

Benchmarking the level of risk experienced by different road users, across town centres and world cities

Alexandre Santacreu, Principal Analyst

Alexandre.Santacreu@tfl.gov.uk



CITIES AND REGIONS NETWORKING
FOR INNOVATIVE TRANSPORT SOLUTIONS

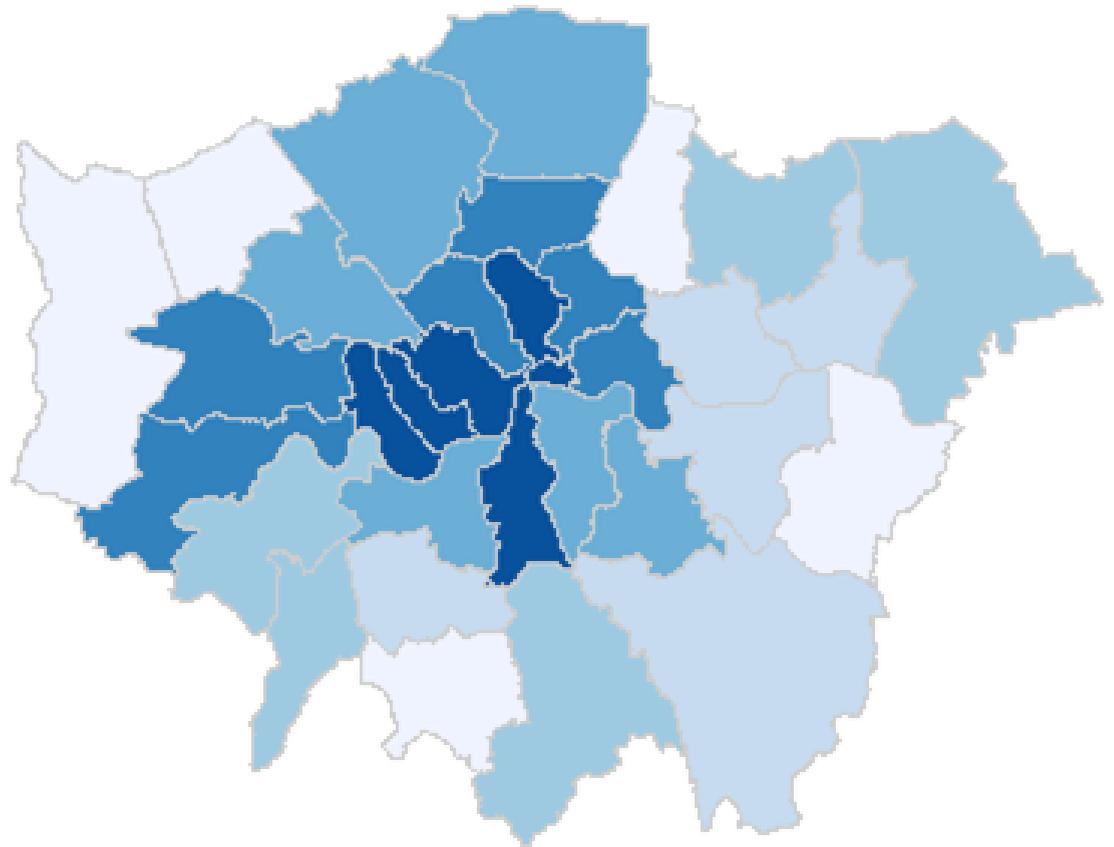


