

# Planning a Cycling City

University of Amsterdam 2019



# Introduction

- 30 students
- 20 countries
- 22 professional lecturers
- 3 weeks
- 9,422 km's cycled
- Diversity of professional backgrounds



# Amsterdam in numbers

*Number*

**900,000**

**#1**

**881,000**

**2,000,000km**

**767km**

**200,000-225,000**

*Description*

**Population**

**Safest European city**

**Number of bikes**

**No of kilometres cycled each day**

**Total length of cycle paths and bike lanes**

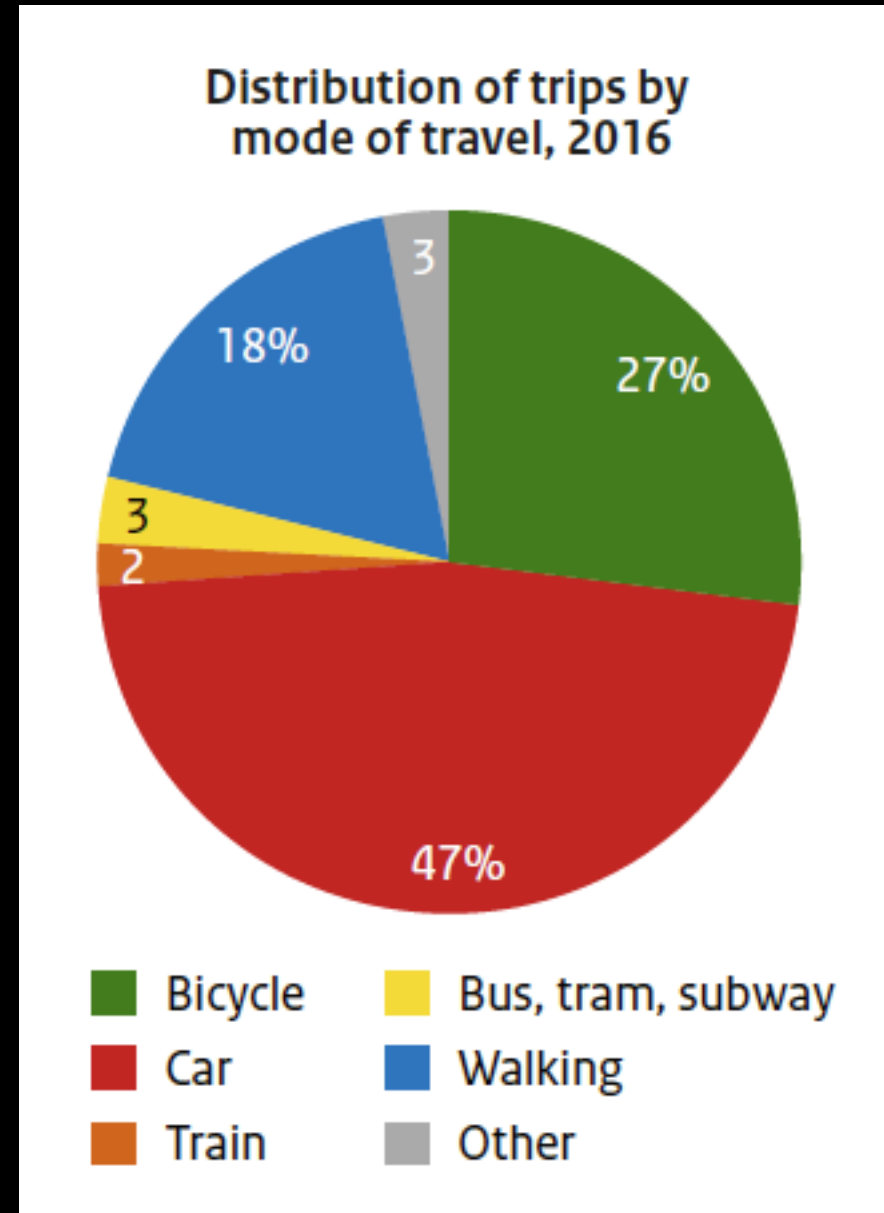
**No of bike racks**



# Myths busted

## #1 The Dutch Cycle Boom

- Bicycle share NL 2010?  
~ 25%
- Bicycle share NL 2000?  
~ 25%
- Bicycle share NL 1980?  
~ 25%



Source: NTS 2016





# Myths busted

1. It can be efficiently engineered.
2. Build it and they will come.
3. Cycling replaces driving.
4. Write a plan and follow it.

*Sources: Marco Te Brommelstroet*



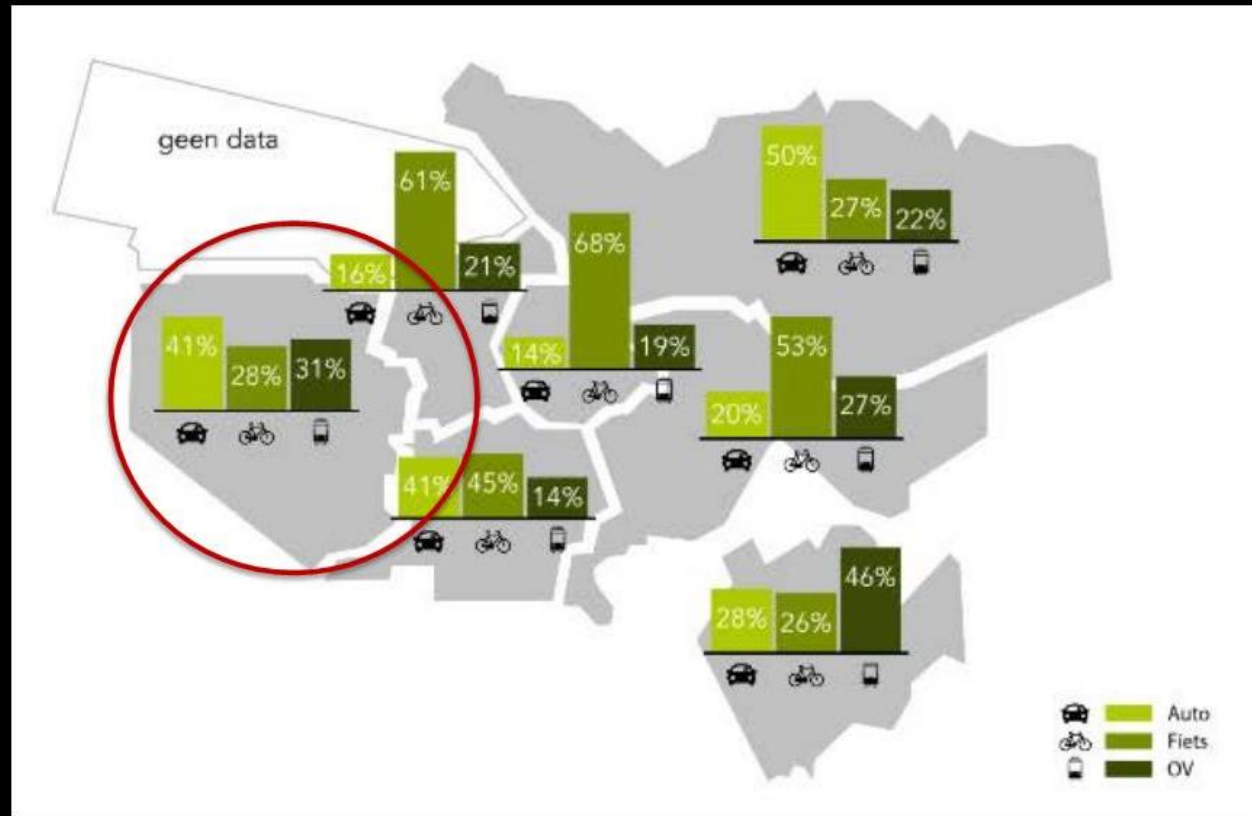
~~A cycling city can be  
efficiently engineered.~~

