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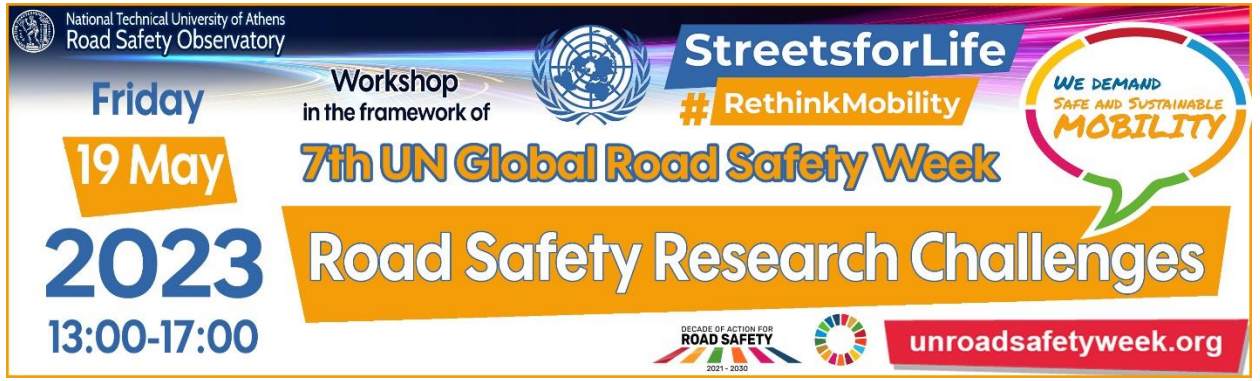


Support of Technical Activities for the Development and Collection of Road Safety KPIs

Katerina Folla

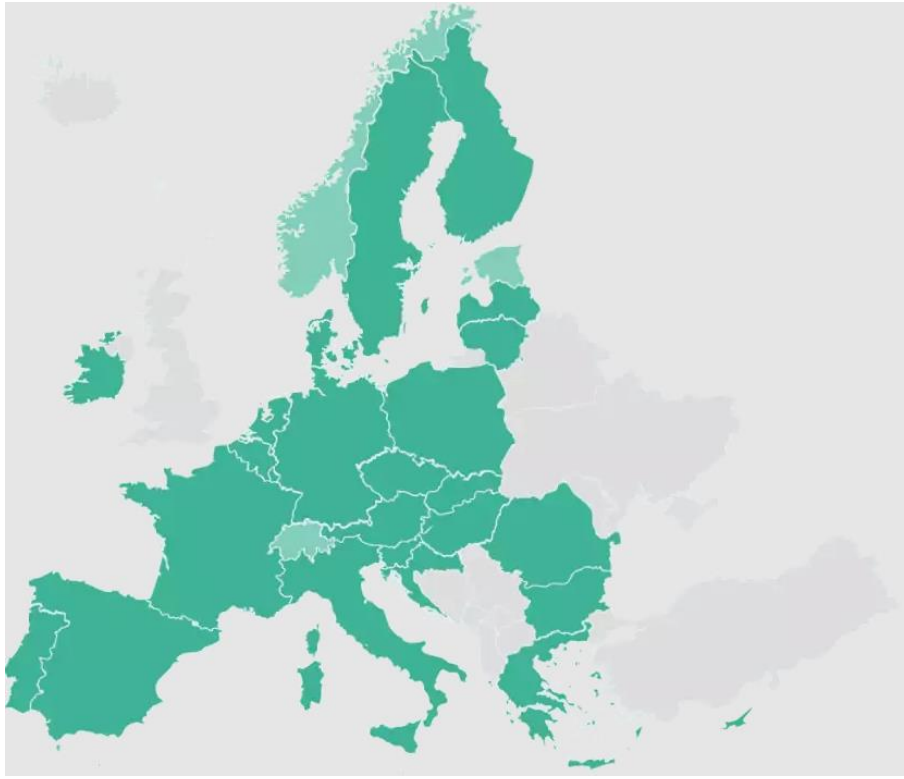
Transportation Engineer, PhD Candidate

Together with:

T. Dragomanovits, A. Laiou, A. Ziakopoulos, D. Nikolaou, G. Yannis

The Trendline project

- **Project Partners**:
  - 25 EU Member States
  - 4 countries as observers
- **Coordination Team**:
  - SVOW (NL), VIAS (BE), CDV (CZ), NTUA (EL)
- **Duration of the project**:
  - 36 months (October 2022 – September 2025)
- **Funding**:
  - Funded by the European Union under grant agreement No. MOVE/C2/SUB/2022 - 54/CEF/TA/SI2.892654



Co-funded by the European Union

Background

- The EU Road Safety Policy Framework 2021-2030: Next steps towards "Vision Zero" highlights the need of measuring road safety KPIs at European level

- The Trendline project builds on the experience gained in the Baseline project

- Objective: data collection and analysis of road safety KPIs in a harmonized way for the EU MS and exploration of their use within national road safety policies

EU Key Performance Indicators

KPI area	KPI definition
Speed	Percentage of vehicles travelling within the speed limit
Safety belt	Percentage of vehicle occupants using the safety belt or child restraint system correctly
Protective equipment	Percentage of riders of PTWs and bicycles wearing a protective helmet
Alcohol	Percentage of drivers driving within the legal limit for blood alcohol content (BAC)
Distraction	Percentage of drivers not using a handheld mobile device
Vehicle Safety	Percentage of passenger cars with a Euro NCAP safety rating equal or above a threshold
Infrastructure	Percentage of distance driven over roads with a rating above an agreed threshold
Post-crash care	Time elapsed between the emergency call following a collision resulting in personal injury and the arrival at the scene of the collision of the emergency services

The 8 KPIs originate from the Commission Staff Working Document 'EU Road Safety Policy Framework 2021-2030 - Next steps towards "Vision Zero" SWD (2019) 283 final.'

