CP14

From road safety to healthy streets

Reframing road safety to fit for our towns and cities

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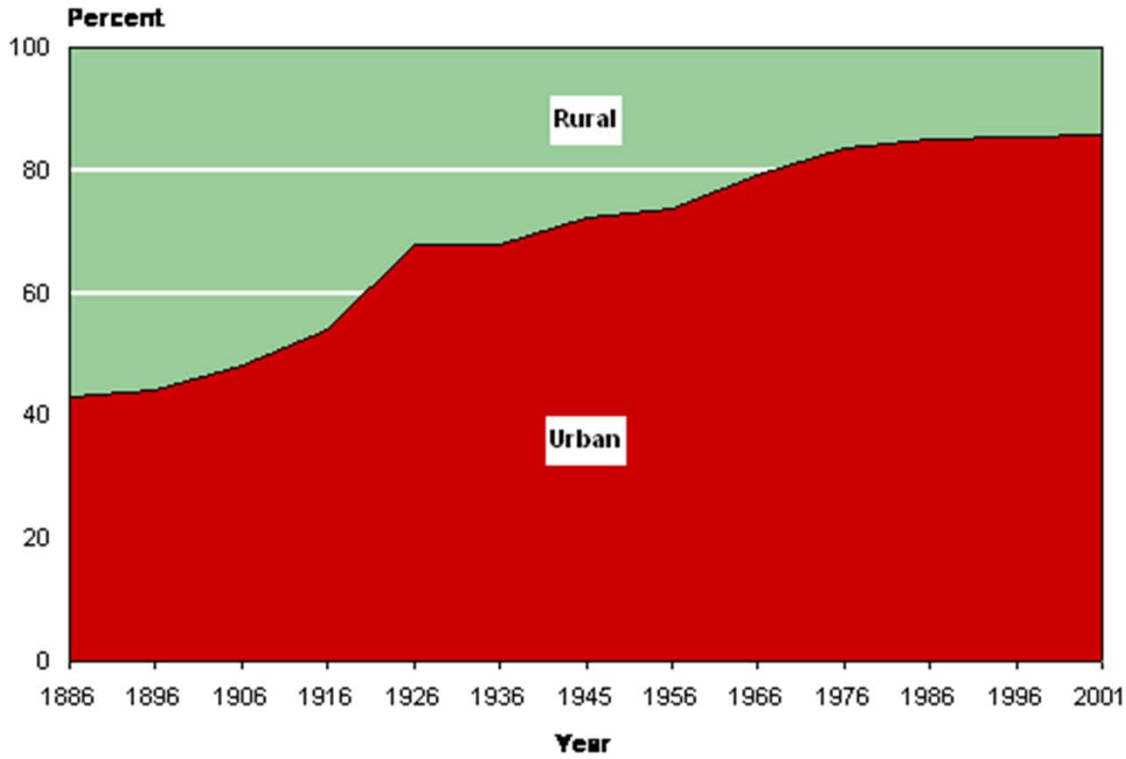
New Zealand Government

Slide 1

CP14 Can we have a new pic?

Claire Pascoe, 12/09/2018

NZ mostly lives in towns and cities (86%)



Proportion of People Living in Urban and Rural Areas
1886–2001 Censuses of Population and Dwellings

