Road Safety Exchange
Kick off Meeting
Athens, 10 June 2019

Motorcycle Safety in Greece

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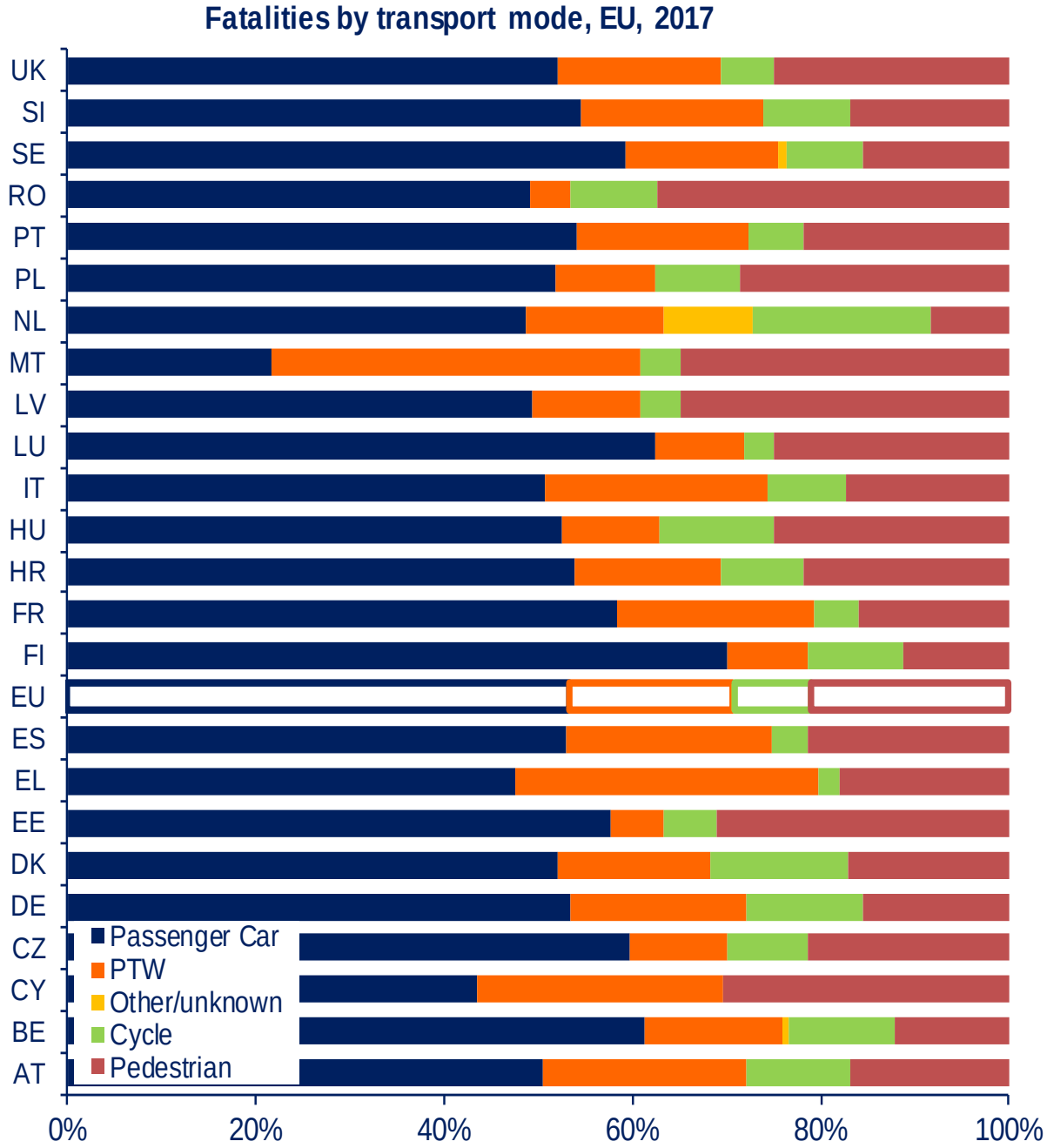
Fatalities by Transport Mode in the EU

