



# HVO – lösning eller återvändsgränd

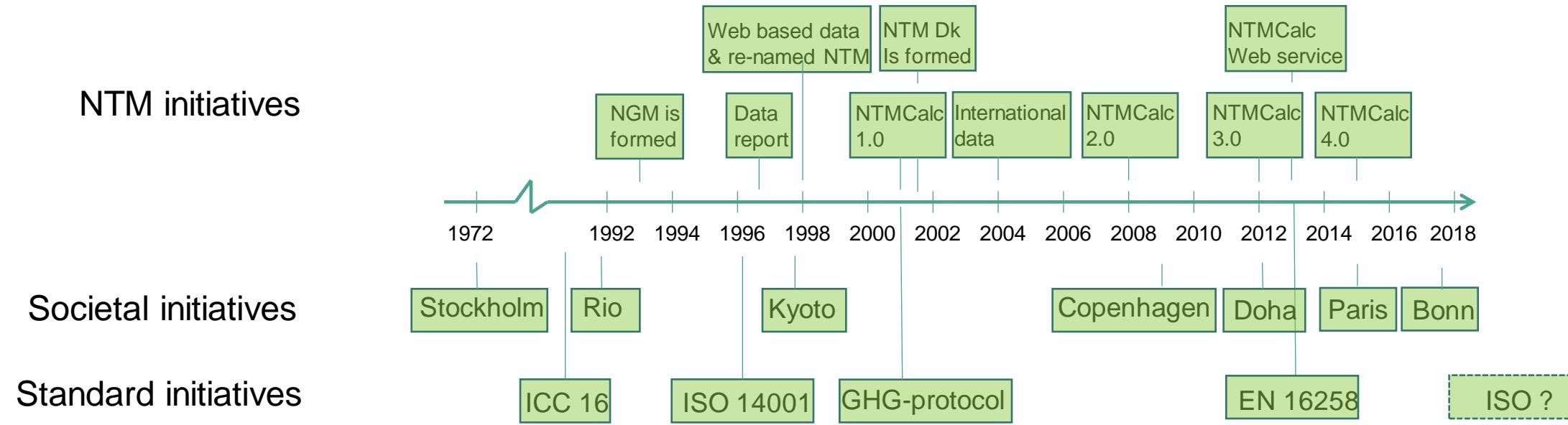
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# Agenda

- Allmänt om NTM och drivmedels miljö- och klimatpåverkan
- NTMs sammanställning av HVO:s klimat- och miljöprestanda
- Diskussioner

# NTM:s bakgrund och omvärld



"Fundament för framsteg"

$$n \sum < \triangle$$



# Med utgångspunkt i "fundamenten" erbjuder vi stöd för ständig förbättring

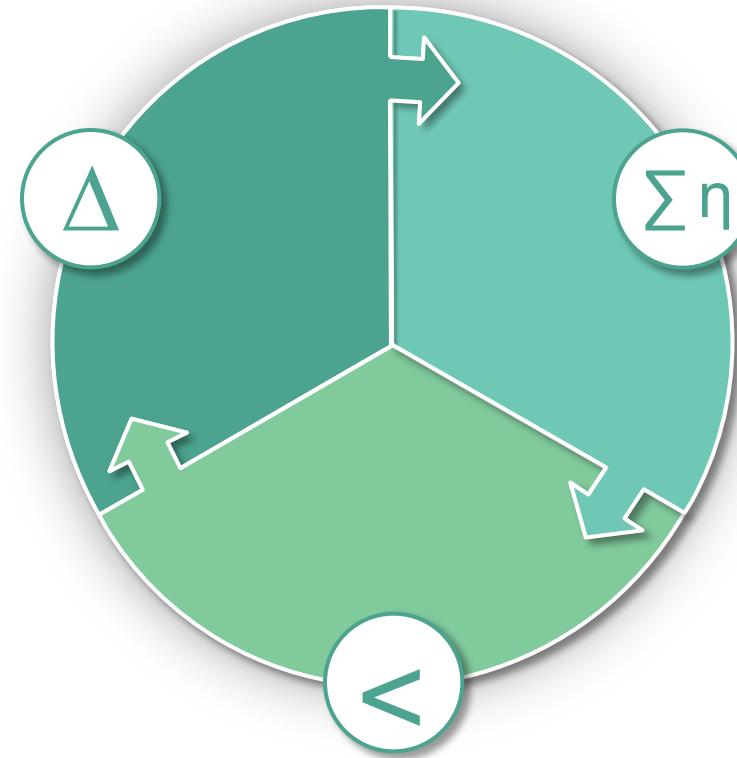
## Improvement measures "Best practice"

### Activities

- Members
- EU
- Swedish Transport adm.
- KNEG
- Closer

### Default data

- Air
- Rail
- Road
- Sea
- Nodes



**Evaluate performance measures  
(Tools for transport supplier evaluation)**

-NTME<sub>2</sub>cap

## Measure and assess performance

- NTMCalc

### Methods

- PCR/EPD
- EN 16 258
- GLEC
- Learn

### Data

- Air
- Rail
- Road
- Sea
- Nodes

### **Fuels & Electricity**

- HVO
- Electric mix
- Ethanol
- Methane
- FAME
- Diesel & Petrol

[www.transportmeasures.org](https://www.transportmeasures.org/en/)

