



\$1.4 billion economic benefit walking + cycling for transport

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Summary



1. Sydney's \$228 billion economic triangle

- Traffic congestion
- Rapid growth in housing
- Cheapest effective solution walking + cycling

2. Why cycling + walking matter

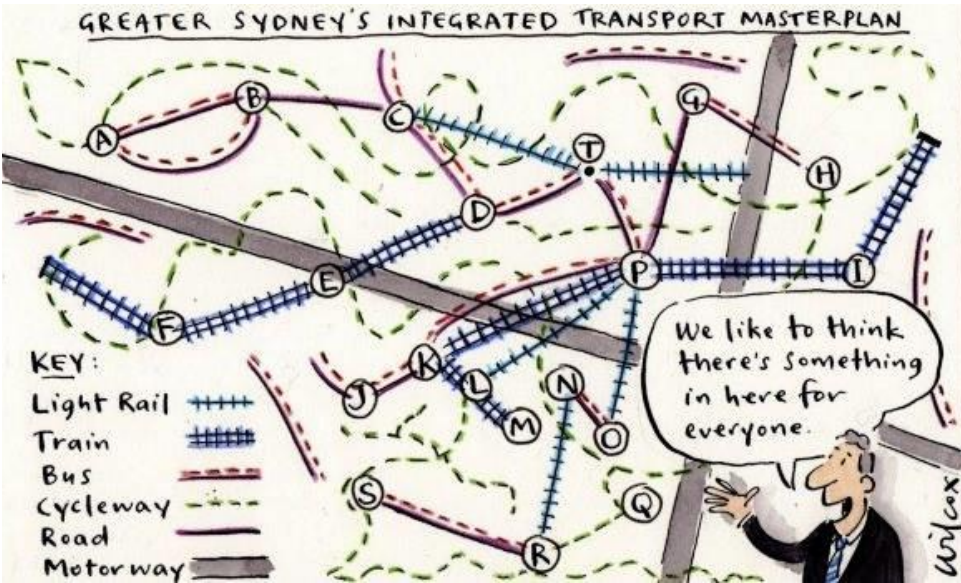
- Economic benefits
- 'Low-hanging fruit'

