

Cycling – Catalyst from Copenhagen

Presentation to CCC lunchtime seminar

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Background

- Velo-City cycling conference
- Copenhagen 22-25 June 2010
- 1,000 attendees (4 Kiwis), 60 countries
- Private travel in Europe



Kiwi team covering the conference





VELO-CITY GLOBAL
IN COPENHAGEN
JUNE 22-25, 2010
WORLD'S LARGEST
CONFERENCE ON CYCLING



I 
CPH

GAP

1st Chapter Contents

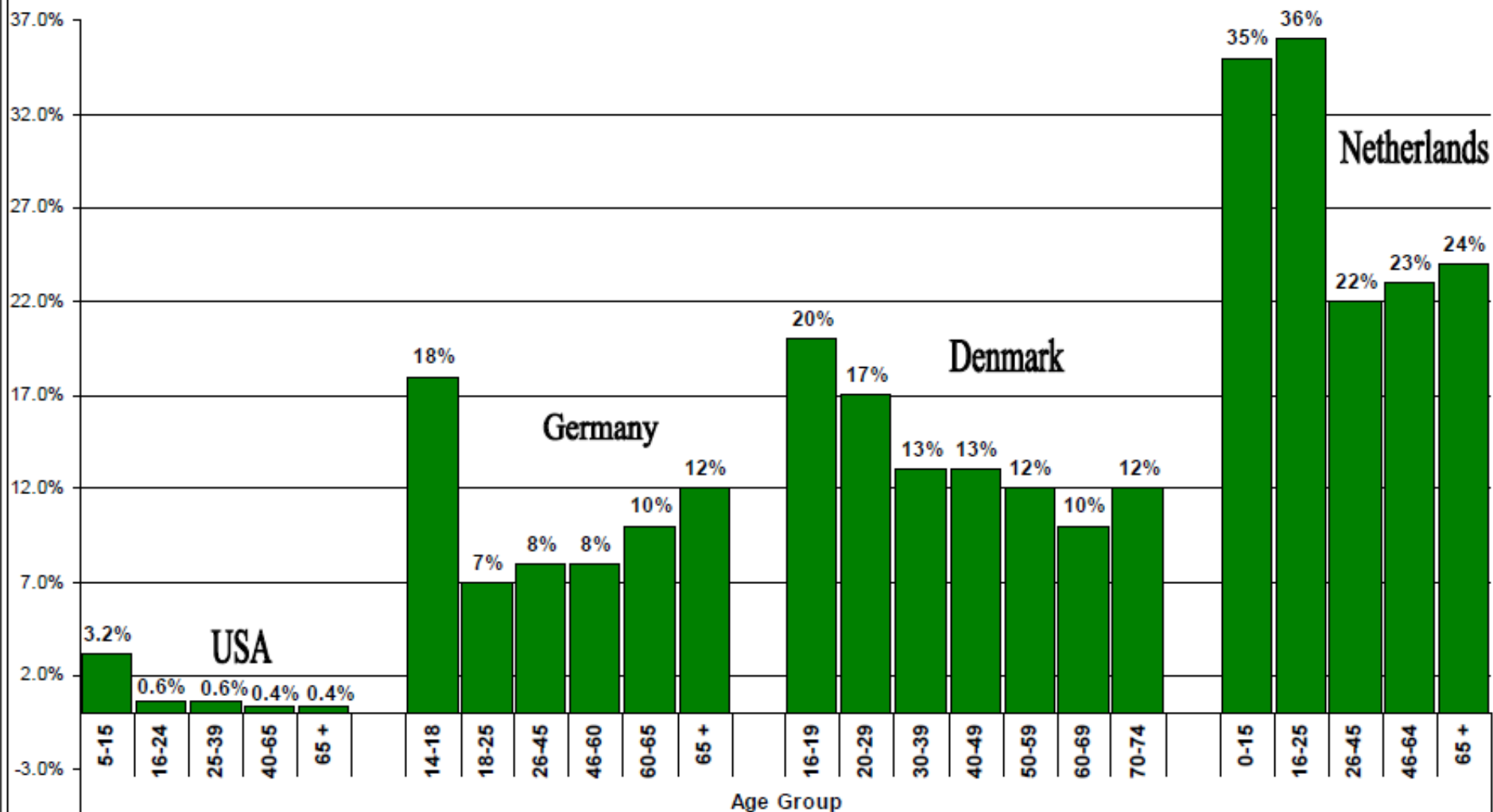
- Frederiksberg – Copenhagen
- London Cycling Revolution
- New York, New York

