

## District Heating in EU energy and climate policies

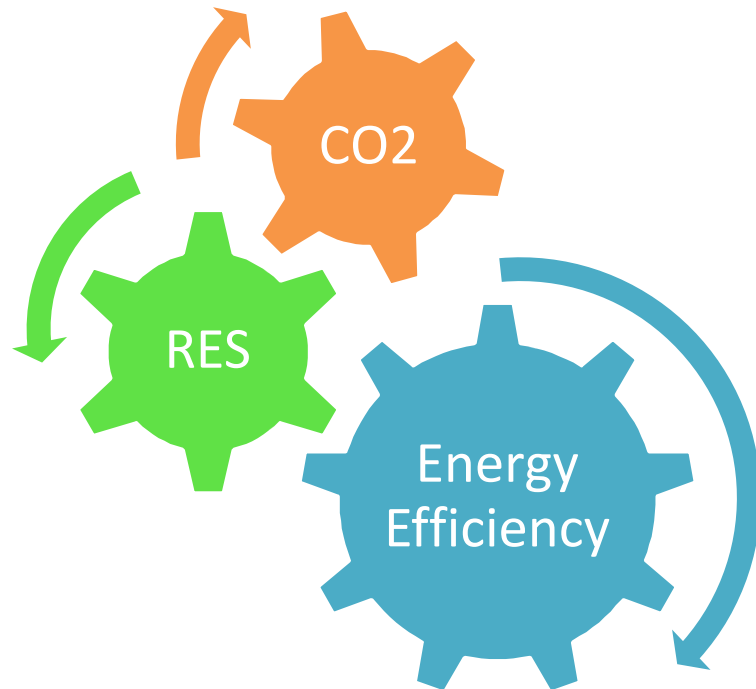


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6. Challenges for the sector