3. What needs to be done

- Plan, build, encourage, manage

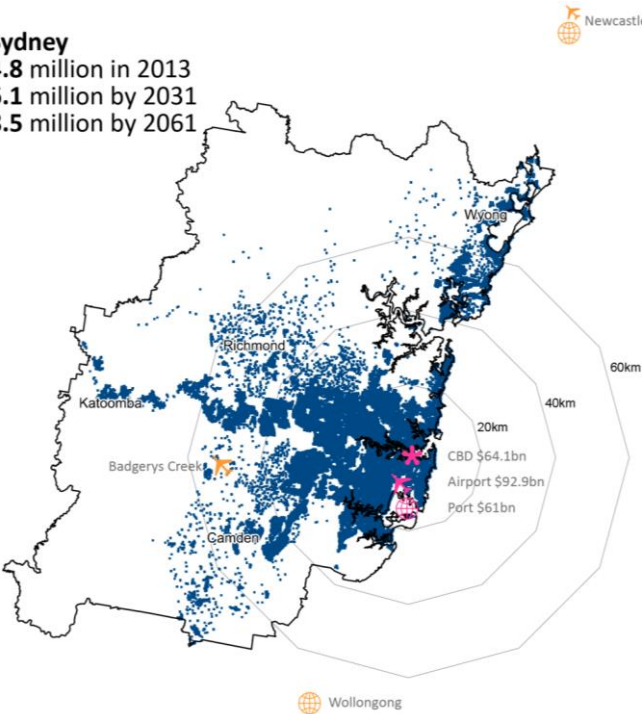


Transport planning in NSW

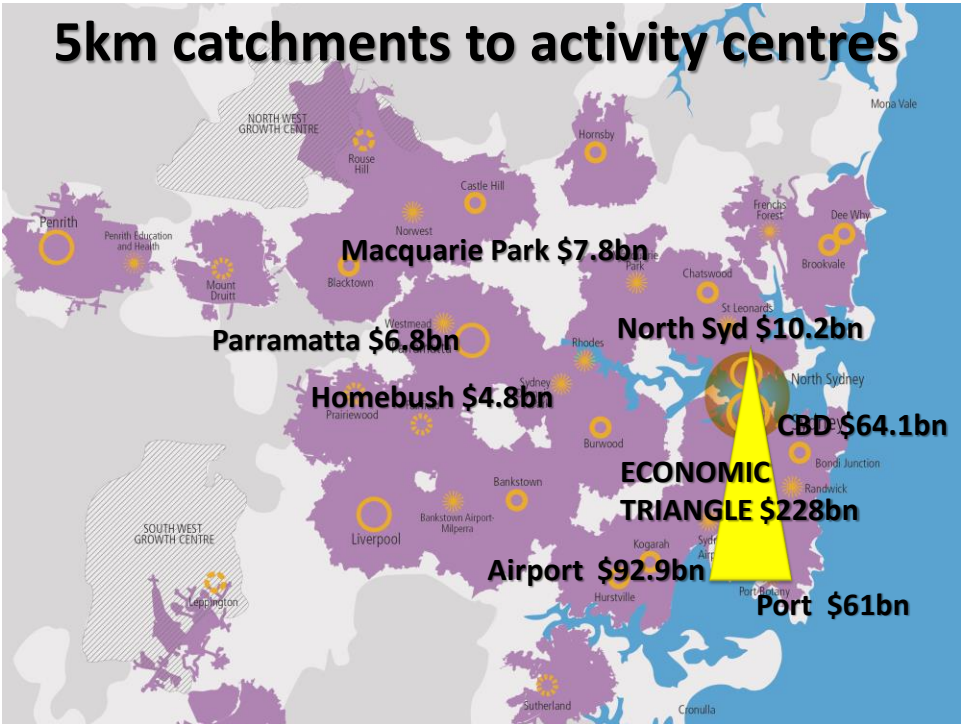


Population density

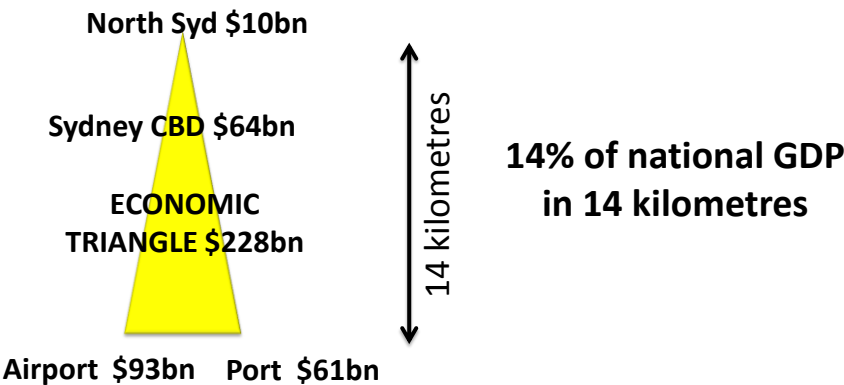
Sydney
4.8 million in 2013
6.1 million by 2031
8.5 million by 2061



Maps of Statistical Division population densities in 2011 by BITRE. Other info added by Link Place: \$ for major ports + airports are 'value of goods traded' (BITRE); \$ for CBDs are for 'economic activity' in 2012 (Grattan)



Economic triangle \$228bn



National GDP June 2014 (ABS) = \$1,584 billion. $\$228\text{bn} / \$1584\text{bn} = 14\%$



Space efficiency



Competition for SPACE

housing, workspace, retail, roads, footpaths, rail

PROBLEM

Traffic congestion

SOLUTIONS

Space and time efficient transport

- Bicycles and pedestrians
- Public transport (with good catchments)