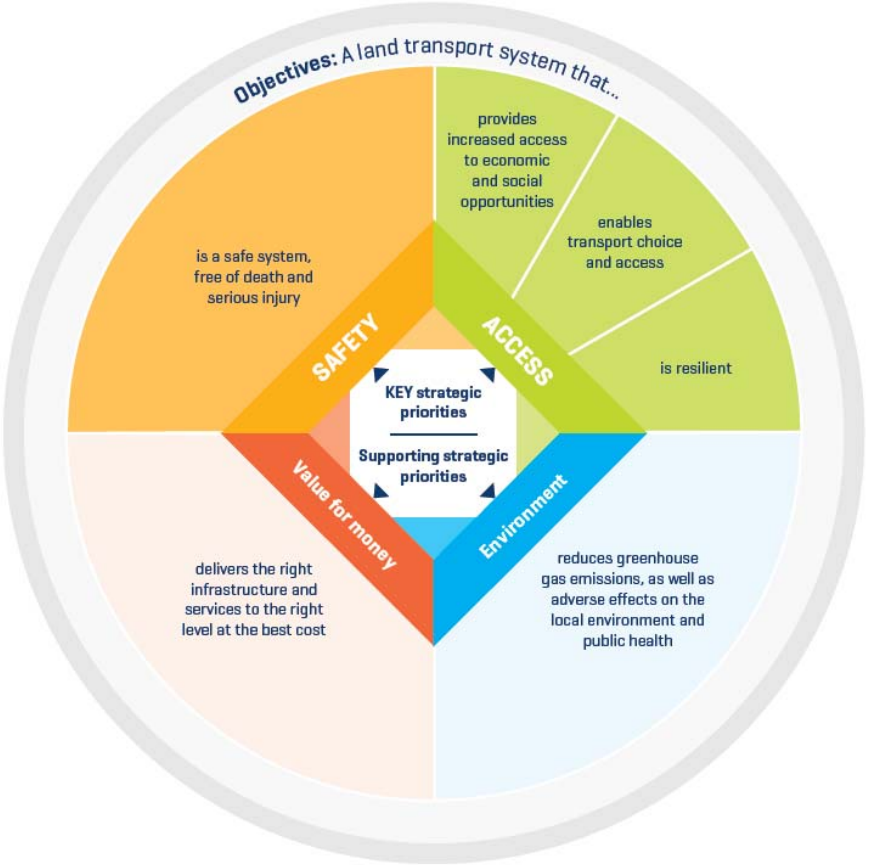
And most of our trips are short

Trip distance	All modes
<2km	40%
2-<5km	28%
5-<10km	16%
10-<20km	10%
20+km	7%

But we still mostly drive them…

Distance	Car/van driver	Car/van passenger	Pedestrian	Cyclist	PT (bus/train/ferry)
<2km	43%	22%	32%	1%	1%
2-<5km	62%	29%	4%	2%	3%

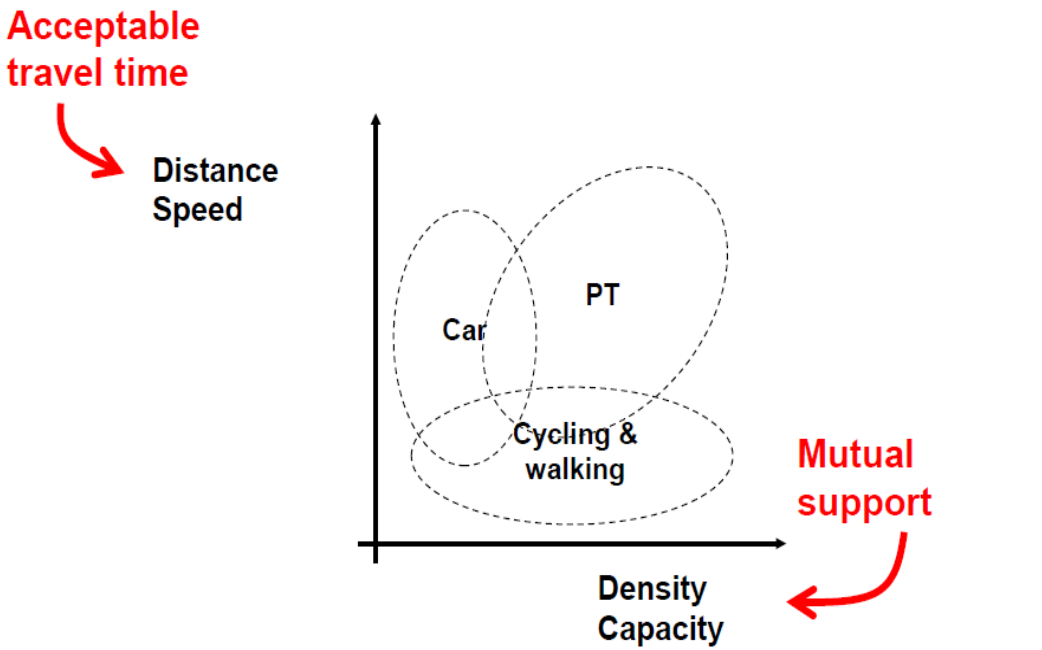
The government has two big things it wants to buy….



In our towns and cities this presents an exciting opportunity to do both in a way that also delivers value for money and positive environmental outcomes.

Too good to be true?

Land use and transport choice are related



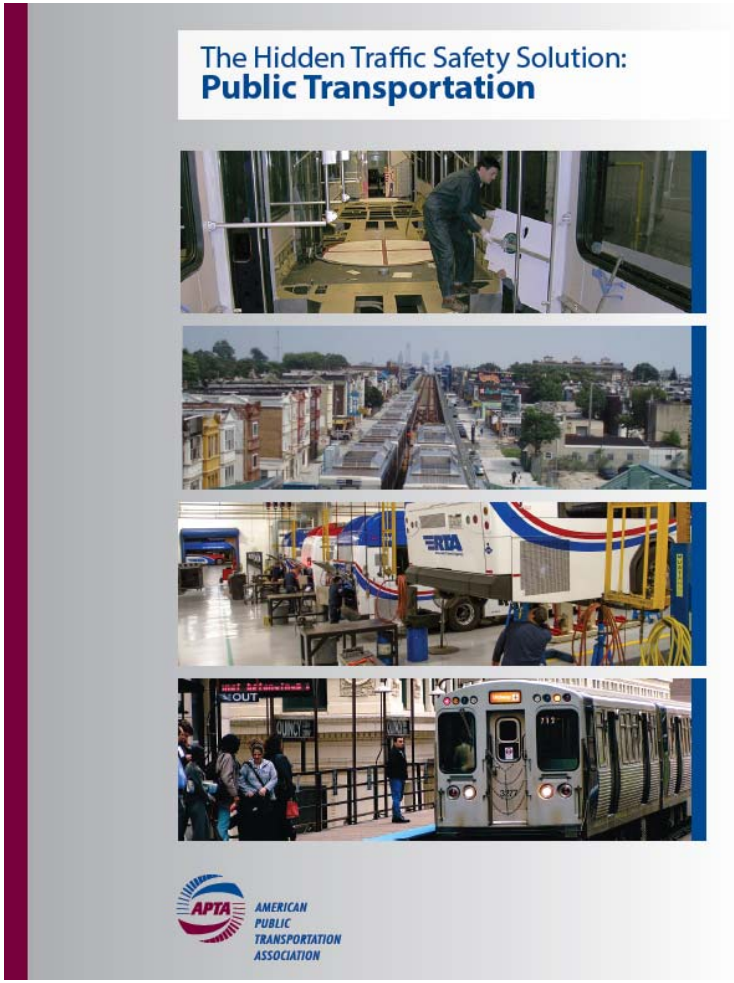
(Bertolini & le Clercq, 2003)

