

**Common strategy for road safety activities
in Germany from 2021 to 2030
("Road Safety Pact")**

I. 2021 as the starting point

- The Federal Ministry of Transport and Digital Infrastructure's Road Safety Programme from 2011 will end in 2020.
- The constant drop in the number of fatalities over recent years has slowed down in the current decade. In some years, there is time and again a rise in the number of fatalities. The number of seriously injured casualties has not fallen for years. In 2018, 3,275 persons were killed on German roads, and 67,967 were seriously injured.
- The 2018 Coalition Agreement states that the Coalition is committed to the medium-term of introduction of "Vision Zero" as the guiding principle of road safety activities.
- The Federal Ministry of Transport and Digital Infrastructure wants to counter this bottoming out trend with a strategy coordinated between the Federal Government, the federal states, local authorities and other stakeholders (including trade associations, industry and the research community). This strategy forms the starting point for programmes of action by all stakeholders involved in road safety activities.
- The Federal Government sees its role in this process to be that of a key player, initiator and coordinator. In this spirit, the Federal Government is going ahead with a new road safety programme for the period from 2021 to 2030. In this programme, it will assume responsibility for the spheres of legislation, research and development funding and the road infrastructure within its remit. The Road Safety Programme will be the Federal Government's contribution to this strategy.
- The federal states and local authorities will be responsible for the spheres of monitoring, road safety education and the road infrastructure within their remit. The industries will progress technological developments. Trade associations and other players will support the greater integration of road safety activities in their stakeholder groups as well as measures to improve road safety within their institutions.
- The Federal Ministry of Transport and Digital Infrastructure calls on all stakeholders to commit to the overall objective of the strategy by taking measures of their own and giving a voluntary agreement to implement them. This is designed to further enhance the status enjoyed by road safety in the activities of the stakeholders.

- Trends in road safety are subject to various parameters. These include, but are not limited to, a rising volume of freight traffic combined with progressive changes in consumer behaviour or increasing mobility needs. Other target areas in mobility include, for instance, performance, environmental sustainability, limited financial and human resources as well as demographic change. In addition, the various competences within the federal structure are to be taken into account in road safety activities.

II. Concerted action by all stakeholders guided by the principle of “Safe mobility – everyone’s responsible, everyone joins in”

- The sponsors of this joint strategy for road safety activities commit to the common objective of further enhancing road safety on the way towards “Vision Zero”. Alongside road users themselves, all stakeholders carry responsibility for more road safety. This shared responsibility necessitates the coordinated implementation of various approaches with regard to humans, the infrastructure and the vehicles. Road users make mistakes and, because of the impacting forces generated in an accident, can only survive these errors unharmed with great difficulty. For this reason, road traffic is to be organized in such a way that errors do not end in accidents with serious consequences
- This strategy is in line with the European Commission’s “Strategic Action Plan on Road Safety”. The number of road fatalities in Germany is to be reduced by 40 % by 2030 and the number of seriously injured casualties is to be significantly reduced. The Federal Government, federal states and local authorities will take suitable action to contribute towards achieving the objectives in their own areas of responsibility by appropriately reducing the number of fatalities and seriously injured casualties.
- The degree to which this objective is achieved will depend crucially on the participation of the individual stakeholders in this common strategy. For this reason, the contributions made by and the action taken by the other road safety activity stakeholders are necessary and it will be appreciated if this strategy is supported by as many players as possible.
- The need for action is derived from the rate of accidents, the social relevance and the challenges that mobility will face in the future. A total of 12 action areas establish priorities and identify the scope for improvement in road safety activities. Within the action areas, the road safety activities of the stakeholders are necessary with regard to humans, the infrastructure and the vehicles. Overlaps between the action areas can hardly be avoided, but this also means that they reflect the complexity of road safety activities.
- The aim of the action areas is for the stakeholders to be able to identify where they can take action in one or more action areas and to gear their measures to this. The definition

of the action areas is designed to make it possible, in a best case scenario, for the measures to complement one another in subsequent processes as the common strategy is pursued or for synergies to be exploited.

