NETWORK FOR TRANSPORT MEASURES
NTM

Towards 2043

Magnus Swahn

How long is 25 years?

Foto: Peter Nordahl

Konferens för miljön

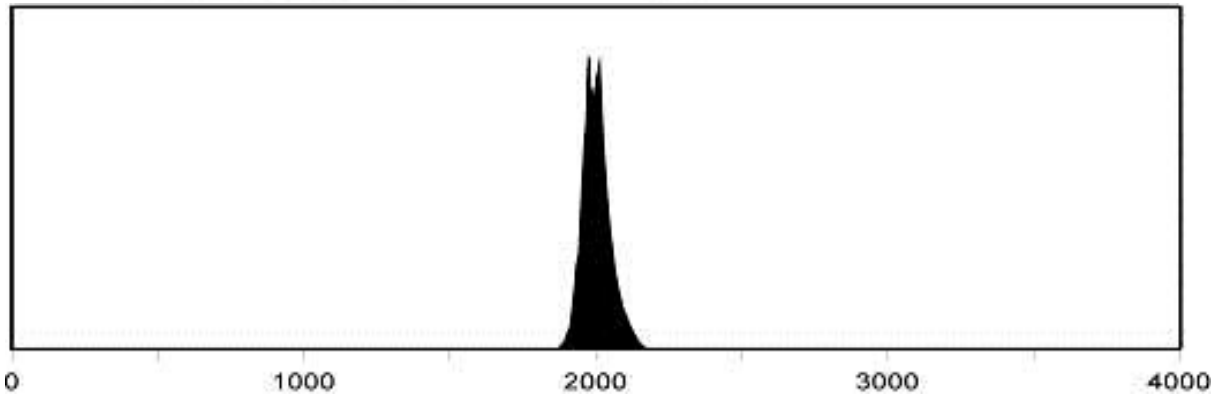
– Det är dags att vi lyfter oss ur symboldiskussionernas träsk och ägnar oss åt de faktiska miljöproblemen, sa kommunikationsminister Mats Odell på en konferens med temat "Godstransporter och miljö" som ägde rum tisdagen den 23 november.

Konferensen anordnades gemensamt av ASG, Bilspedtion, Sveriges Speditörförbund, Svenska åkeriförbundet, Sveriges Redareförening, SJ Gods och SAS Cargo. Under dagen belystes de olika transportslagens syn på miljöfrågorna samt även Kommunikationsdepartementets, Miljödepartementets och Det Naturliga Stegets åsikter om transporter och miljö. Som avslutning enades man om att skapa ett nätverk för transportsektorn på miljöområdet.

Åsa Lindell, Bilspedition, Mats Odell, kommunikationsminister och Magnus Swahn, ASG AB är överens om att miljöfrågorna är viktiga för transportsektorn.

