

WSP OPUS



Auckland Road Safety Programme Business Case

The case for a step-change in our investment approach to road safety

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Auckland faces a road safety crisis

From 2014 to 2017.....

Travel growth in Auckland (estimated)
+15%

Auckland serious injuries

+68%

Auckland deaths

+78%

Rest of NZ serious injuries

+28%

Rest of NZ deaths

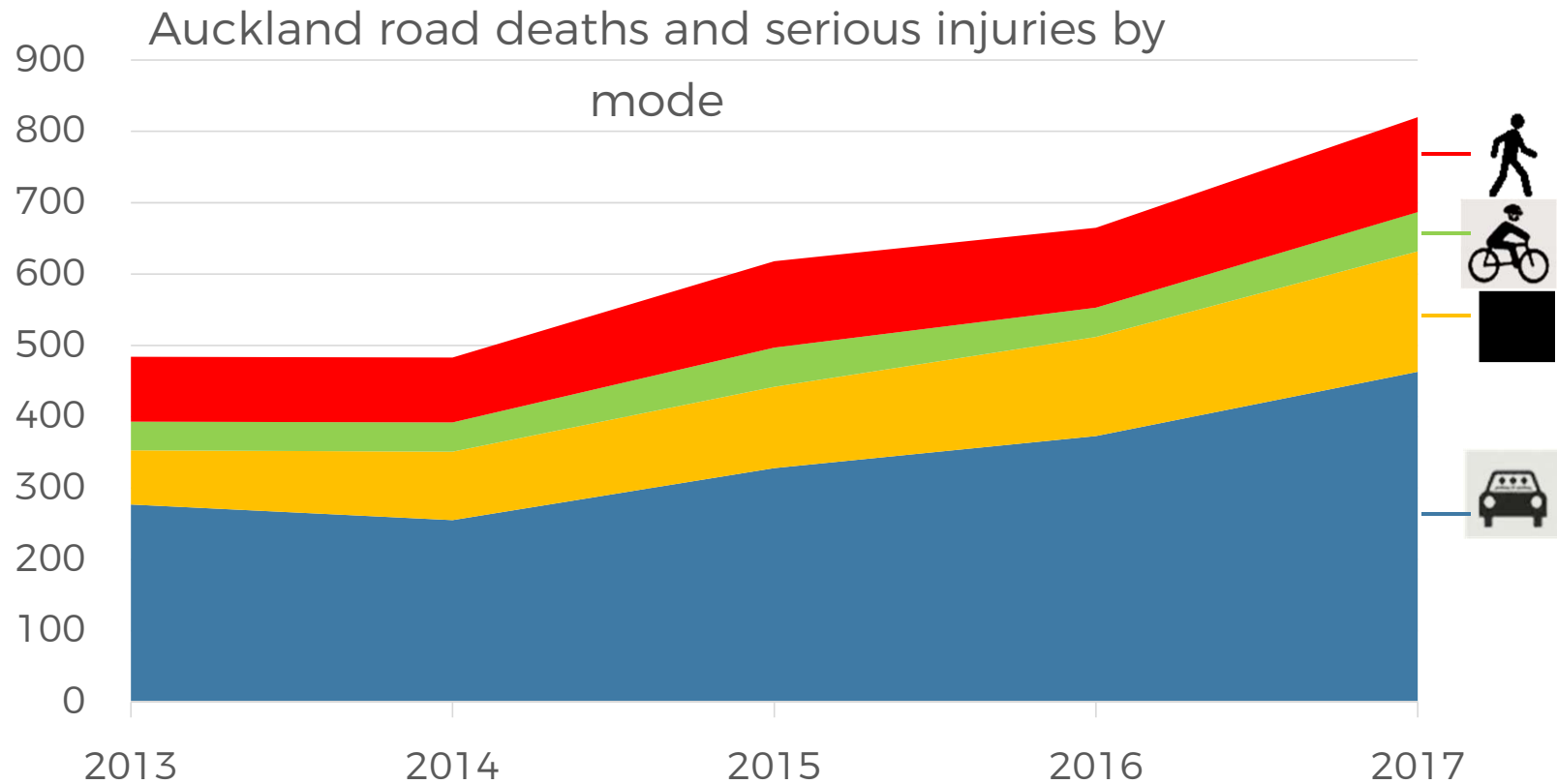
+23%



Spencer Platt/ Getty Images
<https://www.washingtonpost.com>



45% of road deaths and serious injuries involved people outside vehicles



70% of 2017 road trauma was on urban 50 km/h roads, impacting vulnerable road users

Why is road trauma increasing?

