Data to support Management of Powered Two-wheeler Risks

Greg Smith, iRAP

SECOND WORKSHOP TOWARDS THE ESTABLISHMENT OF A ROAD SAFETY OBSERVATORY IN ASIA-PACIFIC

iRAP

www.irap.org

About iRAP:

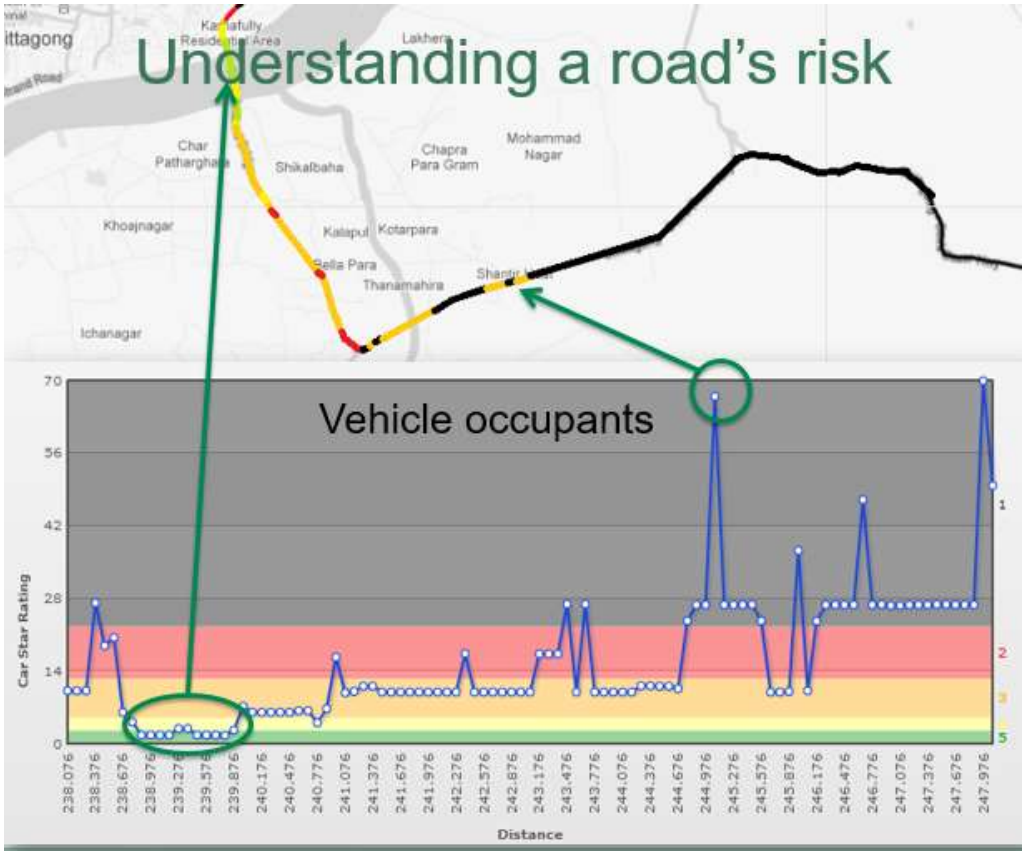
Registered charity

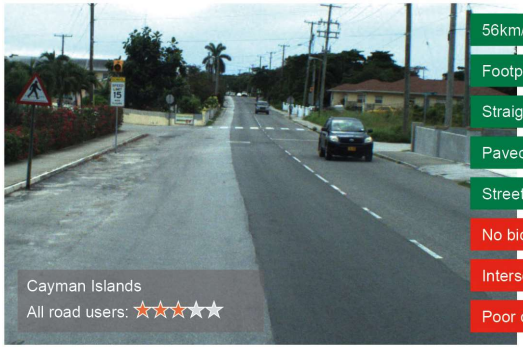
