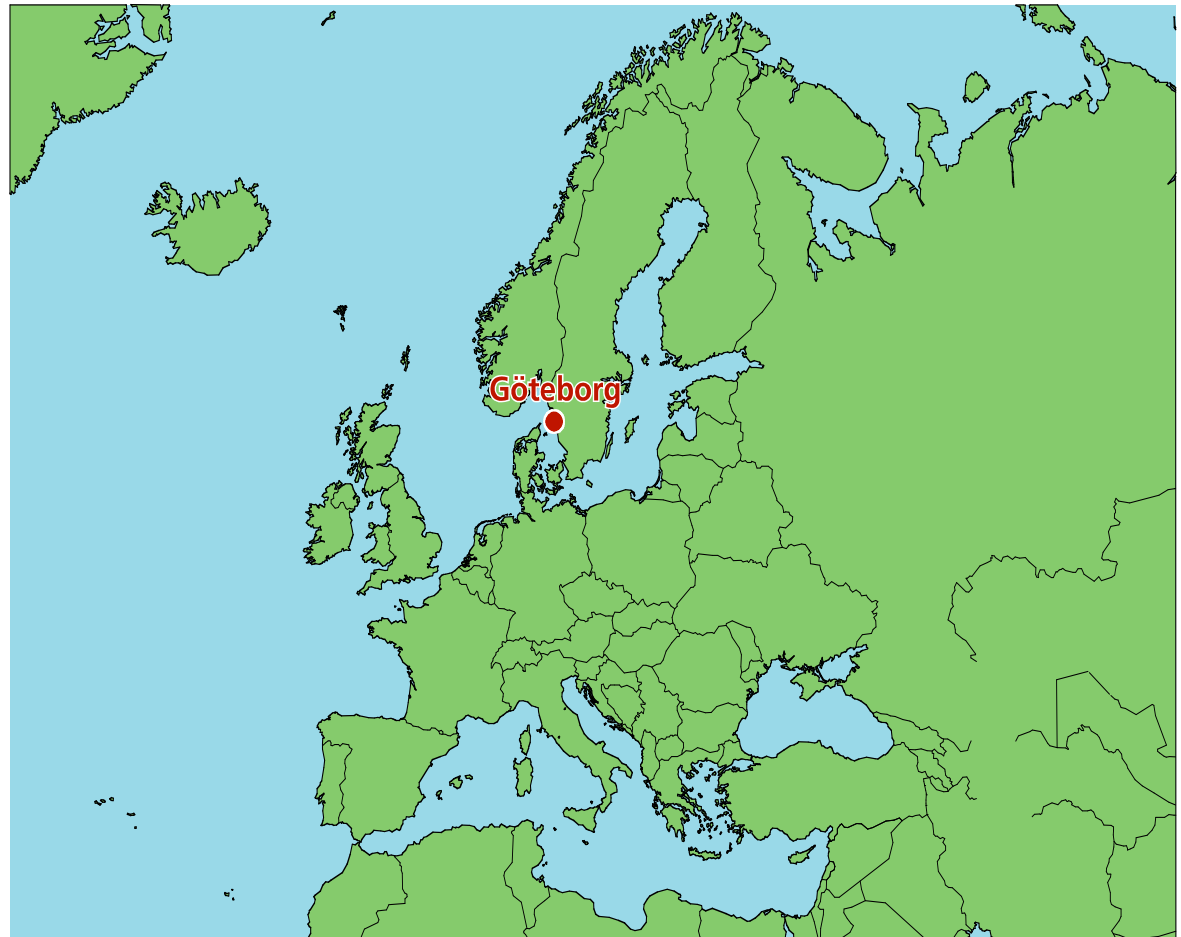


Smart Cities – experiences from Gothenburg

Sebastian Marx

Head of City of Gothenburg EU office
and Smart Cities coordinator



Gothenburg is the second largest city in Sweden with 500.000+ inhabitants and it is the urban centre of Region Västra Götaland.

