

# STREETS FOR THE FUTURE BUT LETS GET THEM NOW!

## Outcomes and lessons from Te Ara Mua – Future Streets

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# PROJECT PARTNERS



**Ministry of Business,  
Innovation & Employment**

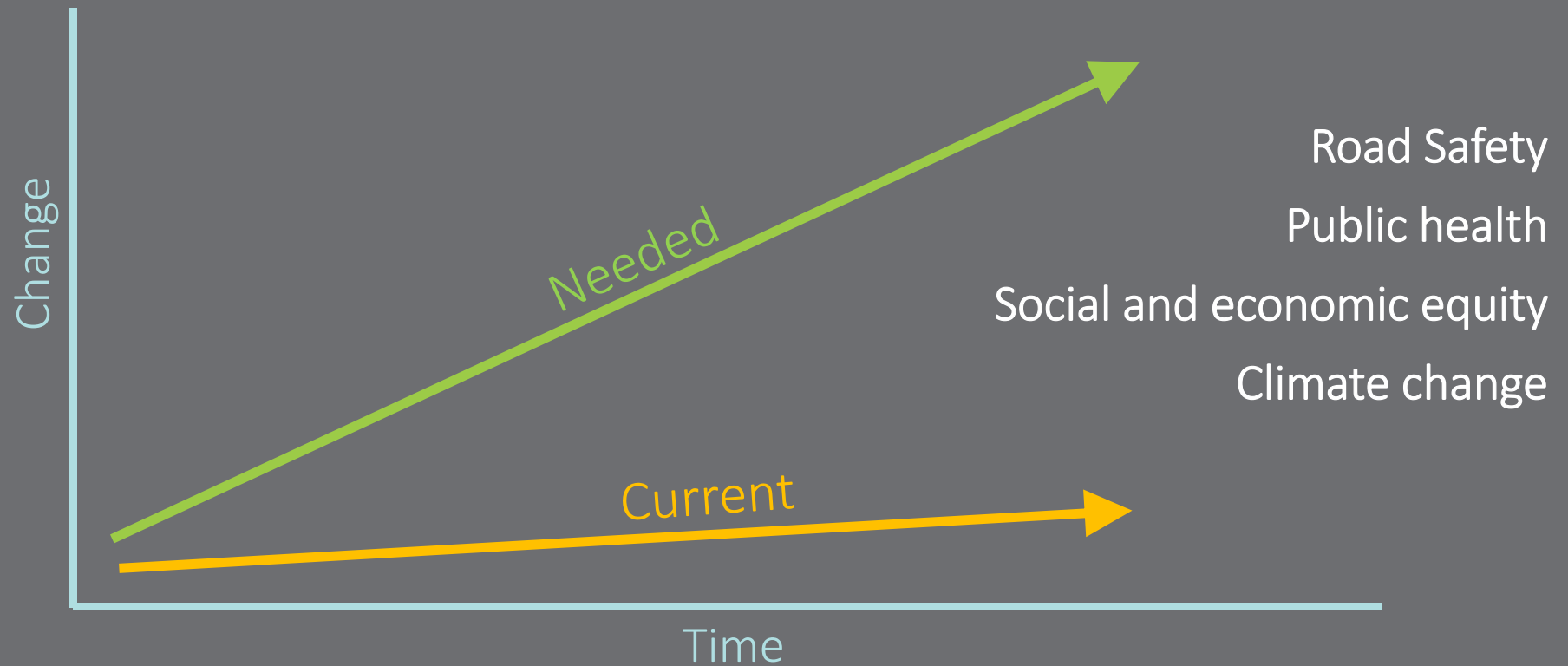


**Māngere-Ōtāhuhu Local Board**



**TE ARA MUA – FUTURE STREETS**

# WE MUST DO THINGS DIFFERENTLY



# The Future of the Body

Alistair Woodward and Kirsty Wild, Auckland Uni

## Our faith, interest and investment in the body as a transport technology

A technology being left to rust

The body as 'anachronism':

'Parcel to be moved'

'Pet to be walked'

(Solnit)



# Demonstration of 'healthier' neighbourhood streets

Mackie H, MacMillan A, Witten K, Baas P, Field A, et al. 2018. Te Ara Mua-Future Streets suburban street retrofit: A researcher-community-government co-design process and intervention outcomes. *Journal of Transport & Health* 11: 209-20. [doi.org/10.1016/j.jth.2018.08.014](https://doi.org/10.1016/j.jth.2018.08.014)

## Controlled intervention study to understand outcomes

MacMillan A, Mackie H, Hosking J, Witten K, Smith M, Field A, Woodward A, Hoskins R, Stewart J, van der Werf B, Baas P. (2018). Controlled before-after intervention study of suburb-wide street changes to increase walking and cycling: Te Ara Mua-Future Streets study design. *BMC Public Health*, 18(1), 850, doi: 10.1186/s12889-018-5758-1



THE  
DEMONSTRATION  
PROJECT

# BEFORE AND AFTER



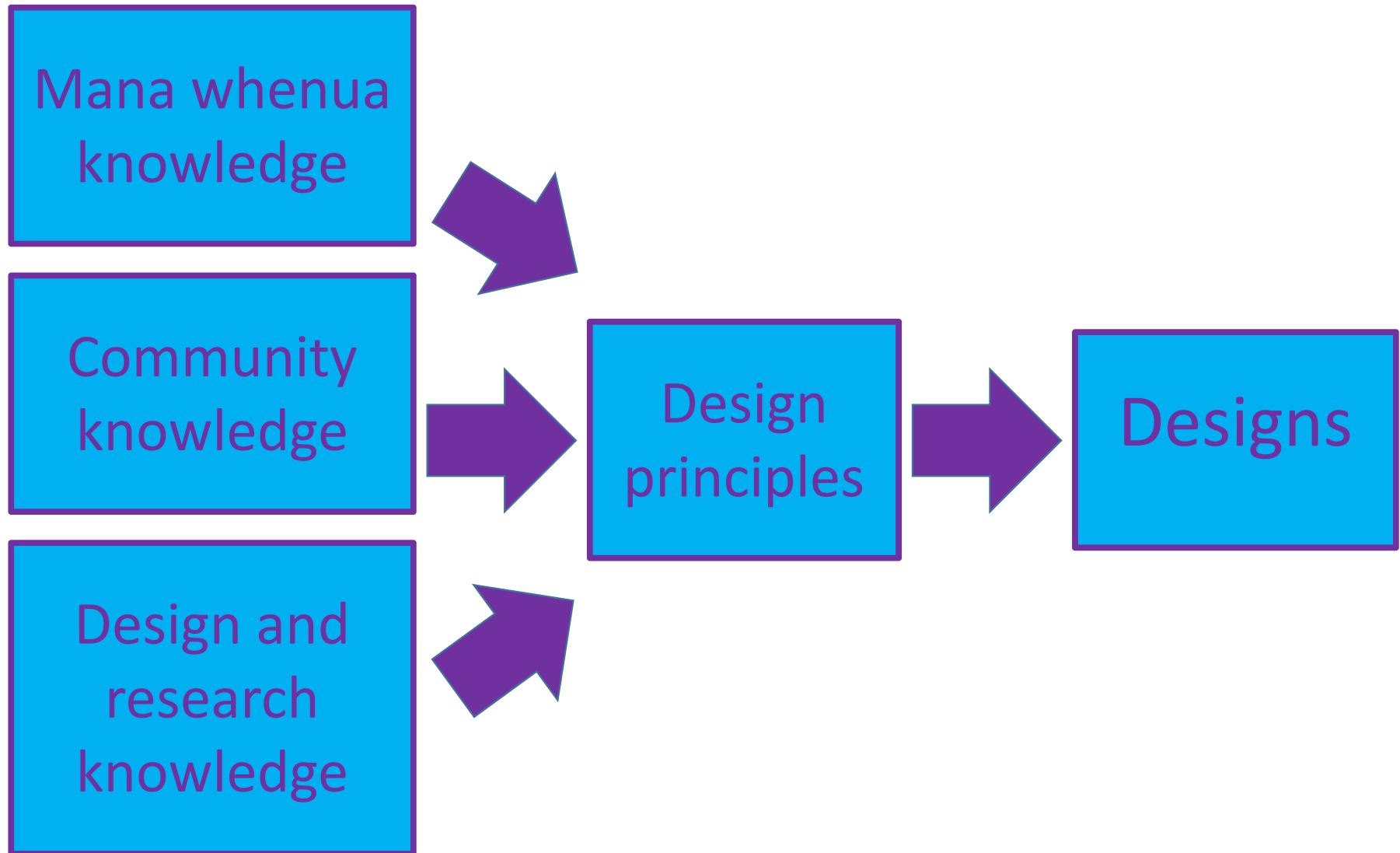
Local Roads



Collector Roads

**Making streets around Māngere Central  
*safer* and easier to travel around,  
especially by walking and cycling; and  
reflecting local identity**







