

Benefits and Costs of Inclusion in Transport

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Background

AGENDA

- Our context
- Policy objectives in transport
- Economics of inclusive transport
- Asking different questions
- Using different data
- Implications for transport in New Zealand



Our context

- A new approach
- Asking different questions
- Practical changes that professionals can readily adopt

Policy objectives in transport

- Some well-defined, some not
 - Example of road safety
- Visions, measurement, data



What is accessibility?

- The ability to participate
- Vague and undefined in transport
- No visions, no targets, no data
 - We have a problem





Our research question

- Can we measure and value participation in a way that demonstrates inclusiveness?
- What is not measured is not valued



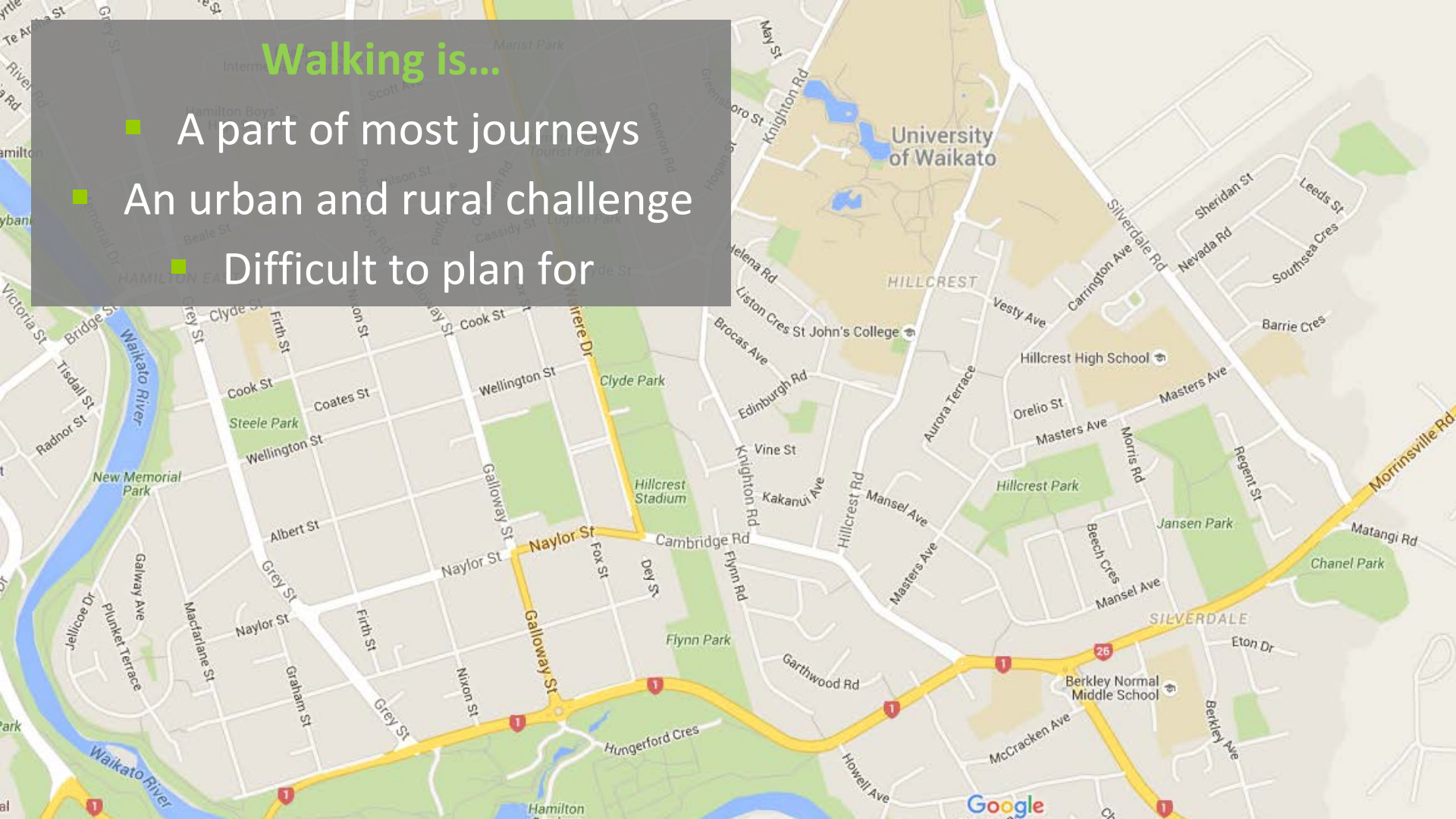


Why research accessibility?

