



Report

Road Safety Action Plan 2022-2025

250 measures that 33 authorities and
stakeholders intend to implement to
increase road safety

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Foreword

For road traffic to be sustainable in the long term, it must be safe. This is established in both the Government's goals for the transport system and the goals for sustainable development according to the 2030 Agenda. In the latest infrastructure bill (Government Bill 2020/21:151), the Government states the following: "In order to achieve the overall transport policy objective, the functional objective needs to be developed mainly within the framework of the consideration objective". This means that accessibility within the transport system should primarily be developed based on, among other things, the requirements that are pursuant to Vision Zero.

The scenarios developed by the Swedish Transport Administration show that we are facing major challenges with regard to the possibility of a 50-per-cent reduction in the number of fatalities and a 25-per-cent reduction in the number of seriously injured cyclists and pedestrians by 2030. In order for road traffic to be safe, the relevant authorities and stakeholders must demonstrate great commitment and responsibility to reach Vision Zero and current road safety targets. Long-term and systematic work is required with proactive efforts that effectively lead to the common road safety targets.

Under the guidance of the Swedish Transport Administration, authorities and stakeholders worked to set forth what they intend to do over the next four years to contribute to safe road traffic. That work resulted in this document – the Road Safety Action Plan 2022–2025. The action plan contains a total of 250 measures that the relevant authorities and stakeholders intend to implement during the period.

The strength of the action plan is that the various stakeholders and authorities themselves point out what they can and want to contribute over the next few years. The plan is an important display window for the Swedish traffic safety work and it enables various stakeholders to find links between their own operations and those of others.

This action plan is the second of its kind since the Government decided in 2016 to relaunch Vision Zero and at the same time commissioned the Swedish Transport Administration to lead the collaborative efforts on road safety. The Swedish Transport Administration is the issuer of the action plan and is responsible for contents and conclusions of this report, while each authority and stakeholder is responsible for the implementation of their own measures. The presented measures will be followed up on an annual basis under the direction of the Swedish Transport Administration.

The Swedish Transport Administration would like to thank all the authorities and stakeholders for their contributions to the action plan and for all the measures implemented for safe road traffic.

Roberto Maiorana

Director General, Swedish Transport Administration

1. Introduction

1.1 Background and purpose of the action plan

Since 2018, the Swedish Transport Administration has been tasked by the Government to lead overall collaboration on road safety work. This assignment means that the Swedish Transport Administration must lead the collaboration in a way that creates a continued and increased commitment and responsibility among the relevant authorities and stakeholders to contribute to safe road traffic in which no one is killed or seriously injured. One of the activities conducted as part of this assignment is that the Swedish Transport Administration brings together authorities, organisations and stakeholders who have the opportunity to contribute to this work in a joint action plan.

The purpose of the action plan is to strengthen and highlight effective measures implemented by various stakeholders to actively contribute to safe road traffic in the period 2022 to 2025. The plan will also highlight the responsibilities of different authorities and stakeholders in the short term, with a focus on a number of priority action areas. The plan is also a tool for the Swedish Transport Administration to be able to lead and monitor the road safety work in an effective and result-oriented manner. The action plan is the second of its kind and applies to the period 2022–2025.

1.2 Experience and results from the first action plan

The first action plan was developed in 2018–2019. Reactions to the work and the results were consistently positive. The work contributed to an increased internal focus on the most important road safety issues of a number of stakeholders, and the process highlighted how different parts of the operations of the various stakeholders could contribute to safe road traffic. Being able to discuss and receive feedback on various ideas in connection with the development of the plan was also perceived as a strength. The fact that the stakeholders were able to present to each other what they intended to contribute also provided a greater understanding of each stakeholder's part in the whole.

The ambition of the first action plan was for the measures to be as concrete and traceable as possible, which is also the case for this action plan. The measures should, if possible, be quantified, but this is difficult and sometimes not even possible. In many cases, the difficulty lies in the fact that the measures are dependent on decisions and resources that cannot be guaranteed over several years. Some of the stakeholders, for example, are dependent on government grants to be able to implement the measures described. Therefore, they cannot fully describe what they intend to do, and they cannot know if they will receive the grants for which they are applying. Many stakeholders also have financial frameworks that cannot be specified and allocated to a four-year period. In addition, some measures are of a nature where



they lay the groundwork for later activities, which means that they are difficult and not always relevant to quantify. The fact that not all measures can be described in concrete terms and quantified makes the annual follow-up particularly important. What has been done, in what way and to what extent can be described in the annual follow-up. This means that, in several cases, the measures are described in concrete terms afterwards through the follow-up of the action plan. The final follow up of the first action plan was conducted in early 2022¹.

Of the 111 measures that 14 authorities and stakeholders described as their ambitions in the *Action plan for safe road traffic 2019–2022*², 90 were assessed in the final follow-up to be green, meaning that they had been started and were running according to plan or were completed.

Based on the positive experiences from the first action plan, the decision was made to prepare a second action plan. In February 2020, the Government decided on a new interim target for 2030³. The target aims for a 50-per-cent reduction in the number of fatalities due to road traffic accidents and at least a 25-per-cent reduction in the number of people seriously injured by 2030. As a new road safety target was set, it was important to get started as soon as possible with the work towards the new target. Consequently, the work on the new action plan could not wait. *The Road Safety Action Plan 2022–2025* thereby replaces the first action plan from 2022.

If a third action plan is to be prepared, it should apply to the period 2026–2029.

1 [2021 follow up of Action plan for safe road traffic 2019–2022](#)

2 [Action plan for safe road traffic 2019–2022](#)

3 [New interim transport policy target for road safety](#)

1.3 Prerequisites and limitations

Achieving the current road safety targets by 2030 will require a broad commitment and acceptance of responsibility from stakeholders and authorities that can contribute to safe road traffic in various ways. The action plan is a tool to create this commitment and highlight the actions carried out in a number of identified priority action areas. In collaboration with other stakeholders, the Swedish Transport Administration is also developing different strategies regarding safe road traffic that seek to describe a specific area and its challenges and measures⁴.

The prerequisites for the preparation of the action plan:

- The plan must be based on Vision Zero.
- The plan must provide support to achieve the current road safety targets by 2030.
- The plan should to the furthest extent possible identify concrete, effective and traceable measures that are implemented during the period of the action plan (2022–2025).
- The plan must focus on the most important issues in light of the annual analysis report and other analyses of road safety trends.
- The plan must strengthen the joint systematic road safety work.
- The plan must make it possible to manage and monitor the road safety work.
- The plan will be completed in April 2022 and presented at the “Road Safety Results Conference”.

4 [Focuses and strategies for increased road safety](#)



The road safety targets mentioned above are, on the one hand, the Government's interim targets for a 50-per-cent reduction in the number of fatalities and a 25-per-cent reduction in the number of people seriously injured by 2030, and, on the other hand, two joint stakeholder targets developed within the framework of the national cooperation in the *Vision Zero Collaboration Group* (VZCG)⁵. The joint stakeholder targets aim for the number of suicides in the road transport area, including jumping from bridges, to decrease between 2020 and 2030, and the number of people seriously injured as a result of falls in road traffic to decrease by at least 25 per cent between 2020 and 2030. This action plan is based on these interim targets and joint stakeholder targets. Another important starting point is the analyses and forecasts of road safety trends leading to 2030 conducted by the Swedish Transport Administration that are described in section 2.2.

In light of the adopted targets and road safety trends, the action plan focuses on six priority action areas: speed, sober driving, safe cycling, safety for pedestrians (focus on falls), suicide prevention and leadership for road safety. This means that the action plan was expanded by three priority action areas compared to the first action plan's three action areas (speed, sober driving and safe cycling). The broadened content was also a reason why additional stakeholders were invited to participate in the work.

The action plan shows the breadth of the measures that are being implemented in Sweden to promote safe road traffic in the six priority action areas during the current period. However, the plan does not contain *all* the measures implemented by the participating stakeholders, or all the measures that *need* to be implemented to achieve the 2030 targets. In addition, a wide range of important measures are being implemented by other stakeholders who have not participated in this work.

The action plan describes measures that are intended to be implemented during the years 2022 to 2025, based on decisions and plans by the respective stakeholder. The measures described in the action plan are considered important contributions in order to achieve the set targets.

Section 3.2 describes the measures that, based on verified effects, are considered to have the greatest effect and potential to contribute to fewer fatalities and serious injuries in road traffic.

The Swedish Transport Administration is the issuer of the action plan and is responsible for the contents and conclusions of this report, while each stakeholder is responsible for its own ambitions to contribute to safe road traffic, which are presented in chapters 4–9.

5 [New road safety targets 2020–2030](#)

1.4 The process

In the first action plan, the 14 stakeholders that were part of the Vision Zero Collaboration Group⁶ participated in 2019 along with the Swedish Abstaining Motorists' Federation (MHF). However, there was reason to broaden the participation, based on the new interim targets and the joint stakeholder targets for 2030 and the challenges pointed out by forecasts of road safety trends. In consultation with the Vision Zero Collaboration Group, the decision was made to invite a further 15 stakeholders to participate in the work on the action plan.

In May 2021, an initial workshop was conducted in which the road safety challenges we are facing were described in connection with the six priority action areas. The workshop aimed to inspire thoughts and ideas on how to contribute to safe road traffic as a participating stakeholder, individually and together. In the autumn, all the stakeholders submitted their proposed measures, and the Swedish Transport Administration held a dialogue on formulations and content with each stakeholder.

In November 2021, additional workshops were conducted where all participating stakeholders presented their proposed measures. The objective was, among other things, to inspire further measures, see links to each other's operations and possibly find measures to collaborate on. The workshops also contributed to information and knowledge exchange between the participants. The measures were subsequently compiled in a draft action plan that was sent to participating stakeholders in January 2022.

Each stakeholder is responsible for the implementation of its own measures. The measures are followed up on an annual basis under the direction of the Swedish Transport Administration. The action plan is followed up by a written report being collected from each stakeholder.

6 Swedish Work Environment Authority, Folksam, City of Gothenburg, Ministry of Infrastructure, NTF, Swedish Police Authority, SAFER, Swedish Association of Local Authorities and Regions (SALAR), City of Stockholm, STR, Swedish Confederation of Transport Enterprises, Swedish Transport Administration, Swedish Transport Agency and Veoneer.



Below is a list of all stakeholders participating in the Road Safety Action Plan 2022–2025.

Bil Sweden
City of Gothenburg
City of Malmö
City of Stockholm
Umeå Municipality
Uppsala Municipality
Cycleurope
Cykelfrämjandet
Dalatrafik (responsible for public transport in the county of Dalarna)
Folksam (insurance company)
Håll Nollan
If (insurance company)
Länsförsäkringar (insurance company)
National Association for Road Safety*
Nordic Micromobility Association
Public Health Agency of Sweden
Region Västra Götaland
SAFER - Vehicle and Traffic Safety Centre
Swedish Abstaining Motorists' Association
Swedish Association of Local Authorities and Regions
Swedish Association of Road Transport Companies
Swedish Bus and Coach Federation
Swedish Civil Contingencies Agency
Swedish Confederation of Transport Enterprises
Swedish Motorcyclist Association
Swedish National Association of Driver Educators
Swedish National Board of Housing, Building and Planning
Swedish Pedestrian Association (FOT)
Swedish Police Authority
Swedish Transport Administration
Swedish Transport Agency
Swedish Work Environment Authority
TRB Sverige

* The National Society for Road Safety declared bankruptcy on 21 April 2022, which will affect the implementation of some of the measures for which it is responsible in this action plan. Note that the bankruptcy declaration does not apply to the county associations, which play an important role in the society's measures.

1.5 Reading guidelines

Chapters 4 to 9 describe the priority action areas and their road safety challenges, and highlight examples of measures that contribute to the action area. Under each priority area, all the measures that participating stakeholders implement in that area are presented. The numbering of the measures is only a serial number and does not constitute any kind of priority order.

Various abbreviations and terms used in this report are explained in the table below.

Abbreviations and terms	Meaning
ADAS	Advanced driver assistance systems
ANDTG	Alcohol, narcotics, doping, tobacco and gambling
ATK	Automatic traffic safety control (ATK) is a system for speed monitoring with traffic safety cameras
Euro NCAP	European New Car Assessment Programme. Road safety cooperation between some of Europe's states (including Sweden), car manufacturers and volunteer organisations for crash safety tests and ADAS in new cars.
ISA	Intelligent speed adaptation
MHF	The Swedish Abstaining Motorists' Federation
NMA	Nordic Micromobility Association (trade association for micromobility companies)
NTF	The National Society for Road Safety
Region	Politically self-governing unit with a geographic area of responsibility equivalent to a county. Regions were formerly referred to as county councils.
SAFER	Vehicle and Traffic Safety Centre at Chalmers University of Technology
SALAR	The Swedish Association of Local Authorities and Regions
Seriously injured	Someone who has suffered at least a 1-per-cent permanent medical disability as a result of a road traffic accident
SIS	The Swedish Institute for Standards
SMADIT	Cooperation programme between government authorities against alcohol and drugs in road traffic
SMC	Sveriges MotorCyklister (Sweden's MotorCyclists)
STR	The Swedish National Association of Driver Educators
STRADA	Swedish Traffic Accident Data Acquisition. A system for registering accidents and injuries within the entire road transport system. Both the police and the medical care services report to STRADA.
TRB	TRB Sverige (company in the transport industry)
VGU	Vägars och gators utformning, the Design guideline for streets and roads, a requirement and guideline document drawn up and managed by the Swedish Transport Administration.
Vision Zero Collaboration Group	The Vision Zero Collaboration Group for road safety. A forum for collaboration between authorities and stakeholders intended to improve the shared ability to contribute actively to Vision Zero and current interim targets, as part of sustainable community development.

2. From global targets and scenarios for road safety trends to the road safety action plan

2.1 Road safety and sustainable development objectives

In February 2020, the Government decided on a new interim target for road safety by 2030. The target means that the number of fatalities due to road traffic accidents must be halved from 266 (based on an average in 2017–2019) to a maximum of 133 fatalities in 2030. For the number of people seriously injured, the target is a decrease of at least 25 per cent by 2030.

In 2020, in addition to the Government's interim targets, the Swedish Transport Administration developed two more joint stakeholder targets for 2030, within the framework of the national cooperation in the Vision Zero Collaboration Group. These objectives mean that the number of road transport suicides, including jumping from bridges, must decrease between 2020 and 2030. The number of people seriously injured as a result of falls in road traffic must also decrease by 25 per cent between 2020 and 2030.

In addition to the national road safety targets, the 2030 Agenda and the UN's global goals for sustainable development (SDG) are also important to the ongoing and future road safety work. Based on the 2030 Agenda, road safety is a sustainability aspect that must be linked to other sustainability aspects in order to create both safe, secure, accessible and attractive environments, not least for pedestrians and cyclists. Since the road safety targets are included in the 2030 Agenda, it is natural for more stakeholders in society to target their operations for sustainable and safe transport. This is also one of the reasons why the priority action areas for the action plan were extended with the area "Leadership for road safety".

The Swedish Parliament's adoption of Vision Zero is the basis of Swedish efforts for a safe transport system. In order for road traffic to become sustainable in the long term, the safety philosophy of Vision Zero must therefore be taken into account in every part of those efforts. According to the 2030 Agenda, in the short term:

- SDG Target 3.6: "By 2030, halve the number of global deaths and injuries from road traffic accidents"
- SDG Target 11.2: "By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons".

