

NATIONAL ROAD SAFETY PLAN OF THE REPUBLIC OF CROATIA

FOR THE PERIOD 2021-2030







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2021 - 2030



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1. FOREWORD

NATIONAL ROAD SAFETY

Year after year, statistical indicators suggest a consistent trend towards improvement of road safety in the Republic of Croatia. With 297 lives lost on its roads in 2019, Croatia registered its lowest ever road fatality rate. Preliminary results regarding the status of road safety in Croatia in 2020 point to a further reduction in the number of road traffic fatalities.

This is partly the result of the implementation of measures of the fifth National Road Safety Programme, which was adopted by the Croatian Government for the period 2011–2020. Although this was short of the main target of 213 road fatalities set for that period, the downward trend in the number of road traffic accidents and road fatalities shows that Croatia is closer to the primary target of 50% fewer road deaths.

The sixth National Road Safety Plan to be adopted by the Croatian Government for the period 2021–2030 has been prepared with a view to further reducing our road fatality rate. This plan is in line with global and European guidelines on road safety. Drawing on the valuable experience from the implementation of the previous national programme, this National Road Safety Plan applies useful global and European guidelines, especially the guidelines defined by the Valletta Declaration, EU Road Safety Policy Framework 2021–2030 – Next Steps towards Vision Zero, the 'Towards 12 Voluntary Global Targets for Road Safety' manual, and the Stockholm Declaration on Road Safety (the outcome document of the Third Global Ministerial Conference on Road Safety 'Achieving Global Goals 2030'). All of these guidelines share a common objective of improving road safety by achieving the target of a 50% reduction in the number of road fatalities and serious injuries by 2030.

Building on the adopted guidelines, including the experiences and results of the implementation of earlier national road safety programmes in previous periods, the implementation of the National Road Safety Plan for the period 2021–2030 shall be guided by the number of "serious road traffic accidents" that cover road accidents resulting in fatalities or serious injuries, taking into account the current circumstances of the fight against the COVID-19 pandemic, which significantly contributed to human mobility being reduced to an extent far from conceivable. Quantitative targets for the forthcoming implementation period have been set on the basis of the criterion defined above. The general target of the National Road Safety Plan for 2030 is aimed at achieving a 50% reduction in the number of people killed in road traffic accidents and the number of serious road traffic accidents.

The devised National Road Safety Plan is a strategic document of the Republic of Croatia, which aims to raise the level of road safety by 2030. A Working Group appointed by the Minister of the Interior is in charge of its implementation. Financing or cofinancing of the implementation of measures and activities is provided from several sources. The decision on the priorities and method of financing the identified measures and activities is made by the Working Group in charge of the implementation.

The success of achieving the strategic objective of a 50% reduction in the number of people killed in road traffic accidents and in the number of serious road traffic accidents, including other objectives of this National Plan, depends on the manner and scope of implementation of the identified measures by all responsible entities in charge of the implementation.





ABBREVIATION LIST

NATIONAL ROAD SAFETY PROGRAMME

ABBREVIATIO	N INSTITUTION/ORGANISATION	
NRSP	National Road Safety Plan	
MI	Ministry of the Interior	
MSTI	Ministry of the Sea, Transport and Infrastructure	
MSE	Ministry of Science and Education	
MH	Ministry of Health	
MJA	Ministry of Justice and Administration	
MRDEUF	Ministry of Regional Development and EU Funds	
MESD	Ministry of Economy and Sustainable Development	
MLPSFSP	Ministry of Labour, Pension System, Family and Social Policy	
MTS	Ministry of Tourism and Sport	
CFCA	Central Finance and Contracting Agency	
PRM	Public road authorities	
RIM	Railway infrastructure authorities	
LSGU	Local Self-government Units	
CAC	Croatian Automobile Club	
CVH	Centre for Vehicles of Croatia	
ETTA	Education and Teacher Training Agency	
AVETAE	Agency for Vocational Education and Training and Adult Education	
CIB	Croatian Insurance Bureau	
CIEM	Croatian Institute of Emergency Medicine	
CIPH	Croatian Institute of Public Health	
IEM	Institutes of Emergency Medicine of regional self-government units, i.e. of the City of Zagreb	
CES	Croatian Employment Services	
CMRS	Croatian Mountain Rescue Service	
NMI	National Metrology Institute	
CRC	Croatian Red Cross	
CFB	Croatian Fire Brigade	
CPA	Croatian Psychological Association	
RSO	Road Safety Organisations – non-governmental road safety organisations	
RSA	Road Safety Auditors	
EU	European Union	

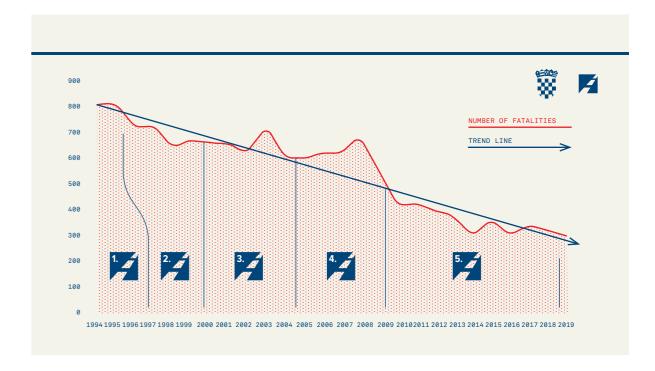
Introduction

In the process of solving theoretical or practical issues of any kind, including road safety issues, the most important thing is to be aware of their consequences. Aware of the existence and importance of road safety concerns, since the declaration of its sovereignty and independence Croatia has developed and implemented five National Road Safety Programmes addressing the issue of road traffic accidents.

With its first National Programme dating back to 1994, Croatia is one of the leading countries in Europe as regards the development of national road safety programmes (strategies):

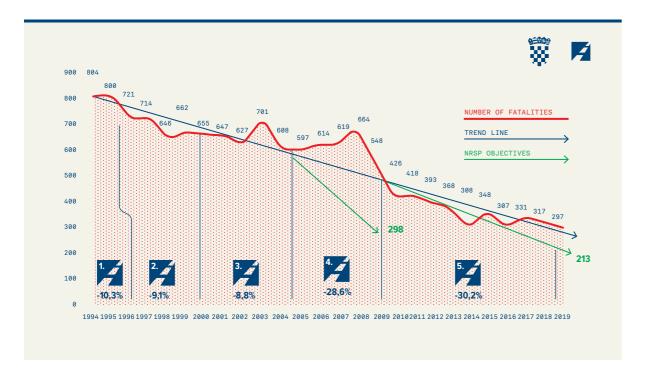
- National Road Safety Programme for the period 1994–1995
- National Road Safety Programme for the period 1996–2000
- National Road Safety Programme for the period 2001–2005
- National Road Safety Programme for the period 2006–2010
- National Road Safety Programme for the period 2011–2020

All of the listed Programmes define an identical issue and objective, which is to increase road safety, primarily by reducing the number of people killed in road traffic accidents, as well as by reducing the number of road traffic accidents and other consequences arising from these accidents. The planned measures and activities in the Programmes concerned were harmonised with both global and European guidelines for increasing road safety.



Source: The 2019 Road Safety Bulletin, MI 2020

The transport system has undergone momentous changes since the Croatian Government acknowledged and proclaimed the implementation of the first National Programme on 16 June 1994. A number of global changes have taken place worldwide, affecting road traffic in all countries, including Croatia. As a result of an increasing motorisation, the total number of vehicles and drivers has risen significantly and road traffic loads in cities have become heavier, thus enhancing the negative impact of road traffic on people and environment. In spite of the foregoing facts, the status of road safety in Croatia has improved considerably over the past 26 years. The data on the number of road fatalities, which decreased threefold in 2019 compared to the beginning of the implementation of the National Programme in 1994, demonstrate the positive effects of the undertaken safety-related activities. A part of the reduction in road fatalities is unquestionably related to the technological advancement of vehicles, as well as to the road transport infrastructure itself.



Source: The 2019 Road Safety Bulletin, MI 2020

The positive effects of the earlier implementation of the National Programme are reflected in the reduction of the number of people killed in road traffic. However, there are other indicators showing the effectiveness of the implementation of measures of the previous programmes, including:

- improved traffic culture;
- reduced total number of road traffic accidents and reduced number of injured road users;
- amended Croatian legislation in line with European guidelines;
- dedicated preventive action of the police and other entities;
- raising of awareness about the road safety issue among the general population;
- intensified communication to the public about the issue of road traffic accidents;
- engaging of all national authorities and professional organisations in the implementation.

Despite the positive results quantified through the constant reduction in the number of road fatalities since 1994, it is reasonable to conclude that there are opportunities for further improvement of the system aimed at achieving the targets set for increased road safety. This resulted in the development of a new National Plan for the period 2021–2030.

It is also important to note that effective European and global road safety regulations as outlined in paragraph 3.2 have been adopted in the process of developing the National Road Safety Plan for the period 2021–2030.





2. ROAD SAFETY FIGURES FOR THE PERIOD 2011–2019

The analysis of statistical trends in road traffic accidents and their link with people, vehicles and the environment represent the basis for the development of the new National Plan for the period 2021–2030. Accordingly, measures under this Plan were designed on the basis of a detailed Analysis of Critical Factors Contributing to the *Occurrence of Road Traffic Accidents*¹ that was conducted for the period 2010–2019. Unlike before, the analysis dealt with serious road traffic accidents (road accidents resulting in fatalities and serious injuries), thus following the new guidelines and effective European and global practice, as well as forming the basis for generating new knowledge and measures.

Considering the dynamics and methodology of data processing, including the implementation of research and development of the Plan in 2020, the year 2019 was used as the reference year. The implementation of the 2021–2030 Plan will also cover the data referring to the year 2020.

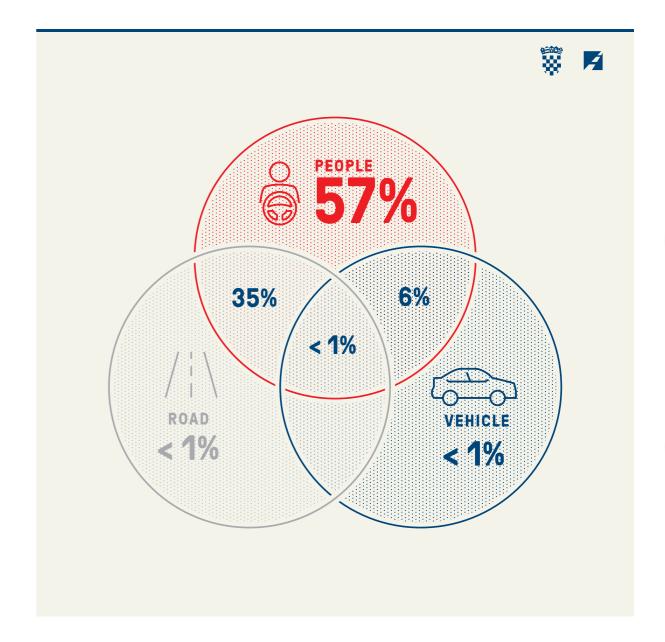


Faculty of Transport and Traffic Sciences, the Department for Transport Planning: Analysis of Critical Factors Contributing to the Occurrence of Road Traffic Accidents, Zagreb, 2020

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2.1. Basic factors of road safety

According to the analysed data, 57% of serious road traffic accidents in the Republic of Croatia are potentially caused by people. In fact, 35% of serious road traffic accidents are potentially attributable to people including the road, and 6% to people including the vehicle.



Source: The 2019 Road Safety Bulletin, MI 2020

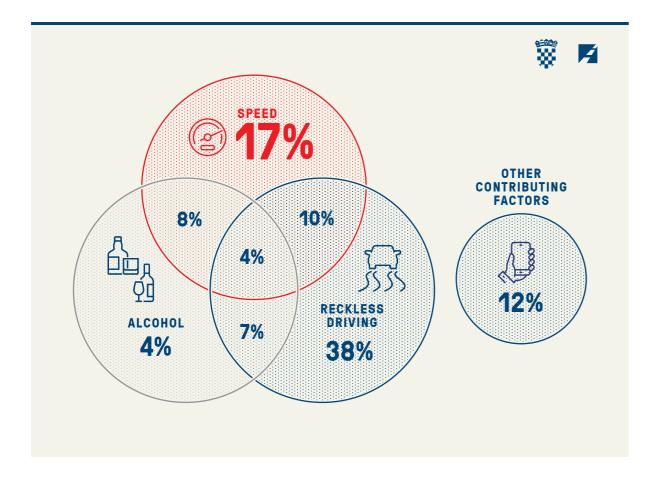


2.2. The main causes of road traffic accidents

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The analysis of circumstances preceding the occurrence of serious road traffic accidents indicated speed as one of the potential causes in 39% of serious road traffic accidents in Croatia. At the same time, speed as the only potential cause was recorded in about 17% of serious road traffic accidents. In 8% of serious road traffic accidents speed was combined with alcohol and in 10% with reckless driving. Alcohol as the potential cause was recorded in 23% of serious road traffic accidents, where it can be assumed that driving under the influence of alcohol is the cause of about 4% of serious accidents. Likewise, the analysis of circumstances indicated reckless driving as one of the potential causes of as many as 59% of serious road traffic accidents or the potential main cause of 38% of serious road traffic accidents, which is a slightly higher percentage compared to more developed European countries.

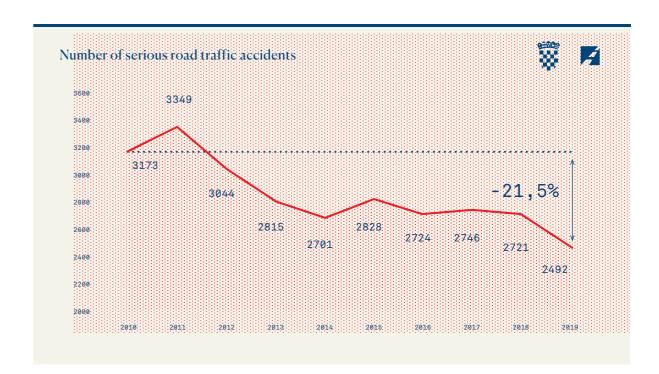
It can be assumed that this is partly the result of cultural differences that have a direct impact on driving culture as well. Reckless driving refers to improper driving and violation of traffic rules as the contributing factors.



Source: The 2019 Road Safety Bulletin, MI 2020

2.3. The trend in serious road traffic accidents

Despite a 29.3% decrease in the total number of road traffic accidents in the period 2010–2019 in the territory of the Republic of Croatia, a detailed analysis of the relevant data demonstrated a 21.5% decrease in the number road traffic accidents resulting in fatalities and serious injuries. According to the results of the analysis, it is clear that the decrease in the number of the most serious road traffic accidents does not follow the trend towards an overall decrease in the observed ten-year period.