# FUTURE STREETS Te Ara Mua

Proudly supported by Auckland Transport

TE ARA MUA – FUTURE STREETS

# DESIGN PRINCIPLES

1. Give greater priority to pedestrians and cyclists
2. People feel safe on routes
3. Reduce traffic speed and make it more consistent
4. Improve peoples ability to cross the road safely
5. Schools and the Mall are priority destinations for the walking and cycling network
6. Separated cycling on busier roads
7. Improvements reflect the identity of Māngere people





Mana whenua

Walking

Cycling

Calmer cars

Improved amenities



Mana whenua

Walking

Cycling

Calmer cars

Improved amenities



Mana whenua

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Improved amenities



Mana whenua

Walking

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Improved amenities





Mana whenua

Walking

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Calmer cars

Improved amenities



# WINDRUSH PARK



# TOWN CENTRE



# MASCOT AVENUE



WASCOT  
BADER



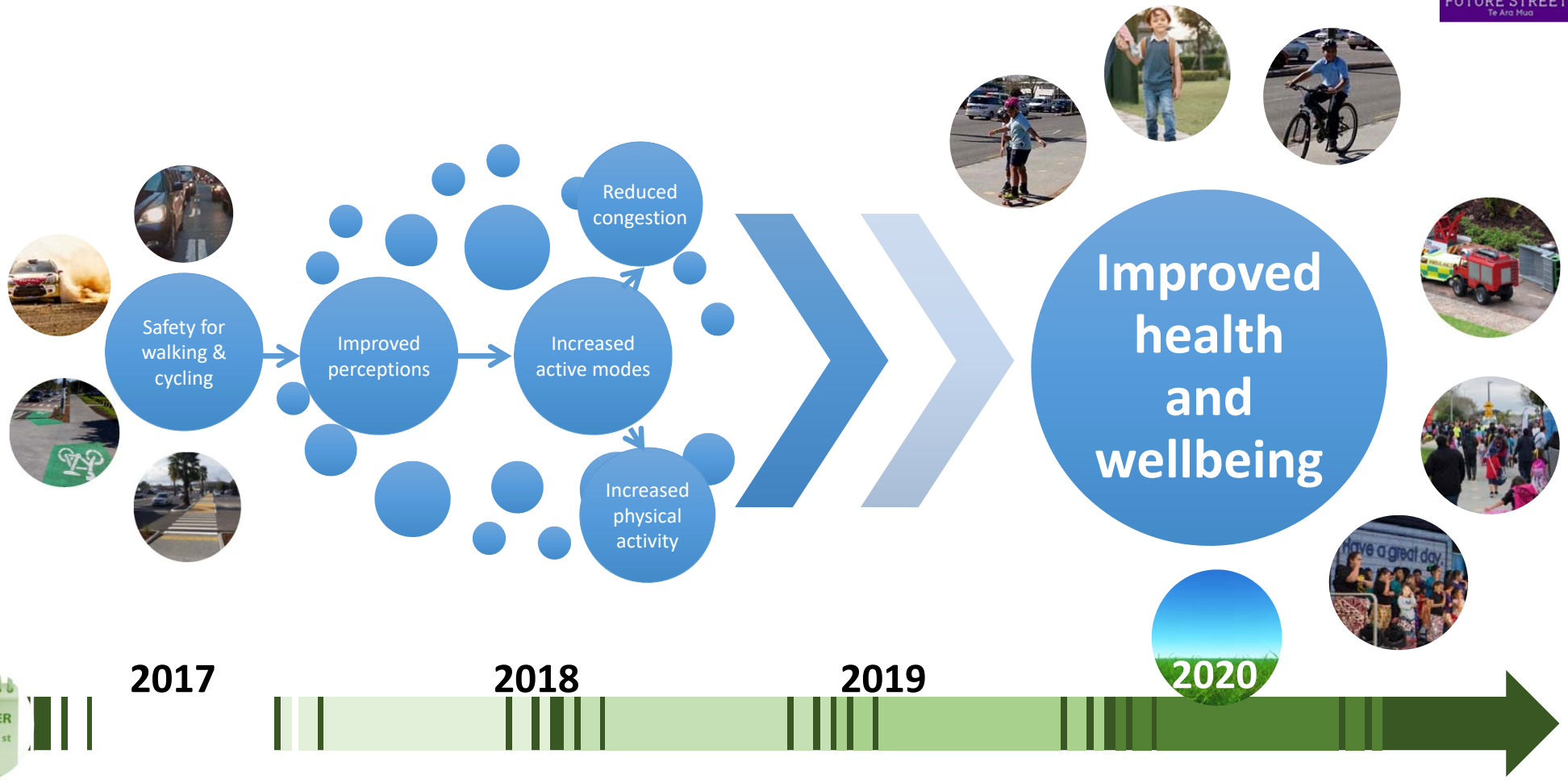


THE STUDY

# Intervention and control areas



# Pathway to improved health & wellbeing







# Study timeline

**Baseline  
data  
collection**



**2014**



**2015**

**2016**

**Short-term  
follow up  
data  
collection**



**2017**

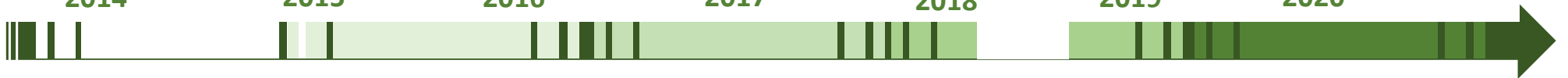
**2018**

**Longer term  
follow up  
data  
collection**



**2019**

**2020**



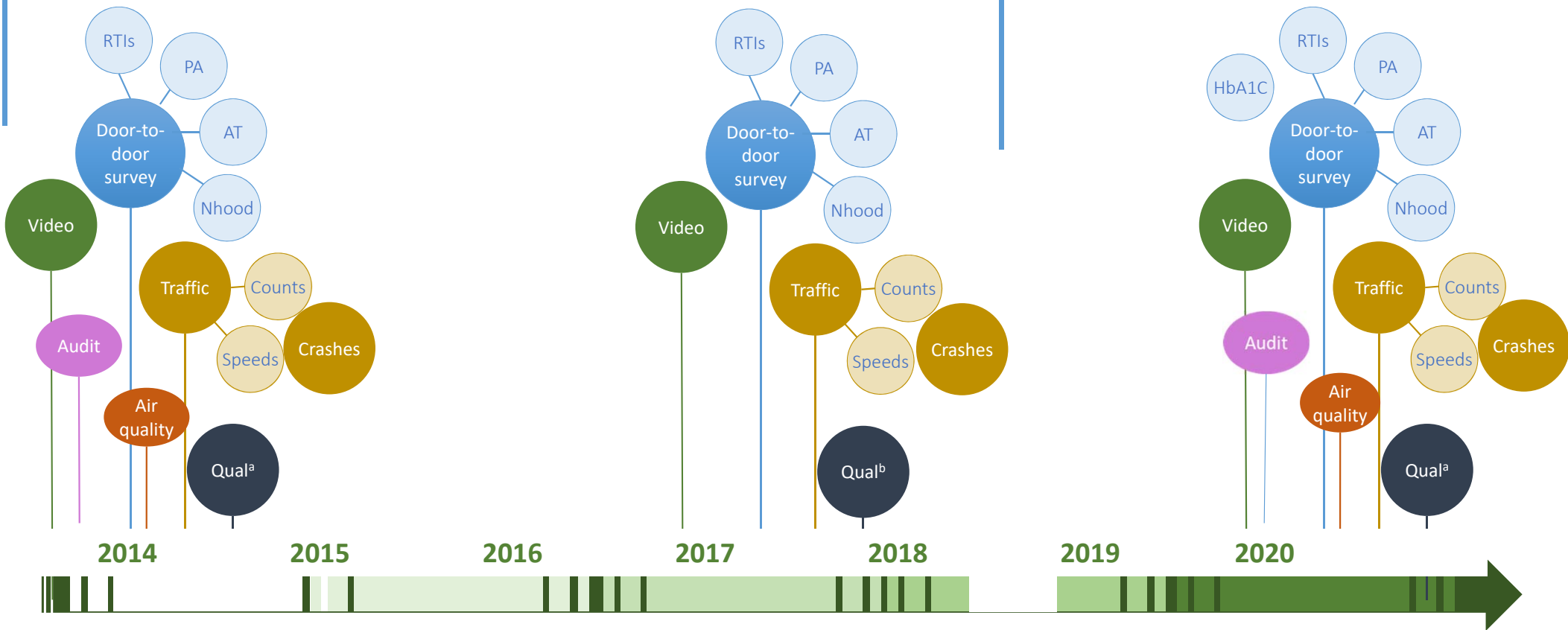
# Data collection 2



## Baseline

## Early follow up

## Longer-term follow up



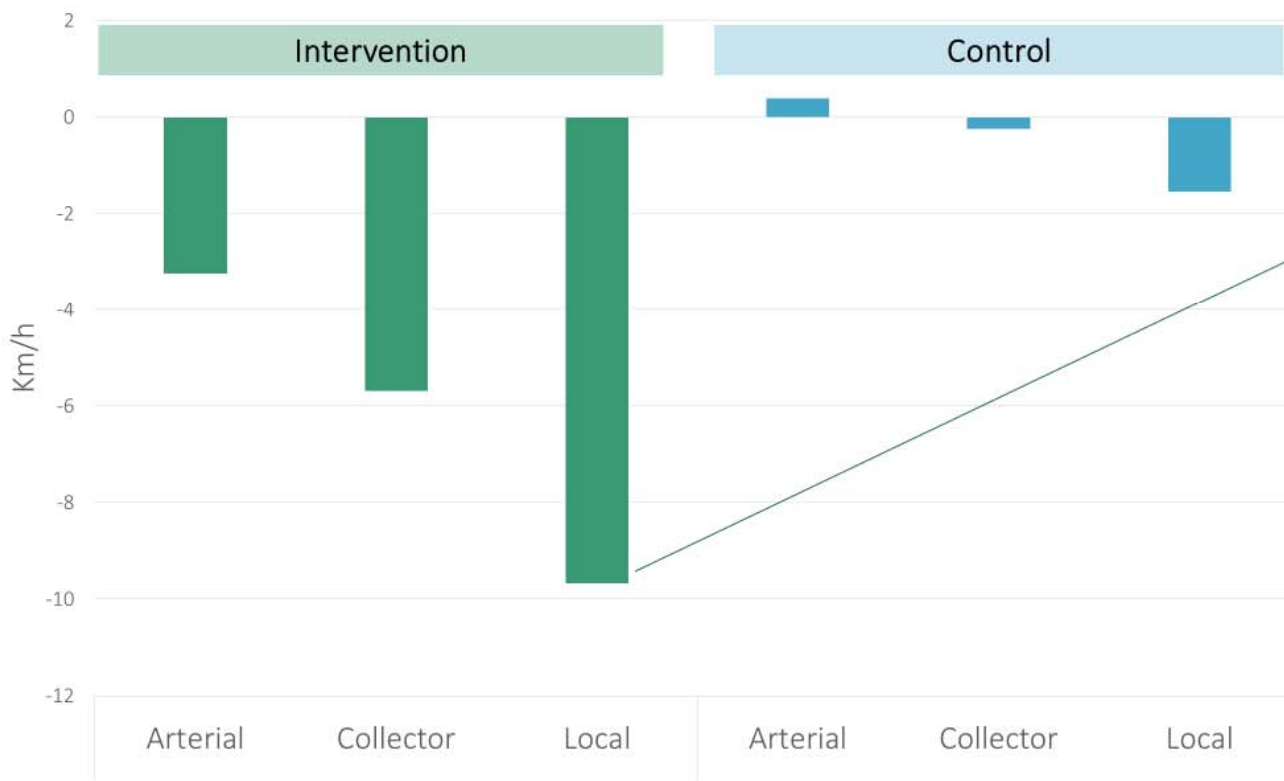
# MANA WHENUA DESIGN OUTCOMES



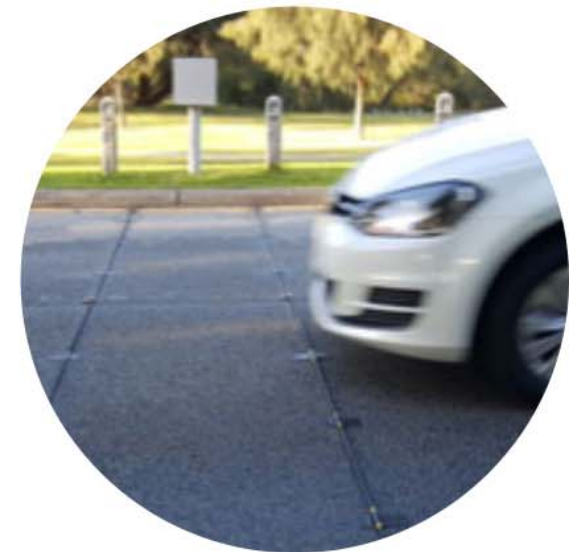
- Positive experiences of mana whenua engagement and the design outcomes
- Street design contributes to indigenous wellbeing strategies – by reaffirming, reasserting and recognising the first peoples of urban communities
- Advanced mana whenua leadership in street design – but further evolvement required



