

Sustainable public transportation using renewable fuels

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Public Transportation takes you...



- ... From a place where you not are,
- ... To a place where you do not want to go,
- ... At a time that does not suit you,
- ... With people you do not know
- ... With the comfort and status worse than your car



Biogas system

Natural gas – Mix (Fordonsgas) - Biogas

Cattle manure

Crop residuals

Energy crops

Raw material

Food waste

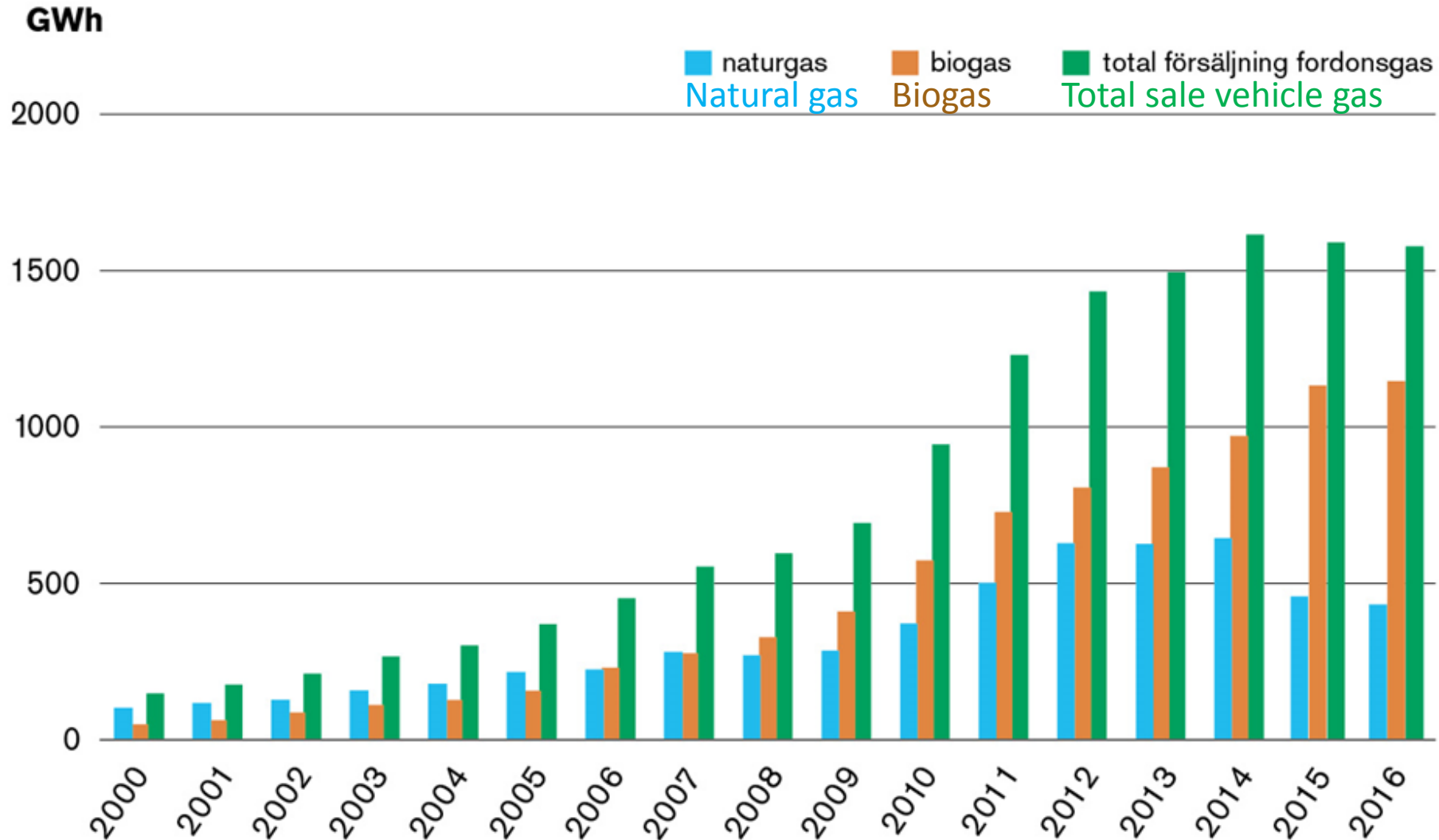
Waste water
sludge



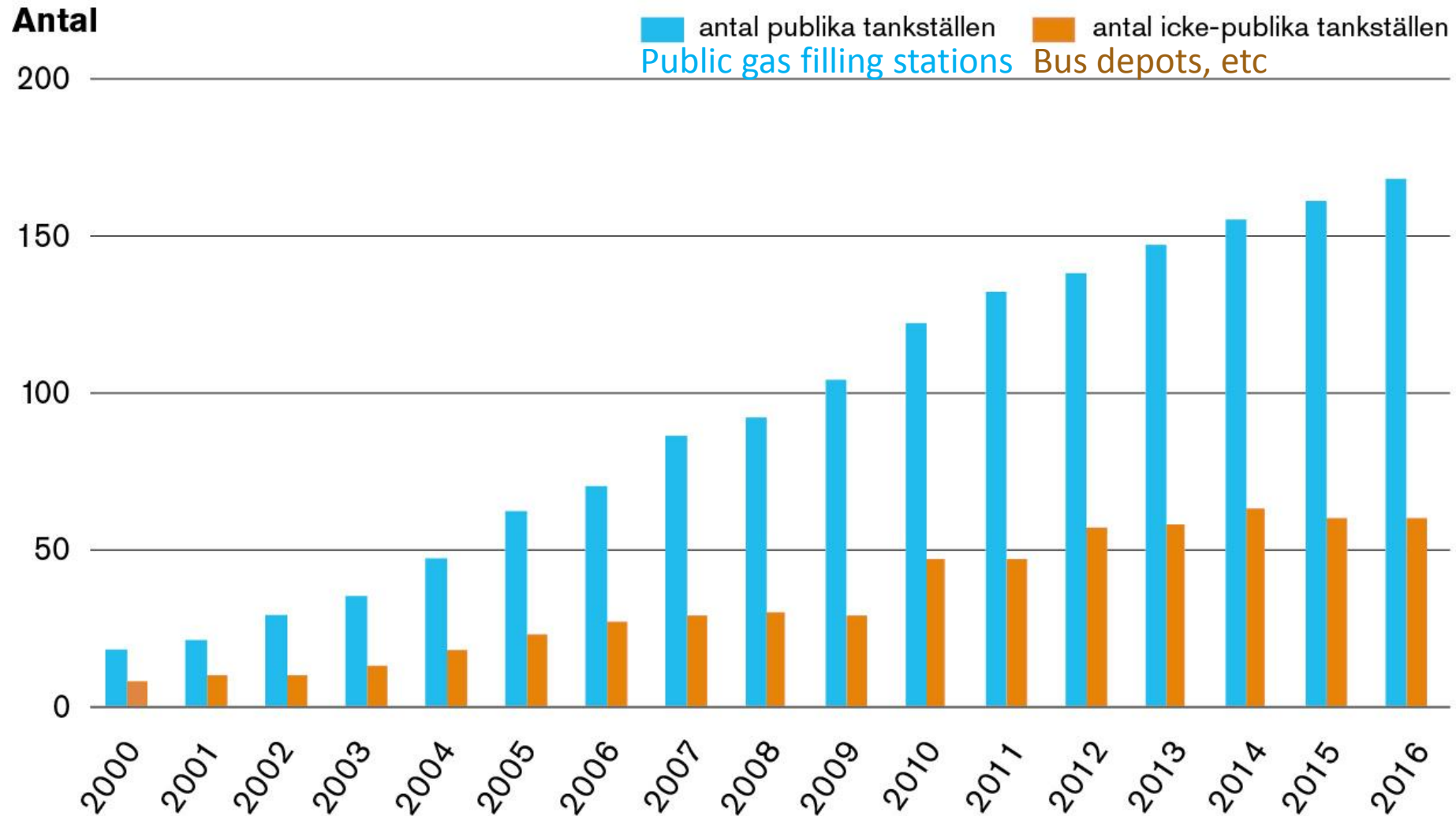
Down stream effects

Produce electricity and district heating

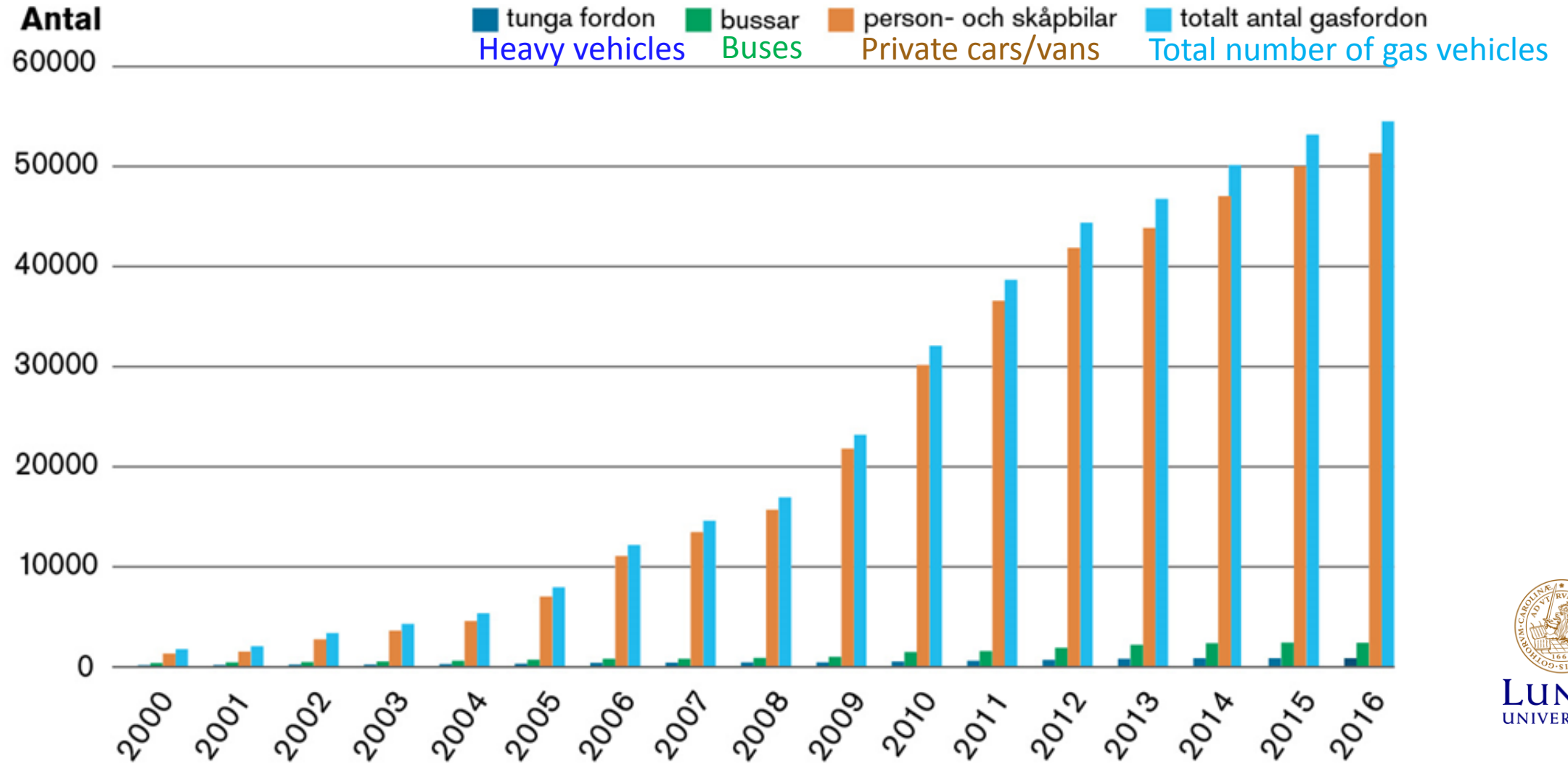
Vehicle gas (fordonsgas) development in Sweden



