MINISTERSTWO
INFRASTRUKTURY

Road safety
in the
TEN-T Core Network Corridors
in Poland

November 2021

Table of contents

1. Introduction

The safety of people being users of the transport system is one of the most important objectives to be achieved through planning, construction and modernisation of transport connections and traffic organisation. Modern transport should be efficient, safe for users and environmentally friendly at the same time. The development of the transport system under the TEN-T Trans-European network is to be used, inter alia, to implement these priorities among which the safety of people is of particular importance.

This study has been dedicated to road safety issues in the TEN-T Core Network Corridors running through Poland. Roads forming the TEN-T Core Network Corridors in Poland are of trans-European importance and, at the same time, constitute very important inland transport connections. Their expansion and modernisation contribute both to improving the quality and efficiency of the transport system and to improving safety. Among others, in view of their role and importance in the transport system of the country, the safety on Polish roads is systematically growing, and the number of accidents and victims is decreasing every year.

In the report, a number of sources and materials regarding the issue of road safety, available publications and source data have been used. In particular, it has been based on the documents and materials developed by the Ministry of Infrastructure, the National Road Safety Council and the General Directorate for National Roads and Motorways.

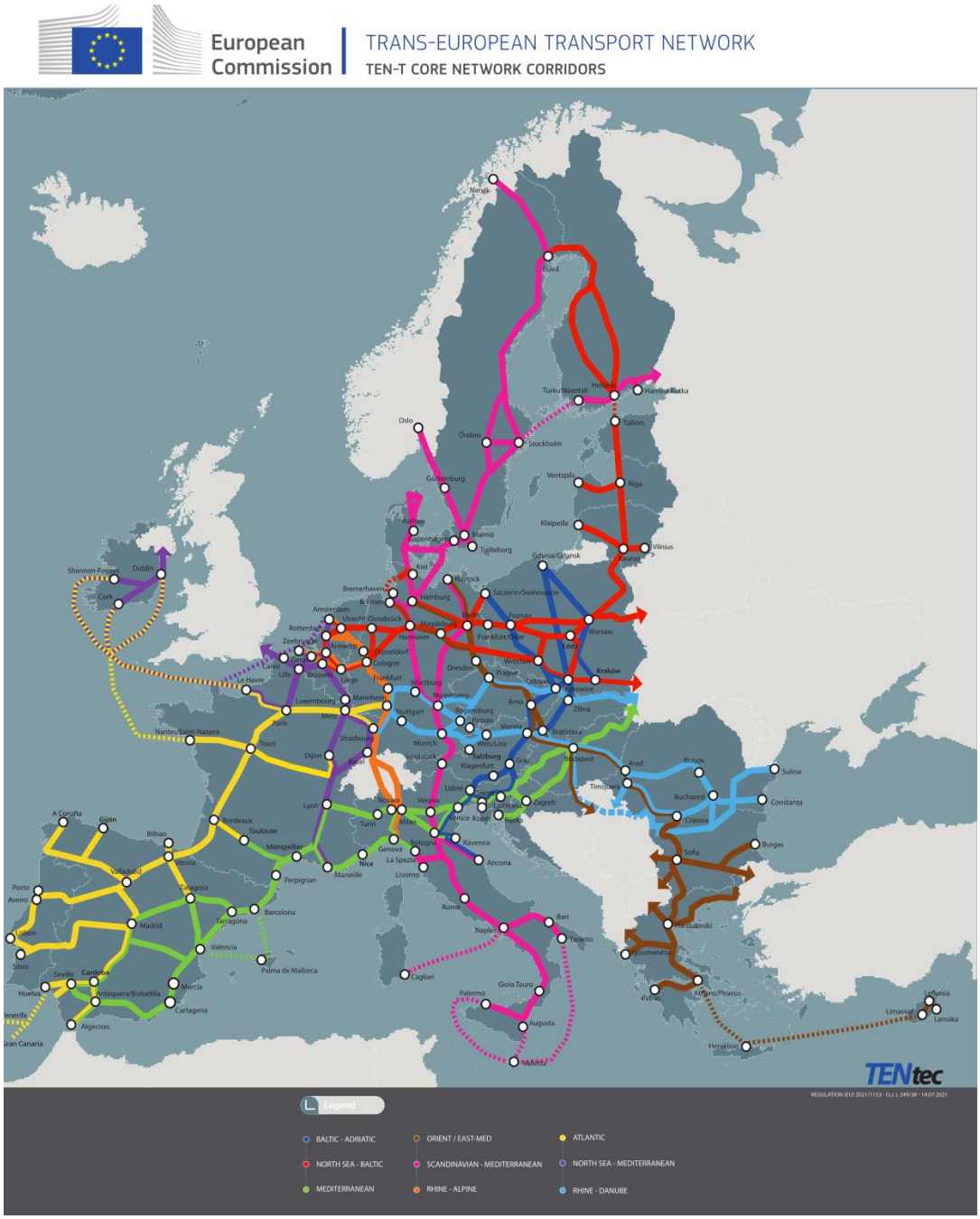
1.1. Abbreviations

ARS	Aviation Rescue Service
ETSC	European Transport Safety Council
GDDKiA	General Directorate for National Roads and Motorways
ITD	Road Transport Inspectorate
KRBRD	National Road Safety Council
NPBRD	The National Road Safety Programme 2021-2030
TEN-T	Trans-European Transport Network

2. Description of the TEN-T Core Network Corridors in the territory of Poland

TEN-T Trans-European Transport Network is an instrument to coordinate and ensure the consistency and complementarity of infrastructure investment projects. The TEN-T Trans-European Transport Network consists of road, railway, air, sea and river routes being the most important connections from the viewpoint of the development of the European Union, as well as point elements of infrastructure in the form of seaports, airports, inland ports and road-railway terminals.

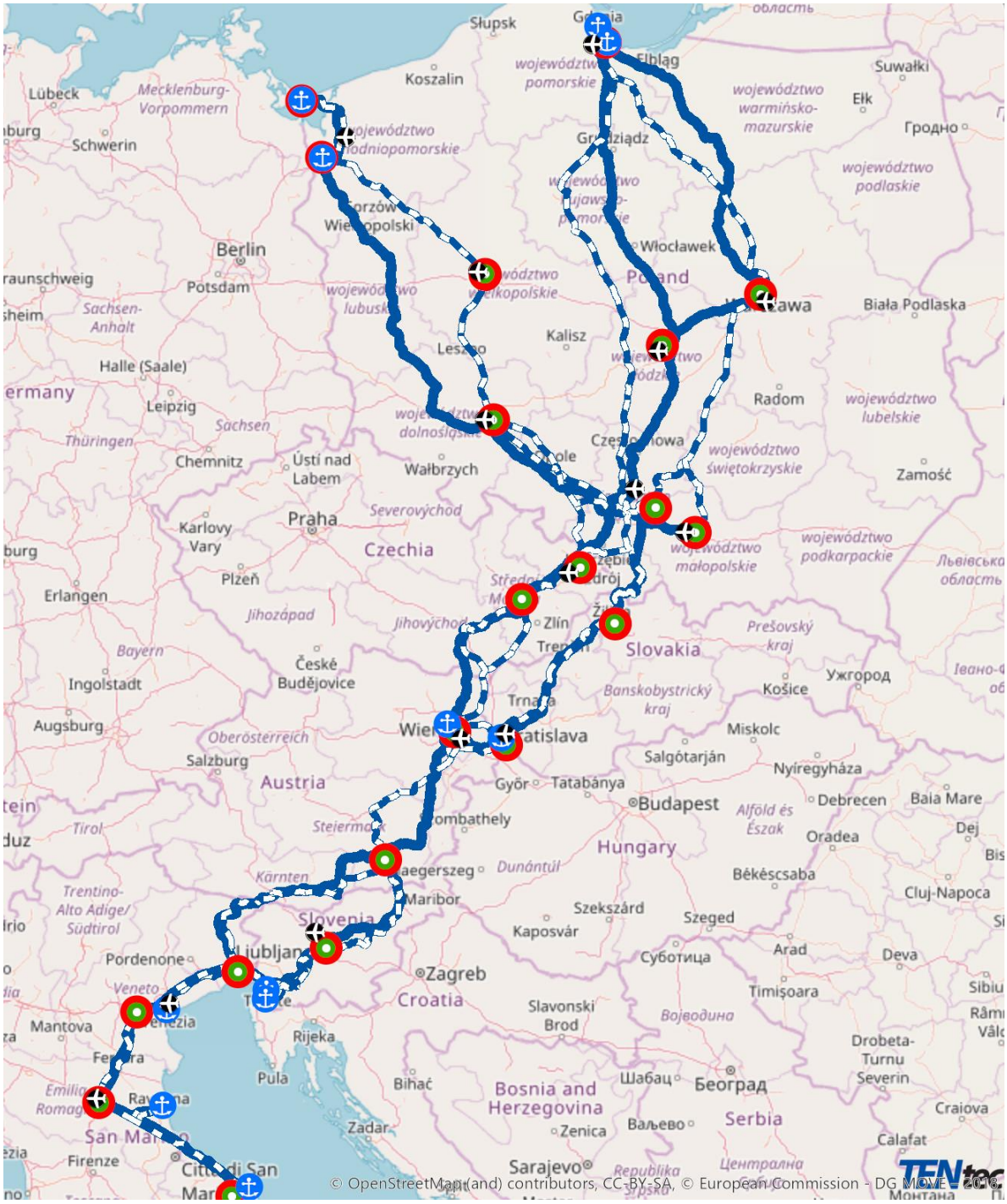
The TEN-T Core Network Corridors have been established for the more efficient implementation of this network and acceleration of work on infrastructure projects with the highest European added value.



Two TEN-T Corridors run through the territory of Poland:

2.1. Baltic-Adriatic Corridor

The Baltic-Adriatic Corridor running through six EU Member States – Poland, the Czech Republic, Slovakia, Austria, Italy and Slovenia; connecting the Baltic ports in Gdynia/Gdańsk and Szczecin/Świnoujscie with the Adriatic ports in Trieste, Venice, Ravenna and Koper.

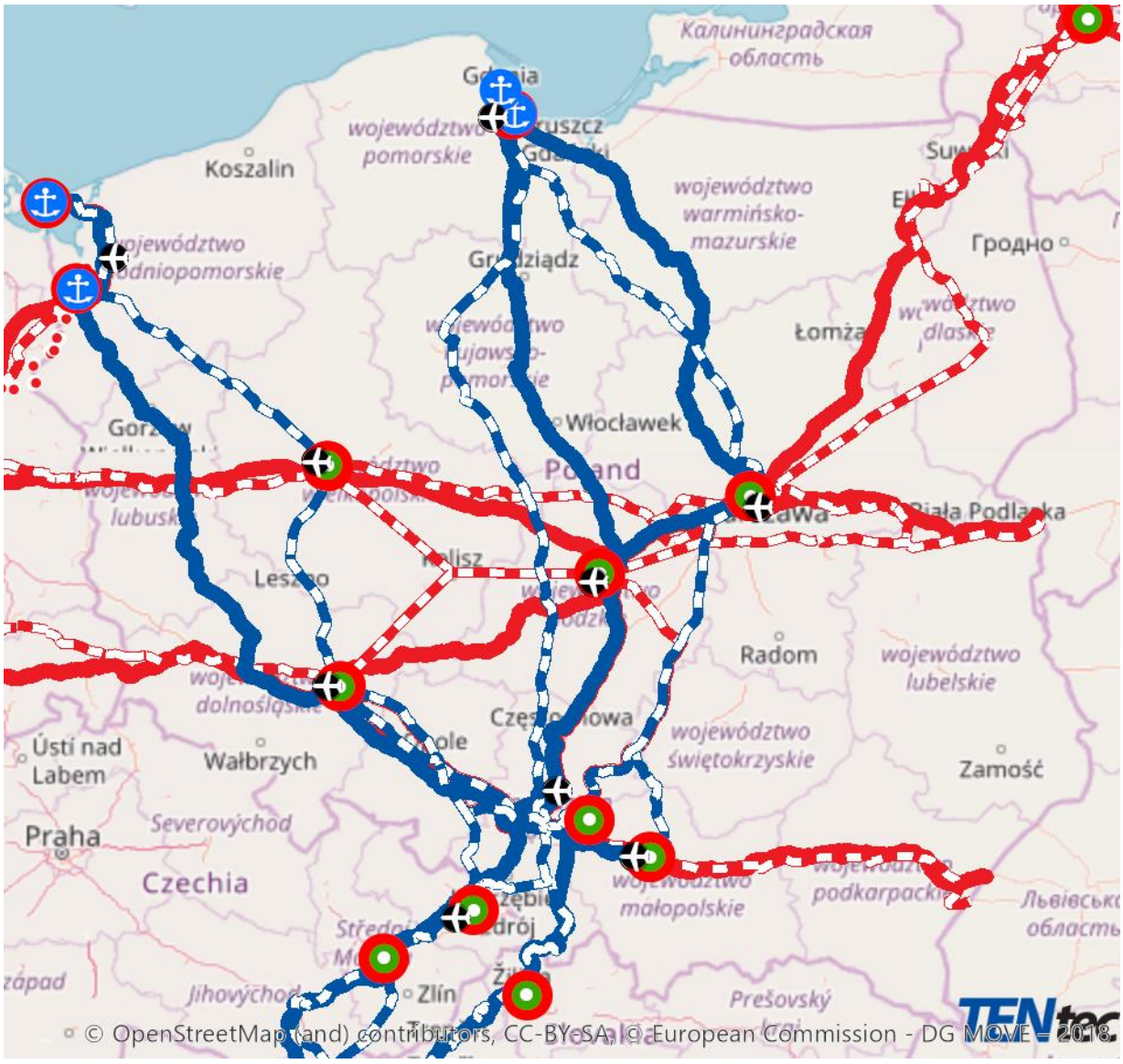


2.2. North Sea-Baltic Corridor

The North Sea-Baltic Corridor covering eight EU Member States and connecting the ports located in the Baltic Sea basin: Helsinki, Tallinn, Riga, Ventspils and Klaipeda with the ports located in the North Sea basin: Hamburg, Bremen, Amsterdam, Rotterdam and Antwerp.

The TEN-T Core Network Corridors are to be used to coordinate various projects at the supranational level. They should contribute to developing the core network infrastructure so as to address the issue of bottlenecks, intensify cross-border connections and improve the efficiency and sustainability of the transport system. They should also contribute to improving the cohesion of EU regions through better territorial cooperation. According to the EU's intentions, the core network corridors are to be implemented by 2030.

In the area of Poland, the route of both above-mentioned corridors is as follows:



3. Road Safety in the European Union countries

In 2020, 18,800 people died as a result of road accidents in the European Union countries. This is a significant decrease by 17% when compared to 2019. As a result, in 2020, about 4 thousand fewer people lost their lives on EU roads when compared to 2019.

The lower traffic density related to the COVID-19 pandemic had a clear, yet difficult to specify, impact on the number of road fatalities.

In the years 2010–2020, the number of road fatalities in the EU decreased by 36%. Currently, roads in the EU are the safest roads in the world. It should be noted that in 2020 18 Member States recorded the lowest number of road fatalities in history. Throughout the EU, the number of fatalities decreased, on average, by 17% when compared to 2019, although the reduction was not identical in various countries.

The largest improvement (by at least 20%) took place in Belgium, Bulgaria, Denmark, Spain, France, Croatia, Italy, Hungary, Malta and Slovenia. On the other hand, five Member States (Estonia, Ireland, Latvia, Luxembourg and Finland) recorded an increase in the number of fatalities, but it should be noted that in smaller countries these figures are subject to annual fluctuations.

In the longer term, the number of fatalities on European roads decreased by 36% in the years 2010–2020, i.e. below the EU target standing at 50%. This threshold has been exceeded by Greece only (54%). The countries close to achieving the EU target were: Croatia (44%), Spain (44%), Portugal (43%), Italy (42%) and Slovenia (42%). In total, nine Member States recorded a decrease amounting to at least 40%.

Despite the changes in the classification of EU countries by road fatality rates which took place in the exceptional year 2020, the safest roads are still those in Sweden (18/million), while the highest rate in 2020 was recorded in Romania (85/million). The average for the entire EU amounted to 42/million.

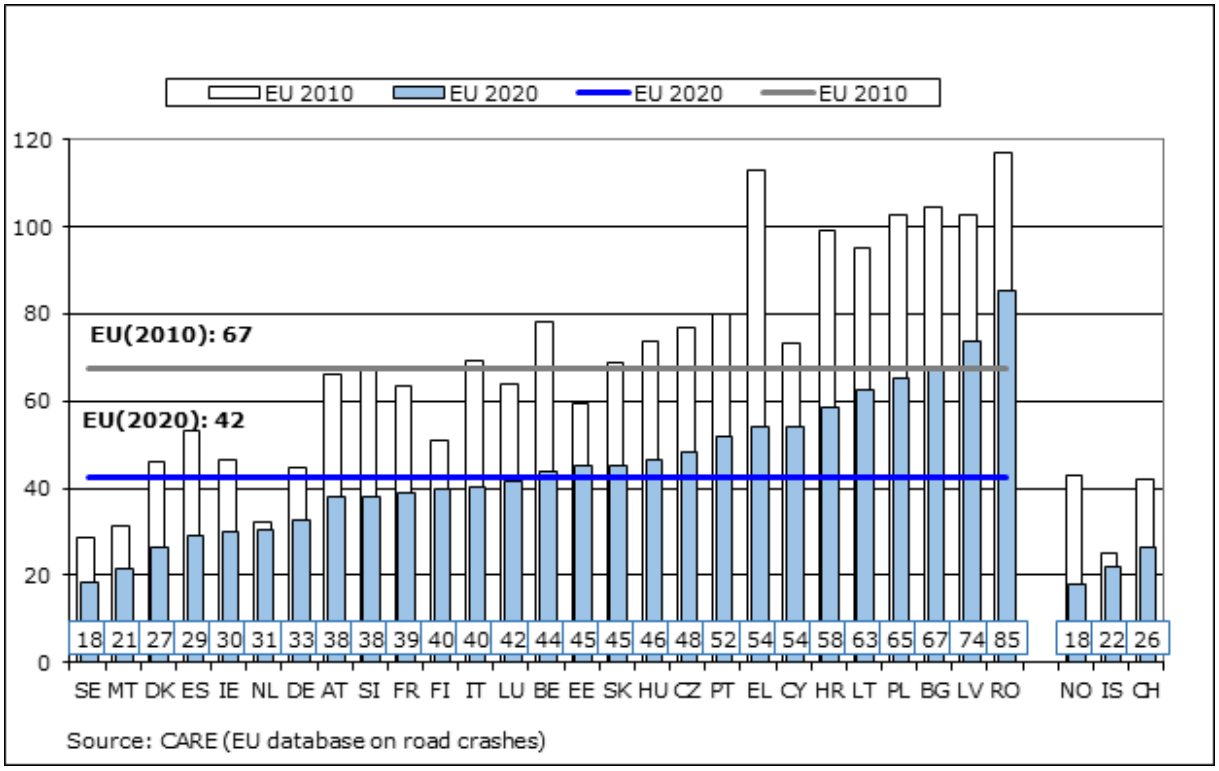
The lower traffic density associated with the COVID-19 pandemic had a clear yet immeasurable impact on the number of road fatalities. For example, preliminary data in the USA show that in 2020 the number of fatalities increased despite the lower traffic density.

Throughout the EU, around 70% of road fatalities in urban areas apply to vulnerable road users, including pedestrians, cyclists and motorcyclists. Therefore, addressing the issue of road safety in cities is a key area of focus and the Commission seeks to ensure that this issue is taken into account at all stages of urban mobility planning.

Road safety will be an important element of the new urban mobility initiative to be presented by the Commission later this year. In 2019, the two European capitals, i.e. Helsinki and Oslo, achieved the milestone in the form of zero fatalities in the case of pedestrians and cyclists, and the speed limit was, in their opinion, essential for making progress.

According to preliminary studies conducted by the European Transport Safety Council (ETSC), among 25 European Union Member States after the first phase of the lockdown, traffic restrictions due to COVID-19 also resulted in very large distortions in mobility. Despite the decreased vehicle traffic intensity on the roads, the number of road fatalities has not decreased to the same extent. Reports on vehicle speeds collected from more than ten countries unanimously indicate that exceeding speed limits may have been the major factor increasing the risk of death of participants in accidents. At the same time, the number of people travelling on foot and by bicycle, using the network of bicycle roads in areas of dense development has increased. According to the above ETSC studies, due to the limitation, and often the impossibility to use public transport, vehicle traffic has increased in cities.

Trend in changes in the number of road fatalities per million residents, by country, years 2010 2020



In Poland, the presented rate was 65 road fatalities per million residents in 2020, which is the fourth highest rate in the EU. This number decreased by 15% in 2020, reaching the lowest level in history. In the years 2010–2020, this number decreased by 37%, in line with the EU average.

4. Road safety in Poland

In Poland, 23,540 road accidents were recorded in 2020, i.e. 6,748 (-22.3%) fewer than in 2019. In those accidents, 2,491 people died, i.e. 418 (-14.4%) fewer than in 2019. The number of the injured and seriously injured decreased and amounted to 26,463 injured, i.e. 9,014 (-25.4%) fewer than the year before, while the number of the seriously injured amounted to 8,805, i.e. 1,828 (-17.2%) fewer.

The structure of the share of accidents that took place in 2020 remained similar to that in previous years. A decrease in the share of events with the participation of pedestrians and young drivers has been recorded. On the other hand, the percentage share of other events increased. Attention should be paid to the increased share of accidents with the participation of cyclists and intoxicated people and of those resulting from driving into a tree. The highest increase in the share of accidents (similarly as in 2019) occurred as a result of failure to adjust speed to traffic conditions.