**TRANSPORT
FOR LONDON**
EVERY JOURNEY MATTERS

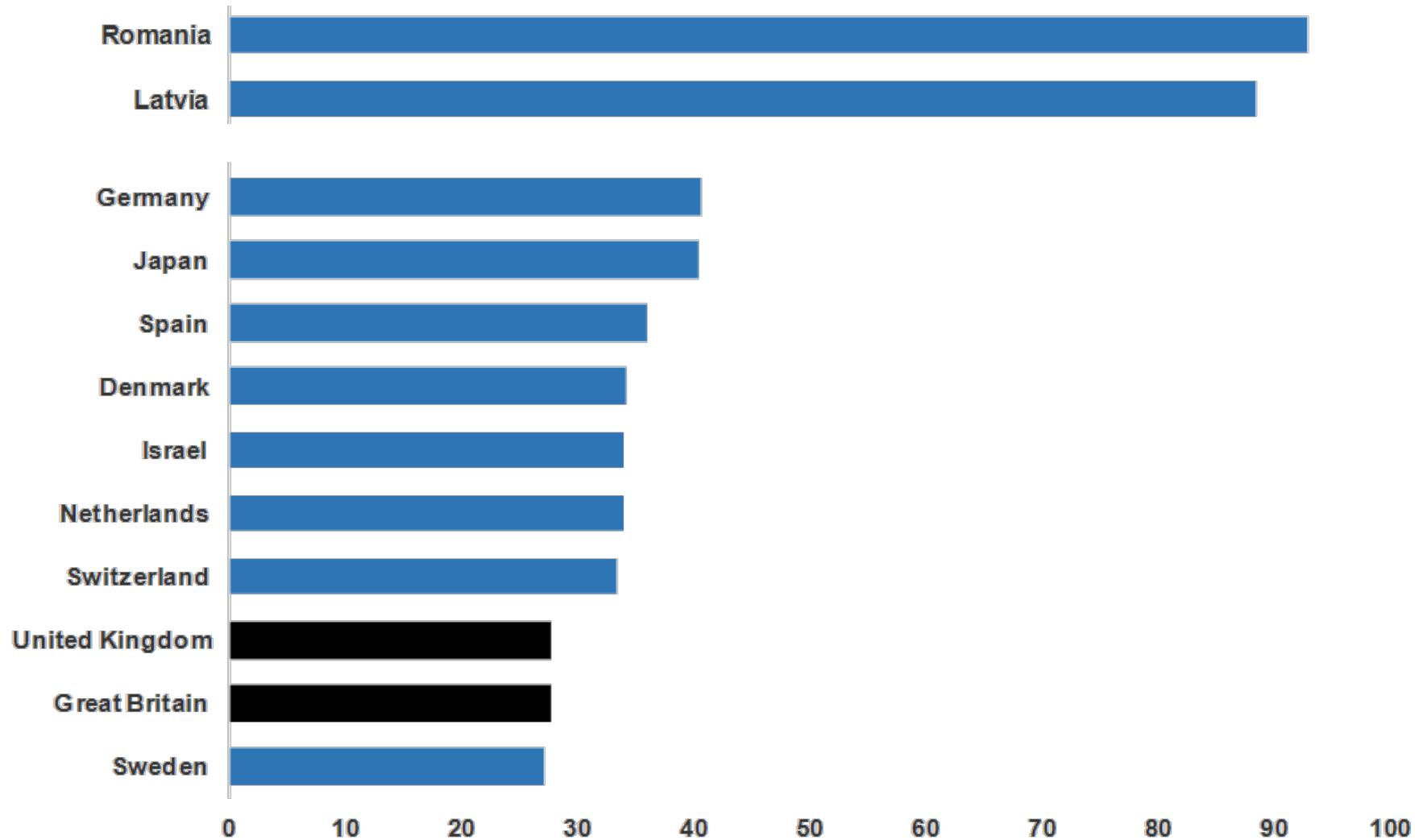
Casualties per unit population in 2013

Central boroughs *seem to be*
the most dangerous

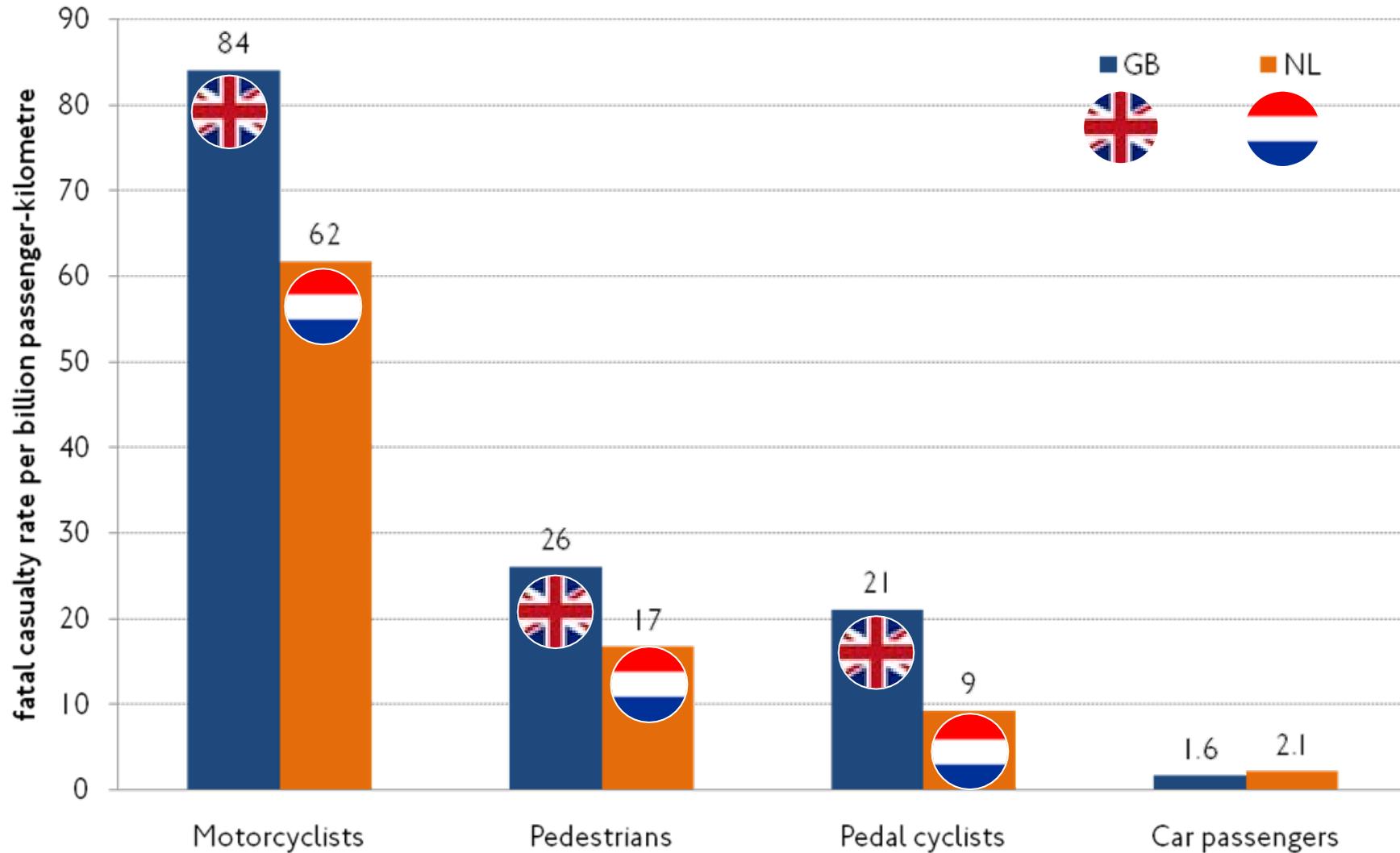
> benchmarking unit must be
the whole metropolis,
if population is the
denominator



