

# Not so fast!

Slowing down for a healthier,  
wealthier and more sustainable city

Rodney Tolley  
Conference Director, Walk21

Presented to Transportation Group NZ, Wellington, March 5th 2019

# Presentation outline

- The supposed advantages of speed
- How did cities become obsessed with speed and time saving?
- Does speed actually save us time?
- The health impacts of the 'slower' modes
- Practical interventions and cultural shifts
- Based on Paul Tranter and Rodney Tolley: *Slowing city transportation for a healthier, wealthier and more sustainable city*, Elsevier, late 2019: feedback welcome!

# The supposed advantages of speed

- Speed as ‘progress’:
  - ‘Higher speeds will save time for everyone’
  - ‘Higher speed boosts economic growth’
  - ‘Faster is always better’

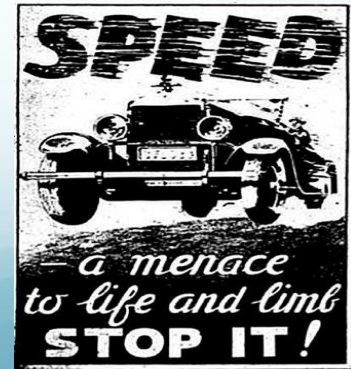


# How did our society develop an obsession with speed and time saving?

- Initial hostility to street invasion by cars
- Established social values
  - Streets used for games, socialising, trade
- Very real safety hazard
  - US crash fatalities doubled to 26,000 p.a. 1920-28, mainly cars killing people on foot
- Outcry against speed: public, police, judges and media

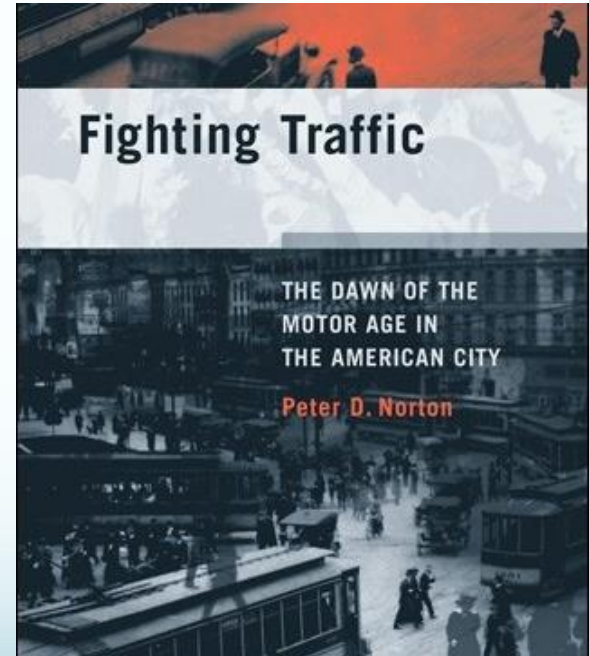


Mulberry Street  
NYC, 1900s



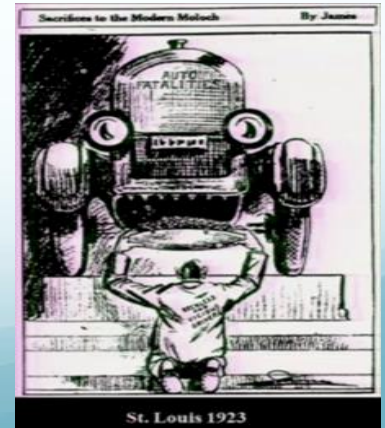
# Motoring lobby: how to market speed 'advantage' of cars?

- Organise:
  - “Motordom”
- Fund:
  - Gasoline taxes
- Strategise:
  - Ruthless dismissal of negative views on speed
- “One of the biggest shifts in the status quo ...in history” (Norton, 2015)



# Motordom: changing the culture

- Motordom had to change the stories about the past and the visions of the future
  - A 'new age', the 'motor age' i.e. the way we have been doing things is outdated and open to question
  - Change the beliefs from the past that streets are for people
  - Persuade city residents that speed was a positive change



# Motordom: Re-framing the discourse

- Shift:
  - ‘Safety’ from a speed problem to an engineering problem
    - Cars have ‘right to speed’: ‘the road is too slow for the car’
  - Blame for crashes from cars to ‘reckless’ people
    - Parallels: “guns don’t kill people, people do”
    - Lobby for driver licencing: reckless drivers could be fined
  - School safety responsibility to AAA
    - Streets re-defined in teaching as ‘places for autos’
    - AAA took over all school safety patrols
      - Past: stopped cars so that children could cross
      - New: stopped children until road was clear



