Road Safety in Greece
A decade of improvements

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Role of the Traffic Safety Agency and Importance of reliable data in Policy Making
Skopje, 6 December 2021
The NTUA Road Safety Observatory (www.nrso.ntua.gr) is a Center of Research and Innovation Excellence on Road Safety, with global recognition [ranked: 2nd in Europe and 6th worldwide (AAP 2018)]

A Team of 35+ Scientists: internationally recognized Professors, Senior Transportation Engineers, PostDoc, PhD Candidates and other scientists

An international reference website - information system with state-of-the art road safety data and knowledge:
- more than 100,000 visits per year
- 100+ electronic newsletters since 2007
- tens of tweets and social media posts annually (160,000 post views)
- network of more than 4,500+ road safety experts in Greece (1,000+) and worldwide (3,500+)

An excellent research activity:
- More than 100 Diploma Theses & 6 PhD Theses,
- More than 100 road safety research projects, mostly highly competitive,
- More than 500 road safety publications (> 200 in scientific Journals),
- More than 100 scientific commissions,

George Yannis, Road Safety in Greece - A decade of improvements
Presentation Outline

1. Basic Road Safety Figures in Greece (4)

2. Overview of the decade 2011-2020 (5)

3. Next Steps for the decade 2021-2030 (3)

4. Key Lessons and Opportunities (2)
Basic Road Safety Figures in Greece
### Road Safety in Greece - A decade of improvements

<table>
<thead>
<tr>
<th>Year</th>
<th>Injury Road crashes</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
<th>Slight Injuries</th>
<th>Vehicle Fleet (x1000)</th>
<th>Fatalities per million vehicles</th>
<th>Speed infringements</th>
<th>Drink &amp; drive infringements</th>
<th>Seat belt infringements</th>
<th>Helmet infringements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>15,032</td>
<td>1,258</td>
<td>1,709</td>
<td>17,399</td>
<td>8,062</td>
<td>156</td>
<td>263,382</td>
<td>38,033</td>
<td>49,703</td>
<td>51,526</td>
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<tr>
<td>2011</td>
<td>13,849</td>
<td>1,141</td>
<td>1,626</td>
<td>15,633</td>
<td>8,087</td>
<td>141</td>
<td>238,033</td>
<td>34,992</td>
<td>37,120</td>
<td>47,250</td>
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<tr>
<td>2012</td>
<td>12,398</td>
<td>988</td>
<td>1,399</td>
<td>14,241</td>
<td>8,070</td>
<td>122</td>
<td>186,675</td>
<td>30,707</td>
<td>33,722</td>
<td>47,736</td>
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<tr>
<td>2013</td>
<td>12,109</td>
<td>879</td>
<td>1,212</td>
<td>13,963</td>
<td>8,035</td>
<td>109</td>
<td>178,816</td>
<td>30,853</td>
<td>35,478</td>
<td>58,122</td>
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<td>2014</td>
<td>11,690</td>
<td>795</td>
<td>1,016</td>
<td>13,548</td>
<td>8,048</td>
<td>99</td>
<td>156,892</td>
<td>29,597</td>
<td>34,526</td>
<td>54,354</td>
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<tr>
<td>2015</td>
<td>11,440</td>
<td>793</td>
<td>999</td>
<td>13,097</td>
<td>8,076</td>
<td>98</td>
<td>173,476</td>
<td>29,191</td>
<td>34,831</td>
<td>52,783</td>
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<tr>
<td>2016</td>
<td>10,848</td>
<td>824</td>
<td>879</td>
<td>12,946</td>
<td>8,173</td>
<td>101</td>
<td>176,592</td>
<td>33,192</td>
<td>31,510</td>
<td>63,971</td>
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<tr>
<td>2017</td>
<td>10,737</td>
<td>731</td>
<td>706</td>
<td>12,565</td>
<td>8,263</td>
<td>88</td>
<td>208,190</td>
<td>32,964</td>
<td>31,380</td>
<td>59,405</td>
</tr>
<tr>
<td>2018</td>
<td>10,712</td>
<td>700</td>
<td>727</td>
<td>12,422</td>
<td>8,237</td>
<td>85</td>
<td>213,333</td>
<td>33,394</td>
<td>34,594</td>
<td>52,706</td>
</tr>
<tr>
<td>2019</td>
<td>9,105</td>
<td>688</td>
<td>652</td>
<td>12,350</td>
<td>8,402</td>
<td>82</td>
<td>234,169</td>
<td>31,557</td>
<td>30,174</td>
<td>52,089</td>
</tr>
<tr>
<td>2020</td>
<td>-15.0%</td>
<td>-15.8%</td>
<td>-25.3%</td>
<td>-18.0%</td>
<td>1.4%</td>
<td>-17.0%</td>
<td>-26.2%</td>
<td>-39.5%</td>
<td>-12.8%</td>
<td>-10.9%</td>
</tr>
<tr>
<td>2020/2019</td>
<td>-39.4%</td>
<td>-54.0%</td>
<td>-71.5%</td>
<td>-41.8%</td>
<td>5.7%</td>
<td>-56.4%</td>
<td>-21.8%</td>
<td>-49.8%</td>
<td>-39.3%</td>
<td>-10.0%</td>
</tr>
<tr>
<td>2016/2020</td>
<td>-19.6%</td>
<td>-29.7%</td>
<td>-44.6%</td>
<td>-21.8%</td>
<td>4.2%</td>
<td>-32.6%</td>
<td>-17.0%</td>
<td>-42.5%</td>
<td>-13.4%</td>
<td>-27.5%</td>
</tr>
</tbody>
</table>