Space efficiency

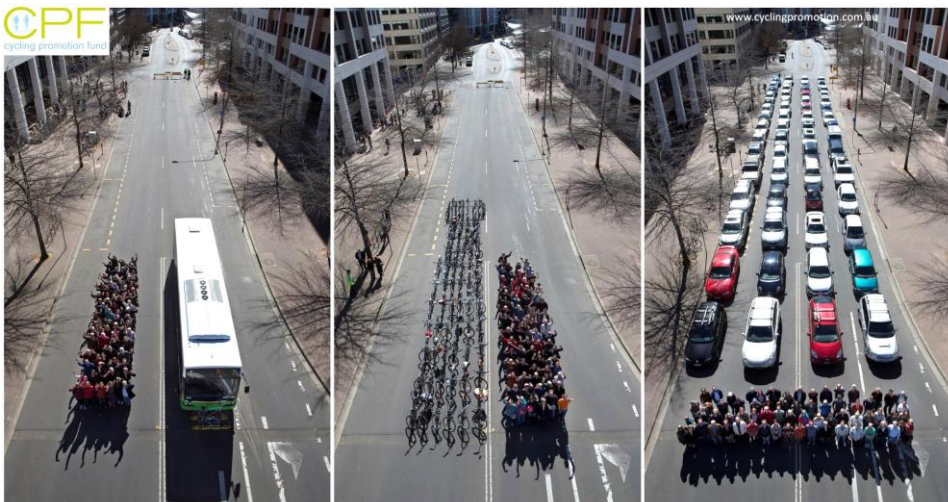


Photo by Cycling Promotion Fund, Canberra



2. Why cycling + walking matter



- Economic benefits
- Low-hanging fruit
- 'Bullcreek Syndrome'
- Equity

Why walking matters



- Almost **every journey by public transport** starts and ends with a walk
- Most Australians walk at least once a day
- 'Walking' **largely ignored in transport policy**
 - 'Disability Access' requirements **INSIDE** public transport buildings/ bus stops
 - Not **TO** the public transport in public domain
- Walking is 'local government' problem

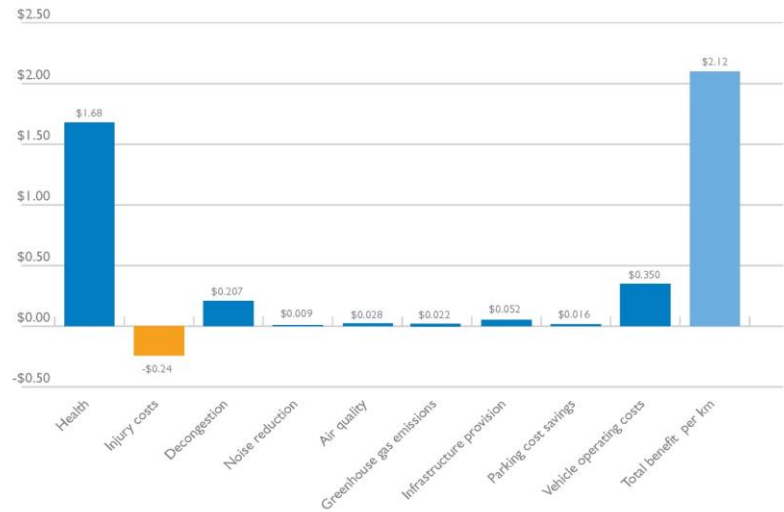




Why walking matters



Figure 1.2 Benefits per kilometre walked, for an average project



Source: Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*, prepared by SKM and PWC, table EX.1: benefits summary.

Why walking matters



Walking to work benefits the economy:

376,921 people walk daily to work (Census 2011)

x 2.0 km return trip (1km average each way)

x \$2.12/km benefit to economy

= \$1,600,000 benefit to the economy

“\$1.6 million a day from walking commuters”

x 260 working days a year

= **\$416,000,000 / year** to economy

“\$416 million a year from walking commuters”



Why walking matters



Walking to public transport benefits the economy:

746,479 people used public transport (Census 2011, BITRE 2014)

Excludes 290,778 who used PT and ‘another method’

x 1.6 km walking distance (400m each way x twice)

x \$2.12/km benefit to economy

= \$2,530,000 benefit to the economy

“\$2.5 million a day walking to public transit”

x 260 working days a year

= **\$658,000,000 / year** to economy

“\$658 million a year walking to public transit”



