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

Save Lives
#SpeakUp

Measuring risk exposure in Ireland
– IrlExpo –

Petros Evgenikos

Transportation Engineer, Research Associate

Together with:
Katerina Folla and George Yannis

The IrlExpo project

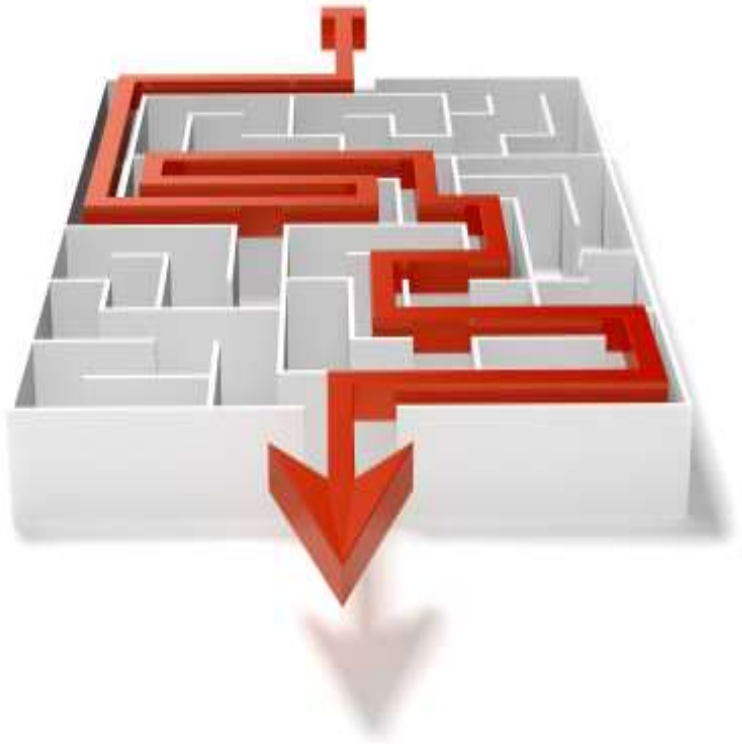
- **Title of Project:**
  Measuring Risk Exposure on Irish Roads
- **Duration of the project:**
  13 months (November 2017 – December 2018)
- **Funded by:**
  The Irish Road Safety Authority (RSA)
- **Objective:**
  To identify optimal means of measuring risk exposure data on Irish roads.

Background

- A range of Irish Authorities report capturing exposure data and use a variety of methods to measure risk exposure (vehicle-kilometres, person-kilometres).
- However, each method has a number of limitations, e.g. a method calculating VKT may not provide PKT.
- There is a lack of reliable national data to quantify annual travel volumes for Vulnerable Road Users.

Research Questions

- To develop a best-practice, replicable and cost-effective protocol for annual collaboration and the collection of data to calculate risk exposure estimates.
  - Define the data requirements for estimating risk exposure, across a maximum of road user, road and vehicle types in Ireland.
  - Identify the most appropriate methods for the collection of the data at both national and local level.
  - Explore further collaborations among the related stakeholders for the mutual enhancement and validation of data.