# Motordom: regulate 'reckless' pedestrians'!

- Crosswalks appeared
- Relentless propaganda and shaming campaigns
  - New term of ridicule: 'jaywalkers'
    - Signs banning jaywalking in LA paid for by Auto Club
    - Boy Scouts recruited to hand out cards to jaywalkers
- Radical shift in public, media and legal attitudes to street use
  - 1930s "Majority of fatal accidents caused by pedestrians"



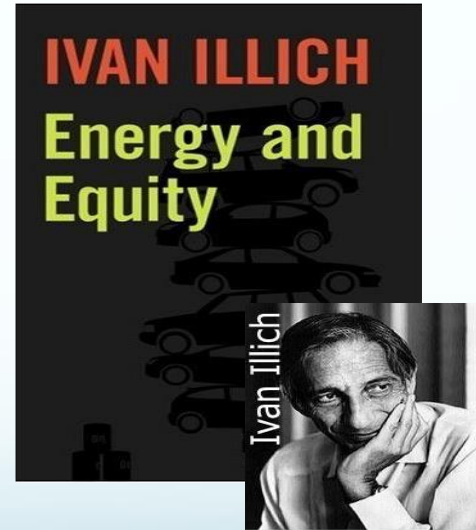


# Why is the story of motordom important?

- Concerted attempt to change views of speed in the city
  - Culture of speed not due to:
    - Inexorable logic
    - “It was what we wanted”
    - Innate advantages for cities or society
- Lessons?
  - A cultural change in the speed/safety paradigm is feasible

# A culture of speed

- Does speed actually help us to save time?
  - Destinations
  - Effective speed and the work of Ivan Illich, 1974



# Time 'savings' create isolated destinations

- Time savings from faster travel consumed by travelling further
  - Lewis Mumford, *The City in History*, 1961:
    - (Speed) *“denies the possibility of easy meetings and encounters by scattering the fragments of a city at random over a whole region”*
  - Ivan Illich, *Energy and equity*, 1974:
    - *“Beyond a certain speed motorised vehicles create remoteness which only they can shrink. They create distances for all and shrink them for only a few”*
- The trap of longer travel distances, **required**, for everyone

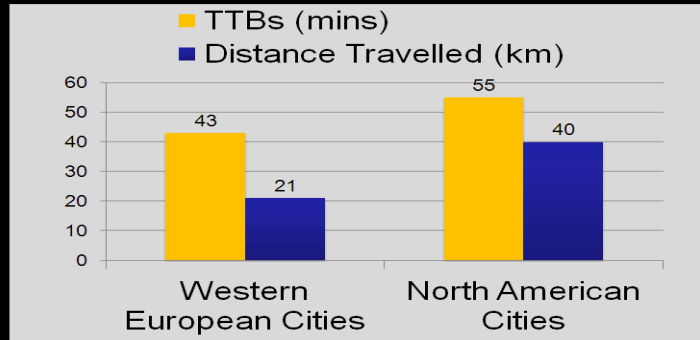


St Vincent's  
closed, by Dave  
Winer

<https://www.flickr.com/photos/scriptingnews/4669941472/>

# Time spent travelling per day, by mode

## Travel Time Budgets (TTBs)

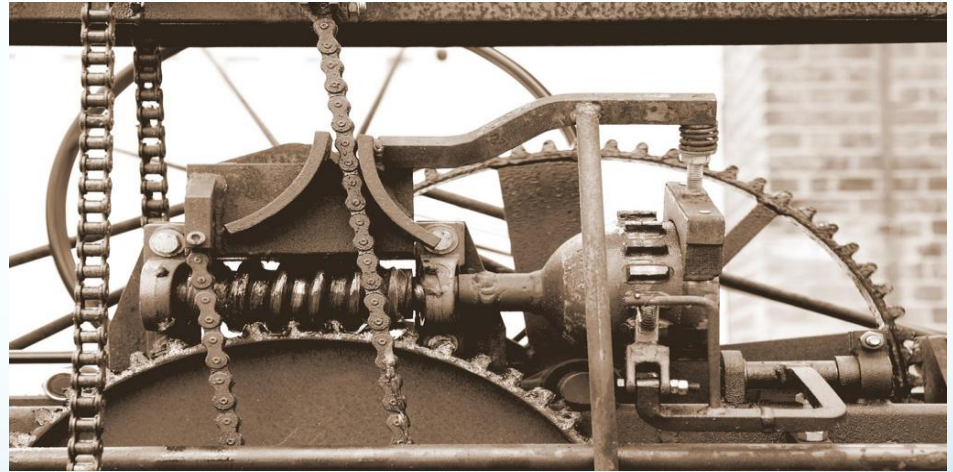


- Car dominated North American cities:
  - Faster travel
  - More time spent each day travelling
- Western European cities (more 'active travel')
  - Slower travel
  - Less time spent each day travelling

