



Amy Gillett Foundation Upskilling Series

Video 2



Overarching objectives the Safe Roads for Safe Cycling (SRSC)

- Increase skills and confidence in delivering safer roads
- Improved access to best practice designs, and location specific data
- More connected and collaborative design and knowledge sharing
- More targeted spending across the transport network



Webinar Series

 Video 1 Introduction to safer cycling

 Video 2 Planning for bicycle friendly cities and towns

 Video 3 Detailed designs for safer cycling



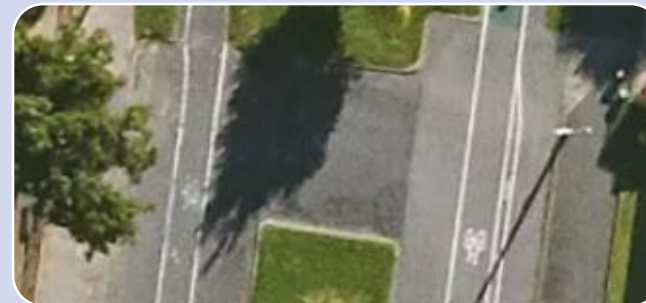
Video 1 Recap



The role of
local
government in
creating safer
streets



Benefits of
more inclusive
design



Practical
measures local
government
can take



Video 2 Overview

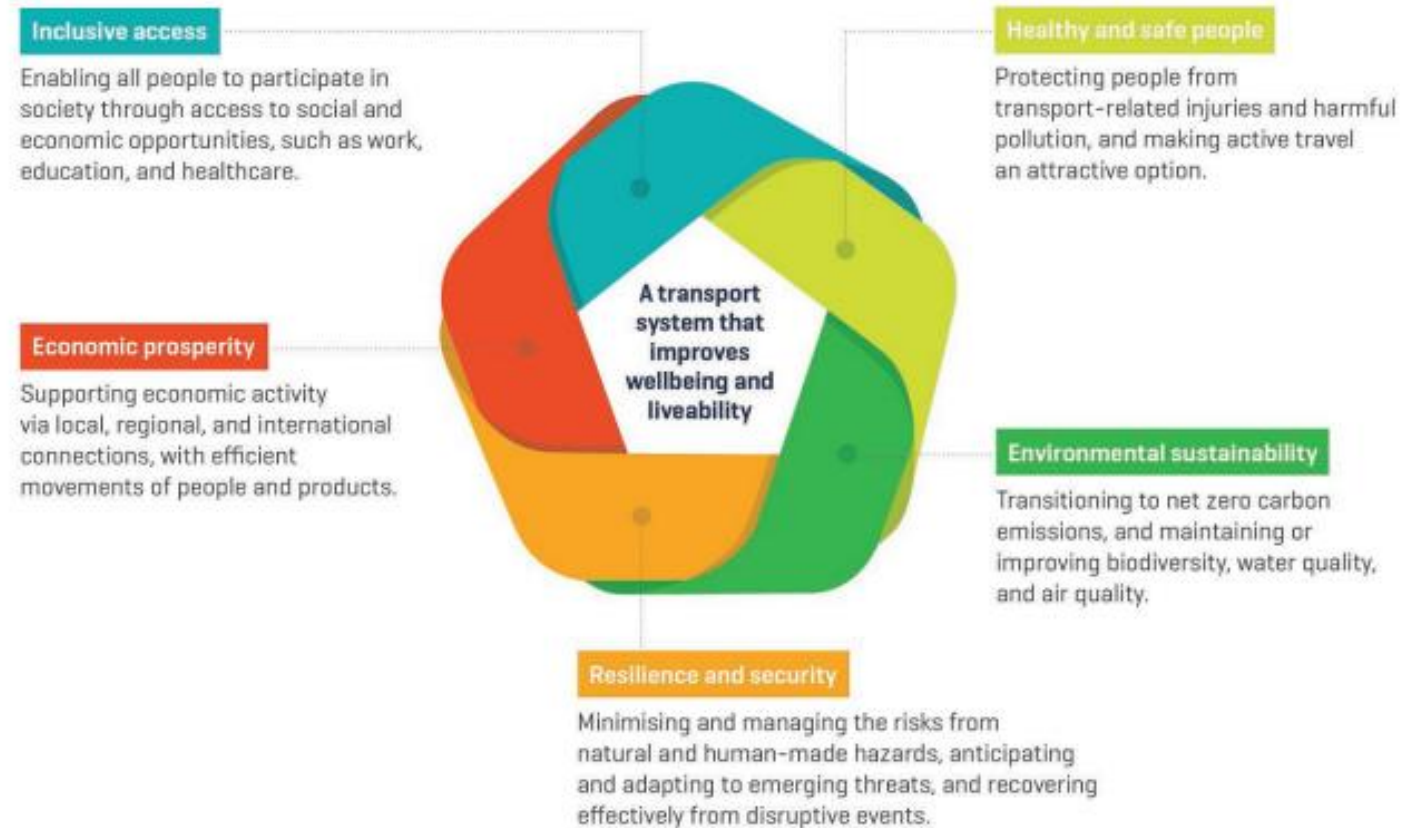
- Strategic transport planning
- The role of cycling in addressing contemporary transport challenges
- Community preferences
- Best practice infrastructure designs
- Balancing the needs of different road users



