

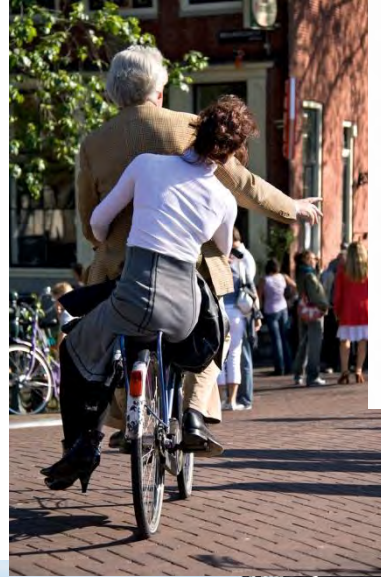


Cycling, the Dutch context

An introduction to a cycling nation

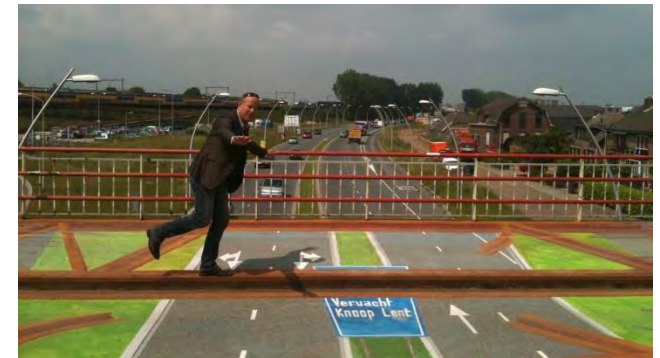
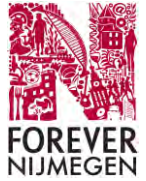
Martijn J. te Lintel > Netherlands, 3^{5d} of March 2015

The Dutch and their bikes



> Introduction

Senior Advisor Mobility
City of Nijmegen, Netherlands
Since 2001 design – 2006 policy
www.fietsberaad.nl



NETHERLANDS ON WHEELS

Bikes Rule!

Cyclists Have Complete Right of Way



19,000km
The average distance walked in the Netherlands (the road to the road)

909km
The average distance walked in Dutch cities (the road to the road)

