



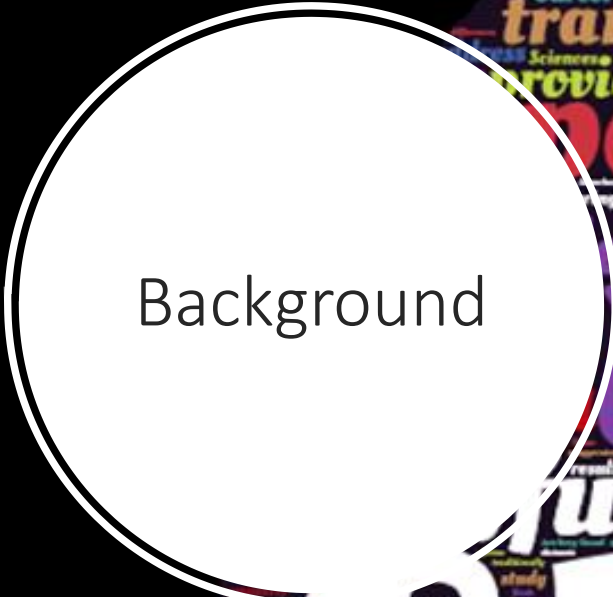
Future City Design

Dr Jason Thompson PhD M.Psych B.Sc(Hons)

Pedestrians – staying safe

Wednesday 13 November 2019

Hughes Room, RACS, 250 Spring Street, East Melbourne



Background



Good city design that encourages (physical activity and low pollution exposure) is central to good health

Improved
urban
planning can
play a role in
reducing
Australia's
leading causes
of death

Figure 2: Leading underlying causes of death in Australia by age group, 2011–2013

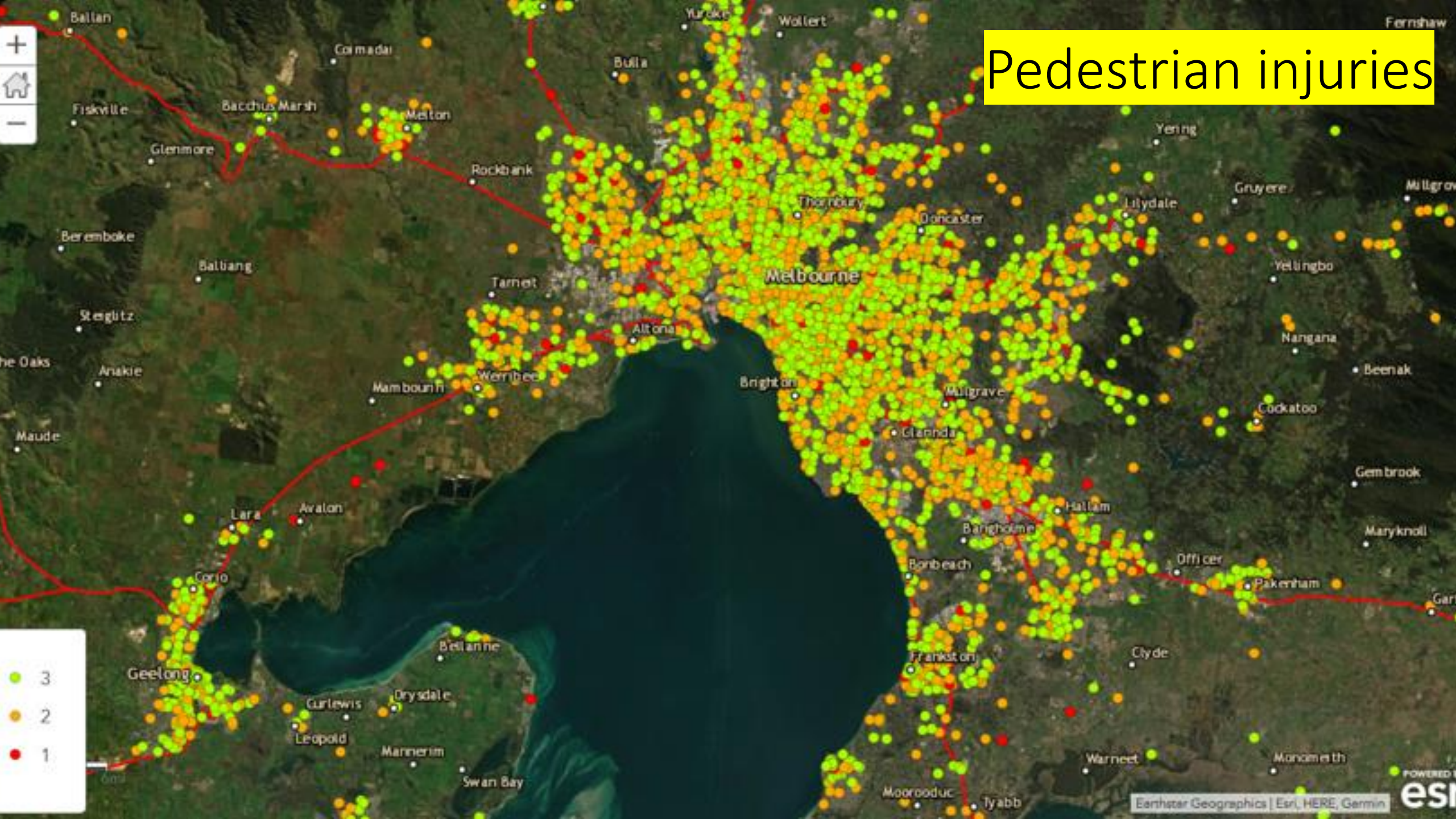
	1st	2nd	3rd	4th	5th
Age < 1	Other Perinatal & congenital	Other SIDS	Other Ill-defined causes	External Accidental threats to breathing	Other Selected metabolic disorders
Age 1–14	External Land transport accidents	Other Perinatal & congenital	Cancer Brain cancer	External Accidental poisoning	Other Cerebral palsy & related
Age 15–24	External Suicide	External Land transport accidents	External Accidental poisoning	External Assault	External Event of undetermined intent
Age 25–44	External Suicide	External Accidental poisoning	External Land transport accidents	Circulatory Coronary heart disease	Cancer Breast cancer
Age 45–64	Circulatory Coronary heart disease	Cancer Lung cancer	Cancer Breast cancer	Cancer Colorectal cancer	External Suicide
Age 65–74	Circulatory Coronary heart disease	Cancer Lung cancer	Respiratory COPD	Circulatory Cerebrovascular disease	Cancer Colorectal cancer
Age 75–84	Circulatory Coronary heart disease	Circulatory Cerebrovascular disease	Other Dementia & Alzheimer disease	Cancer Lung cancer	Respiratory COPD
Age 85–94	Circulatory Coronary heart disease	Other Dementia & Alzheimer disease	Circulatory Cerebrovascular disease	Respiratory COPD	Circulatory Heart failure
Age 95+	Circulatory Coronary heart disease	Other Dementia & Alzheimer disease	Circulatory Cerebrovascular disease	Circulatory Heart failure	Respiratory Influenza & pneumonia