## Changes in mean speeds by road type: 2014 to 2017

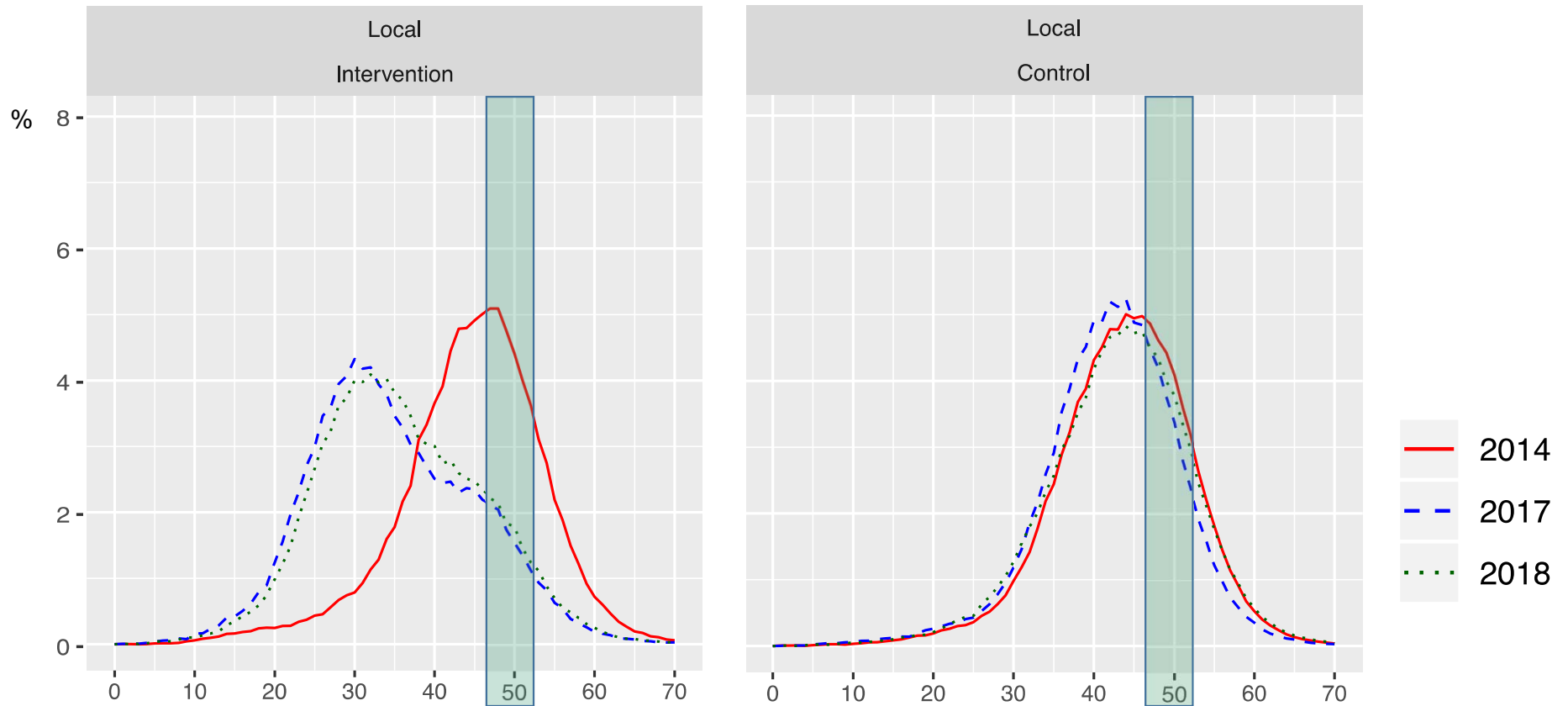


~10km/hr reduction in local streets

