



National Technical University of Athens  
Road Safety Observatory

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

Monday  
**15**  
May  
at 14:00

# Workshop

in the framework of the

FOURTH UNITED NATIONS GLOBAL ROAD SAFETY  
WEEK  
8-14 May 2017



Save Lives  
#SlowDown

The NTUA Road Safety Observatory  
**NRSO**

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Professor



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**NTUA Zografou Campus, Athens**

**Railways Amphitheatre** of the  
Department of Transportation Planning and Engineering

**The future of road safety research**

# NTUA Road Safety Observatory - Mission



- The **mission** of the NTUA Road Safety Observatory ([www.nrso.ntua.gr](http://www.nrso.ntua.gr)) is to support the Greek and the International Road Safety Community with current key road safety knowledge and data, which are gathered, analysed and organised within the research activities of the Department of Transportation Planning and Engineering of the School of Civil Engineering of the National Technical University of Athens, as well as within co-operations with various national and international road safety organisations
- The ultimate **objective** of the NTUA Road Safety Observatory is to contribute to the reduction of the number of road accidents and of the related casualties in Greece, in Europe and worldwide through the scientific support of evidence based decision making for the necessary road safety policies, programmes and measures





## 20+ members Scientific Team:

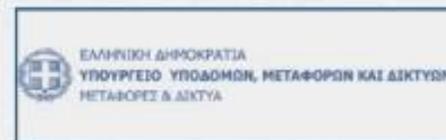
- Internationally recognized Professors
- 8 Senior Transportation Engineers (4 PostDoc)
- 6 Transportation Engineers PhD Candidates
- 2 Information Systems Engineers

## With experience in Greece and Internationally (since early 90s):

- 75 road safety research **projects** (Greek 30, International 45), mostly through highly competitive procedures and several international cooperations
- More than 500 scientific **publications** (> 150 in Journals), widely cited worldwide
- More than 60 scientific **committees**
- International **collaborations**: European Commission, UNECE, WHO, OECD/ITF, WCTR, CEDR, TRB, ERF, ETSC, decades of Universities and road safety research centers



# Our Cooperations



# Our Partners Worldwide





An international reference website - information system of road safety data and knowledge

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

- more than 3.000 visits per month,
- electronic newsletters since 2007,
- tens of tweets annually,
- network of more than 2.000 road safety experts in Greece (600+) and worldwide (1.500+)





A dynamic website with a wealth of information

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

- since 2010 with more than **1.000 items**
- all important road safety **news** in Greece, in Europe and internationally
- updated **reports** covering all modern road safety issues
- the latest available road safety **data** for Greece and the European Union
- scientific road safety **conferences** in Greece and Internationally
- links to dozens of road safety **resources** globally



- **Databases and knowledge:**
  - Greek Road Accident Database with disaggregated data
    - **SANTRA** (1985 - 2015, 1,2 million recordings)
  - European Road Accident Database with disaggregated data
    - **CARE** (1991 - 2016, 35 million recordings)
  - International Road Accident Database with aggregated data
    - **IRTAD** (1991 - 2016)
  - Databases of **International Organisations**
    - WHO, IRF, ERF κ.λπ.
  - Databases with **Aggregated Data**
    - Vehicle fleet, vehicle-kilometers, driver behavior, etc.
  - Online Road Safety **Library** >5.000 updated reports
  - International **Bibliography** database (access to the overwhelming majority of scientific journals)
- Large number of statistical analysis **tools** (software, standards)
- **Driving Simulator**





# Information Systems

**Nrso** - The NTUA Road Safety Observatory

**Erso+** The European Road Safety Observatory

**SafetyCube** - European Road Safety Decision Support System

**Pract** - The CEDR Road Safety APM and CMF Repository

**SaferAfrica** - The African Road Safety Observatory

**IrtadCities** - Global benchmarking of road safety in cities



# Road user behaviour

**Esra** - Road safety attitudes in Europe

**ElderSafe** - Older road users safety in Europe

**SafeCulture** - Road safety culture in Greece and in Norway

**SafetyCube** - Road user behaviour risk factors and measures

**Distract** - Driver distraction

**DriverBrain** - Behaviour of drivers with cognitive impairment

**Oseven** - Monitoring driver behaviour through mobile phones

**Udrive** - Large-scale Naturalistic Driving study in Europe

**Pedmod** - Models of Pedestrian Behaviour and Safety



# Road infrastructure safety

**SafetyCube** - Road infrastructure safety risk factors and measures

**WeatherSafe** - Predicting road accidents with real time data

**EcoRoads** - Road infrastructure and tunnel safety management

**WhiteRoads** - Identifying TEN-T road sections without accidents

**CampSump** - Mobility and safety in University Campuses



# Road Accidents and Safety Analysis

Road Safety is a typical field with high risk of **important investments not bringing results**