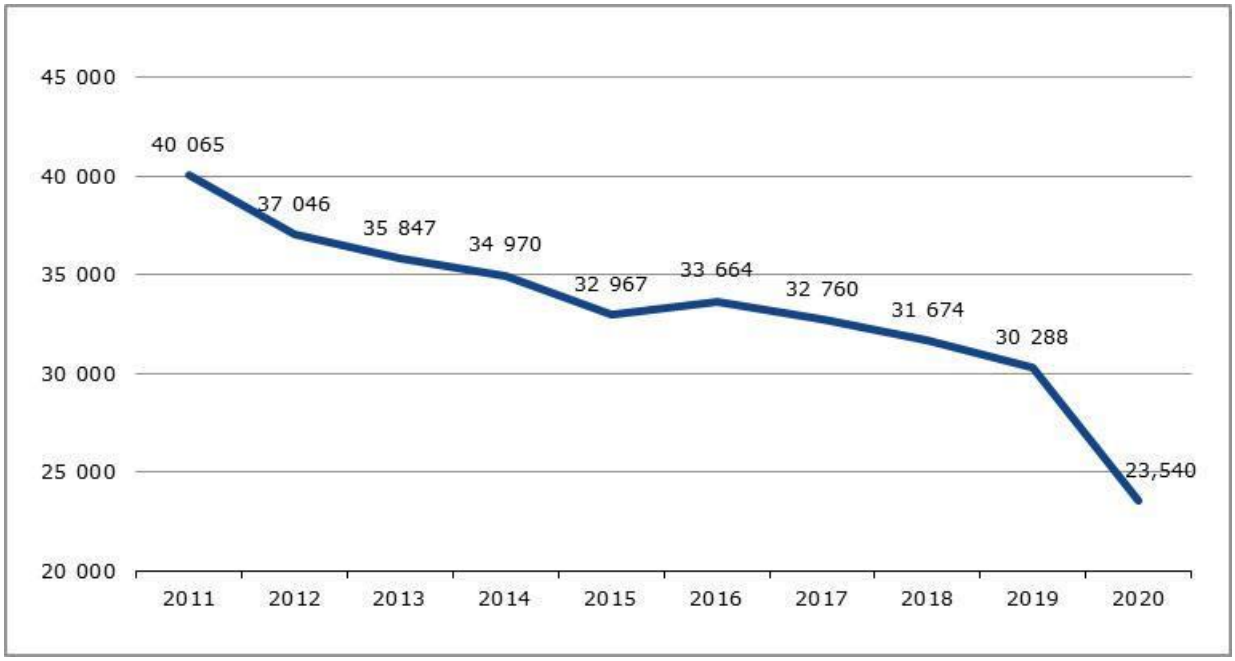
The traffic restriction resulting from the lockdown resulted in the significantly reduced number of accidents in 2020, especially in the period from March to June (the so-called first wave of the COVID-19 pandemic) and from October to December (the so-called second wave of the COVID-19 pandemic).

The largest reduction in the number of accidents (-52%) was recorded in April 2020.Characteristic of these reductions in the number of accidents was that, contrary to expectations, the number of fatalities has not been equally reduced. For example, the reduced number of accidents in April by 52% resulted in the reduced number of fatalities only by 32% and in November the reduced number of accidents by 35% resulted in the increased number of fatalities by 11%. On the scale of the whole year 2020, it can be seen that the reduced number of accidents by 22% (when compared to 2019) was not accompanied by such spectacular reduced numbers of fatalities (-14%) or the seriously injured (-17%).

This means that accidents were more dangerous as to their consequences, were “more serious” which is characteristic of events happening in the case of excessive (not adjusted to traffic conditions) speed and the share of these accidents increased, in an annual comparison, by 2.7 percentage points.

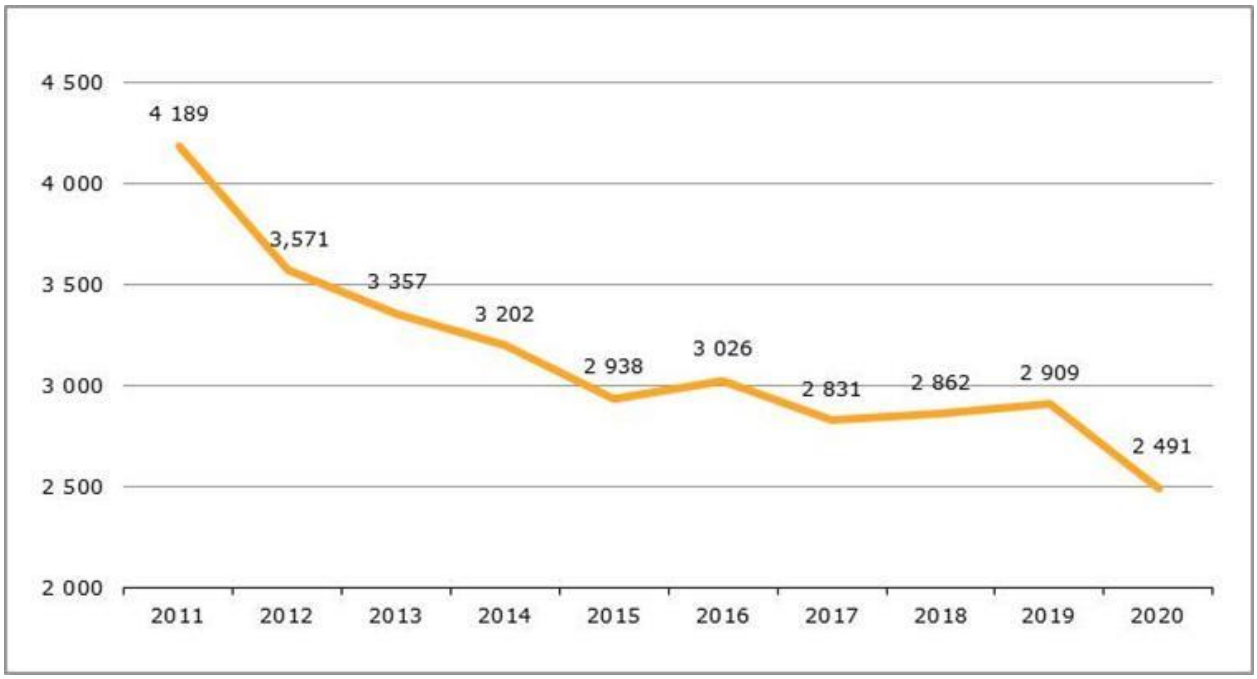
4.1. Changes in the accident rate in the years 2011–2020 in Poland

Road accidents



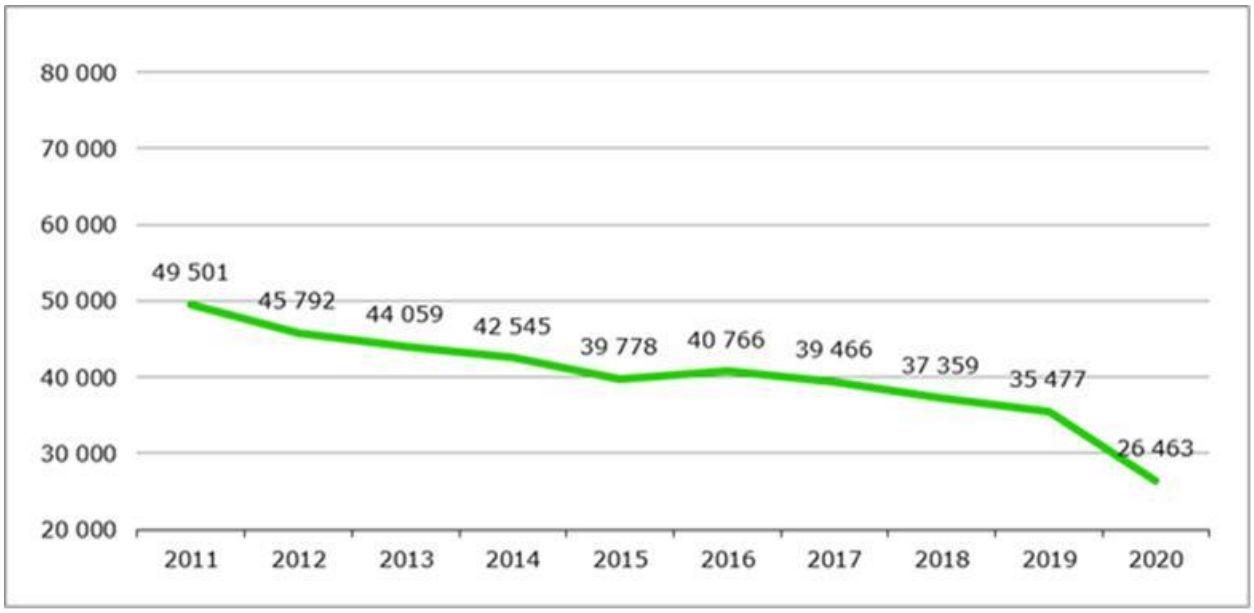
Source: Condition of road safety and activities implemented in this regard in 2020

Road fatalities in total



Source: Condition of road safety and activities implemented in this regard in 2020

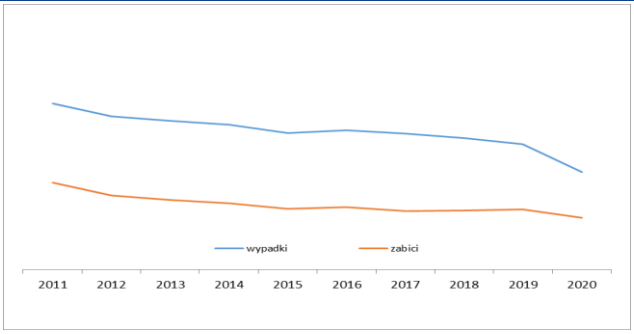
People injured in road accidents



Source: Condition of road safety and activities implemented in this regard in 2020

Accidents and their consequences against a background of the road network

LENGTH OF ROADS BY CATEGORY*			STRUCTURE OF THE ROAD NETWORK
National	19,451 km	4.6%	
Voivodeship	30,060 km	6.9%	
District	124,339 km	29.3%	
Municipal	245,992 km	59.3%	

CONSEQUENCES OF ROAD EVENTS**			TRENDS
Accidents	23,540	↘↘↘	
Killed	2,491	↘↘↘	
Injured	26,463	↘↘↘	
Seriously injured	8,805	↘↘↘	
Collisions	382,046	↘↘↘	

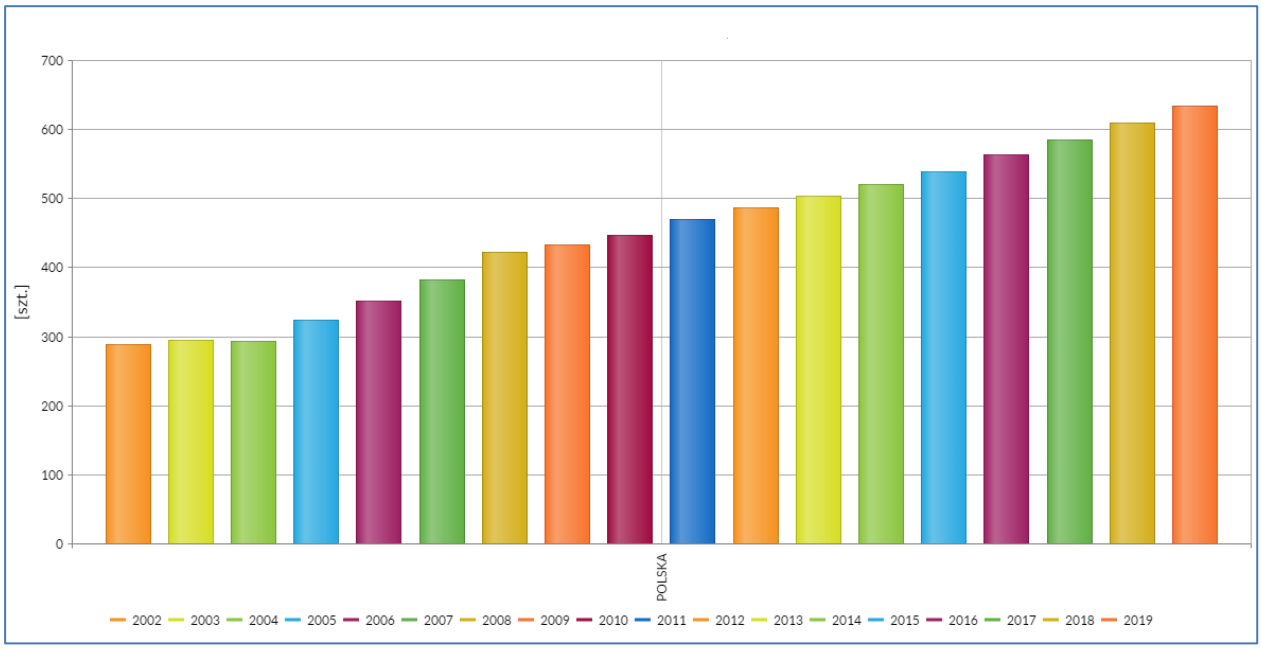
* Statistics Poland, Transport - results of activity in 2019, Statistics Poland, 2020.

** when compared to 2019: ↘↘↘ = decrease >10%

Source: Condition of road safety and activities implemented in this regard in 2020

Long-term downward trends of the accident rate take place with the increased road traffic intensity. The increased road traffic intensity results, among others, from the increased mobility of Poles and a regular increase in the number of passenger cars.

Number of passenger cars in Poland per 1,000 residents in the years 2002 - 2019



Source: Condition of road safety and activities implemented in this regard in 2020

The number of passenger cars per 1,000 residents has been steadily growing in Poland for 17 years. In 2010, it was about 447.4 passenger cars per 1,000 residents, while in 2013 and 2015, it was, respectively: 503,7 and 539,1 whereas in 2019 this value reached the following ratio: 634.7 passenger cars per 1,000 residents.

In 2020, when compared to the data for 2019, the number of all types of accidents in the analysed categories decreased. At the same time, the number of fatalities increased in two categories, i.e. single accidents[1]: rollover of a vehicle (+21) and driving into a tree (+6). This is another year, in which this number is growing and brings a significant increase in the severity of such accidents as well as the increased share in individual types of accidents and share of fatalities in individual types of accidents.

The number of head-on, side and rear-end collisions decreased, however, the severity rate increased in almost all categories except head-on collisions. 170 fewer people died in accidents of this type, when compared to 2019.

In 2020, 2,020 people died in 20,399 accidents caused by drivers, and 301 people died in 1,385 accidents caused by pedestrians.

Despite the decreased number of accidents caused by drivers and the number of fatalities in these accidents (when compared to 2019), which results from the overall reduction in the number of road accidents and their victims, there is a noticeable increase in the severity rate of these accidents. In 2019, this rate amounted to 8.4 killed/100 accidents, and in 2020 it increased to 9.6 killed/100 accidents.

The decreased number of accidents caused by pedestrians and the number of fatalities in these accidents (when compared to 2019), which is also due to the overall reduction in the number of road accidents and their victims, also in this case did not result in the decreased value of the severity rate of these accidents. In 2019, this rate was 19.8 killed per 100 accidents, and in 2020 it increased to 21.7 killed/100 accidents.

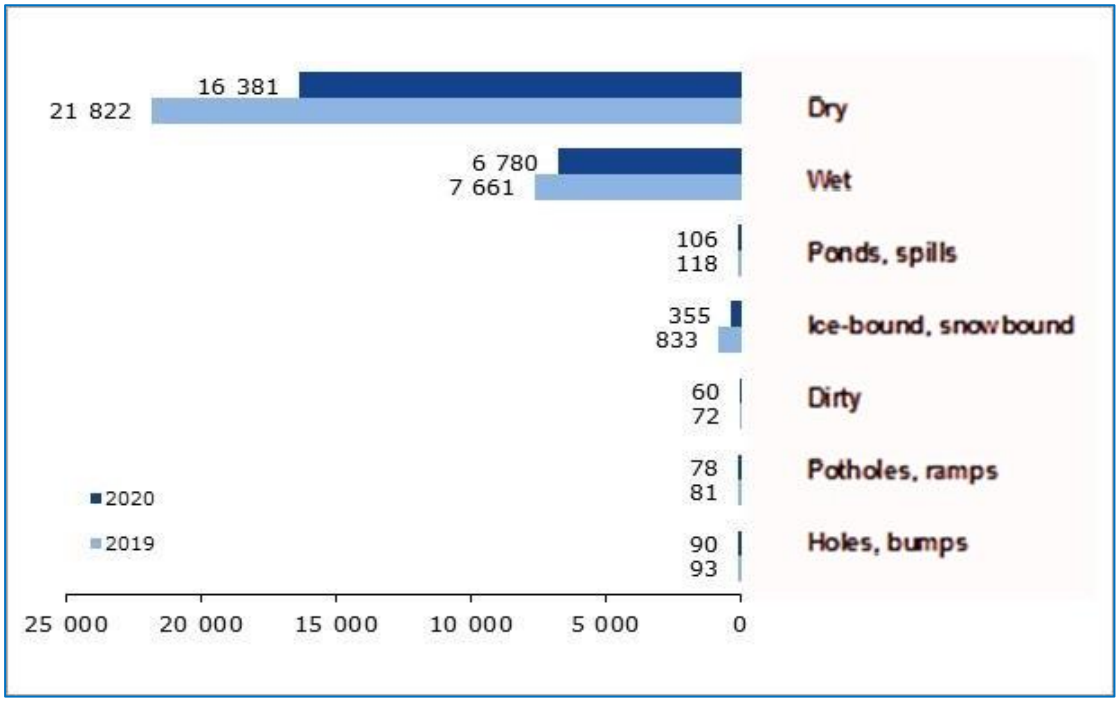
The increased value of the severity rates of accidents, both those caused by drivers and pedestrians, may indicate the increased share of accidents, one of the causes of which is excessive speed of vehicles, not adjusted to traffic conditions.

The excessive speed factor is decisive with regard to the consequences of road accidents and directly translates into the severity of accidents.

[1]A single accident, according to the definition applied in the Polish Road Safety Observatory is a road event which entailed fatalities, including a perpetrator of this event, with the participation of a single vehicle (exclusive of running down pedestrians). This definition includes: driving into a stranded vehicle, tree, pole, hole, animal, sign, barrier and rollover of a vehicle.

