

The RADAR project presents its Status Report on the analysis of road safety performance, knowledge and practice in 10 countries across the Danube area

Risk Assessment on Danube Area Roads – The RADAR Project

The road death toll paid for mobility in ten countries across the Danube area in 2017¹ is 4,077 fatalities. Road fatalities and serious injuries should not be the price we have to pay for our mobility. Why is it that we continue to accept about 25,000 fatalities and 135,000 serious injuries, right here in the European Union, each and every year? According to the European Commission's latest study the external cost of road accidents is estimated at 300 billion euros a year. **John Dawson**, Board Director at EIRA-EuroRAP stated: “We must treat it as a major public health problem. We would not accept more than a million people being killed globally in any other form of the public disease.”

This is an international phenomenon, with the latest World Health Organisation (WHO) data showing global deaths at 1.35 million each year – which averages at more than 3,000 deaths every day. Traffic accidents are currently the world's eighth most common cause of death, and the most common among young people (5–24 years of age). The WHO predicts that traffic accidents will be the fifth most common cause of death globally by 2030. More motorisation around the world has led to a rise in deaths, and this is expected to rise even further as traffic increases.

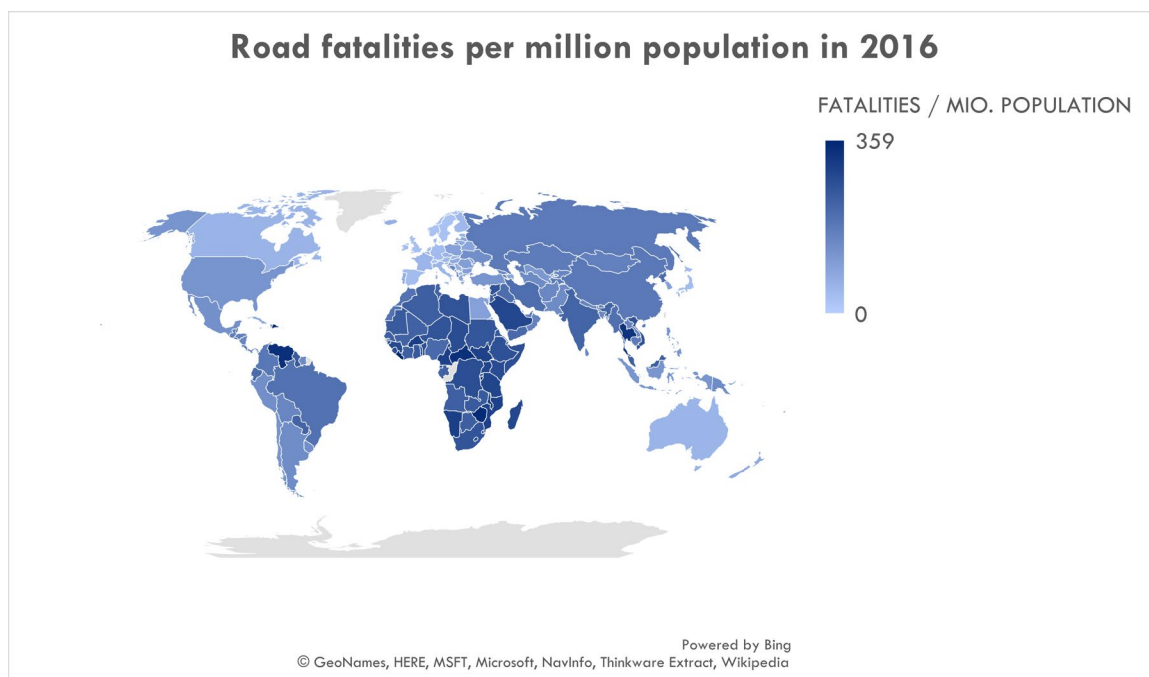


Figure 1 Road fatalities per million population in the world for 2016² according to WHO

¹Estimated — the number of fatalities in 2017 applies for all mentioned countries except Hungary (2015).