Why walking matters

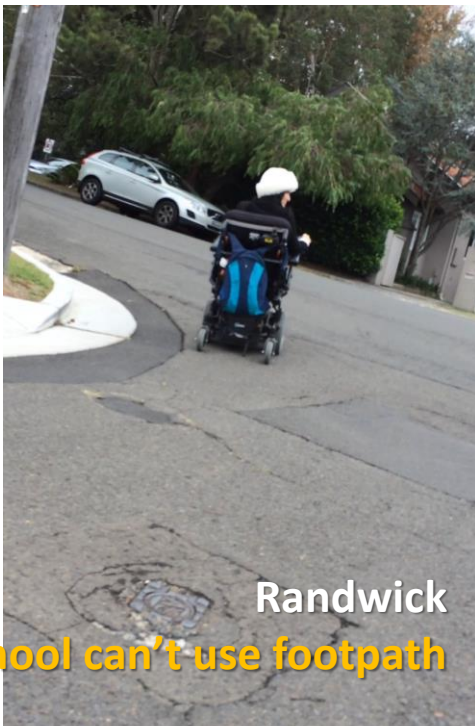


So why do we make it so hard?

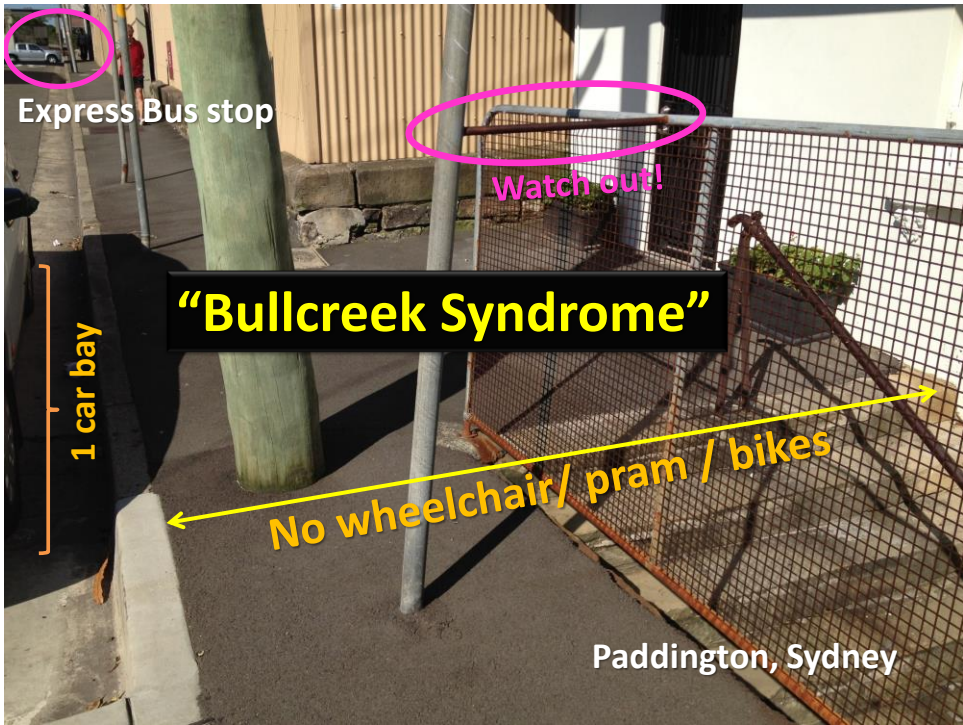




Mother at local school can't use footpath



Randwick



Why walking matters



“The **distance** people will walk to transit depends on the **type of transit service**, but even more, on the **quality of the walking experience.**”