The Dutch Commute

Modes of travel by percentage

16km/h

Average bicycle speed

- bicycle
- walk
- car
- public transport
- other



The Fit Dutch

Top 10 bike-riding countries: percentage of the population that cycle



2.1% more bicycles than humans

18,000,000

Population of bicycles in the Netherlands

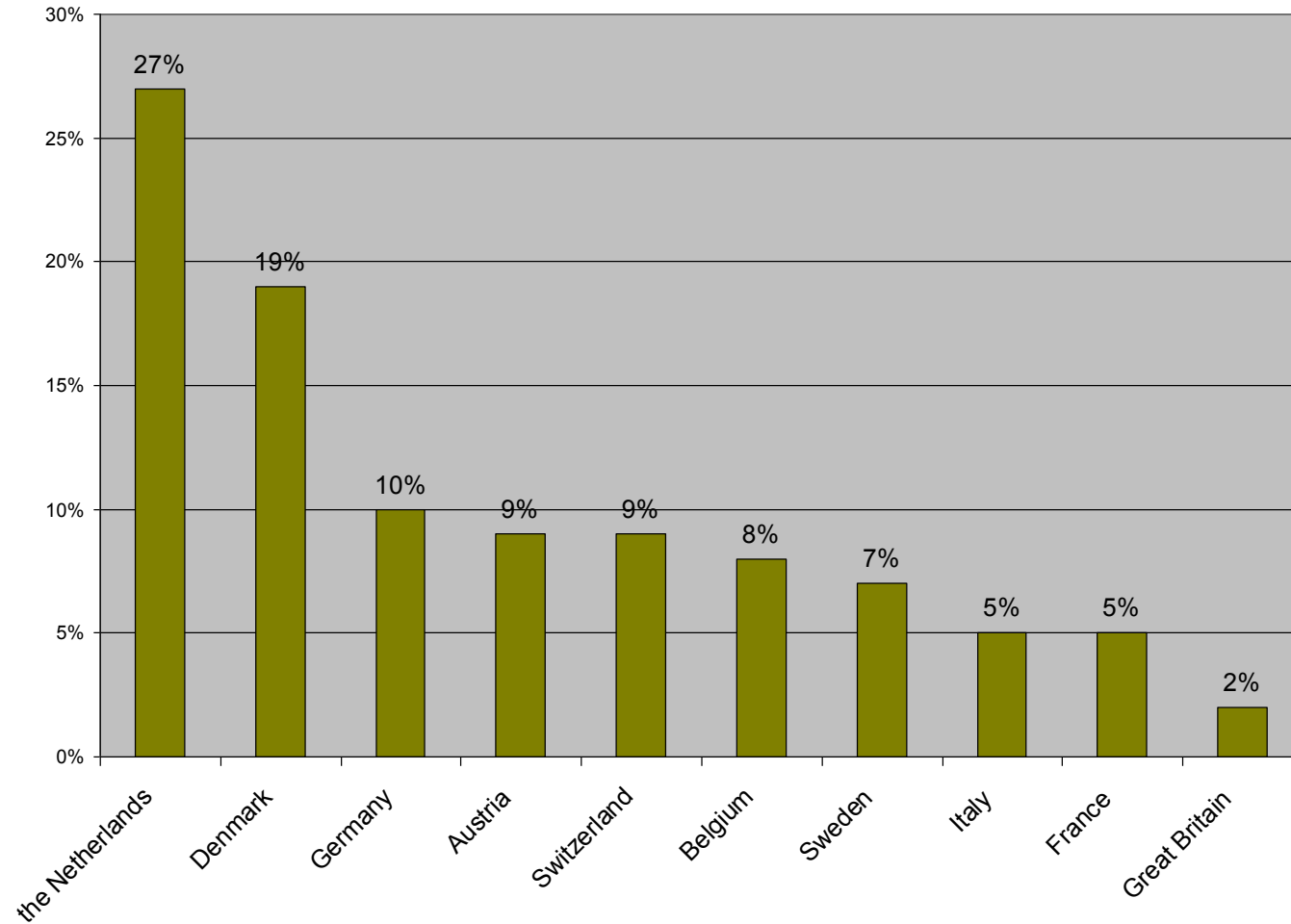
16,400,000

Population of the Netherlands

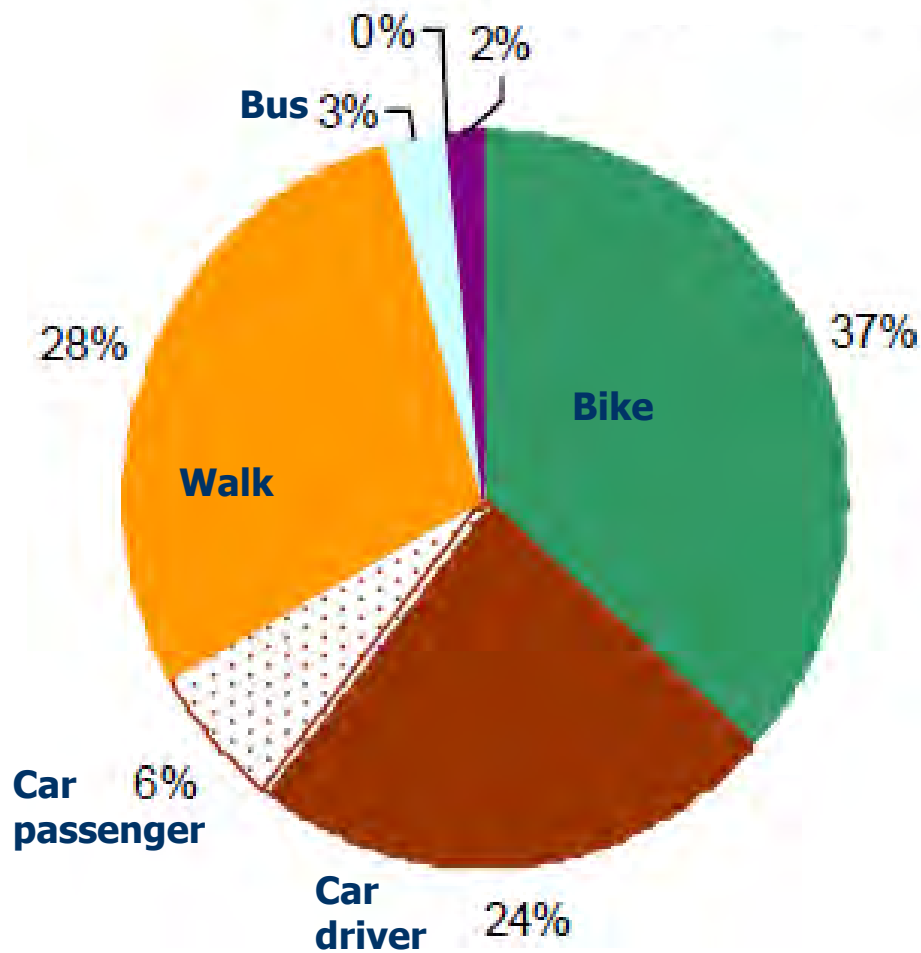
- city bicycle
- child's bicycle
- trekking bicycle
- electric bicycle
- other
- mountain bicycle
- folding bicycle