The screenshot shows the homepage of the Network for Transport Measures (NTM) website. At the top, there's a navigation bar with links like "Home", "About NTM", "Our operational process", "Advisory Board", "Members", "Membership", "Projects & finances", "Partners", "Wikis", and "Contact". A "Log in" button is also present. Below the navigation, there are four main sections: "dissim" (with "NTM CALC" tool), "evaluate" (with "NTM ECAP" tool), "improve" (with "NTM BEST PRACTICES" tool), and "understand" (with "NTM METHODS" tool). A video player window is visible, showing a woman speaking. At the bottom, there's a toolbar with icons for various applications and a status bar indicating "125%", "Länkar SV", "10:51", and the date "2018-01-05".

## NTMCalc Advanced 4.0 Environmental Performance Calculator

Transports Report Support

Transport mode ?

Route ?

A Örebro, Sverige

B Göteborg, Sverige

Create Clear

Route distance 280.63 km

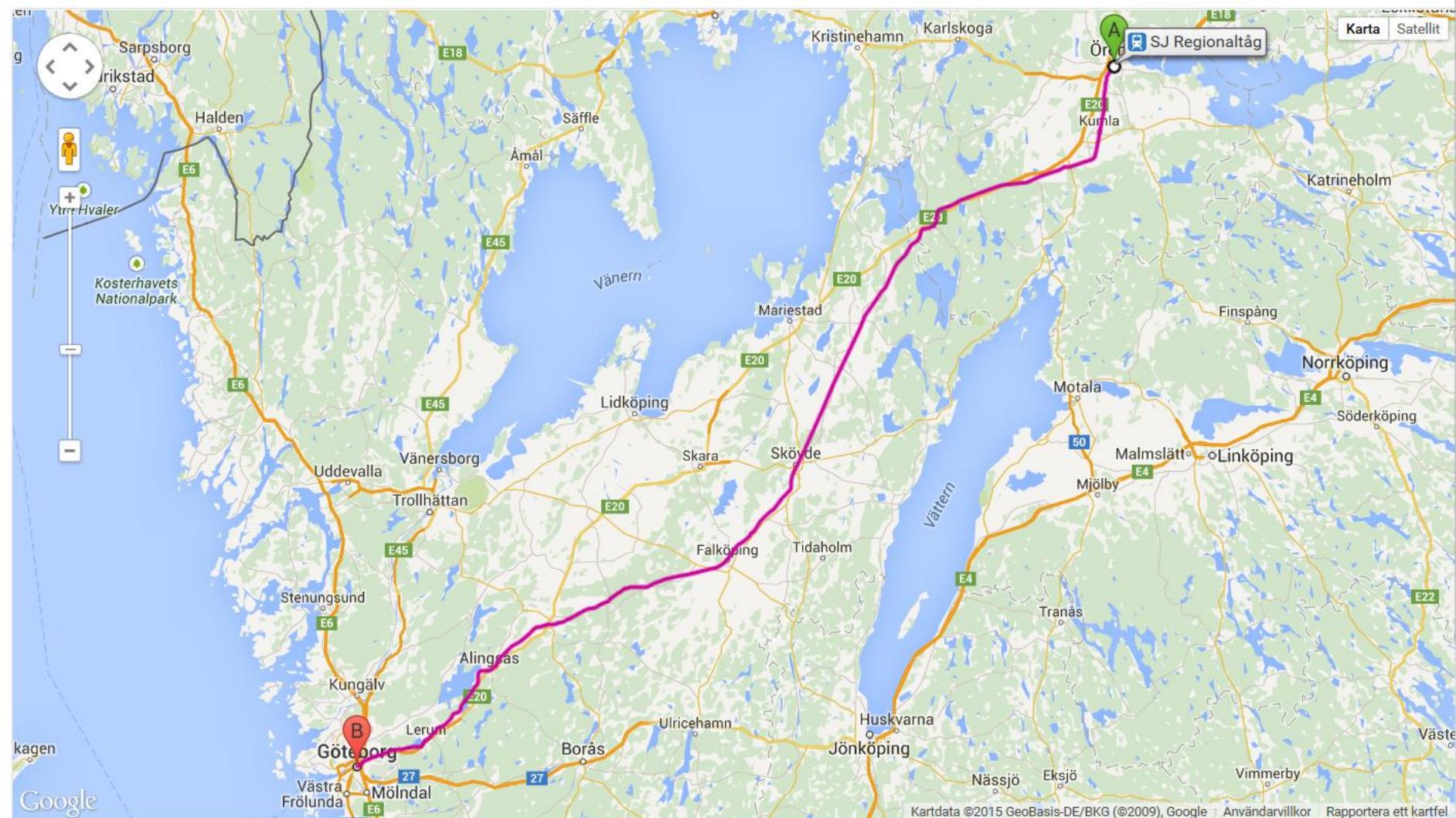
Display alternative route #1

Transport activities

Vehicle type

Electric cargo train

Add new Load from store



**NTMCalc Advanced 4.0** Environmental Performance Calculator

**Transport mode**

**Route**

A Örebro, Sverige  
B Göteborg, Sverige

Create Clear

Route distance 280.63 km

Display alternative route #1

**Transport activities**

Vehicle type Diesel cargo train

Add new Load from store

**Calculation model** Shipment transport - weight

**Cargo type** Average

**Train size** Medium

**Shipment weight** 10 tonne

**Distance** 280.63 km (min value > 0)

**Advanced parameters**