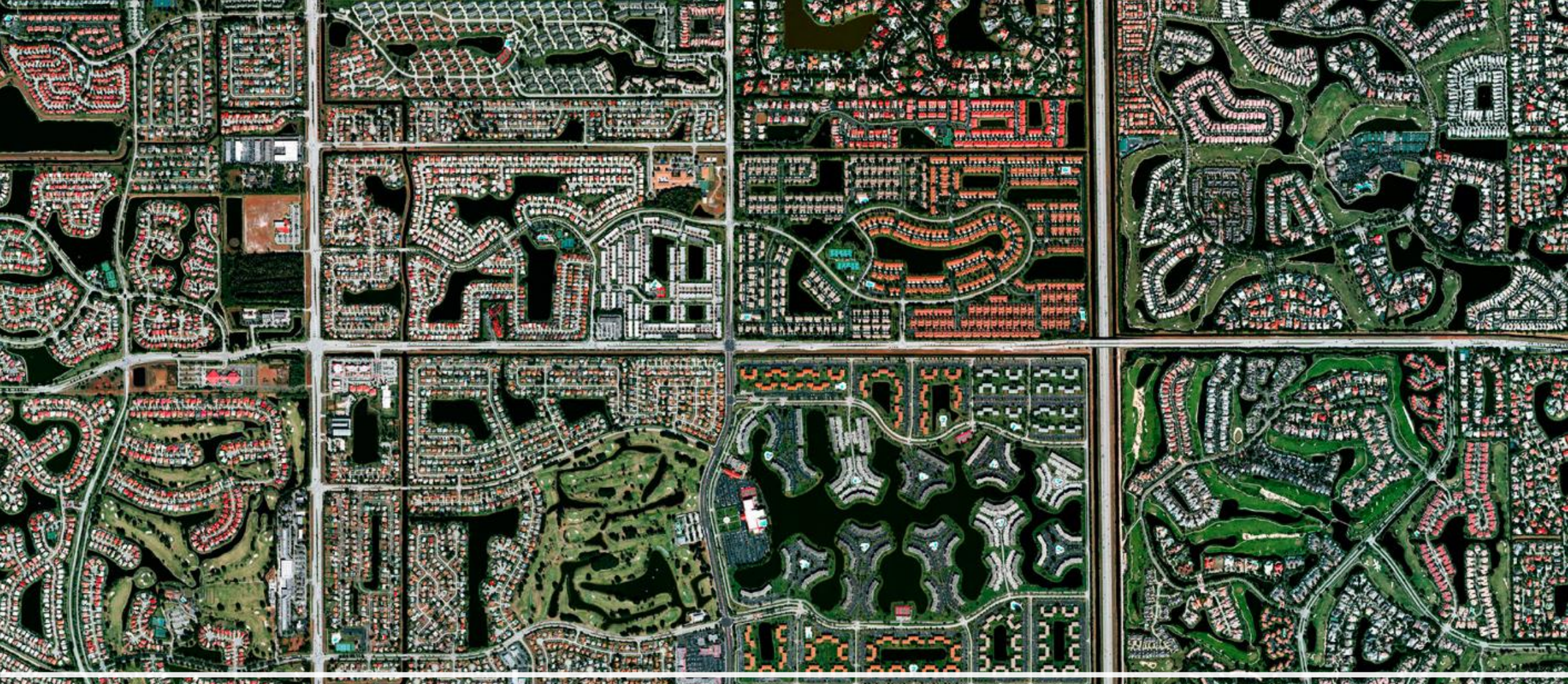
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Pedestrian injuries

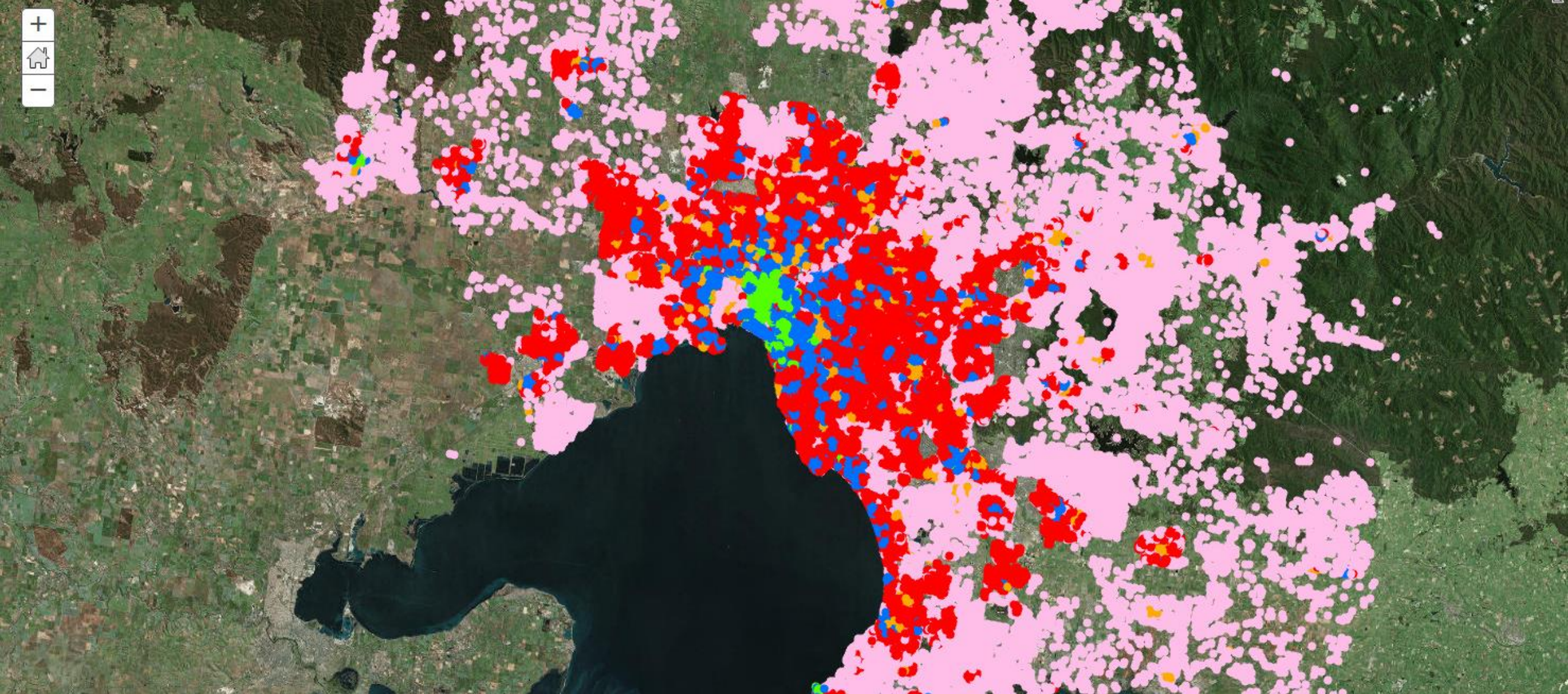




But what should future city designs look like?