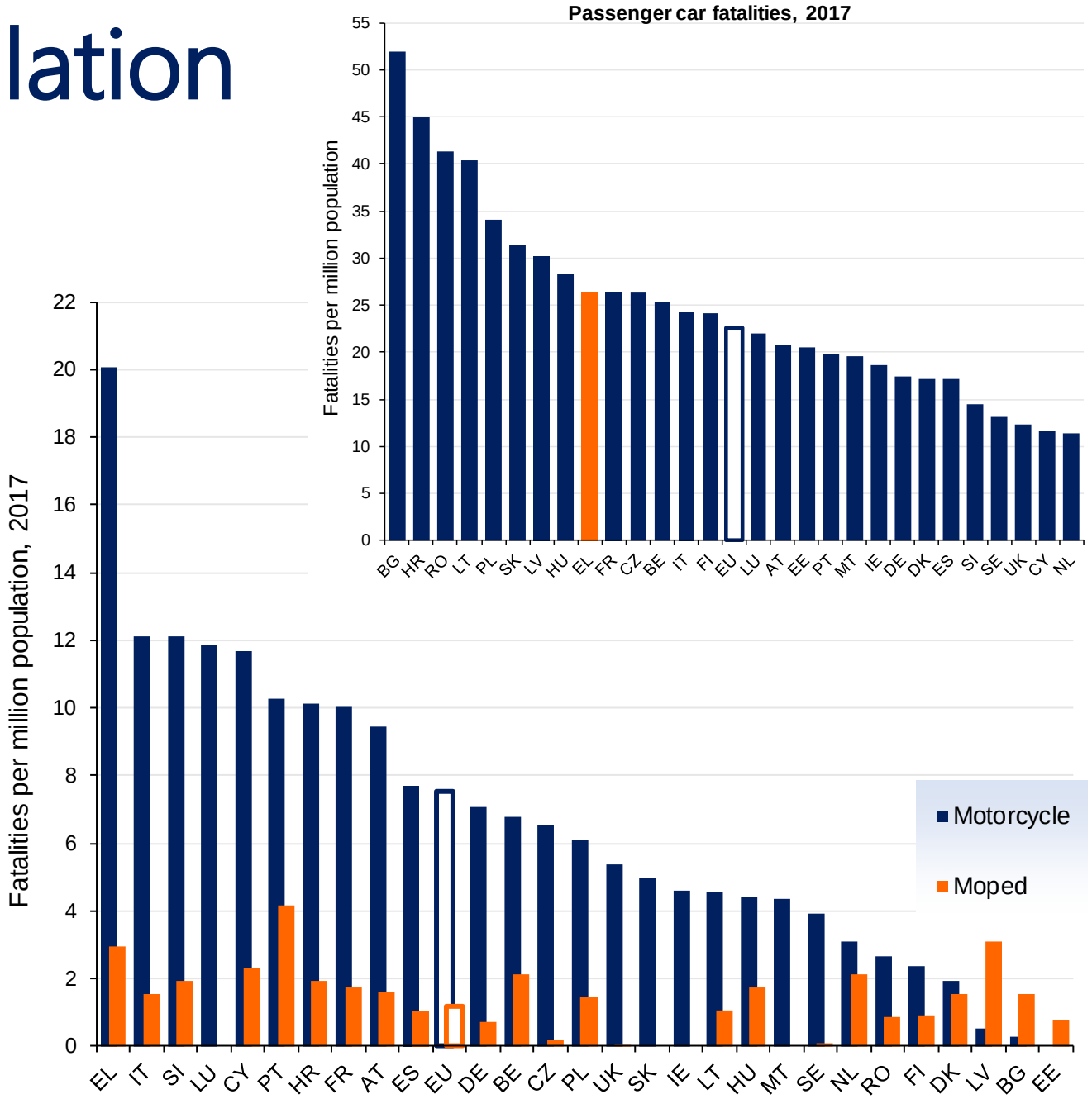
- Most fatalities in the EU concern passenger cars (53%).
- PTW fatalities in the EU account for 17%.
- Greece has the highest percentage of PTW fatalities in the EU (32%).