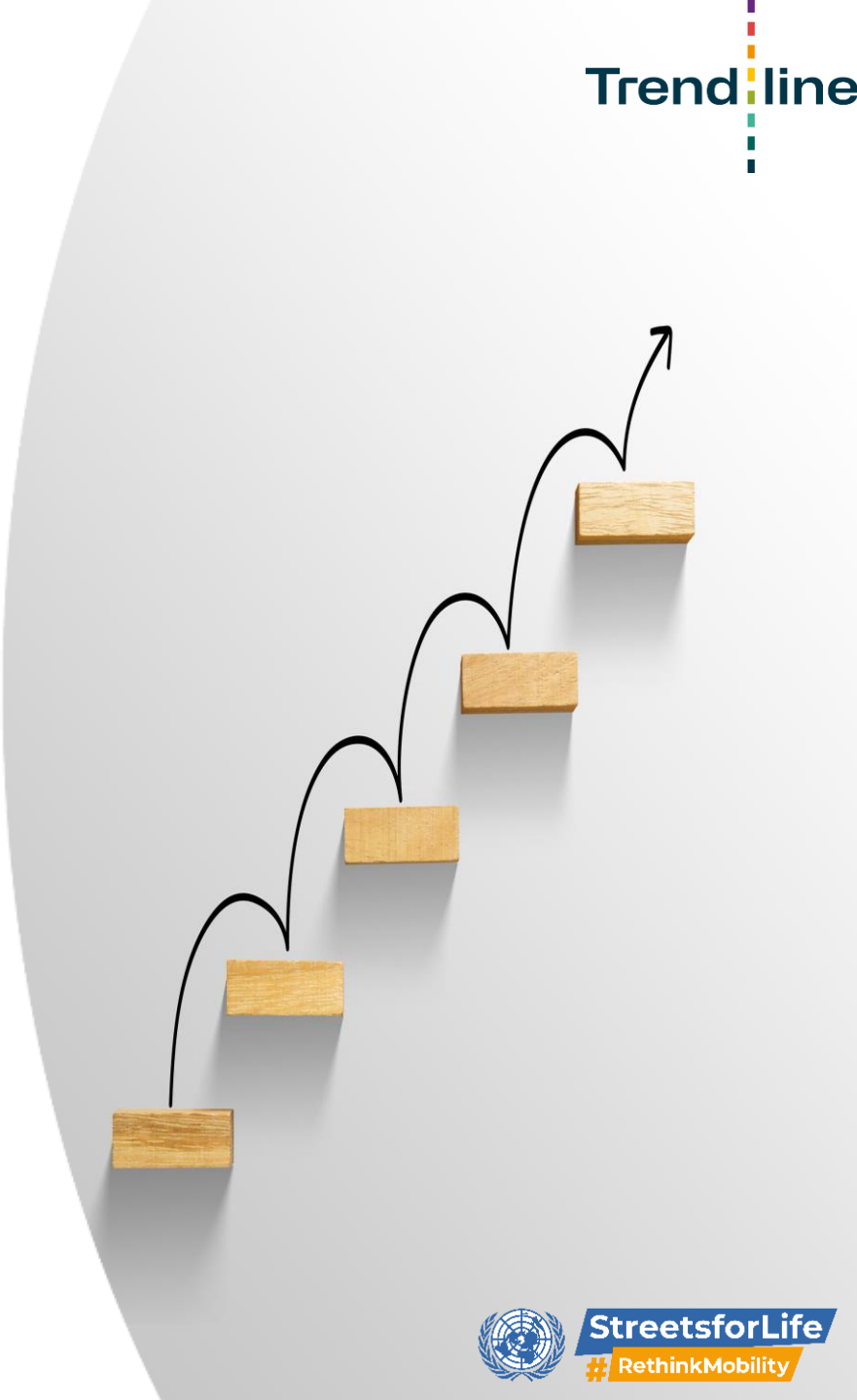
Experimental Indicators

- 10 new experimental and complementary indicators have been defined within the Trendline project:

  - Driving under the influence of drugs
  - Share of 30km/h road lane lengths in urban zones
  - Red-light negations by road users
  - Compliance with traffic rules at intersections
  - Helmet wearing of PMD riders
  - Self-reported risky behaviour
  - Attitudes towards risky behaviour
  - Use of lights by cyclists in the dark
  - Enforcement of traffic regulations
  - Alternative speeding indicators

Methodology

- Existing methodologies for the 8 KPIs will be reviewed and refined
- MS will collect data and calculate at least 3 of these KPIs
- Methodologies for the new experimental / complementary indicators will be developed and tested in at least 4 Member States each
- In Trendline, there will be more emphasis on the use of the KPIs in policy monitoring activities
- Final Outputs:
  - KPI reports, with the final KPI results
  - Reports on the experimental indicators, discussing the experiences gained and recommendations for further use
  - KPI database, with Trendline and Baseline data
- Committees/Groups:
  - Technical Committee
  - Key Expert Group (KEG) per KPI
  - Statistical Analysis Group
  - Policy Integration Advisory Committee (PAC)



