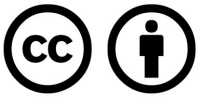
ROAD SAFETY COUNTRY PROFILE

REPUBLIC OF MOLDOVA

WORLD BANK GROUP
Transport

EaP | Eastern Partnership

Funded by the European Union



ACKNOWLEDGMENTS

This activity was funded by a grant from the European Commission—DG NEAR, under the umbrella of the World Bank support to the Eastern Partnership Transport Panel (EaP) and has been carried-out by a World Bank team led by Elena Lungu (Transport Specialist), including Gregoire Gauthier (Senior Transport Specialist), William Wambulwa (Road Safety Consultant) and Tatiana Mihailova (Road Safety Consultant). The World Bank team would like to thank its counterparts in Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine for fruitful discussions, consultations, ideas and access to data and information. This report was written in close consultation with the representatives of the Regional Working Groups as part of the EaP Transport Panel Secretariat Activity.

This report, created by the World Bank, is available under the Creative Commons Attribution 3.0 Unported (CCBY3.0) license.

Photo on front cover: Adobe Stock / ©zenstock.
Photo on back cover: Adobe Stock / ©iamtripper.

DISCLAIMER

This document reports on data collected directly from the members of the EaP Regional Working Groups on road safety. Whilst every effort has been made to ensure that the information presented in this report is relevant, accurate and up-to-date, the Partners cannot accept any liability for any error or omission, or reliance on part or all of the content in another context.

The findings, interpretations, and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the Board of Executive Directors of the World Bank or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Please refer to this Report as follows: World Bank, Road Safety Country Profile—The Republic of Moldova, 2021.

TABLE OF CONTENTS

SNAPSHOT OF KEY ROAD SAFETY INDICATORS

Country Population:	2,640,438 People
Gross Domestic Product:	11.74 Billion US$
GDP per Capita:	4,446.7 US$

Cost of Road Crash Fatalities:	75.95 Million US$
Cost of Road Crash Serious Injuries:	284.8 Million US$ (Est.)
Cost of Road Crashes (% of GDP):	3.1 % of GDP

No. of Road Crashes:	1,988 Road Crashes
No. of Road Crash Fatalities:	244 Fatalities
Total No. of Road Crash Injuries:	2,248 Injuries
No. of Road Crash Serious Injuries:	Not Indicated*
Road Crash Fatality Rate:	9.24 per 100,000 pop.

No. of Registered Vehicles (2019):	907,383 Vehicles
Motorization Rate (2019):	344 vehicles/1,000 pop.

Table 1

Summary of Key Road Safety Indicators in Moldova (for 2020)

* Road crash injuries in Moldova are not dissagregated into serious and minor injuries. The estimated number of serious injuries, adjusted for under-reporting, is **3,660**[a].

Road Crash Fatalities Distribution by Gender[b]

23.0% Female Road Crash Fatalities

77.0% Male Road Crash Fatalities

Road Crash Injuries Distribution by Gender[b]

36.2% Female Road Crash Injuries

63.8% Male Road Crash Injuries

Road Crash Fatalities Distribution by Road User Groups[b]

40.3% Pedestrians

4.3% Cyclists

11.6% Motorcyclists

42.5% Vehicle Users

Road Crash Fatalities Distribution by Age Groups[b]

0 – 14 Yrs. 3.6% **15 – 64 Yrs.** 78.8% **65 Yrs. & Above** 17.6%

Other Key Metrics

Life Years affected due to disability from road crash injuries per 100,000 people[c] **773 Life Yrs.**

% Trend in Fatality Rate per 100,000 pp. in the Decade of Action (2010 – 2020)[b] **–43.9%**

% Trend in Fatality Rate per 100,000 pp. (2019 – 2020)[b] **–11.2%**

Sources: [a] *15:1 ratio of serious injuries per fatality (Developed by iRAP and Adjusted by GRSF, World Bank)*
[b] *Moldova National Data*
[c] *Global Burden of Disease (GBD) 2019, Institute for Health Metrics and Evaluation (IHME)*

BASIC DATA, CHARACTERISTICS AND DEFINITIONS

Basic Data and Population Characteristics

Table 2

Moldova Basic Data and Population Characteristics in comparison with EaP and EU Region Averages (for 2020)

Basic data	Republic of Moldova[a]	EaP average (6 countries)	EU Average (28 countries)[b]
Population	2.64 million	27.94 million	45.5 million
Area	32,885 km^2	167,499 km^2	159,848 km^2
Population density	78 inhabitants/km^2	76 inhabitants/km^2	166 inhabitants/km^2
Urban population (% of total)	58.5 %	67.4 %	75 %
Population Composition:			
Children (0 – 14 years)	19.6 % (2020)	–	15.1 % (2019)
Adults (15 – 64 years)	75.0 % (2020)	–	64.4 % (2019)
Elderly (65 years and over)	21.4 % (2020)	–	20.5 % (2019)
Gross Domestic Product (GDP) per capita (2019)	4,446.7 Current US$	4,323.65 Current US$	65,297.52 Current US$

Sources: [a] *National Bureau of Statistics of Moldova: www.statistica.md*

[b] *EUROSTAT: ec.europa.eu/eurostat*

Road Safety Definitions in the Republic of Moldova

Table 3

Road Safety Definitions in Moldova

The key definitions of road accidents *(i.e., road accidents, road deaths, light injuries, serious injuries, etc.)* are updated and are provided in the Joint Order of the Ministry of Internal Affairs (MIA), Ministry of Transport and Infrastructure (MTRI), Ministry of Health (MoH) and National Bureau of Statistics (NBS) No. 335/224/827/81 of 26th October 2016 "On the registration of road crashes". The definitions set out in this Joint Order refer to the classification of the severity of injury to bodily integrity or health, as follows:

Road Crash	***Road Accident/Traffic Accident*** — an event, produced as a result of the violation of traffic rules, in which one or more vehicles in circulation on the public road were involved, resulting in injury to health, bodily integrity, death of one or more persons or material damage has been caused;
Road Crash Fatality	***Deceased Person*** — the person who died at the scene of the accident or during a period of up to 30 days after the accident, as a result of bodily injuries or complications following the accident
Road Crash Serious Injury	***Severely Traumatized Person*** — a person who has suffered moderate or serious bodily injury or health damage, or who has died after the 30th day from the date of the accident;
Road Crash Minor Injuries	***Lightly Traumatized Person*** — a person who has suffered a minor health injury or bodily injury that does not cause harm to health, but which has resulted in a temporary incapacity for work or the need for hospitalization for not less than 24 hours, or treatment outpatient after first aid;

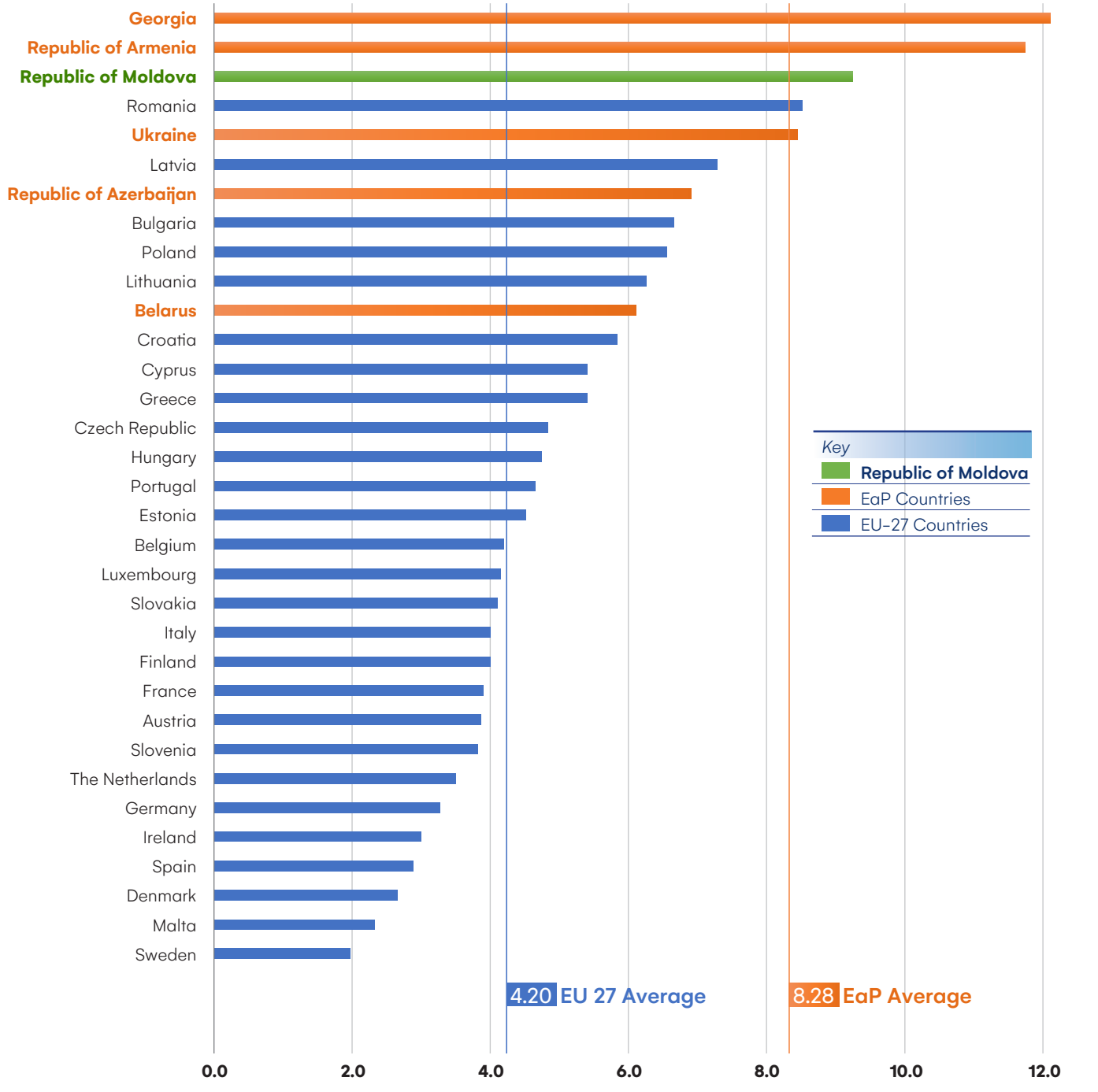
DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF MOLDOVA

