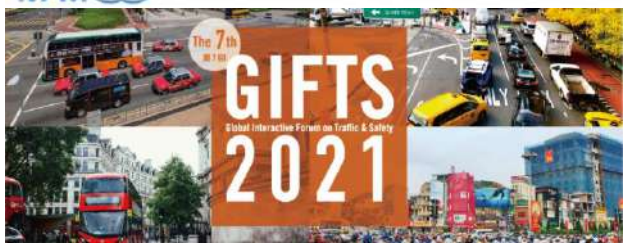

The 7th GIFTS Symposium - "The Cultural Diversity in Traffic and Building of Safe Societies: Toward Common Vision"
18 November 2021

Open data as a catalyst for traffic safety culture change

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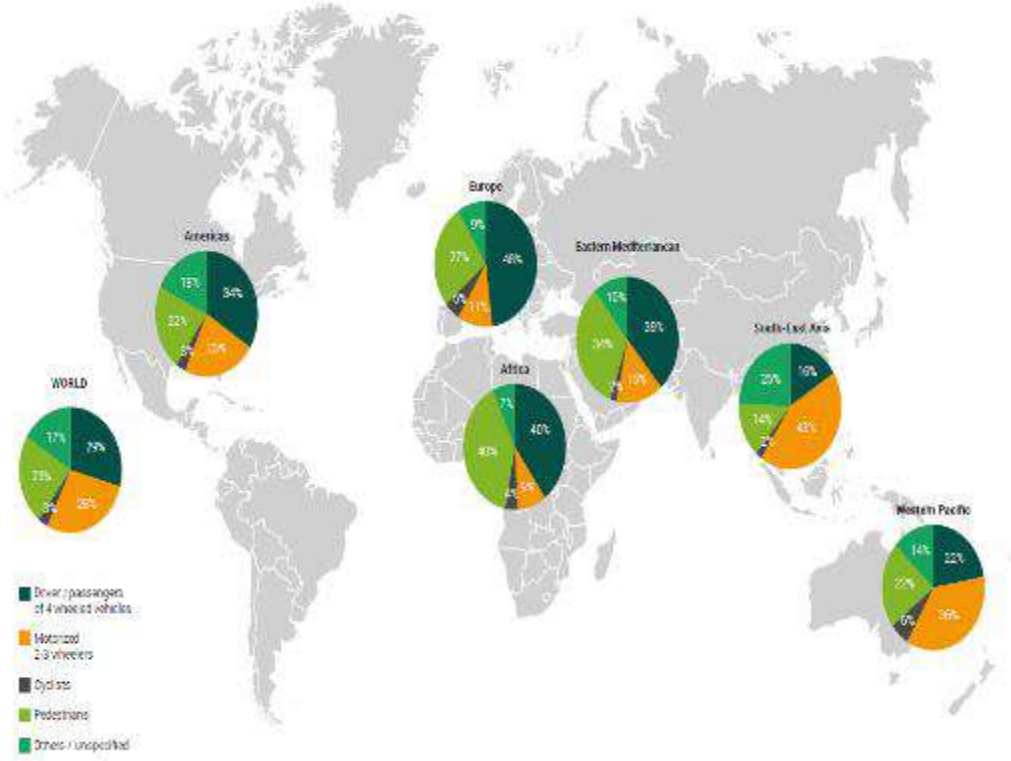
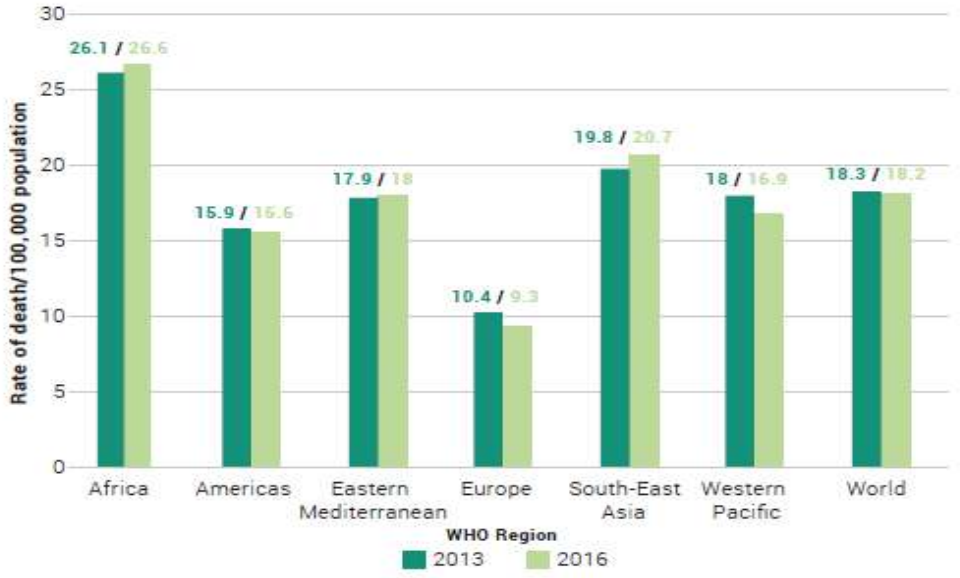
Road Crashes Globally