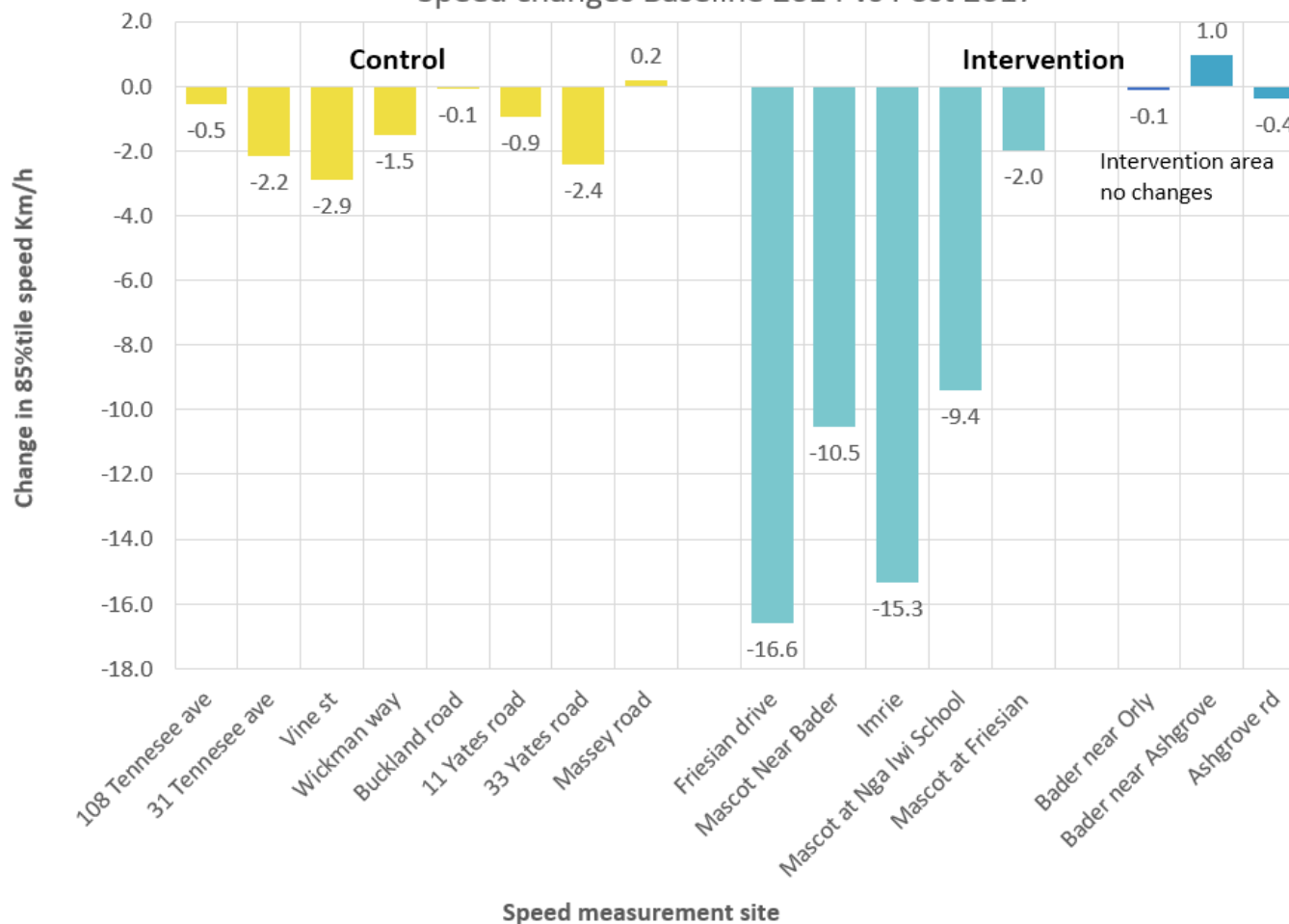




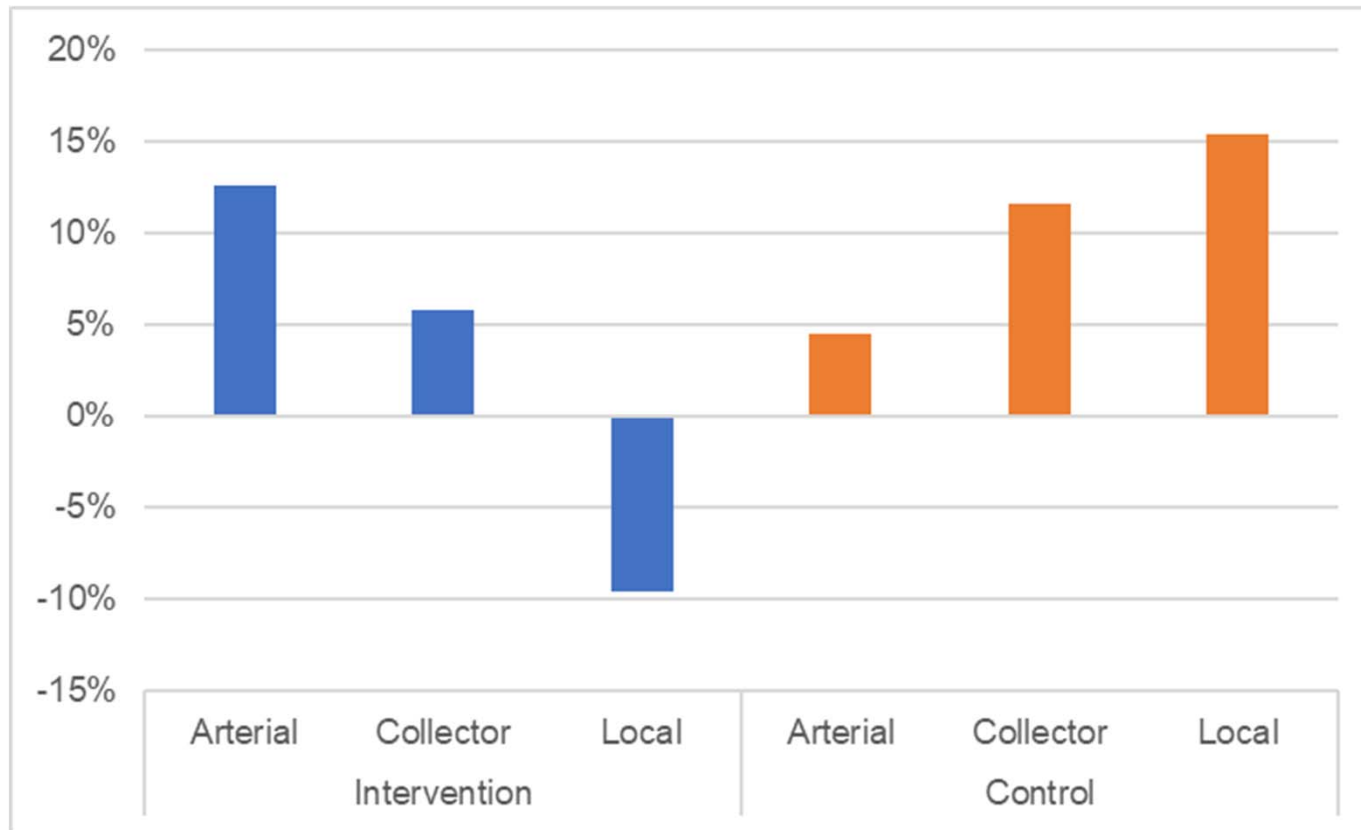
# Mean speeds on local streets: 2014, 2017, 2018



