
sustain
Part of the Anthesis Group

Introducing the Anthesis District Heating offer

UK District Energy Vanguards Network Event

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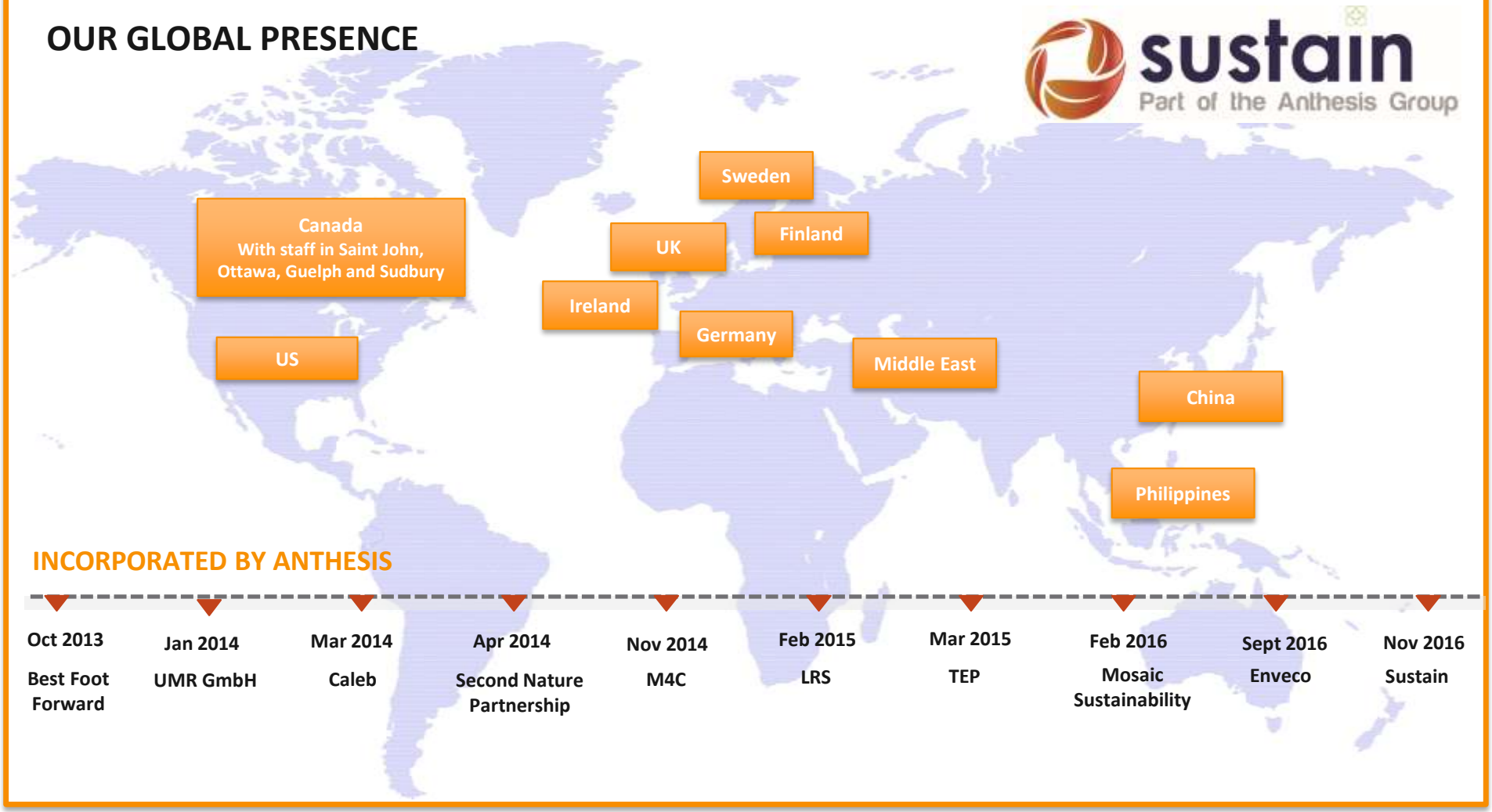
OUR GLOBAL PRESENCE



INCORPORATED BY ANTHESIS

Oct 2013	Jan 2014	Mar 2014	Apr 2014	Nov 2014	Feb 2015	Mar 2015	Feb 2016	Sept 2016	Nov 2016
Best Foot Forward	UMR GmbH	Caleb	Second Nature Partnership	M4C	LRS	TEP	Mosaic Sustainability	Enveco	Sustain

TECHNICAL EXPERTISE

Our chartered engineers ensure long-lasting heat networks in which customers and investors can have confidence.