Source: CARE database
Processing: NTUA - Road Safety Observatory

PTW Fatalities per population

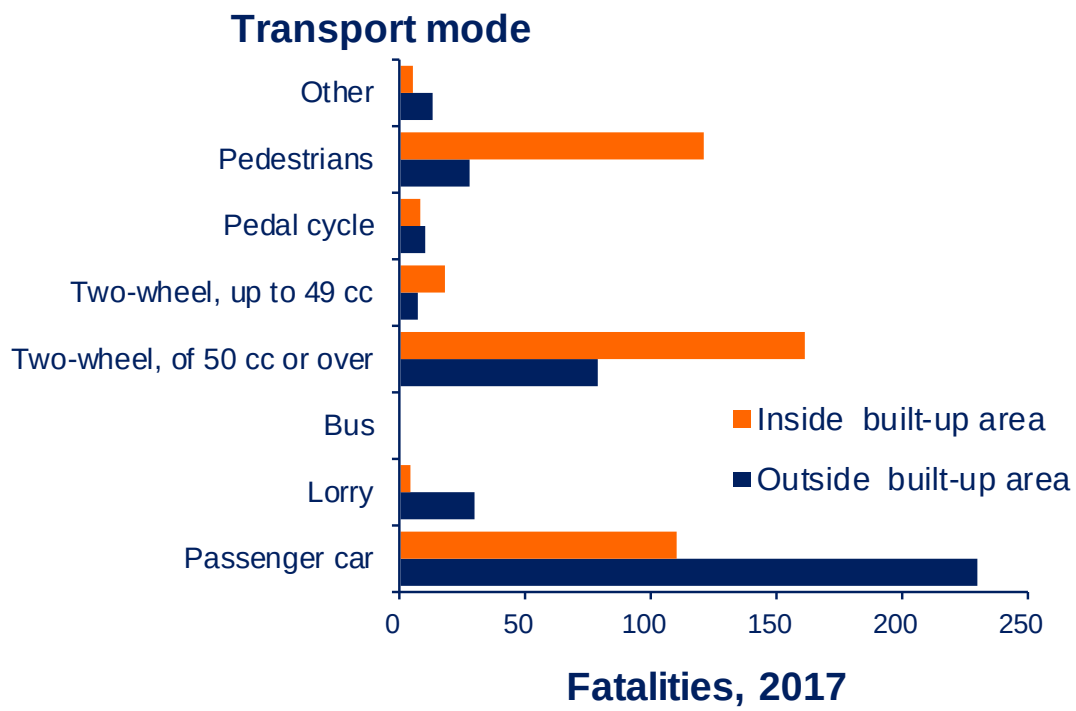
- Motorcycles and mopeds are preferred by a large part of population in Greece, especially during summer months.
- The proportion of motorcycles in the total vehicle fleet was 19% in 2018, while mopeds represented another 12%.
- In 2017, Greece had the highest motorcyclist fatality rate in the EU (20 fatalities per million population), while the EU average was about 8.



Source: CARE database
Processing: NTUA - Road Safety Observatory

Fatalities by Transport Mode in Greece

- 41% of fatalities are passenger car occupants.
- Almost 32% of fatalities are power two wheelers.
- Most car occupant fatalities occur outside built-up areas, while most motorcycle and pedestrian fatalities occur inside built-up areas.



Transport mode	Fatalities				Road Accidents*			Fatalities per 100 accidents		
	Inside built-up area	Outside built-up area	Total	%	Inside built-up area	Outside built-up area	Total	Inside built-up area	Outside built-up area	Total
Passenger car	110	230	340	41%	8.263	2.050	10.313	1,3	11,2	3,3
Lorry	4	30	34	4%	808	529	1.337	0,5	5,7	2,5
Bus	0	0	0	0%	316	48	364	0,0	0,0	0,0
Two-wheel, of 50 cc or over	161	79	240	29%	6.063	678	6.741	2,7	11,7	3,6
Two-wheel, up to 49 cc	18	7	25	3%	402	99	501	4,5	7,1	5,0
Pedal cycle	8	10	18	2%	216	40	256	3,7	25,0	7,0
Pedestrians	121	28	149	18%	1.951	74	2.025	6,2	37,8	7,4
Other	5	13	18	2%	105	151	256	4,8	8,6	7,0
Unknown	2	0	2	0%	341	32	373	0,6	0,0	0,5
Total	427	397	824	100%						
%	52%	48%	100%							

Source: Hellenic Statistical Authority (ELSTAT)
Processing: NTUA - Road Safety Observatory

PTW Accident Risk, Greece 2003

- Accident risk of young drivers is 4 times the average for car drivers and 5 times the average of PTW riders.
- Drivers >65 years old are at increased risk, especially when riding mopeds or motorcycles.
- Accident risk of PTW decreases with vehicle age.
- Accident risk outside built-up areas at nights or at weekends is much higher, especially for PTW's.

