

Cycling inclusive planning



Martijn Akkerman

Profile Martijn Akkerman



Raiskums(Latvia) Summer 2013

- Head of Urban Mobility group in NL and board member of Witteveen+Bos Latvia
- Civil engineer, specialised in traffic and transportation
- Project manager of the 2010 Riga and Pieriga Mobility Plan
- I Own (and use) 4 bicycles



1. Cycling in the Netherlands

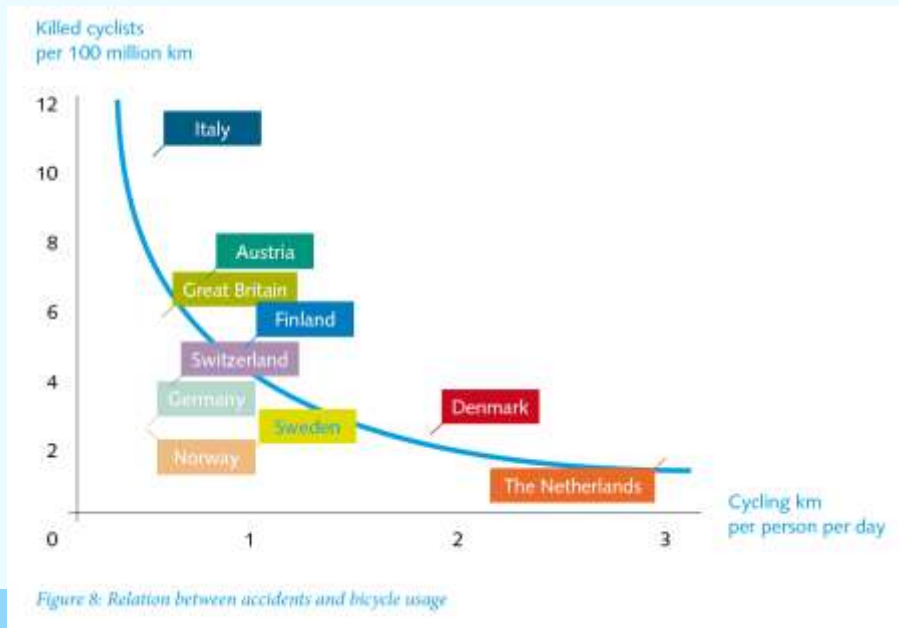
Cycling in the Netherlands



- A mode of transport
- Everyday use (45% short trips < 7.5 km. to work)
- Safe (no helmet)
- For everyone (no link with income, status)
- Car users are cyclists as well