Fatalities per million population in 2013



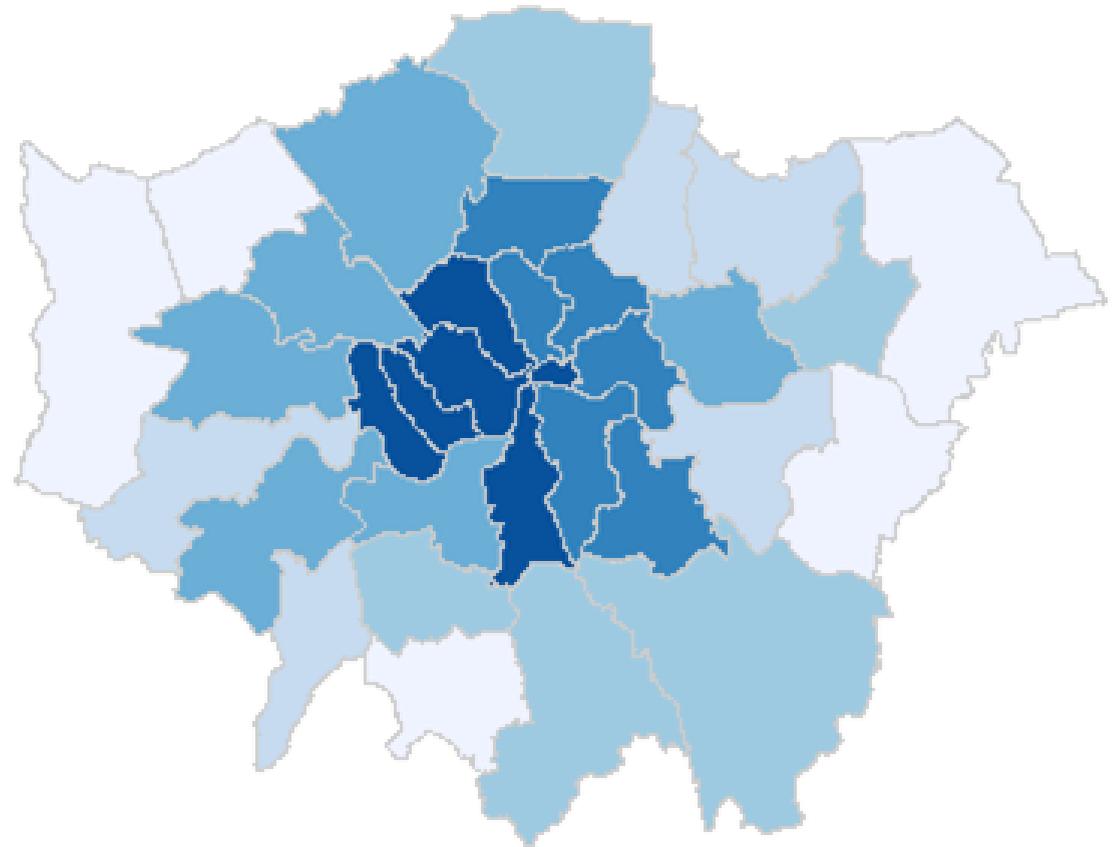
Risk by mode in 2009



Pedestrian casualties per unit population in 2013

Central districts look most dangerous, because that is where people walk the most

> The denominator must reflect the exposure with the relevant mode of travel



How to benchmark road safety?



Casualties in a given region must be normalised by the amount of travel observed in this region, expressed as travel distance or travel time.