Business Development I



City of
Gothenburg

- In the 18th century, Gothenburg became the main port for Swedish export of iron and wood. The city was also a centre for the East-India trade.
- The trade and shipping industry were dominant in the city until the end of the 19th century.
- During the 20th century the ship yard and shipping industry evolved as did e.g. the car, petro-chemical and bio-medical industry.
- During the 1970's the ship yards were in crisis but in their place other industries grew strong.



Business Development II



City of
Gothenburg

-Today, a diverse set of businesses are located within the city limits (e.g. Volvo, STENA, SAAB Aerospace, SKF, AstraZeneca, and Ericsson).

-The port of Göteborg is the largest port in Scandinavia.

-The city is actively involved in furthering the situation for small and medium sized enterprises, the event industry as well as higher education and research based companies.

-The Gothenburg University, the Sahlgrenska Academy and Chalmers University of Technology has today ca 60 000 students.





Drivers for change towards a smarter city

- Climate Change and Sustainability
- Urbanisation
- Quality of Life
- Globalisation
- Regional, National and European Union policy





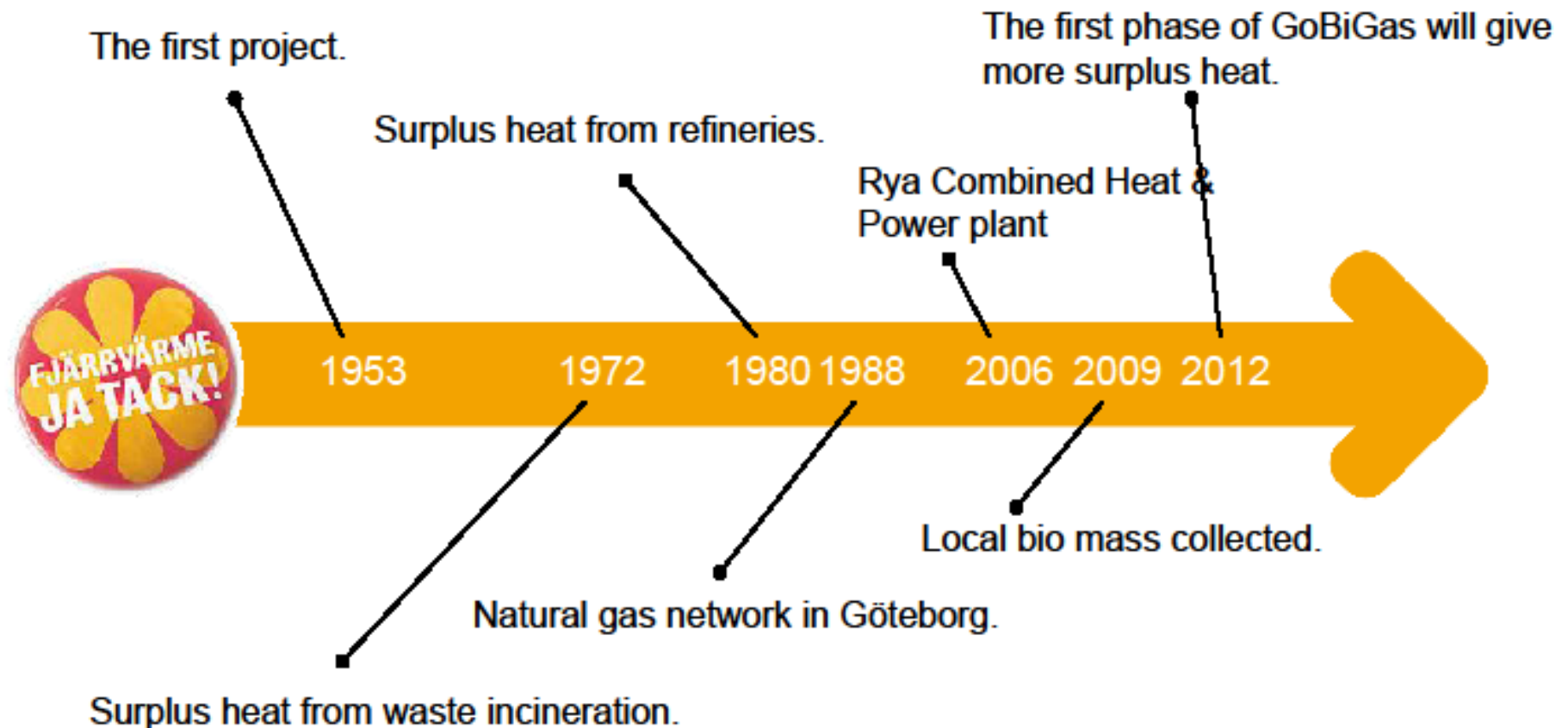


Focus areas in Gothenburg:

- Sustainable Integrated City Planning
- District Heating and Cooling
- Urban Transport
- Sustainable Buildings
- Transformation of Port of Gothenburg

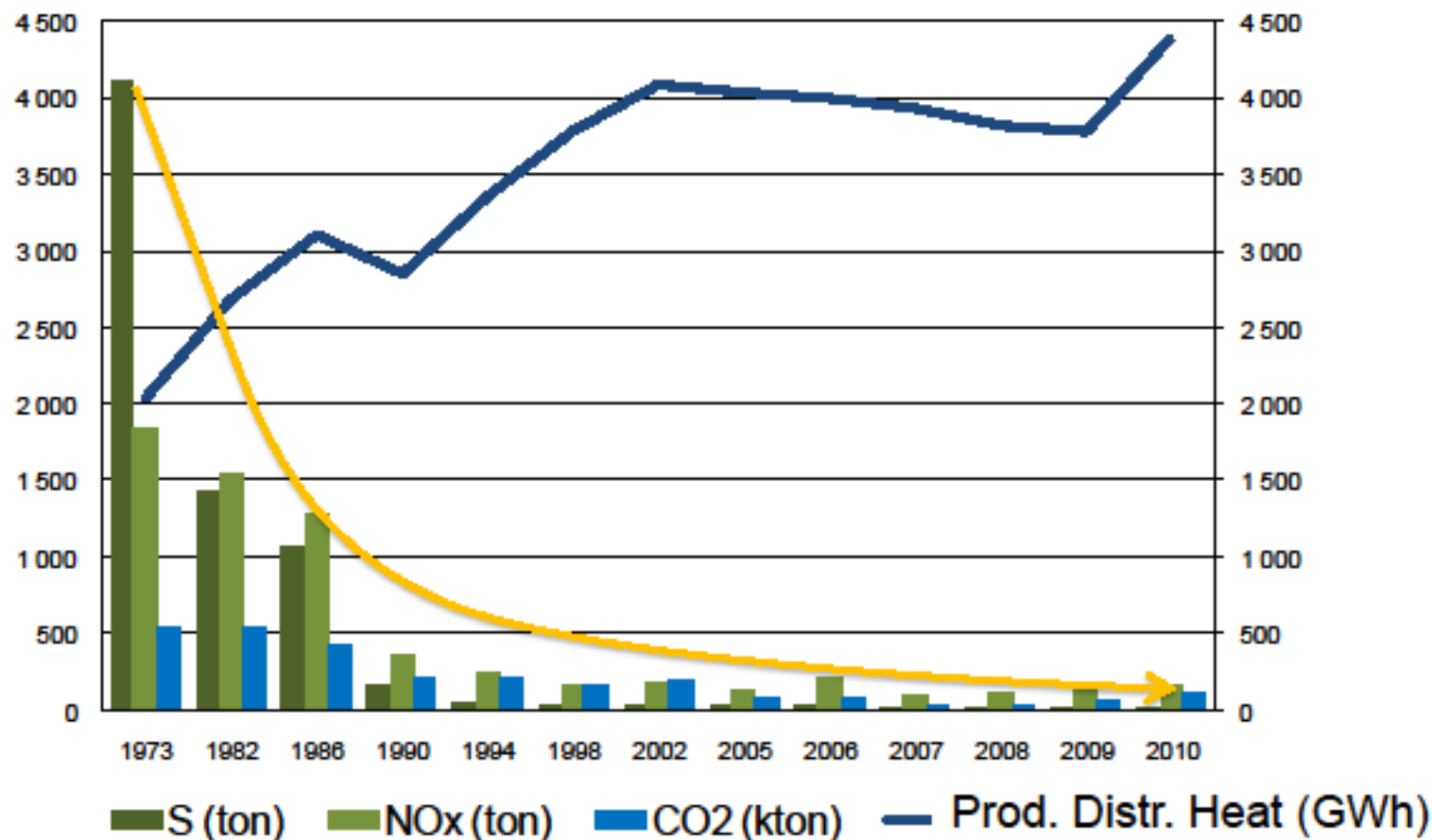


Development of District Heating in Göteborg



District heating has contributed to improved air quality, thanks to reduced emissions.