Bicycle share in European countries



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

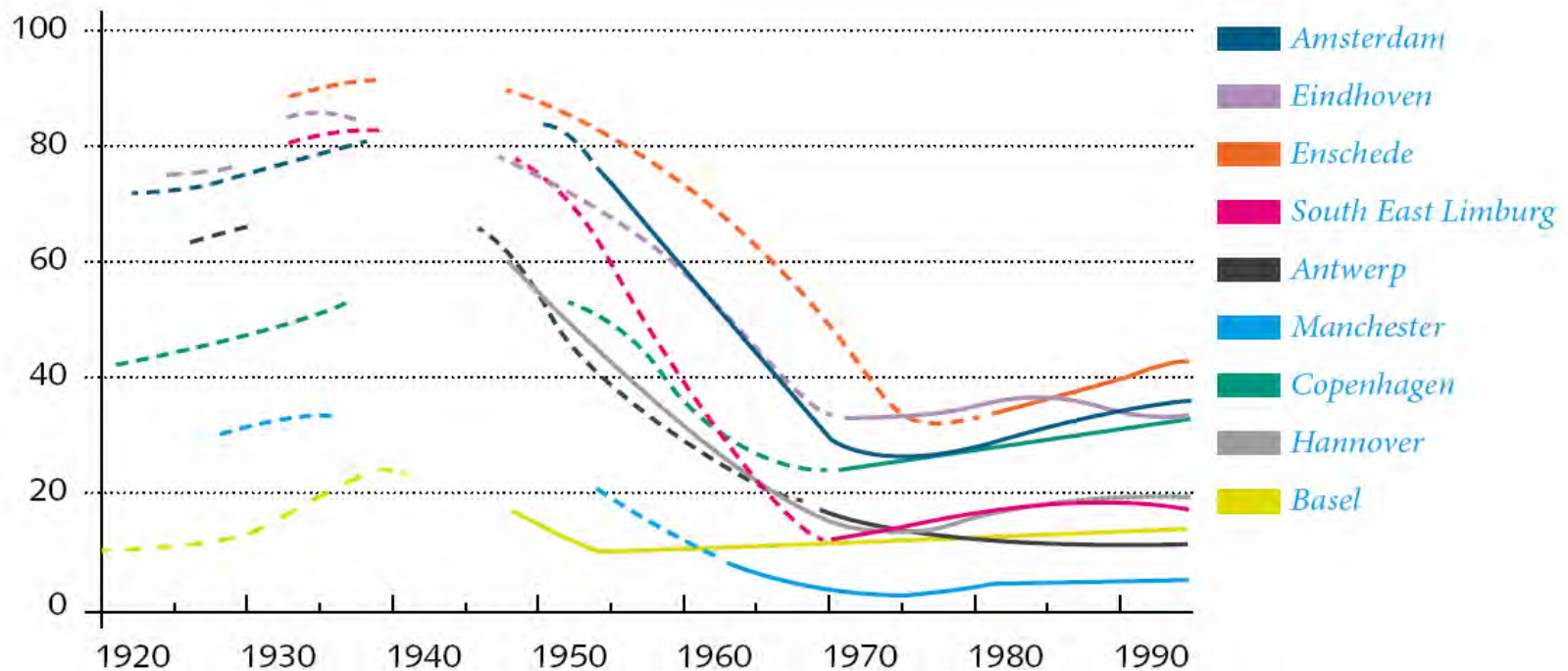


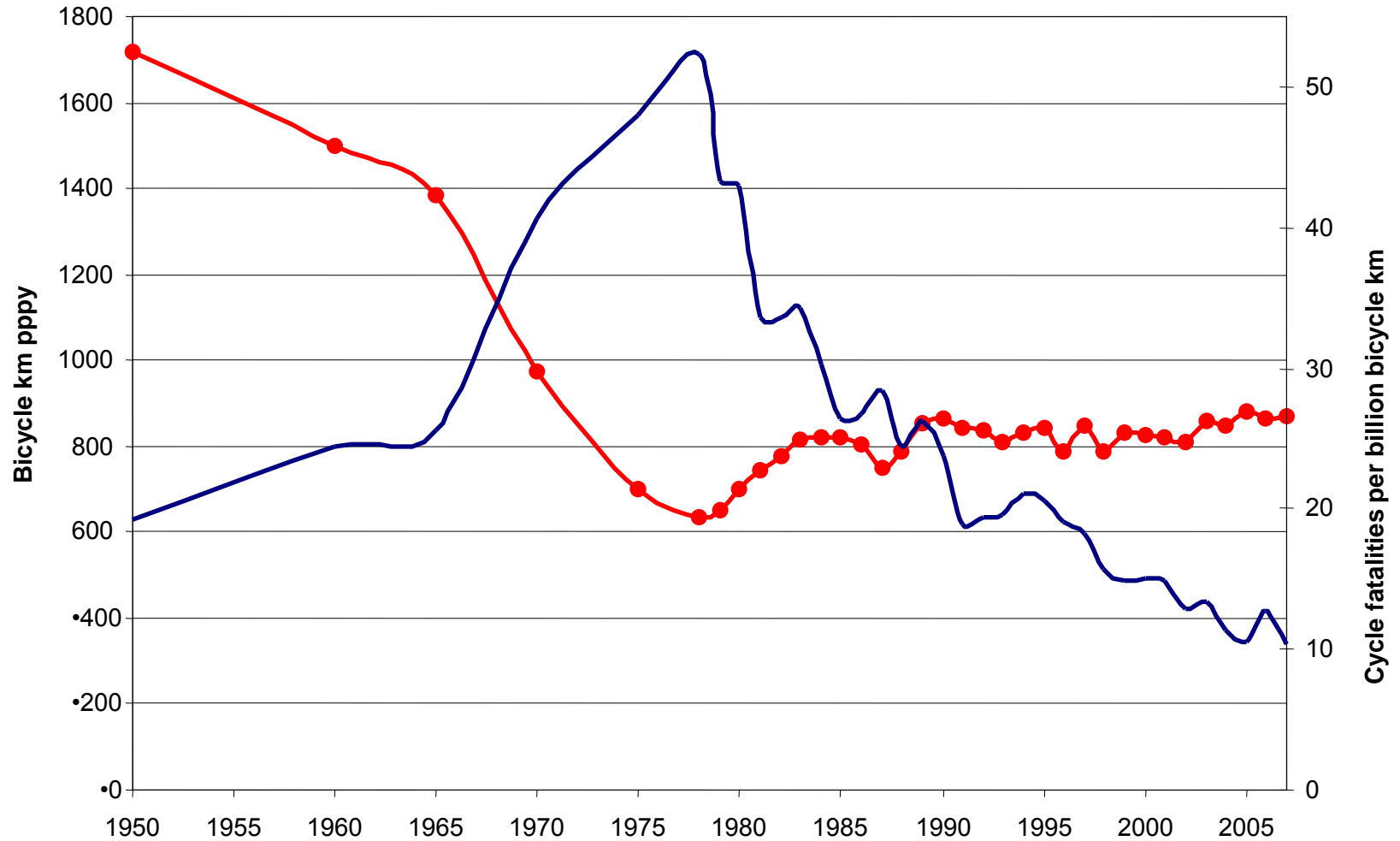
Figure 5: Historical development in bicycle share in 9 European cities Source: A.A. ALbert de la Bruheze and F.C.A. Vervaart, *Bicycle traffic in practice and policy in the twentieth century*, 1999

Decrease 50s-60s- turningpoint 1973



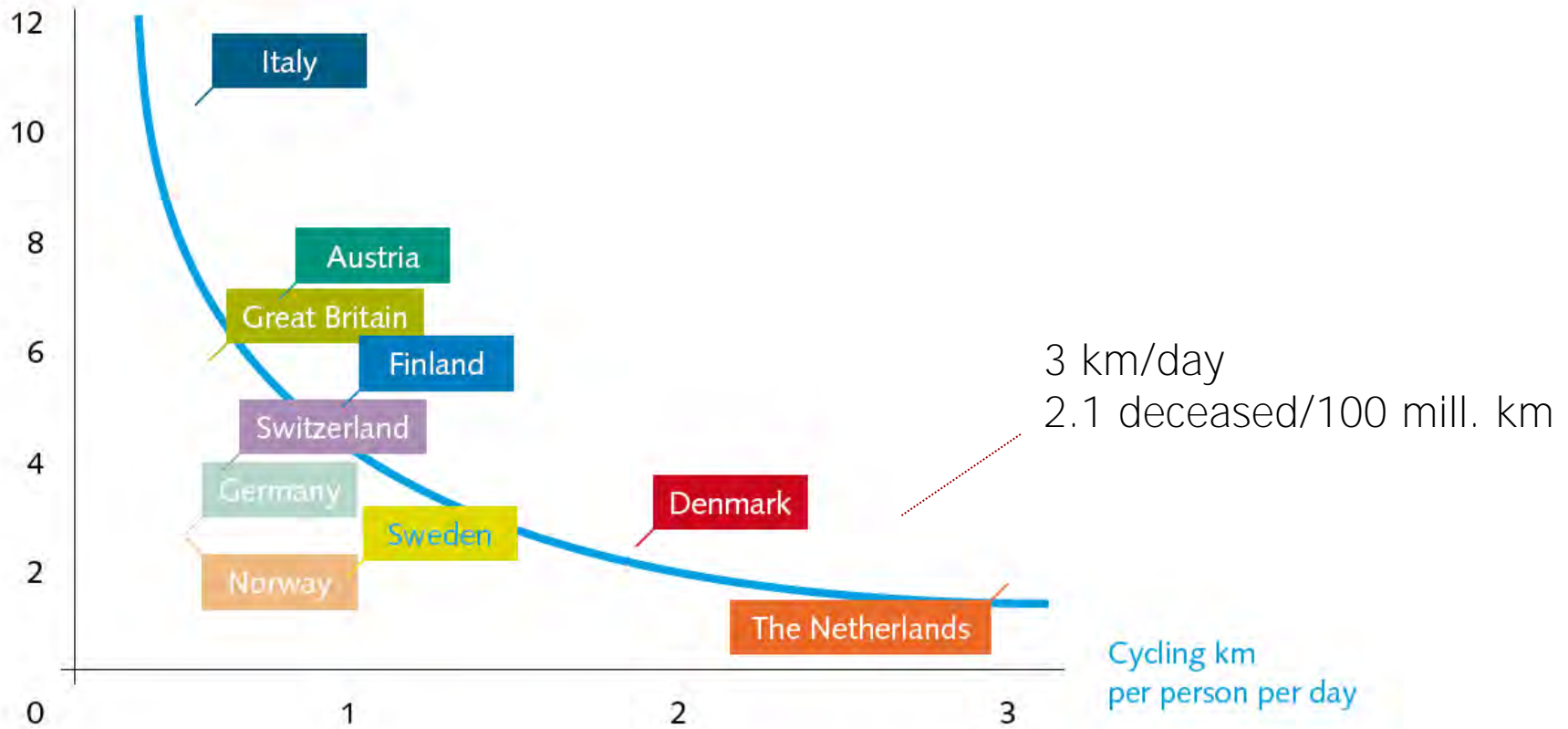
Safety an issue?

