

PRIORITISING FOR PEOPLE

What does that mean?

Hamish Mackie



Customer focused
Human centred design
Designing for people
Prioritising for people



The Human Factors and Ergonomics
Society of New Zealand:

Promotes the application of
human/factors/ergonomics knowledge

Advances human factors/ergonomics
research, education, public awareness and
professional standards

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"the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimise human well-being and overall system performance."

'Making life work better, together'

DESIGNING FOR PEOPLE



Human Centred Design



Singleton's ergonomics concentric rings model (1974)



Safe

User
friendly

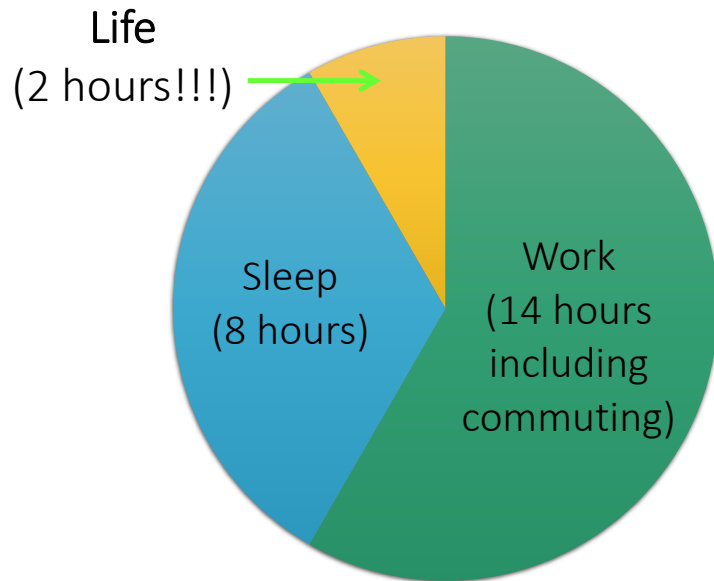
Pleasurable

- 1 Understand people first**
- 2 Take a systems approach**
- 3 Objectively evaluate**