Strategic transport planning



An Outcomes Orientated Framework



Key Benefits of Sustainable Mobility





Safety - Motor vehicles



Distance



Weather

Barriers to bike riding



Need to carry items



Security



Social & Cultural





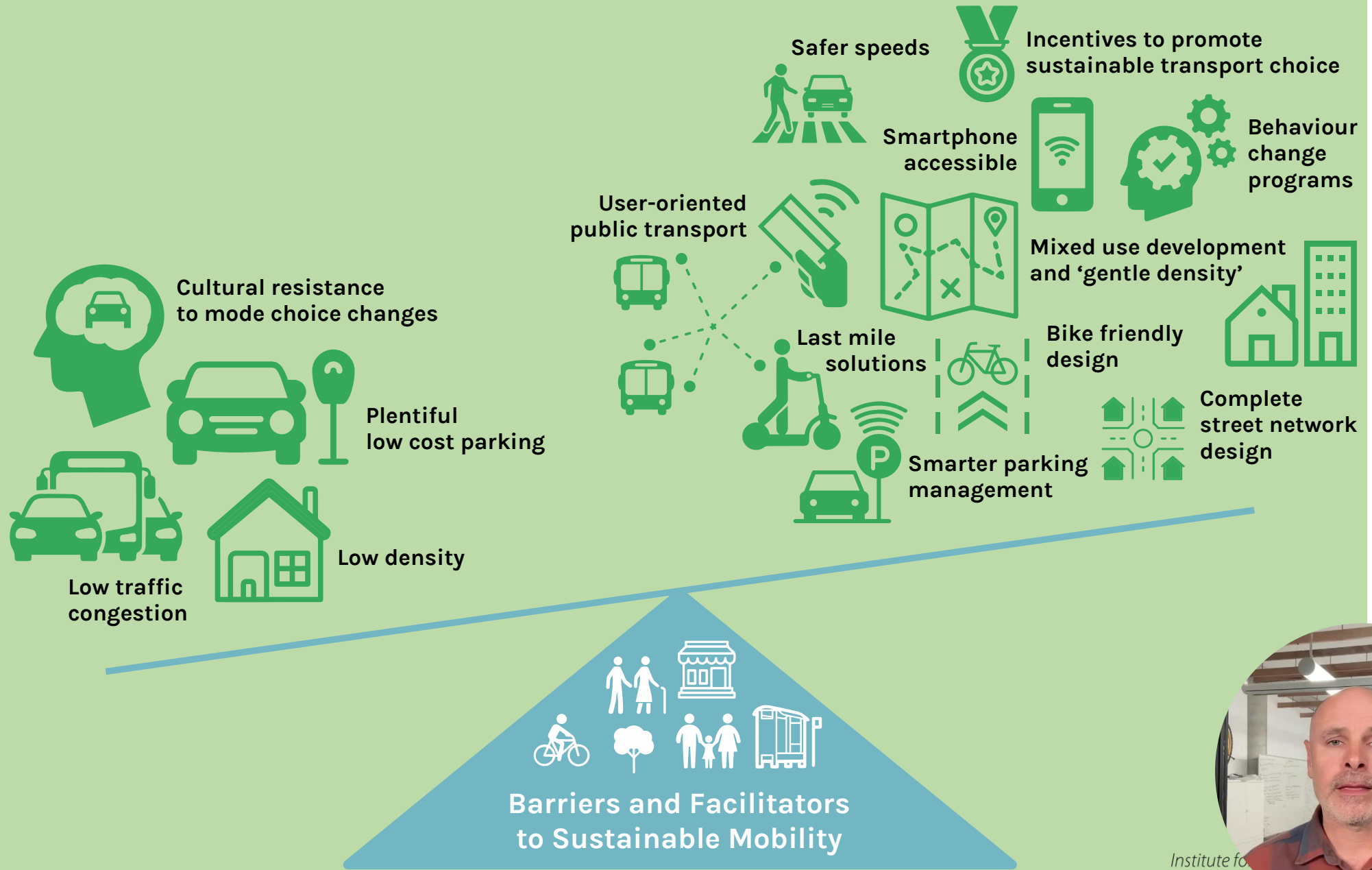
What do we want to achieve?



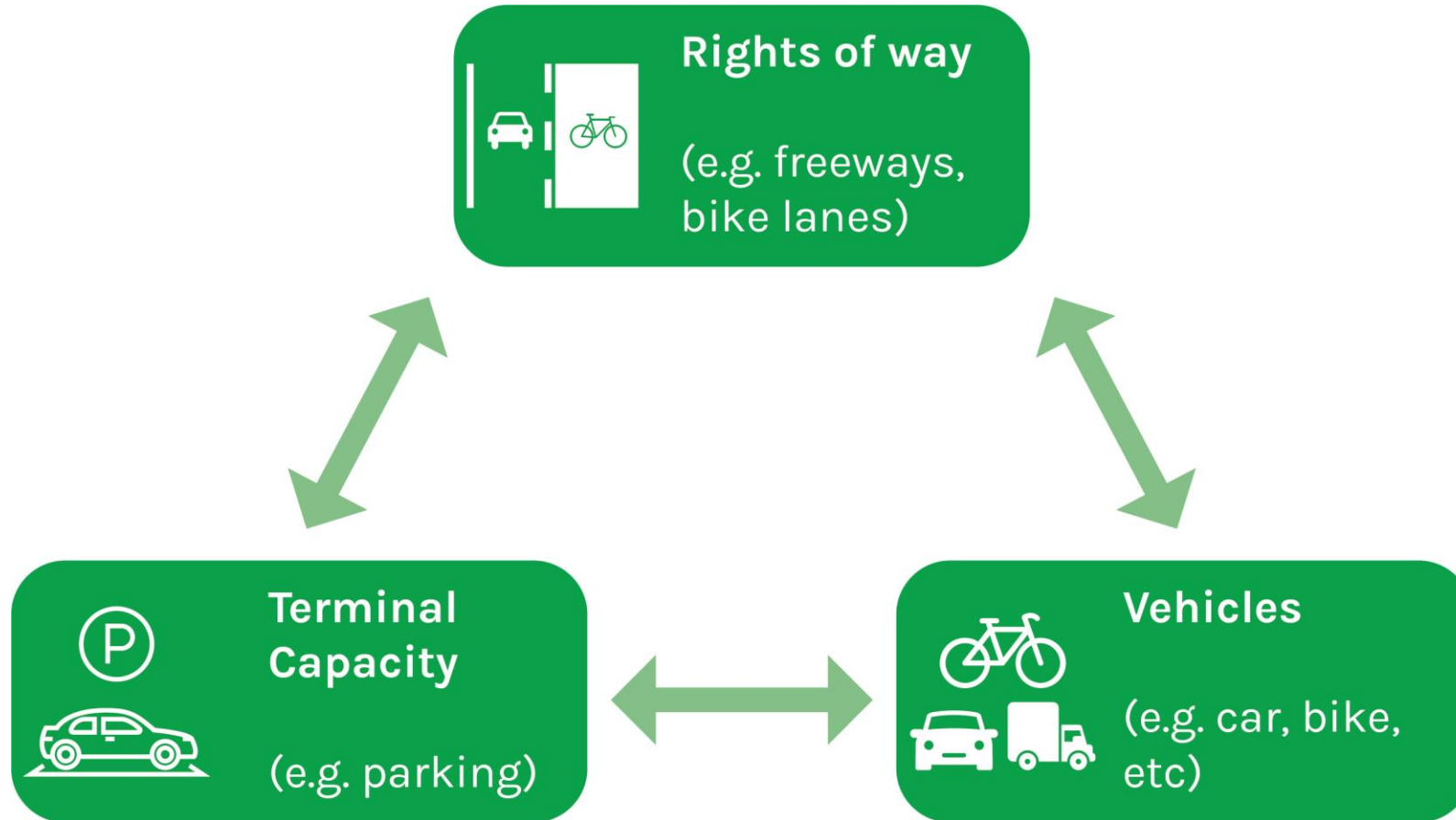
How do we do it?