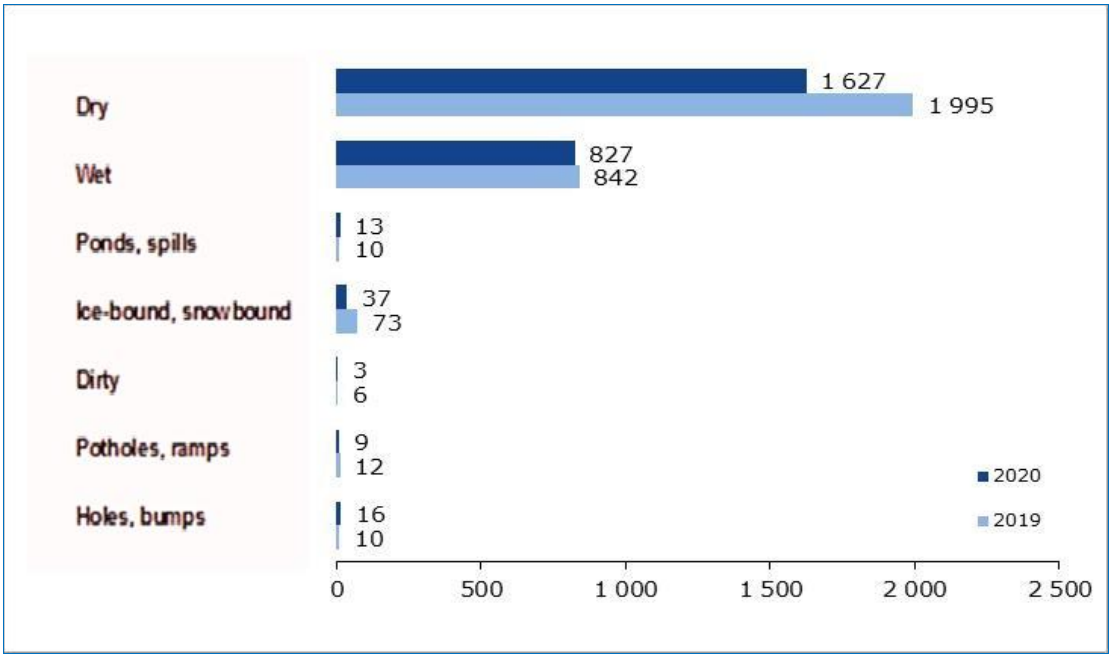
Road accidents in relation to the surface and category of roads and place of road events

Accidents in relation to the surface of roads



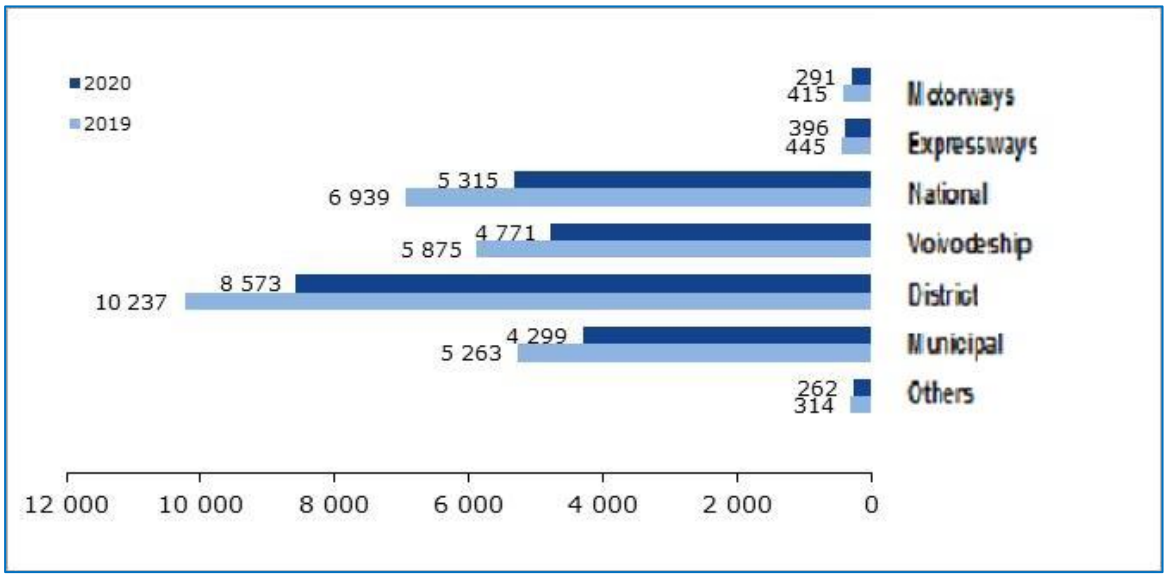
Source: Condition of road safety and activities implemented in this regard in 2020

Fatalities in accidents in relation to the surface of roads



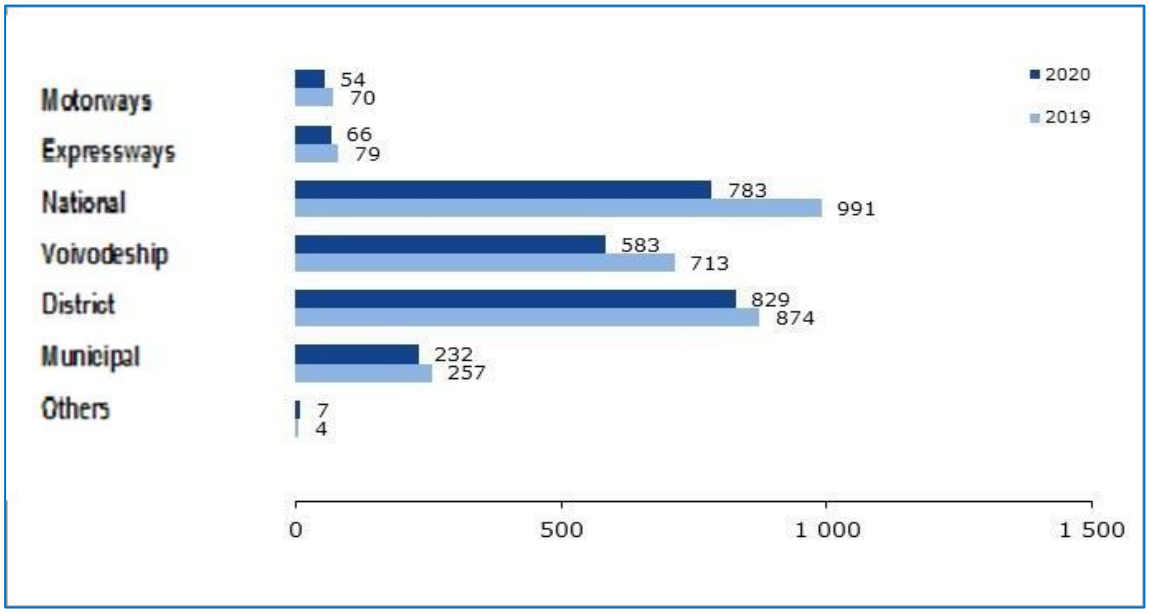
Source: Condition of road safety and activities implemented in this regard in 2020

Categories of roads in relation to the number of accidents



Source: Condition of road safety and activities implemented in this regard in 2020

Fatalities in accidents in relation to the category of roads



Source: Condition of road safety and activities implemented in this regard in 2020

Places of occurrence of road accidents

Area	Accidents		Fatalities		Injured		Severity of accident (fatalities per 100 accidents)
	in total	%	in total	%	in total	%	
Developed	16,312	69.3	1,084	43.5	17,784	67.2	6.6
Undeveloped	7,228	30.7	1,407	56.5	8,679	32.8	19.5
In total	23,540	100	2,491	100	26,463	100	10.6

Source: Condition of road safety and activities implemented in this regard in 2020

In 2020, the decrease in the number of accidents was recorded in all categories of roads when compared to the figures of 2019 but, as it has been indicated before, this results from the overall reduction in the number of road accidents and their victims. The structure of the share of accidents by road category and their fatalities has not changed when compared to 2019.

In 2020, the highest number of road fatalities was characteristic of district roads, which account for 29.3% of the length of all roads in Poland. Another category of roads with the highest number of accidents were national roads.

The largest reduction in the number of accidents has been recorded for events that took place on motorways. It amounted to 30% and also brought one of the largest (-21%) decreases in the number of fatalities from among accidents on all categories of roads. Undoubtedly, such large decreases could have resulted from a decrease in traffic in the first months of the pandemic. Despite this, motorways are still the category of roads on which, due to the speeds developed by vehicles and the failure to keep safe distances, accidents are the most severe as regards their consequences. In addition, the value of the accident severity rate increased when compared to the data for 2019 from 16.9 to 18.9 killed people/ 100 accidents. A high increase in this rate has also been recorded for accidents that took place on district roads – from 8.8 killed/100 accidents in 2019 to 10.7 killed/100 accidents in 2020.

5. Road Safety activities in Poland carried out and planned by KRBRD

In Poland, Road Safety activities are coordinated and carried out by the National Road Safety Council (KRBRD).

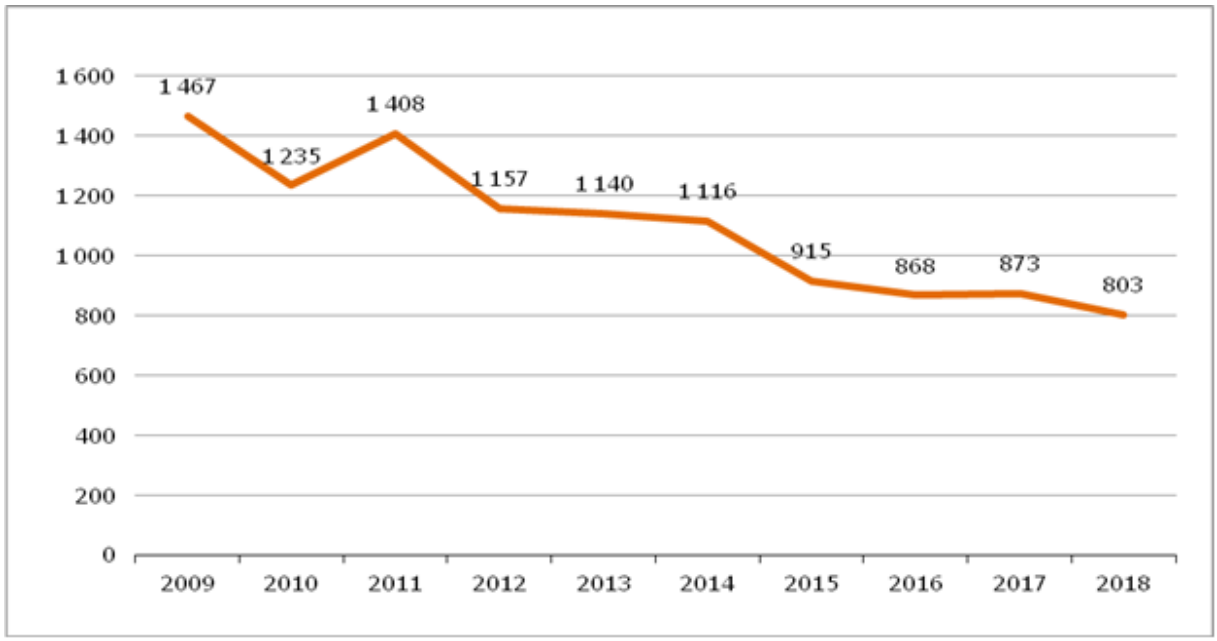
Activities with regard to the implementation of the National Road Safety Program carried out in Poland over the last two years have been subordinated to two priorities:

1. Protection of pedestrians
2. Speed management

Ad.1: Protection of pedestrians

In 2018, accidents with the participation of pedestrians accounted for 23.8% of all accidents in Poland as a result of which 803 people died and 6,918 people were injured. This situation is a reason for which in Poland still the greatest at risk group among participants in road traffic are definitely pedestrians.

Pedestrians - road fatalities

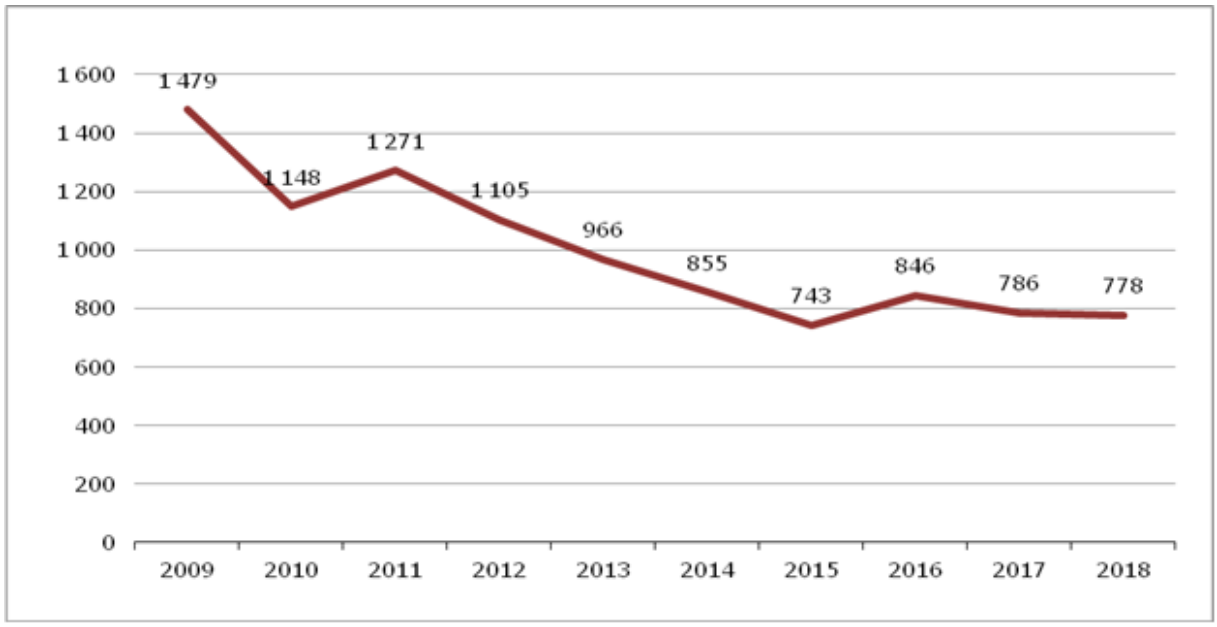


Source: Implementation programme for 2020 for the National Road Safety Programme 2013-2020

Ad.2: Speed management

In 2018, by fault of drivers, 27,556 accidents took place (accounting for 87% of all accidents). For many years, one of major reasons for these accidents has been failure to adjust the speed to traffic conditions - 6,256 accidents.

Fatalities in accidents caused by failure to adjust the speed to traffic conditions



Source: Implementation programme for 2020 for the National Road Safety Programme 2013-2020

Activities with regard to the implementation of the National Road Safety Program carried out in Poland over the last two years have been organised under two major subjects (pillars):

1. Safe human
2. Safe roads
3. Safe speed
4. Safe vehicle
5. Rescue
6. Road Safety management system

Among the specific undertakings carried out in the years 2019 – 2020, as part of the six above-mentioned areas the following activities may be mentioned:

Ad 1. Safe human

a/ Examining attitudes and opinions of the public towards road safety along with carrying out efficiency campaigns on Road Safety.
b/ Road Safety education as part of the activities of the Road Safety Education Centre
c/ Nationwide Road Safety information and educational activities addressed to participants in road traffic aged 60 and more
d/ Intensification of police supervision in areas with the high level of risk for pedestrians
e/ Monitoring the behaviour of participants in road traffic
f/ Campaigns and events related to shaping safe behaviour of participants in road traffic with regard to:
- shaping safe behaviour of moped drivers and motorcyclists in road traffic
- safe movement of participants in road traffic on expressways
- the issue of using mobile phones in road traffic

Ad 2. Safe roads

a/ Implementation of investment tasks improving Road Safety on the existing network of national roads managed by GDDKiA
b/ Guidelines regarding safe bicycle traffic
c/ Guidelines regarding proper lighting of pedestrian crossings
d/ Implementation of the programme for the development of municipal and district road infrastructure for the years 2016-2019
e/ Construction of safety devices for pedestrians on national roads
f/ Road infrastructure safety management on national roads
- classification of sections
- Road Safety audits
- Road Safety inspections

g/ Examining the effectiveness of a 2+1 cross-section with particular consideration given to various solutions separating traffic directions
h/ Traffic calming on national roads, among others, by using traffic calming devices and optimal traffic organisation
i/ Examining the impact of advertising, including light advertising, on the level of road safety
j/ Examining the impact of using Intelligent Transportation Systems on the level of road safety
k/ Examining road safety devices
l/ Examining experimental roadmarking in the aspect of behaviour of participants in road traffic
m/ Issuance of new regulations in the field of road signs and signals.

Ad 3. Safe speed

a/ Educational campaign on excessive speed
b/ Examining the selection of admissible traffic speeds on roads, having regard to dynamic traffic management
c/ Educational campaign regarding the need to give the right of way by drivers
d/ intensification of police supervision with regard to overspeeding
e/ Introduction of an obligation to keep appropriate distances between vehicles on expressways

Ad 4. Safe vehicle

a/ Standardisation of the Polish standard on the car first aid kit and introduction of their obligatory use for private car drivers
b/ Developing standardisation of the use of winter and all season tyres and analysis of possibilities of their application
c/ Streamlining activities regarding the inspection of vehicle technical condition
d/ Increasing the effectiveness of Road Transport Inspectorate (ITD) inspection activities

Ad 5. Rescue

a/ Development of the medical rescue system:
- support for existing and construction of new hospital emergency rooms
- development of the Aviation Rescue Service (support and construction of new ARS landing sites and bases)
- integration of the dispatching system through the construction of new medical dispatch rooms
b/ Modernisation of equipment and additional equipment for road rescue services, having regard to road sections with the highest risk of accidents
c/ Analysis of the system of assistance to road victims and their families
d/ Implementation of the concept of “corridors of life” on expressways

Ad 6. Road Safety management system

a/ Reform of the road safety management system in Poland.
b/ Developing a strategy to improve road safety for the years 2020-2030.
c/ Nationwide training courses for teachers on education of children and young people in the field of road safety
d/ Determining the costs of road accidents and collisions in Poland
e/ Developing the Polish Road Safety Observatory
f/ Nationwide training courses for local government road managers on the use of engineering measures improving the safety of participants in road traffic

6. Road infrastructure safety activities carried out and planned by GDDKiA

One of the major documents specifying material activities on the road network in Poland with the aim of improving road safety is the Safe Road Infrastructure Programme 2021-2024 implemented by the General Directorate for National Roads and Motorways (GDDKiA).

The tasks covered by the Safe Road Infrastructure Programme 2021-2024 will be carried out across the country. Some of them are a continuation of the existing activities implemented as part of the construction and modernisation of safe road infrastructure.

In view of the high accident rate at pedestrian crossings with the significant share of the killed and injured, priority will be given to the safety area at pedestrian crossings.

The scope of tasks covered by the Safe Road Infrastructure Programme 2021-2024 will include such activities as, among others:

- improvement in the conditions of vulnerable participants in road traffic covering a number of activities listed below,
- improvement in the visibility conditions of pedestrians/cyclists by drivers and of vehicles by pedestrians/cyclists at pedestrian crossings/bicycle crossings,
- effective lighting and additional lighting of pedestrian crossings/bicycle crossings as well as public transport stops and access roads to them,
- separation of pedestrian traffic from vehicle traffic, including the construction of dedicated infrastructure for pedestrians,
- separation of bicycle traffic from other vehicle and pedestrian traffic, including the construction of dedicated infrastructure for bicycles,
- construction of platforms at public transport stops and safe access roads to these platforms,
- construction of pavements (roads for pedestrians),
- construction of pedestrian and bicycle paths (roads for bicycles and pedestrians),
- construction of bicycle paths (roads for bicycles),
- construction of bus bays,
- reconstruction of intersections,
- construction of footbridges for pedestrians,
- improvement in visibility conditions at intersections and access roads to roadways.

In addition, it is envisaged to implement a number of tasks related to, among others, the technical reconstruction of roads and improvement in traffic organisation. Currently, the following activities are and will be carried out:

- elimination of collision points on roadways, and in particular limiting the number of exits from main roadways as a result of construction of additional roadways serving areas adjacent to road lanes,
- improving the geometry of intersections, in particular in terms of traffic channelling and physical measures to limit the speed before intersections,
- elimination of water ponds on roadways increasing the probability of skidding of a vehicle
- correction of horizontal curves of roadways within the scope of radii and transverse slopes where there is a high probability of a vehicle running off the track,
- improvement in safety within the roadway, including the adaptation of road cross-sections to the actual needs resulting from the quantitative, generic and directional structure of traffic, and in particular:

  a. elimination of two-way single-carriageway cross-sections with at least four lanes,

  b. introduction of a 2+1 cross-section by constructing additional, alternating lanes for overtaking,
- elimination of two-way single-carriageway cross-sections with wide hardened roadsides,
- introduction of safety zones in the vicinity of roadways with particular emphasis on "zones forgiving" drivers' errors, i.e. zones in the vicinity of obstacle-free roadways, with gently profiled slopes and embankments,
- effective lighting or additional lighting of particularly dangerous places on roadways and places without separate infrastructure for pedestrians and cyclists,
- improvement in the functional parameters of roadways in terms of removing transverse and longitudinal unevenness, cracks and damage to the individual layers of the surface,
- improvement in the road capacity, in particular, junctions and intersections,
- improvement in safety on access roads to road crossings, in particular in terms of physical forcing of speed reduction and improvement in the visibility conditions,
- organising the conditions for parking of vehicles along national roads by creating safe parking spaces,
- elimination of places with limited parameters of horizontal and vertical gauge.

Within the funds available so far, GDDKiA carries out, upon request of the supervising minister in charge of transport, part of the tasks consistent with the above-mentioned scope. Additional funds of the National Road Fund allocated for their implementation under the Programme will allow to continue the commenced work on the improvement in road infrastructure all over Poland in relation to the safety of participants in road traffic and will allow to intensify the activities in this area.

The tasks in the field of construction, reconstruction, renovation, maintenance, protection and management of roads, including activities related to the improvement in road safety, are financed by the minister in charge of transport through the General Directorate for National Roads and Motorways.

GDDKiA bases the road infrastructure safety management system on Directive 2008/96/EC of the European Parliament of 19 December 2008, which in 2012 was implemented into national law by amending the Act on public roads.

7. Analysis of the accident rate in the TEN-T Core Network Corridors in Poland in the years 2015 and 2019

The following presentations and comparisons of data provide the information on road accidents and their consequences in the TEN-T Core Network Corridors in Poland in the years 2015-2019. In this period, significant modernisation of and improvement in technical condition of the above-mentioned roads was carried out, also a number of new sections were built and put into operation.

