

# Safer City Streets – Global Benchmarking for Urban Road Safety

Alexandre Santacreu

4<sup>th</sup> meeting of the Safer City Streets network, London, UK – 20 Nov 2018

# **Intergovernmental Organisation**

59 member countries

## **Think Tank**

Policy analysis  
Research  
Statistics

## **Annual Summit**

Forum for Ministers, industry  
"The Davos of Transport"



2018

# ITF Roundtable on Cycling Safety

33

Experts

16

Countries







## Cycling Safety Summary and Conclusions

168  
Roundtable



### The Safety of E-Bikes in The Netherlands

Discussion Paper

168  
Roundtable

Paul Schepers

Utrecht University

Karin Klein Wolf

Consumer and Safety Institute,  
Amsterdam

Elliot Fishman

Institute for Sustainable Transport,  
Melbourne



### Light Protection of Cycle Lanes:

Best Practices  
Discussion Paper

168  
Roundtable

Brian Deegan

Urban Movement



### The Safety of Bike Share Systems

Discussion Paper

168  
Roundtable

Elliot Fishman

Institute for Sustainable Transport,  
Melbourne

Paul Schepers

Utrecht University



### Exposure-Adjusted Road Fatality Rates for Cycling and Walking in European Countries

Discussion Paper

168  
Roundtable

Alberto Castro

University of Zurich

Sepp Kahlmeier

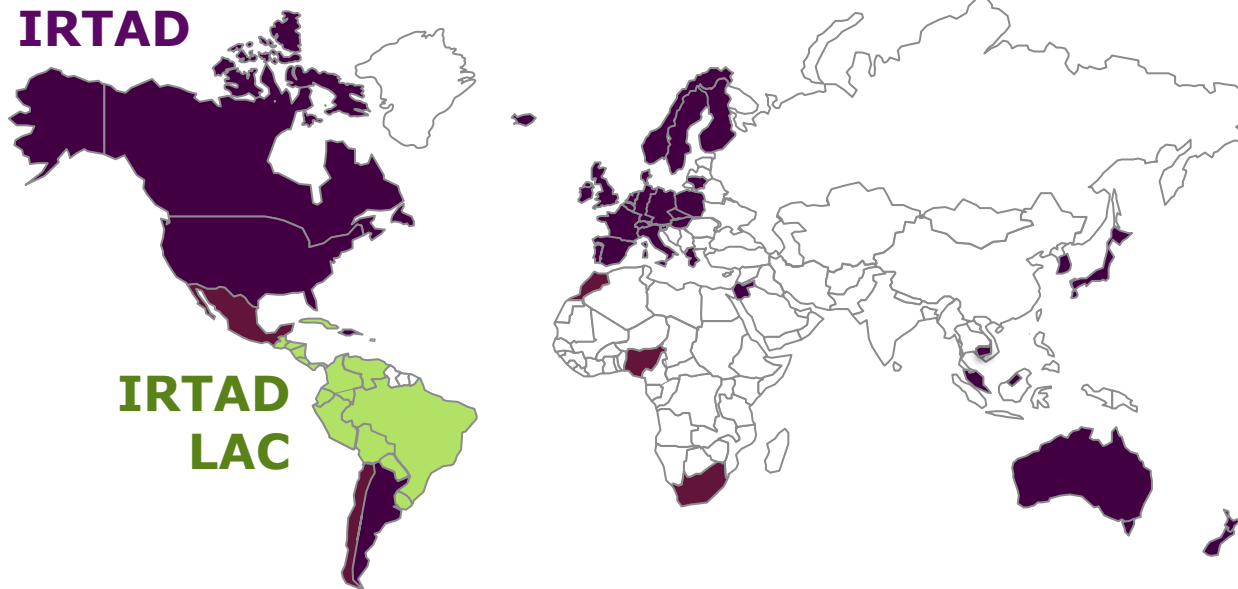
University of Zurich

Thomas Götschi

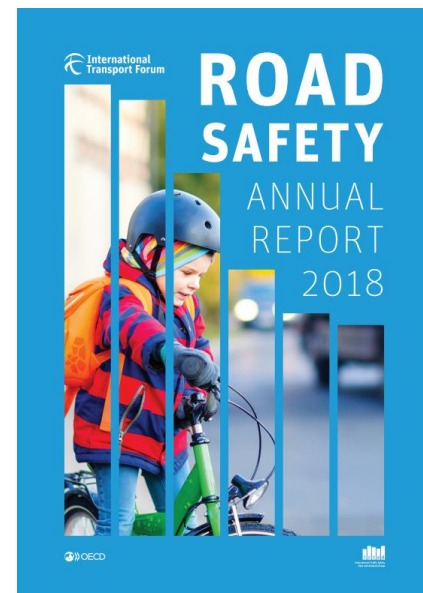
University of Zurich


# International Traffic Safety Data and Analysis Group

**IRTAD**



**IRTAD  
LAC**





# **Alcohol-Related Road Casualties in Official Crash Statistics**

published  
in 2018



# Speed and Crash Risk

published  
in 2018

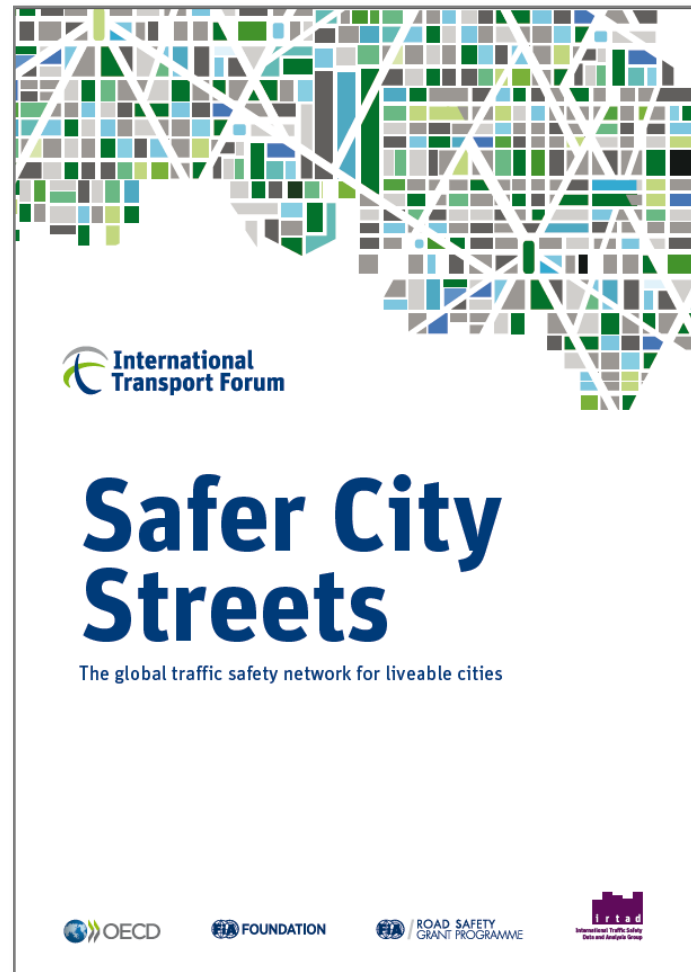


# Safer City Streets

*the global traffic safety network  
for liveable cities*

Global  
database

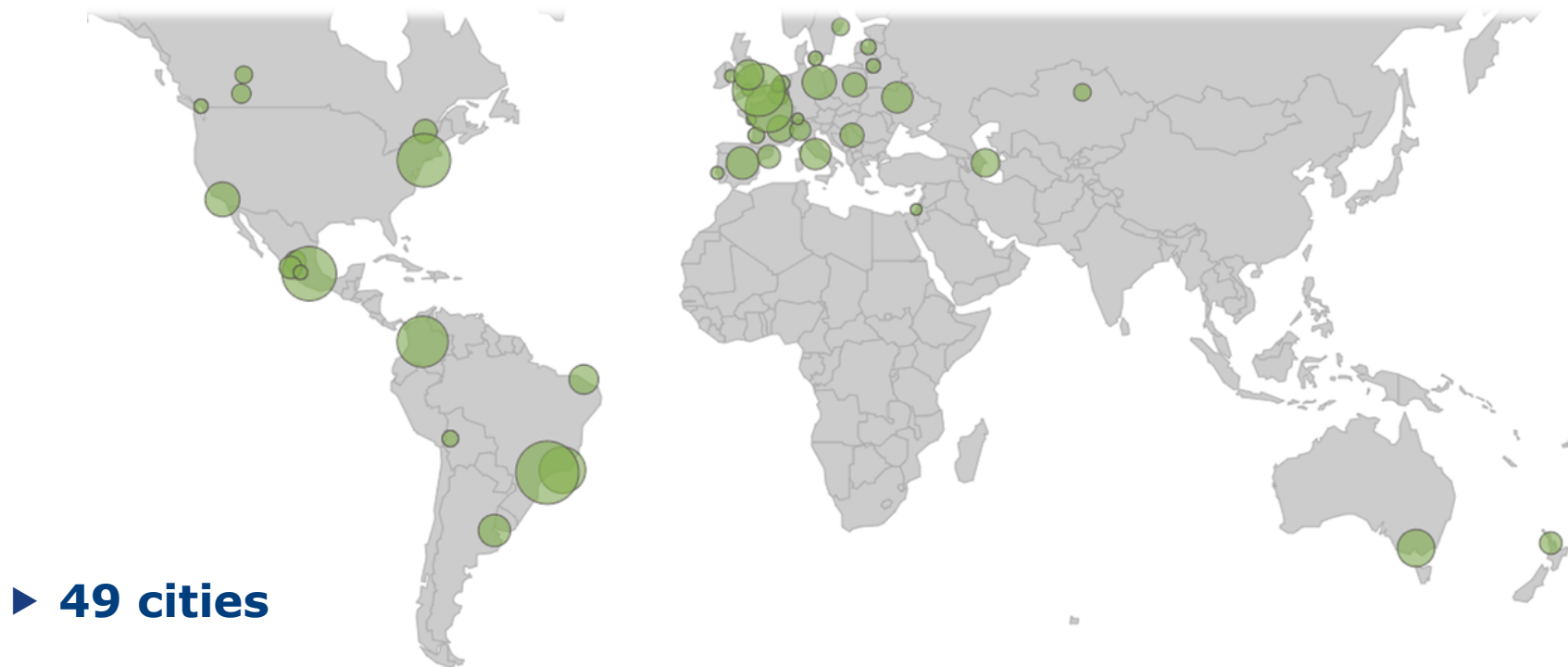
Network  
of experts





# Safer City Streets

*the global traffic safety network  
