

Traffic Safety Conference Riyadh, 11-13 March 2019

Traffic Safety in the European Union

George Yannis, Professor



Department of Transportation Planning and Engineering National Technical University of Athens, Athens, Greece

Website: www.nrso.ntua.gr/geyannis e-mail: geyannis@central.ntua.gr

Presentation Outline

- 1. Road accidents in the EU
- 2. Road Safety Strategic Plans in the EU
- 3. EU Strategic Action Plan for Road Safety (2020-2030)
- 4. Next Steps





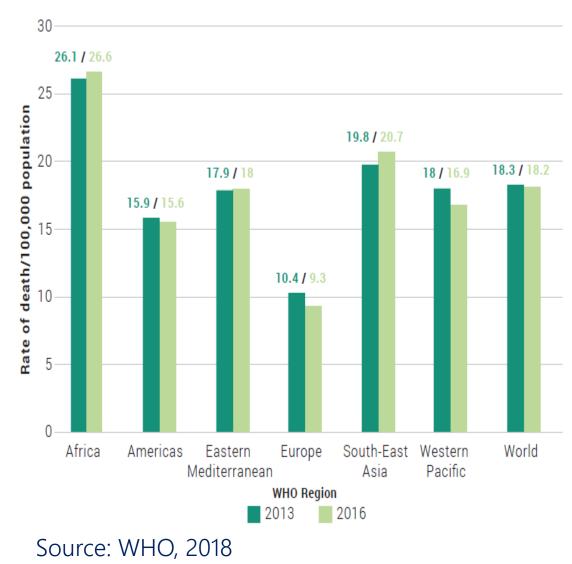
Road Accidents in the EU





Road Safety Worldwide

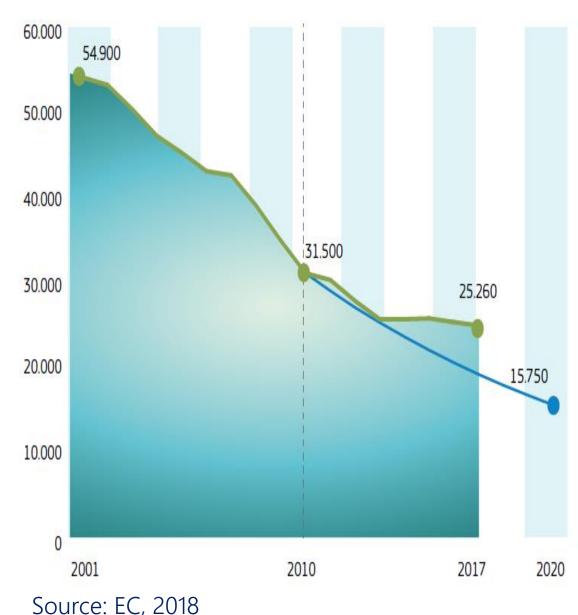
- 1.35 million fatalities in road accidents are recorded each year.
- Road accidents are the 8th leading cause of death for people of all ages.
- Progress has been made during the last years, but it is far from uniform across countries and regions.
- Europe presents the lowest traffic fatality rate per population globally, with 9,3 fatalities per 100.000 population (EU: 5,0).



Road Fatality Trend in the EU

- EU has made significant progress in road safety during the last two decades.
- However, the progress rate has lately slowed down.
- After two years of stagnation (2014 and 2015), the number of road fatalities was reduced by 2% in 2016 and by another 2% in 2017.
- More efforts are required in order to meet the target of halving road fatalities between 2010 and 2020.





OVERVIEW-MAJOR ISSUES



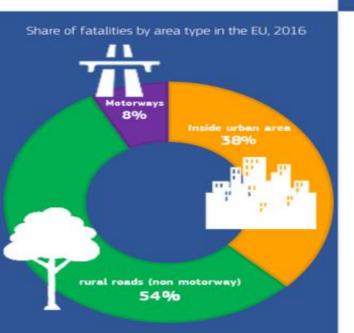


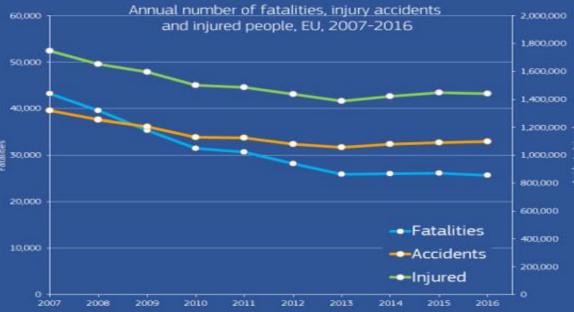
Main progress in

1 Million Road Accidents per Year -3.000 per day (2016) with consequences:

1,4 Million Injured (3.600 per day)