**Notes:**
- Figures in italics are based on provisional data.
- Sources: Greek Statistical Authority (ELSTAT), Traffic Police, NTUA - Road Safety Observatory.

**Road fatalities, Greece 2010-2020**

- The rate fatalities per number of vehicles has decreased by **56% since 2010**.
- A significant annual decrease by **16% in road fatalities was recorded in 2020, also due to the pandemic and related traffic restrictions**.

- Road fatalities have decreased by **54% since 2010**, however injury road crashes decreased only by **39%**.
Evolution of Road Fatalities
Greece, 2010-2020

- Over the last decade, Greece recorded the highest decrease in road fatalities per million population (52%) in the EU

- At EU level, road fatalities per million population were decreased by 37.5% over the same period

- With 54 fatalities per million population, Greece is ranked 20th in 2020 (from position 26th in 2010)

Source: European Commission
Road Crash Factors in Greece

- Driving at high **speeds**
- High rates of **motorcyclists**
- Low rates of **seat belt** and **helmet** use, especially for passengers
- Unorganised and unprotected traffic of **vulnerable road users**
- Driving under the influence of **alcohol** and using a **mobile phone**
- Aggressive driving

<table>
<thead>
<tr>
<th>% Fatalities (2019)</th>
<th>Greece</th>
<th>EU (27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside built up areas</td>
<td>54%</td>
<td>39%</td>
</tr>
<tr>
<td>Drivers</td>
<td>68%</td>
<td>64%</td>
</tr>
<tr>
<td>Passengers</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>21%</td>
<td>20%</td>
</tr>
<tr>
<td>Powered Two Wheelers</td>
<td>36%</td>
<td>18%</td>
</tr>
<tr>
<td>Young Drivers (18-24) (% drivers)</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Elderly Drivers (64+) (% drivers)</td>
<td>21%</td>
<td>23%</td>
</tr>
<tr>
<td>Single Vehicle Accidents</td>
<td>52%</td>
<td>39%</td>
</tr>
</tbody>
</table>

**Fatalities in Passenger Cars (2019)**

<table>
<thead>
<tr>
<th>Seat belt use</th>
<th>No seat belt use/ not recorded</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>149</td>
<td>202</td>
</tr>
<tr>
<td>26%</td>
<td>74%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**PTW Fatalities (2019)**

<table>
<thead>
<tr>
<th>Helmet use</th>
<th>No helmet use/ not recorded</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>163</td>
<td>247</td>
</tr>
<tr>
<td>34%</td>
<td>66%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Sources: ELSTAT, EC CARE Database
Data Processing: NTUA
### PTW vs Passenger Car Fatalities in Greece

- **Greece ranked 20th** among the EU countries in terms of road fatalities per million population.
- **Greece had the highest PTW fatality rate** in the EU (27th) with 23 fatalities per million population, while the EU average was about 9.
- **Concerning passenger car fatalities**, Greece is ranked in **10th position**, with 19 fatalities per million population (the EU average is 23).