**Topography** Hilly

**Fuel** Diesel B0 - Swe

**Cargo load factor - weight** 60 %weight (min value > 0, max value ≤ 100)

**Empty positioning factor** 0.50

**Max payload:Gross weight ratio** 73 %weight (min value > 0, max value ≤ 100)

**Train weight** 1.000E3 tonne (min value > 0)

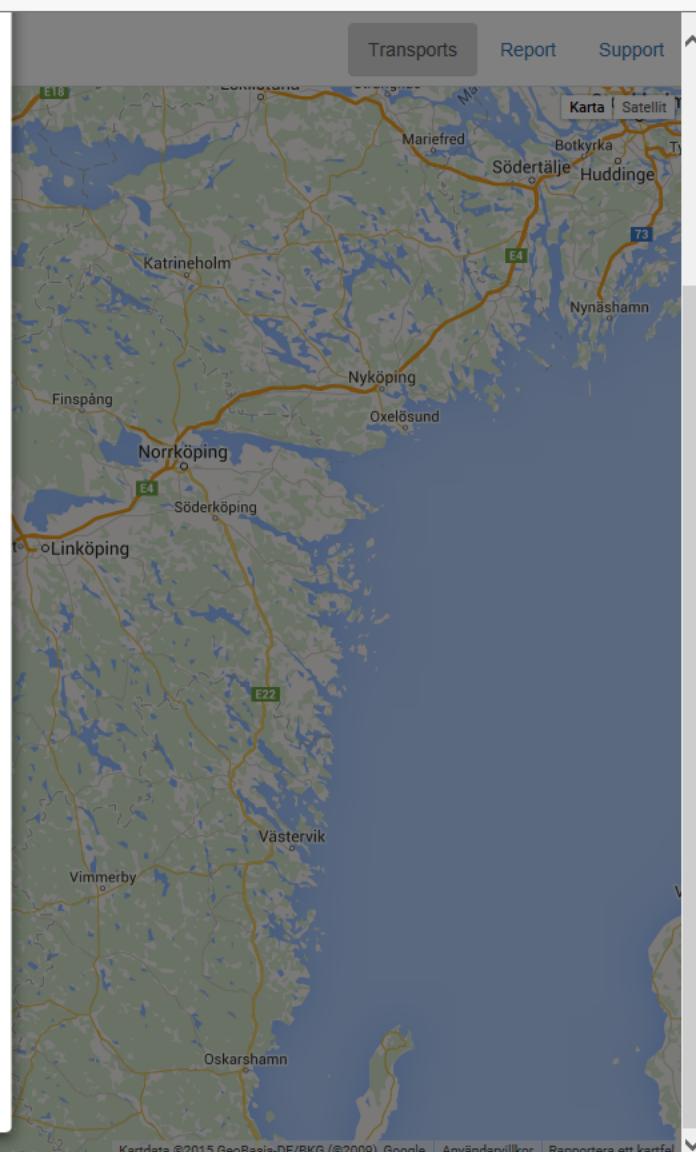
Calculate OK Cancel

Round to: 4 digits Display: Climate gases

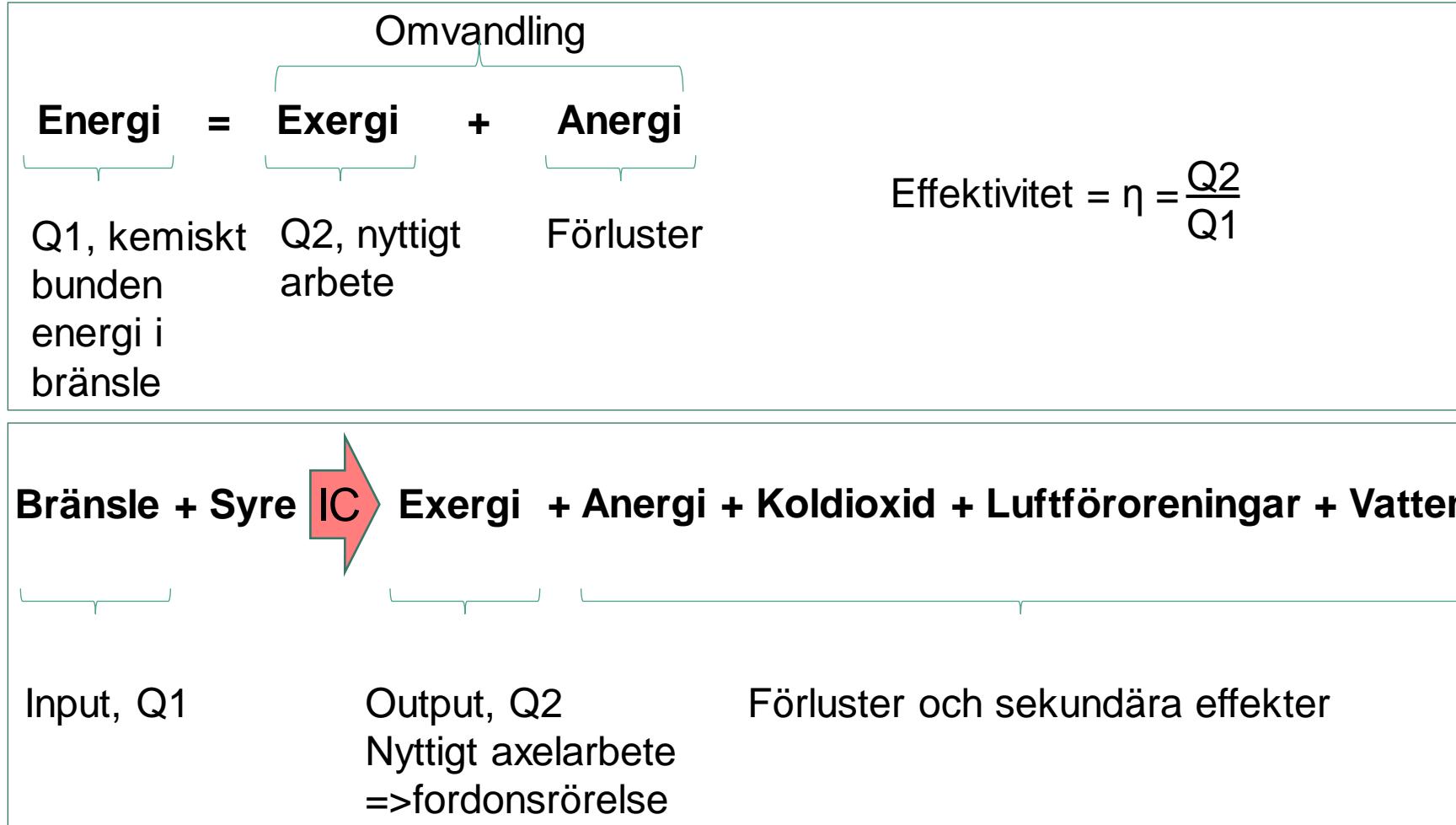
	CO2 total [kg]	CO2e [kg]	CH4 [g]	N2O [g]
Fuel (well to tank)	4.552	4.552	0	5.231
Vehicle (tank to wheel)	56.70	56.70	0	57.01
Total	61.25	61.25	0	62.24

Regulated emissions  
Energy & fuel  
All

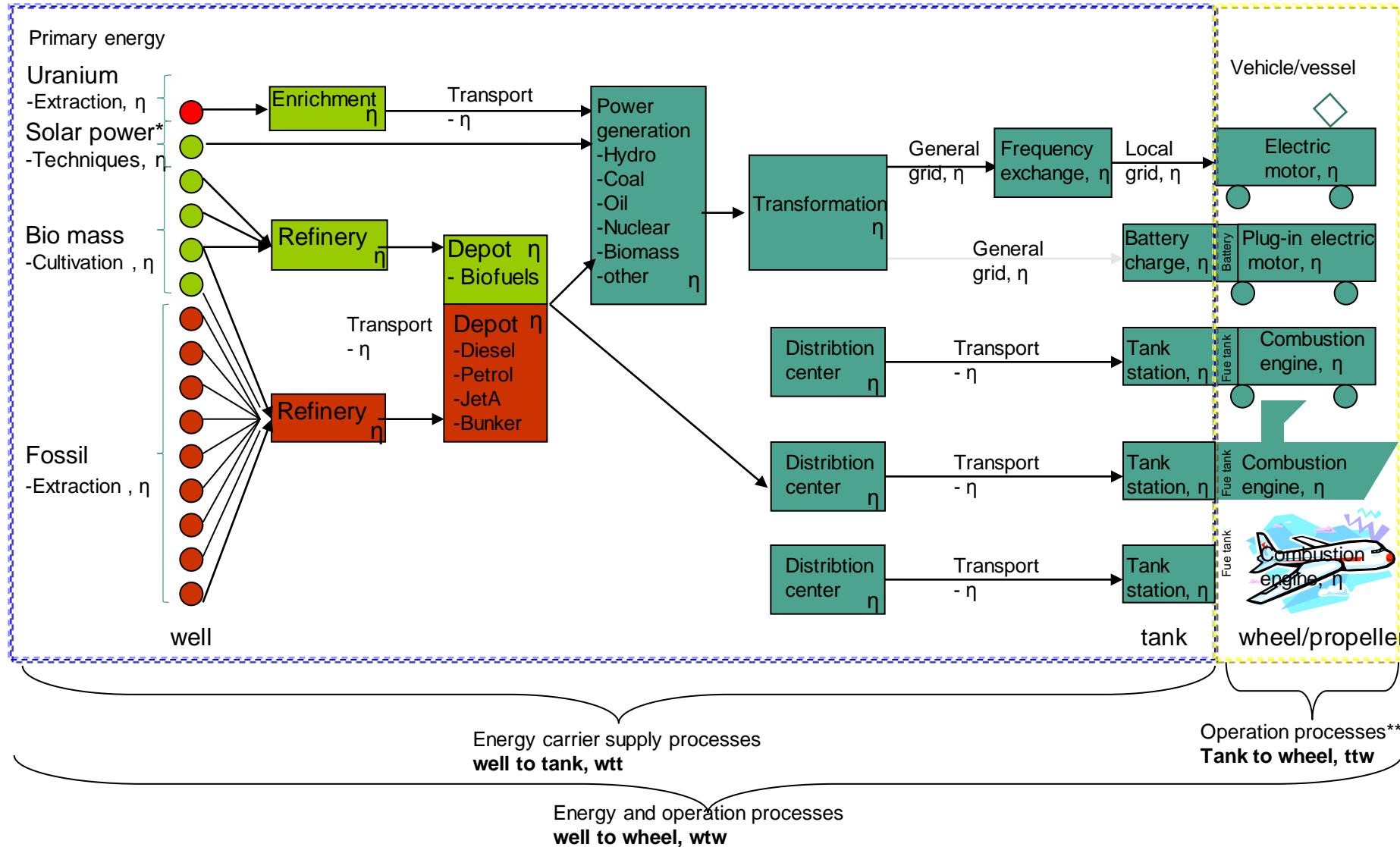
Givet angivna värden för lastfaktor och transportkapacitet så är utsläppen från 0.016 fordon tilldelade denna godstransport.



