

Austrian Road Safety Strategy 2021–2030



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Vienna, 2021

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Foreword

The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology considers road safety a central social goal to be taken into account above all by strengthening safe, active, and environmentally friendly mobility.

Over the past decades, it has been possible to steadily improve road safety in Austria. The number of road traffic fatalities has been reduced from almost 3,000 in the sad record year of 1972 to around 400 road users in 2019. Nevertheless, Austria only reaches mid-field status, just below the EU average. Serious injuries in particular are a worry for stagnating developments.

In accordance with the Safe System approach, the Austrian Road Safety Strategy for the period 2021–2030 aims at a paradigm shift from accident prevention to injury prevention. Accidents should not be associated with serious or even fatal injuries. Rapid technological changes as well as changes in transport and mobility must be met with even greater flexibility. The strategy is therefore accompanied by time- and topic-specific action plans to deal with current hazard trends in an even more targeted manner.

The number of road deaths and serious injuries shall be reduced by 50% each by 2030. In addition, no child should lose its life in Austrian road traffic by 2030. Numerous safety performance indicators, i.e. measurable values that describe accident- or injury-causal traffic parameters, will continuously provide information on current developments.

The road safety strategy was developed with the close involvement of Austrian road safety experts, for whose committed support I would like to express my sincere thanks. This cooperation will also shape the coming years. After all road safety will only turn out to be a success if we all continue to pull together in Austria.



Federal Minister
Leonore Gewessler

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1

Road safety
work is a
central task for
society

1.1 Deaths and serious injuries are not acceptable!

In the past decades, road traffic has caused casualties that would never have been accepted on this scale in any other mode of transport. Are deaths and serious injuries in road traffic really unavoidable? They are not. It is at least when members of one's own family or circle of acquaintances are affected, that transport systems without serious accidents are considered quite feasible and highly desirable.

1.2 Road accidents cause tremendous suffering and high costs!

Facts and figures: More than 25,000 people die and 135,000 are seriously injured on EU roads each year¹. Global estimates assume 1.35 million fatalities each year in road traffic crashes, with the number of injured estimated at up to 50 million². For the age brackets 5-29, road traffic accidents even are the most common cause of death.

The Austrian Road Safety Programme 2011–2020³ already pursued the goal of making Austria one of the five safest countries in Europe. The Austrian Road Safety Strategy for the decade up to 2030 is to follow this ambitious strategic guiding principle of road safety work by selecting and implementing efficient and sustainable safety measures aiming at sustainable safety for all.

In Austria, the number of people killed in road traffic has decreased in recent years from 552 in 2010 to 416 in 2019⁴. This value represents one of the lowest numbers of annual road fatalities since records began in 1950 and confirms the successful road safety work in Austria. The number of accidents with personal injury has also been reduced from 40,831 in 2012 to 35,736 accidents in 2019.⁵

Road traffic accidents cause an economic damage of 9.7 billion euros⁶ in Austria, corresponding to about 2.7% of the gross domestic product. This sum also includes human suffering, such as physical and mental pain, shock, suffering, fear, loss of enjoyment of life and reduction of quality of life, i.e. damage that must not be disregarded when assessing the full costs caused by crashes.

1 Europe on the Move: Agenda for safe, clean, and connected mobility: ec.europa.eu/transport/modes/road/news/2018-05-17-europe-on-the-move-3en, accessed 3/2/2020

2 WHO Global Status Report on Road Safety 2018: who.int/violenceinjuryprevention/roadsafetystatus/2018/en/, accessed 4/2/2020

3 Austrian Road Safety Programme 2011–2020, 2nd edition 2016, p. 22: bmk.gv.at/dam/jcr:d86226ba-d715-426d-9d09-ae478665cc51/vsp2020_2016.pdf, accessed 3/7/2020

4 Source of all statistical figures (unless otherwise stated): Statistik Austria, processing by KFV.

5 Statistics Austria: Road traffic accidents 2019: statistik.at/wcm/idc/idcplg?IdcService=GETNATIVEFILE&RevisionSelectionMethod=LatestReleased&dDocName=123739, accessed 3/7/2020

6 Road Accident Costing 2017, Research Papers of the Austrian Road Safety Fund, Volume 065, 2017

1.3 A new strategy for the decade up to 2030

The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology considers road safety and thus the reduction of suffering on the roads to be a central social goal for Austria. Mobility is a basic human need, and everyone has the right to safe mobility. Strengthening active and environmentally friendly mobility also makes an important contribution to increasing safety on Austria's roads.

The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) is entrusted with the road safety agendas and strives to take essential steps to reduce serious accidents on Austria's roads with the present road safety strategy for the years 2021 to 2030. The strategy covers all areas of road safety work, from human behaviour to vehicle technology and infrastructure. It will be implemented in close cooperation with the national, regional, and local stakeholders and will be coordinated with the European Commission (Directorate-General DG-MOVE) and the WHO, which is entrusted by the UN with global road safety agendas.

In its strategy⁷ and working document⁸ for the decade until 2030 the European Commission has launched several novel initiatives that are also to be implemented for Austria:

- As already anchored in the Austrian Road Safety Programme 2011 – 2020, future policy should be guided by the Safe System philosophy (see chapter 4). The Safe System approach builds on the contents of the Swedish “Vision Zero” and the Dutch “Sustainable Safety” (see also chapter 4). The long-term goal for Austria is a “Vision Zero” for fatalities and serious injuries in road traffic by the year 2050.
- The previous road safety target to curb the number of fatalities in road traffic by 50% will be continued for the decade 2021–2030⁹ and will now also apply to the number of serious injuries.¹⁰
- For accident-relevant characteristics in the areas of traffic behaviour, infrastructure, vehicle, and post-accident care, safety performance indicators will be used, provided with numerical targets, to be followed-up annually. This makes it possible to implement a data-driven road safety management oriented towards numerical target values (Management by Objectives).

7 EUROPE ON THE MOVE Sustainable Mobility for Europe: safe, connected and clean; Annex 1: Strategic Action Plan on Road Safety: ec.europa.eu/transport/modes/road/news/2018-05-17-europe-on-the-move-3en, accessed 4/2/2020

8 COMMISSION STAFF WORKING DOCUMENT EU Road Safety Policy Framework 2021–2030 – Next steps towards “Vision Zero”: ec.europa.eu/transport/sites/transport/files/legislation/swd20190283-roadsafety-vision-zero.pdf, accessed 4/2/2020

9 Basis: average of the years 2017 to 2019

10 The numerical main target of the Austrian Road Safety Programme 2011-2010 was set at 40% less serious injuries by 2020 – based on the average of the years 2008-2010.

- The current developments in national and European road safety are to be presented in regular results conferences where potential interventions will be discussed.

With its Sustainable Development Goals¹¹ by 2030 (SDGs) anchored in the 2030 Agenda for Sustainable Development, the UN has developed 17 goals to ensure sustainable development at the economic, social, and ecological levels. These also include several initiatives to improve road safety that are in line with the present Austrian Road Safety Strategy, for example:

- Halving the number of traffic fatalities (Agenda 2030, item 3.6.),
- Safe working environments (Agenda 2030, item 8.8.) and
- Safe and sustainable cities and communities (Agenda 2030, item 11.).¹²

11 UN Sustainable Development Goals: sustainabledevelopment.un.org/?menu=1300, accessed 5/12/2019

12 2030 Agenda for Sustainable Development. Goals: bmk.gv.at/ministerium/ziele_agenda2030.html, accessed 3/7/2020

A photograph of a car accident scene. A silver car is heavily damaged, with its front end crumpled and debris scattered on the ground. The car's door is open, and the interior is visible. The background shows another car and a person, but they are out of focus. The overall scene is somber and highlights the consequences of road accidents.

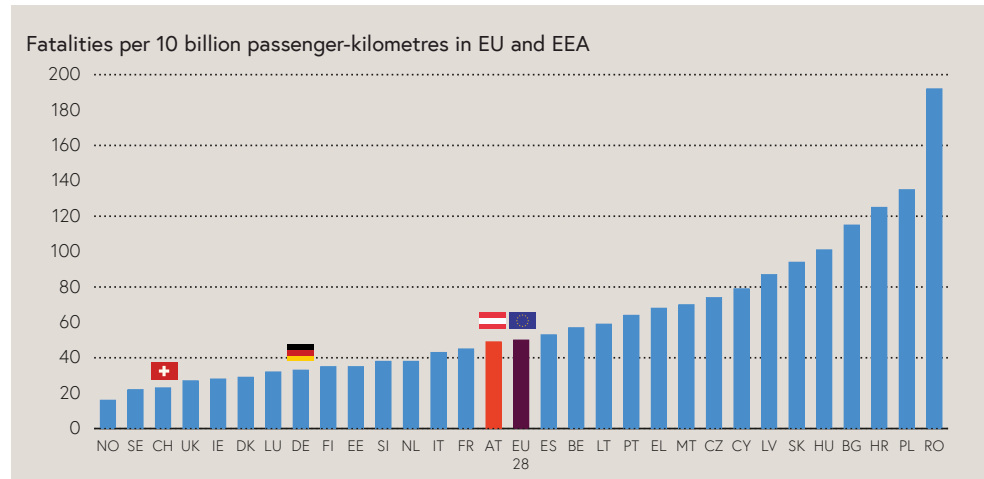
2

Much achieved – and still much left to do!

In 1972, Austria reached a sad record of almost 3,000 road deaths.

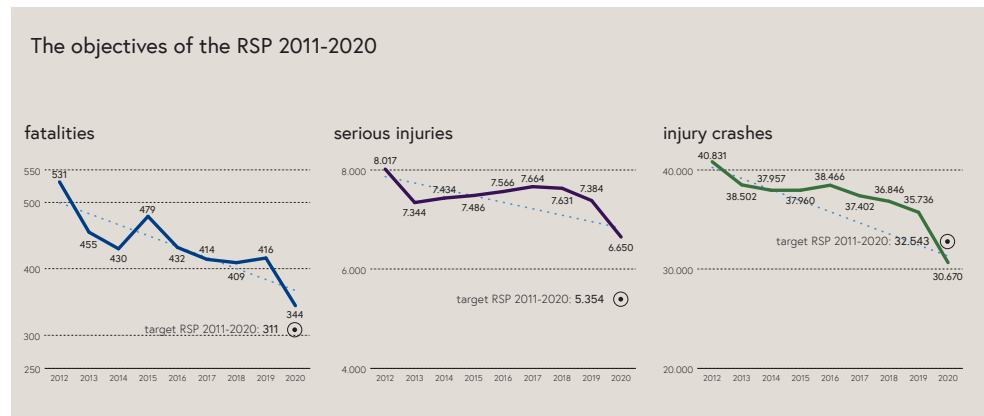
The first-time establishment of speed limits was then only the first in a long series of implemented measures that have successfully reduced this high number of fatalities in road traffic over the decades to around 400 at last count. The number of seriously injured road users¹³ has decreased much less over the same period and has stagnated in recent years. Comparative figures on the number of fatal accidents place Austria in the middle of Europe, just below the EU average, while the neighbouring countries Germany and Switzerland have considerably fewer fatalities (in relation to traffic volume) in road traffic (see Figure 1).