So close to the end of the Decade of Action, yet so far

In 2018, around 25,100 road fatalities were reported by the 28 European Union Member States to the European Commission. This is a decrease of 21 % compared to 2010. Last year, the average fatality rate in the 28 EU Member States was 49 road deaths per 1 million inhabitants, which represents a 1 % decrease compared to the previous year. This means that the target of halving the number of road deaths by 2020 within the Decade of Action is far from being reached. **Ferry Smith**, EuroRAP Chairman and EIRA Director, urges that *“if we are to get back on track for our goal of halving European road deaths and serious injuries by 2020, we, as road safety professionals, need to reach boldly out into society and build a powerful consensus for safer roads.”*

The Decade of Action is a United Nations sponsored program which has called upon governments around the world to implement measures to achieve a 50 % reduction in road traffic fatalities by 2020. Road authorities in more than 120 countries have made the commitment to meet this challenge.

All high-income countries have adopted road safety measures such as educating its citizens on the importance of, and adherence to, road safety protocols, regulating speed limits, separation of vulnerable people from motorised traffic, initiating awareness campaigns and measures for road safety at the infrastructure level. Safer road infrastructure is part of this challenge in creating a truly ‘safe system’ for all road users.

3-star or better roads for all road users

In a perfect world all roads would be 5-star (i.e. the safest roads) for all groups of road users. 5-star for pedestrians, 5-star for cyclists; 5-star for motorcyclists and 5-star for vehicle and public transport occupants. Although there is an overwhelming financial case for investing in safer roads, a 5-star world for all people on all roads will remain as an aspiration for the future.

While high-volume roads can cost-effectively be raised to a 5-star level, 3-star or better roads for all road users presents a realistic target for national and regional governments and road authorities to adopt.

Infrastructure upgrades and speed management are the most effective ways to achieve 3-star or better roads for all road users. When investment is not readily available, or is restricted, dramatic improvements can be achieved by a mix of low-cost infrastructure options such as line markings and reductions in speed on the most hazardous sections of the road. The safety performance of roads can now be measured and managed.

Death and injury rates are typically halved for each incremental improvement in star rating. Bringing roads to 3-star or better standard will save lives. According to recent EuroRAP findings³, investing 0.1 % of international GDP in safer roads for 10 years could save 40,000,000 deaths and serious injuries over 20 years.

³ Source: http://www.eurorap.org/wp-content/uploads/Three-star-or-better-brochure_4th-proof.pdf



According to the reported data from participating countries in the RADAR project, with the exception of Bulgaria and Moldova, there are funds available for road safety in all countries concerned. Although, only four countries reported details of available road safety funds: Austria has 1-2 million euros, Slovenia 1.9 million euros, Croatia 5-7 million euros and Bosnia and Herzegovina 0.25 million euros available for improving road safety in respective countries.

Dedicated road safety funds	
Slovenia	✓
Croatia	✓
Hungary	✓
Czech Republic	✓
Bulgaria	✗
Austria	✓
BIH	✓
Serbia	✓
Moldova	✗
Slovakia	✓

Table 1 Dedicated Road Safety funds by country for 2017

Slovenia assessed the highest number of kilometres

By analysing reported data and kilometres assessed using EuroRAP methodology from participating countries in the RADAR project Status Report, the report showed that Slovenia has collected the highest number of kilometres, Bulgaria the least. Austria and the Czech Republic are the only countries where so far, no EuroRAP Star Rating data collection has been conducted.