Copenhagen cyclists

- 37% of work & education trips are by bike
- 55% of cyclists are female



Bike Share of Local Trips by Age Group in the USA, Germany, Denmark, and the Netherlands (2000-2002)



Sources: DIW (2003), U.S. Department of Transportation (2003), National Statistical Offices of Denmark and the Netherlands (2005)

Typical Copenhagen cycle track



Not all streets have cycle tracks

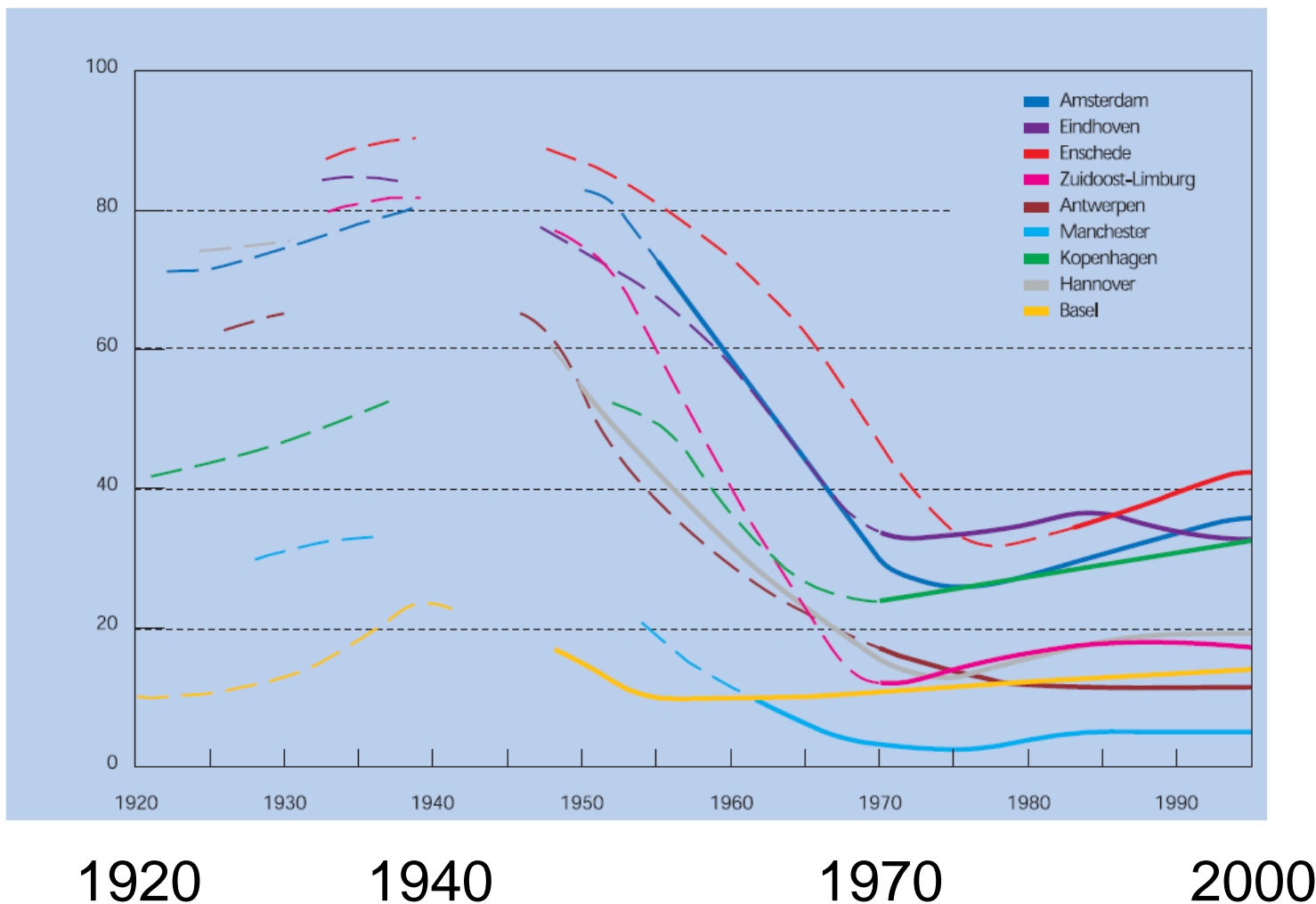


Quality of experience



Cars dominated Europe in 1970

Percent cycle trips for various EU cities



Frederiksberg

- Municipality in greater Copenhagen; 97,000 pop.
- 105 km roads; 48 km of bike paths and lanes