UNDERSTAND PEOPLE



UNDERSTAND PEOPLE

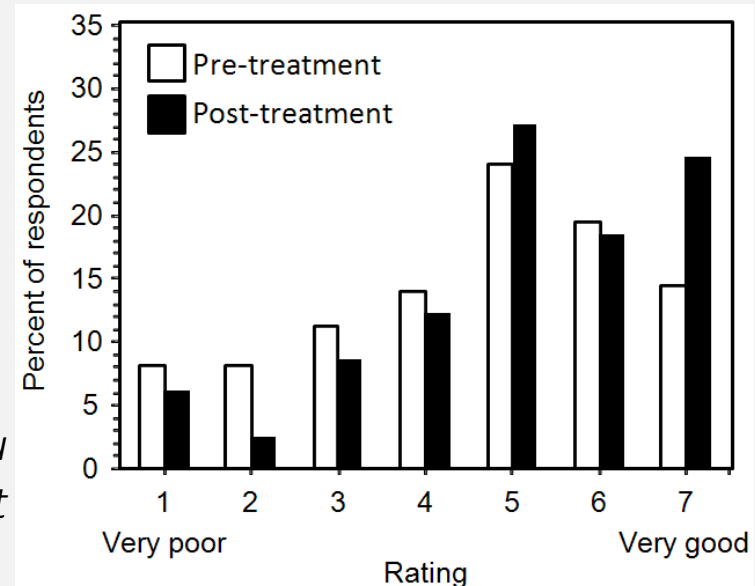




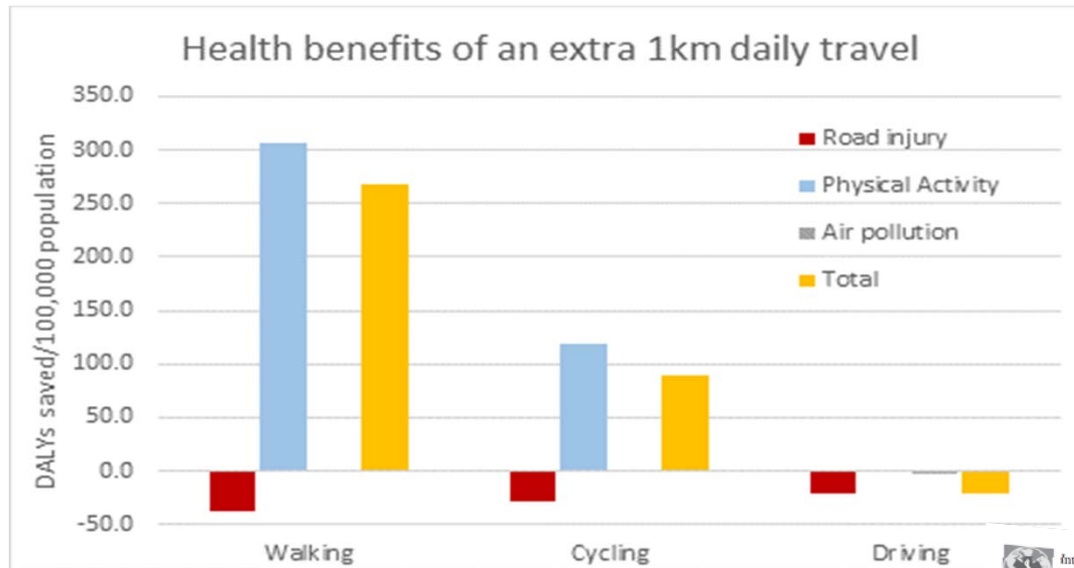
You are totally insane! This letter along with the developments in our community is evidence of such. Please resign before you do even more damage to us. If the men in the white coats arrive in your office to take you away please cooperate with them as they wish you no harm.

30 km/h operating speed on local streets
48% reduction in crash costs

Please circle a number to tell us what you think about the look of your street



ACTIVE TRAVEL HAS HEALTH BENEFITS



Randall, Keall, M. D.,
Woodward, A. (Not yet
published)

Derived from

Keall, M. D., E. Randal, J. Guria and A. Woodward (2016). Health outcomes projected from Transportation Modelling for the New Zealand Transport Outlook. Wellington, University of Otago.
Woodcock, J., P. Edwards, C. Tonne, B. G. Armstrong, O. Ashiru, D. Banister, S. Beevers, Z. Chalabi, Z. Chowdhury and A. Cohen (2009). "Public health benefits of strategies to reduce greenhouse-gas emissions: Urban land transport." *The Lancet* 374: 1930-1943.



Transport, participation and wellbeing:
Evidence and recommendations



Article
A Cost Benefit Analysis of an Active Travel Intervention with Health and Carbon Emission Reduction Benefits

Ralph Chapman ^{1,2,*}, Michael Keall ^{2,3}, Philippa Howden-Chapman ^{2,3}, Mark Grams ¹, Karen Witten ^{2,4}, Edward Randal ^{2,3} and Alistair Woodward ^{2,5}