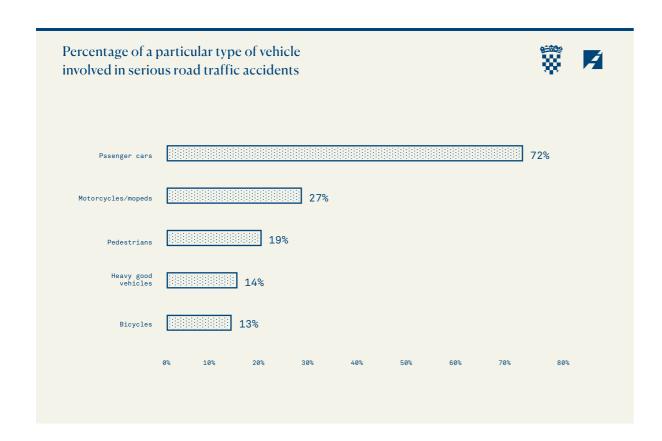


Source: The 2019 Road Safety Bulletin, MI 2020



2.4. Types of vehicles involved in road traffic accidents

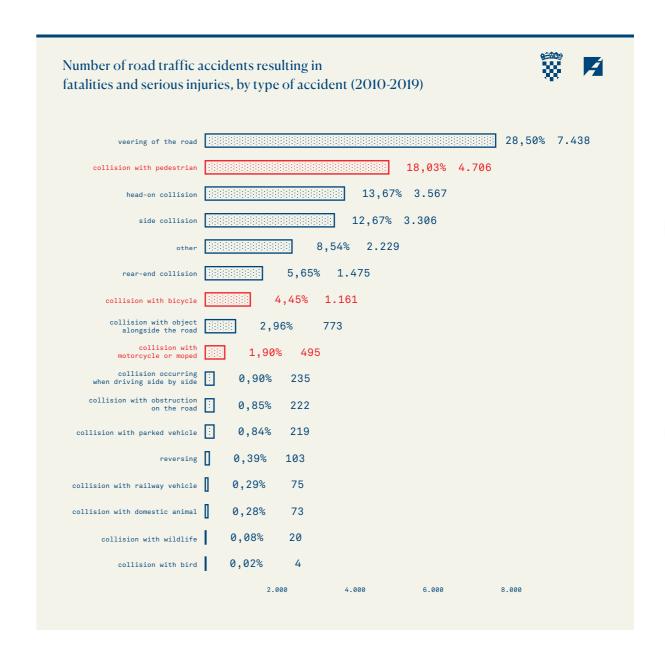
Passenger cars were involved in 57% of road traffic accidents resulting in fatalities in the period 2010–2019. Motorcycles and mopeds were involved in 13%, and bicycles in 5% of road traffic accidents resulting in fatalities. Heavy goods vehicles were involved in 11% of such accidents. In view of the foregoing, it can be determined that passenger cars continued to be involved in the largest number of road traffic accidents, but it should also be noted that two-wheel vehicles were involved in almost 20% of road traffic accidents resulting in fatalities.



Source: The 2019 Road Safety Bulletin, MI 2020

2.5. Types of road traffic accidents

Veering of the road (29%) accounted for the largest number of road traffic accidents resulting in fatalities and serious injuries in the period 2010–2019. These were followed by vehicle-pedestrian collisions (18%), head-on collisions (14%) and side collisions (13%). These four types of road traffic accidents together accounted for about 73% of all road traffic accidents resulting in fatalities and serious injuries.



Source: The 2019 Road Safety Bulletin, MI 2020

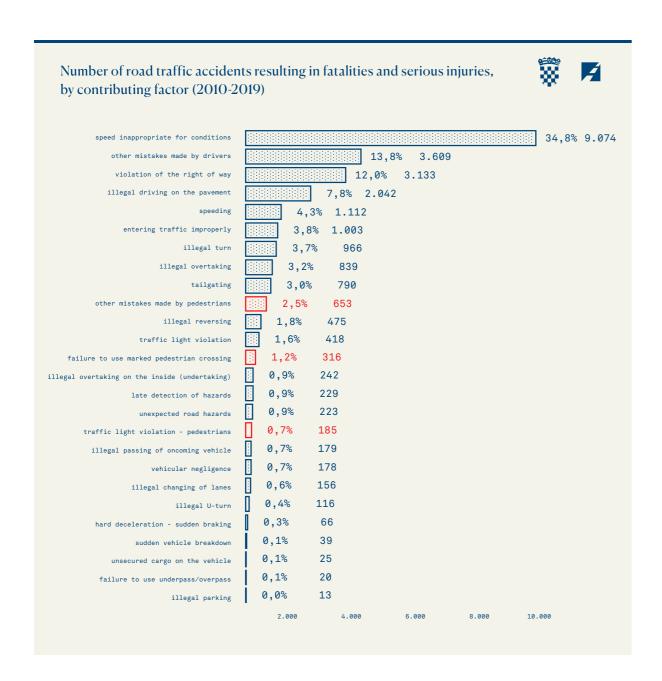


Factors contributing to road traffic accidents

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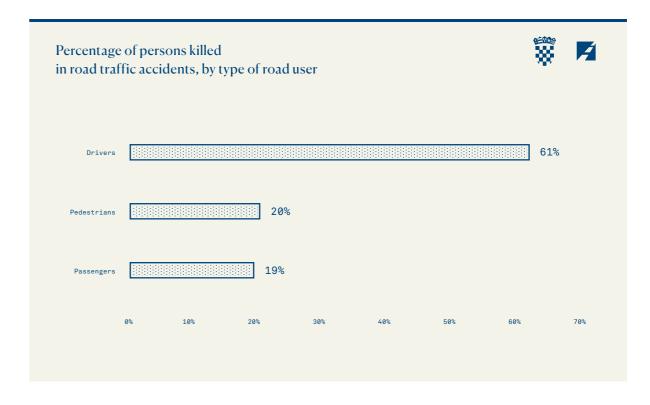
A contributing factor can be defined as the immediate cause of a road traffic accident. The largest number of road traffic accidents resulting in fatalities and serious injuries in the period 2010–2019 was attributable to speed which was the leading cause in a total of 39% of road traffic accidents resulting in fatalities and serious injuries.



Types of road users injured in road traffic accidents

The structure of fatal road traffic accidents with respect to the type of road user in the period 2010–2019 shows that the majority of persons killed in road traffic accidents were drivers accounting for 61% of fatalities. Pedestrians accounted for 20% and passengers for 19% of all road fatalities with respect to the type of road user. For the same period, the structure of serious injury accidents with respect to the type of road user shows that the majority of persons seriously injured in road traffic accidents were drivers accounting for 62%, followed by passengers accounting for 21% and pedestrians for 17% of serious road injuries.

The structure of fatal road accidents and serious injury accidents with respect to the type of road user shows that the majority of people killed and seriously injured in road accidents were drivers accounting for 61.50%. Passengers accounted for 20% and pedestrians for 19.50%. In view of the foregoing, it may be established that the largest number of people involved in road traffic accidents were drivers. However, it should be noted that the users of active transport modes, i.e. cyclists accounted for 11% of the total number of drivers killed in road traffic accidents, of which cyclists aged 65 and over accounted for 38% of the respective total number. Cyclists killed and seriously injured in road traffic accidents accounted for 15% of the total number of drivers killed and seriously injured.



Source: The 2019 Road Safety Bulletin, MI 2020



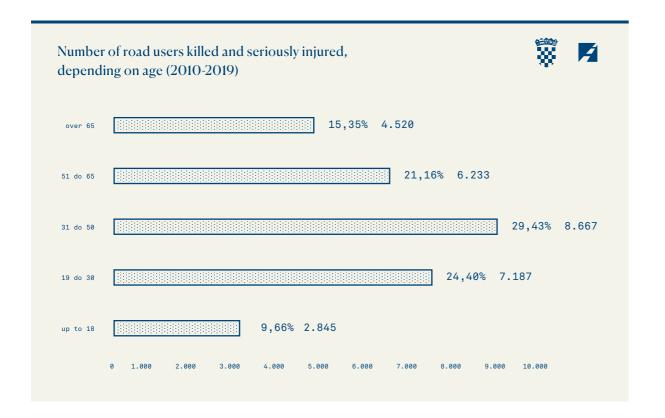
2.8. Age structure of injured road users

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The structure of road users killed and seriously injured in road traffic accidents with respect to age shows that the majority of people killed and seriously injured in road traffic accidents was aged between 31 and 50 (29.43%). Furthermore, road users aged 19 to 30 accounted for 24.4%, and road users between the ages of 51 and 65 accounted for 21.16% of all road fatalities and serious injuries. People over the age of 65 accounted for 15.35% of all road users killed and seriously injured in road traffic accidents. In the period 2010–2019, 2845 persons under 18 years of age (children and minors) were involved in serious road traffic accidents, thus accounting for a total of 5.7% of all road users.

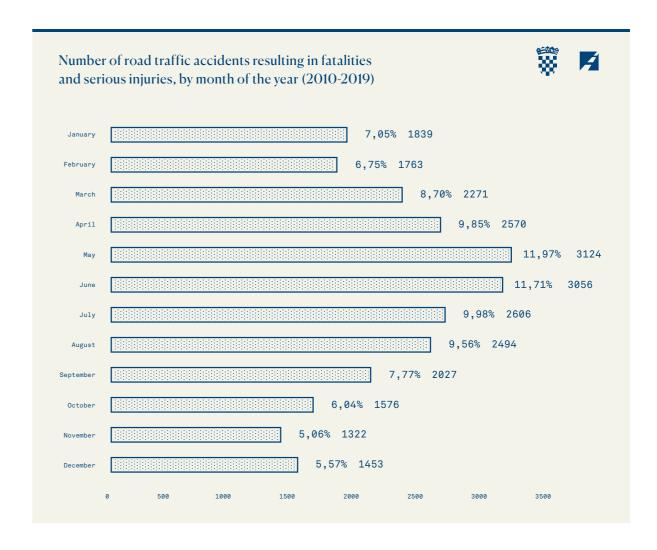
As determined by the analysis of the age of road users who potentially caused a road traffic accident, in the case of serious road accidents with speed as the contribution factor the average age was 38, which is about four years less than the average age of road users who were the potential guilty party in all serious road accidents. Likewise, according to the obtained results, it can be concluded that almost every fourth serious road traffic accident with speed as the contributing factor is caused by drivers aged 25 years and younger. The analysis of the age of road users who were the potential guilty party in serious road traffic accidents and were under the influence of alcohol showed a similar situation as in the case of serious road accidents with speed as the contributing factor. Such road users are on average four years younger (38 years of age) than the average age of road users who are the potential guilty party in all serious road traffic accidents (42 years of age). Moreover, a quarter of road users are aged 25 or younger, while half are under 35 years of age.



2.9. Time distribution

The number of road accidents begins to rise at the start of the year, reaching maximum values in July and August. It declines until December when it slightly increases again. The largest number of road traffic accidents resulting in fatalities and serious injuries occurs precisely in the summer months, when the flow of vehicles and road users is the heaviest. The highest number of road traffic accidents resulting in fatalities and serious injuries in the period 2010–2019 was recorded in August (3124) and in July (3056), which is on average more than 23% of all road accidents per year. The difference between the number of recorded road accidents from January to August represents an increase by almost 47%.

An increased number of road accidents resulting in fatalities and serious injuries in the period 2010–2019 was recorded particularly at the beginning of the weekend, with Saturday standing out (a total of 4404 accidents) as the day when the majority of serious road traffic accidents occur.



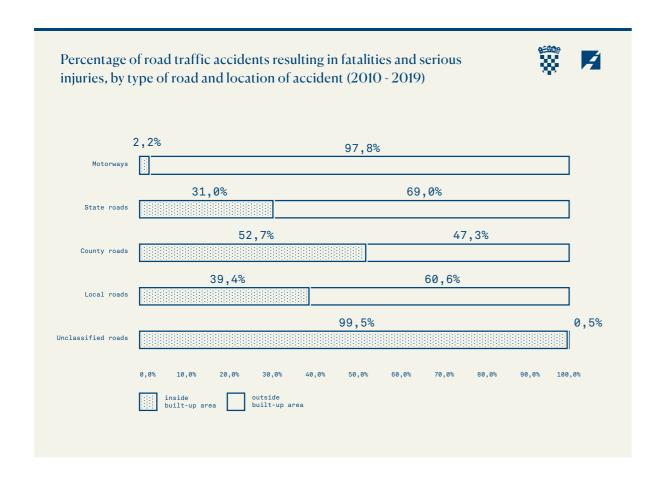
Source: The 2019 Road Safety Bulletin, MI 2020



2.10. Place of occurrence of road traffic accidents

The number of road traffic accidents resulting in fatalities and serious injuries was particularly high inside built-up areas, reaching 19,332 (74%) compared to 6,769 road accidents occurring outside built-up areas (26%).

When analysing the type of road, the majority of road traffic accidents resulting in fatalities and serious injuries occurred on unclassified roads (61%). On the other hand, 22% of road traffic accidents resulting in fatalities and serious injuries occurred on state roads and 11% on county roads. The lowest percentage of road traffic accidents resulting in fatalities and serious injuries occurred on motorways (4%) and on local roads (2%).

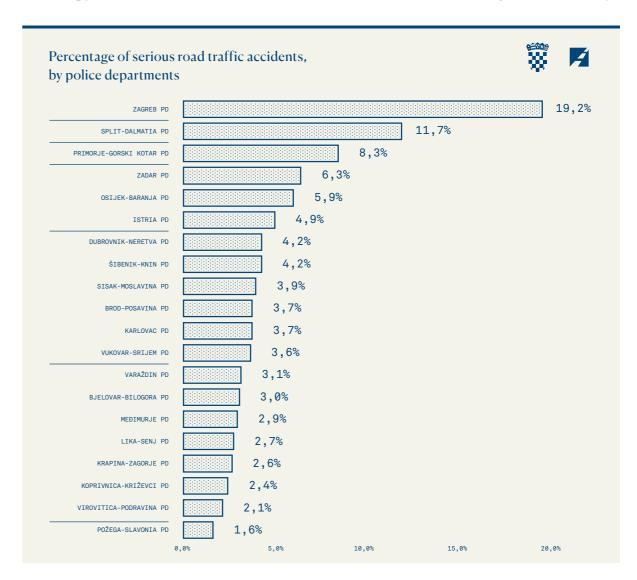


Source: The 2019 Road Safety Bulletin, MI 2020

2.11. Territorial distribution

With the aim of determining territorial differences of causal factors in the territory of the Republic of Croatia, a territorial analysis of serious road traffic accidents was conducted across police departments, with respect to the contributing factors and types of road accidents. According to the average number of serious road traffic accidents, with respect to police departments, seven categories with statistically significant differences in the average annual number of serious road accidents have been identified. The first three categories account for almost 40% of all road traffic accidents resulting in fatalities and serious injuries.