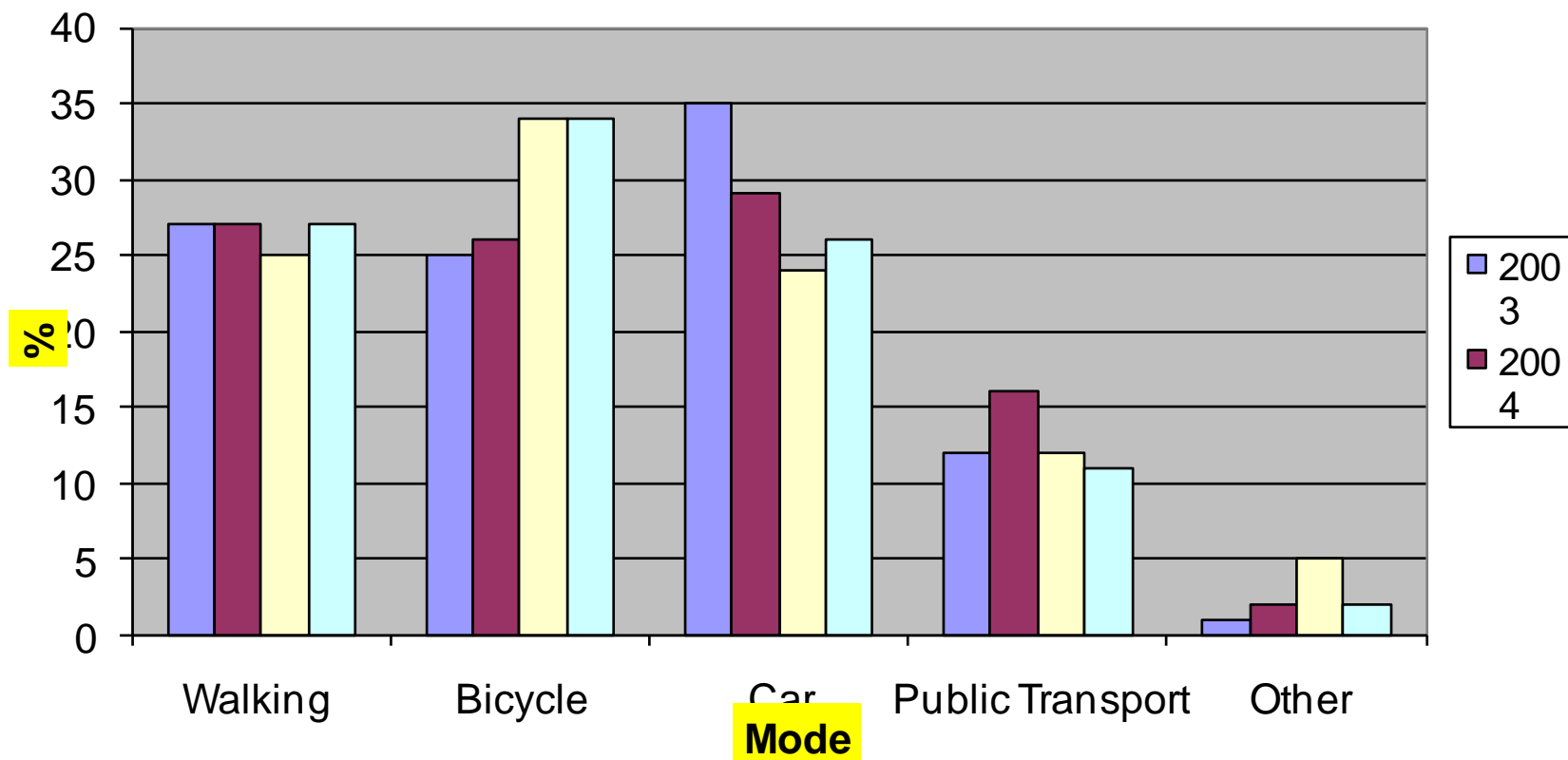


Frederiksberg on a fine day



Frederiksberg

All Trips



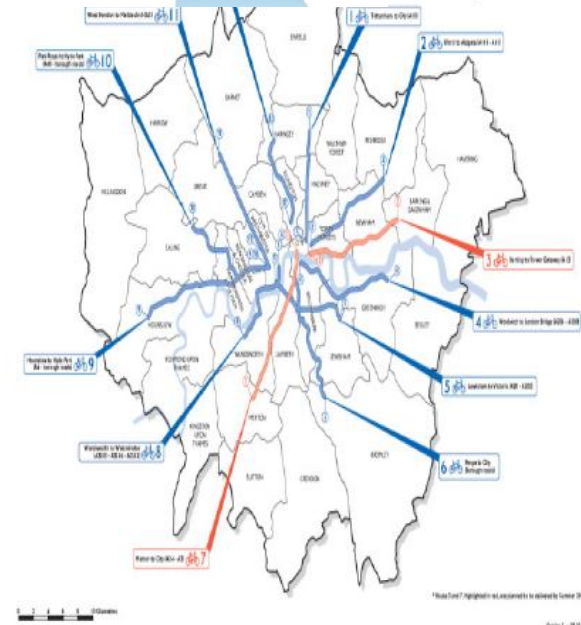
London Cycling Revolution

12 super highway routes by 2015

- Partnerships with businesses & boroughs
- 2010 -18 = \$ 355 million (NZ)