Vision: a world free of high risk roads

Global standard for road infrastructure safety performance

100+ countries

Star Ratings





Star Rating process

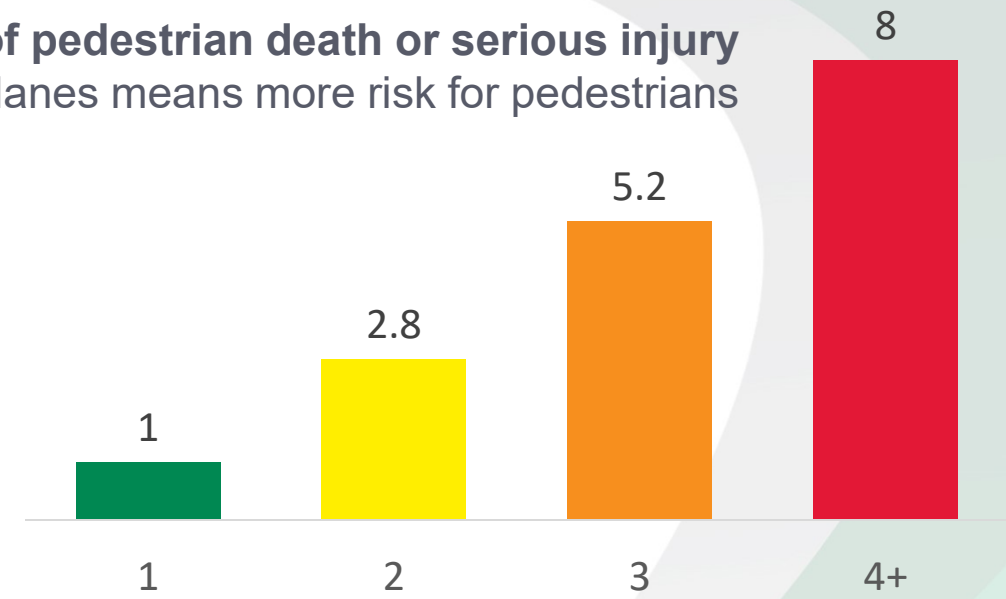
Road Survey

Road Coding

Star Ratings