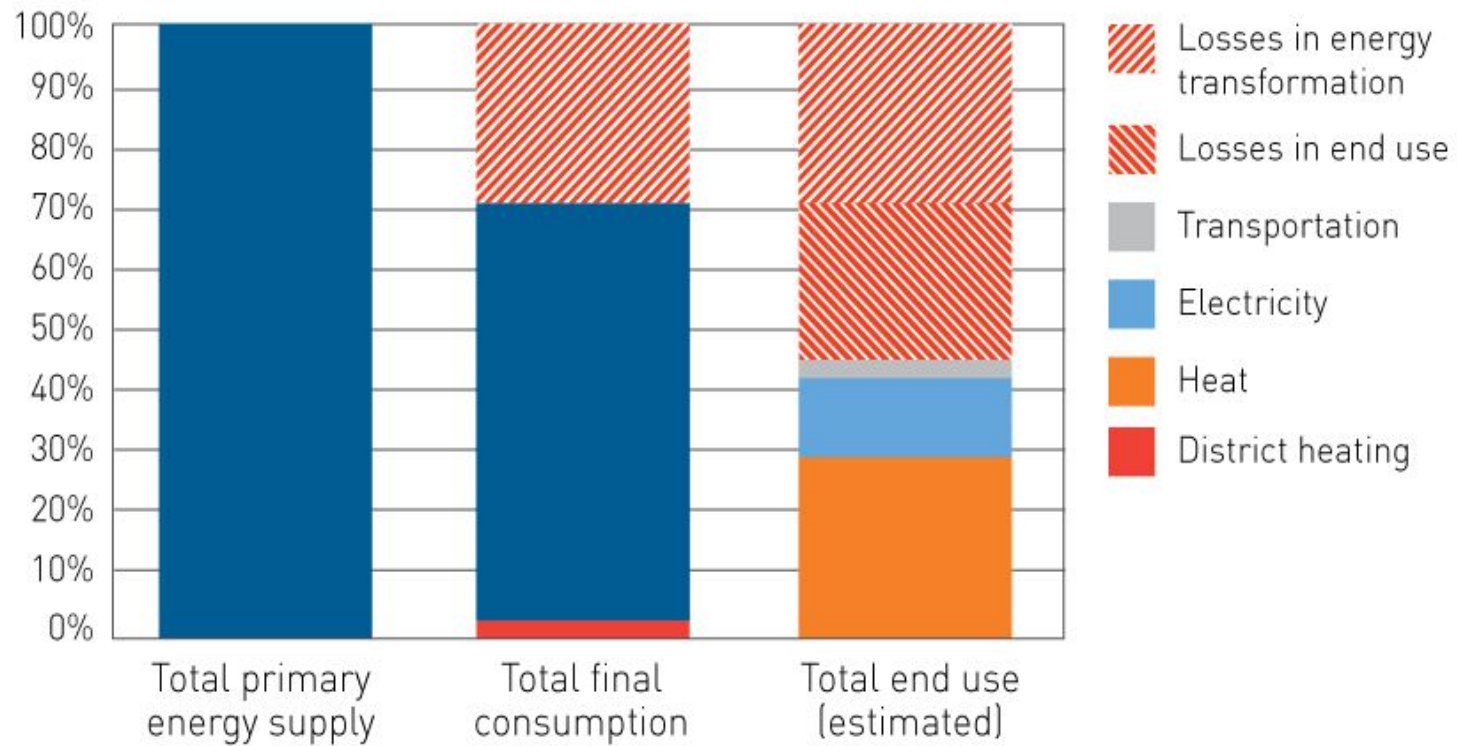
## The energy revolution



- Limit temperature rise to 2° C
- Reduce CO2 by 20% or 30%
- Improve energy efficiency by 20%
- Increase renewables to 20% (80% of this target to be achieved by biomass)
- Increase biofuels to 10%
- **Reduce CO2 by 80% by 2050**

