



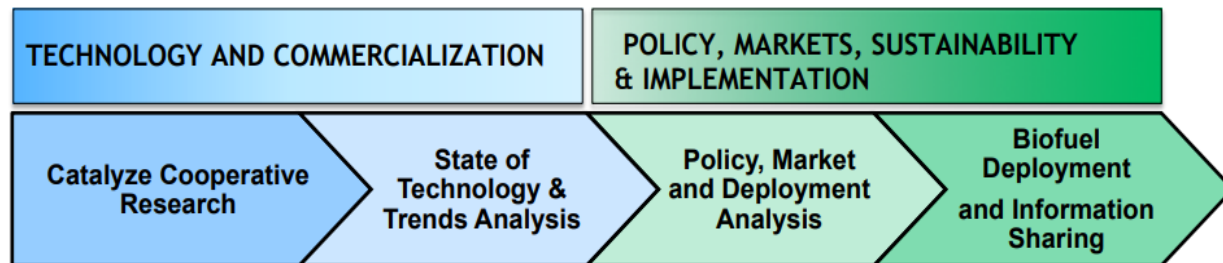
IEA Bioenergy
Technology Collaboration Programme

Tomas Ekblom, Task Leader
IEA Bioenergy TCP Task 39



Biofuels to Decarbonize Transport

Collaboration between
16 member countries*
and **US Grains Council**
as **Limited Sponsor.**



* (Australia), Austria, Belgium, Brazil, Canada, China, Denmark, Estonia, EU, Germany, Ireland, Japan, Korea, The Netherlands, New Zealand, Sweden, USA

Project coordinator of **BIODRI**  – a biofuels network with 160 people and 60 corps / organizations



Tomas Ekblom, Program Director
Swedish Bioenergy Association

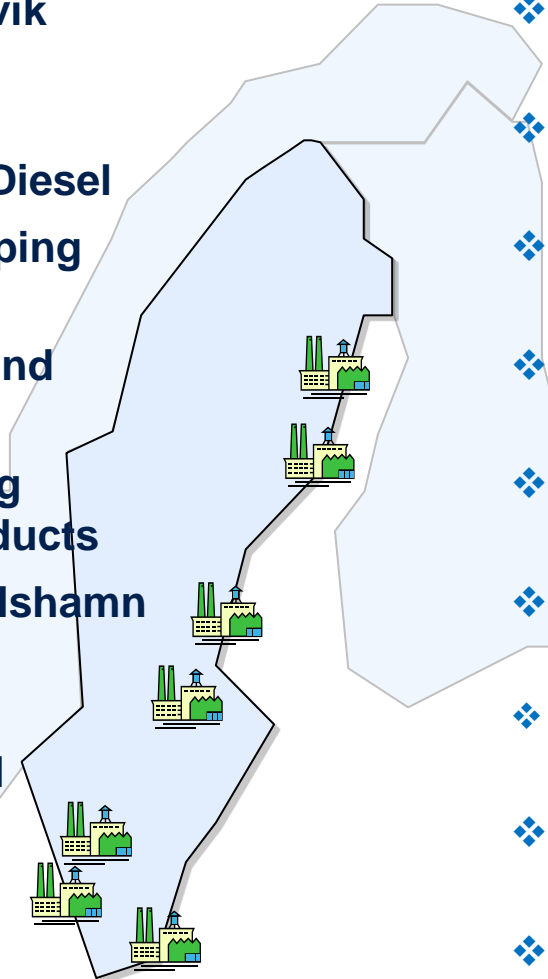
300+ strong member assoc.
founded 1980 promoting
bioenergy



Promising development in biofuel plants

Larger plants in operation

- ❖ SEKAB in Örnsköldsvik
23 000 m³ ethanol
- ❖ SunPine in Piteå
150 000 m³ Raw Tall Diesel
- ❖ Agroetanol in Norrköping
230 000 m³ ethanol
- ❖ Adesso in Stenungsund
148 000 ton RME
- ❖ Preemraff Gothenburg
320 000 ton HVO-products
- ❖ Energifabriken in Karlshamn
55 000 ton RME
- ❖ Södra in Mörrum
5000 ton biomethanol
- ❖ Pyrocell in Gävle
26 000 ton pyrocruide
Started 7 Dec 2021



Plants in development

- ❖ St1 Refinery in Gothenburg
200 000 ton HVO biofuels Q3 2023
- ❖ Preem Gothenburg
650-950 000 m³ HVO biofuels 2024
- ❖ SkyFuelH2 Uniper+Sasol in Långsele
100 000 ton SAF 2024
- ❖ Liquid Wind with Övik Energi
50 000 m³ biomethanol 2024
- ❖ Project AIR Perstorp at Stenungsund
200 000 m³ biomethanol 2025
- ❖ SCA in Östrand w St1
300 000 ton HVO biofuels 2025?
- ❖ Vattenfall+Shell+LanzaTech in Forsmark
50 000 ton SAF for SAS 2026
- ❖ St1 Refinery in Gothenburg
200 000 ton HVO biofuels 2026?
- ❖ Preem: in total 5 M ton HVO by 2030

Selected projects or plants, e.g. biogas plants not shown

Sweden has highest share in the EU, but ...

Energy from renewable sources in transport

% of gross final energy consumption, 2020





Do not take shortcuts in policy development ... for real results!

Two Swedish studies and IEA Bioenergy Intertask project with workshops concluded needed for biofuels investments:

- Most critical factor is financing and the political risk is the largest
- Stable, long-term regulatory framework is key for securing progress
- Work on harmonized, clear long-term policies that allow improvement of established biofuel options
- Advance R&D&D of new biofuels technologies with production support in commercialization.

Cheating gets you a green lawn but gets you no living green grass.