- To be more inclusive
- Currently vague and undefined in transport
- No visions, no targets, no data
 - It's going to get worse

Walking is...

- A part of most journeys
- An urban and rural challenge
- Difficult to plan for



Pedestrian networks are not inclusive yet

- Design and operation should work for all humans in all states
 - We actively discourage participation if it compromises other objectives: we do not make a transparent trade-off





There is no economics of inclusion in transport

- We rely on design standards and guidelines
- We do not value participation in dollars like we value human life



Counting cars

Vs

Providing for people

- Tradition: roads, vehicles, speeds
- Participation: communities, activities, mobility



We need to count something

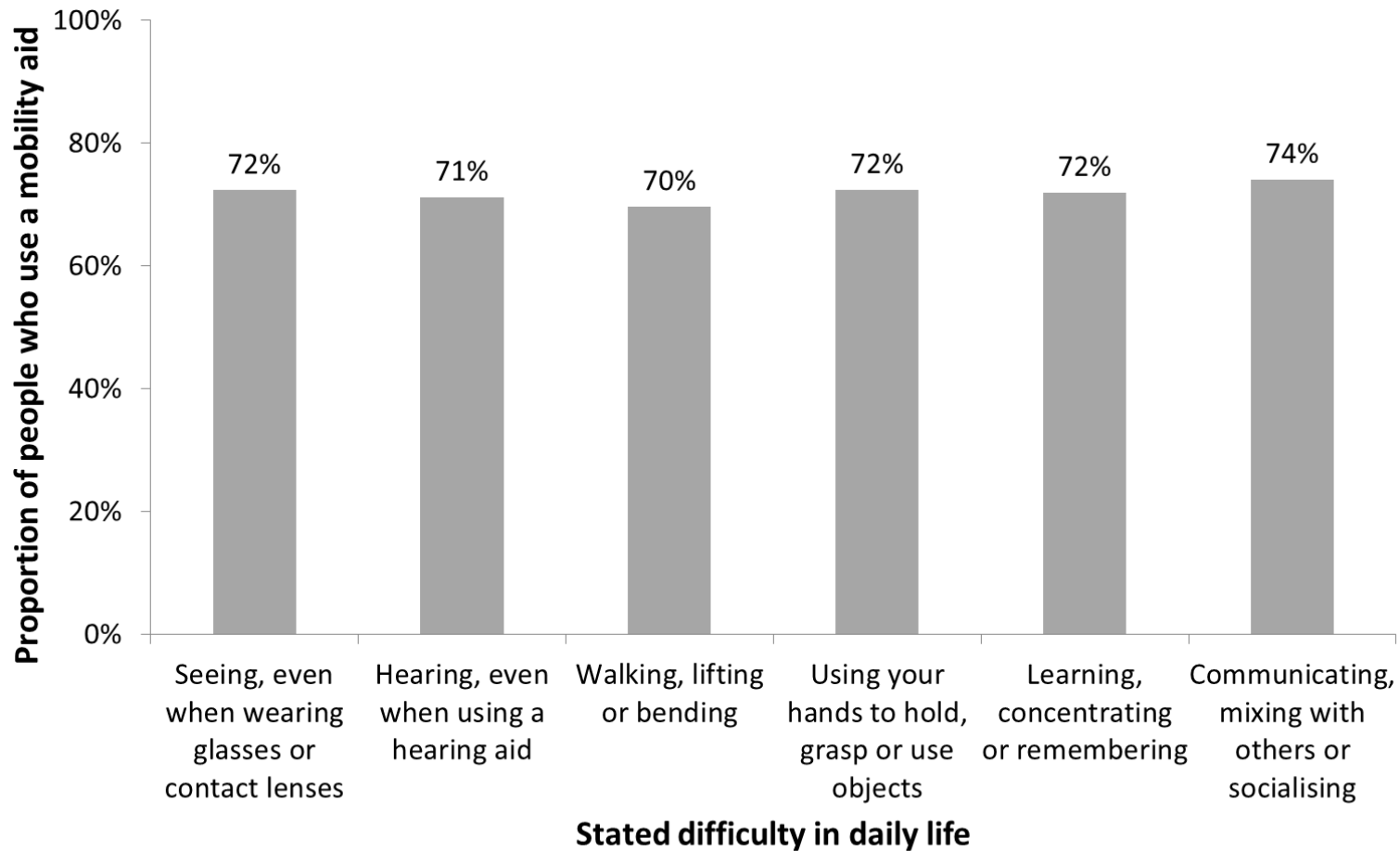
- Start by acknowledging failure
- Look to the weakest part of the system: indicator population