# Grundläggande kring miljö- och klimatpåverkan



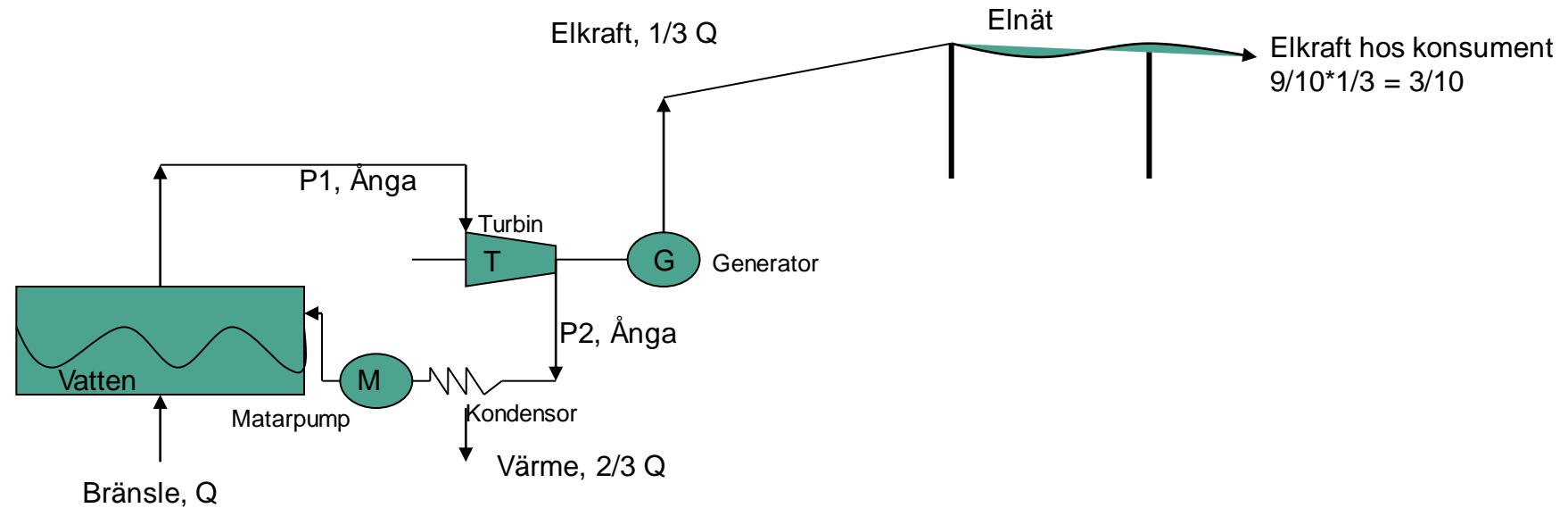
# Värdering av bränsleeffektivitet fordrar ett systemperspektiv



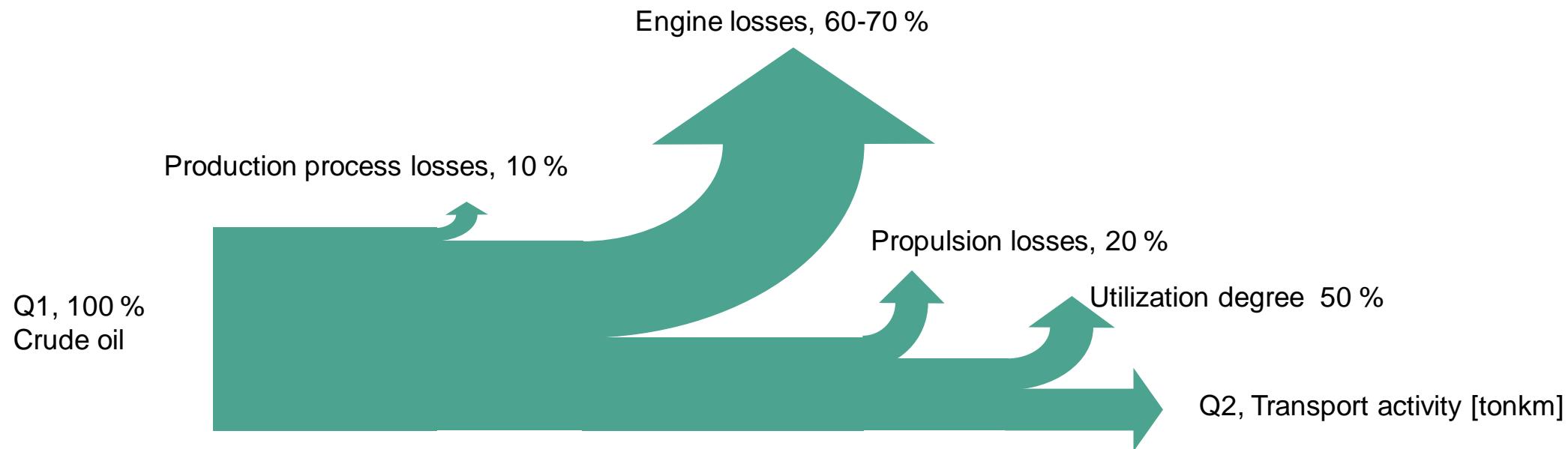
\* Includes Hydro/Wind/Photo voltaic and other transformation techniques

