has decreased by 38 %**. There were 8 fatalities in lane departure accidents and 6 fatalities in head-on collisions. 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** are regularly evaluated and a **ban on lorries in the far left lane on motorways with three or more lanes** has been introduced.

→ The 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).

→ The bmvit will also continue to lobby **against the licensing of "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 periodic 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** has therefore begun to be established and the **control network** extended.

A **ban on lorries** in the far left lane has been introduced.



Package of Measures: Prevention of Lorry Accidents caused by Driver Fatigue and Lack of Due Care and Attention

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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) → see also Field of Action "Enforcement", 3.3.10	ASFINAG
●○○○		Telematics-based information on available parking spaces for heavy goods vehicles (and to ensure adherence to driving and rest times) → see also Field of Action "Enforcement", 3.3.10	ASFINAG
○○●○		Testing of new methods to control whether lorry drivers are being distracted by other activities while driving (e.g. "Concurrent/Additional Offences" project) → see also Field of Action "Mobile Telephones", 3.3.9	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.

Package of Measures: Public Relations for Lorries

START	STATUS	MEASURES	KEY PLAYERS
○●○○		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. Measures should also be taken to encourage the retrofitting of vehicles already on the roads with blind spot mirrors and accident prevention systems ("blind spot monitors").

Tyre pressure monitoring systems have been compulsory on new models of cars since 2012. The mandatory fitting of heavy duty vehicles with tyre pressure monitoring systems has also been transposed into legislation.

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.



Package of Measures: Vehicle Equipment

START	STATUS	MEASURES	KEY PLAYERS
○○○●	✱	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 and blind spot monitors through lobbying in the EU and incentive systems	bmvit
○●○○	✓	Compulsory tyre pressure monitoring systems for heavy goods vehicles	bmvit, Clubs
○●○○	✓	Compulsory inclusion of eCall systems on all new lorry models → eCall systems are also mentioned in the Fields of Action "Post-Accident Care", 3.13.1, and "Vehicle Safety and Equipment", 3.16.1	bmvit
●○○○	🚶	Alcohol interlock: pilot test prior to a possible introduction for quality assurance purposes in freight transport fleets → 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	bmvit, WK

Package of Measures: Lorry Safety in Winter

START	STATUS	MEASURES	KEY PLAYERS
○●○○	🚶	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
& Equipment”,
3.16.7*

Package of Measures: Vans and GigaLiners

START	STATUS	MEASURES	KEY PLAYERS
○○○●	★	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). While there were a **total of 106 fatalities** on level crossings from 2005 to 2009, the figure fell to **77** between 2010 and 2014.

→ Accidents on level crossings account for around 0.1 % of all road accidents. However, the **risk of injury or fatality is 19 times higher than in other road accidents**. The number of fatalities varies greatly from year to year and reached its highest level most recently in 2011 with 20 fatalities (2014: 12).

→ The **regulation for level crossings** (*Eisenbahnkreuzungsverordnung*) on the protecting of level crossings, which corresponds to the current technical state of the art, was adopted in 2012.

→ 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** has been established and activities to raise awareness of correct behaviour on level crossings will continue to be increased.

3.12.1 Accident Analysis, Treatment and Securing

Austrian Federal Railways (*Österreichische 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 at 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.

Package of Measures: Protecting of Level Crossings and Accident Analysis




START	STATUS	MEASURES	KEY PLAYERS
○●○○		Implementation of the ÖBB risk model ÖBB will support the implementation of this model (in cooperation with regional and local authorities)	ÖBB
●○○○		High priority identification, assessment and treatment of accident hot spots	bmvit
○○●○		Long-term strategy to reduce the number of level crossings or protect such facilities by technical means in accordance with the new regulation for level crossings (<i>Eisenbahnkreuzungsverordnung – EKVO</i>)	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 companies

3.12.2 Raising Awareness

The French national railway company SNCF provides road users with targeted information on the fact that **cars can break through closed boom 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.

Package of Measures: Raising Awareness

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Provision of information on deformability of boom barriers	ÖBB, Clubs, bmvit
●○○○		Active participation in the European "Level Crossing Awareness Day"	ÖBB, bmvit
○●○○		Targeted raising of awareness of correct behaviour at 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 and the continuation of the **helicopter system** should be ensured for emergency services **response times** and the quality of **post-accident care**. The “**emergency vehicle corridor**” principle was introduced on motorways in 2012 and is accompanied by a comprehensive package of information.

→ 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.