Below please find an analysis of the accident rate on the following road sections being part of the TEN-T Core Network Corridors in Poland:

Baltic-Adriatic Corridor

Section	number of the road
A1 - Gdańsk – Polish/Czech border	A1
	1, 14
	1, A1
	A1
A2 - Stryków – Warsaw (S7)	A2
S3 - Świnoujście – Legnica (A4)	3, A6, S3
A4 - Legnica (S3) – Mysłowice (S1)	A4
S1 - Mysłowice (A4) – Polish/Slovak border	1, 69, S69, S1
S7 - Gdynia – Warsaw (S8)	7, S7

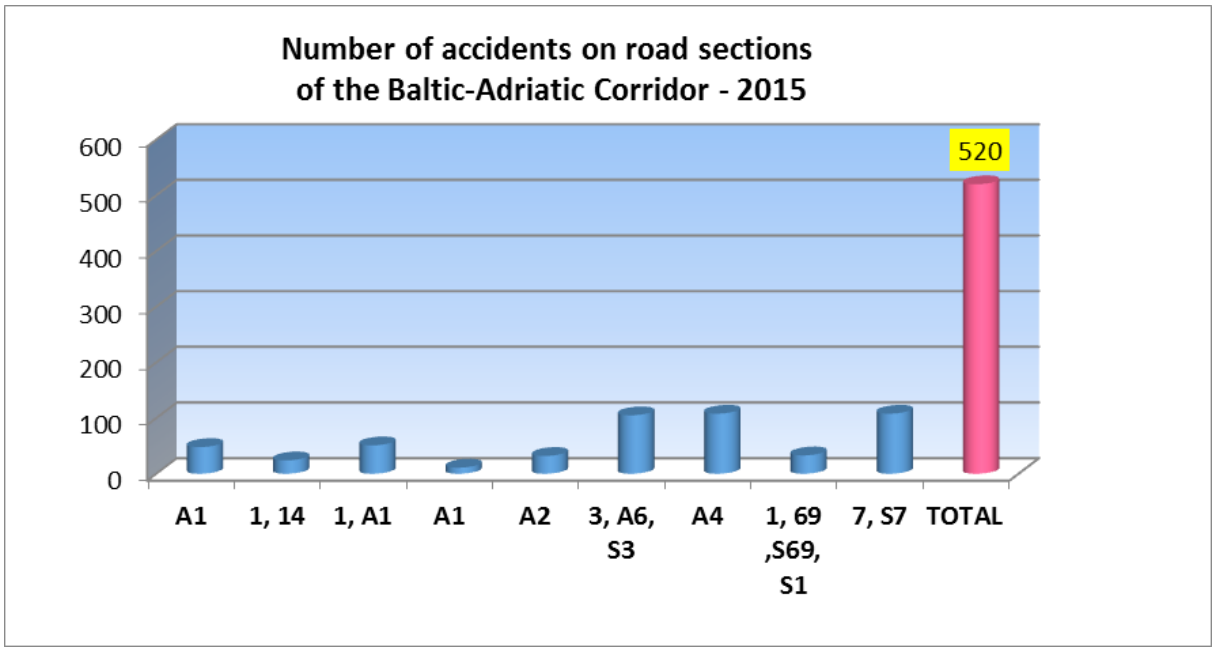
North Sea-Baltic Corridor

Section	number of the road
A2 - Polish/German border – Polish/Belarusian border	2, A2
S2 - Southern Warsaw Bypass	S2
S8 - section Warsaw (A2) – Ostrów Mazowiecka (S 61)	8, S8
S61 - Ostrów Mazowiecka (S8) – Polish/Lithuanian border	16, 65 , 8, 61, S61

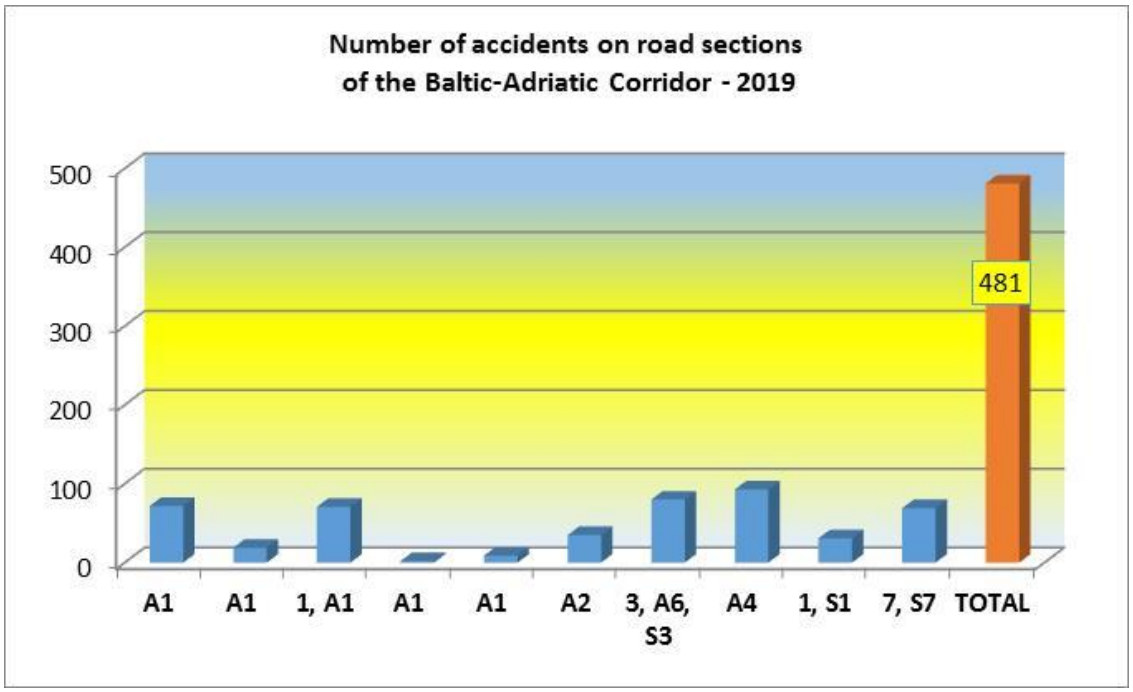
Road events taking place in 2015 and 2019 on the individual sections of roads forming the TEN-T Core Network Corridors in Poland are presented in the following charts:

7.1. TEN-T Baltic-Adriatic Core Network Corridor

Number of road accidents in the Baltic-Adriatic Corridor



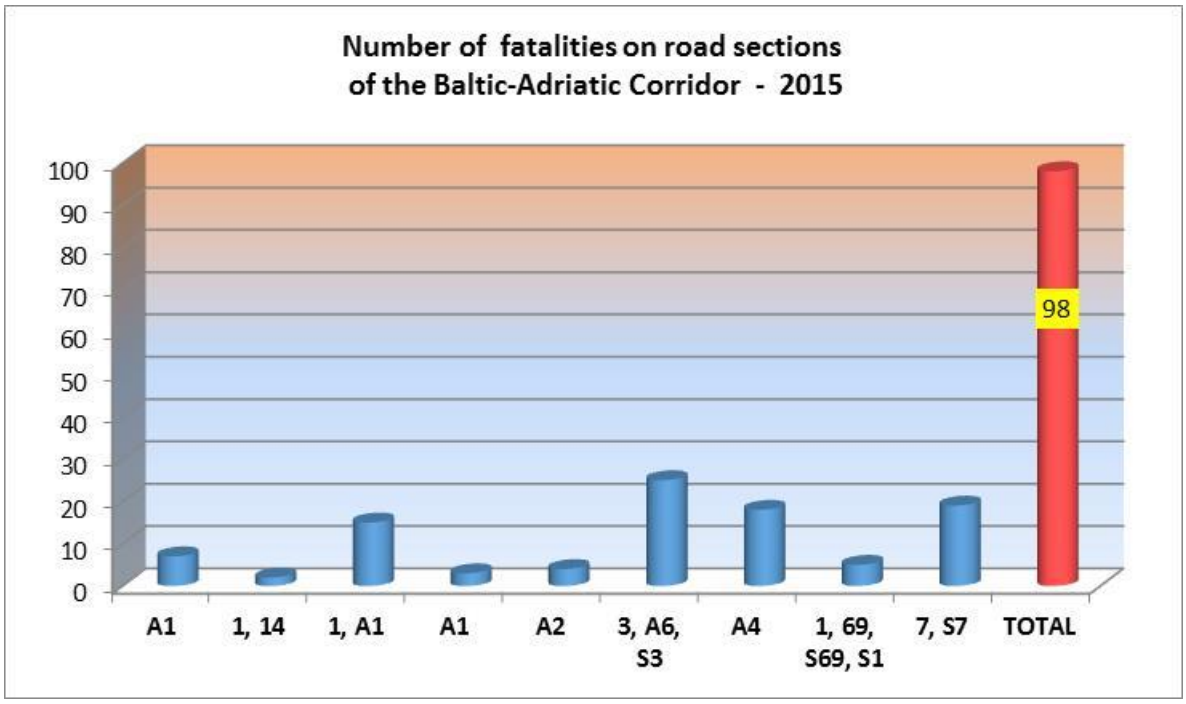
Source: own study based on the KRBRD and GDDKiA data



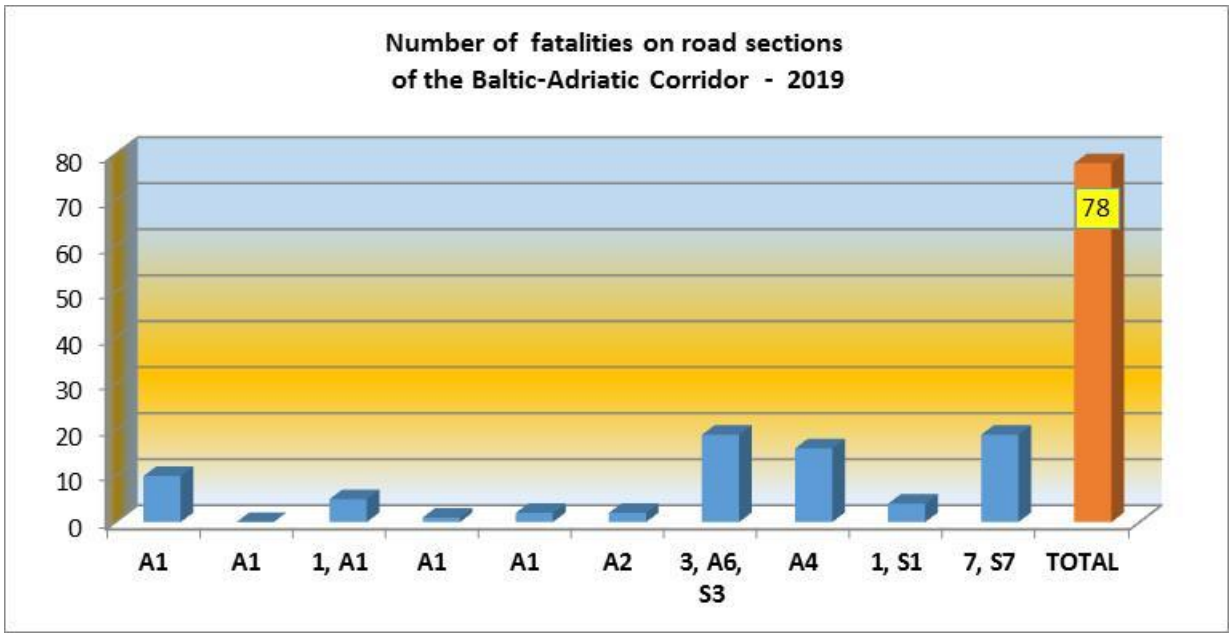
Source: own study based on the KRBRD and GDDKiA data

Comparison of the number of accidents in the TEN-T Baltic-Adriatic Core Network Corridor in Poland shows the decrease in the number of the above-mentioned road events in the years 2015-2019.

Number of road fatalities in the TEN-T Baltic-Adriatic Core Network Corridor



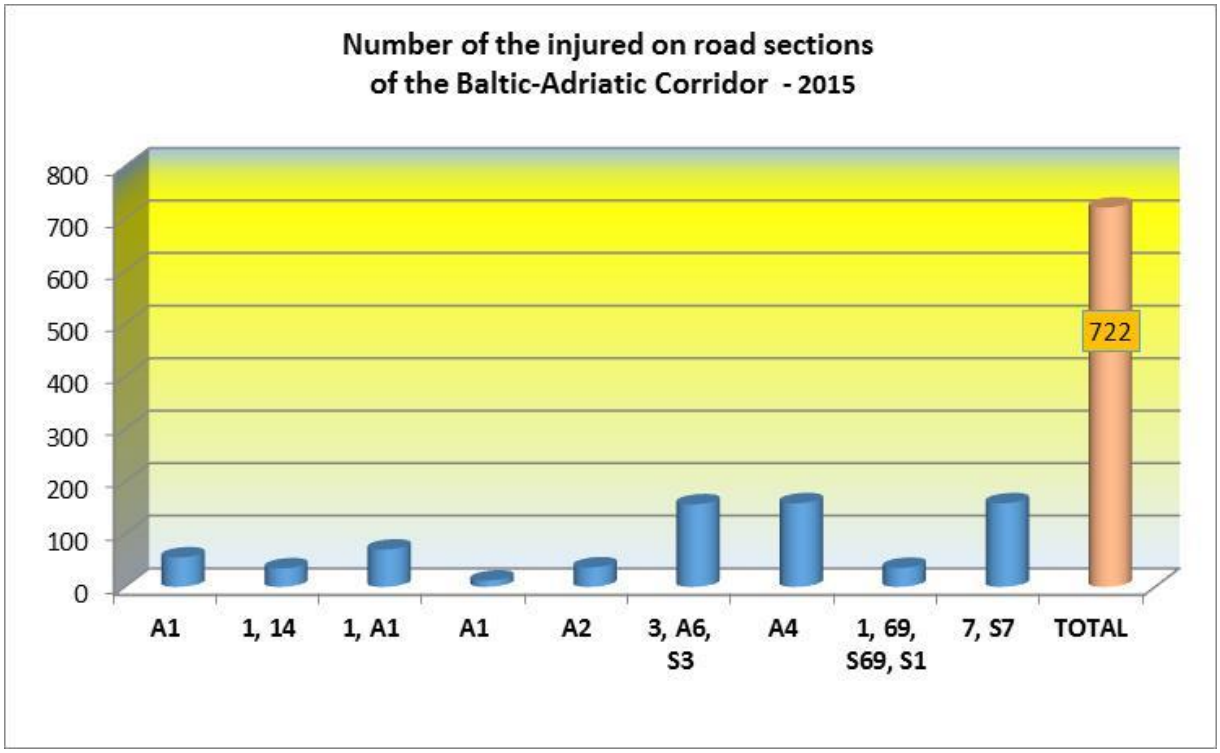
Source: own study based on the KRBRD and GDDKiA data



Source: own study based on the KRBRD and GDDKiA data

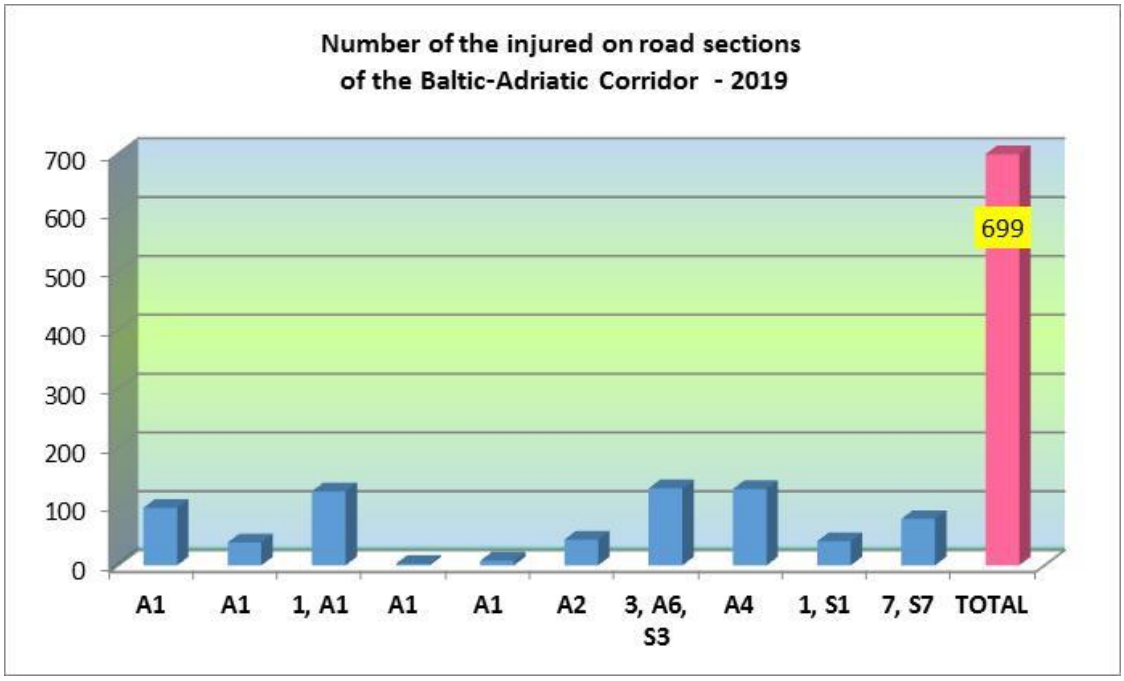
In 2019, the number of road fatalities in the TEN-T Baltic-Adriatic Core Network Corridor in its Polish section decreased by 20 persons when compared to 2015.

Number of the injured in road accidents in the Baltic-Adriatic Corridor



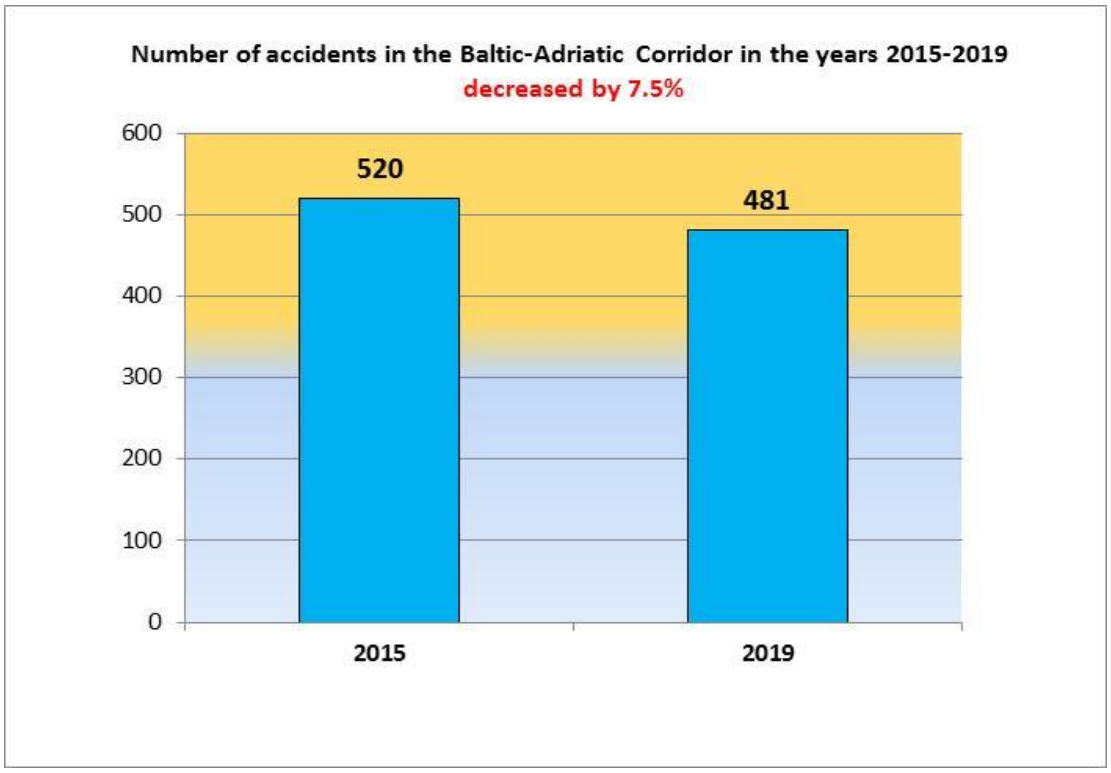
Source: own study based on the KRBRD and GDDKiA data

In the years 2015-2019, the number of the injured in road accidents in the TEN-T Baltic-Adriatic Core Network Corridor in Poland decreased.