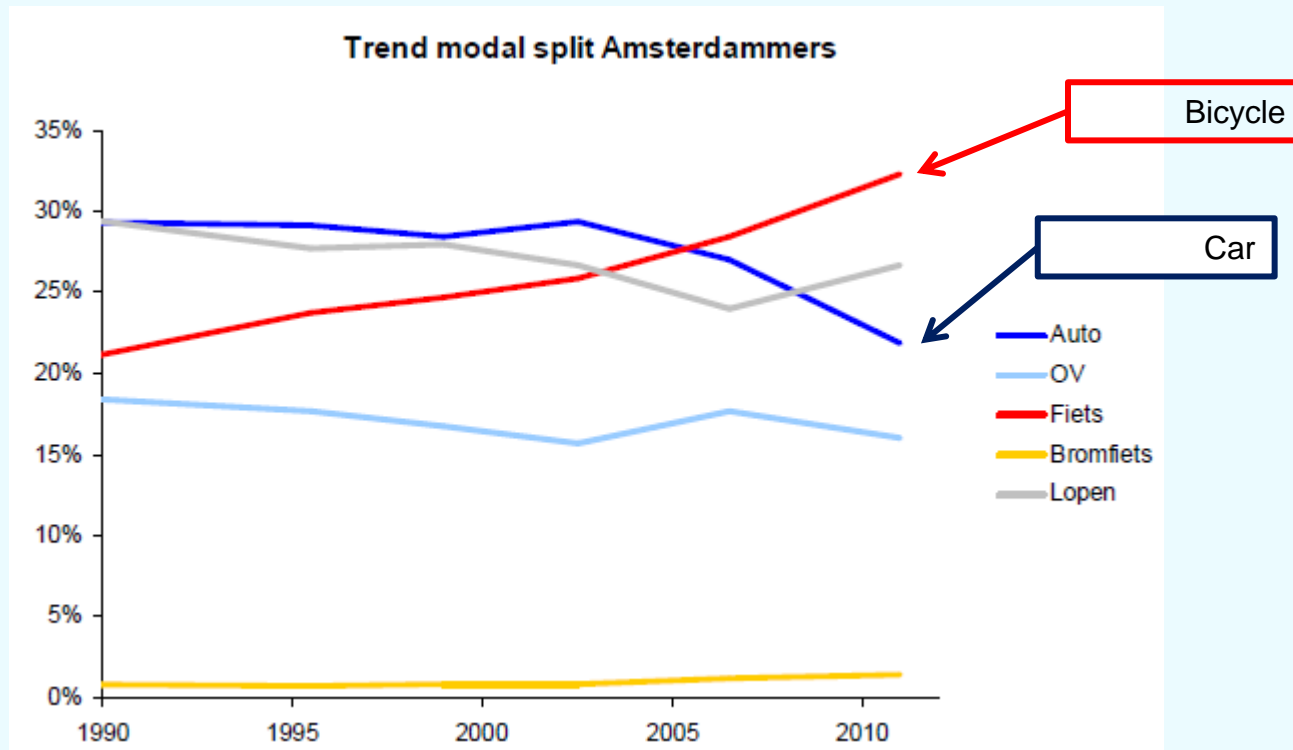
Cycling in the Netherlands

- Important mode of transport: 26% of all journeys!
 - Some cities > 50% internal trips
 - Denmark: 18%
 - Germany: 10%
 - Latvia: 1-3%?



- 18 mln bicycles, 17 mln people
- 35,000 kms cycle tracks

More cycling than driving in Amsterdam



- Bicycle: 21 → 33%
- Car: 29 → 22%
- PT 19 → 16%
- Riga Bicycle: 3%
- Riga Car: 33%
- Riga PT: 45%

2. The Dutch success and 'the change'

The Netherlands 1955-1970



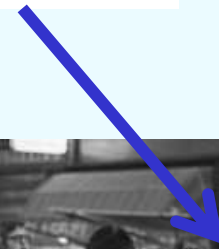
- More and more cars
- Cities demolish houses to make roads
- Congestion
- Pollution
- Accidents

Protests in 1970's

Against road accidents and pro car policies



Stop child
murder



The Netherlands unique

Already from late 1970's car (and bicycle planning) changed from:

Car-based planning

→ Balanced 'cycling-inclusive' planning



3. Cycling-inclusive planning and design

Main issues we see internationally

- Cycling is approached as a standalone issue
- Cycling infrastructure is not part of a greater network
- There is insufficient understanding of cycling and good cycling infrastructure design
- The local culture is not taken into account
- Funding for significant improvements is missing / not allocated



Cycling-inclusive planning?