General Road Safety Positioning (in comparison with European Countries)

In 2020, Moldova has recorded the 3rd highest road crash fatality rate, **9.24 fatalities per 100,000 inhabitants**, registered in the EaP region and in EU-27. Moldova's fatality rate is **higher than the EaP and EU-27 average** fatality rates by **10.4%** and **54.5%** respectively. The actual fatality rate registered may be higher, given that this has not been corrected for under-reporting.

Figure 1 *Road Crash Fatalities per 100,000 inhabitants in 2020 with EaP and EU-27 region averages.*

Sources 27 EU countries—15th Annual Road Safety Performance Index (PIN) Report - 2021, ETSC; 6 EaP countries —National statistics



DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF MOLDOVA

Road Crash Fatalities and Injuries Analysis

In 2020, Moldova registered an overall **decrease** in the number of **road crashes (30%)**, a **decline** in the number of **road crash fatalities (13.5%)** and an overall **reduction** in the number of **road crash injuries (34.8%)**, as compared to 2019.

It is noteworthy to mention that during 2020, the COVID-19 pandemic had a significant impact on transport and mobility across the globe, including the EaP region, bringing travel to a standstill, thus leading to a an **overall reduction in the number of registered road crashes**. However, it is noted that the **reduction in the registered road crash fatalities is not of the same magnitude**, possibly due to an increase in recorded speeding caused by less traffic, leading to a **higher proportion of fatalities for each road crash**.

The **longer-term trend** for road crash fatalities in Moldova is a **decreasing** one. Between **2010–2020**, the road crash fatalities per 100 000 inhabitants in Moldova has **dropped by 43.9%**.

The figures below give an overall impression of the scale of road crash fatalities and injuries in Moldova.

Figure 2

Road Crashes, Fatalities and Injuries in Moldova (2008 – 2020), National Data

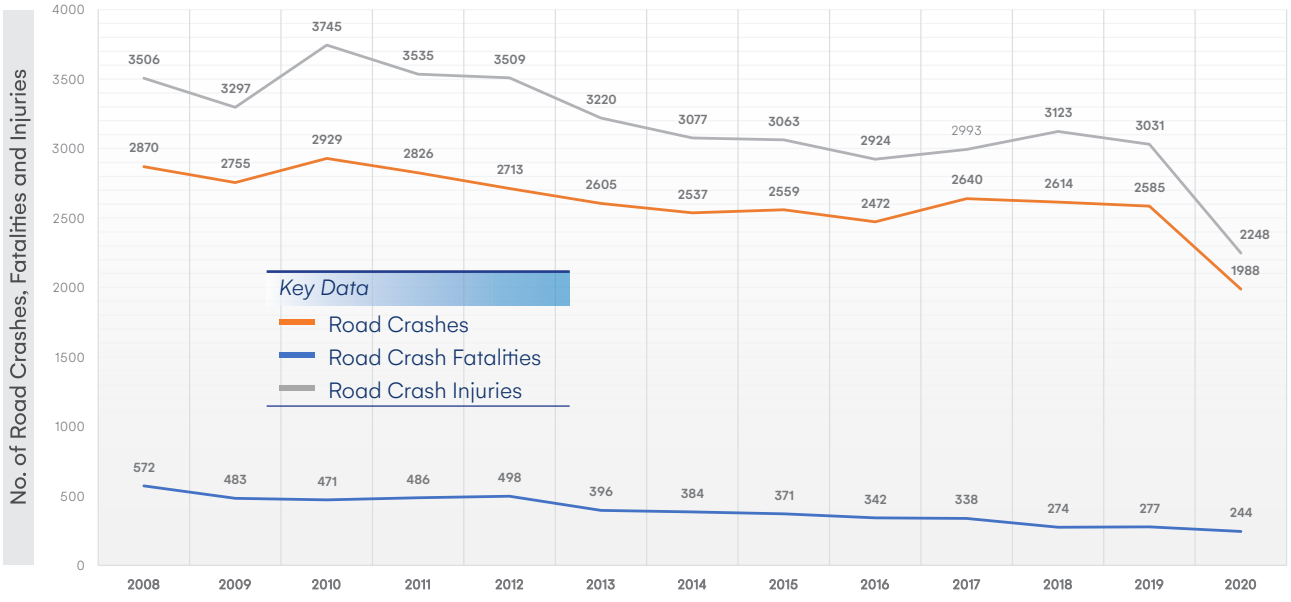
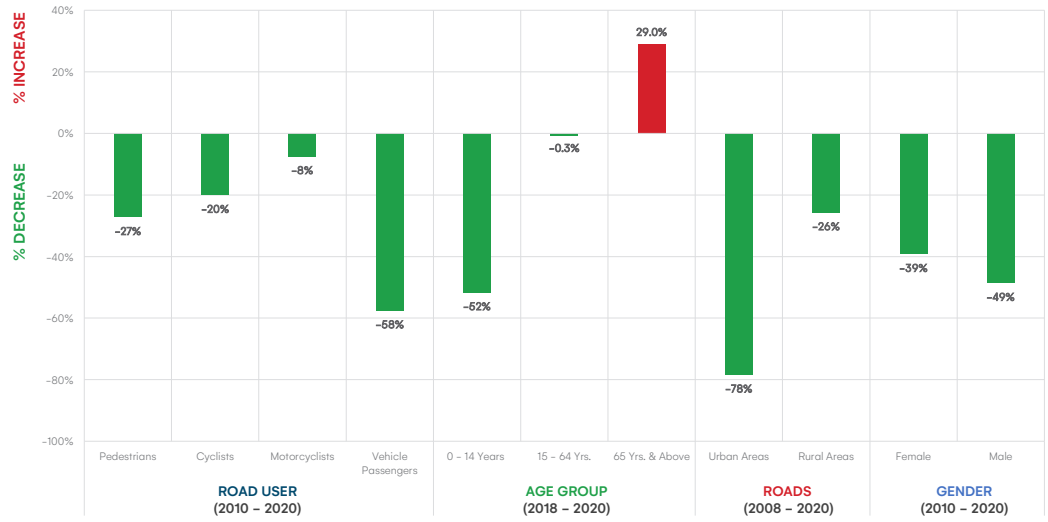


Figure 3

Evolution of Road Crash Fatalities in Moldova by Road User Group, Age Group, Urban/Rural Areas and Gender, National Data



DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF MOLDOVA

Age has a significant impact on mortality and risk of road crash fatality and injuries, thus it is recommended to investigate and control this factor. The most significant mortality rate due to road crashes in Moldova is observed among population aged between **15 and 64 Years**, accounting for an **average of 81% of Road Crash Fatalities and Injuries**. Road Crash Fatalities and Injuries registered during 2018–2020 for the 0–14 Year and 65 Years & Above Age Group have incurred insignificant change.