Figure 1
Fatalities per 10 billion passenger-kilometres in EU and EEA 2017; Source: EU Statistical Pocketbook 2019, IRTAD Annual Report 2019.



Unfortunately, the ambitious goals of the Road Safety Programme 2011-2020 could not be achieved either. In particular, the number of those seriously injured – two thirds of whom were vulnerable road users – could not be reduced (see Figure 2).

Figure 2
The objectives of the RSP 2011-2020. Note: Depiction as of 2012 due to changed accident data recording in the course of the introduction of accident data management (UDM); source: accident statistics of Statistics Austria.



13 National definition: According to section 84 (1) of the Criminal Code, serious bodily injury is understood to mean damage to health or occupational disability lasting longer than twenty-four days or injury or damage to health that is serious in itself.

The majority of traffic fatalities (46%) are still among car occupants, although their absolute number has decreased considerably in the past decade. Motorcyclists account for 20% of fatalities, pedestrians for 16% and cyclists for 9%. A completely different distribution can be seen in the statistics on serious injuries, where cyclists account for one quarter – an increasing trend – pedestrians for 12% and moped riders for another 9% (2015–2019). A large proportion of those injured in the aforementioned groups were involved in collisions with passenger cars (see Figure 3).

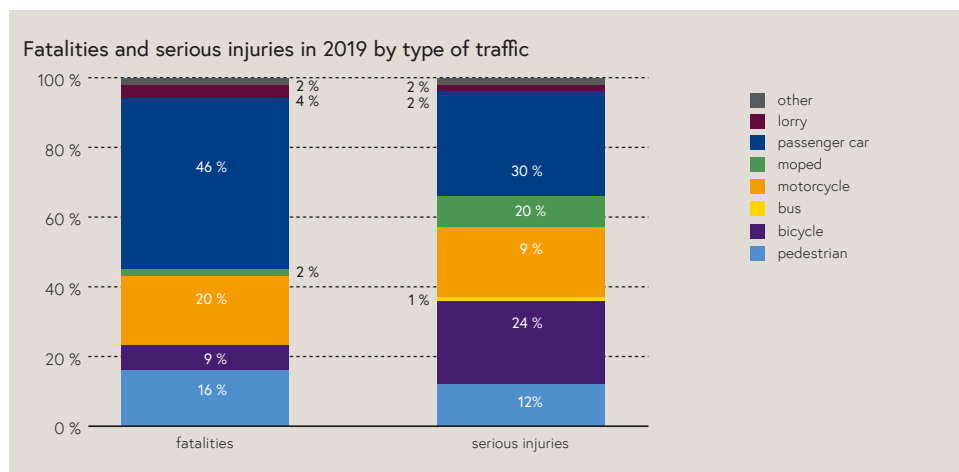


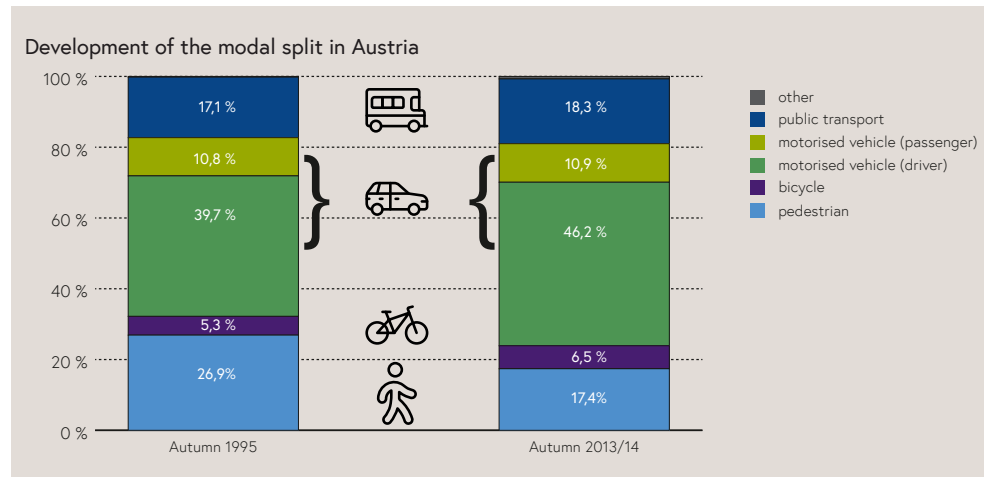
Figure 3
Fatalities and serious injuries in 2019 by traffic mode; source: accident statistics of Statistics Austria

The development of the modal split figures shows a clear trend towards motorised individual transport. Compared to 1995, there is less walking today, especially by children and senior citizens, but more driving by car. Thus, the total annual mileage of passenger cars in Austria is also continuously increasing. Active mobility, such as walking and cycling, is an important factor for increasing road safety (“Safety in Numbers”¹⁴) and also supports the achievement of environmental and climate protection goals.

The following graph illustrates the ratio of traffic participation and clearly points to the dominance of the car within the modal split.

14 The principle of “Safety in Numbers” states that the individual risk decreases as the number of road users of a certain type of traffic (for example cyclists) increases.

Figure 4
Development of the modal split in Austria; source:
Österreich Unterwegs
2013/2014



In order to score even better in European comparison, targeted measures are needed that effectively counter the main problem areas of the accident statistics. Special attention is paid to the following factors in the Austrian Road Safety Strategy 2021–2030:

- On rural roads, where an above-average number of fatal accidents occur.
- On road users who are particularly frequently affected by serious accidents, such as vulnerable road users, motorcyclists, and car occupants.
- On combating distraction in road traffic and on effective action against drink and drugged driving.
- On driving at an adapted speed as a lived practice.
- On better communication of knowledge and strategies on risks in road traffic, so that as many Austrians as possible, regardless of their age, are fully informed and can move more safely in road traffic. A mutual change of perspectives should help to better understand complex situations or specific needs, such as those of road users with disabilities¹⁵, and to be able to take them into account in individual, everyday actions.
- To an even more efficient organisation of road safety work and control at all levels.
- On the motivation to use safe and environmentally friendly means of transport, thus also promoting other objectives such as sustainability, health, and quality of life.

¹⁵ Meaning physical and mental limitations

3 The Safe System approach



Image: stock.adobe.com - Franz Pfluegl

Since the 1990s, a growing number of countries have been putting their safety work on a new footing with the creation of integrated road safety programmes by establishing a safety philosophy that addresses the question of how serious accidents can be systematically avoided: The Safe System approach takes the ethical position that fatalities and serious injuries in road traffic are unacceptable.

3.1 History and guiding principles

The philosophy or concept of Safe System goes back to initiatives in Sweden (“Vision Zero”) and the Netherlands (“Sustainable Safety”¹⁶) in the 1990s.

Traditional approaches to road safety work accepted a trade-off between mobility and safety. The main cause of accidents was “erroneous” human behaviour, and transport policy sought to optimise traffic behaviour in terms of compliance with rules. Safe System, on the other hand, is based on the following four principles:

- Road users will always make mistakes, even with perfect training and supervision.
- The human body can only withstand the forces that occur in collisions to a limited extent without (serious) injury.
- Safety should therefore be a shared responsibility of all those acting in the transport system and not solely be assigned to the road users.
- Thus, all elements of the transport system should form an integrated safety chain that prevents accidents and, if one or more elements fail, at least eliminates serious and fatal injuries.

3.1.1 Industrial role model

“Vision Zero” originated in the chemical industry: as a result of several industrial accidents with disastrous outcomes, the owner of the Du Pont chemical company established comprehensive safety rules in the early years of the 19th century, based even then on the realisation that people (in this case: factory workers) will always make mistakes, no matter how well trained and regulated they are. Therefore, management was given responsibility for safety in the company in order to create a forgiving system in which (serious) accidents should no longer occur.

¹⁶ The term “sustainable safety” describes a road transport system in which infrastructure design plays a decisive role in reducing the risk of accidents and virtually eliminating the consequences of serious injuries.

3.2 Vision versus goal

A classic communication problem of the “Vision Zero” in the early years was that “Zero” was not understood as a vision but as an illusory numerical reduction target and was therefore rejected by some. Not least for this reason, the term “Safe System” has gradually become established. This is now synonymous with road safety strategies that aim to create a transport system in which no one is killed or seriously injured and in which all actors share the responsibility for safety.

3.3 What does Safe System mean in practice?

Safe System entails a paradigm shift from accident prevention to injury prevention: fatalities and serious injuries are unacceptable, while accidents will not be completely avoidable in the future. However, these accidents should not lead to fatalities and serious injuries. Some typical Safe System measures (for example roundabouts, structural median separations, and road restraint systems) may even increase the number of accidents – especially property damage – but they sustainably reduce the severity of accidents.

Table 1 Traditional road safety work and Safe System – from accident to injury prevention

Question	Traditional	Safe System
What is the problem?	Accidents	Fatalities and serious injuries
What is causing the problem?	Misconduct	People make mistakes, people are vulnerable
Responsibility?	Road users	System designers and users
Need for safety?	People do not desire safety	People desire safety
What is an adequate goal?	“Optimal” number of fatalities and serious injuries	Eliminate fatalities and serious injuries

The motto is “Think safe roads, not safer roads”: Conventional approaches to road safety work are based on an incremental improvement of the current state (safer roads), whereas in a Safe System the assumption is an optimal state (safe roads) in which no more serious accident consequences occur. In traffic engineering practice, this means, for example, an extension of retrospective safety work (accident blackspot identification and treatment) to include a proactive and data-driven risk analysis of the entire road space, including the roadside and adjacent areas. On this basis, priority rankings can

be created for high-risk sections and rehabilitation can be carried out precisely where the most serious accident consequences are imminent.

Data-driven Management By Objectives: A safety vision alone is only suitable to a limited extent for selecting and developing concrete measures. Operational goals are needed in addition to the vision. Sweden was the first European country to organise its road safety work on the basis of a target list of – sometimes complex – road safety performance indicators. These are indicators that cover the entire field of road safety work and that are causally related to the occurrence of accidents.

These are each provided with numerical and time targets, for example “Safe state roads: By 2020, at least 75% of travel on roads with speed limits >80 km/h should be with median separation”. In this way, the respective actors in road safety work receive more direct feedback on the effects of measures than would be possible with the classic means of accident statistics.

Evidence-based measure selection: Research provides cost and benefit estimates for the majority of known road safety measures. Each of the indicator-based targets should be backed up with effective measures in action plans (see Chapter 8).

A lasting mandate for road safety: The sustainable reduction of the number of victims in road traffic requires a change of culture from the often unfortunately high-risk coexistence to a road safety culture based on comprehensive “togetherness”, in which mutual consideration and a sense of responsibility for one’s own, but also for the health and safety of all others, have a high and self-evident value.

4

The core principles of the Austrian Road Safety Strategy 2021–2030

The Austrian Road Safety Strategy 2021–2030 aims to find ways to give everyone the greatest possible safety in road traffic. Fatalities and serious injuries are no longer acceptable. Road safety is thus to become a central social goal.

