

# Safety and access: It starts with walking

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Smart,  
Safe &  
Accessible  
Places



Hamilton, Claudelands  
10-13 November 2019

# Today

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1. How transport investment decisions are made
2. Walking: it's complex
3. How to do better

How transport investment decisions  
are made



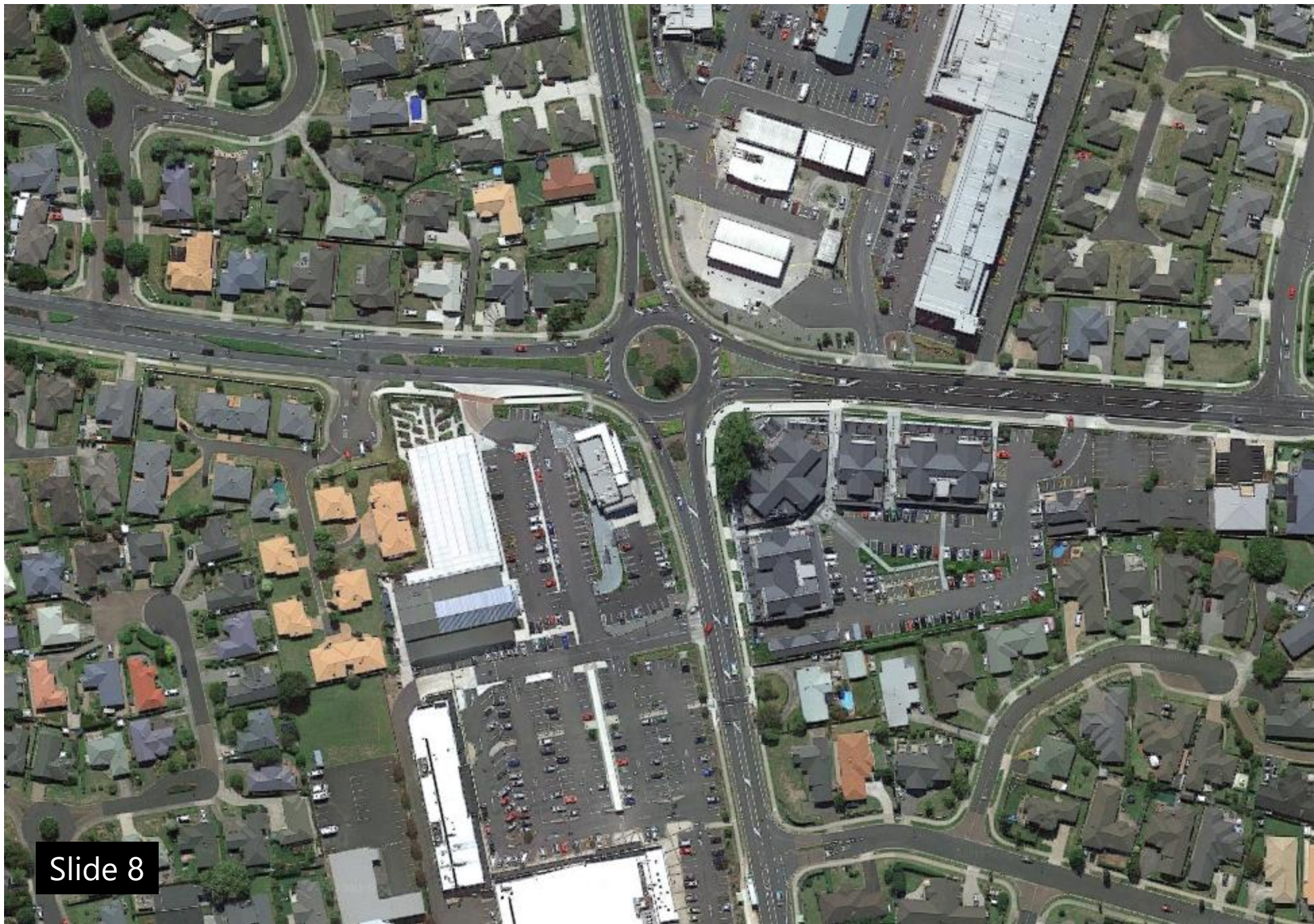