Figure 4

Distribution of Road Crash Fatalities and Injuries by Age Groups in Moldova

Key Data

- Road Crash Fatalities
- Road Crash Injuries

DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF MOLDOVA

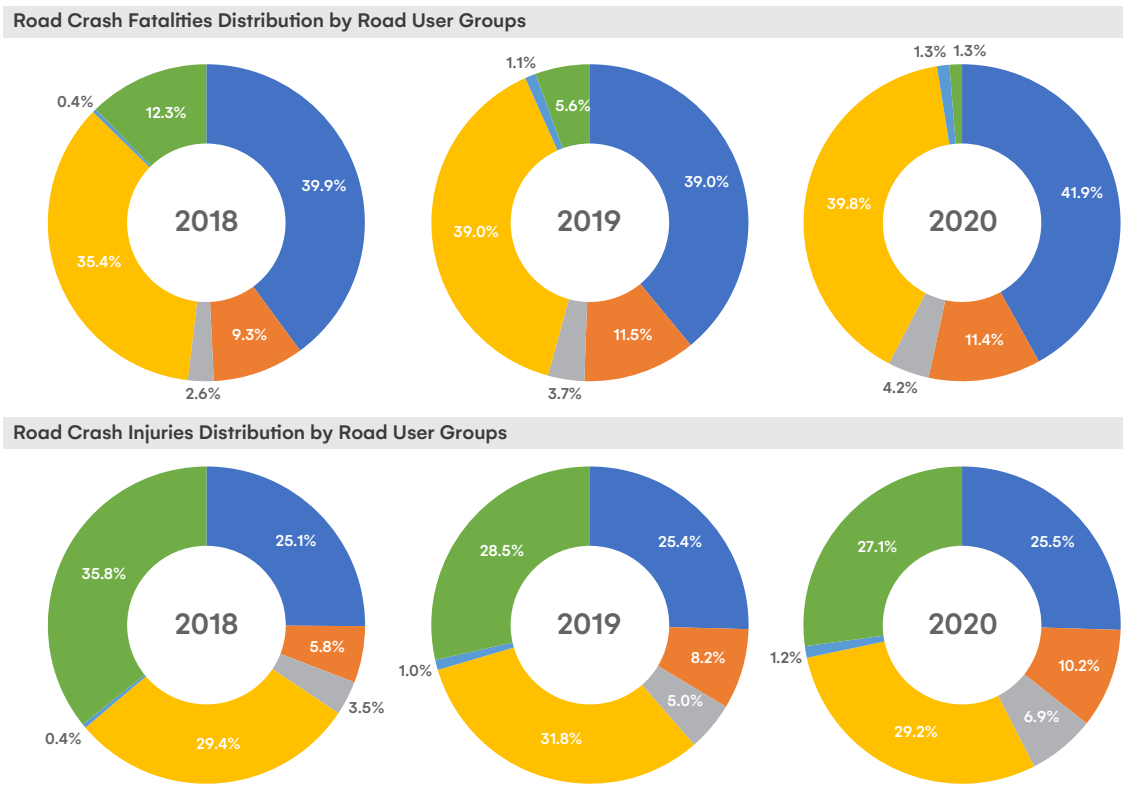
The most **Vulnerable Road Users (VRUs)**, in Moldova, include vehicle occupants **(on average accounting for 40.3% of road crash fatalities and 25.3% of road crash injuries)** and pedestrians **(on average accounting for 38.1% of road crash fatalities and 30.1% of road crash injuries).**

Figure 5

Distribution of Road Crash Fatalities by Road User Group

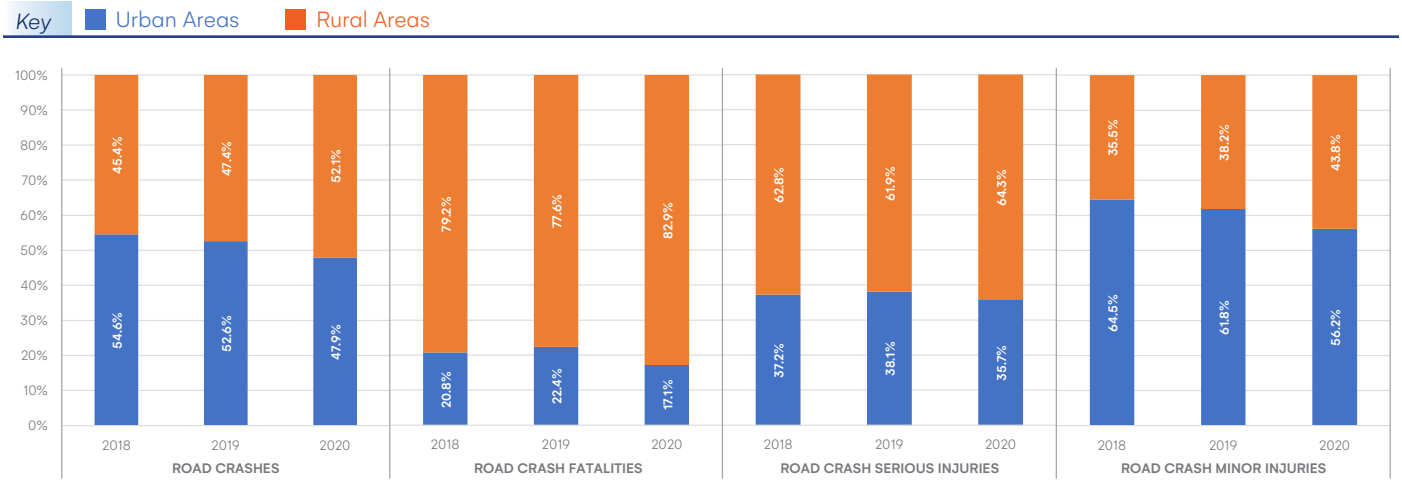
Key

- Vehicle Occupants
- 2/3 Wheelers
- Cyclists
- Pedestrians
- Truck Occupants
- Other Categories



Moldova has an urban population of approximately **58.5%.** National data indicates that **rural areas account for one half of total road crashes** registered in the country; for more than **two thirds of the total road crash fatalities,** more than **half of the road crash serious injuries** and a **third of minor road crash injuries.** Further analysis of urban and rural area contexts of road crashes is required to learn and understand the disparity, considering **a higher mortality risk in rural areas.**

Figure 6 *Distribution of Road Crashes, Fatalities and Injuries by Area (Urban/Rural)*



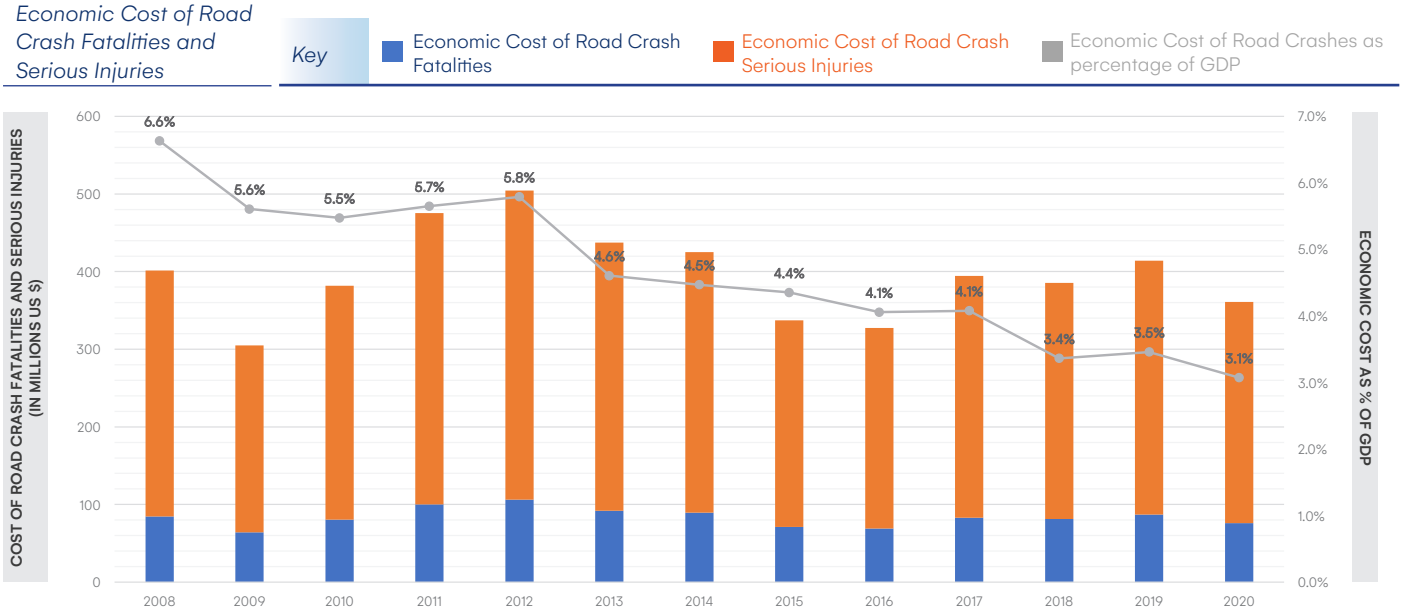
DETAILED ROAD SAFETY STATUS IN THE REPUBLIC OF MOLDOVA

Economic and Social Cost of Road Crashes Fatalities and Injuries

The Economic and Social Cost of Road Crash Fatalities and Injuries in Moldova has been calculated by applying the general approximation rule developed by iRAP **(Fatality Cost – 70 x GDP/Capita; Serious Injury Cost – 17.5 x GDP/Capita).** An estimate of **15:1 ratio of serious injuries per fatality** has been used where data was not available *(Developed by iRAP and Adjusted by GRSF, World Bank).* The socio-economic cost of road crash fatalities and serious injuries in Moldova has been **steadily decreasing (by 53%)** since it's highest in 2008 **(6.6% of GDP)** to **3.1% of GDP** estimated for 2020.