There are additional areas where work for a safe road transport system has links to the 2030 Agenda, such as imposing road safety requirements on the occupational health and safety of different groups and in procurements for vehicles, travel and transport. Target 8.8 includes promoting safe and secure working environments for all workers, and targets 12.6 and 12.7 are about encouraging companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle and promoting public procurement practices that are sustainable in accordance with national policies and priorities.

Working on suicide prevention in the transport system also means that we work on SDG Target 3.4: “By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being”. An indicator in this is 3.4.2, *suicide mortality rate*.

The global road safety plan⁷ is also relevant to highlight in this context. It is based on the resolution on road safety adopted by the UN General Assembly, and it contains recommendations for road safety work in the world by 2030. The goal is to reduce traffic fatalities by at least 50 per cent between 2021 and 2030. The purpose of the plan is to inspire authorities and other stakeholders who can influence road safety, and it points out a number of measures, including limiting speed to 30 km/h in urban areas where there is a mix of different kinds of road users. The global plan also states that although government agencies have the primary responsibility for designing a safe road transport system, the influence of other stakeholders is increasingly becoming an important part of the safe system. Stakeholders pointed out are the private sector, civil society, academia and other non-governmental actors.

2.2 Challenges to achieving the road safety targets in 2030

In 2020, 204 people were killed, and 3,600 people are estimated to have been seriously injured in road traffic accidents. This means that the interim target for 2020 was achieved. This is described in detail in the *Analysis of road safety trends in 2020*⁸. Although the 2020 target was achieved, we are facing major challenges in order to achieve future targets for 2030. It will be particularly difficult to achieve the target for serious injuries, which is largely comprised of cyclists in single-bicycle accidents.

Forecasts and scenarios for road safety trends⁹ show that the expected development based on planned renovations, speed reductions in combination with automatic traffic safety control (ATK) and future vehicle developments will

7 [Global Plan for the Decade of Action for Road Safety 2021-2030](#)

8 [Analysis of road safety trends in 2020: Road safety work target management towards the 2020 milestones](#)

9 Memorandum regarding Forecast of road safety trends and scenarios to achieve target levels in 2030 and 2050, ref. no. TRV 2021/72599



mean a slight decrease in the number of fatalities. However, the reduction will not be in line with what is necessary to achieve the adopted target level for the number of fatalities by 2030. The target for the number of people seriously injured is deemed even more difficult to achieve with the measures that are planned and described in the draft national plan 2022–2033¹⁰. This can be largely explained by the fact that the majority of those who are seriously injured are cyclists in single-bicycle accidents, which is not adequately addressed with current planned measures.

The Government has decided on a target that active travel shall double¹¹ in the long term, and cycling is an important part of this. This makes it even more pressing to implement measures that increase road safety for this road user group, so that increased cycling does not lead to more fatalities and serious injuries, but on the contrary can decrease by at least 25 per cent in accordance with the government's interim target for safe road traffic. In forecasts and scenarios, assumptions have been made that cycling will double by 2030, but that we at the same time implement effective measures that

10 [Proposal on a national plan for transport infrastructure 2022–2033](#)

11 Strategy for living cities – policy for sustainable urban development, SALAR. 2017/18:230

lead, for example, to universal use of bicycle helmets, and also establish an efficient operation and maintenance of bicycle paths and increased personal protection for cyclists. However, the forecasts show that, even if this type of measure were to come about, it would be very difficult to achieve the target on serious injuries by 2030 if cycling doubles.

Overall, planned road measures and future vehicle development will not be enough to achieve the 2030 targets for fatalities and serious injuries. Further measures are needed, including step-1 and step-2 measures.

In addition to the Government's adopted road safety targets, since 2020, there has been a joint stakeholder target (see section 1.3) that the number of suicides in the road transport area, including jumping from bridges, will decrease between 2020 and 2030. The target is not currently quantified, but will be followed up with the same systematic approach as for the Government's interim target for fatalities due to accidents in road traffic. Including suicide prevention in regular road safety work is a new area for many who work with the transport system, and it is a challenge to encourage important stakeholders to take on the area to achieve the target by 2030. Preventing suicide in the transport system is also highlighted as an important initiative in the Government's *Renewed Commitment for Vision Zero*¹².

The second joint stakeholder goal, to reduce the number of people seriously injured as a result of falls in road traffic, is also a relatively new and challenging area for many stakeholders. The fact that people are injured in falls has long been known, but the extent of these injuries is probably less known. The fact that pedestrians are by far the largest group that is seriously injured in the road transport area, if falls are included in the statistic, puts focus on how important it is to increase safety for pedestrians. Around 3,000 pedestrians are seriously injured every year and more than 90 per cent of these injuries occur in connection with falls¹³. Safety for pedestrians is also a very important part of a sustainable transport system.

The conclusion is that we are facing a number of challenges to achieving the adopted road safety targets and in the long term creating a long-term sustainable traffic environment where no one is killed or seriously injured. Very effective work is already being done today, but the rate of implementation needs to be increased, further measures need to be implemented and more stakeholders need to be involved in the work. It is therefore important to bring together in various ways the authorities and stakeholders that can contribute to effective action.

12 Renewed Commitment for Vision Zero

13 [Swedish Transport Administration, Joint orientation for safety for pedestrians 1.0](#)

3. Action plan with the potential for saving lives

3.1 33 stakeholders with the ambition to implement 250 measures

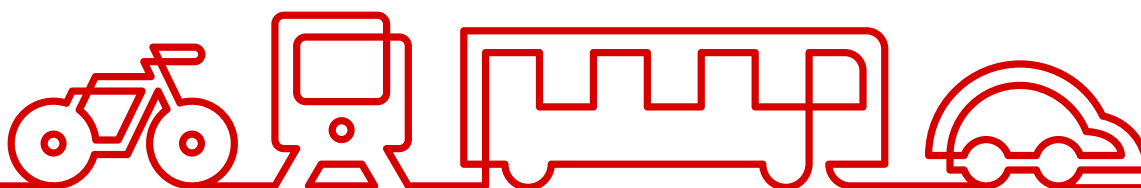
The work to create safe road traffic where everyone can be present and travel without the risk of death or serious injury requires greater commitment and acceptance of responsibility from all relevant authorities and stakeholders in both the short and the long term.

The action plan presents 250 measures that 33 authorities and stakeholders intend to implement to contribute to safe road traffic during the period 2022–2025. The measures include both new initiatives and activities that are already under way.

The measures target the six priority action areas described in Chapters 4 to 9:

- 4 Speed
- 5 Sober driving
- 6 Safe cycling
- 7 Safety for pedestrians (focus on falls)
- 8 Suicide prevention
- 9 Leadership for road safety.

Some measures affect road traffic directly, while others lay the groundwork. The priority action areas overlap to some extent and there are also many measures that have a bearing on more than one priority action area. This applies in particular to measures for safe cycling and safety for pedestrians. In these cases, the measures are presented in both areas. For other overlapping measures, the measure is normally found under the action area to which it is most closely linked.



3.2 Potential to save lives

Based on verified effects and an estimate of the scope of measures described in the action plan, the Swedish Transport Administration has assessed which measures are expected to have the greatest effect on the number of fatalities and serious injuries. The measures that are considered to have the greatest effect are speed adaptation, establishment of ATK, median barriers and rebuilding measures (such as railing and intersection measures, centreline rumble strips and road side area safety improvements) on the national road network.

Effects have also been estimated for suicide prevention measures, reduced speeds in urban areas and measures for safer pedestrian, cycling and moped passages on both the municipal and the national road network. These measures have a direct impact on road safety. The action plan also includes groundwork measures, which are often difficult and not always relevant to quantify. However, these are important for achieving good road safety effects in the long term. The measures where the road safety effects can be quantified have the potential to reduce the number of fatalities by approximately 10 lives annually after 2025.



4. Measures for speed management and compliance

In this chapter, 39 measures are listed for the priority action area of speed for the period 2022–2025. The measures are divided into the following packages of measures:

- infrastructure and speed limits
- monitoring and control
- geofencing
- knowledge-improvement measures and influencing behaviour
- investigation and research.

Safe speeds are crucial to creating safe road traffic and reducing the number of fatalities and serious injuries. Based on Vision Zero, the speed limits should be adapted based on the design of the road and the human tolerance for external violence. This means, among other things, a maximum speed limit of 80 km/h on roads that lack median barriers and a maximum of 30 or 40 km/h where cars, pedestrians and cyclists are together.

In addition to the speed limits being adapted, speed limit compliance also needs to be increased on both the national and the municipal road network. If everyone were to comply with the speed limits, at least 50 lives would be saved every year.¹⁴ Reduced speeds also contribute to reduced emissions, reduced traffic noise, increased security, more attractive city and urban environments and increased accessibility for pedestrians and cyclists.

4.1 Description of some measures for speed management and compliance

During the period of the action plan, the Swedish Transport Administration will continue the expansion of national roads with median barriers and the adaptation of the speed limits on roads with oncoming traffic. The Swedish Transport Administration will also continue to conduct dialogues with regions on the importance of these adaptations to the regional road network. Region Västra Götaland submits measures in the action plan that describe their investments in median barriers and other road safety-enhancing measures on the regional road network. The Swedish Transport Administration will also implement road side area safety improvements, centreline rumble

14 [Vadey, A. \(2021\). Vad skulle hända om alla höll hastighetsgränsen? : Effekter på antal omkomna \[What would happen if everyone kept the speed limit? :Effects on number of fatalities\] \(diva-portal.org\)](#)

strips and intersection measures, which are effective measures to reduce the number of fatalities and serious injuries on the national road network.

Introducing a new base speed limit of 40 km/h in urban areas would be an important step towards keeping speed limits in urban areas. The global plan calls on the UN Member States to limit the speed to 30 km/h in areas with a high risk of death and serious injury in traffic. All municipalities participating in the action plan are working to adapt the urban transport environments to the needs of pedestrians and cyclists for safety and accessibility. Among other things, the City of Stockholm is continuing with a speed review of the city's main road network as a basis for set speed limits. In connection with changes in speed limits, they are also implementing speed reducing measures in priority locations. The City of Gothenburg has waited to implement new speed limits in anticipation of a new urban speed limit, but has begun to prepare for adaptation to 30, 40 and 60 km/h, based on the text *Right speed in the city*. In the dialogue with the City of Gothenburg, it emerges that the introduction of a base speed limit of 40 km/h would facilitate the introduction of new speed limits. Uppsala municipality's speed review is also based on the text *Right speed in the city*.

The safety of pedestrian, cycling and moped passages is an important area both on the municipal and the national road network, and several of the participating municipalities say that measures to make these passages safe are a priority. This is also described in Chapter 6 Safe cycling, where measures to separate unprotected road users from motor vehicle traffic are also highlighted. Safe pedestrian, cycling and moped passages have a bearing on the priority action area for *speed*, as well as on *safe cycling* and *safety for pedestrians*.

The City of Stockholm also intends to conduct work to test and develop new speed humps and other road safety measures in order to achieve shorter installation times and more sustainable solutions, which are ultimately easier and cheaper to build and maintain.

Speed limit compliance needs to increase significantly both on the municipal and on the national road network. Many stakeholders can also contribute to increased speed limit compliance. Commercial traffic constitutes a large share of the traffic work and it is therefore important that this traffic maintains the applicable speed limit. One way to contribute to this is that both the client and the operator take greater responsibility for the transports they procure and carry out. The City of Gothenburg has introduced a rule for environmental and road safety requirements on the city's vehicles. The rule includes requiring intelligent speed adaptation (ISA), which makes it possible to increase speed limit compliance. The City of Gothenburg intends to follow up the rule annually. More about this is described in Chapter 9 Leadership for road safety.

Effective speed surveillance is also required to reduce the number of fatalities and serious injuries. During the years of the action plan, the Police



Authority intends to increase efforts in the area of road safety, with a focus on speed limit compliance and sobriety.

In addition to the police's manual speed surveillance, the automatic traffic safety control (ATK) systems make an effective contribution to reduced speeds and thus fewer fatalities and serious injuries. At the turn of 2021/2022, there were approximately 2,300 speed enforcement cameras along the national roads. ATK is estimated to save about 20 lives per year and more than 70 people per year from being seriously injured in traffic.¹⁵ The Swedish Transport Administration intends to increase the number of kilometres monitored by about 400 km every year until 2025.

Speed limit compliance also needs to be increased in motorcycle traffic, while at the same time there is a need for targeted adaptations of the infrastructure. In 2022, the Swedish Transport Administration intends to start a specialisation project for sustainable travel by motorcycle. The focus shall also include measures to increase compliance with speed limits. SMC intends to continue to inform about the importance of speed through training and channels such as its membership magazine and social media.

15 [Effekter på trafiksäkerhet med automatisk trafiksäkerhetskontroll \[Effects on road safety with automatic traffic control\]](#), Publication number: 2009:9

There are also technical solutions that contribute to increased speed limit compliance. Geofencing is a collective term for a digitally defined geographic areas or routes where vehicles can be limited, controlled or informed, based on digital traffic rules or agreed conditions. Geofencing, among other things, enables the vehicles' speed to be automatically limited within the specified areas or stretches of road. Geofencing can also be used to define areas where hybrid vehicles are to switch to electric power. The City of Stockholm and the City of Gothenburg will develop the work on geofencing and will also be part of a number of geofencing projects during the period of the action plan. Dalatrafik also intends to expand its ongoing work with geofencing in order to increase speed limit compliance. The Swedish Transport Administration continues to facilitate the introduction of geofencing and also carries out a number of test and demo projects in which municipalities participate, among others. It is important that geofencing is highlighted as a useful tool already in the early stages of the planning process, something that the Swedish Transport Administration will work for. Geofencing can also be used to regulate the speed of electric scooters, which is something that many cities are working on and is also described in Chapter 6 Safe cycling.

There is continued need for new data and new knowledge on how drivers can be supported to maintain the speed limit. During the period of the action plan, SAFER intends to lay the groundwork for research in the area, but also intends to disseminate this knowledge to the relevant stakeholders. In addition, MHF is conducting advocacy efforts in order to increase the use of ISA and thereby contribute to increased speed limit compliance. As of July 2022, ISA will be mandatory on all newly manufactured vehicle types in the EU. Linked to this, it is also important to have an infrastructure that supports this technology.

Other measures that have a bearing on the priority action area of *speed* include the Swedish Transport Agency's Government assignment to review the need for stricter requirements on safety for A-tractors. Increased safe use of A-tractors is also something that NTF intends to work for in the next few years, by communicating with drivers and their parents, with a focus on seatbelt use and maintaining the speed limit.

The Swedish Transport Administration has a long-term assignment from the Government to conduct information and awareness-raising activities for increased road safety aimed at citizens and road users. The assignment seeks to contribute to increasing road user interest and ability to comply with traffic rules and to demonstrate consideration, judgement and responsibility in traffic. The assignment also aims to contribute to increased knowledge, acceptance and understanding of road safety measures. Specially identified areas are speed limit compliance, sober driving, safe cycling (bicycle helmet use) and the use of safe vehicles, good protection and the right equipment. Communication to achieve increased speed limit compliance is through Zhero, which is run by the Swedish Transport Administration in collaboration with the Swedish Work Environment Authority, Folksam, the Swedish Transport Administration Driver's Test, the City of Gothenburg, MHF, NTF, the Police, Safer, the City of Stockholm, STR and the Swedish Transport Agency.

