



National Technical University of Athens  
Road Safety Observatory

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

FIFTH UNITED NATIONS GLOBAL ROAD  
SAFETY WEEK

6-12 May 2019



Save Lives

#SpeakUp

# Open science in road safety

BE OPEN



Workshop:

Digitalisation

and Road Safety  
Research

17  
May  
2019  
at 14:00

## Katerina Folla

Transportation Engineer, Research Associate

Together with:  
George Yannis

# The BeOpen project

➤ **Title of the project:**  
European forum and oBsErvatory  
for OPEN science in transport

➤ **Partners:**  
17 participants and 9 third parties

➤ **Duration of the project:**  
30 months (January 2019 – June 2021)

➤ **Framework Programme:**  
Horizon 2020 - The EU Union Framework Programme  
for Research and Innovation – Mobility for Growth



BE OPEN

European forum and oBsErvatory  
for OPEN science in transport

| Participant               | Country |
|---------------------------|---------|
| CERTH                     | EL      |
| TOI                       | NO      |
| ECTRI                     | BE      |
| VDI/VDE                   | DE      |
| ATHENA RC                 | EL      |
| OC                        | DE      |
| FEHRL                     | BE      |
| FIT                       | IT      |
| NTUA                      | EL      |
| DLR                       | DE      |
| EATEO                     | CY      |
| EURNEX e. V.              | DE      |
| WEGEMT                    | NL      |
| UITP                      | BE      |
| HUMANIST                  | FR      |
| Konnekt-able Technologies | IE      |
| Scipedia S.L.             | ES      |



# Background

- **Open Science** is a new approach to the scientific process, aiming to provide accessibility to all levels of research community and society, increase integrity and reproducibility of research.
- The rapid growth of **digital technologies** and new collaborative tools enable the vision of Open Science.
- In the EU, the **European Open Science Cloud (EOSC)** has initiated as a single point of access to all European research data, data services, tools and standards.
- Within this context, there is a need for promoting Open Science within the **transport research community**.





# BeOpen Methodology

- Develop a **framework of common understanding**.
- Develop an **inventory of Open Science resources** (research outcomes, services and research data infrastructures) related to all transport modes.
- Set up the **TOPOS Observatory and Forum**, that will act as an evidence-based, community driven sharing of knowledge and experiences.
- Develop a **"Code of Conduct"** to provide the legal and ethical guidance needed to operationalize Open Science principles.
- Formulate a **set of guidelines** for decision making and planning.



# TOPOS Forum and Observatory

- **TOPOS** will contribute to creating a solid knowledge base on the implementation of Open Science approach in transport research.
- TOPOS will contain two components:
  - **TOPOS forum**, which will capture the common practices of data stewardship in transport research.
  - **TOPOS observatory**, which gathers all research results (publications, data, software) related to transport research in Europe.
- The aim of TOPOS is to **empower research and industry communities** to develop Open Science solutions following the EOSC principles and under a commonly agreed Code of Conduct.



# Open Road Safety Information Systems (1/2)

## Road Safety Observatories

- [ERSO, European Road Safety Observatory](#)
- [OISEVI, Ibero-American Observatory](#)
- [African Road Safety Observatory](#)
- [Dacota, EC Project – Knowledge Centre](#)
- [NRSO – NTUA Road Safety Observatory](#)



# Open Road Safety Information Systems (2/2)

## Road Safety Decision Support Systems

- [SafeFITS, UNECE-Global Road Safety Model](#)
- [SafetyCube, EU Road Safety DSS](#)
- [iRAP, Road Safety ToolKit](#)
- [PRACT, CEDR](#)
- [PIARC, WRA Road Safety Manual](#)
- [US NHTSA/FHWA CMF Clearinghouse](#)
- [AustRoads Road Safety Engineering Toolkit](#)



**UNECE**

SafeFITS



ROAD SAFETY  
**TOOLKIT**





# Scientific and Social Impact

- During the last years, several Open Road Safety Information Systems have been developed, **adding significant value** to the quest for safer roads worldwide.
- The more developed Information Systems are associated with countries and regions with higher road safety performance and are a direct sign of **advanced road safety culture**.
- Road Safety Information Systems are key management tools for developing road safety capacity and **engaging stakeholders** (not only for providing scientific evidence but also for monitoring efforts).
- Making road safety research results more accessible contributes to **better and more efficient science** and provides greater evaluation by the scientific community.





# Future Challenges

- Open Science could increase the current **great potential** of Road Safety Systems with:
  - more data and knowledge
  - broader geographical coverage
- **Global impact could be optimized** through:
  - a network of open science road safety systems
  - standardisation of data, processes and systems
  - evidence-based & customized best practice guidelines
- **"As open as possible and as closed as necessary"**: issues of personal data protection, confidentiality, IPR concerns etc. should be tackled.



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