Figure 7

Economic Cost of Road Crash Fatalities and Serious Injuries



Data Discrepancy of Road Crashes Fatalities and Injuries Data

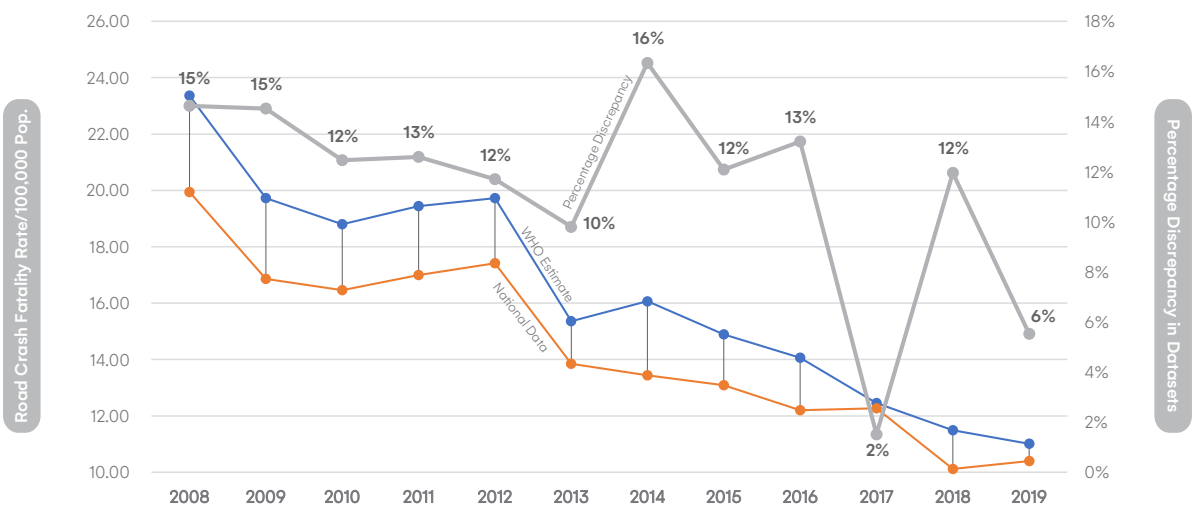
Data Discrepancy in Moldova **reported at the national level and corrected by WHO** has been estimated at between 2–16% in 2008–2019. This discrepancy is higher than the average discrepancy registered in the EaP region and EU-27.

Figure 8

Data Discrepancy of Road Crash Fatalities in Moldova – between National Data and WHO Estimates

Source

WHO Global Health Observatory data (2008 - 2019)



PILLAR 1 | ROAD SAFETY MANAGEMENT

Institutional Framework of Road Safety in the Republic of Moldova

Table 4 Road Safety Institutional Framework in Moldova

Road Safety Function	Key Institution
Road Safety Lead Agency	The Executive Bureau of the National Council on Road Traffic Safety, is a coordination center in the field of road safety within the State Chancellery. The Bureau was reinforced in 2018.
Lead Agency Funding	The road safety measures identified by Executive Bureau is implemented through responsible Ministries and Agencies. Beginning 2018, the measures are financed from the state budget.
Lead Agency Functions	The Executive Bureau functions are coordination, monitoring and evaluation of legislation and road safety strategies.
Road Safety Targets	Moldovan road safety target is to **halve road crash fatalities and serious injuries by 2030.**

Table 5 Key Actors per Road Safety Function in Moldova

Road Safety Function	Name of Key Institution	Legal Act
Road Safety Coordination	The National Council for Road Traffic Safety (NCRTS) chaired by the Prime Minister. The Executive Bureau of NCRTS has the set-up role for road safety coordination in the country, as per the last amendments to the legislation.	Law no.131-XVI of 07.06.2007 on road traffic safety, Government Decision No. 155 of 13.02.2003 "On the National Council for Road Traffic Safety", amended by GD No. 442 of 16.05. 2018 and by GD of 03.10.2018
Formulation of national RS Strategy **Development of RS Action Plan** **Development of RS Programme** **Monitoring of the RS development in the country**	The National Council for Road Traffic Safety (NCRTS) chaired by the Prime Minister The Executive Bureau of NCRTS	Law no.131-XVI of 07.06.2007 on road traffic safety, Government Decision No. 155 of 13.02.2003 "On the National Council for Road Traffic Safety", amended by GD No. 442 of 16.05. 2018 and by GD of 03.10.2018
Implementation of the RS programme	The Executive Bureau of NCRTS, the responsible authorities mentioned in the Action Plan on the Implementation of NRSS (Ministry of Economy and Infrastructure (MEI), Ministry of Internal Affairs (MIA), Ministry of Agriculture, Regional Development and Environment (MARDE), Ministry of Education, Culture and Research (MECR), Ministry of Health (MoH), etc.), NGOs.	Government Decision no. 972 of 21.12.2011 "On the approval of the Action Plan on the Implementation of the National Road Safety Strategy"
Implementation of the 5% of the Road Fund	State Road Administration subordinated to the Ministry of Economy and Infrastructure	Government Decision no. 225 of 14.03.2018 "For the approval of the Means Allocation Program of the road fund for national public roads for 2018 and the Public Road Repairs Program for national (within localities), local, communal and street"
Improvements in road infrastructure	State Road Administration subordinated to the Ministry of Economy and Infrastructure	Law no.131-XVI of 07.06.2007 on road traffic safety
Vehicle improvement	The National Auto Transport Agency subordinated to the Ministry of Economy and Infrastructure	Government Decision no. 539 of 23.04.2008 "On the creation of the public institution National Auto Transport Agency"
Improvement in road user education	Ministry of Education, Culture and Research, Ministry of Internal Affairs	Law no.131-XVI of 07.06.2007 on road traffic safety
Publicity campaigns	NGOs	Law no.131-XVI of 07.06.2007 on road traffic safety
Enforcement of road traffic laws	General Police Inspectorate of the Ministry of Internal Affairs, National Public Security Inspectorate	Law no.131-XVI of 07.06.2007 on road traffic safety; Law no. 320 of 27.12.2012 on police activity and police status

PILLAR 1 | ROAD SAFETY MANAGEMENT

Road Crash Data Collection System

The existent crash database—the **Automated Information System** "State Road Accidents Register" of the Ministry of Internal Affairs (AIS RAR), has been used since **2014**, but has not been further enhanced. AIS RAR allows the storage of data on the circumstances of the accident *(date and time of the accident, day of the week, type and category of road accident, conditional factors)*; on the number of vehicles involved, the technical condition and their RST data; on the number of participants and/or traumatized/deceased persons and their dates *(SPR identification data, their psychophysiological status, qualification of SVDR vehicle drivers, type of participant and severity of trauma)*, road characteristics and road conditions *(type of road in the locality or in outside of it, the name of the road according to the official list of national and local public roads, km, m, or street in the locality, weather conditions and road conditions)*. AIS RAR allows the storage of geo-spatial coordinates using geo-location devices at the site of the accident, but this option is not applied in practice due to the lack of such devices and training facilities.