for liveable cities*



20-21 April 2017

**1<sup>st</sup> meeting  
in Paris**

**28 cities**

**20 other  
organisations**



20-21 November 2018

# **4<sup>th</sup> meeting in London and Manchester**

Event articulated with  
**>POLIS Conference**





# Ministerial Summit

23-25 May 2018  
Leipzig

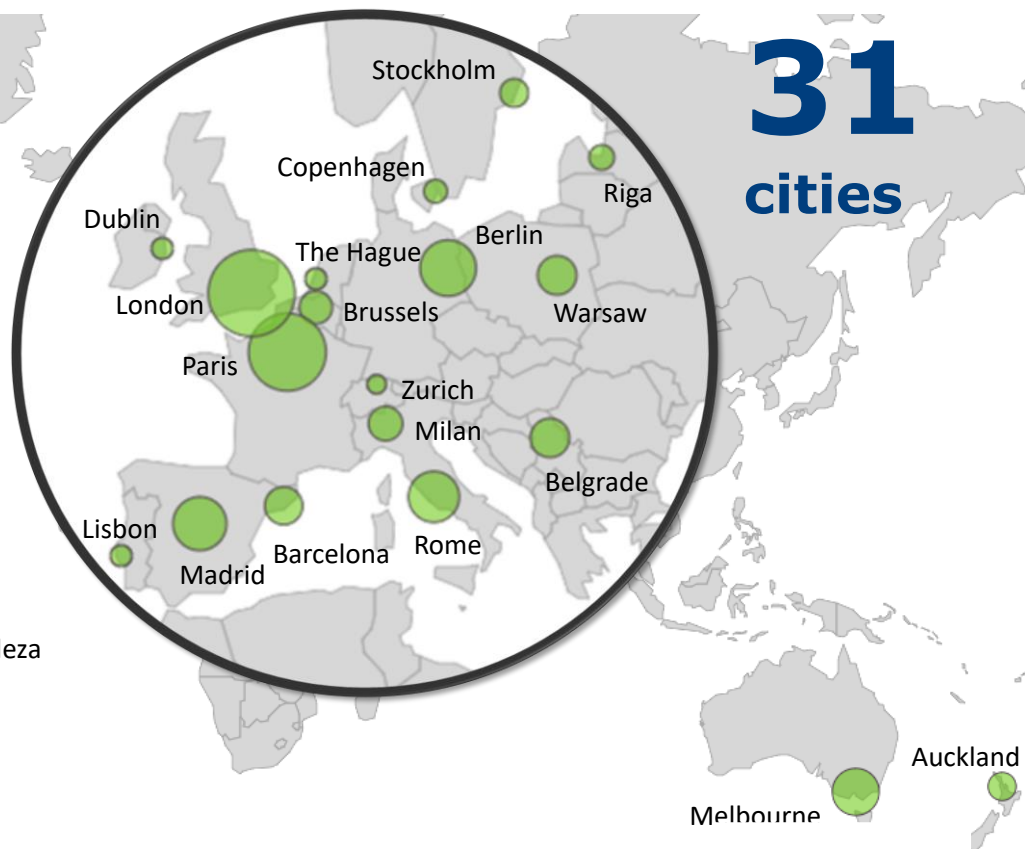
*transport  
safety &  
security*





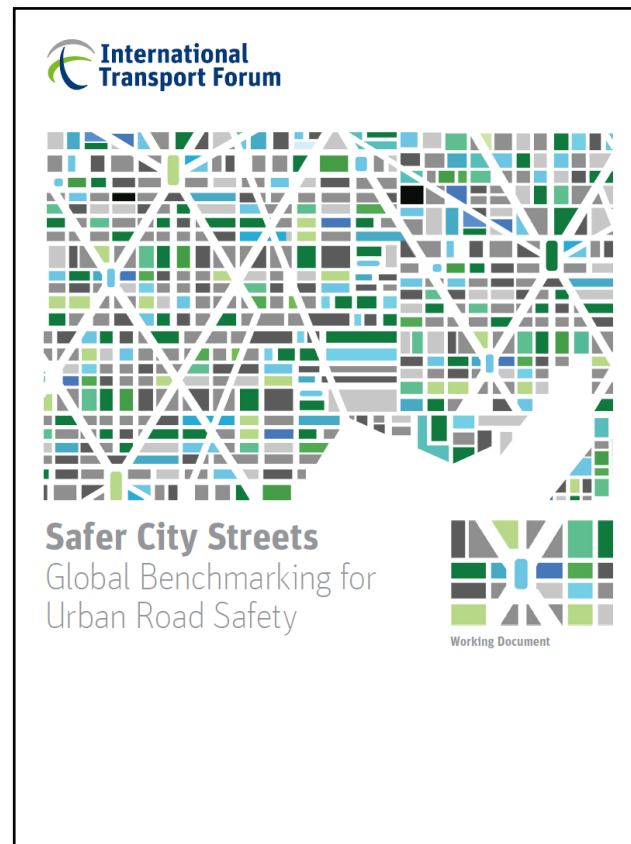
# Safer City Streets database

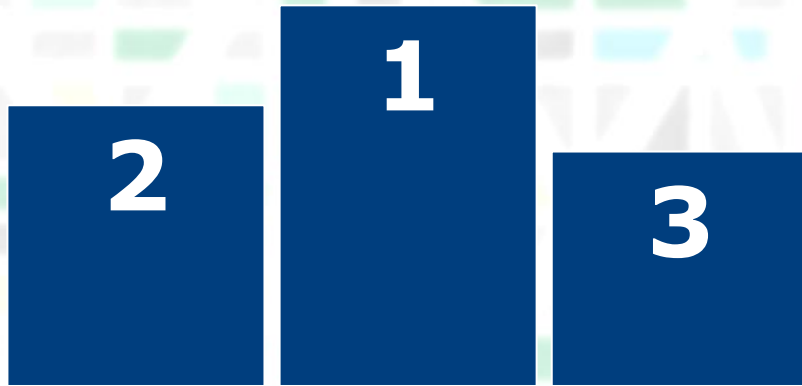
**31**  
cities



# One publication for seven key questions

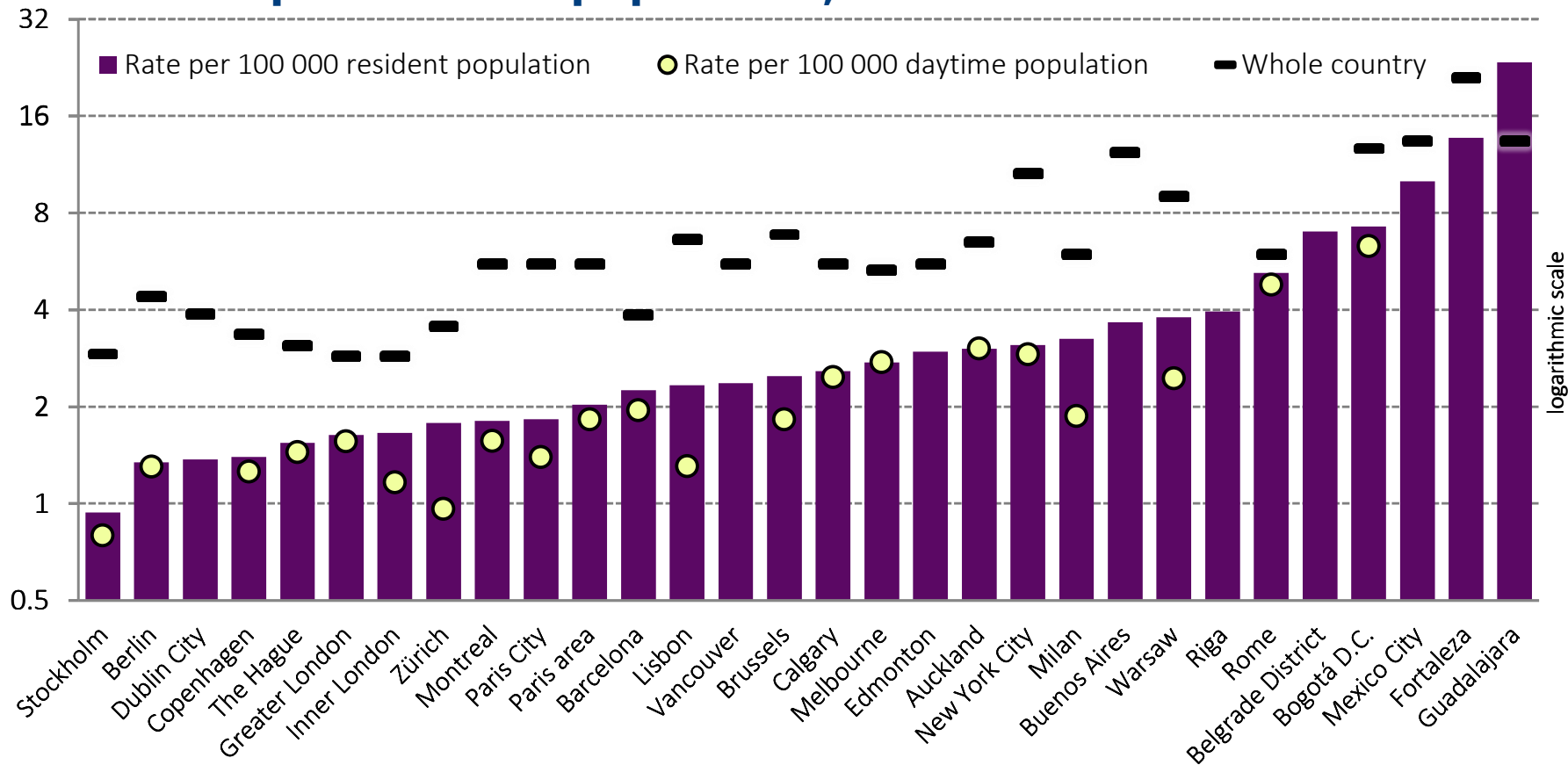
1. Are city streets dangerous?
2. Can we **measure** urban road safety performance?
3. Can we **monitor** performance?
4. Which factors are driving road safety performance?
5. Are cities confronted with specifically urban road safety challenges?
6. What is the impact of **mode shift** on public health?
7. Which recommendations can we make?