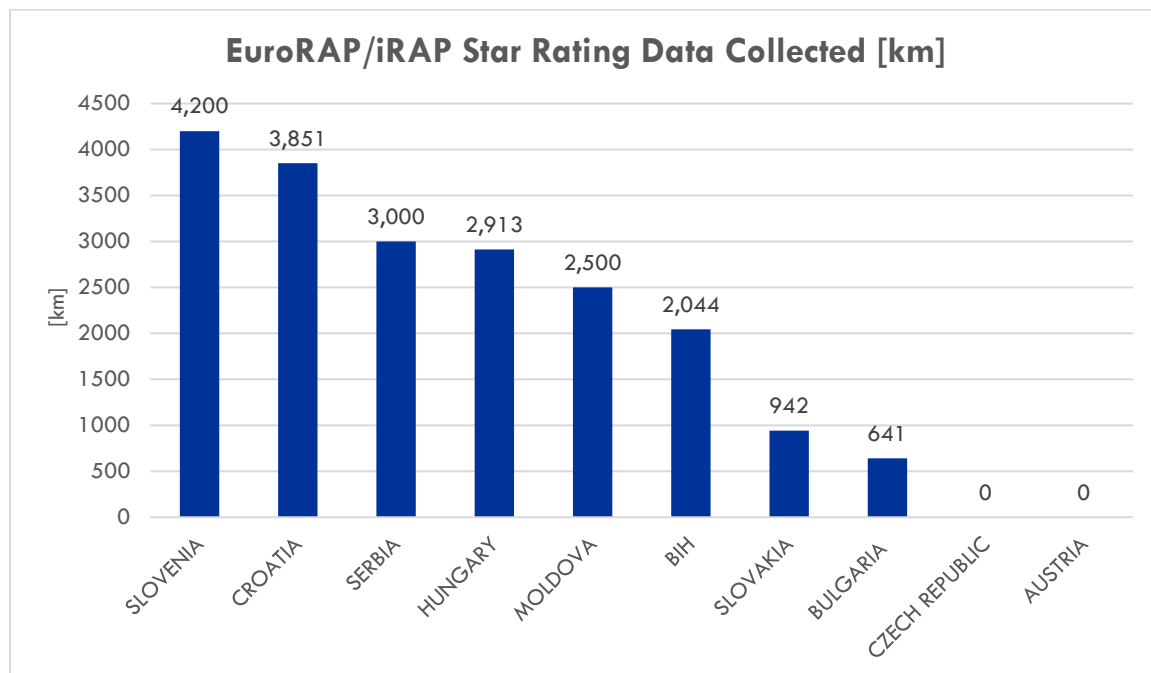


Figure 2 EuroRAP / iRAP Star Rating Data Collected [km]



Status Report: analysis of road safety performance for ten countries across the Danube area

The RADAR project consortium (Risk Assessment on Danube Area Roads), i.e. ten Project Partners and twelve Associated Strategic Partners, have collected a large amount of data indicating some basic aspects of road safety and published a **Status Report**, which provides a detailed insight into road safety performance for ten countries across the Danube area.

The countries included in the research are: Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Moldova, Serbia, Slovakia and Slovenia⁴. The report outlines the analysis of the relevant data, knowledge and practices on road safety approaches and activities in the Danube area countries.

Collected data on infrastructure safety management concerns Infrastructure Safety Directive

Each data set consists of even more detailed information, including general data such as road network length, road network density, crash data and speed limits, and information on national road safety strategies such as national fatality targets, road safety policies, budgets, and stakeholders.

The data set on infrastructure safety management concerns, for example, the implementation of the Road Infrastructure Safety Directive (2008/96/EC), applied standards for road infrastructure, identification of high-risk roads, availability of Annual Average Daily Traffic (AADT data), priorities for assessing sections or roads to be improved, etc., while the section on infrastructure facilities for VRUs offers an overview of the presence of basic infrastructure intended for pedestrians, cyclists and motorcyclists.

Based on the reported data from participants countries in the RADAR project Status Report, all the countries have transposed Road Infrastructure Safety Directive (2008/96/EC) into their legislations.

The RADAR project Status Report also offers general data concerning national road safety strategies, as well as infrastructure safety management and infrastructure provisions for vulnerable road users.

For example, crash data collected for the countries concerned are an indicator of a measure of exposure to road risks, showing how likely road users are to be involved in road accidents. Here we come to direct indicators, or public risk, measured as a ratio between the number of fatalities and number of population in the country.

⁴ The official Status Report, which can be found RADAR project official website (<http://www.interreg-danube.eu/radar>) will also include road safety data from RADAR project participating countries Montenegro and Romania.