Measures: eCall

START	STATUS	MEASURES	KEY PLAYERS
○●○○		Implementation of eCall Creation of the necessary infrastructure for the emergency services → see also Fields of Action "Vehicle Safety and Equipment", 3.16.1, and "Lorries", 3.11.3	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, "**emergency vehicle corridors**" (an obligation for all other drivers to form a "virtual" lane for emergency vehicles, following the German model) have been 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 **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.

Measures have been defined to improve or maintain access routes for emergency services before roadworks are undertaken and special traffic routes set up in the motorway and expressway network. ▶

Package of Measures: "Emergency Vehicle Corridors"

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✓	Introduction of "emergency vehicle corridors"	bmvit
○○●○	✱	Implementation of recommendations from the evaluation of emergency vehicle corridors	bmvit, ASFINAG
○○●○	✱	Inclusion of the topic of emergency vehicle corridors in first aid courses and emergency services training	Rescue services, Emergency services
○○●○	✱	Measures to increase awareness of emergency vehicle corridors	ASFINAG
○○●○	✱	Lobbying at European level for standardisation of the regulations	bmvit, Clubs

Maßnahmenpaket: „Rettungsgasse“

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✱	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 for drivers.

Package of Measures: Emergency Services Response Times

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✱	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.

Numerous factors affecting the arrival times of the emergency services have been improved since 2011 as part of a continuous process. The emphasis is now on rapid transport to a specialist hospital after the patient has been stabilised rather than administering extensive treatment at the scene ("treat and run" rather than "stay and play").

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). Increasingly, emergency response teams are accompanied by an emergency doctor rapid response car.

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.



Package of Measures: Provision of a Nationwide Level of Quality

START	STATUS	MEASURES	KEY PLAYERS
●○○○		Safeguarding of the air rescue system – quality assurance and financing	BL, Health insurance 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" including 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. Rescue cards, which indicate the best places on a vehicle to use rescue spreaders and cutters as well as the position of batteries and airbags, help the emergency services to rescue people from vehicles more quickly after an accident.

Measures: Rescue from Vehicles

START	STATUS	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 scene of the accident, call the emergency services and administer first aid.

Package of Measures: First Aid

START	STATUS	MEASURES	KEY PLAYERS
○○●○	★	Creation of incentives for 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 site, 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 underwent a number of pilot tests 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 Alcohol

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.

Measures: Alcohol


START	STATUS	MEASURES	KEY PLAYERS
●○○○	*	Introduction of alcohol interlock – implementation of the results from the pilot tests: Examination of the technical, legal, medical and psychological aspects → see also Fields of Action "Enforcement", 3.3.2, and "Vehicle Safety and Equipment", 3.16.3; alcohol interlock is also mentioned in Field of Action "Lorries", 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 SUPREME¹³ (Summary and Publication of Best Practices in Road Safety in the Member States) project.

Package of Measures: Efficiency Tests for Training Measures

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✓	Assessment of the efficiency of traffic coaching and prompt implementation of any necessary changes	bmvit
●○○○		Assessment of the efficiency of child safety courses and, if necessary, prompt implementation of any necessary changes	bmvit
○○○●	*	Cross-organisational, nationwide assessment of the efficiency of driver improvement courses and traffic psychology assessments	bmvit

¹³ SUPREME Best Practices in Road Safety. Handbook for Measures at the Country Level. Final Report Part C. June 2007



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 introduced an **integrated infrastructure safety management system** in Austria. Road safety issues are assessed at the construction planning stage, existing roads are inspected regularly and high accident concentration sections are 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 the 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 implementing measures to improve the safety of the European road network¹⁴, 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)




A manual for conducting road safety inspections (RSIs) was published in 2010 and helped make road safety inspections more efficient. This manual was extensively revised in 2015, taking into account the legislative changes relating to the implementation of the EU directive and the experiences of conducting RSIs in recent years.

Package of Measures: Implementation of the Infrastructure Directive including on Regional Roads

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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, G
○○●○	★	Increased road safety inspections , including roads outside the major road network and on specific stretches of road (or roads/areas, cycle paths, pedestrian areas and motorcycle tracks) and provision of implementation tools	BL, G
○●○○		Treatment of high accident concentration sections to a unified standard across the whole of Austria → see also Field of Action "High Accident Concentration Sections", 3.15.2)	ASFINAG, BL, G

¹⁴ http://ec.europa.eu/transport/road_safety/topics/infrastructure/index_en.htm

Package of Measures: Implementation of the Infrastructure Directive including on Regional Roads

START	STATUS	MEASURES	KEY PLAYERS
○○●○		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
○○●○	✓	Revision of the handbook on conducting road safety inspections (RSIs)	bmvit






3.15.2 High Accident Concentration Sectionse

Over a third of injuries and around a fifth of all fatalities in Austria occur at **high accident concentration** sections. These statistics show a broad spread across the federal states, and the treatment of high risk sites is currently also being pursued with different levels of intensity in different federal states. 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 "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. The applicable RVS 02.02.21 guidelines and regulations for roads have already been revised accordingly.