Urban

Changing travel patterns (increases in PT, walking, cycling and motorcycling) creating a more complex network with reduced margin for error = more mistakes

Rural

Housing growth is creating increased travel on an unforgiving high speed road network among new rural drivers

Auckland

Population and economic growth, high vehicle ownership, low density & sprawling city, competing technology demands

People want safe roads

Increased customer safety complaints
Increased delays due to crashes
Increased social & economic costs



Auckland Road Safety Partnership

Our Vision:
VISION ZERO

A safe road system free of death and serious injuries.

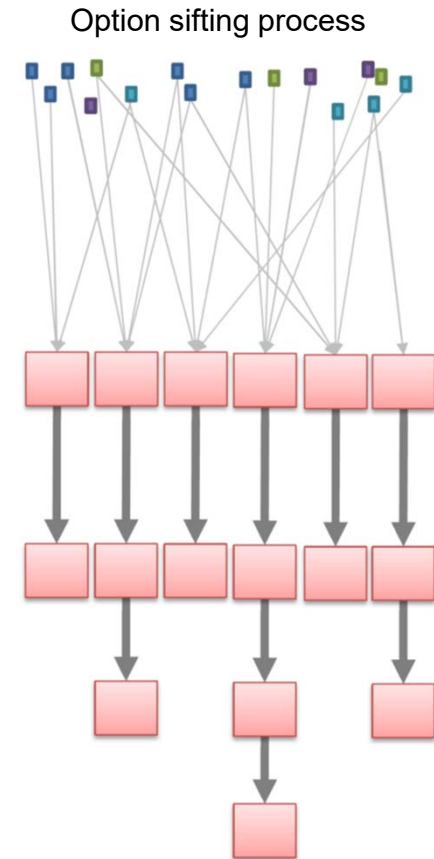
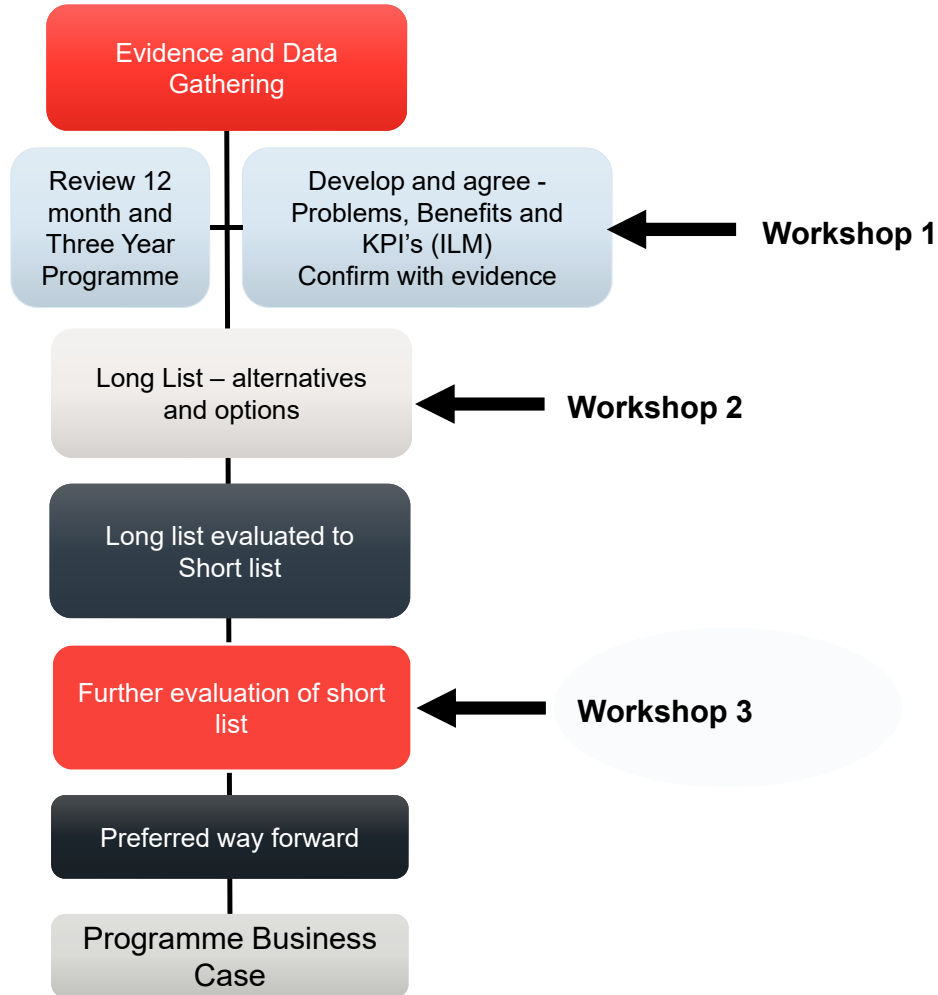