Slide 7





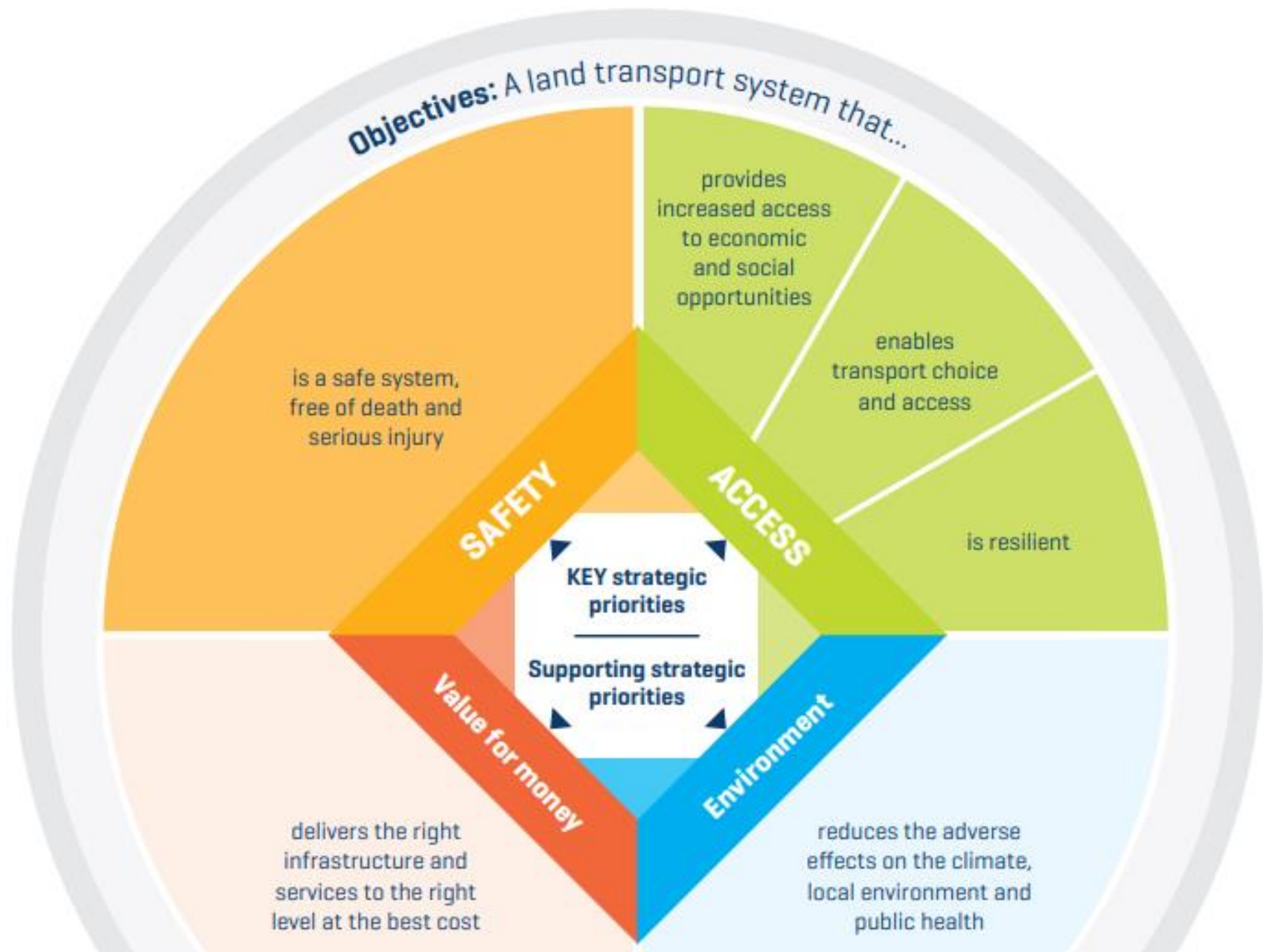
Slide 7





Slide 8





# What do we mean by 'all people'?

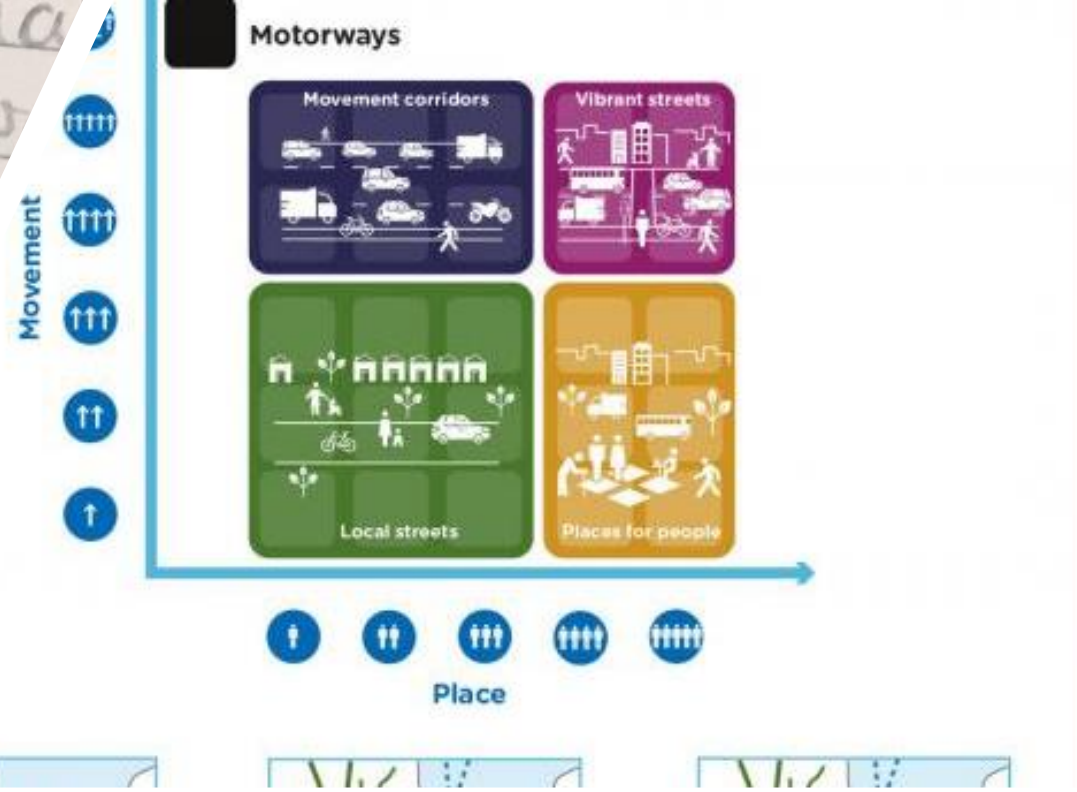
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*"The land transport system needs to enable a range of lower cost and more space efficient transport choices so all people can easily access employment, education, recreational and social opportunities."*