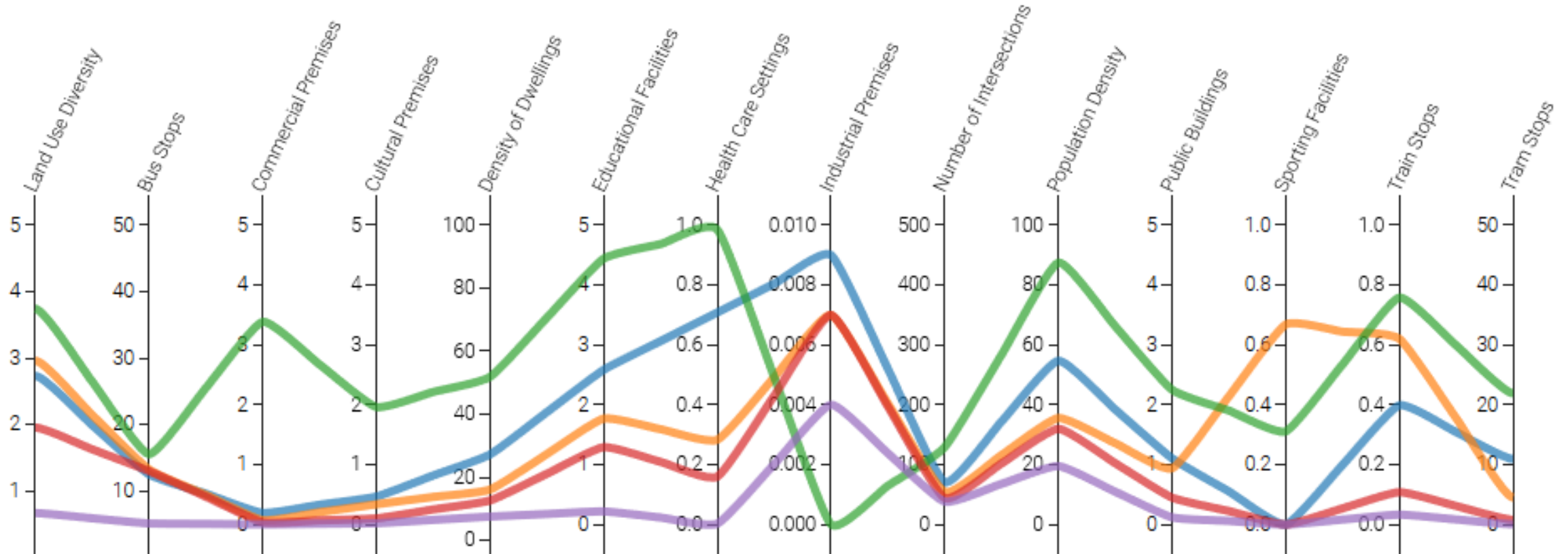


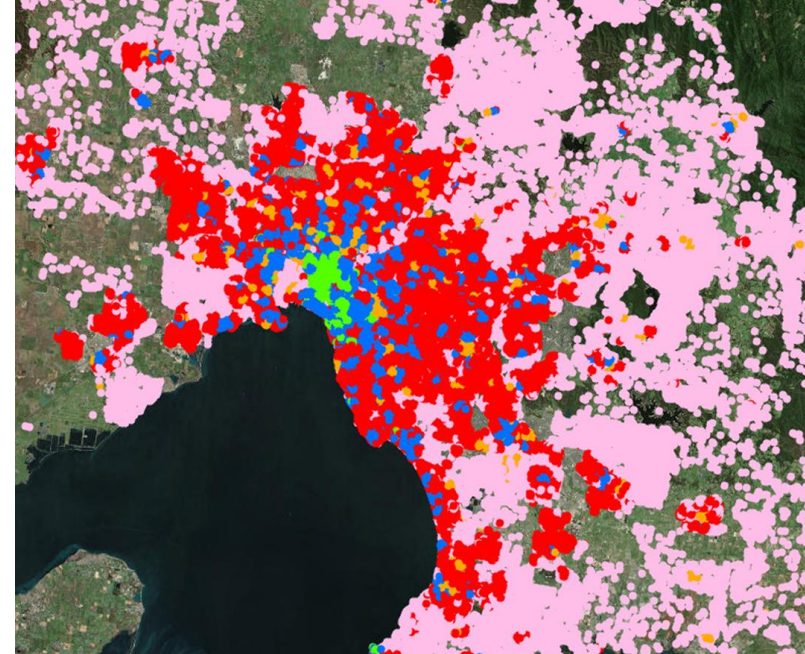
*We can learn from local
and international
examples of good city
design*



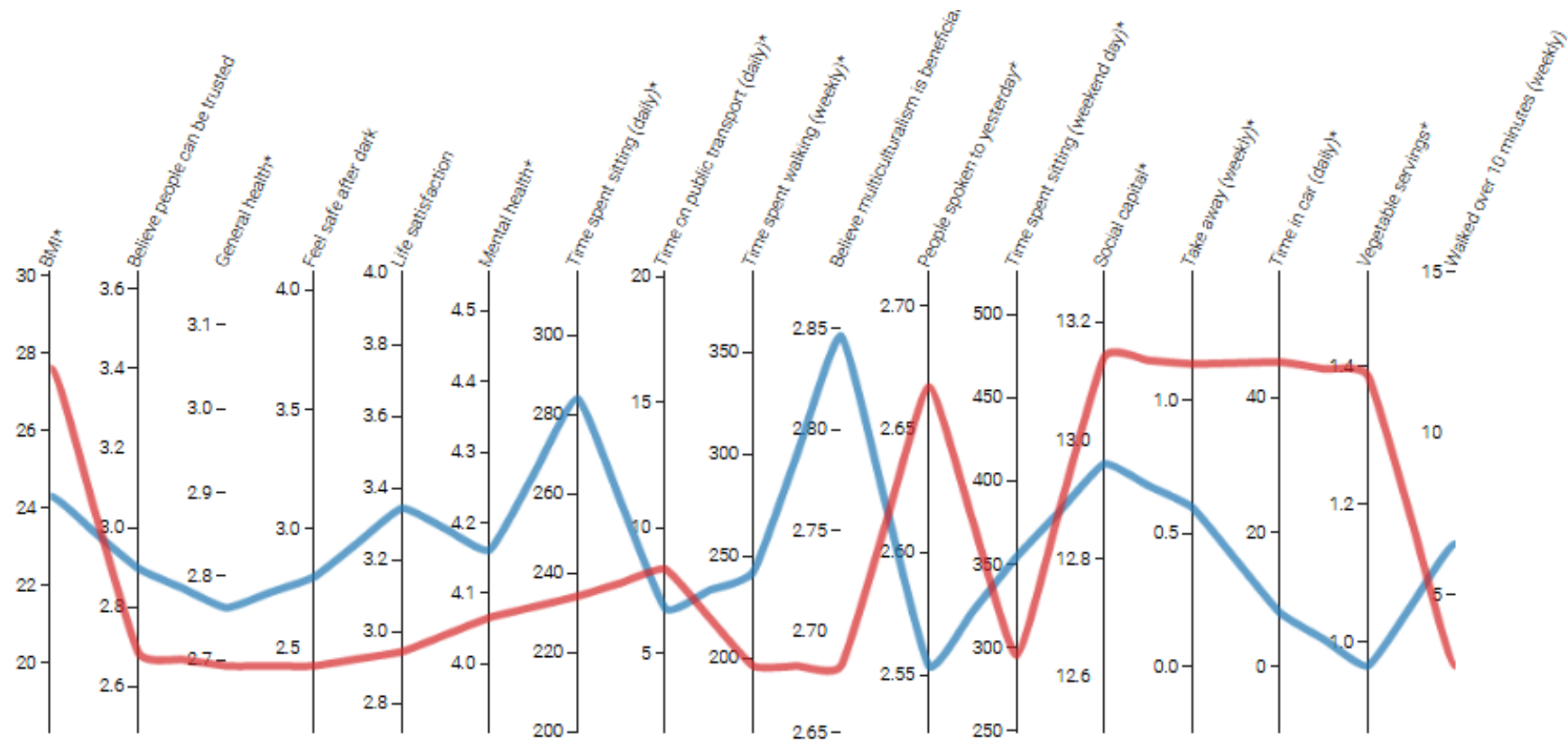
Local examples – Urban form clusters that encourage walking

Five Main Land-Use Clusters





Urban Design and Time Spent Walking



* Indicates estimated data. Times shown are in minutes.