Speed changes Baseline 2014 vs Post 2017



# Traffic volume



# CHANGES TO CROSSING MOVEMENTS AND INTERACTIONS





# CHANGES TO CROSSING MOVEMENTS AND INTERACTIONS

*Pedestrian-vehicle interactions, Site A*



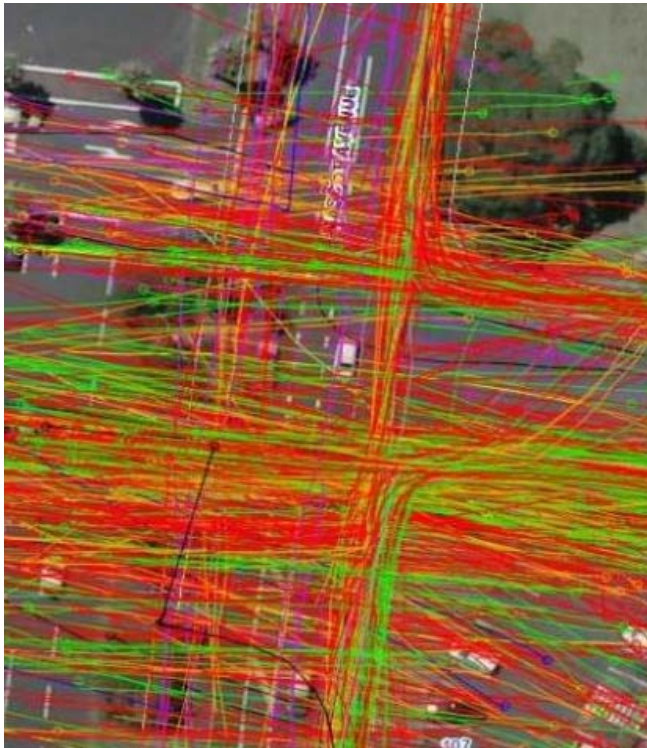
2014



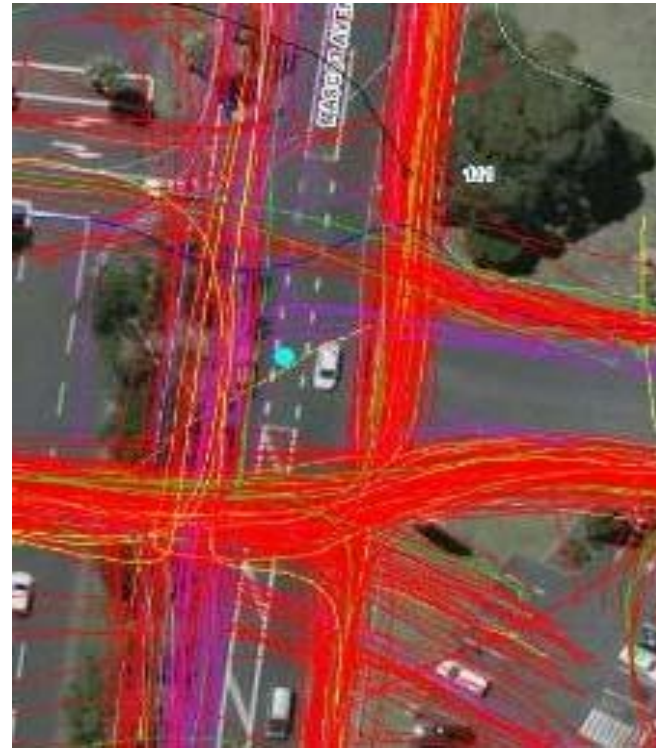
2018

Higher frequency  
Lower frequency

# MORE HOMOGENOUS CROSSING BEHAVIOUR

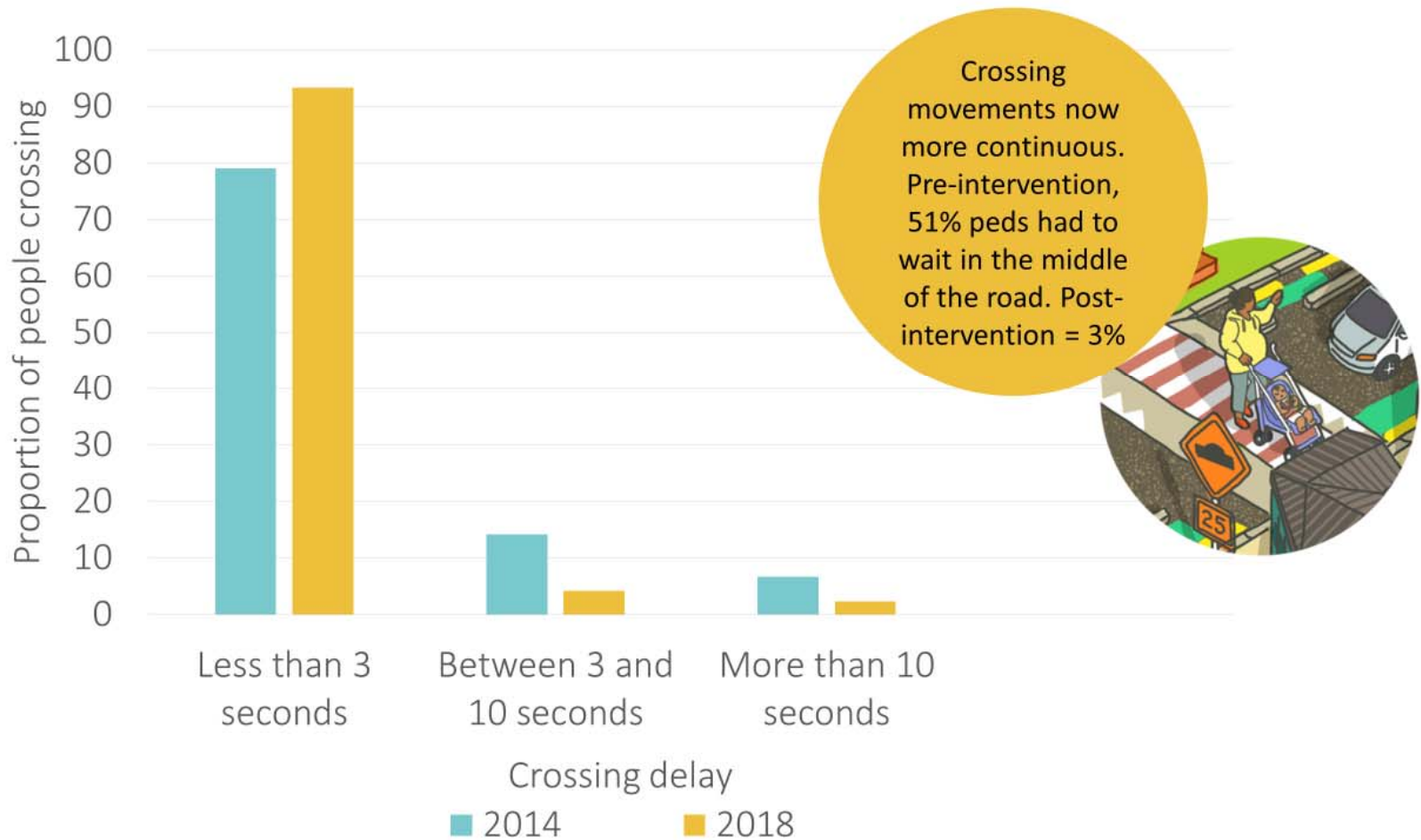


2014



2018

# EASIER CROSSING – ALL CROSSINGS



# BENEFITS FOR WHEELED MOVEMENT



3.4% of pedestrians crossing Mascot Ave used wheeled devices at follow-up compared to 1.2% at baseline

The presence of prams, scooters, and skateboards has increased





# ITS EASIER FOR PEOPLE TO GET AROUND

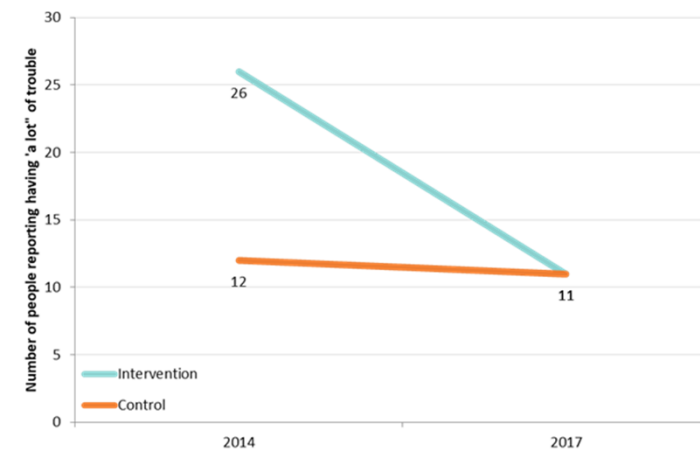


2014



2017

“Could you please tell me if you have any difficulty going outside and getting about using a wheelchair if you have one?”



# BENEFITS FOR MOBILITY ASSISTED MOVEMENT

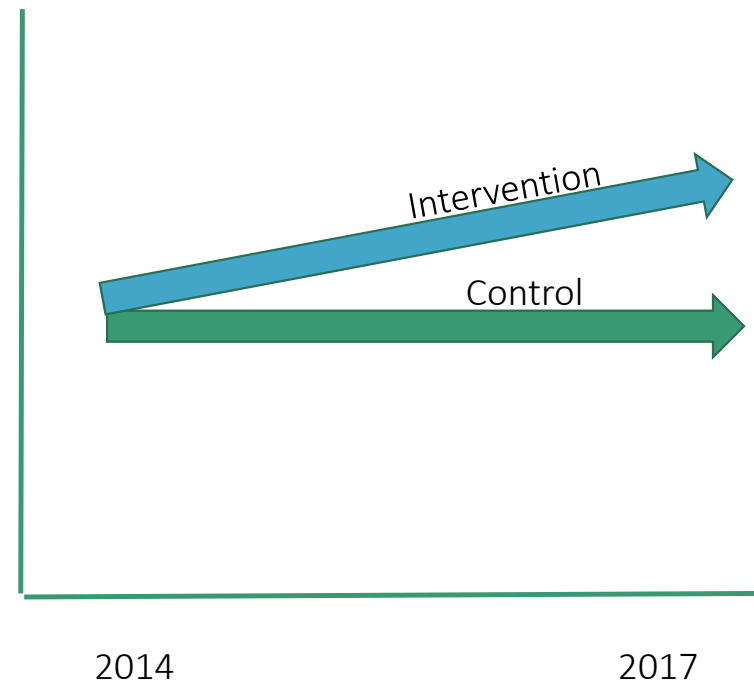


*“...I used to push from home to here [gym by the mall] every day and some of the roads were really bumpy, unsafe and even because you have done lots of good changes I feel independent and safe within myself – in my manual chair or in my power chair. All the local places I feel comfortable and it is freedom for me, so I don’t have a bodyguard [someone to push her].”*