*Draft Government Policy Statement on Land Transport,  
page 15*



Investment Decision Framework  
 Planning & Knowledge Hub  
 Level of Service tool  
 ESR Environmental  
 Safe System Intervention  
 Accessible Streets Package  
 Land Use & Planning  
 Street Guide  
 Aotearoa Streets Accord  
 PTG (public transport)  
 PNG (pedestrian network)  
 ONF One Network  
 TCD Part 5

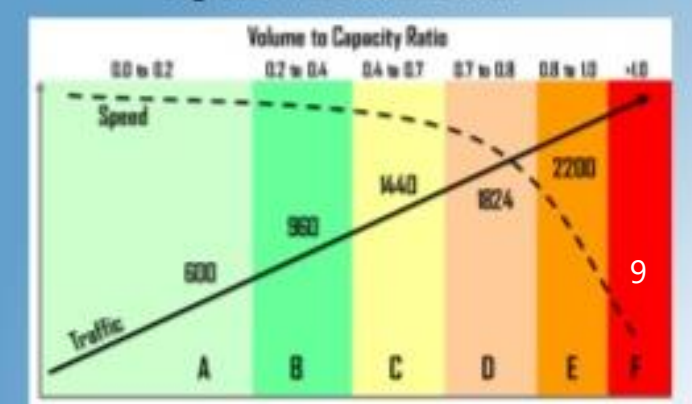


to analyze highways by categorizing traffic flow and assigning quality levels of based on performance measure like **speed**, **density**, **delay** etc.