- Forecast 120,000 new cycling journeys a day



Cycle Superhighways
Indicative routes
subject to consultation*



London Cycling Revolution

Barclay Bike Hire Stations

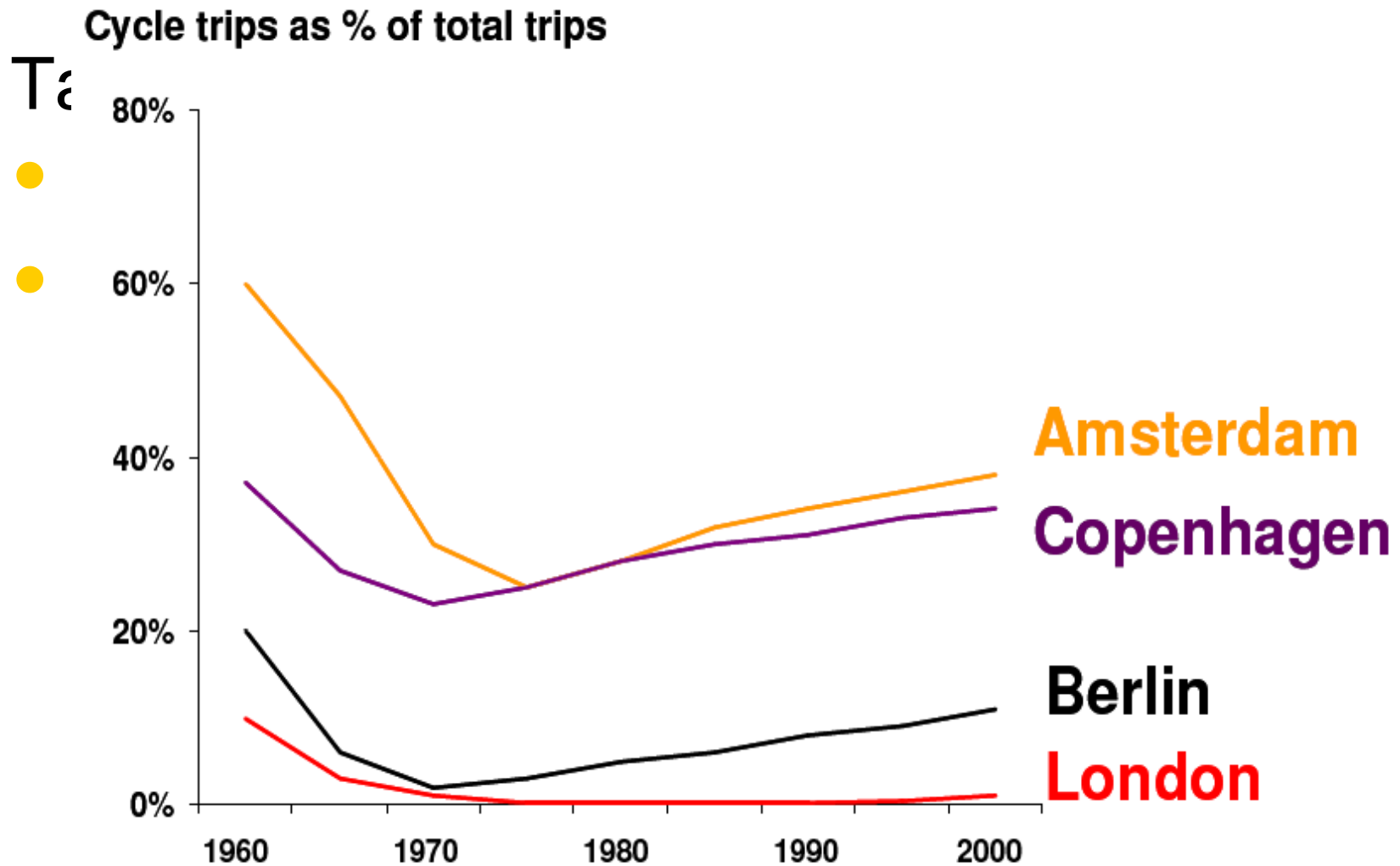
- 6,000 bikes
- 400 docking stations
- 2010-18 = \$ 185m (NZ)
- Forecast 30,000 new cycle journeys a day