A statistically significant difference has not been identified by the analysis of the statistically significant difference in the contributing factors and types of serious road accidents across various police departments. Accordingly, it can be concluded that the measures will need not be defined with respect to the territory.

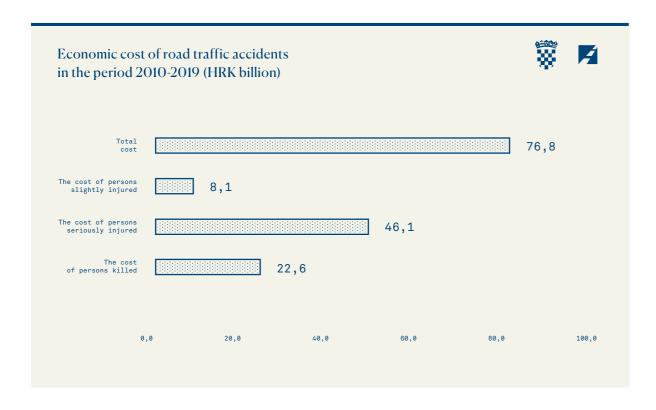




2.12. Economic cost of traffic accidents

The social cost incurred as a result of road traffic accidents in the period 2010–2019 was calculated to warn about the importance of addressing road traffic accidents and road safety issue. A world-renowned methodology of the UN, WHO and iRAP² was used to quantify the cost of a human life lost in a road traffic accident, including the cost of a seriously injured person.

According to the methodology concerned, it was determined that the cost of the persons killed and persons seriously and slightly injured in the period 2010-2019 to the Croatian society amounted to a minimum of HRK 76.8 billion. Similarly, the annual costs of road traffic accidents in the European Union are estimated at EUR 280 billion, which accounts for 2% of EU GDP.



Source: The 2019 Road Safety Bulletin, MI 2020

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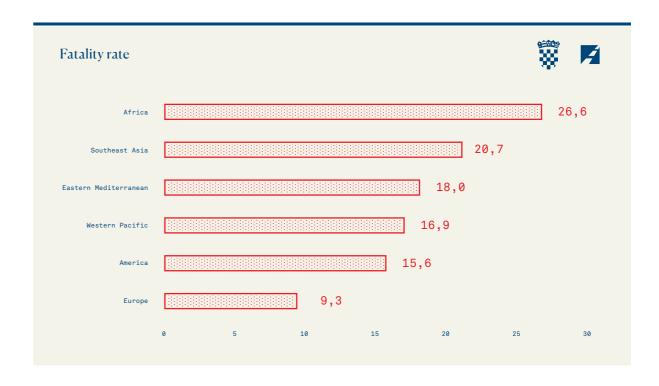
2 McMahon, K. and Dahdah, S. (2008) The True Cost of Road Crashes: Valuing Life and the Cost of a Serious Injury. International Road Assessment Programme

3. ENVIRONMENT WHERE THE NATIONAL PLAN IS TO BE ADOPTED

3.1. European and global trends

Every year, more than 1.3 million lives are lost in road accidents worldwide, which is an unacceptably high number of fatalities. The deaths and injuries of road users are a global health and development issue that will escalate if no significant steps are taken. Road traffic accidents are the leading cause of death in children and young adults aged 5 to 29, and the eighth leading cause of death in all age groups globally. Pedestrians, cyclists and motorcyclists accounting for more than half of all deaths from road accidents are still often neglected in terms of road safety in a number of countries.

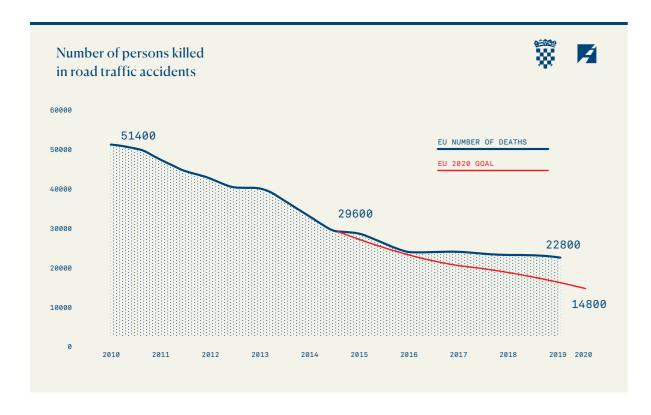
Progress in road safety varies considerably across different continents, regions and countries. There are significant differences between death rates, with the highest and most dangerous one recorded in African (26.6) and Southeast Asian countries (20.7). The lowest rate is recorded in Europe (9.3), followed by America (15.6). Countries in the Western Pacific and in the Eastern Mediterranean region have a mortality rate of 16.9 and 18, respectively.





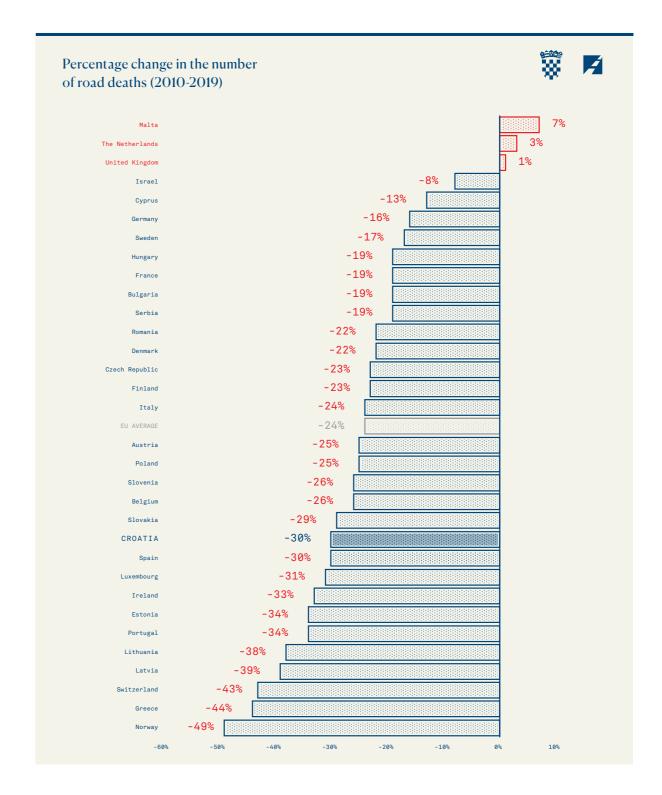
The difference across continents, regions and countries arises from the fact that the level of government revenue affects the risk of road traffic accidents resulting in fatalities and serious injuries. In countries with high budget revenues, especially in the European Union, the average fatality rate in road traffic accidents is around 4.9 per 100,000 inhabitants, while in poorer countries the fatality rate is around 27.5 per 100,000 inhabitants (especially in Africa, parts of Asia and South America). Likewise, the number of road deaths has not been reduced in any low-income country since 2013. A substantial gap between the so-called richer and poorer countries slows down the achievement of the common objective at the global level, which is a vision of casualty-free road traffic.

In the European Union in 2018, 25,100 people lost their lives in road traffic accidents, while about 130,000 people were seriously injured. The total number of deaths in road traffic accidents from 2001 to 2010 decreased by 43%, and from 2010 to 2018 by 21%. In 2019, the number of road deaths in the European Union (27 Member States) dropped by 2%, ending 2019 with about 22,800 fatalities. Current trends suggest that the objective of the European Union to halve the number of road deaths in Member States by the end of 2020 will not be achieved, which is a new challenge for all Member States.



Source: European Commission, 2019

Despite the failure to achieve the target at European level, it is possible for some Member States to achieve the set reduction target individually. At present, it is up to each of the States to try to end the period covered by the plan with as few fatalities and serious injuries as possible, analyse the past period and prepare new national road safety strategies for the period 2021–2030.



Source: www.statista.com, 2020





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The effective guidelines comprising important European and global legislation on road safety have been analysed and adopted as such in the National Road Safety Plan for the period 2021–2030.

Document name	Issued by	Year
Global Plan for the Decade of Action for Road Safety 2011–2020	UN	Mar 2010
Towards a European Road Safety Area: Policy Orientations on Road Safety 2011–2020	EU	Jul 2010
Valletta Declaration	EU	Mar 2017
Strategic Action Plan on Road Safety	EU	May 2018
EU Road Safety Policy Framework 2021-2030 - Next Steps Towards Vision Zero	EU	Jun 2019
Towards the 12 voluntary global targets for road safety	UN	Jan 2020
Stockholm Declaration	UN	Feb 2020
Sustainable Development Goals - SDG	UN	2015
RADAR Project - Danube Transnational Programme	DTP	2018-

GLOBAL ACTION PLAN ON ROAD SAFETY FOR THE PERIOD 2011–2020

In March 2010, the United Nations General Assembly officially declared the period 2011–2020 the Decade of Action for Road Safety 2011–2020. A document entitled 'Global Plan for the Decade of Action for Road Safety 2011–2020' prepared by the United Nations Road Safety Collaboration was presented as part of the Assembly's activities.

The underlying principle of the Plan is the 'safe system approach'. This approach refers to the greatest possible adaptation of the road system to human errors and vulnerability. In spite of the common belief that road traffic accidents are impossible to eradicate fully due to human error, consequences of such accidents can be mitigated. The safe system approach policy emphasizes that multiple competent authorities with clearly defined tasks share the responsibility for the occurrence of road traffic accidents and for the mitigation of their consequences.

The general objective of the Plan is to stabilise and reduce the number of deaths by 2020. The objective is to be achieved through activities and measures at the local, regional, national and global levels. However, the document focuses on national and local activities and measures.

EUROPEAN POLICY ORIENTATIONS ON ROAD SAFETY 2011–2020

In July 2010, the European Commission (EC) adopted a document on road safety (Towards a European Road Safety Area: Policy Orientations on Road Safety 2011–2020) for the period 2011–2020 covered by the plan. New objectives and measures for the planned ten-year period were presented taking into account the analysis of the results of the former road safety action programme for the period 2001–2010, i.e. The Third European Road Safety Action Programme.

The principles underpinning the document strive for the highest road safety standards throughout Europe, and an integrated approach to road safety, including the principles of subsidiarity, proportionality and shared responsibility. The quantitative target of the strategic document is a 50% reduction in the number of deaths in the European Union in the period 2011–2020. The establishment of a target for reducing the number of people injured is considered as well. It is, however, stated that such target is not yet possible due to the lack of common definition of the extent of injuries in Member States.

The strategic objectives, i.e. the areas of intervention for EU Member States, envisaged for the period 2011–2020 are in line with the global recommendations from the UN and the WHO. Special attention was given to the accidents of vulnerable road users, education of all road users, and promotion of new technologies to increase the level of road safety.

THE VALLETA DECLARATION

The Valletta Declaration, a road safety document adopted by the European Council in June 2017, was signed by transport ministers of EU Member States in Malta in March 2017. It is an important strategic document on road safety in the European Union.

As stated in the Declaration, there has been a steady and promising trend towards meeting the common target of halving the number of road deaths. Over time, however, the target has become extremely challenging and, unless further efforts are made, it may not be met. Of particular concern is the number of road fatalities and serious injuries among vulnerable groups, especially pedestrians and cyclists.

Therefore, Member States as signatories to the Declaration undertake to continue their cooperation and reinforce measures necessary to halve the number of road deaths in the European Union by 2020, given the programme objectives of the ten-year Plan of the European Commission. Similarly, Member States as signatories undertake to start drafting new national strategies, or plans to increase the level of safety in the period after 2020.

A novelty in the Valletta Declaration compared to the previous documents relating to road safety is the special attention that has been given to seriously injured road users. The focus is on the importance of a deeper analysis of road safety, underlining the number of fatalities as an insufficiently good indicator. In addition to the common establishment of targets for reducing the number of road fatalities, the Valletta Declaration also sets a target for halving the number of people seriously injured on the roads by 2030.





EUROPEAN ROAD SAFETY POLICY FRAMEWORK 2021–2030

In June 2019, the European Commission published a working document entitled 'EU Road Safety Policy Framework 2021–2030 - Next Steps Towards Vision Zero', which refers to the upcoming period 2021–2030 covered by the plan. The drafting of the document was driven by the "Europe on the Move" package ("Europe on the Move-Sustainable Mobility for Europe: safe, connected, and clean"), along with a medium term Strategic Action Plan on Road Safety of May 2018. The purpose of the working document is to translate the policy of the Action Plan concerned into action, i.e. implementation, as well as to provide guidelines for the development of national plans for the period 2021–2030.

The document confirms the European Union's global long-term goal of zero fatalities by 2050. The policy of complete elimination of road fatalities, presented as Vision Zero, was adopted in 1997 in the Swedish Parliament. The aim of the policy is to have zero road users killed or seriously injured in road traffic accidents and to establish compliance of any future road transport planning with such requirements. In addition to the long-term goal concerned, it also sets a goal to halve the number of road deaths by 2030, which is a continuation of the last European ten-year road safety programme. The document of the European Commission especially emphasizes the importance of the Valletta Declaration signed in 2017, thus addressing the special importance of classifying the seriousness of injuries and setting targets for reducing the number of serious injuries resulting from road accidents.

TOWARDS THE 12 VOLUNTARY GLOBAL ROAD SAFETY GOALS

In January 2020, the United Nations Road Safety Collaboration published an important document entitled 'Towards the 12 voluntary global targets for road safety'. It was published as a means to assist countries in monitoring and reporting on the status of road safety in the period 2020–2030. The document provides guidance for countries on activities and measures to achieve the voluntary global road safety performance targets.

The document clearly describes methods for measuring the level of success in achieving targets using key performance indicators. It defines a methodology of separate measurement and monitoring of actions, impacts and outcomes applicable to road safety.

THE STOCKHOLM DECLARATION

The International Declaration on Road Safety was signed in February 2020, at the Third Global Ministerial Conference on Road Safety: Achieving Global Goals 2030 in Stockholm. The declaration was prepared in close cooperation with the steering group of the conference and it went through an extensive consultation with the WHO member states. It was signed by more than 80 UN member states, thus constituting a strategically important document in terms of global road safety.