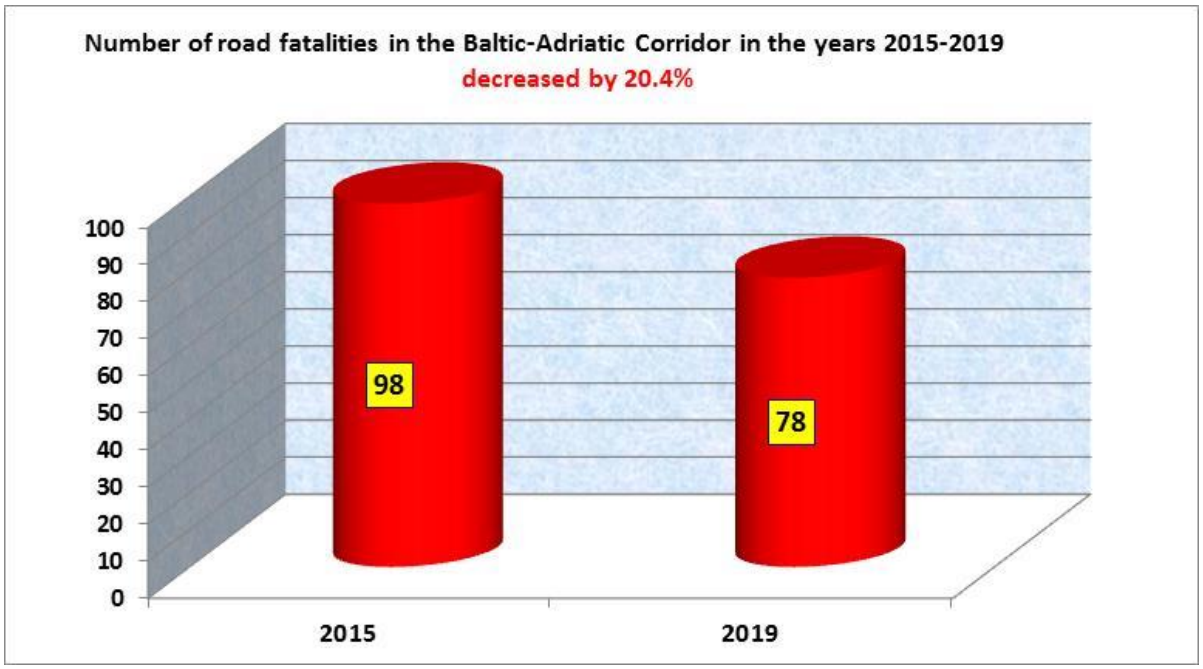


Source: own study based on the KRBRD and GDDKiA data

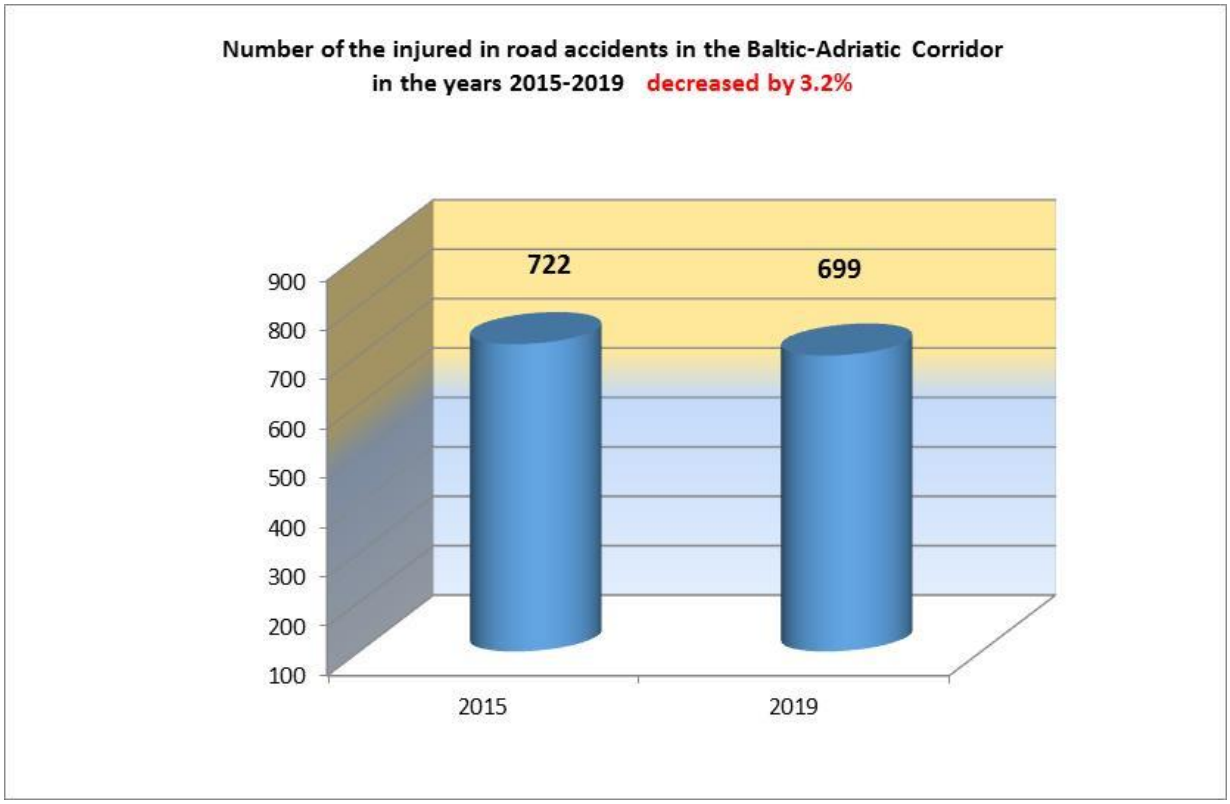
When analysing the above comparisons, it should be stated that in the period of 2015-2019 in the TEN-T Baltic-Adriatic Corridor the number of accidents, of road fatalities and of the injured decreased. In the synthetic manner, this fact is presented in the following charts.



Source: own study based on the KRBRD and GDDKiA data



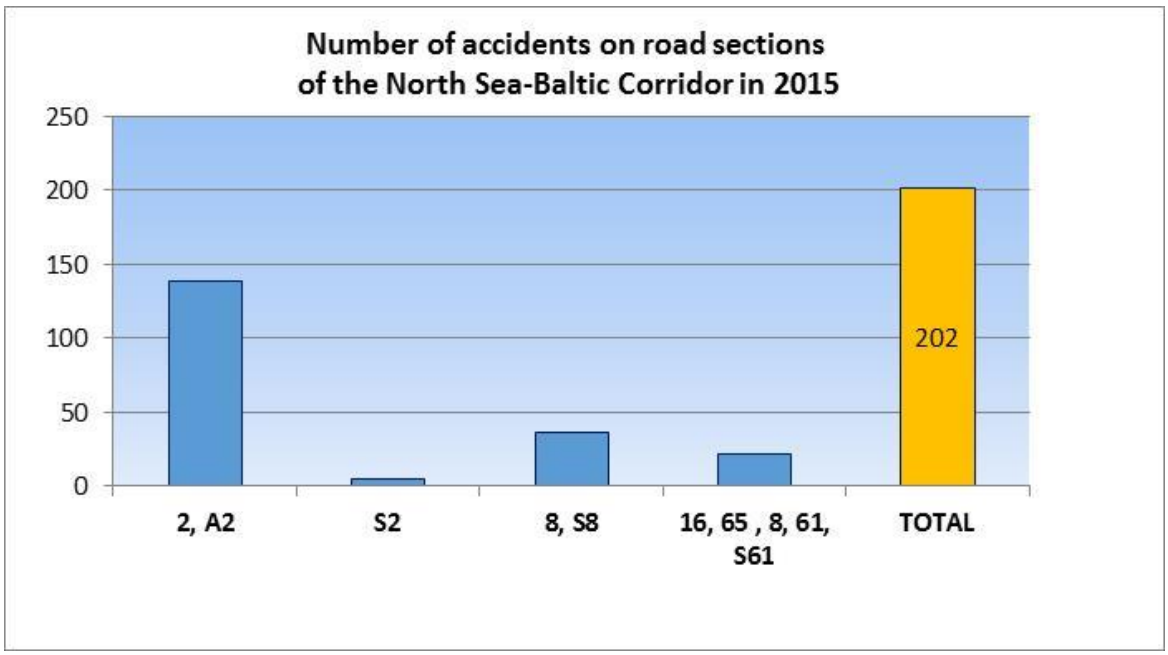
Source: own study based on the KRBRD and GDDKiA data



Source: own study based on the KRBRD and GDDKiA data

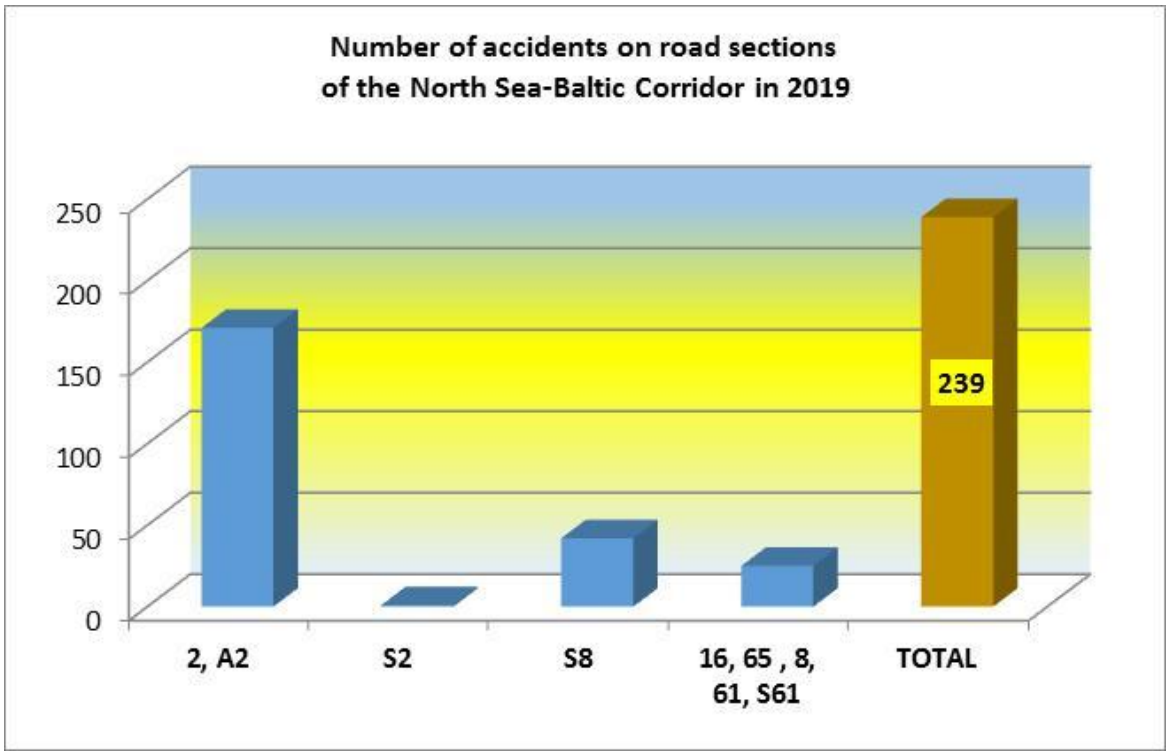
7.2. TEN-T North Sea-Baltic Core Network Corridor

Number of road accidents in the North Sea-Baltic Corridor - 2015



Source: own study based on the KRBRD and GDDKiA data

2019 - number of road accidents in the North Sea-Baltic Corridor

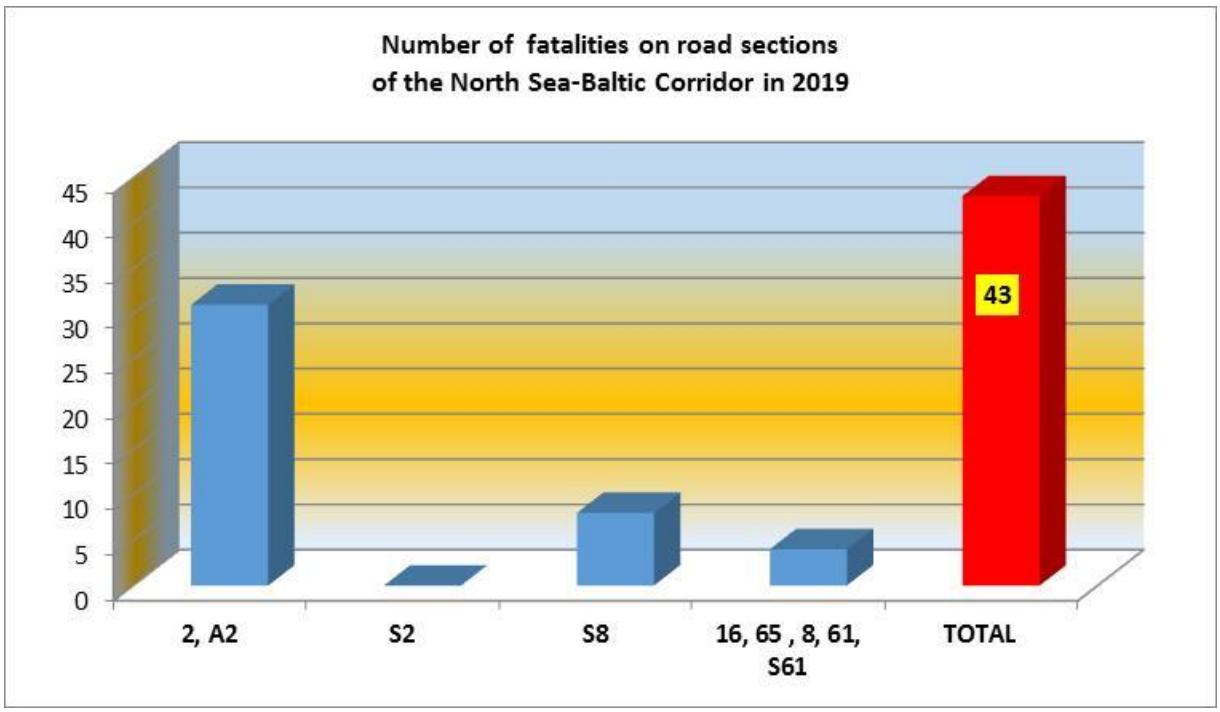


Source: own study based on the KRBRD and GDDKiA data

Number of road fatalities in the North Sea-Baltic Corridor in 2015

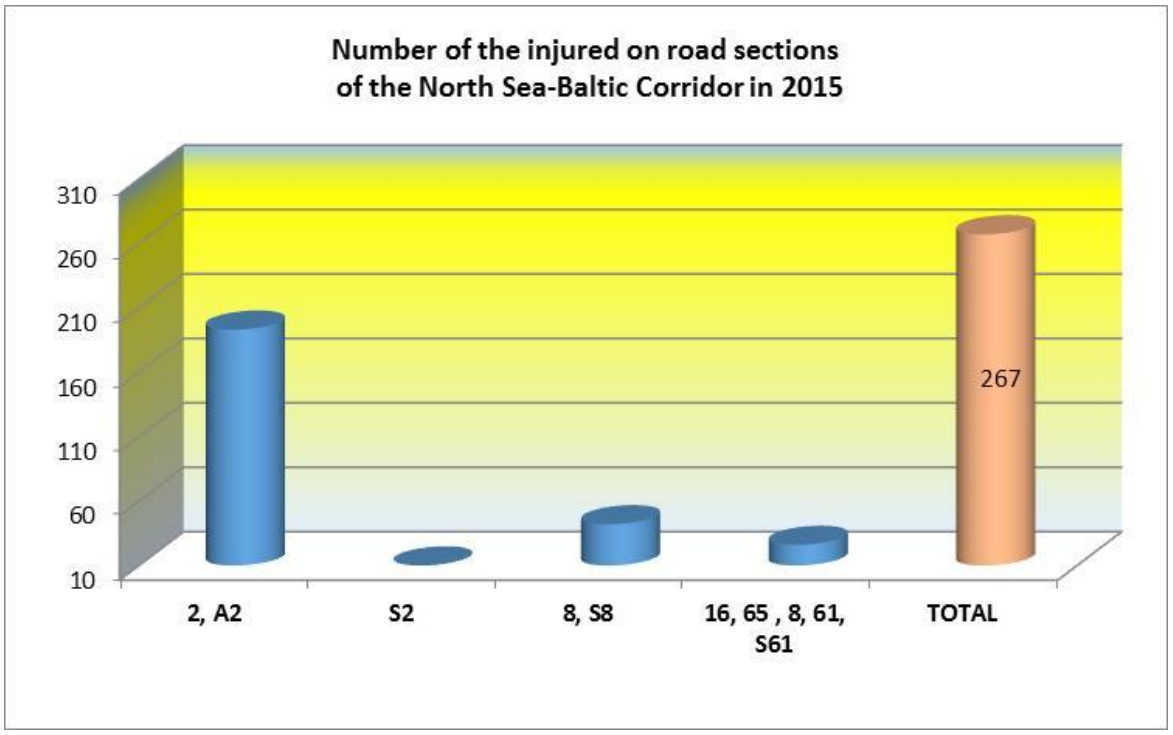
Source: own study based on the KRBRD and GDDKiA data

2019 - number of road fatalities in the North Sea-Baltic Core Network Corridor



Source: own study based on the KRBRD and GDDKiA data

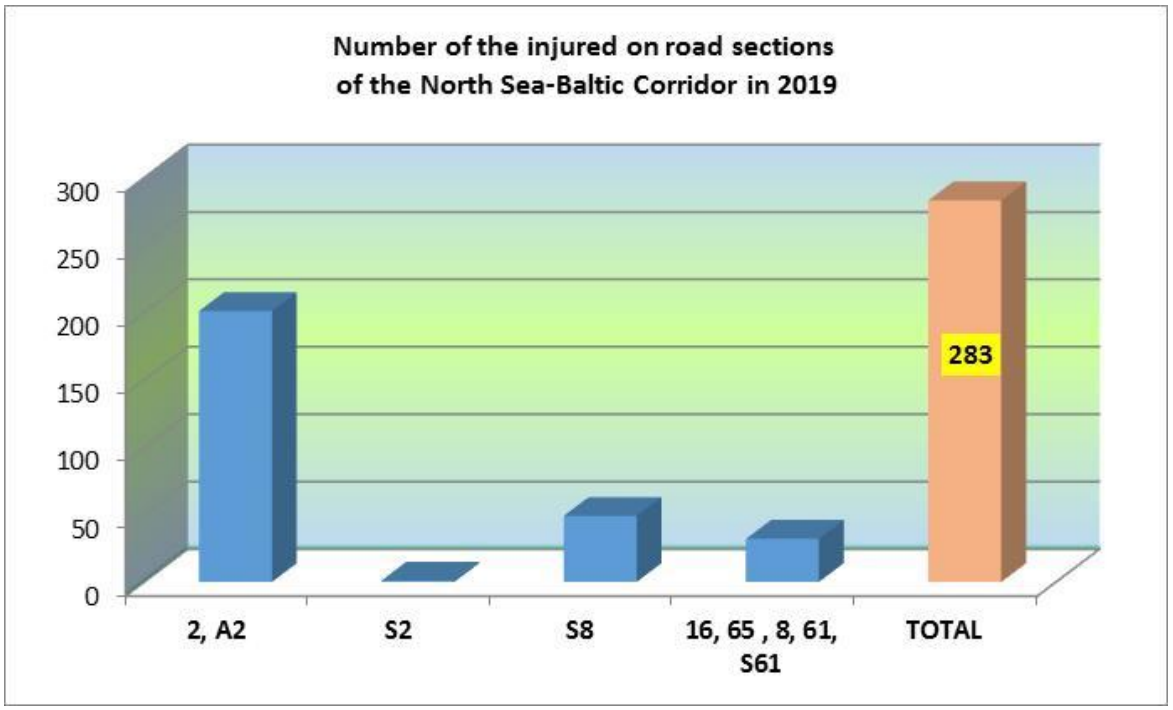
Number of the injured in road accidents in the North Sea-Baltic Corridor



Source: own study based on the KRBRD and GDDKiA data

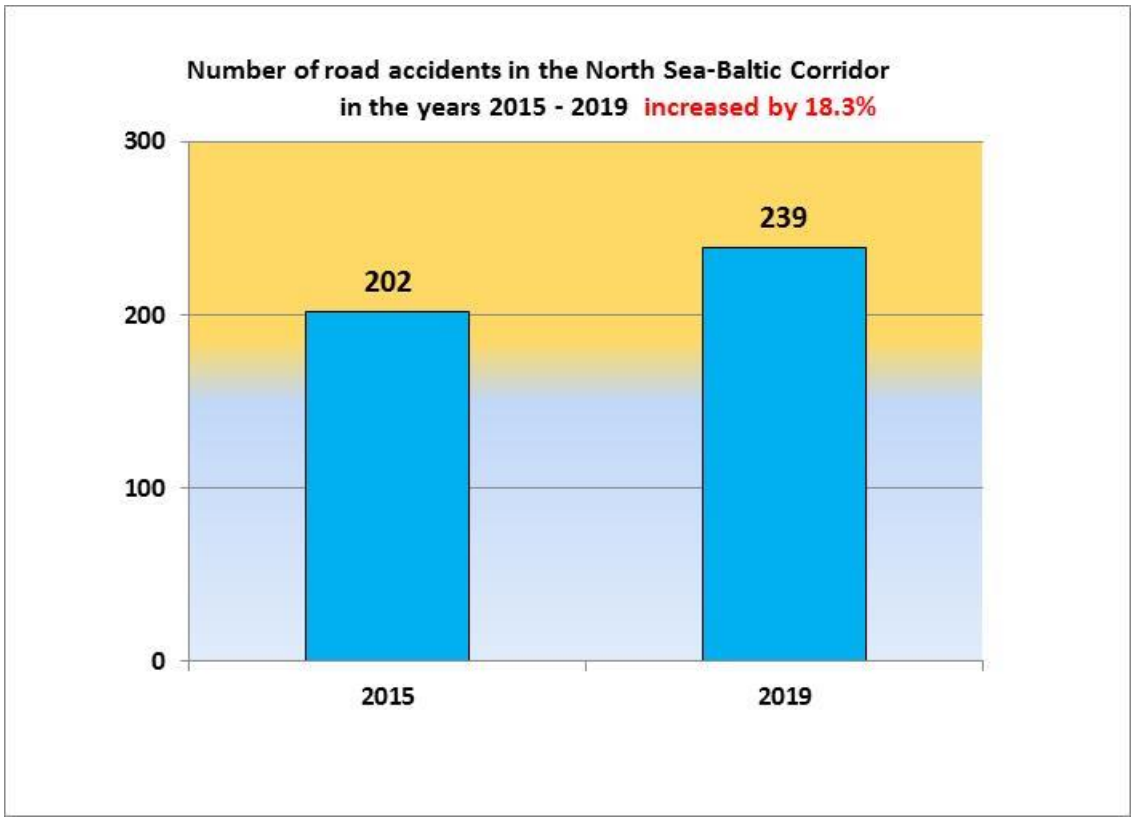
In 2019, the number of the injured in road accidents taking place in the TEN-T North Sea-Baltic Core Network Corridor in its Polish section shows an increase when compared to 2015.