Good transport policy





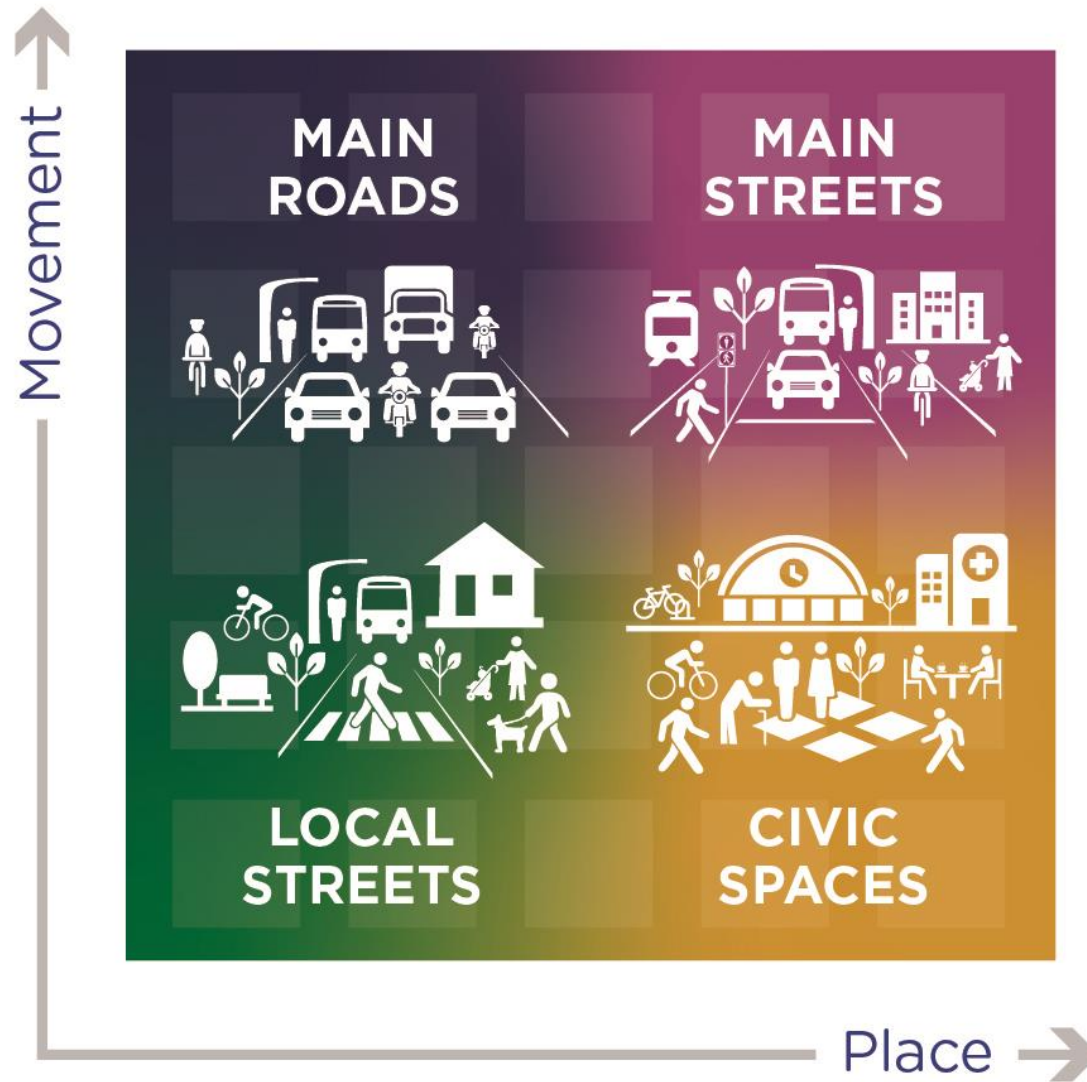
The three elements of each mode of transport