25.600 Fatalities (70 per day)





The overall

downward

trend

road fatalities

is different for each

road user

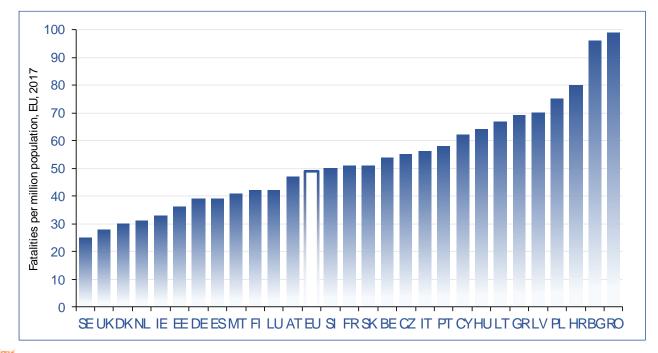
reducing fatalities 1% less in injury accidents -17%

The most significant reduction in the overall number of fatalities between 2007 and 2016 occurred in Lithuania, Estonia and Latvia



Fatality rates per population in the EU

- Accident fatality rates show both a north-south divide and an east-west divide across Europe.
- In the EU, fatality rates per million population range from 25 in Sweden to 99 in Romania.





George Yannis, Professor NTUA | Traffic Safety across European Jurisdictions



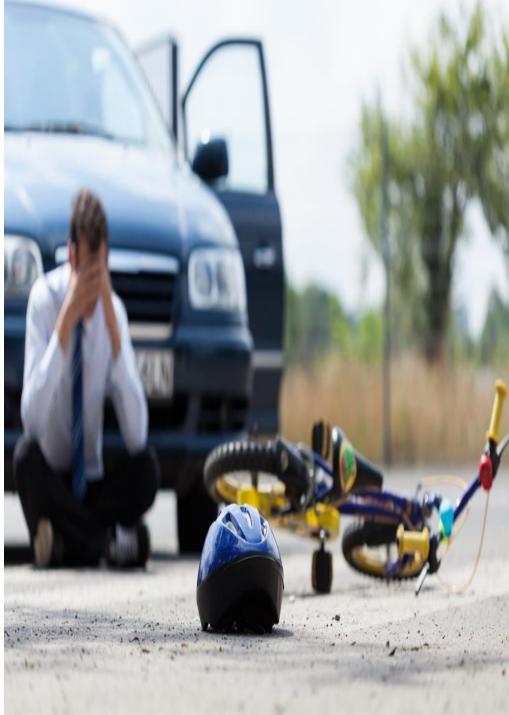
Different urban road safety patterns in EU regions

Road Fatalities 2017 (source: CARE)

Power Two Wheelers	Urban	Total	%
Power two wheelers	Urban	IOLAI	70
North-Western Countries	667	3.344	20%
Southern Countries	822	2.693	31%
Eastern Countries	274	3.404	8%
Cyclists	Urban	Total	%
North-Western Countries	531	3.344	16%
Southern Countries	196	2.693	7%
Eastern Countries	388	3.404	11%
Pedestrians	Urban	Total	%
North-Western Countries	1.182	3.344	35%
Southern Countries	920	2.693	34%
Eastern Countries	1.561	3.404	46%