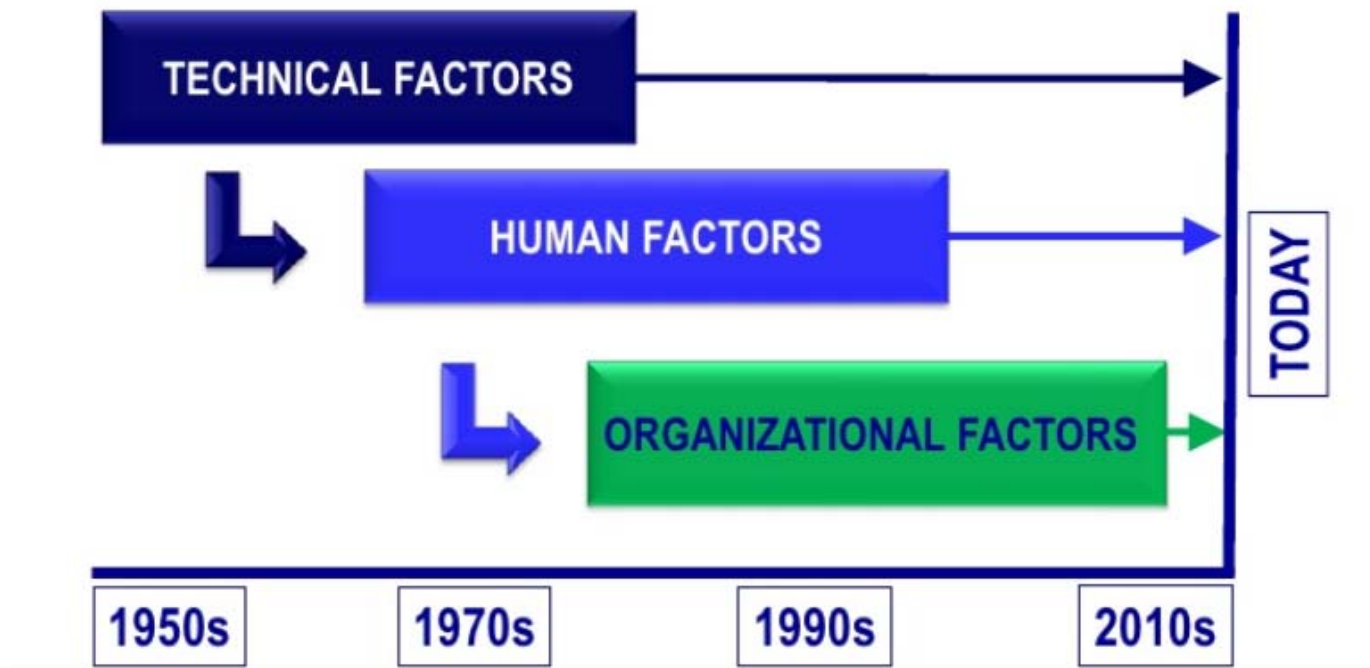


When and how should we engage with people?