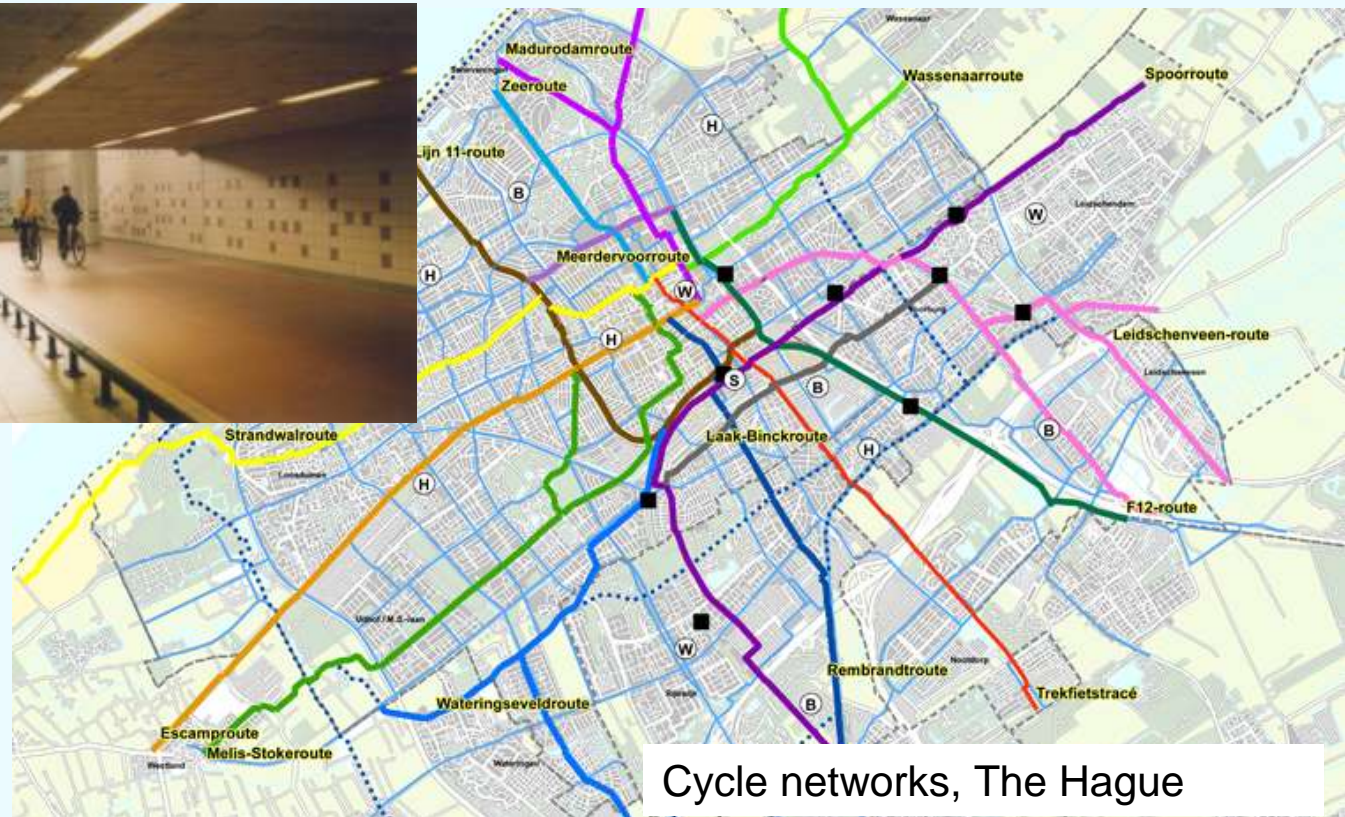
- Make cycling a standard topic in all planning documents
- Consider cycling as important as other transportation modes



Geldersekade, Amsterdam center

Cycling-inclusive planning?

- Develop cycling networks providing top quality infrastructure where the demand is



Cycling-inclusive planning?

