

# Biogas in Kalmar municipality

Exampels of public-private partnership to secure sustainable supply chains and rural development



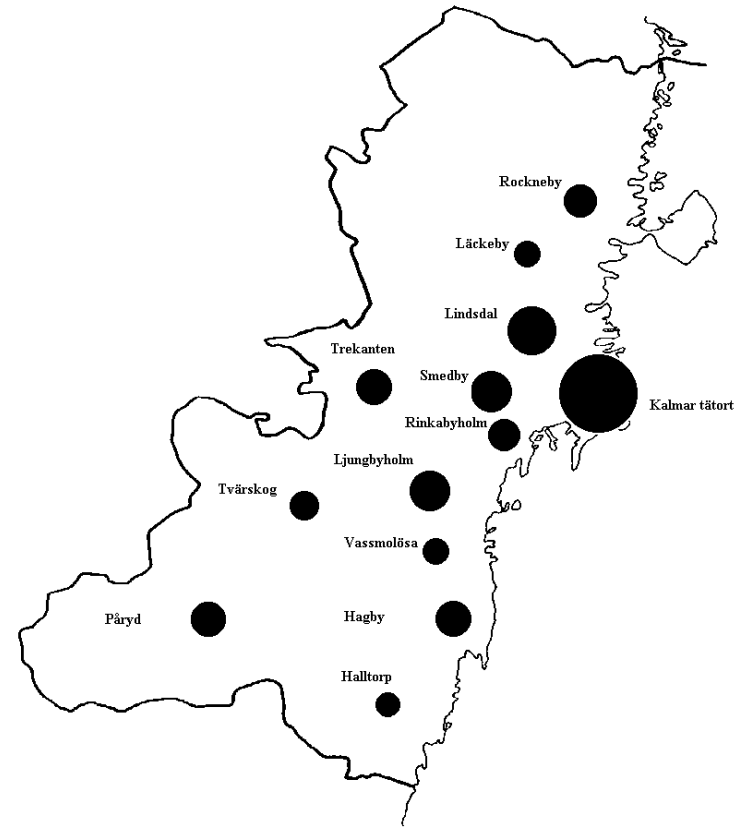
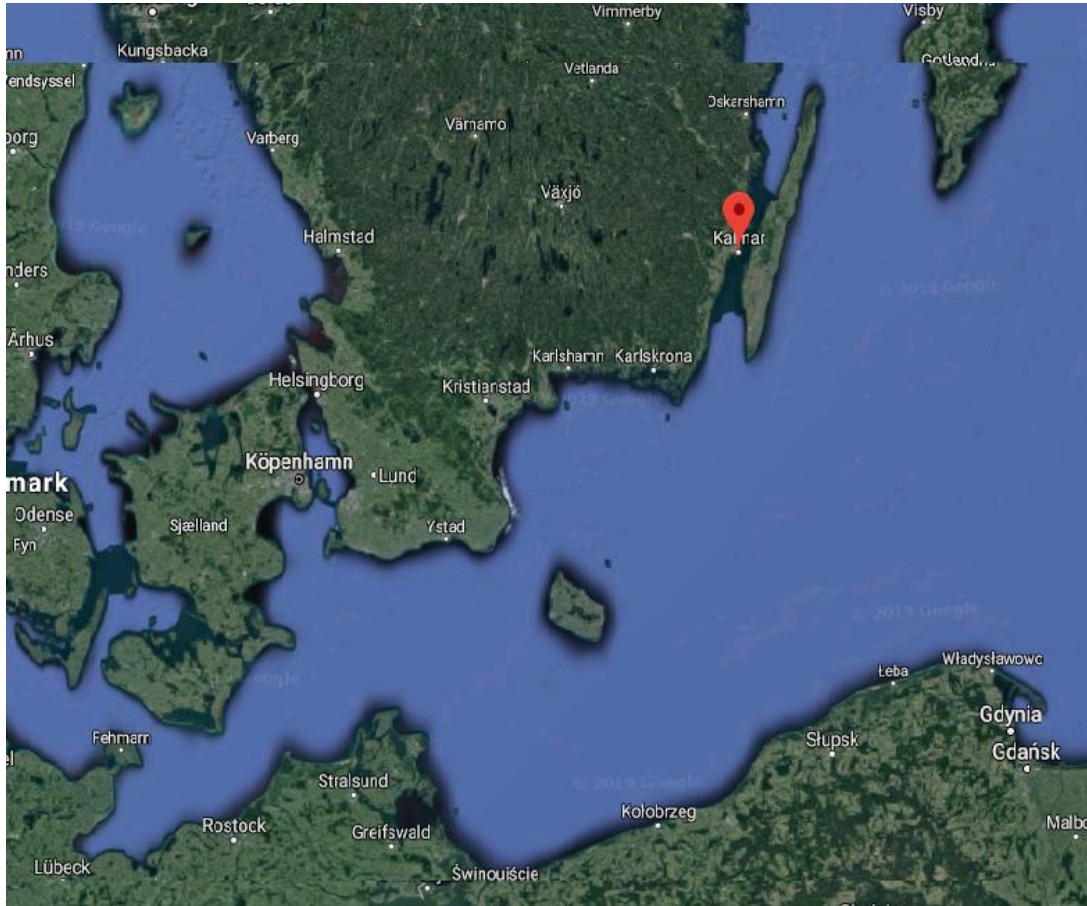
**Kalmar kommun**