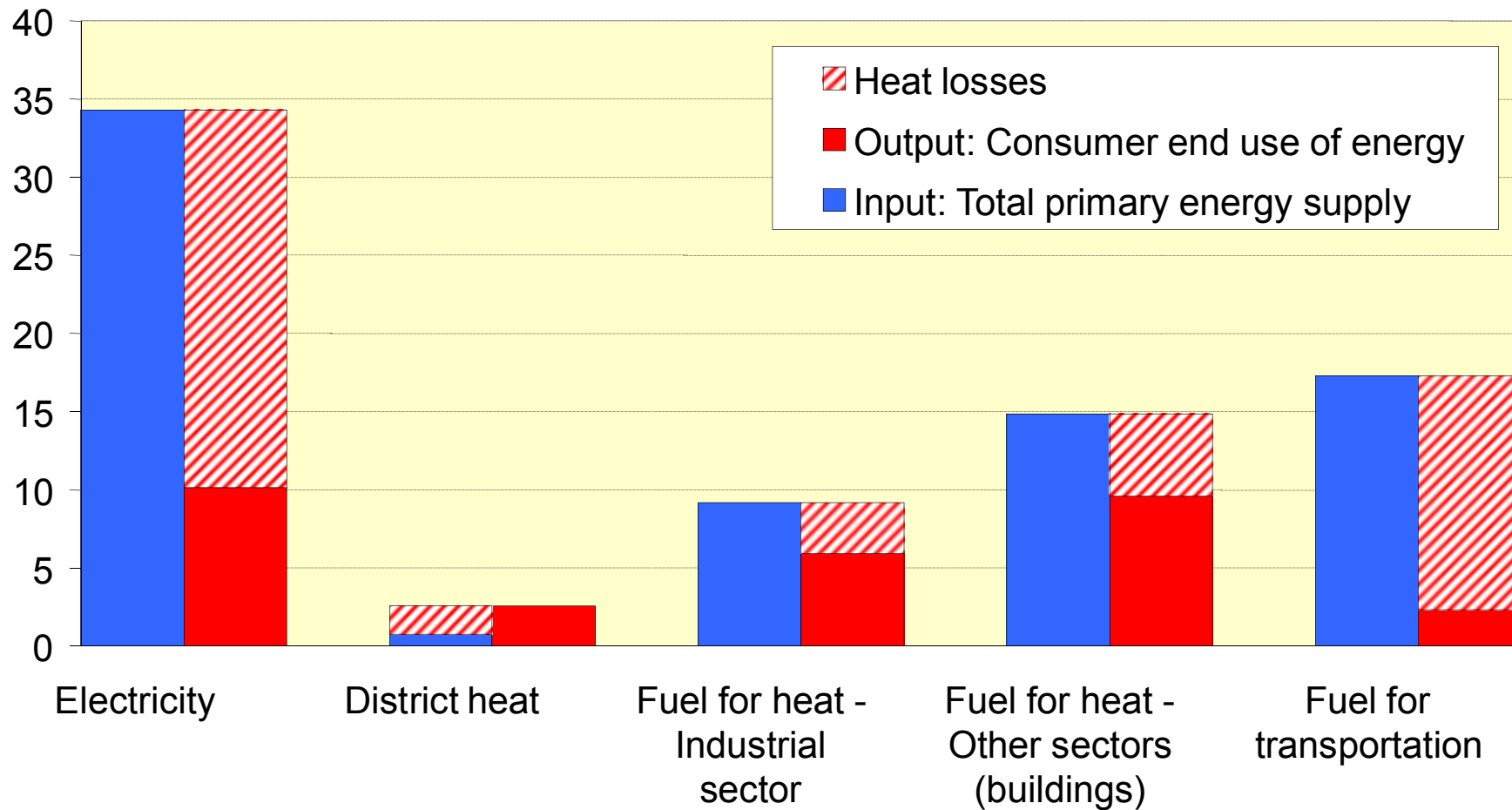


## An inefficient EU energy system



## Efficiency of sectors

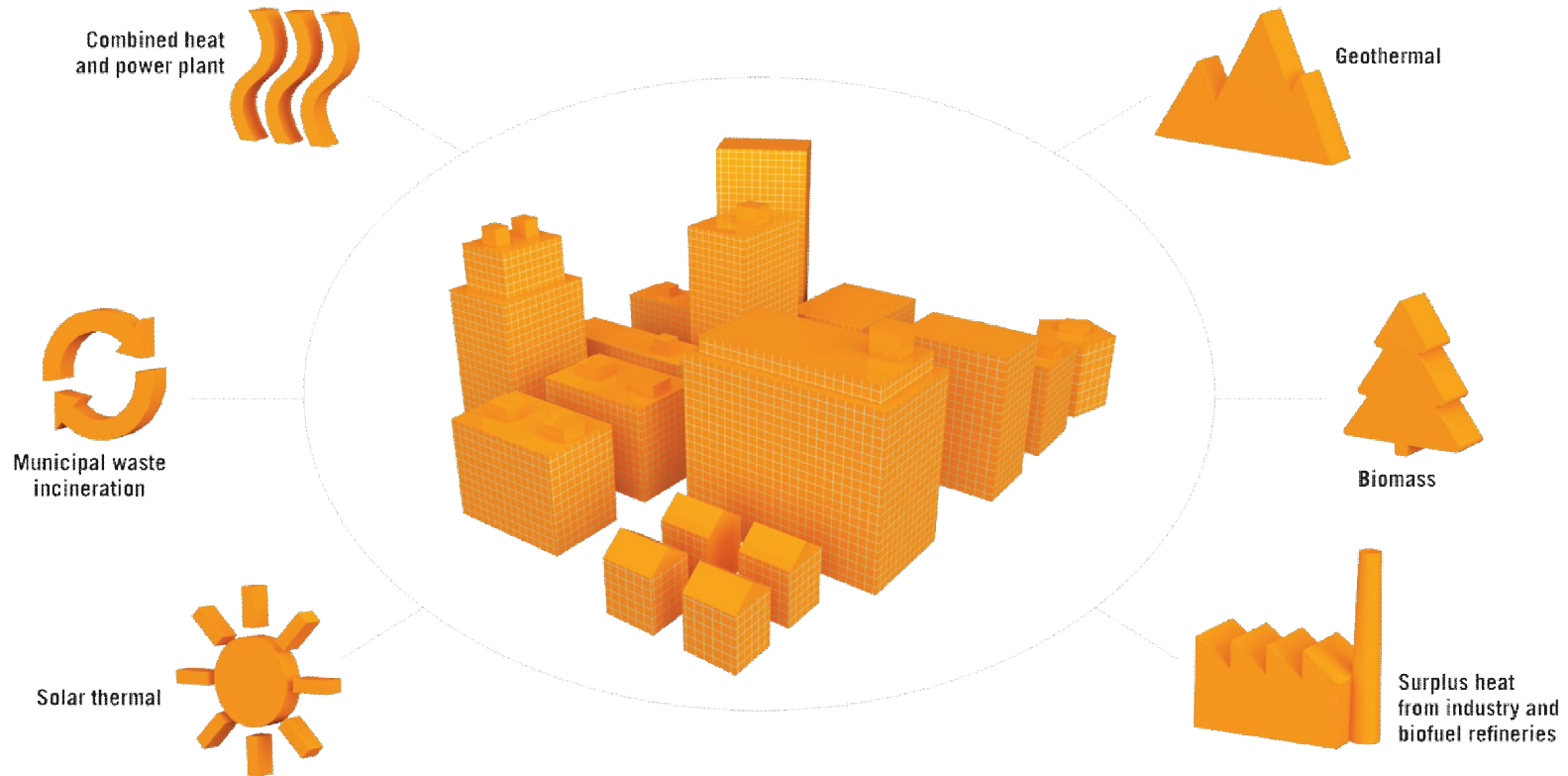
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# Energy recycling and RES



Today, district heating saves 113 million tons of CO<sub>2</sub>. Doubling the sales of district heat in Europe would