Brent Toderian, Twitter, 10 Aug 2015



Why cycling matters



4.0 million Australians ride a bike **every week**

=17.4% of the population

8.3 million Australians ride at least once a **year**

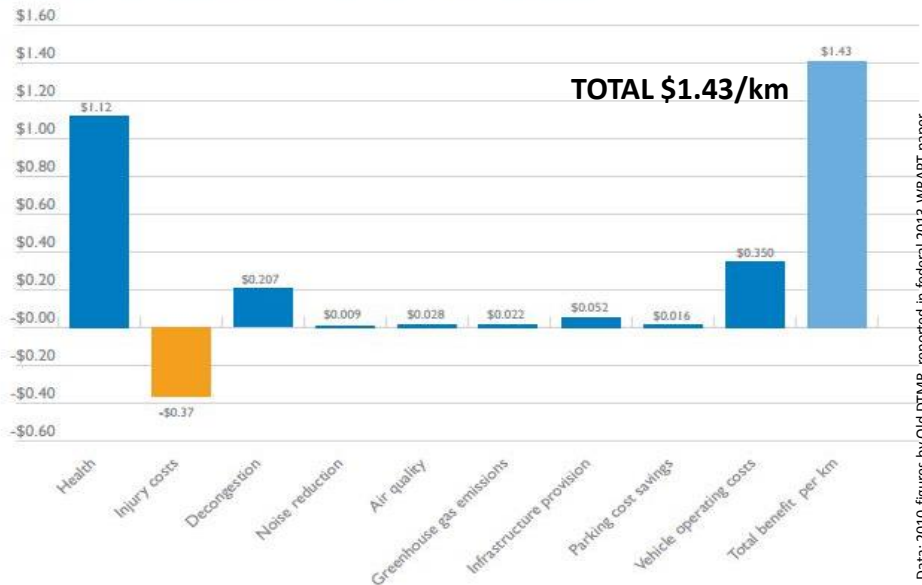


ABC 2015 'National Cycling Participation Survey'

WHY cycling matters

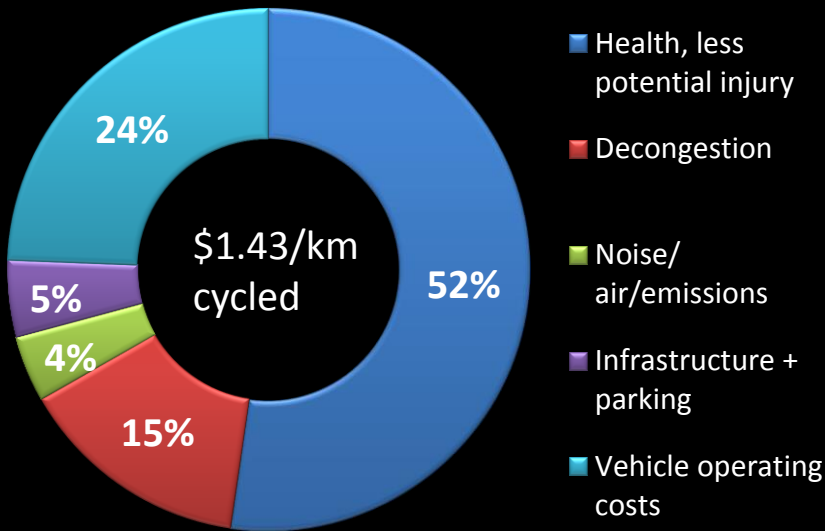


Figure 1.3 Benefits per kilometre cycled, for an average project



Data: 2010 figures by Qld DTMR, reported in federal 2013 WRAPT paper

Economic benefits of cycling for transport



Data: 2010 figures by Qld DTMR, reported in federal 2013 WRAPT paper

WHY cycling matters



Cycling to work benefits the economy:

103,893 people cycle daily to work (ABS 2012)

x 9.2km return trip (4.6km average each way, Charting Transport)

x \$1.43/km benefit to economy

= \$1,370,000 benefit to the economy

“\$1.37 million a day from bike commuters”

x 260 working days a year

= **\$355,000,000 / year** to economy

“\$355 million a year from bike commuters”



AT = \$1.43 billion every year



Savings to the national economy by “active travel commuters”:

Cycling \$355 million / year

Walking \$416 million / year

Walk to PT \$658 million / year

TOTAL \$1,429 million/ year (in 2011 figures)

“Active Travel saves the national economy

\$1.43 billion a year”



AT = \$1.43 billion every year



The next \$ billion?