Fig 1.1 Level of Service A to F



Fig 1.2 V/C Ratio & LOS









**A challenge:**

**Can you go 24 hours without saying  
'network' or 'users'?**



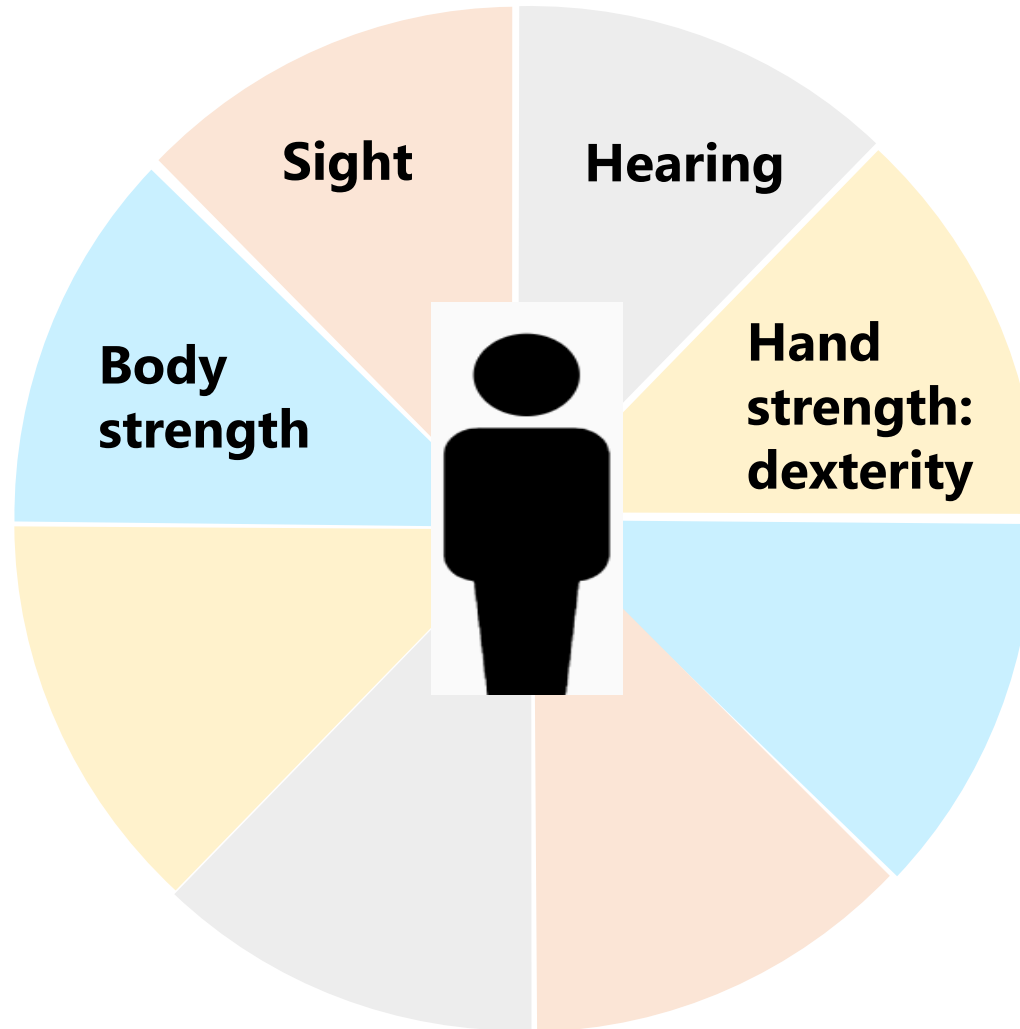