The Stockholm Declaration provides guidelines for 2030, with an emphasis on international cooperation to improve global road safety. The Declaration emphasizes and encourages the European Union's ambitions to deliver the 50% reduction in fatalities and serious injuries for road users by 2030 as a vision aiming to reduce road fatalities and serious road injuries to zero by 2050. The declaration calls upon all countries worldwide to follow the example of the European Union in the pursuit of the goal to reduce the number of road traffic accidents.

Member states as signatories to the Stockholm Declaration undertake to continue the cooperation and give emphasis to the issue of road traffic accidents. Special attention should be paid to the safety issues related to vulnerable populations, i.e. pedestrians, cyclists, motorcyclists, public transport users, children and young people. All of the member states are committed to developing new national safety plans for the upcoming period 2021–2030 covered by the plan. In addition to the mandatory development of national road safety plans, the development and implementation of regional and local plans is encouraged as well.

SUSTAINABLE DEVELOPMENT GOALS

In 2015, 195 nations agreed with the UN to change the world for the better by 2030. This is to be achieved by bringing together governments, the media, businesses, higher education institutions and local NGOs. To this end, a total of 17 Sustainable Development Goals (SDGs) have been set, providing for a change in the financial, economic and political system governing today's society.

One of the targets (target 3.6) within Goal 3 (Ensure healthy lives and promote well-being for all at all ages) is to halve the number of deaths and injuries from road traffic accidents.

Moreover, one of the targets of Goal 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) is to provide by 2030 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 people.

RADAR PROJECT - DANUBE TRANSNATIONAL PROGRAMME 2018

The three-year implementation of the RADAR (Risk Assessment on Danube Area Roads) project within the Interreg Danube Transnational Cooperation Programme began in June 2018. The objective of the RADAR project is to reduce the risk of road traffic accidents through the improvement of road infrastructure, which is to be achieved through a number of project activities that seek to help the competent institutions of the countries in the Danube area to identify and reduce the risk on their road networks.

The project has been implemented in more than ten countries in the Danube area (Austria, Bosnia and Herzegovina, Bulgaria, Czech Republic, Croatia, Slovakia, Slovenia, Hungary, Moldova, etc.). As part of the RADAR project, a transnational expert group has been set up to discuss a number of problems, solutions and the latest knowledge at meetings on various road safety-related topics in order to improve road safety.

The transnational group prepared reports in accordance with the topics addressed in the first region-wide Danube Infrastructure Road Safety Improvement Strategy, including the action plans for its implementation specifically tailored to the needs and opportunities of each country in the Danube area that has participated in its adoption.

The Danube Infrastructure Road Safety Improvement Strategy document, created as part of the implementation of the RADAR project, defines the vision, objectives and ways to improve road infrastructure safety and addresses key topics related to road infrastructure safety. This document created through transnational cooperation includes data related to more than ten countries in the Danube region, as well as knowledge accumulated during various project implementation activities (training for key road safety stakeholders in nine countries in the area, implemented pilot projects, etc.). It uses current data and advises of the importance of increasing the national institutional capacity of decision makers.



3.3. Safe system approach

Road Safety Policy Framework of the European Union for the forthcoming period 2021–2030 is based on the 'safe system approach' of 2020. Over the past decade, the safe system approach has emerged from best safety practice. Globally recommended by the World Health Organisation, the safe system approach represents a holistic view of the road traffic system and the interaction between the roads, users and vehicles. It is intended for all groups using the road system, including drivers, motorcyclists, passengers, pedestrians, cyclists and drivers of commercial and heavy-duty vehicles.

Alongside vehicles with conventional internal combustion engines, the share of hybrid vehicles, electric vehicles and hydrogen vehicles in the structure of road vehicles is increasing, primarily for environmental reasons. With the increasingly solid and diverse materials used to manufacture vehicles, and generally with various hazardous substances transported in road transport, this trend requires additional efforts to maintain responsiveness of emergency services in the event of a road traffic accident in terms of vehicle databases, detection of hazardous substances, training and equipment.

The safe system approach recognizes the fact that people will always be prone to mistakes and reshapes road safety policy by focusing on the prevention of deaths and injuries. According to the principle underpinning the safe system approach, the system is to be 'forgiving' and road traffic accidents, regardless of their immediate cause, shall not result in death or serious injury. The safe system is based on the fact that the deaths and injuries resulting from road traffic accidents are not the price that road users inevitably have to pay for the increasing demand for mobility.

Key factors, including the previously identified and established safe system factors are: safe infrastructure, safe road use, safe vehicles, and fast and efficient emergency services.

The safe system approach involves multisectoral and multidisciplinary action by different actors to increase the level of road safety. It is based on the division of responsibilities towards road safety. In order to function, all actors need to perform the planned tasks in a coordinated manner. This includes public authorities in all sectors related to traffic safety, infrastructure, environment, education, healthcare, legislation, tourism, etc. Furthermore, various stakeholders such as economic entities, insurance companies, non-governmental organisations, associations, scientific institutions, etc. have a crucial role in this manner of addressing road safety. Close cooperation, exchange of experiences and coordination at all levels is essential to ensure the best possible organisation, implementation, monitoring and well-timed adjustment of the planned measures and activities.

Joint cooperation of all public authorities on the national, regional and local level, including interest groups, the private sector and the media, with respect to road safety in the Republic of Croatia contributes to the maximization of the significance and effectiveness of measures and activities being planned or implemented. Recognition of measures and activities by road users and the general public is necessary for the successful achievement of the objectives planned. The emphasis is thus put on the importance of constantly encouraging public debate to secure personal responsibility of each individual. Strong awareness of the importance of



road safety in a community may reduce negative trends in fatalities and heighten the sense of general safety among the population.

The National Road Safety Plan for the period 2021-2030 is harmonised with the principles underpinning the safe system approach. It relies on a clearer understanding of the factors affecting the safety of all road users.



3.4. The Second Decade of Action for Road Safety 2021–2030

The United Nations Assembly proclaimed the period 2021–2030 as the Second Decade of Action for Road Safety. The main goal of the Second Decade of Action for Road Safety is to reduce road traffic deaths and injuries by 50%.

The resolution concerned urges all Member States to work systematically on safety of all road users and to ensure safe infrastructure. The resolution also emphasizes that in the implementation of all measures it is necessary to take into consideration all forms of traffic acknowledging their specific needs, to identify and address areas with high accident rates, as well as to properly plan and design transport infrastructure using the safe system approach, with the aim of preventing the most severe consequences of road traffic accidents, regardless of their cause.

4. VISION AND OBJECTIVES OF THE NATIONAL PLAN

The analysis of global, and especially European guidelines for increasing road safety shows that the approach in the methodology for increasing road safety has changed. The approach has changed in the very philosophy of understanding the causes of road traffic accidents, with more attention directed to people and their own responsibility to themselves as individuals and to the society as a whole.

This forms the basis of the Swedish Vision Zero, a concept which finds fatalities and serious injuries unacceptable and which has become the guideline of most of today's programmes aimed at increasing road safety.

In line with its underlying philosophy, the Vision Zero concept primarily implies a change in the understanding of responsibility for safety borne by people. Vision Zero suggests that responsibility for safety lies not only with people as road users, but also with people as managers and designers of the road transport system. The responsibility is thus shared by all road users and safety is analysed in the planning and design of the road transport system, which is very important from the point of view of preventive action against road traffic accidents, including action towards reducing their consequences.

Responsibility shared by Croatian road users, designers and authorities ensures a road transport system safe for everyone!

In line with the vision of sustainable development and road safety of the European Union and the United Nations, a special objective has been set: to improve road safety in Croatia for the period 2021–2030. The identified specific objective, which is to be achieved by implementing measures classified in 13 areas of action, directly contributes to the implementation of the United Nations Plan for Sustainable Development 2030 (UN Agenda 2030), i.e. Sustainable Development Goal (SDG) no. 3 to ensure healthy lives and promote well-being for all at all ages and Sustainable Development Goal no. 11 to make cities and human settlements inclusive, safe, resilient and sustainable.



NAME OF THE SPECIFIC OBJECTIVE

Improving road safety in the Republic of Croatia

ID	AREA OF ACTION	PURPOSE OF THE IMPLEMENTATION OF MEASURES
PD1	Safe speed	✓ by 2030, halve the percentage of vehicles moving faster than the speed limit and achieve a reduction in speeding-related deaths and injuries
PD2	Not driving under the influence of alcohol, drugs and medicines	✓ by 2030, halve the number of deaths and injuries from alcohol- related road traffic accidents and achieve a reduction in deaths and injuries from road accidents related to the use of psychoactive substances
PD3	Safe driving	✓ by 2030, halve the number of road traffic accidents caused by reckless driving
PD4	Safety helmet	✓ by 2030, increase the percentage of proper safety helmet use by motorcyclists and moped riders on the road to almost 100%
PD5	Safety devices in vehicles	✓ by 2030, increase the percentage of proper use of the appropriate seat belt and child restraint system in motor vehicles by drivers and passengers to almost 100%
PD6	Prevention of distracted driving	✓ by 2030, halve the number of serious accidents
PD7	Active transport modes	
	Walking (pedestrians)	\checkmark by 2030, halve the number of serious accidents
	Cycling (cyclists)	✓ by 2030, halve the number of serious accidents
PD8	Safety of motorcyclists and moped riders	✓ by 2030, halve the number of serious accidents
PD9	Safety of professional drivers	✓ by 2030, halve the number of serious accidents involving professional drivers
PD10	Safe infrastructure	✓ by 2030, all new roads should meet the required safety standards for all road users or have a three-star or better rating
		✓ by 2030, existing roads carrying 75% of traffic should have a minimum three-star rating for all groups of road users, depending on the road category and the planned traffic load by user groups
PD11	Safe vehicles	✓ by 2030, increase the percentage of new passenger cars with a EuroNCAP safety rating equal to or above the set threshold
		\checkmark by 2030, reduce the percentage of technically defective vehicles in regular technical inspections
PD12	Fast and efficient emergency services	✓ by 2030, ensure the emergency medical service response time of 10 minutes in urban areas and 20 minutes in rural areas, including the emergency care within the golden hour for the largest possible number of accidents
PD13	Increased capacity of the traffic police and inspection services	✓ by 2030, increase the human and technical potential of the police and inspection services in charge of road traffic control by 100%

OUTCOME INDICATOR NAME	INITIAL VALUE (2019)	TARGET	CONTRIBUTION TO SUSTAINABLE DEVELOPMENT GOALS (SDGs)
OI.02.11.25, Number of people killed in road traffic accidents ⁵	297	148	SDG 3, SDG 11
OI.02.11.38, Number of road traffic accidents resulting in fatalities	279	139	SDG 3, SDG 11
OI.02.11.37, Number of road traffic accidents resulting in serious injuries	2213	1106	SDG 3, SDG 11

In line with the developed vision and the defined special objective, the expected targets for reducing the number of persons killed in road traffic accidents and serious road traffic accidents by the end of the period covered by the plan have been set as a result of the implementation of measures and activities of this Plan. The values are shown with respect to the areas of actions, as well as for the whole Plan in total.

ID	AREA OF ACTION	NUMBER OF SERIOUS ROAD TRAFFIC ACCIDENTS (Based on the last ten-year period)	TARGET FOR THE NUMBER OF SERIOUS ROAD TRAFFIC ACCIDENTS (2029)
PD1	Safe speed	429	214
PD2	Not driving under the influence of alcohol, drugs and medicines	92	46
PD3	Safe driving	959	479
PD4, PD8	Safety of motorcyclists and moped riders	673	335
PD5	Safety devices in vehicles the potential expressed through other targets that should be achieved in order to meet the potentials of all areas of action		
PD6	Prevention of distracted driving	274	137
PD7	Active transport modes	797	398
PD9	Professional drivers	349	174
PD10	Safe infrastructure		
PD11	Safe vehicles		
PD12	Fast and efficient emergency services	the potential expressed through other targets that should be achieved in order to meet the potentials of all areas of action	
PD13	Increased capacity of the traffic police and inspection services		

 $\label{eq:continuous} 5 \qquad \text{Outcome Indicator code in the Performance Monitoring Indicator Library}.$



5. KEY PERFORMANCE INDICATORS

In addition to the set objectives, key performance indicators have been defined for the purposes of measuring the effectiveness of the Plan. Key performance indicators are defined so as to enable easy monitoring and understanding of the process of fulfilling each set objective, as well as the effectiveness itself. The indicators were developed by taking into account that monitoring the fulfilment of set objectives and achievement of targets does not require any complex collection of new large amounts of data, but that it is largely feasible through road traffic system data that are already collected or are to be collected once the Plan is developed.

