

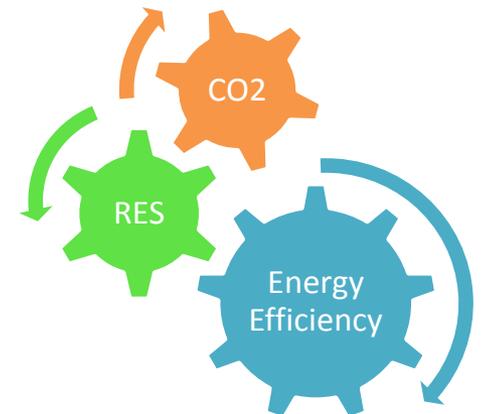
# International trends and challenges



**35th Congress  
9-10 May 2011, Paris  
Reduce, Recycle,  
Replace – Doubling  
DHC Now**

# The Energy revolution

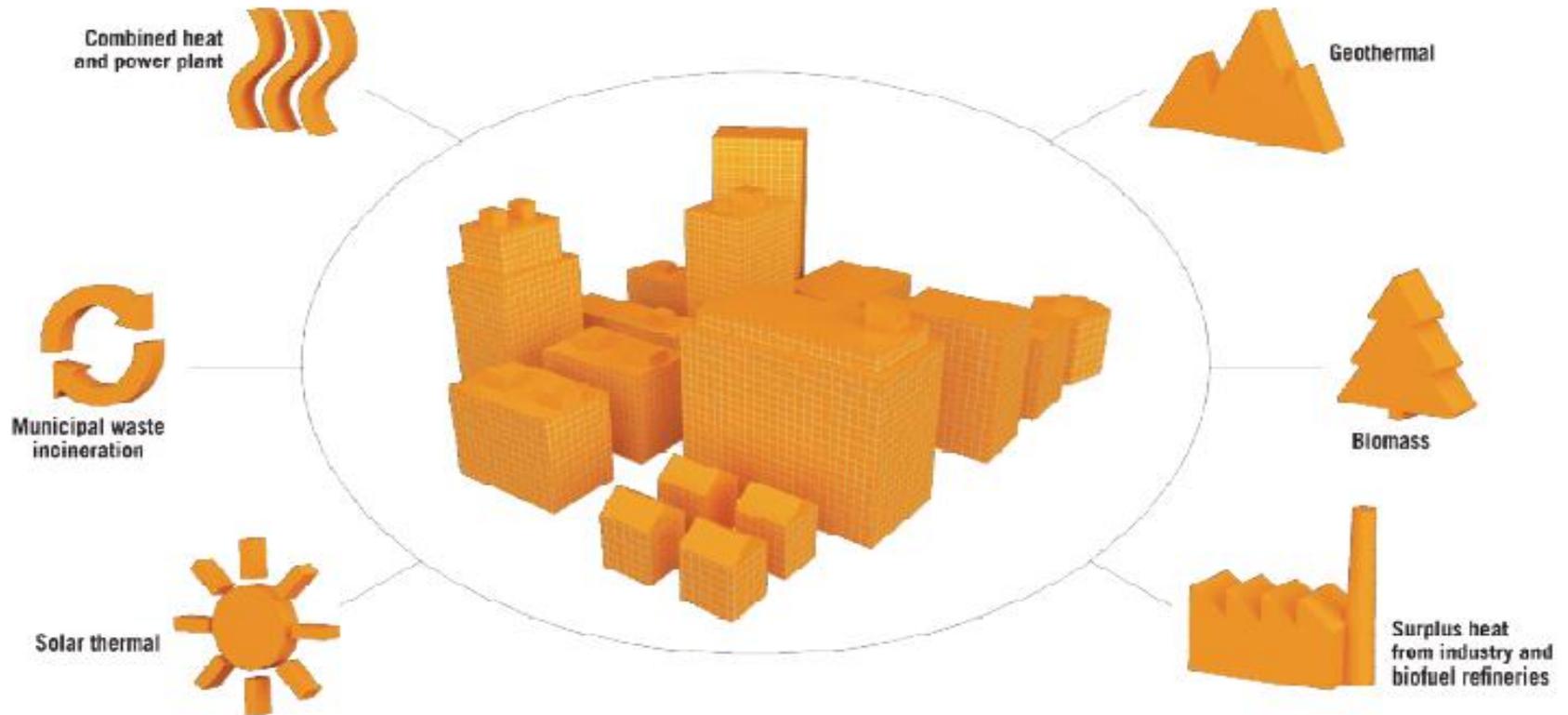
- Limit temperature rise to 2° C
- By 2020
  - Reduce CO2 by 20% or 30%
  - Improve energy efficiency by 20%
  - Increase renewables to 20% (1/2 of the increase for heating, 3/4 of which from biomass)
- By 2050
  - Reduce CO2 by 80%
  - 100% carbon free electricity