● Bicycle use — Bicycle fatalities



Safety by numbers

Killed cyclists
per 100 million km

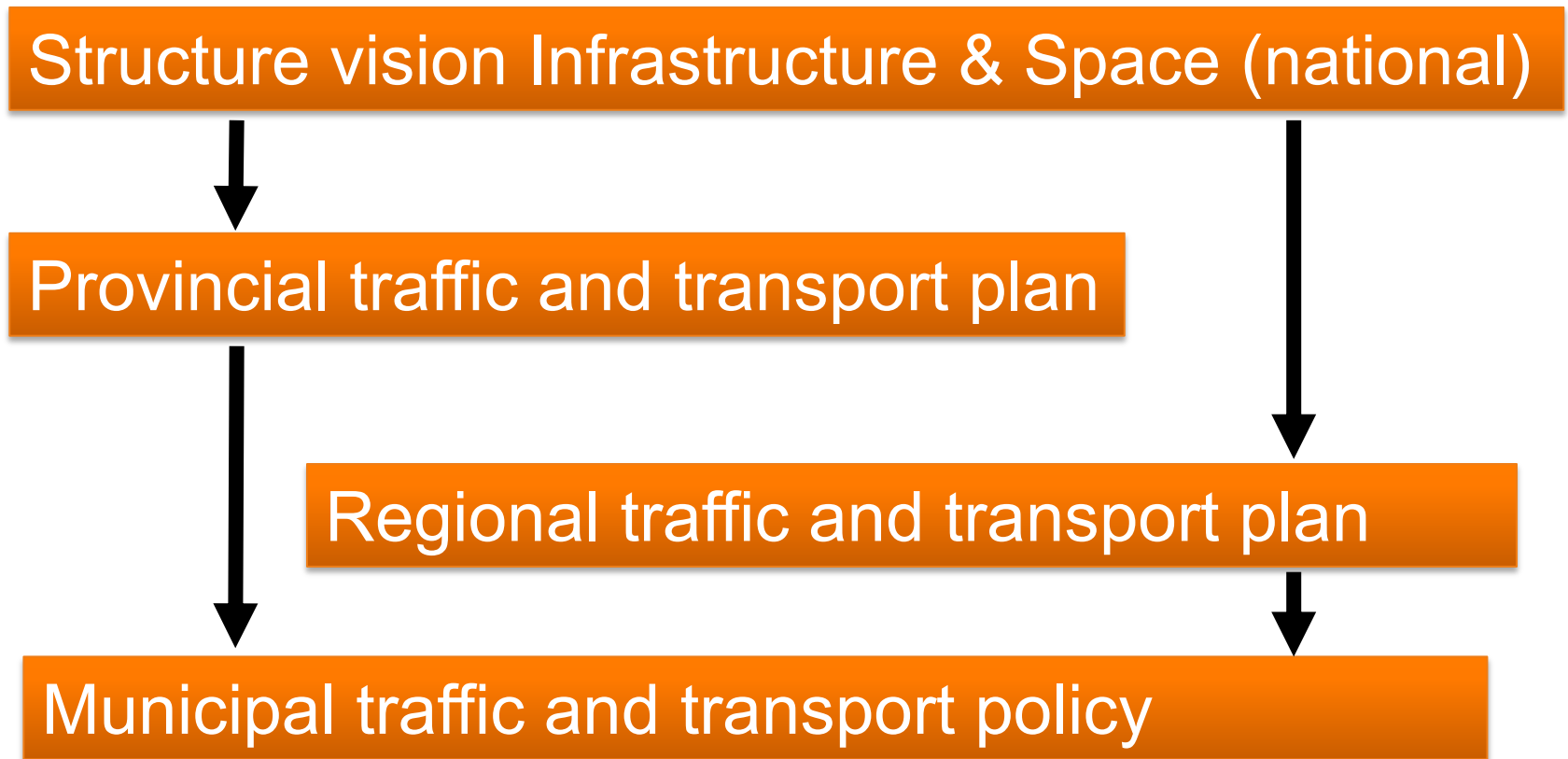


Policy national level

- > 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



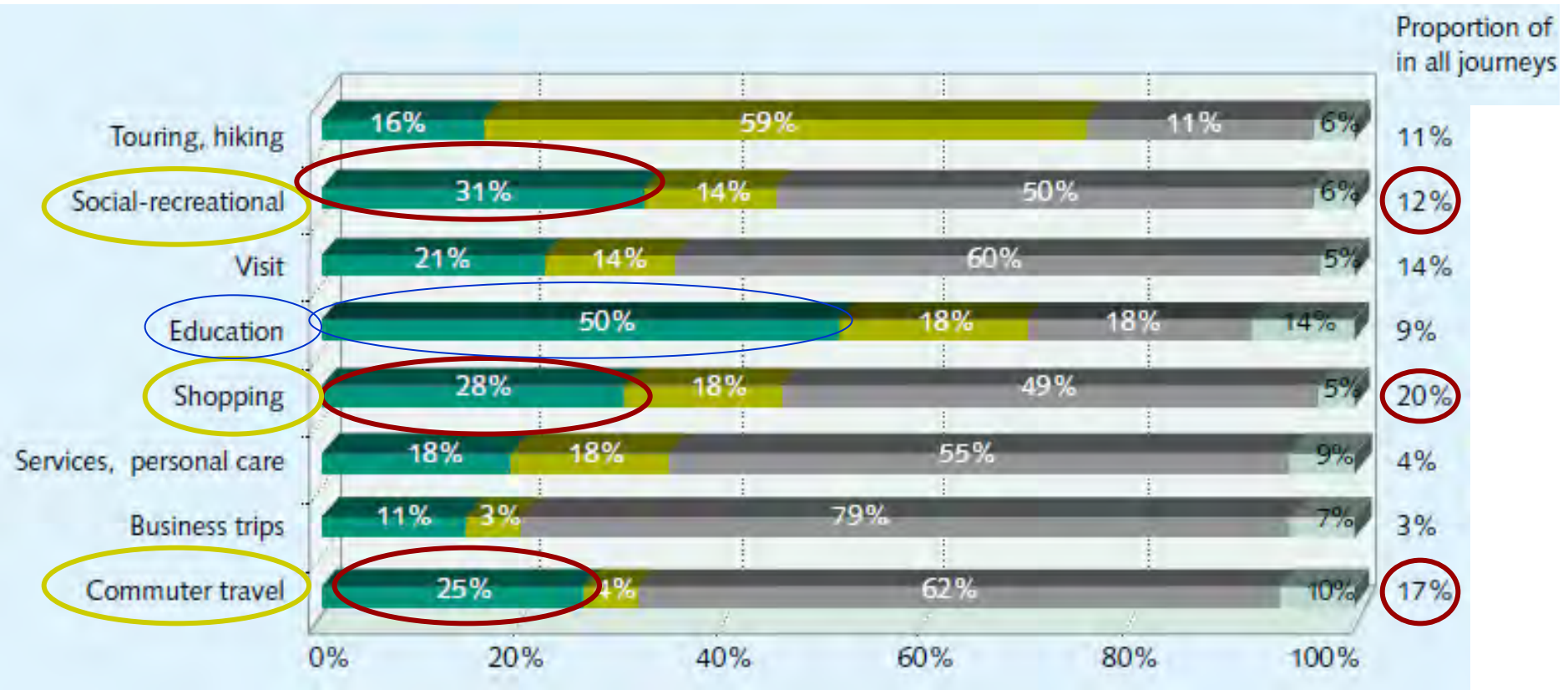
Hierarchy of plans



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