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# Kalmar on the map





# Swedish climate law 2017:720

- To stop hazards to the climate system.
- Sweden *must* cut emissions.
- Long term goals.
- Report every year & Action plan every 4th year.
- Sweden is to become the the first "no fossil fuels nation of welfare" – combining growth and sustainability.
- No netto emissions by 2045, then minus emissions.



Transport is the major challenge



# Local goal: No fossil fuels by 2030



NO OIL  
No diesel  
No coal  
No natural gas

Neither in the transport, industry or housing sector.

# Public sector as frontrunner

- General fleet (private cars, light trucks) : > 3 % on REW.
- Internal fleet: EV 60, biodiesel 150, biogas 150, diesel 100 (+ bikes and cargobikes). *No new cars on fossil fuels.*

Charging infrastructure, bike lanes, car-sharing, public buses.





# Biogas in the region - now and soon

## Production

4 sites

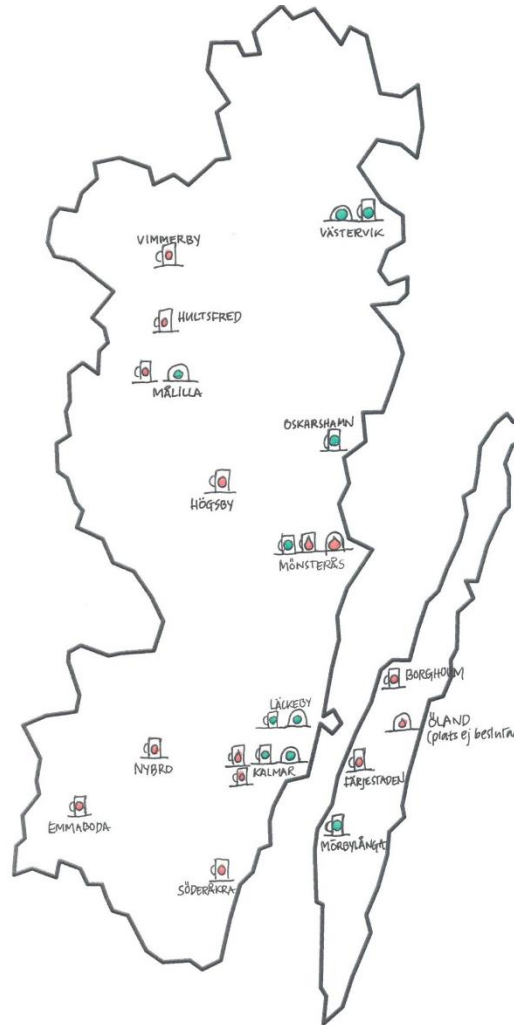
2-3 sites in planning

## Consumption

400 regional buses

1100 cars

ad. 100 small buses  
from 1 jan 2020



## Filling stations

6 filling stations LNG/LBG

10 more to come

+ 1 LNG/LBG station

Why bother with biogas?