Walking: it's complex

Christine,  
Auckland



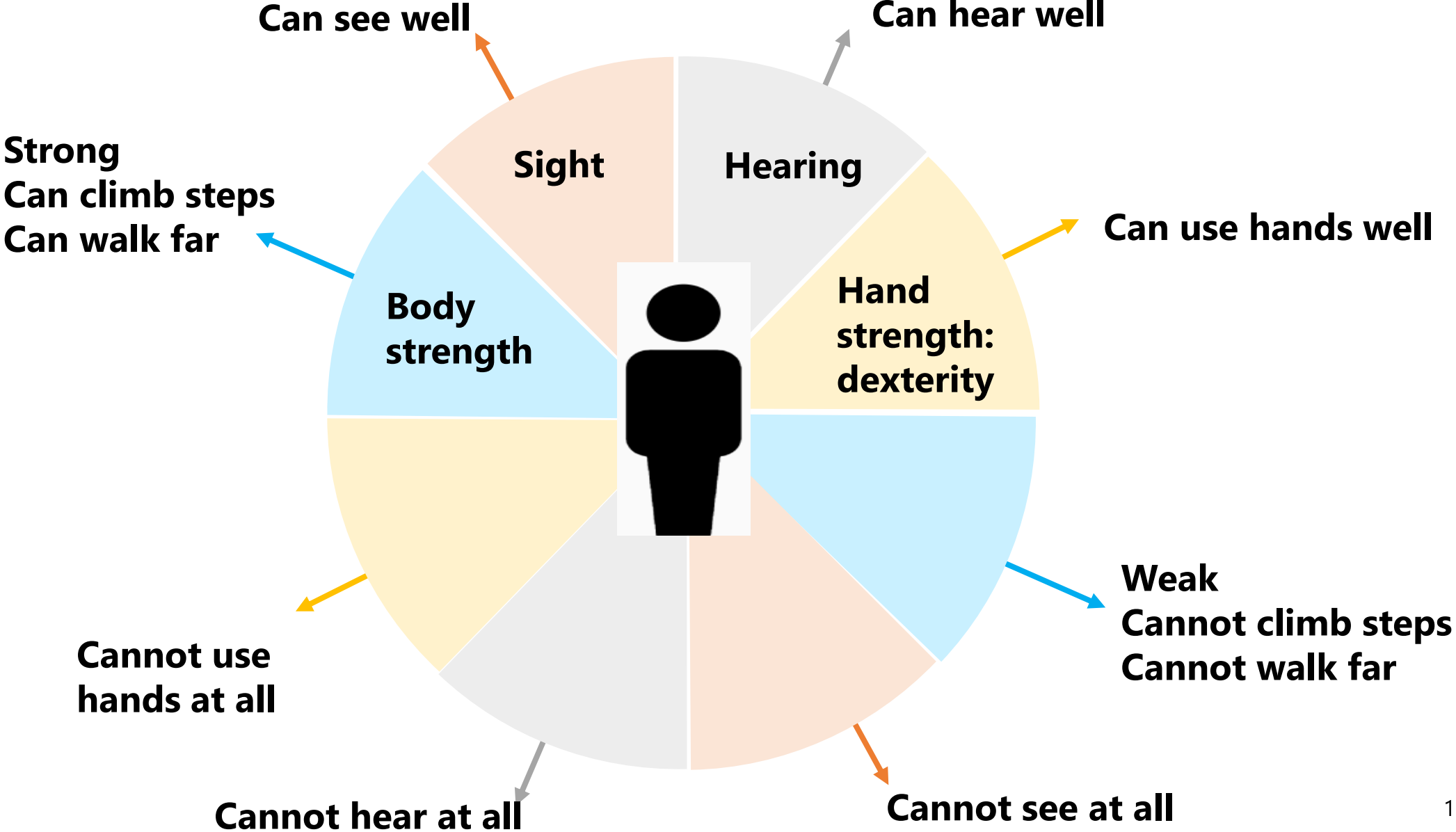
# Human capabilities

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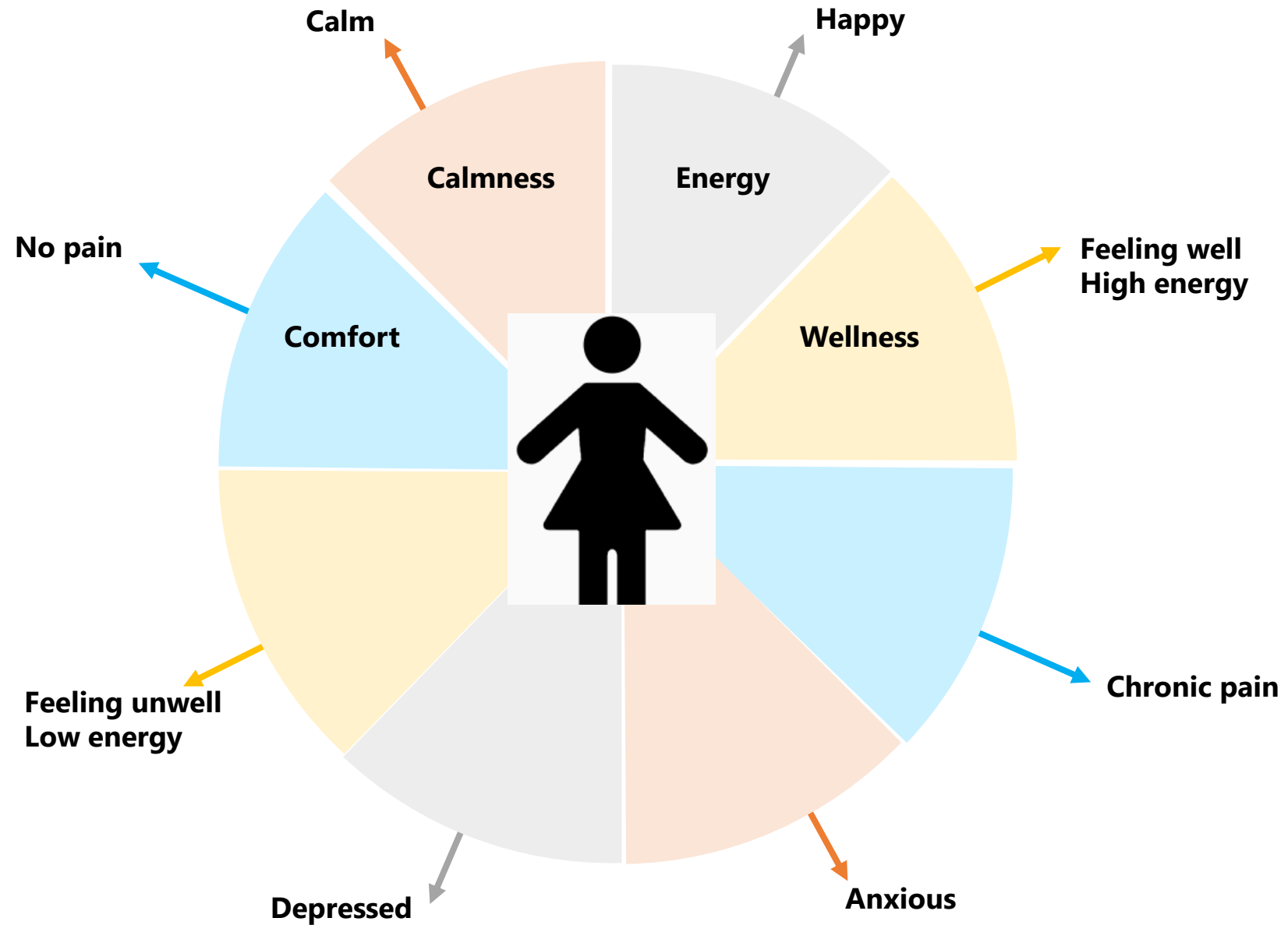