- Sustainable road safety: road hierarchy

Flow function



Habitat function



Cycle tracks



Cycle lanes

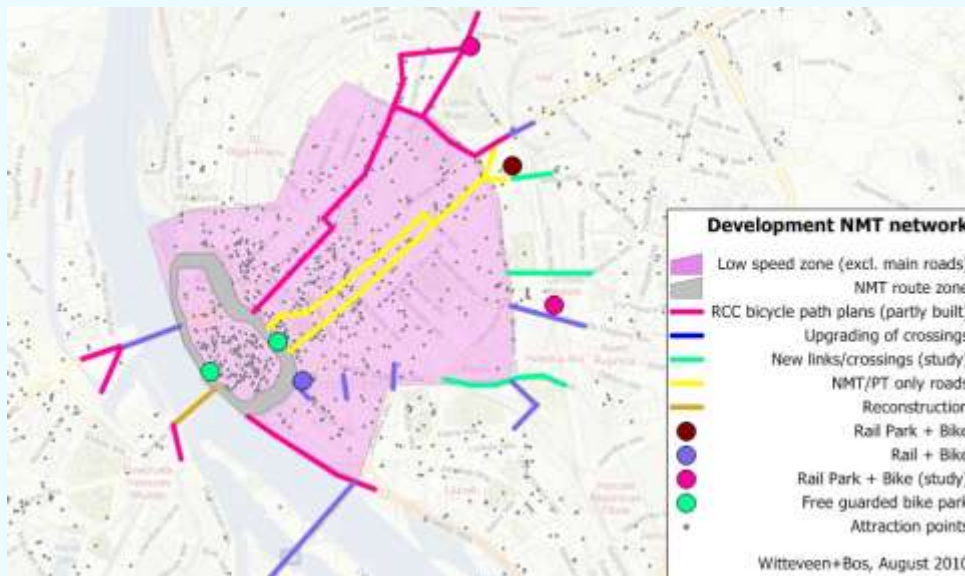


Shared use



Cycling-inclusive planning?

- Create car free of traffic calmed city centers and offer **necessary** car traffic good parking facilities



