



National Technical University of Athens  
Road Safety Observatory

[www.nrso.ntua.gr](http://www.nrso.ntua.gr)

# SAFETY FIRST

Workshop:

**Digitalisation**  
**and Road Safety**  
**Research**

Friday  
**17**  
May  
2019  
at 14:00

**FIFTH UNITED NATIONS GLOBAL ROAD  
SAFETY WEEK**

6-12 May 2019



**Save Lives**

**#SpeakUp**

## Monitoring road safety culture – SafeCulture –

### Alexandra Laiou

Transportation Engineer, Research Associate

Together with:  
George Yanniss

# The SafeCulture project

## ➤ Project partners:

- **National Technical University of Athens**, Department of Transportation Planning and Engineering  
[www.nrso.ntua.gr](http://www.nrso.ntua.gr)
- **Institute of Transport Economics**  
[www.toi.no](http://www.toi.no)

## ➤ Duration of the project:

- 36 months (January 2016 – December 2018)

## ➤ Operational Program:

- "Transport 2025" of the Norwegian Research Council

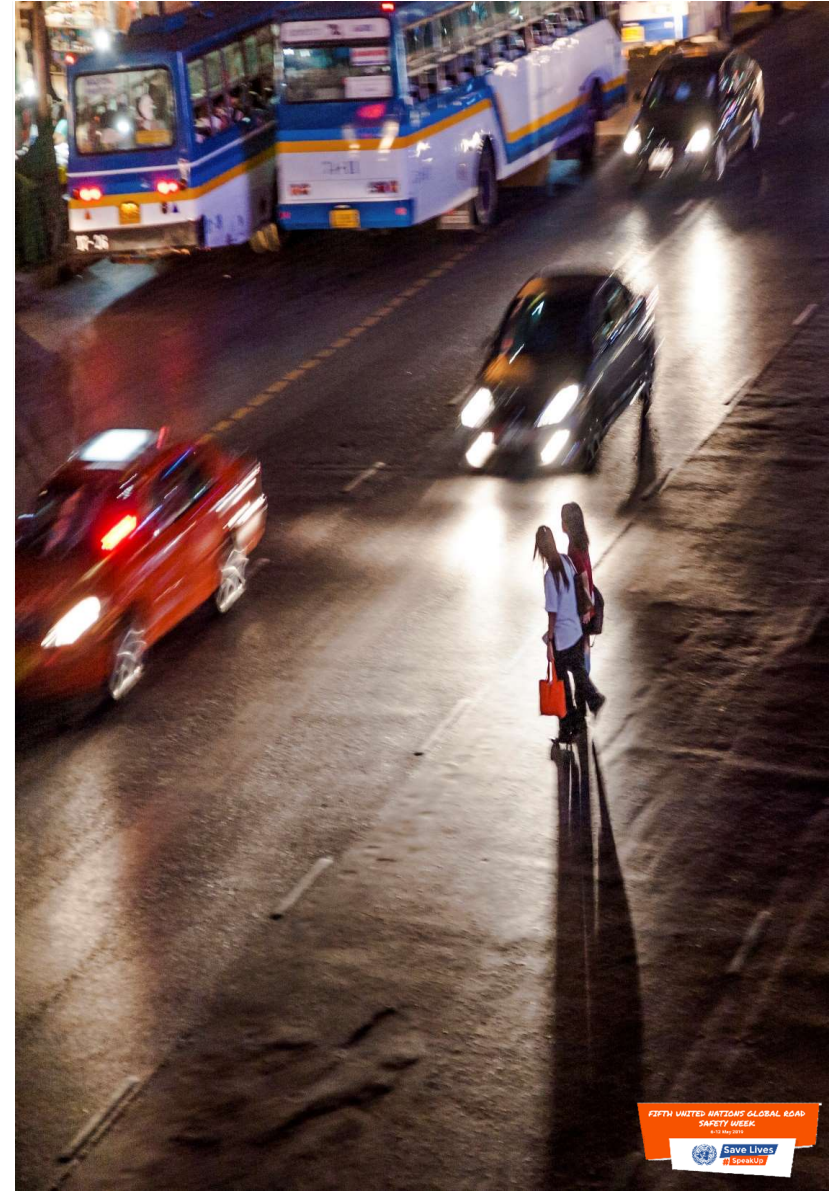


Institute of Transport Economics  
Norwegian Centre for Transport Research



# Background

- The concept of safety culture is applied to an increasing range of sectors, including **professional and private transport**.
- Safety culture explains **considerable variation** in safety behaviour in various transport forms.
- Transport safety culture (TSC) is defined as:  
"**shared norms** *prescribing certain transport safety behaviours*, shared **expectations** regarding the behaviours of others and shared **values** signifying what's important (e.g. safety, mobility, respect, politeness)".