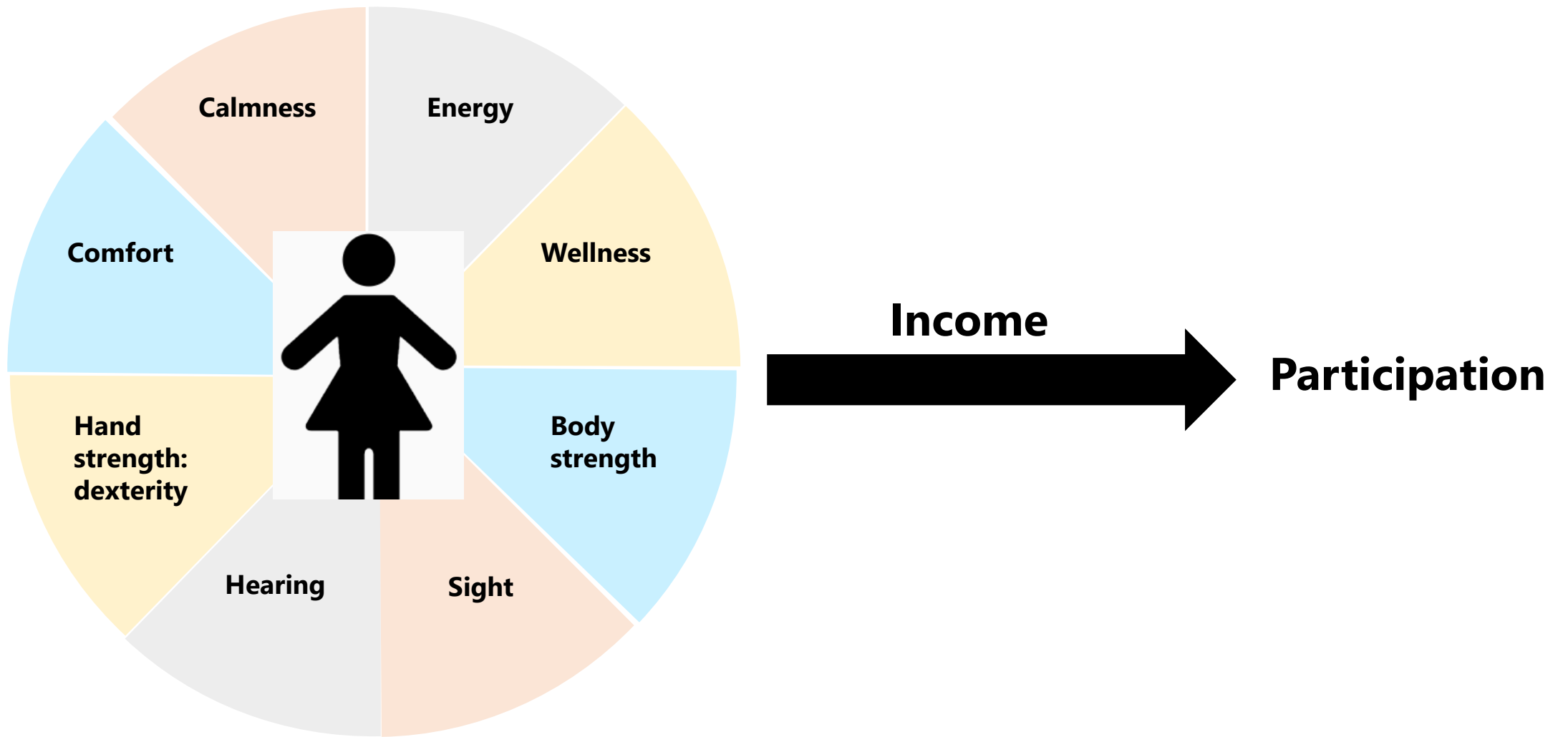


# Human capabilities



# Human states







# Understanding 'inclusive access'

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## **Road safety:**

Vision

Policy

Priorities

Design Standards

Monitoring

Research

Are we reducing crashes?



# Understanding 'inclusive access'

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## **Inclusive access:**

Vision

Policy?

Priorities

Design Standards?

Monitoring

Research?

...What's the question we are answering?



How to do better:  
Measuring Equity in transport

***The situation***

I want to live a full, independent life

***The problem***

I can't get across the road

***The question***

Can you fix these crossings?

***The answer***

Sometimes, some crossings are fixed



***The situation***

we want better equity

***The problem***

we don't measure equity

***The question***

what trips are not made?

***The answer***

measure trips not made





# How to do better: Measuring equity in transport

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Top-down: find out by asking people

- 1) Talk with people to find out what trips they don't make

Bottom-up: infer by counting people

- 1) Measure diversity of participation by counting people traveling, and at destinations: estimate age, gender, and disability

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In the last month, is there a trip you haven't made because it would have been too hard?

Please describe that trip

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“I don't go into town to go to restaurants as often as I'd like because of a lack of mobility parking.”

“no mobility transport, too unwell to use public transport”

“difficult to get on and off buses, or the footpaths are not great to travel on.”

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“Hillcrest traffic too heavy so delayed supermarket shop for another time.”

“From western suburbs to Hamilton east after 3pm- the congestion would be too great making it difficult to travel”



People who identified a 'trip not made' in the previous month were more likely to **agree** with these statements:

I would walk more often if it were easier to cross streets

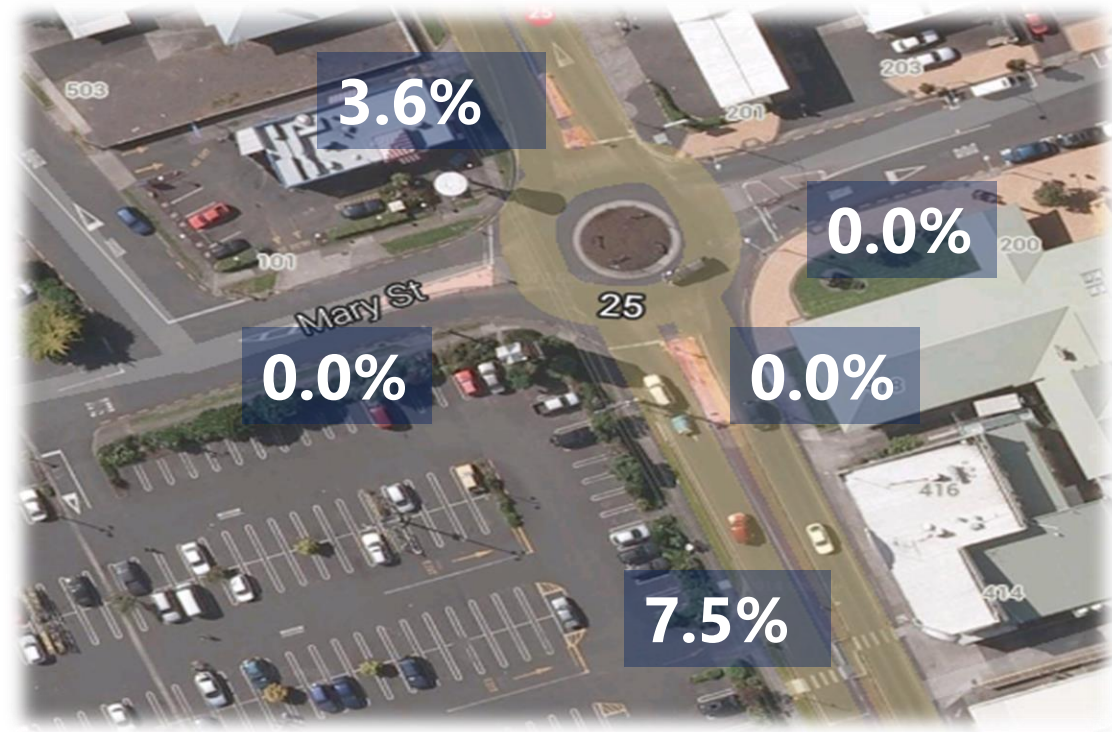
I would ride a bike more often if it felt safer

I would use the bus more often if it were cheaper / faster / more frequent

# How to do better: Measuring equity in transport

Example: Mary and Queen Streets, Thames. Count of mobility aid users as proportion of people crossing the road.