Data collection by **Traffic Police** is regulated by the ***Joint Order No. 335/2016 Chapter 2 "Police records of road accidents"*** and ***Chapter 5 "How to fill in the register, the records and their transmissions"***. Road traffic accidents are recorded by the Police Officers according to territorial jurisdiction. The acts of ascertaining the circumstances of the accident are drawn at the scene of the accident according to the legislation **(Criminal Code, Criminal Procedure Code, Contravention Code)**. Subsequently, using the data from the procedural acts for ascertaining the accident, the Road Police officer completes at his office the **Road accident record sheet** (Form No. 1), the **Vehicle record sheet** (Form No. 2) and the **Persons involved record sheet** (Form no. 3). These data shall be recorded in the **Road Accidents Register** and the data contained therein shall be entered into the AIS RAR databases. Once the procedural acts of accident ascertaining contain all the necessary data, it is further allowed to enter the information directly into the AIS RAR, with the subsequent printing of the records on the paper sheet and its storage in the archive.

Data collection by **Road Administrations** is regulated by the ***Joint Order No. 335/2016 Chapter 3 "Records of road accidents in road and communal organizations"***. Road organizations only record the circumstances of accidents on service roads, according to territorial jurisdiction, on the basis of data obtained from the Police or collected on their own. Data is stored in the Road Traffic Register, which is manual and not electronic.

Data collection in the **health sector** is regulated by the ***Joint Order No. 335/2016 Chapter 4 "Records of road accident victims at medical and sanitary and departmental institutions"***. Sanitary institutions shall keep registrations of the victims of road accidents and inform, in a prescribed manner, to the Police regarding the persons who have received medical assistance at the scene of the accident, have requested medical assistance or have been brought to the medical-sanitary institution in connection with a road accident, as well as of the persons deceased after the accident and brought to the pathomorphological sections. These institutions are also required to r**eport to the police about persons who have died within 30 days of the accident**. The records of the victims of accidents are kept by the sanitary institutions according to the regulations established by the Ministry of Health (MoH). While AIS RAR allows for the data on accident victims to be introduced by medical institutions, this specific data is not used by the sector, as separate databases provided by the MoH are used.

The AIS RAR database could be further developed in accordance with the Common Set of Accident Data (CADaS) after upgrading the existing dataset structure and software adaptation in line with the new accident data sheet. This implies a change to the current accident data form used by the Police. The existing database is web-oriented and GIS-oriented, but the most important data are not yet available

PILLAR 1 | ROAD SAFETY MANAGEMENT

to the relevant institutions and organizations.

The existing legislation does not envisage the set-up of a multi-sectoral road safety database at national level. Law no. 131/2007 establishes the MIA's competence in monitoring the number of road accidents. Subsequently, the Government Decision no. 693/2007 assigns to MIA the control over the implementation of AIS RAR. A shortcoming is that the AIS RAR, being designed for the Police and containing sensitive personal data, does not provide access interfaces for extracting only statistical or depersonalized data, so organizing the export of data from this system to other institutions and stakeholders is not technically assured.

As part of the ***"Strengthening road safety management in Moldova"*** technical support provided by the World Bank in 2017, an assessment of the existent crash data system in Moldova has been conducted and recommendations for its improvement have been presented.

It was recommended that in a first phase, the following important variables should be improved with regards to the current collection of accident data in Moldova: GPS coordinates of the RA (X and Y, or N, E); Types of RA in accordance with CADaS; Contributory factors in RA data collection; Relationship with intersection /junction.

These new datasets will lead to a better understanding of the road safety situation and the recognition of road safety issues. Also, new data on road accidents will be useful for the management of state roads, especially in the field of implementation of EC Directive 96/2008 and the implementation of road safety infrastructure tools such as BSM (Black Spot Management), RSI (Road Safety Inspection) and risk mapping.

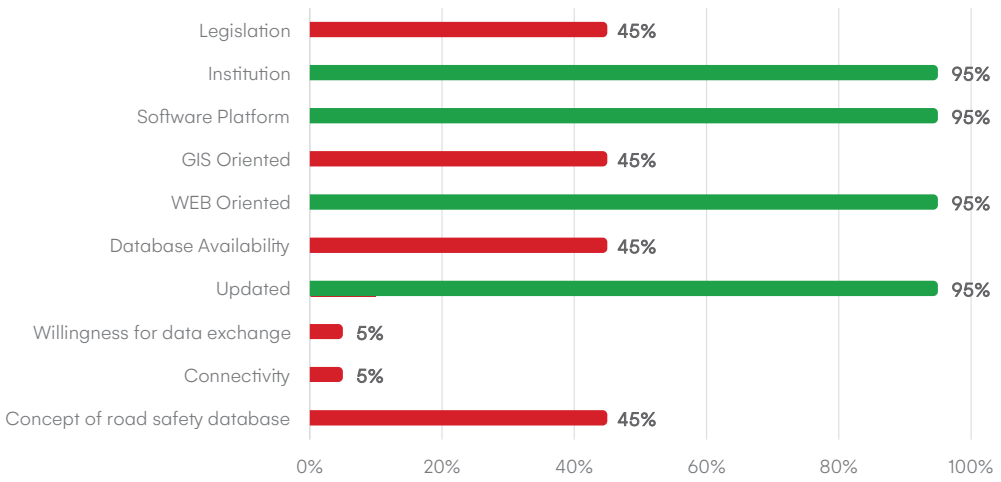
In parallel with this process, the most valuable improvement could be achieved in the implementation of the national road state reference system in the existing accidents database in Moldova. Improvements in this area should be the joint work of the Ministry of Internal Affairs and State Road Administration (SRA), in coordination with other key road safety stakeholders such as the Ministry of Health, Labor and Social Protection (MoH).[1]

The figure provides an overview of the results of the crash data system benchmarking assessment for the EaP and is based on self-reporting.

Sources: [1] *A detailed analysis of the current situation on crash data collection and data quality in Moldova is provided in the Country Note for Moldova prepared by the World Bank under the EaP Transport Panel road safety activity available at the EaP road safety web-site (bit.ly/2TuWm59)*

Figure 9

Crash data system benchmarking assessment for Moldova



PILLAR 1 | ROAD SAFETY MANAGEMENT

Road Safety Funding and Expenditure (Projects and Performance)

The main funding sources for road safety in Moldova include ***the State Budget (e.g. the medium-term budgetary framework), the Road Fund and some ad hoc external sources***. Despite some positive elements of the current system, a key conclusion is that road safety funding in Moldova is currently insufficient and not sustainable:

- The road safety budget required to implement the road safety strategy has not been estimated and is not known.
- Ministries and agencies are not able to report a separate budget allocated to road safety activities, as all their road safety expenses are "hidden" in their general budgets used for statutory activities.
- The current Road Fund has a very narrow scope as it can be used only for road infrastructure improvements and seems to be accessible to only one Agency.
- There is no centralized road safety funding mechanism managed by the current lead entity (NRSC). NRSC has currently no control at all over road safety related revenues and expenditures.
- A dedicated Road Safety Fund or equivalent mechanism, which should preferably compile funds for road safety from different sources, is not in place.

There is currently no dedicated funding allocated to road safety in Moldova, although in many countries different revenue streams are used to finance road safety through the budget or dedicated funding structure.

Several additional financing options could be considered based on international examples, and assessed in terms of their relevance and feasibility in the context of Moldova:

- A foreseen increase in Road Fund revenues is an opportunity to expand the scope of the Fund and bring additional resources to road safety.
- In the short-term, it is suggested to consider redirecting to road safety funding at least a share of funds collected by Police from traffic enforcement fines. This may be particularly attractive, as it can be also used in communication with general public to justify better enforcement of traffic rules, particularly speed, which is the main risk factor contributing to crashes.
- The introduction of a fixed charge on vehicle insurance premiums is a relevant option to be pursued in the medium-term.
- The establishment of partnerships with NGOs and the private sector may create further opportunities for co-financing road safety projects.
- The exploitation of IFIs and other external sources, including twinning projects, should be continuously pursued.