Risk of pedestrian death or serious injury

More lanes means more risk for pedestrians

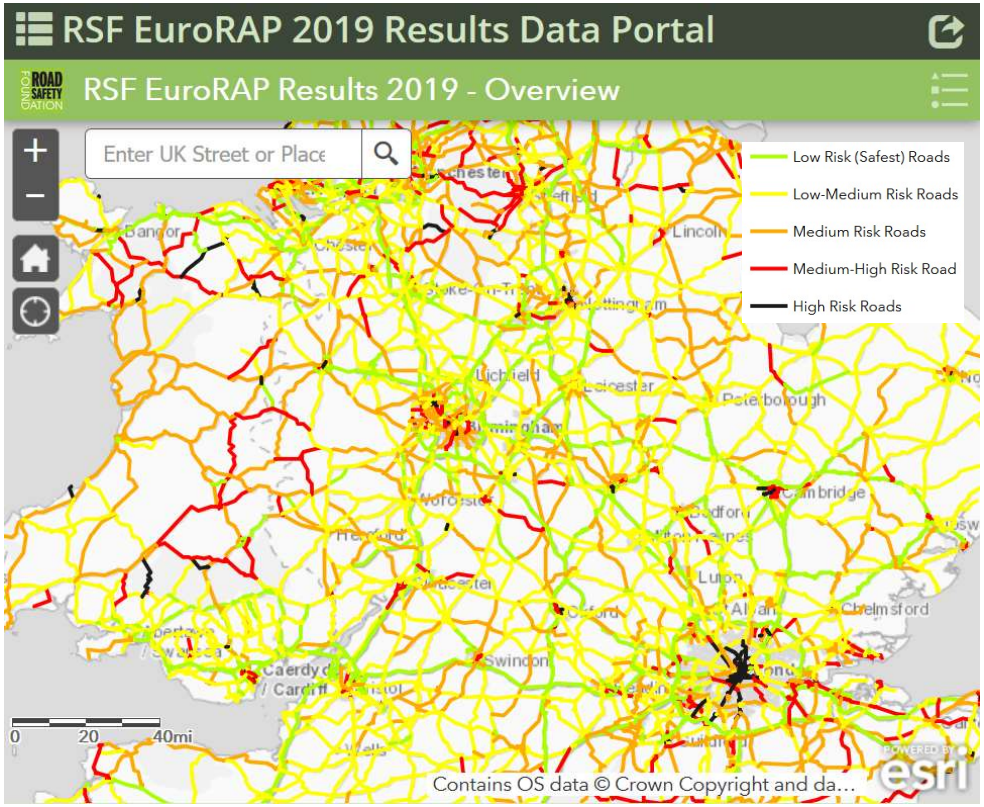


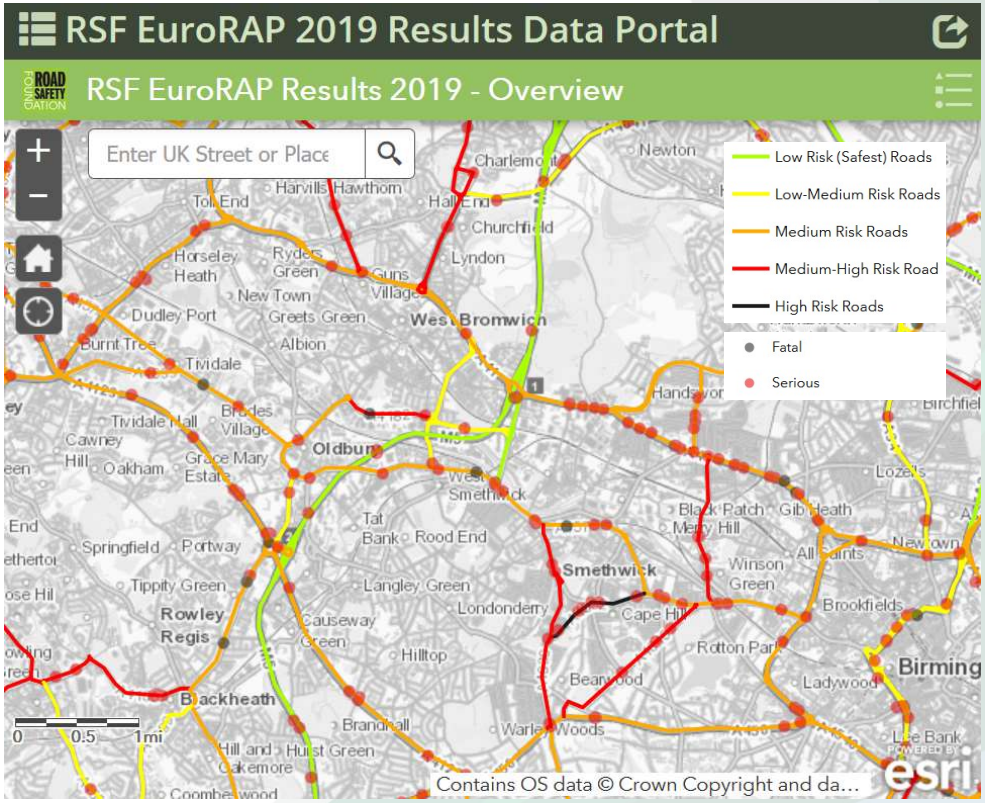
https://www.irap.org/specifications/

iRAP Coding Manual
Drive on the right edition

www.irap.org
Because every life counts.

