

FIFTH UNITED NATIONS GLOBAL ROAD
SAFETY WEEK
6-12 May 2019



Open science in road safety

BE OPEN



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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



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	FIRTH WHITE MATIONS GLOBAL COMB SARTY MEEK	
Scipedia S.L.	ES PRODUCT	



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





SafetyCuber









Scientific and Social Impact

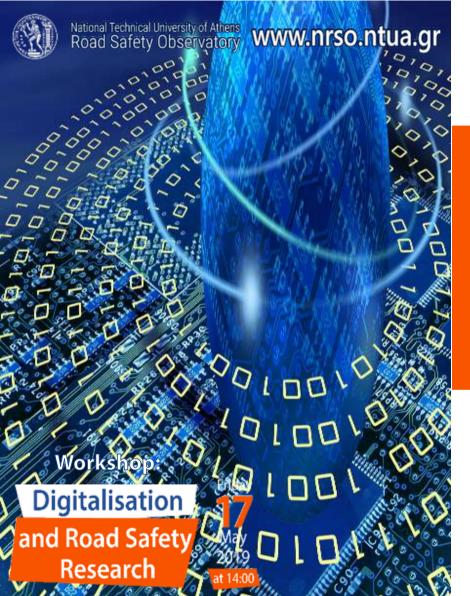
- ➤ During the last years, several Open Road Safety Information Systems have been developed, adding significant value to the quest for safer roads worldwide.
- ➤ The more developed Information Systems are associated with countries and regions with higher road safety performance and are a direct sign 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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