Brent

MANCHESTER CITY COUNCIL

Crawley Borough Council

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STAKEHOLDER ENGAGEMENT

We work to understand your internal and external stakeholders so that your district heating solutions are focused on both the end customer's requirements and meeting your corporate objectives.

Lambeth

South Gloucestershire Council

Cyngor Bwrdeisdref Sirol
Blaenau Gwent
County Borough Council

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COMMERCIAL SUPPORT

We help you choose a business model and funding route to maximise the benefits of your district heating projects for now and the future.

Solihull Metropolitan Borough Council

GMCA Greater Manchester Combined Authority

West Dunbartonshire Council

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The broader benefits of heat networks

UK District Energy Vanguards Network Event

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Energy policy corner stones

- Energy efficiency
- Reduced CO_2 emissions
- Security of supply

Global energy demand

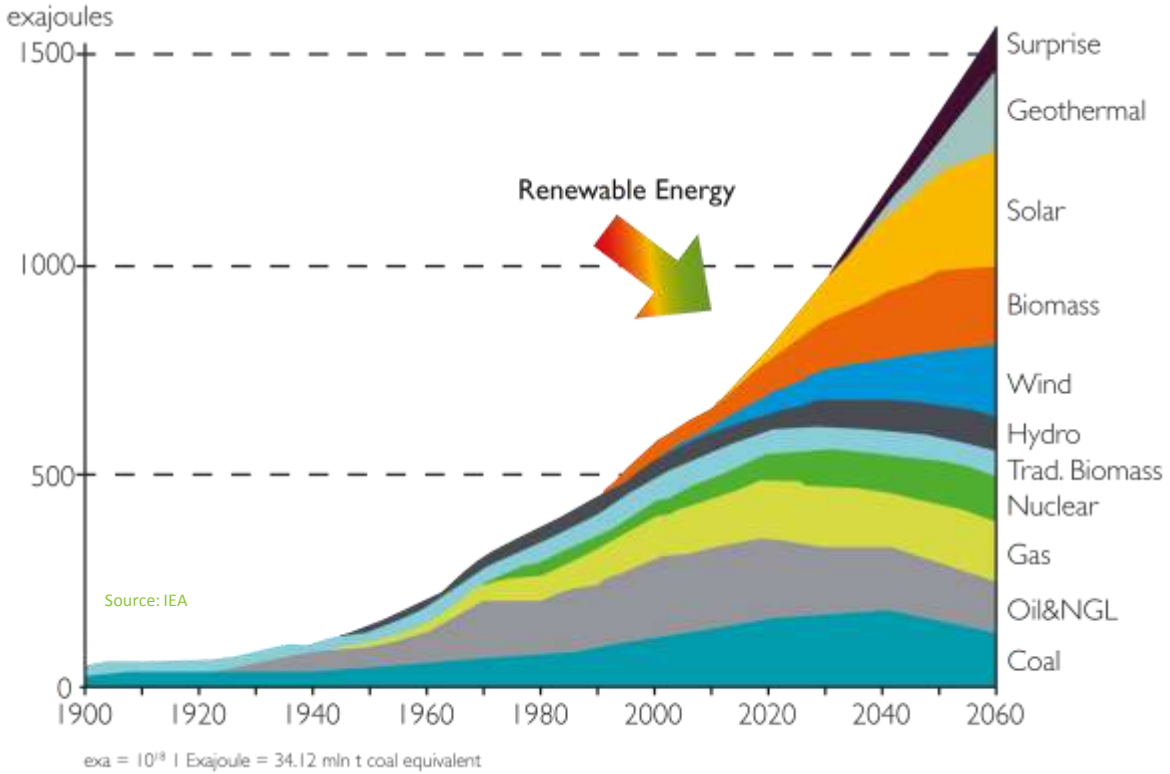

Illustration source: IEA

Clear link between lifestyle and climate change

Climate change brings consequences and presents us with new challenges

- Precipitation
- Temperature
- Winds

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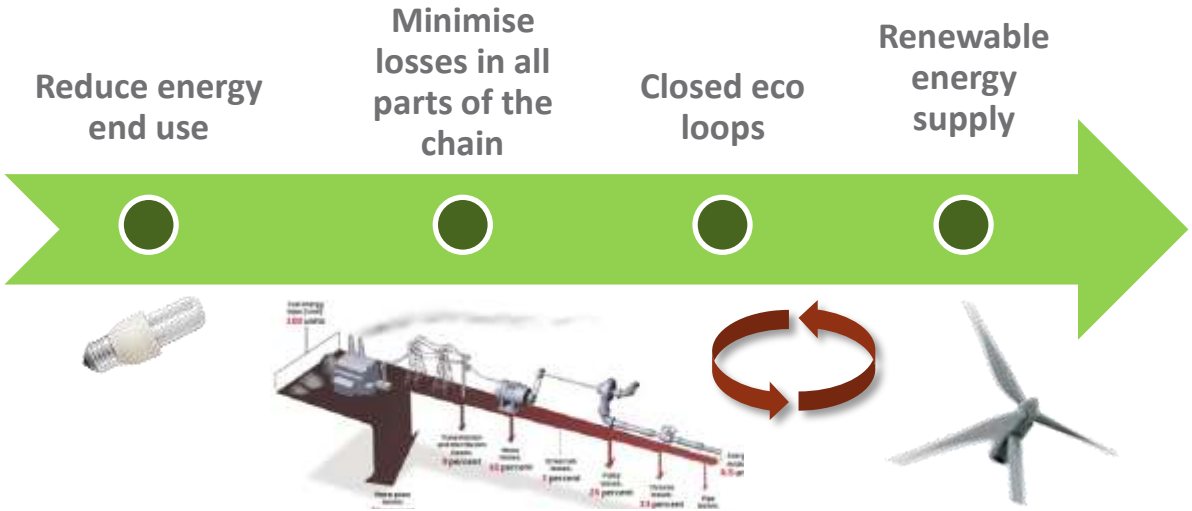
Sustainable energy system strategy



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Energy efficiency the first fuel