- **Europe** presents the lowest traffic fatality rate per population globally
- **Africa** has the worst road safety performance (up to 10 times more fatalities per population compared to the best performing European countries)
- The percentage of **VRUs'** fatalities in road crashes worldwide is especially high (54%)
- **Pedestrian** fatalities range from 14% to 40%
- **PTW** fatalities range from 9% to 43%





Diversity in Road Safety Culture

- **Different levels of economic development**
  GDP, growth, etc.

- **Different levels of transport system development**
  Road network, vehicle fleet, public transport, etc.

- **Different traffic patterns**
  Modal share between pedestrians, PTW, passenger cars, HGVs, PT, etc.
  Traffic share inside/outside urban areas

- **Different risk perceptions**
  speeding, distraction, drink-and-drive, etc.

Measuring Traffic Safety Culture Components

- **Traffic Safety Performance**
  Crashes, Exposure, Key Performance Indicators

- **Safe System Approach Indicators**
  Monitoring implementation, evaluating effectiveness

- **Road Users' Behaviour**
  Stated attitudes and beliefs, recorded behaviour

Traffic Safety Performance

- **Crash data** provide a broad picture of the size of the problem, but very little on crash characteristics and causation

- Crash data are meaningful only if they are combined with **exposure data** (crashes per km/time driven, per traffic characteristics, per road user, per time, etc.) in order to highlight the real dimension of the problem

- Crash causalities are revealed when crashes are correlated with **Road Safety Performance Indicators** (behaviour, infrastructure, traffic, vehicles, safety management)