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 are 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. ►

Package of Measures: Treatment of High Accident Concentration Sections across Austria and on the Entire Road Network

START	STATUS	MEASURES	KEY PLAYERS
○○●○		Actual treatment of roads using the same standards across Austria and for the entire road network (based on RVS 02.02.21) → <i>see also 3.15.1</i>	BL, ASFINAG, G
○●○○		Preparation of digital maps of all high accident concentration sections in Austria	BL, bmvit, G
○○●○		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, G
○○●○		Treatment of high accident concentration sections on roads without distance markers (municipal roads)	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, G

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. This has an impact on accident severity, which is high in comparison with other countries. In Austria, 70 % 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 GONZALES¹⁵ project and with the support of the bmvi, 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. ►

¹⁵ Developed under the I2 programme (bmvi): http://www.lachmayer.eu/wp-content/uploads/2014/05/2005_GONZALES-Endbericht.pdf

Package of Measures: Speed

START	STATUS	MEASURES	KEY PLAYERS
●○○○		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 ¹⁶ project)	bmvi

3.15.4 Collisions with Trees

Around 3 % of fatal road accidents throughout Austria are caused by collisions with trees. **Accident figures that include "Collision with tree" as an accident factor have been available for all federal states since 2012.** 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 road¹⁷ – 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.

Package of Measures: Collisions with Trees

START	STATUS	MEASURES	KEY PLAYERS
○●○○	✓	Collection of data on collisions with trees in all federal states 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, G

16 Developed under the I2 programme (bmvi): http://www.lachmayer.eu/wp-content/uploads/2014/05/2005_GONZALES-Endbericht.pdf

17 SUPREME Best Practices in Road Safety. Handbook for Measures at the Country Level. Final Report Part C. June 2007

3.15.5 Collisions with Wildlife

In 2013, the RVS 04.03.12 guidelines and regulations for roads were adapted. The guideline describes the technical requirements for wildlife warning and protection devices, which are due to be implemented in the next Road Safety Programme period. Between 2012 and 2014, around 1,000 road users were injured and 8 killed in collisions with animals.




Measures: Collisions with Wildlife

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✓	Implementation of the results of the evaluation and the associated adapted RVS 04.03.12 on reducing and preventing collisions with wildlife	bmvit, BL, ASFINAG, G

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 3,100 injury accidents and 38 fatalities occurred in 2014 – roundabouts are not yet being introduced at the same level of intensity in all federal states of Austria. Nevertheless, attention must be given to ensuring that roundabouts are simple to navigate, clearly laid out and suitable for large vehicles (e.g. lorries, trailers, buses, etc.).

Package of Measures: Roundabouts




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

3.15.7 Road Markings

Road markings serve as important indicators to motorists, especially at night and 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 (lane departure accidents, head-on collisions).

Package of Measures: Road Markings

START	STATUS	MEASURES	KEY PLAYERS
○○○●		Testing of new road markings products (e.g. structured road markings) with improved reflectability even in rain for the feasibility of their wide-spread use; where necessary, creation of the legal basis for such tests	bmvit, ASFINAG, BL
○○○●		Keeping 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, bmvit, Clubs, VO
○●○○		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 are checked at regular intervals. Monitoring activities of this kind were previously only carried out on an isolated basis in some individual federal states.

Measures: Grip and ruts

START	STATUS	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.



Package of Measures: Safety in Tunnels

START	STATUS	MEASURES	KEY PLAYERS
○○●○	✓	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.


Package of Measures: Safety Restraints at Roadworks

START	STATUS	MEASURES	KEY PLAYERS
○○●○		Application of existing standards for safety restraints at roadworks to the entire road network and adaptation 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.

Measures: Wrong Way Drivers

START	STATUS	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

An **Action Plan for Intelligent Transport Systems (ITS)** was prepared for Austria in 2012. The 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**. The establishment and operation of dynamic traffic control systems has already commenced in the cities of Graz, Linz, Salzburg and Vienna.

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.

The RVS 05.01.14 guidelines and regulations for roads were drawn up in 2010 and are applicable to the development and maintenance of the electronic transport reference system GIP (Graph Integration Platform). This is a nationwide and intermodal system that forms the basis for new traffic-related electronic administration processes (e-government) and is also used as the basis for Verkehrs Auskunft Österreich (VAO), Austria's nationwide traffic information system.