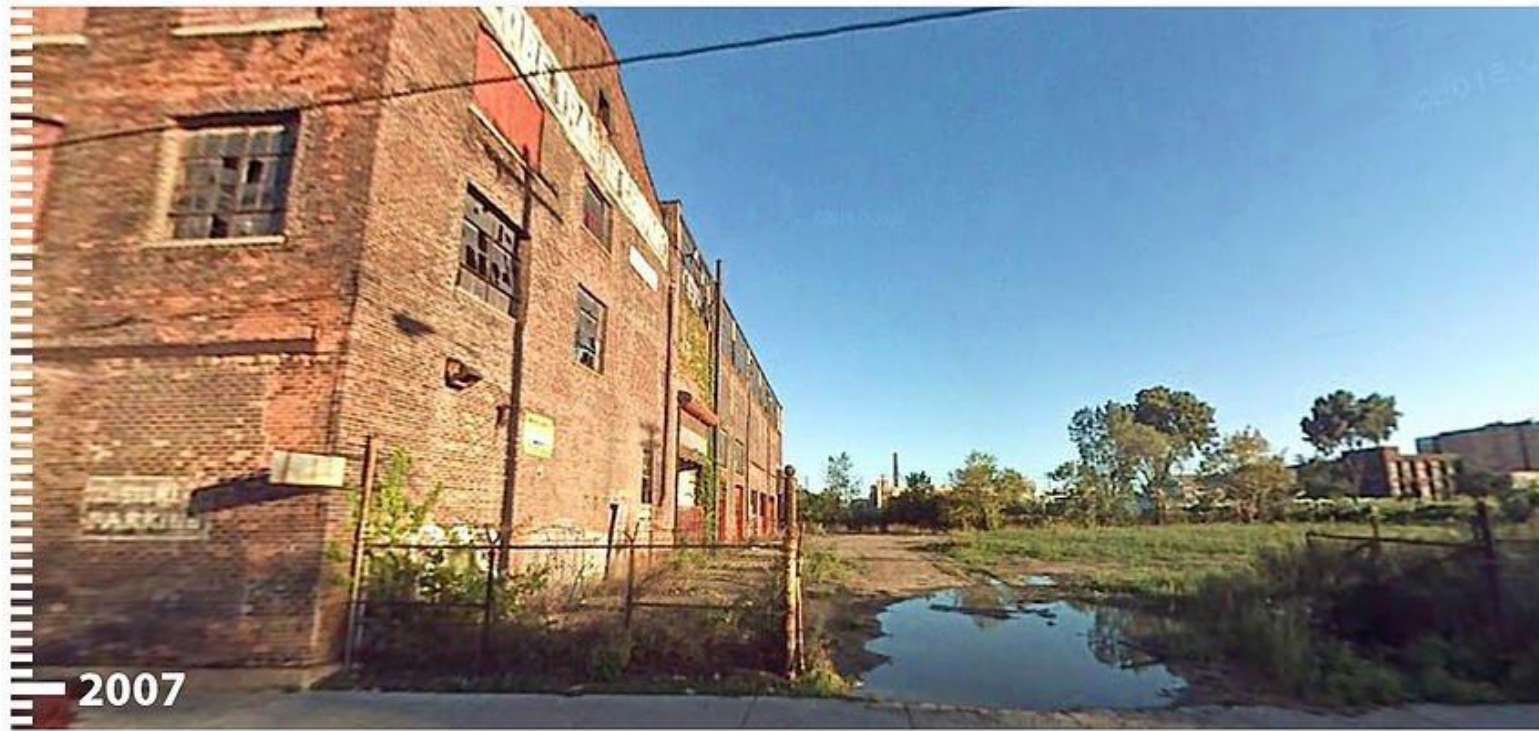
International examples

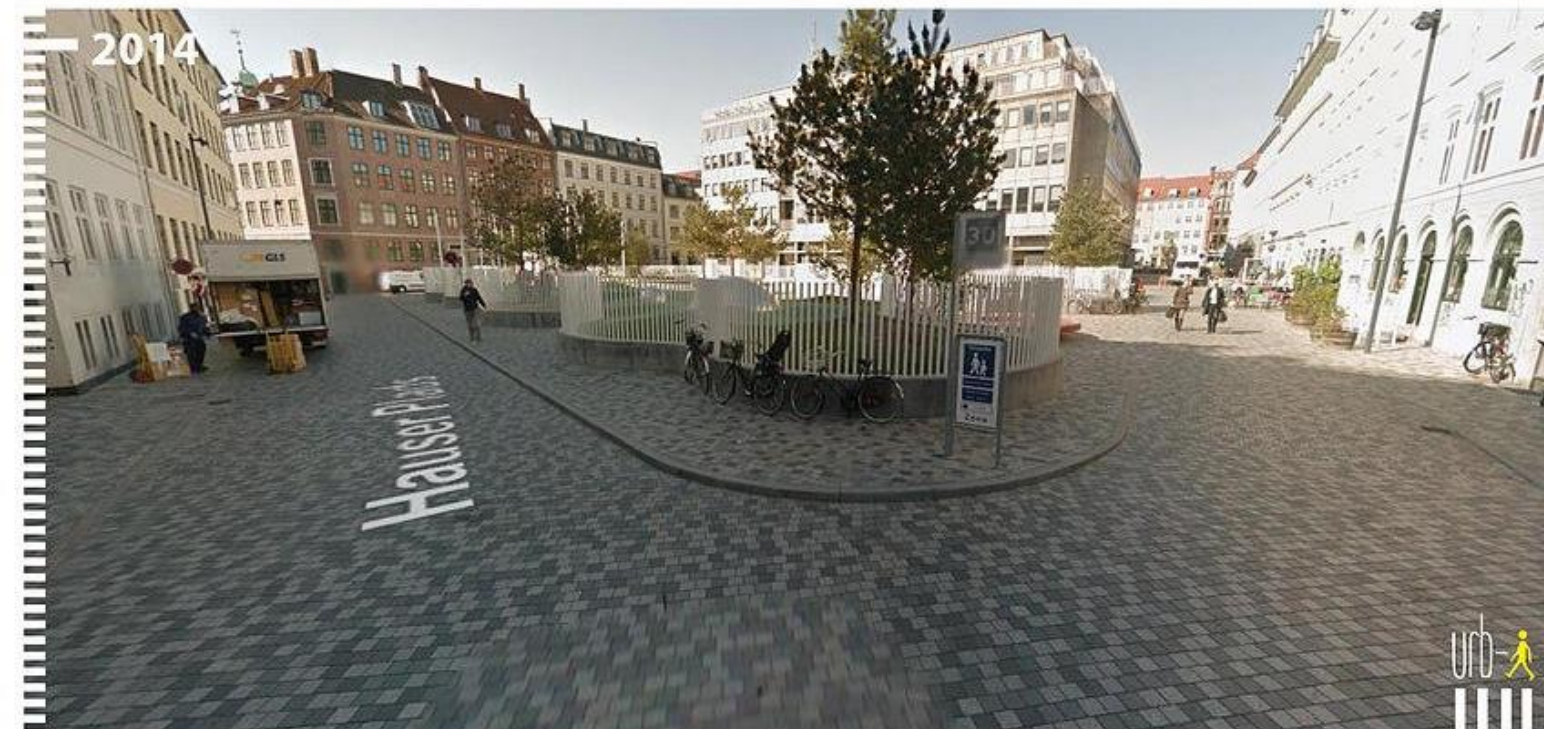




International Examples - France

International Examples - USA





International Examples - Denmark



2. Irregular



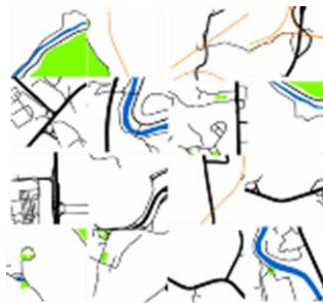
5. High Transit