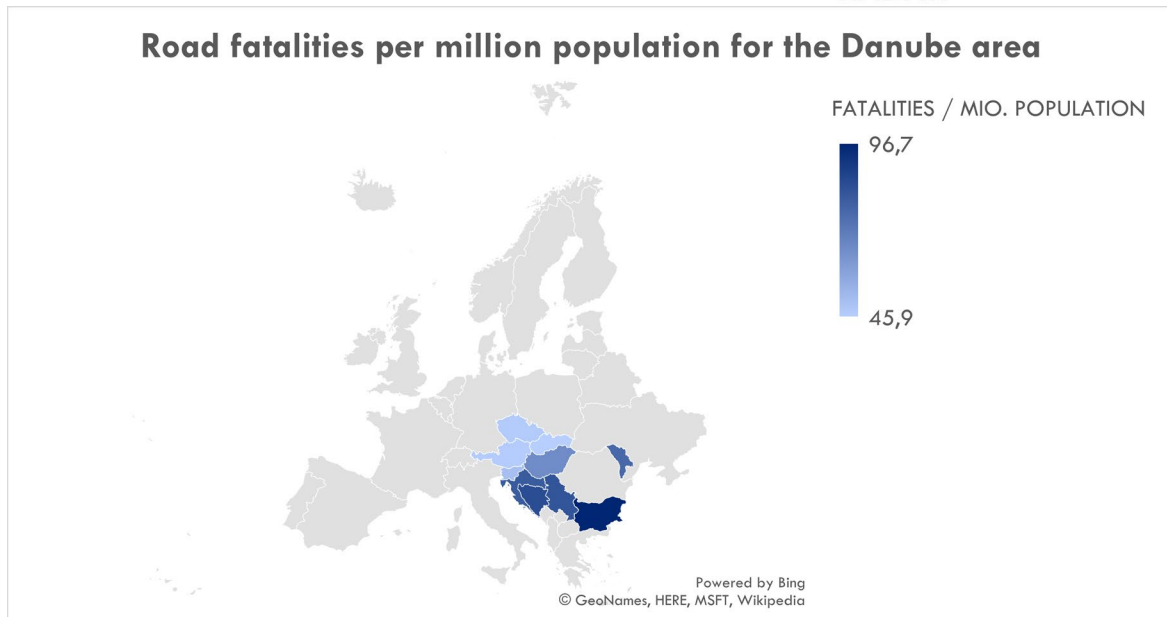


Figure 3 Road fatalities per million population for the Danube area according to RADAR project Status Report

A factor of two separates “best” from “worst” in the data provided

According to the analysis of available, road safety data within project partners’ countries, Bulgaria is the worst performing country with 97 fatalities per million inhabitants. Following are Bosnia and Herzegovina (84.9), Serbia (82.7) and Croatia (80.6). Czech Republic, Austria and Slovakia have the lowest number of fatalities per million inhabitants, 47.2, 46.7 and 45.9, respectively.