IEA notes that efficiency is the first fuel

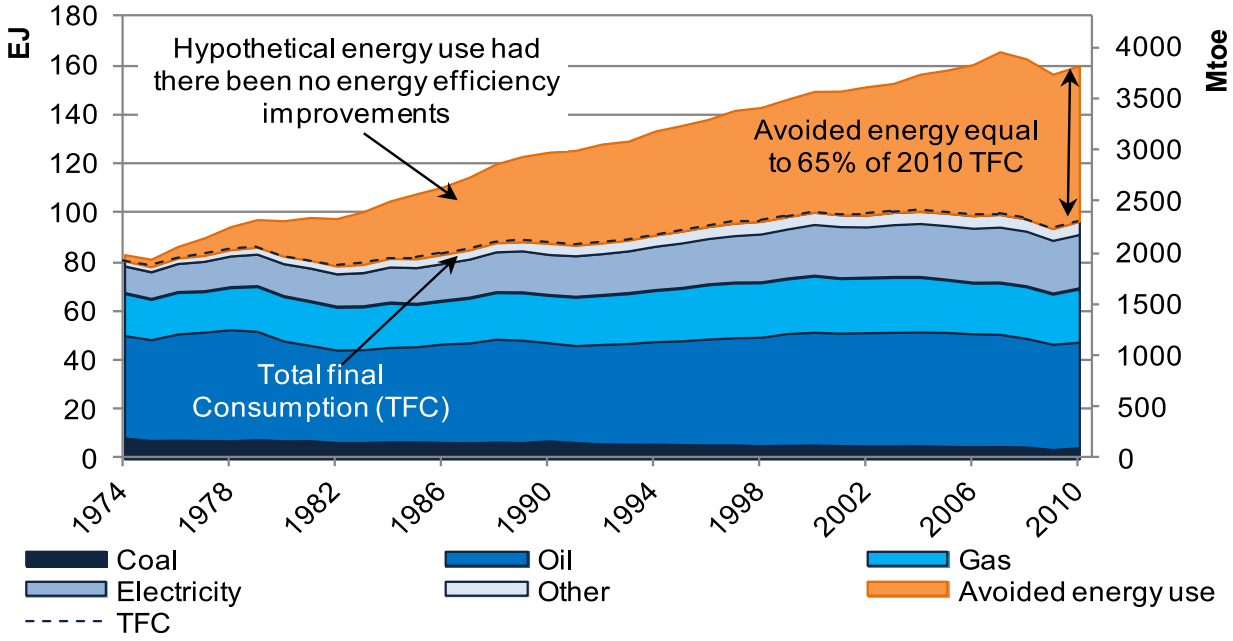

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Illustration source: IEA

CO_2 emissions are reducing, but the pace is too slow