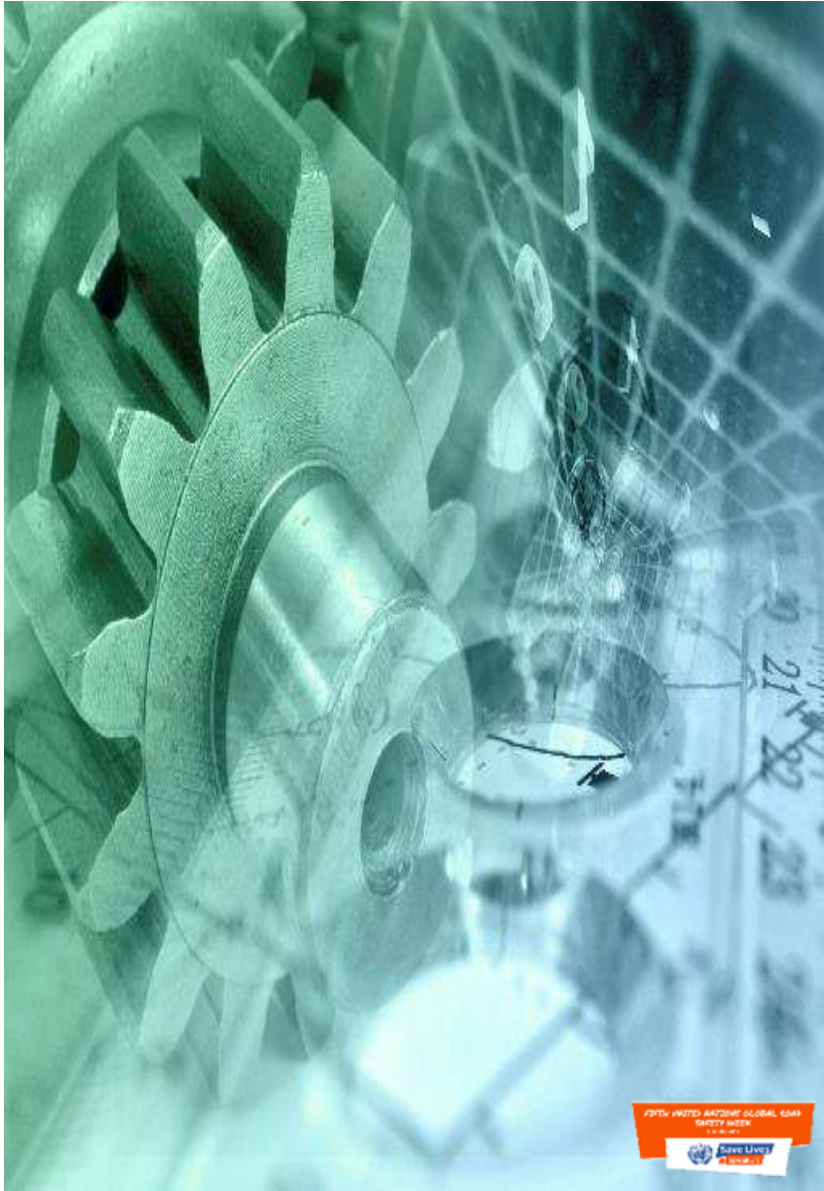


Methodological Challenges

- A stakeholder workshop and a survey were conducted.

- Collect detailed information on:
  - type of data collected,
  - vehicle/road user types concerned,
  - collection method,
  - frequency of data collection,
  - disaggregation level of data collected,
  - samples of the surveys/counts etc.

- Explore to which extent the necessary data are available.
- Explore to which extent the available data can be usable.
- Identify the most critical data missing and prioritise the needs for new data collection.
- Identify the authorities/organisations with the more complete exposure databases by method of data collection.
- Explore the potential of their collaboration in data sharing and exploitation from each other.



Main Results

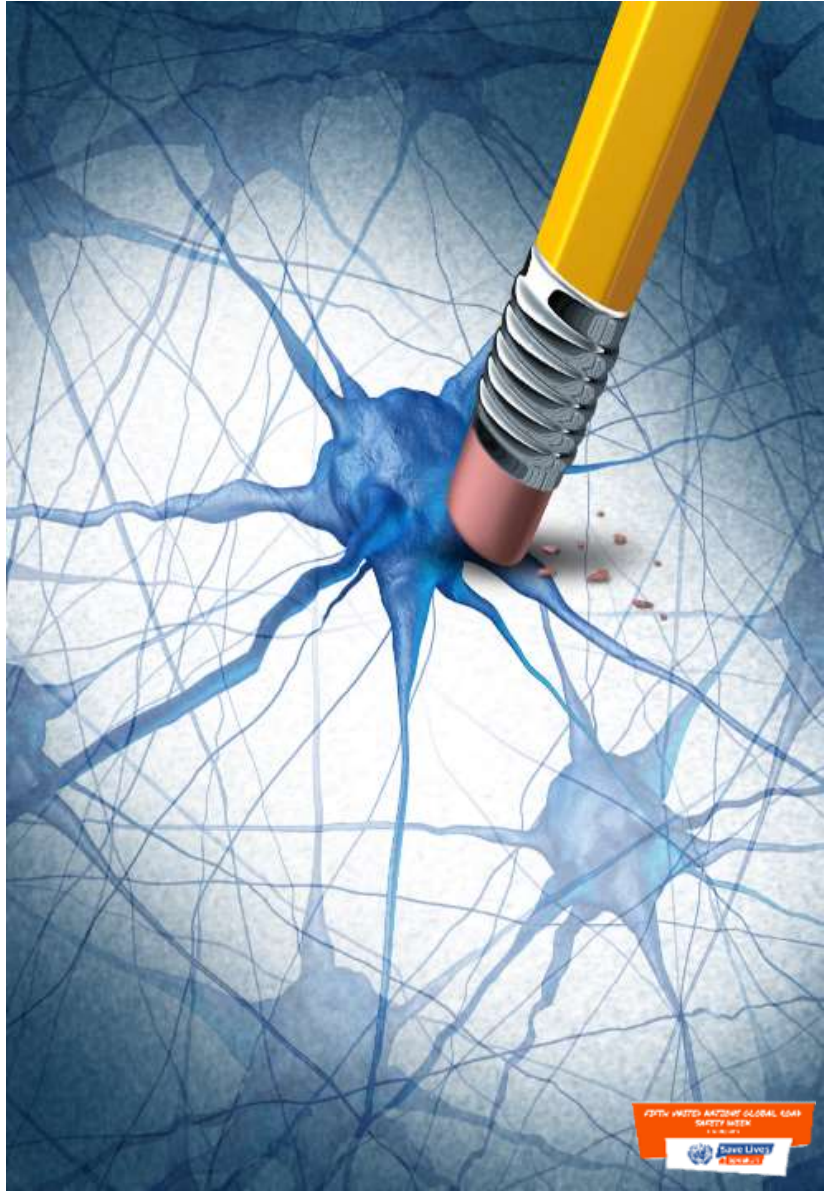
- There is a wealth of exposure data collected in the ROI, with most of them being publicly available.
- There is a consistency in the methods used for data collection (traffic counts is the most common method).
- Inconsistency in the disaggregation level of data collected exists.
- Little information on road users' characteristics is captured.
- There is a need for data collection for multiple purposes in order to support integrated multi-sectoral policies.
- The development of a network of data sources with appropriate linkages should be the first priority.
- Special attention should be given to the compatibility of exposure and collision data.