20 minute city concept



Movement and Place



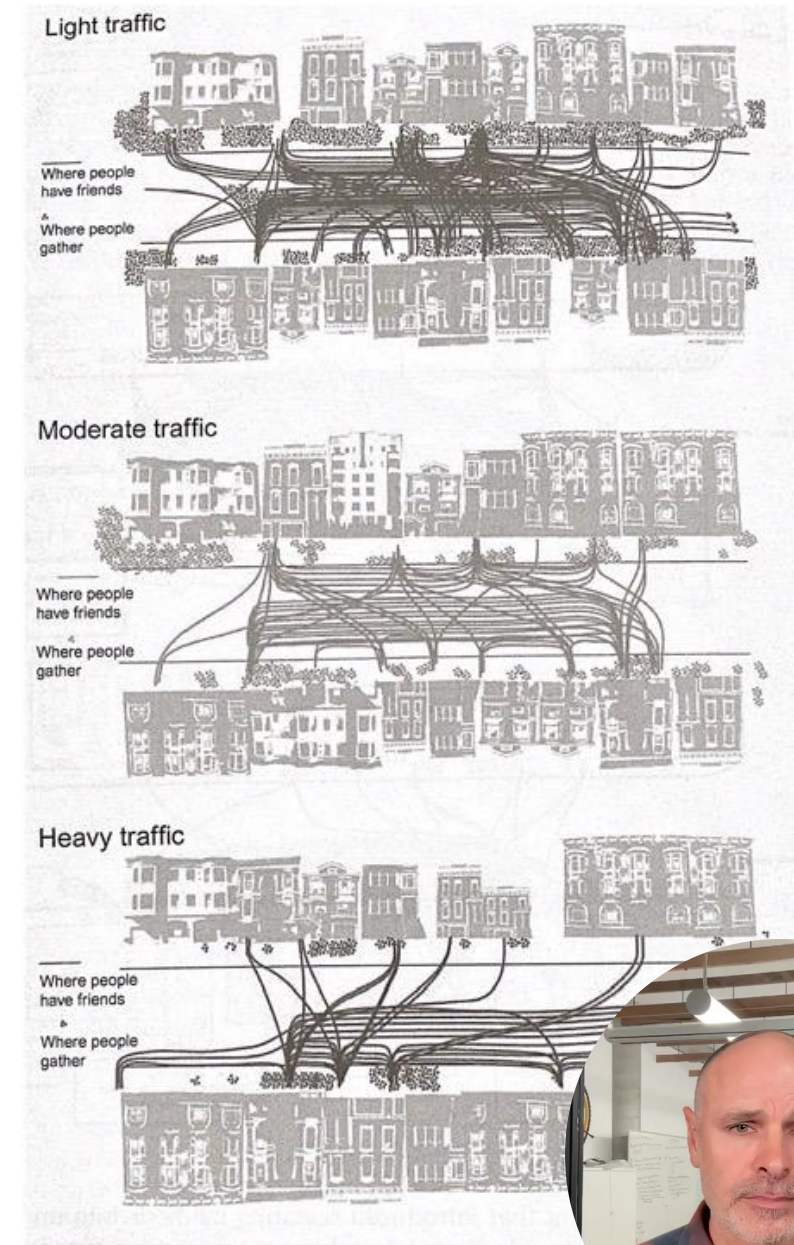


People focused cities





People who live on streets with less traffic have more social connections

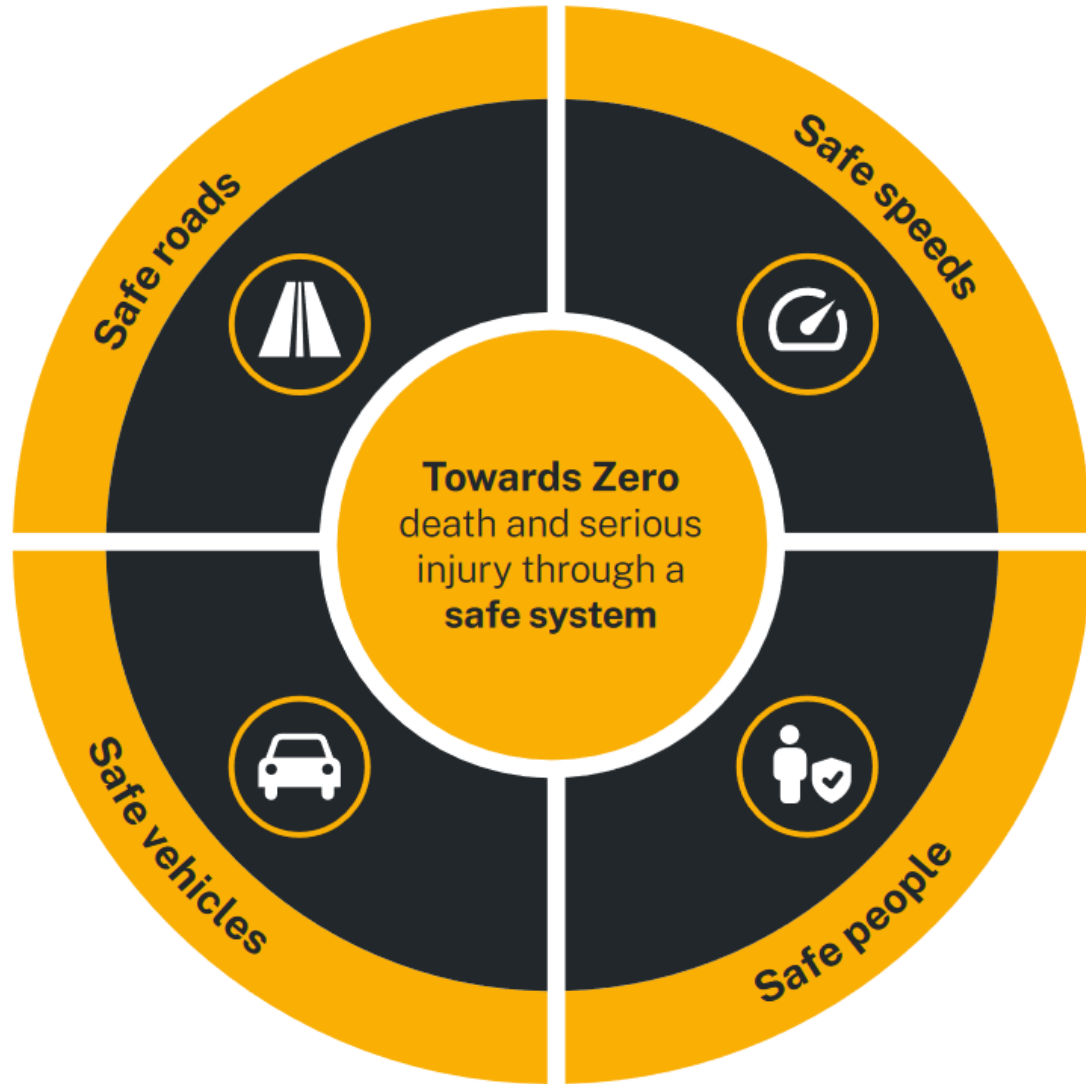


Source: Frey

Complete Streets



Safe Systems



- People are fallible; we make mistakes
- The consequences of those mistakes should not be death or serious injury
- The design of a road dictates the speed and behaviour possible
- The design of a vehicle influences the speed and behaviour of the driver/rider