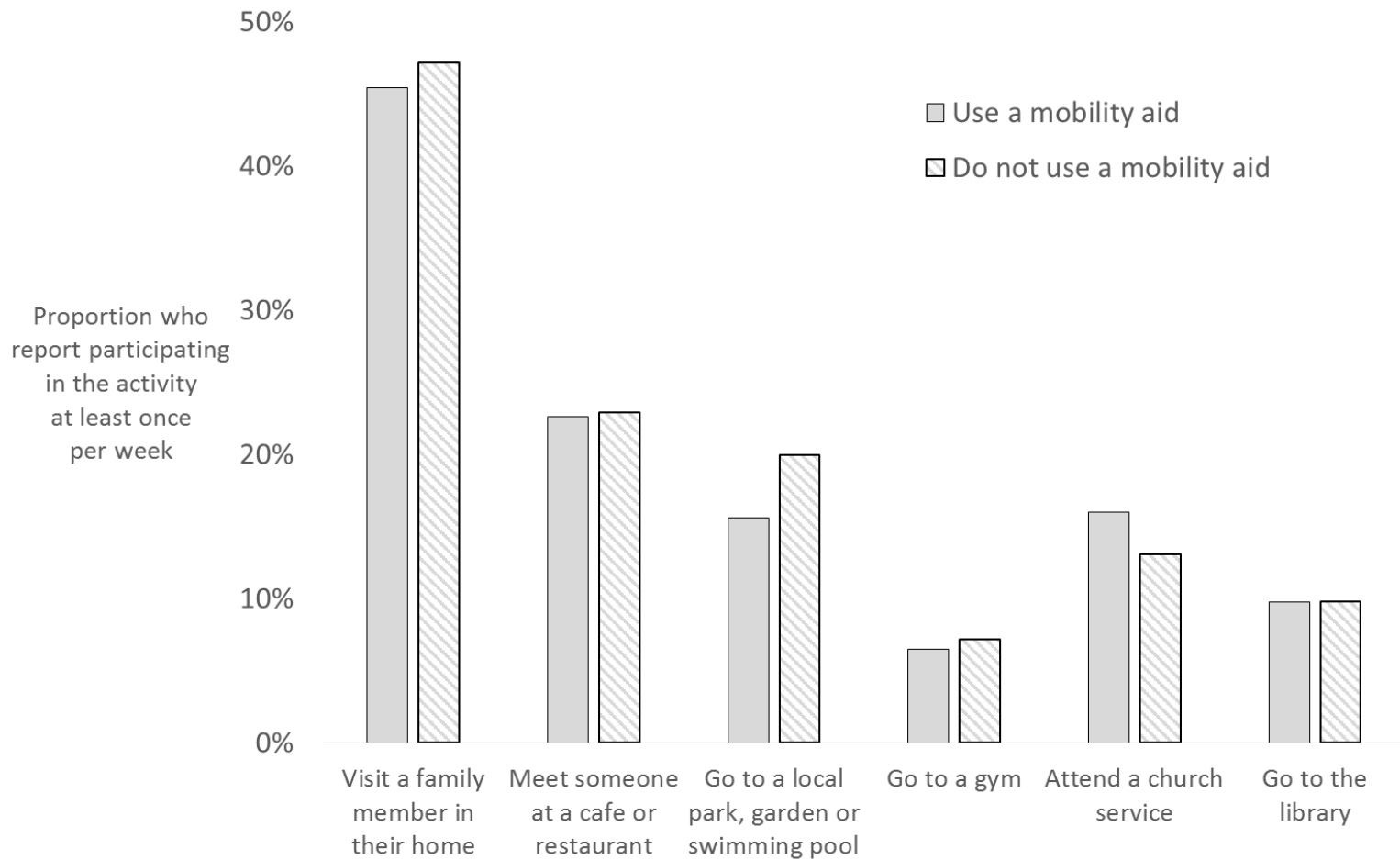


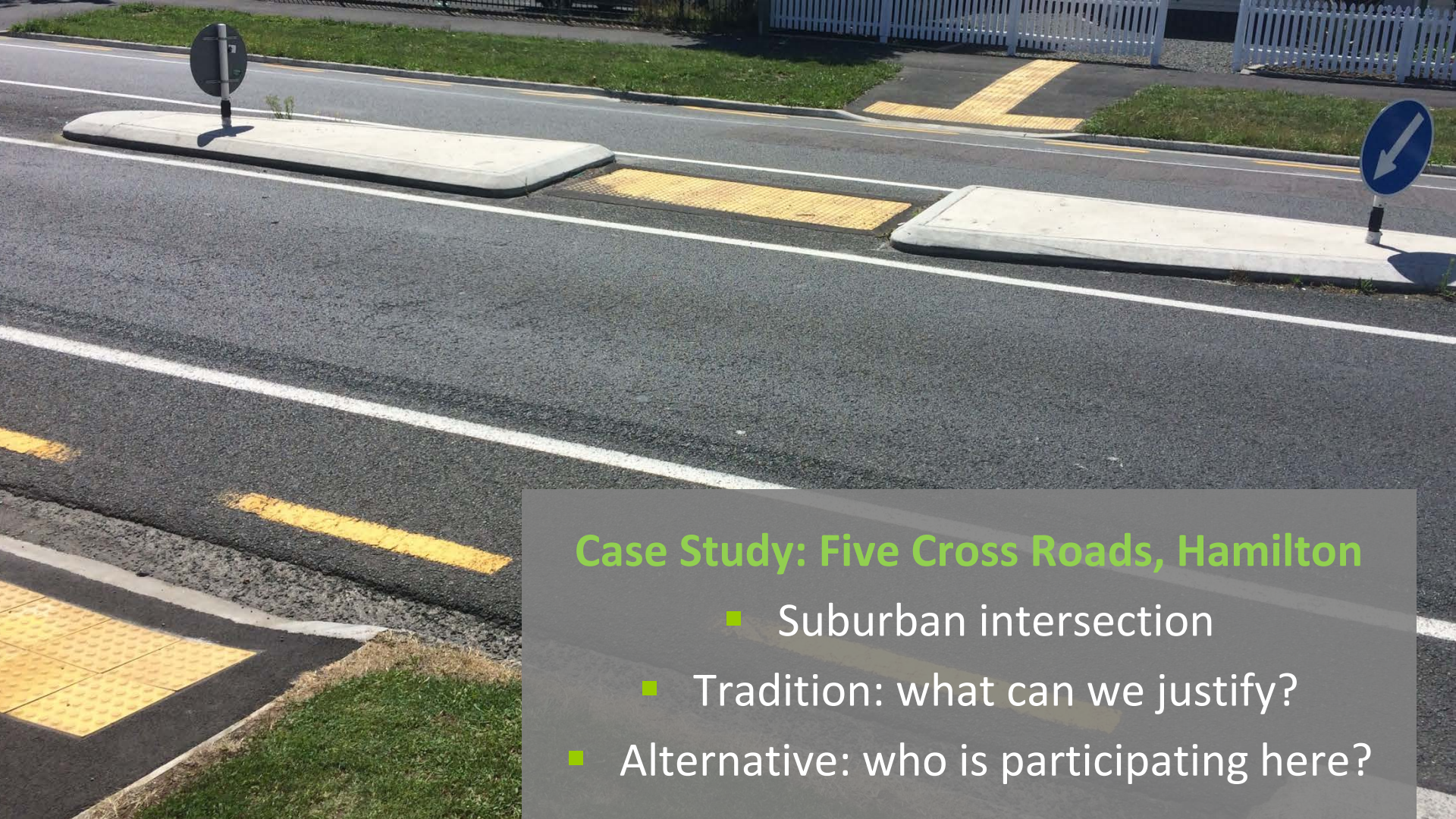


Kiwi Transport Survey 2015

- 2954 responses
- 1539 (52%) aged over 65 years
- 2032 (69%) use a mobility aid
- 2383 (81%) identify with disability







Case Study: Five Cross Roads, Hamilton

- Suburban intersection
- Tradition: what can we justify?
- Alternative: who is participating here?