6. Motor City



8. Intense



9. Sparse



1. Informal



4. Cul de Sac

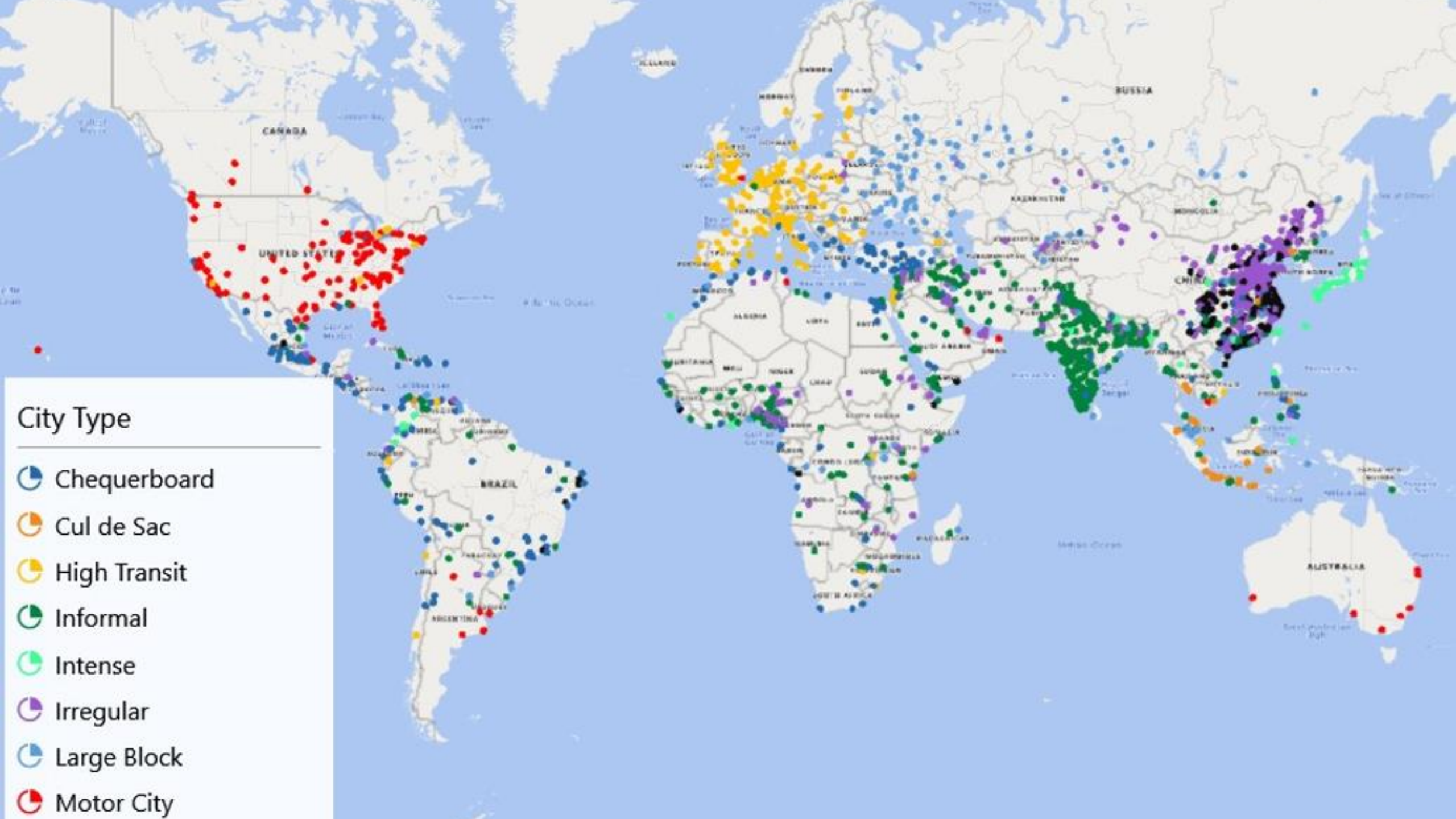


3. Large Block

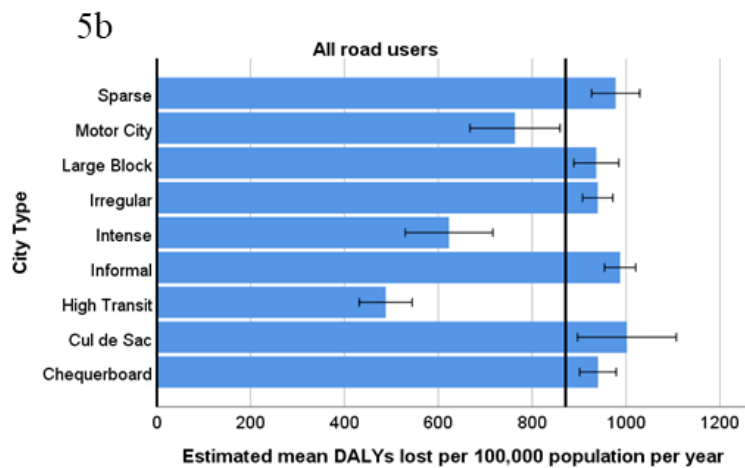
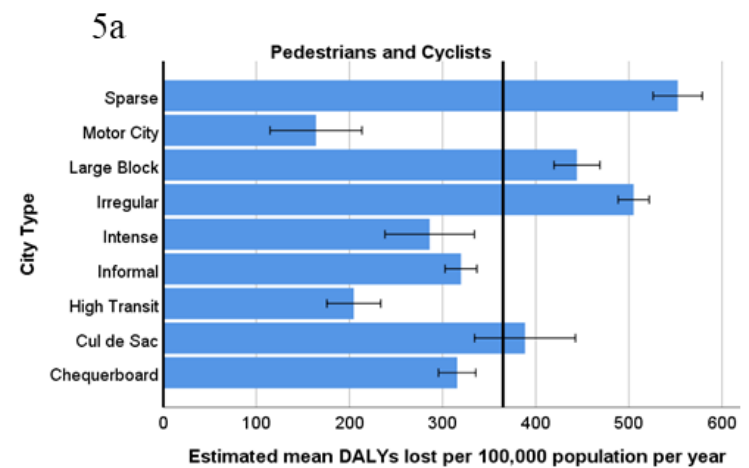
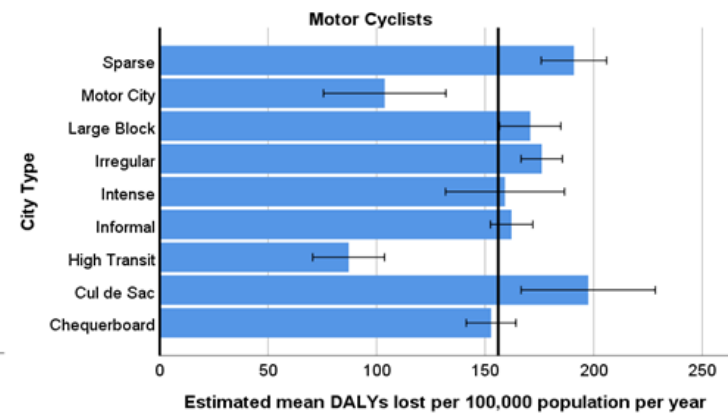
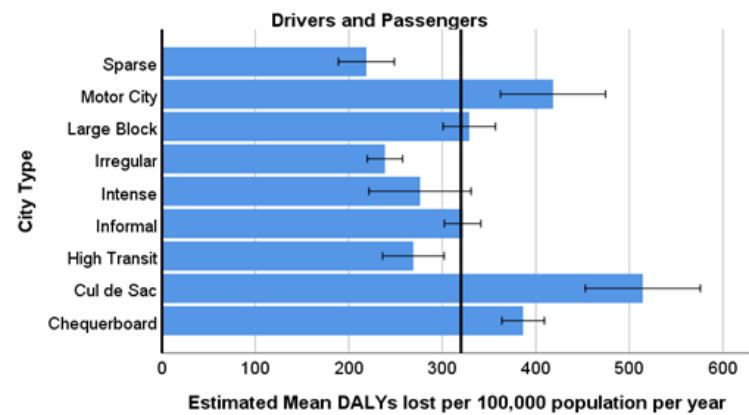