The role of cycling in addressing contemporary transport challenges





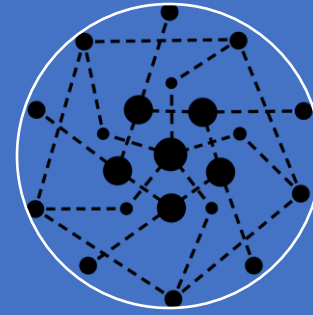
Traffic
congestion



Climate
change



Healthy
Cities



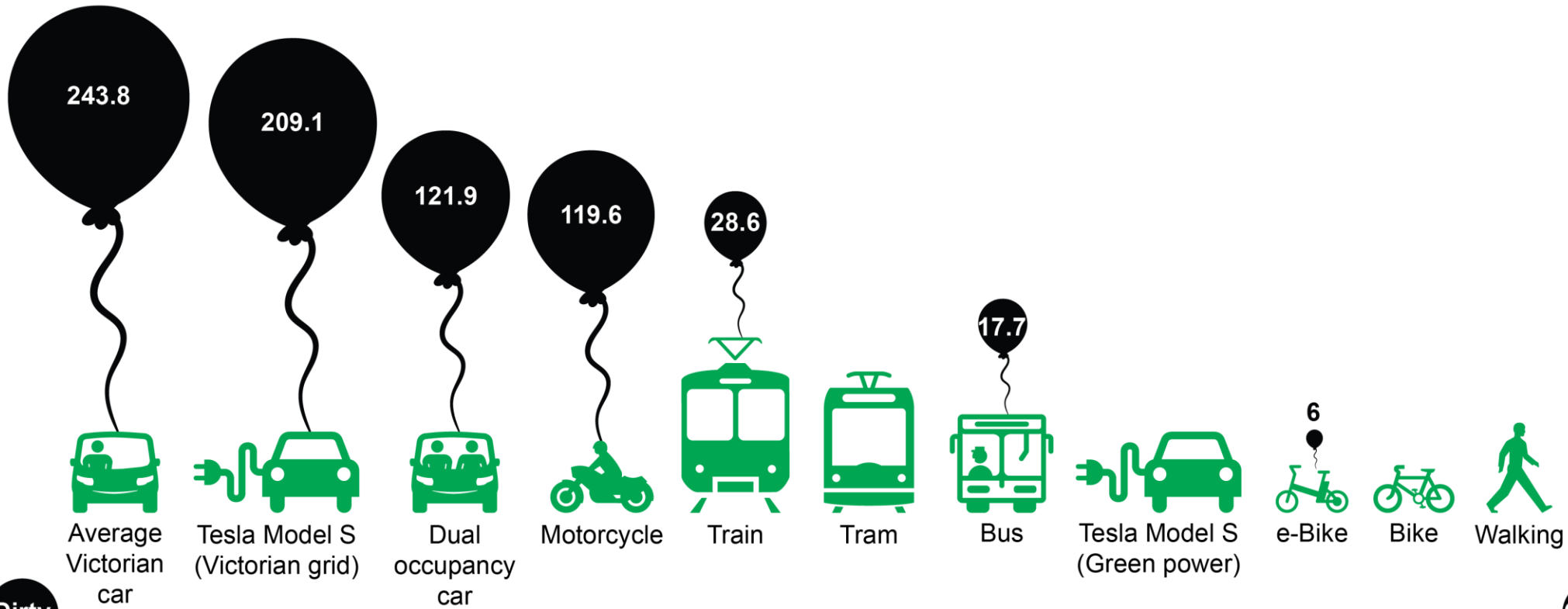
Accessibility



Road safety







Dirty

Clean

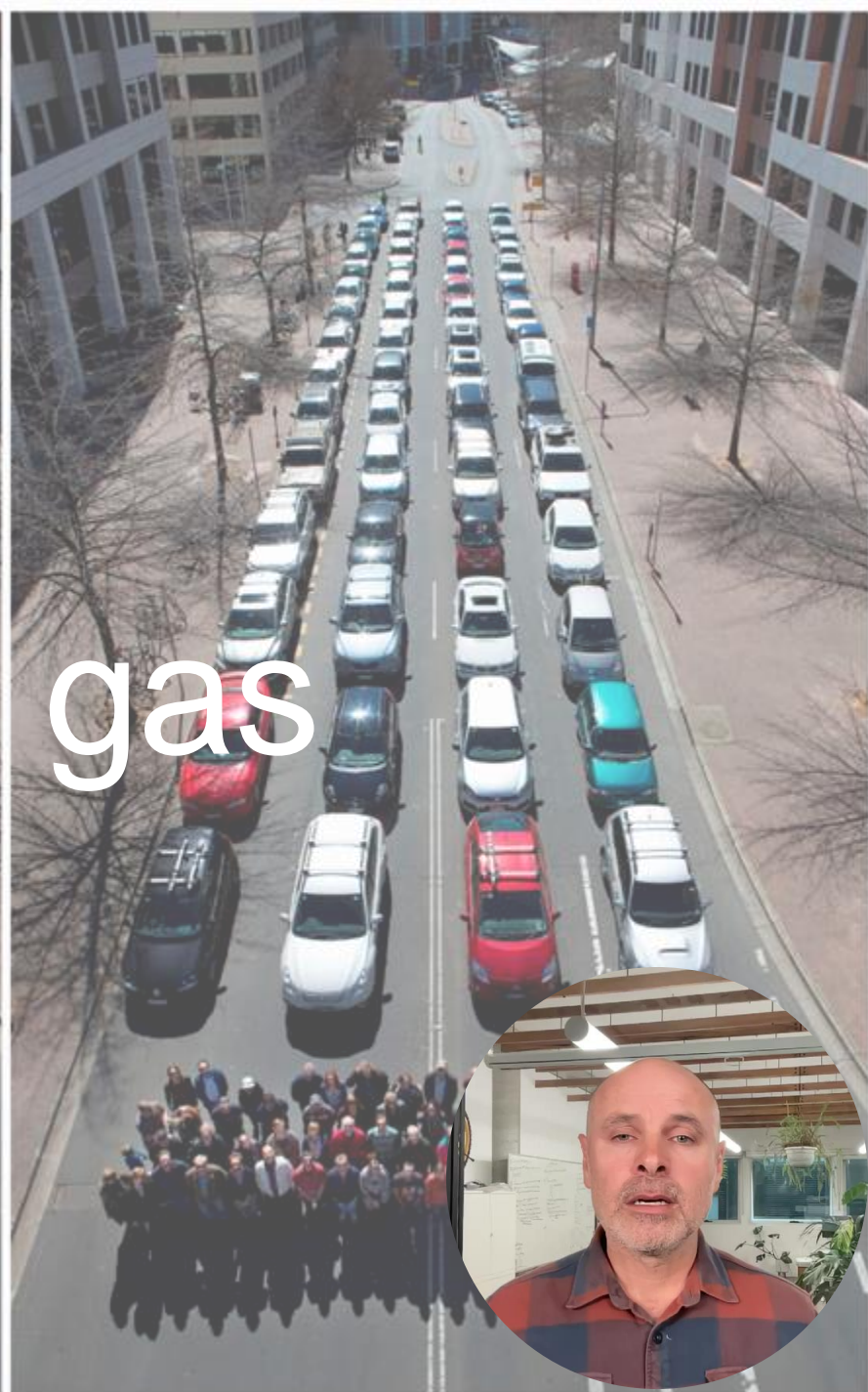


= Grams of CO₂ per person kilometre travelled = Space in m² required per occupant

Note: These figures are specific to Melbourne, Australia. Trams are 100% off-set by renewable energy.

Institute for
Sensible Transport
www.sensibletransport.org.au

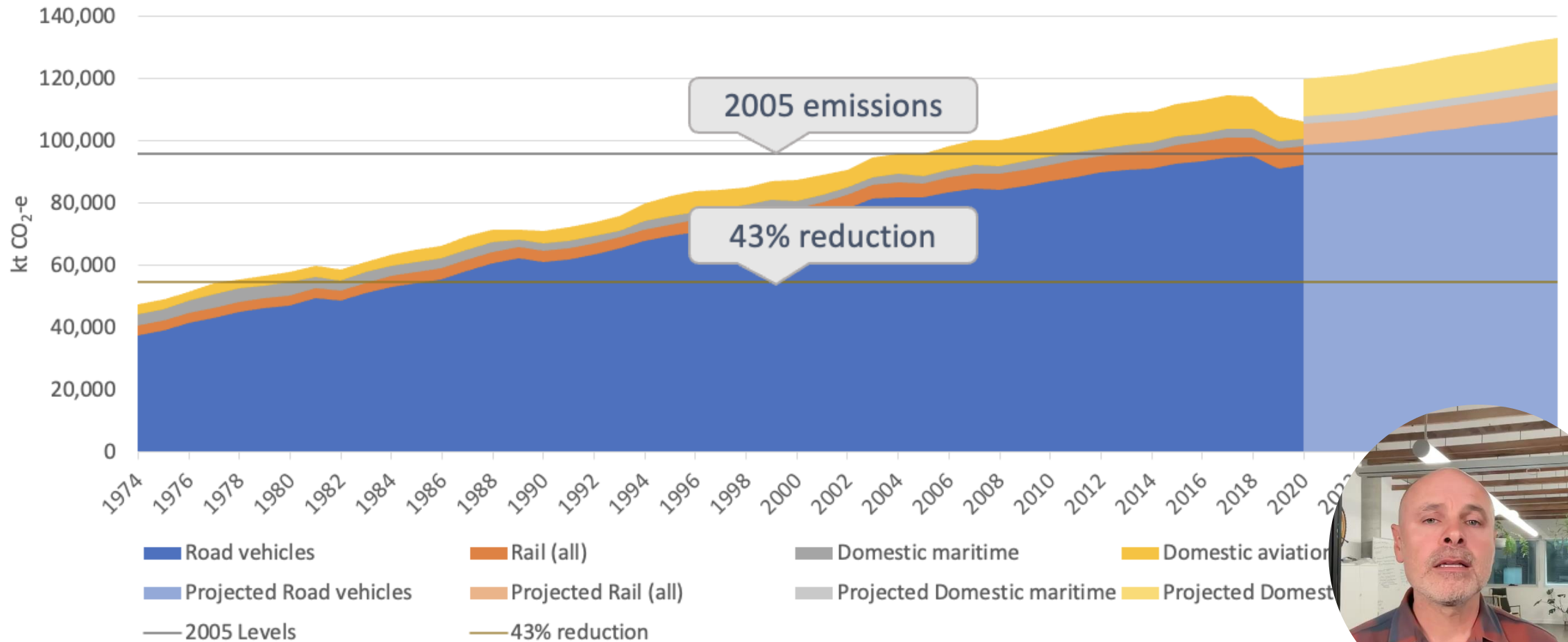




Transport is a gas



Rising transport emissions



Pathways to lowering transport emissions

Energy efficiency

*Through conversion to more efficient vehicles
(e.g. BEV)*

Mode change

*Shifts from car to more efficient modes
(e.g. e-bike)*

Decrease VKT (without mode change)