- Reduce primary energy consumption by 2,1 EJ/a (Primary energy consumption of Sweden)
- Reduce import dependency by 4,5 EJ/a (Primary energy consumption of Poland)
- Reduce CO<sub>2</sub> emissions by 400 mln tons / 9,3% (Emissions of France from fossil fuel combustion)



## What has been done (2009/2010)

- ✓ Directive on renewable energy (incl. Heating and cooling)
- ✓ Recast of emissions trading Directive
- ✓ New Guidelines for environmental state aid
- ✓ Recast of buildings Directive



## Example: Renewables Directive

*“Member States... shall assess the necessity to build new infrastructure for district heating and cooling produced from renewable energy sources... Subject to that assessment, Member States shall... take steps with a view to developing a district heating infrastructure to accommodate the development of heating and cooling production from large biomass, solar and geothermal facilities”.*



## But

- RES policies do not encourage efficiency
- The Cogeneration Directive has proven little effective and ignores district heating and cooling
- The Buildings Directive encourages RES but discourages the use of surplus heat. Eco-cities  $\neq$  aggregation of eco-buildings.
- The ETS does not take care of energy savings in the residential sector, nor of business models
- The Economic Recovery Plan focuses on interconnections, not on energy saving infrastructure
- The Energy Efficiency Action Plan has been delayed by more than one year...



## Local needs vs. EU policies

Local conditions (bottom up)	↔	Overall objectives (top down)
Small tech	↔	Big tech
Local actors	↔	Global actors
Local welfare	↔	Cross-border trade
Focus on system optimization	↔	Focus on technologies

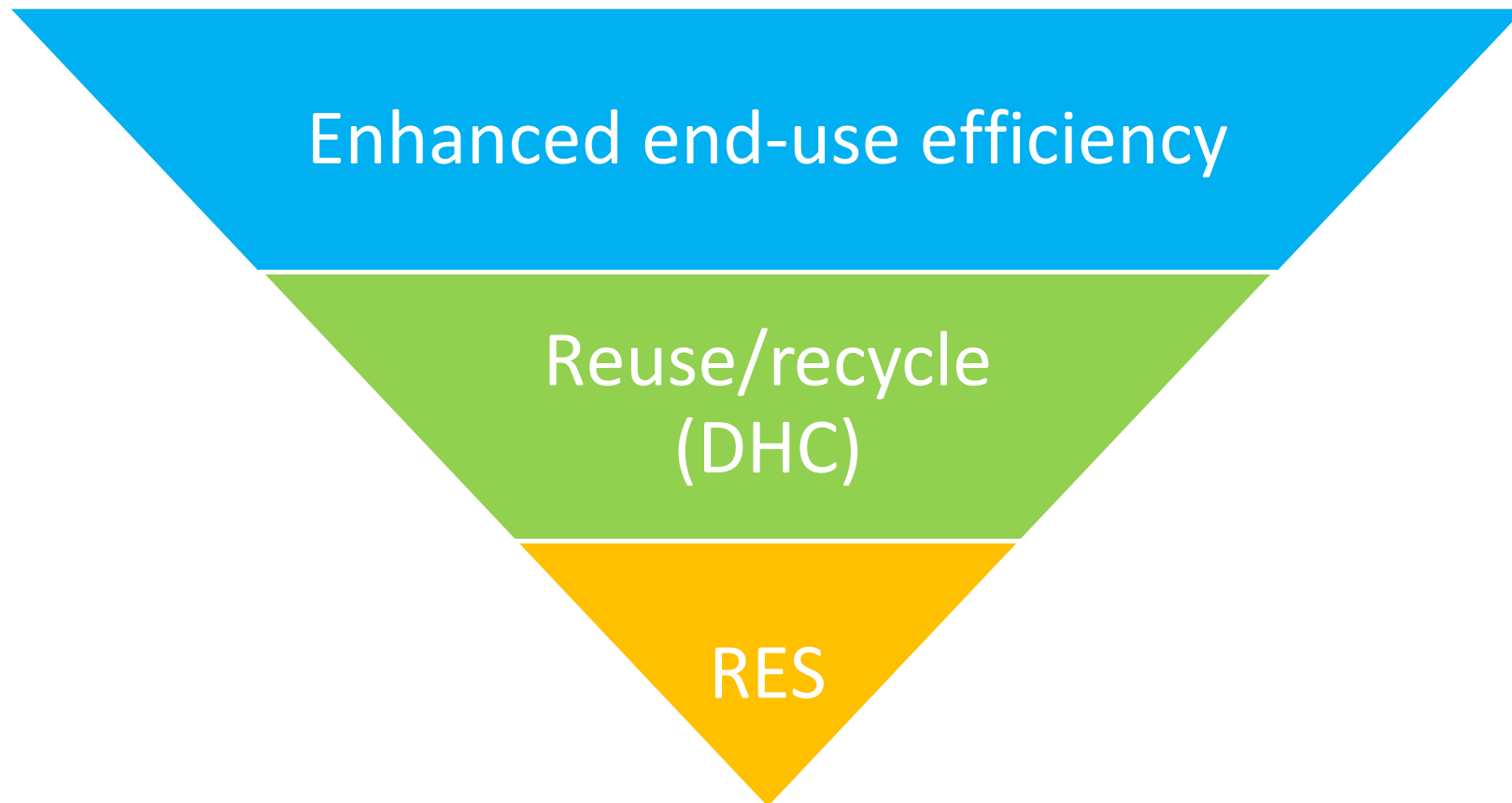
## A strategy for heating and cooling needs to