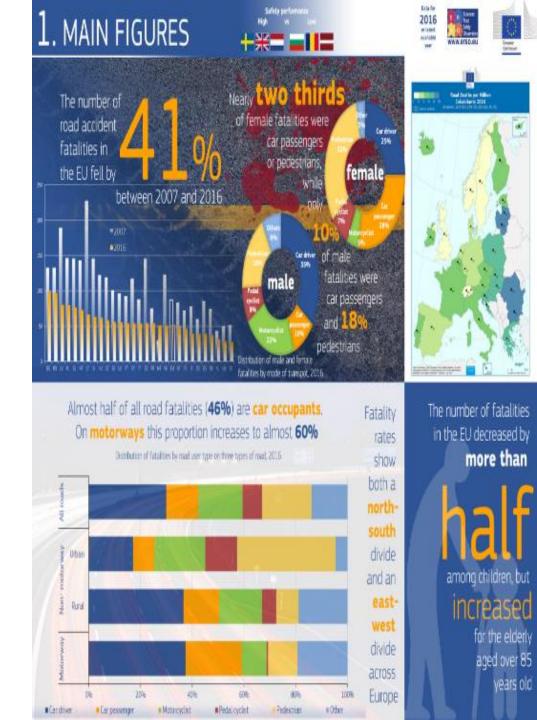


George Yannis, Professor NTUA | Traffic Safety across European Jurisdictions



European Road Safety Observatory, EC

- The ERSO is the information system of the European Commission with harmonised specialist information on road safety practices and policy in European countries. ERSO and CARE database are managed by the European Commission – DG Move – Road Safety Unit,
 - Cooperation with Eurostat (EC Statistical Office)
 - Assisted by the Road Accident Statistics National Experts Group (CARE Experts Group)
- Methodology
 - Definition of common protocols for data collection
 - Availability, systematic collection and analyses of data and information
 - Presentation of the results responding to users' needs
 - Continuity in making all results publicly available



Road Safety Strategic Plans in the EU





The first steps (1986-1993)

- 1986: the first common efforts were made to deal with Road Safety problems at European level
- 1991: the Gerondeau report was drawn up and was the basis for the first Road Safety Action Plan. Moreover, a high-level group of experts was set up.
- 1992: The White Paper on the development of the common transport policy in the EU was drawn up.
 - European Road Safety policy is limited by the "principle of subsidiarity", according to which action will be taken at European level only for road safety problems that can not be solved at local or national level.



The First Action Plan on Road Safety (1993-1996)

- An approach to road safety based on qualitative objectives and the setting of specific priorities is introduced.
- The process of harmonization with legislative instruments and the implementation of common research programs remain the main types of action covering the three main factors of road accidents: driver behavior, road infrastructure and vehicles.
- Particular emphasis is given on active and passive vehicle safety, road user education, actions on drivers' behavior (speed limitation, drink-driving, etc.).





The Second Action Plan on Road Safety (1997-2001)

- A long-term quantitative target was set: the progressively reduction of fatalities by at least 18.000 up to 2010.
- The Plan was proposed to be implemented at Community level and consists of the following three pillars of action:
 - Collection and dissemination of information and good practices.
 - Effective implementation of measures for the prevention of accidents.
 - Strengthening the means aiming to reduce the consequences of accidents.



The Third Action Plan on Road Safety (2003-2010)

- Target: reduction of fatalities by 50% in 2010 compared to the respective number in 2000.
- The need of monitoring the road safety progress by establishing performance indicators and the preparation of a mid-term review was highlighted.
- The road safety measures proposed in the third Action Plan were included in seven pillars of action:
 - Encourage road users to improve their behavior.
 - Exploitation of technological progress for the improvement of vehicle safety.
 - Encourage the improvement of road infrastructure.
 - Safety of commercial transport of goods and passengers.
 - Rescue and care of injured people in road accidents.
 - Collection, analysis and dissemination of accident data.



Action Plan on Road Safety (2011-2020)

- Target: reduction of fatalities by 50% in 2020 compared to the respective number in 2010.
- ➤ 3 actions are included:
 - Establishment of a framework for cooperation based on good practices in the Member States.
 - Development of a strategy on serious injuries and first aid provision to address the need to reduce the number of road accident injuries.
 - Improvement of safety of vulnerable road users and especially of motorcyclists.
- ➤ 7 strategic targets are included:
 - Improvement of road users' education and training
 - Increase of traffic law enforcement
 - Safer road infrastructure
 - Safer vehicles
 - Promotion of the use of technology for the improvement of road safety
 - Improvement of first aid and post-crash care services
 - Protection of vulnerable road users



EU Strategic Action Plan for Road Safety (2020-2030)



EU Strategic Action Plan for Road Safety (2020-2030)

- On May 2018, the EC adopted its EU Strategic Action Plan for Road Safety with an outline of actions planned for the 2021-2030 period.
- The EU Strategic Action Plan was published as part of the <u>3rd mobility package</u>, including also a revision of the directive on road infrastructure safety management and a strategy for connected and automated mobility.
- Actions within eight pillars are to be set out into a specific target time frame:
 - Enhanced road safety governance
 - Stronger financial support for road safety
 - Safe roads and roadsides
 - Safe vehicles
 - Safe road use
 - Fast and effective emergency response
 - Future-proofing road safety
 - > The EU's global role: exporting road safety



1. Enhanced Road Safety Governance

- The EU road safety policy framework 2021-2030 is based on the Safe System approach.
- The coordinated action of all sectors and for all road users under an enhanced governance structure is required.

Key Actions on governance:

- > a list of KPIs to be connected to target outcomes
- an enhanced mandate of the High Level Group on Road Safety to include strategic advice and frequent feedback
- the new role of European Road Safety Coordinator, to coordinate road safety efforts with Member States and spread good practice.





