Urban transport and individual mobility

Ensuring better urban mobility in a cost effective and environmental friendly way. Experiences, plans and programs in the Oslo region.

Bernt Reitan Jenssen, CEO, Ruter As
Ruter: PT Authority for the Norwegian Capital Region

Norway
Population 5.0 mill
Gross domestic product per capita PPP USD 60 000
Unemployment rate 2.7 %

Oslo + Akershus
Population 1.2 mill
2 counties
22 + 1 municipalities

Ruter As established 2008 as a common authority for the City of Oslo and Akershus County.

PPP = Purchasing Power Parity.
PT growing and gaining market shares

291 mill PT boardings 2011

Europe’s fastest growing capital city

Car traffic in Oslo still at 2005 level
## PT growing and gaining market shares

### Public transport’s share of motorised transport

<table>
<thead>
<tr>
<th>Year</th>
<th>Oslo</th>
<th>Akershus</th>
<th>Ruter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>44%</td>
<td>20%</td>
<td>31%</td>
</tr>
<tr>
<td>2010</td>
<td>45%</td>
<td>18%</td>
<td>31%</td>
</tr>
<tr>
<td>2009</td>
<td>42%</td>
<td>17%</td>
<td>29%</td>
</tr>
<tr>
<td>2008</td>
<td>41%</td>
<td>15%</td>
<td>27%</td>
</tr>
<tr>
<td>2007</td>
<td>37%</td>
<td>14%</td>
<td>25%</td>
</tr>
<tr>
<td>2006</td>
<td>36%</td>
<td>14%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Significant increase in PT market share is possible!
<table>
<thead>
<tr>
<th>Mode</th>
<th>City</th>
<th>Regional</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>83 mill</td>
<td>43 mill</td>
<td>126 mill</td>
</tr>
<tr>
<td>Metro</td>
<td>81 mill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tram</td>
<td>48 mill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSB Train</td>
<td>27 mill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airport Express Train</td>
<td>6 mill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger Ferry</td>
<td>4 mill</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 55% on rail, powered by electric renewable energy
- 28% City Bus
- 16% Regional Bus
- 9% Tram
- 2% Airport Express Train
- 1.5% Passenger Ferry

Ruter®
Reasons for market success

- Increased public financing, including share of Toll Ring revenues
- Common regional organization
- Customer-driven development
- Production moved in direction of heavier markets
- Increased frequency
- New rolling stock (metro)
- Real time information
- Weather?
- Reduced fares for 30 Days passes in Oslo 2008
- Increased Toll Ring fares 2008

Programme

- Akershus County
- Oslo City
- Toll Ring fares
- Total

Ruter®
Customer-driven service development

Satisfaction related to importance

Ruter’s Customer Segmentation

- Ambassadors
- My only option
- Enlightened friends
- Convince me
- Me and my car
- Non-users
Citizens’ satisfaction is increasing, and at the highest level in Oslo

Customers’ satisfaction is high, and highest for regional services

Passenger Ferry
Regional Bus
Metro
Tram
City Bus
Infrastructure renewal and new metro cars: Better quality and higher satisfaction
**PT oriented land use is a must**

Densification in a PT oriented pattern gives less car traffic, more public transport, better environment and lower costs.

Regional Land Use Secretariat is located in Ruter’s (PTA) office.

<table>
<thead>
<tr>
<th>Short term effect by 30% population increase in the Oslo region</th>
<th>Car use</th>
<th>PT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Densification</td>
<td>- 8%</td>
<td>+ 12%</td>
</tr>
<tr>
<td>Urban Sprawl</td>
<td>+ 3%</td>
<td>- 19%</td>
</tr>
</tbody>
</table>
Public Transport is Cost Effective

Benefit/Cost ratio in the Oslo region for PT grants: 1,78, mainly due to reduced queue costs. Optimum level would be 30 % higher: MNOK 750 (MEUR 100).

Traffic development in the Oslo region:
- Environmental scenario
- Car scenario
A trend scenario is quite similar to the car scenario.

Transport sector accounts for 79 % of CO₂ emissions.
Better environment by higher PT market share

Car use has an environmental cost four times the average for PT (NOK 0,96 against NOK 0,22 per person kilometre).

In addition Ruter produces environment efficient by:

- High share of electric rail traffic (55 %)
- Buses on biodiesel, biogas and bioetanol
- Buses on diesel electricity (hybrid buses)
- Gas ferries
- Buses on hydrogen from 2012
Public Transport is Environmental Friendly

In total PT is four times better than car use.

Costs 2009 including local and global emissions, noise, accidents and queuing.
Ruter’s Business Development Plan.

1. Perspectives towards 2060
2. Strategies towards 2030

Proposals to
• City of Oslo
• Akershus County
• National Authorities

Premises for planning and development in Ruter.
Provide for growth in motorised transport by PT

There is a broad political and administrative agreement that PT should take most of growth in motorised transport the years to come.

It is not least important that National Road Authority officers are eager spokesman for this ambitions.

And over the last years we have succeeded!
PT growth in existing and new markets

Net yearly increased production to meet market growth 2012-15:

- 1 six-cars metro train
- 2 trams
- 10 city buses
- 15-20 regional buses
- 2 double suburban trains

Aimed passenger development
Modelled PT growth from known measures
Passenger growth equal to growth in population
Decrease in PT passengers without new measures

Million boardings/year

- 2007
- 2010
- 2015
- 2020
- 2030
- 2040
- 2050
- 2060
The next 300 000 and then the next million

10 000 years to reach the first million in the Oslo City Area.

The next million might come within 50-60 years.

Do we understand the implications and the necessary measures?

Most important:

Long term perspectives

PT oriented land use
Main task: Strengthening trunk rail network by new city tunnels for railway and metro, linked together in efficient hubs.
Strengthening trunk rail network by new city tunnels for railway and metro, linked together in efficient hubs

New metro tunnel might cost MNOK 10 000 (and railway tunnel perhaps more than twice as much).

New city metro tunnel gives together with other measures three times today’s capacity

Net benefit/cost + 2.
All modes playing together

Regional Train
Suburban Train
Metro
Tram / Light Rail
City Bus
Express Bus
Ferry
Regional Bus
DRT - Bus on demand

Ruter#
Thank You for Your Attention!