Package of Measures: Transport Telematics

START	STATUS	MEASURES	KEY PLAYERS
○○●○		Implementation of the 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 service
○●○○		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 nurseries	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.

→ The widespread introduction of **eCall** based on a unified technical platform across Europe has been launched. Austria will also continue to advocate the use of event data recorders. The **alcohol interlock** concept was tested in a number of pilot projects. 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 – is already being 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.

→ **Automated driving** can help to make roads safer. The legal framework for testing automated driving should be created.

3.16.1 eCall

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

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

Package of Measures: Promotion of eCall

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✓	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
○○●○	★	Awareness raising measures on retrofitting existing vehicles with eCall	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.

Package of Measures: Event Data Recorders

START	STATUS	MEASURES	KEY PLAYERS
○○●○	★	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).

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**. 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. As of 1 November 2014, all new class M1 vehicles (cars up to 3.5 t) sold in the EU must be fitted with a tyre pressure monitoring system (TPMS) as standard.

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. Vehicle fires continue to cause human suffering and considerable material damage.

Package of Measures: Automatic Control Systems

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✗	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 monitoring systems: rapid implementation of the new EU standards	bmvit
○○●○	★	Lobbying at EU level for compulsory seat belt reminders on all seats in a vehicle	Clubs

Package of Measures: Vehicle Fires

START	STATUS	MEASURES	KEY PLAYERS
○○●○	★	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 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.

As of 7 February 2011, all new approved vehicle types must 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.

Package of Measures: Safety Equipment

START	STATUS	MEASURES	KEY PLAYERS
○○●○		EU-wide assessment and joint definition of what should be classed as safety equipment (e.g. warning triangle, first aid kit, reflective safety vest)	Clubs
○○○●		Subsequent obligation on the part of vehicle manufacturers to include appropriate storage facilities and easy accessibility for these safety items in cars	Clubs
○○○●		Obligation on the part of 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

Package of Measures: Vehicle Lights

START	STATUS	MEASURES	KEY PLAYERS
○○○●	★	Obligation of manufacturers (after corresponding cost analysis) to include an appropriate warning indicator in vehicles notifying drivers of a mal-function 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, VO, AUVA
○●○○	🚶	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

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.

Package of Measures: Securing Cargo



START	STATUS	MEASURES	KEY PLAYERS
○●○○	🚶	Creating awareness of the need to secure cargo on (and in) cars; inclusion of this topic in 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 RONCALLI¹⁸ 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 achieved with ESC (Electronic Stability Control).

Package of Measures: Continued Support for the "Intelligent Speed Adaptation" Principle

START	STATUS	MEASURES	KEY PLAYERS
○●○○		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 Field of Action "Databases and Accident Data Collection", 3.17.1	bmvit, BL
○○○●		Support for European efforts with regard to "Intelligent Speed Adaptation"	bmvit, Clubs

Package of Measures: Advanced Driver Assistance Systems

START	STATUS	MEASURES	KEY PLAYERS
○●○○		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

¹⁸ <http://docslide.us/documents/roncalli-568c9b0903035.html>

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

Measures: "Vans" (Transporters)

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

3.16.8 Electric Vehicles

Back in June 2012, an electromobility implementation plan was developed in and from Austria, the aim of which is to increase the use of electric vehicles in Austria.¹⁹ As at 31 December 2014, 3,386 **cars exclusively powered by electricity** were registered in Austria.²⁰ Although this accounts for only 0.1 % of all the cars on Austria's roads, the trend is growing (63.6 % increase in the number of electric cars on the road compared with 2013). In addition, more than 200,000 e bikes were being ridden in 2015.²¹

Since electric vehicles are virtually silent, the potential risks need to be examined further and appropriate awareness raising measures taken. The legal framework must be examined in more detail and adapted if necessary.

Package of Measures: Electric Vehicles

START	STATUS	MEASURES	KEY PLAYERS
○○○●	*	Regular analysis of statistics on accidents involving electric vehicles	bmvit
○●○○	🚶	Assessment of possible technical measures (e.g. "acoustic measures")	bmvit, Clubs
○●○○	🚶	Creating awareness of the potential safety risks among users of electric vehicles and vulnerable road users	bmvit, Clubs
○●○○	🚶	Examination of the crash performance of electric vehicles	bmvit
○○○●	*	Examination of the adaptation of the legal situation relating to the definition of electric bicycles and electric mopeds in terms of EU standards	bmvit

¹⁹ https://www.bmvit.gv.at/verkehr/elektromobilitaet/downloads/emobil_umsetzungsplan.pdf



²⁰ STATISTICS AUSTRIA 2015: Stock of motor vehicles and trailers 2014: http://www.statistik.at/web_en/statistics/EnergyEnvironmentInnovationMobility/transport/road/stock_of_motor_vehicles_and_trailers/index.html

²¹ VCÖ 2015: <https://www.vcoe.at/news/details/vcoe-bereits-mehr-als-200000-elektro-fahrraeder-in-oesterreich-im-einsatz>

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).

