

Optimising driver behaviour for safe, green and energy efficient mobility



Duration

24 months (Jan. 2024 – Dec. 2025)

Objectives

- ✓ **Optimizing** driver behaviour for safe, green and energy-efficient mobility
- ✓ Meaningfully **merging the three transport pillars** of traffic safety, energy efficiency and environment, with common metrics and reference frameworks and achieving a highly efficient balance, rather than the prioritization and optimization of one pillar over the others
- ✓ **Achieve this optimization** without jeopardizing network traffic efficiency
- ✓ Explore the **exact sensitivity** and dose-response of the impact of behavioural change to the aforementioned critical pillars (safety, energy, emissions) especially on the dynamic entirety of smart city transport networks

Methodology

- Collecting, collating and harmonizing **multifaceted data** regarding driver behaviour, fuel efficiency, emissions as well as overall traffic for targeted exploitation
- Conducting **optimization** for safety, energy efficiency and environmental benefits of driver behavior adjustment individually at first, and integrated subsequently
- **Creating feedback** frameworks for drivers with forecasting, backcasting and cost-benefit analyses capabilities

Impact

Science:

- ❑ Development of an innovative methodology for **simultaneous optimization** aimed at promoting economic and safe driving.
- ❑ Development of an innovative methodology for **integrating** safety, energy, and environmental data at the driver and network levels.
- ❑ Dissemination of research results aimed at **strengthening** the research community

Society:

- ❑ Reducing injuries and fatalities in road crashes, fuel consumption, and atmospheric pollution through the optimization of driving behaviour.
- ❑ **Improving** the quality of life for citizens

Economy:

- ❑ **Reducing** the socio-economic cost due to the estimated decrease in fatal road crashes, fuel consumption, and emissions from road transport.
- ❑ Potential **development** of new original products and new start-ups with objectives related to those of OptiMo



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