Climate Change – Challenge to the City of Oulu

Fri 3 Dec 2010

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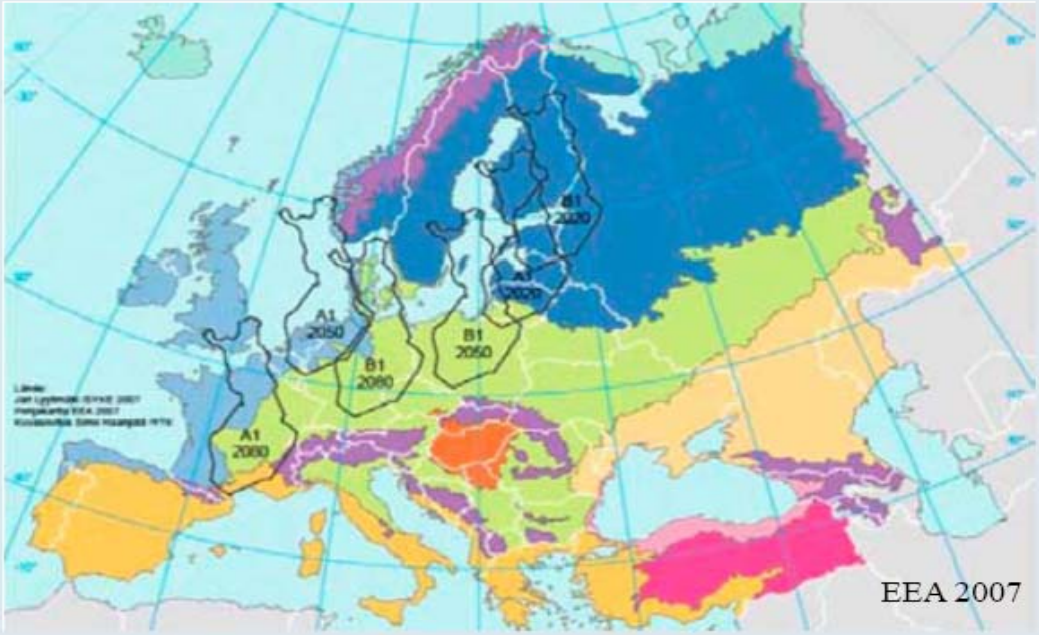
Scenario for Oulu's temperatural position

	A1 scenario	B1 scenario
2020	Tallinn	Jyväskylä
2050	Copenhagen	Riga
2080	Paris	Hamburg

A1: Economic growth remains fast, world's population increases until the mid-century and new, more efficient technologies are implemented

B1: Population growth and purchasing power remain as in scenario A1, but economic structure changes strongly towards services and information technology, which decreases the economy's material and energy intensvity



FORECAST FOR THE CLIMATE CHANGE IN OULU REGION

- Maximum temperatures rise less than 5 ºC
- Minimum temperatures rise more than 10 ºC
- About 10% rise in maximum wind speed
- Precipitation increases over 20%
- Water content of snow cover decreases 20%
- Water content of single snow storm rises over 40%
- Sea level rises about 30 cm

THE CLIMATE TARGETS OF THE EU AND FINLAND'S NATIONAL TARGETS BY 2020

- Greenhouse gas emissions cut back 20% from the level of 2005
  - Finland 16% (non-emission trading sector)
- Energy efficiency increased by 20% on average
  - Finland 20%
- Share of renewable energy rising to 20%
  - Finland 38%
- Share of biofuels rising to 10%
  - Finland 10%