People making shorter car trips

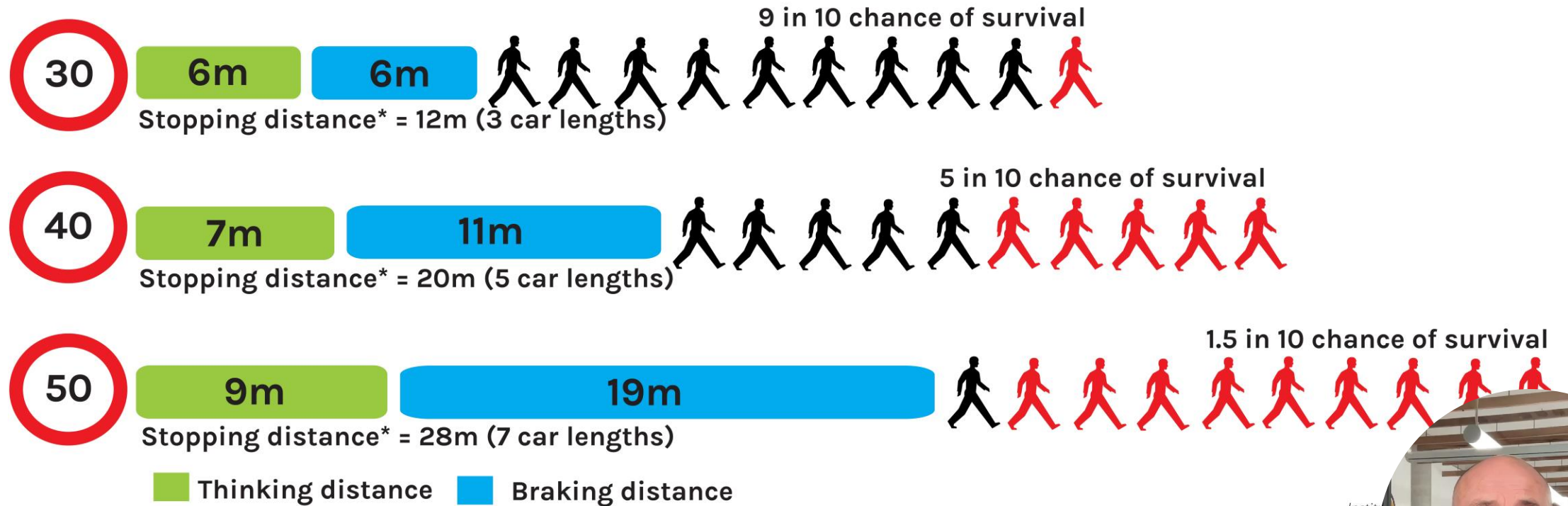
Trips avoided

*Choosing
through
telecom*



BEV: Battery electric vehicle
VKT: Vehicle kilometres travelled

Safe speeds



*Stopping distance during dry conditions



Community preferences





Image: Kostelec Planning

Designing a network that caters to a diversity of users



3%

Strong and
Fearless



3%

Enthusied
and Confident



78%

Interested
but Concerned

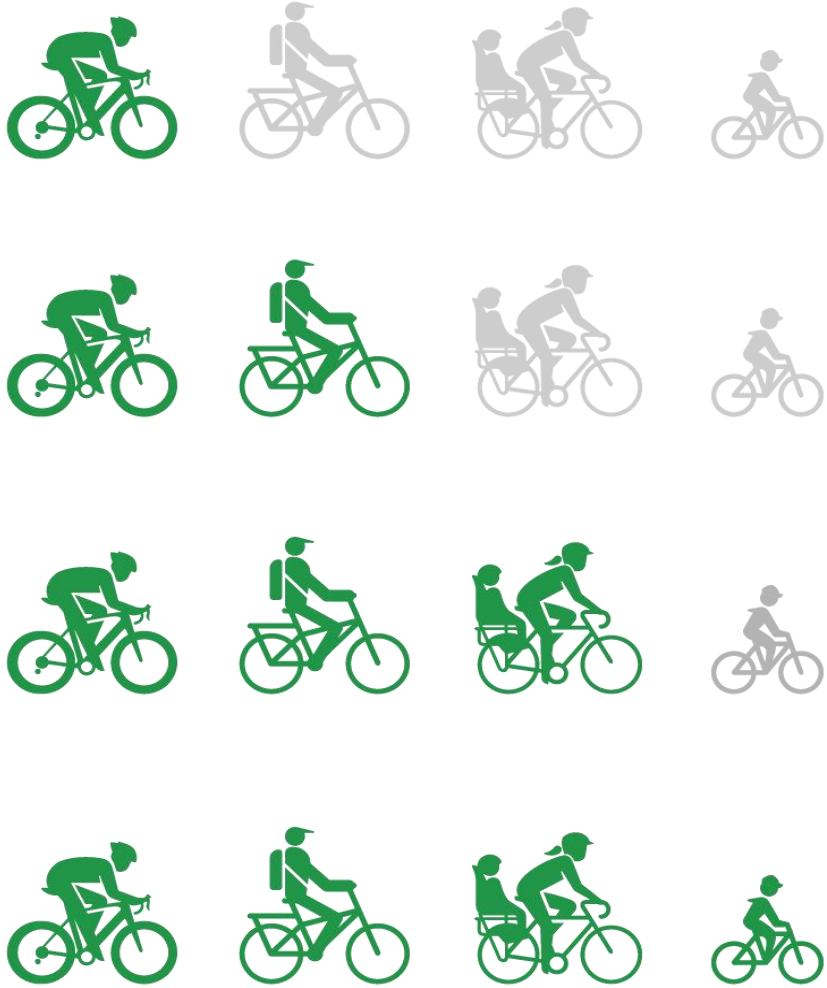


16%

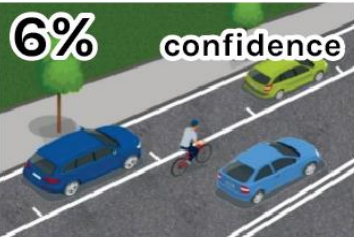
No V
No H



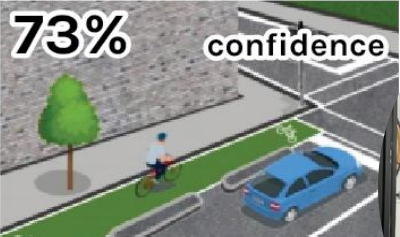
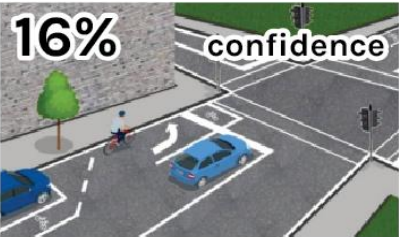
Rider confidence by environment



Midblock



Intersection





Stress level 4

Mixed traffic riding on road, typically along roads with high speeds and multiple travel lanes
High risk of bike rider injury or fatality
Uncomfortable for most riders, only acceptable for the “strong and fearless”



Stress level 3

Mixed traffic riding on road or bike lane along busy road
Significant risk of bike rider injury or fatality
Acceptable for “enthused and confident” who still prefer a dedicated space



Stress level 2

On-road facility on low speed road, typically buffered from traffic
Moderate risk of bike rider injury or fatality
Adults who are “interested but concerned” can feel safe riding