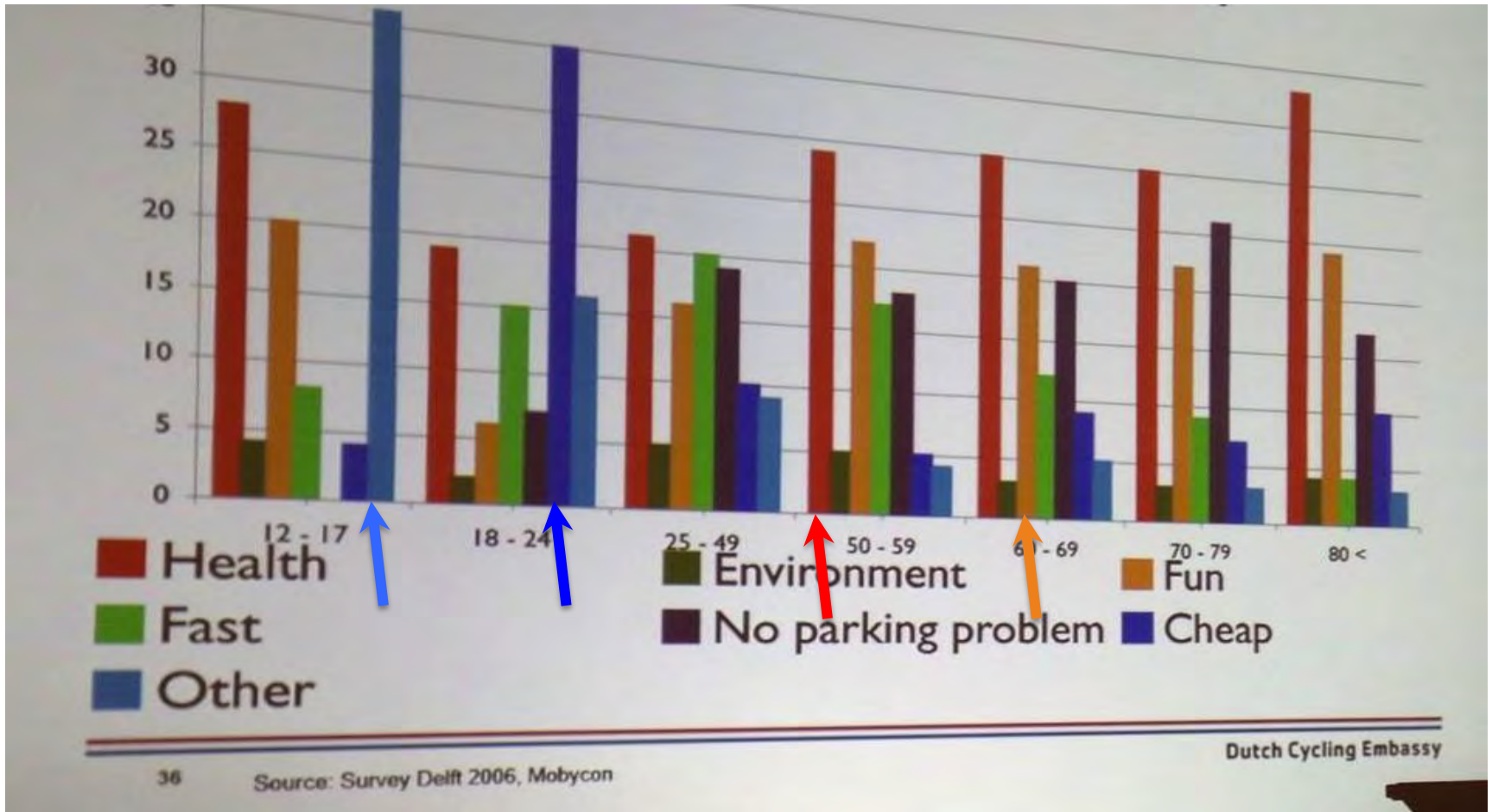
Why do people cycle? Journeys by motive



Why do people cycle ? Amsterdam

- > 70% (very) pleasant (23% very)
- > 70%: 50% fast and easy
19% enjoying surroundings
17% sporty and healthy
- > unpleasant: asocial trafficbehaviour, unsafety, scooters, trouble parking

Why do people cycle? (agegroup, Delft)