A cycling city can **and will always be messy  
and organic.**

Urban  
Cycling  
Institute



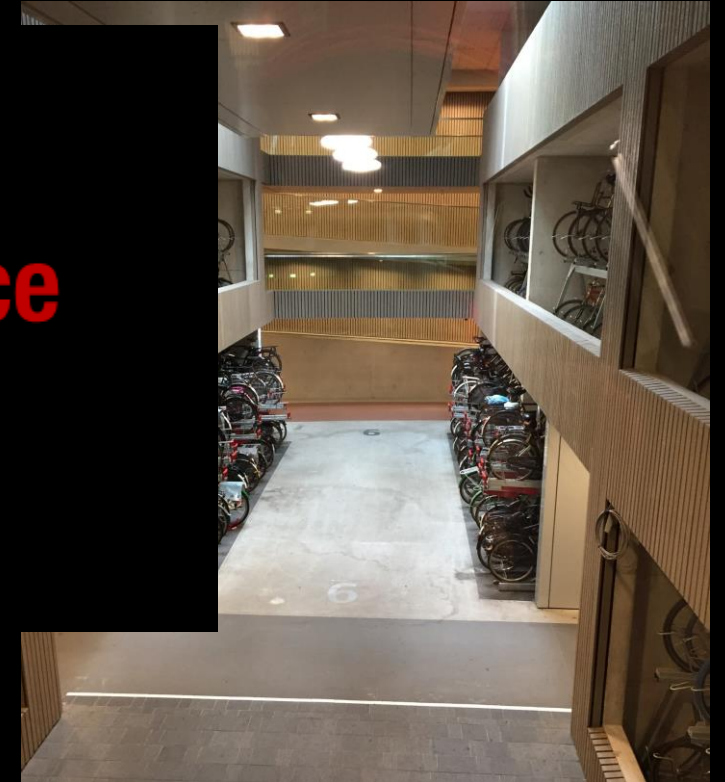
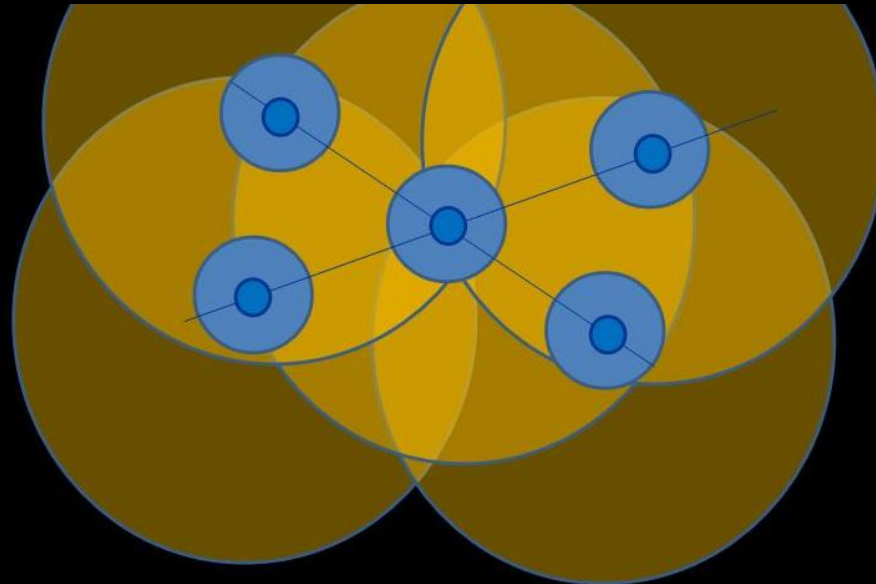
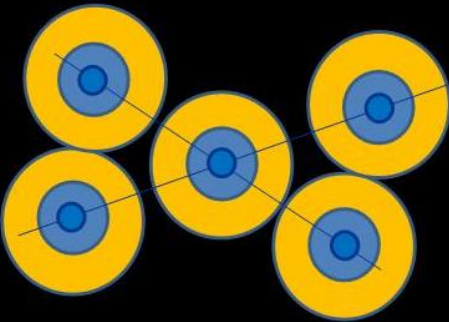
## 2. Build it and they will come.





~~Cycling replaces driving.~~

Cycling plus a dense and high service transit network can replace driving.



# 4. Write a plan and follow it.



~~Write a plan & follow it.~~

Writing a plan **helps but listen to & watch the people, experiment and follow their dreams.** Then re-write the plan.



# Histor







A project by @sustainableAMS & @schlijper



# Recent Trends in The Netherlands

## 1. Spatial differences

- Urban Density rather than Urban Sprawl
- Cycling increasing in urban areas and decreasing in rural areas

## 2. Large Social differences

- Elderly and younger people are cycling more often
- Baby boomers are cycling more frequently and over greater distance (but also using the car more often)
- From suburbanization to re-urbanization
- Young people aren't buying cars because they are buying smart phones instead

