1 Area
2. Plan
3. Emissions
4. Operational policies and measures
   - Land use
   - Traffic
   -- Energy
European Union targets are challenging

Global atmospheric warming not to exceed 2°C
Consumption-based greenhouse gas emissions in the Helsinki Metropolitan Area

The main sources of emissions are:
- heating **43%**
- electricity consumption **28%**
- traffic **23%**
Climate Strategy for Helsinki Metropolitan Area

Outlines of the strategy work:

• Sectors generating the greatest amount of GHG emissions
• Measures within the cities’ own authority or control
• Focus on reducing energy consumption
Trends in greenhouse gas emissions in the Helsinki Metropolitan Area

1990-2030: 39 % reduction in emissions
The climate vision for the Helsinki Metropolitan Area

Improved energy efficiency and the economical use of natural resources will lead to reduced greenhouse gas emissions and enhanced competitiveness in the region.
Actions that have the greatest impacts on greenhouse gas emissions

- Land use
- Traffic
- Energy production
- Electricity consumption
- Procurement, consumption and waste

39% CO₂ reduction
Urban sprawl in the Helsinki Metropolitan Area (YTV)

Area density
(in 250 m * 250 m square)
- 1.50
- 0.25
- 0.10
- 0.03
- 0.01
Annual fuel consumption rates in transportation

Source: Towards an Urban Renaissance, Urban Task Force 1999 and YTV

04.11.2008 Irma Karjalainen
Jobs and inhabitants per square kilometre, total
(within a radius of one km from a railway / metro station)
Public transport market share has to be increased

A 1 % increase in the modal share of public transport reduces traffic-related greenhouse gas emissions by approximately 0.6 %

Share of public transport  38 % in 2005
Share of public transport in journeys made in the centre of Helsinki

<table>
<thead>
<tr>
<th>Year</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>63</td>
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<tr>
<td>1990</td>
<td>61</td>
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<td>1995</td>
<td>61</td>
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<tr>
<td>2000</td>
<td>63</td>
</tr>
<tr>
<td>2005</td>
<td>62</td>
</tr>
</tbody>
</table>
Traffic

Influencing移动ly demand and modes of travel by improving the status and service level of public transport, walking and cycling

• Traffic pricing to encourage use of public transport
• Defining and establishing low-emission standards as procurement criterion.
• Removal of parking fees for low-emission vehicles and other benefits for low-emission vehicles.
• Giving up the free parking spaces for city employees
Helsinki Metropolitan Area Transport System Plan 2007: Public transport infrastructure projects

Espoo City Rail Link
$ 300 million
Launch 2008–2015

Ring railway line (Marja railway line)
$ 930 million (state financing 590)
Launch 2008–2015

Metro Ruoholahti–Matinkylä
$ 1,130 million (state 340)
Launch 2008–2015

Metro Matinkylä–Kivenlahti
$ 300 million
Launch 2008–2015

Pisara Rail link
Metro Kamppi–Pasila

Jokeri Rail link
Jokeri II street investments
$ 80 million (state 67)
Launch 2016–2030

Helsinki centre – Laajasalo Rail link
How to combat the climate change in the next Transport System Plan?

- Close ties to land use policy
- Integrated tariffs and tickets
- Mobility management
- More trains, metros and trams
- Better cars, buses and fuels
- Pricing and charging
- Financing and funding

![Graph showing present 2005, PLJ 2007, and EU target emissions with a decrease of 20/50%?]}
Operating policies for construction and buildings

Improving energy efficiency in new buildings
- new technology pilot projects e.g. low-energy buildings

Improving energy efficiency in the existing buildings
- new renovation technology

Guiding choices of heating and cooling systems
- impact of various heating and cooling methods
- improving various financing and grant procedures

Improving maintenance
- retraining building service staff
- active use of servicing logbooks
  improving consumption metering to ensure that energy costs can be allocated to the end consumer
- new control and guidance technology for information

A solar heated building in Viikki, Helsinki
Top 10 areas for action

- Reducing energy consumption and GHG emissions in all the municipalities within the metropolitan area
- Public sector procurement procedures
- Replacing coal with recovered fuels and eco-electricity
- Promoting energy efficiency at all levels
- Rail traffic and vehicle biofuels
- Heating systems of detached houses
- Information
- Motivating people to save energy
- Promoting life-cycle thinking and developing eco-areas
- Monitoring and statistics

New Energy politics of Helsinki

• The amount of renewable energy sources in energy production will be risen into 20 % by year 2020

• The use of renewable energy sources in producing electricity and district heating will be increased among others by increasing noticeably the amount of wind energy in electricity procurement
Preventing climate change must play a key role in city planning and decision making!

In 2030 Miss Million will be 23 years old.

Will we succeed in curbing the climate change?

Good luck for the Mayors!

Newspaper "Metro"