



National Technical University of Athens
Road Safety Observatory

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 future of road safety research

NTUA Zografou Campus, Athens

Railways Amphitheatre of the
Department of Transportation Planning and Engineering

Global benchmarking
of road safety in cities

IRTADCities

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Together with:

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The Safer City Streets Initiative



- Since 2012, the International Transport Forum (ITF) of the OECD started elaborating an initiative on the **monitoring and benchmarking** of road safety performance across world cities.
- NTUA has contributed actively in the preparation phase of this initiative also by developing the respective **methodological framework**.
- In 2016, ITF launched the Safer City Streets initiative aiming to develop a network and database for road safety monitoring and benchmarking in cities worldwide (www.itf-oecd.org/safer-city-streets).
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**International Traffic Safety
Data and Analysis Group**



- By 2050, around **two thirds** of the population will live in urban areas.
- **Every minute** a person dies in city traffic.
- Among people killed on city streets, **8 out of 10** are pedestrians, cyclists and other vulnerable road users.

Road traffic fatalities,
annual reduction, pilot cities, 2005-2011



pilot cities: Barcelona, Chicago, Copenhagen, Jacksonville, Lisbon, London, Lyon, New York, Paris

Source: <https://www.itf-oecd.org/safer-city-streets>

City road safety data challenges

- **Few international projects** or initiatives dedicated to road safety in cities.
- **Fatality data alone may not be sufficient**, especially for cities of small or medium size.
- Most countries / cities have not yet implemented the dedicated studies required to estimate the number of **serious injuries** on the basis of the MAIS3+ definition.
- Little usable data available in **international road safety databases** (e.g. number of fatalities at administrative unit level).
- **Lack of traffic / exposure data** and safety performance indicators.
- **Data availability and comparability** issues are expected to be considerable.



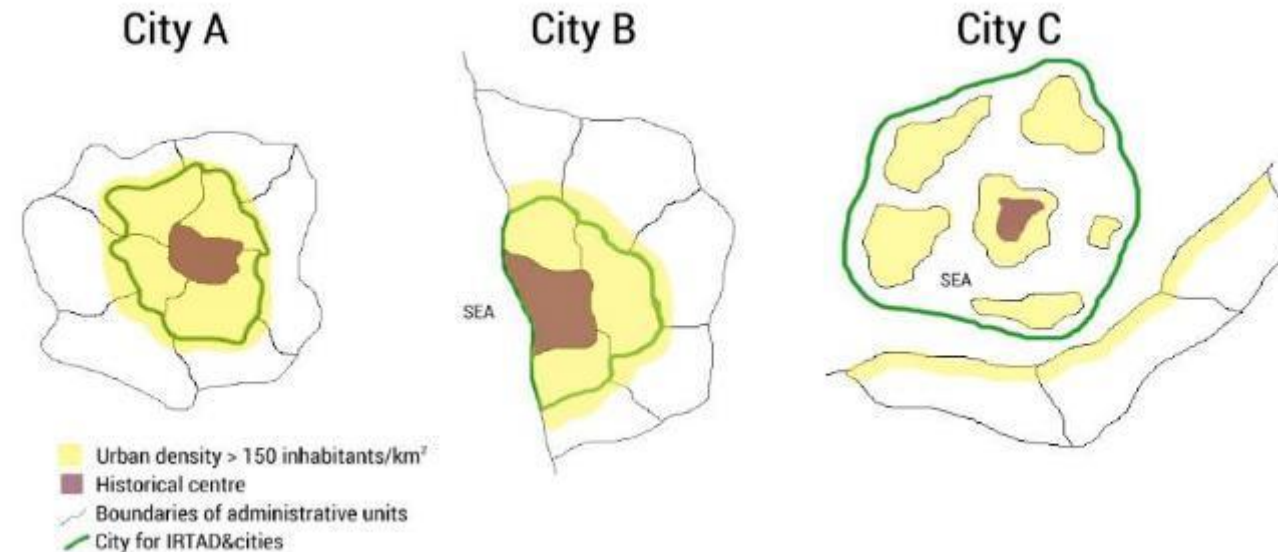
City grouping criteria

City Definition

- The **City** is defined as the area with clear administrative boundaries containing the historical city center and the inhabited area. A minimum population density ranging between 100 - 150 inhabitants per km² is proposed for defining the inhabited area.
- The **Greater City** is defined as the area outside the "City", containing an inhabited area with minimum population density ranging between 50 -100 inhabitants per km².

City Grouping Criteria

- Geographical (UN World regions)
- City size (OECD, 2012)
 - small-sized urban areas (< 200 000 people)
 - medium-sized urban areas (200 000-500 000 people)
 - metropolitan areas (500 000 - 1.5 million people)
 - large metropolitan areas (> 1.5 million people)
 - mega-cities (> 10 million people)



Data and information needs

- **Fatality data and serious injury data** (preferably on the basis of the MAIS3+ definition).
- For small and medium size cities, the **average of 3 to 5 last years** may provide the necessary statistical significance.
- **Local safety performance indicators** are preferred.
- Additional **background information** needed:
 - demographic and socio-economic aspects,
 - road safety management indicators,
 - road safety measures,
 - mobility plans etc.



Data Framework

1. **Road safety outcomes;** e.g. fatalities and serious injuries per road type and road user type.
2. **Safety performance indicators;** e.g. road user protection indicators (seat belt and helmet use), road infrastructure indicators.
3. **Transport demand and exposure;** e.g. modal split/share of trips (also for non-motorised travel), person-kilometres, vehicle fleet.
4. **Demographic and socio-economic indicators;** e.g. GDP per capita, unemployment rate, population/commuter-adjusted daytime population, road length.



Next steps

- Methodological issues deserving **common reflection** may be addressed gradually as the data become available.
 - Understanding city definitions
 - Understanding data definitions
- **Regular updates** of the database with focus on data comparability and potential harmonization.
- During the **analysis phase**, data issues re-discussed and methodology re-defined.



Future challenges

- The Safer City Streets initiative presents very important **scientific challenges**.
- It will be attempted for the first time **to de-code the complex urban environment** and identify the mix of the road accidents contributing factors.
- **Comparability** of road safety performance of cities with different sizes and characteristics is a great challenge, as is the **transferability** of good road safety practices.





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