# Research Questions

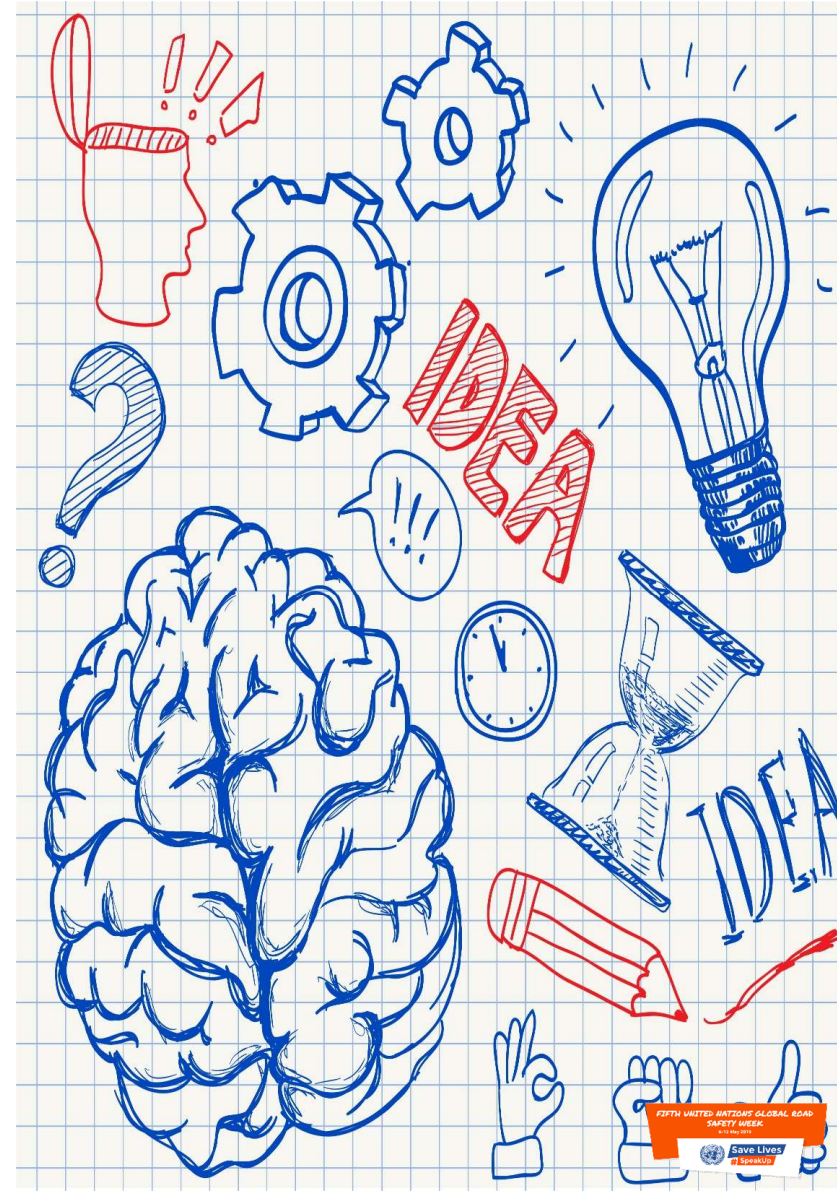
- How much does **membership** in **different sociocultural units** (e.g. nation, region, peer-group, sector, organizations) influence individual transport safety behaviour in professional and private transport?
- How much does TSC influence safety behaviour and outcomes relative to **known risk factors** like gender, age, experience, technology and infrastructure?
- How can the knowledge on group membership influencing TSC and the relative importance of TS as a **predictor** of transport safety **behaviour** and safety **outcomes** be used to increase transport safety?





# Methodological Challenges

- **Development of interview guides and survey questionnaires**
  - International literature review on driver behavior questionnaire surveys
  - Adaptation requirements for recording behaviour of different road user groups in Greece and Norway
- **Structured interviews** with **20 professional** and **30 private** drivers and **Behaviour survey** among **200 professional** and **300 private** drivers
  - Different types of drivers (HGV, bus, car, PTW) in Greece and Norway
- **Statistical analyses**



# Indicative Findings

- Traffic safety behaviours are more similar among private and professional drivers within the national samples, than among drivers across the national samples. This indicates the existence of different **national TSC**.
- A positive **organizational TSC** may reduce aggressive violations in traffic.
- Organisational TSC may **reduce** the impact of national TSC.
- **Aggressive violations** in traffic are predicted by national TSC.
- **Accident involvement** is predicted by aggressive violations.





# Scientific and Social Impact

## ➤ Importance of recording behaviour similarities within road user groups

- national, regional, organizational, sectorial, peer-group traffic safety culture

## ➤ Quantification of traffic safety culture

- Selection of **appropriate measures** for each group of road users
- Improvement of **traffic safety culture** and respective safety outcomes



# Future Challenges

- **Quantitative research** to better understand the importance of transport safety culture in transport safety behaviour and safety outcomes.
- **Linking quantified metrics of TSC with road safety metrics** (performance indicators and outcomes) to possibly reveal important hidden parameters influencing road safety.
- Study of large driver samples and different nationalities in order to identify links between road safety and **organizational** and **tourist safety culture** across Europe.







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