Anna Granholm

Fossil oil use

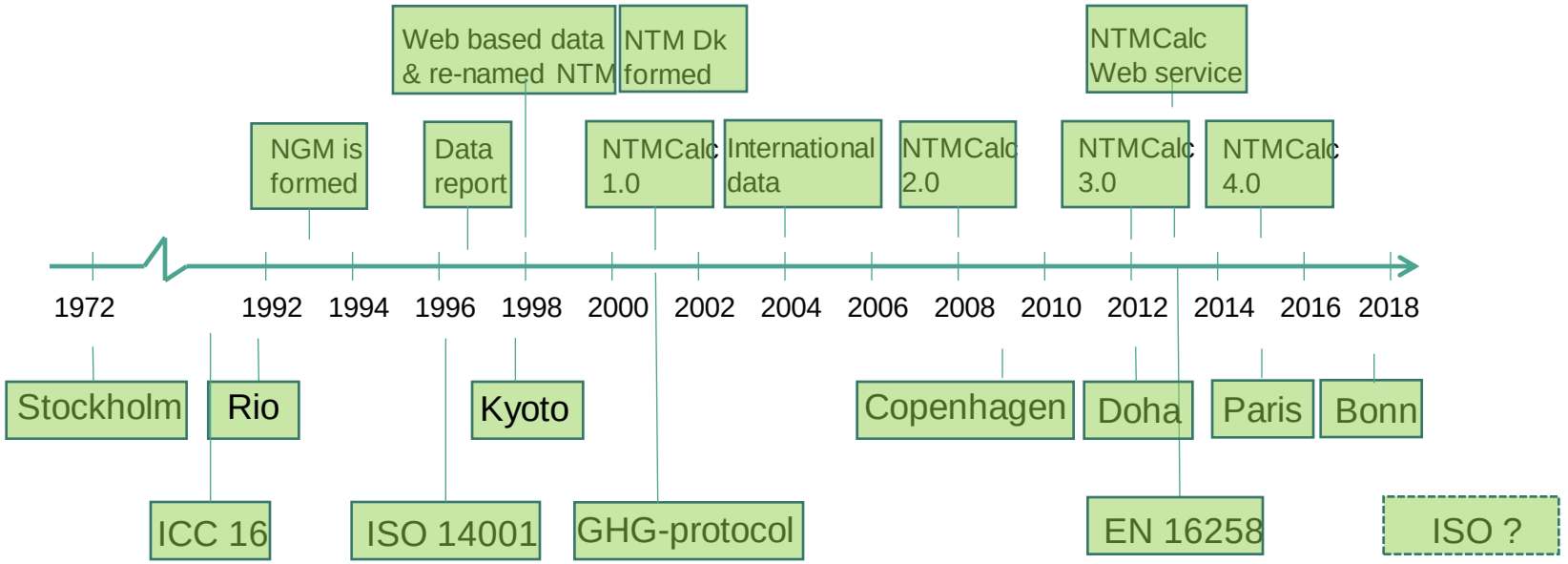


Our background and history

NTM initiatives

Societal initiatives

Standard initiatives

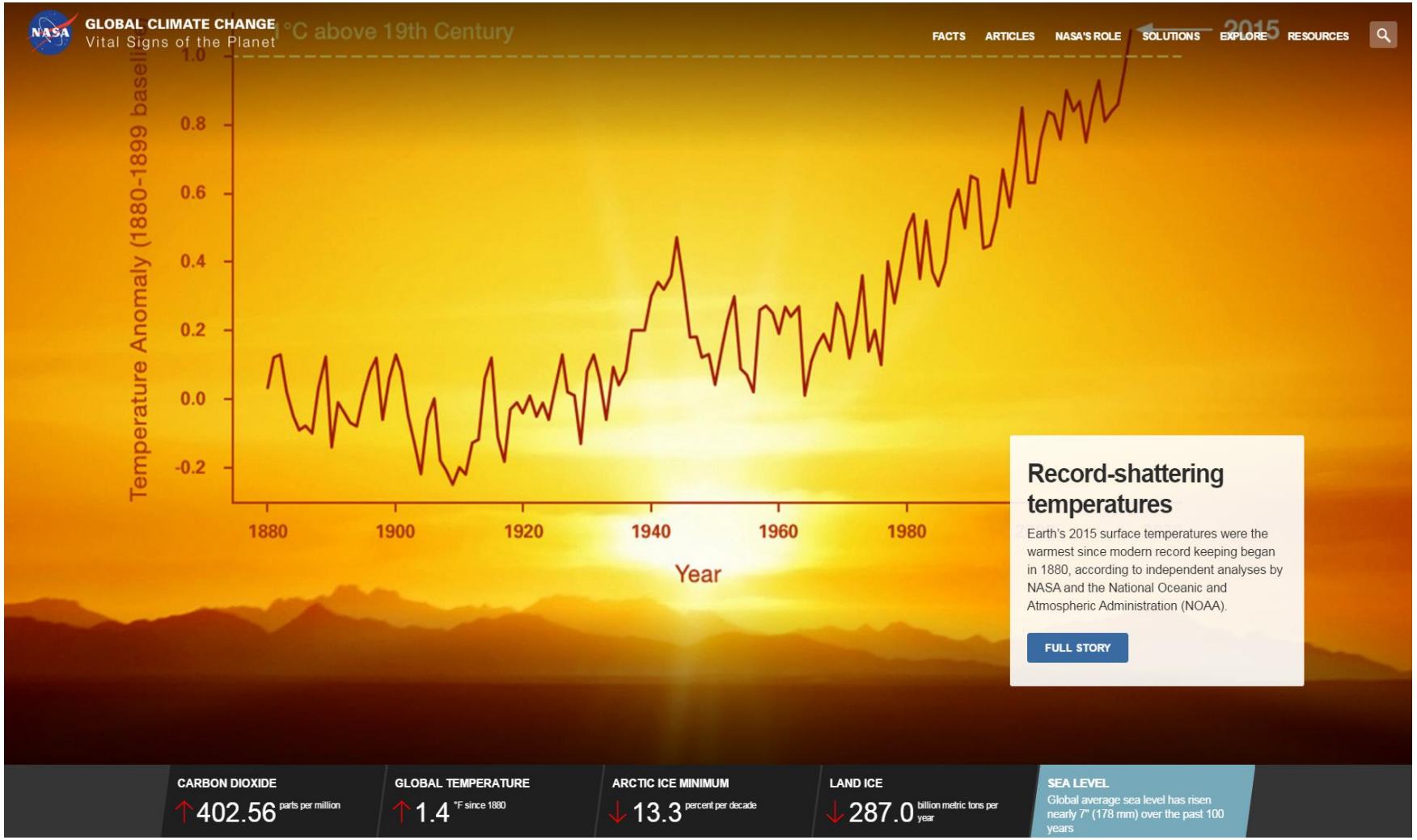


