



## EU countries' ranking in different road crash types

Marianthi Kallidoni<sup>a</sup>, Dimitrios Nikolaou<sup>a</sup>, Katerina Folla<sup>a</sup>, George Yannis<sup>a</sup>

<sup>a</sup>National Technical University of Athens, Department of Transportation Planning and Engineering, Athens, Greece

### INTRODUCTION

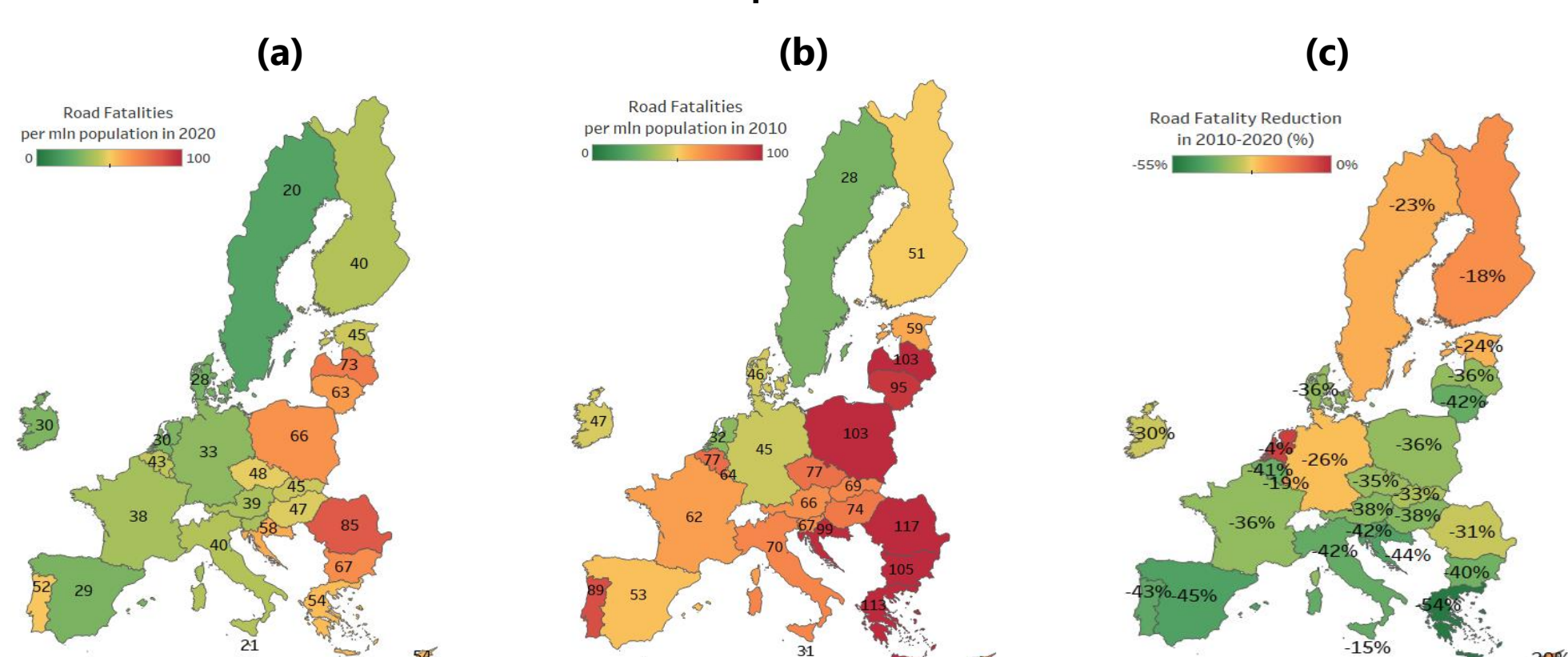
- A pan-European road safety inspection is commonly arisen from the **annual overall comparisons** of national performances in terms of road fatalities per population.
- The different demographic and geographic conditions, behavioral characteristics and modal shares of EU countries require diverse and more **targeted measures per country**.
- A more thorough overview of road safety performance is proposed through the **assessment of different road crash types** (e.g. by transport mode, type of area, number of vehicles involved in a crash, etc.), in order to better highlight the road safety problems on which countries should emphasize.

### OBJECTIVES

- The aim of this work is to investigate **how the ranking of road safety performance of EU countries changes when examining different road crash types**.
- Road crash **fatality data** from the European Commission CARE database and **population data** from Eurostat for the 27 EU countries for 2019 were analyzed at different disaggregation levels.