Stress level 1

Fully separated from traffic along roads with low traffic volumes
Low risk of bike rider injury or fatality
Suitable for



The e-bike revolution

E-bike riders travel **twice as far as** standard bike riders



Standard bike



E-bike

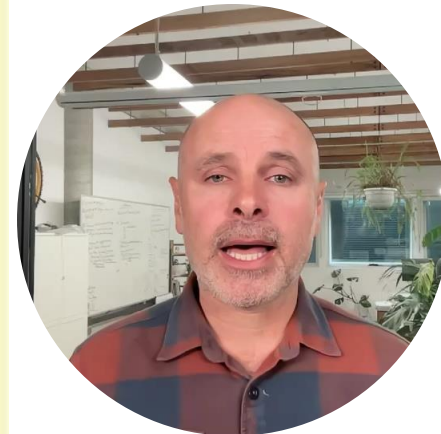
E-bike riders make **twice as many trips as** standard bike riders



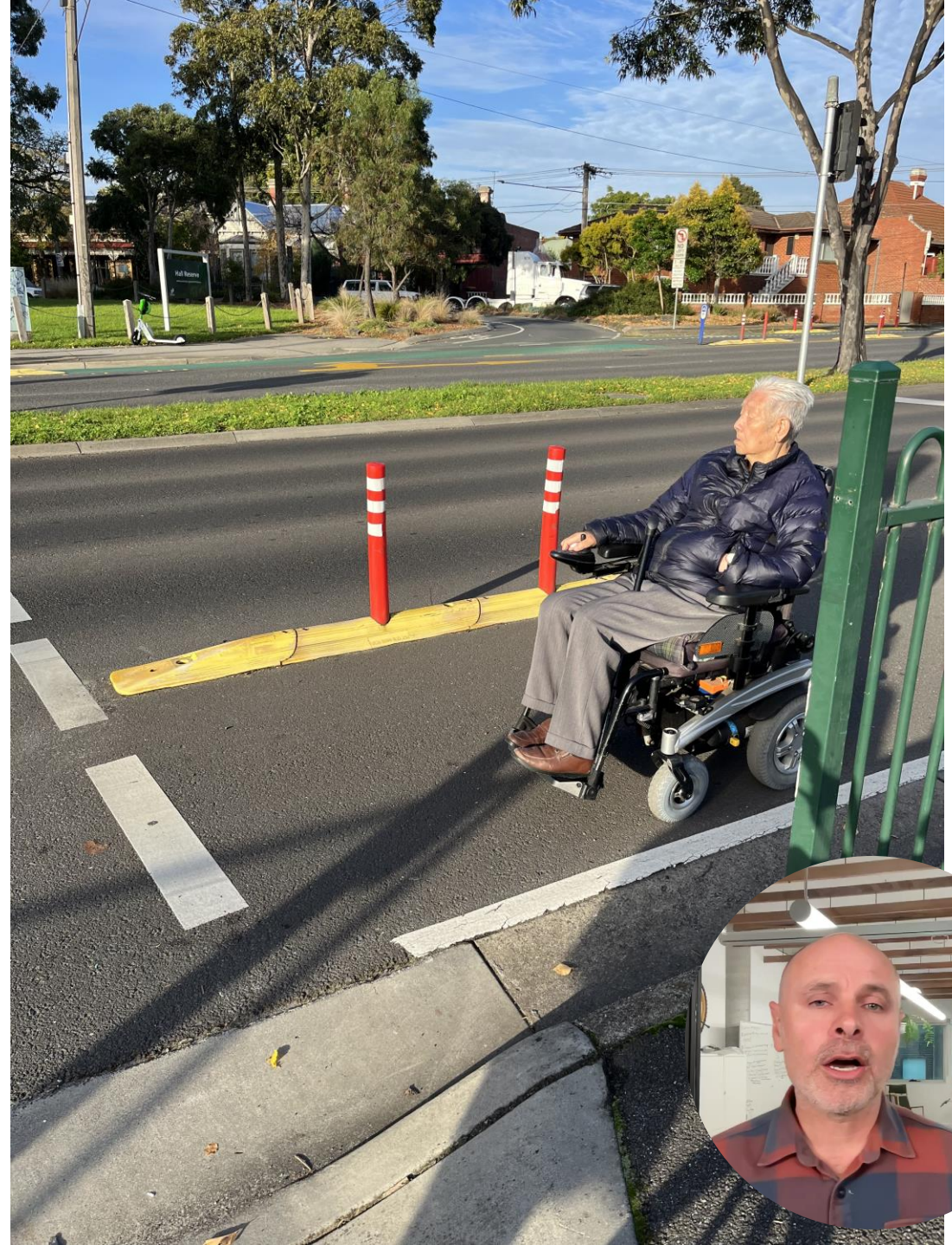
Provides **70% of the** health benefits compared to standard bikes