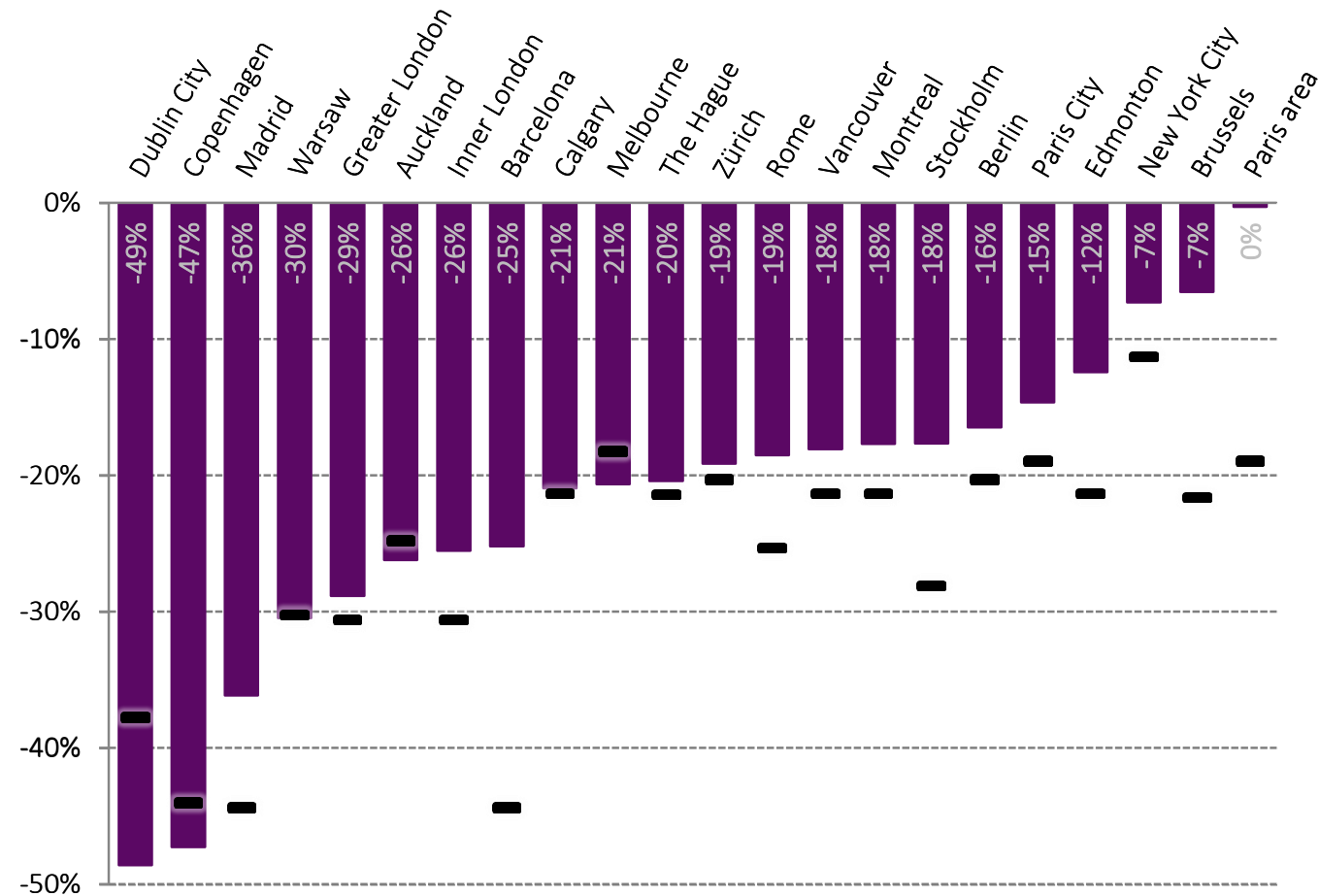
**Top level  
results**

## Fatalities per 100 000 population, 2011-2015





## Road fatalities, changes from 2006-10 to 2011-15



City

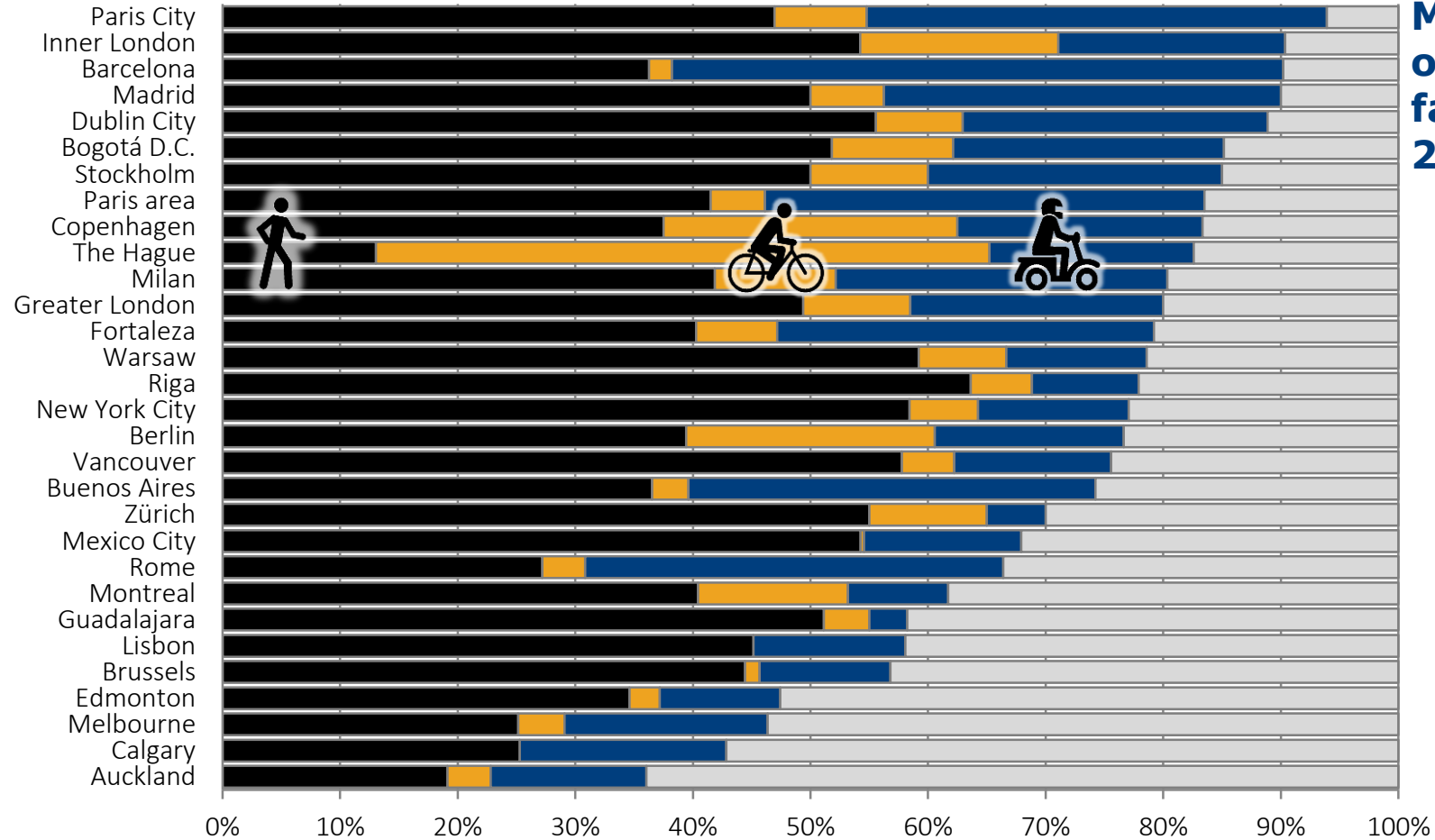
Whole country



# Analysis by mode

pedestrian
  bicycle
  powered-2-wheeler
  other road users

## Modal shares of road fatalities, 2013-2015

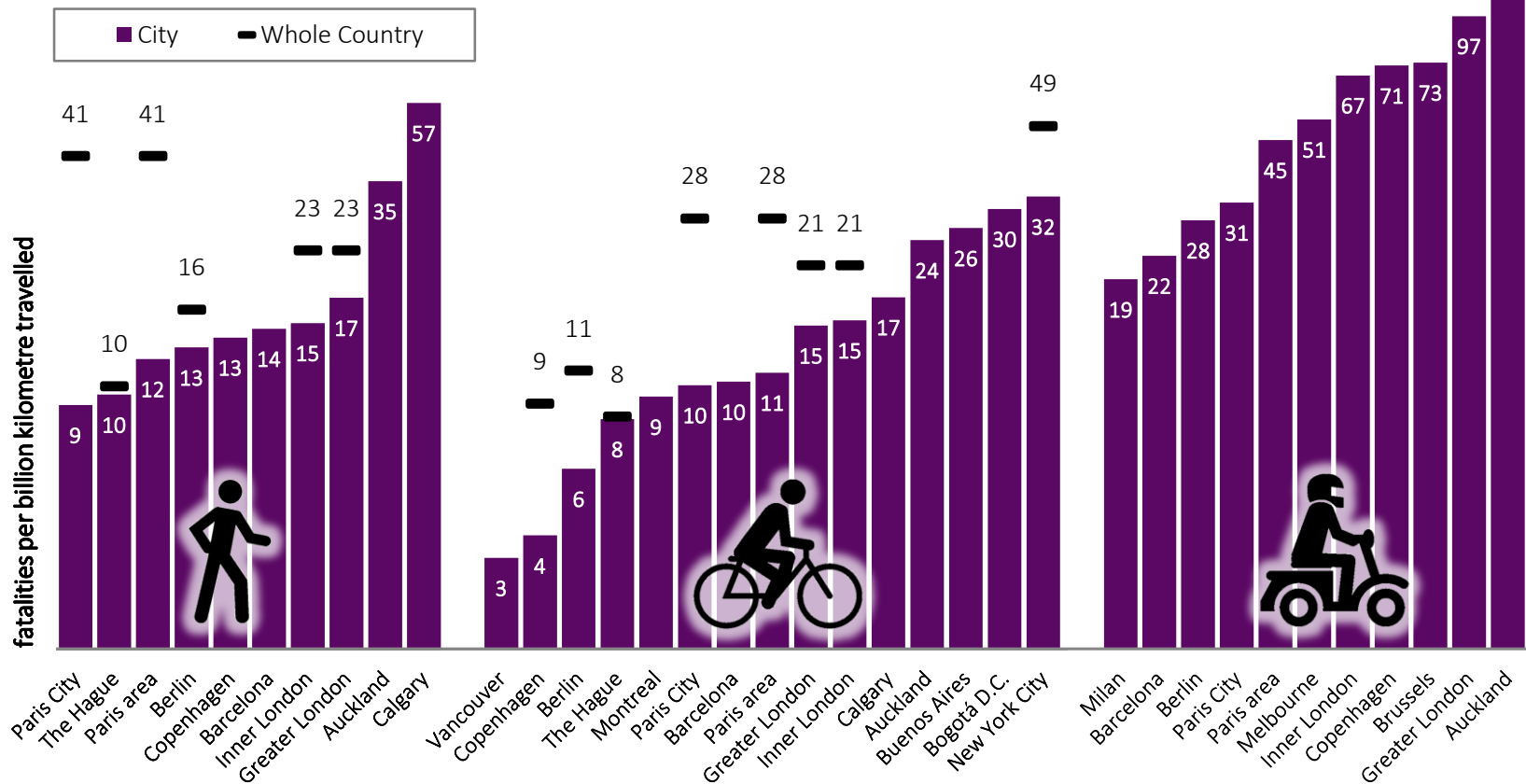