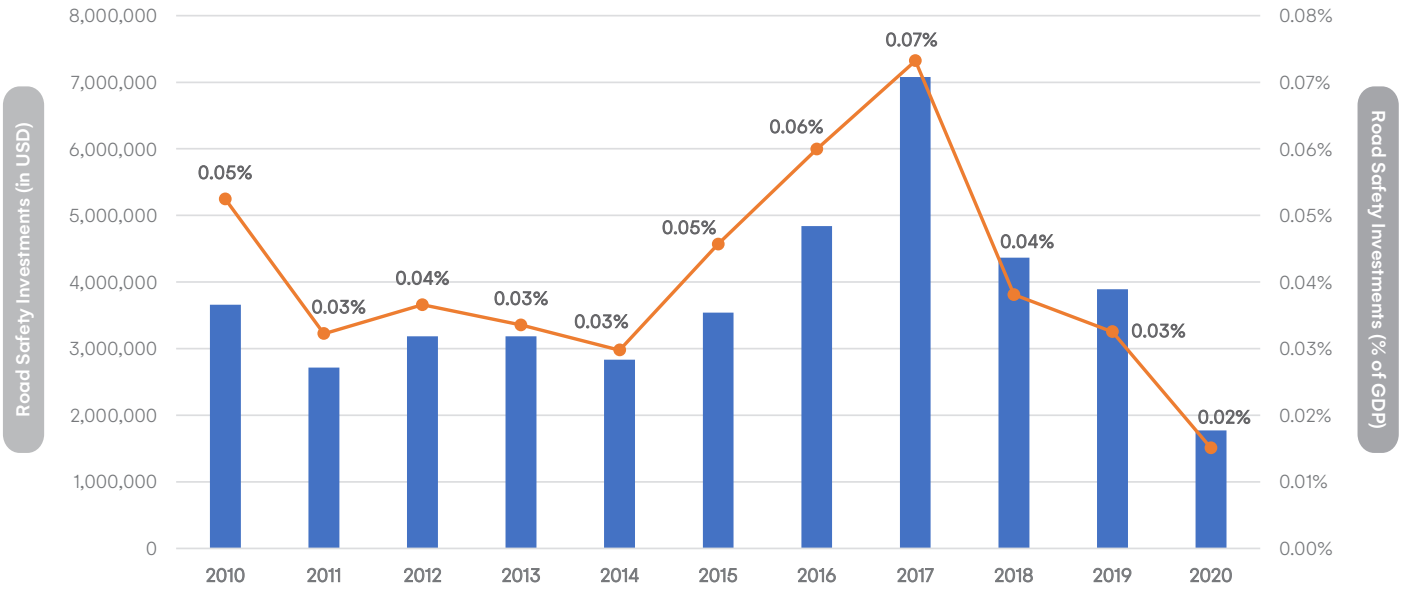
More sustainable and preferably gradually increasing funding for road safety measures should foster better cooperation and partnership between key road safety partners. **An investment plan for road safety** could serve as the main financial planning tool and the core of the road safety funding mechanism.

PILLAR 1 | ROAD SAFETY MANAGEMENT

Table 6 *Ongoing Road Safety Projects and Financial/Technical Assistance from IFIs*

Title	Period	Brief Objectives/Expected Outcomes	Achieved Road Safety Outputs
World Bank			
Local Roads Improvement Project	2016 – 2022	To provide safe and sustainable local road accessibility to education, health and market facilities along select corridors and enhance local road management capacity.	The project involves works which will include rehabilitation and periodic maintenance works and upgrading economically and socially justified roads to a sealed standard. These will be carried out across the regional road network and in the local road network. The road safety component in the road improvement will include: » Road safety works in the proximity of schools and on road sections within communities. » Incorporation of additional safety measures in design of road improvements as part of the "Safe Village" program designed under the project. This will include a combination of traffic calming measures, footway construction on both sides of the village roads, guardrails installation and improved road signing and marking. » Delivery of road safety education programs in project village schools. » Institutional strengthening to roll out road safety training programs at a national level.

Figure 10 *Road Safety Investment in Moldova between 2010 – 2020 (in USD) and as a percentage of GDP*



PILLAR 2 | SAFER ROADS AND ROADSIDES

Road Infrastructure Safety Assessment Performance

The benchmarking survey on implementation of the EU road safety Directive in each of the EaP countries was conducted by the EaP TP Secretariat in two rounds during 2018. Initially, a quantitative survey was conducted, where EaP countries self-reported the degree to which the introduction of individual measures from the **EU 2008/96 Directive on road infrastructure safety** has been achieved. Subsequently, an additional qualitative survey was produced by the Bank team, focusing on the four main tools of **Road Safety Audit (RSA), Inspection (RSI), Impact Assessment (RSIA) and Blackspot Management (BSM)** and aiming at a closer understanding of the current situation.

Table 7

EaP Countries Status regarding EC 96/2008 Directive Implementation

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive	Answers confirmed by countries						
Impact Indicators used	**ARM**	**AZE**	**BLR**	**GEO**	**MDA**	**UKR**	EaP Av.
Implementation of RSIA (Road Safety Impact Assessment)							
Legal basis for RSIA exists	90	95	5	5	5	5	34
Adequate RSIA manual in official use	80	95	5	5	5	5	33
Trained staff for RSIA available	60	50	5	5	10	5	23
Road Authorities have budget to purchase RSIA	50	95	5	5	5	5	28
All major new roads and reconstructions passed RSIA procedure	75	95	5	5	5	5	32
RSIA Recommendations being accepted in feasibility stage	80	95	5	5	5	5	33
Total Scores for Road Safety Impact Assessments (RSIA)	**435**	**525**	**30**	**30**	**35**	**30**	**183**
Implementation of RSA (Road Safety Audit)							
Legal basis for RSA (Road Safety Audit) exists	85	50	5	30	5	5	30
Adequate RSA manual in official use	95	70	5	85	5	5	44
Trained road safety auditors available	25	50	5	50	30	15	29
Road Authorities have budget to purchase RSA	25	95	5	10	5	5	24
All new, reconstructed and rehabilitated roads being safety audited	50	95	5	10	25	5	32
RSA Recommendations being implemented by Roads Authority	80	95	5	50	20	5	43
Total Scores for Road Safety Audits (RSA)	**360**	**455**	**30**	**235**	**90**	**40**	**202**
Implementation of RSI (Road Safety Inspection)							
Revision (update) of road design standards undertaken	75	95	25	75	85	5	60
Revision (update) of road design norms (guidelines) undertaken	65	95	25	80	20	5	48
Convention of road signs/ signals 1968 fully implemented	60	95	25	50	30	10	45

PILLAR 2 | SAFER ROADS AND ROADSIDES

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive	Answers confirmed by countries						
Impact Indicators used	**ARM**	**AZE**	**BLR**	**GEO**	**MDA**	**UKR**	EaP Av.
Implementation of RSI (Road Safety Inspection)							
Vehicle Restraint Systems (VRS) standard based on EN 1317	50	95	75	20	5	5	42
Work zone protection based on best international practice	70	95	75	75	35	5	59
Harmonization between standards/norms/guidelines and other legislation undertaken	80	50	75	80	50	5	57
Average Scores for Road Safety Inspections (RSI)	**400**	**525**	**300**	**380**	**225**	**35**	**311**
Black Spot Management – BSM (Black Spot Management)							
Legal basis for BSM (Black Spot Management) exists	60	50	90	10	10	50	45
Adequate BSM Manual in official use	50	35	75	70	5	85	53
Clear definition (criteria) of black spot exists	80	80	85	10	20	85	60
Trained black spot investigators available	80	80	70	40	30	20	53
Annual black spot improvement program in place	95	75	70	75	5	20	57
Road Authorities has dedicated founds for BSM improvements	90	50	70	50	10	5	46
BSM recommendations being implemented by Roads Authority	90	70	70	70	50	5	59
Average Scores for Black Spot Management (BSM)	**545**	**440**	**530**	**325**	**130**	**270**	**373**
Road Assessment Program (RAP) (e.g. iRAP)							
Legal basis for RAP (Road Assessment Program) exists	60	20	80	10	5	10	31
RAP implemented on road network	50	20	80	10	20	5	31
Annual RAP program exists	50	20	50	10	5	10	24
Road Authorities has dedicated founds for RAP improvements	60	80	50	10	5	10	36
RAP recommendations being implemented by Roads Authority	80	80	80	10	5	10	44
Average Scores for Road Assessment Programs (RAP)	**300**	**220**	**340**	**50**	**40**	**45**	**166**
Application of traffic calming measures							
Legal basis for application of traffic calming measures exists	60	50	90	10	10	50	45
Adequate traffic calming Manual in official use	50	35	75	70	5	85	53
Clear criteria for selection of traffic calming measures exists	80	80	85	10	20	85	60
Trained staff available	80	80	70	40	30	20	53
Road Authorities has dedicated funds for traffic calming implementation	95	75	70	75	5	20	57
Traffic calming recommendations being implemented by Roads Authority	90	50	70	50	10	5	46
Average Scores for Traffic Calming Measures	**455**	**370**	**460**	**255**	**80**	**265**	**314**