Easily carry bags, shopping and children



**Safer streets
help provide
access for all
members of the
community**



Best practice infrastructure designs





SHARED LANE MARKINGS

BUS LANE

BIKE LANE

BUFFERED BIKE LANE

QUICK-BUILD

FULL-BUILD

CONTRA-FLOW BIKE LANES

TRAFFIC-CALMED, LOW-VOLUME STREETS

SHARED LANES

CONVENTIONAL BIKE LANES

SEPARATED BIKE LANES

CONTRA-FLOW BIKE LANES

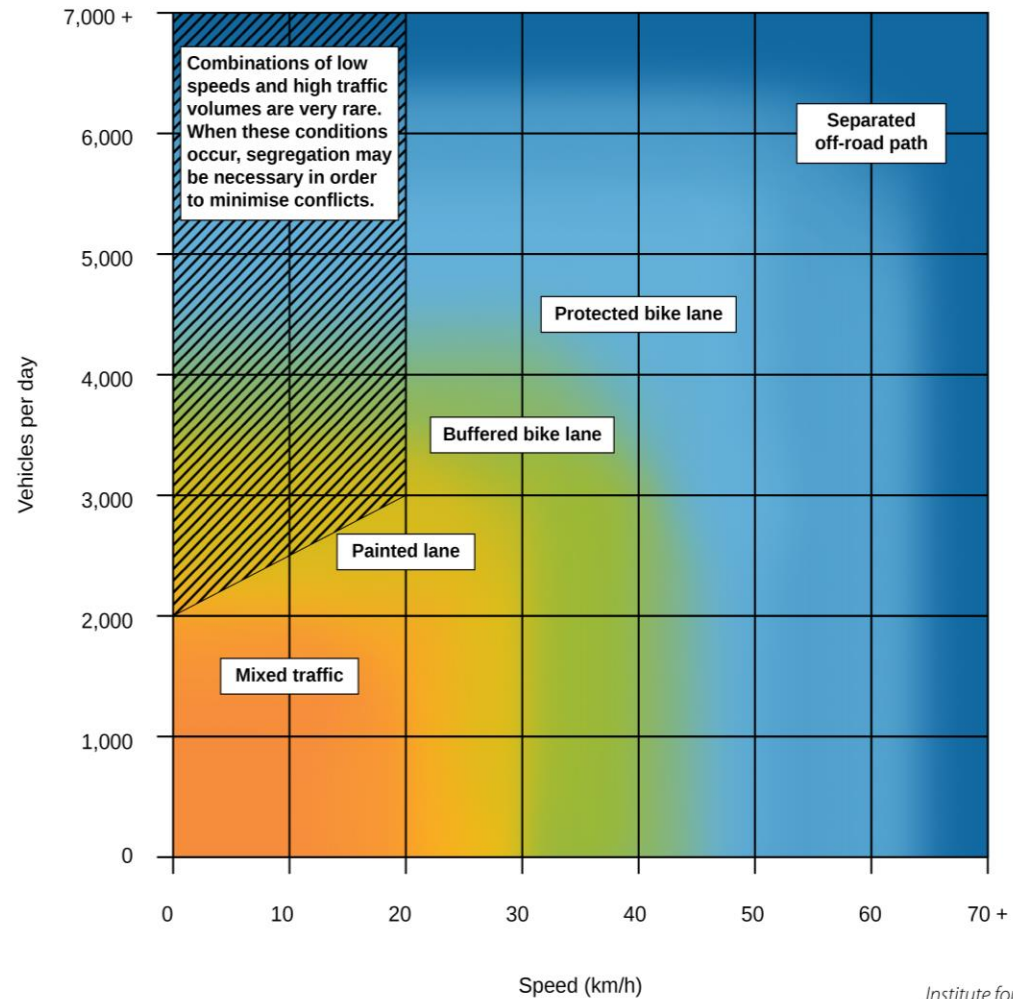
TRAFFIC-CALMED, LOW-VOLUME STREETS

Least Comfortable

Most Comfortable



Cycling network guidance



*'A cycle route is only as effective
as its weakest link'*

NSW Cycleway Design Toolkit



Bicycle Network Design Principles

1. Cohesion – a comprehensive network of bicycle routes that connect origin and destination.
2. Directness – avoiding circuitous routes and prioritising the shortest practical route possible.
3. Safety – facilities that minimise risk of collision with other road users as well as considering issues of personal security.
4. Comfort – conditions conducive to the efficient and comfortable to the flow of bicycle traffic.
5. Attractiveness – offering routes that are pleasant to cycle.





Filtered permeability





If asked to design a separated shared path to cross a rail line or motorway, would you go over or under?







Image: Transport for NSW

Protected bike lanes reduce the gender imbalance and increase ridership

The introduction of pop up bike lanes saw female ridership increase from 16% to 30% of riders.

Average weekly riders increased from 5,000 to 6,000 riders per week.





Pitt Street Pop Up Lanes, Sydney

- 500% increase in people cycling (to 6,000 per week)



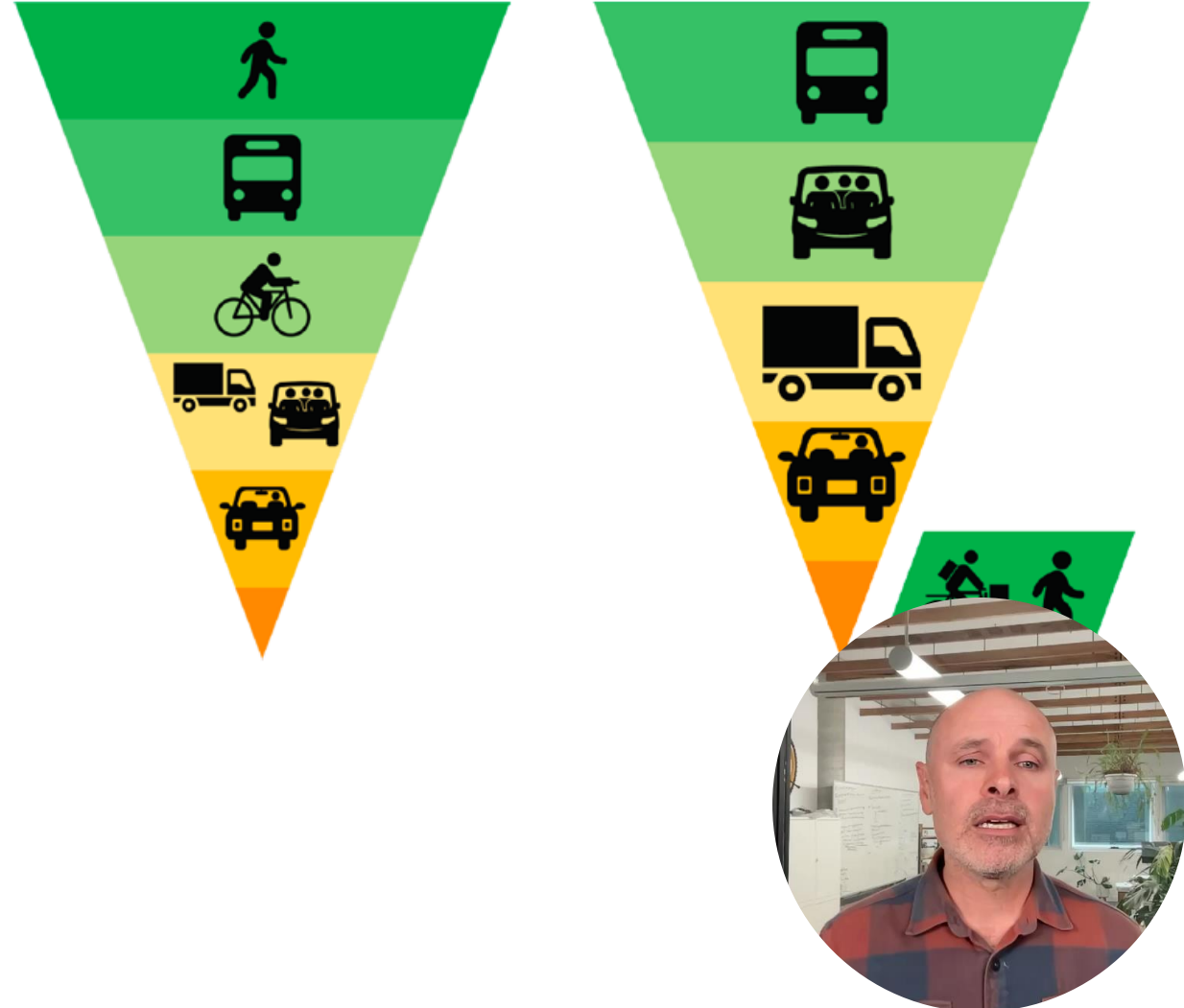
Balancing the needs of different road users



Mode hierarchy

Establishing a mode hierarchy is a way Council can demonstrate its support for the modes of transport it wants to grow

A mode hierarchy can help councils make decisions when there is competition for space





*“Cars don’t shop,
people do”*

Janette Sadik Khan

former NYC Transportation Commissioner



**High quality
infrastructure
gets used**





Institute for
Sensible Transport
www.sensibletransport.org.au





Video 3



- Bicycle network design principles and practice
- How to decide on which infrastructure solution is best
- Cycling safety considerations in different contexts
 - Roundabouts
 - Intersections
 - Shopping streets
 - Residential streets
- Innovations in bike infrastructure and micro-mobility lanes