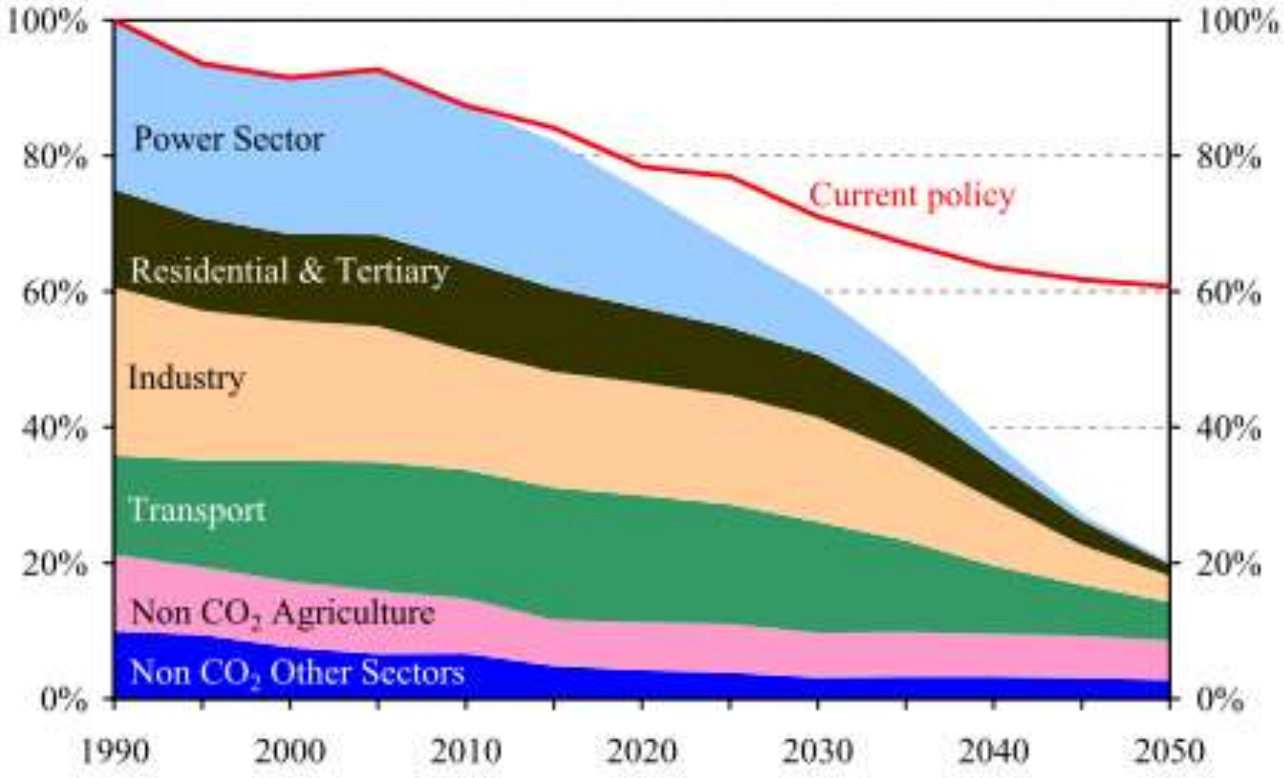

Illustration source: Brussels, 8.3.2011, COM(2011) 112 final , A Roadmap for moving to a competitive low carbon economy in 2050