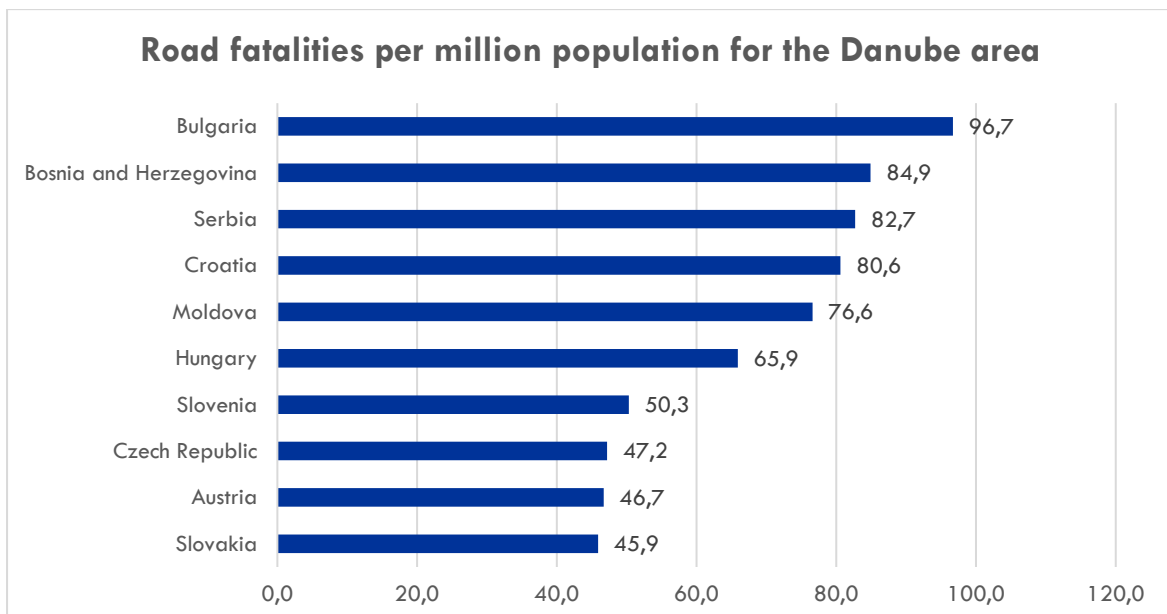


Figure 4 Road fatalities per million population for the Danube area for 2017 – RADAR Project Status Report

Danube area compared to Europe and WHO regions

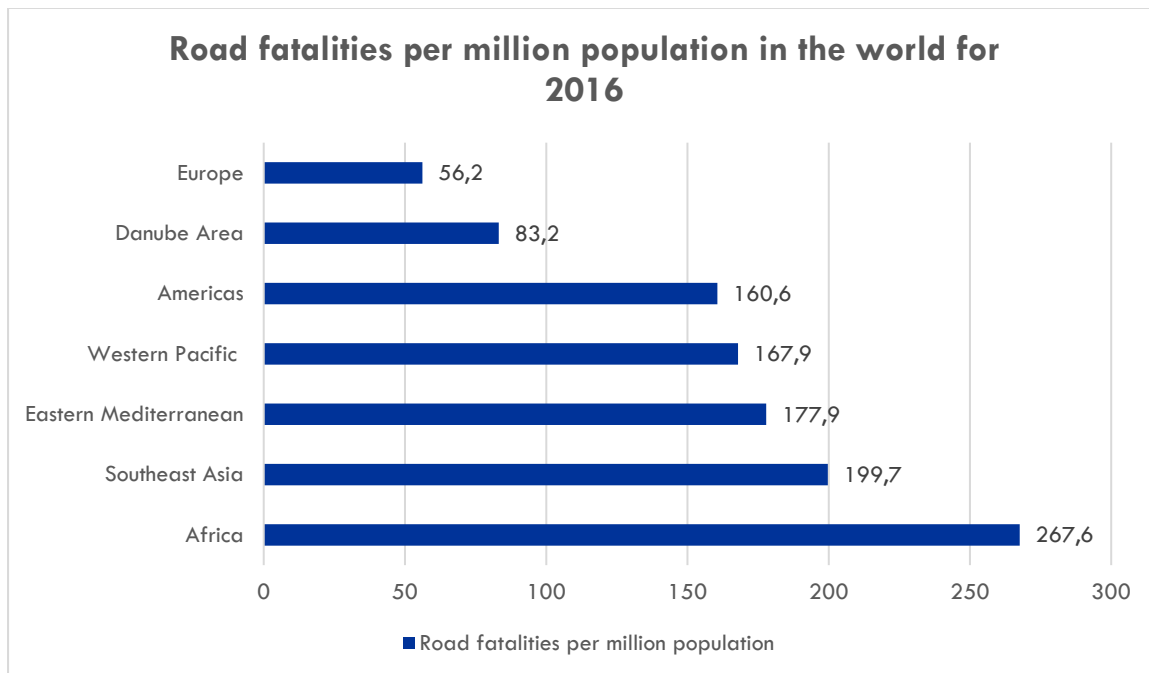


Figure 5 Road fatalities per million population in the world according to WHO estimated data⁵