Crash Rate Risk Maps



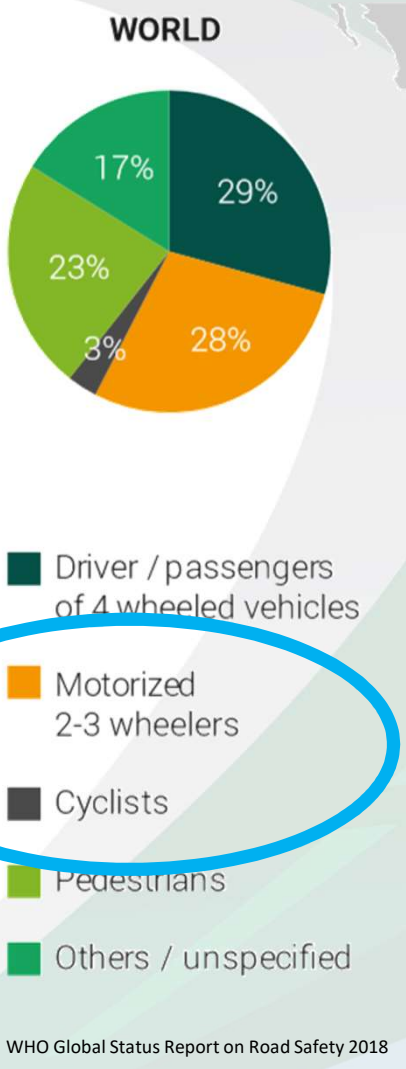


iRAP assessments

- 23 countries with some iRAP Star Rating data in ESCAP

Target 3: By 2030, all new roads achieve technical standards for all road users that take into account road safety, or meet a three star rating or better.

Target 4: By 2030, more than 75% of travel on existing roads is on roads that meet technical standards for all road users that take into account road safety.