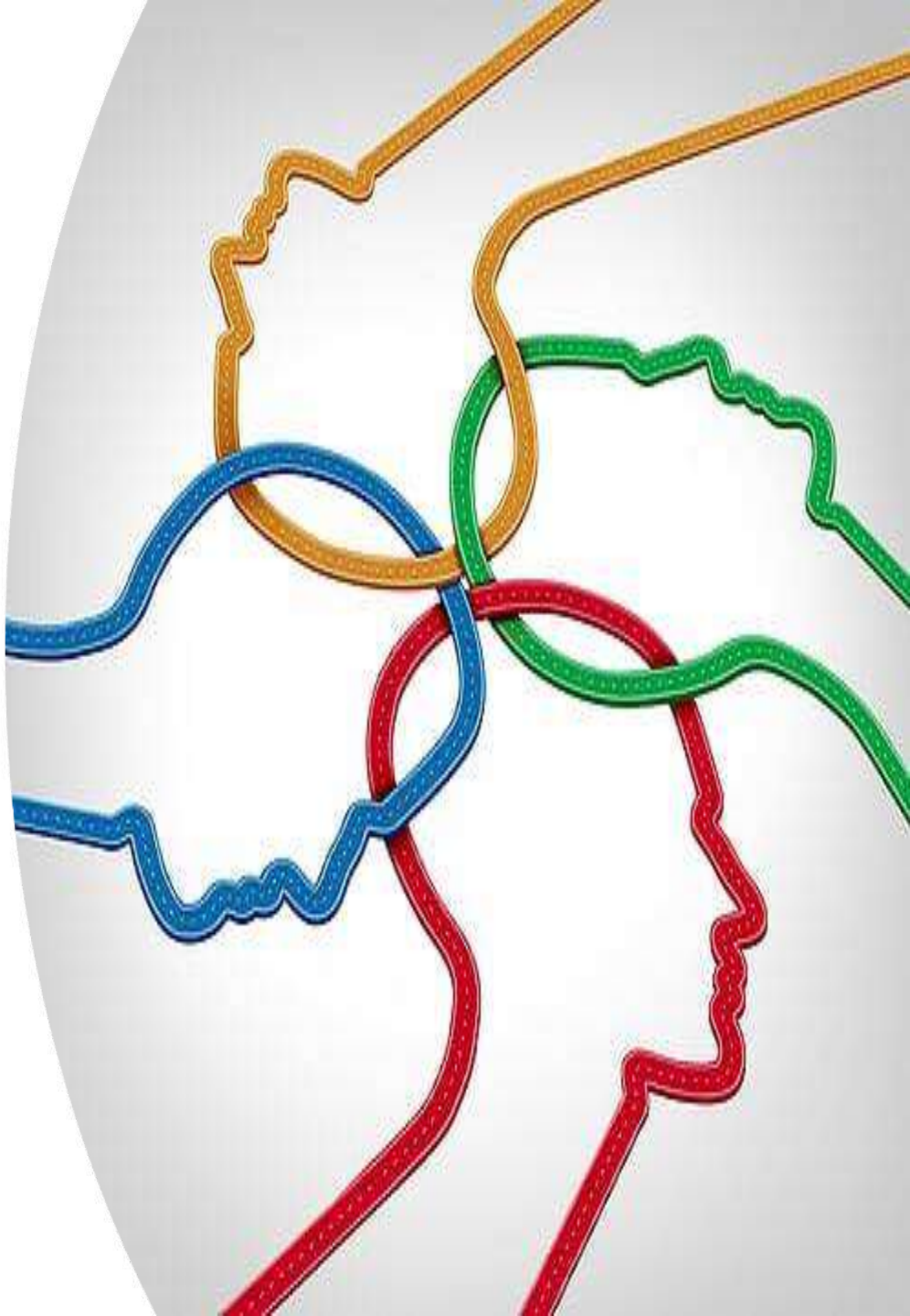
Safe System Approach Indicators

- **Monitoring of measures,** programmes and policies implementation allows for the identification of the degree of implementation of these measures and programmes over time

- **Evaluation of safety measures effectiveness** provides valuable information, necessary for matching problems with solutions

Users' behaviour, attitudes and beliefs

- **Perception** of the relative importance of causes of crashes
- **Acceptability** of unsafe behaviour in traffic (speeding, distraction, DUI, etc.)
- **Self-declared** behaviour (as a driver, rider, pedestrian)
- **Opinions** on traffic rules and penalties
- **Support** of existing or new policy measures