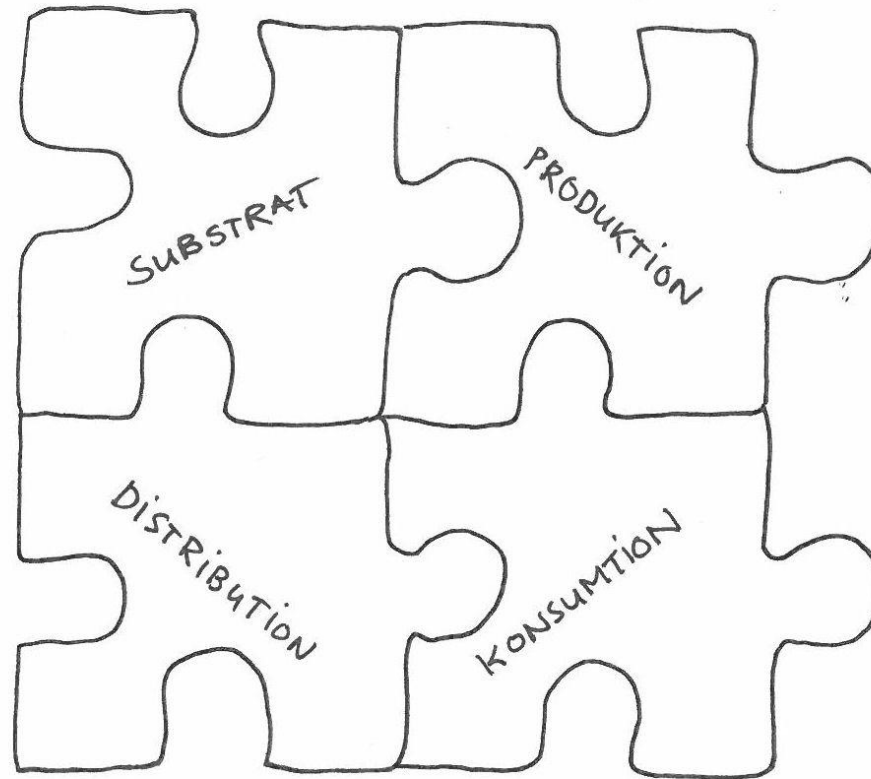




Food waste is not wasted

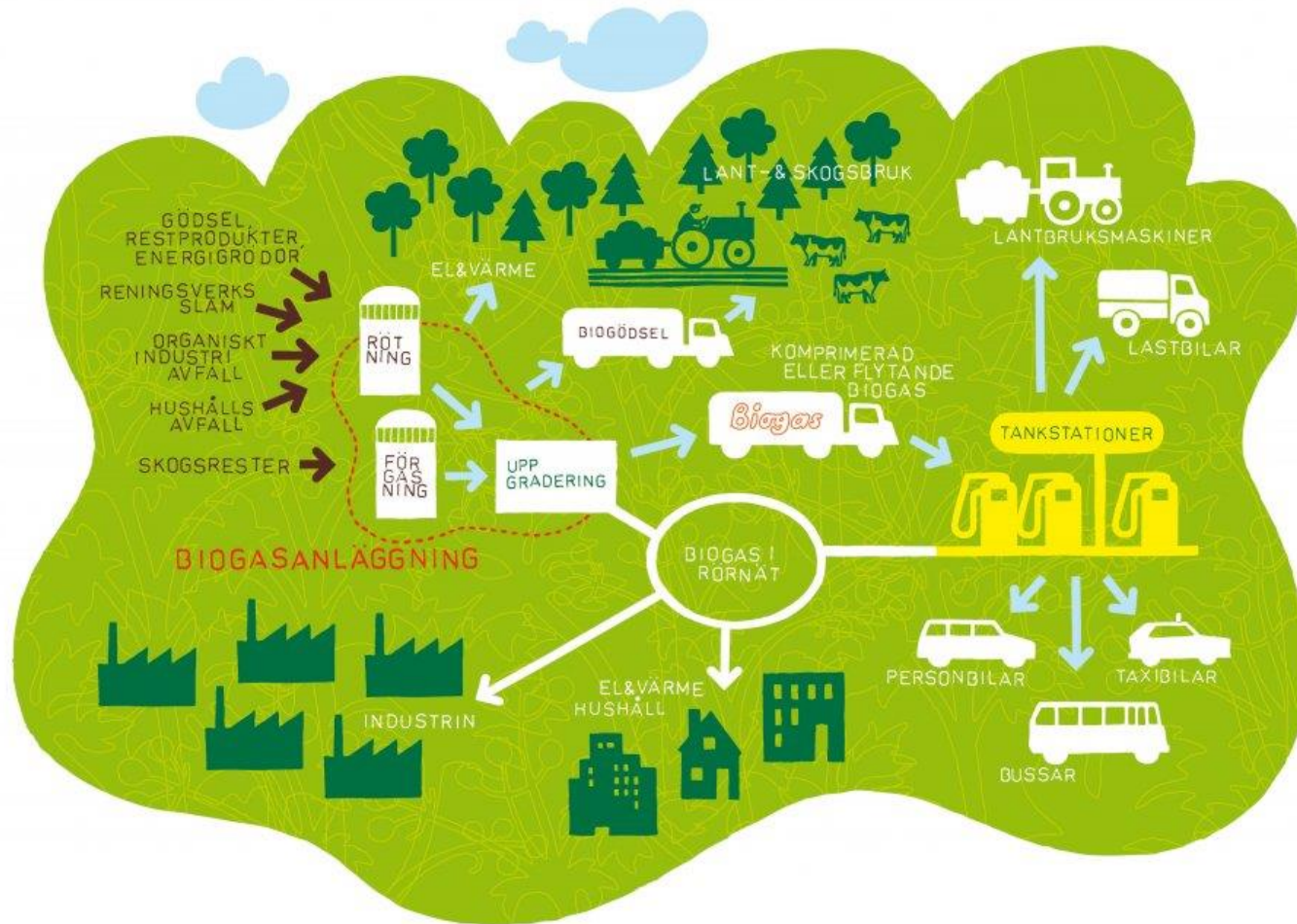


# Like a jigsaw puzzle

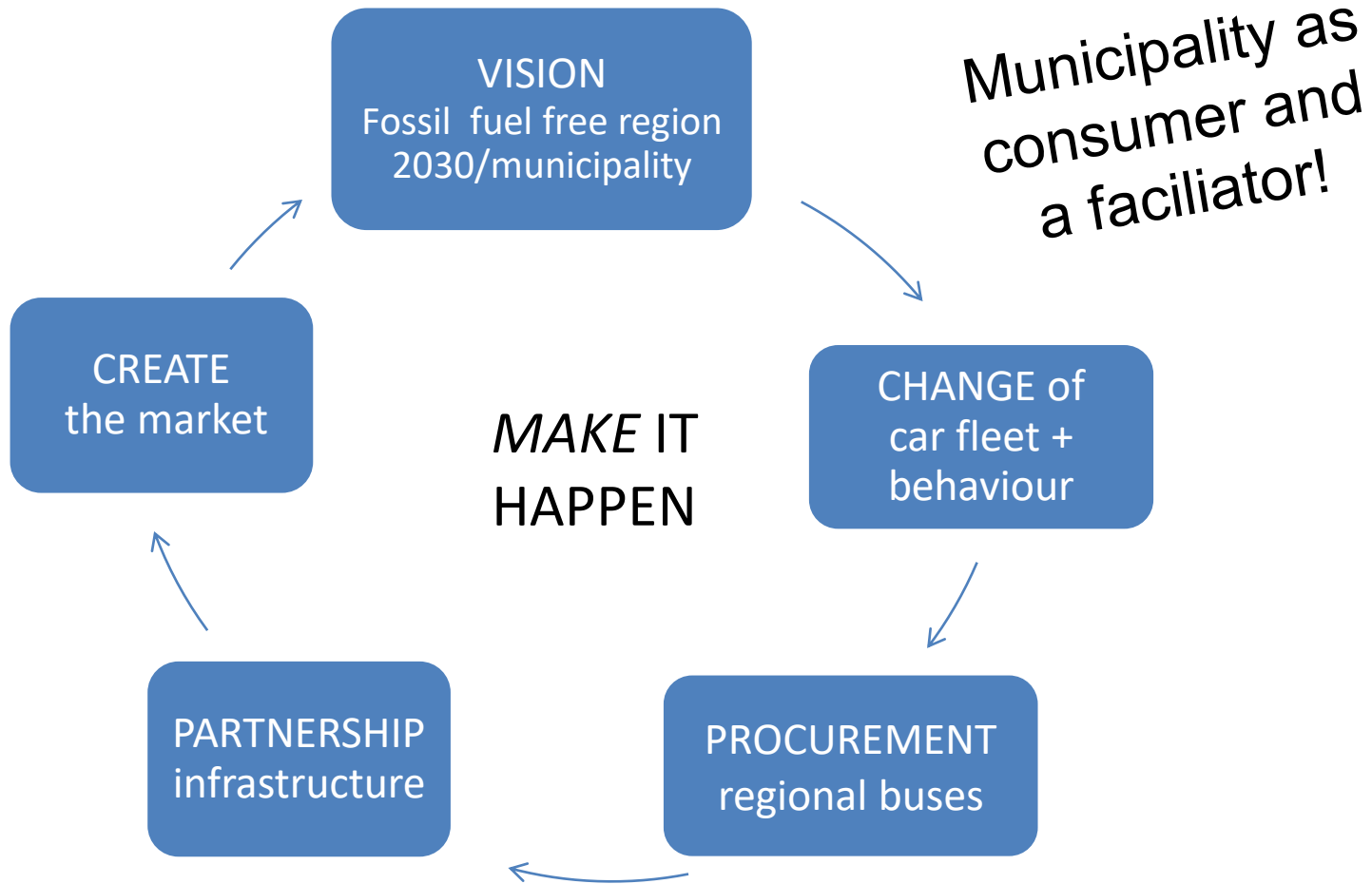




# Biogas in a nutshell: Local, sustainable and easy



# It does not come on its own





# Public procurement as a tool

- 400 buses public regional transport – biogas first choice
- Secured a steady volume, enough also to bring forward 2 new filling stations in the region.
- Long term contracts and many small packages
- Less expensive than planned and no appeals



# Production at More Biogas, Kalmar

- 17 local farmers = 1/3 of ownership
- 90 000 ton substrate
- Manure from 16 farms,
- Food waste from 138 000 inhabitants



Output: 20 GW biogas & biomanure to 20 costumers



What's in it for the farmers?





Filling station next to the production site



# And also for heavy traffic

- LNG/LBG station opens in Kalmar early 2020
- Contract/joint effort between Kalmar and Gasum to increase the renewable part of the gas and create a market
- Ongoing process to produce LBG in the region





# Factors of success

- Shared vision and ambitions
- Brave politicians!
- Public sector to be forerunners for REW - showcase
- Local and regional partnership – broad cooperation.  
Biogas Sydost, managed by the Regional Energy Agency
- Marketing of the work and celebration of achieved milestones
- Time and endurance among hard working officers...



# Södermøre - a rising biogas area?

- A white spot on the map of renewables
- A rural area with many animal farms
- Approx 7000 inhabitants, 500 km<sup>2</sup> area
- Mapping of farmer's interest + substrate volumes
- Opens meetings
- Transition of public car fleet
- Education for employees
- Location investigation

29,8 GH - Self sufficient on renewable fuels?



# Thank You for your attention and welcome to Kalmar!

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...to run a car  
15000  
km/year?

How much  
manure is  
needed?