Number of road fatalities per million vehicle-kilometres

	Driver's age							
Vehicle type	16-17	18-24	25-34	35-44	45-54	55-64	>65	Total
PTW < 50 cc	54,7	26,7	18,4	45,3	42,5	26,6	357,8	40,1
PTW > 50 cc	-	202,0	62,3	59,5	30,1	141,9	115,4	77,8
Passenger car	-	25,2	7,7	6,3	5,3	6,5	11,5	8,0
Total	-	40,6	11,9	9,3	6,3	7,9	17,0	11,8

	Vehicle Age					
Vehicle type	< 1 year	1-2 years	3-5 years	6-10 years	> 10 years	Total
PTW < 50 cc	52,5	32,8	28,0	31,1	12,2	40,1
PTW > 50 cc	101,3	84,1	62,1	63,4	38,3	77,8
Passenger car	8,5	8,3	4,5	5,6	13,3	8,0
Total	15,3	13,8	7,6	7,4	14,3	11,8

Source: NTUA, 2005
Processing: NTUA - Road Safety Observatory

Helmet Use Rate, 2009

- 75% of motorcycle riders use their helmet.
- Young females (16-24) have lower helmet use rates than young males, while the opposite is the case for the other age groups.
- Only 41% of motorcycle passengers use their helmet inside built-up areas.
- More than 90% of riders use their helmet outside built-up areas.

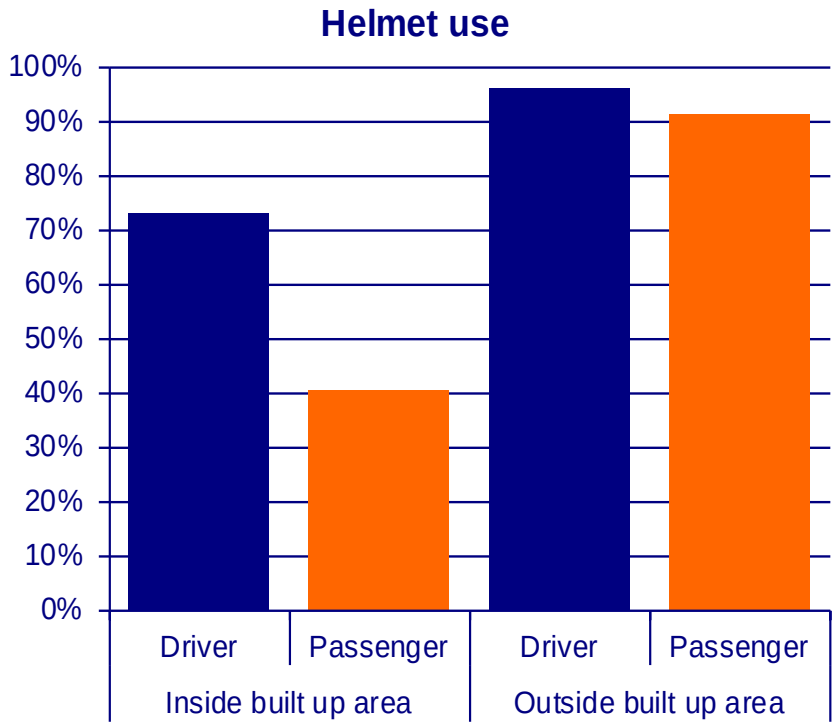
	Male			Female			Total
Driver	16-24	25-54	>55	16-24	25-54	>55	
Yes	61%	79%	67%	44%	82%	100%	75%
No	39%	21%	33%	56%	18%	0%	25%
Total	100%	100%	100%	100%	100%	100%	100%

	Inside built up area		Outside built up area	
	Driver	Passenger	Driver	Passenger
Yes	73%	41%	96%	91%
No	27%	59%	4%	9%
Total	100%	100%	100%	100%

Power Two Wheel

Driver	Large	Small	Total
Yes	80%	72%	75%
No	20%	28%	25%
Total	100%	100%	100%

Source: NTUA, 2009
Processing: NTUA - Road Safety Observatory



Identification of Problems and Causes

- High number of PTW
- Inappropriate behaviour of drivers and PTW riders
- Low helmet use
- Motorcycle riders more risky than moped riders
- Lack of targeted road safety measures and programmes for PTW safety