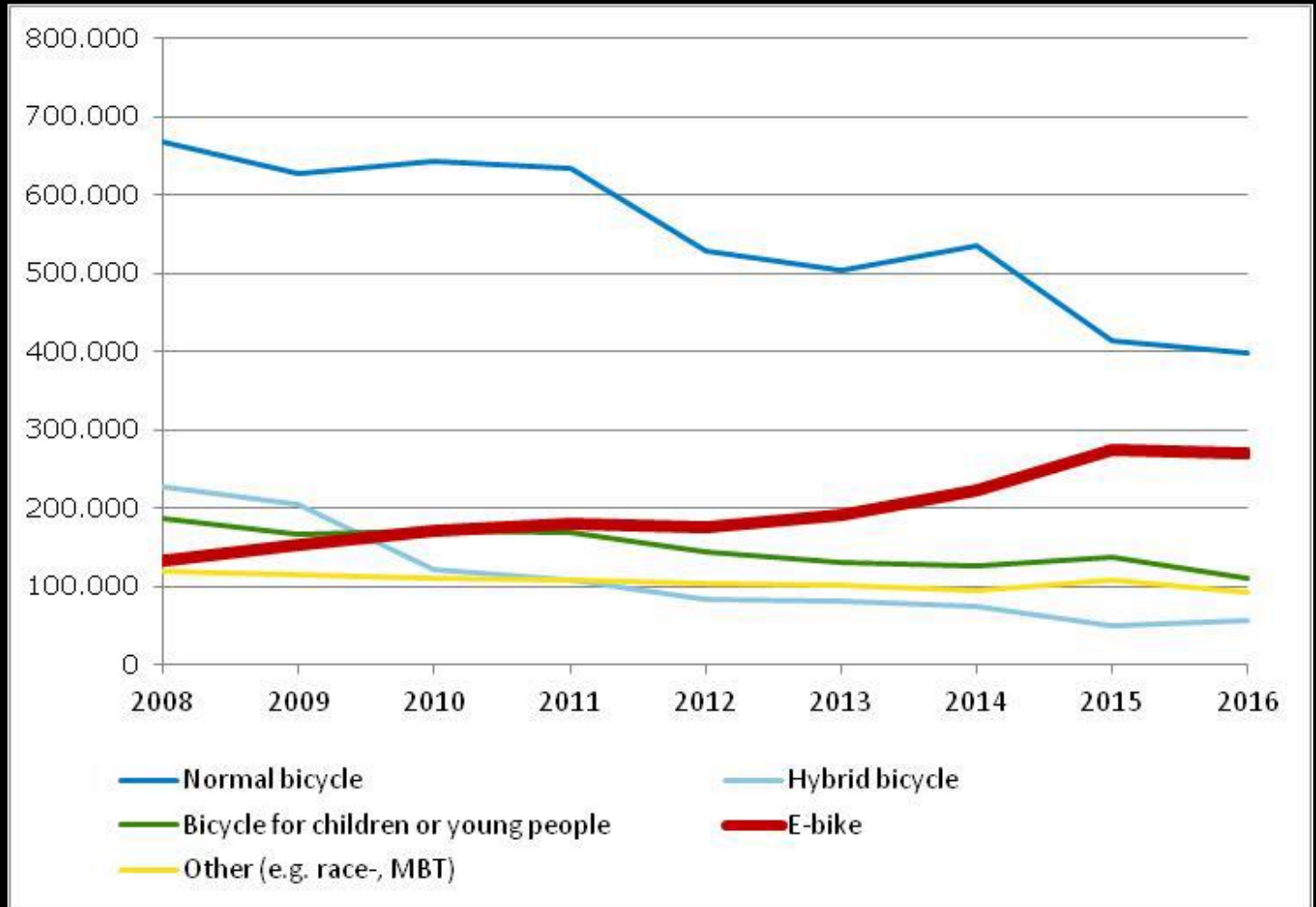


# The rise of the E-Bike

Increase in radius of cycle distance from 7.5km to 15km

E-bikers are mostly 65+

Predominantly used for recreation



Sales of bicycles and e-bikes, 2008-2016  
Source: RAI-Bovag (2017)

# The E-bike

- Mostly used by elderly and for leisure trips, but...
- Impact: increase spatial radius of cycling
- Impact: reduction # car trips, PT and 'normal' cycling
- Impact: physical and mental health



# Inducing Success

- **hardware:** providing infrastructure, both push and pull
- **software:** providing education and information
- **orgware:** organization and implementation of cycling policy  
eg. social and spatial context



# The Dutch Culture

- Keys, wallet, phone ... and BIKE!
- Royal family
- Bike minute as standard unit of time measurement
- Bike as national symbol and pride
- Reverse snobbery



*The point is not that the dutch cycle, the point is that the dutch do not stop cycling when they became rich enough to afford alternatives.*



# The Cargo bike – Dutch SUV?



Photos: Urban Cycle Chic

# Immigrant cycling

- Mama Agatha
- ~2500 Immigrant women educated





# Community Cycle Festival

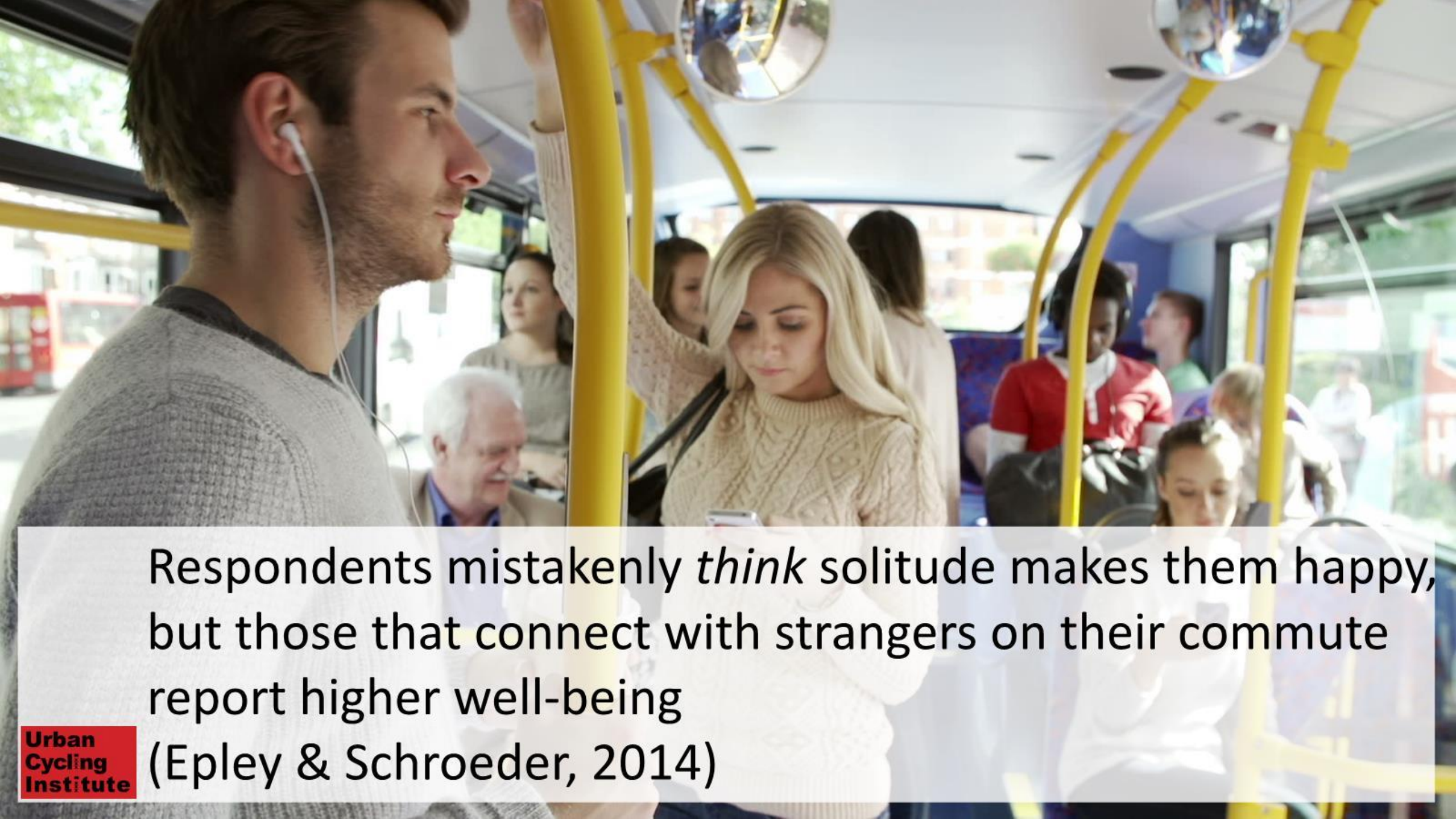




**THINGS ARE NOT ALWAYS  
WHAT THEY SEEM**

***THE DEER ISN'T  
CROSSING THE ROAD  
THE ROAD IS CROSSING  
THE FOREST.***

[www.piecefit.com](http://www.piecefit.com)