4.2 All measures – speed

Infrastructure and speed limits

Government agencies

1. The Swedish Transport Administration is continuing the expansion of roads with median barriers within the core national road network and on the regional road network, through co-financing.

2. The Swedish Transport Administration is continuing to implement rebuilding measures in the form of targeted road safety measures within the core national road network, including railing measures, road side area safety improvements, centre-line rumble strips and intersection measures.

3. The Swedish Transport Administration is continuing to adapt the speed limits to the design of the roads on the national road network, including by lowering the speed from 90/100 to 80 km/h on routes that do not have median barriers.

4. The Swedish Transport Administration is conducting continued dialogues with regional planners about the need for median barriers and continued adaptation of speed limits to the design of the roads.

Municipalities and regions¹⁶

5. The City of Gothenburg is building elevated pedestrian and bicycle passages and implementing speed reducing measures.

6. The City of Gothenburg is implementing speed reducing and quality improvement measures on streets with bus traffic.

7. The City of Gothenburg is developing a new guideline for adapted speed limits based on the text *Right speed in the city*.

8. The City of Malmö is implementing speed reducing measures at pedestrian crossings and bicycle crossings on the main street network and on school roads. 10–12 locations per year.

9. The City of Malmö is reviewing the large and most accident-stricken roundabouts, mainly along

Inre Ringvägen, and potential measures will be implemented, such as narrowing them or changing road markings (regulation). About one a year.

10. The City of Malmö is purchasing and posting digital speed limit signs on the main street network based on the criteria developed in 2021. Around 15 new signs per year.

11. The City of Stockholm is conducting a speed review and introducing 30, 40, 60 and 80 km/h on the city's main road network until 2027.

12. The City of Stockholm plans to implement speed reducing and traffic calming measures in priority locations for approximately SEK 250 million within the period, which will largely be in connection with changes in speed limits. The implementation of measures will continue until 2027.

13. The City of Stockholm will test and develop new and existing speed humps and other road safety measures.

14. Uppsala Municipality is maintaining the completed speed review according to the *Right speed in the city* from 2018 in new construction.

15. Uppsala Municipality continuously works with various types of road safety improvement and traffic calming measures.

16. Region Västra Götaland plans to expand the national regional road network with median barriers for approximately SEK 900 million in 2022–2025.

17. Region Västra Götaland is implementing minor, traffic safety-enhancing measures for safe road traffic on national regional roads, where the most serious accidents occur, for approximately SEK 700 million in 2022–2025. The measures include roundabouts, curve straightening and left turn lanes.

¹⁶ Regions refer to what was previously referred to as county councils

Monitoring and control

Government agencies

18.* The Police Authority intends to increase efforts in the area of road safety with a focus on *speed limit compliance* and sobriety.

19. The Police Authority will continue to regularly report speed violations.

20. The Swedish Transport Administration plans to continue the establishment of ATK on at least 300 km of roads in 2022, 370 km in 2023, 500 km in 2024 and 500 km in 2025.

21. The Swedish Transport Administration is conducting dialogues and, if necessary, reaching agreements with the police regionally in order to develop, streamline and coordinate the work to contribute to increased road safety in the priority action area of speed limit compliance.

* This measure is also included in the priority action area of *sober driving* (Chapter 5).

Geofencing

Government agencies

22. The Swedish Transport Administration continues to lead a collaborative platform for geofencing. It will act as a facilitator where societal and business stakeholders come together to support the development of scalable applications of geofencing and to carry out test and demo projects.

23. The Swedish Transport Administration is coordinating the work to create position-related machine-readable information (geofencing) in the EU project *NordicWay 3*. The focus is on creating digital traffic regulations that are made available as open data. This creates, for example, better conditions for road safety-related services and functions.

24. The Swedish Transport Administration will introduce applications with geofencing in the early planning stages, in measure selection studies and in dialogue with external stakeholders, to promote geofencing as a tool for creating a sustainable and safe road transport system.

Municipalities and regions

25. Dalatrafik's¹⁷ ambition is to increase, together with the suppliers, the number of locations where geofencing is used for ensuring safe speeds.

26. The City of Gothenburg participates in the project *GeoSense*, a European collaboration on geofencing in traffic management and planning. The Gothenburg part of the project is about developing the requirement specifications in procurements and studying acceptance among drivers.

27. The City of Stockholm will strengthen and develop the work on geofencing by participating in and implementing both administrative and physical projects. During 2022, the work is continuing with smart urban traffic zones.

28. Uppsala Municipality intends, together with active electric scooter companies, to introduce geofencing to the city of Uppsala's pedestrian and bicycle path network in order to reduce the risk of accidents with electric scooters and to ensure capacity and accessibility for other road users. The aim is also to identify routes that require speed control to a maximum of 5 km/h.

17 Dalatrafik is Region Dalarna's public transport administration and is categorised into the category of municipalities and regions.

Knowledge-raising measures and influencing behaviour

Government agencies

29. The Swedish Transport Administration

is implementing information and knowledge-enhancing measures for citizens and road users to achieve greater speed limit compliance.

30. The Swedish Transport Administration

annually invites external stakeholders to a knowledge-raising webinar on the theme of *Speed*.

31. During 2022, the **Swedish Transport Administration** intends to start a specialisation project for sustainable travel by motorcycle. The focus shall also include measures for increased speed limit compliance.

Non-governmental organisations (NGOs)

32. **Cykelfrämjandet** will drive the issue of the base speed limit in Swedish urban areas being reduced to 30 km/h. The issue will be regularly highlighted in the advocacy work – especially linked to creating better conditions for children to be able to ride a bicycle safely.

33. **MHF** will conduct advocacy work for increased use of ISA in order to increase speed limit compliance.

34. **NTF** communicates to drivers and their parents about the safe use of A-tractors, with a focus on seatbelt use and keeping the speed limit.

35. **SMC** provides information about the importance of speed through continuing education and channels such as its membership magazine, website and social media.

Study and research

Government agencies

36. **The Swedish Transport Agency**, on behalf of the Government, will review the need for stricter requirements on safety for A-tractors in 2022.

37. **The Swedish Transport Agency** is conducting a study that aims to review the effect of driving licence warnings. In 2022, collected data is being analysed and the results are being disseminated.

Municipalities and regions

38. **Umeå Municipality** annually carries out traffic measurements on the main road network and local road network. The results form the basis for priorities and implementation of speed reducing measures.

Research centres

39. **SAFER** creates conditions for research that helps support the driver to maintain a safe speed, for example on technology that measures the driver's status and adapts the car's support system to the driver's ability.

5. Measures for sober driving

This chapter lists 33 measures for sober driving for the period 2022–2025. The measures are divided into the following packages of measures:

- sobriety support technology
- monitoring and control
- knowledge-improvement measures and influencing behaviour
- collaboration between stakeholders
- investigation and research.

Measures for sober driving are of central importance for fewer people to be killed and seriously injured in road traffic. Approximately one in four fatal accidents are alcohol or narcotics related. In 2020, 53 people were killed in alcohol or drug-related accidents. 36 people died in solely alcohol-related accidents, 14 in solely drug-related accidents and 3 in accidents that were both alcohol and drug related.

Managing the presence of alcohol and drugs in traffic also creates synergies with other objectives concerning health, security, good work environments and prevention of other drug-related crimes in society. Good prevention work can also be a way to identify and help people with alcohol problems, and it can also counteract drug-related crime in society. Traffic sobriety checks also provide opportunity to report a suspicion that children are in distress, through the Social Services Act and its Paragraph 14¹⁸. It remains important that authorities and stakeholders collaborate so that they can individually and jointly contribute to reducing the problem of driving under the influence of alcohol and drugs.

5.1 Description of some measures for sober driving

There is sobriety support technology on the market, but it takes time for it to be available in all vehicles, and its introduction therefore needs to be accelerated. One way is to work to ensure that vehicles with driver monitoring systems (e.g. via a driver camera) are given extra points in the Euro NCAP rating system if they can detect a suspicion of the driver being under the influence of alcohol. This is something that the Swedish Transport Adminis-

18 [Social Services Act \(2001:453\) Swedish Code of Statutes 2001:2001:453 to SFS 2021:1314 - Parliament](#)

tration is working for. This is deemed to be able to speed up the development and introduction of these systems. In parallel with the alcolocks that are on the market, there has also been development for many years of a new generation of sobriety support technology for both retrofitting and vehicle integration in new car production. In Europe, the new sobriety support technology is preliminarily expected to be available for retrofitting vehicles in 2023.

It is important that there is up-to-date and independent expertise in sobriety support technology. During the period of the action plan, MHF will continuously update its information to the general public, consumers and contracting authorities and companies with regard to alcolocks, alcometers and other support systems that can prevent drink driving.

It is also important to ensure that commercial traffic uses vehicles equipped with sobriety support technology. Here, both the clients and the travel and transport operators, both within companies and at organisations and authorities, must take greater responsibility. In November 2021, the City of Gothenburg began requiring alcolocks in all City vehicles. During the period of the action plan, the City of Stockholm and Uppsala Municipality intend to require, or review the possibility of requiring, sobriety support systems in their vehicles and in procured transports. MHF will work to influence and support municipalities and regional stakeholders to impose a requirement of sobriety support technology in their procurements. During the period of the action plan, the Swedish Association of Road Transport Companies will urge its member companies to have procedures for ensuring the sobriety of their drivers. This work also ties into the priority action area of *leadership for road safety*, Chapter 9.

The Police Authority's control and breathalyser tests are central to reducing drink driving. Through efforts that aim to increase the perceived risk of getting caught and through targeted sobriety checks, the police's work will get more people to refrain from driving under the influence of intoxicants. These efforts will be combined with information campaigns for road users. During the years of the action plan, MHF, SMC and the Swedish Transport Administration will also conduct information campaigns and awareness-raising measures to contribute to sober driving.

Through its advocacy efforts, MHF will also work to ensure that legislation and case law have a preventive effect on drink driving offences, and to ensure that traffic sobriety issues are more highly prioritised in public health work.



The use of drugs is increasing in society, which is likely to be reflected in the traffic environment. However, we lack knowledge and data on how big the problem is in traffic. This is because, as this action plan is being written, there is no regulatory framework to conduct random drug testing without a suspicion of a crime. However, SOU 2021:31 opens up for the possibility of conducting just such random screening tests. Checks of drug influence require reliable and effective tests. MHF works for this and also leads a committee effort at the Swedish Institute for Standards (SIS) to develop standards for the test equipment. SAFER also participates in research that develops various measurement methods, including analysing the influence of alcohol or drugs.

Sobriety can also be checked through automated sobriety checks, for example at checkpoints in ports, with so-called alco-gates, boom barriers connected to breathalysers. During the period of the action plan, the Swedish Transport Administration intends to establish such checkpoints in at least three ports. MHF is engaged in the work on automated sobriety checks, and they work to facilitate the introduction of effective systems that are human-resource-efficient and legally secure.

Sobriety checks are also carried out by STR's member companies, which will conduct an alcohol check of the driving licence trainees at each training session.

In addition to requiring sobriety support technology in vehicles, requirements must also be placed on drivers that reduce the risk of driving under the influence of alcohol or drugs. The Swedish Transport Agency requires that driving licence holders must not have alcohol- or drug-related problems. If these requirements are not met, the Swedish Transport Agency will revoke the driving licence. They are also responsible for the Swedish alcohol interlock programme, which gives those convicted of drink driving an opportunity to retain their driving licence by installing alcolocks in their car and attending regular medical checks.

To reduce the risk of relapsing into drink driving, a functioning cooperation is required between control authorities and social services or healthcare. The Public Health Agency has a collaboration assignment that applies to SMADIT – a working method that aims to ensure that people who have been caught drink driving or drug driving are offered a health contact for their problems. In this work, several stakeholders need to collaborate to contribute to the common goal of reducing relapses. The police are an important player in SMADIT and, based on their role, can provide information about SMADIT and convey contact with the social services or healthcare.

5.2 All measures – sober driving

Sobriety support technology

Government agencies

40. Through its participation in Euro NCAP, the **Swedish Transport Administration** will work to ensure that vehicles with driver monitoring systems are given extra points if they can detect a suspected alcohol-impairment in the driver.

41. The Swedish Transport Agency is responsible for conditions regarding an alcolock as a requirement for holding a driving licence. This means that some drivers can have an alcolock installed instead of having their driving licence revoked in connection with drink driving.

Municipalities and regions

42.* The City of Gothenburg annually follows up on the rule that was adopted in November 2021 imposing environmental and road safety requirements on the city's vehicles. The rule requires five stars in Euro NCAP, ISA and *alcolocks* on all city vehicles (about 2,300 passenger cars and a few hundred heavier vehicles).

43. The City of Stockholm requires that alcolocks to be in the city's own vehicles and in vehicles that the city procured for the transport of people with special needs.

44. Uppsala Municipality intends to equip all service vehicles with sobriety support systems.

45. Uppsala Municipality intends to review the possibilities of requiring sobriety support technology in the promotion of sober driving in the procurement of travel and transports.

NGOs

46. MHF works in support of municipalities and regional stakeholders requiring alcolocks or equivalent support systems for the promotion of sober driving in the procurement of travel and transports.

* This measure is also included in the priority action area *leadership for road safety* (Chapter 9).

Monitoring and control

Government agencies

47. The Police Authority will use each checkpoint interaction with drivers of motor vehicles to carry out breathalyser tests and an assessment of possible symptoms of drug use by the driver.

48. The Police Authority intends to carry out breathalyser tests in a variety of locations and at a variety of times – thereby increasing the perceived risk of getting caught – in order to achieve a generally preventive effect.

49. The Police Authority will combine surveillance efforts with information campaigns to increase the impact of the surveillance. The aim is to get drivers of motor vehicles to refrain from drink driving due to the risk of getting caught.

50. The Police Authority carries out targeted checks and operations in specific locations and at specific times where there is an increased risk of drink driving.

18.* The Police Authority intends to increase efforts in the area of road safety with a focus on speed limit compliance and *sobriety*.

51. During the period, **the Swedish Transport Administration** will introduce checkpoints for sobriety checks in at least three ports.

52. The Swedish Transport Agency impacts sober driving by requiring that licence holders may not have alcohol- or drug-related problems. If these requirements are not met, the Swedish Transport Agency will revoke the driving licence.

All measures – sober driving, continued

53. The Swedish Transport Agency is reviewing, updating and clarifying the regulations on alcohol and substance use in the regulations on the medical requirements for driving licence holders (TSFS: 2010:125). The aim is to support doctors and driving licence administrators at the Swedish Transport Agency in their assessments.

NGOs

54. MHF is engaged in the work on automated sobriety checks to facilitate the implementation of effective systems for sobriety checks that are human-resource-efficient and legally secure.

55. MHF works for better tools for checks by competent authorities of drug-impaired drivers, in the form of rapid drug tests. MHF is leading the work of SIS on standards for the test equipment. A standard for rapid tests in saliva is expected to be complete in June 2022.