(July, 2004)

# Gathering resources for speed

- An example: this machine 'saves you time' e.g. by fetching a bucket of water and saving you time walking)
- The catch: it takes an hour per day to wind up the spring to power it
- When we calculate the 'time saved' by using this machine, should we consider the time spent winding up the spring?



Steampunk Machine by Barney Moss  
<https://www.flickr.com/photos/barneymoss/6160570510>

# Increasing the time we must spend on travel

- Winding up the spring: earning money to pay for time-saving devices
- Illich: “The typical American male devotes more than 1,600 hours a year to his car
- And travels 7,500 miles: **less than five miles per hour**”
- This is “effective speed”, which considers:
  - time driving
  - time spent earning money to pay costs of travel, such as purchase and service costs, fuel, parking, fines, insurance, taxes



Me and my Chevy about 1973 Photo by Hugo90  
(cropped)

<http://www.flickr.com/photos/hugo90/5267822906/>

# Summary: the 'speed paradox'

- Destinations
  - Increased speed is used to cover more distance
  - Car-dominated cities pay for their speed with longer travel times
- Effective speeds
  - Include time we need to gather resources for travel
- The speed paradox
  - Increasing speed does NOT save us time
  - 'Slower' modes can SAVE us time: no need to 'wind up the spring'

# If we used 'slower' modes more, would our cities be healthier, wealthier and more sustainable?

- A holistic view of 'health'
- Personal and community health
  - Physical health
  - Mental health
  - Frequency and severity of crashes
  - Social capital
- Environmental health
  - Air pollution levels
  - Greenhouse gas emissions
- Economic health for families, business and city administrations