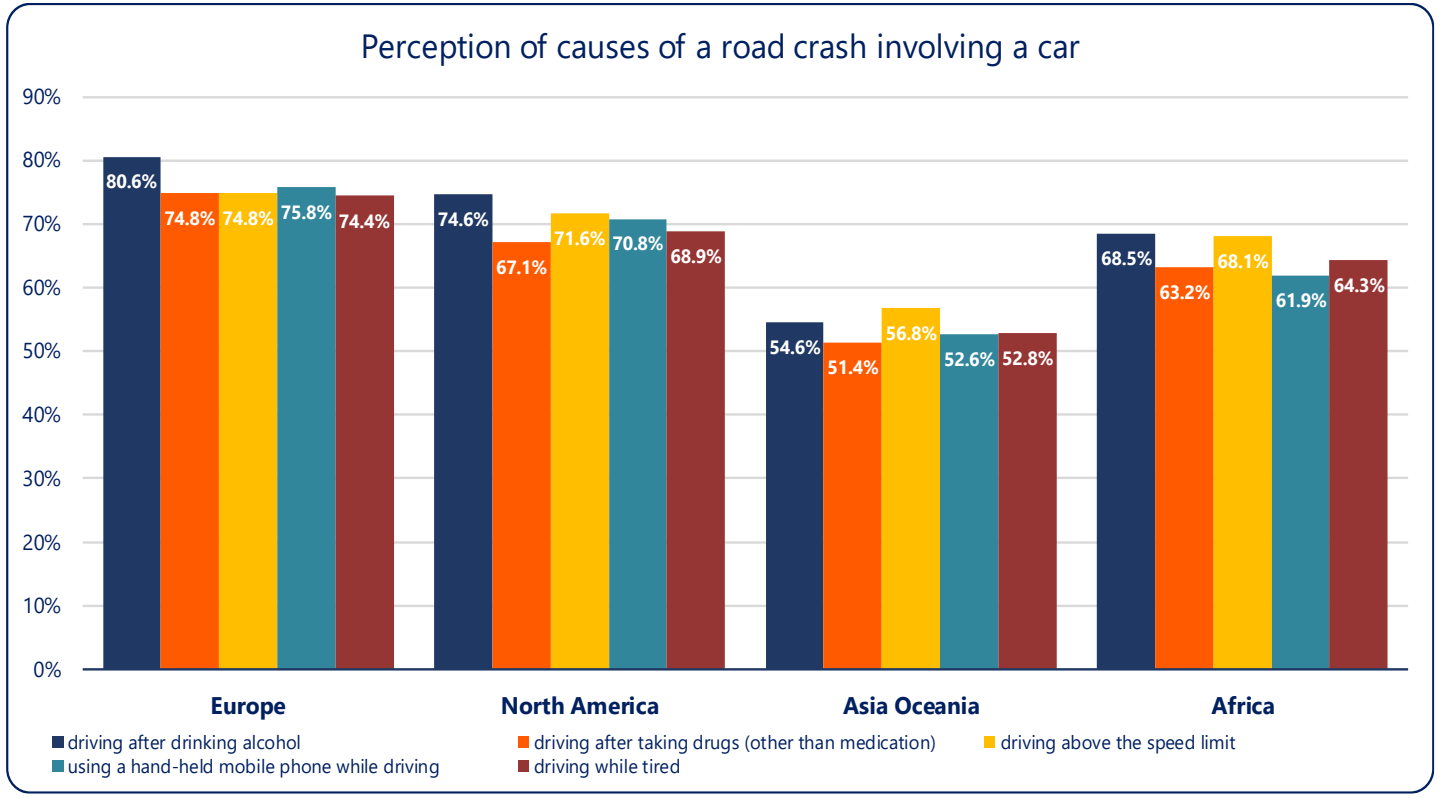


Perception of the relative importance of causes of road crashes

ESRA Global Attitudes Survey

- Most respondents from all regions believe that unsafe traffic behaviors are often a cause of a road crash involving a car.
- The risk perception of the unsafe behaviors as a frequent crash cause was the highest in Europe (from 74% for fatigued driving to 81% for drink-driving).
- The lowest rates were recorded in Asia-Oceania (from 51% for driving after taking drugs to 57% for driving above the speed limit).
- In North America, the rates ranged from 67% (driving after taking drugs) to 75% (drink-driving) and from 62% (using hand-held mobile phone while driving) to 69% (drink-driving) in Africa.

"How often do you think each of the following factors is the cause of a road crash involving a car? -%often/frequently- scores 4 to 6 on a 6-point scale from 1=never to 6=[almost] always



Source: C. Pires, K. Torfs, A. Areal, et al., Car drivers' road safety performance: A benchmark across 32 countries, IATSS Research, https://doi.org/10.1016/j.iatssr.2020.08.002

Open data can enhance traffic safety culture

- **Motivating Authorities**
  - increase of accountability
  - transparency in the decision making process
  - efficient use of resources

- **Developing road user mentalities**
  - better understanding of the road safety problem and behaviour change
  - increase of trust in road safety Authorities and decision makers
  - easier acceptance of the new measures and policies

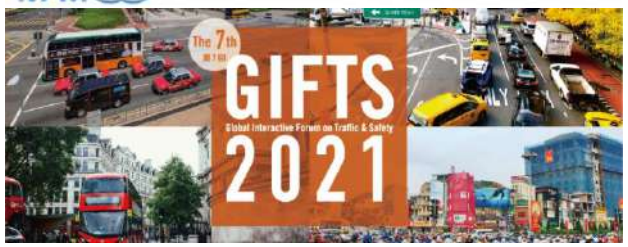
- Traffic Safety Cultures of the Authorities and of the Road Users are fully **interdependent**

Open data for international cooperation

- improving through **benchmarking** at local, national and global level
- exchange of **good practice** for specific problems and solutions
- operating **road safety observatories** for regional cooperation
- exploiting **new technologies** for low cost global big data

Conclusion

- **Open safety data and knowledge** available to all are the key for cultural and behavioural changes of both the road users and the Authorities
- Serious effort is needed at **all phases of data** collection, processing, analysis and open publication
- Continuous safety **monitoring and accountability** can enhance traffic safety culture
- Traffic safety culture should always be considered in combination with **mobility needs and culture** (especially the promotion of Public Transport)



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