LESSONS FROM EUROPE
Linking Transit with Walking and Biking
(The City of Utrecht, NL, 2011/9/27)
"I think we need to make people aware that our traffic concepts of today are not sustainable and will be of no use for the future of our society and our planet."

Dr. Wolfgang Schuster (Mayor of Stuttgart, Germany)
The Netherlands (as it was)
The Netherlands (as it is)
Some demographic facts

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>Maryland</th>
<th>Washington DC</th>
<th>The Netherlands</th>
<th>Utrecht</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Founded</strong></td>
<td>1776</td>
<td>1788</td>
<td>1790</td>
<td>1579</td>
<td>50 AD</td>
</tr>
<tr>
<td><strong>Inhabitants (city)</strong></td>
<td>308.7 mln</td>
<td>5.8 mln</td>
<td>602,000</td>
<td>16.7 mln</td>
<td>313,000</td>
</tr>
<tr>
<td><strong>Inhabitants (region)</strong></td>
<td>(1) 5,580,000</td>
<td></td>
<td></td>
<td></td>
<td>640,000</td>
</tr>
<tr>
<td><strong>Area (sq mi)</strong></td>
<td>3,717,796</td>
<td>12,407</td>
<td>68</td>
<td>16,034 (1)</td>
<td>38</td>
</tr>
<tr>
<td><strong>Inhabitants (/sq mi)</strong></td>
<td>8.3</td>
<td>465.3</td>
<td>8848.9</td>
<td>1039.6</td>
<td>8179.9</td>
</tr>
</tbody>
</table>

(1) 1.29x State of Maryland
About the City of Utrecht

Facts

• Fourth largest city in the Netherlands.
• Over 300,000 inhabitants.
• Largest University in the Netherlands.
• Busiest railway station of the country (more passengers a year then Schiphol Airport).
• Still growing economy (despite global recession).

Modal split

• Motor vehicles: 38.5 %
• Public transport: 10.8 %
• Bicycles: 28.0 %
• Pedestrians: 21.2 %
• Others: 0.15 %
Traffic congestion

Imbalance between incoming & outgoing traffic.

122,000

→

61,700

→

58,500

Numbers show incoming traffic during morning rush hours.
What to do about this?

1. New regional railway network

2. New light rail & streetcar lines

3. Improving bicycle facilities

4. Improving road network

INTEGRATION!
Step 1: New regional railway network
What is Randstadspoor (RSS)?

**Facts**

- Regional network of commuter trains.
- Using existing railway corridors.
- 10 new stations in region.
- Most railway lines widened from 2 to 4 tracks.
- 4-6 trains per hour.
- Realisation between 2002 and 2015.
Construction started in 2002
Reconstruction of the main railway station
S-tog (Copenhagen, Denmark)
RER (Paris, France)
Tyne & Wear Metro (Newcastle-upon-Tyne, UK)
S-bahn (Stuttgart, Germany)
S-bahn (Karlsruhe, Germany)

Ultimate integration: Commuter rail, Light Rail and Streetcar in one
Randstad Rail (Rotterdam region, The Netherlands)
Step 2: New light rail & streetcar lines
Already one light rail line (SUNIJ-line)

1983/12/17, Opening 1st light rail line

2000, Renovated light rail car

2007, Low-floor car from Mulhouse

2010, second hand cars from Vienna
From bus lanes to light rail

Facts

- The current network of bus lanes can easily be changed into light rail.
- A light rail network can transport more passengers than the current network of bus lanes.
- A light rail network creates more and new transfer points.
A regional network of light rail

Facts

- Network of existing & new lines.
- Upgrading existing light rail line.
- Building two new lines to De Uithof.
- Building a new line to Leidsche Rijn.
- 4-8 trams per hour.
- Realisation between 2012 and 2025.
The planned regional network in 2025
Impressions of the city area
Impressions of the university campus
Impressions of the new transfer point De Uithof
The ultimate public transport (Wuppertal, Germany)
Typical light rail of the 70’s (Charleroi, Belgium)
High platform barrier (Manchester, UK)
High platform integration (Stuttgart, Germany)
Low platform integration (Orleans, France)
Total integrating (Mulhouse, France)
Total concept (Almada, Portugal)
Step 3: Improving bicycle facilities
About cycling in the City of Utrecht

**Facts**

- 36% of all trips < 7.5 km are done by bicycle.
- 91,000 cyclists pass the inner city on working days.
- 22,000 bicycle stands around main railway station and in city centre.
- 8 secured bicycle parking’s around main railway station.
Bicycle Program

Making an extra investment of € 67 mln. ($90 mln.) by:

A. Upgrading five busiest routes.
B. Building missing links.
C. Creating more & better parking.
D. Introducing public bicycle program.
E. Increasing promotion of the bicycle.
A. Upgrading five busiest routes
B. Building missing links

New tunnel in a regional bicycle route
C. Creating more & better parking
D. Introducing public bicycle program (OV Fiets)

**Facts**

- A public bicycle system for transport hubs like railway stations, light rail stops, bus terminals, Park & Ride, etc.
- Over 200 rental locations.
- Over 60 self-service bicycle dispensers.
- More than 850,000 trips in 2010.
E. Promotion of the bicycle

First stage of Giro d’Italia 2010.
The final step: Integration!

Both infrastructure and policy
Utrecht Centraal: Busiest railway station in the country

Facts

- Major transport hub in the heart of The Netherlands.
- 160,000 daily train and 100,000 bus & light rail passengers on weekdays.
- 9 guarded bicycle parking's (total capacity 10,000 bicycles).
- Over 7,000 unguarded bicycle parking places.
Bicycle parking at Utrecht Centraal

Guarded parking (paid)

Guarded parking (paid)

Guarded parking (non-paid)

Street parking
Bicycle parking at other stops of public transport

Commuter rail (region)

Light rail

City bus

Regional bus
Bicycle parking at other locations

- Offices
- Schools
- Shops
- Theatres
Other aspects of integration

National website OV9292

The OV chip card

Taking bicycles into trains

Temporary road signing
A map of integration (The Hague HS station)
Integration (Copenhagen, Denmark)
Integration (Münster, Germany)
Integration (Odense, Denmark)
Integration (Copenhagen, Denmark)
Integration (Stuttgart, Germany)
Integration (Delft, The Netherlands)
Integration (Stuttgart, Germany)
Integration (Groningen, The Netherlands)
Thank you for your attention!

Ronald Tamse, The City of Utrecht (NL), 2011/09/27