2019 - number of the injured in road accidents in the North Sea-Baltic Corridor

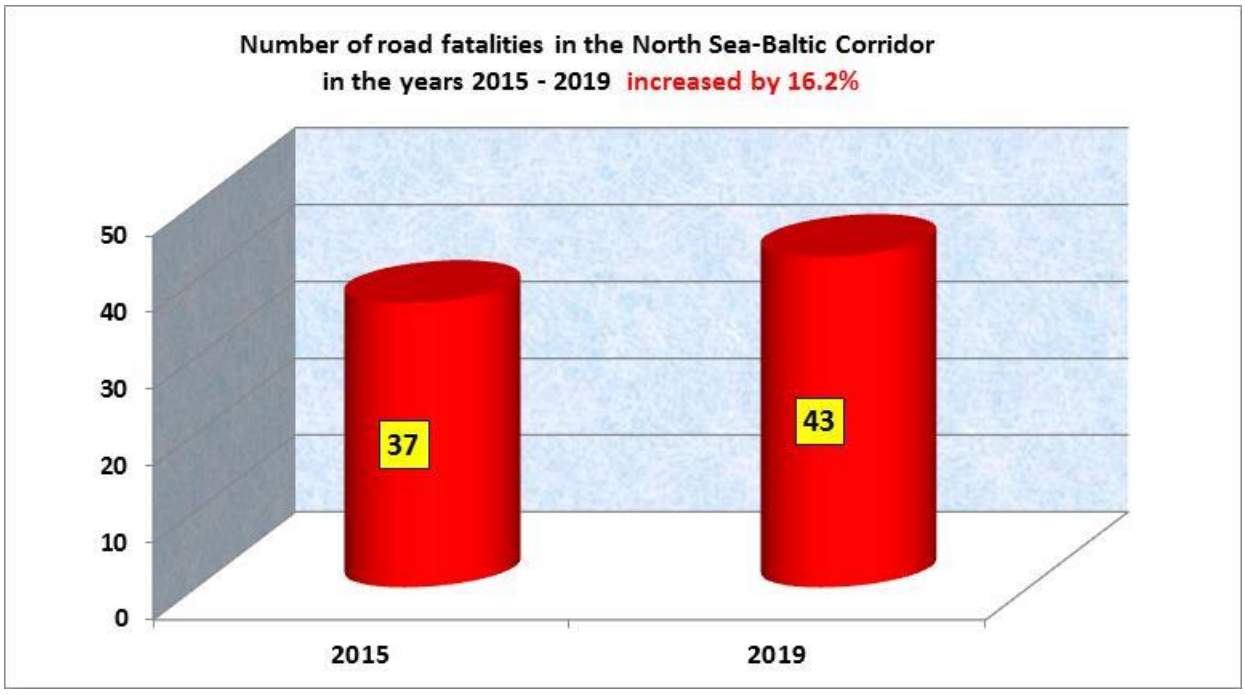


Source: own study based on the KRBRD and GDDKiA data

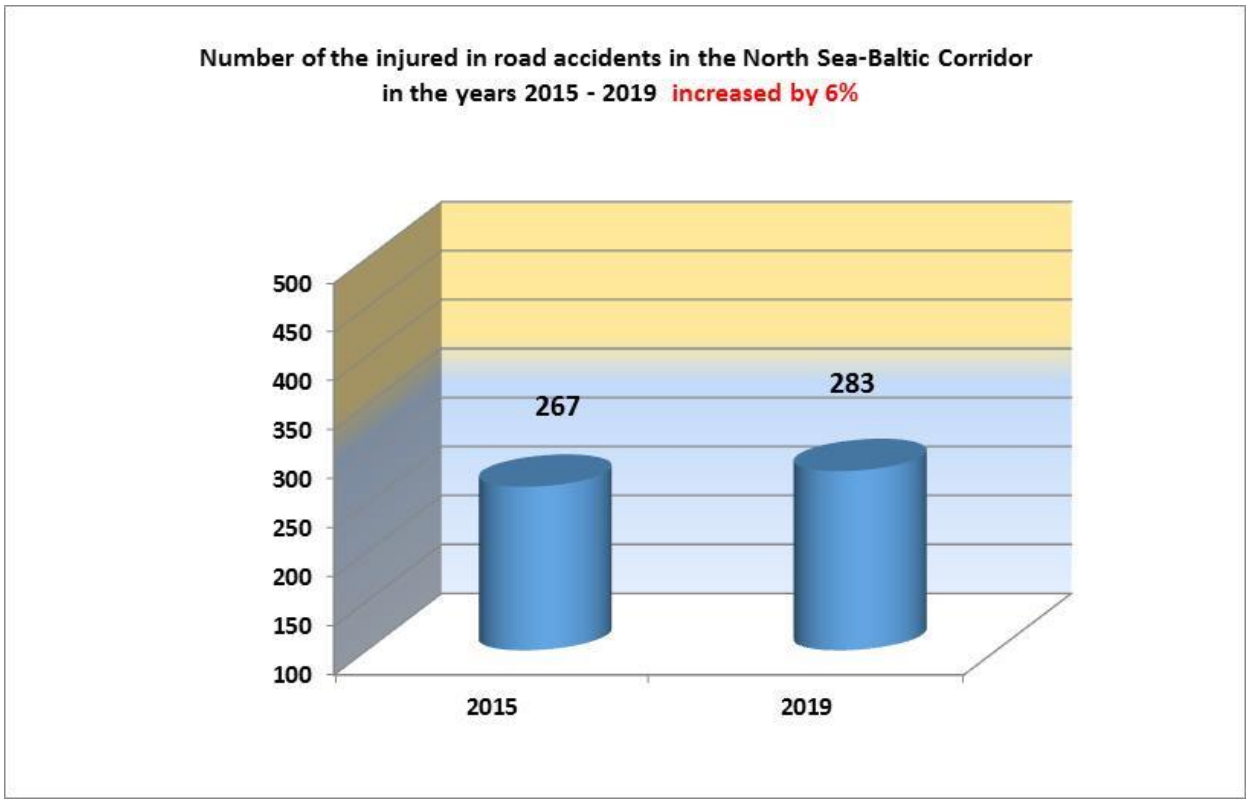
In the period of 2015-2019, in the TEN-T North Sea-Baltic Core Network Corridor in Poland the number of accidents increased. The number of road fatalities and of the injured also increased.



Source: own study based on the KRBRD and GDDKiA data



Source: own study based on the KRBRD and GDDKiA data



Source: own study based on the KRBRD and GDDKiA data

7.3. Summary

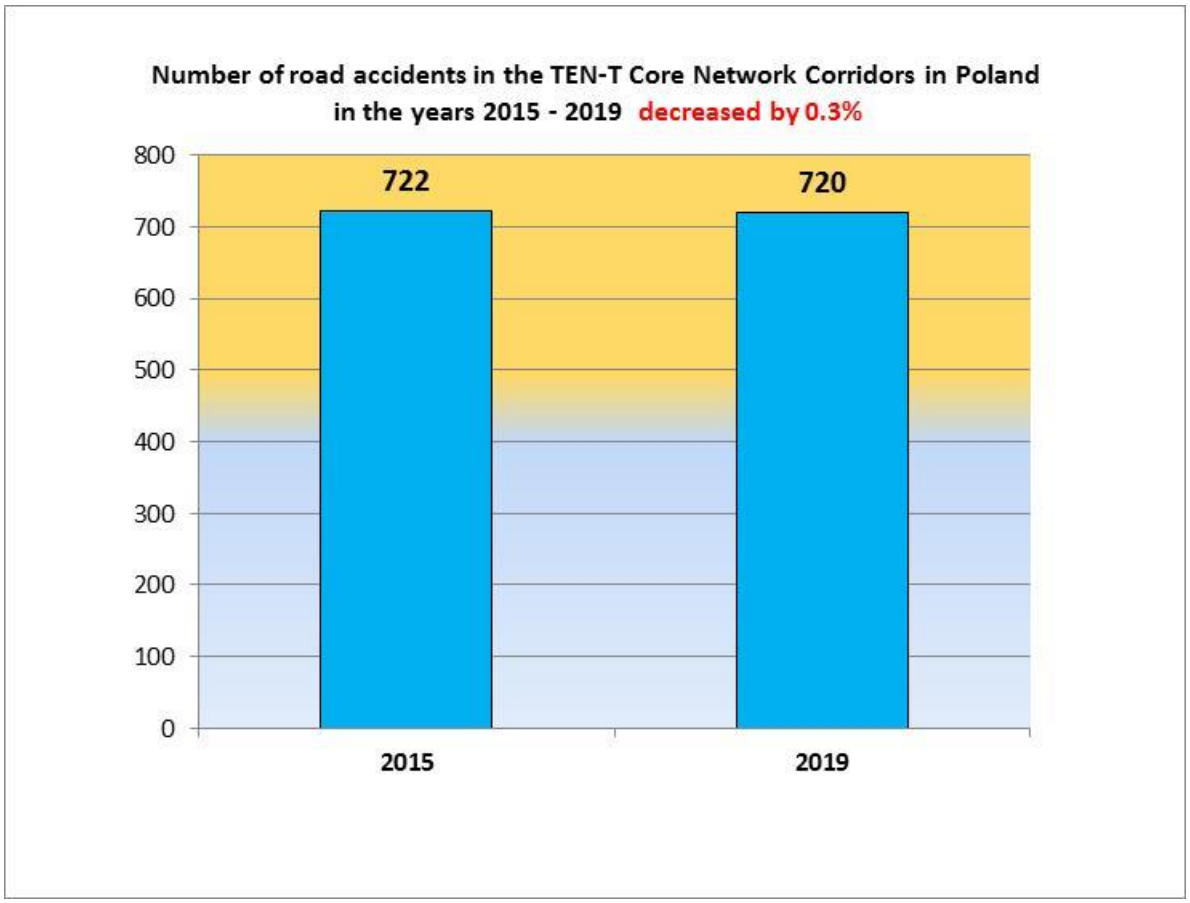
In the period between 2015 and 2019, significant progress was made as part of construction and modernisation of the road network in the TEN-T Core Network Corridors in Poland. The improvement in the standards of roads forming the TEN-T network in Poland has significantly contributed to increasing road safety on the modernised sections of the Core Network Corridors.

This took place despite a significant increase in road traffic intensity in the TEN-T Core Network Corridors. This increase resulted, among others, from the larger number of vehicles in use and the increased use by drivers, of modernised, high-quality roads providing good travel and transport conditions.

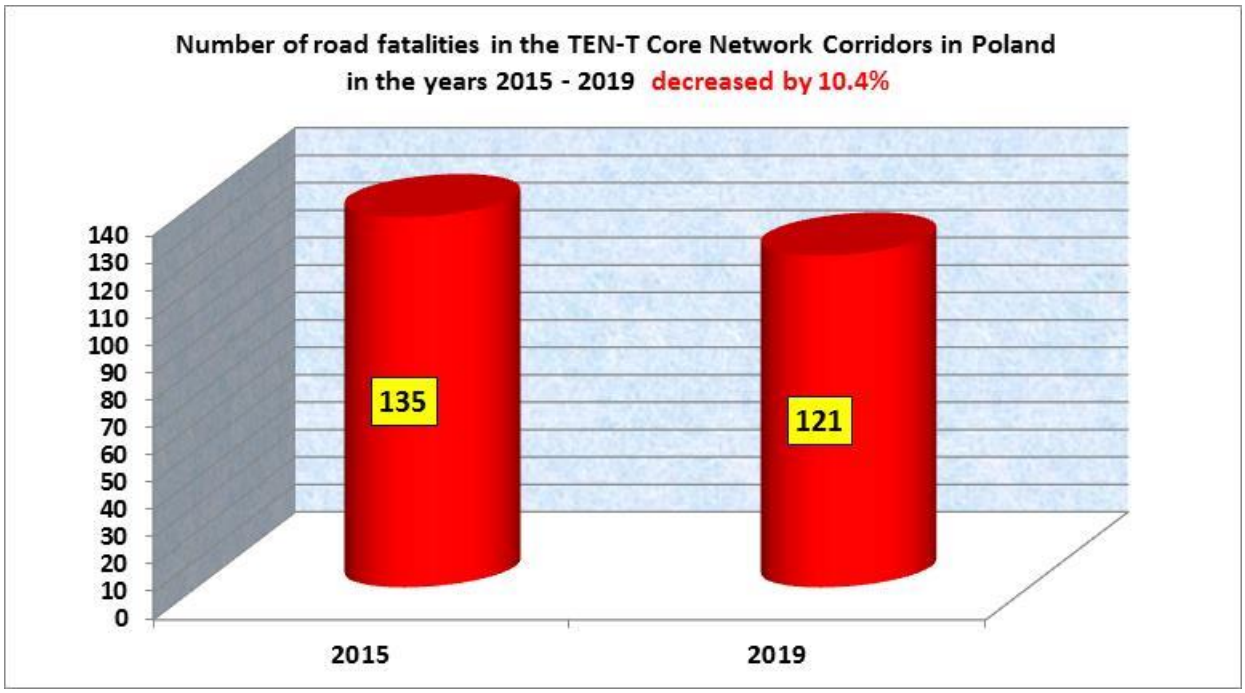
It can be noted that the trends with regard to road safety observed in the TEN-T Baltic-Adriatic and North Sea-Baltic Core Network Corridors in the years 2015-2019 were different. In the first of the above Core Network Corridors, the accident rates have definitely decreased. In the other Corridor, the number of accidents, of fatalities and of the injured increased.

In general, in the TEN-T Core Network Corridors running through Poland the Road Safety rates improved.

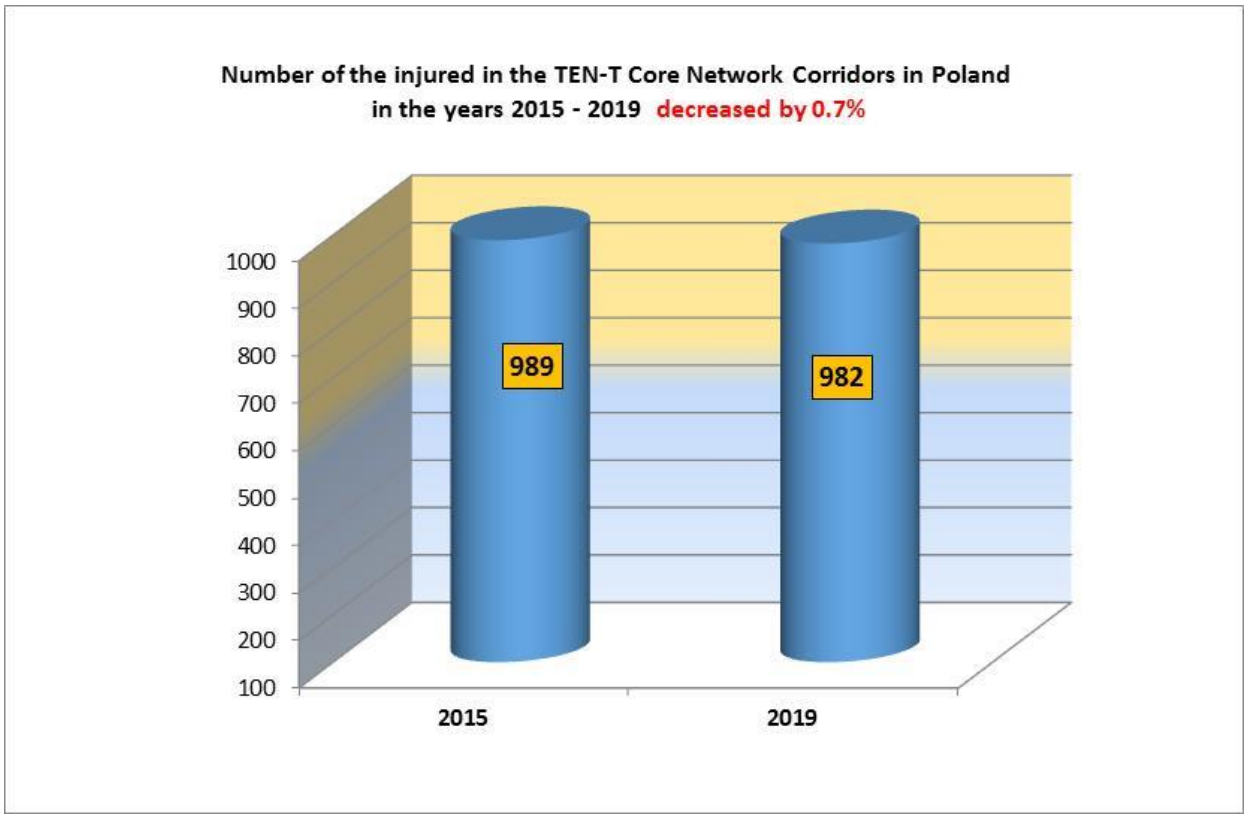
In the years 2015 - 2019, the number of road accidents, of fatalities and of the injured decreased in the TEN-T Core Network Corridors in Poland.



Source: own study based on the KRBRD and GDDKiA data



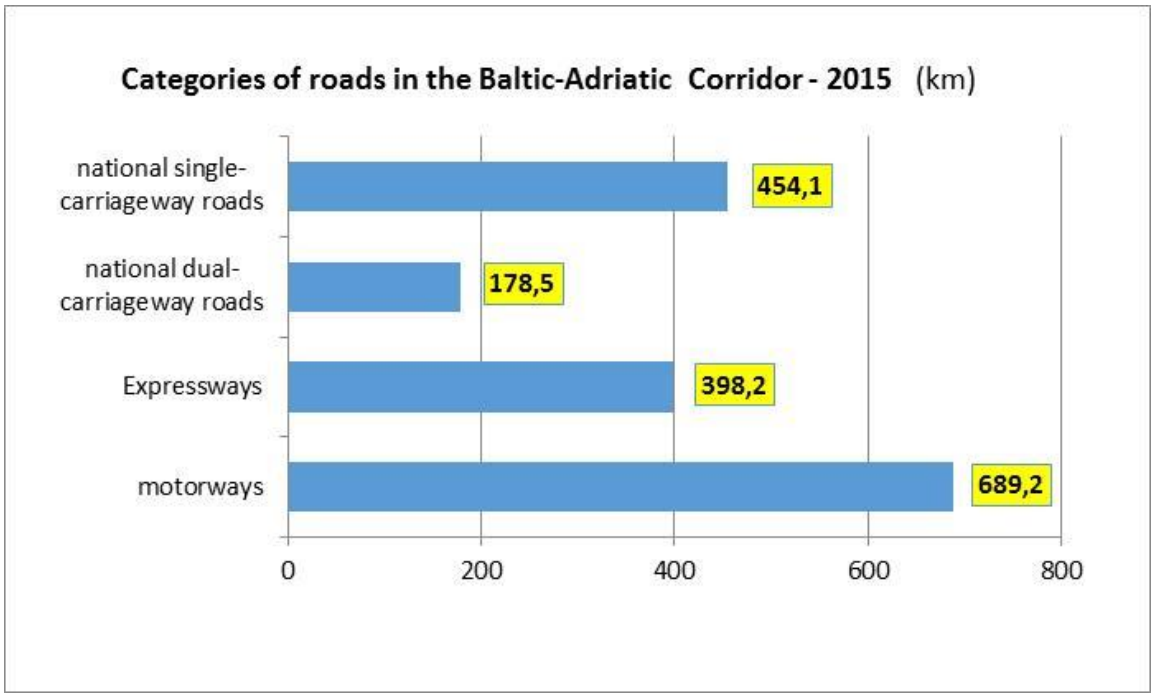
Source: own study based on the KRBRD and GDDKiA data



Source: own study based on the KRBRD and GDDKiA data

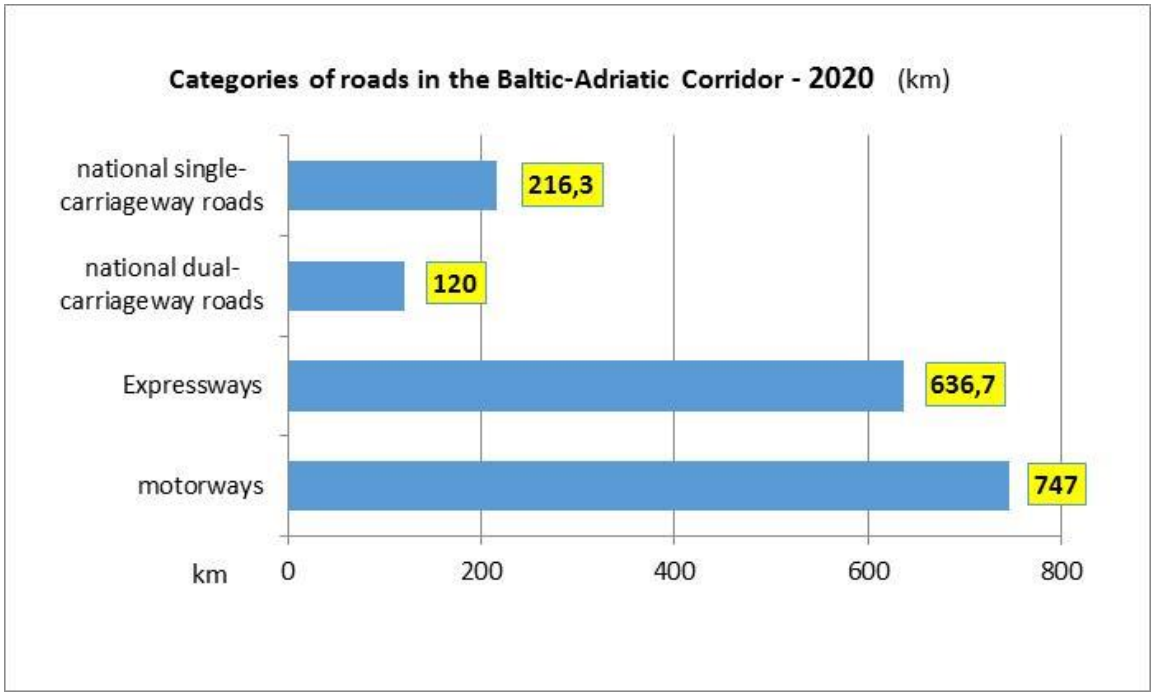
8. Technical condition of roads in the Baltic-Adriatic Core Network Corridor