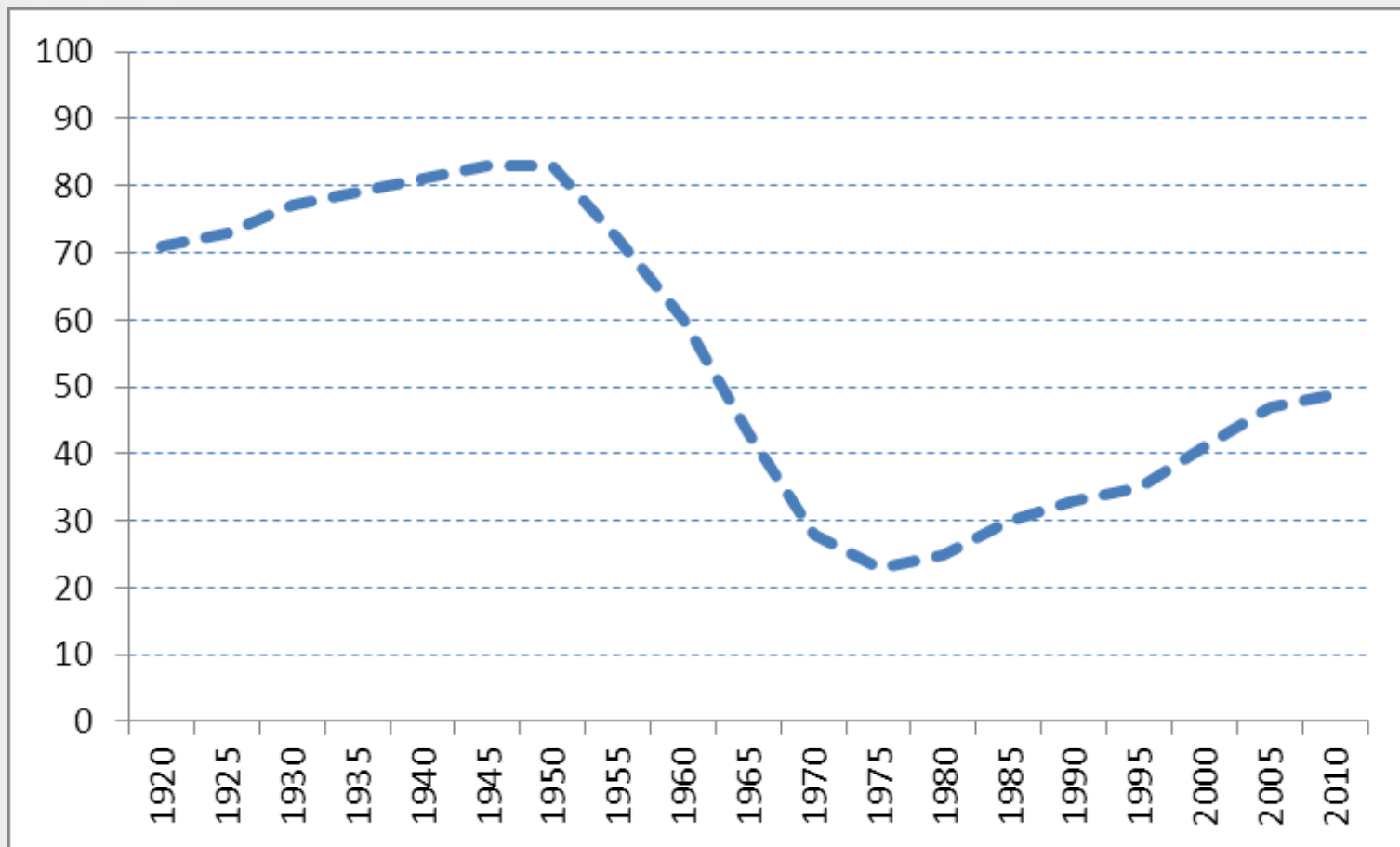


UNIVERSITEIT VAN AMSTERDAM

FIETSAANDEEL

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

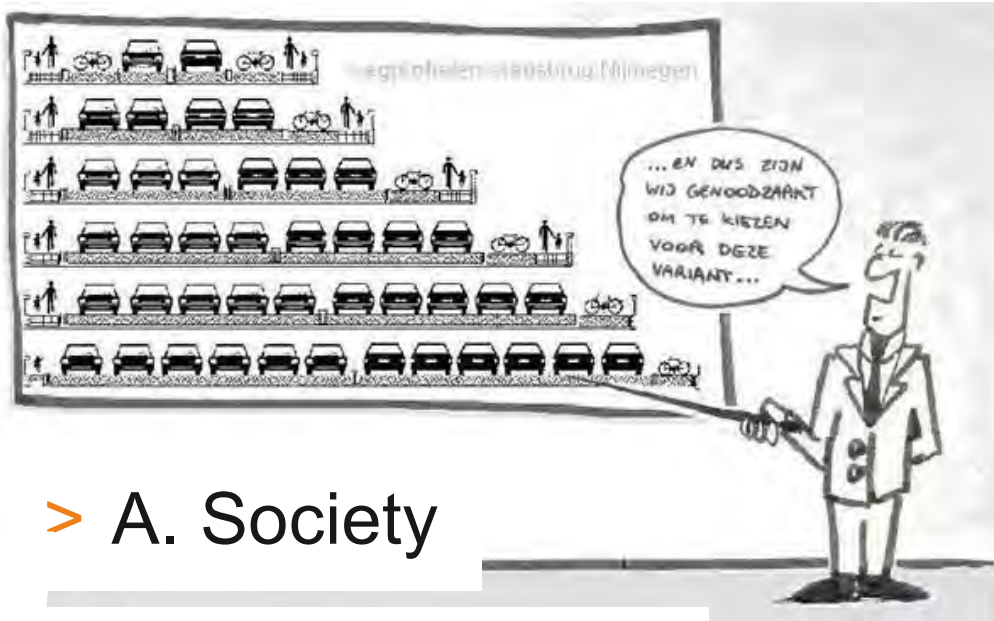
- > Longer trips (train)
- > Mass transportation
- > Feeder trips required

Car

- > Longer trips
- > Thinly populated areas
- > Less or not suitable for dense urban areas
- > pay