4.1 From rigid programme to active instrument

The present Road Safety Strategy pursues an innovative approach for the period from 2021 to 2030, which is oriented towards the Safe System approach and the current mobility developments of our time. Although the strategy builds on the principles and goals of the Austrian Road Safety Programme 2011–2020, due to the rapid change in technology – which is also accompanied by a change in transport and mobility – regular adaptation to new developments through specific measures is necessary. A special focus is placed on seriously injured road users, whose high number has hardly decreased in recent years.

4.2 Detailed action plans with a short-term implementation horizon

The road safety strategy provides the basis for targeted action plans. These plans deal with the new challenges according to the prevailing trends in road traffic hazards in a time- and topic-specific manner. Concrete responsibilities and competences of national contact persons for Austrian road safety work are anchored in the action plans. This way, the new strategy leaves the relatively rigid concept of a long-term programme to become an active instrument (see also chapter 8).

4.3 Towards a Safe System

Austrian road traffic should be clearly characterised by the Safe System approach and thereby enable a profound cultural change. On the one hand, this means that personal responsibility and rule-compliant behaviour are to be demanded from every road user, on the other hand, the system itself must also become more fault-tolerant:

- Those who commit an error should not pay for it with death or serious injury.
- The coexistence in traffic should be transformed into a cooperation that takes into account the different needs as best as possible and is generally characterised by the principle of mutual consideration.

The change of perspective between road users should be promoted so that “the other traffic participants” are always seen as worthy of protection. Future spatial and transport planning should contribute to preventing “unnecessary” traffic from arising in the first place, thus reducing potential dangers between road users, and providing areas for active mobility. Infrastructural measures also serve to protect those most at risk in road traffic, such as cyclists, children, or people with disabilities. Finally, the potential of driver assistance systems and increasing automation should be used in the interest of road safety.

4.4 Active mobility and intermodality

This Austrian Road Safety Strategy 2021–2030 is to improve safety and the share of active mobility – also for the benefit of the “Safety in Numbers” philosophy¹⁷. People who walk or cycle not only improve their own health, but also make an active contribution to decarbonising transport, reducing the risk for other road users, and increasing the quality of life. Therefore, Austrian cities and municipalities should become much more cycling and walking friendly. The goal is also to give the use of public transport a boost in attractiveness. In this way, a steadily increasing share of the daily journeys of all people in road transport can take place in the intermodal network of eco-friendly modes of transport.

4.5 Involvement of all relevant stakeholders

The implementation of the Austrian Road Safety Strategy 2021–2030 aims at comprehensive cooperation and coordination of all relevant Austrian institutions: Ministries, federal states, municipalities, companies, and interest associations are to pull together for the best road safety in Austria. The involvement of all stakeholders at regional and local level is a particular concern, as the vast majority of serious accidents occur on provincial and municipal roads. Interest associations and umbrella organisations, mobility clubs, insurance companies and research organisations are in constant contact with the ministries, federal states and municipalities and can contribute significantly to the overall goal in their respective spheres of influence. For example, results conferences could serve to improve dissemination throughout Austria, i.e. improved communication of problems and measures in road safety work.

17 The principle of “Safety in Numbers” states that as the number of road users of a certain type of traffic (for example cyclists) increases, the individual risk decreases.

4.6 Road safety in practice

A contemporary road safety strategy must be practicable. In addition to the continuous adaptation and implementation of road safety measures, it is essential for the realisation of the greatest possible and sustainable safety for all in road traffic that road safety is actively supported by society as a whole in its everyday individual actions.

For many people, the topic of safety only exists in connection with pictures of accidents and shocking media reports, which are, however, hardly related to their own living environment in their daily lives.

Therefore, it should be made more aware that everyone is responsible for their own safety and that everyone can do something for it.

4.7 Sustainable road safety culture

For the Austrian Road Safety Strategy 2021–2030, “road safety culture” is defined as:

All values and beliefs held by groups of road users and stakeholders which influence the safety-related decisions on traffic behaviour.

The social systems that influence a person’s values, attitudes, convictions, and behavioural decisions can include not only the region or nation, but also the family, the school class, the sports club, or the local community. The action plans of the Austrian Road Safety Strategy 2021–2030 are intended to impact on all these levels in the future.

4.8 Measures that actually work

Measures and interventions that are set should be based on scientific knowledge. Measures should always be implemented based on the state of research¹⁸. In addition, every measure taken should be evaluated, if possible.

18 Such as the decision support system for road safety created in the EU project SafetyCube: SafetyCube DSS – the European Road Safety Decision Support System; roadsafety-dss.eu, accessed 3/2/2020

4.9 Research with the right focus

With the existence of the Austrian Road Safety Fund (VSF)¹⁹, Austria is in the excellent position of being able to provide considerable funds for research and other road safety activities. If there is a technical need for research, activities, or awareness-raising measures, calls for proposals from the VSF will take into account the ongoing requirements of the Austrian Road Safety Strategy 2021–2030 accordingly.

4.10 Coordination with other national goals

A sectoral strategy such as the Austrian Road Safety Strategy 2021–2030 can never be successfully implemented if it is not in line with other thematically related efforts of the state. For this reason, an institutional coordination with relevant ministries and authorities took place in order to bring the strategy in line with governmental goals²⁰, such as health, education, and environmental protection.

19 KFG §131a, bmk.gv.at/themen/verkehr/strasse/verkehrssicherheit/vsf.html, accessed 13/1/2021

20 RTI Strategy Mobility: mobilitaetderzukunft.at/resources/pdf/broschueren/BMK_FTI_Strategie_Mobilitaet_barrierefrei.pdf

5

The strategy's fields of action

Accidents are not evenly distributed among traffic modes, road types, or regions. With this road safety strategy, the focus is precisely on those areas where the highest reduction potentials in road fatalities and serious injuries are to be expected.

A comprehensive data-driven fundamental analysis of this strategy provided the basis for the seven fields of action:

- Field of action 1 “Active, safe and climate-friendly mobility”: Pedestrians, cyclists and road users who use new electric micro-vehicles are a main target group of the strategy, especially since strengthening active, safe, and climate-friendly mobility is one of Austria’s central goals.
- Field of action 2 “Safe rural roads”: Almost two thirds of all traffic fatalities occur on rural roads and the European comparative figures attest Austria a particular safety deficit on these roads, which does not exist on this scale in urban areas and on motorways.
- Field of action 3 “Motorcycle safety”: Motorcycles are the most dangerous means of transport. The risk of death per distance travelled is about 30 times that of passenger car occupants. One fifth of all fatalities in road traffic are motorcyclists.
- Field of action 4 “Car safety”: Cars continue to be the mode of transport with the highest number – 46 % – of all fatalities. In addition, the passenger car is the most frequent collision opponent of pedestrians, cyclists, and motorcyclists. It is worrying that up to one third of the car occupants killed were not wearing a seat belt and that a substantial proportion of children transported in cars are still not properly restrained.
- Field of action 5 “Fit and with full attention on the road”: A group of road users is not roadworthy or not fully alert on the road. This is caused on the one hand by the use of mobile communication devices or carelessness while driving or walking, and on the other hand by the consumption of alcohol and drugs.
- Field of action 6 “Effective raising of awareness, education, and training”:
- Effective raising of awareness, education, and training are an essential basis for an improved road safety culture, not only at school, but in the future as part of a continuous, lifelong learning process.
- Field of action 7 “Effective legislation, control activities, administration and information processes”: Road safety management is based on modern and cost-efficient structures, processes, and data.

5.1 Field of action 1: Active, safe, and climate-friendly mobility

The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology is committed to active and climate-friendly mobility and will do its utmost to support its safety with the present Austrian Road Safety Strategy 2021–2030. The promotion of walking and cycling not only contributes to the achievement of climate goals but is also indispensably linked to an attractive living environment that is perceived as safe.

Image:
stock.adobe.com - press-
master



5.1.1 Challenge

5.1.1.1 General

- Accidents involving pedestrians and cyclists
 - Around 59% of all fatalities in urban areas are among pedestrians and cyclists (2015-2019).
 - The main accident opponent for pedestrians and cyclists is the car. The increasing mileage of private motorised traffic is a problem. For example, only 27% of passenger cars adhere to the speed limit of 30 km/h. This is a problem for pedestrians and cyclists in particular. Especially for pedestrians and cyclists, the lack of compliance with the speed limit in urban areas means an increase in the severity of injuries and the risk of accidents.
 - In addition, there is a high number of unreported single accidents and falls among pedestrians and cyclists. Hospital data show a much higher value compared to police statistics.

- Few but very serious accidents involving pedestrians and cyclists are caused by trucks turning right. This problem could be exacerbated by increased numbers of pedelecs and e-micro scooters, which reach higher speeds than pedestrians and cyclists.
- Around 30 % (average 2015-2019) of all accidents involving pedestrians occur in the vicinity of zebra crossings, with the number of accidents involving pedestrians on such crossings increasing by around 15 % in the period from 2015 to 2019. The number of accidents involving cyclists on cycle crossings has increased by 60 % in the same period. The presumed main causes of accidents at both zebra crossings and cyclist crossings are violation of the right of way, disregard for red lights and inattention / distraction.
- Reduced active mobility has indirect effects on safety and injury severity²¹. In addition, the mileage of private motorised transport is steadily increasing.
 - Children have less and less practice in cycling. In general, an increasing weakness in motoric skills can be observed as well for children.
 - Parents transfer their fear of traffic to their children. Especially in front of schools, the problem of parent taxis leads to a downward spiral of subjective safety, resulting in even fewer children walking or cycling.
 - Reduced active mobility and increasing mileage in private motorised transport lead to health damage through inactivity and air pollutants.
- The implementation of the Guidelines for Planning, Construction and Maintenance of Roads (RVS) for cycling and pedestrian traffic is often not possible due to local conditions or is only done inadequately. There are quality deficiencies in planning, and contracts are often awarded to the lowest bidder.

21 Child-friendly mobility. A guide for child-friendly transport planning and design. Vienna: BMLFUW 2014. [klimabuendnis.at/images/doku/kinderfreundlichemobilitaet.pdf](https://www.klimabuendnis.at/images/doku/kinderfreundlichemobilitaet.pdf), accessed 3/2/2020; Physical activity and child accidents. Chances of motor promotion for the prevention of child accidents. Bundesarbeitsgemeinschaft Mehr Sicherheit für Kinder e.V. Bonn, 2005. [schulsport-nrw.de/fileadmin/user_upload/sicherheits_und_gesundheitsfoerderung/pdf/SI_8074.pdf](https://www.schulsport-nrw.de/fileadmin/user_upload/sicherheits_und_gesundheitsfoerderung/pdf/SI_8074.pdf), accessed 3/2/2020

5.1.1.2 Pedestrians

- 16% of those killed and 12% of those seriously injured are pedestrians (2015-2019).
- 67% of pedestrians killed are in urban areas, 26% on rural roads, 7% on motorways and expressways.
- 91% of seriously injured pedestrians are injured in urban areas, 8% on rural roads, 1% on motorways and expressways.
- 58% of pedestrians killed are aged 60 or older, which is one of the highest figures in the EU context.
- For the safety of pedestrians in road traffic, who are particularly at danger due to their vulnerability, it is essential that motorised road users assume their responsibility to drive carefully and defensively. Pedestrians, on the other hand, should always be attentive and, if possible, pay attention to their own visibility in road traffic. Increasingly, pedestrians are also distracted, and accidents are more frequent in the dark season due to poor conspicuity.
- There is a decrease in the share of walking in the modal split (and increased use of motorised modes), especially among children and older people.