Trade associations

56. STR's member companies carry out alcohol checks aimed at customers at every training session.

57. The Swedish Association for Road Transport Companies continues to work for the introduction of automated sobriety checks in strategically important ports for freight transport and at the Öresund Bridge.

58. The Swedish Association of Road Transport Companies urges its member companies to have procedures for ensuring the sobriety of their drivers.

* This measure is also included in the priority action area on *speed* (Chapter 4).

Knowledge-raising measures and influencing behaviour

Government agencies

59. The Swedish Transport Administration annually invites external stakeholders to a knowledge-raising webinar on the theme of *Sober driving*.

60. The Swedish Transport Administration is carrying out information and knowledge improving measures aimed at citizens and road users, in order to achieve a reduction in alcohol and drugs in road traffic.

NGOs

61. MHF intends to carry out various communication campaigns for sober driving, including the *Traffic Sobriety Day*, *Take a Break*, the *Edward Day* in connection with *European Mobility Week*, the exhibition *Awakening* and information at motoring events and to young people attending traffic training.

62. MHF works with continuous consumer information for the public and procurement support for authorities and companies with regard to alcolocks, alcometers and other support systems that can prevent drink driving.

63. SMC continues to gather and disseminate statistics based on fatalities and severe injuries on two-wheeled motorcycles based on the driving licence held. SMC's statistics show that the majority of those under the influence who are killed on a motorcycle do not have a driving licence and that a high percentage are driving illegal vehicles.

Collaboration between stakeholders

Government agencies

64. The Public Health Agency has the Government's assignment to work for national coordination in the ANDTG area. Reducing harm from alcohol and drugs, among other things, is an element that this coordination should contribute to.

65. Two or three times a year, **the Public Health Agency** convenes the relevant authorities that are part of the national coordination of SMADIT. This group works with communication about the working method, follow-up and identification of development needs.

66. The Swedish Transport Administration conducts dialogues and, if necessary, reaches agreements with the police regionally in order to develop, streamline and coordinate the work to contribute to increased road safety in the priority action area of *sober driving*.

67. The Police Authority contributes to reducing the risk of relapsing into drink driving by using the SMADIT method.

Study and research

Government agencies

68.* The Swedish Transport Administration contributes through research and development projects with completion in 2023 to increased knowledge of how alcohol influence affects the ability to safely ride a bicycle. The Swedish Transport Administration is disseminating this knowledge.

NGOs

69. MHF works for legislation and case law to have a preventive effect on drink driving offences. This is done by supporting research in the area through the MHF Road Safety Fund and through advocacy work in important legal issues, such as criminal liability in the event of what is known as "drinking after driving".

70. MHF works to ensure that traffic sobriety is given an increased priority in public health work. MHF will follow up on proposals in the area of traffic sobriety submitted by national authorities, regions and municipalities and contribute to initiatives that can prevent drink driving.

Research centres

71. SAFER summarises results and participates in new research that develops different measurement methods to analyse the driver's condition, such as the influence of alcohol or drugs.

* This measure is also included in the priority action area of *safe cycling* (Chapter 6).

6. Measures for safe cycling

In this chapter, 83 measures for safe cycling are listed for the period 2022–2025. The measures are divided into the following packages of measures:

- infrastructure – design
- infrastructure – operation and maintenance
- knowledge and influencing behaviour – road user target group
- knowledge-enhancing measures and collaboration between stakeholders
- safe bicycles/electric scooters
- investigation and research.

Many of the measures for safe cycling also contribute to increased road safety for other unprotected road users, such as pedestrians as described in Chapter 7. This action area also has a clear connection to the priority action area of *speed*, Chapter 4.

Cycling is good for the environment, the climate and public health, and bicycle traffic is an important part of a sustainable transport system. How-



ever, bicycle traffic must be safe in order for it to be considered sustainable in the long term. Approximately 2,000 cyclists are seriously injured every year, which means that they represent more than half of all people seriously injured in road traffic accidents. A majority (80 per cent) of all seriously injured cyclists are injured in single-bicycle accidents.

Approximately 20 cyclists are also killed every year in road traffic accidents, and most of these accidents occur in collisions with motor vehicles. However, 7 of these 20 were killed in single-bicycle accidents. Head injuries are the most common injury that causes death. When it comes to the presence of alcohol, about 15 per cent of cyclists who die in traffic have alcohol in their blood.

In order to achieve the interim target of a 25-per-cent reduction in the number of people seriously injured and a 50-per-cent reduction in the number of fatalities by 2030, it is absolutely crucial to implement measures to reduce both single-bicycle accidents and the cycling accidents that occur in collisions with motor vehicles. The single-bicycle accidents pose a particularly big challenge because there are many of them, and they have not been reduced over time. In addition, there is a goal of doubling active travel in the long term, and cycling is an important part of this. The quantitative targets for 2030 also need to be met when cycling doubles.

In order to meet these challenges, many stakeholders need to contribute and act in several areas at the same time. Among other things, we need to invest in a safe infrastructure and maintain it. The cycle as a vehicle needs to be safer and helmet use needs to increase.

6.1 Description of some measures for safe cycling

Measures such as adaptation of speeds (described in Chapter 4 Speed), safe pedestrian, cycling and moped passages and separating cyclists and pedestrians from motor vehicles, need to continue both on national roads and municipal streets. This is included in both the municipal and the Swedish Transport Administration's measures. One example is Umeå Municipality, which works to increase the proportion of the main pedestrian and bicycle path network that is separated from car traffic. The municipality has a metric that is followed up annually. In 2020, 92 per cent of the main pedestrian and bicycle path network was separated from car traffic. Umeå Municipality also has metrics that are followed up annually to increase the proportion of bicycle paths that are separated from both car traffic and pedestrian traffic, as well as the proportion of speed-regulated pedestrian and cycling passages and crossings in the main pedestrian and bicycle path network that cross the main road network for cars and/or core routes for public transport. Other measures that the municipalities highlight in the action plan are increasing clarity for cyclists, such as by painting bicycle symbols, but also through paving and visibility measures. For example, the City of Malmö will annually change around fifty places (routes, intersections and at bus stops) with painted bicycle symbols for an increased clarity between unprotected road users.

Through the Urban Environment Agreements, the Swedish Transport Administration provides financial support to municipalities and regions for cycling measures that lead to increased and safe cycling in cities.

In order to prevent single-bicycle accidents among cyclists, it is important to ensure good quality operation and maintenance of bicycle paths, both within the municipal and national road network. 44 per cent of the single-bicycle accidents that lead to serious injuries relate to deficient operation and maintenance.¹⁹

The municipalities also highlight measures that are about improving the follow-up of operations and maintenance. The City of Gothenburg will develop digital systems for following up and prioritising winter road maintenance. Based on established procedures, the City of Stockholm will check the work of contractors. The municipalities that participate in the action plan have also identified a main network for pedestrian and bicycle traffic where operational and maintenance measures are prioritised. Umeå Municipality will work to increase the percentage of the population that reaches the designated main network for pedestrian and bicycle traffic, which is likely to lead to fewer injured unprotected road users when more people choose to use the safer road network.

Snow and ice can lead to slip-related single-bicycle accidents, but loose gravel can also cause problems for cyclists. The City of Malmö works to reduce the spread of pebbles, chippings and gravel that spread to road and pedestrian areas from adjacent planting areas. Among other things, the city will prepare new governing documents, such as type drawings, that describe how these surfaces are to be handled. In cooperation with contractors, the City of Malmö will also develop changed operating methods to further improve the function of gravelled surfaces with regard to surface smoothness and water runoff. The City of Gothenburg will continue with its annual spring cleaning of pedestrian and bicycle paths, coordinated between the relevant administrations in the city.

Measures mentioned above, such as safe pedestrian, cycling and moped passages, separation of pedestrian and bicycle traffic from vehicle traffic, better operation and maintenance of bicycle paths and lower urban speeds, increase not only safety but also the accessibility, attractiveness and safety of bicycle traffic. The measures also contribute to a more equal road traffic and provide children, the elderly and people with disabilities with better conditions for sustainable travel. NGOs such as NTF and Cykelfrämjandet intend to influence municipalities to invest further in measures in the infrastructure during the period of the action plan. This applies to design, operation and maintenance, which makes it safer and more attractive for more people to cycle.

19 [Swedish Transport Administration, Gemensam inriktning för säker trafik med cykel och moped 2018 \[Joint focus for safe bicycle and moped traffic in 2018\]](#)



Improved operation and maintenance and safer design are important to reduce the number of single-bicycle accidents, although the accidents will not be completely eliminated with these measures. Measures are also needed to reduce the risk that the accidents that occur do not result in serious injuries.

Bicycle helmets reduce fatal head injuries by about 50 per cent²⁰ and severe head injuries by about 65 per cent²¹. In order to combat these serious injuries, it is therefore important that the use of bicycle helmets is increased, both among children and adults. Nearly half of the cyclists use a bicycle helmet. Several stakeholders, including NTF, the Swedish Transport Administration and some of the municipalities, intend to implement information and awareness-raising measures during the period of the action plan in order to contribute to increased helmet use. Folksam will also continue to carry out consumer tests on the safety of bicycle helmets. The aim is both to guide consumers to choosing safe helmets and to influence helmet manufacturers and standards for helmets.

20 [International Journal of Epidemiology, Volume 46, Issue 1, February 2017, Pages 278-292](#)

21 [Rizzi, M., Stigson, H., & Krafft, M. \(2013\). Cyclist injuries leading to permanent medical impairment in Sweden and the effect of bicycle helmets. In Ircobi Conference \(pp. 11-13\).](#)

Several employers see benefits for both the environment and health in that the employees use the bicycle for local transport at work. Based on the Work Environment Act, the employer is always obliged to assess the risks to which an employee is exposed and do what is necessary to prevent these risks. Cycling at work is such a risk that needs to be taken into account in the systematic work environment management, and it is therefore the employer's responsibility to ensure that the employee has the conditions to be able to cycle safely. Examples of safety measures when cycling at work are to require the use of a bicycle helmet. The Swedish Work Environment Authority compiles guidance and supporting materials on the employer's responsibilities and opportunities to contribute to safe travel at work. This measure can be found in Chapter 9 Leadership for road safety.

Cykelfrämjandet, NTF and MHF also plan to carry out other training and communication efforts in order to increase safety for cycling in general. Both Cykelfrämjandet and MHF intend to organise beginner courses in cycling, where the participants are given knowledge of traffic regulations and the importance of sober driving, for example. NTF also plans to implement communication efforts in order to contribute to safer micromobility, for example through safer electric scooter use.

Traffic planning in both the municipal and national road networks should lead to a systematic removal of safety risks in the traffic environment for cyclists. During the period of the action plan, SALAR will produce a revised version of the method of *municipal road safety audits*, which is a tool to



ensure systematic road safety work at the municipalities. The audit examines both the municipality's working methods and the actual results in the area of road safety. The new method has an increased focus on unprotected road users. Together with the Swedish Transport Administration, SALAR intends to disseminate information about municipal road safety audits to the municipalities in Sweden.

The child perspective is especially important to consider in traffic planning. Several stakeholders, such as Umeå Municipality, Region Västra Götaland, Cykelfrämjandet, the insurance company If and NTF, highlight measures in the action plan that aim to increase children's opportunities to safely get to and from school. The Swedish National Board of Housing, Building & Planning (Boverket) has also been tasked by the Government to compile and disseminate educational examples of how safe pedestrian and cycling traffic can be handled from a child's rights perspective.

Cycling is increasingly electrified, leading to new groups of users and new types of vehicles in the traffic environment. In recent years, the entry of electric scooters into the urban environment has posed challenges from a road safety perspective, among other things. There is a continued need for knowledge about accidents with an electric scooter and their resulting injuries. Folksam intends to monitor this development and disseminate knowledge of the results. Both the trade association NMA and the municipalities work in various ways to deal with the road-safety-related challenges that the electric scooters have entailed. Among other things, NMA will set minimum requirements and follow up that all member operators have a beginner mode that limits the speed of the electric scooter. They also intend to conduct dialogues with the municipalities on how the infrastructure can be improved for the benefit of micromobility, by, among other things, sharing information about what measures they believe are needed and where they are needed. Uppsala Municipality intends, together with active electric scooter companies, to introduce geofencing on the city of Uppsala's pedestrian and bicycle path network in order to reduce the risk of accidents with electric scooters. This means that the speed of the electric scooters will be limited to a maximum of 5 km/h on certain routes. The measure also aims to ensure capacity and accessibility for other road users.

In order to increase safety for other unprotected road users, Uppsala Municipality will point out special places where many road users are present, where electric scooters are not allowed to be operated and/or parked.

Appropriate requirements, advice and standards in design and maintenance are important in order to contribute to both safe and increased walking and cycling. The Swedish Transport Administration will therefore review the procurement requirements for new construction in VGU and the standard requirements for maintenance based on a special focus on pedestrians, cyclists and motorcyclists. According to an assignment from the Government, the Swedish Transport Agency will study a number of traffic regulations in order to make cycling safer and allow it to increase.

In addition to a safe bicycle infrastructure and safe use of the bike, the bicycle itself also needs to be safe. Cycleurope works to ensure that more bicycles are equipped with anti-lock brakes (ABS), which is assessed to entail a reduced risk of flipping in connection with braking. In the winter, the use of winter tyres and visibility also need to be increased to make cycling safer. During the period of the action plan, Region Västra Götaland and MHF intend to implement various projects aimed at this. In addition to this, reducing the possibility of souping up bikes is important to increase safety on electric bicycles.

The safety of cyclists and pedestrians is increased by the cars becoming increasingly safer. The development of advanced driver assistance systems (ADAS), such as various emergency braking systems but also more collision-friendly fronts, contributes to increased safety at intersection points between cars and unprotected road users. In this work, Euro NCAP is an important player in which the Swedish Transport Administration actively participates in vehicle development that provides increased safety for unprotected road users as well. Both If and Folksam will analyse and evaluate the impact of ADAS and disseminate information about the results.

During the period of the action plan, SAFER intends to initiate research projects that study how protection systems from cars could be used for bicycles.

Many of the measures in the priority action area of *safe cycling* are about the need for new knowledge and that the relevant stakeholders provide and share knowledge and information in the area with each other. In order to be able to plan for the safety of cyclists and other unprotected road users, reliable and available accident data are of central importance. The Swedish Transport Agency is responsible for STRADA, where healthcare-based accident data is available thanks to reporting by the emergency hospitals.

Stakeholders such as If, Folksam, Länsförsäkringar and SAFER will initiate and conduct a number of studies of bicycle accidents and disseminate information about the results. If, for example, will map how, when and where bicycle accidents in collisions with passenger cars occur, and what consequences these accidents have. These studies are based on the company's own insurance data with over 2,500 accidents. Länsförsäkringar will carry out a project on the social and contextual circumstances of bicycle accidents.

During the period of the action plan, Cykelfrämjandet intends to review the road operator investments in cycling infrastructure based on how well these investments contribute to increased, safe and attractive cycling according to the Cykelfrämjandet's checklists and cyclists experiences. This information will be shared with the road operators.

6.2 All measures – safe cycling

Infrastructure – design

Government agencies

72. The Swedish Transport Administration continues to prioritise measures to speed-regulate pedestrian, cycling and moped passages.