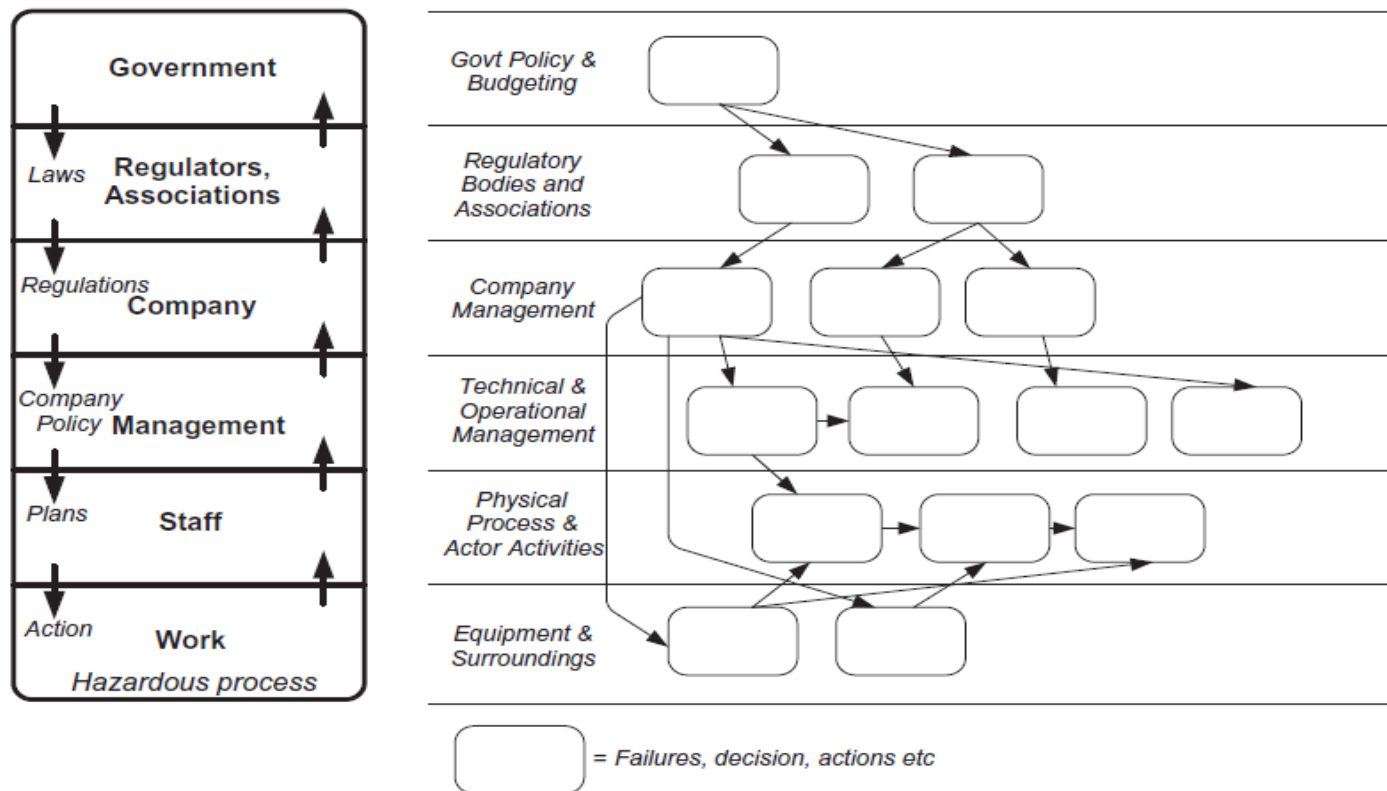
Engagement philosophy

**Our biggest challenges are not
technical...they are socio-technical**

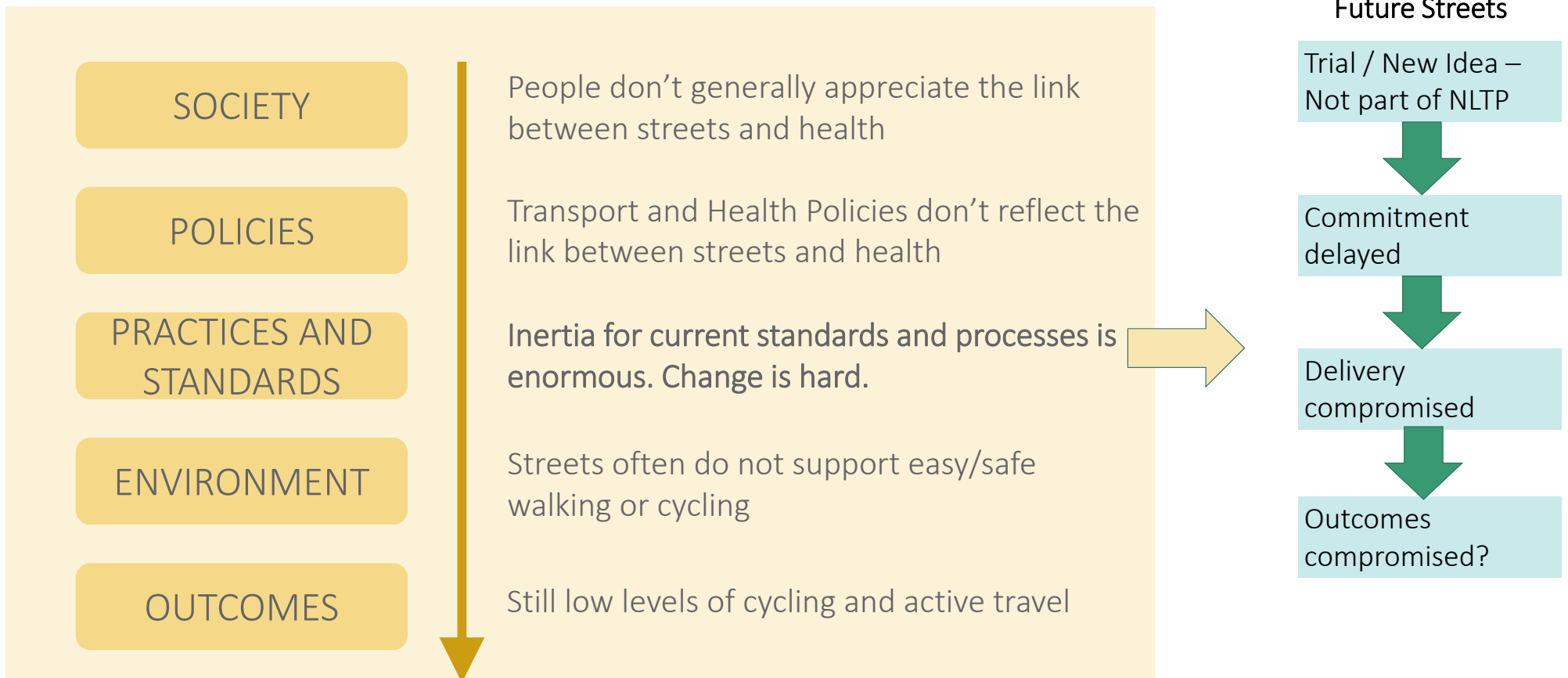
The evolution of safety thinking



RASMUSSEN'S MODEL OF SOCIO-TECHNICAL COMPLEX SYSTEMS