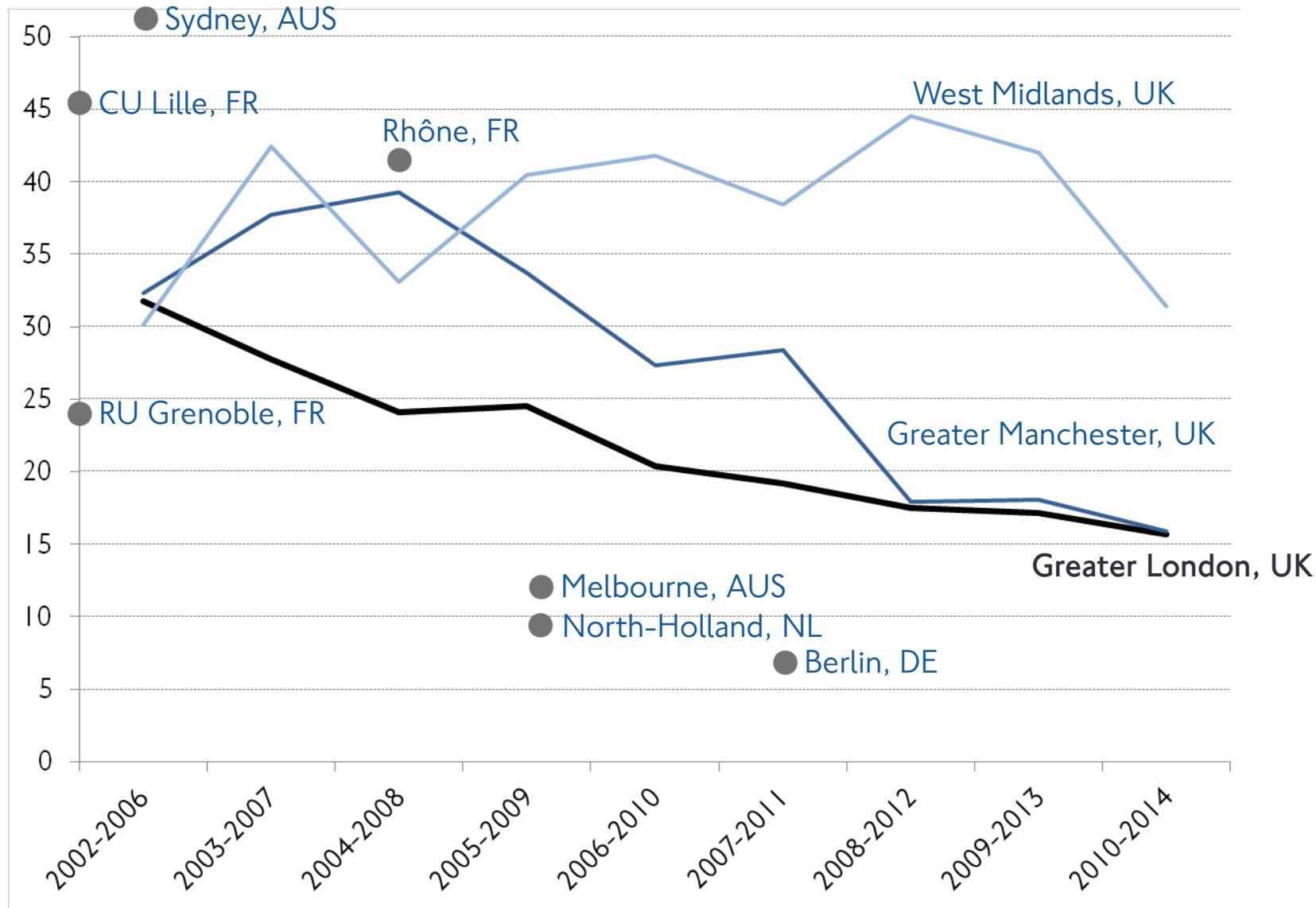
The result is a measure of the risk experienced by road users.

Risk comparisons should be mode specific or control for differences in mode mix.