Gas filling stations in Sweden



Gas vehicles in Sweden



Facts & figures summarize

- Heavy vehicles 700 (1%) – lorries, trucks, etc.
- Cars 44 000 (1%) – approx. 50 different gas models
- Buses 2 200 (16 %) – buses provide a stable market for long time – important for the development of gas in Sweden
- 170 gas filling stations

Political objectives that are driving development

Politicians in Sweden continue to push for development towards a more sustainable society and have set up a target for a fossil fuel free transport sector by 2030, as well as to be an emissions neutral country by 2050.

According to the Swedish Transport Administration, in order to achieve these goals, the share of fossil fuels used in road transport needs to decline by 80 percent and that the availability of biofuel must reach levels of between 15-20 TWh by 2030

But how?

- Fossil-free vehicle fleet because of emissions neutral country by 2050:
- Less needs for transportation
- Energy-efficient vehicles
- Prioritize electricity and bio-fuels (renewable fuels) - Increased demand: The Renewable Transport Fuels demand for renewable fuels
- Locally produced
- Independence from fossil fuels
- Public transportation itself is sustainable (strong trademark)

But why?

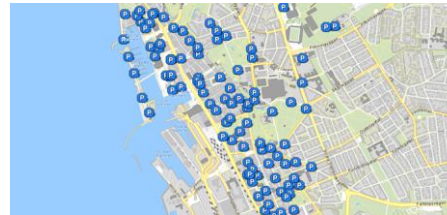
- Infrastructure



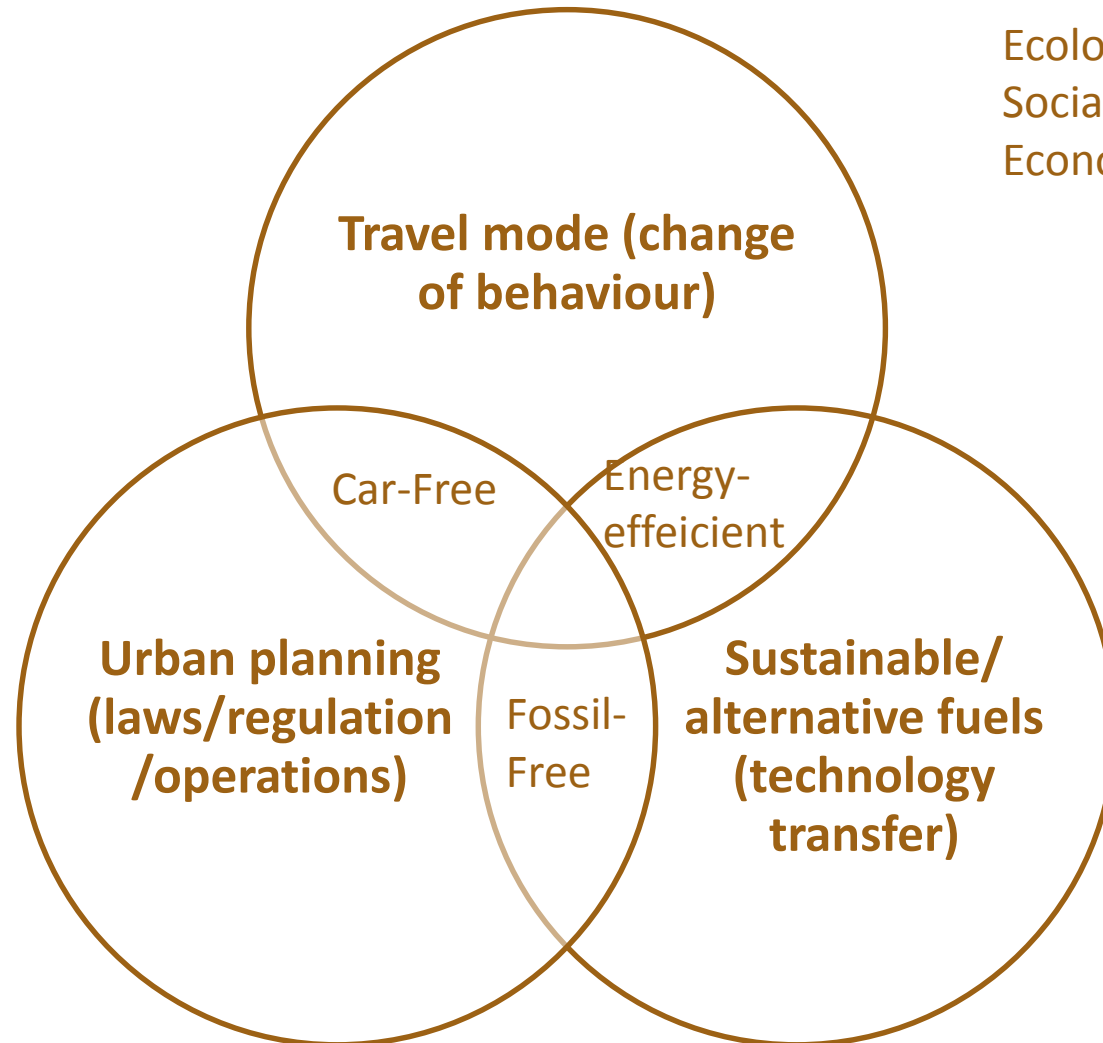
- Capacity



- Space



Environmental Strategy



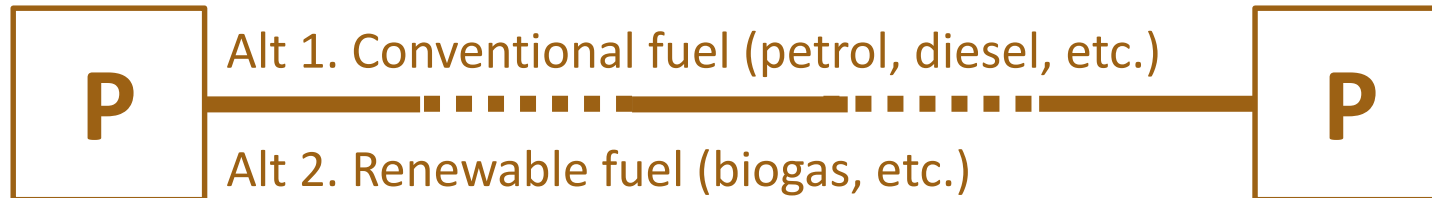
Ecological dimension set the limits
Social dimension gives the goals
Economic dimensions gives the tools