5.1.1.3 Cycling

- With the increasing use of bicycles in everyday life and leisure, the number of accidents and serious injuries among cyclists is also rising. 9% of all fatalities and 24% of all seriously injured persons in Austria are cyclists (2015-2019).
- 48% of cyclists killed are in urban areas and 52% on rural roads.
- 69% of seriously injured cyclists were injured in urban area and 31% on rural roads (2013-2017).
- 65% of cyclists killed are aged 60 or older, which is a very high figure in the EU context.
- The proportion of pedelec/e-bike riders in accidents has risen sharply in recent years. In 2018, according to the Federal Ministry of the Interior (BMI), 17 of the 40 cyclists killed were on pedelecs/e-bikes, in 2019 it was 9 out of 32. These fatalities were predominantly older cyclists.
- The basis for more cycling is good service planning. In practice, however, optimal cycling infrastructure is often provided where this is also possible without problems due to the space available, for example on predominantly long-distance cycle routes used by tourists. This rather meets the needs of recreational but not everyday traffic.

5.1.1.4 New small electric vehicles

- New small electric vehicles, such as e-micro scooters, bring new risks that are not yet fully recorded statistically. Surveys by the KFV within the framework of the Injury Database (IDB Austria) indicate considerable numbers of injuries.²²



Image:
stock.adobe.com - helivideo

5.1.2 Targets until 2030

The vision and objective are that the quality of life and safety in cities will increase through more cycling and walking, that children will be able to move on the streets on foot and by bicycle and thus develop a good sense of road safety from an early age. Active mobility should be welcomed by society and also demanded together with the greatest possible safety in road traffic as an overriding common goal. According to the “Safety in Numbers” philosophy, a higher number of cyclists and pedestrians also increases road safety (“Safety in Numbers”²³).

- Peaceful and respectful coexistence on the roads and streets and the social acceptance of environmentally friendly modes of transport, including local public transport, will be sought. In this context, the focus should also be on children in particular.
- Road safety research should be linked more closely with mobility research. In this context, special consideration should be given to the “mobility turnaround”, which entails avoiding motorised journeys and shifting to climate-friendly and “safer” means of transport (such as from the car to the use of public transport), or increased use of “sharing” offers (for example car, bicycle, e-micro scooter) or “Mobility as a Service” (MaaS) offers.

²² [kfv.at/wp-content/uploads/2019/08/Infographik-E-Scooter-1.pdf](https://www.kfv.at/wp-content/uploads/2019/08/Infographik-E-Scooter-1.pdf), accessed 3 July 2019

²³ Cycling, Health and Safety. Analysis of international trends in bicycle use and cyclist safety. OECD 2013. DOI: dx.doi.org/10.1787/9789282105955-4-en, accessed 4/2/2020

- Safe walking and cycling should be treated as a main priority. Here, the focus is to be placed on children and young people, especially in the school environment, on the one hand, and the requirements of the ageing society are to be taken into account on the other.
- Active mobility plays an important role in society. Cycling, for example, promotes health on the one hand and contributes to environmental protection on the other. Therefore, attention must be paid to integrating cyclists even more safely into the overall traffic, while keeping the number of cyclists involved in accidents and the degree of injury associated with accidents as low as possible. The target group of cyclists should be made aware of the dangers and potential self-protection measures such as visibility and wearing helmets. A fairer distribution of road space and a separation of pedestrian and bicycle traffic should support road safety, especially for people with disabilities, and increase the overall quality of life in cities and municipalities.
- The speed level of motorised traffic should be reduced to increase road safety, especially where motor vehicles and vulnerable road users share traffic facilities.
- The scope, quality, completeness, maintenance, and attractiveness of the infrastructure for walking and cycling (including new forms of mobility) should be significantly improved. The planning of services specifically for everyday cycling and walking, “design for all” (including accessibility), “network thinking” and the differentiation between rural and urban areas should be taken into account in all planning.
- The implementation of relevant guidelines, such as RVS 03.02.13 Cycling Traffic or RVS 03.02.12 Pedestrian Traffic, should be an area-wide standard in the federal states and municipalities.
- The coordination of experts and the quality of planning should be improved nationwide, for example through training and further education of planners.
- A safety package to improve truck safety is to be implemented.

5.1.3 Potential solutions

5.1.3.1 General

- Amendment of the Road Traffic Act (Straßenverkehrsordnung; StVO): The Austrian Government Programme 2020-2024 provides the basis for the promotion of active mobility and, above all, safe mobility in the area of road traffic regulations:
 - Scrutinising the StVO for disadvantages of cycling and walking.
 - Removal of legal barriers for the benefit of safe cycling and walking.
 - Enable speed reductions in town centres and in front of schools and at accident blackspots (also on rural roads).
 - Strengthening the principle of mutual consideration in the StVO.
 - Maximum speed in shared space zones.

- Launch of a communication campaign regarding the relevant guidelines (RVS) for planners, experts, and regional authorities, including an obligation to apply them in projects which receive federal funding.
- Focus training and increased cross-linking of traffic experts in new or safety-relevant areas (e.g. cycling, e-mobility, motorcycles).
- Strengthen the best bidder principle in local or regional authority procurement. Establish universal criteria and communicate them to authorities.
 - Require transport-specific references (e.g. specialist training, certificates) from planners.
 - Training in road safety aspects and certification for planners.
- Increase road safety by promoting active mobility and switch of as many people as possible to active mobility and public transport.
 - Include this aspect in measures that support active mobility, such as an exchange of best practices, in legal frameworks, in public relations.
 - Where possible, promote active mobility and the shift to environmental transport through road safety work.
- Package of measures “Right turning trucks”
 - Continuation and evaluation of the measures already implemented under the Road Safety Programme 2011 – 2020 and implementation of further measures to reduce traffic accidents involving right-turning trucks.
 - EU General Safety Regulation, high-quality driver assistance technology, education and training as well as public relations work & awareness raising (change of perspective for potential victims), mirror adjustment before driving and, for example, at rest stops and petrol stations, optional restrictions for vehicles without assistance systems or improved direct visibility in urban areas, ban on accessories and retrofit components that take up large areas of the windscreen; Exploring the potential for BMK funding for retrofitting assistance systems, more in-depth training for HGV drivers as part of professional driver training and further training concerning “road safety and blind spots”, awareness-raising measures for particularly vulnerable groups of road users concerning blind spots.
- Enable a change of perspective between motorised and non-motorised road users and communicate the key areas of self-protection for the best possible protection of all people in road traffic as an essential aspect of education and training as well as integrated awareness work.
- Movement training (coordination, reaction, and balance training) to prevent falls among elderly pedestrians.
- Supporting safe coexistence between motorised and non-motorised road users through efficient control, law enforcement and traffic restrictions.
 - Shared space and area-wide 30 km/h zones (exception: main road network) have proven their worth in numerous municipalities.
 - Concepts of the “school street” are increasingly applied.

- Calls for proposals from the Road Safety Fund (VSF) at the interface between road safety research and mobility research.

5.1.3.2 Potential solutions specifically for electric bicycles and small electric vehicles

- Observation of the infrastructural requirements of e-bikes/pedelecs and new forms of mobility (for example e-micro-scooters) and, if necessary, adaptation of the relevant RVS or the legal & technical definitions as well as restrictions of use.
- Checking compliance with the permissible design speed for e-bikes/pedelecs and e-micro scooters (tuning!).
- Training for e-bike/pedelec users.
- Awareness-raising measures to create incentives and acceptance for the voluntary wearing of a helmet when using e-bikes/pedelecs and light electric vehicles.
- Inclusion of the micro-scooter in the voluntary cycling test (see chapter on education and training).
- Development of new planning principles for e-bikes/pedelecs in the corresponding RVS working committee.
- Ongoing monitoring of accident figures for different types of e-transport, where possible and appropriate in relation to stock or sales figures and taking action where necessary.²⁴

5.2 Field of action 2: Safe rural roads

Rural roads and not motorways and expressways are the hotspot of Austria's road fatality statistics. In order to achieve the ambitious goals of the Austrian Road Safety Strategy 2021–2030, a particularly large number of lives must be saved in the future on rural roads through appropriate measures.

Image:
stock.adobe.com - visual-
power



²⁴ basis for this is a separate input and analysis option for these vehicles in the police accident data management (UDM).

5.2.1 Challenge

- In Austria, almost two thirds of all fatalities occur on rural roads with only 35 % of the mileage²⁵ (2015-2019). More than 80 % of them were killed in cars or as motorcyclists. The causes are often excessive speeds, which often lead to single-vehicle accidents.
- Austria and Germany are the only EU countries with a general speed limit of 100 km/h on rural roads.
- The very high proportions of fatalities on rural roads and of single-vehicle accidents compared to the EU indicate a speed level on Austria's rural roads that is not optimally in line with their road layout.
- In addition, the high speed limit tolerances and low punishments for speeding in comparison to other European countries do not appear to be conducive to road safety.
- The difference to the neighbouring country Switzerland is particularly great: if the same framework conditions were to prevail in Austria as in Switzerland (for example, lower speed levels or high penalties), a significant positive effect on road safety could be achieved.
- Lack of hierarchisation and uniformity of roads in terms of design, speed and use characteristics is a general shortcoming in Austria.
- An ÖAMTC detailed study²⁶ shows that every second roadside impact object in fatal collisions was less than 2 metres away from the edge of the carriageway. The closer objects are situated to the edge of the carriageway without guard rails or similar, the higher the proportion of serious and fatal injuries.
- Road Safety Inspections (RSI) and Road Safety Audits (RSA) are not standard off the motorways and expressways.
- Life-saving measures sometimes fail in their implementation due to legal barriers and need for land purchase. A guideline on the topic run-off-road crashes has been the subject of controversial discussion for years.
- Especially in the federal states and municipalities, there is a need for financing for extensive Safe System-related treatments.

5.2.2 Targets until 2030

The safety level of Switzerland shall be reached on Austrian rural roads. The following points are essential to achieve this goal:

- The Safe System principles should be reflected in the Austrian guidelines. These include the principles of self-explanatory and forgiving roads (e.g. mitigation of

25 Federal Environment Agency: Results of the Austrian Air Pollution Inventory 2019 (OLI 1990-2018)

26 Analysis of run-off-road crashes on rural roads, ÖAMTC Accident Research, Vienna, 2016: oamtc.at/Analyse+von+Abkommensunfällen+auf+Freilandstraßen.pdf/17.954.952, accessed: 4/2/2020

roadside risks, prevention of tree accidents), risk-based and proactive safety work & analysis and a uniform road hierarchy, i.e. design according to the road function: access, distribution, connection.