ID	AREA OF ACTION	RESULT INDICATORS
PD1	Safe speed	✓ Percentage of road traffic accidents resulting in fatalities and serious injuries with speed as one of the contributing factors
		✓ Percentage of serious road traffic accidents with speed as the only contributing factor
		✓ Percentage of serious road traffic accidents caused by young drivers, with speed as one of the contributing factors
		✓ Percentage of vehicles moving at the permitted speed*
PD2	Not driving under the influence of alcohol, drugs and medicines	✓ Percentage of serious road traffic accidents with at least one of the road users under the influence of alcohol and/or psychoactive substances
		✓ Percentage of serious road traffic accidents caused by a person under the influence of alcohol and/or psychoactive substances
		✓ Percentage of serious road traffic accidents caused by a young driver under the influence of alcohol and/or psychoactive substances
		✓ Percentage of drivers who comply with legal limits related to the use of alcohol and/or psychoactive substances and to the participation in road traffic*
PD3	Safe driving	✓ Percentage of serious road traffic accidents with reckless driving as the contributing factor
PD4	Safety helmet	✓ Percentage of cyclists in serious road traffic accidents who did not wear a safety helmet
		✓ Percentage of cyclists who caused a serious road traffic accident and did not wear a safety helmet
		✓ Percentage of cyclists under the age of 24 who did not wear a safety helmet and were involved in serious road traffic accidents
		✓ Percentage of cyclists who did not wear a safety helmet*
		✓ Percentage of motorcyclists/moped riders who did not wear a safety helmet in serious road traffic accidents
		✓ Percentage of motorcyclists/moped riders who caused a serious road traffic accident and did not wear a safety helmet
		✓ Percentage of motorcyclists/moped riders wearing a safety helmet*

ID	AREA OF ACTION	RESULT INDICATORS
PD5	Safety devices in vehicles	✓ Percentage of drivers in serious road traffic accidents who did not wear a seat belt
		✓ Percentage of passengers wearing a seat belt properly*
		✓ Percentage of drivers for whom the data on seat belt use is not available
		✓ Percentage of passengers in serious road traffic accidents who did not wear a seat belt
		✓ Percentage of young drivers who did not wear a seat belt
		✓ Percentage of the use of child restraint systems when driving in serious road traffic accidents
		✓ Percentage of drivers who use the child restraint system properly*
PD6	Prevention of distracted driving	✓ Percentage of road traffic accidents resulting in fatalities and serious injuries with distraction as the potential contributing factor
		✓ Percentage of drivers who did not use a hand-held mobile device while driving*
PD7	Active transport modes	✓ Percentage of serious road traffic accidents involving pedestrians
	Pedestrians	✓ Percentage of serious road traffic accidents caused by pedestrians
		✓ Percentage of underage pedestrians involved in serious road traffic accidents
		✓ Percentage of pedestrians aged 65 or over who were involved in serious road traffic accidents
	Cyclists	✓ Percentage of cyclists involved in serious road traffic accidents
		✓ Percentage of serious road traffic accidents caused by cyclists
		✓ Percentage of underage cyclists involved in serious road traffic accidents
		✓ Percentage of cyclists aged 65 or over who were involved in serious road traffic accidents
PD8	Safety of motorcyclists and moped riders ⁴	✓ Percentage of serious road traffic accidents involving motorcyclists/ moped riders
		✓ Percentage of serious road traffic accidents caused by motorcyclists/ moped riders
		✓ Percentage of young motorcyclists/moped riders who caused a serious road traffic accident
		✓ Percentage of motorcyclists/moped riders and passengers wearing a safety helmet*
PD9	Safety of professional drivers	✓ Percentage of serious road traffic accidents involving heavy goods vehicles
		✓ Ratio between the light goods vehicles and heavy goods vehicles involved in serious road traffic accidents
		✔ Percentage of serious road traffic accidents caused by professional drivers
PD10	Safe infrastructure	✓ Percentage of road infrastructure above the established minimum safety standard*

 $^{4\}qquad \text{Engine-powered motorcycles, mopeds and other vehicles that can reach a speed of more than } 25\,\text{km/h}$

REPUBLIC OF

CROATIA



ID	AREA OF ACTION	RESULT INDICATORS
PD11	Safe vehicles	✓ Percentage of serious road traffic accidents caused by the vehicle
		 Average age of passenger cars involved in serious road traffic accidents
		✓ Percentage of technically defective vehicles involved in serious road traffic accidents
		✓ Percentage of new passenger cars with a Euro NCAP safety rating equal to or above the set threshold*
PD12	Fast and efficient emergency services	✓ Time elapsed from an emergency call following an accident resulting in injuries to the arrival of the emergency medical service at the scene of the accident (in minutes and seconds)*
PD13	Increased capacity of	✓ Officers trained to use road traffic control devices
	the traffic police and inspection services	\checkmark Amount of material and technical equipment for road traffic control
	-	✓ Increased control of drivers and vehicles, including the number of preventive actions

^{*} in accordance with the EU Road Safety Policy Framework 2021–2030 - Next Steps Towards Vision Zero





6. POTENTIALS BY AREAS OF ACTION

In line with the effective global practice and EU recommendations, 13 areas of action have been identified for the purposes of defining measures, including the implementation plan itself. The defined areas provide a great potential for reducing the number of serious traffic accidents on the Croatian roads, and ultimately for minimising their consequences. It is also important to note that the potential of a particular area of action defines the benefit in the implementation of measures as well. Potentials are calculated according to the road traffic accident database of the Ministry of the Interior.

POTENTIAL AT PLAN LEVEL (BASE	D ON THE BASE YEAR 2019)
Number of persons killed in road traffic accidents	297
Number of road traffic accidents involving fatalities	279
Number of road traffic accidents involving seriously injured persons	2213

ID	AREA OF ACTION	POTENTIAL OF THE AREA OF ACTION (based on the last ten-year period)
PD1	Safe speed	✓ 39% of serious road traffic accidents have speed as one of the contributing factors
		✓ 17% of serious road traffic accidents have speed as the only contributing factor
		✓ almost every fourth serious road traffic accident with speed as the contributing factor is caused by young drivers
PD2	Not driving under the influence of alcohol, drugs and medicines	✓ 22% of serious road traffic accidents involved the use of alcohol and/or psychoactive substances
		✓ in 4% of serious road traffic accidents the person who caused them was under the influence of alcohol and/or psychoactive substances
		✓ a quarter of people who caused a serious road traffic accident under the influence of alcohol and/or psychoactive substances were 25 years of age or younger, while half were under 35 years of age
PD3	Safe driving	✓ 38% of serious road traffic accidents have reckless driving as the contributing factor

PD4

PD5

PD6

PD7

PD8

Safety of motorcyclists

and moped riders



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		ID	AREA OF ACTION	POTENTIAL OF THE AREA (based on the last ten-yea
`ION	POTENTIAL OF THE AREA OF ACTION (based on the last ten-year period)	PD9	Safety of professional drivers	heavy goods vehicles are involved in 149 accidents
	✓ about 83% of cyclists who caused a serious road accident did not wear a safety helmet			✓ light goods vehicles ⁵ are involved in 42% accidents involving goods vehicles, and lincluding buses, in 58%
	✓ a quarter of cyclists who did not wear a safety helmet were 25 years of age or younger			✓ professional drivers are the cause of 3% accidents
	✓ about 15% of motorcyclists/moped riders who caused a serious road accident did not wear a safety helmet			✓ the status of taxi drivers in statistical ter
	✓ 11% of motorcyclists did not wear a safety helmet	PD10	Safe infrastructure	√ 35% of serious road traffic accidents ar infrastructure together with the human
	✓ 24% of moped drivers did not wear a safety helmet			✓ in 7% of serious road traffic accidents the and horizontal marking
	√ 7% of drivers of passenger cars involved in serious road traffic accidents did not wear a seat belt			and horizontal marking ✓ about a quarter of the motorway network
	✓ seat belt use data is not available for 23% of drivers			state road network and more than half of has a rating lower than three stars
	✓ 9% of passengers in passenger cars involved in serious road traffic accidents did not wear a seat belt	PD11	Safe vehicles	✓ 6% of serious road traffic accidents are together with the human factor
	✓ 28% of drivers who do not wear a seat belt are young drivers			✓ the average age of passenger cars involv
d	✓ distraction is a potential cause of about 11% of serious road traffic accidents			accidents is just over 12 years
	✓ involved in 19% of serious road traffic accidents	PD12	Fast and efficient emergency services	✓ in 62% of serious road traffic accidents to death occurred at the scene of the accidents
	 ✓ 18% of serious road traffic accidents involving pedestrians were caused by the pedestrians (4% of all serious road traffic accidents) 			occurred within 30 days, and in 8% of rooccurred during transport to the hospita
	✓ 19% of pedestrians involved in serious road traffic accidents were	PD13	Increased capacity of	✓ today, about 1200 traffic monitoring de
	minors		the traffic police and inspection services	✓ about 2100 trained officers
	✓ 35% of pedestrians involved in serious road traffic accidents were 65 years of age or older			✓ more than 285,000 speeding offences, of the speed limit were recorded in 2019
	✓ involved in 13% of serious road traffic accidents			
	√ 62% of serious road traffic accidents involving cyclists were caused by the cyclists (8% of all serious road traffic accidents)			



⁵ with a vehicle weight of not more than 3500 kg

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✓ 16% of cyclists involved in serious road traffic accidents were

✓ 21% of cyclists involved in serious road traffic accidents were 65 years of age or older

✓ motorcyclists/moped riders are involved in 27% of serious road

✓ 61% of serious road traffic accidents involving motorcycles/ mopeds were caused by the motorcyclists/moped riders (17% of all serious road traffic accidents)

✓ every fifth motorcyclist and moped rider who caused a serious road traffic accident (21%) was also a young rider

✓ 50% of motorcyclists/moped riders involved in serious road traffic

accidents were 37 years of age or younger

traffic accidents

⁶ with a vehicle weight above 3500 kg



7. MEASURES ACCORDING TO AREAS OF ACTION

With the aim of increasing road safety in Croatia, more than 200 activities planned for the Second Decade of Action for Road Safety have been categorised into 13 areas of action:

- Safe speed
- Not driving under the influence of alcohol, drugs and medicines
- Safe driving
- Prevention of distracted driving
- Safety of active transport modes
- Safety of motorcyclists and moped riders
- Safety of professional drivers
- Safety devices in vehicles
- Safe infrastructure
- Safe vehicles
- Fast and efficient emergency services
- Increased capacity of the traffic police and inspection services
- Database and data collection.

Activities are generally classified into three basic categories (educational, engineering and legal), including more than 35 measures. In line with the objective, the focus of the Plan, as well as of the activities, is on education or the sharing of responsibilities by road infrastructure users, designers and authorities.

For the purposes of defining measures according to the areas of action, the safety helmet has been included in the area of action on safety of active transport modes (where cyclists are concerned), including on safety of motorcyclists and moped riders (where such riders are concerned).

Another key area important for adequate monitoring of key performance indicators, as well as the effectiveness of the Plan, i.e. database and data collection, has been added as part of the measures.

In addition to the defined measures by type and group, the following values essential for the development and implementation plan have been defined for each measure:

DESIGNATION	DESCRIPTION				
Type of measure	as indicated by the defined measures according to the areas of action, the measures are generally divided into three types, i.e. educational, engineering and legal measures				
	the implementation plan was developed with respect to the types concerned to facilitate implementation $$				
Measure	a set of actions that directly achieve the specific objective of the activities that should be carried out				
Activity	a series of specific and interrelated actions the implementation of which directly leads to the achievement of the measure, and indirectly to the achievement of the specific objective				
Responsibility	represents the institutions responsible for the implementation of each measure				
Implementation	start of the implementation period				
period	<i>I.</i> 2021–2023				
	II. 2024–2026				
	III. 2027–2030				
	considering that road safety requires continuous work, the measures are implemented periodically, in accordance with the needs and potentials				
	priorities for the implementation of measures should be harmonised with the identified potentials of particular areas of action, as well as with the complementarity of particular activities				

For the purposes of monitoring the effectiveness of the measures and the Plan as a whole, it is essential to systematically collect data and report annually on trends in the defined areas of action. The Plan should be evaluated at least every three years, by monitoring the results of the conducted activities, as well as by preparing a detailed statistical analysis of the database on road traffic accidents, including the analysis of trends in the areas of action. Consequently, pursuant to the EU Road Safety Policy Framework 2021–2030 - Next Steps Towards Vision Zero, systematic road traffic flow analyses that are not related only to the identified road traffic offences/accidents should be performed for the purpose of better and more objective safety assessment. It is also advisable to inform the European Commission about the established values of key performance indicators in order to increase road safety at EU level.



7.1. Safe speed

NATIONAL

Measures and potentials from the 'Safe speed' area of action are based on the results of the statistical analysis of the data referring to road traffic accidents with speed as a contributing factor that preceded the road traffic accident.

Speed is a contributing factor in as many as 39% of serious traffic accidents on the Croatian roads, while in 17% it is the only contributing factor. This clearly manifests the importance of action on road traffic accidents with speed as one of the causal factors.

For the purposes of reducing the number of serious road traffic accidents with speed as a contributing factor, 22 activities were defined and divided into 8 measures:

- implementation of preventive-educational and promotional activities;
- harmonisation of speed limits on all roads taking into account all characteristics and conditions;
- increase in the level of road safety in places where road works are performed;
- design of a safe transport system;
- research;
- tightening of speed control;
- amendments to legislation;
- introduction of ISA (Intelligent Speed Assistance).

The implementation of the defined measures provides for a 50% reduction in the number of persons killed in road traffic accidents, as well as in the number of serious road traffic accidents with speed as the only contributing factor by the end of the period covered by the Plan, which is a decrease from 429 to 214 serious road traffic accidents.

Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Implementation of preventive- educational and promotional activities	Performing activities aimed at raising awareness of the risks and consequences of speeding	MSE, MI, MSTI, CAC, RSO	I.
Engineering solutions	Harmonisation of speed limits on	Aligning speed limit signs with the actual situation on the roads	PRM, MI, RSO	I., II.
	all roads taking into account all characteristics and conditions	Reducing speed limits and operating speeds on sections with a high rate of accidents (where speed is a causal factor)	PRM, MI, RSO	I.
		Enhancing the system of variable traffic signs aimed at adapting the speed limit to the current road conditions, in accordance with actual needs	PRM, MI, RSO	I.
	Increase in the level of road safety in places where road works are performed	Identifying and penalising more efficiently drivers committing offences especially drivers of heavy goods vehicles who do not comply with the permitted speed limits	MI, MSTI	I.
	Design of a safe transport system	Designing traffic and technical elements of locations and sections to prevent the development of high speeds (especially in urban areas)	PRM, LSGU, MSTI, RSO, MI	I., II., III.
		Implementing traffic calming equipment when it is either impossible to influence traffic and technical elements or is necessary to act fast in order to increase safety	PRM, LSGU, MSTI, RSO, MI	I., II., III.
	Research	Investigating the reasons why drivers put themselves and other road users at risk by violating speed limit regulations. Special emphasis should be placed on repeat offenders who violate regulations related to speed limits	MI, CPA, RSO	I.
		Investigating which sections have the most road traffic accidents attributable to speeding, including by assessing the potential for social cost reduction to prioritize actions	PRM, MSTI, RSO	I.
		Exploring innovative solutions to reduce the number of road traffic accidents attributable to speeding	MI, PRM, RSO	II., III.
		Exploring possibilities and proposing solutions for more efficient collection of imposed fines	RSO, MI, MJA	I.
		Identifying locations where it is necessary to ensure traffic calming, including by defining standard solutions. Paying special attention to densely populated areas	RSO, PRM, MI	I.



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Type of Measure Activity Responsibility measure Examining the possibility and justification RSO, MI of giving local self-government units and/or road authorities certain powers over speed control to penalise a larger number of speeding offences, including by proposing a solution RSO, MI, MJA I. Addressing the issue of objective and subjective responsibility - the identity of the person driving the vehicle affects the prolongation of the process of determining responsibility Tightening of MI, LSGU, Optimising the choice of speed control speed control locations and locations of dedicated PRM policing and enforcement activities MI, LSGU, Introducing average speed control ("section control" or "point to point PRM control") MI, LSGU, Controlling the average speed in tunnels PRM Introducing speed control on sections MI, LSGU, PRM and places with increased frequency of road traffic accidents MI, LSGU Prompting the procurement of devices by local self-government units MI, LSGU, I., II., III. Measuring the average speed in the work Legislation Amendments to Reviewing and maintaining the tolerance NMI, MI legislation of the speedometer at a minimum level III. Introduction of ISA In line with global guidelines, gradually CVH, MI introducing an in-vehicle speed (Intelligent Speed monitoring system informing drivers of Assistance) their current speed and warning them if they are driving in excess of the speed

7.2. Not driving under the influence of alcohol, drugs and medicines

Measures and potentials from the 'Not driving under the influence of alcohol, drugs and medicines' area of action are based on the results of the statistical analysis of the data referring to road traffic accidents caused by a person who was under the influence of alcohol and/or psychoactive substances.