## Heat matters...

- Heating & cooling are responsible for half of the energy end-use in the EU
- The 3x20 for 2020 cannot be reached without a much stronger focus on heat
- Heat wasted is money wasted: value of heat losses exceeds EU expenditure for energy imports...
- The majority of energy use for heating & cooling takes place in urban areas
- Municipal planning / involvement of local authorities is key for success

# Phasing out fossil fuels for heating



## District Heating in Europe today

- Around 9% of total heat demand, with an uneven distribution across Europe (from ~ 0% to ~ 70%)
- District Heating and Cooling is growing! Both in terms of heat sales and citizens served!
- The trend towards more renewables (both direct and indirect use) continues: Waste-to-energy, biomass, geothermal, solar...
- More than 80% of heat in DH schemes come from recovered heat, renewable energy and waste resources
- Primary energy factors in the range between pellet boilers and heat pumps!

## EU Energy Summit

*The 2020 20% energy efficiency target as agreed by the June 2010 European Council, which is presently not on track, must be delivered.*

*The Council is invited to promptly examine the upcoming Commission proposal for a new Energy Efficiency Plan, setting out in more detail a series of policies and measures across the full energy supply chain.*

*The Commission is invited to table new initiatives on smart grids, including those linked to the development of clean vehicles, energy storage, sustainable bio fuels and energy saving solutions for cities*

# Energy infrastructure

## 2.3 District heating and cooling networks

*Thermal power generation often leads to conversion losses while at the same time natural resources are consumed nearby to produce heating or cooling in separate systems. This is both inefficient and costly. Similarly, natural sources, such as sea- or groundwater, are seldom used for cooling despite the cost savings involved. The development and modernisation of district heating and cooling networks should therefore be promoted as a matter of priority in all larger agglomerations where local or regional conditions can justify it in terms of, notably heating or cooling needs, existing or planned infrastructures and generation mix etc.*

COM(2010) 677 final: Energy infrastructure priorities for 2020 and beyond -  
A Blueprint for an integrated European energy network

## 2050 Low-carbon economy roadmap

### *The built environment*

*...shifting energy consumption towards low carbon electricity (including heat pumps and storage heaters) and renewable energy (e.g. solar heating, biogas, biomass), also provided through district heating systems, would help to protect consumers against rising fossil fuel prices and bring significant health benefits.*

COM(2011) 112 final : A Roadmap for moving to a competitive low carbon economy in 2050

# Energy efficiency plan

## Efficient generation of heat and electricity (page 8)

- ...effective recovery of heat losses from electricity and industrial..
- ...since unused energy saving potential is far from being exhausted and could cover a significant part of thermal energy needs e.g. for heating and cooling,
- ...boosting local resources and displacing imported energy in many instances.
- ...integrated, crosscutting approach
- ...cheap, clean and convenient thermal supply services using recovered waste heat.
- ...Greater use of (high-efficiency) cogeneration,
- ...where there is a sufficient potential demand...authorisation for new thermal power generation should be conditional on its being combined with systems allowing the heat to be used

**Action needed!**

## Tackling heat use in buildings (page 6)

- ...heat consumption in buildings will be of prime importance in the coming years.
- ...possibilities to promote the use of district heating in the context of integrated urban planning.