Air pollutants from transport

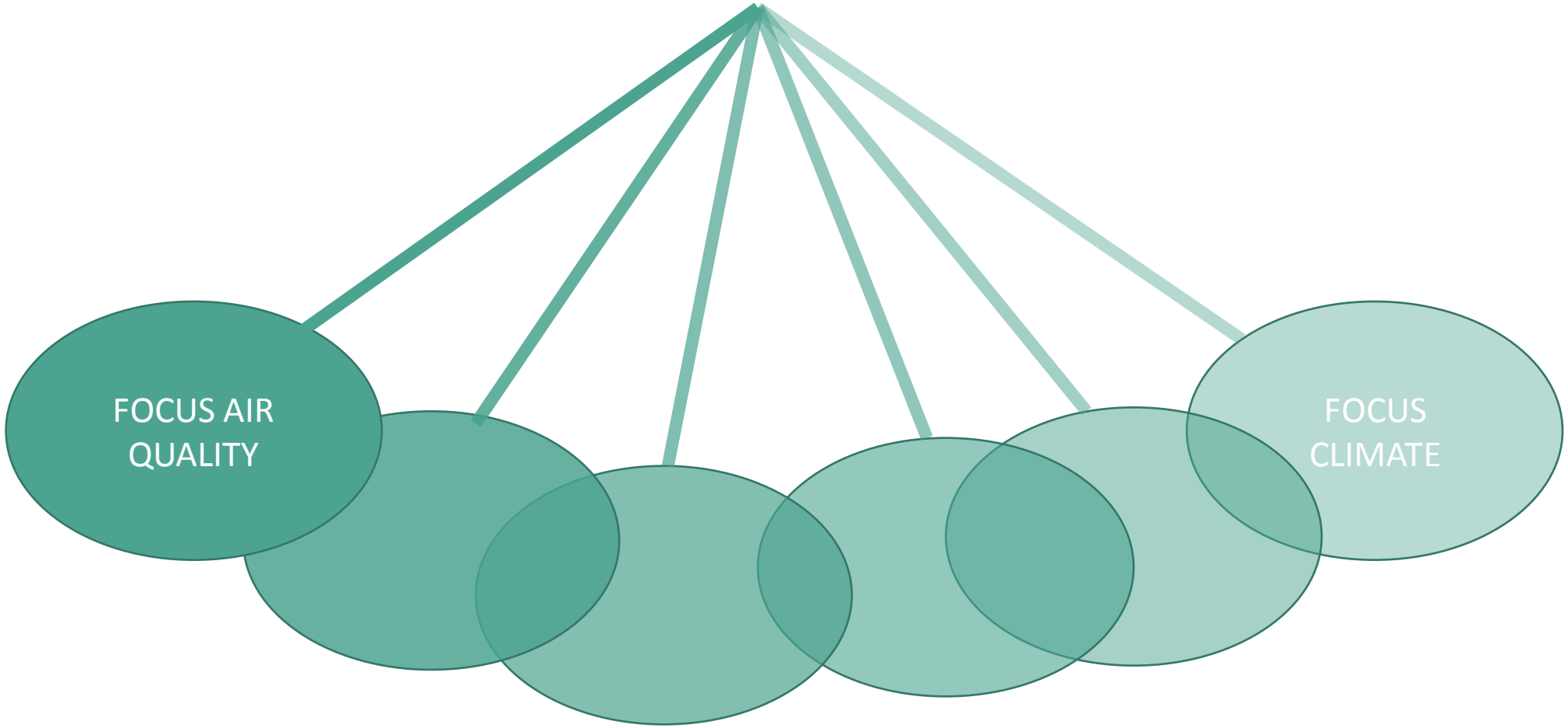
- Health
  - Nitrogen oxides (Nox)
  - Particulate Matters (OM)
  - Hydrocarbon (HC)
  - Noise
- Nature
  - Sulphur oxide (SO_2)
  - Waste