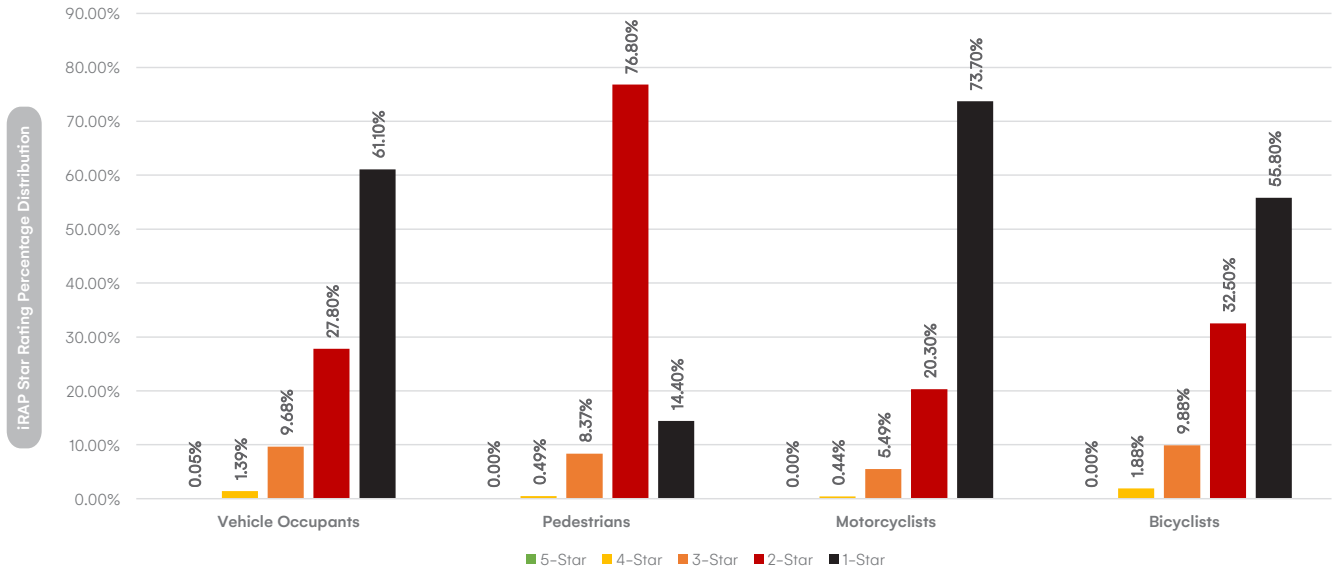
PILLAR 2 | SAFER ROADS AND ROADSIDES

EaP Countries Status regarding the Implementation of the EC 96/2008 Directive	Answers confirmed by countries						
Impact Indicators used	**ARM**	**AZE**	**BLR**	**GEO**	**MDA**	**UKR**	**EaP Av.**
Application of road design standard/norms (guideline) revision							
Revision (update) of road design standards undertaken	85	95	90	80	50	30	72
Revision (update) of road design norms (guidelines) undertaken	75	80	90	80	50	30	68
Convention of road signs/ signals 1968 fully implemented	100	95	99	80	100	90	94
Vehicle Restraint Systems (VRS) standard based on EN 1317	60	70	50	80	80	30	62
Work zone protection based on best international practice	40	50	40	50	50	20	42
Harmonization between standards/norms/guidelines and other legislation undertaken	60	80	80	80	70	50	70
Average Scores for Road Design Standard Revision	**420**	**470**	**449**	**450**	**400**	**250**	**408**
Building the capacity of engineers and technical staff							
Adequate Manuals/Guidelines for safety engineering produced	50	75	30	70	10	10	41
Selected Government, Consultants and Academic staff trained	35	75	30	60	5	5	35
Different road safety curricula for University courses produced (RSIA, RSA, RSI, RAP, BSM, TC)	40	50	40	30	30	5	33
Students being taught about safe design approaches during their studies	50	50	50	30	70	10	43
Average Scores for Capacity Building	**175**	**250**	**150**	**190**	**115**	**30**	**152**

Moldova has not fully adopted the EC 96/2008 Directive Implementation, as it is indicated in the table above. **Star Rating Results from the International Road Assessment Program (iRAP)** are available for Moldova partially on some road segments as shown in the figures below.

Figure 11

Moldova iRAP Star Rating Results



PILLAR 2 | SAFER ROADS AND ROADSIDES

Improved infrastructure provides solid and well understood crash and injury reduction outcomes and are critical for long term and sustainable trauma reduction, in line with the Safe Systems Approach. The International Road Safety Assessment Programme (iRAP) provides a business case for safer roads and road star ratings which give a simple and objective measure on the level of safety which is 'built-in' to the road for the road users. **5-Star roads are the safest while 1-star roads are the least safe.**

The iRAP Assessment surveyed **2.4 billion km of vehicle occupant travel, 2.4 billion km of pedestrian travel, 74.6 million km of motorcycle travel and 2.6 billion km of bicyclist travel.** The survey found that ***99% of the roadways had no formal path, 90% had no pedestrian crossings and 99% of the roadways were undivided with vehicle speeds greater than 80km/h.***

Road Safety Infrastructure Investments

Improving the world's roads to a **3-star or better** standard is a key way to achieve the United Nations Sustainable Development Goals target of **halving road deaths and injuries by 2030**. The **Business Case for Safer Roads** *(iRAP)* analyzes the investment required to achieve 75% of travel on 3-star or better roads, as shown in the table below.

Table 8

What can be achieved with >75% of travel in Moldova on 3-star or better roads for all road users by 2030

Infrastructure and Speed Management Investment required	**182.4 Million US$**
Annual Investment as a percentage of GDP (2020-2030)	**0.13%**
Reduction in road crash fatalities per year	**133 fatalities**
Reduction in road crash fatalities and serious injuries (FSI) over 20 years	**29,338**
Economic Benefit	**1.61 Billion US$**
Benefit Cost Ratio (BCR)	**9**

Source: [1] *iRAP Vaccines for Roads. The Big Data Tool.* https://www.vaccinesforroads.org/irap-big-data-tool-map/

PILLAR 3 | SAFER SPEEDS

Speed Limits and Comparison with Safe System Speed Limits – National Data (2020)

Moldova has a **National Speed Limit Law**, which came into existence through ***Government decision nr. 357/2009*** for the approval of the Road Traffic Regulation. Local authorities in Moldova **are allowed** to modify the speed limits, as according to the legislation the Local Authorities are responsible for road safety management in the localities. Comparison of Speed Limits in Moldova to the recommended Safe System Speeds shows that **on average the speed limits are 15 km/h higher than recommended.**

The predominant Enforcement of speed limits in Moldova is **manual enforcement** with a **self-reported score of 50%.** The **potential decrease** in fatal road crashes from enforcement of the Safe Speed Limits is estimated, on average, to be **four-fold.**

Table 9

Maximum Speed Limits, Recommended Safe System Speeds and the Potential Decrease in Road Crash Fatalities

	ROADS			
	RESIDENTIAL	**URBAN**	**RURAL**	**MOTORWAYS**
Maximum Speed Limit in Moldova	50 km/h	50 km/h	50 km/h	90 – 110 km/h
Difference with Recommended Safe System Speeds[1]	**+ 20 km/h**	**+ 20 km/h**	**–20 km/h**	**+ 20 km/h**
Potential Decrease in Fatal Road Crashes from Enforcement of Safe System Speed Limits[2]	**4 times lower**	**4 times lower**	**Appropriate**	**2 times lower**

Note: [1] *Safe System Recommended Speed Limits: Residential and Urban – 30 km/h; Rural – 70 km/h; Motorways – 90 km/h.*

[2] *Potential decrease in fatal road crashes from enforcement of safe system speed limits calculated using the Nilsson's Power Model connecting speed and road trauma. [M.H. Cameron, R. Elvik. 2010]*

Speed Calming Infrastructure – National Data (2020)

Table 10

Speed Calming Infrastructure in Moldova – Presence and Brief Descriptions of Implementation