# Physical health

## Active travel is vital

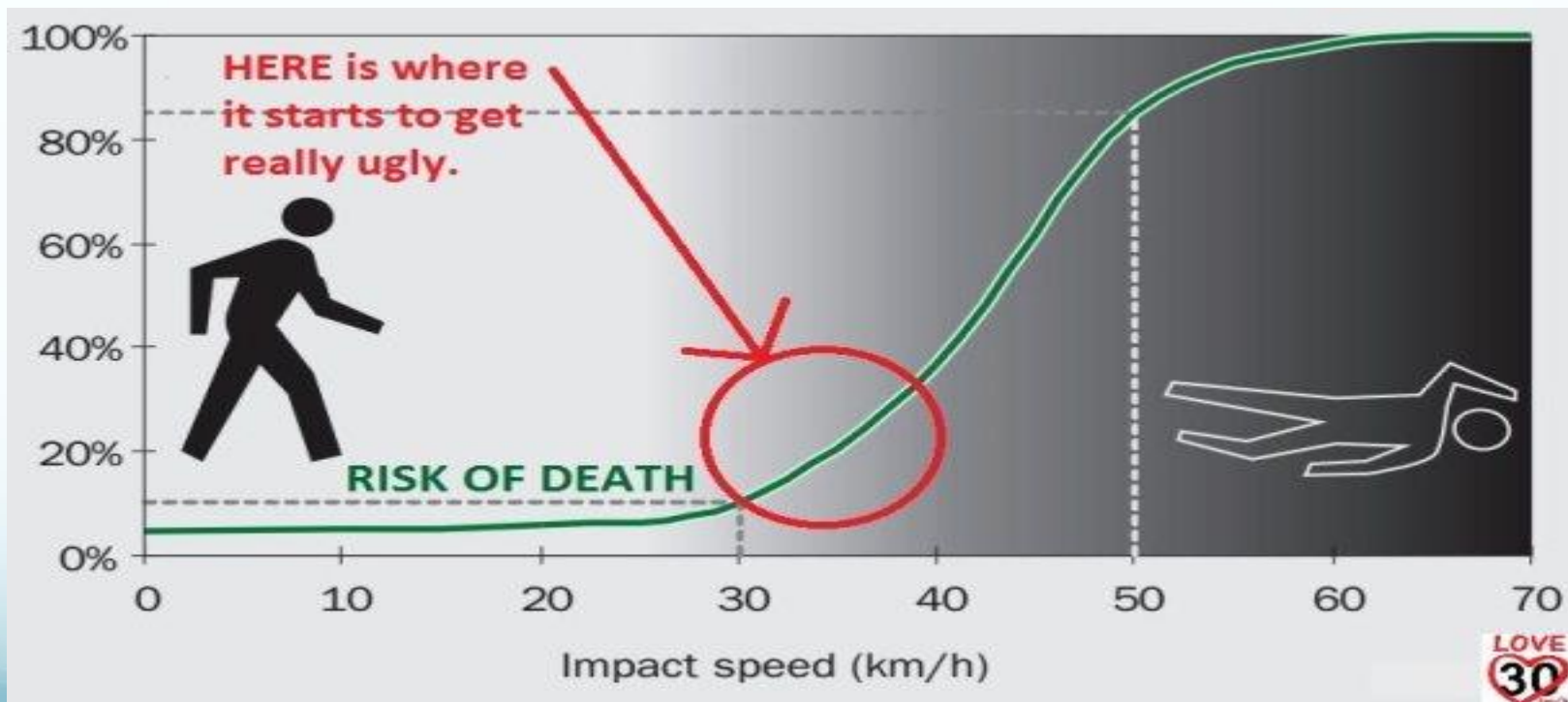


- “From the health promotion point of view, walking is the most important form of physical activity that should be encouraged to improve public health”

(Hillsdon and Thorogood, 1995)

- Many and varied mental health benefits too

# Crashes: the ultimate health effects of rising speeds



# Environmental health impacts of speed

## Air pollution and GHG emissions

- Air pollution

- 4m deaths p.a. from outdoor pollution (3 times the crash toll)
- Higher speed produces less emissions per km per vehicle but:
  - Benefits overwhelmed by more travel and total of emissions
  - Sprawl effects: reduced use of other less polluting modes



- GHG emissions

- Cars in Australia responsible for 50% of GHGs from transport
  - More fuel-efficient vehicles but more of them, bigger and faster
  - Sprawl: loss of forests, more food miles and more consumerism in suburbs
  - Overall, GHGs the most damaging environmental health impact of high speed city transport

# Economic health

## The impact of slowing on individuals and families

- Reduced costs of living car-free or car-light
- Long-term equity gains of the slow neighbourhood
  - ‘High car-needs/ low housing cost’ (suburbs)
  - ‘High housing cost/ low car-need’ (inner city/TOD)
  - Factors:
    - Vehicles depreciate, housing appreciates
    - TOD/inner city: higher initial value and land value growth
  - Consequences (Litman, 2017)
    - *“After one decade the TOD home gains an additional \$63,789 in equity, and nearly \$450k after 25 years...”*
    - *“The owners could retire at age 65, with around \$1m dollars more than the owners of the urban fringe house”*



# Economic health

## Impacts of slowing on retailing

- People on foot spend more than drivers
  - Visit local centres more often than drivers and spend more money
  - Disproportionately add to vibrancy: the turbocharger effect
  - Re-allocating parking space attracts more shoppers and people
- Better quality of slow travel environments increases how far shoppers (and public transport users) will walk/bike



# Economic health

## Impacts of slowing on city productivity

- Foot Traffic Ahead: Leinburger and Rodriguez, 2016
  - The 3 most walkable places in the US have GDP 52% higher than 3 least walkable
  - *“For perhaps the first time in 60 years, walkable urban places in all 30 of the largest metros in the USA are gaining market share over their drivable suburban competition”*
- Auckland CBD studies 2017
  - Strong relationship between productivity and connectivity on foot
  - Walkable streets: a platform for business and the spread of knowledge