73.* The Swedish Transport Administration annually reviews requirements and advice on design in VGU to contribute to both safe and increased walking and cycling.

74. Through the Urban Environment Agreements, **the Swedish Transport Administration** provides financial support to municipalities and regions for cycling measures that lead to increased and safe cycling in cities.

75. The Swedish Transport Administration continues to build safe pedestrian and bicycling paths along the national road network, which includes regional and national road networks.

Municipalities and regions

76. The City of Gothenburg is implementing road safety measures for bicycles and measures to increase accessibility and clarity for bicycles.

77. The City of Gothenburg is building commuting bicycle paths as part of the National Negotiation on Housing and Infrastructure (Sverigeförhandlingen).

78. The City of Gothenburg is expanding the bicycle path network.

79. The City of Gothenburg is improving children's routes to school, and in connection with schools, speed-reducing measures are being built, and footpaths and bicycle paths are being supplemented and improved.

80. The City of Stockholm plans to expand, rebuild and upgrade the bicycle path network for approximately SEK 500 million during the period, in order to increase safety and accessibility for all cyclists.

81. Umeå Municipality is working for increased separation between unprotected road users and cars.

82. Umeå Municipality is working to increase the proportion of speed-regulated pedestrian and cycle passages and crossings in the main pedestrian and cycling traffic network where they cross the main road network for cars and/or core routes for public transport.

83. Umeå Municipality is working to increase the proportion of cycle paths in the main road network that are separated from car traffic and pedestrian traffic.

84.* Through special climate investment funds, **Umeå Municipality** will fix the standard of the pedestrian and bicycle path network, in order to increase road safety and increase the proportion of cyclists.

85. Uppsala Municipality intends to build more bicycle crossings next to large routes, at 15–20 locations per year. The sites are selected and prioritised on the basis of the cycle measurements conducted annually.

86. Uppsala Municipality intends to build bicycle boxes at signal-regulated intersections where the cycle traffic shares space in the roadway with motor vehicle traffic, where it is considered possible and appropriate.

87.* Uppsala Municipality intends to identify suitable locations for parking and stands for electric scooters. The aim is, among other things, to point out so-called no-go zones and no-parking zones to increase road safety in public places where many road users are present. The ambition is to build 5–10 locations in 2022–2025 (or at least 5 locations by 2025).

88. Region Västra Götaland plans to expand pedestrian, cycling and moped paths along national regional and municipal roads for approximately SEK 650 million in 2022–2025.

* This measure is also included in the priority action area of *safety for pedestrians with a focus on falls* (Chapter 7).

infrastructure – operation and maintenance

Government agencies

89. The Swedish Transport Administration annually reviews standard requirements and follow-up of summer and winter road maintenance in the national road network, with a special focus on unprotected road users.

Municipalities and regions

90.* The City of Gothenburg annually conducts spring cleaning of pedestrian and bicycle paths, in coordination between the relevant administrations in the city.

91.* The City of Gothenburg is developing digital systems for monitoring and prioritising winter road maintenance and communication with the public.

92. The City of Gothenburg is carrying out major maintenance work on bicycle paths to ensure longer, cohesive routes in the commuting bicycle network, with a focus on accessibility, safety and comfort for cyclists.

93. The City of Malmö is prioritising and addressing around fifty sites annually with painted bicycle symbols for greater clarity between unprotected road users.

94.* The City of Malmö works with the development of changed type drawings and descriptions, with the aim of reducing the spread of gravel, chippings and pebbles from planting areas to road and pedestrian areas. The City of Malmö also works with the development of changed operating methods together with contractors, to further improve the function of gravelled surfaces, such as surface evenness and water runoff.

95.* Through the *Cykeljouren* (an on-call cycling traffic unit), **the City of Stockholm** will work for increased accessibility and safety on the city's bicycle paths. The *Cykeljouren* fixes, checks and registers bicycle paths and adjacent footpaths.

96. The City of Stockholm will sweep-salt 220 km of bicycle paths, with the ambition to gradually expand the route during the period.

97.* Based on established procedures, **the City of Stockholm** will carry out checks on contractors for summer and winter road maintenance. The checks include both called for (made when indicated) and systematic (running operation) checks.

98.* The City of Stockholm will allocate funds for reinvestment measures on both footpaths and bicycle paths. During 2022, SEK 15 million is reserved for footpaths and SEK 20–25 million for bicycle paths. Most of the funds allocated will be used for paving operations.

99.* Umeå Municipality works to increase the share of the population in the Umeå urban area that can reach the main pedestrian and cycling network within 200 meters. The main path network has a higher operating standard than the rest of the pedestrian and cycling network.

100. Uppsala Municipality intends to continue the work with visibility measures on pedestrian and bicycle paths in order to increase road safety and security. 20 sites per year will be addressed.

101.* Uppsala Municipality intends to continue the work on kerbstone measures on pedestrian and bicycle paths in order to increase road safety, accessibility and capacity. Approximately 20 sites per year will be addressed.

* This measure is also included in the priority action area *safety for pedestrians with a focus on falls* (Chapter 7).

Knowledge and influencing behaviour – road user target group

Government agencies

102. The Swedish Transport Administration is implementing information and knowledge-improving measures for safe cycling, especially for increased use of bicycle helmets.

Municipalities and regions

103. Umeå Municipality works annually to ensure that at least 85 per cent of the pupils in year 4 have participated in the Umecyklis-ten during the school year.

104. Uppsala Municipality continues its work with *Super easy to cycle right*, which is a cycling activity that is conducted annually. Preschool children get to learn more about traffic and basic traffic rules in a playful way.

105. On behalf of Region Västra Götaland, Västtrafik is running the project *On your own two feet*. The project aims to encourage children in years 4-6 to walk or cycle on their own to school, which leads, among other things, to reduced car transports and a safer environment around the school.

106. On behalf of Region Västra Götaland, Västtrafik is running the project *Winter cyclist*, which encourages winter cycling. The project offers approximately 400 winter tyres annually to participants from all over the county and reflective vests for increased visibility. The aim is to make it safer and easier to cycle all year round.

NGOs

107. Cykelfrämjandet will organise beginner courses in cycling for people who want to learn to cycle. In addition to learning to cycle, participants are taught traffic rules, choosing a safe and suitable bicycle, choosing a safe and suitable bicycle helmet and the environmental and health benefits of cycling.

108. Cykelfrämjandet will be a partner in the Swedish Cycling Cities initiative *Cycling-friendly schools*, together with the insurance company If and Svensk Cykling.

109. MHF is conducting training for safe cycling, especially adapted for new residents in Sweden and young people, addressing the issue of cycling's health aspects, compliance to rules, increasing bicycle helmet use and the importance of sober driving.

110. MHF provides information about the importance of always being visible in traffic and distributes reflectors to cyclists and pedestrians to a large extent, mainly during the period October-February each year.

111. NTF is carrying out the campaign *What makes you you*, in order to increase the use of bicycle helmets among adults.

112. NTF conducts communication efforts in order to contribute to safer micromobility, such as safer electric scooter use.

Insurance companies

113. Folksam conducts consumer tests of bicycle helmet safety in order to guide consumers and influence helmet manufacturers and standards.

114. If contributes factual and information material on children and cycling to schools, parents, municipalities and to the work with *Cycle-friendly schools*. It always includes advice and tips, and especially emphasizes the importance of using a bicycle helmet.

115. Länsförsäkringar conducts bicycle helmet tests, communication campaigns and local activities in order to increase understanding of the bicycle helmet's protective function.

Knowledge-improvement measures and collaboration between stakeholders

Government agencies

116. Boverket collects, compiles and distributes examples to municipalities, regions and county administrative boards. These are educational examples of how the children's rights perspective can be added and addressed throughout the planning chain – including examples of safe pedestrian and cycling traffic from a child's rights perspective.

117. The Swedish Transport Administration annually invites external stakeholders to a knowledge-raising webinar on the theme of *Safe cycling*.

118. The Swedish Transport Administration cooperates with municipalities to classify and place bicycle paths in the national road database, NVDB, and then develop standards for design and maintenance based on function and traffic.

119. The Swedish Transport Agency collects and disseminates information about cyclists' accidents and injuries in the information system Strada. The information is used by stakeholders, such as those responsible for the operation and maintenance of pedestrian and bicycle paths, who can prioritise their efforts on the basis of this information.

Municipalities and regions

120.* SALAR produces and disseminates, itself and in collaboration with **the Swedish Transport Administration**, knowledge and information about the method for municipal road safety audits with a focus on unprotected road users. This measure contributes to more municipalities working strategically with road safety in the areas of speed, safe cycling and safety for pedestrians.

NGOs

121. Cykelfrämjandet will provide feedback on bicycle infrastructure to road operators based on the thoughts that existed in planning and construction and how it became in reality.

Cykelfrämjandet and Svensk Cykling's checklists will be used, and they aim to ensure that bicycle traffic is taken into account in the process from comprehensive plan to road plan.

122. Cykelfrämjandet will work to ensure that Swedish road operators will expand and better maintain the bicycle infrastructure throughout Sweden. This will be done by encouraging the association's local circles to conduct bicycle path analyses.

123.* NTF locally supports the municipalities in their systematic road safety work and influences municipalities to invest more in the operation and maintenance of footpaths and bicycle paths, securing pedestrian, cycling and moped passages and safe infrastructure for walking and cycling.

124.* NTF will provide support through dialogue with municipal officials and elected representatives in order to contribute to better operation and maintenance of pedestrian and bicycle paths. Observations from the municipality in question are used as a basis for the dialogue.

125. NTF conducts workshops with intermediate level children in order to develop requirements for safe walking and cycling, and to formulate these in a document that is communicated to municipal decision-makers.

Trade associations

126. NMA is engaged in dialogue with the municipalities on how the infrastructure can be improved for the benefit of micromobility, by, among other things, sharing information on what measures would be needed and where.

127. NMA initiates dialogue with the relevant authorities on how road users can be trained in road safety in relation to micromobility.

Insurance companies

128. Länsförsäkringar, in collaboration with VTI, is implementing the project *Active travel - safely!*, where conditions and obstacles to

All measures – safe cycling, continued

children's active travel are examined, especially what requirements the traffic system and digital technology place on children's attention.

* This measure is also included in the priority action area of *safety for pedestrians with a focus on falls* (Chapter 7).

Safe bicycles/electric scooters

Trade associations

129. Cycleurope intends to launch another new model with ABS brakes in 2022. The model has a front wheel motor, and it will be the first on the market with ABS.

130. During the period, **Cycleurope** will deliver additional models with ABS and most of the standard frames will be fitted to enable retrofitting of a new version of ABS.

131. Beginning in 2022, **Cycleurope** will expand the number of models of Crescent bikes equipped with *Koppla Connect*, which entails GPS with so-called crash reporting. Several Monark models will also be delivered with *Koppla Connect* during 2022–2025.

132. From 2022, **Cycleurope** will equip all models of Crescent and Monark bikes with a connector in the control box that enables retrofitting a GPS unit. The extra connector means that those who bought a bike with *Koppla Light* with the help of their local service workshop or store can easily retrofit a Connect device and get full connection with GPS, crash reports and more.

133. NMA will set minimum requirements on all member operators to have a beginner mode with limited speed as well as information and encouraging the user in the respective app to comply with the traffic rules in the area where the electric scooter is used. NMA will follow up that both current and newly added members meet these requirements.

Study and research

Government agencies

68. The Swedish Transport Administration** contributes through research and development projects with completion in 2023 to increased knowledge of how alcohol influence affects the ability to safely ride a bicycle. The Swedish Transport Administration is disseminating this knowledge.

134.* Through Skyltfonden (a Swedish Transport Administration fund for road safety), the **Swedish Transport Administration** will pay particular attention to and support new, innovative proposals on unprotected road users' road safety.

135. The Swedish Transport Administration actively participates in Euro NCAP and thereby contributes to a vehicle development that provides increased safety for unprotected road users, among other things.

136. The Swedish Transport Agency has been tasked by the Government to investigate a number of traffic rules for bicycles, with the aim of increasing cycling and making it safer.

Municipalities and regions

137. The City of Malmö is conducting a thorough study of accidents in the most accident-stricken bicycle crossings in the City of Malmö.

138. The City of Malmö annually monitors the outcome of accidents on one-way cycle paths along Davidshallsgatan, in order to be able to make a more comprehensive overall analysis of the rebuilt cycle paths during 2025.

139. Uppsala Municipality is producing guidelines for the work with pick-up/drop-off zones next to schools, in order to increase road safety so that more parents feel safer with letting their children walk and bicycle to and from school.

All measures – safe cycling, continued

NGOs

140. During 2022 and 2024, **Cykelfrämjandet** will carry out the *Cyklistvelometern* – an examination and comparison of how cyclists perceive the municipality they cycle in.

141. During the period, **Cykelfrämjandet** will carry out the *Kommunvelometern* – an examination and comparison of municipality investments in increased, safe and attractive cycling.

142. **Cykelfrämjandet** will develop bicycle path analyses against various types of bicycle infrastructure, such as main bicycle paths, school bicycle paths, tourist bicycle trails and regional cycling routes.

Trade associations

143. **NMA** strives for a high minimum standard for sharing common data for all operators, which can contribute to safer road traffic. This is done by the NMA Secretariat inviting the members to contribute data and also helping to compile data in order for it to be shared in a non-competitive manner.

144.* In 2022, **NMA** will evaluate the test with 100 parking racks for electric scooters that was conducted in Stockholm in 2021. If the result shows a substantial, positive effect on the parking of electric scooters, the operators will discuss how this can be taken further in other cities.

145.* **NMA** will annually set developed minimum requirements that initially include *End of Ride photo* – an identification system to be able to effectively report electric scooters that are incorrectly parked or otherwise present a traffic danger. The requirements will be followed up and evaluated by the member companies to ensure their effectiveness and any need for further development.

Insurance companies

146. **Folksam** is analysing how many collisions with cyclists can be avoided thanks to car autobrake systems with detection of cyclists, and will disseminate knowledge of the results.

147. **Folksam** is monitoring the development of electric scooter accidents reported to Folksam via accident insurance and in Strada and will disseminate knowledge about electric scooter accidents and their resulting injuries.

148. **If** is evaluating the impact of ADAS on unprotected road users and will disseminate information about the results to consumers, authorities, legislators, developers of the systems and vehicle manufacturers.

149. **If** conducts research to map how, when and where bicycle accidents in collision with a passenger car occur, and studies the affecting factors and the consequences of these accidents.

150. **Länsförsäkringar**, in collaboration with VTI, is conducting a project that aims to increase knowledge of why (social and contextual circumstances) a bicycle accident occurs. Länsförsäkringar will disseminate information about the results of the study.

Research centres

151. Through research projects, **SAFER** stimulates technology transfer and knowledge transfer from the automotive industry, for example, how protection systems for cars can be used for bicycles.

152. **SAFER** contributes to data collection and data analysis on cyclist behaviour and incidents, which can form the basis for further research on the design of safe road environments and vehicles.

153. **SAFER** participates in research on how to influence road users towards more active travel (e.g. choosing a bicycle over a car) and safer traffic behaviour (e.g. helmet use).

*This measure is also included in the priority action area of *safety for pedestrians with a focus on falls* (Chapter 7).