### OVERALL ROAD SAFETY PERFORMANCE

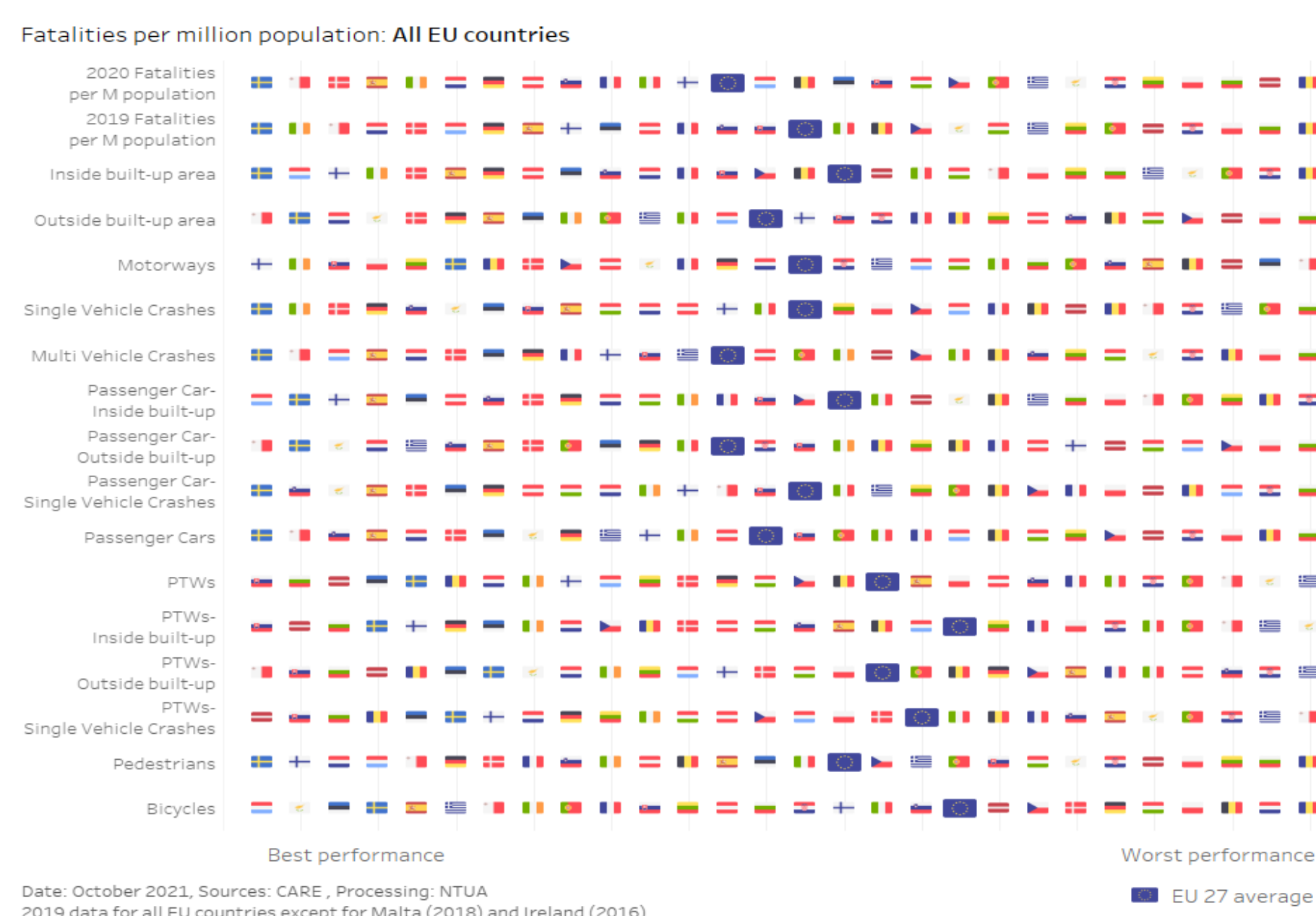
- In 2020, 18,836 persons were killed in road crashes in the EU countries, almost **11,000 fewer recorded deaths** compared to 2010, due to the various road safety actions and the pandemic restrictions.
- In 2020, Sweden ranks first with 18 road fatalities per million population and Romania last with 85, while the **EU average is 42** (67 in 2010).
- The geographical depiction in Figure 1 reveals a **lower mortality** in North Europe compared to the South and in Western countries compared to the Eastern ones.



**Figure 1:** (a) Road fatalities per million population, 2020;  
(b) Road fatalities per million population, 2010;  
(c) Road fatality reduction, 2010-2020.

### ROAD SAFETY PERFORMANCE BY CRASH TYPE

- The Northern and Central European countries present an overall **good road safety performance**.
- In the Southern European countries, **PTW fatalities** are much higher than the EU average, which remains an ongoing problem, mainly due to the high traffic volumes of motorcycles and mopeds.
- Finally, Eastern European countries rank in **last positions** in almost all crash types examined, with worse performances being presented for pedestrians and crashes inside built-up areas.
- The **overall assessment of the EU 27 road fatality rankings** could be derived through the Figure 2.



**Figure 2:** EU Member States fatality ranking by crash type.  
(<https://www.nrso.ntua.gr/nrso-ec2/>)

### CONCLUSIONS

- Analysis at different disaggregation levels allows for a **more detailed assessment of the road safety performance** at both national and European level.
- Exploiting this tool, decision makers could **identify the weak road safety aspects** to emphasize in order to improve the overall performance of their countries.

### Acknowledgements

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