Key Performance Indicators

Indicative list of KPIs that should be collected and monitored at EU level at next steps:

- > Speeding
- Driving under the influence of alcohol and/or drugs
- Seat-belt and child restraint systems use
- Helmet use
- Driver distraction
- Vehicle fleet performance
- Infrastructure performance
- Post-crash care



2. Stronger Financial Support for Road Safety

Provide stability and coherence in funding solutions for infrastructure upgrades and other road safety actions.

Key Actions on enabling and funding:

- encourage the use of EU financial support from the European Structural and Investment Funds for road safety upgrades of infrastructure.
- streamline and strengthen funding support for road safety actions in the next Multiannual Financial Framework.
- investigate how to provide stability in funding support for road safety actions (e.g. joint cross-border road traffic enforcement operations).
- investigate possibilities to financially support capacity building at Member State level (e.g. KPIs measurement methodology).



3. Safe Roads and Roadsides

Revision of the Road Infrastructure Safety Management Directive is proposed to mandate more transparency and network-wide risk mapping and extend its scope to all primary roads.

Key Actions for safe roads and roadsides:

- carry out preparatory work and establish an expert group in order to elaborate a framework for a better road classification in line with the Safe System approach.
- facilitate exchange of experience on Safe System methodologies between practitioners.



4. Safe Vehicles

Revision of the Vehicle General Safety Regulation and the Pedestrian Safety Regulation is proposed in order to make some important safety features mandatory (e.g. Intelligent Speed Assistance, Autonomous Emergency Braking etc.).

Key Actions for safe vehicles:

- assess whether retrofitting the existing fleet with \succ ADAS is feasible and cost-effective.
- encourage Member States to consider national incentives to fast-track proven technologies by a range of means including procurement, safe travel policies, tax and insurance incentives.





5. Safe Road Use

Proposal for a revised General Safety and Pedestrian Safety Regulation, covering some features that promise high safety gains.

Key Actions for safe road use:

- assess options to improve the effectiveness of the directive on cross-border enforcement of traffic offences.
- Iaunch a study into the feasibility of a possible legislative initiative on the mutual recognition of driving disqualifications.
- transpose UNECE regulation making seatbelt reminders mandatory for all seats.
- enable necessary conditions for the functioning of overridable Intelligent Speed Assistance, including regarding the availability of speed limits in a digital format.
- assess how to strengthen the EU recommendation on permitted blood alcohol content.



6. Fast and Effective Emergency Response

The effects of the roll-out of eCall should be closely monitored.

Key Actions on emergency response

- assess the effect of eCall and evaluate the possible extension to other categories of vehicles.
- facilitate closer contacts between road safety authorities and the health sector to assess further practical and research needs.



7. Future-proofing Road Safety

- Connectivity and automation have tremendous road safety potential in the long run, but their risks need to be addressed.
- The collaborative economy and some environmental measures offer opportunities for mutual benefits, when combined with road safety measures.
- The specific needs of vulnerable road users and of different user groups have to be taken into account.

Key Actions on emerging challenges

- adopt specifications on cooperative intelligent transport systems
- Iaunch a process towards developing a code of conduct for the safe transition to the higher levels of automation, by taking road safety considerations into account
- set up a Safe City challenge or award



8. The EU's Global Role: Exporting Road Safety

- The Commission's road safety focus beyond the EU is on its immediate neighbours, particularly on countries of the Western Balkans and of the Eastern Partnership.
- Lately, cooperation with African and Asian countries is initiated.

Key Actions for improving road safety outside the EU:

further develop road safety cooperation with the EU's neighbours, in particular the Western Balkans and the Eastern Partnership by sharing best practice and supporting capacity building





Next Steps at EU level

- A new policy framework has been established in the EU for the next decade focusing on:
 - closer cooperation between all road safety actors,
 - better monitoring,
 - targeted funding.
- The transparency of procedures concerning infrastructure safety management has to be ensured and members should work towards an equal level of infrastructure safety.
- The latest technological developments on vehicle safety should be used to avoid accidents and protect pedestrians and cyclists.
- A safe transition to connected and autonomous mobility should be guaranteed, which offer potential in reducing driver errors, but also create new challenges.



George Yannis, Professor NTUA | Traffic Safety across European Jurisdictions



Traffic Safety Conference Riyadh, 11-13 March 2019

Traffic Safety in the European Union

George Yannis, Professor



14 4 4 4 4 ×

Department of Transportation Planning and Engineering National Technical University of Athens, Athens, Greece

Website: www.nrso.ntua.gr/geyannis e-mail: geyannis@central.ntua.gr