Production of district heating and related emissions, 1973 - 2010





City of
Gothenburg

1985



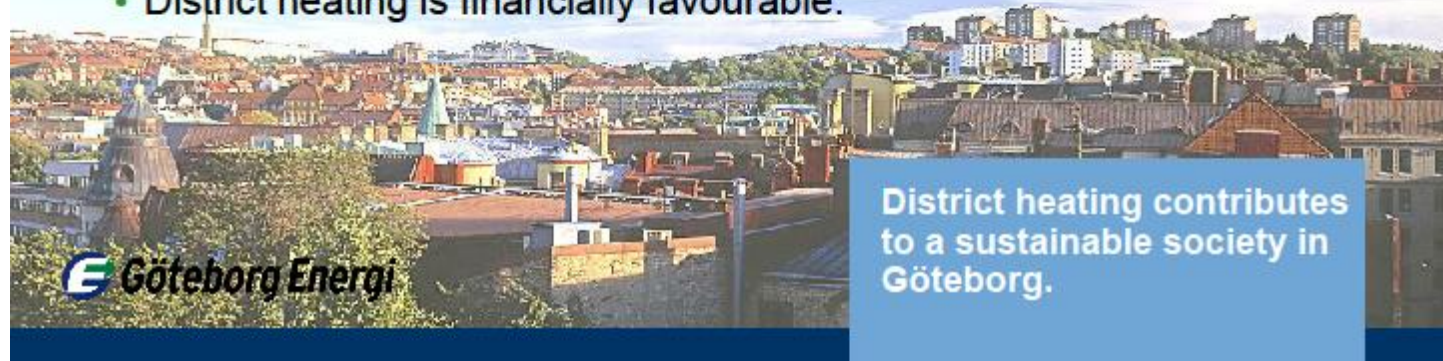
E Göteborg Energi

Sulphur emissions
reduced by 99 % and
nitrogen oxides' emissions
reduced by 89 % since 1985



TODAY

- In 2008, 90% of the buildings were connected to the district heating system.
- Reductions of carbon dioxide emissions.
- Significantly improved air quality.
- District heating is financially favourable.