Table 7 - Comparing Compact and Sprawled Regions (Litman 2014; Ewing and Hamidi 2014)

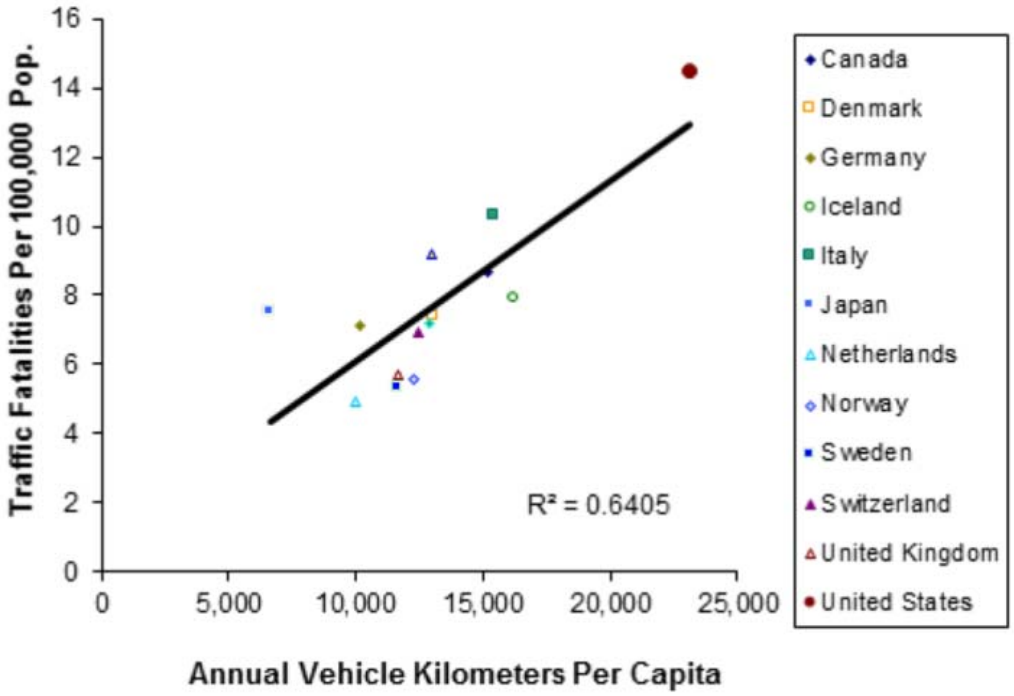
Compact and Transit-Oriented	Sprawled and Automobile-Dependent
• More walking, cycling and public transportation travel.	• Less walking, cycling and public transportation travel.
• Less automobile ownership and use.	• More automobile ownership and use.
• Higher traffic density and more intense congestion.	• Lower traffic density and less intense congestion.
• Less time spent driving and less per capita congestion delay.	• More time spent driving and higher congestion delay.
• Lower traffic speeds.	• Higher traffic speeds.
• Higher per vehicle crash rates (mainly property damage only), and higher insurance premiums.	• Lower per vehicle crash rates and lower insurance premiums.
• Lower per capita traffic casualty (death or injury) rates.	• Higher per capita traffic casualty (death or injury) rates.

Safety and access are closely linked in cities

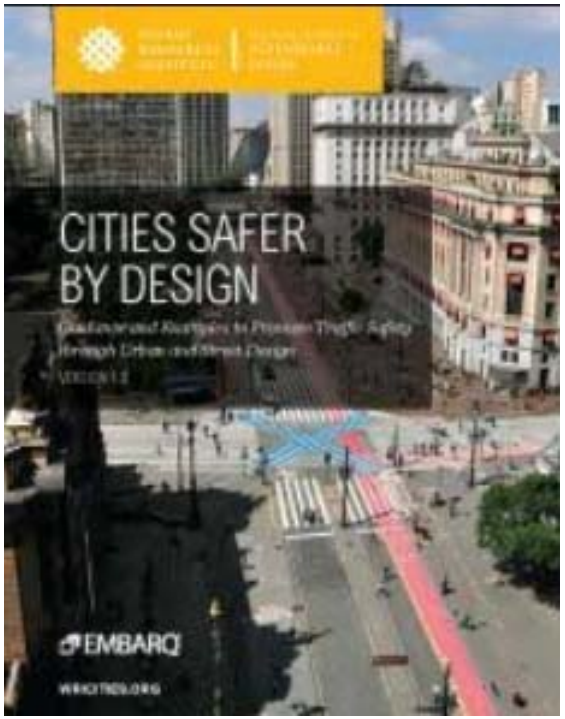
https://www.apta.com/resources/reportsandpublications/Documents/APTA-Hidden-Traffic-Safety-Solution-Public-Transportation.pdf