III. Action areas

Safe mobility - everyone's responsible, everyone joins in (cross-cutting action area)

One key aspect of the "Vision Zero" approach is the shared responsibility for safe road traffic among road users, the public authorities, lawmakers, policymakers at Federal Government, federal state and local authority level and the private sector stakeholders involved in road safety activities. Road safety activities are a cross-cutting task. This requires common objectives and cooperation at various levels between the Federal Government, the federal states and local authorities as well plus the public sector, private sector and volunteer stakeholders. They must be integrated and coordinated to a greater degree but also made transparent. This is to involve exhausting all the existing scope for improvement at all levels and in all spheres. Raising the awareness of all those responsible for road safety is to result in them giving a voluntary commitment to road safety measures, especially within their own remit. This also relates to public and private sector employers establishing workplace mobility management schemes geared to road safety aspects. It is imperative that interdisciplinary cooperation between all stakeholders be intensified and expanded. But shared responsibility also means ensuring the compatibility of all forms of mobility and means of transport in a spatially confined road environment.

Mobility of children and young people

Thanks to the success of road safety activities, young road users enjoy a very high degree of safety on the roads. Children are most frequently involved in accidents as passenger car occupants, followed by passengers and pedal cyclists. It is in these age groups that the fundamentals of safe behaviour are learnt and environmentally sound mobility promoted. Children and young people are especially important for our activities and are the focus of a large number of measures. On the roads children need the special protection of all elements of society. These include, for instance, the federal states, local authorities, schools and parents as role models. Mobility education at child day care centres, starting and changing school, the road infrastructure, walking and cycling as part of safety for children travelling to and from school and the protection of occupants for children in and on vehicles are examples of issues in this action. A great deal has been achieved. The standard reached must be preserved and further improved. There must be no let-up in the efforts.

Safe cycling

Road safety must be improved for the steadily growing volume of cycling – including in connection with the use of pedelecs. To this end, existing successful conceptual solutions must be better implemented and new approaches developed on the basis of academic research. Here, an important role is played by the infrastructure at junctions. Challenges include, but are not limited to, increasing mobility among the elderly (also as a result of demographic change), the rules of the road and a safe and efficient infrastructure for all age groups, especially when there are different speed levels. In addition to accidents at junctions, there must be a further reduction in the number of single vehicle accidents or accidents involving stationary motor vehicle traffic. The focus is also to be on lessening the conflicts between cyclists, pedestrians or users of new forms of mobility, for instance personal light electric vehicles. One of the main objectives is to decouple the trend in the accident and casualty figures from the desired trend in the volume of cycling as an ecological, active and modern form of mobility. In the field of cycling, greater consideration is to be given not only to actual objective risks but also to cyclists' subjective feeling of safety. The technological developments in the fields of cycles, pedelecs or other similar vehicles, which have a positive impact on road safety, will be promoted.

Safe walking and inclusion for everyone

There is a growing trend towards walking. With regard to this trend, but also to demographic change, there has to be a significant improvement in the safety of this form of mobility. Pedestrians are involved in accidents primarily when crossing the road, which may be a result of poor visibility, but also at and around intersections. Senior citizens, in particular, are frequently involved in accidents as pedestrians. As a result of demographic change and the growing levels of mobility in this age group, there has so far been only a slight decline in the number of accidents. All road users are entitled to safe mobility. Because of their age, form of movement or illnesses, however, not all road users have equal capabilities. A caring society should pay particular attention to this – also in view of the rising numbers of people requiring assistance and people with reduced mobility.

Motorcycling – fun and safe

In the past, motorcyclists have not benefited from the improvements in road safety to the same degree as, for instance, passenger car occupants. They still exhibit a comparatively high risk of being involved in an accident and suffering severe injuries, not least because of the limited possibilities for enhancing passive safety. In Germany, motorcycling has a high recreational value and is a popular form of movement in many age groups. The accident figures are subject to fluctuations due to weather conditions to a greater degree than is the

case with other types of road user, and the incidence of accidents varies from one locality to the next, depending on the attractiveness of the stretch of road. Accidents on rural roads – often involving a collision with a roadside obstacle – are characterized by an especially high level of accident severity. Within built-up areas, accidents tend to occur more at junctions. Depending on the locality, the types of rider differ by age or journey purpose. Given the higher risk inherent in the vehicle, it is imperative that the implementation of existing measures to ensure the active and passive safety of motorcyclists (vehicles and infrastructure) be expedited. These are to be complemented by appropriate new measures addressing specific target groups. Here, a proper balance between preventive and repressive measures, such as the systematic prosecution of motorcyclists who behave in an improper manner, has an important role to play.