- trigger locally integrated solutions for buildings, energy efficiency, renewables and infrastructures.
- expand the concept of eco-buildings must be expanded to eco-districts (local  $\neq$  individual).
- correct the fact that currently RES solutions are often given priority over energy efficiency. Primary resource efficiency and cost-effectiveness must be key for comparison. The EU must adopt a clear hierarchy on energy (heat) use.



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## Energy system efficiency

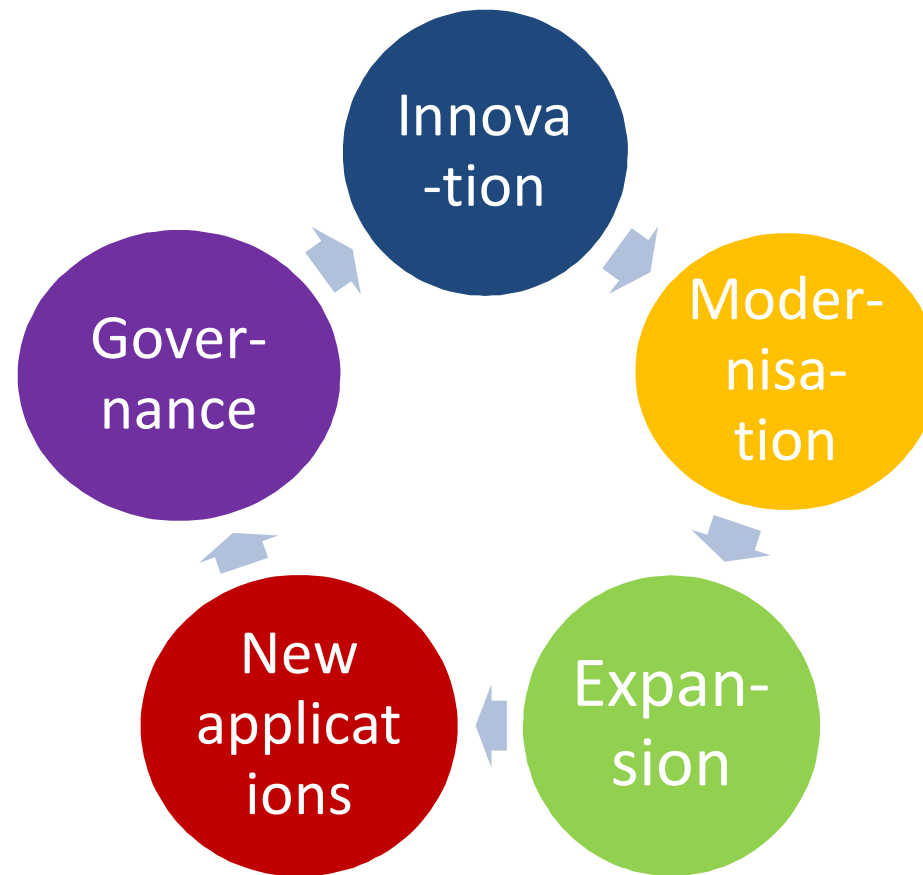




## To come

- Energy Infrastructure Package
- Energy Action Plan
- Energy Efficiency Action Plan
- Recast Cogeneration Directive / Energy Services Directive
- CO2 Taxation (outside ETS)

## More attention, more responsibility





## Conclusion

Securing heating and cooling comfort is neither a problem of energy availability nor carbon content, but of organization and investment. Europe needs a strategy for (district) heating and cooling!

At the same time, the higher DHC market shares become, the higher becomes our responsibility for customer satisfaction and continued performance improvements.



**Thank you for your attention**

Euroheat & Power

Phone +32-2-7402110

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