Comparing the Danube area countries to Europe and WHO regions (Americas, Western Pacific, Eastern Mediterranean, Southeast Asia and Africa) per million population, data shows that European roads are the safest – even compared with the roads in Danube area countries. However, John Dawson, Board Director at EIRA-EuroRAP, explains “...that does not mean Europe does not have an appalling problem with a quarter of a million people expected to be killed in the next decade. And even in the very safest countries, we know it is relatively easy to reduce road deaths if we just apply the knowledge we have systematically on a proportioned scale. We need an attack on all the simple factors that we know that create an unsafe road system including a common and consistent way of measuring what the safety of our infrastructure”.

RADAR project Partners and Associated Strategic Partners are working together to address the urgent need to improve the road safety performance in the Danube area countries, where fatalities are higher than the EU average and road infrastructure quality and safety varies immensely. With every country participating, more of Europe’s citizens, policy makers and road engineers can share a common understanding where the risky roads are. The results are helping build awareness in public, policymakers and professional engineers, about the need to improve the road safety performance across the Danube area.

⁵ The data used in this figure was estimated by WHO (except for the Danube area: collected in the RADAR project). To estimate road traffic fatal injury, WHO classified the countries into four groups as follows: Countries with death registration data completeness of at least 80 %. For this category they used one of the following data: death registration, projection of the most recent death registration, reported death or projected reported deaths. The next group are countries with other sources of information on cause of death. This group includes India, Iran, Thailand and Viet Nam. For these countries a regression method was used to project forward the most recent year for which an estimate of total road traffic deaths was available. The third group are countries with population less than 150,000 and did not have eligible death registration data. For these countries the death reported in the survey were used directly, without adjustment. The last group included countries without eligible death registration data. For these countries a negative binomial regression model was used (Source: WHO Status Report 2018: <https://www.who.int/>)



Danube area compared to Europe and WHO regions

The roads are not only dangerous for vehicle occupants, but for vulnerable road users (VRUs) - motorcyclists, cyclists and pedestrians, as well. **Ferry Smith**, EuroRAP Chairman and EIRA Director, drew attention at the EuroRAP General Assembly in May 2019, that the Netherlands has one of the best road safety records in Europe. In 2017, 35.9 people per million inhabitants died in traffic accidents. This is 2.5 % less than in the previous year. Yet, for the first time the death toll was higher among cyclists than among occupants of passenger cars. In 2018, 12.1 cyclists per million inhabitants were killed in traffic accidents, which is 7.2 % more than in 2016 and the highest number in 10 years. In addition, traffic deaths included 3.4 pedestrians and 3 motorcyclists per million inhabitants.