The analysis of driving under the influence shows that the impact most often relates to alcohol. Alcohol is involved in 22% of serious road traffic accidents, and in the total number of road traffic accidents four percent of the persons who caused them were under the influence of alcohol and/or narcotic drugs. At the same time, speed was a contributing factor in every other road traffic accident in which the road users were found to be drunk.

For the purposes of reducing the number of serious road traffic accidents involving alcohol and/or narcotic drugs, 8 activities were defined and divided into 3 measures:

- implementation of preventive-educational and promotional activities;
- research;
- amendments to legislation.

The implementation of the defined measures provides for a 50% reduction in the number of persons killed in road traffic accidents, as well as in the number of serious road traffic accidents involving alcohol and/ or narcotic drugs by the end of the period covered by the Plan, which is a decrease from 92 to 46 serious road traffic accidents.







Type of Implementation Measure Activity Responsibility Performing activities aimed at raising Education Implementation awareness of the risks of using alcohol, drugs, CAC, RSO of preventiveeducational and and medicines and driving promotional MSTI, MI I., II. Encouraging voluntary use of Alcohol activities Interlock for professional drivers Engineering Research Investigating the reasons why drivers put CPA, RSO I. solutions themselves and other road users at risk by violating regulations related to the use of alcohol, drugs, and medicines and driving a motor vehicle. Special emphasis should be placed on repeat offenders who violate the regulations related to the use of alcohol, drugs, and medicines Exploring additional possibilities of MI, CPA, RSO II. preventing drunk driving (innovative solutions) and proposing solutions, including by evaluating their effectiveness Examining the effectiveness of the Alcohol RSO, MSTI II., III. Interlock System and its impact on reducing the number of road traffic accidents Examining the possibility and effectiveness RSO, MI, MH of changing the blood alcohol content limit for drivers Legislation Amendments to Emergency medical examinations and CPA, MH, MI legislation training for repeat offenders driving under the influence of alcohol and/or narcotic drugs, including action on behaviour change In accordance with the conducted research II., III. on effectiveness, proposing the obligation to install Alcohol Interlock devices in the vehicles of persons who have been repeatedly sanctioned for driving under the influence of alcohol

7.3. Safe driving

Measures and potentials from the 'Safe driving' area of action are based on the results of the statistical analysis of the data referring to road traffic accidents involving violation of traffic rules and improper driving of vehicles as the contributing factors that preceded the road traffic accident. In this case, road traffic accidents with speed and alcohol and/or psychoactive substances as the contributing factors that preceded the road traffic accident were not taken into account.

As many as 38% of serious traffic accidents on the Croatian roads involve reckless driving as the contributing factor, not including speed, drunk driving and factors related to the traffic infrastructure and the vehicle. At the same time, almost a third of such serious road traffic accidents are related to the violation of the right of way.

For the purposes of reducing the number of serious road traffic accidents with reckless driving as the contributing factor, 21 activities were defined and divided into 6 measures:

- expansion of existing and introduction of new preventive-educational programmes in all educational institutions:
- implementation of preventive-educational and promotional activities;
- the principle of lifelong learning;
- training of driving test candidates, and driving tests;
- investigation of road traffic accidents;
- research

The implementation of the defined measures provides for a 50% reduction in the number of persons killed in road traffic accidents, as well as in the number of serious road traffic accidents with reckless driving as a contributing factor by the end of the period covered by the Plan, which is a decrease from 959 to 479 serious road traffic accidents.



Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Expansion of existing and introduction of	Introducing new and expanding existing preventive-educational programmes in kindergartens	MSE, CAC, MSTI	I.
	new preventive- educational programmes in all educational institutions	Expanding existing preventive- educational programmes with exemplary contents in primary schools - carrying out projects or studies on traffic culture and safe behaviour in traffic with respect to safety and road traffic at the local or national level	LSGU, CAC, MI	I.
		Expanding existing preventive- educational programmes with appropriate contents in secondary schools - introducing contents related to traffic culture and safe behaviour in traffic	LSGU, CAC, MI	I.
		Educating parents of preschool children and first grade students of primary schools	LSGU, CAC, MI	I.
	Implementation of preventive-educational and promotional activities	Performing activities aimed at raising awareness of the importance of the role of passengers in the vehicle while driving, the impact on the driver and the provision of first aid	MSE, MI, MSTI, CAC, CRC, RSO	I.
		Performing activities aimed at raising awareness of the risks of driving under the influence of other factors affecting the driver's psychophysical state	MSE, MI, MSTI, CAC, RSO	I.
		Organising state school competitions ('Safe in Road Traffic', etc.)	CAC, ETTA, RSO	I.
		Preventive educational programmes ('See and Click', etc.)	CAC, RSO	I.
	The principle of lifelong learning	Preventive educational programmes ('Golden Years', etc.)	CAC, MI	I.
		Incorporating road safety education into teacher training programmes	MI, CAC, AVETAE, ETTA	I.
		CAC	I.	
		Training employees in workplaces, especially in schools, in road safety	AVETAE, ETTA, CAC, MSTI	I., II.
		Educating the elderly population on new safety systems in vehicles and how to use them	CAC , CVH, MI	I.
	Training of driving test candidates, and	Expanding the scope of education on modern principles of road safety in driving schools	CAC, MI	I.
	driving tests	Continuing education of young drivers	CAC, MI	I.

Type of measure	Measure	Activity	Responsibility	Implementation period
Engineering solutions		Automated driving and the impact of the latest technological advances in road safety, with special reference to situations in which automated vehicles interact with conventional vehicles and other non-automated road users	CAC, CVH	I., II., III.
	Investigation of road traffic accidents	Identifying other safety elements that could have had an impact on the occurrence of a road traffic accident (other than legal elements of a criminal offence)	RSO, CPA, MI, PRM	I.
	Research	Identifying the main reasons for reckless driving, as well as the possibilities of preventing road traffic accidents caused by reckless driving (e.g. failure to yield the right of way, running the red light, hitting a pedestrian, a cyclist, etc.), and suggesting possible solutions	RSO, PRM, MI	I.
		Conducting scientific research on the impact of the driver's behaviour on road safety	CPA, RSO, CAC, MI	I.
Legislation	Training of driving test	Harmonising the administration of driving tests with EU standards	MI, CAC	I.
	candidates, and driving tests	Harmonising the administration of driving tests with EU/Croatian legislation	MI, CAC	I.



7.4. Prevention of distracted driving

Measures and potentials from the 'Prevention of distracted driving' area of action are based on the results of the statistical analysis of the data referring to road traffic accidents involving drivers using a mobile device while driving. According to previous data, it is difficult to determine whether the use of mobile phones affected the occurrence of a road traffic accident unless a detailed analysis, i.e. appraisal by an expert, was conducted. The analysis of the database showed that 0.1% of drivers used a mobile phone and 34% did not use a mobile phone. For 66% of the cases, however, there was no data. According to the analysis of the circumstances, it can be assumed that distraction could have an impact on about 11% of serious road traffic accidents.

For the purposes of reducing the number of serious road traffic accidents with distraction as a potential contributing factor, 9 activities were defined and divided into 4 measures:

- implementation of preventive-educational and promotional activities;
- research

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- correlation between serious road traffic accidents and the use of mobile devices;
- amendments to legislation.

The implementation of the defined measures provides for a 50% reduction in the number of persons killed in road traffic accidents, as well as in the number of serious road traffic accidents with distraction as a contributing factor by the end of the period covered by the Plan, which is a decrease from 274 to 137 serious road traffic accidents.



Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Implementation of preventive- educational and promotional activities	Expanding the existing preventive- educational programmes with appropriate contents in secondary schools - introducing contents related to traffic culture and safe behaviour in road traffic	MSE, MI, MSTI, CAC, RSO	I.
Engineering solutions	Research	Exploring (innovative) possibilities of preventing drivers from using a mobile phone while driving, and suggesting solutions	MI, RSO	II.
		Examining the modes of operation and effectiveness of road traffic cameras that record phoning, typing, etc. and suggesting solutions for their installation	PRM, MSTI, RSO	II.
		Researching innovative methods for identifying the actual situation and detecting trends towards the use of electronic communications services by drivers while driving	RSO, MI	II.
		Exploring the possibility of applying modern data sources and modern methods of analytics in raising the level of road safety (e.g. determining the locations and times where the use of electronic communications services by drivers is more frequent, etc.)	RSO, MI	I.
		Exploring innovative possibilities of determining the exact time of occurrence of a road traffic accident	RSO, MI	I.
		Researching innovative methods of using various data sources (data fusion) to determine the correlation between road traffic accidents and the use of electronic communications services	RSO, MI	II.
		Considering and suggesting options for increasing the number of retroactive tests of the use of mobile devices in the event of serious road traffic accidents (aimed at determining whether the driver was using the mobile phone when the road traffic accident occurred)	MI, RSO, MJA	I.
Legislation	Amendments to legislation	Amending regulations and applicable guidelines for regulating content relevant to all road categories which may have a potential impact on distracted driving	MSTI, MI, PRM, RSO	I.



7.5. Safety of active transport modes

Active transport modes are involved in as many as 32% of serious road traffic accidents, where pedestrians are involved in 19% and cyclists in 13% of serious road traffic accidents. Taking into account the increased focus that has been shifted towards active transport modes due to the sustainability of the entire road transport system, the new Plan devotes special attention to increasing their safety.

For the purposes of reducing the number and consequences of serious road traffic accidents involving active transport modes, 20 activities were defined and divided into 7 measures:

- implementation of preventive-educational and promotional activities;
- adaptation of walking infrastructure to the circumstances, conditions and needs of roads;
- adaptation of cycling infrastructure to the circumstances, conditions and needs of roads;
- safe transport system planning;
- research;

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- design of a safe transport system;
- amendments to legislation.

The implementation of the defined measures provides for a 50% reduction in the number of persons killed in road traffic accidents, as well as in the number of serious road traffic accidents involving active transport modes by the end of the period covered by the Plan, which is a decrease from 797 to 398 serious road traffic accidents.

Type of measure	Measure	Activity	Responsibility	Implementation period
of p edu	Implementation of preventive- educational and	Performing activities aimed at raising awareness of the importance of using lights, reflective vests and helmets for cyclists	MSE, MI, MSTI, CAC, RSO	I.
	promotional activities	Administering cycling tests	CAC, MI, ETTA	I.
		Implementing preventive-educational actions ('Safe to School with CAC', etc.)	CAC, RSO	I.
		Constructing a training ground for pedestrians and cyclists	LSGU, CAC, MSTI, other actors	I.
		Educating pedestrians	MSE, CAC, LSGU	I.
		Developing guidelines for safe and efficient management of cycling transport in line with legislation and educating key stakeholders	MI, MSTI, MTS, LSGU, RSO, CAC	I.

Type of measure	Measure	Activity	Responsibility	Implementation period
Engineering solutions	Adaptation of walking infrastructure to the circumstances,	Identifying hazardous sections/locations with reduced safety of walking transport, including by proposing improvements and eliminations	PRM, LSGU, RSO, MI	I.
	conditions and needs of roads	Adapting walking infrastructure for people with disabilities or people with reduced mobility	PRM, LSGU, RSO	I.
		Implementing an ITS solution to increase pedestrian safety at isolated pedestrian crossings	PRM, LSGU, RSO, MI	I.
	Adaptation of cycling infrastructure to the circumstances, conditions and needs of roads	Identifying hazardous sections/locations with reduced safety of cycling transport, including by proposing improvements and eliminations	PRM, LSGU, RSO, MI	I.
	Safe transport system planning	Developing Sustainable Urban Mobility Plans - integrated transport and spatial planning aimed at increasing the modal split in favour of public transport and safer transport modes	LSGU, RSO, MI, MSTI	I., II., III.
		Prompting a better organisation of public transport (innovative solutions regarding public transport for passengers)	LSGU, RSO, MI, MSTI	I., II., III.
		Organising and regulating traffic (one-way street system) to increase the quality of infrastructure for the purposes of active transport modes	LSGU, PRM, RSO, MI, MSTI	I., II., III.
		Developing maps for safe walking and cycling, and drafting proposals for solutions to improve infrastructure (children, the elderly, people with disabilities)	LSGU, RSO, MI, MSTI	I., II., III.
		Setting up signposts for recommended cycling routes	LSGU, PRM, RSO, MI, MSTI, MTS	I., II., III.
	Research	Investigating the circumstances under which most road traffic accidents involving pedestrians and cyclists occur, including by analysing variant solutions	PRM, MI, RSO	I.
	Design of a safe transport system	Improving and defining the standards of traffic light regulation for walking and cycling transport at the level of the Republic of Croatia	PRM, LSGU, MSTI, RSO, MI	I.
Legislation	Amendments to legislation	Improving the law in the aspect of safety of active transport modes, with focus on cycling transport, electric scooters and other uncategorised self-propelled vehicles	MSTI, MI, RSO, LSGU	I.
		Harmonising and applying legislation related to the cycling infrastructure to achieve the maximum level of safety, with special reference to built-up urban areas and mixed traffic	MSTI, MI, LSGU, RSO, PRM	I.
		Developing and harmonising other relevant laws, regulations and guidelines	MSTI, MI, LSGU, PRM, RSO	I.
		Improving the Regulation on Technical Requirements for Vehicles in Road Traffic with respect to cycling transport, with special reference to innovative mild hybrids	MSTI, MI, CVH, RSO	I.



7.6. Safety of motorcyclists and moped riders

On the Croatian roads, motorcyclists/moped riders are involved in 27% of serious road traffic accidents, thus representing one of the most vulnerable groups.

For the purposes of reducing the number and consequences of serious road traffic accidents involving motorcyclists and moped riders, 7 activities were defined and divided into 3 measures:

- implementation of preventive-educational and promotional activities;
- research

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• elimination of black spots.

The implementation of the defined measures provides for a 50% reduction in the number of persons killed in road traffic accidents, as well as in the number of serious road traffic accidents involving motorcyclists/moped riders by the end of the period covered by the Plan, which is a decrease from 673 to 336 serious road traffic accidents.

Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Implementation of preventive-educational and	Performing activities aimed at raising awareness of the importance of using a safety helmet, motorcycle gear and reflective detailing	MSE, MI, MSTI, CAC, RSO	I.
	promotional activities	Performing activities aimed at raising awareness of the importance of mutual respect between motorcyclists and moped riders and drivers of other vehicles	MSE, MI, MSTI, CAC, RSO	I.
		Performing activities aimed at raising awareness of the risks associated with the illegal use of mopeds and motorcycles	MSE, MI, MSTI, CAC, RSO	I.
Engineering solutions	Research	Analysing high-risk sections of roads where accidents involving motorcyclists and moped riders occur	PRM, MSTI, RSO	I.
		Exploring ways and suggesting solutions to increase the visibility level of motorcyclists/moped riders	PRM, MSTI, RSO	I.
		Exploring possibilities and suggesting solutions for increasing the level of safety for motorcyclists/moped riders in various respects	PRM, RSO, MI	I.
	Elimination of black spots	Eliminating high-risk sections of roads for motorcyclists and moped riders	PRM, MSTI, MI, RSO	I., II.

7.7. Safety of professional drivers

On the Croatian roads, drivers of heavy goods vehicles are involved in 14% of serious road traffic accidents. When taking into account the average amount of heavy goods vehicle traffic, it is clear that such percentage of traffic flow has a greater potential that should be addressed to increase road safety.

For the purposes of reducing the number and consequences of serious road traffic accidents involving drivers of heavy goods vehicles, 7 activities were defined and divided into 3 measures:

- training of driving test candidates, and driving tests;
- research;
- organisation of freight traffic.

The implementation of the defined measures provides for a 50% reduction in the number of persons killed in road traffic accidents, as well as in the number of serious road traffic accidents involving drivers of heavy goods vehicles by the end of the period covered by the Plan, which is a decrease from 349 to 174 serious road traffic accidents.

Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Training of driving test	ECO-driving for professional drivers	MSTI, MESD, CAC	I.
	candidates, and driving tests	Enhancing the periodic training of professional drivers	MSTI, RSO, CAC	
Engineering solutions	Research	Analysing the existing rest areas for heavy goods vehicles and proposing the construction of new ones	PRM, MSTI, RSO	II.
		Investigating the impact of the use of tachographs and cruise control systems, and proposing the obligation to apply certain technical solutions in heavy goods vehicles, the function of which is to prevent the improper use of tachographs and cruise control systems, as well as other driving automation features for heavy goods vehicles	RSO, MSTI	II.
Legislation	Organisation of freight traffic	Improving legislation for the implementation of supervision and control of freight traffic, in particular special and hazardous cargo transport	MSTI, PRM	I.
		Regulating the traffic of heavy goods vehicles by directing them to road routes with better technical characteristics	MSTI, MI	I.
		Improving legislation regulating the construction of new rest areas, and reconstructing and/or equipping the existing rest areas for heavy goods vehicles	MSTI, PRM	II.

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7.8. Safety devices in vehicles

Results of the research have shown that 78% of drivers of passenger cars involved in serious road traffic accidents used a seat belt, while 7% did not use one. Seat belt usage data is not available for 15% of drivers. According to the conducted research, it can be assumed that almost 52% of children are transported unsecured.

For the purposes of reducing the consequences of serious road traffic accidents involving road users who did not wear a seat belt and/or use a child restraint system, 4 activities were defined and divided into 2 measures:

- implementation of preventive-educational and promotional activities;
- research.

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The implementation of the defined measures provides for an increase by almost 100% in the percentage of drivers and passengers who properly use an appropriate seat belt and child restraint system in motor vehicles while driving by the end of the period covered by the Plan.

Type of measure	Measure	Activity	Responsibility	Implementation period
of ed an pr	Implementation of preventive- educational and promotional	Performing activities aimed at raising awareness of the importance of using proper children restraint systems in vehicles, with special emphasis on school transport and short-distance transport	MSE, MI, MSTI, CAC, RSO	I.
	activities	Preventive-educational programme (e.g. CLICK-seat belt, etc.) with special emphasis on educational programmes that advise on the importance of using rear seat belts	CAC, RSO	I.
Engineering solutions	Research	Researching and proposing programmes, campaigns and solutions that effectively raise awareness of the importance of using passive safety features	MI, CPA, RSO, CAC	I.
		Investigating the percentages of the use of seat belts and child restraint systems while driving, including by proposing to increase the percentage of use	MI, RSO	I.

7.9. Safe infrastructure

There is about one percent of serious road traffic accidents with infrastructure as a potential contributing factor. It is estimated that as many as 35% of serious road traffic accidents are attributable to infrastructure combined with the human factor, while slightly less than one percent of serious road traffic accidents are attributable to infrastructure combined with the human factor and the vehicle as a contributing factor.

For the purposes of reducing the number of people killed in road traffic accidents, as well as the consequences of serious road traffic accidents with infrastructure as a potential contributing factor, 33 activities were defined and divided into 15 measures:

- implementation of preventive-educational and promotional activities;
- training of people working in road transport;
- elimination of black spots;
- road safety inspection (RSI), safety analysis of new and existing roads;
- safety analysis of new and existing roads (RSIA, RSA);
- design of a safe transport system;
- road infrastructure maintenance;
- technical solutions for driving in the opposite direction;
- research:
- investigation of road traffic accidents;
- implementation of the system of 'forgiving roads';
- deployment and improvement of ITS;
- addressing of railway level crossings used by vehicles and pedestrians;
- road safety audit;
- amendments to legislation.

The implementation of the defined measures provides for the compliance of all new roads with the required safety standards for all road users or a three-star or better rating. On the other hand, the existing roads carrying 75% of traffic should have a minimum three-star rating for all road user groups, depending on the road category and the planned traffic load by road user groups.



Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Implementation of preventive-educational and promotional	Performing activities aimed at raising awareness of the risks of driving in tunnels, including safe driving and actions in case of malfunction/accident	MSE, MI, MSTI, CAC, RSO	I.
	activities	Performing activities aimed at raising awareness of the risks on railway level crossings and on pedestrian crossings	MSE, MI, MSTI, CAC, RSO	I.
	Training of people working	Training road infrastructure authorities in the application of the safe system concept	LSGU, PRM	I.
	in road transport	Conducting additional training of road safety auditors through licensed training institutions	MSTI, RSO	I.
Engineering solutions	Elimination of black spots	Ildentifying black spots and hazardous road sections (NSM) ⁷	PRM, MSTI, MI, RSO, LSGU; RSA	I.
		Eliminating hazardous road sections/black spots	PRM, MSTI, MI, RSO, LSGU	I., II., III.
	Road safety inspection (RSI)	Carrying out regular (periodic) road safety inspections (RSI), including on roads outside the primary road network, with a focus on roads with higher traffic volume and/or increased frequency of road traffic accidents resulting in fatalities and/or serious injuries	MSTI, PRM, RSO, MI, LSGU, RSA	I., II., III.
		Carrying out dedicated road safety inspections (RSI) on roads with an established increased frequency of road traffic accidents resulting in fatalities and/or serious injuries	MSTI, MI, PRM, LSGU, RSA	I., II., III.
	Safety analysis of new and existing roads (RSIA, RSA)	Performing activities related to the fulfilment of the requirement under which all recently designed roads should have a minimum three-star rating for all road user groups, depending on the road category and the planned traffic load by road user groups	PRM, MSTI, RSO, MI, LSGU, RSA	I., II., III.
		Making a safety analysis of the existing roads carrying 75% of traffic from the point of view of infrastructure risk arising from the existing situation	PRM, MSTI, RSO, MI, LSGU, RSA	I., II., III.
		Standardisation - applying European standards and/or defining national minimum technical standards, norms and guidelines of equivalent quality	PRM, MSTI, RSO, MI, LSGU, RSA	I.
		Analysing the possibility of raising the minimum technical safety standards of the existing road infrastructure	PRM, MSTI, RSO, MI, LSGU, RSA	I.

Type of measure	Measure	Activity	Responsibility	Implementation period
		Testing the safety of tunnel infrastructure in accordance with EU recommendations	PRM, MSTI, RSO, MI	I.
	Design of a safe transport system	Selecting the design of traffic and technical elements of the road transport system as a preventive action to increase safety	PRM, LSGU, MSTI, RSO, MI, RSA	I., II., III.
	Road infrastructure maintenance	Carrying out a compliance analysis of the vertical signing and horizontal marking - compliance of signs with traffic and structural design elements, including sections with high frequency of serious road traffic accidents	PRM, RSO, MI	I.
		Developing maintenance plans with prioritisation of locations/sections in accordance with the potential risk of road traffic accidents	MSTI, PRM, RSO, MI	I.
	Technical solutions for driving in the opposite direction	Improving horizontal marking and vertical signing or deploying ITS solutions in all locations where there is a potential possibility of turning to the forbidden direction of travel	PRM, RSO	I.
	Research	Examining the method and proposing solutions for defining the responsibility of designers and contractors of recently built road infrastructure for road traffic accidents that occur as a result of failure to implement the recommendations of road safety audits and the highest technical standards of road design	PRM, MSTI, RSO	I.
		Examining the potential for reducing the consequences of road traffic accidents when skidding off and crashing into roadside drainage ditches, including by proposing effective solutions	PRM, MSTI, RSO	II.
		Exploring the possibility and justification of giving local self-government units and/or road authorities extended limited powers of road traffic supervision and control for the purpose of increasing safety and efficiency (e.g. supervision of yellow lanes, etc.)	MI, LSGU, PRM, RSO	I.
	Investigations of road traffic accidents	Inspecting locations of road traffic accidents resulting in fatalities and/or serious injuries, and proposing measures to increase safety based on the identified deficiencies at the locations	RSO, MI, PRM, MSTI, RSA	I.
	Implementation of the system of 'forgiving roads'	Aligning safety barrier systems with regulations	PRM, MSTI, RSO	I., II.
	Deployment and improvement of ITS	Enhancing the system of variable traffic signs and amending the algorithm for selecting scenarios and applying restrictions/concepts depending on road traffic conditions	PRM, MSTI, RSO	I., II., III
		Improving ITS solutions to increase security	PRM, MSTI, RSO	I., II., III.





Type of measure	Measure	Activity	Responsibility	Implementation period
	Addressing of railway level crossings used by vehicles and pedestrians	Developing a programme addressing railway level crossings used by vehicles and pedestrians in the Republic of Croatia (2023–2027) which shall determine the final number of crossings to be addressed in accordance with the respective time schedule prepared for each calendar year	MSTI, RIM, RSO	I.
		Equipping railway level crossings and pedestrian crossings with digital traffic monitoring cameras (counting, safety) - considering the option for the train driver to have access to the camera to see the situation at the next railway level crossing in advance (alert system)	MSTI, RIM, RSO	I., II., III.
		Traffic calming in the area of railway level crossings	MSTI, RIM, RSO	I., II. , III.
	Road safety audit	Establishing the primary road network in Croatia for plans and projects aimed at raising the level of road infrastructure safety in line with Directive (EU) 2019/1936	MSTI, PRM, RSO	I.
		Extending the obligation of road safety audit for the primary road network and other road networks in accordance with the traffic load, with special reference to the road network in cities	MSTI, PRM	I.
Legislation	Amendments to legislation	Amending regulations for the purpose of increasing investments in the safety of county, local and unclassified roads	MSTI, LSGU, PRM	I.
		Extending road inspection to unclassified roads (Road Traffic Inspection Act, Official Gazette 22/14 and 98/19; Road Act, Official Gazette 84/11, 18/13, 22/13, 54/13, 148/13, 92/14, 110/19)	MSTI, LSGU	I.
		Introducing amendments into statutory and subordinate regulations governing roads, traffic signs and signalling devices on roads in order to enable prompt following of positive trends in the development of new technological solutions	MSTI, MI, LSGU, RSO	I.
		Introducing amendments to the Regulation on Cycling Infrastructure, with special reference to the evaluation of the possibility of applying regulations in urban areas	MSTI, MI, LSGU, RSO	I.

7.10. Safe vehicles

There is less than one percent of serious road traffic accidents caused by vehicles. It is assumed that six percent of serious road traffic accidents are attributable to the vehicle combined with the human factor, while slightly less than one percent of serious road traffic accidents are attributable to infrastructure combined with the human factor.

For the purposes of reducing the number and consequences of serious road traffic accidents caused by the vehicle, 18 activities were defined and divided into 7 measures:

- training of driving test candidates, and driving tests;
- implementation of preventive-educational and promotional activities;
- cooperation between CIB and MI;
- research;
- investigation of road traffic accidents;
- amendments to legislation;
- technical inspections.

The implementation of the defined measures provides for an increase in the percentage of vehicles with the highest technical standards.

Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Training of driving test candidates, and driving tests	Educating on new safety systems in vehicles and ways to use them	CAC, CVH, MI, RSO	I.
	Implementation of preventive-educational and promotional activities	Educating vehicle users on how to use new technologies in vehicles (driver assistance systems, various information systems that can be a source of distraction if not used properly, etc.)	CAC, CVH, MI, RSO	I.
		Carrying out preventive action with the aim of raising awareness of the importance of roadworthiness of vehicles, with special focus on motorcycles ('Days of Roadworthiness', etc.)	CAC, CVH, MI, RSO	I.
		Performing promotional and other activities aimed at increasing the number of safer and more environmentally friendly vehicles (vehicles equipped with modern active and passive safety systems)	CAC, CVH, MRDEUF	I.
		Undertaking promotional and other activities aimed at increasing the equipping of new vehicles with non-mandatory safety systems	CAC, CVH, MRDEUF	I.

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Type of measure	Measure	Activity	Responsibility	Implementation period
Engineering solutions	Cooperation between CIB and MI	Continuing the cooperation between the Croatian Insurance Bureau and the Ministry of the Interior on overcoming the problem with uninsured vehicles	MI, CIB	I.
	Research	Conducting scientific research aimed at determining how to improve the status of various segments (M, N, O, etc.) of the vehicle fleet in Croatia	RSO, CVH	II.
		Conducting a study on the options for the application and methods of processing information obtained from devices that record data on the vehicle movement dynamics in collisions. Developing a methodology that will define how to collect data from devices that record the vehicle movement dynamics in collisions.	RSO, CVH	II.
		Exploring the possibilities of deploying technical in-vehicle solutions that are used to monitor the driver's driving style (speed, sudden accelerations and deceleration, etc.). In cooperation with insurance companies, encouraging drivers to install technical devices that monitor the driver's driving style.	CVH, RSO, MI	II.
		Conducting scientific research on the impact of technical deficiency of vehicles on road safety	RSO, CVH, MI	I.
	Investigation of road traffic accidents	Implementing mandatory vehicle appraisal by an expert after serious road traffic accidents	RSO, CVH, MI	I.
Legislation	Amendments to legislation	Adjusting the inspection procedure after serious road traffic accidents	PRM, MSTI, MI, RSO	I.
	Cooperation between CIB and MI	Ensuring cooperation between the Ministry of the Interior and the Croatian Insurance Bureau with the aim of better exchange of data on participants in loss events	MI, CIB	I., II.
		Encouraging insurers to fund the implementation of the Plan	MI, CIB	I., II.
	Technical inspections	Introducing initial and periodic inspection of vehicles to determine compliance with international standards (HR EN 1789 Medical vehicles and their equipment - Road Ambulances)	MSTI, CVH, CAC, MI	I.
		Improving vehicle inspection and roadworthiness assessment technology in line with EU directives and recommendations	MSTI, CVH, CAC, MI	I.
		Making continuous adjustments to technical inspections of vehicles in line with the advances in vehicle technology	CVH, CAC, MI	I.
		Promptly implementing all EU regulations on minimum technical requirements for the first vehicle registration	MSTI, CVH, CAC, MI	I.