THE SOCIO-TECHNICAL CHALLENGE

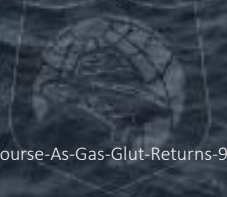






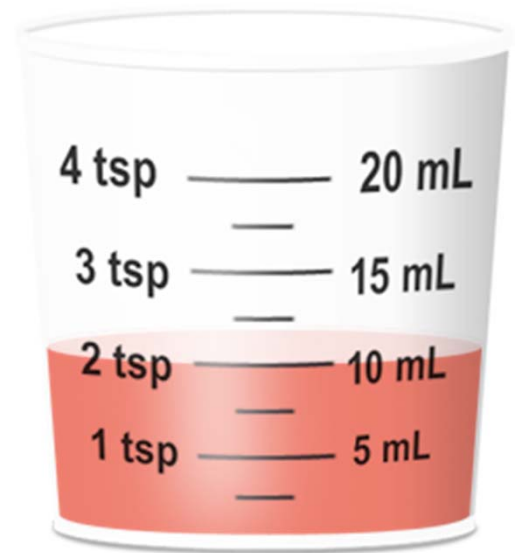
<http://www.autospies.com/news/Tanker-Ships-Forced-To-Change-Course-As-Gas-Glut>Returns-91726>