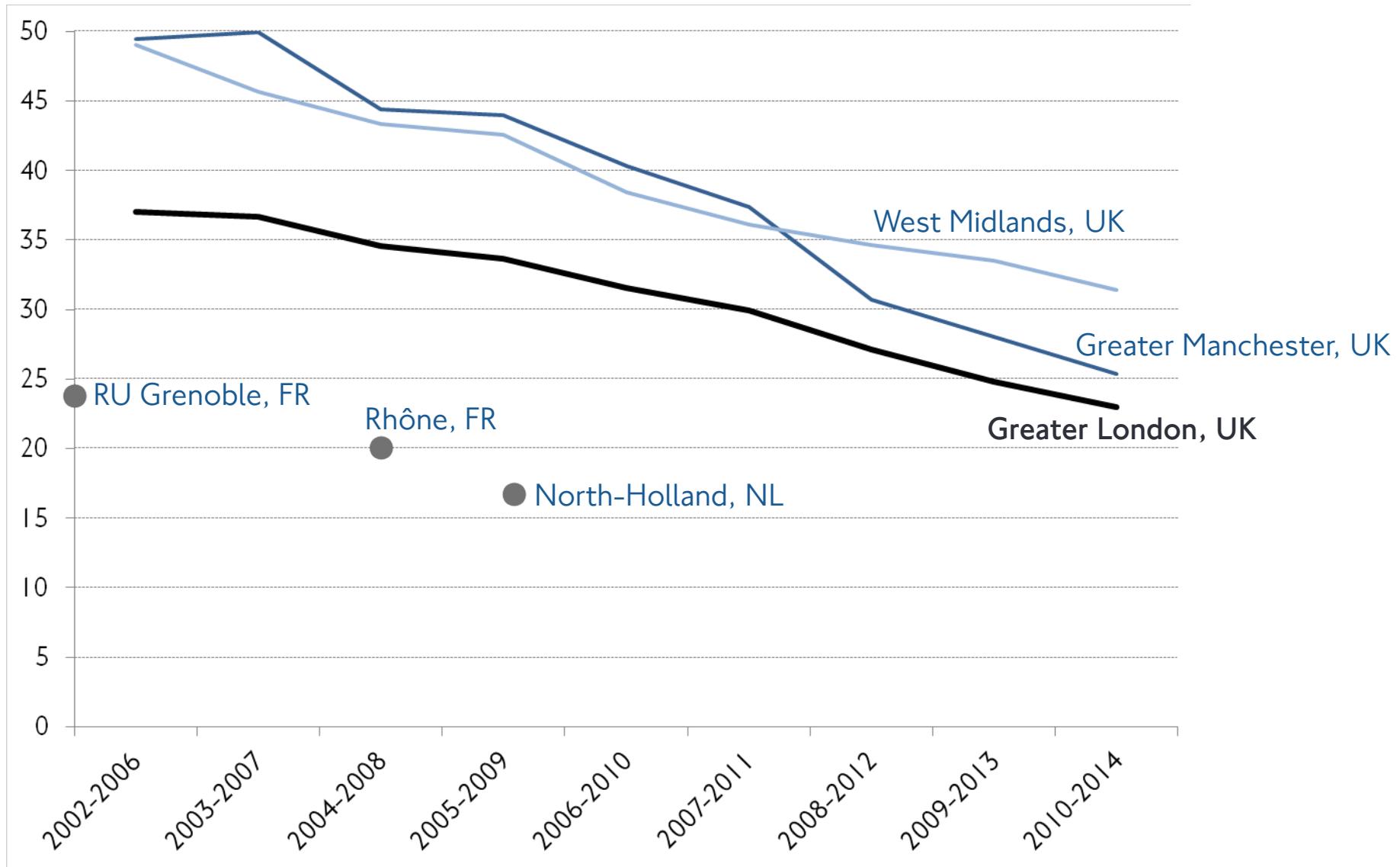
London risk benchmarking frameworks

Zone system	Number of zones	Average size of zone (sq km)	Modes	Period duration	Severity	Dimensions available for disaggregation
UK Cities	3	1250	3 modes	5 years	fatal, KSI, all	none
Boroughs	33	47.6	6 modes	4 years	fatal, KSI, all	mode, sex, age, time of day...
Town Centres	217	0.4	Walking	6 years	KSI, all	none
Grid	15,000+	0.1	Walking	6 years	KSI, all	none
Segments	1721	0.2	3 modes	5 years	KSI, all	none

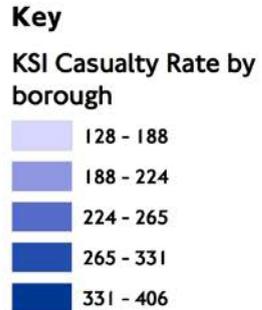
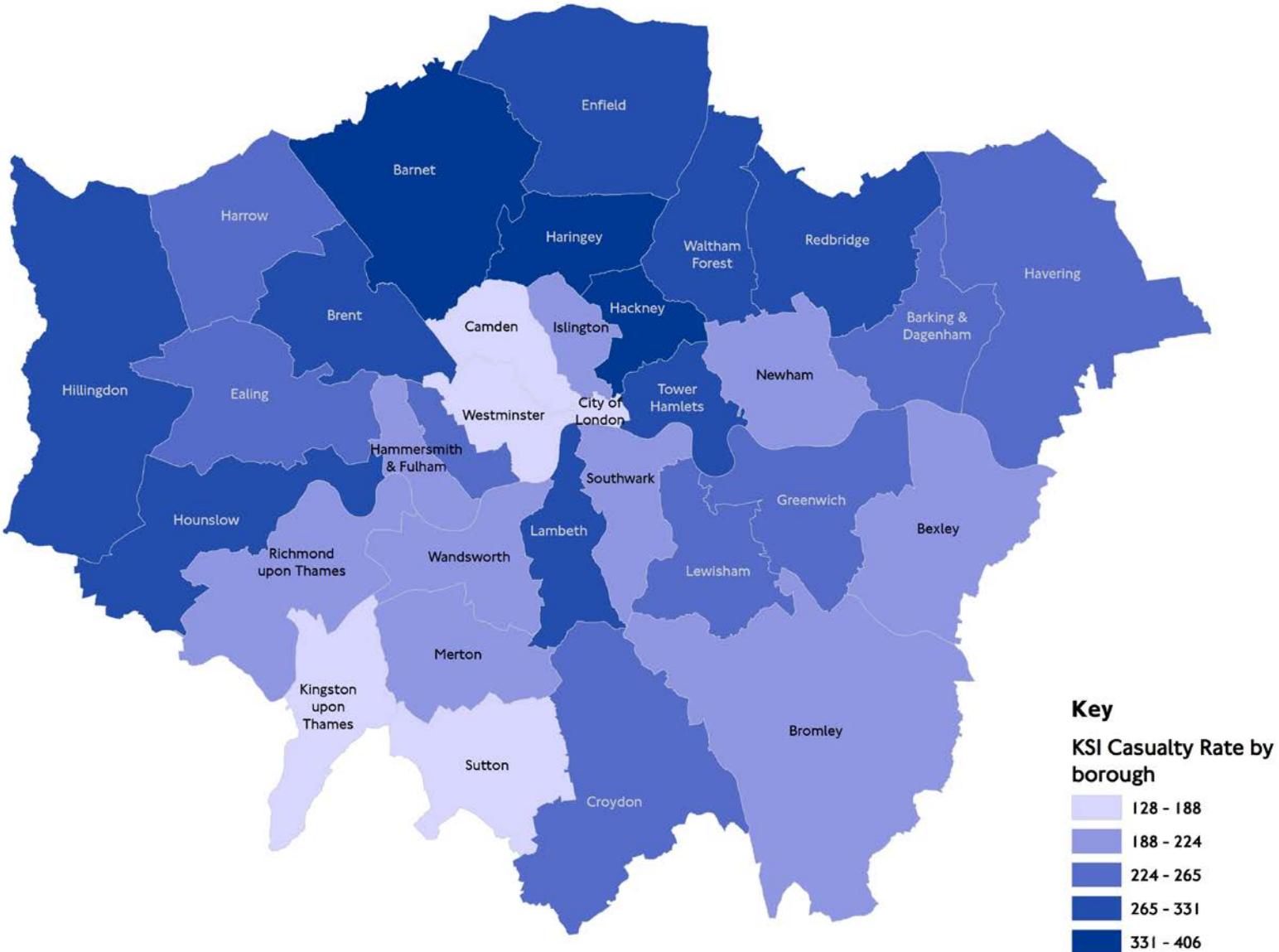
Cycling fatalities per billion km cycled in UK Cities