The next \$1 billion?



We could save a further \$1 billion
by convincing 350,000 adults to
swap 2-3 hours/week driving to cycle/walk

(ie. 40km/week cycled)

Low-hanging fruit:

- a) 'Interested but concerned' cohort
- b) Living < 5km from work/study
- c) Living < 2km from major transport hub



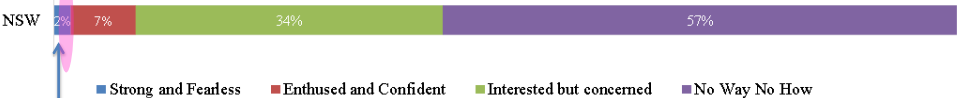
'Interested but concerned'



How would you categorise yourself as a bike rider?

ITLS 2015: Transport Survey Q1

Beyond 'Strong + Fearless'



Cycling to work or study...

~ 1% mode share in Sydney
'Strong + Fearless' only

In some locations up to 11% =
'Enthusied + Confident'
'Interested + Concerned'

ITLS 2015: Transport Survey Q1

Low-hanging fruit



b) People who live close to work/study

~ 600,000 (14%) live < 5km from work

~ 700,000 (16.5%) live 5-10km from work

= **1,300,000 adults live < 10km from work**

Most of them drive.

If a quarter (350,000) swap 2-3 hours/week driving to cycling, we'd save \$1 BILLION annually

(ie. 40km/week cycled)

4,273,000 people drive to work daily (Census 2011)



Low-hanging fruit



c) Leverage **public transport** assets by expanding **catchment potential**

ie walk/cycle to train/tram/bus stop

"Bullcreek Syndrome"

(ie. 40km/week cycled)



One problem, however, is that local street networks don't always support good walking or riding connection to train stations. At Bull Creek station, some houses are only 260 metres from the station in a direct line, but require a walk of up to 1570 metres along the footpath.



What needs to be done



1. PLAN
2. BUILD
3. ENCOURAGE
4. MANAGE

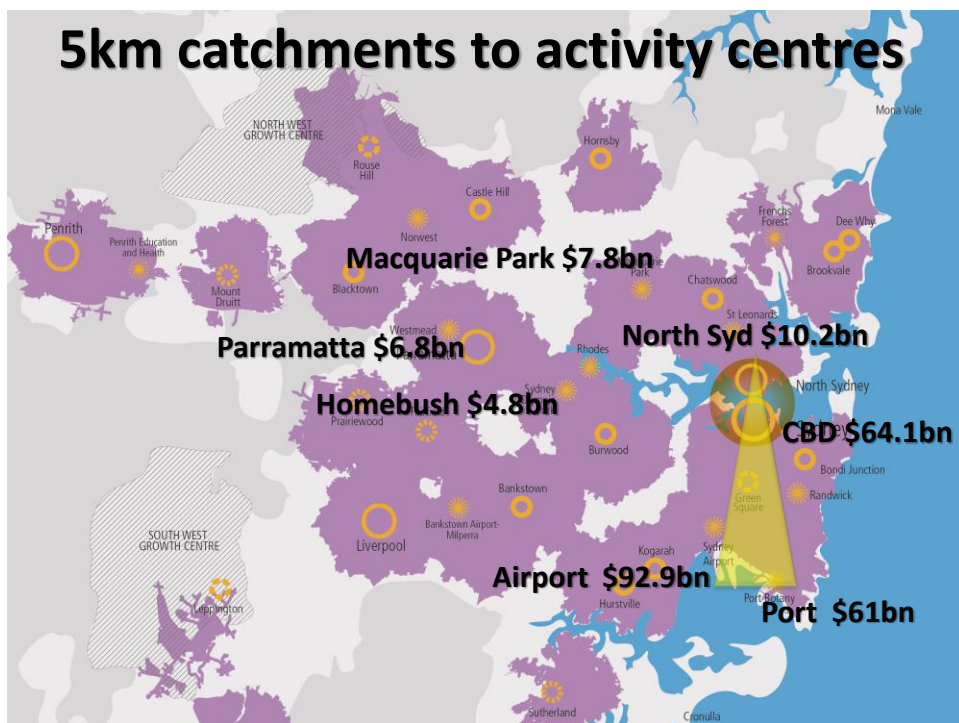


1. PLAN



Include walking + cycling when planning for all land use and transport:

- Networks of continuous, convenient connections
- Focus on 20-minute catchments
–5km bicycle ride / 2km walk



2. BUILD



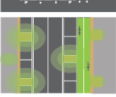





Deliver appropriate infrastructure:

- Create **safe environments**
 - Separate from high-speed, high-volume traffic
 - Allocate/ Share road in low-speed, low-volume traffic
- Incorporate **when building other infrastructure**
- Leverage **public transport catchments**
- Improve **paths, intersections, facilities**
 - Prioritise bikes + pedestrians
 - Remove barriers, obstacles, bottlenecks



Aust Govt, 2013, Walking, Riding + Access to Public Transport (WRAPT) ministerial statement

| | | | | | |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| Street or road type | Shared Zone with mixed traffic considered on a case by case basis | High pedestrian activity areas | Most urban roads | Urban arterial roads | Motorways and national highway network |
| Vehicle speed | < 20km/h | 15-40km/h | 40-60km/h | 60-90km/h | 90-110km/h |
| | | | | Pedestrians + bicycles fully separated from vehicles | Pedestrians + bicycles fully separated from road environment |
| <div>Consider first</div> <div></div> <div>Consider last</div> | Pedestrians | Pedestrians | Pedestrians on footpaths | | |
| | Bicycles | Bicycle lane on road | Wide bicycle lane on road or shared path** | | |
| | Public transport | Public transport | Public transport | Public transport | Freight vehicles |
| | Service vehicles | Service vehicles | Service vehicles | Freight and goods | Public transport |
| | Goods delivery | Goods delivery | Goods delivery | Service vehicles | Service vehicles |
| | Private vehicles | Private vehicles | Private vehicles | Private vehicles | Private vehicles |

Build the right infrastructure



Build the right infrastructure



Build the right infrastructure



3. ENCOURAGE



Encourage all ages/ groups to participate:

- **Programs and incentives**

- Inform people of options (eg workplace travel plans)
- Improve skills and awareness (eg driver + cycling skills)
- Encourage kids, parents, teachers, employers, workers
- Aspirational and fun!

- **Information**

- Eg good quality maps, route information
- Real time information (eg bus/train)



