

MODE*ALT*SHIFT

HACKATHON

Moving People / Not Machines

15-17 MARCH

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New Zealand Government

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New Zealand, we have a problem with single occupancy vehicles.

How big is the problem?

There are 4.15m vehicles in use in New Zealand. That's 1.2 vehicles for every person with a license, and 0.86 vehicles for every person in NZ regardless of age.

What does that look like on our roads?

The average vehicle occupancy in NZ is 1.56 people, and in Auckland it is 1.51.



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The Impacts

Network Inefficiency

A person takes up 30m² in a car on our network, compared to 4.5m² in a bus.

Environment

18% of domestic greenhouse gas emissions are due to transport - a 71% increase in transport emissions since 1990.

Health

Modelling suggests there are more than 250 premature deaths per year from emissions in New Zealand.

Time

Kiwis spend 1.4 billion hours on the road each year.

Transport systems often fail because of the collective choices we make.



Joan has just received a call that her partner is in hospital and has serious injuries. They say to her that “she needs to get to the hospital as soon as possible”. Joan is at work and her partner is in hospital on the other side of town. She estimates it might take nearly an hour to get there by bus, but it should only take 15 minutes to drive, so she jumps in her car.

Joan sets off from work, and immediately gets stuck in traffic. There has been an incident and traffic is jammed in every direction. There are no alternative routes, and no rapid transit options for her to access the hospital. Two hours later, still stuck in traffic, Joan is beside herself. What choices did Joan have available to her? What choices did all the other people have available to them?

That journey was possibly the most important Joan would ever make but her choice to drive meant she was trapped alongside thousands of other people, with little or no choice available to them, and yet their journeys might have been as trivial as a trip to the store down the road that they could’ve walked to.

How do we enable collective change?

Collective change could look like this:

From

Single occupancy
Motorised vehicles
Needing to travel
Sedentary lifestyles
Modes that take up lots of space per person
Vehicle ownership
Travelling long distances to achieve trip purposes
Single purpose journeys
Habitual behaviours
Uninformed choice

To

Multi-occupancy
Non-motorised vehicles
Not needing to travel
Active lifestyles
Modes that take up little space per person
Vehicle sharing
Travelling short distances to achieve trip purposes
Multi-purpose journeys
Flexible choices
Informed choices

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Problem: A third of all trips made by private vehicles are under 2km - in both urban and rural areas. 80% of time spent travelling is as a driver or passenger in a private vehicle.



Challenge: How might we reduce car use for short trips?



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Problem: The average vehicle occupancy in New Zealand's major cities is 1.54 people. A bus can move the equivalent of 40 cars worth of people at peak times, while taking up the road space of only three cars.



Challenge: How might we make space efficient transport options more attractive?



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Problem: The number of students aged 5 - 12 years travelling to school by car has increased from 32% to 56% since 1990. Plus, the number of teenagers cycling to school has dropped significantly from 20% of trips to under 5% since 1990.



Challenge: How might we get our kids to and from school safely and efficiently without driving them?



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Problem: We spend 1.28 hours per week travelling for shopping, personal appointments, services and volunteering.



Challenge: How might we enable people to get everyday jobs done while reducing negative transport impacts?



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Problem: New Zealanders spend 1.4 billion hours travelling, and 80% of this time as a driver or passenger in a private vehicle.



Challenge: How might we make transport choices that use our time productively (and safely) while moving around our cities?



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Problem: Our reliance on commuting to and from work via car places extra demand on our network at peak times. In Auckland, vehicle occupancy during the AM peak time drops from 1.51 to 1.32 people per vehicle.



Challenge: How might we improve the commuting experience by avoiding congestion from low density, high volume peaks?