- The basis for infrastructural improvement measures should be priority rankings based on uniform risk assessments. Accident blackspots are also to be analysed throughout Austria using a uniform methodology and their treatment evaluated.
- Road Safety Inspections (RSI) and Road Safety Audits (RSA) are also to become standard for the rural road network in the medium term, with RSI being carried out gradually on the basis of a risk-based priority ranking. This includes standardised specifications for the safety assessment of the roadside and the design of the central reservation and goes hand in hand with the creation of a qualitative framework for road maintenance services.
- Speed limits should always be in line with the road layout and conditions of the respective roads. Speed limits of 100 km/h should only apply on appropriately developed rural roads (away from motorways and expressways).
- Speeding offences should be punished strictly and without unnecessary tolerances and should be subject to adequate penalties.

5.2.3 Potential solutions

- Joint development of proposals for uniform risk assessment and priority ranking of accident data (in combination with other data/indicators) by the federal government, federal states and municipalities
 - as a basis for the step-by-step implementation of improvement measures and
 - for the efficient clarification of liability issues.
- Integration of accident, road, and traffic databases as a basis for indicator and risk-based prioritisation of routes to be treated:
 - Provision of an analysis tool for road maintenance and research.
 - Improve data quality and completeness for local accident research.
 - Exchange of information between local authorities on examples that already exist or are in progress.
- Speed limits in line with the road layout:
 - Designing the general speed limit in such a way that maximum road safety is achieved in relation to the behaviour of road users. This is against the backdrop of the clear scientific data, according to which a general limit of 100 km/h on open rural roads is not in line with the increased requirements for road safety.²⁷
- Reform the legal framework for safety work on rural roads, for example:

27 Evaluation of the reduction of the rural road limit in France from 90 to 80 km/h as of July 2018: onisr.securite-routiere.interieur.gouv.fr/contenus/en/knowledge-centre/evaluation/evaluation-of-the-measures/80-kmh-speed-limit-on-rural-single-carriageways, accessed 2/4/2020

- Raise the penalty levels for speeding offences to an adequate level compared to the EU.
- Reduction of the speed limit tolerances, which are particularly high by international standards and far exceed the technically required measurement tolerances.
- Tougher consequences for repeated speeding.
- Institutionalisation of an exchange of experience between the federal government, the federal states, and the municipalities on the treatment of classic road safety problems on open roads, such as tree accidents, short bridge objects with railings or non-traversable drainage ditches.
- Joint development and gradual implementation of a proposal for a uniform road hierarchy by the federal states and municipalities.
- Emphasis on the design and quality of the roadside in the Guidelines and Regulations (RVS).
 - Consideration of international practice specifically in RVS 02.02.41 “Run-off-road accidents”.
 - Prioritisation of the creation of this RVS.
- Promote Safe System-related education and training of inspectors in the context of Road Safety Inspection (RSI).
- Road safety training and cross-linking for road maintenance services.
- Explore options for pragmatic or temporary infrastructural road safety measures or solutions if it can save lives (for example, by decree).
- Increased use of edgeline and centreline rumble strips to combat run-off-road accidents and head-on collisions.
- Examine options for federal support to federal states and municipalities for Safe System-related implementation and treatment measures.
 - Exploring potential further developments of the Guidelines for Planning, Construction and Maintenance of Roads (RVS) – see also fields of action 3 (motorcycle safety) and 4 (car safety):
 - Definition of both minimum standards and higher requirements in the form of optional criteria – any deviation from the optional criteria should be justified.
 - More detailed definition of the areas of application (on which part of the road network, under which general conditions).
 - Involvement of the road maintenance and construction directorates in the creation of the RVS.
 - Clearer separation into technical specifications and implementation instructions.

5.3 Field of action 3: Motorcycle safety

Motorcycling is by far the most dangerous transport mode – nowhere is the risk of a fatal accident higher. The trend towards this form of mobility, which is also very much linked to the aspect of leisure time, appears to be unbroken, but it is unacceptable that one fifth of all traffic fatalities are caused by it, when the distances travelled in this way only make up a negligible proportion of the total traffic volume.

5.3.1 Challenge

- 20% of all fatalities and serious injuries (2015-2019), with less than 2% of the mileage were motorcyclists. The rate of fatalities in road traffic (per kilometre driven) is 30 times higher for motorcyclists than for passenger cars. The largest group among fatalities is the 50-54 age group.
- According to experts, serious motorcycle accidents in Austria are concentrated on

Image:
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a limited number of routes. Where motorcycle accidents are concerned, there are not only accident blackspots, but also routes with an accumulation of accidents.

- There has been a significant increase in motorcycle accidents, fatalities, and serious injuries since 2010.
- Austria is one of only three EU Member States with an increase in motorcycle fatalities (2010-2016) and has one of the highest mortality rates in Europe – comparable to PTW nations such as Portugal, France, Italy and Greece²⁸.
- The share of motorcycle fatalities in all traffic fatalities on rural roads in Austria is one of the highest in the EU at 26% (2015-2019).

28 European Commission, Traffic Safety Basic Facts on Motorcycles & Mopeds, European Commission, Directorate General for Transport, June 2018: ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/statistics/dacota/bfs2018_motomoped.pdf, accessed 4/2/2020

- About a quarter of motorcyclists in Austria do not wear full protective clothing in rural areas, and up to 80% in urban and local areas. The helmet rate among motorcyclists in Austria is 100%, but full-face helmets are not always used.
- Motorcycle tourism in Austria, for example, caused 15 motorcycle deaths in the federal state of Tyrol alone in 2018, 13 of which were not from Austria. In several neighbouring countries, motorcyclists face heavy penalties for speeding.²⁹
- Targeted police enforcement often only leads to a shift of motorcycle traffic and motorcycle accidents to other routes.
- 42% of fatal motorcycle accidents occurred due to collisions with a passenger car (2015-2019). In almost half of these collisions (45%), the car driver is the main cause. The trigger is often “looked but failed to see”. This means that the person driving the car, for example, looks in the direction of the motorcycle in a turning situation, but does not recognise it because of its small silhouette.
- About half of all motorcyclists were seriously injured or killed in single-vehicle accidents on rural roads:
 - Many drive too far to the left in left-hand bends. The “swerve” at oncoming traffic then often leads to running-off the lane.
 - Incorrect braking and locking wheels are often triggers for motorcycle crashes. Learning to brake correctly is no longer a central element in motorcycle training, because motorcycles with anti-lock braking systems (ABS) are already standard. But in practice not all motorcycle models have ABS, which leads to braking errors.

5.3.2 Targets until 2030

Austria will focus on pursuing the following goals in the coming years:

- An integrated package of measures, which includes infrastructure measures and monitoring, especially on neuralgic routes, is to be implemented. This package of measures also includes a strategy to reduce the attractiveness of accident-prone sections for high-risk drivers.
- A priority ranking of motorcycle routes concerning their safety relevance and implementation of special route inspections (motorcycle RSI) with Austria-wide harmonised quality standards is to be carried out.
- Deficiencies in lane cleanliness which can be surprising and safety-relevant for motorcyclists, for example due to dirt or gravel as a result of construction sites or harvesting vehicles, are to be avoided structurally and organisationally.
- Full, high-quality protective clothing and a full-face helmet should become standard in general and especially in rural areas.
- The left turn problem and emergency braking without ABS are to be integrated into driver training and practical exercises.

²⁹ oamtc.at/1375_19+Grafik_Bu%DFgelder_Europa_low.pdf/18.201.714, accessed 3/7/2020

- The change of perspective for the field of view is to be increasingly incorporated into motorcycle and car training.
- Turning assistants for passenger cars that recognise motorcycles as well as other road users and brake at need, are to become standard for passenger cars.

5.3.3 Potential solutions

- Creation of a cadastre of relevant motorcycle routes and nationwide prioritisation according to casualty figures, as well as concerted treatment of these routes across the regional authorities.
- Special inspections of accident-prone motorcycle routes in the provincial and municipal road network and inspections with an appropriate methodology (motorcycle RSI): The safety inspector should ride a motorcycle, if possible, in order to take into account the limited field of vision due to helmet, visor and sunglasses, as well as the more sensitive reaction to changing light/dark conditions. Thus, the need for high-contrast design of the roadside and road course can be better recognised.
 - Focus training for experts.
- Exchange of experience between the federal government, the federal states, and municipalities on Austrian and international methods of success (best practice) and a coordinated testing and implementation of measures.
- Combating the left turn problem by implementing infrastructure measures, such as appropriate road markings like ellipses, as well as in education.
- Exchange of experience between road maintainers regarding measures to keep the road clean on motorcycle routes (for example by means of sweeping plans).
- Prompt treatment of safety-relevant defects in the road surface. In this context, it should always be borne in mind that a remedial maintenance or renewal of entire stretches often enables higher speeds and attracts additional traffic and – without appropriate accompanying road safety measures – can even induce additional accidents.
- Discussion and piloting of measures that reduce the attractiveness of motorcycle routes for high-risk drivers. These can include infrastructural measures, such as transverse road markings as in Germany, or police enforcement measures.
- Austria's road accident statistics point to the particular danger to which motorcyclists are exposed in road traffic. Due to its geographical characteristics, Austria is a popular destination for motorcycle tourists. In addition to infrastructural measures to improve road safety, it is above all necessary to create awareness and exploit legal possibilities in order to adapt currently common legal consequences to the often much stricter European level:
 - Consideration of vehicle confiscation and licence revocation as a consequence.
 - Temporary track closures as the last alternative measure to be considered.

- Accident causation research and in-depth research to better understand accident-causing scenarios (drivers, vehicle, infrastructure) and develop remedial measures.
- Awareness-raising and (re-)training measures (possibly linked to the purchase of a motorcycle above a certain engine capacity class):
 - Tailored to the main target group of male motorcyclists aged 20 to 35 and over 50.
 - Related to the use of protective clothing and signal colours to increase visibility.
 - Clear communication of risk in driving licence education and campaigns.
 - Support for European-wide initiatives and research to increase the silhouette of motorcycles by adding lights and support for mandatory Electronic Stability Control (ESC) for motorcycles.
 - Exploring the legal possibilities and the practical feasibility of a (multi-phase) training for re³⁰ and late entrants³¹ that includes, for example, compulsory training and traffic psychology examinations or interviews.
 - Increased integration of the change of perspective concerning the field of view (“from the perspective of the car or motorcycle driver”) in driving licence training for categories A and B, because of numerous fatal motorcycle-car collisions.
 - Holding a safety summit involving representatives of the target group from the motorcycle scene.

30 Those who acquired a driving licence for a motorcycle in their younger years but have not used it for a longer period of time and therefore have less driving experience.

31 Those who have already reached the age of 39 at the time of training for the motorcycle driving licence.

5.4 Field of action 4: Car safety

The car is still the mode of transport with the highest number of victims in road traffic. For a safe traffic flow, Austria needs well-trained car drivers who are in full possession of their physical and mental abilities (see also field of action 5 “Fit and with full attention on the road”). The seat belt is the best and cheapest of all available measures to prevent serious injuries. However, it is too often not used or not used properly. Thus, more than 45 years after the introduction of compulsory seat belts in Austria, an enormous potential for preventing suffering is being wasted.