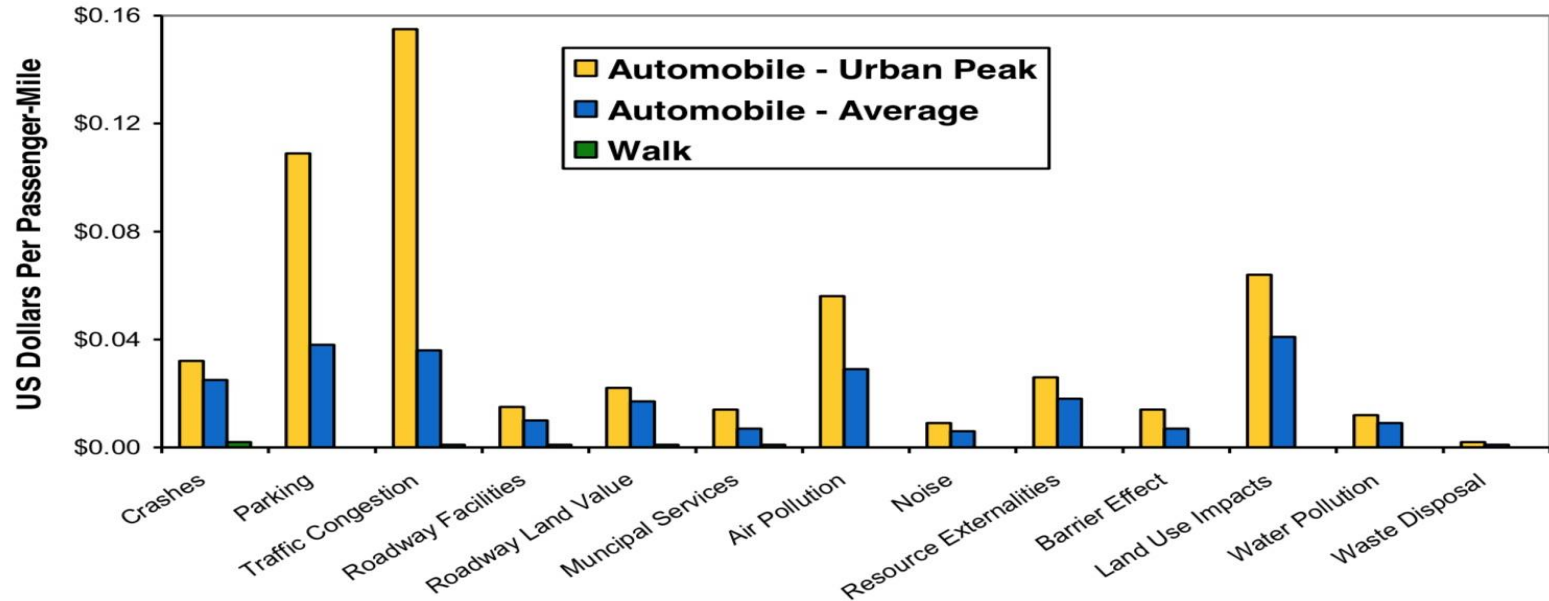


# Economic health

## Impacts of slowing on public expenditure

**Figure 1**

**Estimated External Costs of Automobile Travel and Walking (Litman 2009)**



- Costs that should fall on drivers paid instead by municipalities
- If speeds reduced, many externalities reduce, so taxes can fall

# Practical action for slowing the city: some examples

- Reducing the speed of motorised traffic
  - e.g. area-wide low speed zones
- Traffic management approaches
  - e.g. promoting the slower modes
- Reallocating road capacity
  - e.g. prioritising slow and sustainable choices
- Land-use and planning changes
  - e.g. zoning and codes



# Practical action example

## Reducing the speed of motorised traffic

- Growing acceptance of lower urban speed limits
- Spread of area-wide 30km/h zones in Europe
  - '20's Plenty for Us', UK: 13 million people live in cities with a default 20 mph limit
  - Munich, Berlin, Vienna: traffic calmed about 80% of their road networks
- Graz (1992) as pioneer for 30 km/h default across entire city
  - Paris (2016) now enacting this
  - Spain country-wide 30 km/h limits on most city streets
- Global spread of default low speeds
  - Boston; Portland; Central Christchurch 30 km/h (2016)