*36 year old woman with mobility impairment*

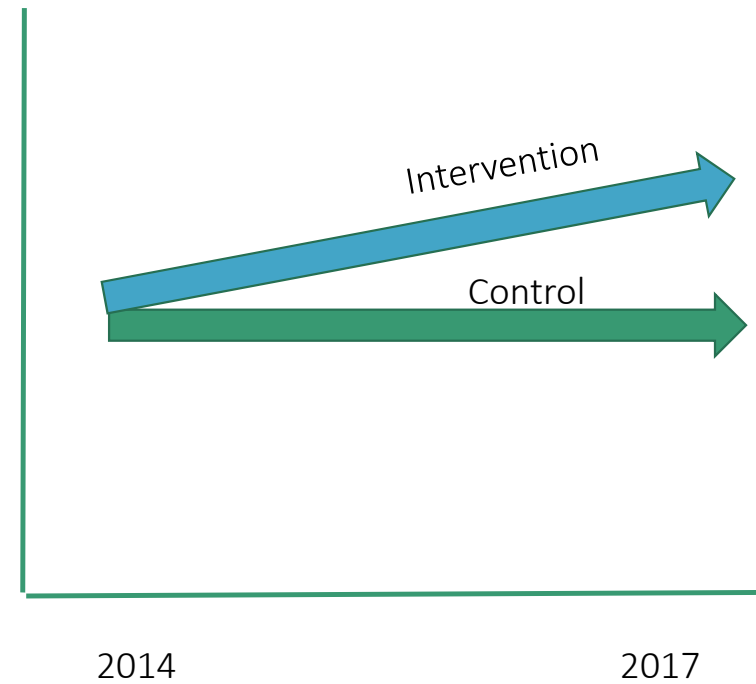
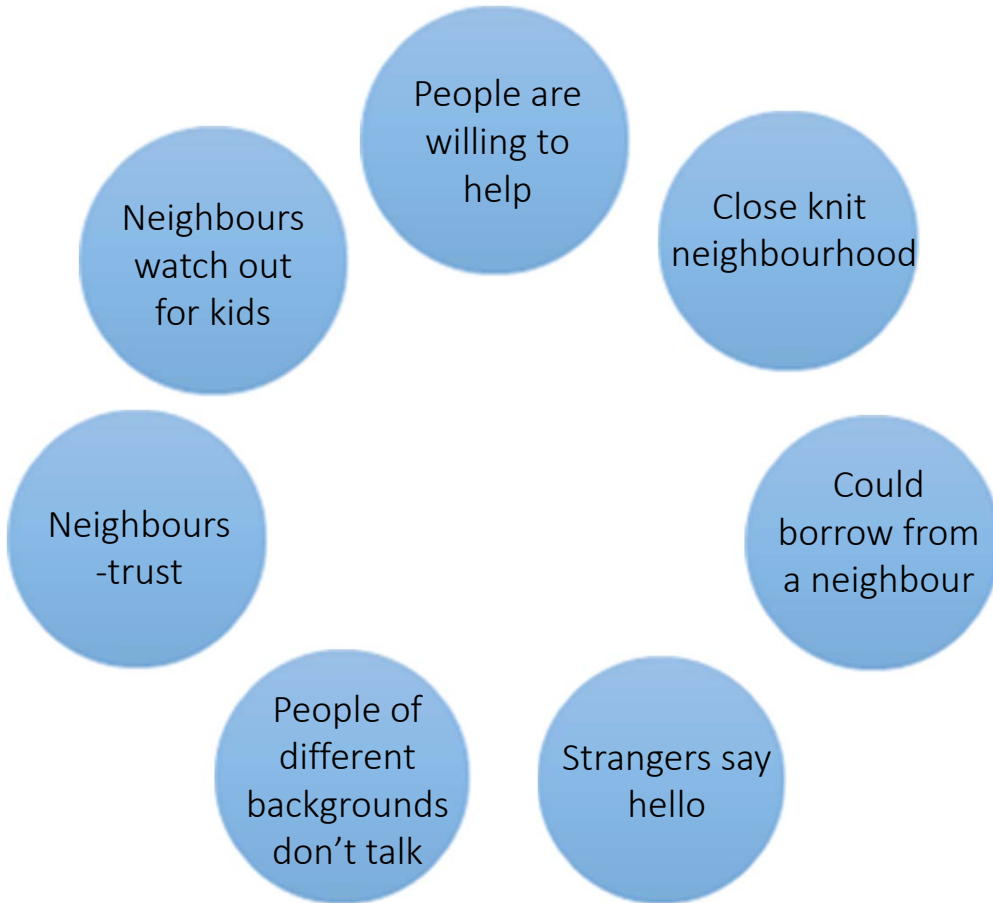


# PERCEPTIONS OF COMMUNITY SAFETY





# PERCEPTIONS OF COMMUNITY COHESION





# Resident perceptions

Looks good, appreciate investment

Walking a lot easier

Mixed views of cycling and cycle lanes

Some frustrated by impediments to traffic/parking

More needed activation, personal safety

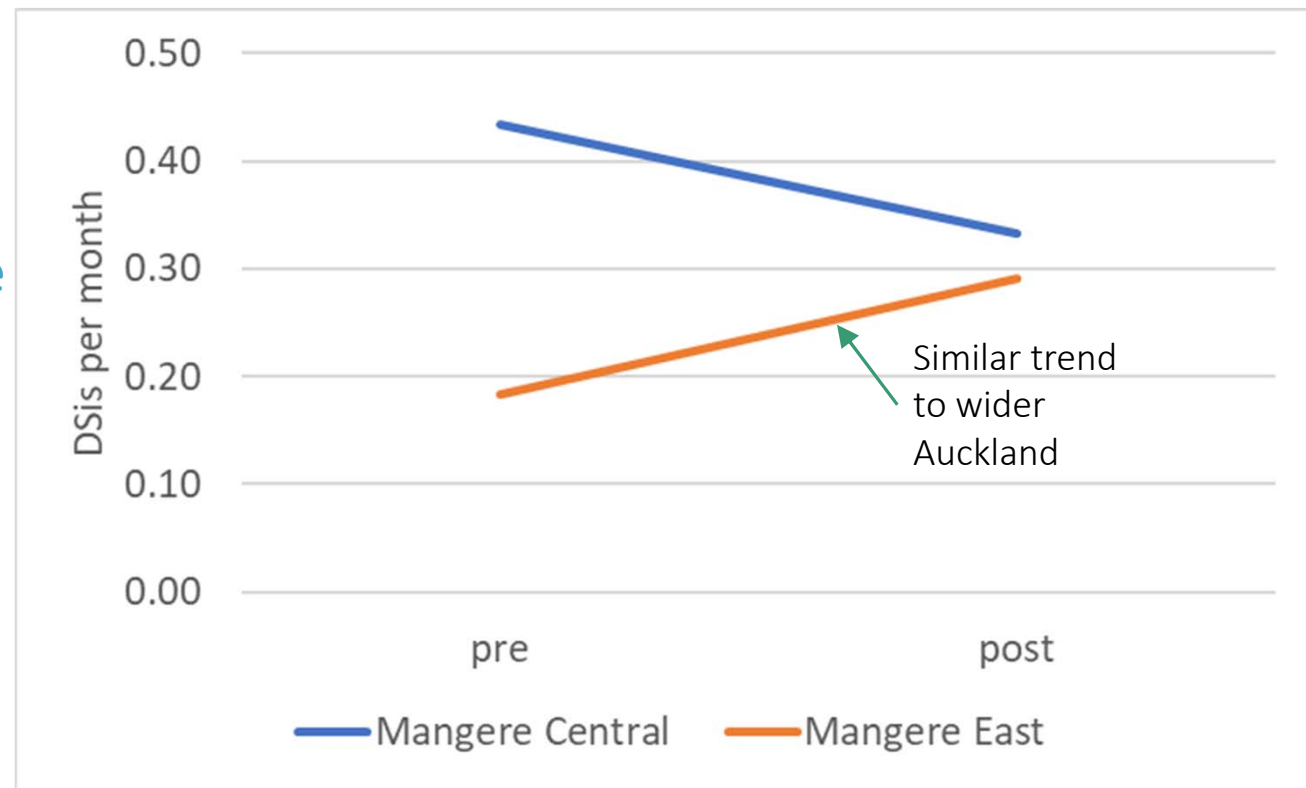
Not everyone felt engaged



## EARLY CRASH PERFORMANCE

Thomas/Orly, Mascot,  
Fresian, Imrie:  
30 crashes 2 years before  
15 crashes 2 years after