7. Chequerboard

9 major city types

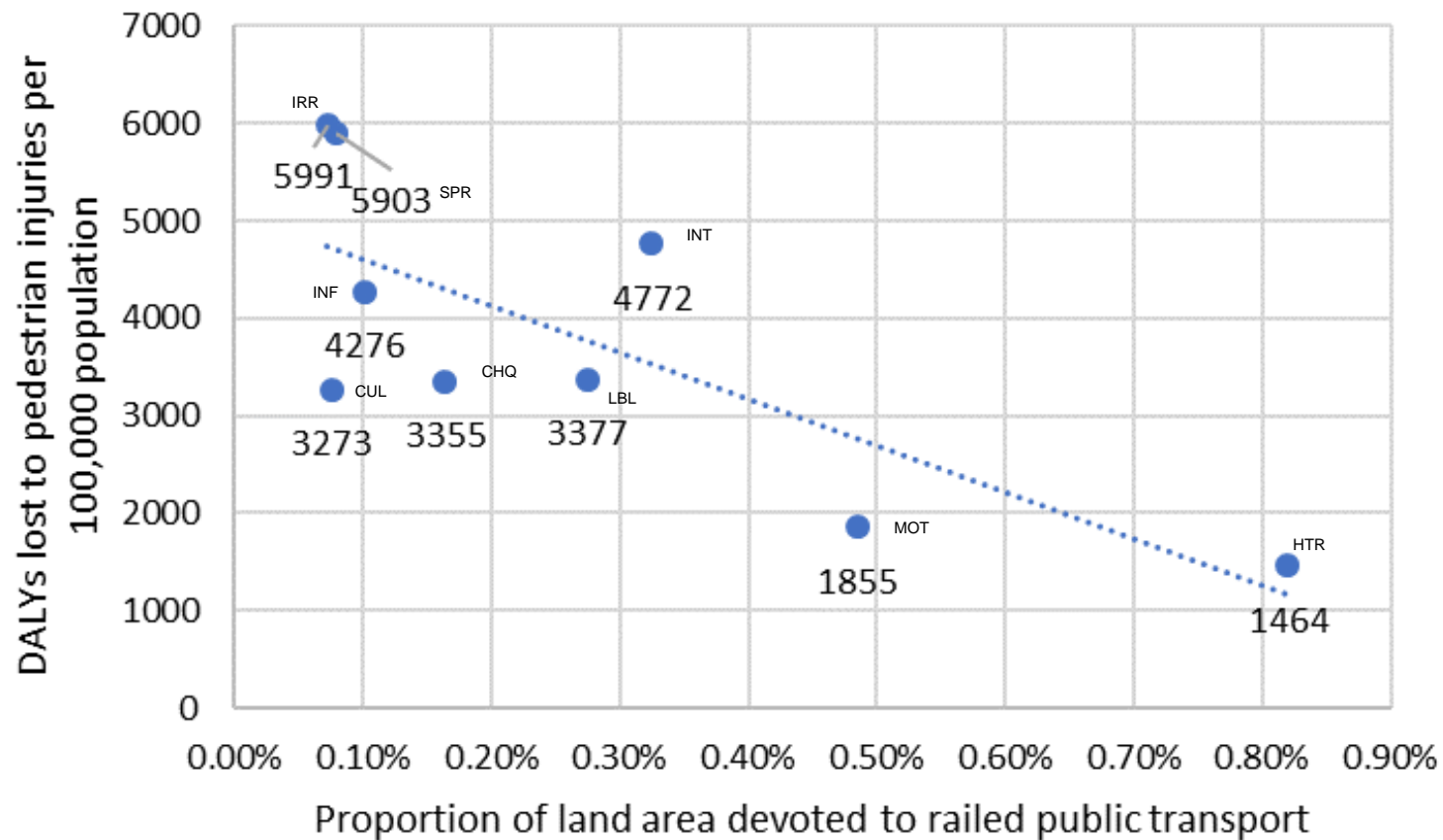


Relationship to road transport injury



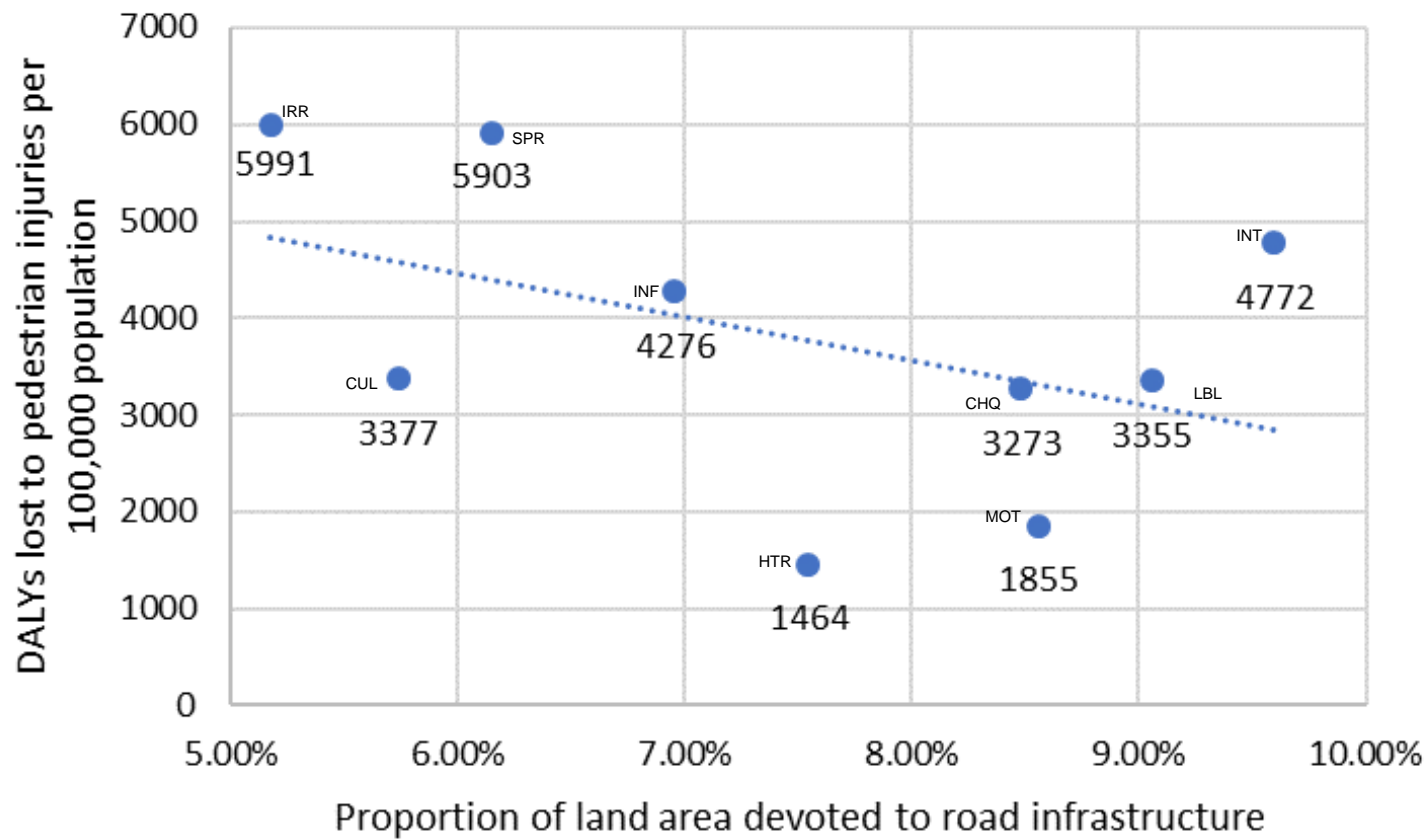
5c

5d



- Cities with greater proportion of land-area dedicated to public transport report lower rates of pedestrian injury
- R-squared of .59

Extent of Public Transport and
rates of pedestrian safety



- Effect was less pronounced than for PT, but cities with smaller, more intense road networks, also demonstrate lower rates of pedestrian injury
- R-squared of .19

Extent of road infrastructure
and rates of pedestrian injury

*Future cities – humans
interacting with future
transport options (e.g.,
Autonomous Vehicles,
micro-mobility)*

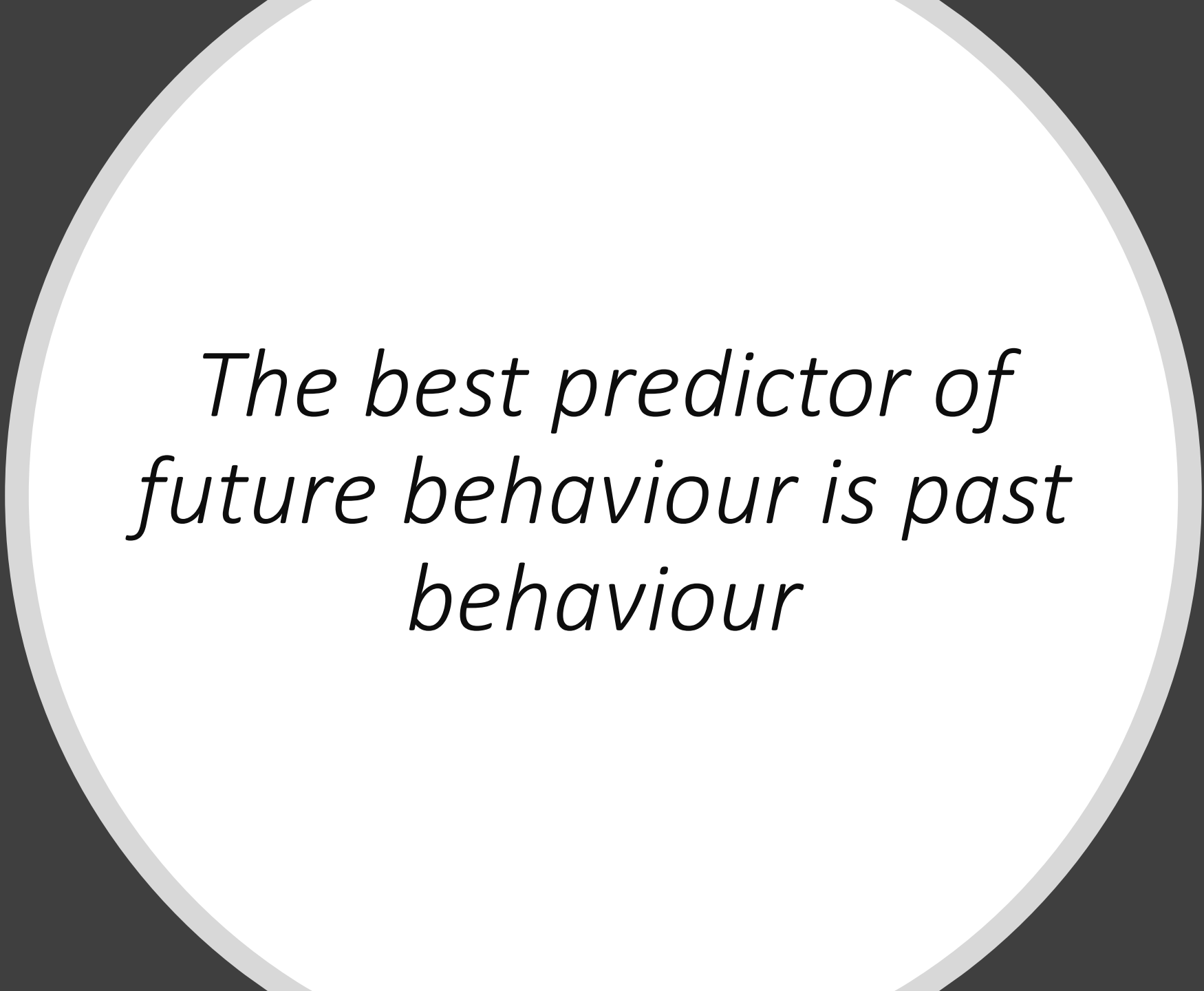
Where do we start with safety and city design – Autonomous vehicles?