## Empowering new consumers with new technology (page 14)

- ...It is important to ensure
- ...develop in other networks, such as heat, cooling and gas, and that these intelligent networks all contribute to build a well-functioning, interoperable market for energy efficiency services.

## From plan to action

### Our recommendations

- Alignment of policies along the energy hierarchy
  - equivalence of energy efficiency and renewables
  - Focus on primary energy savings
  - Eco-districts instead of individual bonfires
  - Prioritisation of integrated solutions
- A European strategy and resources for heat
  - Market observation and analysis
  - Say electricity – heating and cooling - transport (not electricity, buildings, industry, transport...)
  - Mandatory efficiency improvements at Member States level
  - Local energy competence, planning
  - Support infrastructure investments

# Our challenges

Renewable energy before  
energy efficiency?

Funding for cross-  
border infrastructure  
only. Big is beautiful?

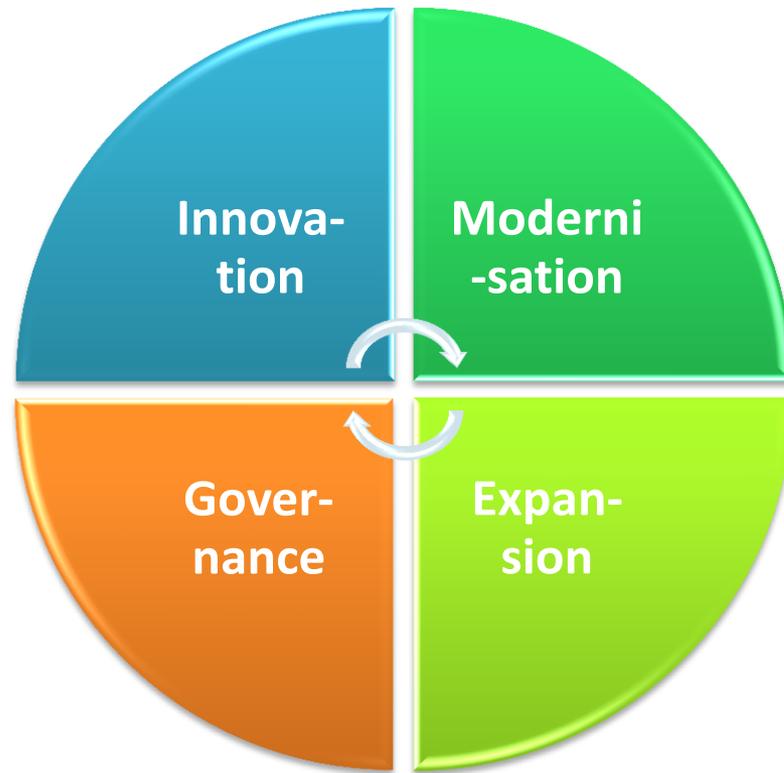


Low and zero final energy  
buildings?