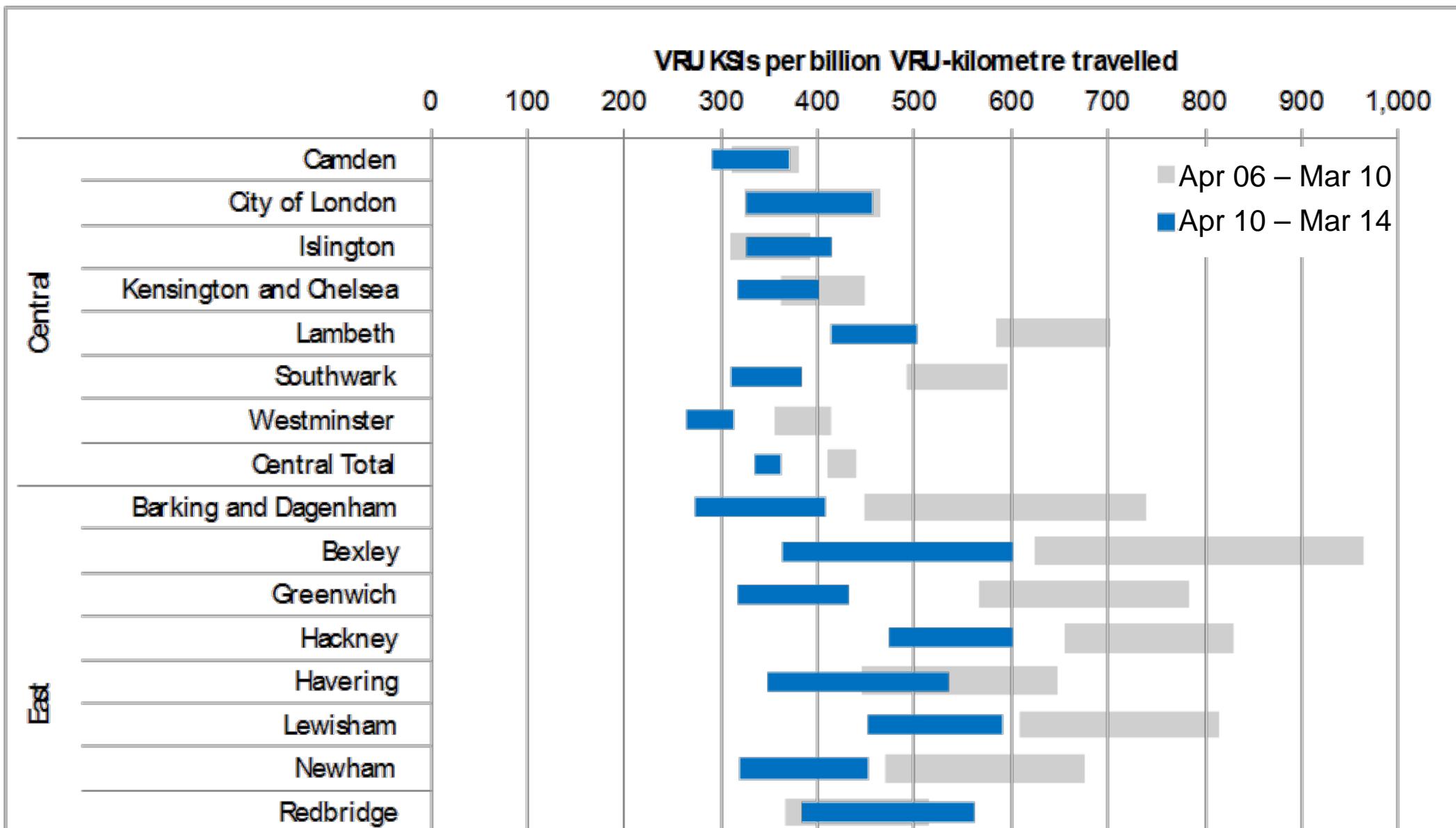
Walking fatalities per billion km walked in UK Cities