WHO Global Status Report on Road Safety 2018

General Santos-Davao-Cagayan de Oro, Philippines

~315km

~4

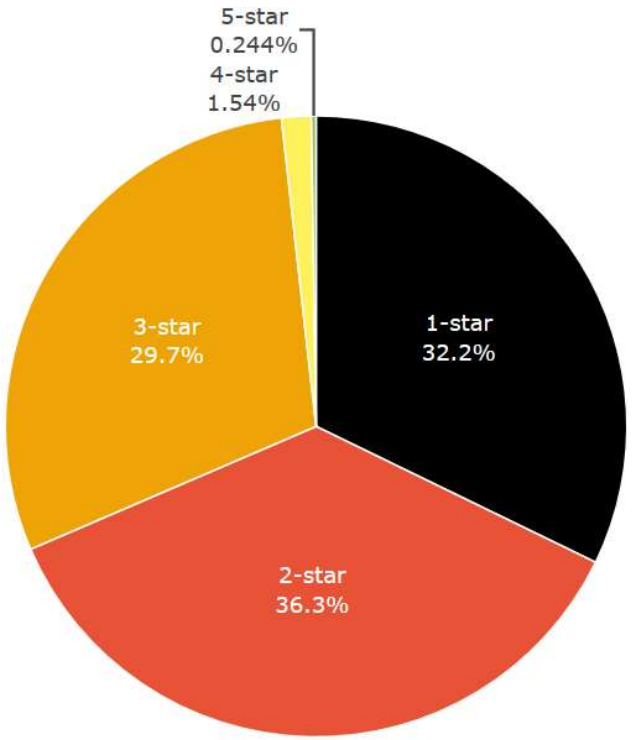
Fatalities per week

83% 1- or 2-stars

1/4 of traffic
3/4 of deaths

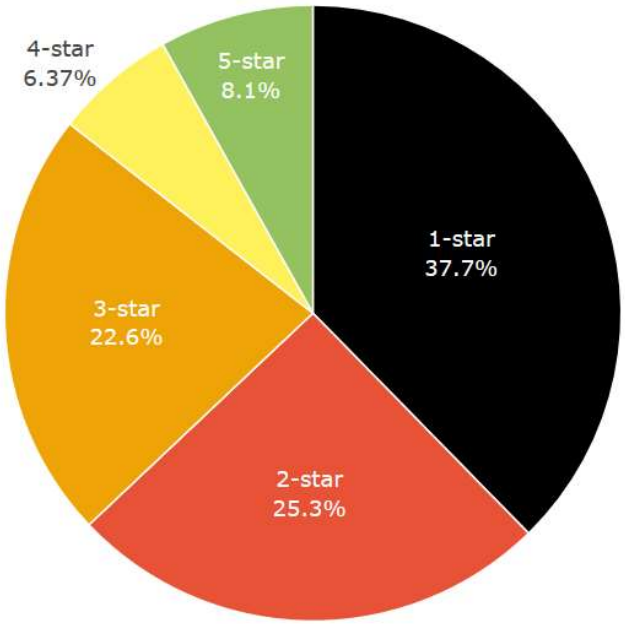
Motorcyclist Star Ratings

Western Pacific Region



Total Motorcyclist distance: 70,049 km

South East Asia Region



Total Motorcyclist distance: 29,892 km

Malaysia

31 million people

7 kW
>60 km/h

0.3 motorcycles per person

15 deaths per 100,000 pop

Ho Chi Minh City

9 million people