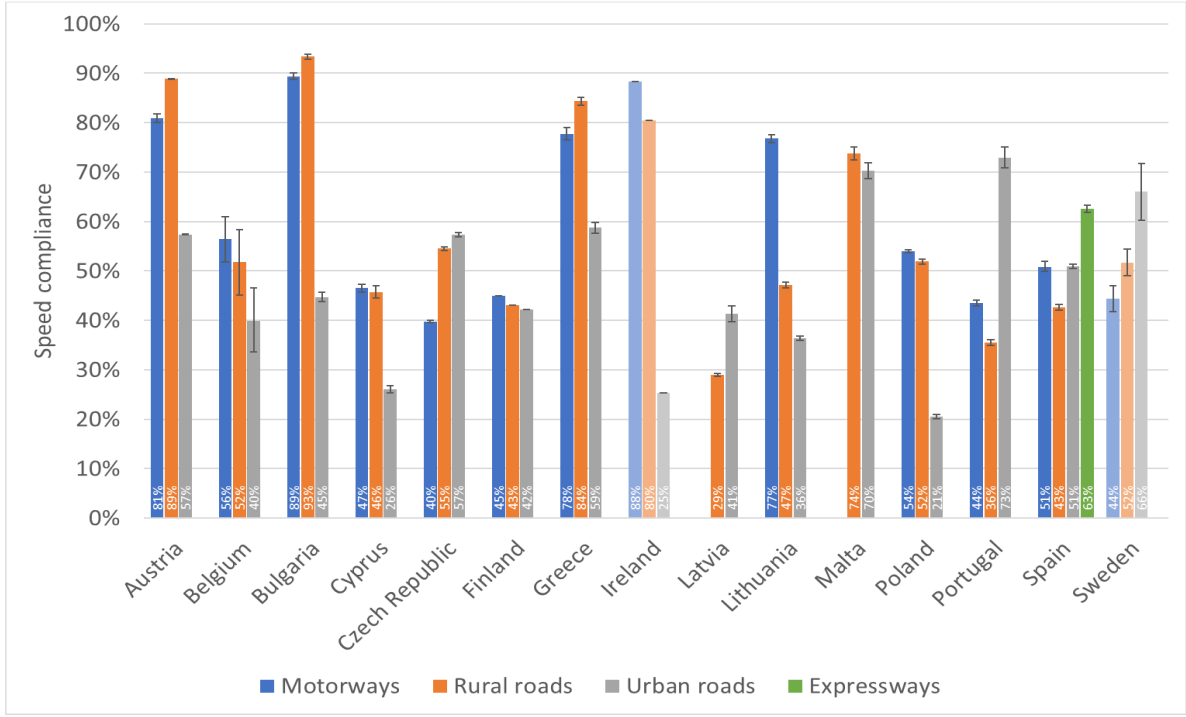
Streets for Life

- Collecting KPIs at various disaggregation level allows to explore the different behavioral patterns and performances per type of road, area, road user, etc.

- Based on the Baseline results:
  - Low compliance with speed limits on urban roads in most countries
  - Low helmet use among cyclists
  - Lower use of seat belt inside urban areas (mainly for rear occupants)

- Trendline aims to further explore the safety performance of road users inside urban areas, introducing new experimental KPIs, e.g.:
  - Share of 30km/h road lane lengths in urban zones
  - Red-light negations by road users
  - Compliance with traffic rules at intersections
  - Helmet wearing of PMD rider

Speed compliance by passenger cars during weekday/daytime



Source: Van den Broek et al. 2023 (https://www.baseline.vias.be)

Scientific and Social Impact

- Continuous and systematic monitoring of road safety performance allows for a **better understanding of crash causalities**
- **Comparable KPIs** among the EU countries and over time allow for further statistical analyses and understanding of the road safety phenomenon
- The EU KPIs constitute the **basic tool for monitoring and evaluating the road safety progress** at national and EU level over the period 2021-2030
- KPIs will contribute to the **proactive treatment of road safety problem** and the implementation of the proper measures and policies in order to prevent casualties

Future Challenges

- Systematic collection of KPIs in the future will contribute to a better evaluation of the road safety performance and progress made over time
- KPI data in higher detail should be collected at EU level, so that more critical and hidden road safety properties are revealed and more appropriate solutions are identified
- The use of new technologies in KPI data collection can be explored in the future, taking into account all the potential opportunities and challenges

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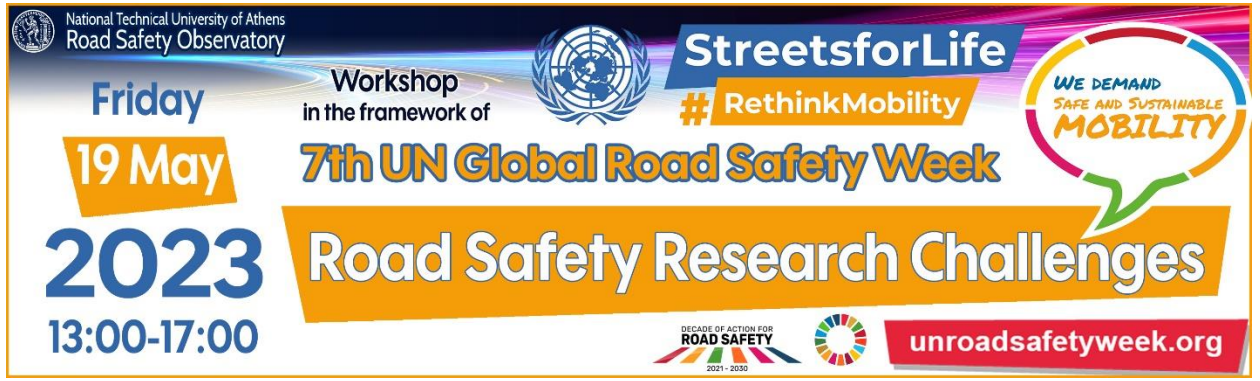

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