Cycling, the Dutch context
An introduction to a cycling nation

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The Dutch and their bikes
Introduction

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City of Nijmegen, Netherlands
Since 2001 design – 2006 policy
www.fietsberaad.nl
Bicycle share in European countries

- The Netherlands: 27%
- Denmark: 19%
- Germany: 10%
- Austria: 9%
- Switzerland: 9%
- Belgium: 8%
- Sweden: 7%
- Italy: 5%
- France: 5%
- Great Britain: 2%

Dutch Cycling Embassy
Urban mobility: trips to 7.5 km

Modal share all trips: 27%
Are the Dutch a special breed of people when it comes to cycling?

Is Dutch knowledge, practical experience and way of implementation usable in the Australian city context?

In what way can we apply the knowledge – what do we encounter?
Traffic planning

> Integral transport policy

> Cycling policy
  - Promoting bicycle use
  - Creating bicycle networks
  - Bicycle parking

> Embedded policies
  → land use policy - urban development
  → parking policy
  → .

> Pro-active road safety system

> Intermodality – bikes and train

> .
Some history
- 70s: roadsafety as a precondition
- national level

Why do people cycle?

Why promote?

SMARTcity:
- Embedded urban planning
- Basics road safety
- Creating networks and HQ routes
- Intermodality
Where did it all start?
The Hague, 1964
Cycling in European cities in the 20th century

Figure 5: Historical development in bicycle share in 9 European cities Source: A.A. Albert de la Bruheze and F.C.A. Vervaart, Bicycle traffic in practice and policy in the twentieth century, 1999
Decrease 50s-60s- turningpoint 1973
Safety an issue?

- Bicycle use
- Bicycle fatalities

Bicycle km pppy

Cycle fatalities per billion bicycle km

Dutch Cycling Embassy
Safety by numbers

Killed cyclists per 100 million km

3 km/day
2.1 deceased/100 mill. km

Cycling km per person per day
Policy national level

> 1950-1975 no policy
   laissez faire
> 1976 subsidies
> 1987 first complete cycle network
> 1989 first national scheme
   & masterplan fiets
> 1999 law on liability
> 2008 renewed regulation cycling sheds
   subsidie first super cycling highway
Hierarchy of plans

- Structure vision Infrastructure & Space (national)
- Provincial traffic and transport plan
- Regional traffic and transport plan
- Municipal traffic and transport policy
Legal context

> High way code (RVV)
  > Traffic signs
  > Behaviour road users

> Administrative regulations (BABW)
  > Procedures for road authorities

> Planning law traffic and transport
  > Defines relationship between national, provincial and local transport plans
Why do people cycle? Journeys by motive
Why do people cycle? Amsterdam

- 70% (very) pleasant (23% very)
- 70%: 50% fast and easy
- 19% enjoying surroundings
- 17% sporty and healthy
- unpleasant: asocial traffic behaviour, unsafety, scooters, trouble parking
Why do people cycle? (agegroup, Delft)

[Bar graph showing reasons for cycling across different age groups, with categories such as Health, Environment, Fun, No parking problem, and Cheap. Each category is represented by different colored bars for each age group.]
Amsterdam: Share is growing: why?
% van de fiets in Amsterdam, 1910-2010
Corner stones of Dutch cycling policies

> Cycling: fully fledged mode of transport
> Looking for the 'optimal mix’
  > Utilizing strengths of each mode of transport
  > Providing alternatives to mitigate negative impact
> Unwritten but true knowledge:
  
  cyclists make cities function
Optimal mix and freedom of choice

Cycling
- Short trips < 7,5 (<15)
- Inner urban trips
- NEW: regional trips (e-bike 15k)

Public transport
- Longer trips (train)
- Mass transportation
- Feeder trips required

Car
- Longer trips
- Thinly populated areas
- Less or not suitable for dense urban areas
- pay
Something about politics
> A. Society

> B. Individual level

Healthy city
Something about health

Physical fitness

Urban pollution

Road unsafety

Vervuilde lucht: -20 dagen
Verkeersongeval: -7 dagen
Bewegen: +240 dagen
More health benefits bicycling

20-30% risk reduction chance of dying due to
→ Coronary heart diseases, approx -/- 40%
→ Stroke -/- 20-25%
→ -/- 40% diabetes 2
→ -/- 20-40% breast cancer
Less staying away from work (unfit)
Less obesitas
Cyclists are more fit and feel better/healthier
Bicyclists are great customers

1. 40% of customers on a bike
2. A bicyclist spends the same amount (or more) per week
3. Customers on a bike come more often during off peak hours
4. A bike takes 10x less space than a car
5. Quality bicycle racks are top of list
Cost effectiveness 2009

- Aantal afgelegde kilometers
- Uitgaven
- Kosten per afgelegde kilometer

<table>
<thead>
<tr>
<th>Fietsers</th>
<th>Passagiers in bus/tram/metro</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,1 mld km.</td>
<td>5,9 mld km.</td>
</tr>
<tr>
<td>€ 0,6 miljard</td>
<td>€ 2,1 miljard</td>
</tr>
<tr>
<td>4 eurocent</td>
<td>35 eurocent</td>
</tr>
</tbody>
</table>
Reason n° 1.

Urban planning
Urban development
Land use policies
Cities like Groningen: 60% all trips

Houten: smart transport system

Urban activities, short distances, restrictions car use, Urban quality of life
Reason n° 2.

Road safety
Safety: Functional Road Design

> Road functions
  > Flow
  > Distributor
  > Access

> Balancing function, usage and design
City arterial: 50 of 70km/u
Road categorising
90% local streets
Goals:

> Minimise conflicts
  > segregation, volume cars, unbundling
> Minimise outcome of conflicts
  > speeds, traffic calming
> Allow for interaction between road users
  > make sure they see each other
> Provide safety margins
  > don’t add up minimum widths
Bike lanes

Separated

Bike lanes

Solitary

Cyclestreet
Reason n° 3.

Cycling network
5 main requirements

> Coherence
> Directness
> Safety
> Comfort
> Attractiveness

And cycling policy should be:
Continuous -- prolonged
Integral -- embedded
Consistent -- political attention,
keep on investing

> It all starts with Quality

Dutch Cycling Embassy
Quality
New horizon: e-bike
Velo-city
ARNHEM 2017 NIJMEGEN
The freedom of cycling!

You’re invited!