Where do we start with safety and urban design?

Policy that supports human-scale transport






*The best predictor of
future behaviour is past
behaviour*

#1 Humans...



City of Melbourne Plan

CITY OF
MELBOURNE

Home

Residents +

Business +

Community +

Parking and Transport +

Building and Development +

Arts and Culture +


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Ten year transport plan to create more space for people

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Thursday, 2 May 2019

City of Melbourne Councillors will consider an ambitious, draft 10-year plan to create a more enjoyable, safer central city which is easier to connect and travel within and better supports our shops, eateries and businesses to flourish.

The Draft Transport Strategy 2030 aims to provide more space for people on footpaths and around major transport hubs, reduce congestion for cars coming to the city, boost Melbourne's \$5.7 billion retail and hospitality sector, and reduce injuries to pedestrians and cyclists.

Lord Mayor Sally Capp said long-term planning is needed to ensure Melbourne's liveability and economic productivity are maintained as more than 900,000 people move around the city each day, increasing to 1.4 million people by 2036.

"This draft plan isn't about supporting one mode of transport over another, it's about balancing infrastructure. Our streets, footpaths, public spaces and transport hubs must adapt for the variety of ways people are travelling around our city today and into the future," the Lord Mayor said.

Transport portfolio Chair Cr Nicolas Frances Gilley said the great cities of the world such as Vienna, New York and Barcelona have already recognised the need to create more walkable, enjoyable cities.

Related plans and publications

Transport Strategy 2030

City Road Master Plan

Road Management Plan

Related news

Welcoming tribute to pioneer of Melbourne's cafe culture

'No stopping' a good sign

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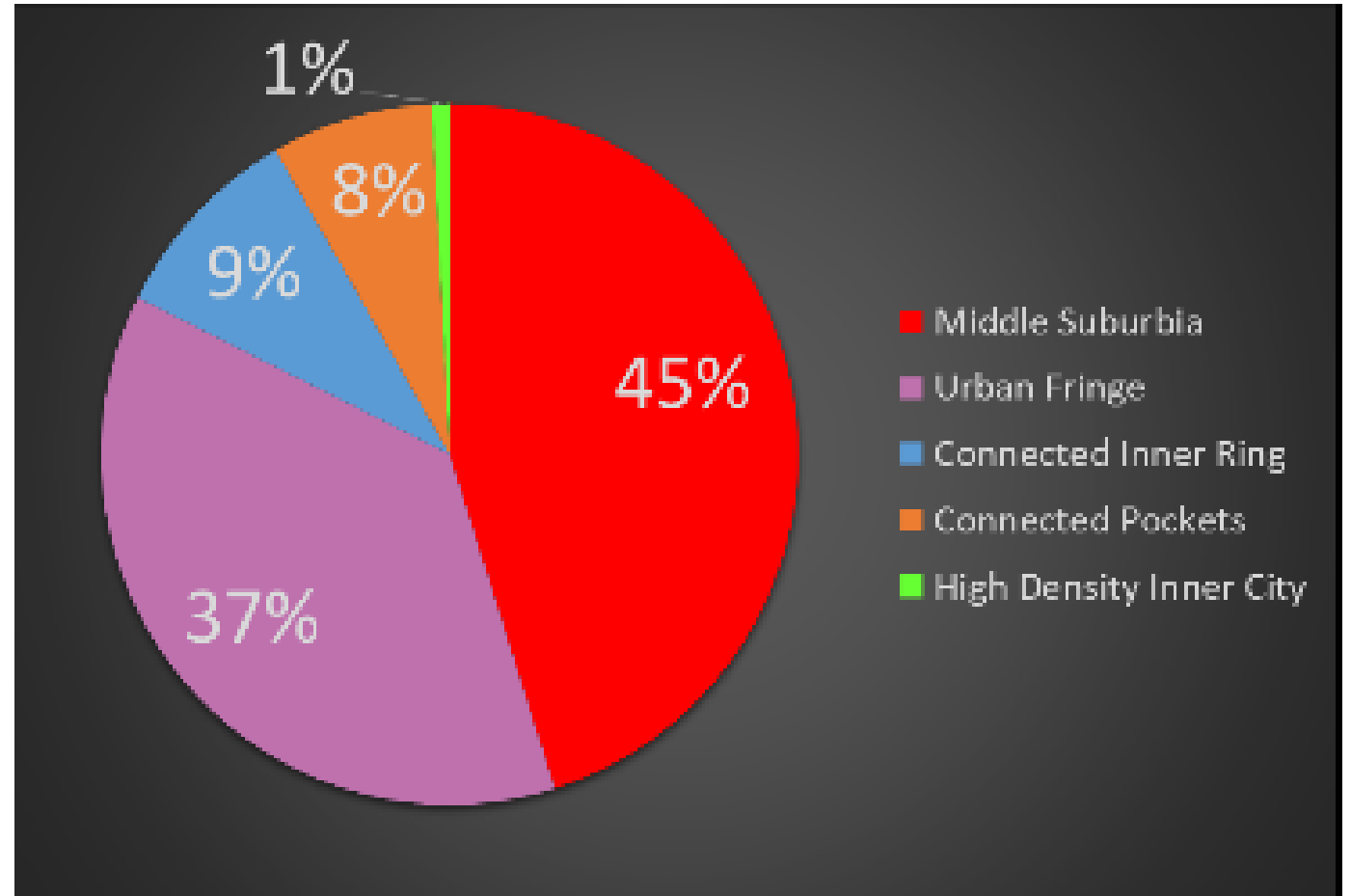
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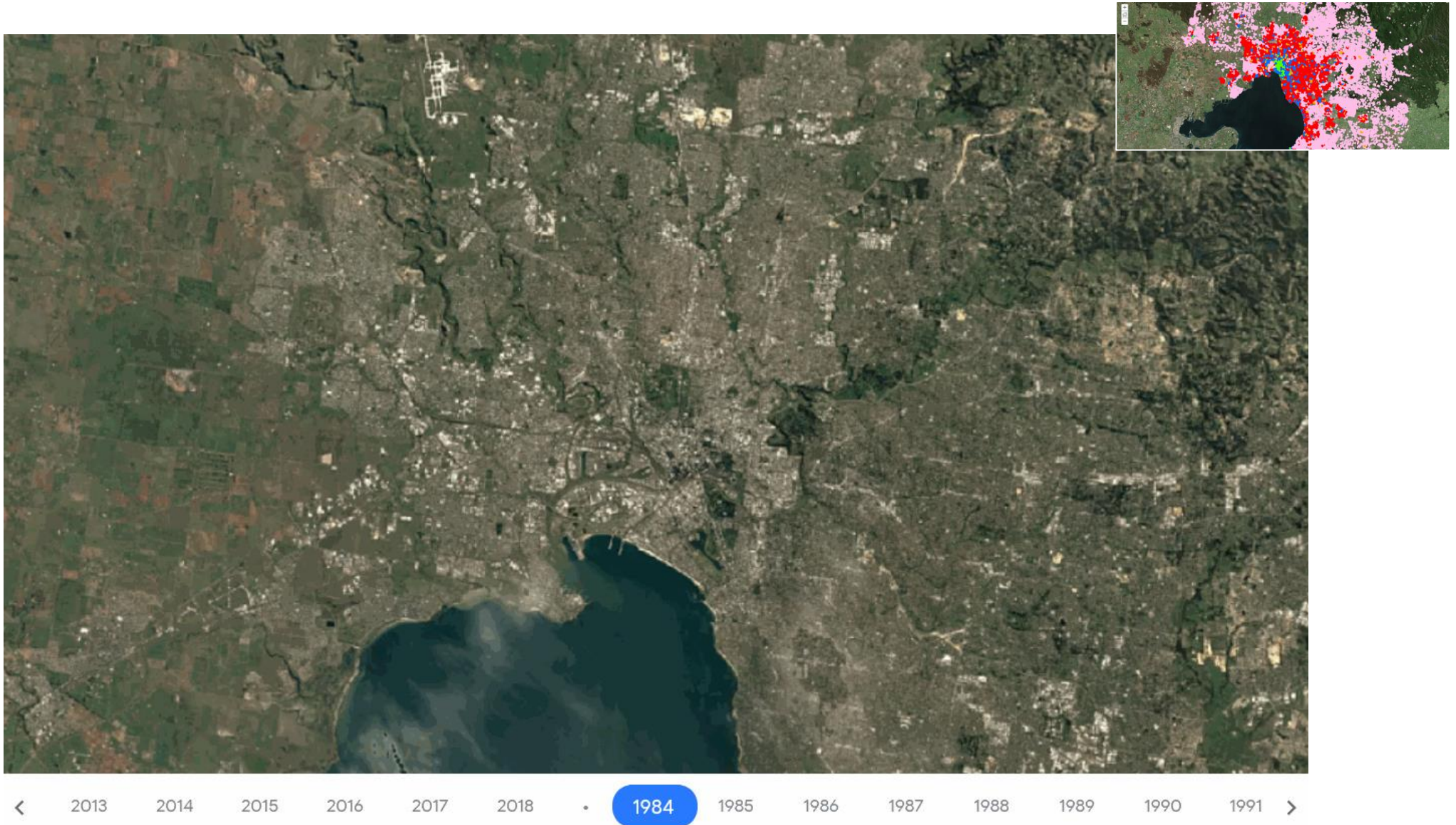
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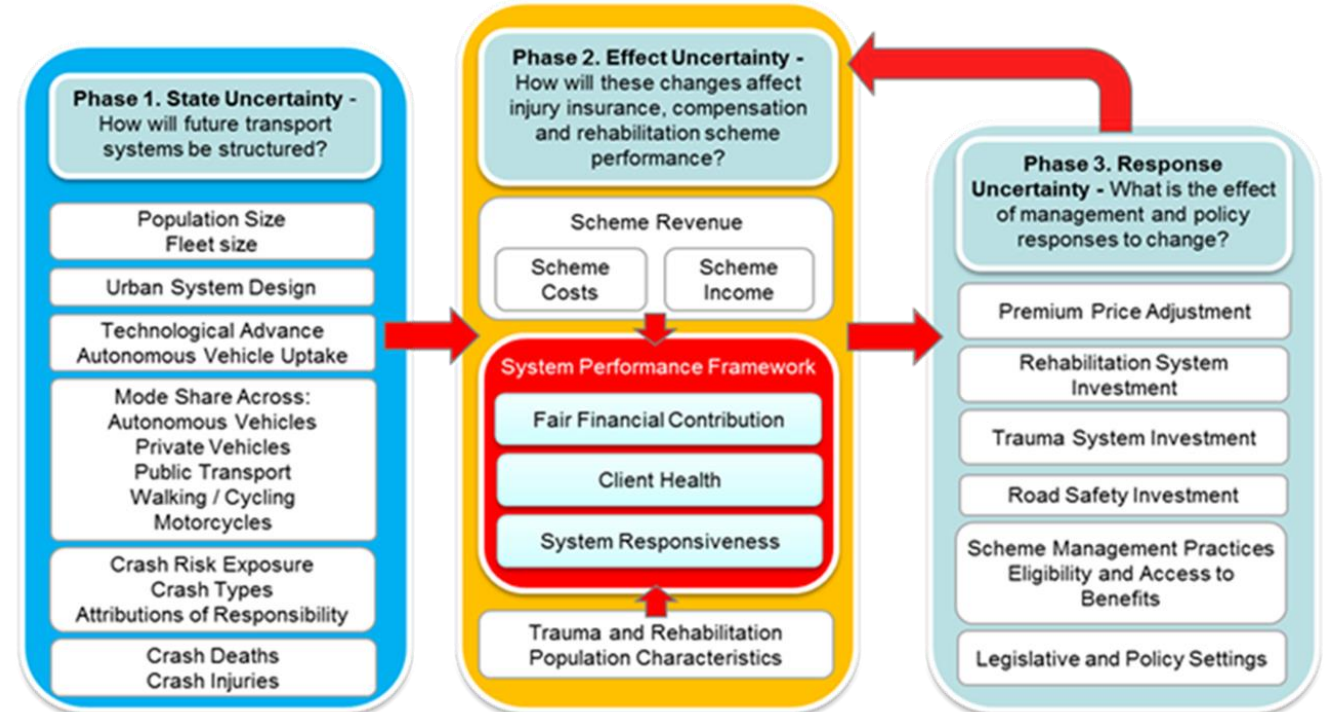
Slight
problem...