Route of the Baltic-Adriatic Corridor in Poland by category of roads in 2015



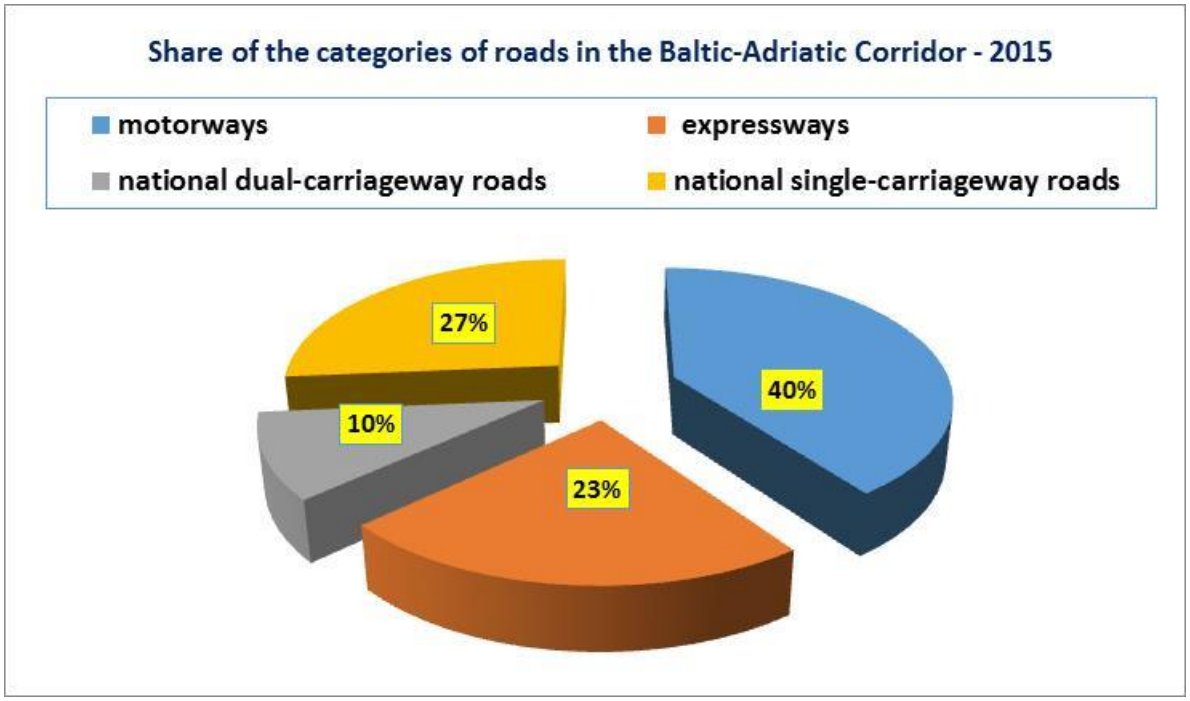
Source: own study based on the Ministry of Infrastructure data

Route of the Baltic-Adriatic Corridor in Poland by category of roads in 2020



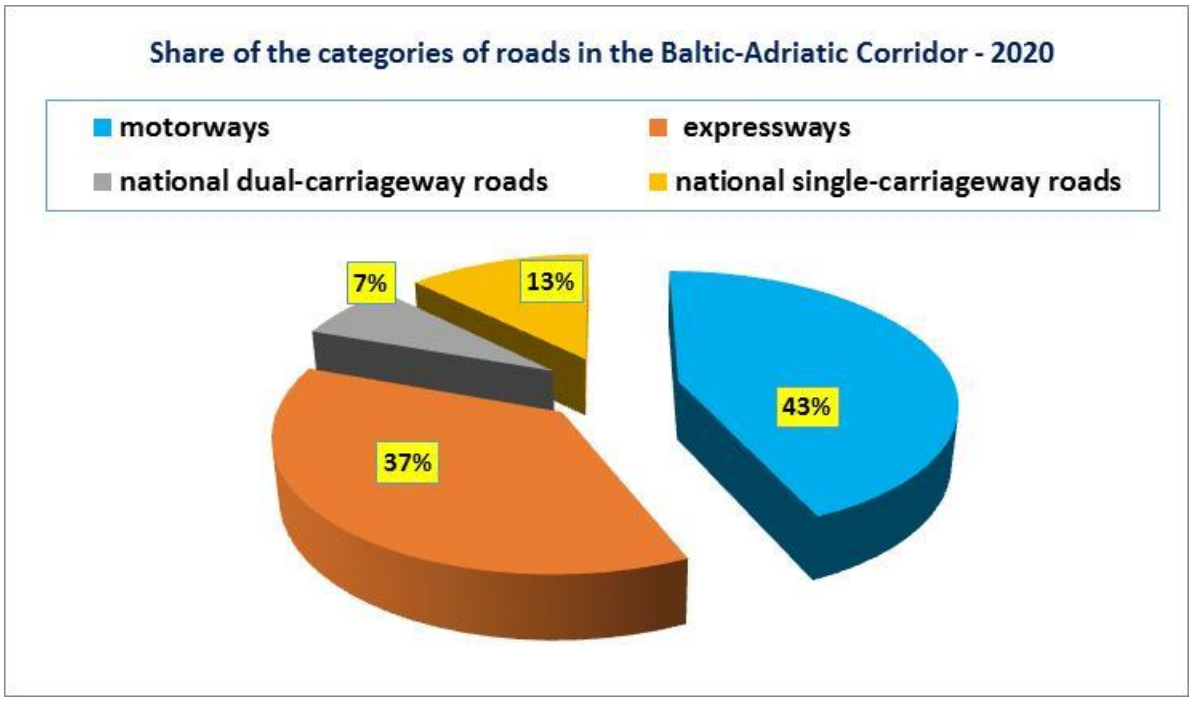
Source: own study based on the Ministry of Infrastructure data

Structure of the Baltic-Adriatic Corridor by category of roads in 2015



Source: own study based on the Ministry of Infrastructure data

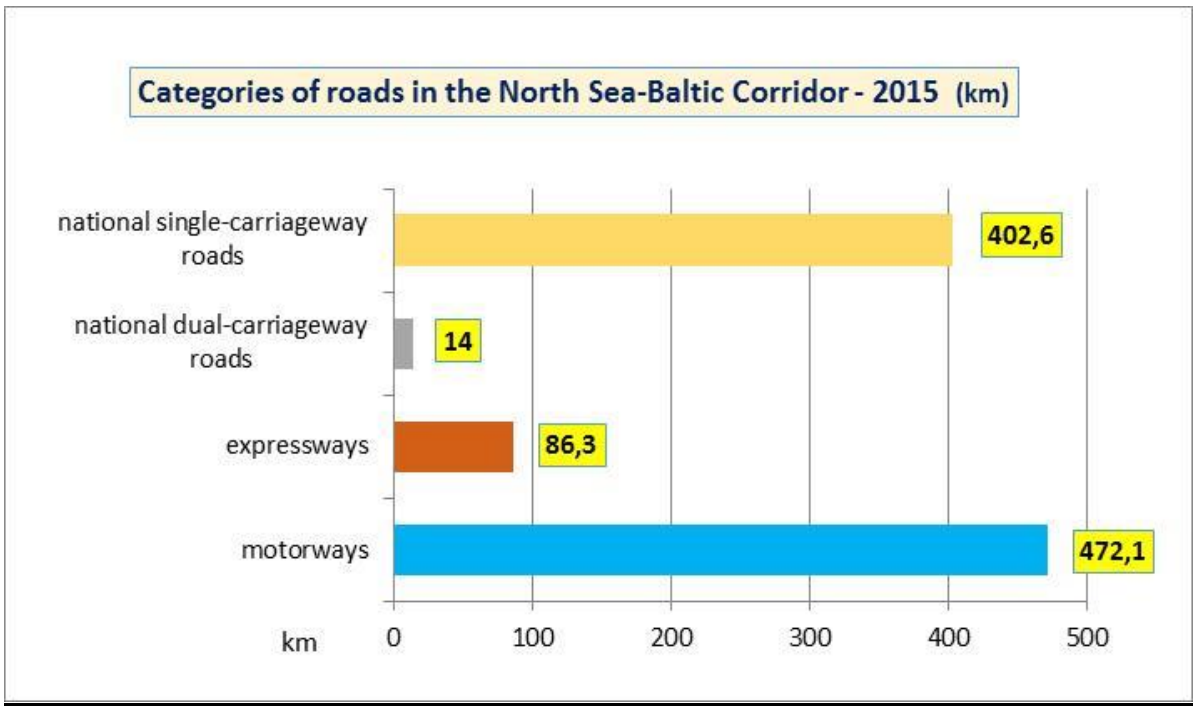
Structure of the Baltic-Adriatic Corridor by category of roads in 2020



Source: own study based on the Ministry of Infrastructure data

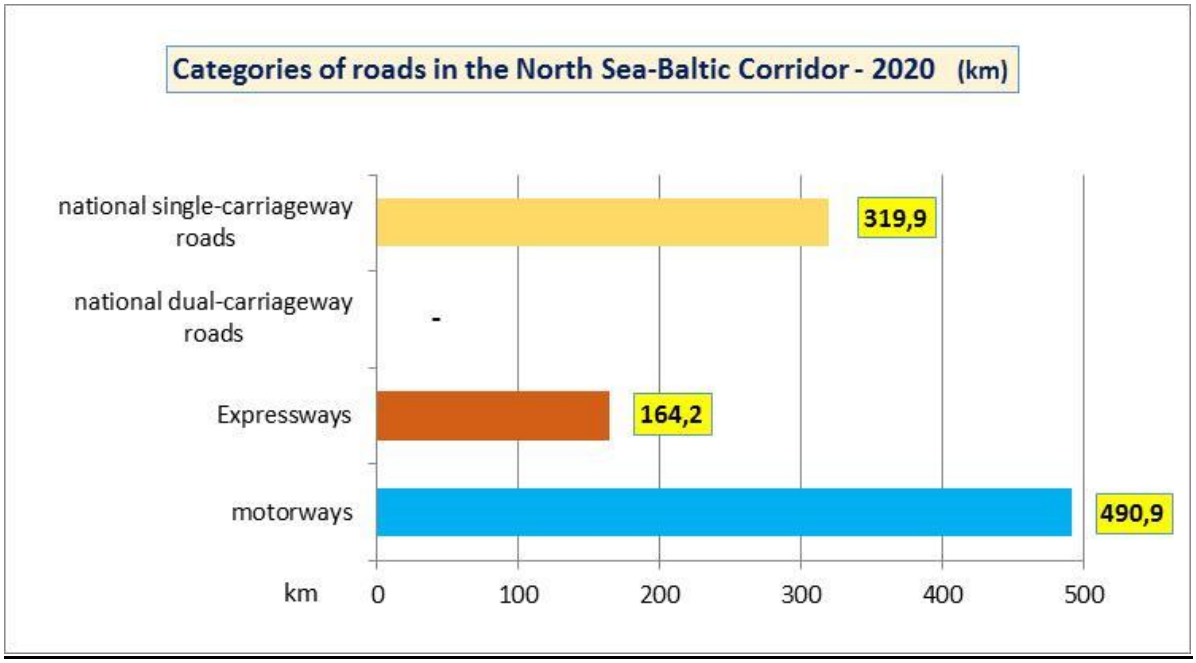
9. Technical condition of roads in the North Sea-Baltic Core Network Corridor

Route of the Baltic-Adriatic Corridor in Poland by category of roads in 2015



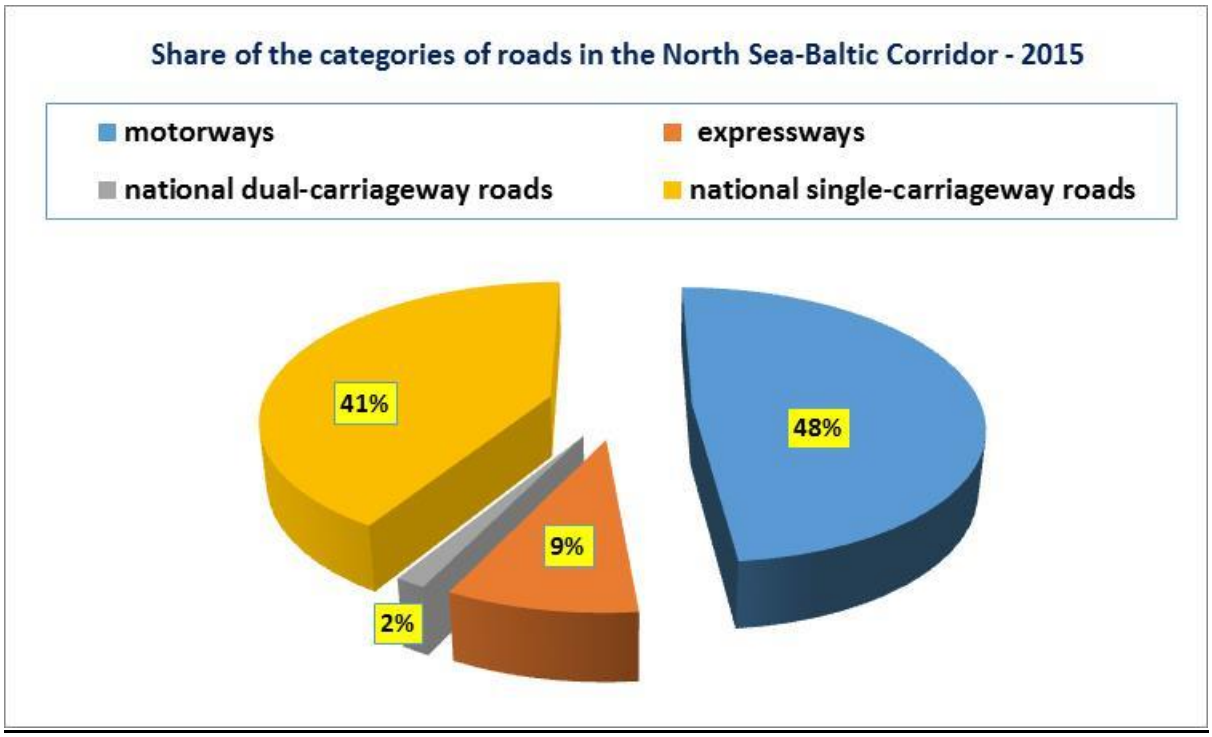
Source: own study based on the Ministry of Infrastructure data

Route of the North Sea-Baltic Corridor in Poland by category of roads in 2020



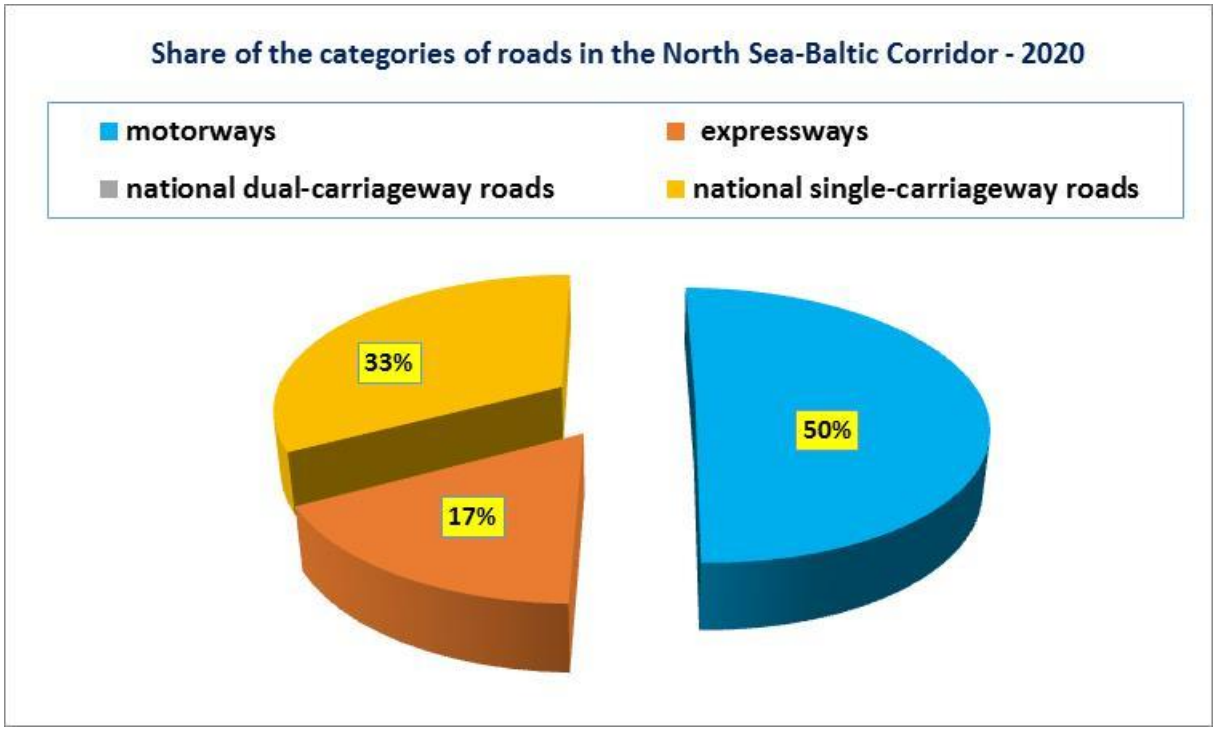
Source: own study based on the Ministry of Infrastructure data

Structure of the North Sea-Baltic Corridor by category of roads in 2015



Source: own study based on the Ministry of Infrastructure data

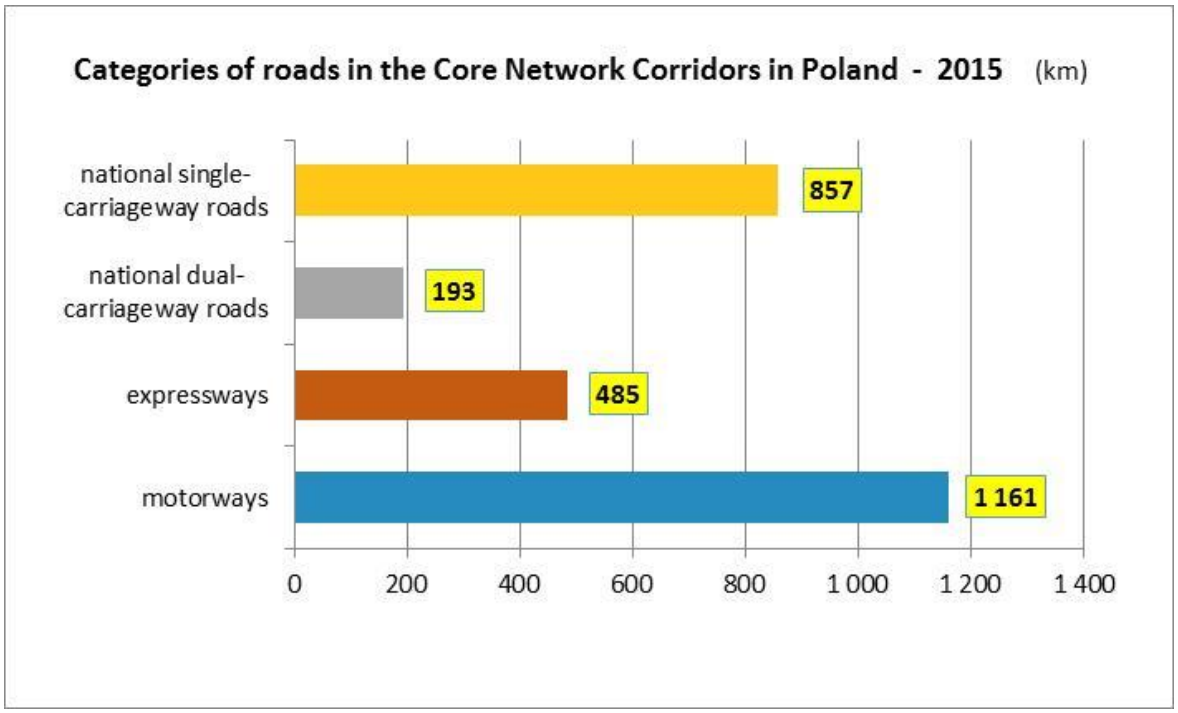
Structure of the North Sea-Baltic Corridor by category of roads in 2020



Source: own study based on the Ministry of Infrastructure data

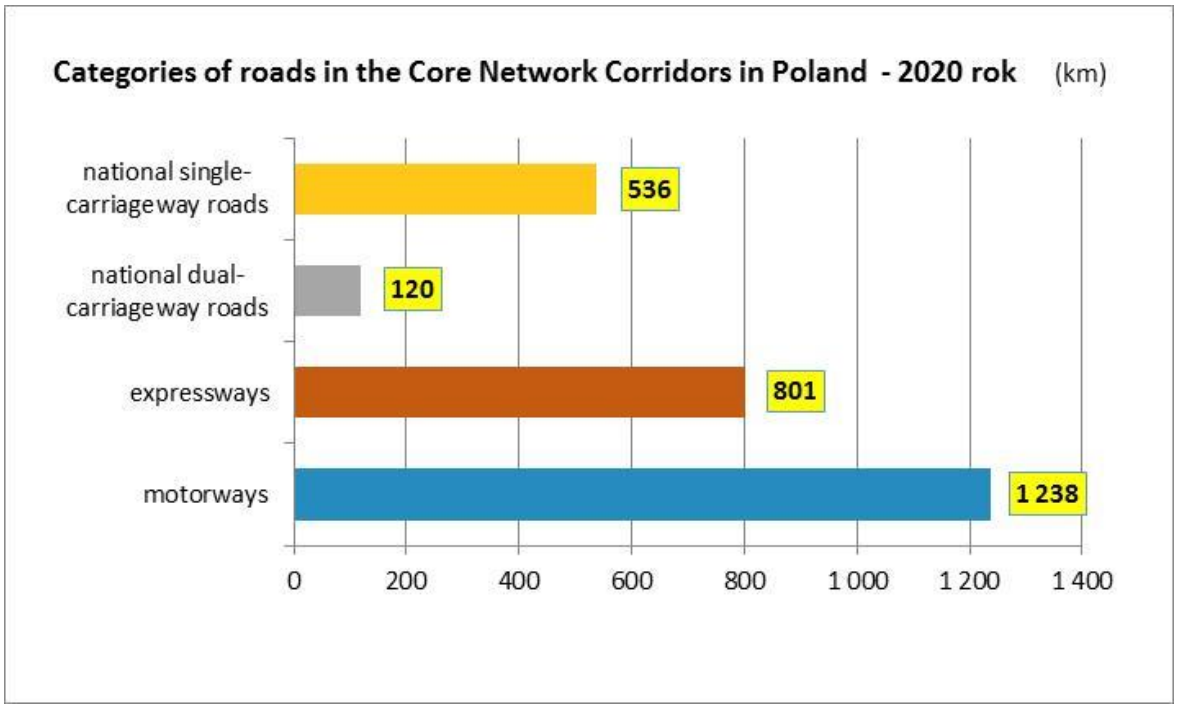
10. Changes in the technical condition of roads in the TEN-T Core Network Corridors