# Are cities confronted with specifically urban road safety challenges?

- Vulnerable Road Users (VRUs) represent 8 out of 10 urban traffic fatalities – but 4 out of 10 at a national level, typically.
- Consequently, specific topics take precedence: traffic calming, speed limits, direct vision lorries, etc.



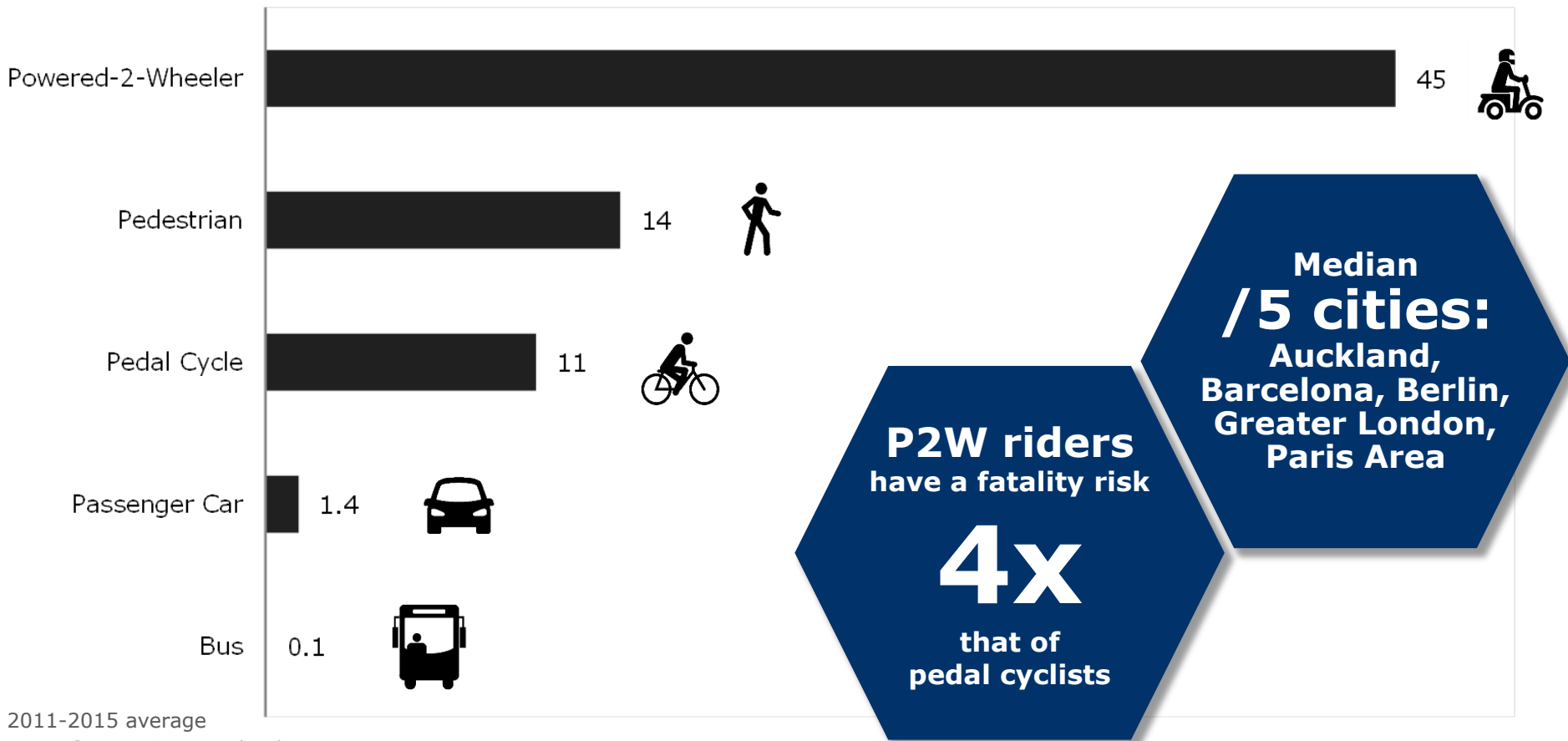
## Risk of fatality per unit distance travelled, 2011-2015