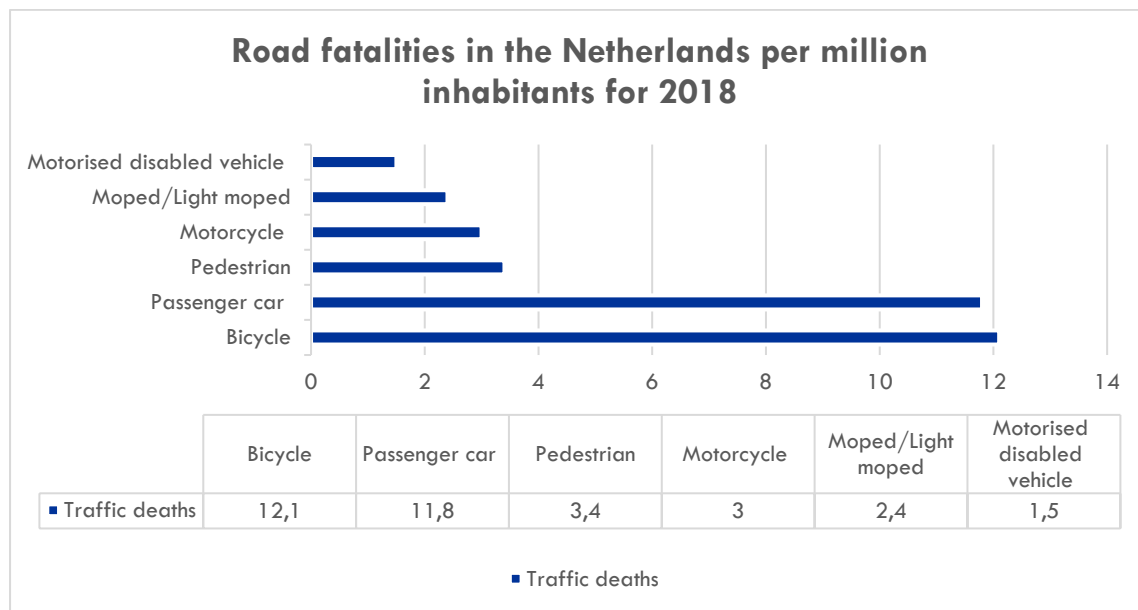


Figure 6 Road fatalities in the Netherlands per million inhabitants for 2018⁶

Based on the RADAR project Status report and relative numbers of vehicle occupant fatalities reported in each respective country, in relation to a million inhabitants, Austria is the country with the lowest number (23.2). On the other hand, Bosnia and Herzegovina is the country that has the largest number of vehicle occupant fatalities (51.3). As for cyclists, pedestrians and motorcyclist's fatalities per million population, Bosnia and Herzegovina (cyclists and motorcyclists) and Slovenia (pedestrians) account for the lowest numbers. The largest number of road fatalities per million inhabitants are recorded in Hungary (cyclists – 8.5), Moldova (pedestrians – 34.5) and Slovenia (motorcyclists – 14.0).