Measurement and monitoring air quality in Heidelberg, Germany (1993)

…but our major challenge is climate change

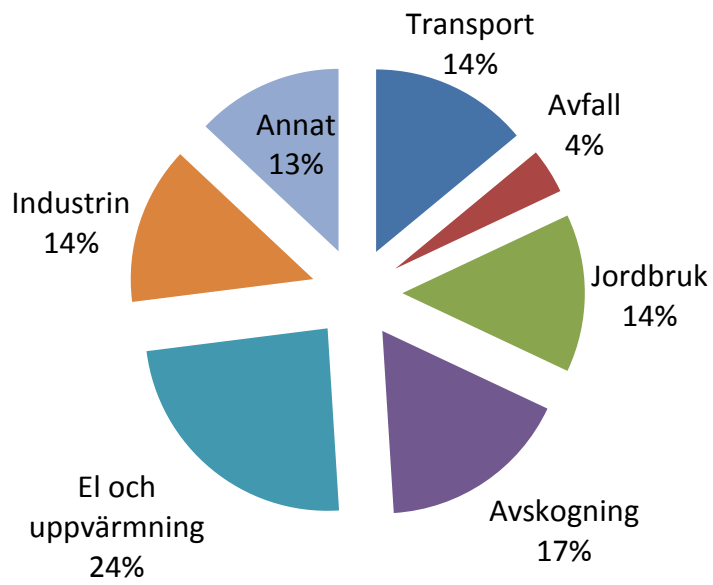


General progress

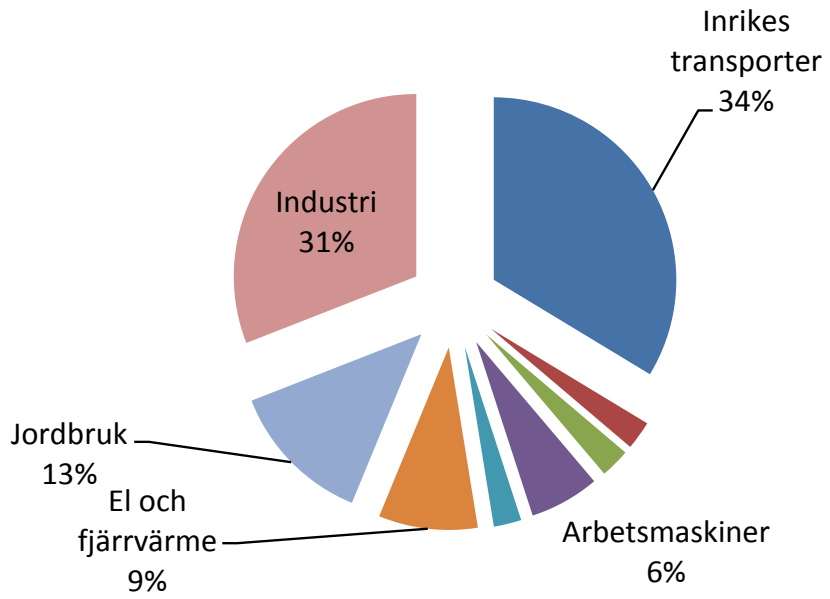