Respondents mistakenly *think* solitude makes them happy, but those that connect with strangers on their commute report higher well-being (Epley & Schroeder, 2014)

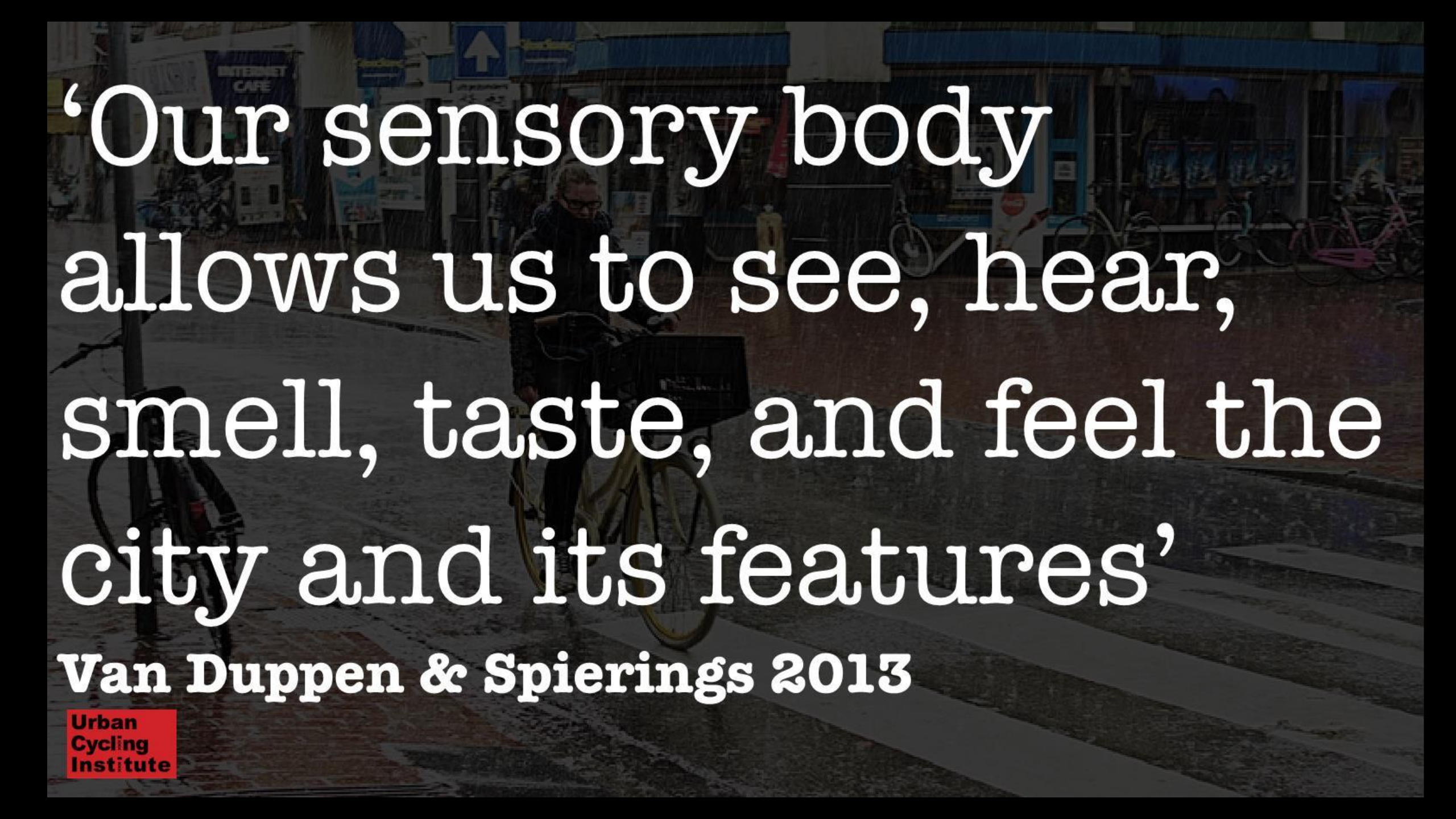


‘People who are more socially connected to family, to friends, to communities are happier, healthier and live longer’

Robert Waldinger, 2015

Social  
Interactive  
Family  
Stimulation



A person is riding a bicycle with a basket on a city street. The background shows a building with a sign that says 'INTERNET CAFE' and several other bicycles parked nearby. The scene is dimly lit, suggesting an overcast day or early morning/late afternoon.

‘Our sensory body  
allows us to see, hear,  
smell, taste, and feel the  
city and its features’

**Van Duppen & Spierings 2013**

urban mobility  
and liveability?