AUTOSPIES



**If you can't measure it you can't
manage it...or tell a credible story**

- Do something!
- Don't over-rely on numbers
- Reach and Dose



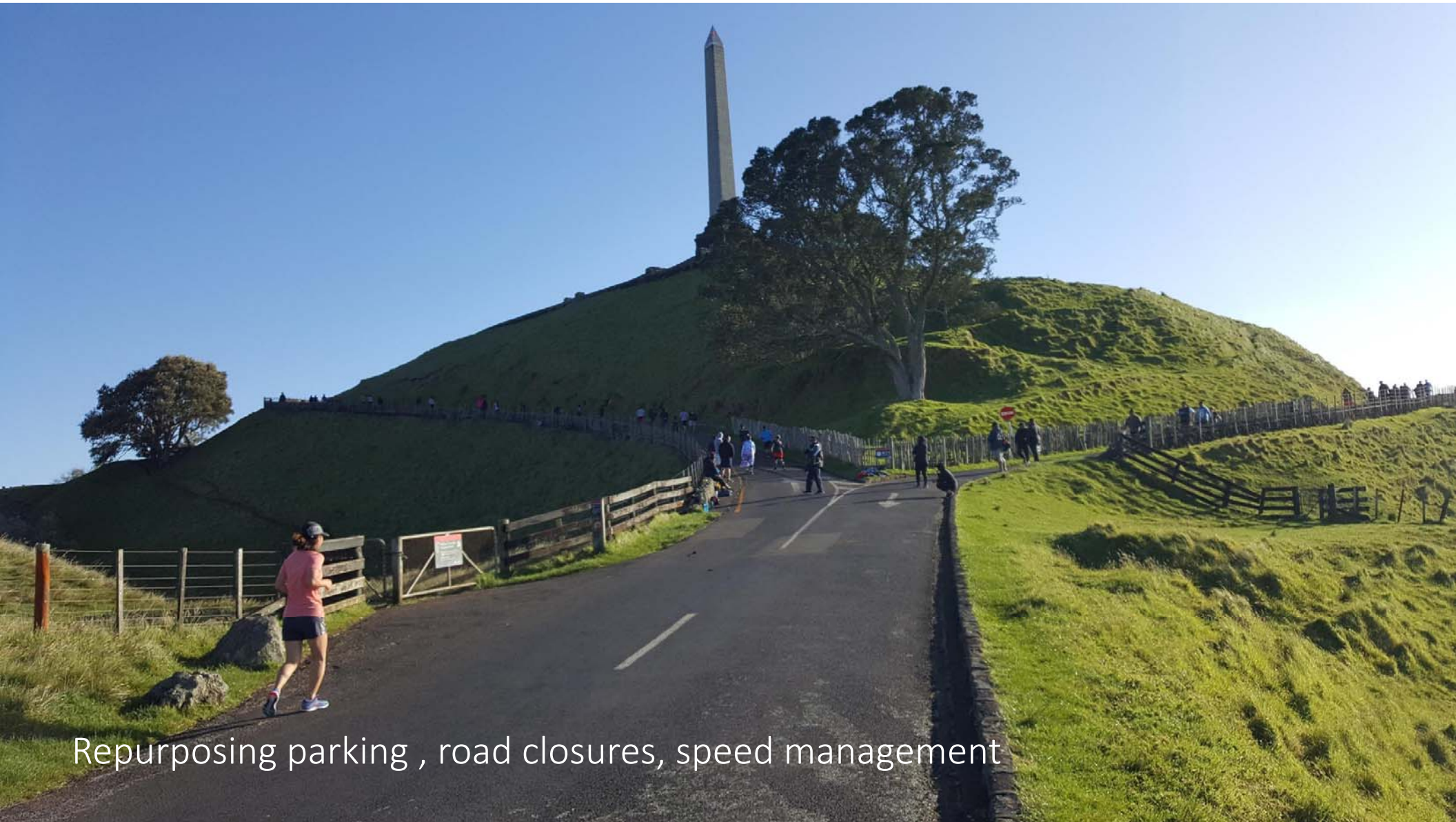
TRIALS: Rural Intersection Active Warning System



WHAT ARE YOU BRINGING TO THE TABLE?

	Congestion	Injury	Overall health	Climate change	Air pollution	Fast	Reliable	Carrying things	Fun	Place making
Walking	✓	✓	✓	✓	✓		✓		✓	✓
Cycling	✓	✓	✓	✓	✓		✓		✓	✓
e-bike	✓	✓	?	✓	✓	✓	✓	✓	✓	✓
e-scooter	✓	✓		✓	✓		✓		✓	✓
Bus/train	✓	✓	✓	✓			?			
Car						?		✓		
EV				✓	✓			✓	✓	