Selection of Necessary Interventions

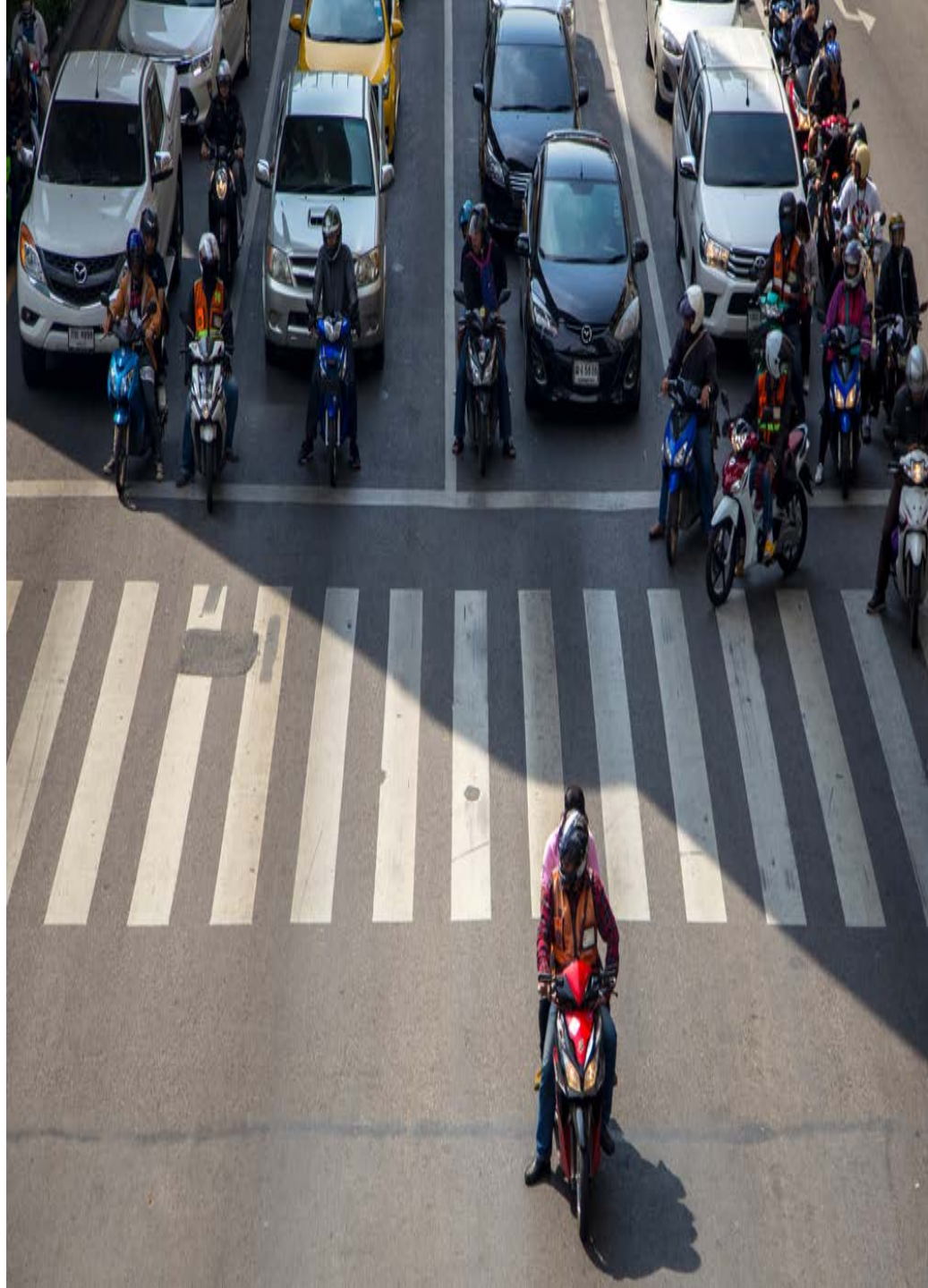
- **Enforcement intensification** for:
  - riders speeding
  - helmet use
  - appropriate behaviour of drivers

- **Targeted campaigns** for (especially for helmet use):
  - young and novice riders
  - for drivers

- **Target setting** and selection of specific measures
- Systematic **monitoring** of the measures implementation and of the targets
- Strengthening **road safety management** within the local Authorities

Selection of Infrastructure Interventions

- Introduction of PTW waiting zone at signalized intersections
- Comprehemsive implementation of high quality road markings and traffic signs
- Improvement of pavements quality (eliminate potholes)
- Improvement of lighting
- Guardrails for preventing illegal crossing by pedestrians and use of the sidewalks by PTW



Conclusions

- The rate of PTWs' fatalities in road accidents is especially high in Greece, leading to the high need for further measures to be taken.
- An integrated action plan with aim to reduce PTW accidents includes measures such as:
  - Systematic traffic law enforcement
  - Improvement of road infrastructure.
  - Improvement of driving licence system
  - Reduction of the cost for acquiring protective equipment
- Development of road safety culture not only for drivers and riders, but also for the Authorities involved in the design, implementation and monitoring of road safety policies.

The key one measure

- Greece road safety performance is much closer to the EU average if we do not take into account Power Two Wheelers

- If helmet use is increased to 95% for both riders (mainly through enforcement), the estimated annual road fatalities save can be up to 150 riders (out of 250 in 2017), leading Greece performing better than the EU average and overall to less than 500 road fatalities annually

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