7.11. Fast and efficient emergency services

Prompt action by the emergency services in cases of serious road traffic accidents is often crucial for minimising major consequences. This requires systematic work on education and equipping of emergency services to minimise the time of arrival at the scene of the accident and training for various interventions. In addition to measures for fast and efficient intervention of emergency services, in-vehicle safety measures which automatically inform the services about the time and location of the road accident, among other things, are crucial as well.

For the purposes of reducing the consequences of serious road traffic accidents by providing fast and efficient assistance, including medical care, 15 activities were defined and divided into 5 measures:

- implementation of preventive-educational and promotional activities;
- acquisition of additional knowledge and skills for dealing with emergency interventions;
- the principle of lifelong learning;
- efficiency of emergency services;
- determination of health-related causes and consequences of road traffic accidents.

Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Implementation of preventive-educational and promotional activities	Performing promotional and educational activities regarding the importance and manner of creating "emergency corridors" in cases of road incidents	PRM, MI, CMRS, MH, MSTI, CIEM	I.
		Performing activities aimed at raising awareness of the importance of the use of the first aid kit HRN 1112 and the importance of the use of the first aid box HRN1113 in motor vehicles	MH, CRC	
		Commemorating the World Day of Remembrance for Road Traffic Victims	MSE, CAC, MSTI, MI	I.
		Providing professional psychological help to road traffic victims and their families	CPA, MH	I.
		Organising workshops for road traffic victims	CPA, MI, MSTI	I.
	Acquisition of additional knowledge and skills for dealing with emergency interventions	Building educational capacities, purchasing firefighting equipment and conducting training relating to the existing and new threats in road traffic	MI, CMRS, CFB	I.



Type of measure	Measure	Activity	Responsibility	Implementation period
		Encouraging coordination training across emergency services (police, fire brigade, emergency medical service, Mountain Rescue Service, etc.)	MI, CIEM, CMRS, CFB	I.
		Training police officers in providing first aid	MH, MI, CRC	I.
	The principle of lifelong learning	Introducing "First Aid" through lifelong learning	CIEM, CIPH, CRC, IEM	I.
		Organising emergency services exercises	CRC, CFB, MI	I.
Engineering solutions		Setting up a helicopter emergency medical service	MH, MRDEUF, CFCA, CIEM, CAC	I.
		Setting up an emergency service providing medical assistance by fast boats at sea	MH, MRDEUF, CFCA, MSTI, CIEM	I.
		Conducting continuous professional training of members of emergency services	MH, CIEM, CFB, MI	I.
health-relat and conseq	Determination of health-related causes and consequences	Determining the cause of death in serious road traffic accidents, including toxicology screening	MH, MI, CIPH	I.
	of road traffic accidents	Providing a detailed classification of major and minor bodily injuries for reporting and monitoring purposes, harmonised with EU Member States	MH, MI, CIPH	I.

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7.12. Increased capacity of the traffic police and inspection services

The area related to increased capacity of the traffic police and inspection services authorised to supervise road traffic has been defined by taking into account the importance of regular control and monitoring of traffic violations. Regular control and monitoring are necessary for the effectiveness of measures with respect to all areas of action.

For the purposes of reducing the total number and consequences of serious road traffic accidents, the area of action on increasing the capacity of the traffic police and inspection services was defined through 14 activities divided into 4 measures:

- acquisition of additional knowledge and skills in road traffic control and management;
- acquisition of additional knowledge and skills for dealing with emergency interventions;
- enhancement of material and technical equipment;
- capacity building for the implementation of regular and dedicated controls of drivers on the roads.

Type of measure	Measure	Activity	Responsibility	Implementation period
Education	Acquisition of additional knowledge and skills in road traffic control and management	Training police officers and inspection services in road traffic control and management	MI, MSTI, RSO	I.
	Acquisition of additional knowledge and skills for dealing with emergency interventions	Training police officers and inspection service officers in providing first aid	MH, MI, CRC	I.
Implement ation	Enhancement of material and technical equipment	Equipping the traffic police and inspection services with material and technical devices for the implementation of the listed activities	MI,MSTI, LSGU, PRM	I.
	Capacity building for the implementation of regular and dedicated controls of drivers on the roads	Building capacity for the implementation of repressive activities by the traffic police against road users who grossly violate speed limits and thus cause serious road traffic accidents	MI	I.
		Building capacity for the implementation of repressive activities by the traffic police against road users who violate restrictions related to driving under the influence of alcohol and narcotic drugs and thus participate in serious road traffic accidents	MI	I.



7.13. Database and data collection

Effective action on increasing road safety is possible only if there is all the data necessary to conduct the required analyses of and research on the causes and circumstances of road traffic accidents. This primarily requires the implementation of detailed interdisciplinary analyses of the causes of road traffic accidents, which include all potential elements that could have had an impact on the occurrence and consequences of road traffic accidents.

Given that there are often multiple circumstances that have had a potential impact on the occurrence of a road traffic accident, it is essential to integrate data on the accident itself, on the infrastructure, as well as on the characteristics of the traffic flow. It is also necessary to consider the impact of the modal split on road safety.

For the purposes of establishing an efficient database, 10 activities were defined and divided into 3 measures::

- database:
- research;
- investigation of road traffic accidents.

Type of measure	Measure	Activity	Responsibility	Implementation period
solutions	Database	Creating an integrated database (road accidents, infrastructure, vehicles, road users, traffic flow characteristics)	MI, PRM, LSGU	I.
		Redefining the classification of road traffic accidents by consequences (accidents resulting in serious and slight injuries)	MI	I.
		Improving the quality of data collection related to the location of road traffic accidents (GPS locations)	MI	I.
		Improving the quality of data collection for infrastructure, seat belt, car seat, mobile phone	MI	I.
		Integrating data on medical care and traffic flow characteristics	MI, CIPH, MSTI, MH	I.
		Making databases available according to ISO 17840- 3:2019 – Road vehicles - Information for first and second responders - Part 3: Emergency response guide template	MI, CFB	I.
	Research	Periodically performing detailed statistical analyses of collected data on road traffic accidents and effectiveness analyses of the of implemented measures	MI, RSO	I.
		Analysing the existing collection methodology and elements of the database on road traffic accidents, and proposing measures for improvement	MI, RSO	I.
		Periodically conducting mobility surveys	MI, RSO	I.
		Defining and systematically monitoring key performance indicators by areas of action	MI	I.
	Investigation of road traffic accidents	Carrying out an interdisciplinary analysis of the causes of road traffic accidents with fatal consequences	RSO, CPA, MI, PRM, RSA	I.

Type of Measure Activity Responsibility Building capacity for the implementation of repressive activities by the traffic police against road users who use a mobile phone while driving and thus participate in serious road traffic accidents Building capacity for the implementation of police actions to control and sanction offenses that have the greatest impact on serious road traffic accidents involving cyclists, with special reference to cyclists on roads outside built-up areas and to cycling at night and in conditions of restricted Building capacity for the implementation of repressive activities by the police against motorcyclists and moped riders who do not wear a safety helmet while riding Building capacity for the implementation of MI, MSTI joint control by MI and MSTI related to the control of tachographs for the purpose of checking if the drivers' hours and working time (heavy goods vehicles and coaches/ buses) comply Constantly controlling vehicles for MSTI, MI transporting children Building the capacity for the implementation of repressive activities by the police against road users who drive a vehicle carrying passengers without wearing a seat belt MI Building the capacity for the implementation of repressive activities by the police against road users who drive a vehicle without using an appropriate child restraint system while driving Building capacity for the implementation of repressive activities by the police towards the supervision and control of the use of rear seat belts, i.e. seat belts for passenger seats in vehicles with multiple rows of seats Building capacity for the implementation of MSTI, CVH, vehicle roadworthiness inspection on the



8. MONITORING AND EVALUATION FRAMEWORK

8.1. Working Group

NATIONAL

Pursuant to the positive indicators of the justification of the National Plan, the Government of the Republic of Croatia has chosen the Ministry of the Interior as the holder of the Plan. For a more effective implementation of the Plan, the Minister of the Interior shall appoint a Working Group as proposed by the ministries, and scientific and professional organisations. One chair, one deputy chair and two members shall be appointed on behalf of the Ministry of the Interior as the holder of the Plan, another deputy chair and one member on behalf of the Ministry of the Sea, Transport and Infrastructure, and one member each on behalf of the Ministry of Science and Education, Ministry of Health, Ministry of Justice and Administration, Faculty of Transport and Traffic Sciences, Croatian Automobile Club, Centre for Vehicles of Croatia, Croatian Roads Ltd, Croatian Motorways Ltd and Croatian Insurance Bureau.

At least every three years, the Working Group shall evaluate the implementation of the Plan by monitoring the results of implemented measures, including by preparing a detailed statistical analysis of the database on road traffic accidents, as well as an analysis of trends in the areas of action.

8.2. Area of action of the Working Group

The members of the Working Group shall have a professional role.

They shall be accountable to the Minister of the Interior for their work.

The Working Group shall implement the National Plan by carrying out the following tasks:

- proposing the requirements planning to the Minister of the Interior;
- proposing, elaborating, deciding on and monitoring the adoption and implementation of measures and activities;
- assessing implemented activities and evaluating the implementation of the Plan;
- in accordance with good EU practice, appointing a scientific institution to prepare annual reports and evaluation reports on the implementation of the National Plan, on the basis of which it will propose measures aimed at improving the safety status;
- submitting annual reports on the implementation of the National Plan, including the financial report to the Government of the Republic of Croatia;
- in cooperation with the Ministry of the Interior, informing the general public about the planned activities and achieved results.



9. INDICATIVE FINANCIAL PLAN

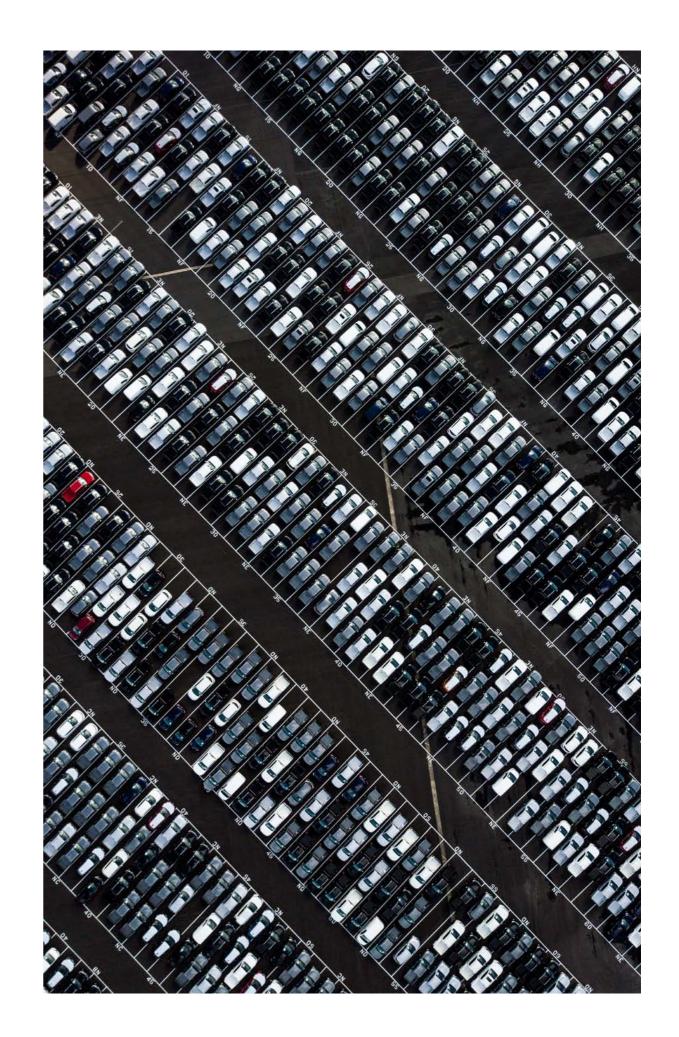
The activities provided under the National Road Safety Plan for the period 2021–2030 shall be financed through:

- European Union funds,
- funding by professional organisations as defined under a special agreement with MI,
- funding by insurance companies as defined under a special agreement with MI,
- received donations.

Funds for the implementation of the National Plan shall be paid into the State Budget under the K553092 Project 'National Road Safety Plan' to source 43 - revenues earmarked for specific purposes (through funds for a series of traffic-related preventive activities collected by professional organisations during technical inspections and vehicle registration, in accordance with a special agreement with the Ministry of the Interior, and funding by insurance companies as defined by a special agreement with MI) and to source 61 - donations (funds received through donations from natural and legal persons). Finance by EU funds shall be paid in accordance with the source of funding by EU funds. Funds paid to source 43 and 61 shall be used for cofinancing. As proposed by the Working Group, the Financial Plan and the Requirements Planning for the budget year shall be approved by the Minister of the Interior.

Funds paid to the source of financing 43 'Other revenues earmarked for specific purposes' may be used by other holders of measures, for approved projects and purchase of equipment used for the implementation of specific measures of the National Road Safety Plan within their respective area of responsibility. Relevant rights and obligations will be regulated in more detail under an Agreement between MI as the beneficiary of the holder's funds and the implementation of specific measures of the National Plan. The expert services of the Ministry of the Interior shall prepare financial reports on the implementation of the Requirements Planning of the National Road Traffic Safety Plan and communicate it to the members of the Working Group on a quarterly basis or, where necessary, more often. The report by the Working Group on the financial report reviewed will be delivered to all entities financing the National Plan.

The implementation of the Requirements Planning for the National Road Traffic Safety Plan shall be carried out in accordance with the Public Procurement Act (Official Gazette 120/16).







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