# Practical action example

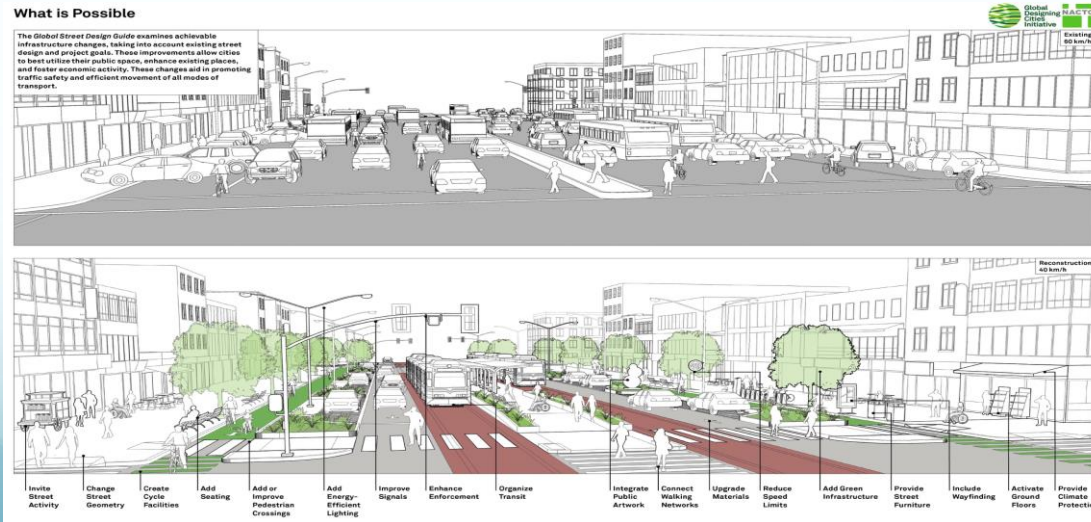
## Traffic management: promoting 'slow' modes

- How many of you live in a place with a cycling strategy?
- How many of you live in a place with a walking strategy?
- *“Until you solve that problem, the position of the walker will not improve”*
- (Ole Thorsson, International Federation of Pedestrians, 2015)



# Practical action example: Reallocating road capacity

- Global Street Design Guide, NACTO, 2016
  - Sets a new global baseline for designing urban streets
  - The first worldwide standard for redesigning city streets to prioritise slow travel and sustainable mobility



<http://nacto.org/global-street-design-guide>

**Figure 2. From Land Use to Travel Behaviour to Health**

**Planning and Investment Policies and Practices**  
(development practices, infrastructure investment, zoning, development fees...)



**Urban Patterns**  
(density, connectivity, streetscape...)



**Travel Behaviour**  
(amount and type of walking, cycling, public transit and automobile travel...)



**Population Health Impacts**  
(physical fitness, food choices, traffic accidents, pollution exposure, community cohesion...)



Practical  
action  
example

Land use  
planning,  
speed and  
health

We shape the  
cities and the  
cities shape us

# Cultural shifts

## What do we want from the city?

- The goal: accessibility or mobility?
- The difference between the two concepts is simple:
  - **Mobility is** *how far you can go in a given amount of time.*
  - **Accessibility is** *how much you can get to in that time.*
- Accessibility matters most – to jobs, friends and daily needs
- Almost universally, the most accessibility-rich locations are places where you don't move very fast
- Minneapolis city planner Paul Mogush:

*“Put the stuff closer together so it’s easier to get to the stuff.”*

# Cultural shifts

## The world wide renaissance of 'slow' travel

- Rediscovering the importance of SLOW
  - Health, physical and mental
  - Reducing road danger
  - Cleaner air, less GHGs
  - Economic benefits
  - Social and community: connection and resilience
- Learning how to deliver
  - Professional skills
    - Measuring: Walkscore, GIS, Int. Walking Data Standard
    - Infrastructure: density, healthy design, placemaking, networks
  - Political leadership
  - Public awareness
    - Advocacy movements
    - Community engagement
  - Partnerships, especially with health



Source: Heart foundation

# Motordom?

- Cities throughout the world are learning that speed is not the magic solution that motordom promised



- Motordom claimed: *"It's a new age"*
  - *"The ways we have been doing things in city transport for the last 100 years are now outdated and open to question"*
- Proponents of slower, healthier, wealthier cities can claim the same thing: *"It's a new age"*
  - *"The ways we have been doing things in city transport for the last 100 years are now outdated and open to question"*

# The healthier, wealthier and more sustainable city

- Successful cities are re-discovering ‘slower’ transport



*“The 20<sup>th</sup> Century was about getting around. The 21st Century will be about staying in a place worth staying in”*  
*(James Howard Kunstler)*



# So get on with it!

- *"We are realising that if you have people walk and bicycle more, you have a more lively, more liveable, more attractive, more safe, more sustainable and more healthy city.*
- *And what are you waiting for?"*

*Jan Gehl*



*Peatónito, masked defender of pedestrian's rights, Mexico City*



*Ask your children... What kind of place do you want to live in?*

*Slow travellers are the indicator species for quality of life in our cities*



# Thank you!

[rodney.tolley@gmail.com](mailto:rodney.tolley@gmail.com)