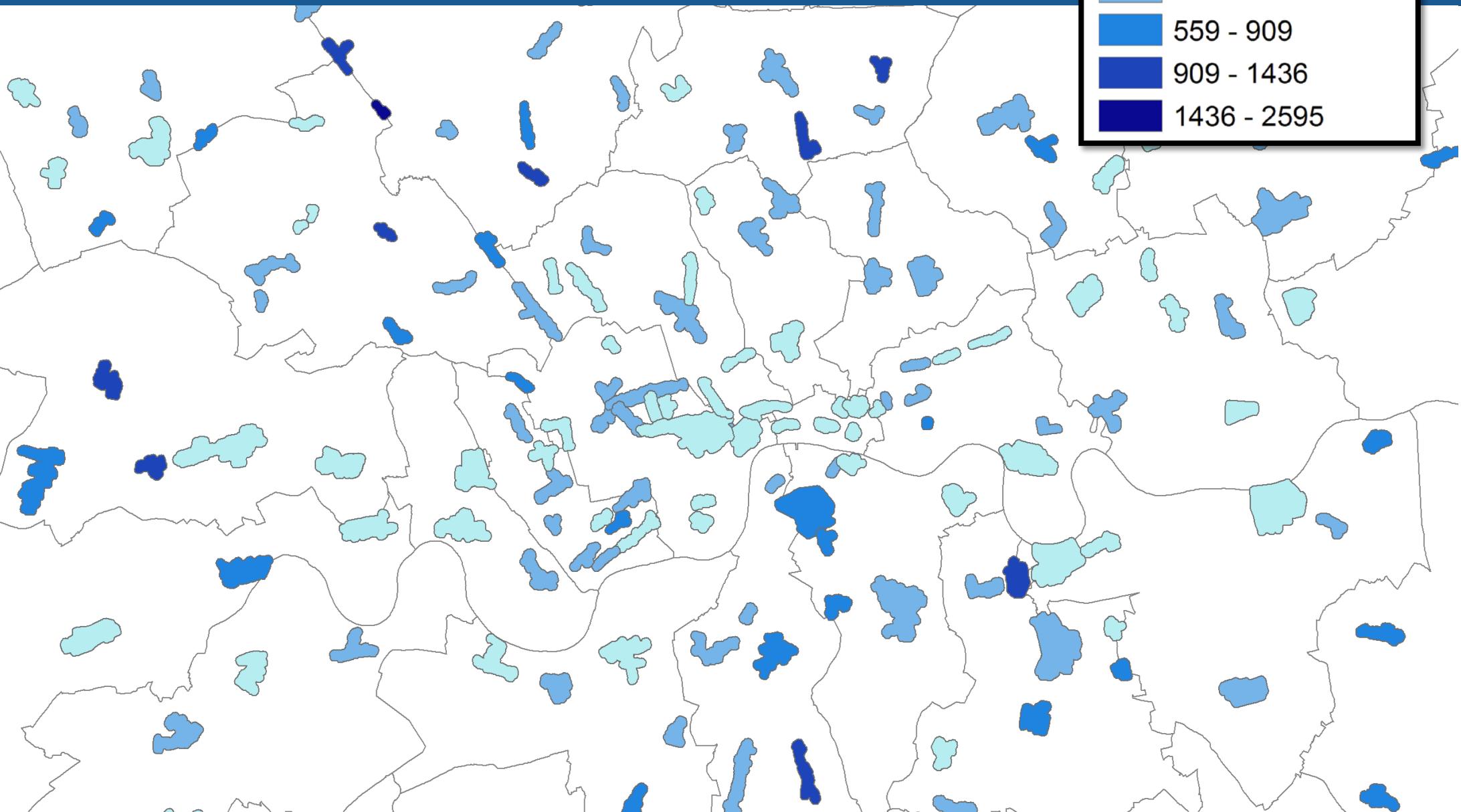
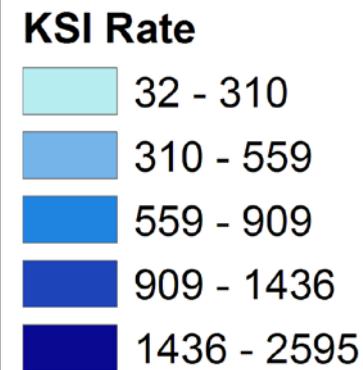
Pedestrian killed or seriously injured per billion km walked



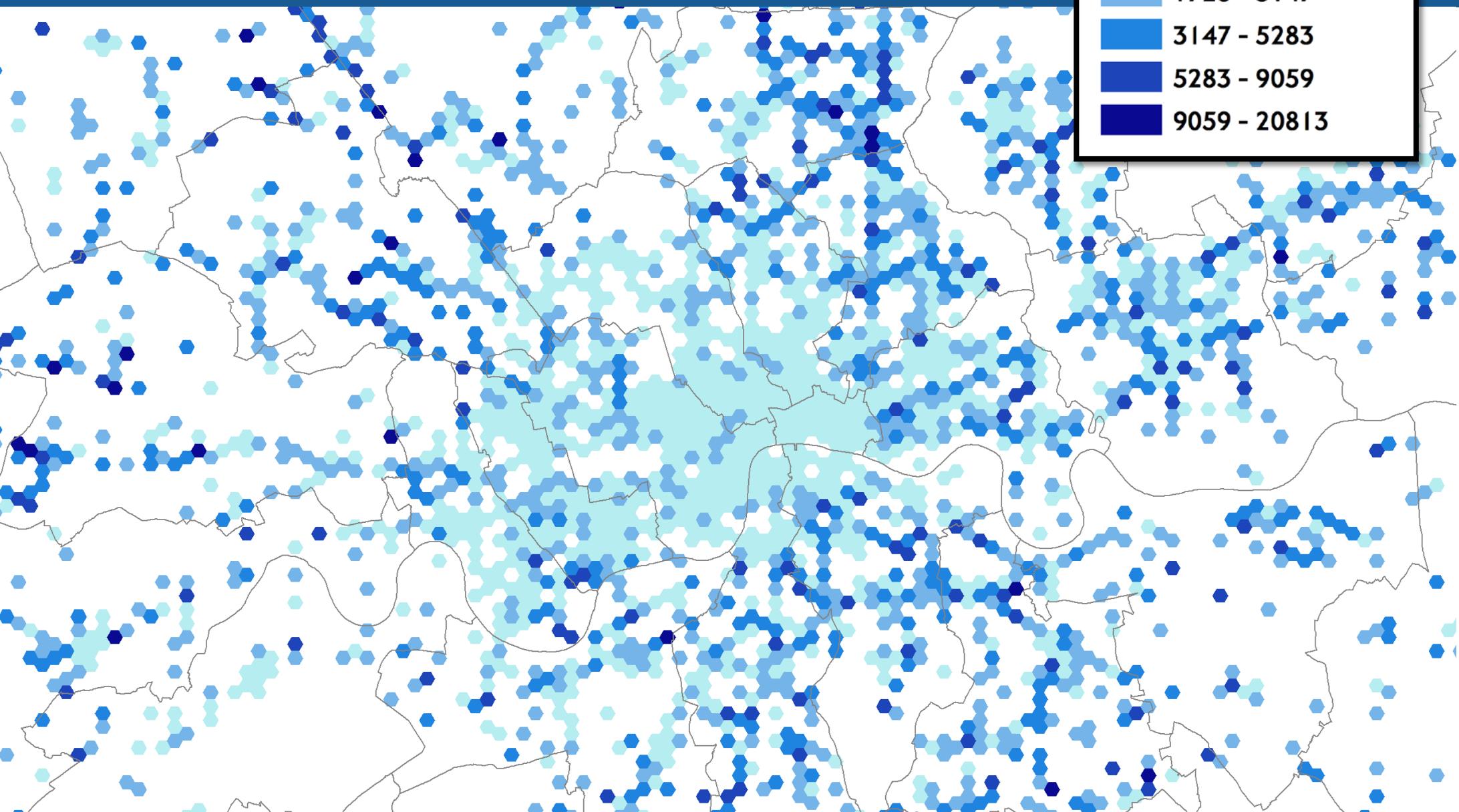
Vulnerable road user KSIs per passenger-kilometre, controlling for mode share