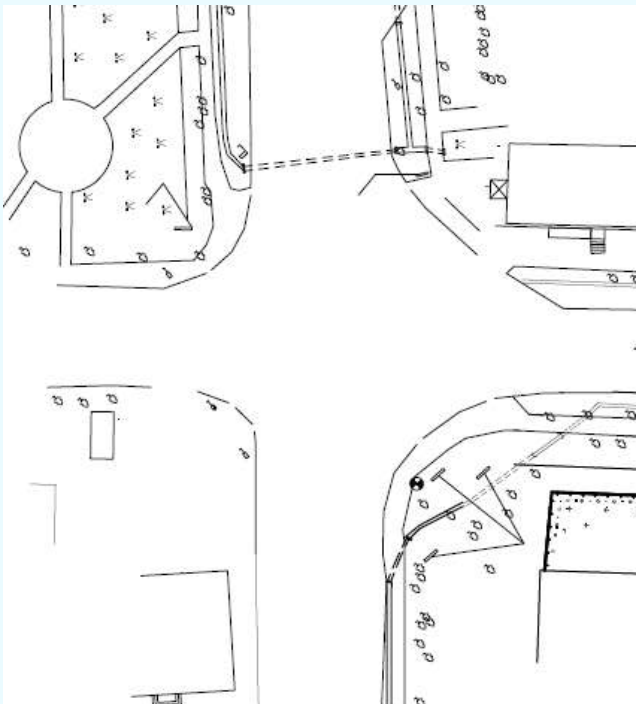
Project: Riga and Pieriga
Mobility Plan



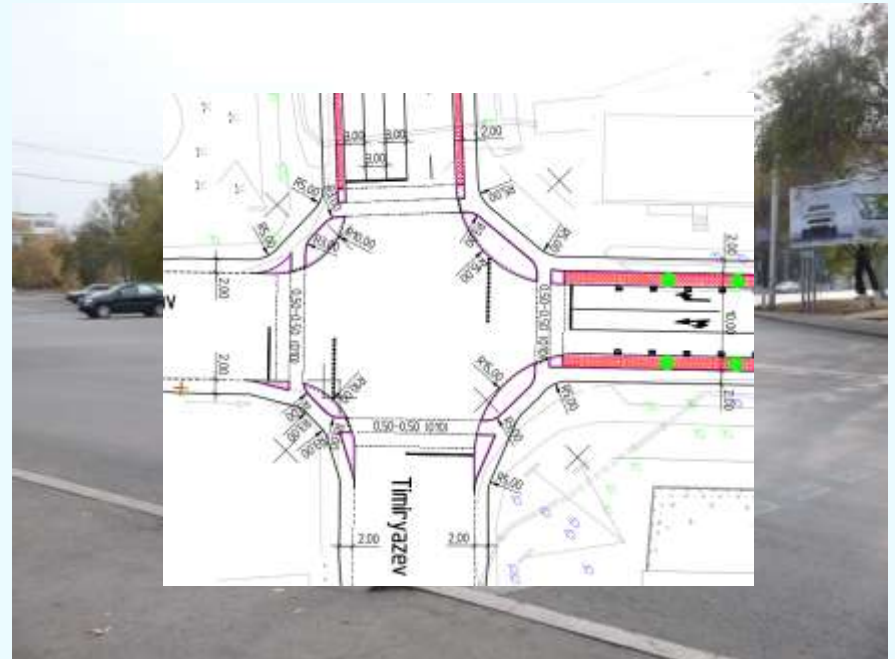
Project: Oslo city-centre
(Norway)

Cycling-inclusive planning?

- Redesign of streets and intersections from façade to façade and re-allocate the urban space