**Absence of monitoring** and accountability limits seriously road safety performance



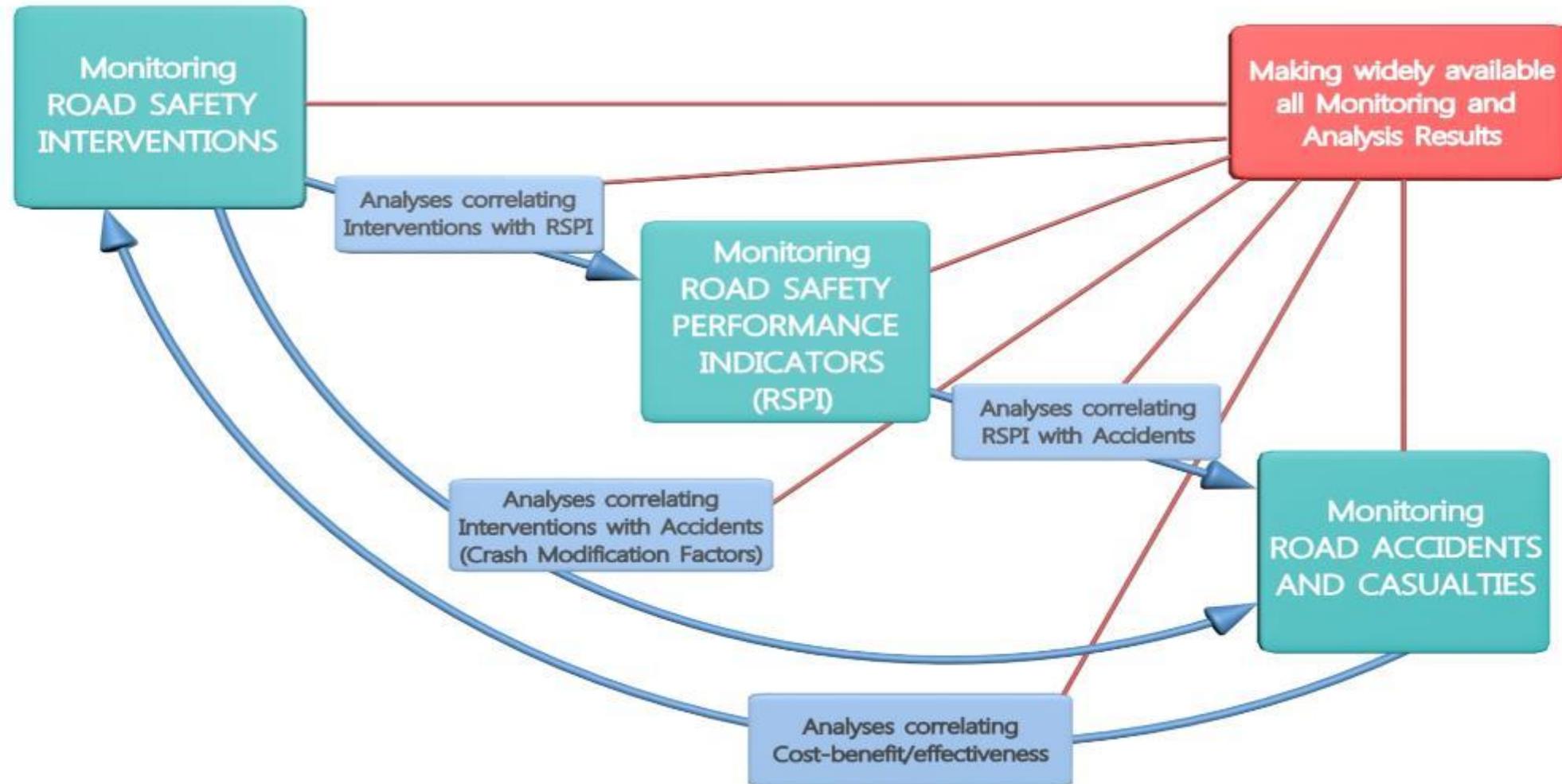
# Hierarchical road safety analysis



Save Lives  
#SlowDown



# The road safety analysis system



# Future road safety research challenges

- Smart, safe and resilient roads
- Autonomous vehicles and traffic
- Evolving road user behaviour
- Open and big data





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