Learning in an age of changing mobility

The mobility of individuals faces fundamental changes, in both growth and shrinkage regions, and thus also has an impact on road safety. There will be a significant growth in connectivity between various types of mobility, for instance the joint use of vehicles, in the advent of new types of vehicle or in the use of various types of transport (multimodality). This will inevitably be associated with challenges regarding learning how to use different forms of mobility safely and lifelong learning, new legal requirements and further manifestations of automation. Technological progress must also be accompanied by the education of all users in how to use the technology. This will require the modernization of mobility education taking into account methods that address specific target groups. Alongside the dissemination of knowledge, the acquisition of skills will be of key importance. One area on which activities must focus is that of novice drivers, because they are more likely to be involved in an accident. This will require continuous adjustment to future changes in mobility by means of adapted training courses and a modern driver licensing system. Here, it must be taken into account that more and more people who have not grown up in Germany, i.e. who do not have an appropriate traffic and mobility education, are using the roads.

Emerging technologies, automation and the digital revolution

There is great potential inherent in technological developments for the further improvement of road safety. All stakeholders are to make optimum use of this potential. At every stage of development, the increasing automation of the driving task must ensure the safety of all road users. Performing the driving task, monitoring by the driver and automated functions have to be reconciled. Emerging technologies will be confined not only to automated driving and the connectivity of all road users but also the road infrastructure. Account will also have to be taken of the technological evolution of intelligent traffic control and the planning of mobility

strategies and communicative measures. Artificial intelligence is to be progressed and use is to be made of the opportunity it presents for improving road safety. Electric mobility, as well as other post-fossil forms of mobility, have to be assessed and evolved from a road safety angle. Alongside road safety and civil security, consideration also has to be given to cyber security and data security. New technologies for the capture of accident data and the analysis of accidents have to be developed and used.

Freight transport and logistics

Properly functioning trade in goods constitutes the lifeblood of a society characterized by the division of labour and is thus a prerequisite of its prosperity. This prosperity must not be at the expense of the safety of individuals. There will continue to be a growth in the volume of freight traffic in Germany. It will produce changes in heavy goods vehicle traffic and distribution operations, both long-distance and local as well as within towns and cities (“last mile”). As far as freight transport is concerned, the capacity utilization of the infrastructure is a particular factor, as are the modernization of the vehicle fleet and the initial and continuing training of professional drivers. Alongside future challenges and opportunities presented by automated and connected driving, it is to be assumed that new forms, such as cargo cycles, will increasingly become part of urban commercial transport. Here, changing logistical structures and the rising volume of front door deliveries may have a further impact on road safety parameters. Improved road safety that takes account of these likely developments, combined with innovative measures, will also benefit the economic performance of the freight transport sector. The assumption of additional responsibility for road safety by logistics operators is to be supported such that competitive disadvantages are avoided wherever possible. The greatest challenges currently posed include, but are not limited to, preventing accidents involving a turning vehicle and collisions at the end of a tailback. Consideration is to be given to the potential inherent in alternative means of freight transport off the roads and in automation for the improvement of road safety

Mitigating the consequences of accidents

“Vision Zero” in road traffic means preventing serious consequences of accidents and reducing the resulting human suffering. Given that human error can never be ruled out, it will not always be possible to prevent accidents. For this reason, great potential is inherent in reducing the consequences of accidents. This will also make it possible, in the future, to further reduce the number of people killed and seriously injured on the roads. It is necessary to keep track of trends regarding accidents involving critical injuries. However, the nationwide data base available has not so far been sufficient to derive targeted measures.

Opportunities for improving active and passive safety of vehicles and in the infrastructure (inside and outside built-up areas) are to be exploited. There is especially great potential inherent in the infrastructure for mitigating the consequences of accidents. This affects primarily the users of passenger cars and motorcycles in the event of accidents with roadside obstacles. The use of personal restraint systems and protective equipment by road users in or on their vehicle is to be further progressed.

Even if the prime objective is always to prevent an accident, road users can help to mitigate the consequences of accidents by protecting themselves wherever possible. Thus, for instance, despite a high seat belt wearing rate, many of the fatalities are attributable to failure to belt up. Ensuring a properly functioning emergency service chain for the provision of rapid treatment to accident victims is also of great relevance for the mitigation of the consequences of accidents and is thus to be further optimized. Future challenges concern the evolution of occupant protection in autonomous driving and other new means of transport (including connected and autonomously operating shuttles, personal light electric vehicles). Systematic use is to be made of the opportunities presented by assistance systems such as emergency braking systems or cornering assist systems.