7 kW
>60 km/h

0.9 motorcycles per person

5.8 deaths per 100,000 pop

Shanghai

24 million people

0.25 kW - 4 kW
<25 km/h - >50 km/h

0.4 e-bikes per person

2 deaths per 100,000 pop

Netherlands

17 million people

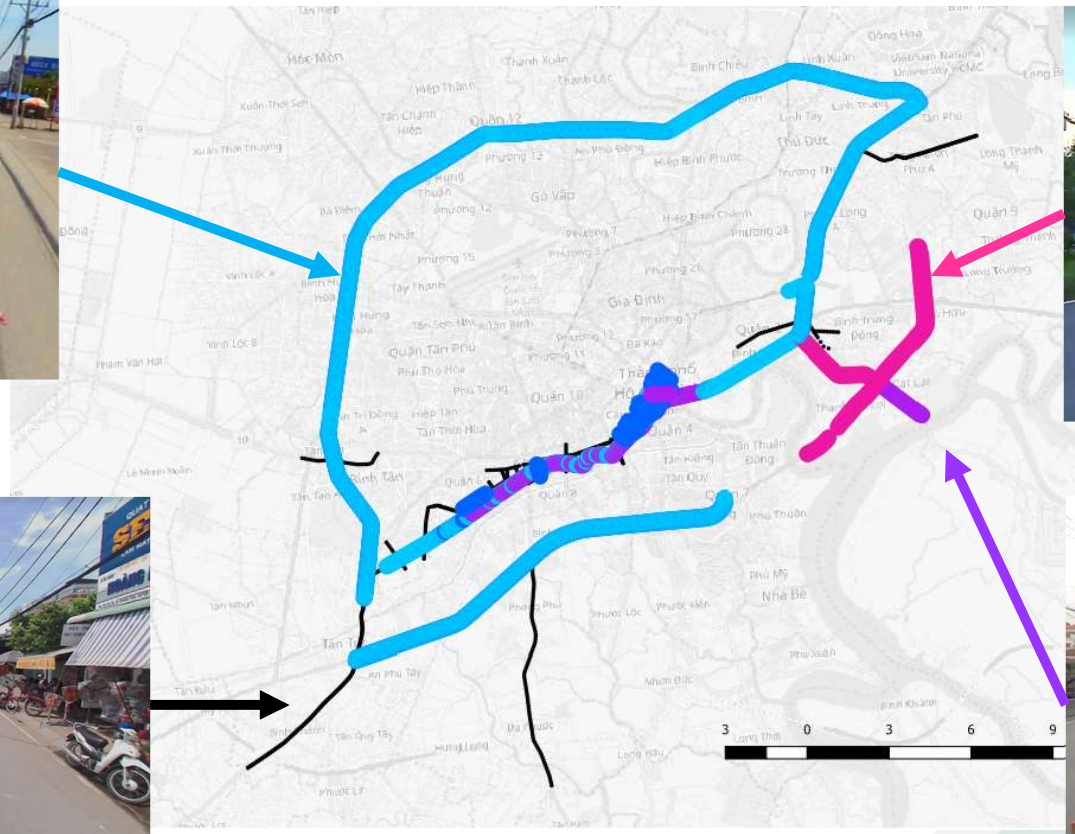
0.25 kW - 118 kW
15-25 km/h - >100km/h

1.3 bicycles, e-bikes and motorcycles per person *

2 deaths per 100,000 pop

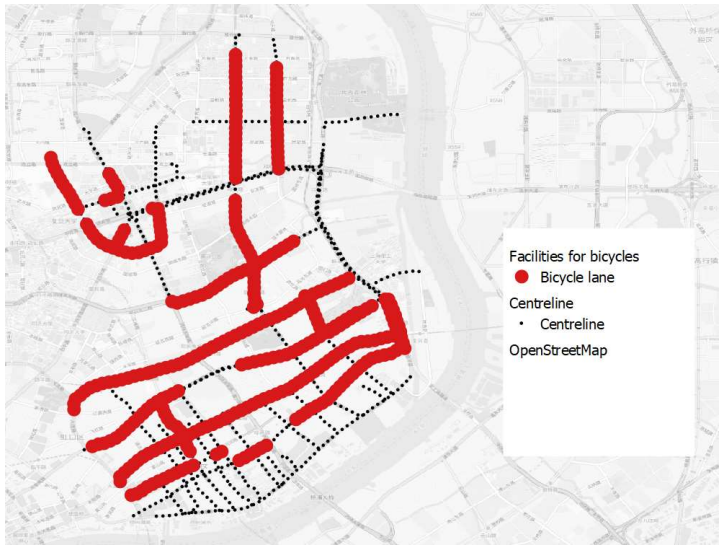
* 23m bikes, 0.7m motorcycles

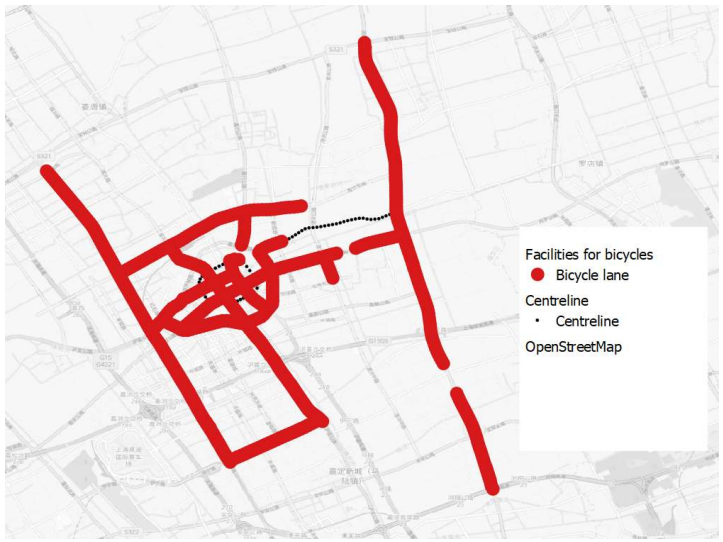
Motorcycle facilities in Ho Chi Minh City, Vietnam