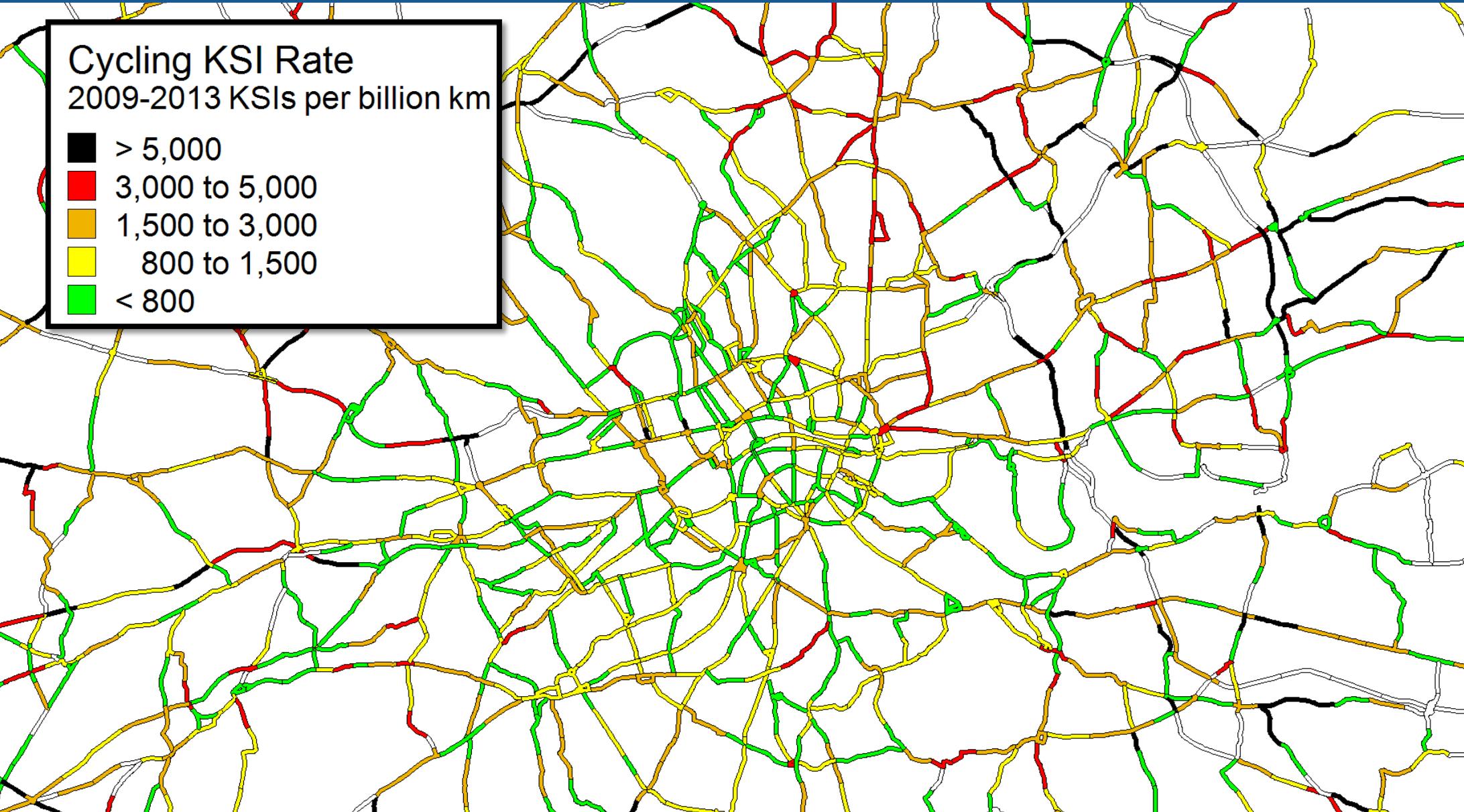
Walking risk by town centre



Walking risk by cell on a grid



Cycling risk on segments



Walking risk on segments



Conclusion

Mode specific risk figures are key to monitor progress and compare areas.

Risk figures are used by Transport for London, in complement to absolute casualty figures, to prioritise road safety interventions.

Road safety and travel survey specialists must talk to each other for such figures to be computed.

We hope to collaborate with a growing number of world cities thanks to 'IRTAD and the cities'.



Thank you

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