New investment approach.



WSP | OPUS

PBC Process



Three Year Programme Review

Year 1 (18/19) ✓

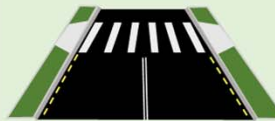
Recommended Year 2 & 3 Programme Budget



Rural roads & intersections

\$28.0 million

14 DSI / yr reduced*



Urban roads & intersections

\$59.0 million

23 DSI / yr reduced*



Minor Improvements

\$11.2 million

3 DSI / yr reduced*



Speed Management

\$40.9 million

42 DSI / yr reduced*



Safer Communities

\$20.2 million

5 DSI / yr reduced*



Red Light Cameras

\$1.5 million

1 DSI / yr reduced*

**Two Year
Spend
2019-21:
\$160M**

**DSI saved/
year
2018-21:
87 (14%)**

*DSI Reductions are first year after delivery (2022-23), averaged for the range of potential interventions considered under the programme. These would need to be considered in more detail on a project-by-project basis.



Learnings from International Research

Noteworthy findings

London:

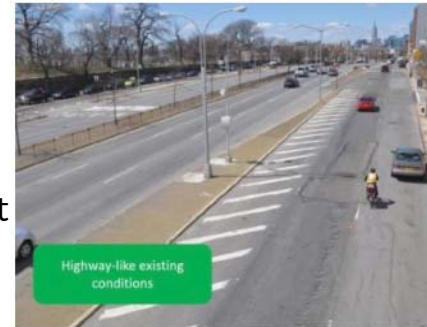
- ✓ Blanket lowered speed limits
- ✓ Healthy streets initiatives
- ✓ STARS - school safety education
- ✓ Target of ZERO DSI by 2041, plus mode shift
- ✓ By 2016, London's fatalities were lowest on record.

New York:

- ✓ Enforcement increased
- ✓ Focus on bicycle lanes
- ✓ Pedestrians Improvements (head start)
- ✓ Pedestrian fatalities fell 32% between 2016 and 2017
- ✓ Evidence-based project prioritisation

Queens, NYC:

- ✓ "Boulevard of Death"



Portland:

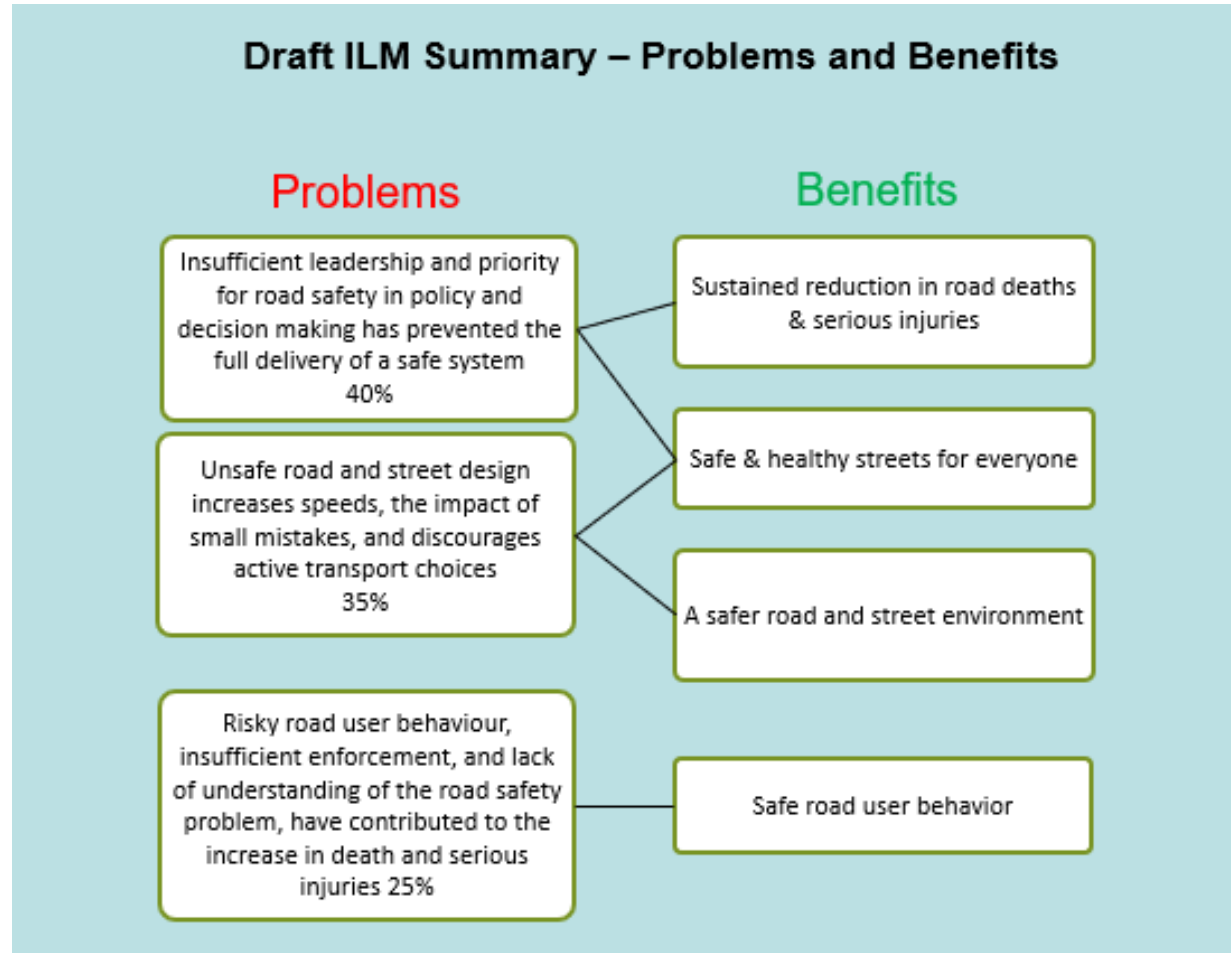
- ✓ Targeting ZERO deaths and living close to cycleways
- ✓ Neighbourhood greenways and walking/cycling protection

Sweden:

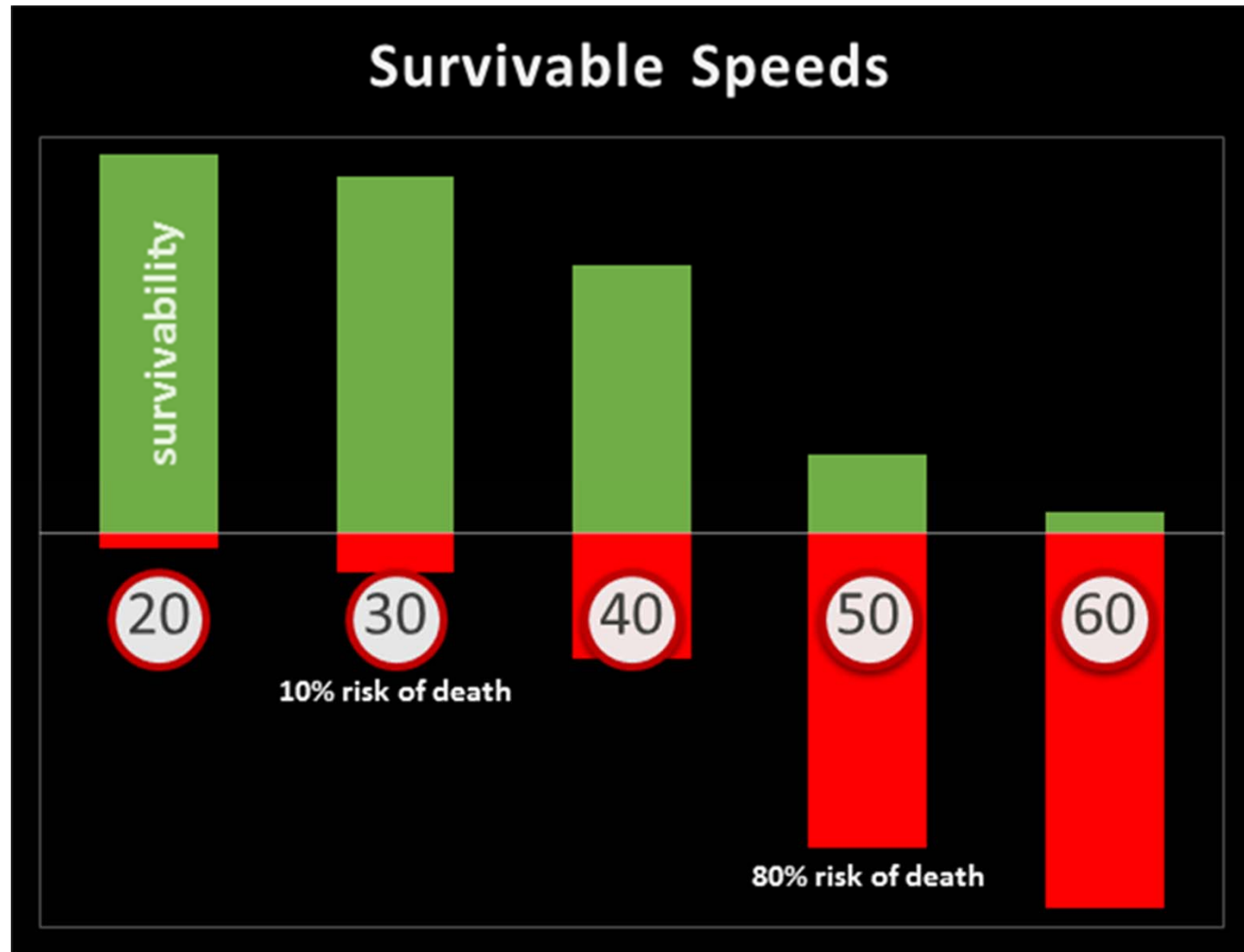
- ✓ Bicycle focus (urban areas)
- ✓ Lower speed limits
- ✓ Incorporation of more bike data, hospitalisation data
- ✓ Indicators to measure interim success



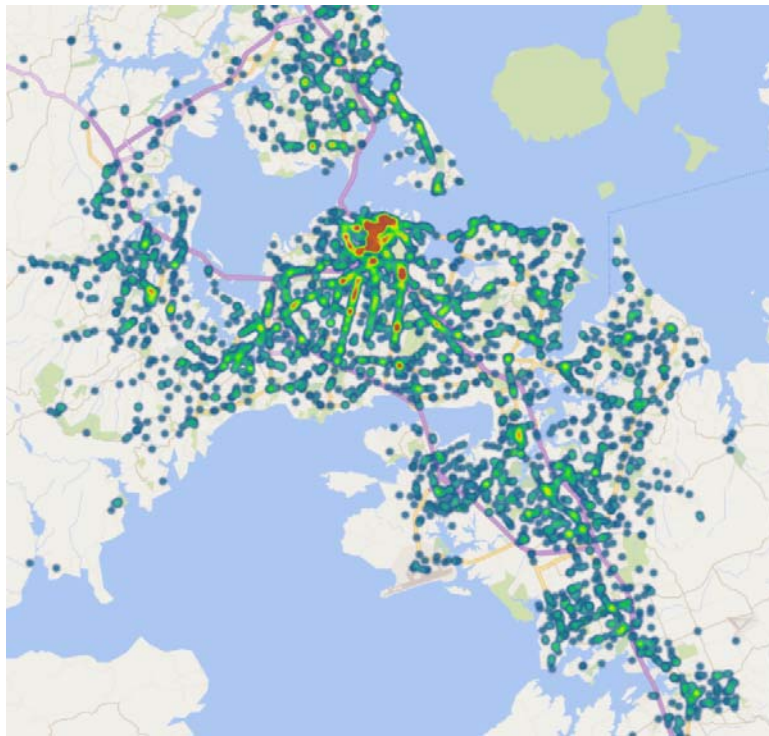
Problems and Benefits



Why address speed?