Motorcycle lanes in Malaysia

Bicycle / e-bike lanes in Shanghai, China





Bicycle / e-bike lanes in Netherlands

Total bicycle paths: 35,000km

Malaysia *

~500km motorcycle lanes
250,000km roads

Lane ratio: 0.2%

* National

Ho Chi Minh City *

204km motorcycle lanes
308km roads

Lane ratio: 66%

*Sample of local and major roads

Shanghai *

118km bike/e-bike lanes
184km roads

Lane ratio: 64%

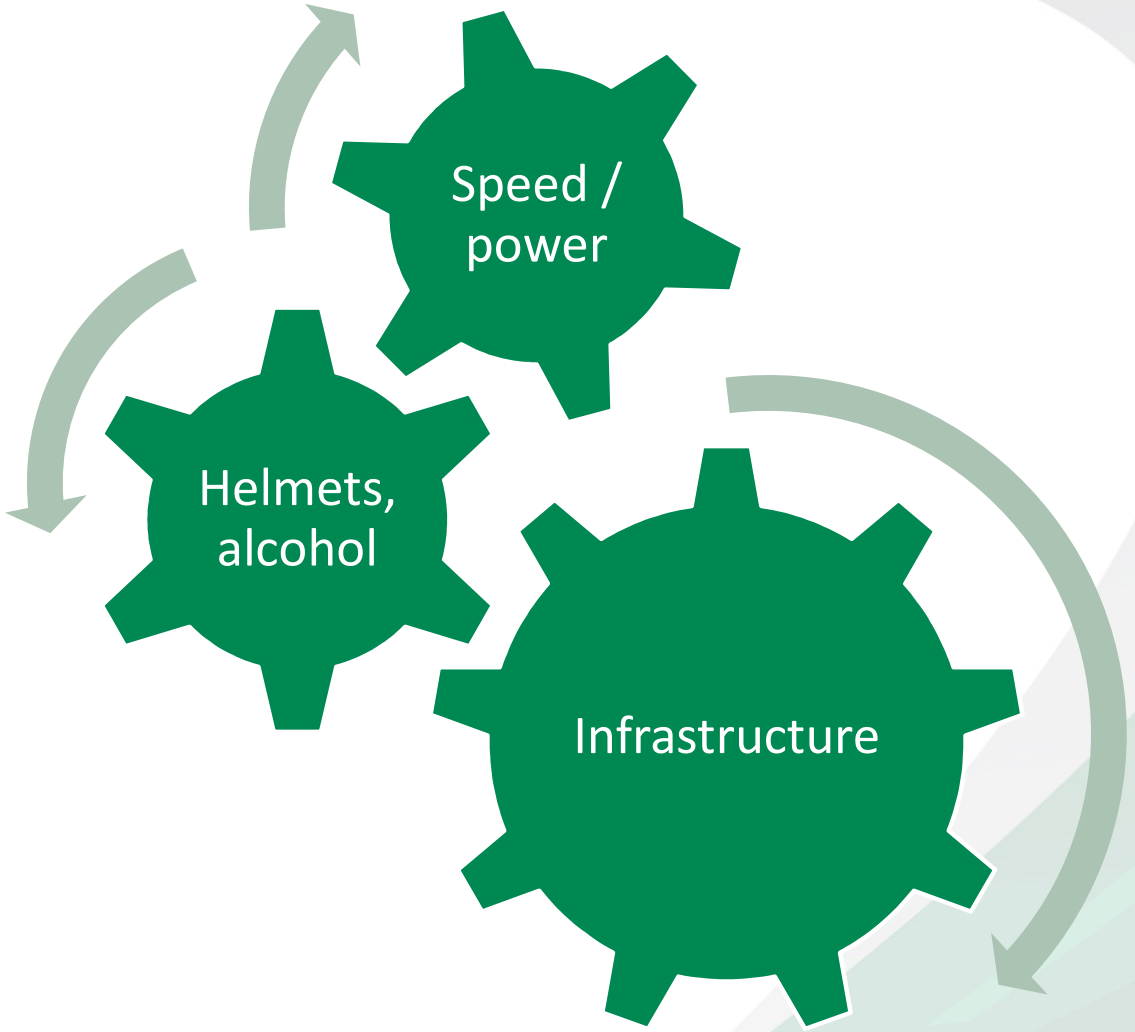
*Jiading and Yangpu
> 10% of Shanghai's pop

Netherlands *

35,000km bike lanes
139,000km roads

Lane ratio: 25%

* National


Speed / power
Helmets, alcohol
Infrastructure

Motorcycle lane in Indonesia

Conclusion

- Road infrastructures influence risk and therefore is a basis for comparisons
- Extensive iRAP data is already available
- Data sampling is valuable – we don't need to assess all roads before we make meaningful comparisons
- Star Ratings methodology is available for all

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