Biking Boroughs

- 13 boroughs

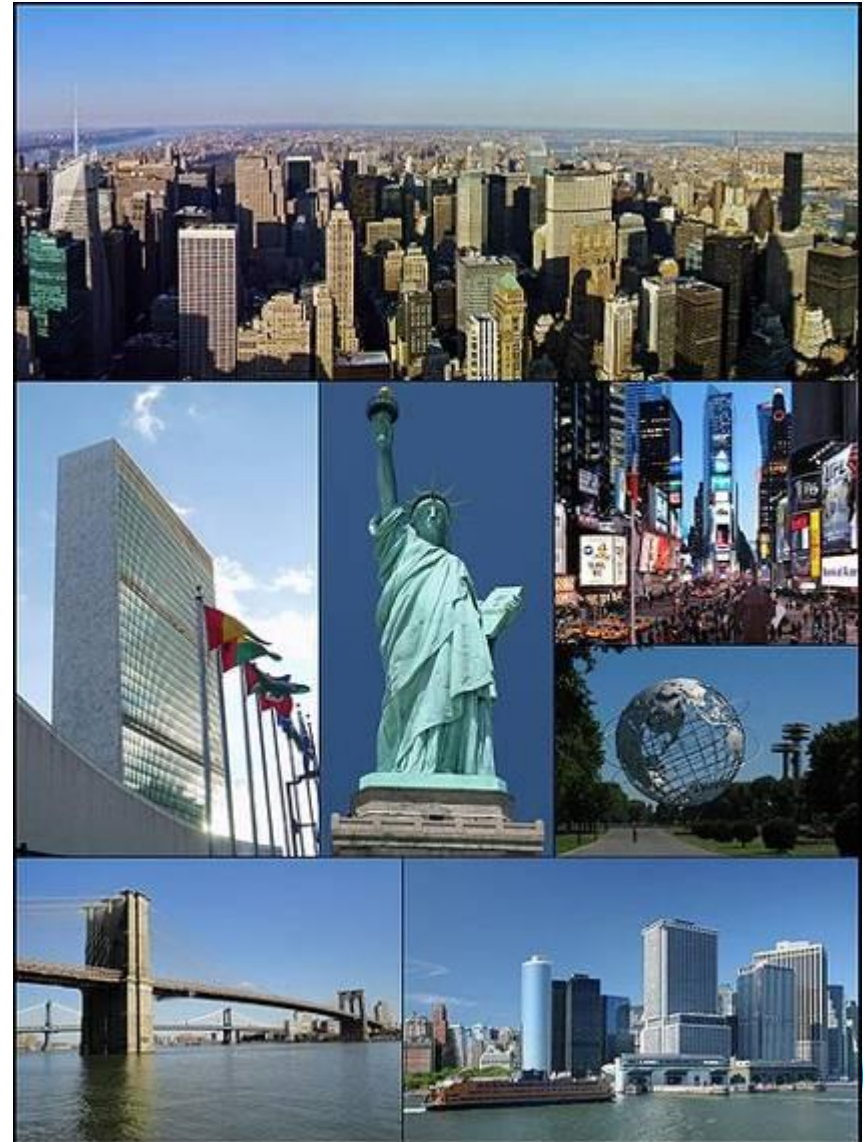


London Cycling Revolution



New York New York

- Population 8 million
- America's largest and most dense city



New York – pre 2006

1997 Bike Plan...

- Implement and maintain on- and off-street network
- Improve safety
- Improve access on bridges and mass transit
- Institutionalise cycling in public and private organisations

New York – 2006

Higher quality of life

Via a safer and healthier city.



New York - Actions

- 1997 = 190 Km cycle facilities
- 1997 to 2006 = 670 Km cycle facilities
- **2006 Mayor Bloomberg plus Jeanette Sadik-Khan, Transport Commissioner for NY City = Progress**
- 2006 to 2009 = 1150 Km cycle facilities including new designs

New York - Outcomes

On-Street Bicycle Lanes

- 2001 to 2008 cyclists increased 30%

Off-Street Bicycle Paths

- 2002 to 2008 cyclists increased 26%

**2008 to 2010 cyclists
increased by 66%**



New York – 9th Avenue Manhattan



New York – Madison Square



Conclusions



- When ***Cycling is Integrated*** into transport plans
- When Cycling delivery is ***reflective*** of peoples' needs
- When there is ***Support*** from the top
- Significant results can be achieved - ***short term***

Jan Gehl – keynote at VeloCity



Celebrating a 45th Wedding Anniversary

...Ol' Folks Bicycle...