Making change happen



Repurposing parking , road closures, speed management

Seville





Safe

User
friendly

Pleasurable







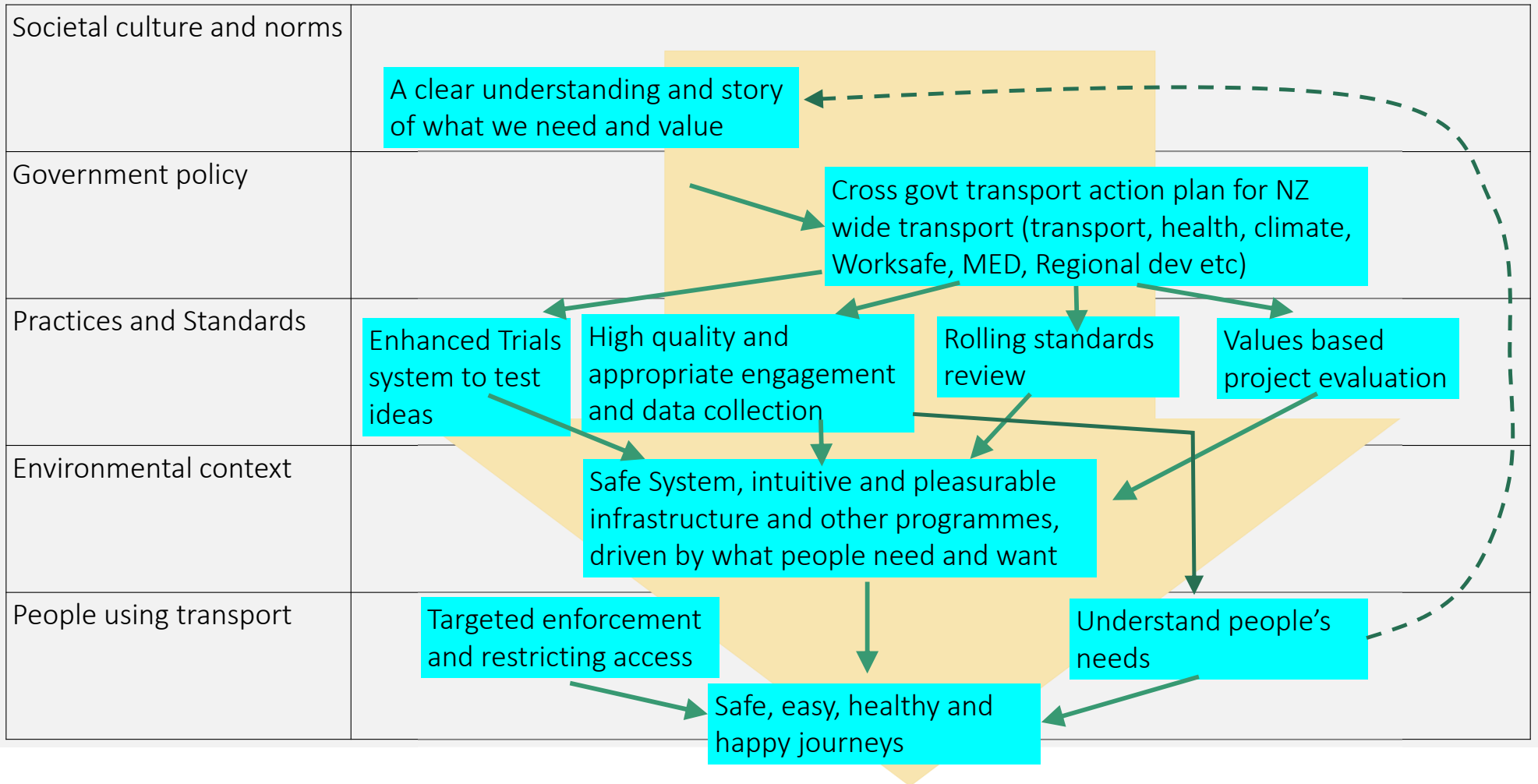
Go out to practice,
come home a better rider

<http://geoffjames.blogspot.co.nz/>



TE ARA MUA – FUTURE STREETS

ACTION!



Liveable Cities Workshop

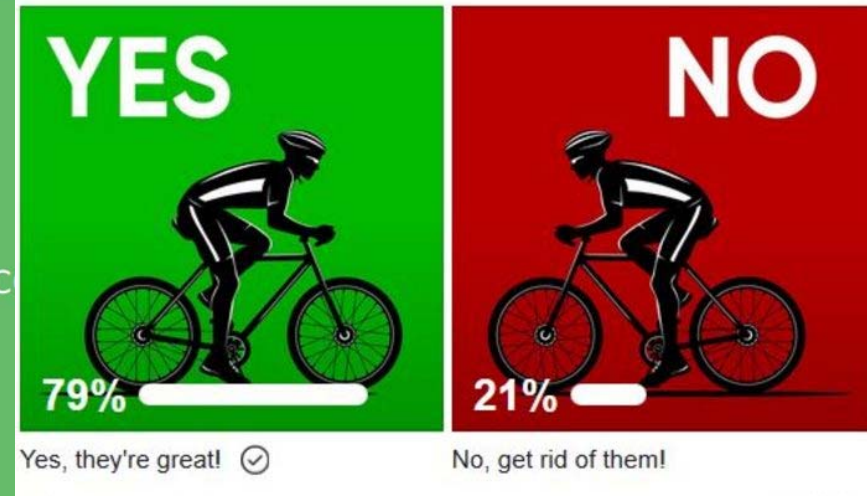
What role does transport play?