Route of the TEN-T Core Network Corridors in Poland by category of roads in 2015



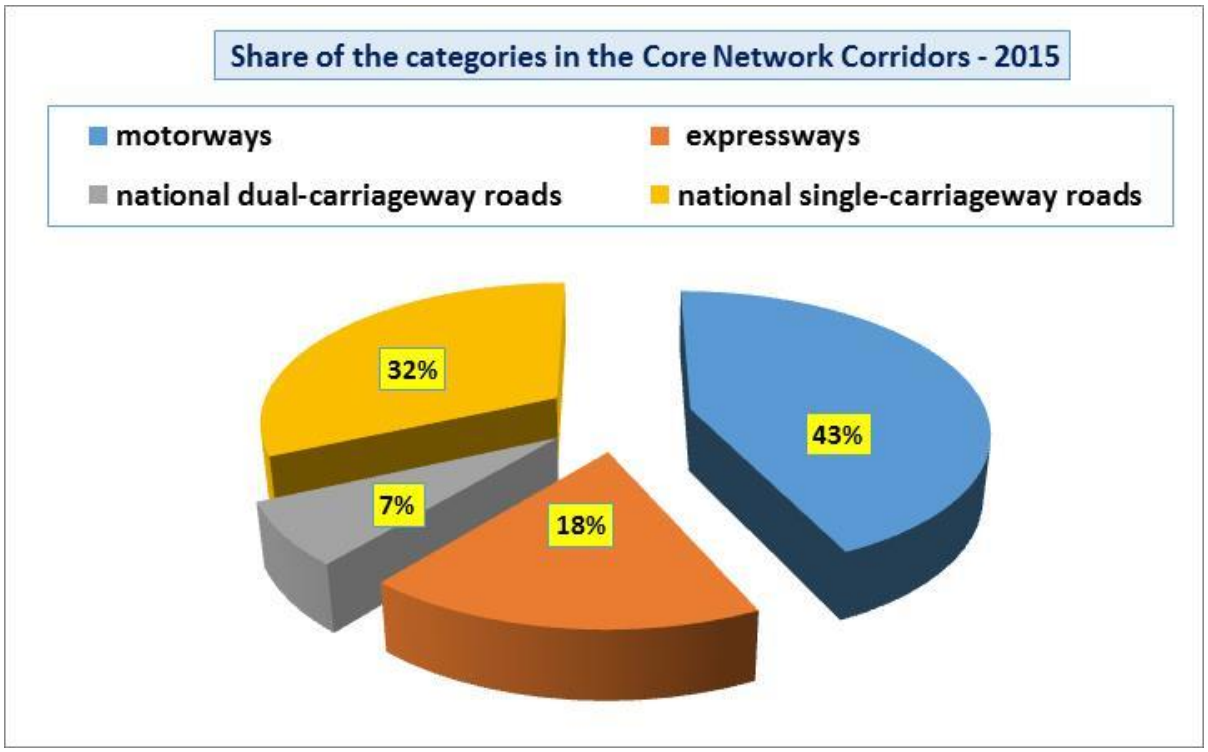
Source: own study based on the Ministry of Infrastructure data

Route of the TEN-T Core Network Corridors in Poland by category of roads in 2020



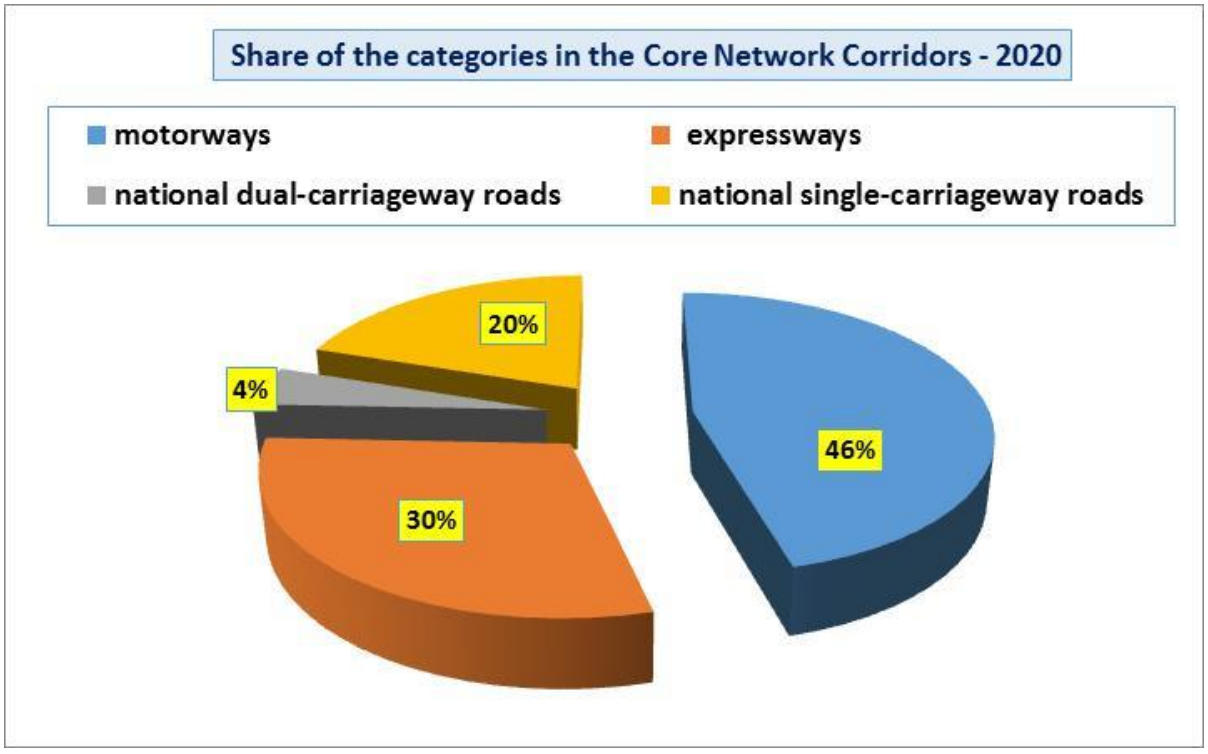
Source: own study based on the Ministry of Infrastructure data

Structure of the TEN-T Core Network Corridors in Poland by category of roads in 2015



Source: own study based on the Ministry of Infrastructure data

Structure of the TEN-T Core Network Corridors in Poland by category of roads in 2020



Source: own study based on the Ministry of Infrastructure data

11. Changes in the technical condition of roads in the TEN-T Core Network Corridors in Poland against a background of changes in the accident rate

When comparing the data on the technical conditions of roads in the TEN-T Baltic-Adriatic and North Sea-Baltic Core Network Corridors in the years 2015-2019, it can be stated that the more pronounced improvement took place in the former transport route.

In the years 2015 – 2020, the change in the technical standards of roads in the Baltic-Adriatic Corridor was as follows: the share of motorways and expressways in the total route of the Corridor in Poland increased from 63% to 80%. In 2020, national single-carriageway roads accounted for 13% of the route of the Corridor (five years before - 27%).

In the North Sea-Baltic Corridor, the improvement in the technical condition of roads was serious, but less advanced than in the previously mentioned Core Network Corridor. The share of motorways and expressways in the total route of the North Sea-Baltic Corridor in Poland amounted to 57% in 2015, and 67% in 2020. In 2020, national single-carriageway roads accounted for 33% of the route of the Corridor while in 2015 they accounted for 42%.

This had an impact on accident rates. The Baltic-Adriatic Corridor, whose significant part runs within expressways and motorways, despite the higher road traffic intensity than before the modernisation, recorded a significant improvement in the state of road safety. In the North Sea-Baltic Corridor, which in Poland still covers significant road sections with lower technical standards, in the period of 2015-2019 the number of negative consequences of road accidents increased. Once again, it has been confirmed that much depends on modern infrastructure which increases the efficiency and safety of vehicle traffic.

Taking into account the total accident rates, in the TEN-T Core Network Corridors running through Poland there was the improvement in road safety.

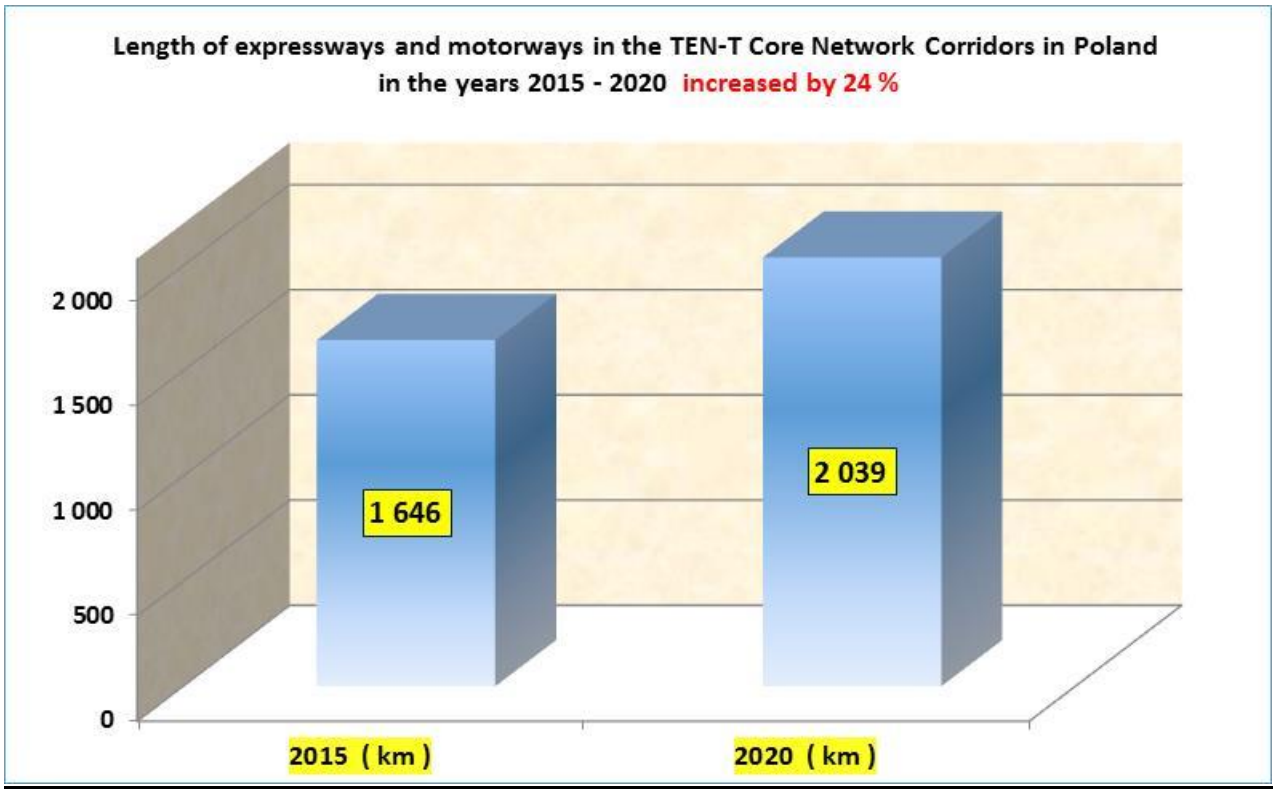
Roads with the high technical standard forming the TEN-T Core Network Corridors in Poland (expressways and motorways) accounted in total for 61% of the length of the Corridors in 2015. In 2020, motorways and expressways accounted for 76% of the route of these important transport routes.

In the above period, the length of high-standard roads in the TEN-T Core Network Corridors in Poland increased **by 24%.** In the similar period of 2015 – 2019, the number of fatalities in these Corridors decreased **by 10.4%.**

Therefore, a correlation should be found between the improvement in the technical condition of roads in the TEN-T Core Network Corridors in Poland, in particular the increase in the share of roads with the highest standard, and a decrease in the number of road fatalities.

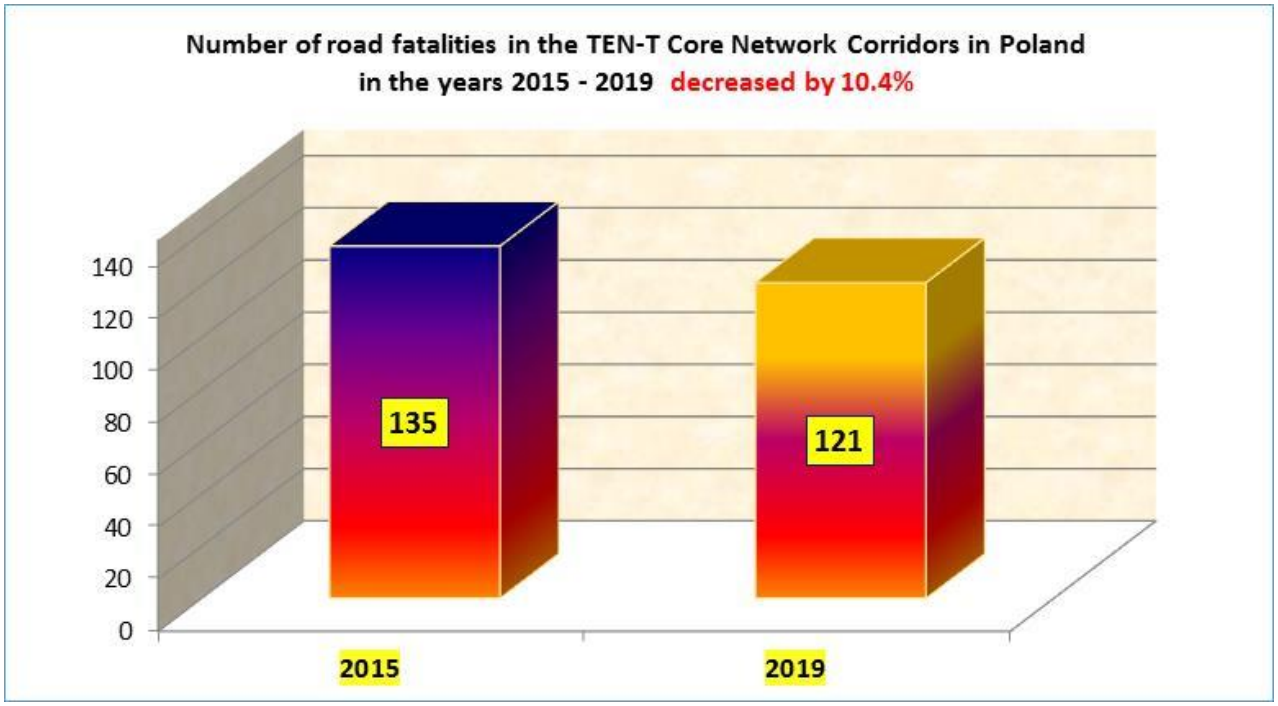
In order to achieve the objective of improving the state of road safety, an increase in the vehicle traffic intensity should therefore be correlated with an increase in the technical standards of transport routes and accompanying infrastructure, which jointly ensure the improvement in safety.

Changes in the technical condition of roads in the TEN-T Core Network Corridors in Poland



Source: own study based on the Ministry of Infrastructure, KRBRD and GDDKiA data

Changes in the number of road fatalities in the TEN-T Core Network Corridors in Poland



Source: own study based on the Ministry of Infrastructure, KRBRD and GDDKiA data

12. Strategic plans to improve road safety in Poland

National Road Safety Programme 2021-2030

The National Road Safety Programme 2021-2030 (NPBRD) has been prepared based on the experiences from previous prevention programmes, having regard to the latest trends and the most effective solutions, and, above all, based on a clearly defined vision and implementation principles. In addition, NPBRD is a document which in Poland meets the basic condition for the transport sector, resulting from the proposed regulation of the European Parliament and of the Council, establishing common provisions for the Cohesion Policy funds in the perspective of 2021 - 2027. NPBRD is a national strategy in the field of road safety, which summarises the assessment of risks to road safety.

The above-mentioned national Road Safety strategy is complemented by documents creating a financial framework for implementing infrastructure investment projects, i.e. The National Road Construction Programme until 2023 and its continuation, the Construction Programme of 100 bypasses for the years 2020 - 2030 and the Safe Road Infrastructure Programme 2021 - 2024 and the National Road Maintenance Programme for the years 2020 - 2030 which contains the elements of Road Safety and which will continue the assumptions of the Safe Road Infrastructure Programme 2021 - 2024 starting from 2025. It should be stressed that the prerequisite of success of the programme will be, first of all, streamlining of the key elements of the road safety management system.

The National Road Safety Programme 2021-2030 is consistent with the conditions resulting from the following strategy papers:

Strategy for Responsible Development until 2020 (with a perspective until 2030)

This currently most important country strategy paper was adopted by the Council of Ministers on 14 February 2017. The Strategy for Responsible Development until 2020 is an update of the medium-term development strategy of the country, i.e. the National Development Strategy 2020. It is an obligatory, key document of the Polish state in the area of medium and long-term economic policy. In the Strategy for Responsible Development until 2020, in addition to specific objectives, the areas influencing the achievement of the strategy's objectives have also been identified, including transport.

National Road Safety Programme 2013-2020

The National Road Safety Programme assumes an increase in the level of road safety and thus a reduction in the number of accidents, halving the number of people killed on Polish roads, reduction in the number of seriously injured people by 40%, fight againsts excessive speed and improvement in the safety of pedestrians, cyclists and motorcyclists, it was indicated in the Strategy for Responsible Development until 2020 as one of the three most important strategic projects in the road transport sector.

Efficient State 2020 Strategy and Efficient and Modern State 2030 Strategy

The Efficient State 2020 Strategy contains seven specific objectives. Under objective seven "Ensuring a high level of safety and public order", the following lines of intervention related to road safety have been identified:

- counteracting road hazards,
- rescue and civil protection,
- implementation of and improvement in the rescue notification system.

Sustainable Transport Development Strategy by 2030

On 24 September 2019, the Council of Ministers adopted the Sustainable Transport Development Strategy by 2030 submitted by the Minister of Infrastructure. The major objective of the national transport policy presented in the strategy is to increase the transport accessibility of the country and to improve the safety of participants in road traffic and the efficiency of the transport sector by creating a coherent, sustainable, innovative and user-friendly transport system at national, European and global levels. Achieving this objective will allow to develop favourable conditions conducive to the stable economic development of the country. Achieving the major objective in the perspective until 2030 requires taking the following actions:

- building an integrated and interconnected transport network serving the competitive economy,
- improving the method of organisation and management of the transport system,
- changes in the individual and collective mobility,
- improving the safety of participants in road traffic and transported goods,
- reducing the negative environmental impact of transport,
- improving the efficiency of use of public funds for transport projects.

Road safety has been identified in the Sustainable Transport Development Strategy by 2030 as an independent action 7.1 towards intervention 4 – improving the safety of participants in road traffic and transported goods. The description of this activity includes a diagnosis of the state of road safety along with a description of the most important lines of action aimed at improving this state and resulting from the National Road Safety Programme 2013-2020.

The Sustainable Transport Development Strategy by 2030 includes numerous references to the issue of road safety, including the possibility of financing investment projects in the field of infrastructure from the Local Government Roads Fund. In addition, action 4.1.2 Road transport – stipulates that the proper functioning of road transport in the modern network of infrastructure requires, among others, ensuring the improvement in the state of road safety, which should apply to all road managers, using framework directions resulting from national programmes, such as the National Road Safety Programme 2013-2020 and the further Road Safety Programme post-2020.

Objectives of the National Road Safety Programme 2021-2030

As in the case of the National Road Safety Programme 2013-2020, the main objectives adopted in the perspective until 2030 refer to the number of the most seriously injured. In this regard, the National Road Safety Programme 2021-2030 indicates the achievement of the following values:

- Fatalities - limitation by 50%
- Seriously injured - limitation by 50%

Activities with regard to the implementation of the National Road Safety Programme 2021-2030 will be carried out under five major subjects (pillars):

1. Road Safety Management System
2. Safe human
3. Safe roads
4. Safe vehicle
5. Rescue and post-accident care

This division refers to the current systematisation of Road Safety activities carried out in recent years, while making corrections resulting from previous experiences. In this way, both the continuity of activities and the adaptation of the objectives for the period until 2030 to the current and envisaged challenges with regard to improving road safety in Poland have been ensured.