Case Study: Five Cross Roads, Hamilton

- Improvement to some crossings
 - Increase in participation
- Increase in numbers of people using mobility aids



Economic benefit

- More people: increased opportunity
- Reduced trip cost: walking vs taxi



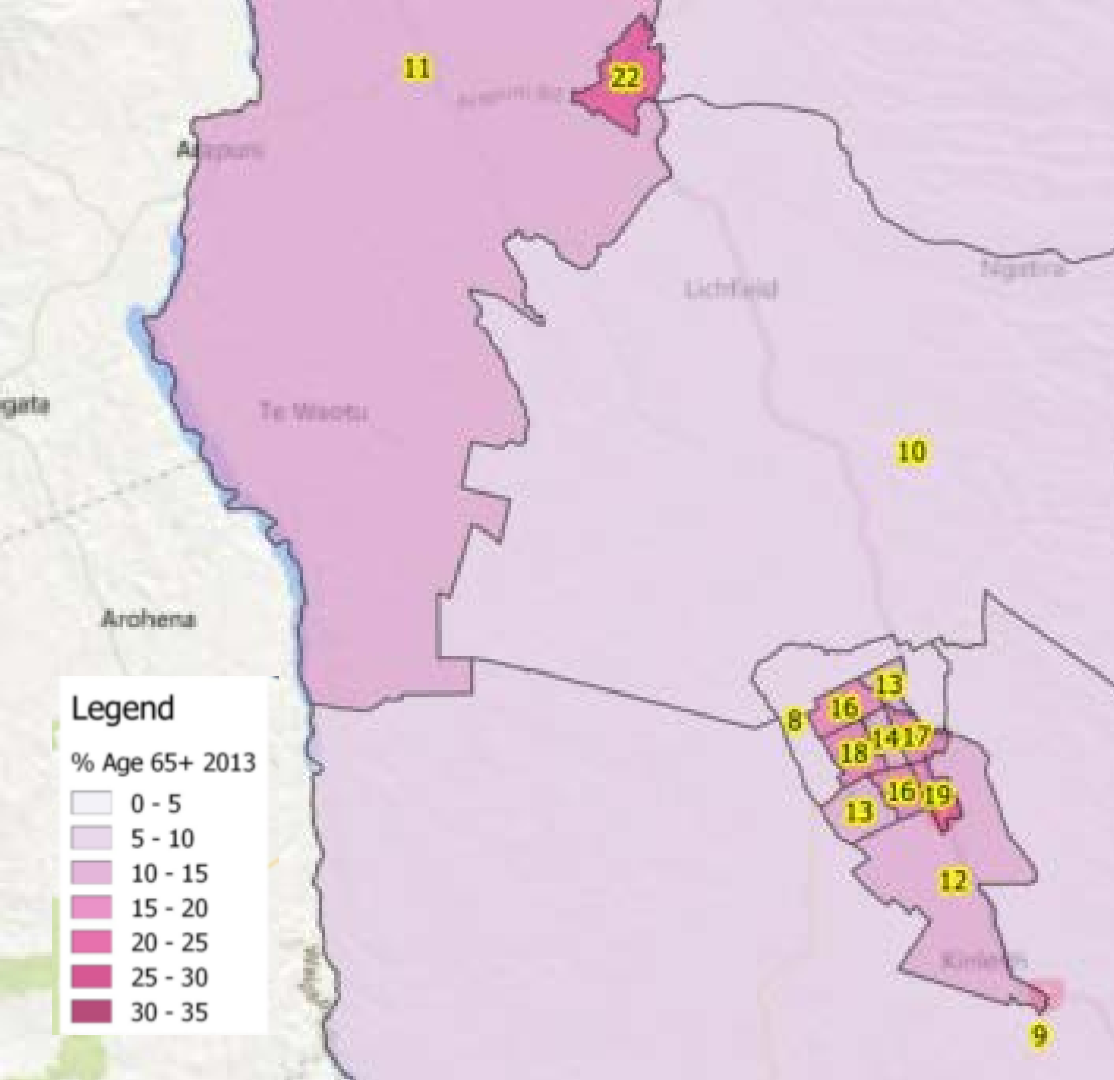
Community benefits

- Individuals: health, social interaction, employment, shopping, carers
- More inclusive community