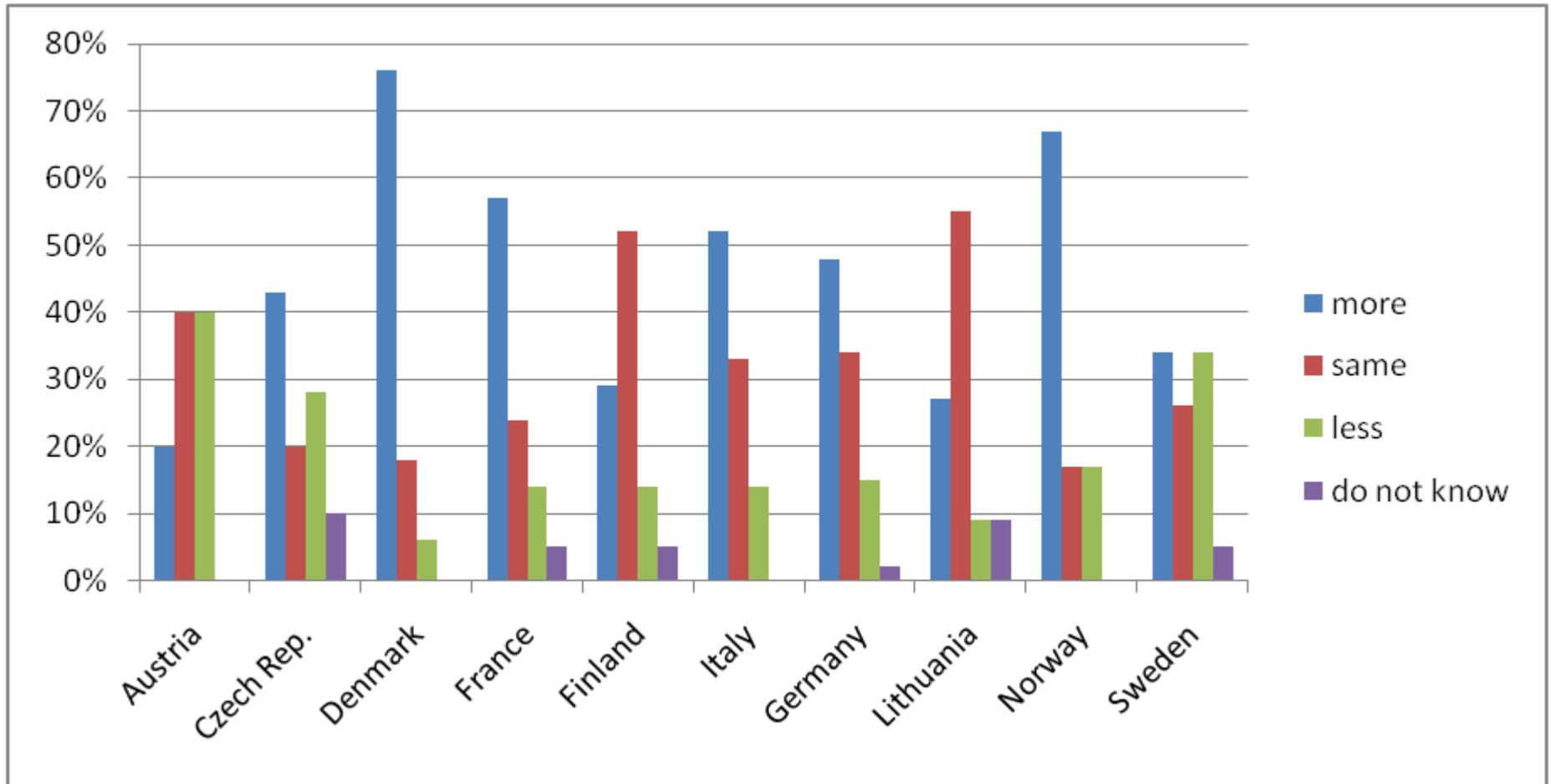
Heating and cooling only  
With CO<sub>2</sub>-free electricity?

Centralised electricity  
supply and individual  
Heating?

# Our responsibility



## How does it feel? Expected level of investment



## To grow DHC



The Ecoheat4EU project was devised with the aim of supporting the creation of well-balanced and effective legislative mechanisms to foster the development of modern district heating and cooling throughout Europe. [www.ecoheat4.eu](http://www.ecoheat4.eu)



The ecoheat4cities project aims at enabling you to demonstrate the merits of the green heat that you deliver to the community. Join the campaign and get a green label which informs citizens of the superior energy performance and proven environmental achievements. Get started now, get yourself a green profile! [www.ecoheat4.eu](http://www.ecoheat4.eu)

# Thank you for your attention!



[www.euroheat.org](http://www.euroheat.org)

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