## Are city streets dangerous?

- Living and travelling in cities appear to be safer, regardless of the choice of indicator, in comparison to rural areas
- Yet most urban populations express a fear of cycling and a fear of letting their children walk to school
- In this sense, we recommend creating an environment where people *are* and *feel* safe

# Fatalities per billion passenger-kilometre



# Fatalities per billion passenger-kilometre



Powered-2-Wheeler



Pedestrian

14



Pedal Cycle



Passenger Car



Bus



**Median  
/5 cities:  
Auckland,  
Barcelona, Berlin,  
Greater London,  
Paris Area**

**Risk to VRUs  
analysed in Bogota,  
Paris City, Inner  
London**

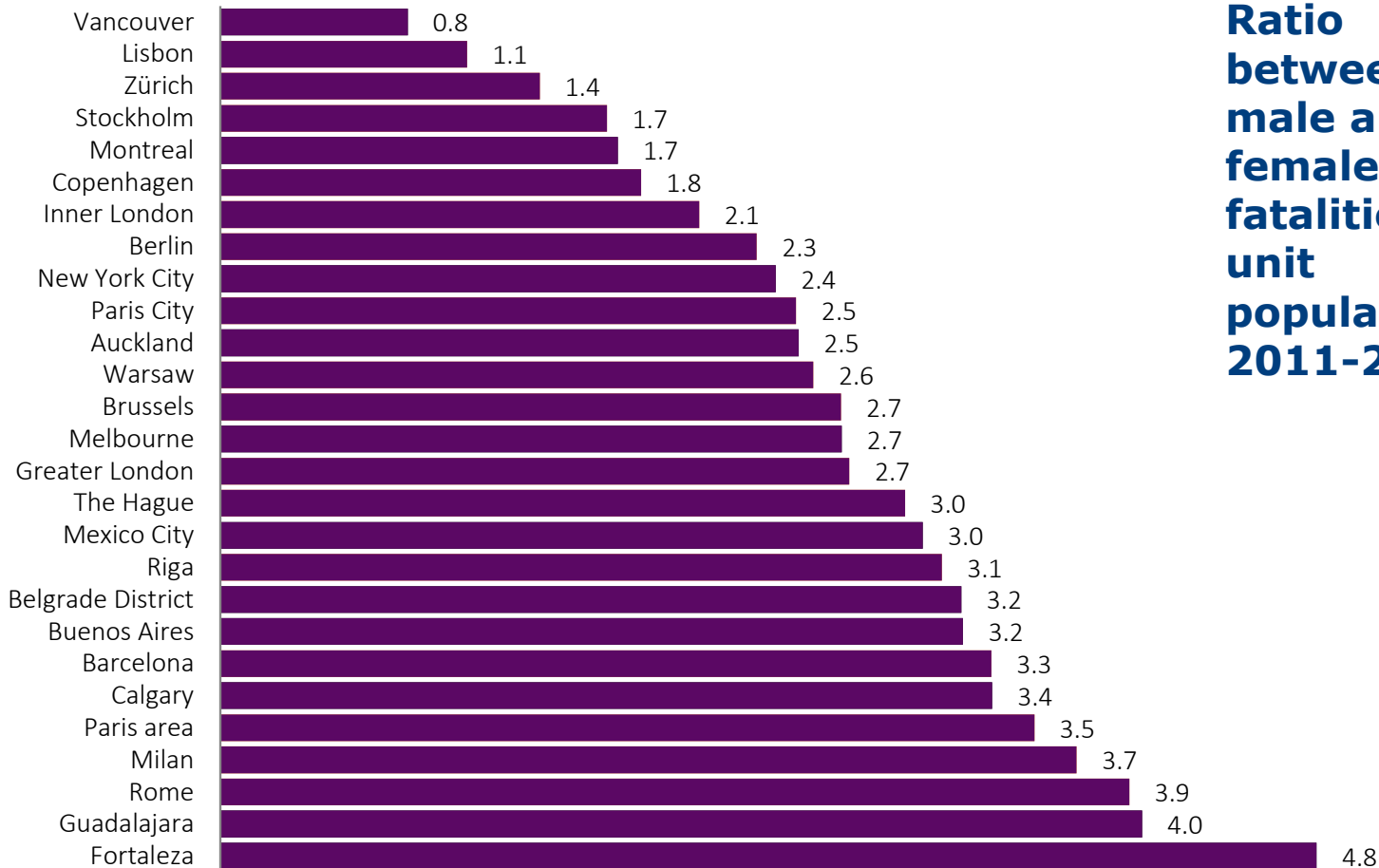


# What is the impact of mode shift on public health?

- The answer *requires* the collection of mobility data and the analysis of crash matrices
- Provisional results highlight the risk of using P2W (not only to riders themselves but also to third parties, namely pedestrians)
- The true answer requires the consideration of physical activity benefits from active travel