CLIMATE STRATEGY DEMANDS FOR LOCAL AUTHORITIES

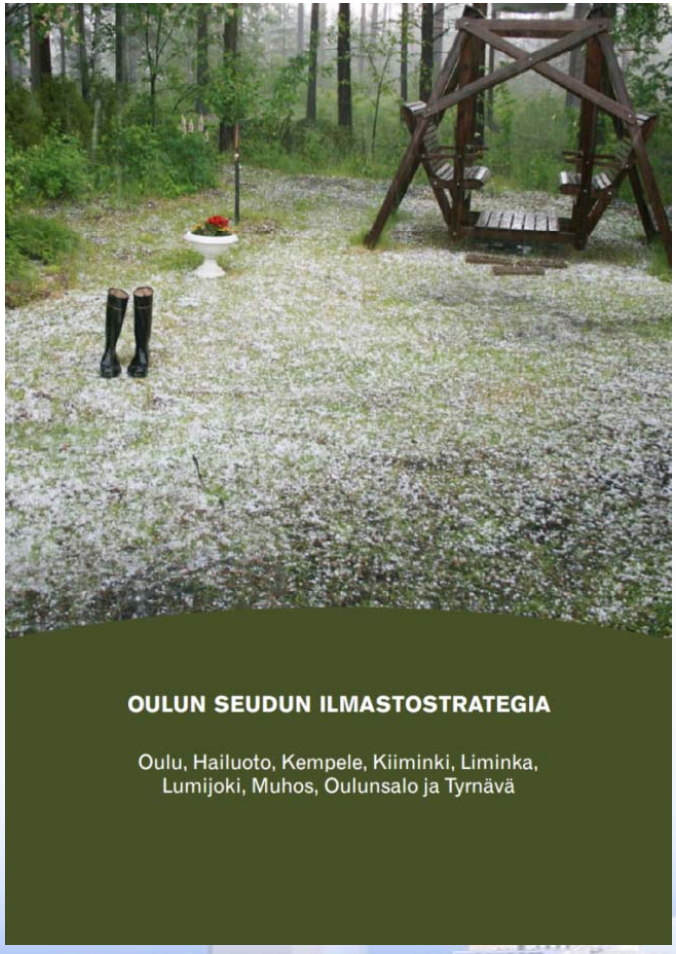
National Climate and Energy Strategy

The Association of Finnish Local and Regional Authorities

- recommendations to make local climate strategies

CLIMATE STRATEGY IN OULU REGION

- Approved by City Board May 2009
- Approved by City Council June 2009

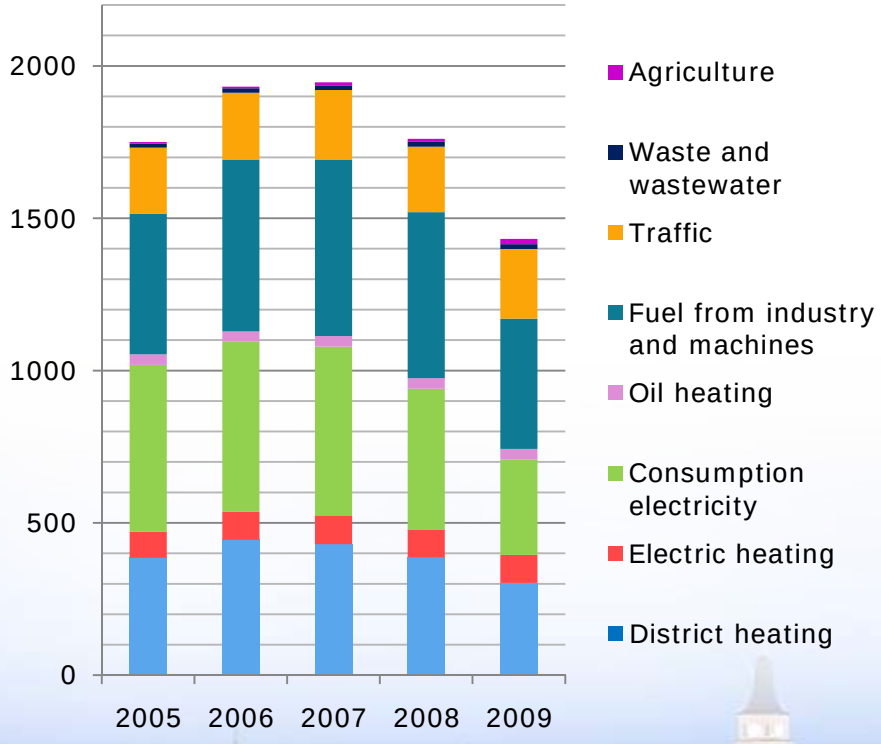


MITIGATION OF CLIMATE CHANGE; FORMER ACTIONS IN OULU REGION

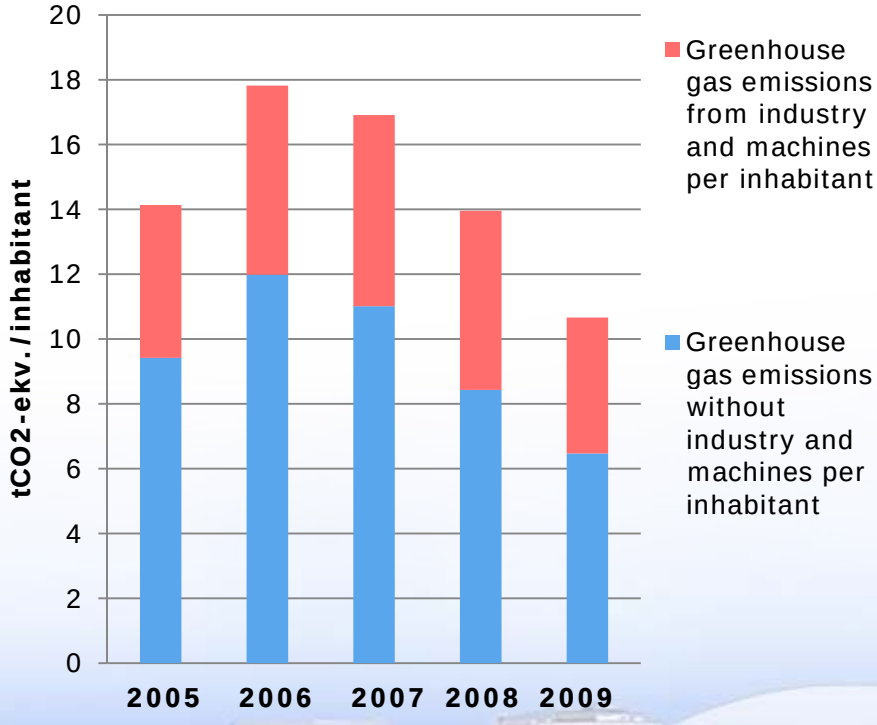
- Combined power and heat production 1977
- High share of district heat users
  - 77% of built area
  - 88% of the inhabitants
- Obligation to sort organic waste 1996
- Collecting gases from dumping sites 1998
- Pedestrian street downtown 1987
- Development plan for pedestrian and bicycle routes 1971
- Signing the contract on efficient energy use 2007

GREENHOUSE GAS EMISSIONS IN OULU

Total greenhouse gas emissions



Greenhouse gas emissions per inhabitant



OBJECTIVES OF THE CLIMATE STRATEGY

- Mitigation of climate change considered in planning and operation
- New solutions and technology provided by local enterprises
- Permanent practices for combating greenhouse gas emissions

=> Less greenhouse gas emissions

Mitigation of climate change

- Economic guidance
- Land use and urban structure
- Energy production
- Buildings and construc-tion
- Transport
- Public service energy use
- Purchases and consump-tion
- Increasing awareness
- New technologies and innovations

Adaptation to climate change

- Preparing for sudden effects of climate change
- Adaptation to climate change in practice
- Recognizing long-term effects in Oulu Region

Example of implementing the strategy

Mitigation of climate change

ILMO – Action plan to increase awareness

Information and influence

ILMO – Climate gate to Oulu region

EU- project

Increasing awareness

Example of implementing the strategy

ILMO – Action plan to increase awareness

Target:

Less greenhouse gas emissions

Main items:

1. **Information and influence**
2. **Renewable and new energy sources**
3. **Urban structure**
4. **Buildings and construction**

OULU

Example of implementing the strategy

ILMO – Climate gate to Oulu region

EU-project - Information and influence

Work package 1
Climate net-portal

Work package 2:
Information activators and activities

Work package 3:
Monitoring and measuring

CONCRETE CLIMATE ACTIONS

THANK YOU FOR YOUR ATTENTION!