Why address speed?



Auckland DSI Heat Map

Speed management is emerging as a key early focus area

Why is it important?

- Proven value for money

How do we respond?

- Reduce speeds by any means

What are we measuring?

- Proportion of vehicles travelling over safe speeds
- Severity of speed-related vehicle crashes



Potential Investment Themes

(Types of solutions)



Learnings ...

Transport system designers have a responsibility

Vision Zero thinking must become a lens under which we deliver all land transport investment .

People are change-makers... are the right people involved?

It takes time for new philosophy to make its way through all of our thinking...

SLOW DOWN

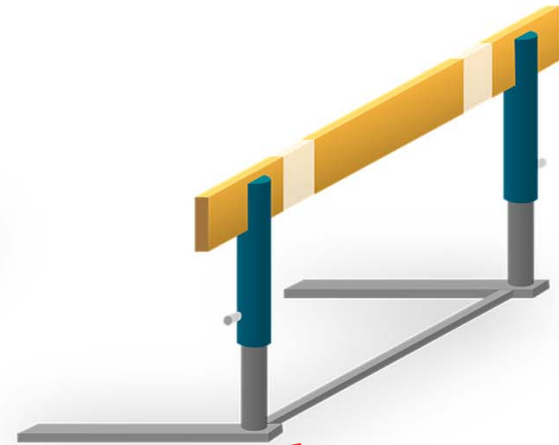
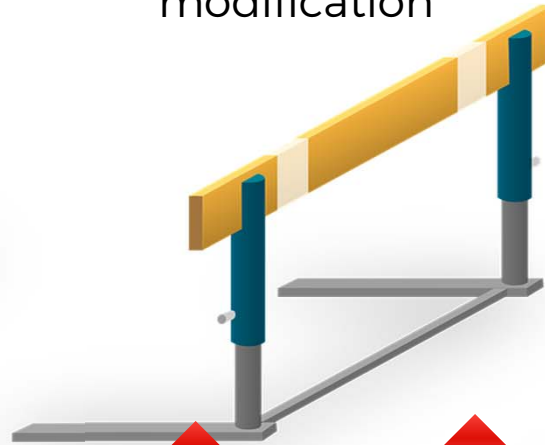
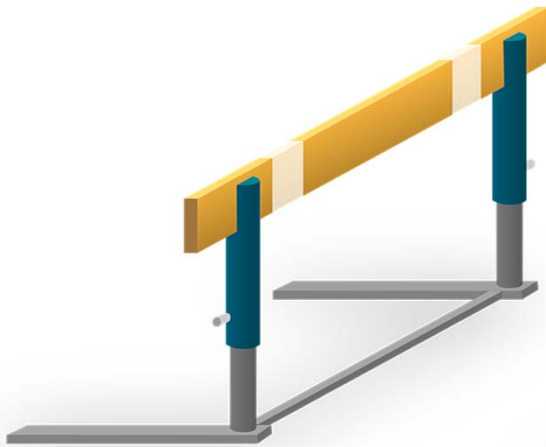
Obstacles along the process

Policy adoption phase  Policy implementation phase

Cost Benefit analysis

Traffic Safety Experts
Focused on behaviour
modification

Road Engineers
Transport Companies



Vision Zero Advocacy Coalition



Creating a Paradigm Shift to Vision Zero

PITFALL

RULE OF THUMB

NEGLECT CONTEXT

UNDERSTAND CONTEXT

CHANGE OTHERS ONLY

KNOW YOURSELF

THINK IN LINEAR TERMS

THINK SYSTEMICALLY

SEEK SAFETY IN CERTAINTY

LEARN AND ADAPT

CHANGE IS TECHNICAL

RECOGNISE CHANGE IS PERSONAL



The Paradox

“There is no courage without vulnerability”

(Brene Brown)