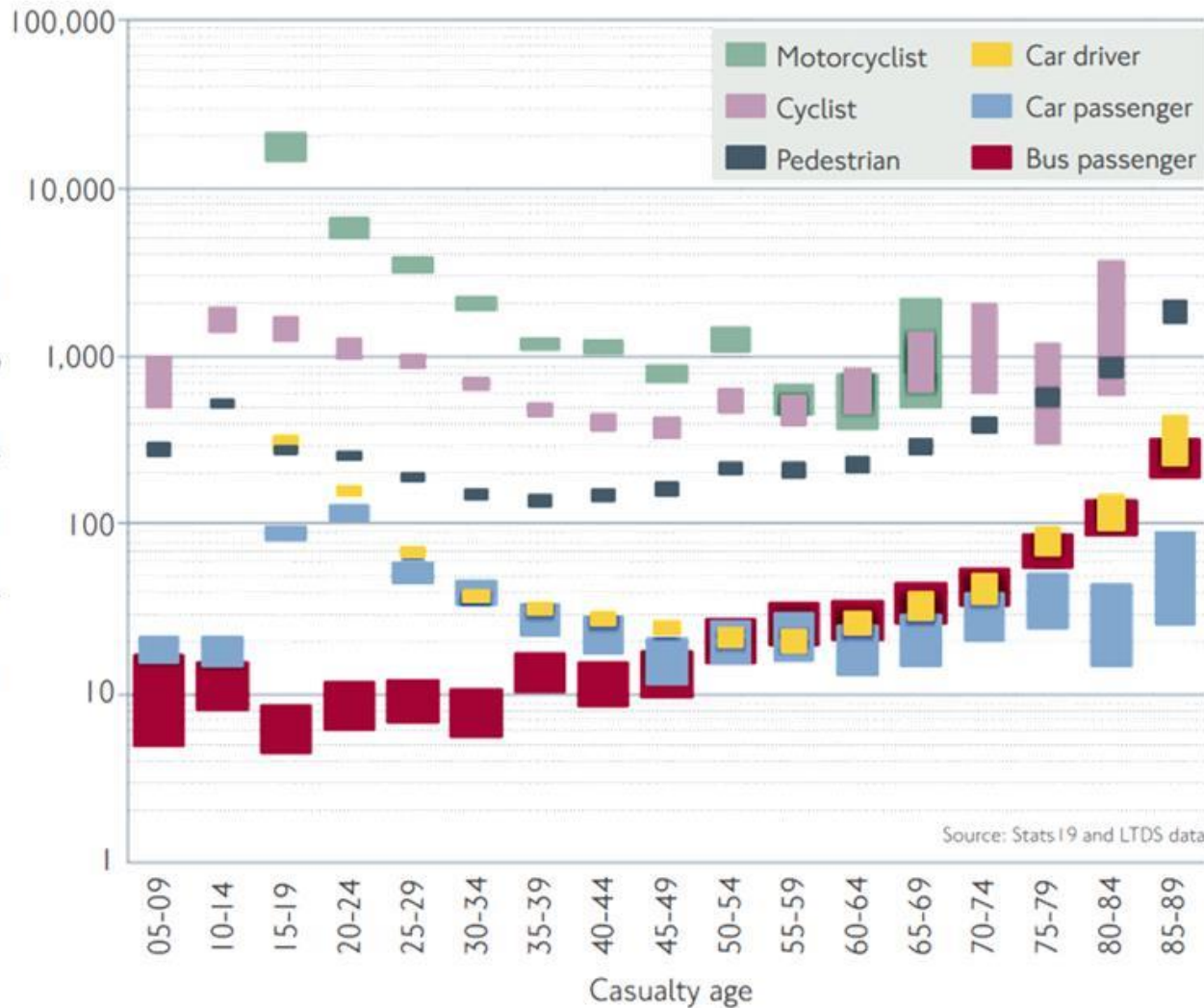


# Gender and age



**Ratio  
between  
male and  
female  
fatalities per  
unit  
population,  
2011-2015**

KSI rate per billion passenger-kilometres



## Casualty rate per billion kilometres travelled by age and by mode

Source: Transport for London  
<http://content.tfl.gov.uk/safe-streets-for-london.pdf>

# Can we measure urban road safety performance?

- All indicators have limitations but contribute to building the performance picture
- We see much value in the estimation of risk per user group, controlling for the amount of travel

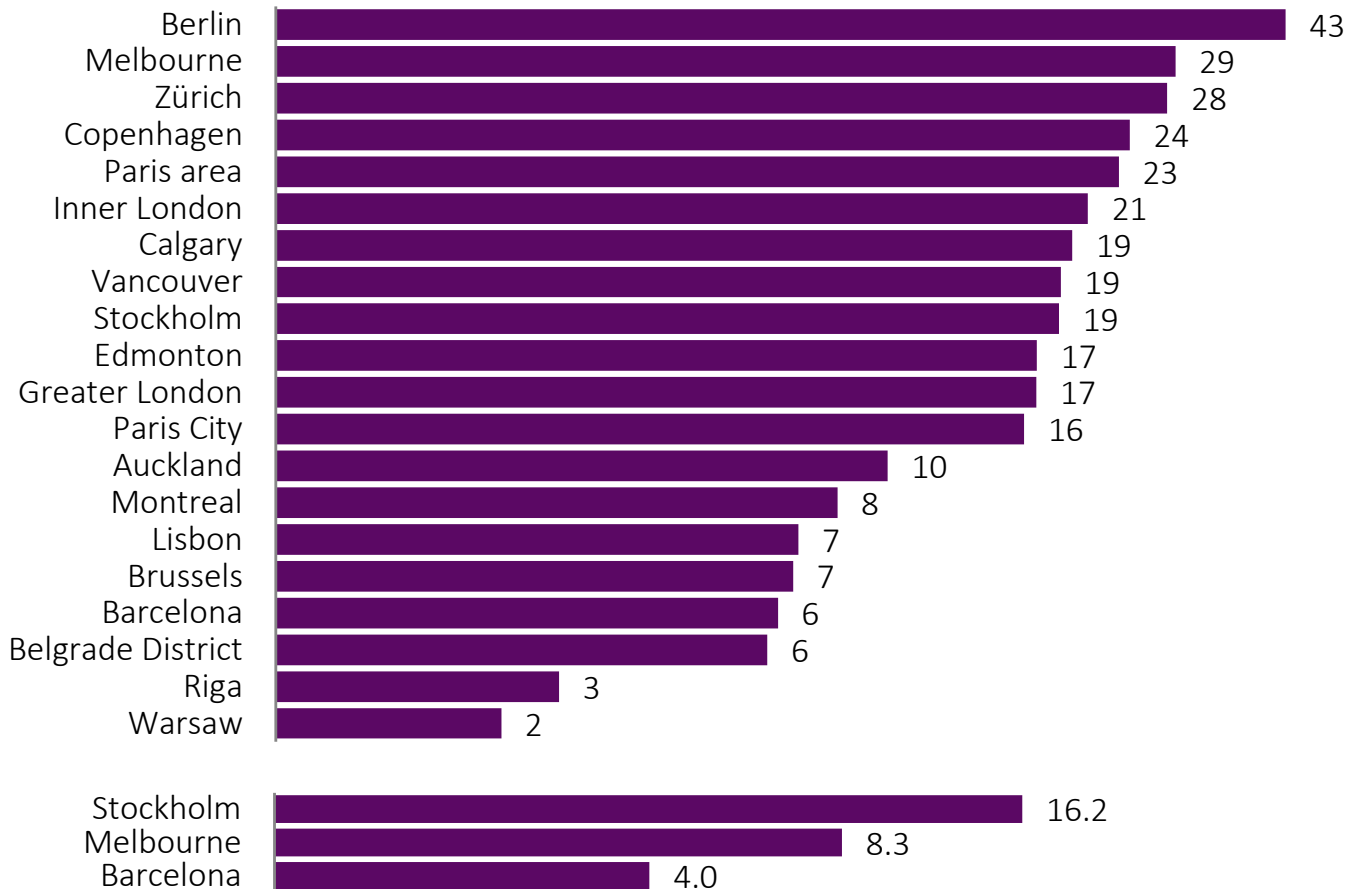


## Can we **monitor** performance?

- Year-on-year changes in fatalities rarely are statistically significant
  - Relying on fatality data alone makes it impossible, in most cities, to monitor safety year-on-year
- Changes in casualties in some user groups often reflect the changes in the size of this group
  - Without mobility data, we can't monitor road user risk