Vehicle Kilometers and Traffic Fatality rates in OECD countries
(OECD data)

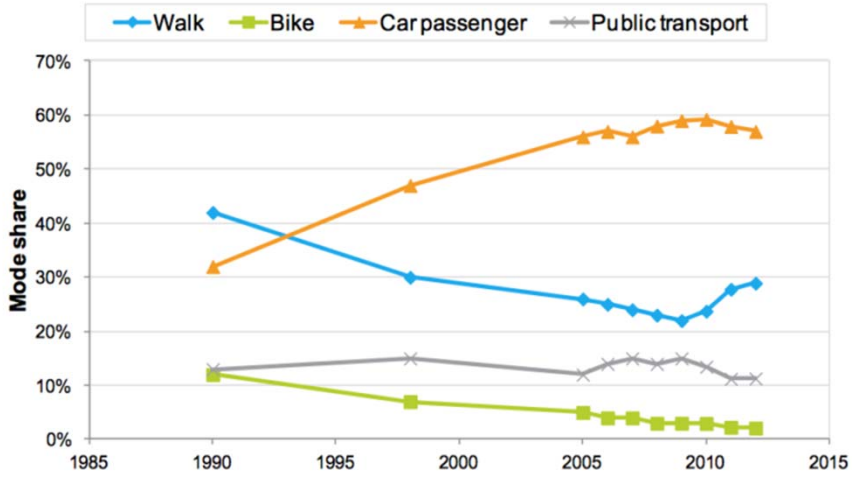


So what does accessible safety in cities look like?