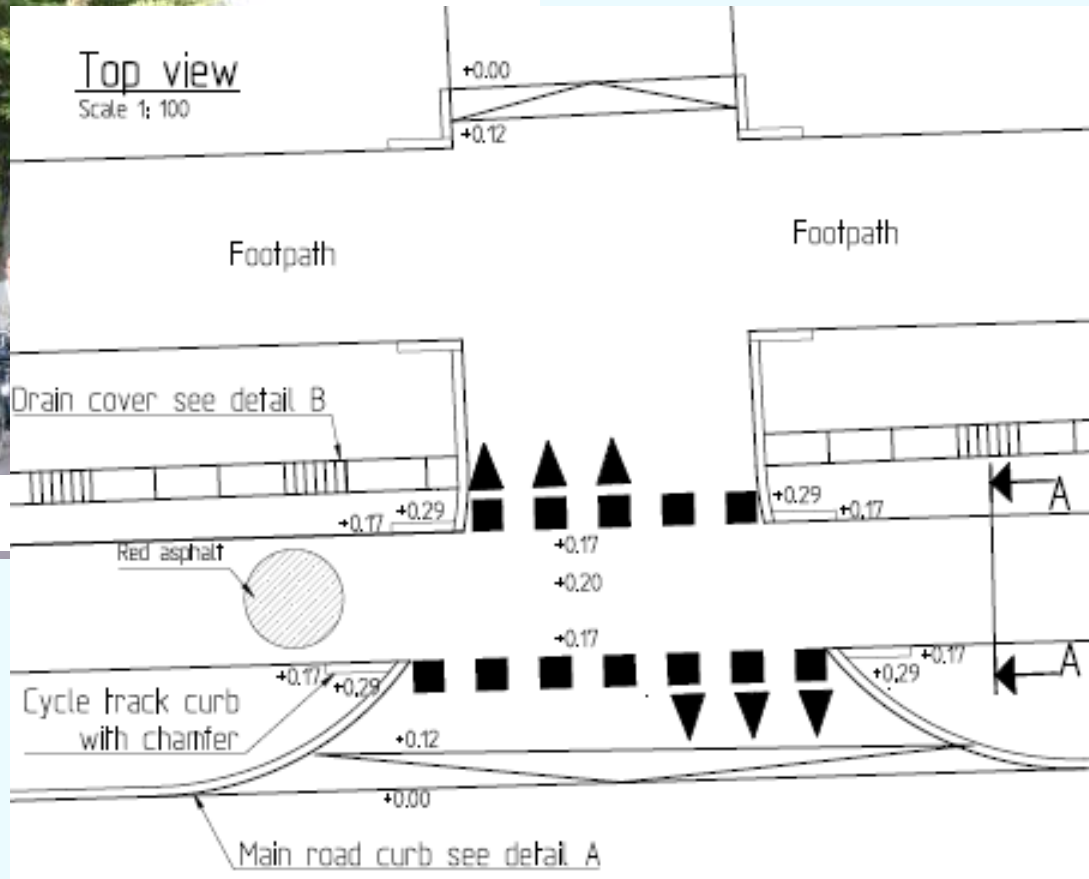


Project Almaty, Kazakhstan



Cycling-inclusive planning?

- Offer top quality and infrastructure for the cyclist



laipeda (LIT)

Cycling-inclusive planning?

- Segregating cyclists and pedestrians



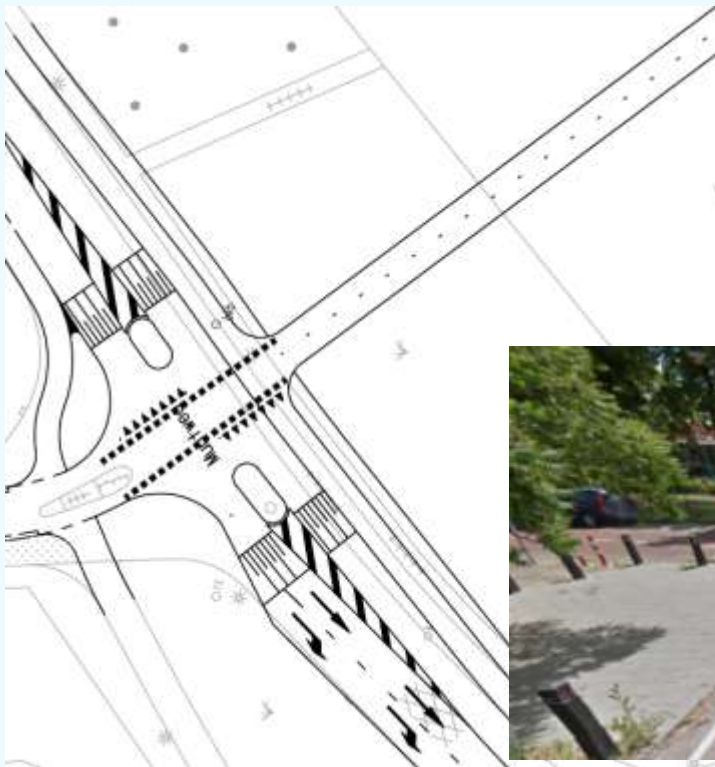
Cycling-inclusive planning?

- Cycle highways



Cycling-inclusive planning?

- Elevated priority crossing



Where the main cycle track or cycle highway meets a collector road



Deventer (NL)

Cycling-inclusive planning?

- But don't forget bicycle parking facilities



Groningen, before (NL)



Groningen, after (NL)



Rotterdam, new! (NL)

Cycling-inclusive planning?

Cycling-inclusive planning and redesign →
integrated planning, not just adding cycle tracks!



Only a bucket of paint is not enough!



Challenges in the Netherlands

- Bicycle parking in general
- Business model for underground bicycle parking
- Speed differences E-Bike vs traditional bicycles
- Traffic safety for elderly



One more thing

River crossing Riga Northern
Transport Corridor and cycling

High bridge?

- Pont de Normandie (Le Havre, La France)
- Opened in 1995
- Navigation height: 52 m
- 6% Steep ramp
- Queen Mary 2 can't pass!



Immersed tunnel

- Maastunnel Rotterdam, opened 1942 (!)
- Immersed tunnel with bicycle section
- Height difference: less than 20 m.
- Recently Queen Mary 2 passed the 70+ yr old tunnel



Thank you



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Member of ECF?
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