

Road Safety for the New Attica Transportation Strategic Plan

Stella Roussou

Transportation Engineer, PhD Candidate

Together with:

Dimitrios Nikolaou, Anastasios Dragomanovits, Ourania Basta,
George Yannis



Department of Transportation Planning and Engineering
National Technical University of Athens

**Artificial Intelligence
for Road Safety and Mobility Workshop**

8th UN Global Road Safety Week

Athens, 15 May 2025



Streets for Life

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Road Safety for the New Attica Transportation Strategic Plan

- **Athens Urban Transport Organisation**
supported by NAMA Consulting Engineers and Planners S.A.



- **Duration of the project:**
26 months
(February 2024 – March 2026)

- **Framework Program:**



**Co-funded by
the European Union**



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Objectives

- Develop, shape, and document **the road safety dimension of the new Strategic Transport Plan** for Attica for the next 20 years (up to at least 2044).
- Identify and assess key **risk factors** and crash-prone locations involving urban public transport vehicles, using detailed data analysis and field inspections.
- Design evidence-based **measures, actions, and proposals** aligned with sustainable and safe mobility, modern practices, technologies, and innovation.



Phases

- **Phase A (due 12/2024):** Documentation and analysis of the current situation.
(Deliverable A3. Current Road Safety Situation)
- *Phase B: Mobility study and data collection
(no road safety-related deliverables)*
- **Phase C (due 9/2025):** Strategic Transport Plan development. **(Deliverable C3. Road Safety)**
- *Phase D: Detailing and refinement of selected measures (no road safety-related deliverables)*



Road Safety – Methodology (Phase A)

supported by NTUA

1. Definition of the Methodology for Evaluating the Current Road Safety Situation

**Proactive
Approach**

**Road
Safety
Assessment**

**Statistical Approach
(reactive)**

2. Preliminary Exploratory
Road Safety Inspection of
Bus and Tram Operations
Along Major Road Corridors
in Athens

3. Collaboration with OASA
Departments and
Responsible Officials

6. Synthesis and Evaluation
of Results

4. Analysis of Crash
Characteristics Involving
Urban Transport Vehicles

5. Identification of
Hazardous Locations in the
Road Network



Road Safety – Key Results (Phase A)

supported by NTUA

Urban public transport in Attica is the safest mode of travel

- Only 1.75% of total crashes (580/32,995) during 2017-2022 involved public transport vehicles
- Just 1.61% of all fatalities (16/995) occurred in these crashes

Crash trends and severity

- Significant drop in 2020 due to COVID-19 restrictions
- Rise post-pandemic, peaking at 111 crashes in 2021
- Fatalities and serious injuries remain consistently low

Temporal patterns

- Most crashes occur on weekdays and during peak hours
- Highest crash frequencies: September & October
- Lowest in August & April due to holiday periods



Road Safety – Key Results (Phase A)

supported by NTUA

Crash types and causes

- Common types: side/front-side collisions, with pedestrians
- Key causes: failure to yield, traffic violations

High-risk areas

- Municipalities: Agia Varvara, Piraeus
- Major roads: Kifisias, Vouliagmenis, Syngrou avenues

Key infrastructure issues (field inspections & agency input)

- Poor road maintenance
- Illegal parking
- Obstacles near stops on high-speed corridors threaten passenger safety
- Garbage bins placed too close to the road (on narrow sidewalk areas)
- Visibility issues for pedestrians crossing tram tracks



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- Public transport is already the **safest mode of urban travel** in Attica, accounting for just 1.75% of crashes and 1.61% of fatalities between 2017-2022.
- Strengthening the role of public transport in the urban environment directly contributes to **safer streets for all** by reducing private car use and minimizing traffic risk exposure.
- Ensuring safer streets for life requires a **systemic approach** that connects infrastructure improvements, effective traffic management, and user education, enhancing protection for all road users, including passengers, pedestrians, cyclists, and professional drivers.



Scientific and Social Impact

- The Plan enables **evidence-based prioritization** of safety measures -focusing investments where risk, need, and impact align, including high-risk corridors and vulnerable user groups.
- Collaborative processes (including input from OASA, OSY, STASY, and inspections) ensure **scientific rigor is combined with practical knowledge** and frontline experience.



Future Challenges

- Despite the high safety levels of public transport, **persistent issues** like poor road maintenance, illegal parking, etc., pose ongoing risks that must be systematically addressed.
- The next phases will define and justify safety interventions, translating current findings into targeted, costed, and scheduled **actions** for safer public transport mobility.
- **Adapting** to climate resilience, evolving mobility patterns, and increasing demand for safe, sustainable transport will require flexible, long-term planning.



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