Industry benefits

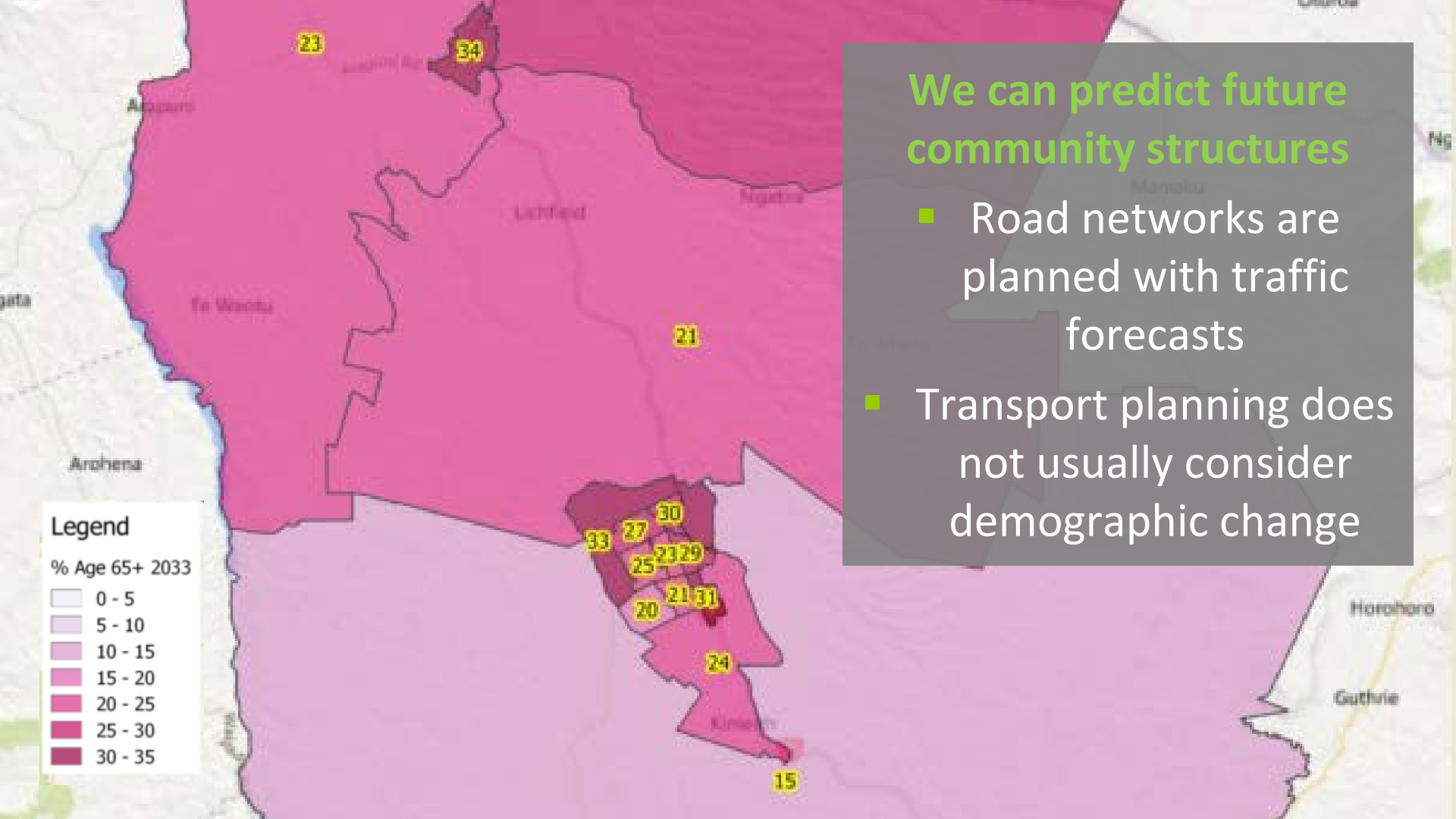
- Return on investment
- Redirects transport as enabler
- Link to genuine cross-sector conversations
- Invites more participatory process





Estimating costs of trips not made

- Mobility aid user proportion can be estimated
- Areas of greatest need can be prioritised
- Invites more transparency in decision-making



“the work will make it easier for everyone, including those with mobility aids...”