\*\* To be used for calculating locally effecting emissions from the direct proximity of vehicle/vessel or facility

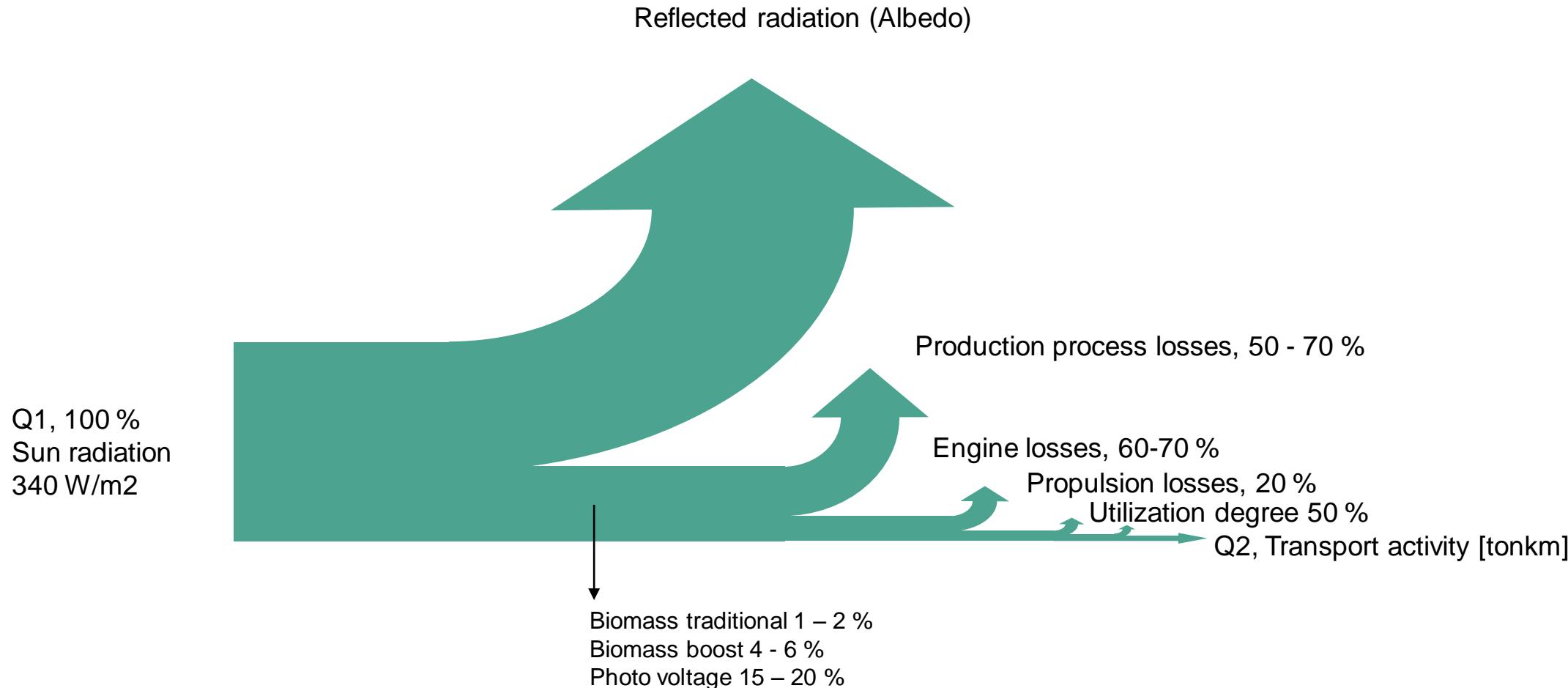