Heat networks can generate multiple benefits

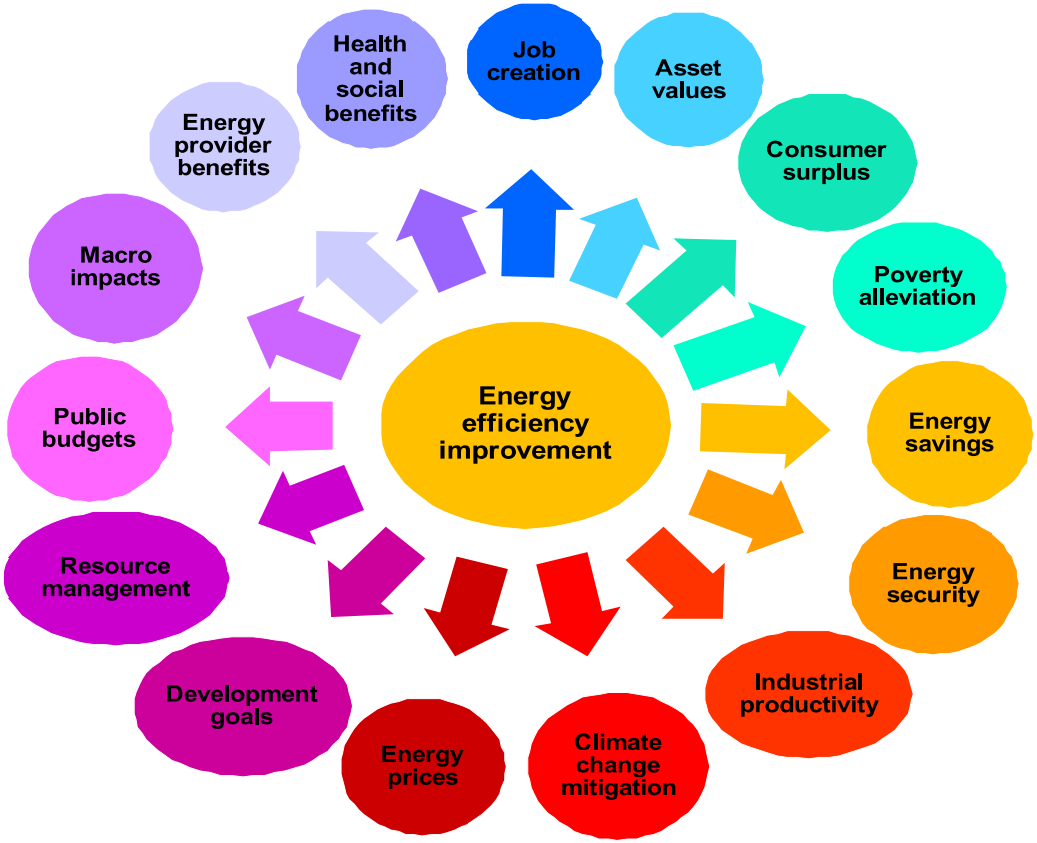

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Illustration source: IEA

System borders matters

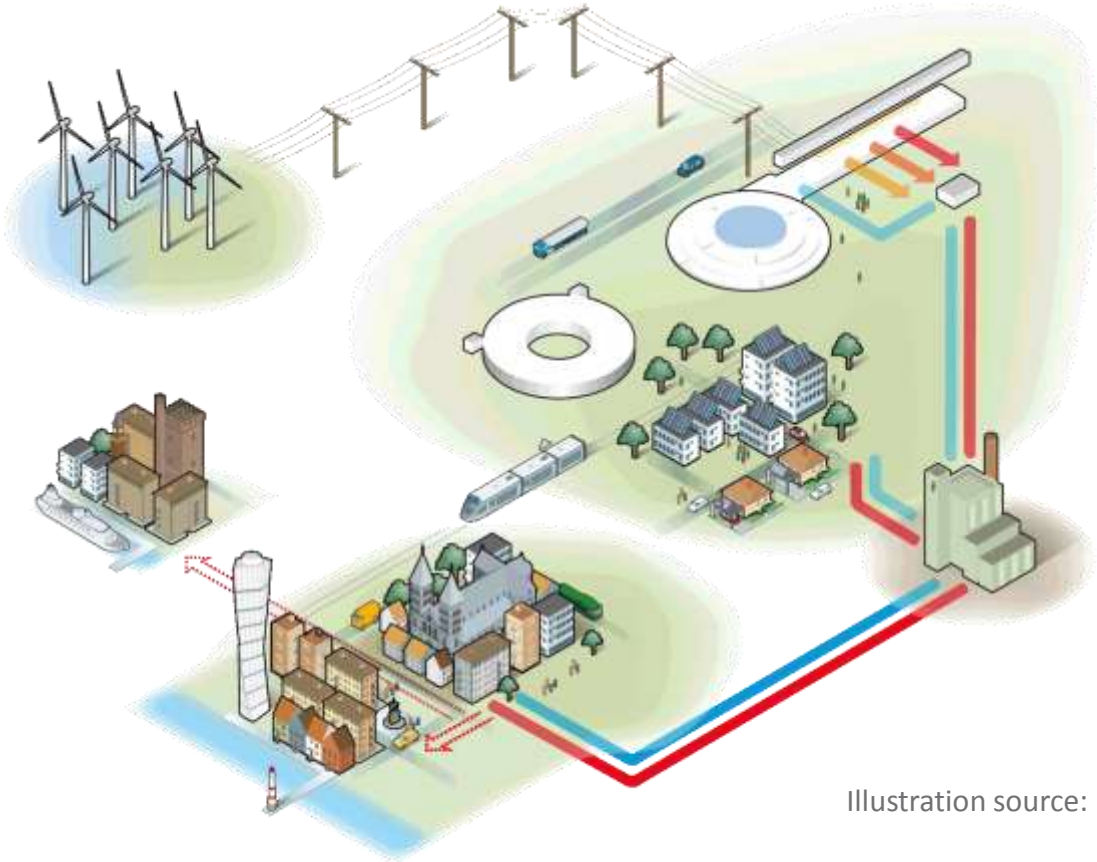

Illustration source: Kraftringen, Lund

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The socio-economic impact of district heating