Age 92



Mother in law: Age 85

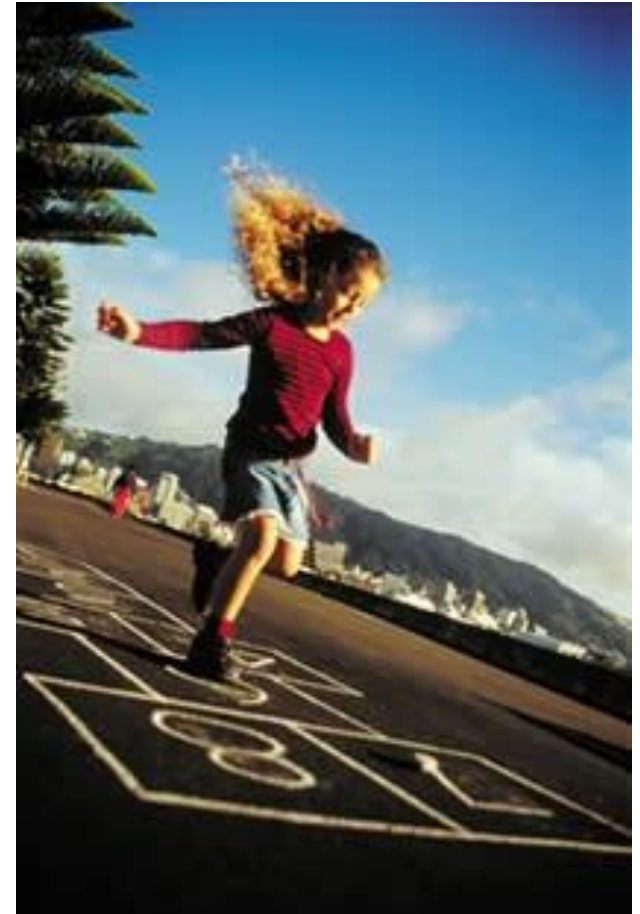
Cycling: lever for sustainable urban design

- Sustainability – integration of land use, transport and urban design
- Cycling a core component
- Earthquake opportunities
- Time to act is now



Sustainable urban design(ers)

- Urban designers
- Planners
- Architects
- Landscape architects
- Surveyors
- Developers
- Health professionals
- Politicians and the public
- Engineers (especially traffic engineers)



Copenhagen land use planning

- Developments quite dense (but mostly < 6 stories – don't have to be high-rise)
- Incorporates sustainable transport
- Focuses on “brownfield” developments
- Requires private and public bicycle parking



Carlsberg brewery site redevelopment

- 33 hectare site; 3 km to city centre
- Planning 5,000 residents and 3,000 jobs
- Retention of key historic buildings
- Sustainability key focus



Nordhaven redevelopment

- 350 ha; 6 km to centre; 50 year time frame
- 40,000 residents and 40,000 jobs
- Bicycle “super-highway” – 20,000/day
- Bicycle parking requirements:
 - 2.5 spaces/100 m² (“may not be enough”)
 - 20% of bike spaces for cargo bikes
 - 2/3 inside buildings, 1/3 on street

Cambridge cycle parking rules

- Residential
 - 1 space per bedroom up to three bedrooms
 - 3 spaces for 4 bedrooms, 4 for 5, etc
- Retail (food and non-food)
 - 4 spaces/100 m² GFA up to 1500 m²
 - 1.33 spaces/100 m² thereafter