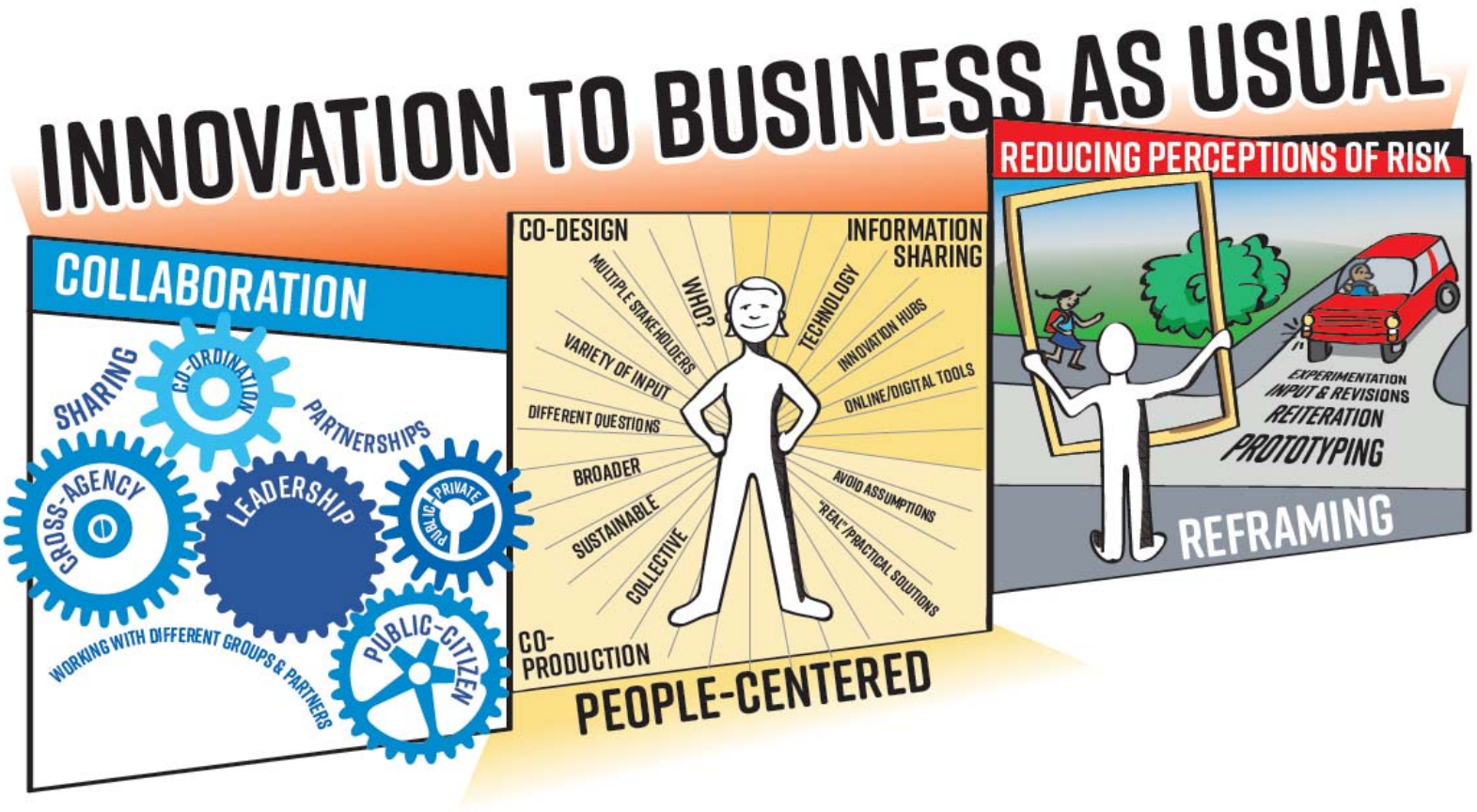
DSI for active modes can be misleading

Figure 9: Travel to school – mode share – ages 5–12



Safety is a feeling as well as a statistic

“What if our language does not simply mirror or picture the world but profoundly shapes our view of it in the first place?” – Fishcer & Forester, 1993:1



From innovation to business as usual: Insights for the Signature Programme, Nichola Davies and Adrian Field, March 2017

How were we talking about road safety?

Word	# of mentions in Safer Journeys
Car	43
Vehicle	246
Road	661
People	83
Walk	25
Bicycle	1

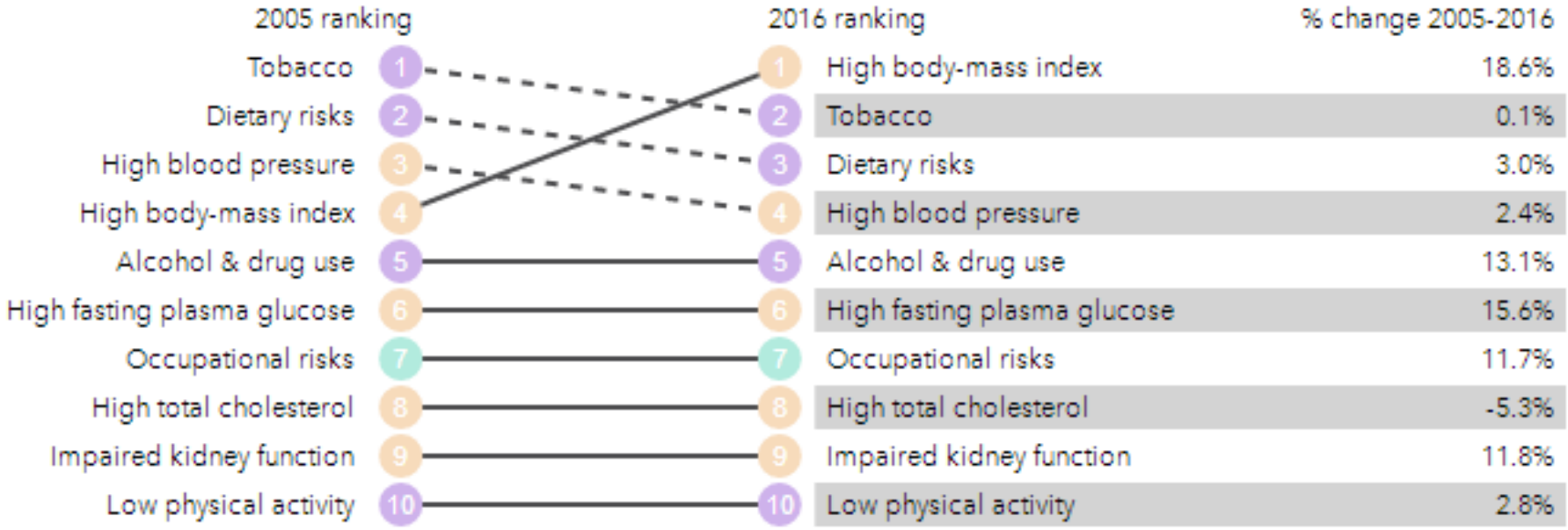
actions alcohol approach areas bac change cost crashes deaths distraction drink drivers driving drugs effectiveness fatal fatigue impact improve including increase initiatives injuries journeys km level limit lower motorcycle number people per percent rate reduce risk road safe safer safety serious speed support system travel users vehicles years young zealand

