

# Region Kalmar County

ERRIN transport WG Alternative Fuels Infrastructure Directive, 18th of March 2021

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245 000 inhabitants  
12 municipalities  
11 200 sq km, 22 inh/sq km

Manufacturing industry  
Forestry and farming  
Tourism

Region Kalmar County  
Publicly financed, politically controlled  
Health care  
Sustainable growth and development  
Public transports

Overall regional goal: A fossil fuel free region 2030 **nooil.**

(Not in TEN-T core network)

Kalmar County

regionkalmar.se |



Biogas (biomethane) "The Nordic model"  
Local charging infrastructure  
Alternative Fuels Infrastructure Directive

# Biogas (biomethane) solutions can contribute to all of the 17 UN Sustainable Development Goals\*

From our regional perspective, among else:

From waste/residuals, a circular bio-economy

Decrease methane from manure

Increase biofuels in transports

Better use of nutrients

Decrease eutrophication, Baltic Sea

Export of P > possible to expand, farm level

Local economy/local jobs/GRP

Resilience/self-sufficiency

Regional based company, uppgrading

## Transports:

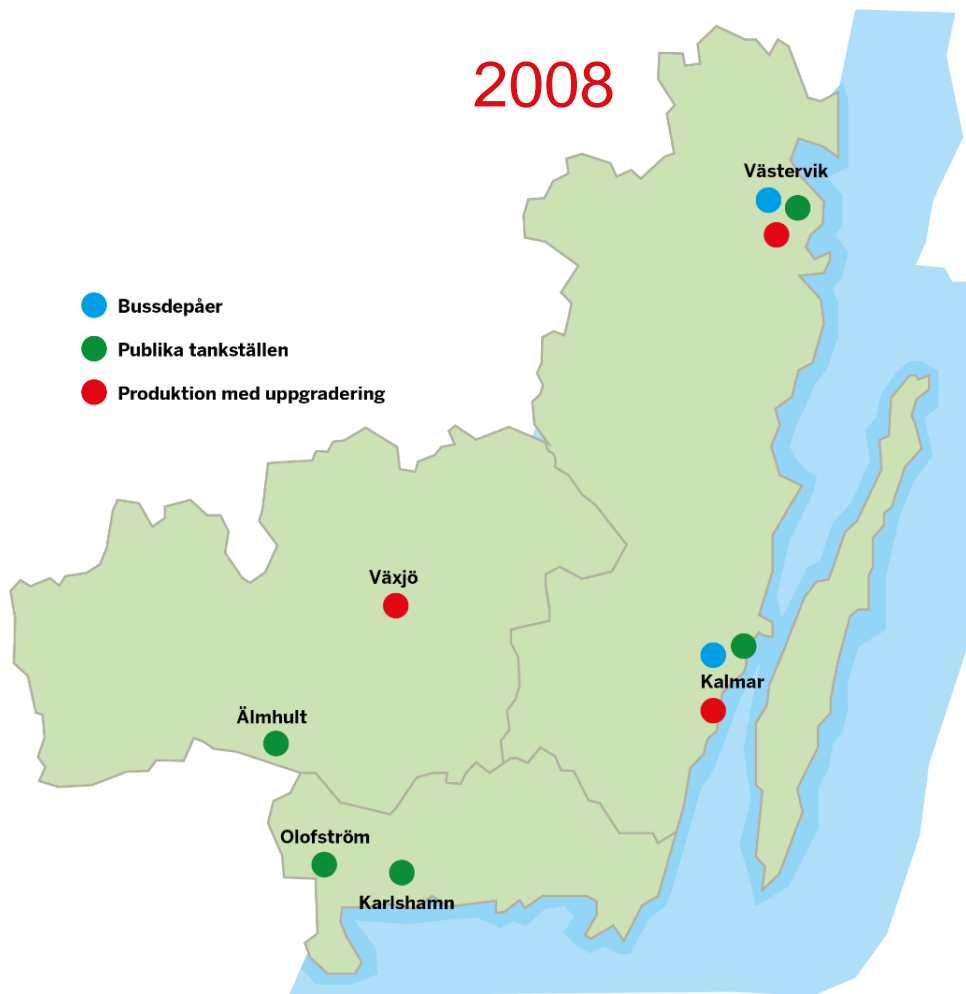
Existing technology **today**, also for long distances



Graphics by Bernt Isaksson/Konze

\* [The role of biogas solutions in the circular and bio-based economy](#). Linda Hagman, Mats Eklund, Biogas Research Center, Linköping University, 2016.