Cambridge – walking, cycling, PT

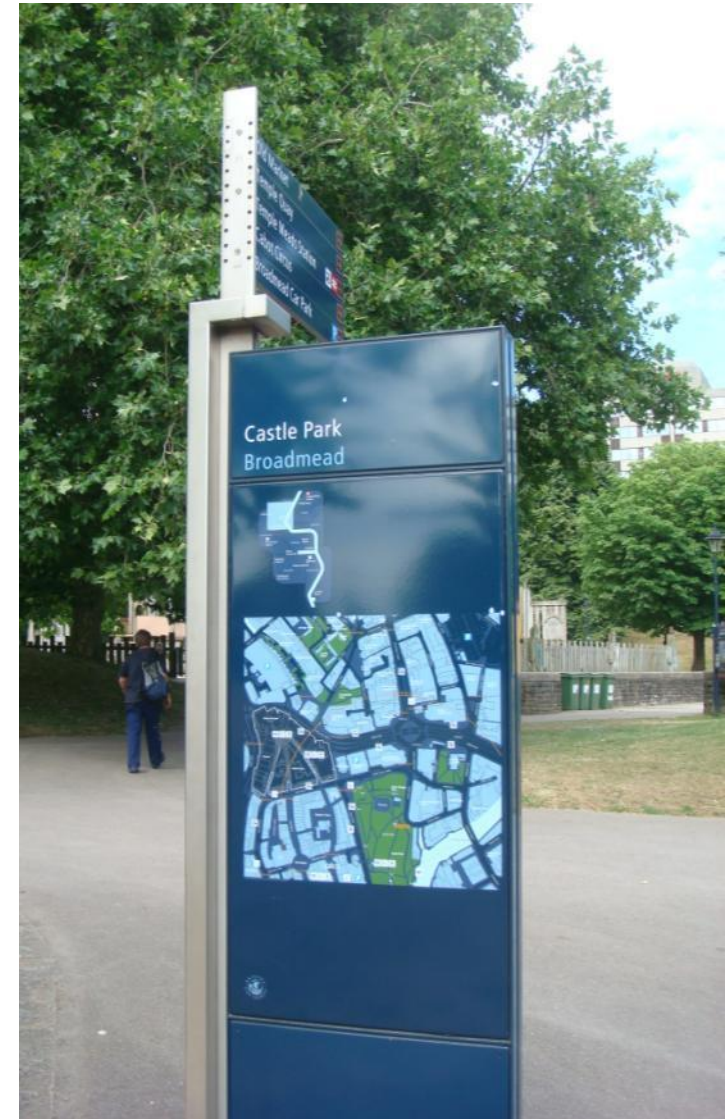
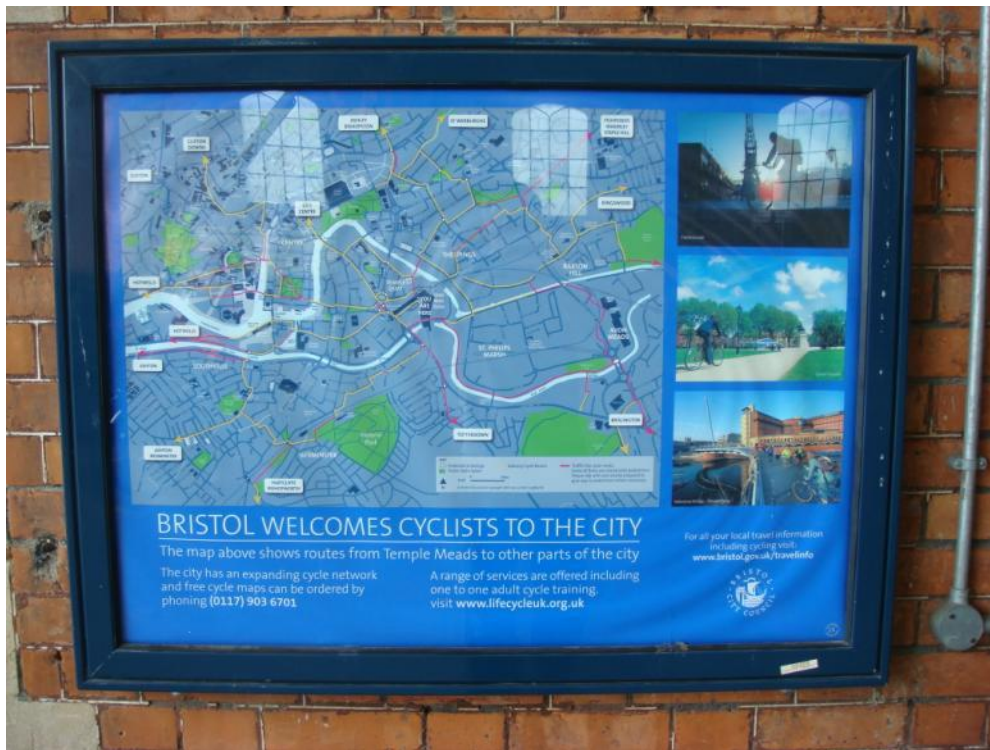