Go to menti.com

Healthy streets vs road safety

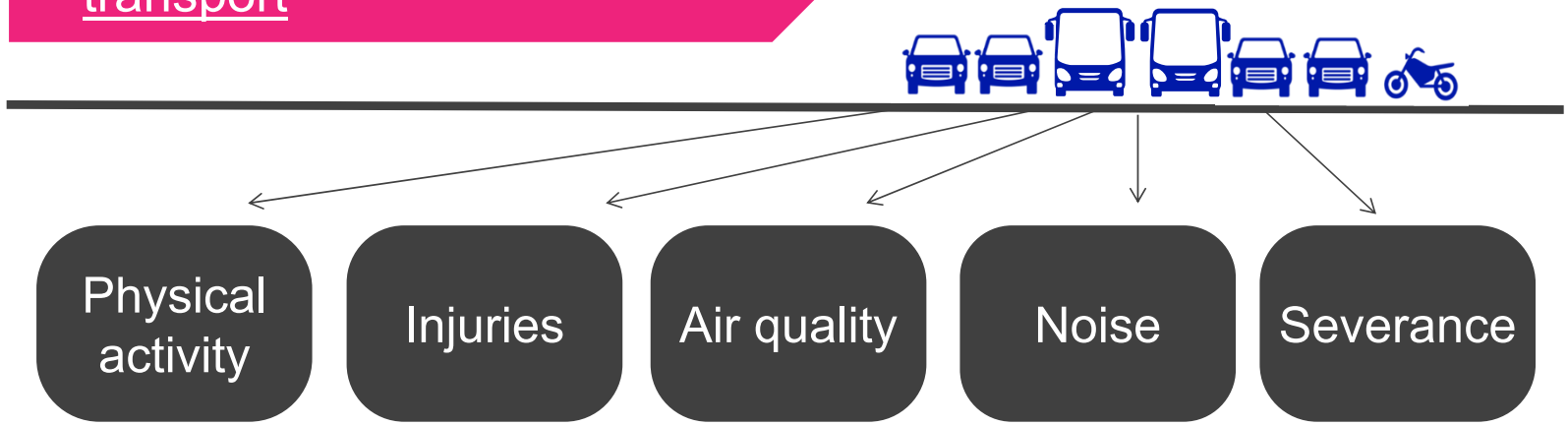
What risk factors drive the most death and disability combined?

- Metabolic risks
- Environmental/occupational risks
- Behavioral risks



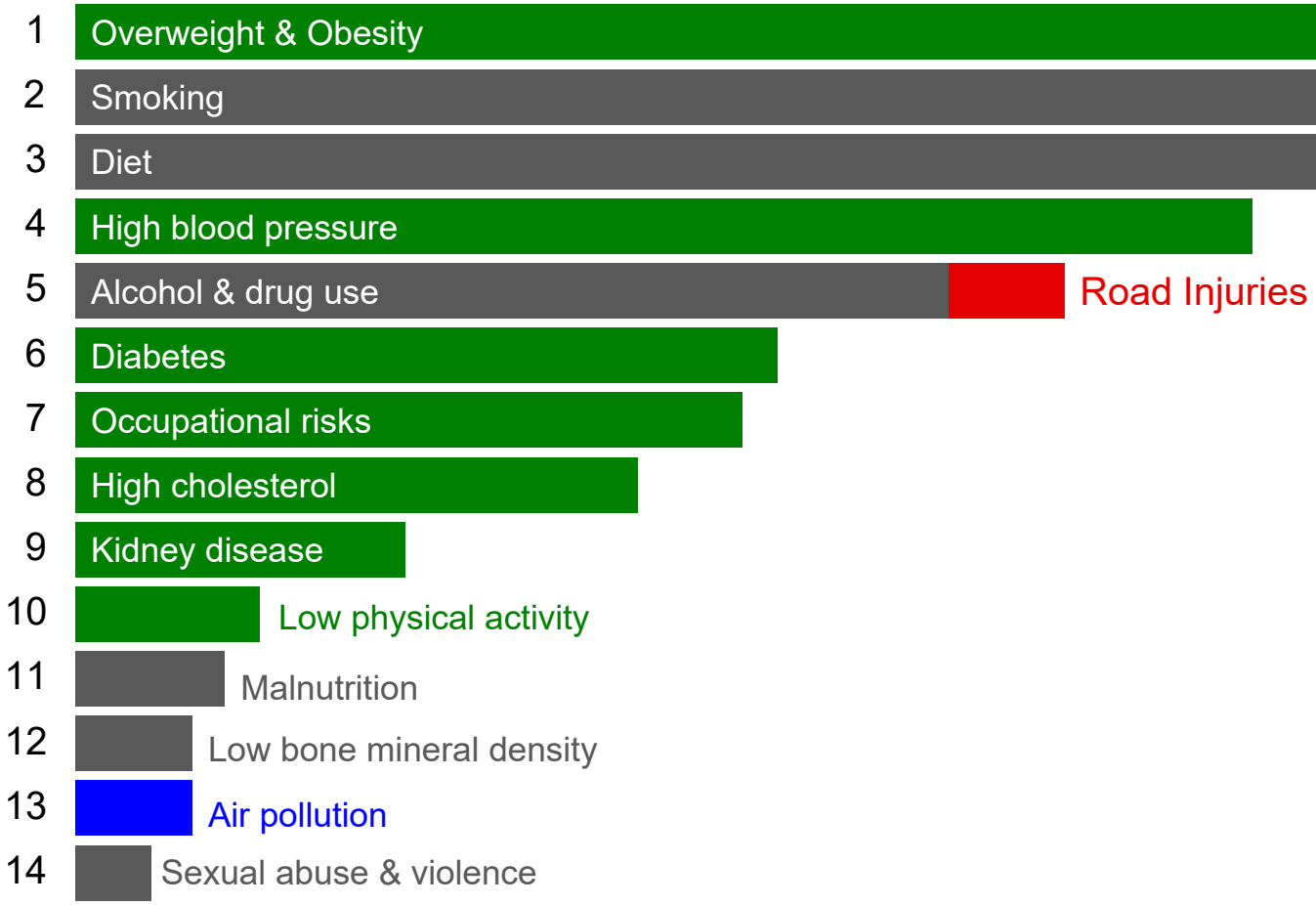
The big five health impacts of urban transport