Future-proof standards and regulations – from speed regulation through road design to vehicle development

The safe mobility of tomorrow is to be integrated into a future-proof framework with appropriate standards and regulations. Statutory provisions, the latest sets of technical regulations and voluntary arrangements constitute a core component of road safety activities. They have to be adapted to new mobility trends at an early stage. The sets of regulations, in particular, have to absorb the latest findings of safety research and developments and make them relevant to users. Building on this, the safety-related aspects will have to be strengthened in practical implementation nationwide. Future forms of mobility will need new rules which, alongside road safety, also take account of liability and ethical aspects as well as aspects of data collection. In parallel with this, new forms of managing and controlling motorized traffic will emerge in driving that becomes increasingly automated or via infrastructure-based systems. Implementation obstacles, for instance because of different responsibilities and different levels of responsibility, are to be further dismantled by all the stakeholders.

Alongside the improvement of the statutory rules, their comprehensibility is of crucial importance. Rules and their backgrounds are to be communicated transparently to ensure that road users are more willing to accept them and more familiar with them and thus more willing to comply with them. Alongside the way in which the rules are shaped, monitoring

compliance with the statutory requirements and penalizing violations (primarily of the applicable speed limits) are key to a further improvement in road safety. The intensity of monitoring and the levels of penalties will be subjected to risk-based prioritization to an even greater extent. Here, monitoring is to be combined with educational components to ensure that road users understand and accept the rules.

Improving highway culture

An efficient and safe transport system also requires responsible and considerate road users. The way in which every single road user behaves is important for the common objective of a “Vision Zero”. There is not-to-be-underestimated road safety activity potential inherent in encouraging road users to behave in a considerate and safe manner as they share the roads with others. Not all types of behaviour can be controlled or totally monitored by statutory rules alone. Risky behaviour, such as inappropriate speed or distraction through the use of mobile communications equipment, is to be reduced and road users are to be encouraged to pay attention to road traffic and show consideration for other road users. There are currently already many and varied approaches to the communication of safety-relevant behavioural aspects, and their impact can be enhanced by deploying them in a coordinated manner, establishing regional priorities and generally reaching a wider audience. One future challenge, among others, will be the increasingly complex traffic environment with new forms of mobility. This will become even more relevant when more vehicles with higher levels of automation share the street environment with road users in or on conventional vehicles.

Promote and improve existing and effective measures and implement them nationwide

For decades now, measures to improve road safety have been progressed with great commitment. Suitable measures are frequently already known and must, if necessary, also attract higher investment (for instance in the conversion of the road infrastructure). In many spheres of road safety activities – primarily in the field of road infrastructure, for instance in the initial and continuing training of skilled transport workers or the voluntary installation of vehicle safety systems – the responsibility of society as a whole is to be further intensified and existing and effective measures are to be implemented to a greater extent. The willingness – from the policymakers right down to the affected residents or road users – to take the necessary steps is of crucial importance for successful implementation. Implementation of the measures themselves and the impact of the measures are to be systematically reviewed and communicated. This is intended, on the one hand to disseminate effective measures nationwide and, on the other hand, to avoid ineffective measures. Here, the research community must provide even greater support, including analyses of

effectiveness. Overall, there is great potential inherent in the intensified implementation of effective measures for reducing the number and severity of road traffic accidents.

However, this requires an improvement in the parameters for the implementation of the measures. The procedures used in road safety activities – for instance the road safety management of the road infrastructure – are to be more highly systematized at different levels and by different institutions, better coordinated and complemented by innovative approaches and new technologies. A key challenge in this action area is ensuring comparable and effective road safety activities in all fields of responsibility. Standardized, forgiving infrastructure that can be understood by all road users should be the objective here.

IV. Implementation of the strategy by taking action

- The stakeholders will actively assume responsibility for their specific measures to improve road safety and will seek to implement them as quickly as possible within their competence and responsibility.
- Wherever possible, the stakeholders are to communicate their measures in order to boost societal acceptance of road safety activities and raise all road users' awareness of the need for safe road user behaviour.
- The principal measures that should be prioritized are those which, based on scientific evidence, promise to have the greatest effects – either in absolute terms or in relation to the effort and expenditure involved. Within the context of a systematic approach, such measures may cover the entire territory of the Federal Republic of Germany, have a regional impact or be implemented locally, for instance at accident blackspots.
- Within the scope of this “Road Safety Pact”, programmes of action crossing departmental boundaries will be sought between the Federal Government, the federal states, local authorities, trade associations or other public sector and private sector stakeholders involved in road safety activities. Clear time windows and responsibilities for implementation will be a component of these programmes. The Federal Government and the federal states will lead the way by making joint proposals.
- Trends and measures in road safety activities will be continuously evaluated, assessed and published in order to provide the stakeholders with feedback and, if necessary, take corrective action.