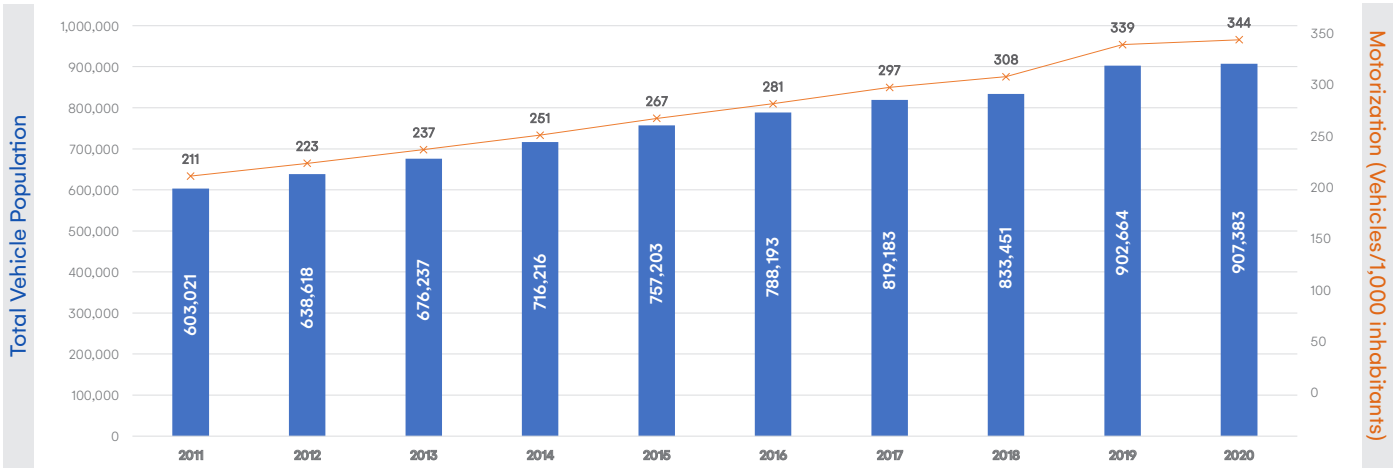
Speed Calming Infrastructure Category	**Presence in Moldova** *(Present/Not Preset)*	**Brief Description/Narrative of Implementation and Results**
Narrowing e.g., *extending sidewalks, pedestrian refuges.*	PRESENT	Implemented on a small scale in pointed area without any efficiency assessment
Vertical Deflections e.g., *speed bumps, humps and tables.*	PRESENT	Implemented on a small scale in pointed area without any efficiency assessment
Horizontal Deflection e.g., *chicanes and chokers.*	PRESENT	Implemented on a small scale in pointed area without any efficiency assessment
Block/Restrict Access e.g., *median diverters and cul-de-sacs.*	PRESENT	Implemented on a small scale in pointed area without any efficiency assessment
Road Markings, Signs and Furniture e.g., *colored surfacing*	PRESENT	Implemented on a small scale in pointed area without any efficiency assessment

PILLAR 4 | SAFER VEHICLES

Vehicle Population and Distribution

Moldova has an up-to-date dataset of the vehicle population in the country, disaggregated into five categories (Category 1: Cars & Wheeled Light Vehicles; Category 2 – Motorized 2/3 Wheelers; Category 3 – Trucks for goods transportation; Category 4 – Buses and Category 5: Other Categories). The Vehicle Population in Moldova and Motorization **(344 Vehicles/1,000 inhabitants)** are proportional as shown in the figure below. Vehicle distribution in Moldova between 2011 to 2020 have been comparable with on average **Cars & Wheeled Light Vehicles accounting for 69.6%; Motorized 2/3 Wheelers – 4.7%; Trucks for goods transportation – 22.6% and Buses – 2.8%.**

Figure 12 *Total Vehicle Population and Motorization*



Compliance with UN Vehicle Safety Regulations – National Data (2020)

Moldova compliance *(WHO, 2018)* to the recommended Vehicle Safety Standards is shown below:

CRASH TESTS — Frontal Impact (No.94) Side Impact (No.95) — NOT APPLIED	ANTI-LOCK BRAKES — Motorcycle Anti-Lock Brakes No.78 (GTR.3) — NOT APPLIED	PEDESTRIAN SAFETY — Pedestrian Protection No.127 (GTR. 9) — NOT APPLIED
ELECTRONIC STABILITY CONTROL — Electronic Stability Control No.140 (GTR. 8) — NOT APPLIED	SEAT BELTS — Seat Belt & Anchorages (No.16 & 14) — NOT APPLIED	AUTONOMOUS EMERGENCY BRAKING — Autonomous Emergency Braking Systems — NOT APPLIED

Regulation of Imported Vehicles and Periodic Inspection of Existing Fleet – National Data (2020)

Import Regulation of Used Vehicles	Import Age Limit Based	Taxation Based Limit	Vehicle Import Inspections	Existing Fleet Periodic Inspection
REGULATED	NOT AGE BASED	YES	DONE	DONE

The taxation-based import restriction in Moldova applies higher taxes for imported older vehicles. Existing fleet are periodically inspected once a year and passenger transport vehicles are inspected twice per year.

PILLAR 5 | SAFER ROAD USERS

Seatbelt Usage in the Republic of Moldova – WHO Data (2018)[a] and National Data (2020)[b]

Moldova has an **existing National Seatbelt Law** *(enacted in 2009)*, which applies to **all vehicle passengers.** The enforcement is done by visual inspection at traffic controls. Drivers and Passengers found to be breaking the law are fined 450 to 600 MDL (approximately € 23 to 30) and 3 penalty points.

Drivers	Front Pass.	Rear Pass.	Self-Reported Enforcement Score of Seatbelt Legislation[a]	Average Seatbelt Wearing Rate[a]
YES	YES	YES	80 %	40 %
Application to Vehicle Occupants[b]				

Motorcycle Helmet Usage in the Republic of Moldova – WHO Data (2018)[a] and National Data (2020)[b]

Moldova has an **existing National Motorcycle Helmet Law** *(enacted in 2009)*, which applies to **all motorcycle users.** Children **passengers under 12 yrs.** are prohibited on motorcycles. Users found breaking the law are fined 450 to 600 MDL (€ 23 to 30) and 3 penalty points.

Drivers	Passengers	Motorcycle Helmet Fastening[b]	Motorcycle Helmet Standards[b]	Self-Reported Enforcement Score[a]	Avg. Helmet Wearing Rate[a]
YES	YES	MANDATORY	SPECIFIED	80 %	NOT SPECIFIED
Application to Occupants[b]					

Drink and Drug Driving in the Republic of Moldova – WHO Data (2018)[a] and National Data (2020)[b]

Moldova has an **existing Drink Driving and Drug Driving Law** *(enacted in 2009)*, which applies to the **General Population, Young/Novice Drivers and Professional Drivers.** Enforcement of drink/drug driving laws is done by **visual inspections at traffic controls.**

Moldova uses a graduated system of fines and demerit points for different levels of contraventions and repetition – ranging from 17,500 to 42,500 MDL (approximately € 890 to 2,185), community service from 200 to 240 hours, withdrawal of driving license for 6 months to 3 years, and cancellation of driving license.

Blood Alcohol Concentration (BAC) Limits – mg/l

General Population[b]	Young/Novice Drivers[b]	Professional Drivers[b]	Self-Reported Enforcement Score[a]	Alcohol Related Road Crash Fatalities[a]
< 0.15	< 0.15	< 0.15	80 %	8.0 %

PILLAR 5 | SAFER ROAD USERS

Child Restraint Usage in the Republic of Moldova – WHO Data (2018)[a] and National Data (2020)[b]

Moldova has an **existing Child Restraint Law** *(enacted in 2009)*, which specifies that **car seats are mandatory for all children under the age of 12 years.** As enforcement is done by **visual inspection at traffic controls.**

Front Seat Prohibition for Children[b]	Child Restraint Required[b]	Child Restraint Standards[b]	Self-Reported Enforcement Score[a]	Child Restraint Usage Rate[a]
12 YRS. & BELOW	CAR SEAT	NOT SPECIFIED	80 %	50 %

Mobile Phone Usage while Driving in the Republic of Moldova – National Data (2020)

Moldova has an **existing Law on Mobile Phone Usage while Driving** *(enacted in 2009)*, which applies to **hand-held mobile phone use only**. The enforcement is done by visual inspection at traffic controls. Drivers found to be breaking the law are fined 450 to 600 MDL (approximately € 23 to 30) and 3 penalty points.

Laws on Mobile Phone/Communication Tool Usage while Driving	Ban on Hand-Held Mobile Phone Use	Ban on Hands-Free Mobile Phone Use
EXISTING LAW	BANNED	NO BAN

PILLAR 6 | POST-CRASH CARE

National Emergency Care Access Number Coverage in the Republic of Moldova – National Data (2020)

SINGLE	NATIONALCOVERAGE	112 *(General)*
No. of Emergency Care Access Numbers	Emergency Care Access Number Coverage	National Emergency Care Access Numbers and their Use

Trauma Registry System in the Republic of Moldova – National Data (2020)

Moldova has a trauma registry, to which hospitals are connected to. Injuries are disaggregated into road crash serious and minor injuries.

Other Key Post-Crash Care Indicators

NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
First Responders Response time to Road Crashes	% difference with Golden Hour Response Time (10 min.)	Time Taken to Care Centre from Crash Scene

89 out of 100	NOT INDICATED
Service Capacity and Access Score Universal Health Coverage *(WHO UHC Report, 2019)*	Training Given to First Responders

DECADE OF ACTION FOR
ROAD SAFETY
2021 - 2030

SUSTAINABLE DEVELOPMENT GOALS

This publication has been produced with the assistance of the European Union.

The contents of this publication are the sole responsibility of the staff of the World Bank and can in no way be taken to reflect the views of the European Union.