Recommendation on Data Requirements

- Person-kilometres of travel are the most appropriate exposure measure
- The most appropriate method to collect data for estimating person-kilometres is considered a travel survey conducted at national level taking into account all road user types
- Continuous exposure measurements can be used for the interpolation of exposure trends between consecutive surveys
- Better geographical coverage should be achieved with the active participation of local Authorities
- Appropriate dedicated budget is the key success factor for the necessary high quality exposure data

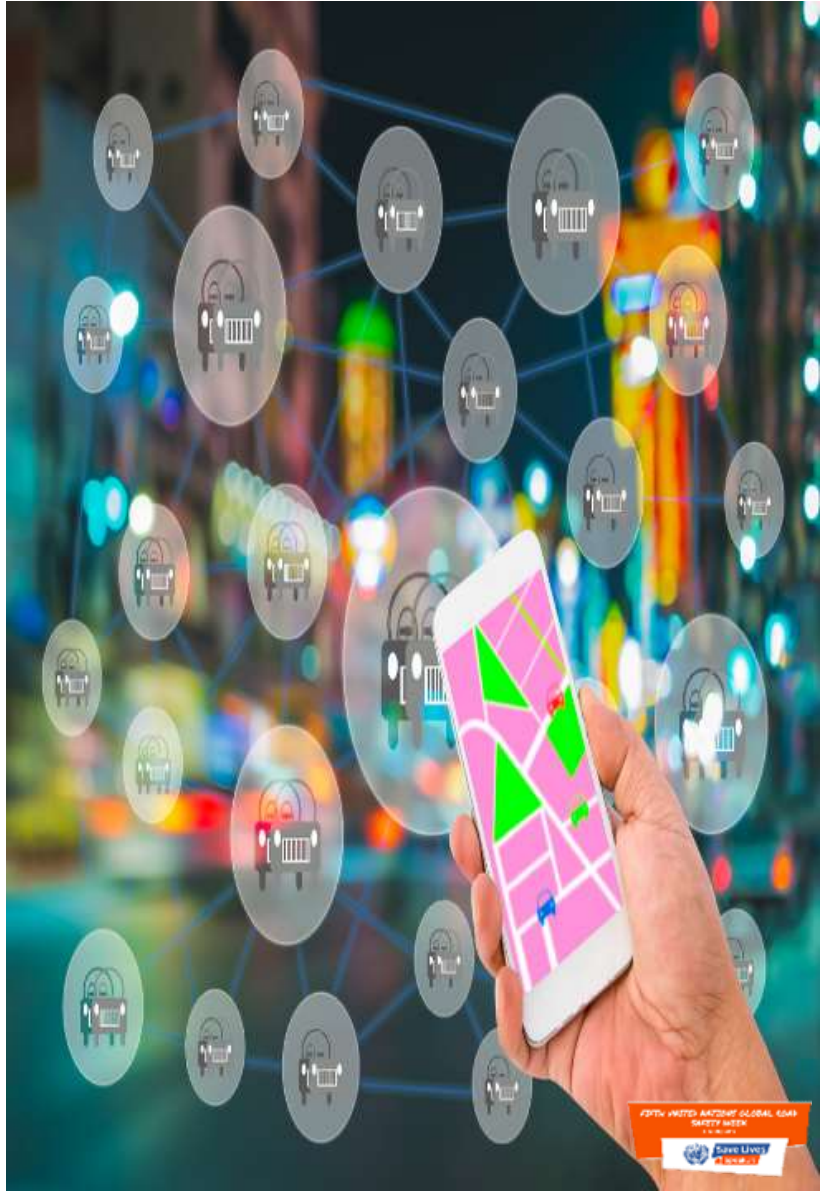
Scientific and Social Impact

- Accident data combined with the respective exposure data can lead to the identification of the true extent of the road safety problem.
- Appropriate disaggregation of risk exposure figures allows the comparison of the safety performance of different parts of the transport system, leading to more targeted research and policy making options.
- The assessment of risk (e.g. collisions per veh-km) may serve as a tool for experts and policy makers by facilitating further analysis in terms of temporal evolution, spatial distribution etc.
- Risk exposure and collision data, when combined with road safety performance indicators, can identify causes of collisions.
- Delivering feedback on specific risk factors (by type of users, roads and vehicles) to targeted audiences, may motivate this population to adopt safer behaviours.



Future Challenges

- Digitalisation opens great new possibilities for the collection of risk exposure data.
- Big data from mobile phones, wearables and on-board diagnostics can produce a unique wealth of exposure data (pending commercial, privacy and security issues).
- New increased net present value of road safety data, available for early problem detection and prompt and customised decision support.



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