Package of Measures: Choice/Marking of Tyres




START	STATUS	MEASURES	KEY PLAYERS
○●○○		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.

Package of Measures: Passenger Safety

START	STATUS	MEASURES	KEY PLAYERS
○●○○		EU-wide common standards for safety equipment (airbags, ESC, SBR, impact reducing headrests, etc.)	bmvi, Clubs
●○○○		Safe seat systems in all new cars	bmvi, 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")	bmvi, 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** has been created in Austria and links established between accident, traffic and road data. The **accident data collection system** was also revised with the introduction of the ADM (accident data management) project on 1 January 2012. 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 the case 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**, including 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
- **AADT** (annual average daily traffic)




The common geopositioning system required for this database was developed in the **Graph Integration Platform** (GIP) project.

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)²² can provide valuable indications of the actual extent of the problem and information on injury patterns for different types of collisions.

Virtually no information is available on the evident shift from fatalities to seriously/severely injured car occupants. The evaluation of applicable international injury severity indices, e.g. AIS (Abbreviated Injury Scale), and the derivation of an index for Austria would deliver valuable indications of the trends in injury and disability patterns over time. A new standardised definition for seriously injured casualties (MAIS3+) has been introduced across the EU as part of the Maximum Abbreviated Injury Scale (MAIS), which enables data to be compared at European level.

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

Package of Measures: Road (Safety) Databases

START	STATUS	MEASURES	KEY PLAYERS
○●○○		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

²² http://ec.europa.eu/health/data_collection/databases/idb/index_en.htm

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.

Measures: Accident Investigation

START	STATUS	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
○○●○	★	Creation of a transport statistics law including accident statistics → see also Field of Action "In-depth Accident Investigation", 3.17.3	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 has only been able to 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 Report²³ also provides valuable information on experiences in other European countries.

Measures: In-depth Accident Investigation

START	STATUS	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 Recording

As part of the ADM (accident data management) project, the bmvit and the Federal Ministry of the Interior (BM.I) worked together to develop technical solutions for electronic accident data collection. The use of georeferencing facilitates the collection of accident data and largely prevents any localisation errors.

As of 1 January 2012, road accidents in Austria that involve personal injury are recorded electronically by the police forces that record a traffic accident. This is done exclusively via the ADM (accident data management) project; the data is then forwarded by the Federal Ministry of the Interior (BM.I) to Statistics Austria (Bundesanstalt Statistik Österreich). The previous method of recording accidents using a paper accident data collection form has been completely discontinued. The changeover to electronic recording was a milestone in Austrian road accident statistics and concerns all 880 police stations throughout Austria. ►

²³ ROAD ACCIDENT INVESTIGATION IN THE EUROPEAN UNION. REVIEW AND RECOMMENDATIONS. 2006, https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/projects/rosat.pdf

**"Accident
Data Recording"
(continued)**

This major change in accident data collection must be taken into account in all analyses of accident figures. The data collected electronically as part of the ADM project prevents undercoverage of road accidents since the statistical report is directly linked to the creation of the road accident report required for the court or public prosecutor's office. The list of characteristics has also been amended and significantly expanded. Accident types are now assigned decentrally by the police force that records the accident and no longer by Statistics Austria.

Measures: Accident Data Recording

START	STATUS	MEASURES	KEY PLAYERS
●○○○	✓	Electronic accident data recording (implementation of the ADM project)	bmvit, BM.I
○○●○	✱	Improved accident data collection as part of the "new ADM" project	bmvit, BM.I
○○●○	🚶	GPS-based localisation of accident sites by the police	bmvit, BM.I

3.17.5 Mobility Surveys

The first nationwide mobility survey since 1995 was conducted in Austria and can provide details of the modal split and its development. This provides the basis for the interpretation of accident data and the effects of road safety measures from mid-2016 onwards.


Measures: Mobility Surveys

START	STATUS	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 vehicles	bmvit

3.17.6 Safety Performance Indicators

Current road safety programmes in many European countries are now focusing 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.

Measures: Safety Performance Indicators

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



Austrian Road Safety Programme 2011 – 2020