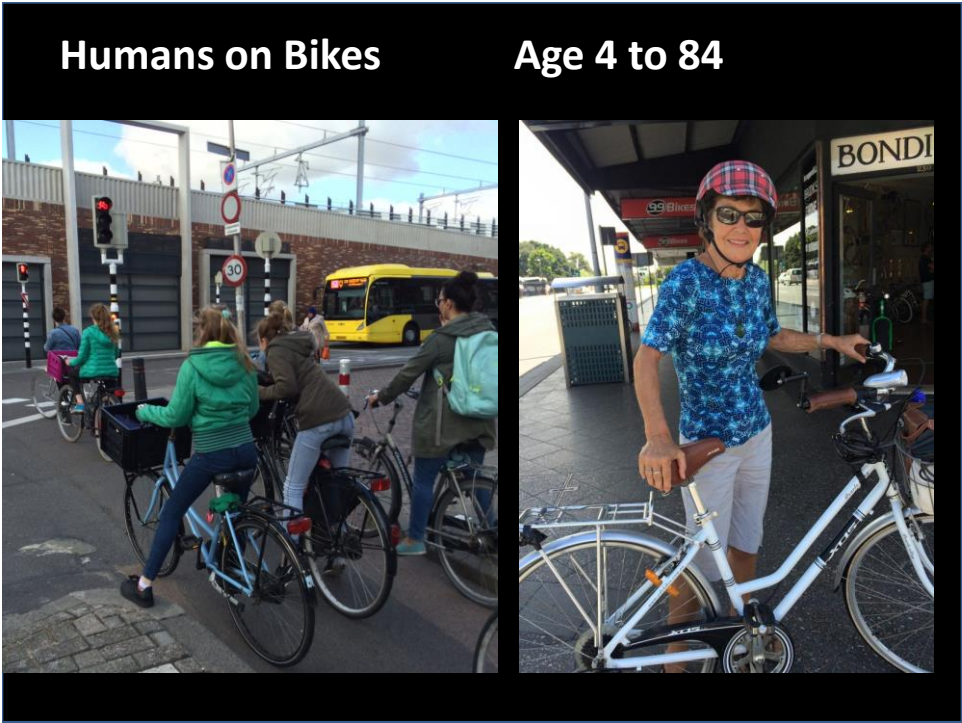
Humans On Bikes



"My first bike ride."

Facebook/[@Humansonbike](https://www.facebook.com/Humansonbike)
Twitter/[@HoBikes](https://twitter.com/HoBikes)

#HumansOnBikes



4. MANAGE



Co-ordinate and fund **across agencies:**

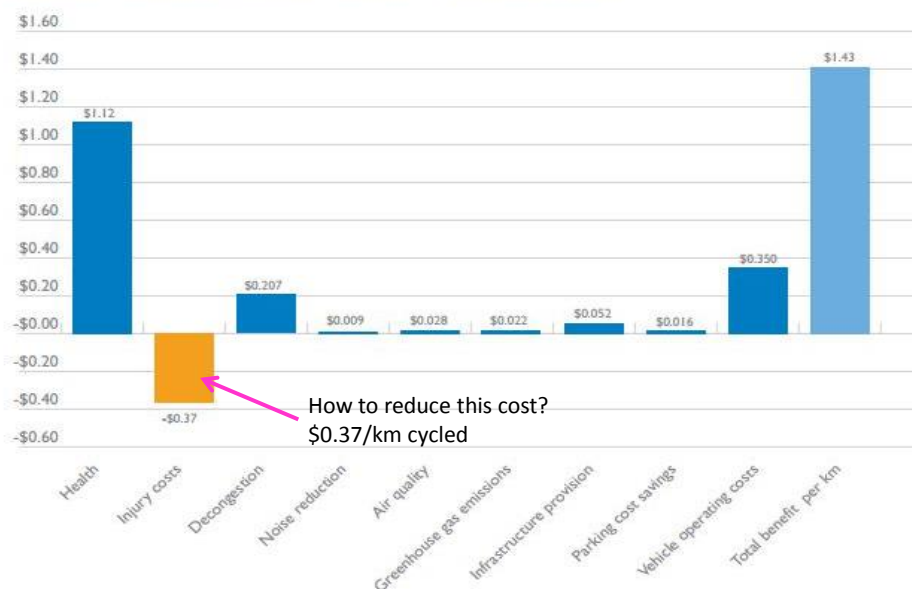
- Link **plans to funding**
- Best practice governance, monitoring, evaluation



Injury 'disbenefit'



Figure 1.3 Benefits per kilometre cycled, for an average project



Injury 'disbenefit'



103,893 people cycle daily to work @ 9.2km
x \$0.37/km potential injury 'disbenefit'
= **\$354,000 daily injury cost of cycle commuting**

376,921 people walk daily to work @ 2.0 km
746,479 people use public transport @ 1.6 km walk
x \$0.24/km potential injury disbenefit
= **\$468,000 daily injury cost of walk commuting**

x 260 working days a year

= **\$213 million / year 'injury disbenefit' from AT**
"minimum \$\$ spend" ?



\$1 billion question



- Sydney's \$228 billion economic triangle
 - Traffic congestion
 - Solution is walking + cycling
- Why active transport matters
 - Economic benefits = \$1.43 billion annually
 - 'Low-hanging fruit'
 - a) Interested but concerned
 - b) 2km and 5km catchments
- What needs to be done
 - Plan, build, encourage, manage
 - Minimise injury \$0.2bn annually





Reports available from www.linkplace.com.au

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