⁶ Source by Statistic Netherlands: <https://www.cbs.nl/en-gb>



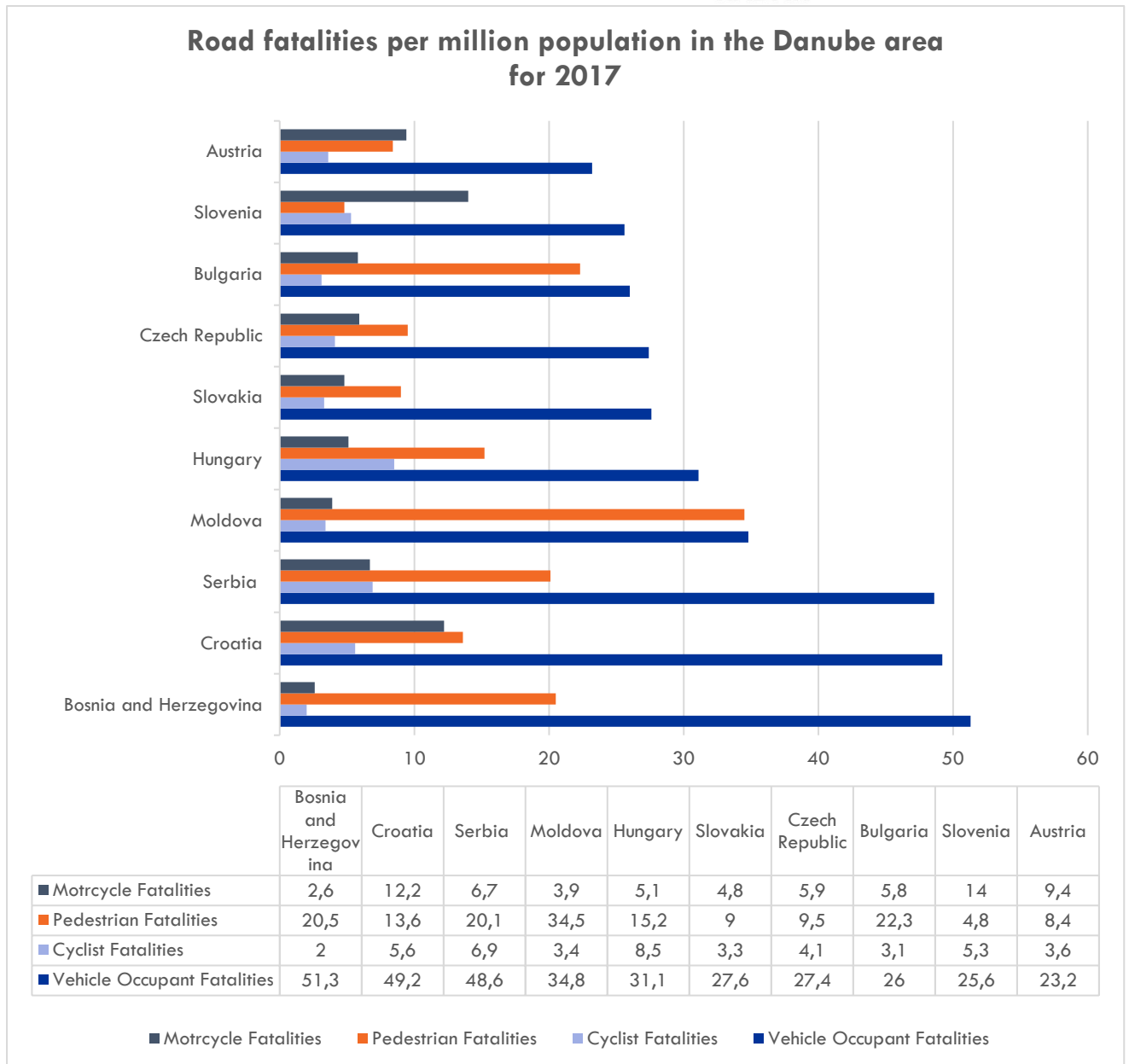


Figure 7 Road fatalities per million population in the Danube area for 2017 – RADAR Project Status Report⁷

⁷ This figure of road fatalities per category is based on reported data that was available to RADAR project team from participating countries in the RADAR project.



RADAR project demands for greater road safety

Mobility comes with responsibilities. As vehicle occupants, motorists, motorcyclists, cyclists and pedestrians, we all play our part in our participation on the roads every day and, in turn, define how safe our roads are. As such, road safety is the responsibility of all of us.

Status Report as a contributor in identifying and reducing risk on roads

The Status Report contributes to identifying and reducing risk on the Danube area road network, enhancing transnational cooperation of relevant stakeholders and road authorities in charge of national road networks, as well as to helping build capacities of Project Partners, Associated Strategic Partners, road safety engineers and professionals. Finally, it also contributes to making the Danube Infrastructure Road Safety Improvement Strategy and Action Plan to be used by participating countries from the Danube area to improve safety on their roads.

About the RADAR project

The 36-month project (June 2018 – May 2021) with the financial support of 2,15 million EUR for cooperation on the improvement of the road infrastructure safety in the Danube region was approved by the Interreg Danube Transnational Programme 2nd call. The Programme is co-financed by the European Regional Development Fund, the Instrument for Pre-Accession Assistance and European Neighborhood Instrument. The project is led by the European Institute for Road Assessment – EuroRAP from Slovenia. Altogether ten project partners and twelve associated strategic partners from thirteen European countries are part of the project and committed themselves to contribute to identifying and reducing risk on road networks, enhancing transnational cooperation between stakeholders to build strategy and defining cost-effective solutions to reduce risk by improving road infrastructure.

The RADAR project lasts until May 2021, each Project Partner with the support of Associated Strategic Partners will develop Road Safety Procedures Training Concept, deliver Road Safety Training Courses, perform Best Practices Study Visits. A Road Safety Expert Group that will contribute to the work on the Road Safety Thematic Areas, such as Safer Road Investment Plans, Provision for Vulnerable Road Users, Intelligent Transport Systems for Road Safety and Star Ratings for Safety around Schools will be established. Finally, the RADAR partnership will propose a Danube Infrastructure Road Safety Improvement Strategy and Action Plan.

Related links:

www.interreg-danube.eu/RADAR