The health impacts of the transport system in urban areas relate to how we manage motorised road transport



Source: Lucy Saunders, TfL

Top causes of illness and early death among NZers

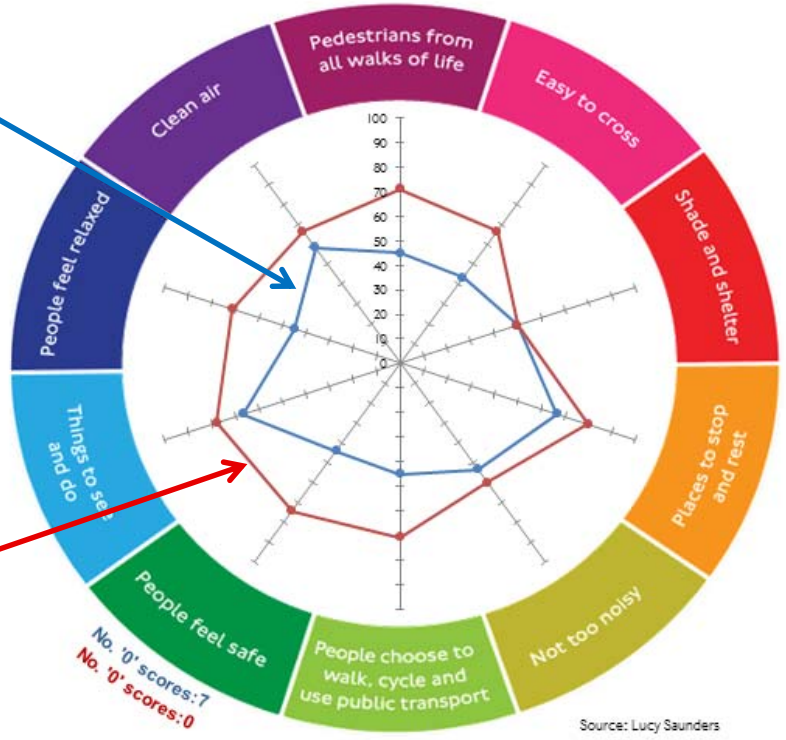


DALYs, Global Burden of Disease, 2016

Healthy Streets check for designers

Before

After



Source: Lucy Saunders, TfL

Probability of pedestrian death from impact at:

Cities are managing movement and place

How do we make trade-offs?

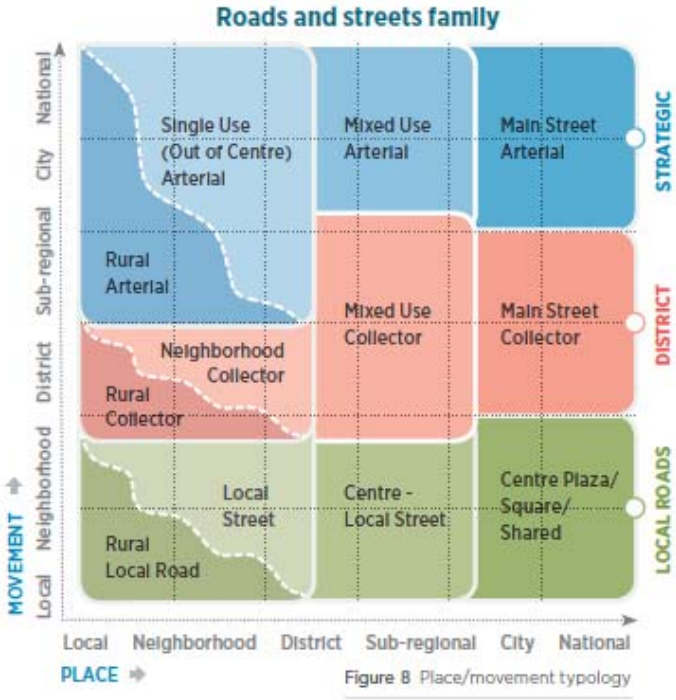


Figure 8 Place/movement typology

How do reset social norms?

Technical problem or adaptive challenge?