**This measure is also included in the priority action area of *sober driving* (Chapter 5)

7. Measures for safety for pedestrians with a focus on falls

This chapter lists 39 measures for safety for pedestrians for the period 2022–2025. The measures are divided into the following packages of measures:

- infrastructure – design
- infrastructure – operation and maintenance
- knowledge-improvement measures and influencing behaviour
- investigation, research and developed working methods.

Several of the measures described in Chapter 4 Speed and Chapter 6 Safe cycling are also effective for increasing road safety for pedestrians. However, the challenges and measures described in this chapter focus specifically on falls by pedestrians. A fall is an injury event where a pedestrian has slipped, stumbled or fallen over in the road transport area and hurt them self, without any vehicle in motion being involved. This type of accident is not included in the accidents that according to official statistics are defined as road traffic accidents.

Several of the measures described in Chapter 6 Safe cycling have a direct bearing on falls and are also presented in this chapter. The measures targeting both these priority action areas are marked with an asterisk (*).

Walking is an important part of a sustainable transport system. Walking is a physical activity that makes an important contribution to improved public health. However, in order for pedestrian traffic to be regarded as sustainable in the long term, it must be safe. Annually, 30 to 40 pedestrians are killed in road traffic accidents (excluding suicide), most of which are in collisions with cars. In addition, approximately 3,000 pedestrians are seriously injured every year. More than 95 per cent of the serious injuries occur in connection with falls. Pedestrians are thus by far the largest road user group that is seriously injured in the road transport area if falls are included. Approximately 80 per cent of the falls relate to deficient maintenance.²²

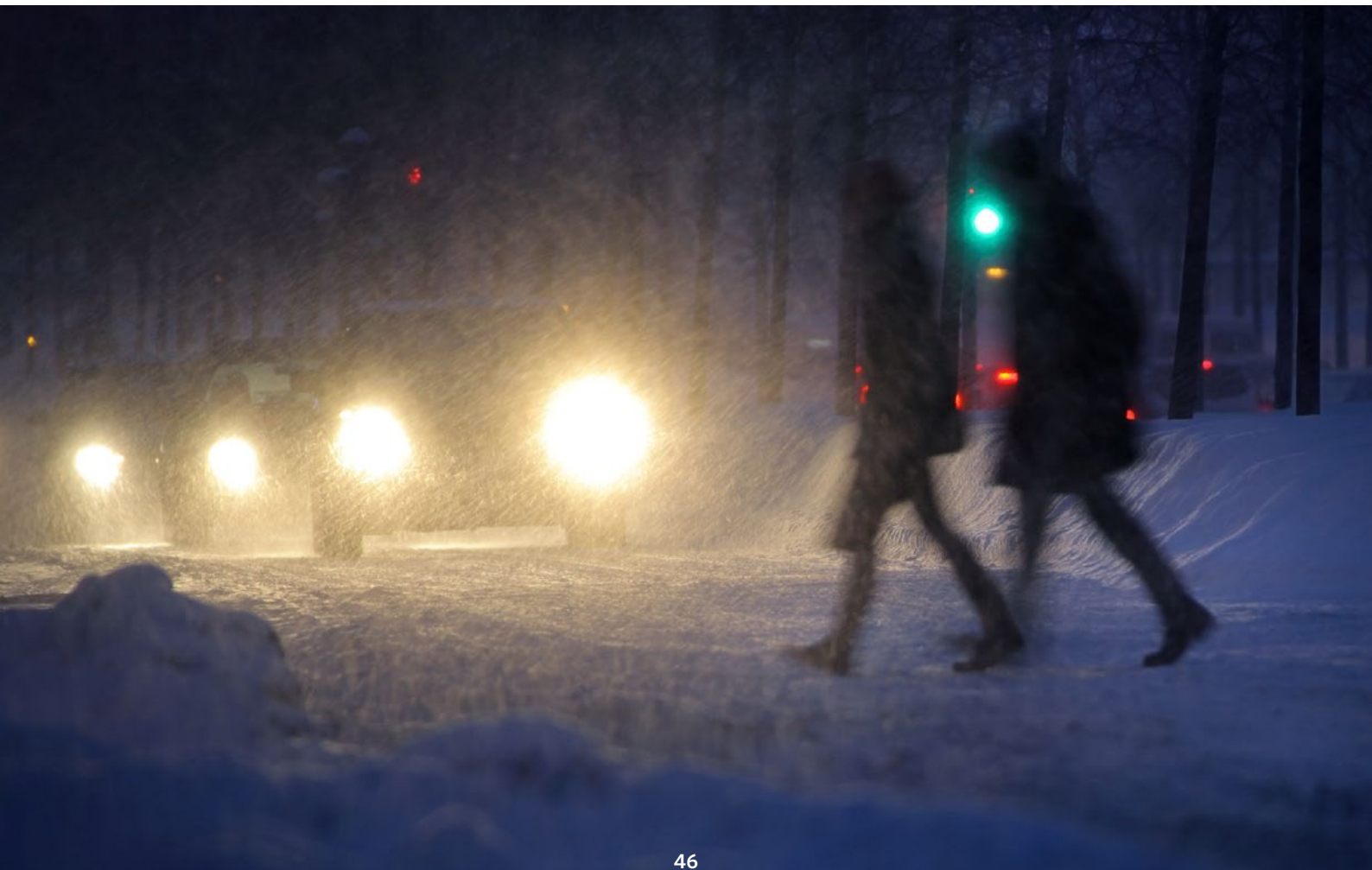
Since 2020, there is a target (see Chapter 1) that indicates that the number of people seriously injured as a result of falls in road traffic accidents must decrease by 25 per cent between 2020 and 2030. This is a challenge, not least based on the ambition to simultaneously increase pedestrian traffic for improved public health and a more sustainable transport system. In addition, the share of elderly people in society is increasing, and that group is overrepresented among people seriously injured in falls.

22 [Berntman, M. 2015. Pedestrian accidents and injuries in the traffic environment with a focus on falls](#)

7.1 Description of some measures for safety for pedestrians with a focus on falls

Making environments safer and more secure for pedestrians is an important measure to encourage more people to move more and more often on foot. Measures that contribute to a safe infrastructure for pedestrians are also highlighted by several of the stakeholders participating in the action plan. By co-planning measures that bring improvements in several areas, such as even pavement, contrast markings and lowered kerbstones, the municipalities can work with synergies between road safety, accessibility and active mobility. This is something that both the City of Stockholm and Uppsala Municipality highlight in their measures. In addition to ensuring the evenness of surfaces, it is important to handle obstacles that can pose risks to pedestrians, especially to people with reduced mobility or sense of direction. The City of Gothenburg will implement measures to take care of easily removed obstacles. These measures include, among other things, reviewing and fixing stairs, ramps, passageways and flat stretches of walkways. Support and advice for decisions on when, where and how obstacles can be removed in order to increase pedestrian accessibility and safety can be found in the Boverket idea and inspiration book *Easier without obstacles*.

The most common cause of falls is that the pedestrian slips due to ice and snow. In December to March, almost nine of ten falls in the traffic environment are caused by slips due to ice or snow. Many of the accidents can thus



be avoided with better winter road maintenance. An example of a concrete measure is sweep-salting. The City of Stockholm has as the ambition, in the next few years, to sweep-salt all the footpaths that are adjacent to bicycle paths that are sweep-salted. Handling autumn leaves and rolling gravel during the rest of the year are also important measures. Municipalities setting high standards in contract procurements for maintenance and following them up is a way to work for a safe road environment for pedestrians. For example, the City of Stockholm will check contractors for summer and winter road maintenance, and the City of Malmö will collaborate with the contractors in order to improve operational and maintenance measures. The City of Gothenburg intends to develop digital systems for monitoring and prioritising winter road maintenance. This is also described in Chapter 6 Safe cycling.

The Swedish Transport Administration intends to annually review standard requirements and follow-up of summer and winter road maintenance within the national road network. In this review, the Swedish Transport Administration will focus particularly on pedestrians and other unprotected road users. The new version of municipal road safety audits that SALAR intends to develop will also focus on road safety for unprotected road users, which can contribute to more municipalities working strategically with road safety for pedestrians. In the next few years, NTF also intends to support the municipalities locally in their systematic road safety work and influence them to invest more in measures that contribute to increased safety for pedestrians.

In addition to the road operators' responsibility for the ability to influence the design, operation and maintenance of pedestrian infrastructure, the property owners also have an important role to play. It must be clear what role and responsibility the stakeholders have. The City of Gothenburg intends to develop a procedure for managing the property owners' responsibility for snow clearing.

The falls can also be reduced by there being good shoe soles for winter conditions and clear consumer information that enables a deliberate choice of winter shoes. In the next few years, the Swedish Transport Administration will work to develop a test method, as well as a consumer label showing the slipping characteristics of winter shoes. Smart and attractive protection is also needed to prevent injuries in case of falls.

SDG Target 11.2 of the UN's global sustainable development goals states that we must provide access to safe transport systems for all and that road safety must be improved with special attention to the needs of those in vulnerable situations, especially children and older persons. By taking stock of the status of footpaths, correcting poor pavement and through the operation and maintenance of footpaths, the risks of falls can be reduced. Both the City of Stockholm and Uppsala Municipality point out a main network for pedestrians where operational and maintenance measures are prioritised. Umeå Municipality will work to increase the proportion of the population that reaches the designated main network for pedestrian and cycling traffic,

which is likely to lead to fewer people injured when more people can choose to use the safer road network. Several stakeholders, both municipalities and NGOs, highlight the importance of planning for children's mobility and safety in their measures in the action plan. FOT and NTF intend to spread knowledge to municipal decision-makers and other stakeholders about how urban planning affects children's mobility and safety, and how more child-friendly footpaths and bicycle paths should be planned. Boverket has received a government assignment to gather, compile and disseminate educational examples of how the children's rights perspective can be added and addressed throughout the planning chain. This is also highlighted in Chapter 6 Measures for safe cycling.

About seven out of ten of those who are seriously injured in a fall are women, and among these, the majority are between the ages of 55 and 64. People over the age of 55 are overrepresented in falls, and as the share of older people in society is increasing, it is very important to reduce the risks for these most vulnerable groups. The City of Malmö has implemented a number of measures in recent years to reduce falls, such as increased manual snow clearance at major stations and stops, paving work to create more even surfaces where unprotected road users move and to keep loose gravel from contributing to slipping accidents. However, further efforts are required and the City of Malmö will in the next few years conduct an in-depth study with a special focus on falls among the elderly, in order to find appropriate measures.

It is also important to increase pedestrian visibility in traffic by, for example, using reflectors or clothes with reflective materials. If will provide reflectors and carry out campaigns to increase the knowledge and use of reflectors, and to demonstrate the importance of being visible in traffic.

Pedestrian falls in the traffic environment are a relatively unexplored area, and more knowledge is needed on effective measures addressing pedestrians and societal costs as a result of falls. During the period of the action plan, the Swedish Transport Agency and Folksam will conduct research in the area and disseminate the results to relevant stakeholders. FOT will provide and disseminate knowledge about the regional dialogue platform that they developed in order to encourage regions and municipalities to discuss healthcare costs, anti-slip resources and what priorities are needed to reduce the number of slipping accidents.

7.2 All measures – safety for pedestrians with a focus on falls

Infrastructure – design

Government agencies

73.* The Swedish Transport Administration annually reviews requirements and advice on design in VGU to contribute to both safe and increased walking and cycling.

Municipalities and regions

154. The City of Gothenburg is implementing measures to take care of easily removed obstacles. The measures may include stairs, ramps, passageways and flat stretches of walkways.

155. The City of Malmö is gradually addressing the places that need more lighting.

156. The City of Stockholm will fix crossings with a road marking higher than 4 mm, to increase pedestrian accessibility and reduce the risk of tripping.

84.* Through special climate investment funds, **Umeå Municipality** will fix the

standard of the pedestrian and bicycle path network, in order to increase road safety and increase the proportion of cyclists.

157. Uppsala Municipality will develop guidelines for road works and temporary traffic diversions, with the aim of benefiting unprotected road users.

87.* Uppsala Municipality intends to identify suitable locations for parking and stands for electric scooters. The aim is, among other things, to point out so-called no-go zones and no-parking zones to increase road safety in public places where many road users are present. The ambition is to build 5-10 locations in 2022-2025 (or at least 5 locations by 2025).

* This measure is also included in the priority action area of *safe cycling* (Chapter 6).

Infrastructure – operation and maintenance

Municipalities and regions

158. The City of Gothenburg is developing a procedure for managing property owners' responsibility for snow clearance.

90.* The City of Gothenburg annually conducts spring cleaning of pedestrian and bicycle paths, in coordination between the relevant administrations in the city.

91.* The City of Gothenburg is developing digital systems for monitoring and prioritising winter road maintenance and communication with the public.

94.* The City of Malmö works with the development of changed type drawings and descriptions, with the aim of reducing the spread of gravel, chippings and pebbles from planting areas to road and pedestrian

areas. The City of Malmö also works with the development of changed operating methods together with contractors, to further improve the function of gravelled surfaces, such as surface evenness and water runoff.

95.* Through the *Cykeljouren* (an on-call cycling traffic unit), the **City of Stockholm** will work for increased accessibility and safety on the city's bicycle paths. The *Cykeljouren* fixes, checks and registers bicycle paths and adjacent footpaths.

97.* Based on established procedures, the **City of Stockholm** will carry out checks on contractors for summer and winter road maintenance. The checks include both called for (made when indicated) and systematic (running operation) checks.

All measures – safety for pedestrians with a focus on falls, continued

98.* The City of Stockholm will allocate funds for reinvestment measures on both footpaths and bicycle paths. During 2022, SEK 15 million is reserved for footpaths and SEK 20–25 million for bicycle paths. Most of the funds allocated will be used for paving operations.

159. The City of Stockholm will sweep-salt 150 km of footpaths adjacent to the sweep-salted bicycle paths. The ambition is also to extend this during the period to all footpaths that are located along the 220 km of sweep-salted bicycle paths.

99.* Umeå Municipality works to increase the share of the population in the Umeå urban area that can reach the main pedestrian and cycling network within 200 meters. The main path net-

work has a higher operating standard than the rest of the pedestrian and cycling network.

101.* Uppsala Municipality intends to continue the work on kerbstone measures on pedestrian and bicycle paths in order to increase road safety, accessibility and capacity. Approximately 20 sites per year will be addressed.

160. Uppsala Municipality intends to point out a main footpath network where operations and maintenance measures will be prioritised.

* This measure is also included in the priority action area *Safe cycling* (Chapter 6).

Knowledge-raising measures and influencing behaviour

Government agencies

161. The Swedish Transport Administration annually invites external stakeholders to a knowledge-raising webinar on the theme *Safety for pedestrians*.

Municipalities and regions

120.* SALAR produces and disseminates, itself and in collaboration with **the Swedish Transport Administration**, knowledge and information about the method for municipal road safety audits with a focus on unprotected road users. This measure contributes to more municipalities working strategically with road safety in the areas of speed, safe cycling and safety for pedestrians.

162. Uppsala Municipality intends to develop traffic disruption information for unprotected road users.

NGOs

163. FOT provides and disseminates knowledge about the regional dialogue platform that FOT developed in order to encourage regions and municipalities to discuss healthcare costs, anti-slip resources and what priorities are needed to reduce the number of slipping accidents.