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5.4.1 Challenge

- In Austria, 46% of fatalities and 30% of serious injuries were among car occupants (2015-2019). Overall, 72% of all fatalities in Austria are attributable to accidents involving passenger cars, many of which are collisions with vulnerable road users.
- The number of people killed in cars has fallen sharply (down 32% between 2010 and 2019), while the number of people seriously injured has barely improved over the same period, suggesting improved emergency medical care.
- However, there is a high proportion of unbelted accident fatalities. In 2019, 28% (56 persons) of all persons killed in passenger cars (200 persons) in Austria were not wearing a seat belt. In contrast, only 3% of those injured in passenger cars were not wearing a seat belt. The severity of accidents is therefore significantly higher when a seat belt is not used.
- While in Austria only 91% of van users wear a seat belt, 98% use a seat belt in a passenger car. However, the rate of seat belt use among adults (25–65-year-olds) in the back seat of a passenger car is only 90% (2019).
- In Austria, seat belt offences committed by adult car users are not included in the catalogue of offences of the demerit point driving licence system.

- The child restraint rate in cars in Austria is 99% (2019), but child restraints are often not used properly. 60% of children who buckle up themselves do so incorrectly.
- Older drivers cause a disproportionately high number of car accidents. Most of the fatal accidents (92%, 2015 – 2019) involving drivers over 84 years of age were also caused by them.
- The misuse of driver assistance systems at the threshold of automation can become a problem. For accident causation research, the question of whether or not one or more assistance systems were active in the accident plays a major role.

5.4.2 Targets until 2030

- Seat belt use rates should be increased on all seats and the number of unbelted fatalities should be significantly reduced.
- The error rate in child restraints in cars is to be reduced significantly.
- The measures to identify dementia and other road safety-relevant cognitive impairments shall be improved and alternative mobility options promoted.
- Safety and security should have the highest priority in driver assistance systems and automation. The potential concerning road safety should be fully exploited and safety-relevant technologies promoted.
- Strengthening a road safety culture that supports defensive driving and adequate speed and thus significantly increases e.g. the willingness to stop at pedestrian crossings.

5.4.3 Potential solutions

- Causal research and awareness raising for the correct use of child seats and the use of seat belts, especially among the target group of adult seat belt refusers.
 - Combining awareness-raising measures with targeted checks to increase the effect on seatbelt refusers.
- No longer accept seat belt offences as a trivial offence and consider tougher consequences for seat belt offences for car drivers:
 - Increase in penalty amounts.
 - Stricter consequences in case of repetition, for example by including it in the catalogue of offences of the demerit point system as soon as it is embedded in a future coherent system of penalties and preventive measures (see also field of action 7).
- Increased use of the existing possibilities to also identify people not using seat belts or people using mobile phones while driving on evidential photos of speeding offences.
- Exploring the legal options for automatic traffic monitoring with a view to a possible change in the legal situation for automatic detection of non-use of seat belt or mobile phone use at the wheel alone (even without speeding offences).

- Develop and test even more accurate measures for the detection of dementia and other cognitive impairments at the wheel, with additional consideration of:
 - Improvement and expansion of diagnostics (doctors, online offers for self-checking), as the tests practised in many EU countries, for example from an age of 65, have shown to be inefficient and error prone.
 - Explore support options for relatives who have doubts about a family member's ability to drive.
 - Initiate awareness-raising activities about the impact of medication on driving.
 - Driving licence measures (for example, time and area restrictions).
 - Providing offers after withdrawal of a driving licence that answer the mobility needs of older persons.
- Optimisation of safe mobility through mobility counselling and traffic advice, for example following a test carried out on a voluntary basis to check one's fitness to drive.
- Active participation of Austria in the relevant UN-ECE bodies in Geneva on the topic of automation:
 - Push the topics that are priorities for road safety from an Austrian perspective through active participation in the relevant working groups.
 - Driver Assistance Systems should be easy to operate and not be able to be switched off.
- Development of a Shopper's Guide, with description of standard driver assistance systems.
 - Creating awareness of the functionality and correct use of assistance systems in terms of road safety.
 - Promotion of those assistance systems that actively increase road safety.
- Inclusion of safety-relevant content regarding digitalisation and automation in education and training (see also chapter education and training).
- Introduction of a strict enforcement regime concerning speeding, seat belt, alcohol, drugs, and distracted driving offences, and raising the level of penalties to European levels.

5.5 Field of action 5: Fit and with full attention on the road

According to international figures from countries comparable to Austria, up to one third of all traffic fatalities are related to accidents in which alcohol and/or drugs were involved. Distracted driving is also becoming increasingly important in accidents – across all types of traffic.



Image:
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5.5.1 Challenge

5.5.1.1 Alcohol

- According to official figures, 7% of those killed and 8% of those seriously injured result from alcohol-related accidents in Austria (2015 – 2019).
- These official figures are subject to a high number of unreported cases, since in Austria dead and unconscious persons are not tested for alcohol. The actual figure is most likely much higher, as comparisons with other European countries show:
 - In Sweden, where all accident participants are tested and fatalities are autop-sided, 16% of fatalities were recently recorded in alcohol-related accidents³²
 - and this despite an extremely strict punishment regime (salary-based penalties are anchored in the criminal law).
 - In France, official statistics record 30% of fatalities in accidents involving drunk drivers.³³

5.5.1.2 Drugs

- In the Austrian official statistics, only less than 100 (0.1%) drivers involved in accidents and less than 10 (0.1%) pedestrians involved in accidents are certified as being “unfit to drive” due to drugs (2015 – 2019). Here, too, the actual value is much higher, as comparisons and studies show:
 - A dark figure study by the Austrian Road Safety Board (KFV) concludes that there is one person under the influence of drugs for every four drivers under the influence of alcohol, and these are mainly younger men.

32 trafikverket.ineko.se/Files/sv-SE/57185/Ineko.Product.RelatedFiles/2019_035_analysis_of_road_safety_trends_2017_management_by_objectives_for_road_safety_work_towards_the_2020_interim_targets.pdf,, accessed 3/7/2020

33 securite-routiere.gouv.fr/la-securite-routiere-en-chiffres-observatoire-national-interministeriel, accessed 3/7/2020

- In France, data is collected from autopsies and saliva tests. The results show that 23% of all traffic fatalities occur in accidents where at least one driver tested positive for illegal drugs. Overall, 44% of deaths occur in accidents with at least one driver under the influence of alcohol and/or drugs.
- Sweden records 11% of all traffic fatalities in pure drug accidents and another 5% in combined alcohol-drug accidents. Overall, 32% of fatalities occur in accidents with at least one person involved under the influence of alcohol and/or drugs.
- In Austria, the legal situation for effective police enforcement would have to be evaluated accordingly.

5.5.1.3 Inattention and distraction

- The official statistics do recognise “inattention/distraction” as a cause of accidents, however, according to the assessment of the recording police officer, numerous circumstances are subsumed under this heading, including absent-mindedness and carelessness. This is also the reason why “inattention/distraction” is by far the most frequent cause of accidents, accounting for 29% of fatal accidents (2015–2019).
- Depending on the study, up to one in two car drivers is distracted by a secondary activity. These secondary activities range from using the mobile phone and operating the car radio to eating and drinking or smoking, as well as conversations and noisy children.
- Different studies³⁴ show that the most substantial distraction while driving or walking is writing or reading messages on the mobile phone. Austria has one of the lowest penalty levels in Europe for making calls without a hands-free device and writing and reading messages on a mobile phone.³⁵ By comparison, the penalty level in the Netherlands is 5 times higher than in Austria.
- According to KfV surveys, every third person walking, and every twelfth person cycling is distracted.³⁶
- In the EU project PROLOGUE³⁷, an increase in the probability of occurrence of a “critical event” by a factor of 23 was determined in the course of naturalistic driving observations while writing and reading messages on the mobile phone at the wheel (“texting on mobile phone”).

34 KfV – Safe Living. Volume #7. The influence of distraction on driving behaviour. Results of a study on a driving simulator. Vienna, 2017: kfv.at/download/7-der-einfluss-von-ablenkung-auf-das-fahrverhalten/?wpdmml=2276&refresh=5eff916cc8d9b1593807212, accessed 3/7/2020

35 oeamt.at/1375_19+Grafik_Bu%DFgelder_Europa_low.pdf, accessed 3/7/2020

36 kfv.at/download/6-ablenkung-im-strassenverkehr/, Accessed 2/7/2020

37 PROLOGUE: Promoting real Life Observations for Gaining Understanding of road user behaviour in Europe: ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/projects/prologue.pdf, accessed 4/2/2020

- The use of driver assistance systems leads to unwanted side effects: Drivers rely on (partial) automatisms and perform distracting secondary activities. This behaviour causes risk compensation, which means that the effect of a measure that should serve to increase road safety is reversed because road users behave more riskily. In addition, driver assistance systems themselves can become a distracting factor by overloading drivers with information.

5.5.2 Targets until 2030

As far as possible, all road users should participate in traffic events with as clear a head and as high a cognitive presence as possible, as otherwise the effectiveness of other road safety measures will be significantly reduced.

- Distraction/inattention should be established as a priority safety issue in all road safety work.
- Alcohol and drugs should no longer be socially accepted in road traffic. The possibilities for effective police enforcement of driving under the influence of addictive drugs should be created. The police should be empowered to effectively act against drivers unfit to drive due to the prohibited consumption of narcotic drugs, alcohol, or psychotropic substances (not prescribed by a medical specialist).
- The aim is to create a reliable evidence base for the prevalence of alcohol and drugs in general road traffic as well as in accidents.
- Austria supports industrial development concerning alcohol detection technology in cars.

5.5.3 Potential solutions

- Carrying out a scientifically valid estimate of the number of unreported cases (in-depth study) of drivers in normal traffic and those actively involved in accidents after consuming illegal amounts of alcohol and/or drugs.
- Evaluation of the “Alternative Probation System” (ABS) with alcohol ignition interlock at the end of the five-year period since its introduction (trial started on 1 September 2017).
- Evaluation and, if necessary, adaptation of legislation for effective police enforcement and driving licence withdrawal and rehabilitation measures concerning drug drivers, taking into account medical therapy measures.
- Objectification of the cause of accidents “inattention/distraction” in the accident statistics, among other things by harmonising the procedures of the police in recording accidents.
- Use of state-of-the-art enforcement technologies and processes including provision of human resources specifically on the topics:
 - Drugs behind the wheel.
 - Distracted driving; focus on writing and reading messages on the mobile phone.

- Raising the penalty levels to the European average level.
- Linked with targeted awareness raising.
- Integration of prevention concepts against distraction in (driving) education and training and in schools (for example via workshops for different target groups such as children, young people, or employees in companies).
- Incentives for the use of technologies to detect drowsiness and inattention, for example the autonomous emergency braking system (AEB: Advanced Emergency Braking System) or the Lane Departure Warning (LDW).
- Increased implementation of infrastructure-based measures to prevent accidents due to lack of attention or fatigue, for example through edgeline and centreline rumble strips.

5.6 Field of action 6: Effective raising of awareness, education, and training

The key to improving Austria's road safety culture lies in sustained and continuous efforts to anchor the dangers of road traffic and adequate safe behaviour in the awareness of road users.

Image:
stock.adobe.com - Pho-
tographer.eu



5.6.1 Challenge

5.6.1.1 Traffic safety and mobility education

- Traffic safety and mobility education are only anchored in the curriculum of primary schools. At secondary level I and II (5th to 13th grade), the teaching principle is to include the relevant topics in all subjects. In fact, apprentices and pupils start training to drive vehicles, such as training for a moped licence, training with the L17 licence model or training for the classic driving licence class B – largely without sensitisation concerning road safety.