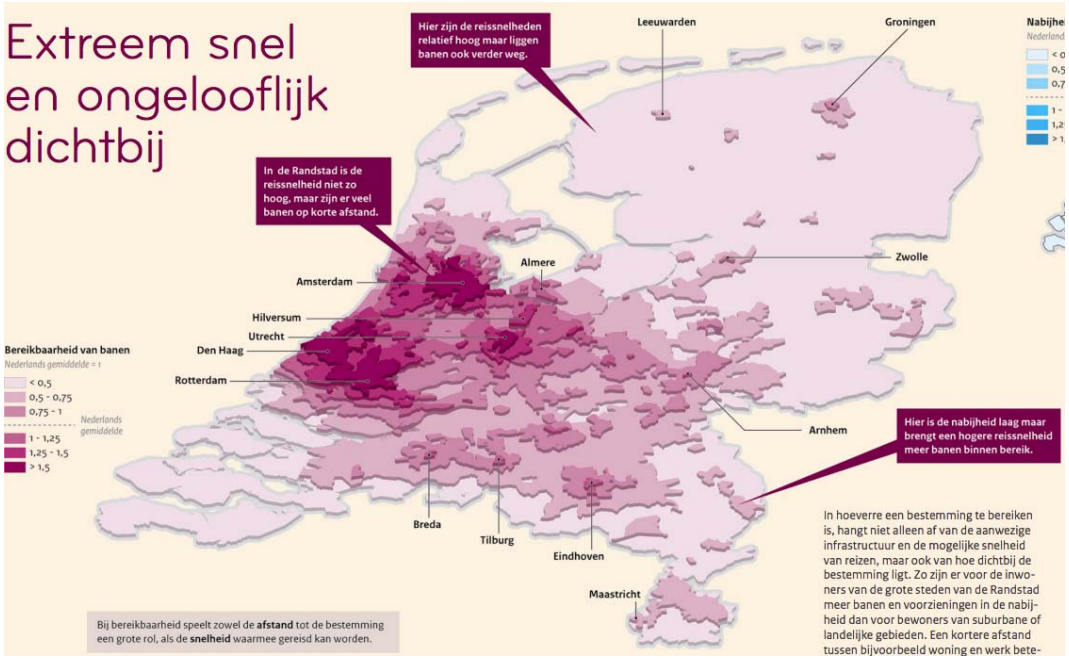
Technical Problems	Adaptive Challenges
Easy to identify and define problems	Difficult to identify or define
Can often be solved by an expert	Can require changes in values, belief, roles, relationships & approached to work
Technical Solutions	Community solutions, consultation, multi-disciplinary
Implementation often quick and easy - clear	Change in numerous places required – across organisational boundaries
Require change in one or a few isolated places	Solutions often experimental, discoveries, can take a long time to implement

Slower speeds to speed harmonisation

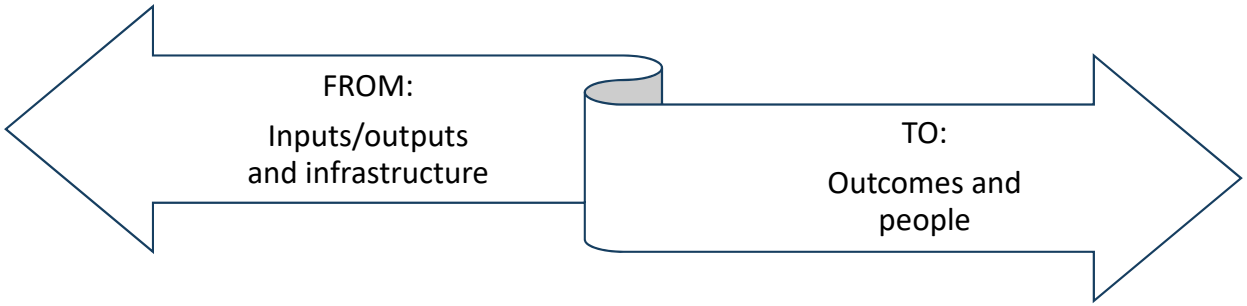
Optimise the human, marginalise the machine

From conflict to social friction

Mobility to accessibility



The changing the nature of what we measure



$$ invested	Impact of investment on the wellbeing of customers
Throughput of vehicles	Throughput of people
Travel times savings	Access to opportunities

Transition experiments –
Final step in Transition Management process - Roorda et al, 2014

Short term actions through which alternative structures, culture and practices are explored:

- Radical
- Challenge driven
- Feasible
- Strategic
- Communicating/mobilizing

How is NZTA helping reframe for the future…

- Evolving the Investment Decision Making Framework – with greater weight on access and transport choice
- Evolving the One Network Road Classification to be multi-modal
- Developing best practice design guidance and standards
- Changing rules and regulations with the Ministry of Transport
- Investing more in walking, cycling, public transport, travel demand management, optimisation and technology (and less on State Highways)
- Developing new measures and guidance for the sector to use
- Capability building programmes
- Focus on technology and geo-spatial analysis tools
- Changing our structure, resourcing model and diversifying our expertise
- Using the research programme to advance our knowledge and understanding

Thanks and acknowledgments

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