System purpose

**Mobility**

System performance

**Travel time (savings)**

System feedback

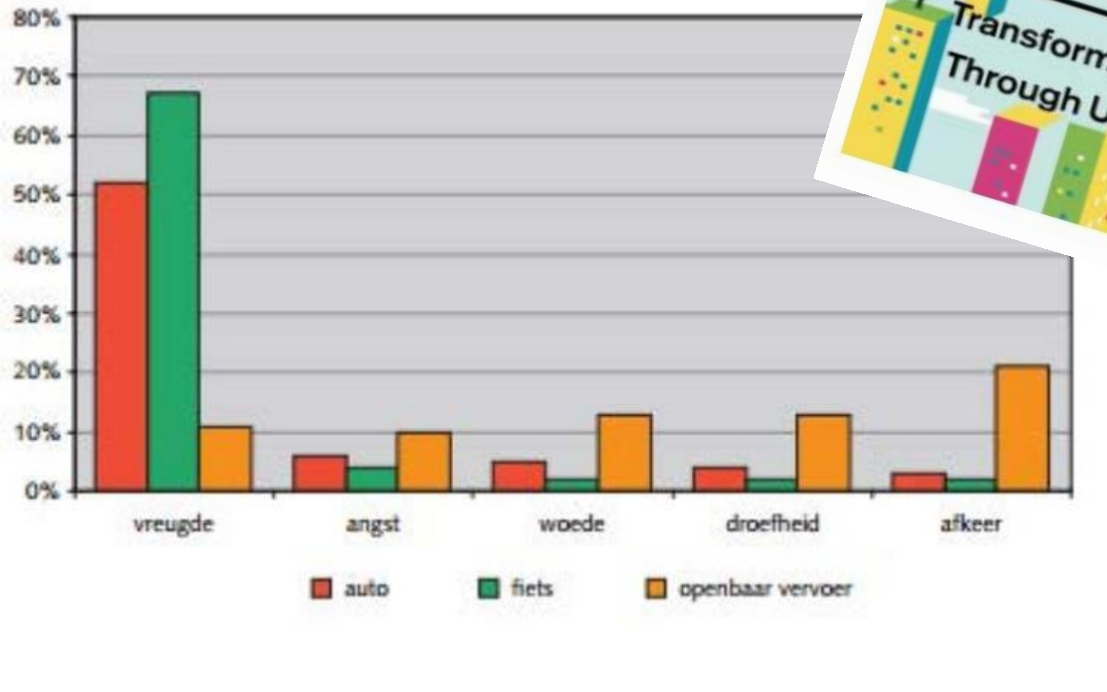
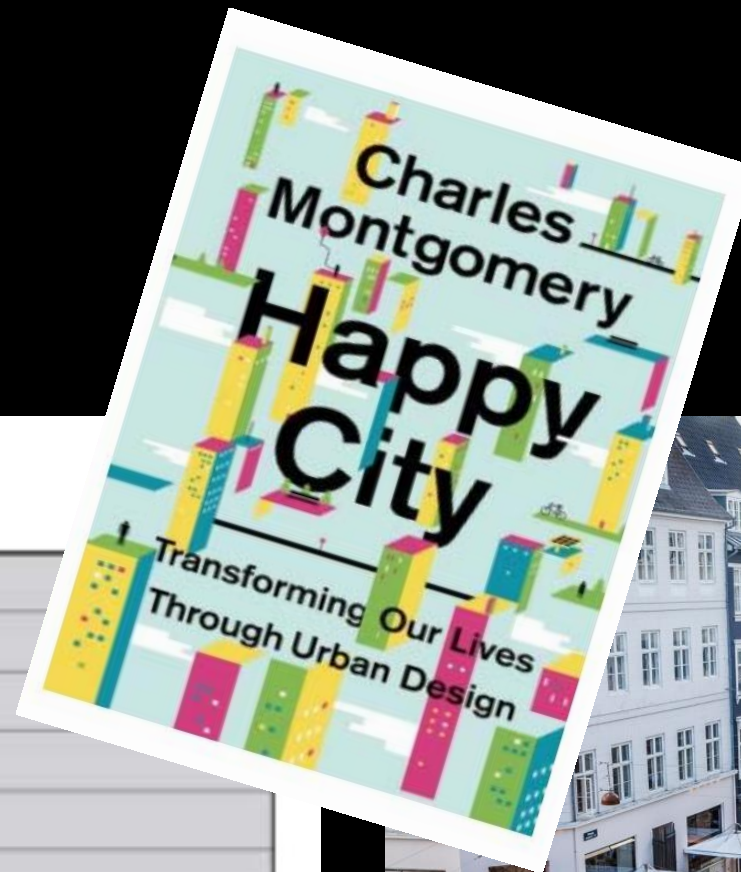
**Rational choice and gravity**

System Boundary

**Car, commute, traffic**



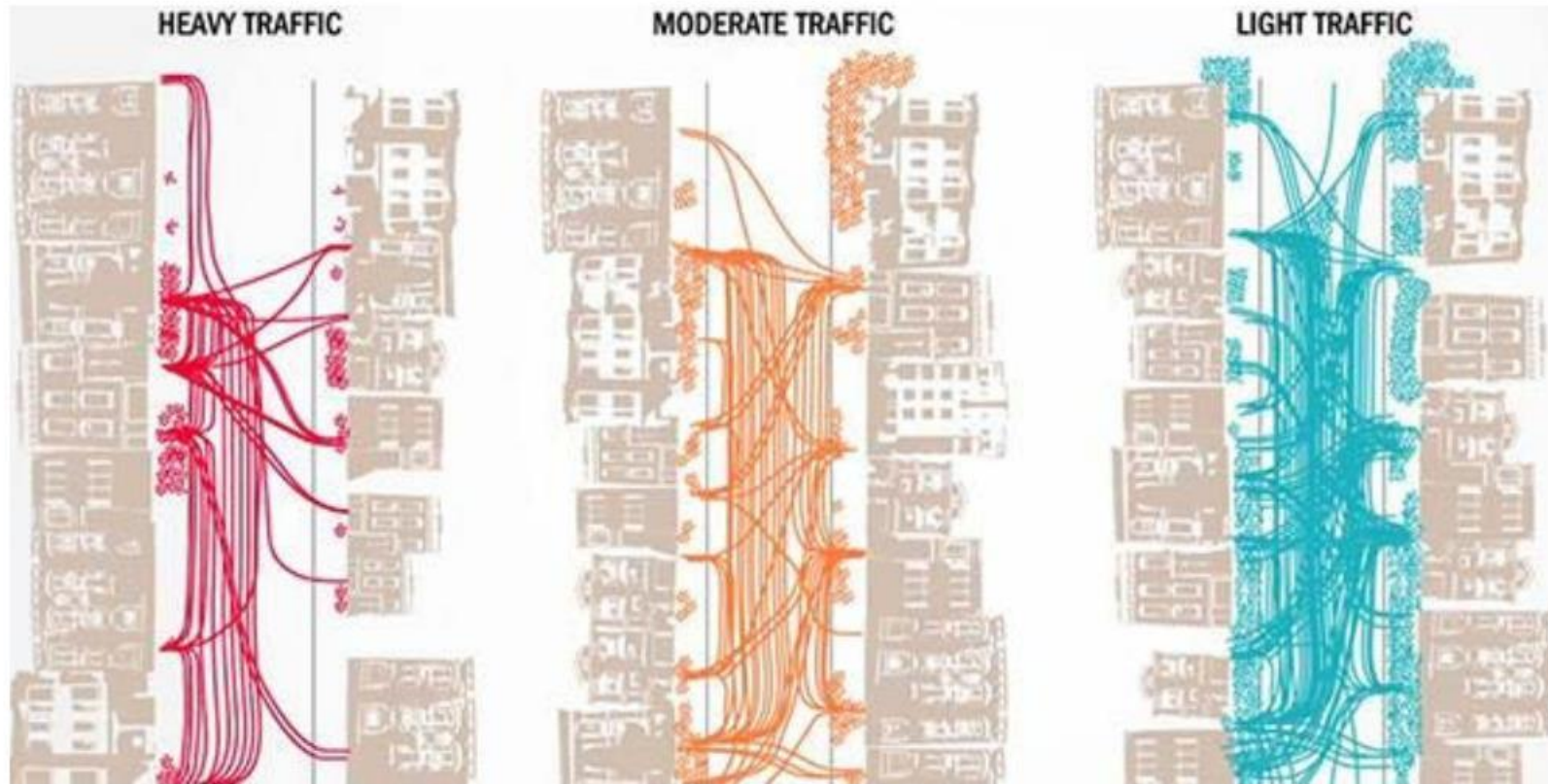
# Happiness??



# Public Space?



# Social Interaction?




(Appleyard, 1981)



Transport planning is all about what kind of city and society we want to be! Choices that are too important to leave to engineers only...