- There is no Austria-wide general overview of current offers of teaching materials, campaigns, seminars, or courses. The existing “Netzwerk Verkehrserziehung”³⁸ contains offers but would have to be significantly expanded.
- There are hardly any Austria-wide campaigns, workshops, competitions for lower secondary schools. Existing offers are only offered regionally, if at all.
- There are divergent regulations for road safety education in the federal states. There is a lack of connection to the findings of road safety research. There is still little response to the current developments of increased motorised mobility on the way to school, that generally accompanies children’s daily journeys, and the associated decline in children’s ability to move safely in traffic.
- The proportion of journeys that children make by bicycle and on foot is declining sharply.

5.6.1.2 Education and training of drivers, especially at the beginning and later stages of their careers as professional drivers.

- The quality standards for teaching staff in driving schools can be optimised.
- The legal regulations on driver training have grown historically, are spread over several legal matters and do not always correspond to modern requirements, such as in the areas of automation and electric vehicles.
- The age group of 18 to 20-year-olds has a relatively high number of fatalities, especially after the end of the probationary period for the driving licence, and also a clearly excessive proportion of those causing accidents. In this age group, the brain is not yet fully developed or is in the process of reconstruction. They lack an overview of traffic when driving motorised vehicles. This may also be because this was never learned while walking or cycling.
- Driver assistance and automation are developing rapidly. Continuous monitoring concerning negative effects and communication of knowledge about the functionality of driver assistance systems are necessary (see also field of action car safety).
- Further training programmes for older drivers are hardly used.
- In moped training, the training vehicles used often do not correspond to the purchasing interest of the drivers (automatic versus manual gear). A practical moped test does not exist. The proportion of moped drivers among the seriously injured is high in relation to their traffic performance (8 %).

38 Traffic Education Network: netzwerk-verkehrserziehung.at, accessed 4/2/2020

5.6.1.3 Targeted awareness raising

- Designs of awareness-raising road safety campaigns have so far not always been selected in line with the hot spots of accident statistics.
- Defining the target group and carrying out pre-tests before the campaign starts as well as scientific evaluations of the impact of campaigns are still the exception.³⁹

5.6.2 Targets until 2030

- Traffic safety and mobility education should be initiated as a lifelong learning process starting in kindergarten. People of all ages should be continuously informed about technical and legal developments in road traffic in order to more easily cope with the challenges associated with the developments.
- Traffic education should become a comprehensive mobility education and be part of the curriculum in lower and upper secondary schools. Austria-wide offers are to be promoted.
- A continuously updated web-based platform for teaching materials and other offers should be available throughout Austria that can be used by all educators of the target group.
- Mobility education should be included in teacher education and training.
- Quality standards for teaching materials and offers are to be created.
- Participation in cycling training and the voluntary cycling test should become standard in schools. Cycling training should be carried out at least in the 4th grade, better still in the 3rd to 8th grade, as the training improves the safe behaviour in road traffic and the motoric skills of the children.
- High quality standards for driving school instructors are to be created throughout Austria – starting with training. Course content and examination modalities are to be continuously adapted and updated to current developments.
- The voluntary further training of driving licence holders is to be pushed.
- The options for expanding 2nd phase driving licence education to include the peer education principle are to be examined.
- Campaigns should be developed and implemented throughout Austria (at federal and provincial level) and based on accident data, coupled with targeted police enforcement and subjected to standardised evaluation. Successful models of campaigns from abroad should be adapted for the Austrian context.

³⁹ EU Project CAST: Campaigning and Awareness-Raising Strategies in Traffic Safety. Evaluation Tool for Road Safety Campaigns. 2006-2009: trimis.ec.europa.eu/project/campaigns-and-awareness-raising-strategies-traffic-safety, accessed 4/2/2020

5.6.3 Potential solutions

- Further development of the internet platform for traffic safety and mobility education by pooling resources and experiences of the federal government, the federal states and the municipalities:
 - Continuous updating of the platform's content, including its usability in schools (including apprenticeship training).
 - Establish a feedback facility for teaching staff as part of a permanent improvement process.
- Extend traffic safety and mobility education to kindergarten and lower and upper secondary schools (5th to 13th grade).
- Expanding the curriculum of teacher education to include the agendas of mobility education.
- Establish an ongoing exchange of experience between the provincial officers for traffic education and school route safety.
- Optimisation of driver training through, among other things:
 - Updated teaching content and compulsory further training for driving instructors (especially on the topics of distraction, driver assistance systems, automation, and e-vehicles) for a continuously flexible examination of the constantly new requirements for road safety due to technological developments.
 - Introduction of adaptations in relation to the use of e-vehicles.
 - Evaluation of the specific training content for young drivers – starting with the moped licence.
 - Evaluate the introduction of a practical moped test and improve practical moped training (for example by training on how to use manual gear).
 - Focusing the content of driving training on those in need (young people) and possibly gender-specific.
 - Raise awareness of technical deficiencies in vehicles already during driver training.
 - Instilling a traffic culture based on safety and mutual consideration.
- Inclusion of safety-critical content regarding digitalisation and automation in driving school training as well as safety and further training measures (including incentive models) for driving schools, schools, and the police.
- Propagation and standardisation of cycling education at school with the aim that every child participates in the education.
 - Necessary accompanying measure: Provision of the necessary safe infrastructure and equipment, especially in urban areas.
- Targeted communication of existing and creation of new content and programmes for different target groups (including older drivers) with the aim of lifelong mobility education.

- Integration of peer education⁴⁰ into the 2nd phase driving licence education with the objectives:
 - Attractiveness of the psychological group discussion.
 - Raising awareness about consequences of accidents, insurance recourse, punishments, and legal consequences of accidents.
- Evaluation of the extension of the driving licence trial period to 3 years (further extension if needed).
- Exploring options for further measures for young drivers, for example by increasing the number of practical hours in driving training (if necessary also on a voluntary basis).
- Design campaigns taking into account scientific findings on psychological impact models (appreciative, positive norms, improving road safety culture) and communication channels to be used:
 - Independent monitoring and evaluation from the design phase onwards.
 - Expanding the range of methods and measures for campaigns.
 - Regular communication on the results of evaluations.

40 Example campaign “Close To”: Young – predominantly male – traffic offenders and accident drivers report to novice drivers of about the same age about their accident and its consequences”: close-to.at , accessed, 13/01/2021

5.7 Field of action 7: Effective legislation, control activities, administration, and information processes

There is a great deal of unused potential in the legal area and in enforcement and control activities that can contribute a great deal to increasing road safety. Valid, detailed, timely and widely available data is essential for data-driven management by objectives.



Image:
stock.adobe.com - Ewald
Frösch

5.7.1 Challenge

5.7.1.1 Sanctioning of traffic offences

- In Austria, the penalty levels are very low in international comparison, especially for speeding offences.
- At present, it is only possible with great effort to identify recidivists and to take repeat offences into account accordingly in the sentencing.
- Due to an existing lack of resources of the sanctioning authorities in enforcement, only significant speeding offences are classified as worthy of punishment and high tolerances are accepted in addition to the technically required measurement tolerances – varying by federal state. This makes adequate sanctioning more difficult.
- The prosecution of traffic offenders who are resident abroad is difficult due to the lack of a well-developed common legal situation and causes a high administrative burden.
 - There are complex local and factual responsibilities of different authorities for administrative offences.

5.7.1.2 Demerit point system

- Austria's recording system of prior traffic convictions is not exactly a demerit point system and includes comparatively few offences in the European context that lead to entries in the driving licence register. Important accident- and injury-related offences are not included in the catalogue of offences.
- Studies show that repeatedly committing speeding offences correlates disproportionately with involvement in road accidents.⁴¹

5.7.1.3 Technical roadside inspections

- Detailed studies indicate a share of 3% of technical defects in accident occurrences involving HGVs. In-depth studies of specially selected accident vehicles found defects in up to 25% of the accident trucks investigated.
- In 2018, about 160,000 vehicles were inspected, with 10,000 to 12,000 vehicles found to have a significant or serious defect. About 7% of all trucks are inspected each year. Of these, about 23% have dangerous defects. 40% have serious deficiencies that do not result in a ban on further travel. Foreign vehicles perform significantly worse in the inspections.

5.7.1.4 Technical inspection (§57a Motor Vehicle Act (KFG))

- The §57a examination does not fully cover new developments in assistance systems and automation (exception: anti-lock braking system (ABS), electronic stability control (ESC), electronic braking system (EBS), electromechanical power steering (EPS), lights, restraint systems).

5.7.1.5 Quality and timeliness of accident-related data

- For local accident research – for example for the analysis of accident blackspots (UHS) – data from the police accident data management (UDM) is available. For a targeted determination of the causes and treatment, up-to-date data, the correct coding of accident types and driving directions as well as, for example, consistent labelling of tree accidents are important.
- Data interfaces between police accident data and those of the hospitals are missing.
- Information from court proceedings is of great use to road maintenance and accident research for their safety work but is only accessible in exceptional cases.
- Accident, traffic, and road data are often analysed separately in practice. A joint analysis could significantly facilitate the safety management of road maintenance and enable preventive analyses beyond local accident frequencies (“predictive

41 Crash involvement of motor vehicles in relationship to the number and severity of traffic offences: An exploratory analysis of Dutch traffic offences and crash data. swov.nl/publicatie/crash-involvement-motor-vehicles-relationship-number-and-severity-traffic-offences. Accessed 13/2/2020

analytics”). Surveys of traffic data and modal split analyses do not cover the whole country or take place at regular intervals.

5.7.2 Targets until 2030

Effective and cost-efficient processes in the enforcement of traffic regulations and in the handling of information processes are an indispensable basis for safe roads. Tax money should be used sustainably for enforcement and revenue from fines should be reinvested in road safety work.

- Adequate and Austria-wide uniform penalty levels for accident- and injury-related offences (EU level) are to be defined and driving licence revocation periods are to be reviewed for their appropriateness. This should also avoid disparities in sanctions with neighbouring countries.⁴²
- The number of previous offences is to be taken into account to a greater extent than hitherto when assessing the level of punishment in order to increase the preventive effect.
- The demerit point system is to be made more effective in terms of accident prevention.
- Simplifications and modernisations of official processes and roles are to be implemented where they make more efficient use of resources, enable faster processes, and thus serve road safety as well as relieving the police and authorities.
- The law enforcement agencies should be equipped financially, in terms of personnel and in terms of their technical resources in such a way that they can fulfil their obligations in terms of road safety without restrictions.
- Speed limits should be in line with the road layout.
- Detected speeding violations should be punished consistently – any tolerances should not significantly exceed the technically required measurement tolerances. The punishment of traffic violations must be ensured for foreign drivers to the same extent as for domestic drivers. The reckless, dangerous speeding of invincible drivers shall be counteracted better with the help of optimised enforcement and sanctioning possibilities.
- The network of stationary and mobile roadside inspections of HGV traffic is to be continuously adapted to requirements and improved.
- The requirements of the §57a examination are to be continuously adapted to the state of the art and not only reflect the EU minimum standard. The auditing system for inspection bodies will be adapted to current requirements, taking into account international best practice examples.