Cambridge – bikes mean business



Information and direction signs

Bristol



Private and public spaces





Radhuspladsen

Civic square,
Copenhagen



Cemetery – transport & recreation



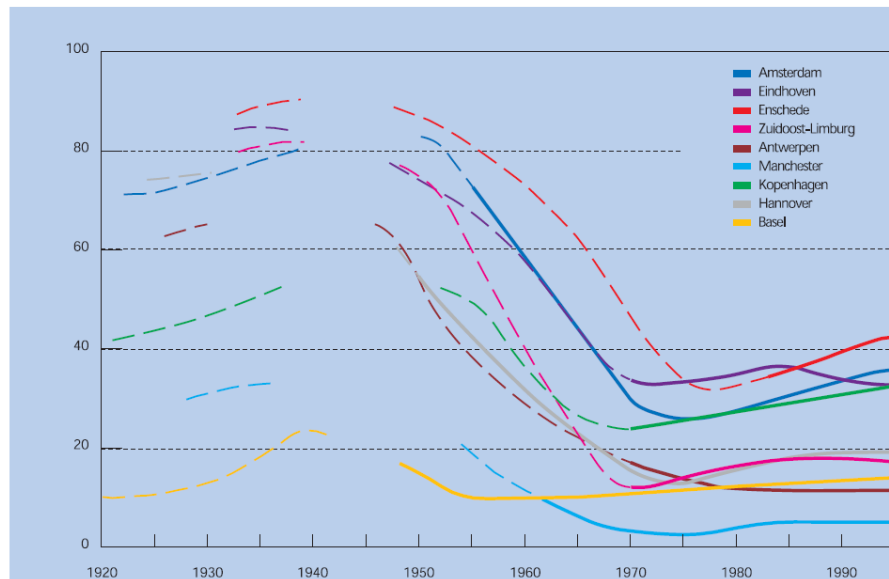
Cycling central part of future plans

- Not just a nice add-on; ticks all the boxes:
 - health
 - safety
 - peak oil
 - CO₂
 - air quality
 - noise
 - equity
 - accessibility



Our ecological clock is ticking!

- Denmark, Netherlands started less than 40 years ago; we need to act now!
- We know what to do
- Need technical and political leadership



Streets – key urban design assets

- Streets are a significant proportion of public open space in towns and cities
- Improve quality of life by reclaiming streets
- Reduce traffic volume and speed
- Encourage walking and cycling
- Add vegetation, seats, shelter, signs, art

Chance encounters possible



Sustainable transport

- Walking and cycling
- Public transport
- Travel demand management
 - minimising car travel (other modes, car sharing, managing parking, etc)
 - minimising truck travel (other modes, local supplies, etc)
- Core part of sustainable planning and urban design

Dutch wedding procession



Sustainable transport for NZ

- Heavy rail: \$billions – Auckland and Wellington
- Light rail: \$hundreds of millions – Chch, Hamilton, Tauranga
- Bus: \$tens of millions – other cities
- Walking & cycling: \$millions – all towns and cities



Gehl's recommendations for Chch

- A City for People Action Plan (CCC, 2010):
 - Increase pedestrian priority
 - **Spoil the cyclists to increase numbers**
 - Support public transport in the central city
 - Reduce impact of vehicles in central city
- Gehl demonstrates technical leadership



Some big things to change

- Restrict:
 - urban sprawl
 - road spending
 - traffic speeds
 - “free” parking



Photo from Jan Gehl's presentation

CBD parking spaces/1000 employees

- Phoenix: 906
- **Christchurch: 875**
- Canberra: 842 (Australia's highest)
- Auckland: 703
- Wellington: 548
- New York: 60
- European average: 230

Newman and Kenworthy (1999) Sustainability and cities: Overcoming Automobile dependence

Small (detail) things to change

- Review District Plan rules re cycle and car parking requirements
- Set low maximum parking provisions
- Ensure subdivisions have w & c links
- Increase permeability for w & c in centres
- RoNS – need w & c along and across
- Copenhagen-style cycle paths

Christchurch has good examples



Matai St West separated cycle path

Darfield earthquake

- Reconstruction – great opportunity to integrate land use and transport
- Manchester/Hereford closed – reopen first for just pedestrians and cyclists?
- Experience 30 km/h speed limit and formalise

We know what to do. Just do it!

- NZ has ample sustainable transport technical manuals and advice
- Urban design protocol and forum
<http://www.urbandesignforum.org.nz/>
- Sustainability and active transport forums
- Quality Planning <http://www.qp.org.nz/>
- Well-educated and widely-travelled workforce

Conclusions and actions

- We all have sustainable urban design roles
- Cycling – core component of liveable cities
- Demonstrate leadership – push the envelope
- Look for earthquake opportunities
- Time to act – now

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