# A CITY IS...

A MATTER OF STRUCTURING, ORDERING AND AVOIDING CROSSING EACH OTHER'S PATHS

EMBRACING DENSITY, HUMAN SCALE, THE COMPLEX AND CROSSING EACH OTHER'S PATHS



[@urbanthoughts11](#) [/urbanthoughts11](#) 

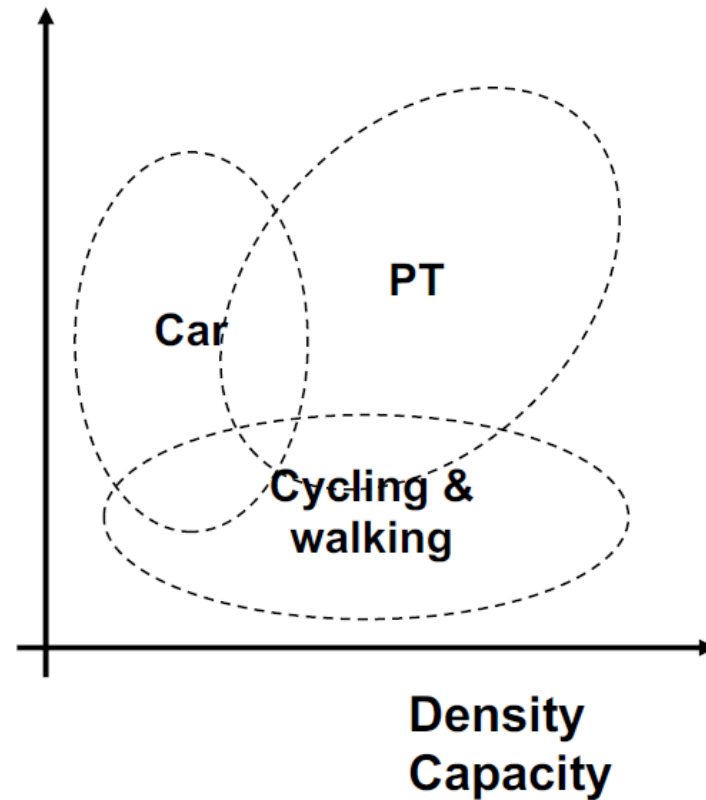


# Linking land use & transport ('mobility environments')

**Acceptable  
travel time**



**Distance  
Speed**

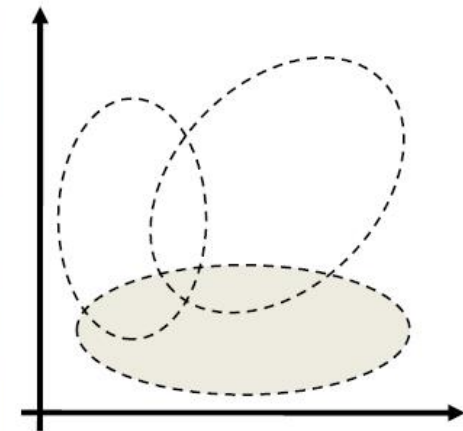


**Mutual  
support**

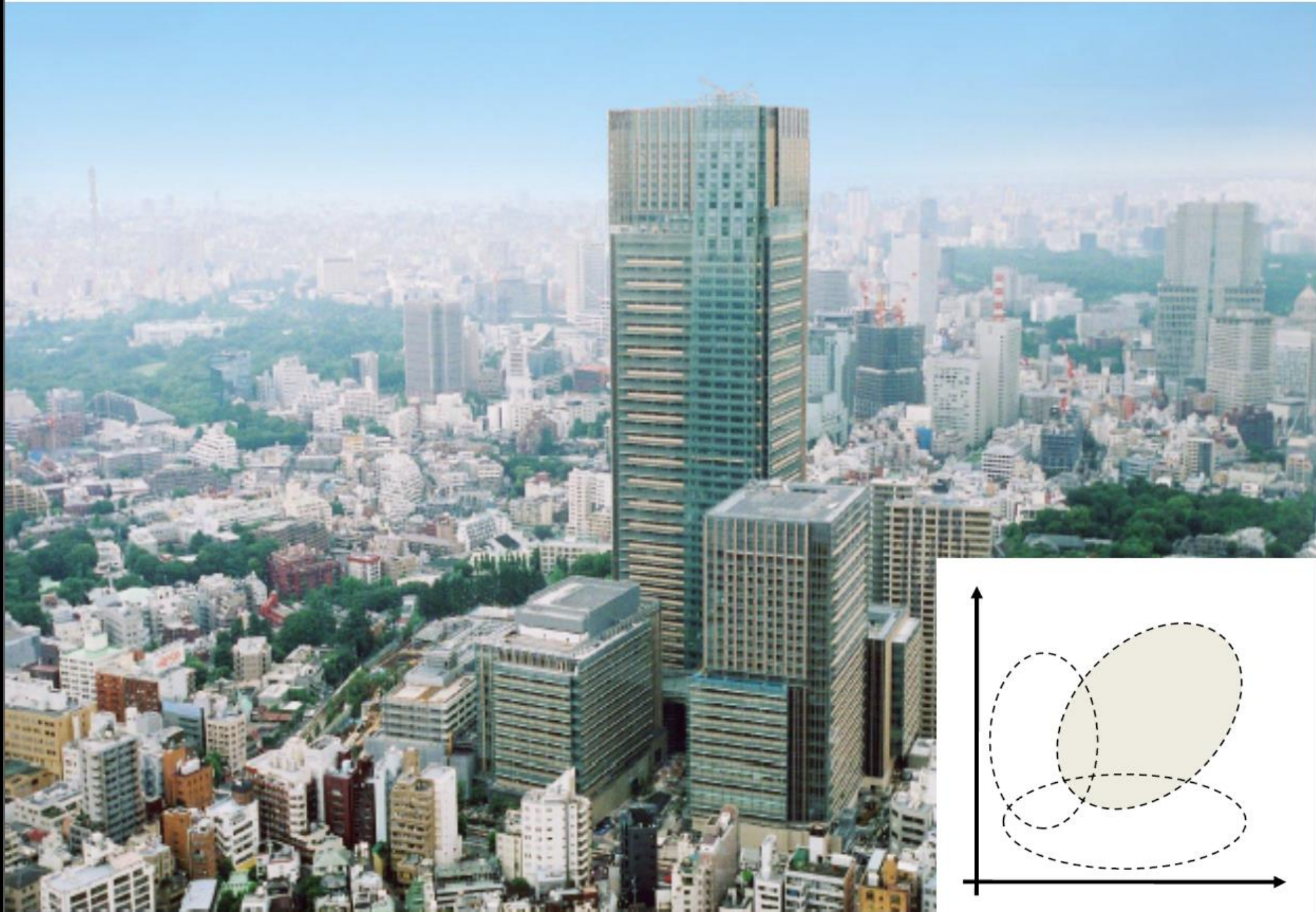


(Bertolini & le Clercq, 2003)