Transport and climate in Sweden

Globala utsläpp av växthusgaser



Svenska utsläpp av växthusgaser

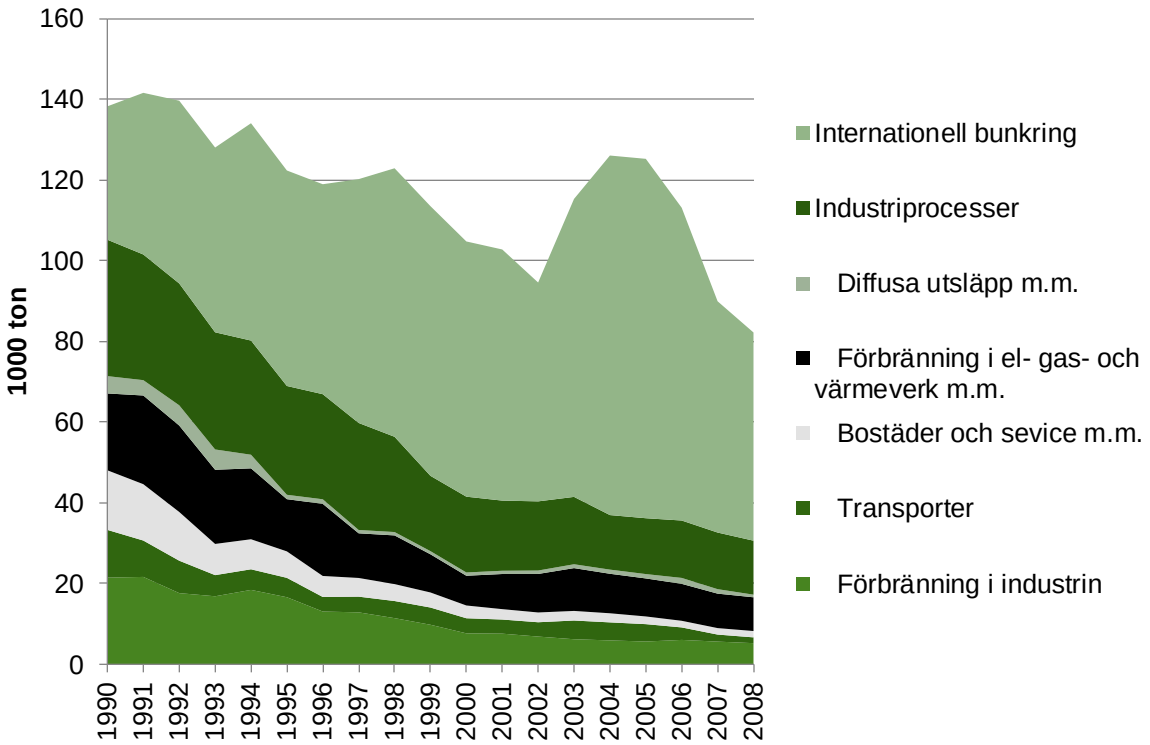


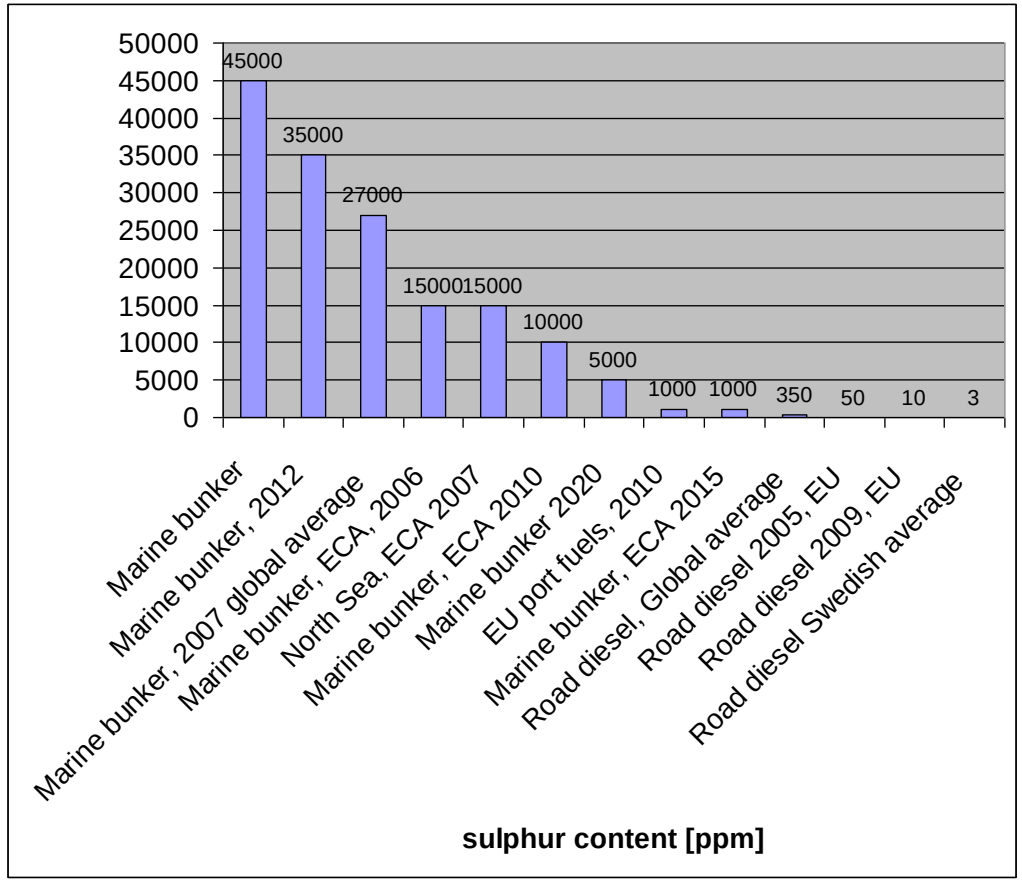
EU: Transport > 20 %