The case of Helsingborg, Landskrona & Ängelholm

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The socio-economic impact of district heating

The case of Helsingborg, Landskrona & Ängelholm

- Cleaner
- Wealthier
- More sustainable

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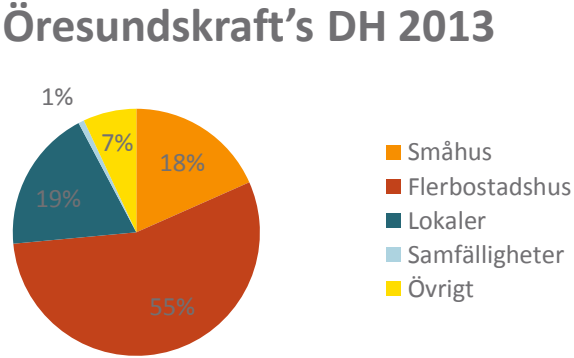
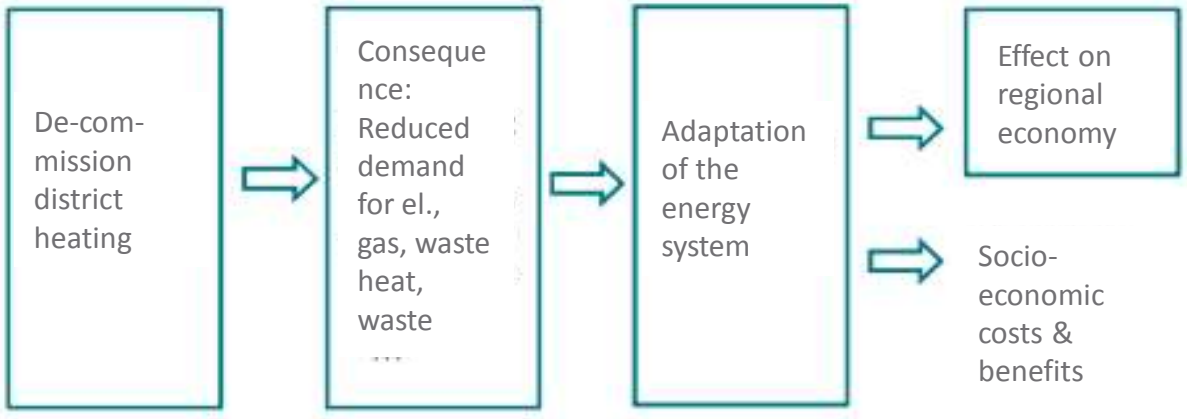
The socio-economic impact of district heating