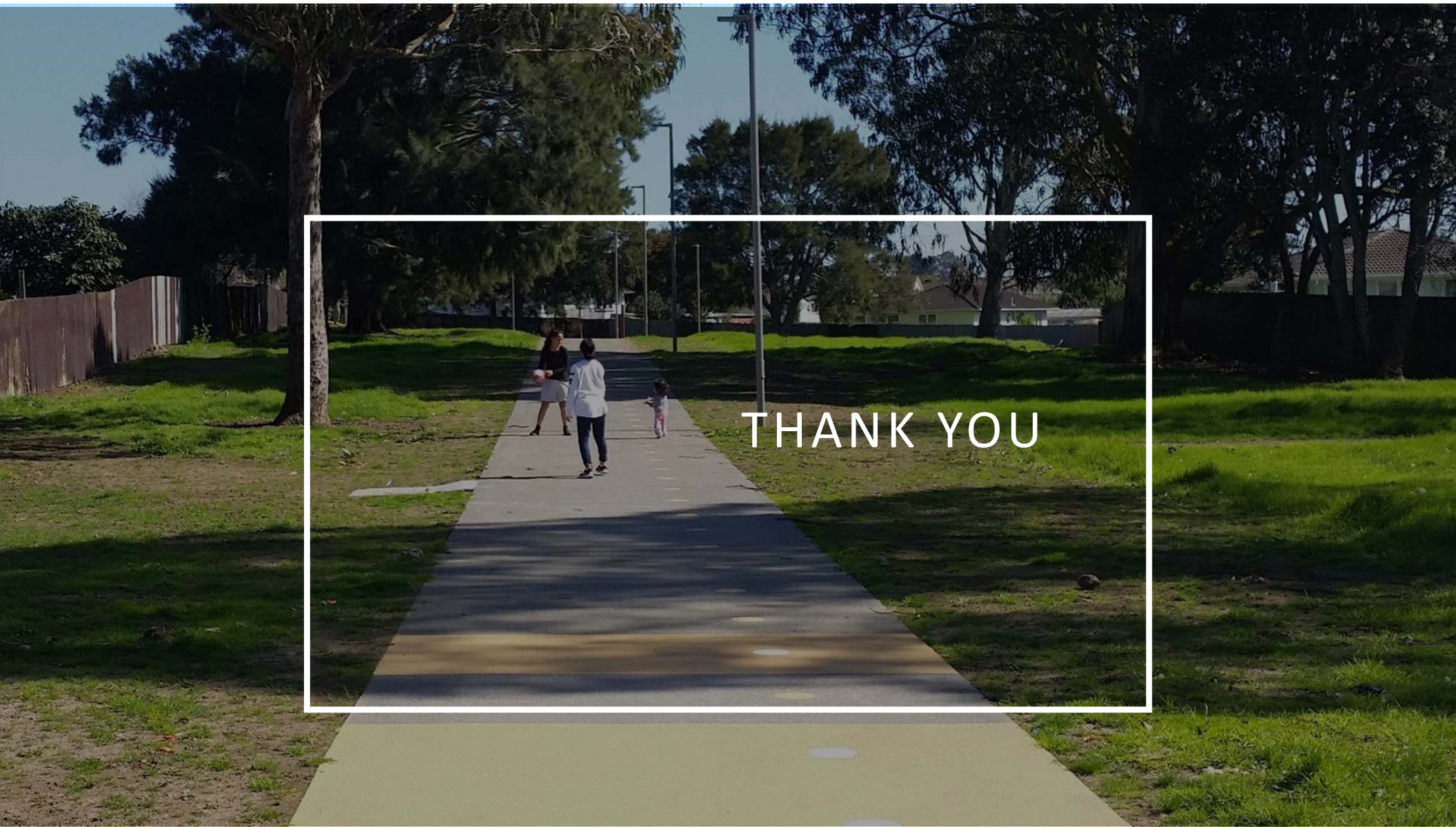


Transport effects

- Congestion «
- Time consuming «
- Car dependancy «
- Cultural isolation «
- Urban sprawl «
- Pollution «
- High financial cost «
- » Choice & access for all
- » Social inclusion
- » Health benefits
- » Attractive places and spaces
- » Urban regeneration
- » Improved safety
- » Efficiencies

Let's do our own poll - what do you think, are cycle lanes and paths good for the community?





THANK YOU