# Beyond fatality counts



**Ratio  
between  
serious  
injuries and  
fatalities,  
2011-2015**

**Ratio  
between  
MAIS3+  
injuries and  
fatalities,  
2011-2015**

# Serious injuries

- International Classification of Diseases (ICD)
- Abbreviated Injury Scale (AIS)



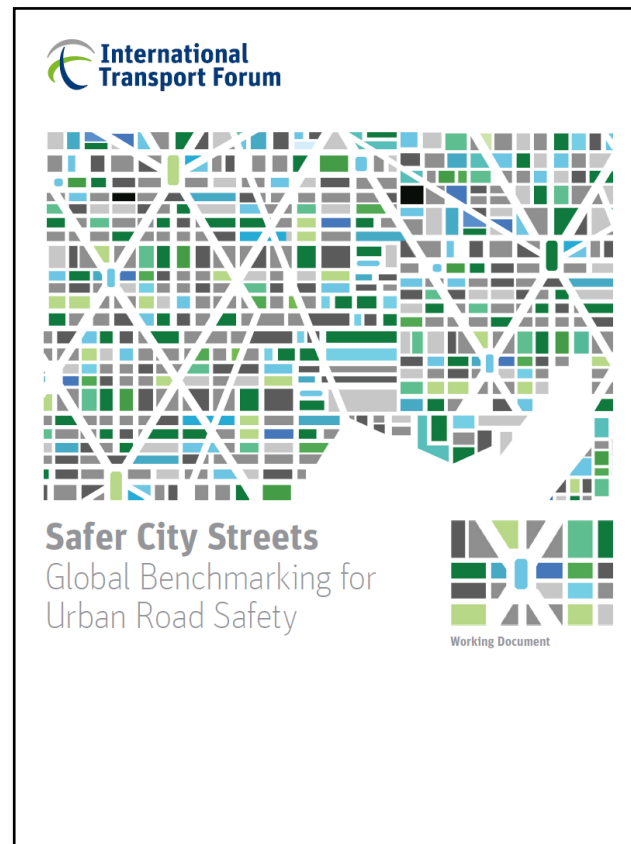
## Reporting on Serious Road Traffic Casualties

Combining and using different data sources  
to improve understanding  
of non-fatal road traffic crashes



# One publication for seven key questions

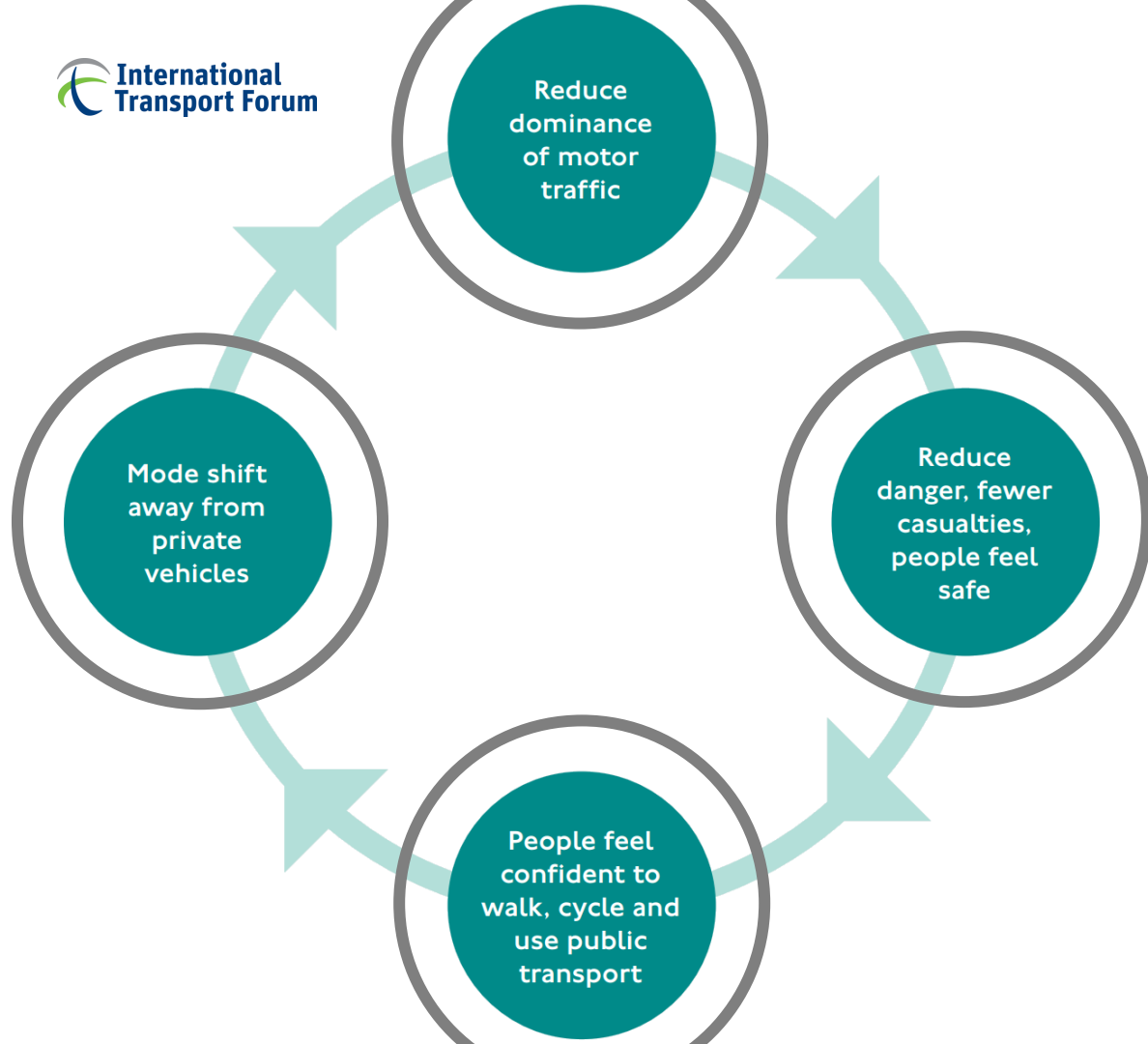
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## Which recommendations can we make?

- Set ambitious targets on fatal and serious injuries
- Focus on VRUs and develop meaningful VRU safety indicators
- Collect robust and comparable serious injury data
- Consider safety as a key to mode shift and vice versa





**Safe streets**  
**unlock**  
**alternative**  
**transport**  
**modes**

**Thank you**

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