164. FOT disseminates knowledge to relevant authorities, municipalities and other stakeholders about how urban planning affects children's mobility and safety, and how child-friendly footpaths and bicycle paths should be planned.

123.* NTF locally supports the municipalities in their systematic road safety work and influences municipalities to invest more in the operation and maintenance of footpaths and bicycle paths, securing pedestrian, cycling and moped passages and safe infrastructure for walking and cycling.

124.* NTF will provide support through dialogue with municipal officials and elected representatives in order to contribute to better operation and maintenance of pedestrian and bicycle paths. Observations from the municipality in question are used as a basis for the dialogue.

Insurance companies

165. If provides reflectors to proactive groups that request them and works actively with communication and campaigns to increase knowledge, awareness and use of reflectors and to emphasize the importance of visibility.

* This measure is also included in the priority action area *Safe cycling* (Chapter 6).

Investigation, research and developed working methods

Government agencies

134.* Through Skyltfonden (a Swedish Transport Administration fund for road safety), the **Swedish Transport Administration** will pay particular attention to and support new, innovative proposals on unprotected road users' road safety.

166. The Swedish Transport Agency collects and disseminates information on pedestrian accidents. The data give all stakeholders in road safety the opportunity to see which accidents have occurred and where the stakeholders' efforts are needed.

167. The Swedish Transport Agency conducts research and disseminates knowledge in the area of pedestrian falls. As they become available, the results from projects are disseminated in the media, scientific articles, seminars and more.

168. The Swedish Transport Administration is working to develop a test method and a consumer label for the anti-slip protection of winter shoes.

Municipalities and regions

169. The City of Malmö is analysing single-pedestrian accidents among unprotected road users and conducting an in-depth study with a special focus on falls among the elderly. The results are used to develop measures that are being continuously implemented.

170. In addition to regular work with safe and secure routes to school, **the City of Stockholm** will develop the work through a special pilot project at a school that is experiencing safety problems.

171. The City of Stockholm will work with synergies between road safety, operation and maintenance, accessibility and the work to get more people to walk, by co-planning measures that entail improvements in several areas, such as even pavements, contrast markings and lowered kerbstones.

Trade associations

144.* In 2022, **NMA** will evaluate the test with 100 parking racks for electric scooters that was conducted in Stockholm in 2021. If the result shows a substantial, positive effect on the parking of electric scooters, the operators will discuss how this can be taken further in other cities.

145.* **NMA** will annually set developed minimum requirements that initially include *End of Ride photo* – an identification system to be able to effectively report electric scooters that are incorrectly parked or otherwise present a traffic danger. The requirements will be followed up and evaluated by the member companies to ensure their effectiveness and any need for further development.

Insurance companies

172. In cooperation with Karolinska Institutet, **Folksam** will analyse the societal cost of falls. Folksam will map sick leave absences resulting from falls.

173. Folksam is analysing how many collisions with pedestrians can be avoided thanks to car autobrake systems with detection of pedestrians, and will disseminate knowledge about the results.

174. If is conducting research to map how, when and where pedestrian accidents in collisions with passenger cars occur, and is studying the affecting factors and the consequences of these accidents.

Research centres

175. SAFER is participating in research on road user behaviour and interaction between drivers and pedestrians, such as through the development of support systems that contribute to safer traffic behaviour.

* This measure is also included in the priority action area *Safe cycling* (Chapter 6).

8. Measures to prevent suicide

This chapter lists 15 measures to prevent suicide for the period 2022–2025. The measures are divided into these packages of measures:

- infrastructure measures
- knowledge-enhancing measures and collaboration between stakeholders
- investigation and research.

Every year, around 1,500 people commit suicide in Sweden. Approximately 10 per cent of these deaths occur in the transport system, which means within either the road or rail system, which then includes jumping from bridges. Suicide in the transport system is an important issue from a public health perspective. In addition to the suffering of the individuals plagued by suicidal thoughts, every suicide causes suffering to family members. It also affects groups that involuntarily become part of other people's suicides, such as commercial drivers, police officers and first responders. Suicide also has socio-economic consequences and a significant impact on the transport system.

Approximately one in ten deaths in road traffic accidents are due to suicide, which means about 30 deaths per year. In addition to this, about 20 deaths annually occur as a result of jumping from bridges.

Three types of collisions stand out when it comes to road traffic suicides: single-vehicle collisions, head-on collisions and pedestrians in collisions with motor vehicles. A large part of the suicides involving pedestrians occur in urban or suburban areas on roads with a speed limit of 80 km/h or higher, usually on motorways or 2+1 roads with relatively high traffic flows.

Jumping from bridges occurs primarily in urban areas or suburban areas. High bridges are particularly vulnerable, but also bridges over roads with high speeds and high traffic flows. For the latter, it is usually not the fall that caused the fatal injuries but the subsequent collisions with vehicles.

Since 2020, there is a joint stakeholder target (described in Chapter 2) that the number of suicides in the road transport area, including jumping from bridges, will decrease between 2020 and 2030. The target is not currently quantified, but will be followed up with the same systematic approach as the Government's interim target for fatalities due to accidents in road traffic.

There are effective measures to prevent and make suicides more difficult in a road traffic environment. In 2020, for the first time, verified effective measures were presented for suicide prevention measures on national roads,

based primarily on international studies²³. This may involve installing suicide barriers on bridges or intrusion protection along roads with median barriers in or near urban areas. Measures that are primarily intended to reduce the number of accidents in road traffic also help to prevent suicide, such as median barriers and the removal of fixed objects in roadside areas. These kinds of measures can be found in Chapter 4 Speed.

8.1 Description of some suicide prevention measures

In order to prevent jumping from high bridges, the Swedish Transport Administration will install suicide barriers on at least eight high bridges and as many viaducts over roads with median barriers in the national road network during the period of the action plan. Umeå Municipality will take stock of municipal bridges and develop an action plan for the bridges that may need suicide barriers.

23 [Effektsamband för transportsystemet. Bygg om eller bygg nytt \[Effect relationships for the transport system. Rebuild or build new\] – Chapter 6 Traffic Safety](#)



These measures are effective and urgent, but it is also important that suicide prevention is taken into account from the early stages of planning so that the risks of suicide are minimised even before a road or bridge is built, for example. Relevant publications and knowledge support related to the planning process and road design issues need to address the prevention of suicide. One example is the publication *Design guideline for streets and roads* (VGU), where special provisions have been in place since 2020 to prevent suicide.

In 2019, in collaboration with the Swedish Transport Administration, SALAR produced the text *Preventing suicide in a physical environment*. In the next few years, Boverket intends to highlight this text both internally and externally in order to increase knowledge and make the area visible.

An increase in mental illness in society is likely to lead to more suicides in the transport system. Including suicide prevention in regular road safety work is a challenge. For many stakeholders, suicide prevention is a new and complex area where it can be difficult to see how one can contribute. During the years of the action plan, the Swedish Transport Administration will work to increase knowledge about suicide in the road transport system among relevant stakeholders by providing support and knowledge on the subject and arranging annual knowledge-raising webinars, among other efforts. Based on its coordination assignment for national suicide prevention, the Public Health Agency will also develop knowledge to support regional and local promotion and prevention efforts.

The municipalities can contribute to the work to prevent suicide in the road transport system by taking stock of critical sites that need to be addressed, among other efforts. NTF intends to provide information and disseminate knowledge about this to the municipalities. It is important that the municipalities become aware of the suicide problem and how they can contribute to preventing suicide through measures in the traffic environment. Within the municipality, the City of Gothenburg intends to spread knowledge about suicide prevention in order to raise awareness about the area.

Uppsala Municipality will include suicide prevention in its systematic road safety work so that it is possible to follow up effectively, and so that any measures can be prioritised. The City of Stockholm is also working to combat suicide by participating in the collaboration group SPIS Statistics and suicide-prone locations.

New knowledge and research on suicide prevention in the transport system is also needed. During 2022–2025, the Swedish Transport Administration intends to initiate a number of research studies and disseminate the results to those concerned. To this end, a number of research projects have been started at the National Centre for Suicide Prevention and Research at Karolinska Institutet and Region Stockholm, which is the national expert body for suicide prevention.

8.2 All measures – suicide prevention

Infrastructure measures

Government agencies

176. The Swedish Transport Administration will install suicide barriers on at least eight high bridges in the national road network.

177. The Swedish Transport Administration will install suicide barriers on at least eight viaducts over roads with median barriers in or near urban areas, in the national road network.

Municipalities and regions

178. Umeå Municipality will take stock of municipal bridges with regard to suicide barriers and will develop an action plan for the bridges that may need suicide barriers.

Knowledge-improvement measures and collaboration between stakeholders

Government agencies

179. Boverket is highlighting SALAR's text *Preventing suicide* in a physical environment and highlighting it internally within the authority.

180. The Public Health Agency will monitor developments in the area and develop knowledge to support regional and local promotion and prevention efforts.

181. The Swedish Transport Administration annually invites external stakeholders to a knowledge-raising webinars on the theme of *Suicide Prevention*.

182. The Swedish Transport Administration provides support and knowledge to societal stakeholders on suicide prevention in the transport system.

183. The Swedish Transport Agency contributes expert knowledge within the national working group that is responsible for investigating fatalities due to suicide in road traffic.

Municipalities and regions

184. The City of Gothenburg is holding an internal seminar on suicide prevention with support from material from the Swedish Transport Administration's knowledge-raising seminar, which was held in autumn 2021.

185. Uppsala Municipality intends to include suicide prevention in the systematic road safety work, which will be revised in 2022 and 2023. The aim is to be able to follow this up in the annual accident analysis, in order to be able to assess the need for measures.

186. The City of Stockholm is working to combat suicide by participating in the collaboration group SPIS Statistics and suicide-prone locations, and by studying and monitoring the suicide statistics to evaluate and identify hotspots and, if necessary, develop solutions.

NGOs

187. NTF informs and disseminates knowledge to municipalities about their role in preventing suicide in traffic. This includes first taking stock of critical locations for suicide.

Trade associations

188. The Swedish Association of Road Transport Companies, together with the Transport Unions' Professional and Work Environment Board (TYA), is the principal for the *Colleague Assistance* service, and they are both jointly responsible for the operation, administration, annual continuing training and the organisation of colleague helpers. They are also responsible for raising awareness about the *Colleague Assistance* service.

Study and research

Government agencies

189. The Swedish Transport Administration will initiate at least five research studies on suicide and suicide prevention in the transport system.

190. The Swedish Transport Administration annually revises the action plan for suicide prevention in the transport system.

9. Measures in leadership for road safety

This chapter lists 61 measures for leadership for road safety for the period 2022–2025. The measures in this area are divided into the following packages of measures:

- safe transport – procurement, accounting and control
- knowledge-improvement measures and influencing behaviour
- collaboration between stakeholders
- investigation, research and developed working methods.

At the Ministerial Global Conference on Road Safety²⁴ held in Stockholm in February 2020, road safety as a sustainability issue had a major impact along with the importance of strong leadership from both the public and private sectors. In the Stockholm Declaration, which was produced in connection with the conference, it is recommended to include road safety in company and government sustainability reports and that road safety should have a greater impact on procurement requirements. Of all fatal road accidents, approximately 40 per cent take place in the value chains of companies and organisations, which means a large road safety potential exists in expanded sustainability work that includes responsibility for transports that are directly and indirectly generated in the own value chains. This can be handled, for example, by companies and organisations taking responsibility for *how* transports are done and for the safety standard both of their own vehicle fleet and of vehicles that are driven on their behalf.

Traffic is too fast and speed limit compliance in commercial traffic is lower than in passenger traffic. Colliding with a heavier vehicle poses a greater risk, so increased speed limit compliance for heavy traffic is particularly important. The speed issue is key for companies and organisations that want to take responsibility for contributing to safe road traffic. Through both requirements in procurement and follow-up of transports in their own value chains, stakeholders can contribute to increased speed limit compliance and thereby increased road safety. Increased speed limit compliance also contributes to reduced emissions, reduced noise, increased safety for unprotected road users, reduced fuel costs and a better working environment for those with traffic as a workplace.

24 [Road safety conference - RoadSafetySweden](#)

9.1 Description of some measures in leadership for road safety

The Swedish Transport Administration is leading the collaboration dialogue Sustainable speeds in which large private transport buyers and transport operators participate with the aim of requiring the reporting of speed limit compliance in their procured transports. As a major transport buyer, the Swedish Transport Administration will, from 2023, impose requirements on reporting speed limit compliance in all contract procurements. The operator's side is preparing the industry for the more stringent requirements on speed limit compliance by the Swedish Association of Road Transport Companies and TRB working to ensure that their members are able to report their speed limit compliance in completed transports. The Swedish Association of Road Transport Companies is also working broadly to increase the proportion of transport companies that are Fair Transport certified and to increase the demand for certification among transport buyers to contribute to increased joint responsibility for sustainable transports. Procurement is an important tool for influencing transports. The City of Stockholm will investigate the possibility of setting road safety requirements in the city's procurements, and NTF will review public procurements with regard to road safety requirements.

It is important to ensure that commercial traffic uses vehicles equipped with sobriety support technology, which is also described in Chapter 4. Both clients and operators of travel and transports need to take greater responsibility to ensure this. The City of Gothenburg has already begun requiring alcolocks



in the city's vehicles. The City of Stockholm and Uppsala Municipality intend to require, or review the possibility of requiring, sobriety support systems for their own vehicles and procured transports. The Swedish Association of Road Transport Companies will urge its member companies to have procedures for ensuring the sobriety of their drivers.

The Swedish Transport Agency contributes to safe transports by carrying out permit inspections in freight, bus and taxi transports every three years, together with the Police among others. These inspections include checks of load securing, permits, speeds and the influence of alcohol and drugs.

Vehicle crash safety is a parameter that increases the chances of surviving a traffic accident, and is something that should be included in the employer's measures to prevent risks in traffic. Approximately 60 per cent of passenger cars are purchased by legal entities, which is why it is important to influence these purchases. After a couple of years, the vehicles enter the second-hand market and can thus contribute to the replacement to newer cars with higher safety standards. In order to drive the development towards safer vehicles, the Swedish Transport Administration participates in Euro NCAP, which tests new vehicles and develops consumer guidance to help more people choose safe vehicles.

Vehicle purchasers should require a high safety rating. For example, vehicles purchased or used as company cars should be equipped with driver assistance, such as lane keeping assist and autobraking systems. In order to contribute to increased knowledge about safe vehicles, Folksam continuously analyses car safety trends and guides car buyers through the report "How safe is the car?". Folksam also continuously revises its car purchasing policy, which includes safety and environmental requirements and which can be used by companies and municipalities when procuring car fleets. In the same way as Folksam, If also continuously updates its requirements on its company cars to ensure that the latest safety technology is used, among other things. If also contributes to the use of protection systems with the highest safety class for children, by renting out, at affordable rates, protection systems that are replaced as the children grow. Dalatrafik will make higher demands that technical safety features are in all vehicles in future procurements.