2008



Filling station buses/coaches CBG

Public filling station CBG

Public filling station CBG, planned

Production CBG (upgraded)

Public filling station LBG/LNG

Planned production LBG

● Bussdepåer

● Publika tankställen

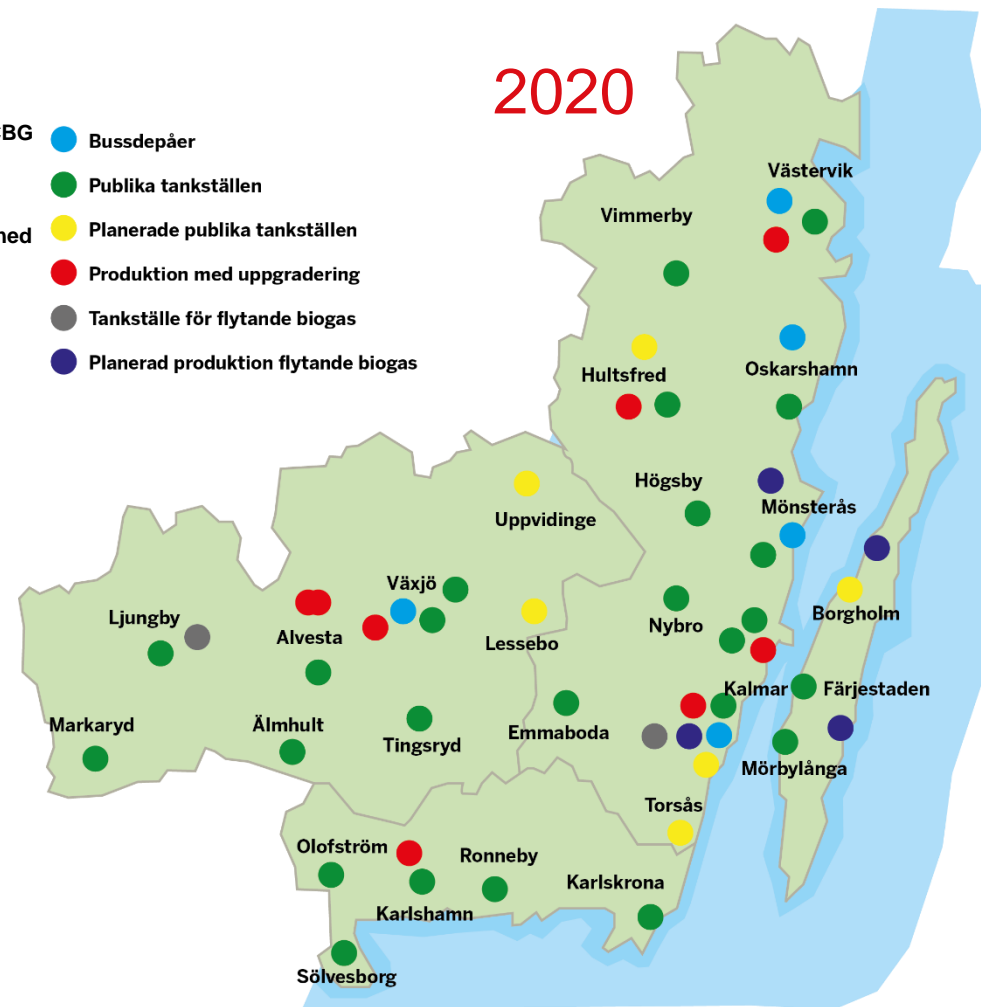
● Planerade publika tankställen

● Produktion med uppgradering

● Tankställe för flytande biogas

● Planerad produktion flytande biogas

2020



# Biogas/biomethane infrastructure Southeast Sweden



Important: Political goals and public transports!

# Regional infrastrukturplan



Introduktion

Regional och lokal statistik

Trafikflöde och laddstationer

Täthetskarta, Elfordon och snabbbladdare

Prognos Elfordon

Fordonsgas

Etanol



I den här fliken ser du laddare för elbil. Klicka på en laddare för att se mer info om den.

I lagerlistan till höger i kartvisaren kan ni välja vilka lager som ska visas. Ni kan välja att visa statistik från nobil och uppladdning.nu. Ni kan även välja att visa dem samtidigt för jämförelse. När ni klickar på en symbol för laddstation så visas mer information om den laddstationen. I kartlagret för uppladdning.nu hittar ni även en direktlänk till den laddstationen på hemsidan för uppladdning.nu.