Implications of acknowledging the problem and demonstrating inclusion

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Improvements made to central city roundabout



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Find It

Join It

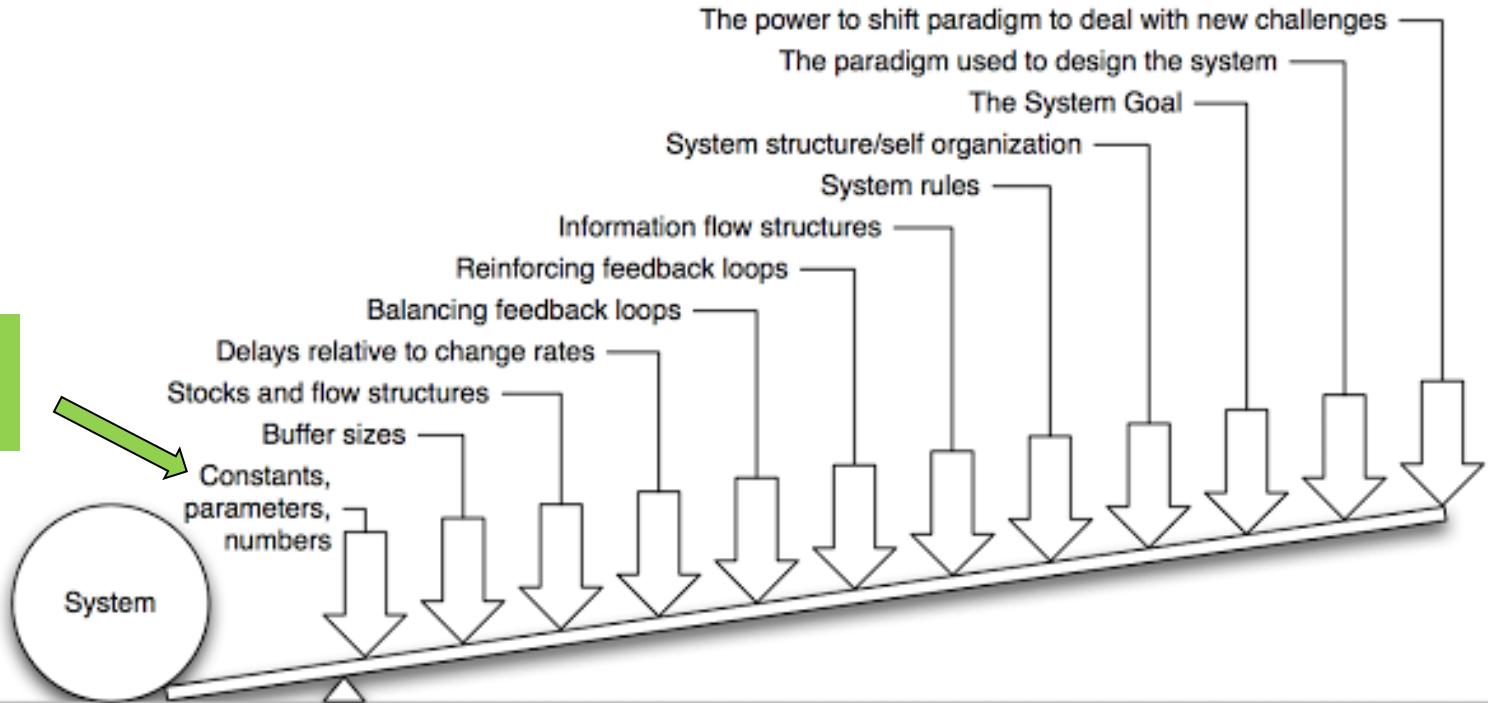
Pay It

Request

Conclusion

*Effect
change here*

*Provide new
data here*



Adapted from Meadows, D. (1997). Places to Intervene in a System. *Whole Earth*, 91, 78-84.
http://center.sustainability.duke.edu/sites/default/files/documents/system_intervention.pdf

An aerial photograph of a tropical island, likely in the Maldives, showing a mix of green vegetation and brown rocky terrain. The island is surrounded by clear, shallow turquoise water that transitions into a deep blue ocean. A semi-transparent grey rectangular box is positioned in the lower right portion of the image, containing the title 'Implications' and a bulleted list.

Implications

- Local and regional planning improvements
- Creating a sub-industry for improvement
- Insights into complex, cross-sector problems

RECOMMENDATIONS

- Measure the contribution of transport to enabling participation
- Transport is based on engineering which relies on data and process:
Count visibly identifiable beneficiaries of accessible environments
- Improve our understanding of the benefits of inclusive participation to
individuals, communities, economies and broader society:
stated/revealed preference research

Discussion

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