No deaths or serious  
injuries where Future  
Streets changes made

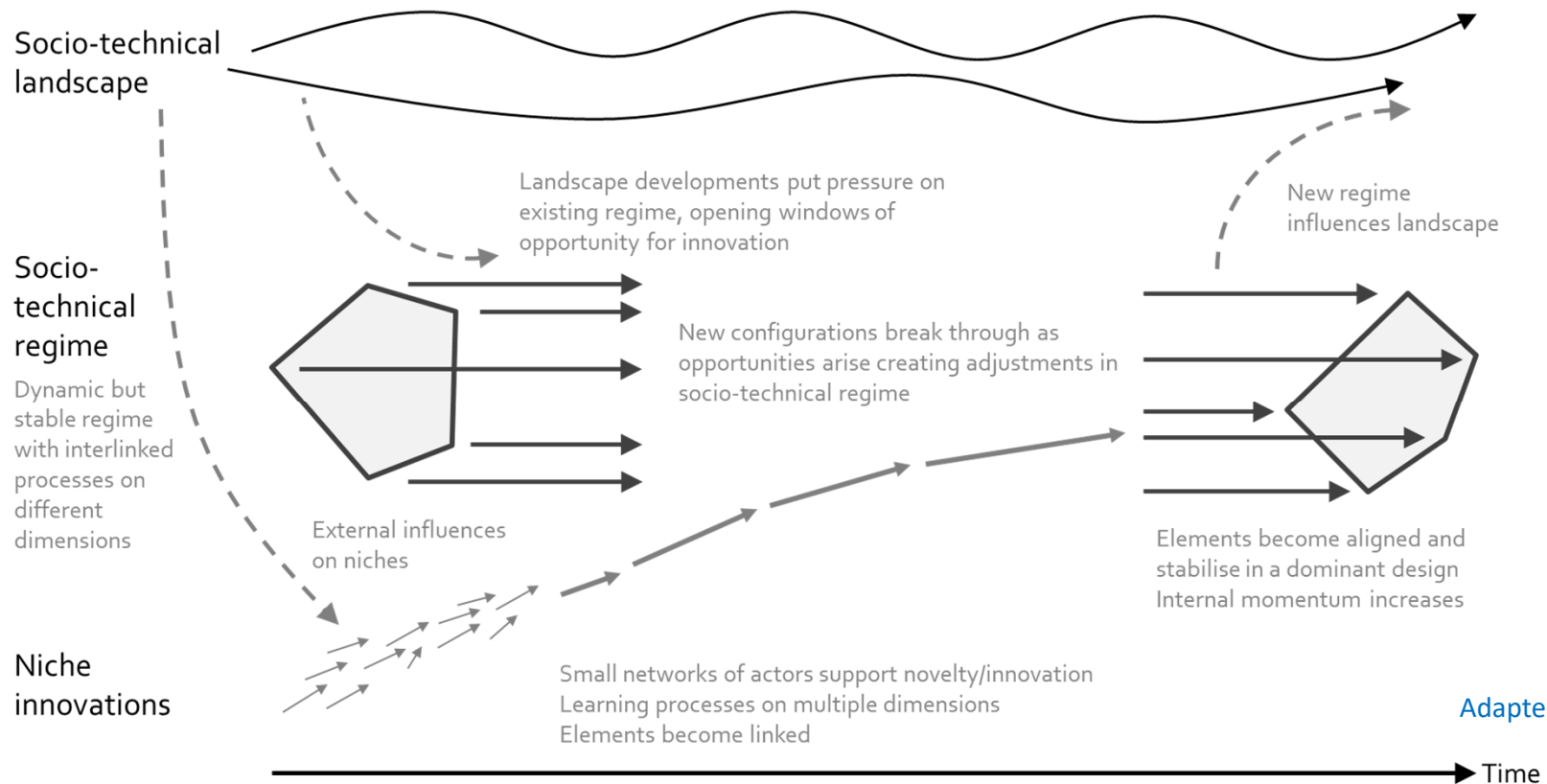


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The 'System'

# Sociotechnical systems and niche Innovations



Adapted from (Geels, 2012)

# Fostering niche Innovations

## Why are niche projects needed?

- We are struggling to up the pace of mode shift
- We need to trial ideas that will challenge the wider regime and drive system change
- Support change efforts from within the regime – novel coalitions – non BAU

## What do niche projects need to succeed?

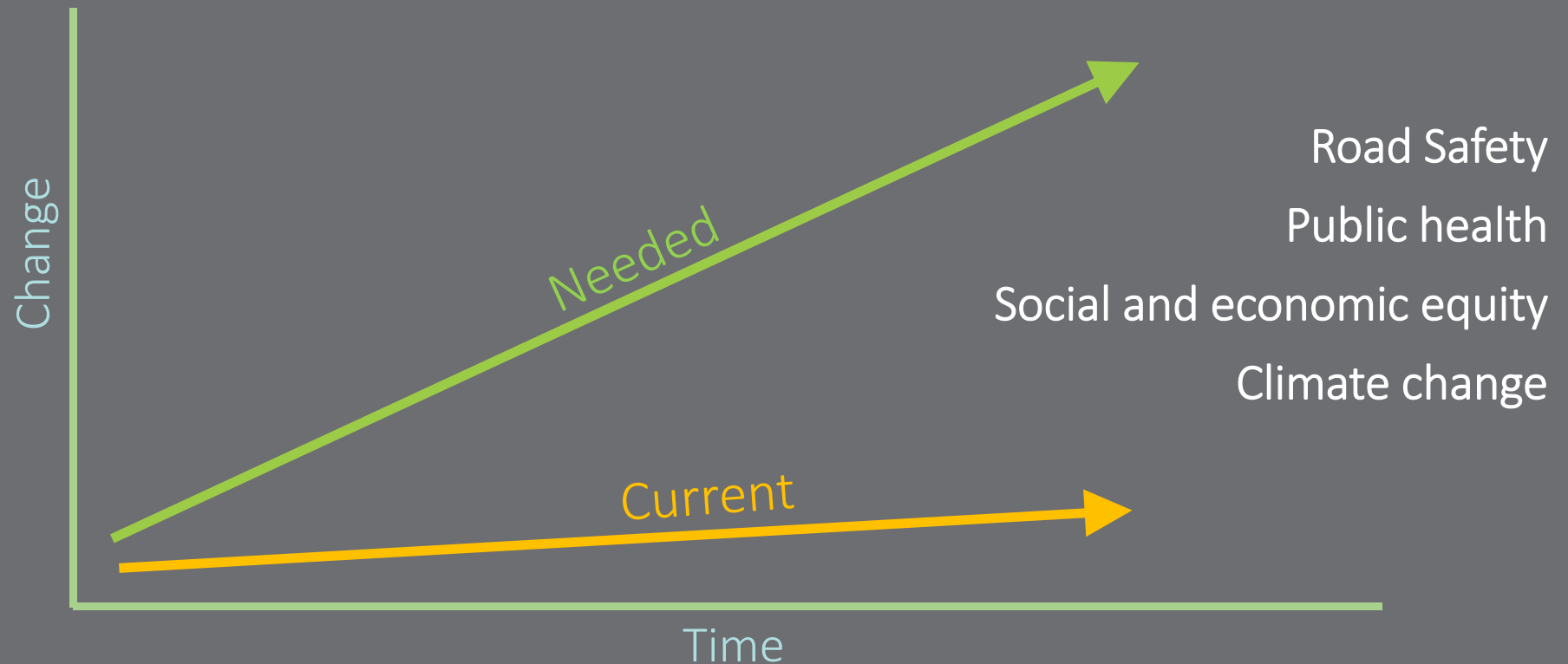
- Advocacy and leadership - from community, policy, delivery and research
- Structural modifications
- A well resourced and dedicated innovation programme and fund that fall outside locked-in investment schedules



# INNOVATING STREETS FOR PEOPLE



# WE MUST DO THINGS DIFFERENTLY







# CONCLUSIONS

## KEY LESSONS SO FAR...

- We are on the pathway to change
- More to do – network, personal safety, activation
- Need to focus on the Socio-technical system
- Need a programme for innovation, demonstration, niche projects

**[WWW.FUTURESTREETS.ORG.NZ](http://WWW.FUTURESTREETS.ORG.NZ)**

# LESSONS FOR TE ARA MUA2

- MOVE FAST!
- Optimise street design and speed limits
  - A clear functional street hierarchy
  - Restrict access
  - Tactical changes
  - Std safety treatment overlay
  - Lever maintenance
- Smart engagement
- Invest based on people's experiences (infrastructure, personal safety, education gaps)

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# THANK YOU



Mackie, H., Macmillan, A., Witten, K., Baas, P., Field, A., Smith, M., Hosking, J., King, K., Sosene, L., & Woodward, A. (2018). Te Ara Māua-Future Streets suburban street retrofit: A researcher-community-government co-design process and intervention outcomes. *Journal of Transport & Health*, 11, 209-220.