Urban Transport



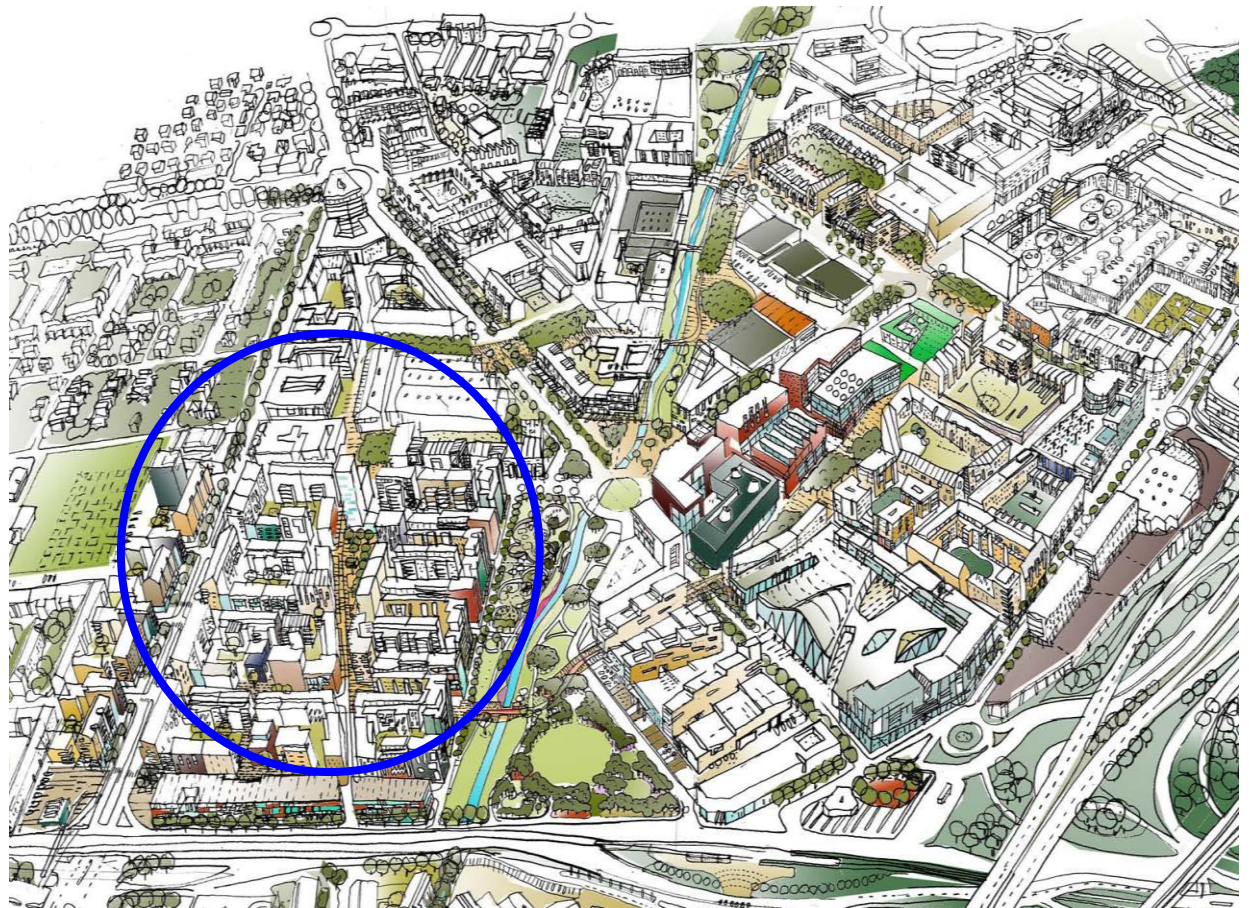
City of
Gothenburg

- Increase the number of cyclists
- Reduce travelling time in public transport
- Improve the reliability of public transport
- Improve the accessibility of public transport
- Improve cooperation between different forms of transport
- Don't increase crowding on roads
- Don't exceed the environmental quality norm for air quality
- Make traffic channels more robust – passage across the river for all kinds of traffic, for public transport in the city centre and for the Central station for commuter trains
- Streamline transportation for businesses



E

Step by step towards energy efficient housing





Port of Gothenburg

Best practice examples



City of
Gothenburg



Transport by land

- Rail shuttle system



Port activities

- Onshore power supply for vessels
- Vapour recovery when loading tankers
- Sustainable land/water development



Shipping

- Green bunkering
- Differentiated environmental port tariff, incentives for good performing ships
- Alternative fuel, LNG

What is needed to speed up the development towards more intelligent ports?



City of
Gothenburg

- Brave stakeholders
- Tools for showing performance
- Economic incentives
 - political & commercial
- Co-operation on all levels (local, regional, national, european and global)

www.cleanshippingproject.se



Clean solutions for ships

examples from the Port of Göteborg

Projekt Grön Kemi
Jan Ahlbom
Ulf Duus
May 2006

Vision for the future



City of
Gothenburg

- The Gothenburg region will grow to a large city region with 1.5 million inhabitants
- Public transport will be further developed
- New housing and offices are being created in the center of the city
- Research, innovation and business development are strongly supported
- Smart and sustainable development is the guiding principle

16 november 2011



Smart city activities in Gothenburg are based on:

- Evolvement of traditional production methods with principles of sustainable development
- Embracement of the knowledge based sectors and use of ICT solutions
- Close cooperation between politicians, business and academia





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