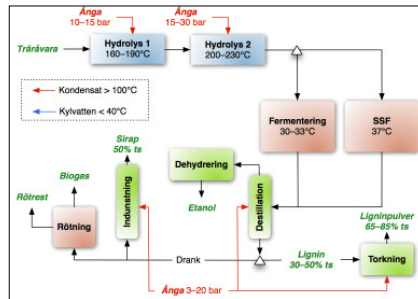


Future Biofuels in Sweden (?)



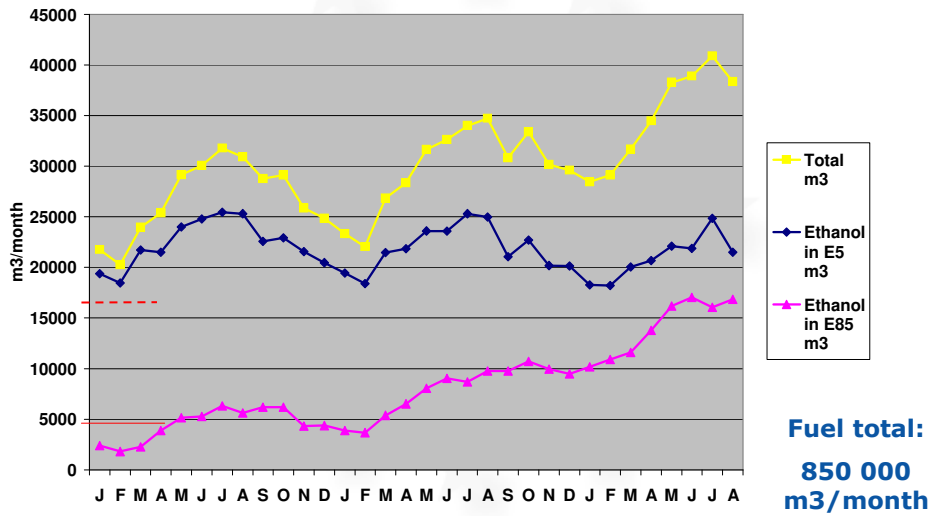
Tomas Rydberg
36th LCA discussion forum
EMPA, Dübendorf
2008-11-17

Future – how far away is it ?

Short perspective	Middle term perspective	Long perspective
<ul style="list-style-type: none"> • 0-15 years ? • "extrapolate" • 	<ul style="list-style-type: none"> • 15-40 years ? • investment horizon • socio-technical dynamics 	<ul style="list-style-type: none"> • 40+ years ? • sustainability targets

2000 2010 2020 2030 2040 2050 2060

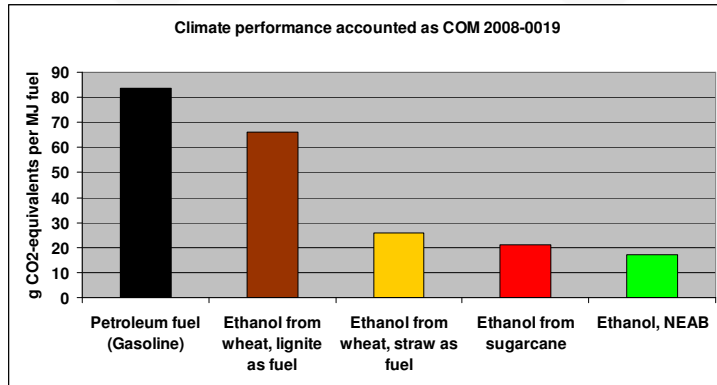
Ethanol demand in Sweden 2006-2008



**Fuel total:
850 000
m³/month**



Results from climate performance calculations of NEAB ethanol

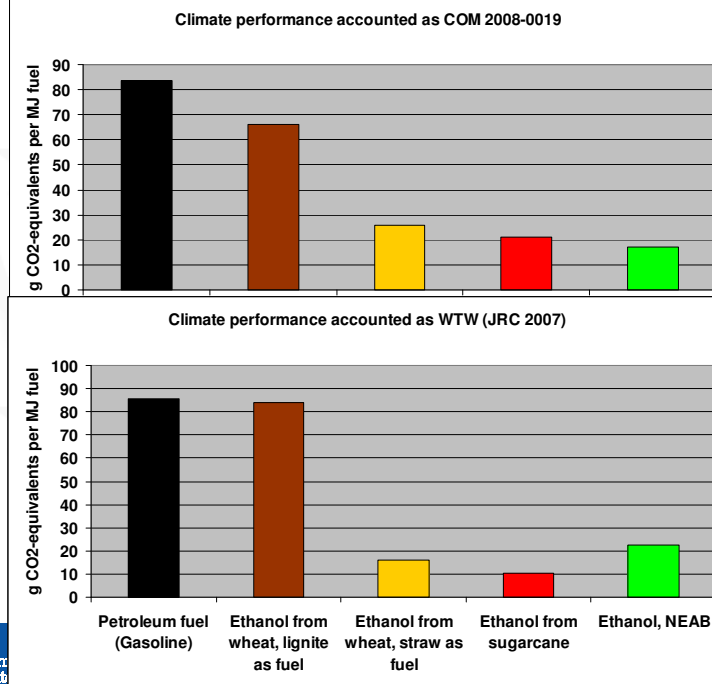


Method comparison

COM 2008:19

to

WTW 2007



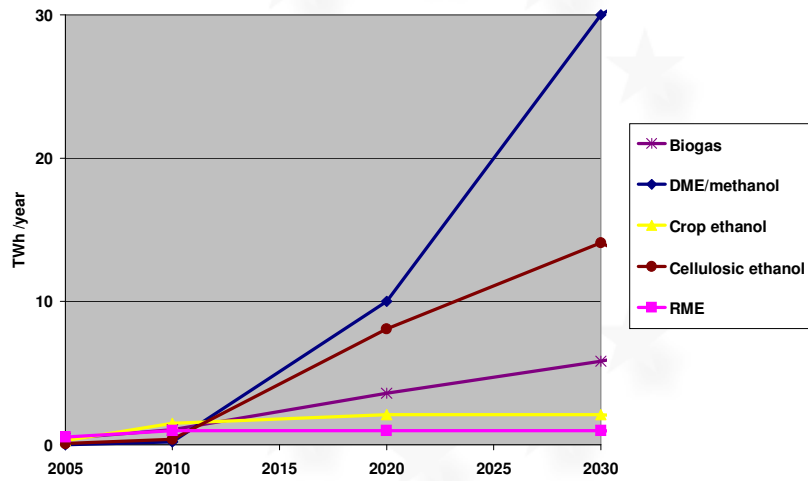
Other activities under way

- Greening of Refineries
 - Tall oil refining/hydrogenation (under way)
 - other options investigated
- Black liquor gasification research
 - “large-scale” pilot plant in place
- Bio-DME filling stations and vehicles demonstration program
- etc...

Outlook

- thoughts about the future

Estimated ("hoped for") future production of alternative fuels in Sweden



Current fuel consumption: ca 90 TWWh/year

source:
Introduction of renewable vehicle fuels
SOU 2004:133



Thank you for your attention!