# Barcelona

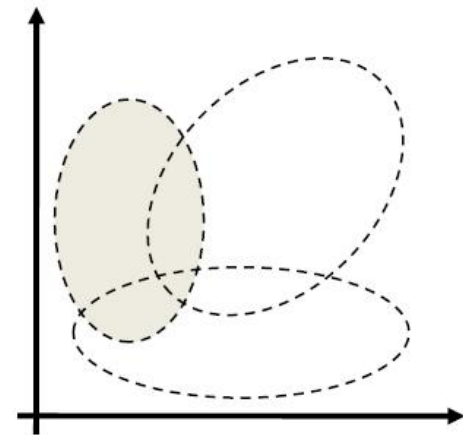


# Tokyo

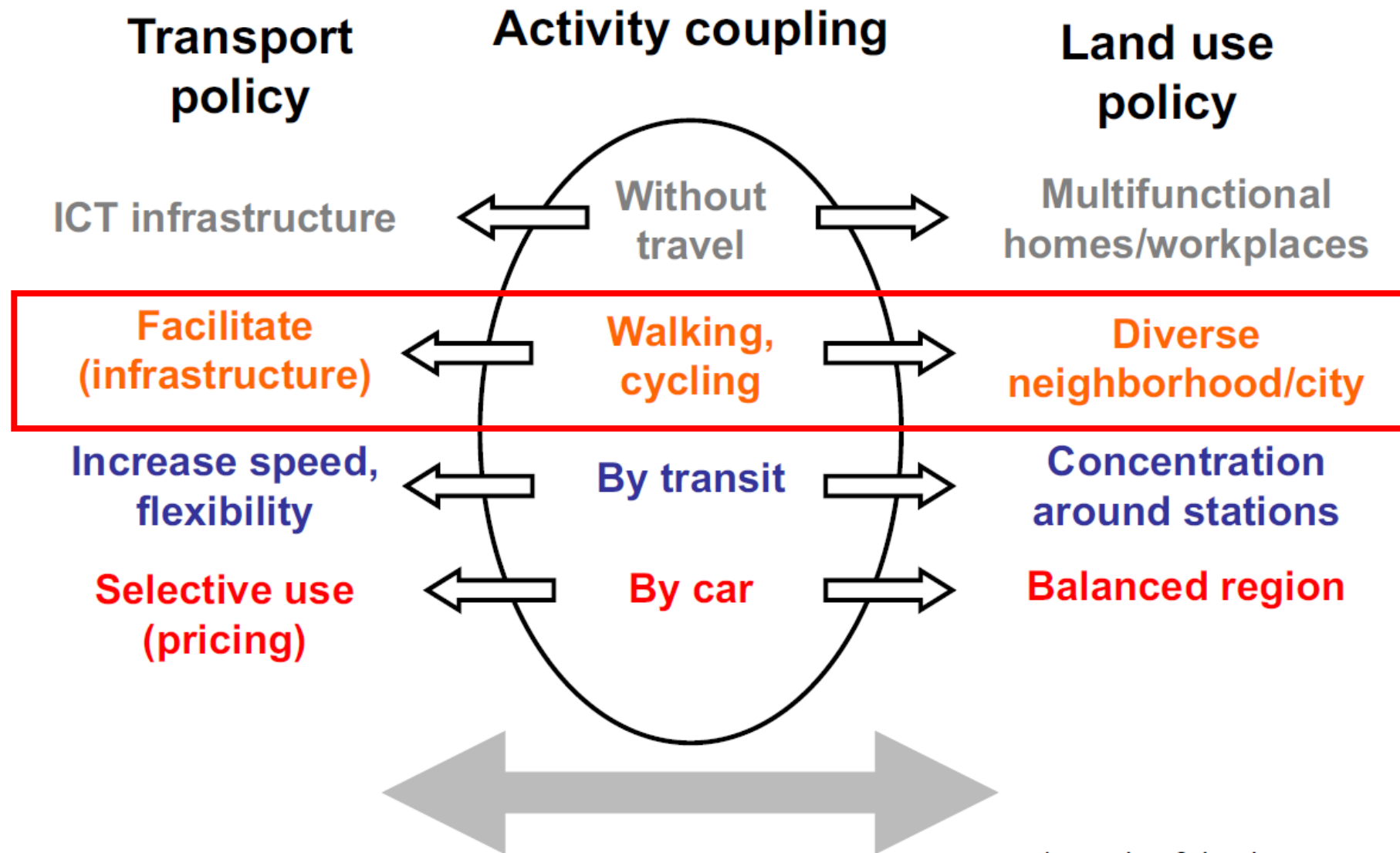




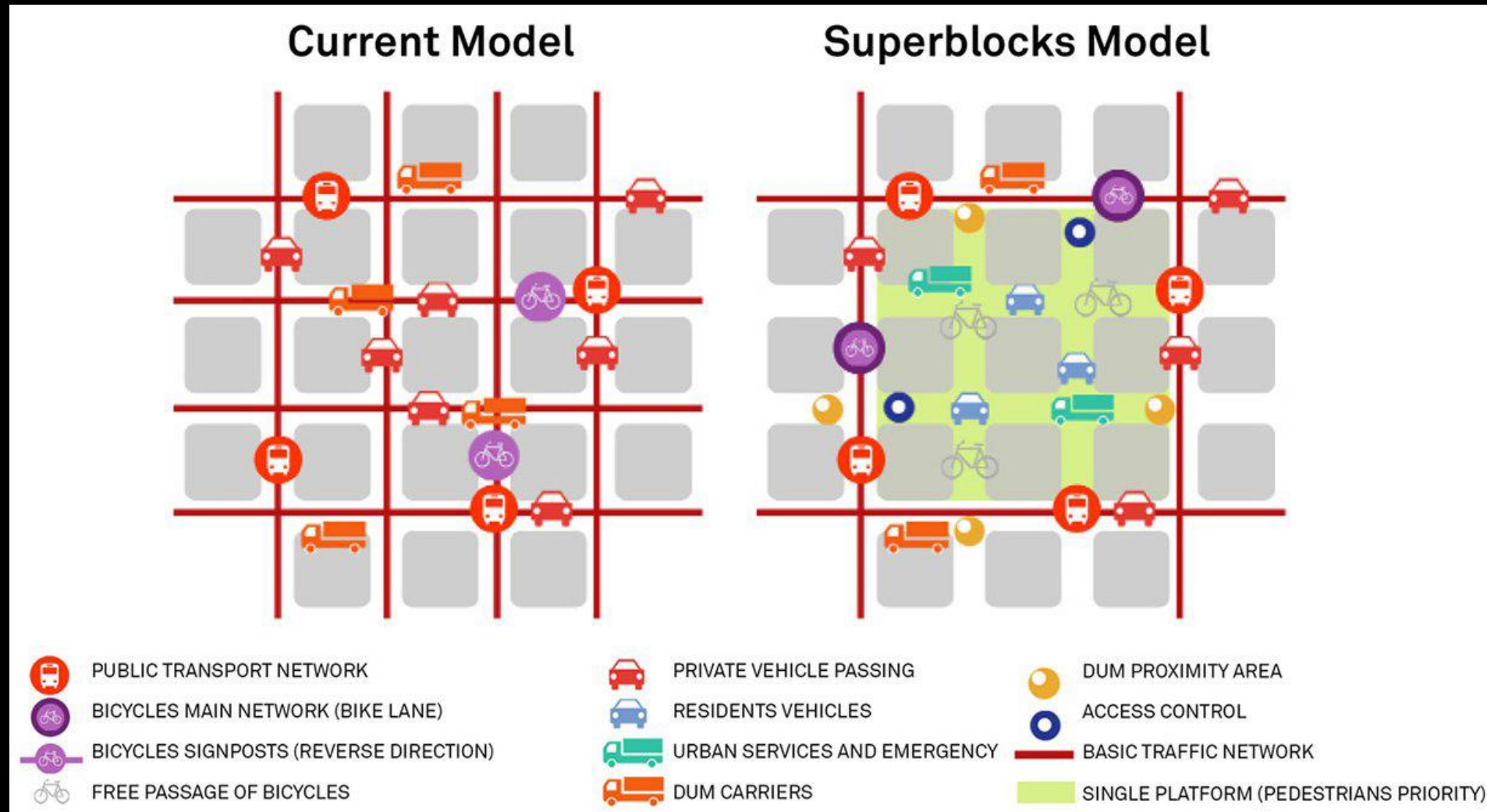
# Los Angeles

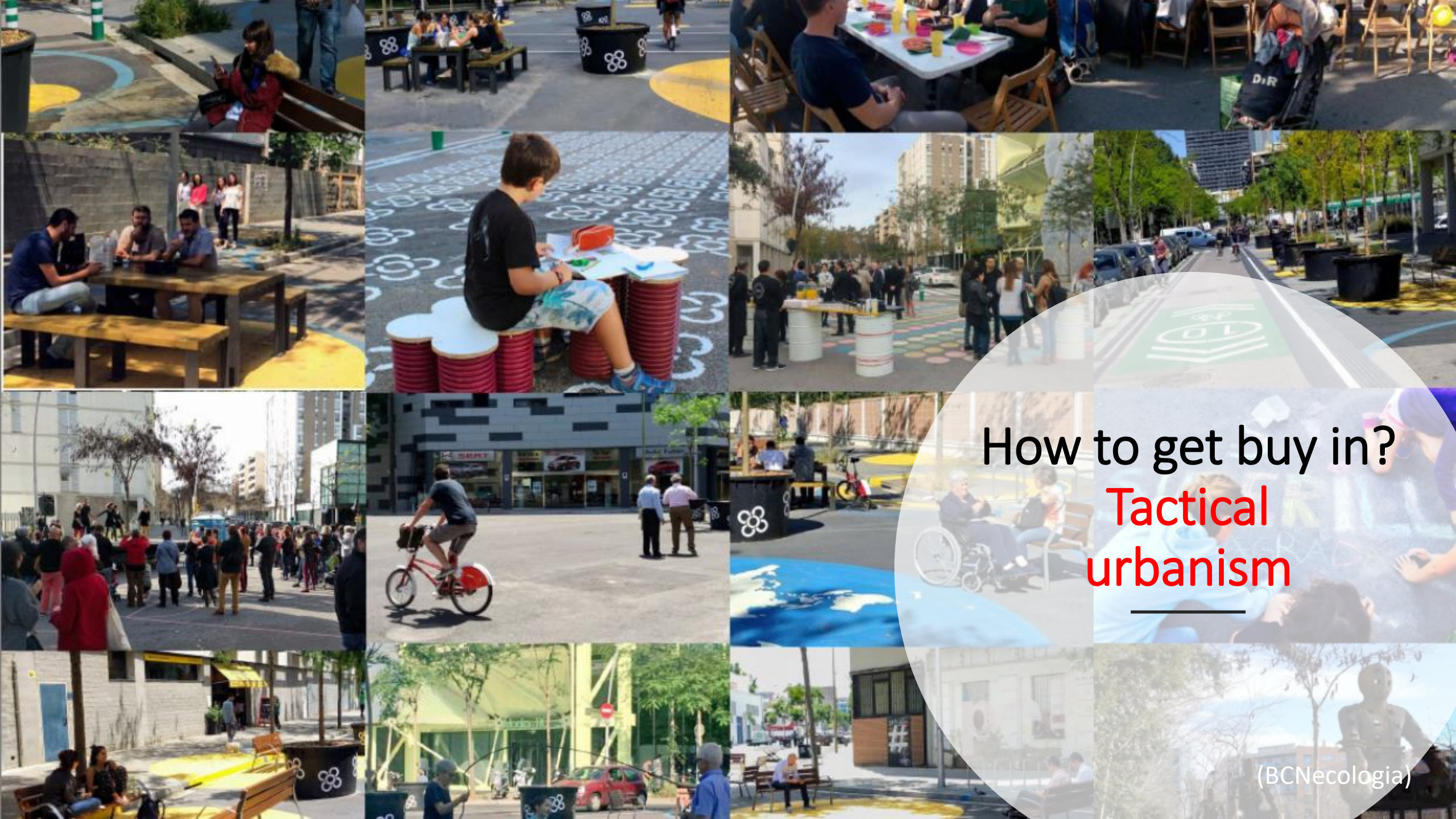


# Mutually reinforcing policy combinations



# In the city, walking/cycling environments Barcelona: 'superblocks'



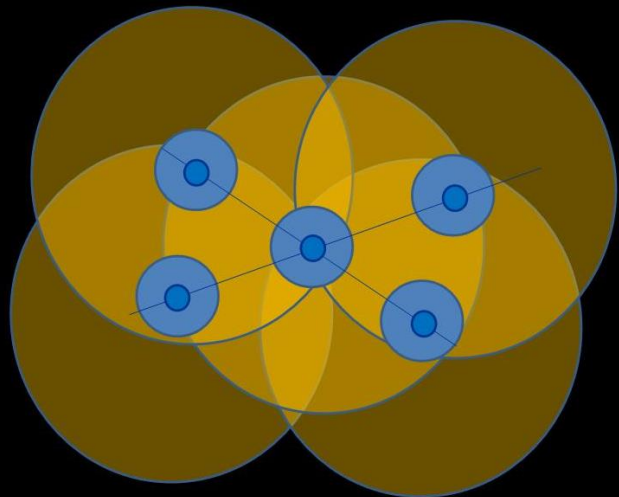
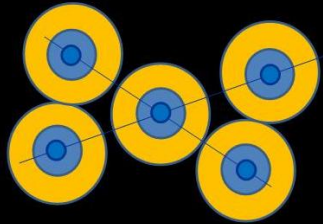


# How to get buy in? Tactical urbanism

(BCNecologia)

# Mechanisms – Bike train model

- Bike and Public Transport should not be in competition
- Bike and PT should work in synergy
- Innovations with technology shortening journeys
- Flexibility of bikes at PT hubs for flexibility (the last km)



# Fair distribution of road space..?

- Different transport modes have fundamentally different characteristics
- Dividing road space between transport modes ignores the role of streets as shared public spaces



# Fair distribution of road space..?



# More examples





# More examples











# International Cargo Bike Festival





# Traffic Safety on a Dutch level..?