Snabbbladdning (&gt;43kW)



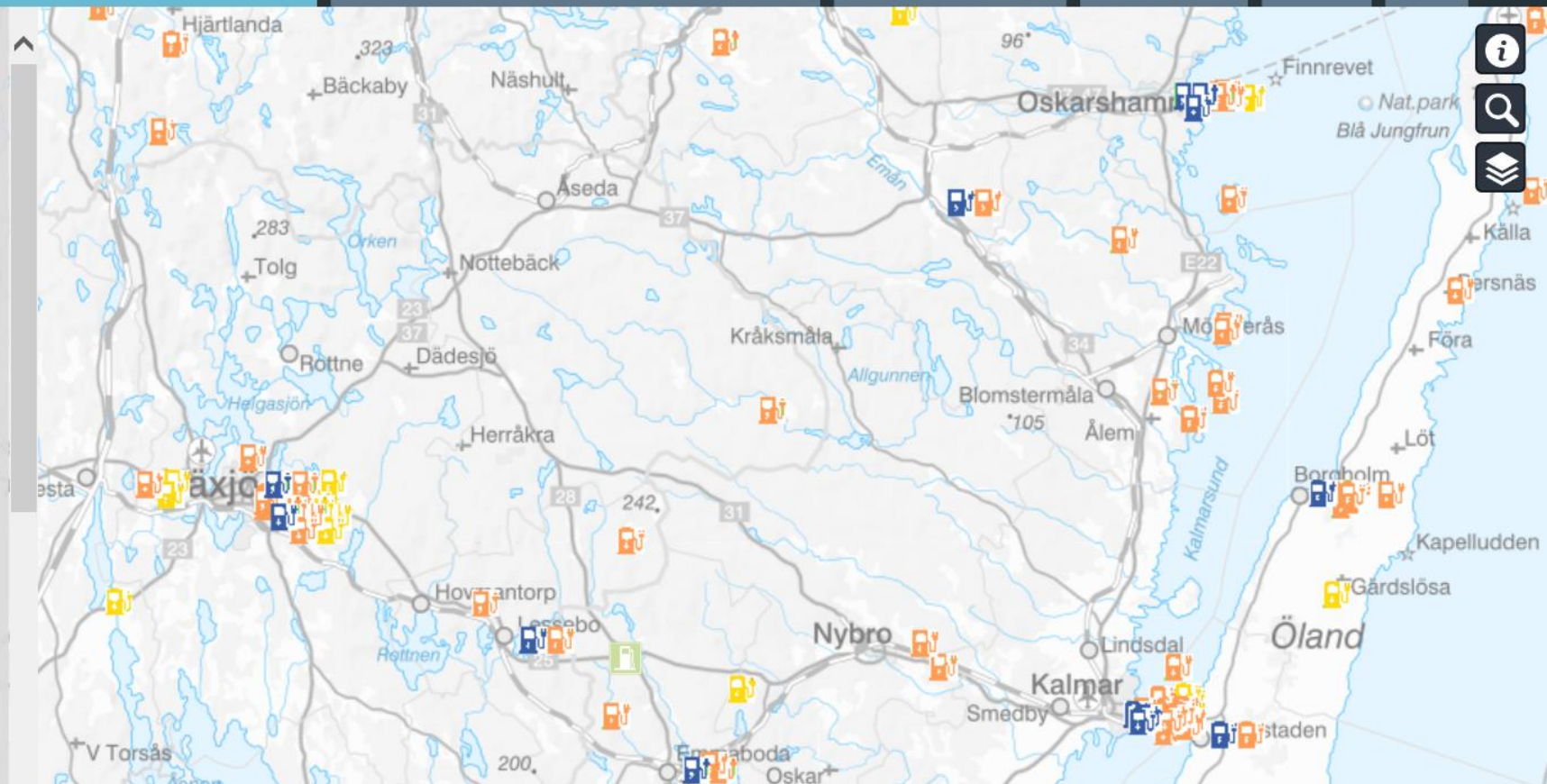
Semisnabbbladdning (12-43kW)



Normalladdning (&lt;12kW)



Du kan också se platser där det är strategiskt lämpligt



<https://ext-geoportal.lansstyrelsen.se/arcgis/apps/MapSeries/index.html?appid=cb67254fc19643c4a304e32ae46a3f11>

## Existing infrastructure charging stations



Places to visit (destination, service point, grocery store, cafe etc.)