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**Fatalities per million population: Greece**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities per Million Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>23</td>
</tr>
<tr>
<td>2019</td>
<td>22</td>
</tr>
</tbody>
</table>

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**Fatality Distribution**

- Inside built-up area
- Outside built-up area
- Motorways
- Single Vehicle Crashes
- Multi Vehicle Crashes
- Motorcycles
- Pedestrians
- Young people per age group
- Elderly people per age group

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*Date: October 2021, Sources: CARE, Processing: NTUA*

*2019 data for all EU countries except for Malta (2018) and Ireland (2015)*

[https://www.nrso.ntua.gr/nrso-ec2/](https://www.nrso.ntua.gr/nrso-ec2/)
Overview of the Decade 2011-2020
Road Safety Management

- The **National Road Safety Strategic Plan 2011-2020** guided policy, programmes, measures and interventions

- The **Inter-Ministry Committee** on Road Safety was re-established in 2010 and under the chairmanship of the Prime Minister since 2014, assisted by the National Road Safety Council

- The Ministry of Transport has properly implemented all **EU Directives** (vehicles, driving licences, etc.) and all procedures concerning road safety are always tighter than those of the EU Directives

- Quite a lot of the **reforms imposed by the EU**, resulted in a more serious implementation of rules (vehicle insurance, driving licenses, etc.)
Road Infrastructure

- Major **improvement of the main road network** (from 750km of motorways in 2007 to 2,200 km in 2018), with traffic from unsafe interurban roads having been shifted to new motorways, safest roads by design

- Several Local Authorities developed and implemented **city mobility and safety plans** focusing on infrastructure but often also on campaigns

- The detailed specifications for **cycling infrastructure** were officially adopted, whereas in 2018 several provisions for cycle traffic were also officially adopted

- The **Road Infrastructure Safety Management Directive** has been in application since 2012 and all new major road projects have been road safety audited
Road User Behaviour

- Local police often do enforce safe behaviour. Traffic police statistics indicate a **steady number of checks and infractions** during the last decade.

- **New traffic fines scheme** was introduced (2018) based on infringement safety importance and offenders’ income.

- Introduction of **vehicle control inspection** run by private entities; more efficient against corruption.

- Massive and very efficient **campaigns**, training and other safety promotion activities.
A significant part of the fatalities reduction over the last decade was initially attributed to the deep economic crisis (less veh-km, less speeding, etc.)

An average annual decrease of 11% in road fatalities was recorded over the period 2010-2014

Greek drivers changed significantly their safety behaviour, initially triggered by the economic crisis but maintained it also well after
COVID-19 Impact

- **A significant annual reduction** (16%) was recorded in traffic fatalities in 2020, mostly due to the pandemic.

- Total number of trips and **distance travelled reduced** by 70% (1st lockdown) and 37% (2nd lockdown) for people driving and walking compared to the period before.

- **Increase in average speed** by 10% (1st lockdown) and 3% (2nd lockdown) compared to the period before.

- Promotion of **pedestrian and cycle traffic** with new infrastructure, in several cities (including the Athens Great Walk major urban regeneration project).
Next Steps for the Decade 2021-2030

Road Safety Strategic Plan

Greece 2030
Road Safety Strategy 2021-2030
drafted by NTUA

➢ Adoption of:
  ➢ Safe System Approach
  ➢ Vision Zero by 2050

➢ Alignment with the European Strategy aiming to reduce the number of fatalities and serious injuries in road accidents **by 50% by 2030** with 2019 as the baseline year (according to EU decisions)
Ambitious Vision – Shared Responsibility

- Vision zero road fatalities
- Individual realistic targets
- Safe mobility (Public Transport, low speeds)

Shared Responsibility
- Safe System Approach
- Authorities accountability
- Change of habits

Innovative Technologies
- Digital management
- Dynamic interconnectivity
- Traffic automation

Effective Implementation
- Funding
- Administration
- Monitoring
Action Plan for Road Safety

- New National Road Safety Law
- New National Road Safety Fund
- Revision of Road Traffic Code
- New National Observatory for Road Safety
- A large road safety interventions program (intervention at 7,000 high risk sites) EIB funding
- Introduction of automated electronic procedures for monitoring traffic violations
- Action plan for motorcycle safety
- Action plan for speed management
Key Lessons and Opportunities
Concluding Remarks

- Greece is a **success story** of significant road safety improvement by shock therapy

- The economic crisis was the main trigger for Greek Authorities and Greek drivers to **change their road safety behaviour**, which was maintained when the economy picked up again

- The challenge is to continue the efforts and the culture change with emphasis on **motorcycle safety and speeding**, with interventions at all levels:
  - urban and interurban road infrastructure
  - systematic enforcement and campaigns
  - efficient road safety management
Key Opportunities

- The **Covid-19 Pandemic** led to major behavioural changes which might stay after the pandemic (as it happened with the economic crisis in Greece)

- The society might embrace the **new road safety culture** and will not get back to previous unsafe behaviours, exploiting current **opportunities**:
  - social responsibility
  - teleworking
  - active travelling
  - 30km/h speed limits
  - new recovery and resilience funds