Methodology

1. Determine the base scenario
2. Develop alternative scenario
3. Input- output analysis
4. Quantitative analysis socio-economic benefits





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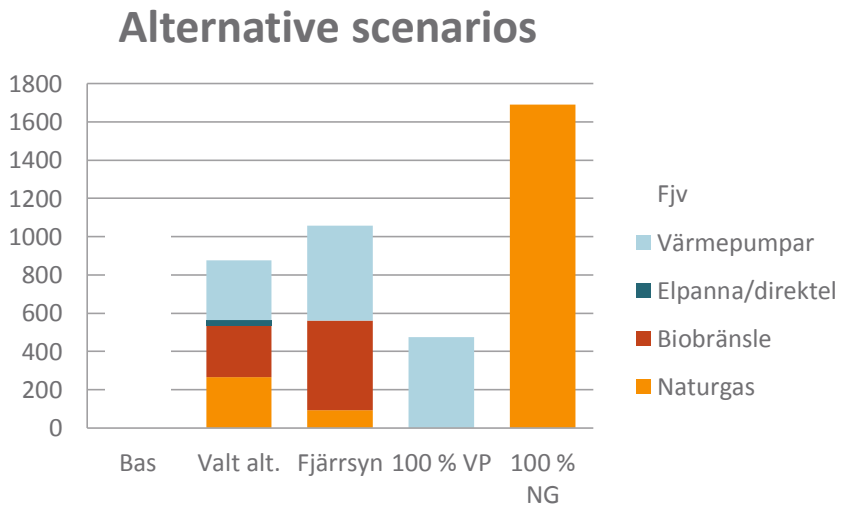
The socio-economic impact of district heating

The case of Helsingborg, Landskrona & Ängelholm

Numerous alternative scenarios

- Modelling for the region
- National average (”Fjärrsyn 2013”)
- 100 % heatpumps
- 100 % LPG
- …



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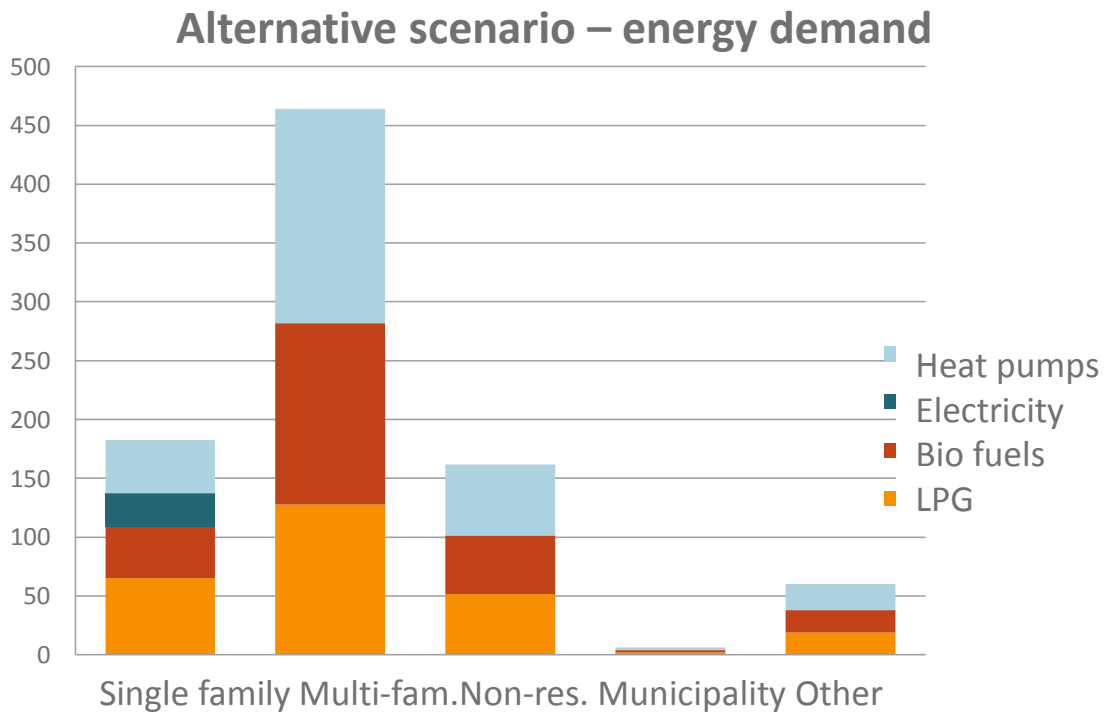
The socio-economic impact of district heating