Different accessibility and perceived safety of different crossings results in different use



Burdett, B. (2014). Measuring accessible journeys: a tool to enable participation. *Proceedings of the Institution of Civil Engineers-Municipal Engineer* 168(2), 125-132







European  
New  
Zealanders



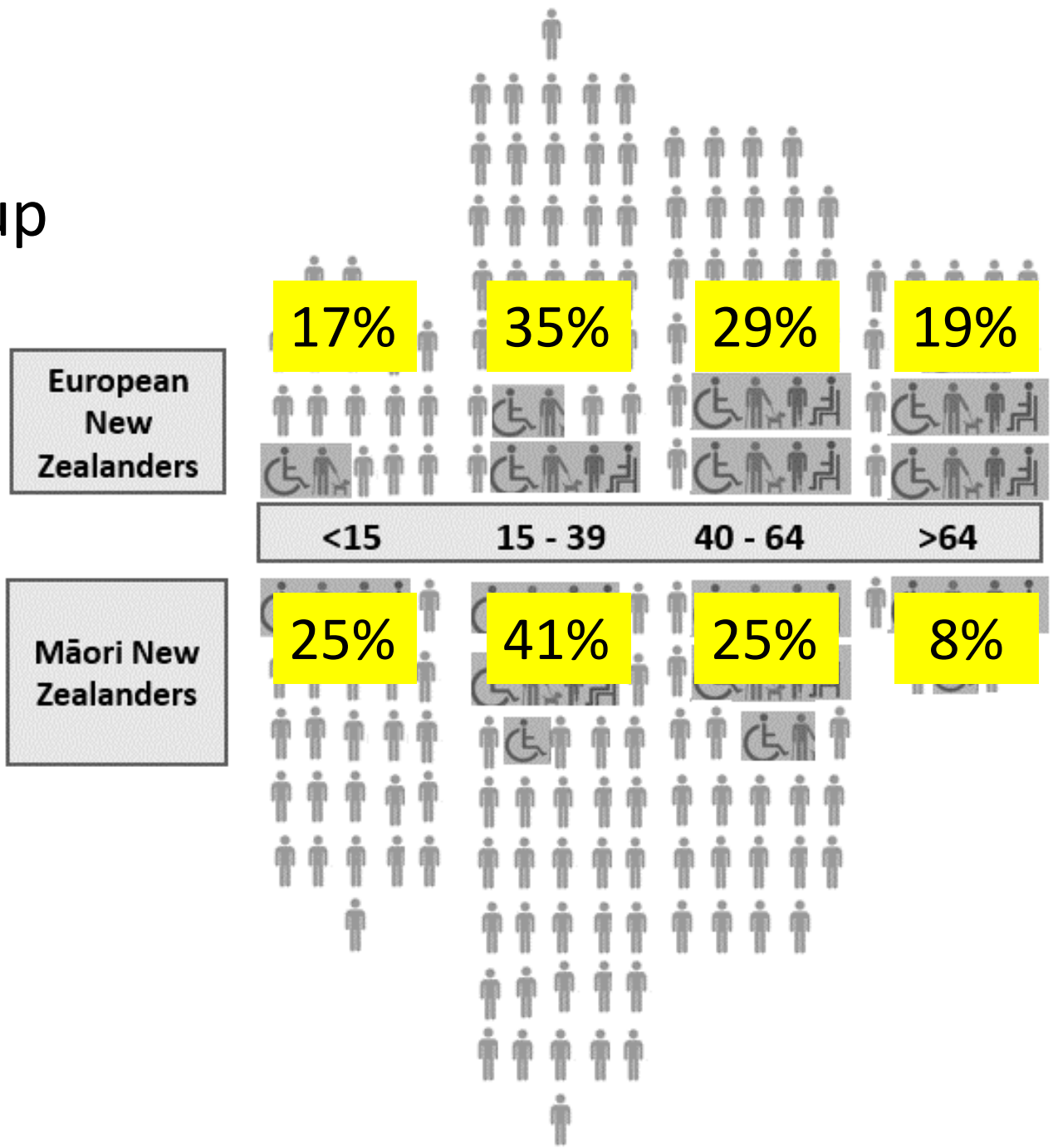
<15      15 - 39      40 - 64      >64

Māori New  
Zealanders





# Proportion of population in each age group



Median age:

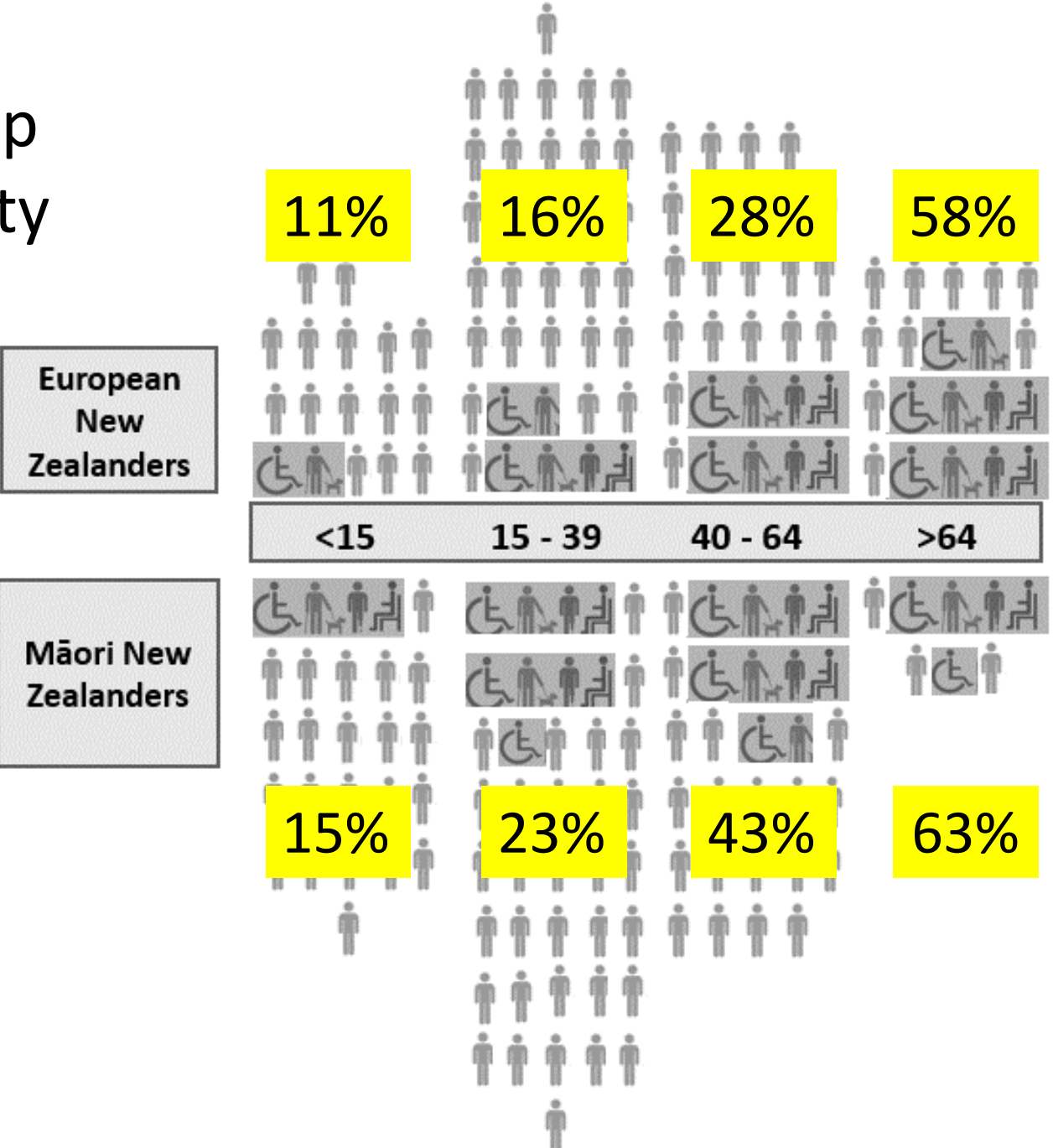
**41.0 years**



Median age:

**23.9 years**

# Proportion of each age group with a disability



Yes that's all very well but what should we  
ACTUALLY do about it?

# Bridget's Principles of Universal Access

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An accessible place is

Safe

Obvious

and has

Step-free choices





# Bridget's Principles of Universal Access

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## Safe

- = survivable speeds
- = slow \*or\* separate

# Woman critically injured after being struck at pedestrian crossing

PHILLIPA YALDEN

Last updated 15:36, June 1 2016



Traffic signals are not necessarily slow or separate.

# Bridget's Principles of Universal Access

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## Obvious

= pedestrians, bikes, scooters, cars and trucks  
have their place, or are obviously excluded  
= digital, paper, on-street wayfinding that is  
visual, tactile, audible

# Bridget's Principles of Universal Access

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## Step-free choices

= a safe and obvious step-free, obstacle-free route: no excessive diversions, not 'back doors'

= a route that people can negotiate independently

# What does an inclusive place look like?

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# What does an inclusive place look like?

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# Summary: Understanding 'inclusive access'

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Tools to improve access through current processes:

1. Street accessibility audits: use maintenance budgets to prioritise footpath and crossing improvements
2. Access concerns in safety audits: emphasise opportunities to improve obvious step-free choices
3. Non-motorised user audits: include community demographics and disability

# Summary: Understanding 'inclusive access'

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Tools to improve access through current processes:

4. Community Street Reviews: involve local people, including invited disabled people, to rate streets and crossings
5. Engagement with the disability sector: find the people of greatest need in your community. Make friends with local disability sector champions, and repeat the exercise often.

# Summary: Understanding 'inclusive access'

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Tools to improve access through current processes:

6. Require pedestrian data for every project

7. Count diversity in all manual counts of pedestrians and cyclists:  
estimate age group, gender, and disability (mobility aids)

8. Nurture creative people in your workplace to be access champions

# Why it all starts with walking

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## Assumptions:

- network efficiency is a measurable good
- people have access to cars
- people value micro-level travel time “savings”

## Facts:

- walking is a measurable good
- people have access to feet and mobility aids
- people value wellbeing



Another story

Mary, Wainuiomata



“I just want to be  
a normal person.

A normal person,  
who uses a wheelchair.”

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