# Exempel: Verkningsgrad i elsystem



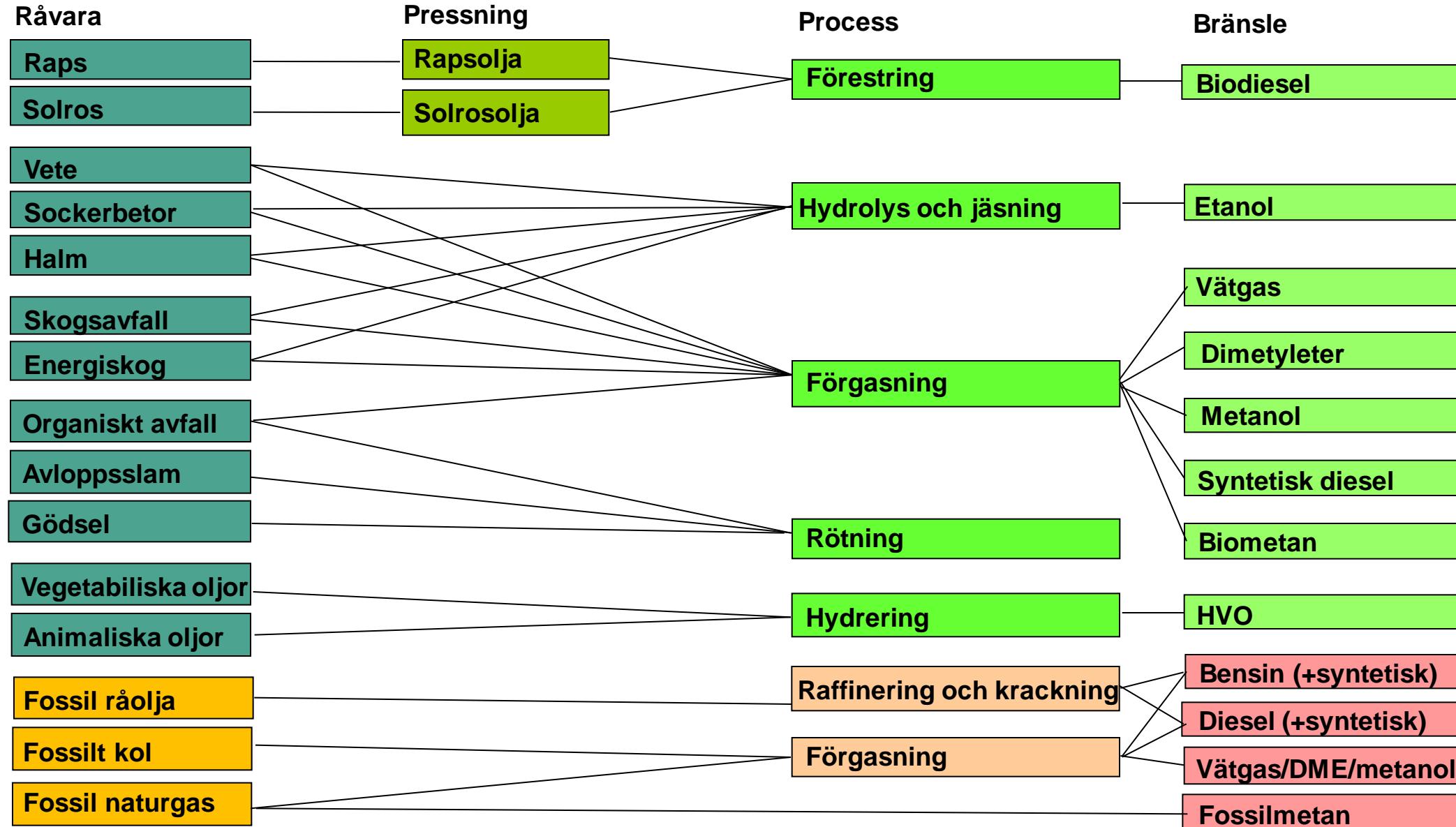
# Effektivitet från fossil primärenergi via energibärare (bränslen) till transportarbete