Reduce impact of transport

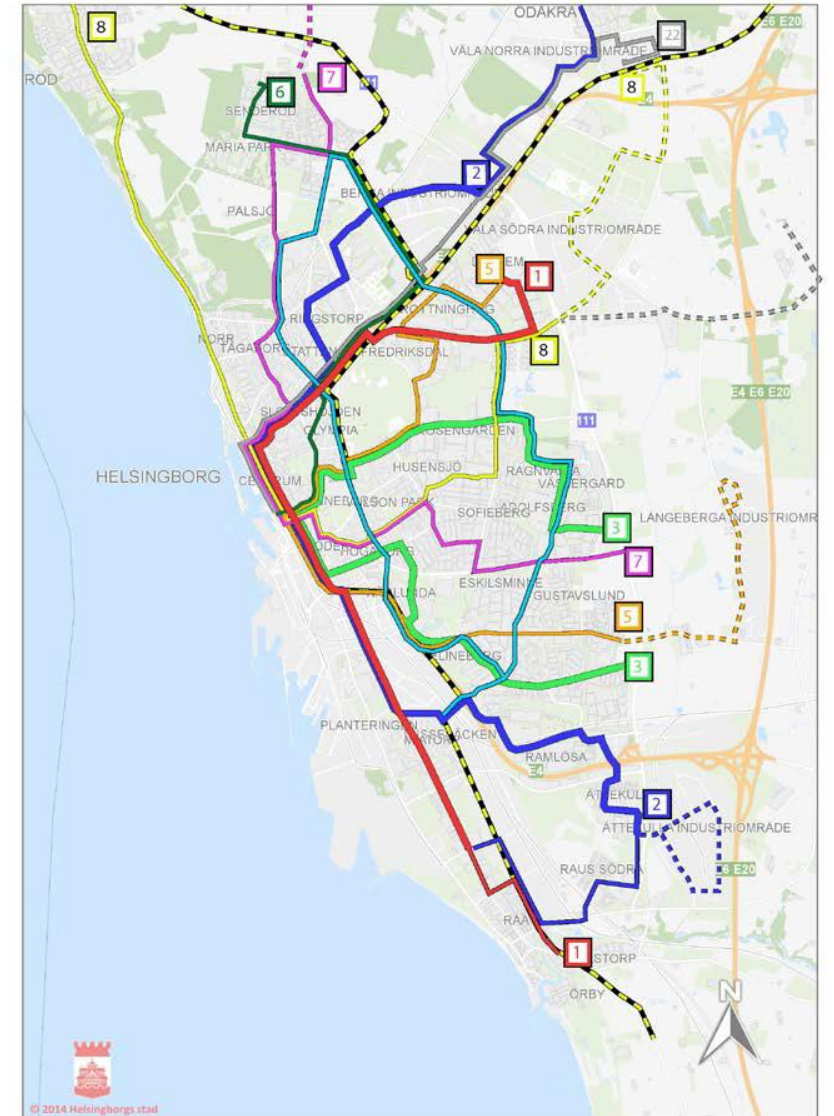
Direct transport effect



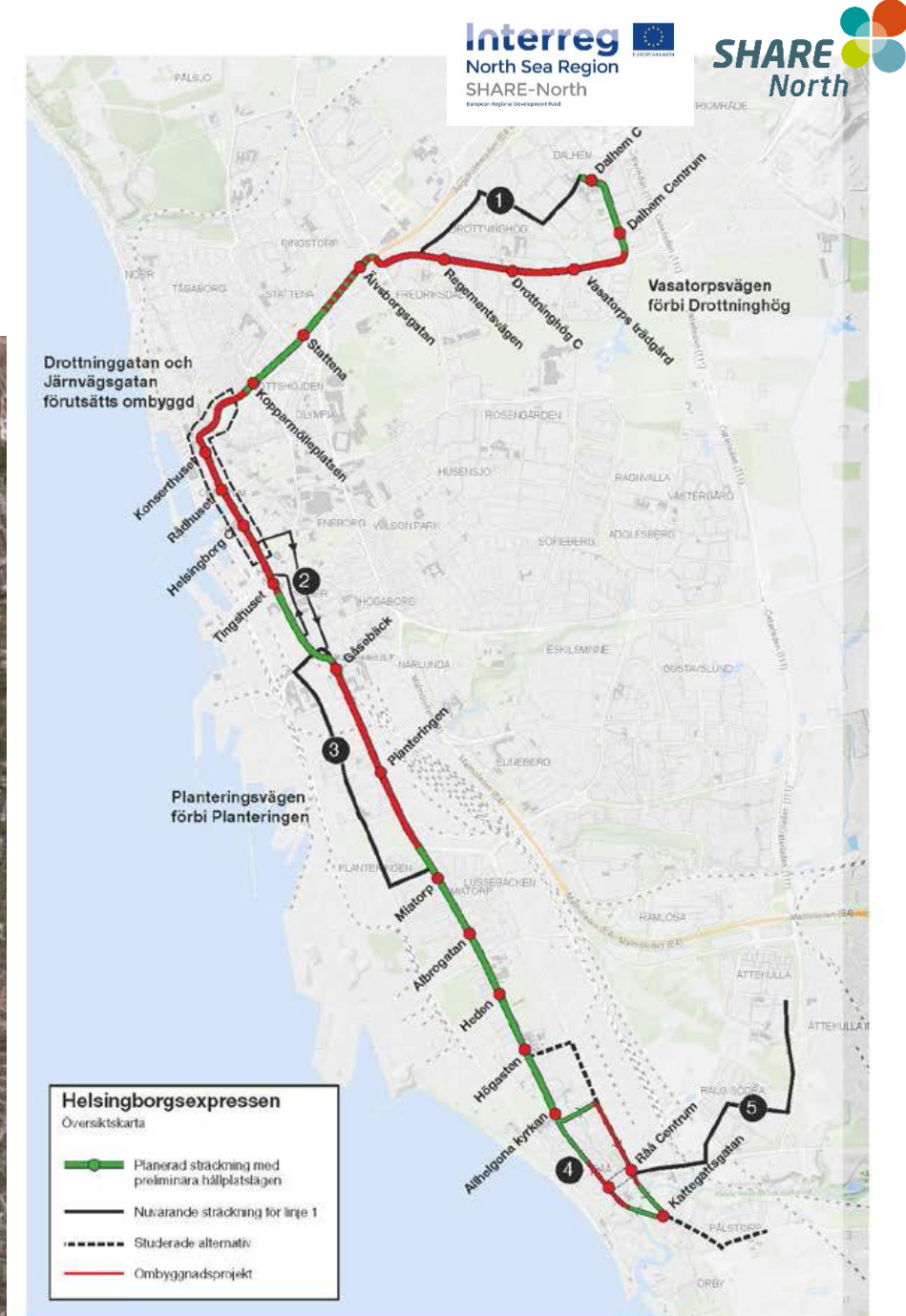
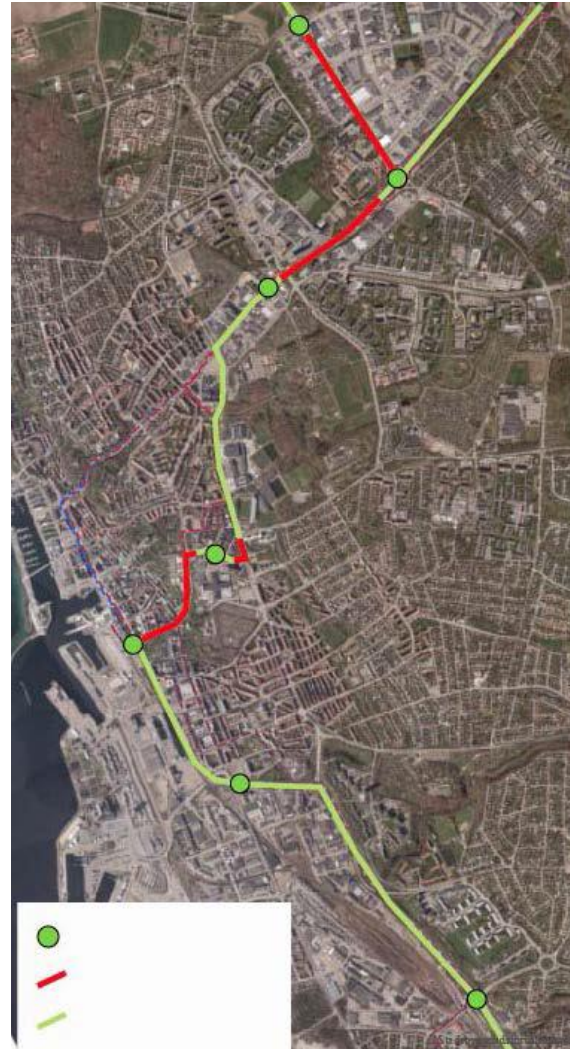
Indirect transport effect



Effective public transportation



New innovative transportation systems



Thank you!

Cooperation is the key to sustainable development

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