Something about politics





> A. Society

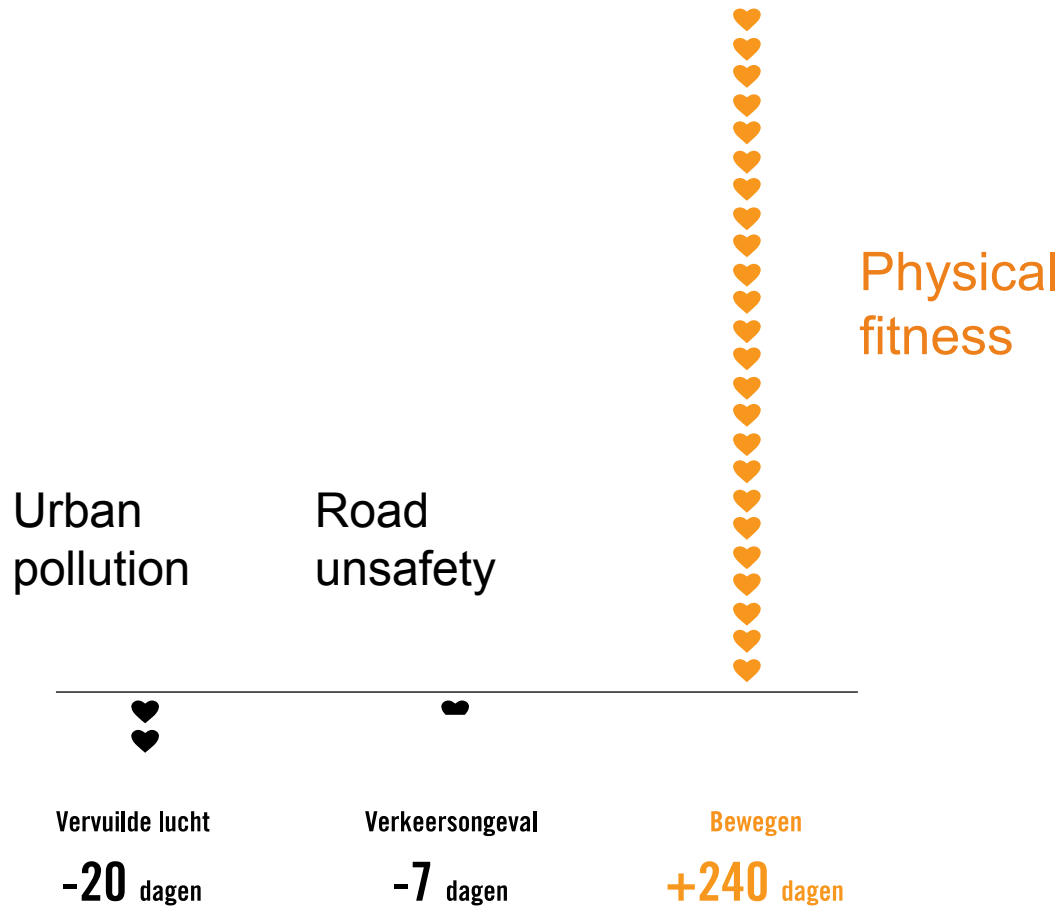
> B. Individual level



Healthy city



Something about health



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% breastcancer

Less staying away from work (unfit)

Less obesitas

Cyclists are more fit and feel better/healthier

Fietsers zijn goede klanten



5 redenen om voorrang te geven aan de *fiets*



1. Bijna 40 procent van uw klanten komt op de fiets
2. Een fietser besteedt per week net zo veel als een automobilist
3. Fietsende klanten komen vaker in de daluren
4. Een fiets neemt tien keer zo weinig ruimte in als een auto
5. Goede fietsenrekken staan boven aan het wensenlijstje van klanten

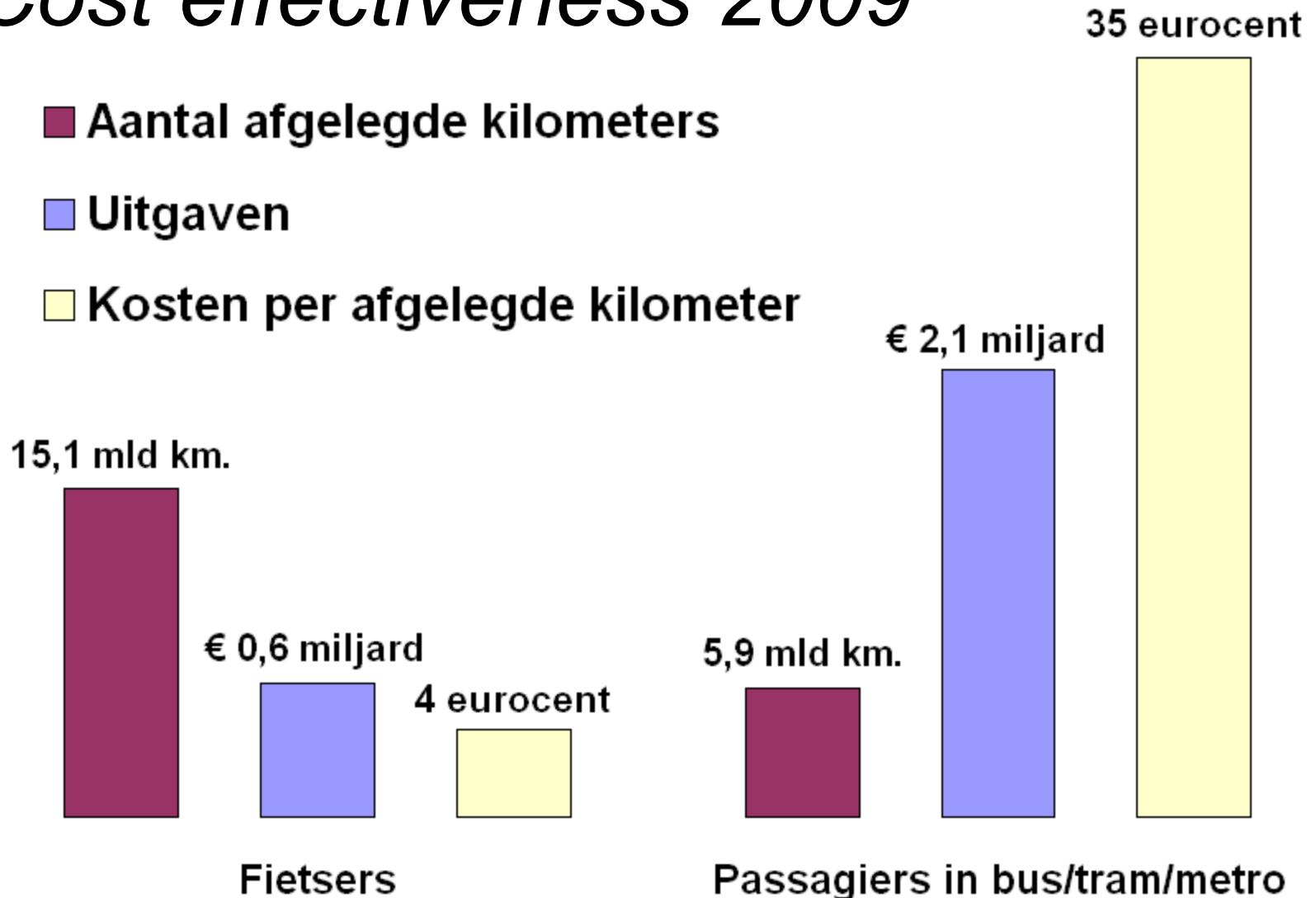


= *Bicyclists are great customers*

[Supermarkets]

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



Reason n° 1.