Roughly one-fourth of the fatal accidents that occur at work are road traffic accidents on public roads. According to the Work Environment Act, the employer is responsible for ensuring that the work can be carried out without risk of illness or accident, and driving at work is an occupational health and safety issue. Presence in traffic must thereby be made as safe as possible for the employees, which applies regardless of whether the employee uses the company's vehicle or his or her own car or bicycle. During the period of the action plan, the Swedish Work Environment Authority will formulate guidance and supporting material on the employer's responsibilities and possibilities of contributing to safe travel at work. Meeting and travel policies are important tools for the employer to guide activities towards safer travel.



The employee must comply with both traffic rules and the instructions and rules produced by the employer. The employee must also take note of risks in the work environment and report them to his or her employer. Employers and employees need to work together to achieve a safe and secure work environment. This is something that is also highlighted in the online course *Safe travel at work* that a number of stakeholders together with the Swedish Transport Administration are working to spread. The course also highlights that road safety is an important sustainability issue and focuses on the simple choices you as an individual can make to contribute to safer travel.

Several stakeholders, such as BIL Sweden, the City of Gothenburg, Håll Nollan, If, the Swedish Civil Contingencies Agency (MSB), NTF, SAFER, SALAR, the City of Stockholm, the Swedish Bus and Coach Federation, the Swedish Transport Administration, TRB and Umeå Municipality, intend to spread knowledge internally and externally during the period of the action plan in order to increase knowledge to thereby influence the priority action areas that this action plan focuses on. Information initiatives that have a more general road safety perspective are reported in this area. One example is the work of the Swedish Bus and Coach Federation to increase knowledge in citizen associations regarding the requirements that can be set when bus trips are planned, ordered and carried out. The City of Stockholm and municipalities of Umeå and Uppsala will work on initiatives that promote traffic safe behaviour, increased interaction and increased consideration in traffic.

The Stockholm Declaration also stresses the need for collaboration between the public sector, the private sector, the academic world and other organisations, as everyone has a responsibility to contribute to a continued positive development through their leadership. A number of measures in this area describe how different types of collaboration can create better conditions for safe road traffic. One such example is the pilot project that the Swedish Association of Road Transport Companies will carry out together with Volvo Trucks and Trygg Hansa to contribute to better interaction with trucks in traffic.

Within this action area, other action areas are touched on in various ways based on how they can be handled through leadership. For example, the aim of SALAR's and the Swedish Transport Administration's collaboration on spreading knowledge about municipal road safety audits is to contribute to increased acceptance of responsibility among municipalities, which will have an effect on several of the action areas. The same applies to the network for municipal road safety that SALAR operates together with municipalities.

The measures in the category of investigation, research and developed working methods also include creating a systematic working method for increased road safety internally within an organisation. The City of Gothenburg, for example, will develop its management system and systematic road safety work in coordination with the environmental management system and develop a new road safety plan. The City of Stockholm will identify local road safety deficiencies by gathering and investigating opinions from citizens.

It has become increasingly common for companies and organisations to report their value chain based on the global sustainability targets, often linked to the environment and emissions. However, the consequences that the value chain has for road safety are rarely or never reported. Handling road safety as part of sustainability reports is one way to contribute to companies and organisations getting control of their road safety footprint, and thereby having a better chance of identifying risks and areas that need to be addressed. This is a new area and this work is still just in its infancy. During the period of the action plan, SAFER will identify research questions and initiate projects that investigate how companies and organisations can measure road safety footprints within their value chain. The Swedish Transport Administration is participating in a pilot project that aims to develop a method for evaluating and mapping the traffic safety footprint of its own operations.

Successful road safety work in both authorities and companies presupposes that there are clear, traceable road safety targets and a systematic approach in the work that is being done to achieve these targets. It is also important to have a good knowledge base that can form the basis for prioritising road safety measures and can contribute to creating engagement around the issue. One example of such knowledge is Umeå Municipality's annual traffic data report, which presents current injury statistics and follows up national and municipal targets. Another example of this is Region Västra Götaland's road safety analysis. Folksam's annual measurement of speed limit compliance in commercial traffic, which usually has a large media and industry impact, can be added to this.

9.2 All measures – leadership for road safety

Safe transport – procurement, accounting and control

Government agencies

191. The Police Authority will continue its work on inspections of commercial traffic.

192. The Swedish Transport Administration intends to require reporting on speed limit compliance in contract procurements from 2023.

193. The Swedish Transport Agency is working on updating the supervision of driving time and rest periods. This work aims, among other things, for better possibilities of carrying out limited checks to find the transport companies that deliberately cheat.

194. The Swedish Transport Agency conducts permit inspections in freight, bus and taxi transports every three years. Together with the Swedish Police, among others, load securing, permits, speeds and the influence of alcohol and drugs are checked. The results are presented in a report, by a press release and in meetings with the industry.

Municipalities and regions

195. The City of Stockholm will investigate the possibility of setting and following up on road safety requirements in connection with the city's procurements.

42.* The City of Gothenburg annually follows up on the rule that was adopted in November 2021 imposing environmental and road safety requirements on the city's vehicles. The rule requires five stars in Euro NCAP, ISA and alcolocks on all city vehicles (about 2,300 passenger cars and a few hundred heavier vehicles).

196. Dalatrafik intends to set higher requirements in future procurements on technical safety features being in all vehicles, such as geofencing, alcolocks, rear view cameras and surveillance cameras.

NGOs

197. NTF will review public procurements in 2022 with regard to road safety requirements.

Trade associations

198. The Swedish Association for Road Transport Companies will work for the establishment of more, and more accessible, lay-bys and parking areas in order to counter stress among commercial drivers.

199. By contributing increased knowledge and spreading good examples, **the Swedish Association for Road Transport Companies** works for its members to be able to report speed limit compliance in completed transports.

200. TRB works for its members to be able to report speed limit compliance in completed transports, by contributing to increased knowledge of, for example, ISA systems and spreading good examples.

Insurance companies

201. Folksam revises its car purchasing policy annually, which includes safety and environmental requirements. The list of cars that comply with the policy is also used by other companies and municipalities in the procurement of car fleets.

202. If regularly updates its company cars to ensure that they are modern and environmentally friendly and have the latest safety technology. It has requirements in its car policy that the tyres must have a tread depth of at least 3 mm.

* This measure is also included in the action area of Sober driving (Chapter 5)

Knowledge-raising measures and influencing behaviour

Government agencies

203. The Swedish Work Environment Authority provides guidance on the responsibilities and duties of the developer, the projector, the construction safety coordinator and the road operator, in order to create the conditions for safe road work, both in planned and unplanned road work.

204. The Swedish Work Environment Authority compiles guidance and supporting materials on the employer's responsibilities and opportunities to contribute to safe travel at work.

205. The Swedish Work Environment Authority disseminates good examples of how employers can include road safety in systematic work environment management.

206. MSB will, if necessary, update the guide *Safety in the road traffic environment* and related online courses. The guidance, which has been developed in collaboration with the Swedish Transport Administration, aims to increase safety in emergency response driving and in rescue operations in connection with traffic accidents.

207. MSB supports initiatives for safe emergency response driving. MSB conducts dialogues with municipal emergency services and supports training initiatives, with experiences from accidents and other knowledge documentation, for example.

208. The Swedish Transport Administration annually invites external stakeholders to a knowledge-raising webinar on the theme of *Leadership for road safety*.

209. The Swedish Transport Administration provides knowledge support to employers and transport purchasers with the aim of supporting stakeholders in exercising their leadership for employees' travel at work (employer target group), setting requirements on their own transports (employer/transport operator target group), and setting require-

ments in the procurement of transports or products and services that include transports (transport purchaser target group).

210. The Swedish Transport Administration works to ensure that Swedish municipalities perform municipal road safety audits to contribute to systematic road safety work. In collaboration with SALAR, the Swedish Transport Administration disseminates knowledge about municipal road safety audits.

Municipalities and regions

211. The City of Gothenburg will produce 4–6 films on speed reducing measures to raise the level of knowledge internally. The films will also be available to other municipalities and stakeholders and will be part of the City of Gothenburg's international work on road safety.

212. SALAR will annually include road safety as a theme on the *Traffic and Street Days*. This initiative consists of lectures to increase and disseminate knowledge in the priority action areas of speed, safe cycling, safety for pedestrians and suicide prevention.

213. The City of Stockholm will increase its entrepreneurs' and its own employees' knowledge of how their work can contribute to reducing the number of accidents, for example through insight training and accident reporting.

214. The City of Stockholm will carry out annual campaigns and information initiatives in the area of road safety.

215. Umeå Municipality implements information and awareness-raising measures for citizens and road users, in order to achieve greater interaction and consideration shown in traffic. The developed concept *Kollisionen* is used.

216. Uppsala Municipality will develop a multi-year plan with the aim of building on the concept of *TrafIQ*, which in turn aims to promote traffic safe behaviour.

All measures – leadership for road safety, continued

NGOs

217. NTF conducts training initiatives for drivers and hauliers in order to contribute to safer behaviour in traffic.

Insurance companies

218. Folksam annually measures the speed limit compliance in commercial traffic and disseminates the results widely through the media, but also more specifically through discussions in various industries.

219. Folksam analyses automotive safety trends and guides car buyers through the report *How safe is the car?*, which is published every two years.

220. If rents out children's car seats of the highest safety class at affordable prices. The rental is adapted so that customers gradually get access to the most appropriate protection system, meaning that when the child has grown out of one protection system, the system is replaced with the next one.

221. Volvia (a part of **If**) annually holds the Child Safety Day to highlight the importance of children riding in rear-facing car seats up to at least 4–5 years of age. A so-called "backwards march" is arranged at participating preschools.

222. Volvia (a part of **If**) annually conducts a survey of 1,000 Swedish parents of children aged 0–10 years. The survey concerns the parents' habits, behaviours and knowledge of child safety in the car. The results are presented in a report and are used to inform about the state of knowledge, the legal requirements and the recommendations that exist.

Trade associations

223. During the period, **BIL Sweden** will organise seminars with a focus on vehicle-related road safety issues. Members, academia and relevant politicians, officials and authorities are invited. The aim is to educate and influence.

224. Håll Nollan takes stock of and analyses the work that is going on at its member companies that is linked to the action plan's six priority action areas. The aim is to identify good examples and prepare documentation for the packaging of advice and recommendations that are disseminated to Håll Nollan's members and other stakeholders through webinars and other forums.

225. In collaboration with both member companies and idea-based road safety organisations, **the Swedish Bus and Coach Federation** will carry out information initiatives with a focus on the start of school in the spring and autumn semesters each academic year. The goal is to increase the understanding of safe school transports and increase the use of the material *Safe school transports* by 15 per cent during the period.

226. Through collaboration with its member companies and other key stakeholders, **the Swedish Bus and Coach Federation** will work to increase knowledge in citizen associations regarding aspects that are important to take into account and the requirements that can be set in connection with bus trips being planned, ordered and carried out.

227. Through collaboration with its member companies, **the Swedish Bus and Coach Federation** will work for increased seatbelt use in bus trips, with the goal that seatbelt use in contract traffic shall reach the same level as in passenger car traffic, and that seatbelt use in commercial and procured scheduled traffic shall increase by 10 per cent.

228. The Swedish Association for Road Transport Companies works with the campaign *Hands on the steering wheel*, which means that commercial drivers take a personal stance, and highlight that stance, about being positive role models in traffic by keeping their hands on the steering wheel and not on the mobile phone.

All measures – leadership for road safety, continued

229. The Swedish Association for Road Transport Companies has initiated the pilot project *Together in traffic* – a collaboration with Volvo Trucks and Trygg Hansa to increase understanding and interaction with trucks in traffic. The goal is to create greater understanding through training for teachers in driving licence education, which will contribute to fewer accidents and incidents. Cooperation, eye contact and increased interaction in traffic save lives and make road traffic safer.

230. The Swedish Association for Road Transport Companies works to get more transport buyers to procure *Fair Transport* and to increase the proportion of certified haulage companies. This is continuously followed up through barometers that are published on fairtransport.se.

231. TRB plans to invite the Swedish Association for Road Transport Companies to one of its conferences during the period to deepen the knowledge of *Fair Transport* among other shareholders, together with one or more partners.

232. TRB will work to organise a joint annual safety day for its shareholders. It will be centred on road traffic safety with a focus on speed limit compliance, sober driving and a safe working environment.

Research centres

233. SAFER disseminates knowledge of ongoing and completed research, including through publications, seminars, newsletters, social media and workshops.

Collaboration between stakeholders

Joint action plan measures

234. Several stakeholders²⁵ work to spread the Swedish Transport Administration's online training *Safe travel at work* to their employees and target groups.

Government agencies

235. The Swedish Transport Administration leads the collaboration dialogue *Sustainable speeds* in which large transport buyers and transport operators participate. The aim is to tighten up client requirements and self-checks on speed limit compliance in commercial traffic.

236. The Swedish Transport Administration will initiate a dialogue with municipalities and other public employers with the aim of tightening up client requirements and self-checks on speed limit compliance in commercial traffic.

237. The Swedish Transport Administration is an active partner in cooperation with municipalities and regional development managers in the early stages, in order to promote safe road traffic.

238. The Swedish Transport Administration is proposing important initiatives that the Government Offices can take to contribute to the priority action areas.

²⁵ The Swedish Work Environment Authority, BIL Sweden, Håll Nollan, If, Länsförsäkringar, the City of Malmö, MHF, the Swedish Bus and Coach Federation, TRB, the Swedish Transport Administration

All measures – leadership for road safety, continued

Municipalities and regions

239. Uppsala Municipality intends to further develop the work on the Platform for *Uppsala's Road Safety Work* (PUTS), which is a collaborative forum for the municipality, authorities, active stakeholders and organisations. Within the PUTS, a joint action plan is developed that describes how participating stakeholders can contribute to increasing general road safety in the city of Uppsala.

240. Together with municipalities, **SALAR** operates a network for municipal road safety. The initiative helps to highlight the action plan's six priority action areas in discussions on road safety at the municipal level.

241. Dalatrafik is planning a further cooperation on road safety with suppliers, municipalities and authorities, regarding for example bus stops, crossings and routes served.

Investigation, research and developed working methods

Government agencies

242. The Swedish Transport Administration is participating in a pilot project that aims to develop a method for evaluating and mapping the traffic safety footprint of its own operations.

Municipalities and regions

243. The City of Stockholm will gather opinions from citizens via, for example, the viewpoint portal and the "Tyck till" app. After an investigation, the comments may form the basis for measures. The aim is to identify local road safety deficiencies

244. Umeå Municipality annually produces a traffic data report that presents current injury statistics and follows up on national and municipal targets. The report is used as a basis for future priorities for road safety measures.

245. By 2025, **Region Västra Götaland** will complete a follow-up and revision of its road safety analysis. The result will form the basis for the future regional transport infrastructure plan and will be used as a knowledge-raising basis for municipalities, municipal associations and politicians.

246. The City of Gothenburg is developing management systems and systematic work for road safety coordinated with the environmental management system.

247. The City of Gothenburg is developing a new road safety plan to replace the expired road safety programme for 2010–2020.

Research centres

248. SAFER will identify research questions and initiate projects that investigate how companies and organisations can measure road safety footprints within their value chain.

249. SAFER will identify relevant issues for future research on road safety as part of transport procurements.

250. SAFER is initiating projects that contribute to creating a sustainable safety culture at companies that work with, or are going to introduce, automated vehicles.