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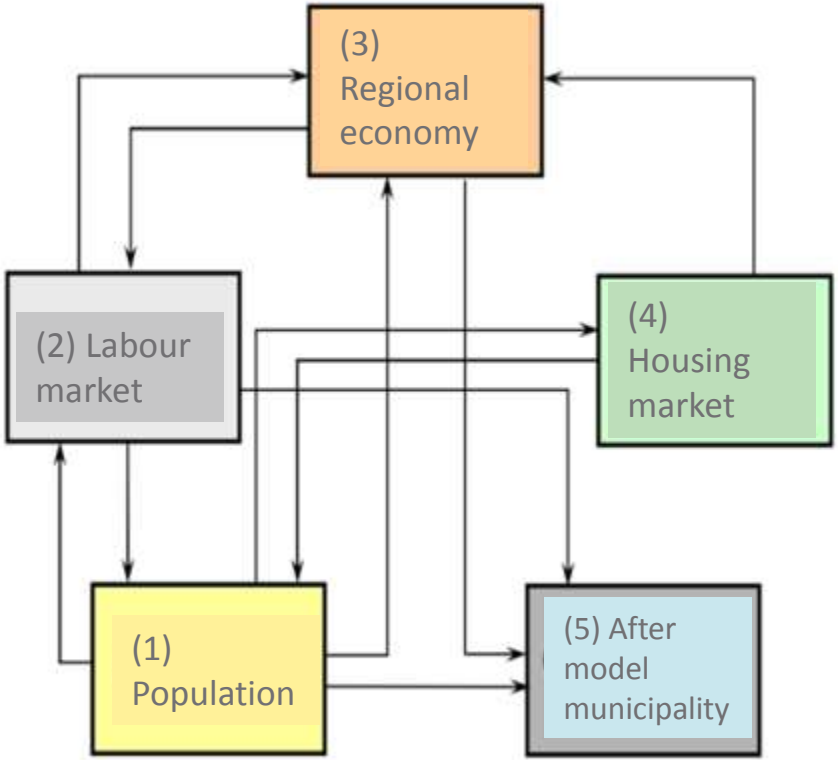
Input-output model



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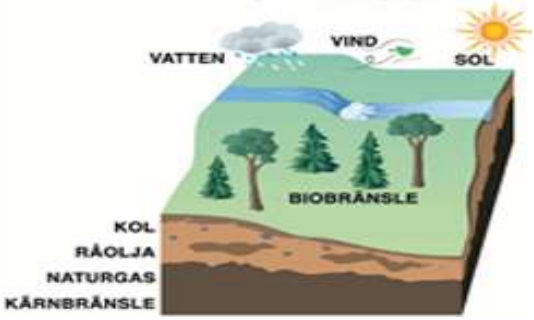
Results: Öresundskrafts' DH contributes significantly to the regional economy

Employment (region)
1 104 region + 254 commuting

Disp. income196 MSEK/year
Municipality taxes 90 MSEK/year
Profit to municipality 50 MSEK/year

-131 000 ton/year ~137 MSEK/year



Primary energy -1 250 GWh/year
Use of waste heat

Med/large effect capacity in el. grid
& medium effect flexibility in el. grid

Some effect other emissions
Small/medium effect security of supply

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Thank you for your attention!

Any questions?

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