Urban planning
Urban development
Land use policies

Urban planning cityregion

1950

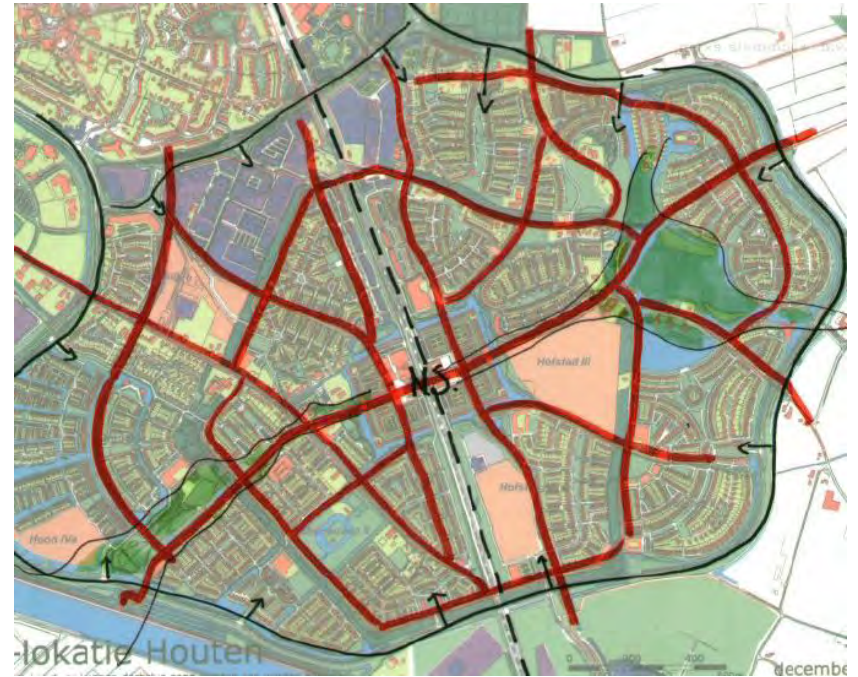
2010



Cities like Groningen: 60% all trips



Houten: smart transport system



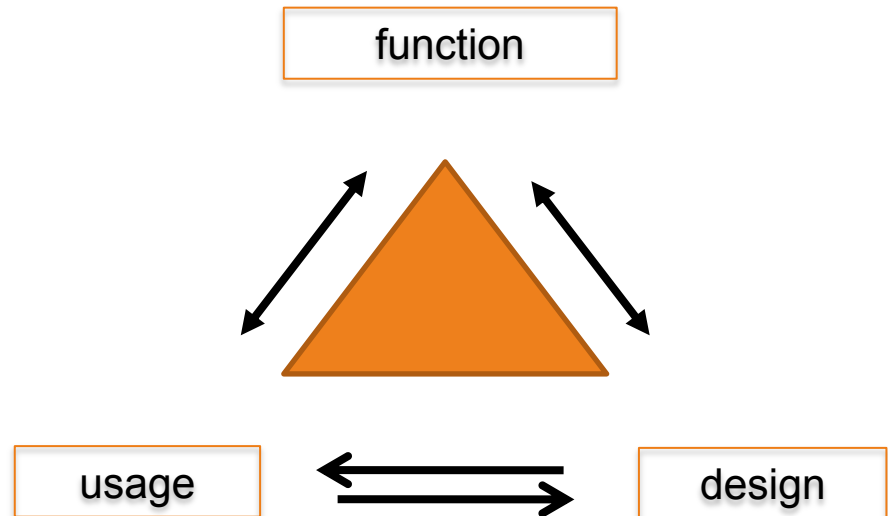
Urban activities, short distances, restrictions car use,
Urban quality of life

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



Low speeds, mixed street



Road categorising 90% local streets



50



30



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

50



Separated



Bike lanes



Solitary



Cyclestreet

30

Reason n° 3.

Cycling network





5 main requirements

- > Coherence
- > Directness
- > Safety
- > Comfort
- > Attractiveness
- > It all starts with Quality

And cycling policy should be:

Continuous -- prolonged

Integral -- embedded

Consistent -- political attention,
keep on investing

Quality



Priority



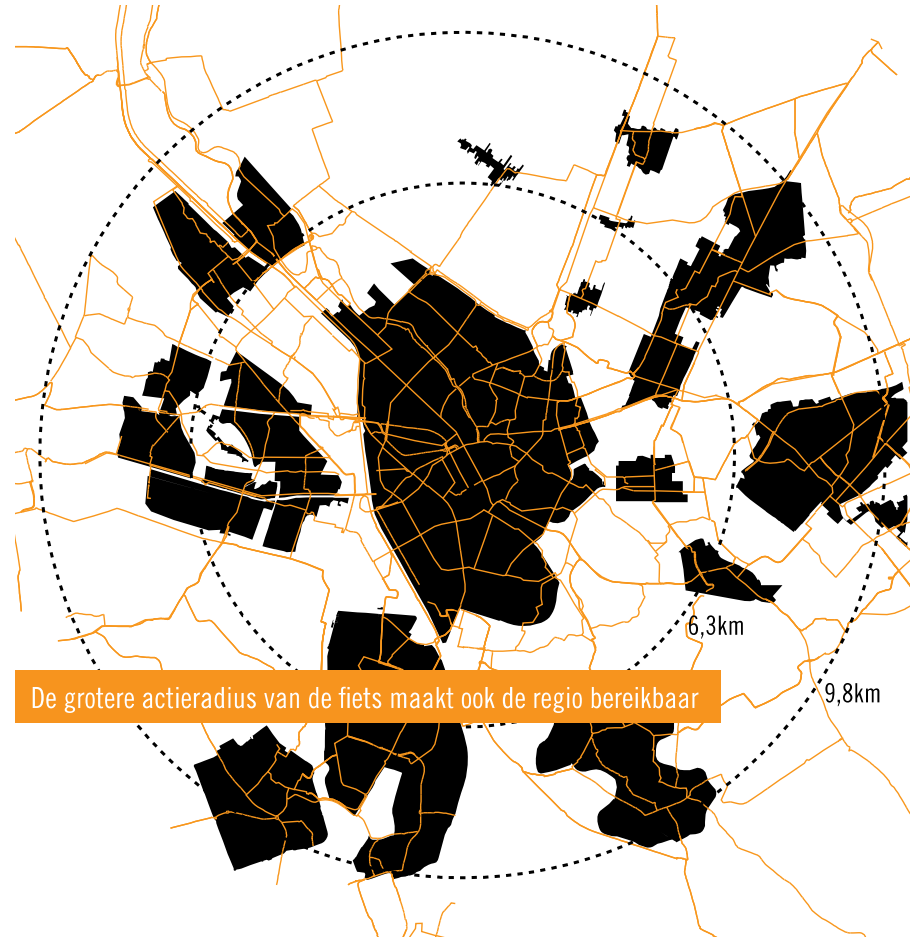
Snelste route → RIJNWAALPAD
↑ Nijmegen Centr. via Waalbrug 3 3,9
↑ Berg en Dal 8 Kleve 24

Snelste route → RIJNWAALPAD
Nijmegen Centr. via Snelbinder 3,9
Station Lent 1,4 Wijchen 11 →

Regional collaboration



New horizon: e-bike





THE NETHERLANDS

Velo-city

ARNHEM 2017 NIJMEGEN

The freedom of cycling!

You're invited!