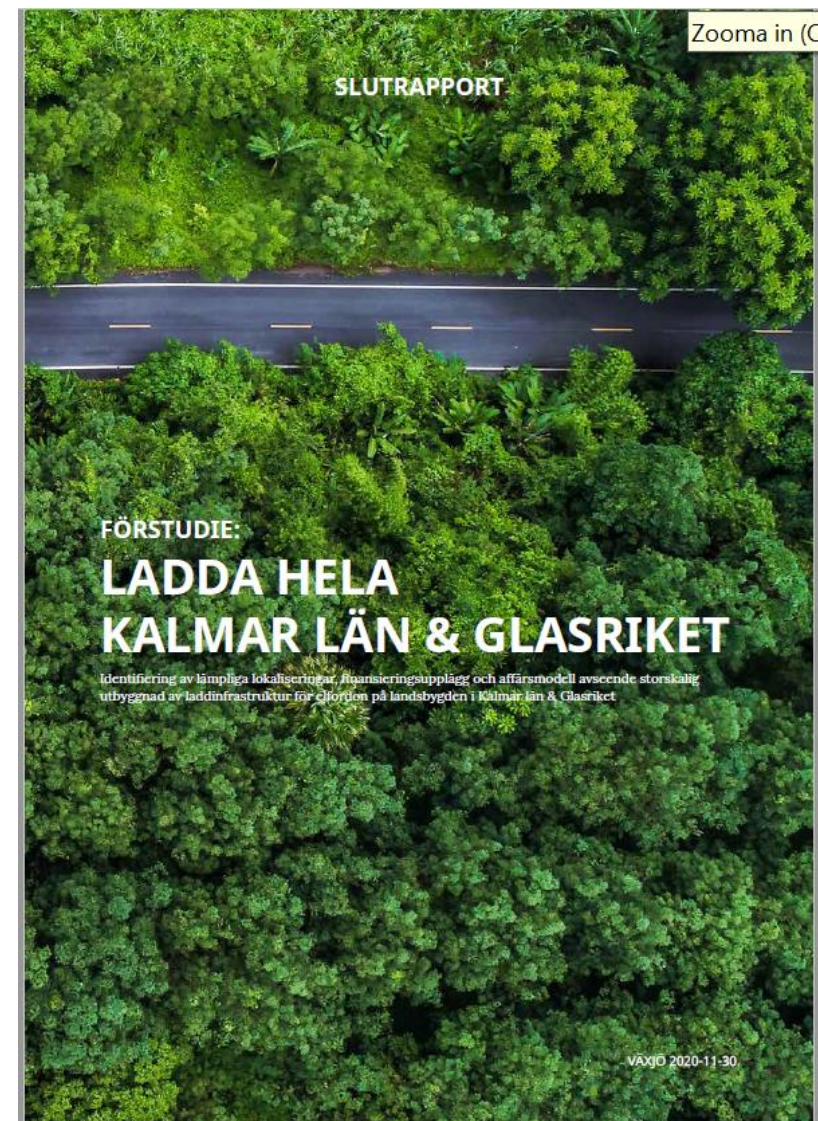
Sufficient infrastructure (grid)



200 possible places on the country-side

Business model?

Advising/coaching SME:s



## Charging the whole of Kalmar County & The Kingdom of Crystal





## Biomethane in European countries 2020

Denmark	100%
Finland	59%
France	17%
Germany	50%
Italy	9%
Netherlands	90%
Norway	63%
Switzerland	20%
Sweden	94%
UK	67%
EUR	17%



Source: work-in-progress, BRC.

More and more biomethane in Europe



Push to increase roll out of alternative fuel infrastructure

Support different regional conditions (geography, investments done etc) and include the regional level in planning and implementation

Technology neutrality and LCA important

Biogas  $\neq$  fossil natural gas

Infrastructure for CBG/LBG still relevant.

Need for infrastructure not only in TEN-T core network

Outside AFID:

CO2 emissions for cars and vans

## Alternative Fuels Infrastructure Directive



**Tillsammans**  
för ett **friskare**  
**tryggare** och  
**rikare liv**

## **Biogas (biomethane) – regional study 2018**

**300 GWh/yr production potential (mainly manure)**

- **About 10% of the use of transport fuels in Kalmar County**
- **Socio economic value ~ 260 MSEK/yr (23 MEURO)**  
(effect on biological diversity not included)
- **GRP contribution ~ 500 MSEK/yr (45 MEURO)**
- **200-400 jobs/yr**