42 Since 2020, speeding offences of 21 km/h or more in built-up areas and 26 km/h or more outside built-up areas have been punishable in Germany by a fine of €80, one point in the central traffic register and four weeks' suspension of the driving licence: [adac.de/verkehr/recht/verkehrsvorschriften-deutschland/stvo-novelle](https://www.adac.de/verkehr/recht/verkehrsvorschriften-deutschland/stvo-novelle) Accessed: 18/3/2020

- The Road Traffic Act is to be continuously developed concerning a good coexistence of all modes of transport and special emphasis is to be placed on the safety of vulnerable road users while at the same time improving the framework conditions for walking and cycling. The contents and potentials of the StVO should be communicated to the target groups in the best possible way.
- A network of existing accident, traffic and road data should be established. All those who share responsibility in the sense of the Safe System (for example, those who plan, build, and maintain the transport system) as well as experts and researchers should be given prevention-oriented access to relevant data – including information from court records.
- Road safety measures should be regularly evaluated for their effectiveness. Suitable, easily measurable indicators should be defined for this purpose. The measurements should take place regularly and be evaluated for annual results conferences.

5.7.3 Potential solutions

- Creation of a central administrative penal register (including the corresponding legal basis) that can be retrieved nationwide, with the possibility of
 - the immediate collection of outstanding legally binding administrative penalties by the police and
 - the identification of repeat offenders.
- Further development of the demerit point system and incorporation in a coherent package of penalties and preventive measures, taking into account effective execution by the authorities.
- Focus on effect-oriented and nationwide uniform sentencing levels (graded according to the dangerousness of offences) and rigorous punishment of multiple offenders in order to better utilise the prevention potential of sentences.
- Reduction of speed limit tolerances that are above the technical tolerance limit and a uniform approach throughout the country. Securing the necessary resources at the sanctioning authorities (district authorities, sanctioning offices of the provincial police directorates, magistrates of statutory cities).
- Further development of Community law for the effective punishment of offences committed by foreign road users.
- Retention of the accumulation principle when committing multiple traffic offences in one go, due to the associated increased dangerousness.
- Creation of a contact point for local authorities (one-stop shop) that provides implementation-oriented information regarding the interpretation and potential of the StVO and other regulations in the safe design of public spaces.
 - Additional production of toolboxes, guidelines, information materials for municipalities.

- Adequate staffing of the police for a dense truck inspection network concerning labour law, technical and legal issues, with reasonable time expenditure for those being inspected.
- Technical further development of roadside inspections in heavy goods traffic with a focus on:
 - Remote data readout (driving times) and weight checks on in-service vehicles.
 - Reading out the technical data of the vehicle (data at interfaces to driver assistance systems) also while driving on the road.
 - Development of methods to detect tampering with networked vehicles (cybercrime).
- Possibility of using the electronic vehicle interface for the roadworthiness test (§ 57a KFG) and the technical roadside inspection (§58a KFG):
 - Checking all safety-relevant systems in the vehicle for functionality as part of the appraisal.
 - Continuous quality assurance at the authorised bodies.
- Data quality in UDM:
 - Ensure continuous data quality in Austrian road traffic accident statistics that meets the requirements of local and nationwide road safety work.
- Integration of accident, road, and traffic data (also on a sample basis) and provision of an analysis tool for all road users and researchers.
 - Improve data quality and completeness for local accident research.
 - Exchange of information between local authorities on experiences in the federal states.
 - Further development of methods for the analysis and treatment of accident blackspots into preventive measures based on risk analyses. Promotion of corresponding research and implementation projects.
- Conduct regular mobility surveys including information on mode of transport, trips, trip duration, trip purposes, etc.
 - Separate recording of the categories moped and motorcycle.
- Linking of police data with hospital data (also on a sample basis).
- In-depth analyses: Facilitating access to (anonymised) information from court files.
- Accident reconstructions by experts, information on technical defects of vehicles, witness statements.
 - Forensic and accident statistical recording of accident-causal relationships such as the deactivation of accident-preventing driver assistance systems (e.g. automatic emergency braking systems – AEB).
- Regular collection and analysis of survey data on the subjective level of road safety, in particular on road safety culture as well as on the attitude and behaviour of road users.
- Further development of the Austrian Road Traffic Act concerning a prosperous coexistence in road traffic characterised by mutual consideration.

6

Monitoring and numerical objectives



6.1 Reduction targets

Road accidents cause enormous human suffering and economic damage. Since Austria wants to catch up with the five safest countries in Europe, it needs correspondingly ambitious goals.

The reduction targets to be achieved by 2030 with the present Road Safety Strategy are in line with the objectives of the European Commission⁴³. For the most vulnerable group of road users, our children, the goal of “Vision Zero” is to be achieved within the next ten years.

- 50% reduction in traffic fatalities by 2030 (basis: average 2017 – 2019)
- 50% fewer serious injuries by 2030 (basis: average 2017 – 2019)
- Vision Zero: No children killed in road traffic by 2030

6.2 Safety indicators

Safety indicators are measurable values that describe accident- or injury-causal parameters of traffic events.

The following safety indicators and exemplary target values, adapted in selection, definition and method for Austrian road safety work and aligned with the strategic objectives and measures of the European Commission⁴⁴, are integral part of the Austrian Road Safety Strategy 2021–2030. They serve as an important orientation guidance for national, impact-oriented road safety work and also support the possibility of learning from each other across countries.⁴⁵

6.2.1 Speed

Percentage of vehicles travelling within the speed limit. This indicator is differentiated by road type and different speed limits:

6.2.1.1 Target values 2030

- Urban area 30 km/h \geq 60% (2019: 27%⁴⁶)
- Urban area 50 km/h \geq 75% (2019: 61%)
- Rural road 100 km/h \geq 90% (2019: 85%)
- Motorway 130 km/h \geq 85% (2019: 80%)

43 Valetta Declaration on Road Safety 2017: eu2017.mt/en/Documents/Valetta_Declaration_on_Improving_Road_Safety.pdf accessed 5/12/2019

44 Ibid.

45 COMMISSION STAFF WORKING DOCUMENT EU Road Safety Policy Framework 2021–2030 – Next steps towards “Vision Zero”; 6/2019: data.consilium.europa.eu/doc/document/ST-10508-2019-INIT/en/pdf, accessed 4/2/2020

46 Source of all current Austrian values, unless otherwise stated: ongoing surveys by KfV.

6.2.2 Seat belt and child restraint

Percentage of vehicle occupants using the seatbelt or child restraint system correctly.

6.2.2.1 Target values 2030

- Children $\geq 99\%$ (2019: 99%, but high misuse rates)
- Front seats (without children) $\geq 99\%$ (2019: 97%)
- Rear seats (without children) $\geq 95\%$ (2019: 93%)

6.2.3 Helmet wearing rates

Percentage of riders of powered two-wheelers and of cyclists wearing a protective helmet.

6.2.3.1 Target values 2030

- Moped 100% (2019: 99.2%)
- Motorcycle 100% (2019: 100%)
- Motorcycle protective clothing 95% in rural areas (2019: 78%)
- Bicycle $> 50\%$ (2019: 31%; large spread across types of use: 20-90%!)

6.2.4 Alcohol

The European Commission has defined the indicator as the percentage of drivers driving within the legal limit for blood alcohol content (BAC). The collection of this data is carried out within the framework of surveys. The Austrian Road Safety Strategy also uses the figures from the traffic enforcement statistics published by the Federal Ministry of the Interior for the ongoing monitoring of developments concerning alcohol in road traffic. With the help of the alcohol screening devices used in Austria, a very high control density is possible. The comparison between the number of operations and the number of offences over time is therefore to be the basis for the determination of Austrian indicators in the field of alcohol in road traffic.

6.2.4.1 Target values 2030

- Never driven after consumption of alcohol $\geq 99\%$ (2018: 98%)
- Proportion of penalties to controls

6.2.5 Distraction/mobile phone use

Percentage of drivers not using a handheld mobile device.

6.2.5.1 Target value 2030

- No use of mobile phone while driving $\geq 98\%$ (2019: 96%; 2% phoning without hands-free system, 2% mobile phone typing).

6.2.6 Vehicle fleet

Percentage of new passenger cars with a specified Euro NCAP safety rating equal or above a predefined threshold (e.g. 4-star) – to be specified further.

6.2.6.1 Target value 2030

- Target values are defined within the framework of an action plan.

6.2.7 Infrastructure

Percentage of distance driven over roads with a safety rating above an agreed threshold.

Step 1: Risk Rating – Fatalities per mileage⁴⁷ (billion vehicle-km) on motorways and expressways, rural roads and urban roads (possibly split by federal states). However, this indicator can only be presented when nationwide mileages are available for these roads.

6.2.7.1 Target value 2030

- Motorways and expressways: 1 fatality per billion vehicle-km (currently: 1.6)
- Rural roads: 5.6 (9.3)
- Urban roads: 5.0 (5.1)

Step 2: Safety Rating – as soon as data is available: Indicator showing the safety-related quality of road sections – including roadsides.

6.2.8 Post-accident care

Time elapsed in minutes and seconds between the emergency call following a collision resulting in personal injury, and the arrival at the scene of the emergency services.

6.2.8.1 Target values 2030

- Target values will be defined within the framework of an action plan.

6.2.9 Attitude towards risky behaviour

In order to make the basic willingness to engage in risky behaviour in road traffic tangible, suitable parameters are to be determined. These serve to assess the Austrian road safety culture and to set suitable measures for its improvement.

6.2.9.1 Target values 2030

- Target values will be defined within the framework of an action plan.

⁴⁷ If broken down to individual modes of transport, reference should also be made, for example, to the number of journeys or the time spent in transport. This would provide a more realistic picture, especially for the comparison of active forms of mobility with motorised (individual) transport, than is possible with reference to journey lengths.

7

Action plans



Image: stock.adobe.com - Worawut

The present Austrian Road Safety Strategy 2021–2030 provides the systematic basis for targeted action plans that include concrete implementation steps and make it possible to react quickly to changes in road traffic.

The contents of these action plans result from ongoing data analyses and prevailing hazard trends in road traffic and reflect the current state of research and science. They can be specifically topic-related but are not necessarily thematically limited to individual modes of transport.

Actions and measures, responsibilities, time period of the actions, available budget, description of the problem (target accidents) and indicators for measuring success (target formulation) are specified in the action plans.

The BMK and the steering committee (Road Safety Advisory Council) draw up the action plans in cooperation with the federal states, cities, and municipalities as well as other experts and key actors and implement them.

8

Further procedure



Image: stock.adobe.com - freebreath

The following actions are planned in the further procedure:

- Launch conference 2021
- Annual detailed analysis of available accident and mobility data
- Survey and analysis of current safety indicators
- Results conferences (“Road Safety Day”) with active participation of Austrian road safety stakeholders from all regions and disciplines; external guests if required
- Proposals for new/adapted measures & action plans based on analyses and expert discussion.
- Dissemination & cooperation with all stakeholders and local authorities
- Monitoring based on safety indicators
- Ongoing evaluation of measures