2 What type of cities are we actually creating?

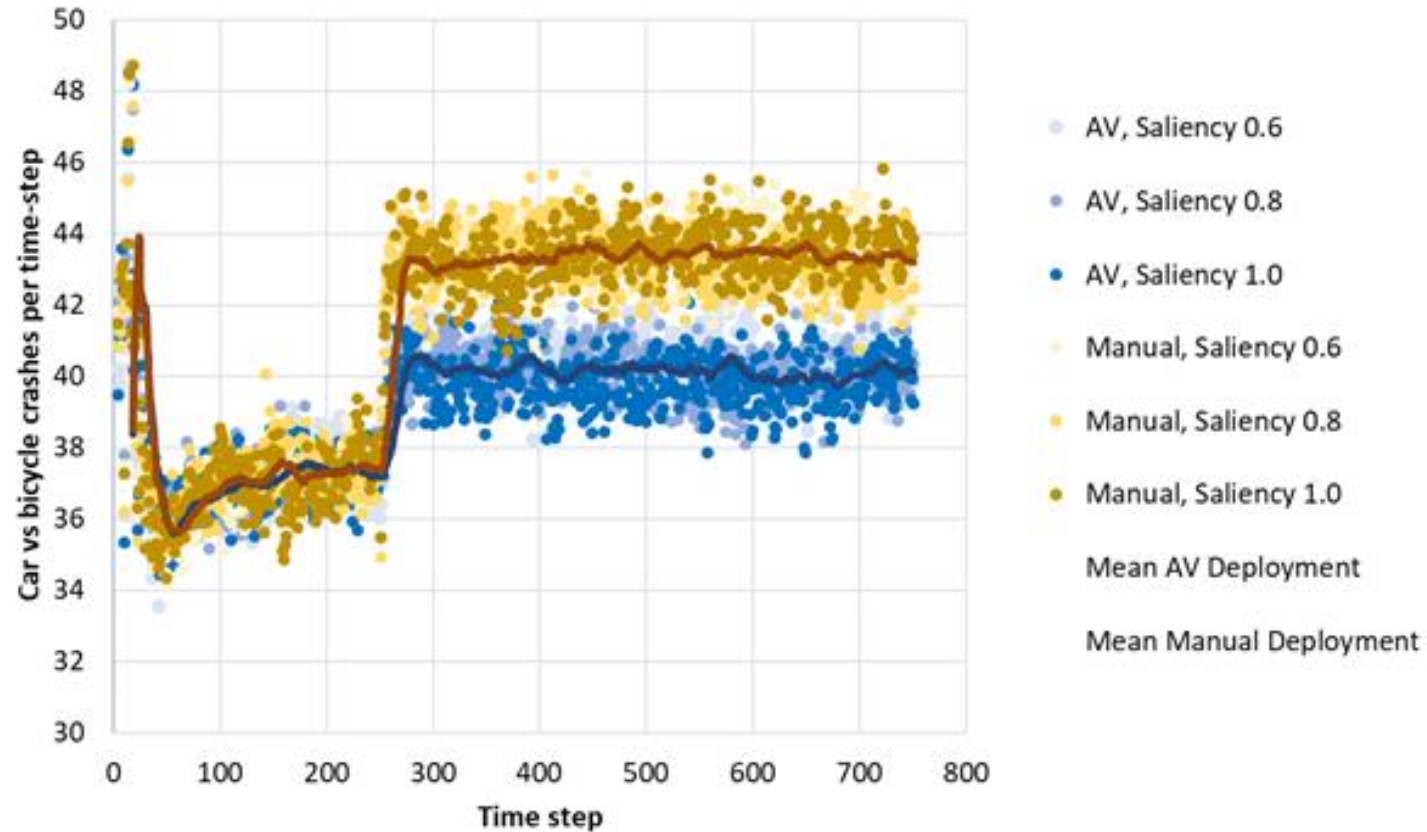


Uncertainty
– we really
just don't
know



Autonomous vehicle deployment

Crashes could increase even if autonomous vehicles act 'flawlessly' due to adaptation among humans



A composite image featuring the Chicago skyline in the background, with various skyscrapers like the Willis Tower and Trump Tower. In the foreground, a silver and black open-wheel race car is driving on a curved concrete bridge over a body of water. The sky is overcast with grey clouds.

Thank you

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<https://bit.ly/33Gmiwy>