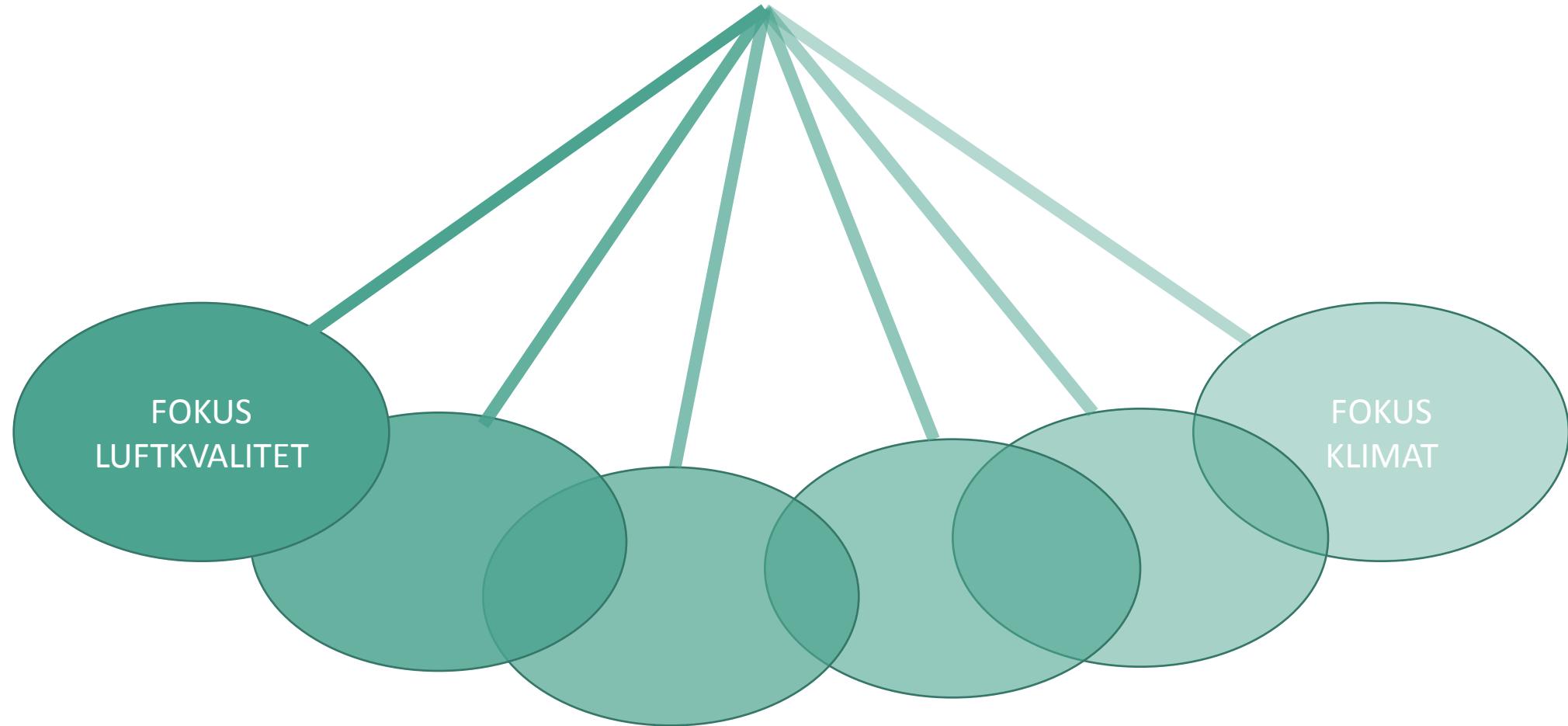
# Effektivitet från förnybar primärenergi via energibärare (bränslen) till transportarbete



# Från råvara till bränsle (under utveckling)



# Vad händer i vår omvärld?



# NTM utvecklar nu data för förnyelsebara drivmedel till NTMCalc

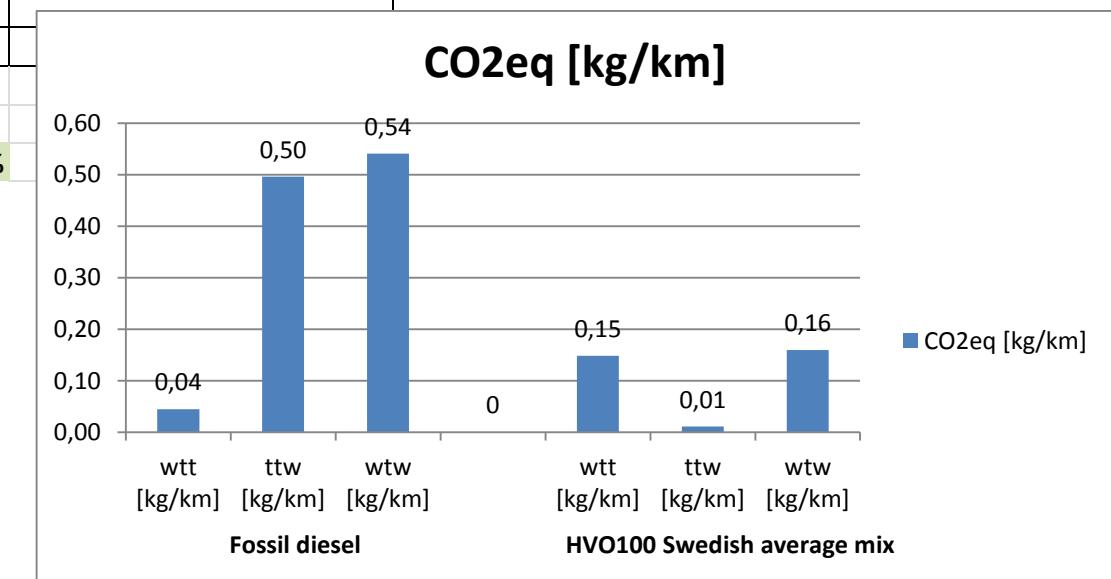
## Prioritering och genomförande

- HVO
- Elektricitet
- Metan/Etanol
- Metanol
- DME

## Exempel från HVO-sammanställning

Feed stock	Share	Comments
Rapeseed oil	13%	Includes corn, & soy and barley
PFAD (cut-off)	23%	
Tall oil (cut-off)	7%	
Slaughterhouse waste (cut-off)	19%	
Used cooking oil (cut-off)	38%	
HVO 100	100%	
<b>Reduktion WTW</b>	<b>-70%</b>	

## Uppdrag till IVL



Tack för er uppmärksamhet

Kontakt: [info@ntmcalc.org](mailto:info@ntmcalc.org)

Hemsida: [www.transportmeasures.org](http://www.transportmeasures.org)