Including international transport (air &sea). Transport GHG 43%

Passenger cars approximately 60 % and **goods transport 40%**

Acidification (sulphur oxide, SO_2)

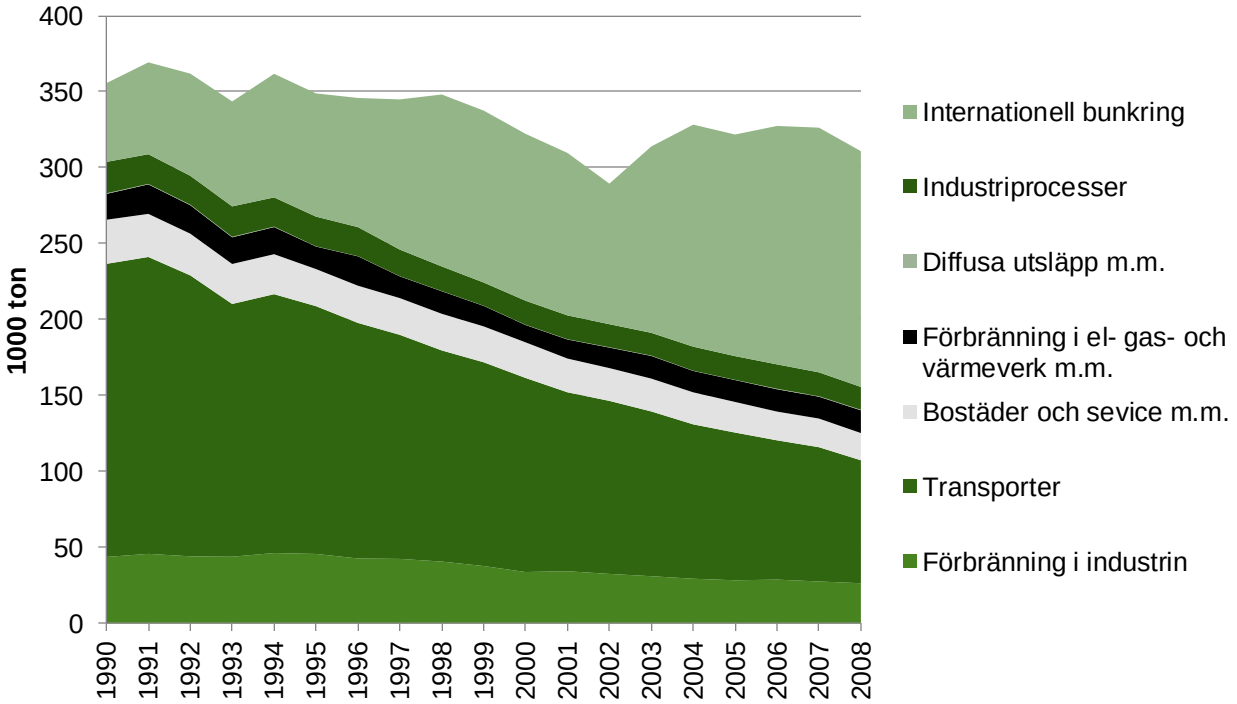


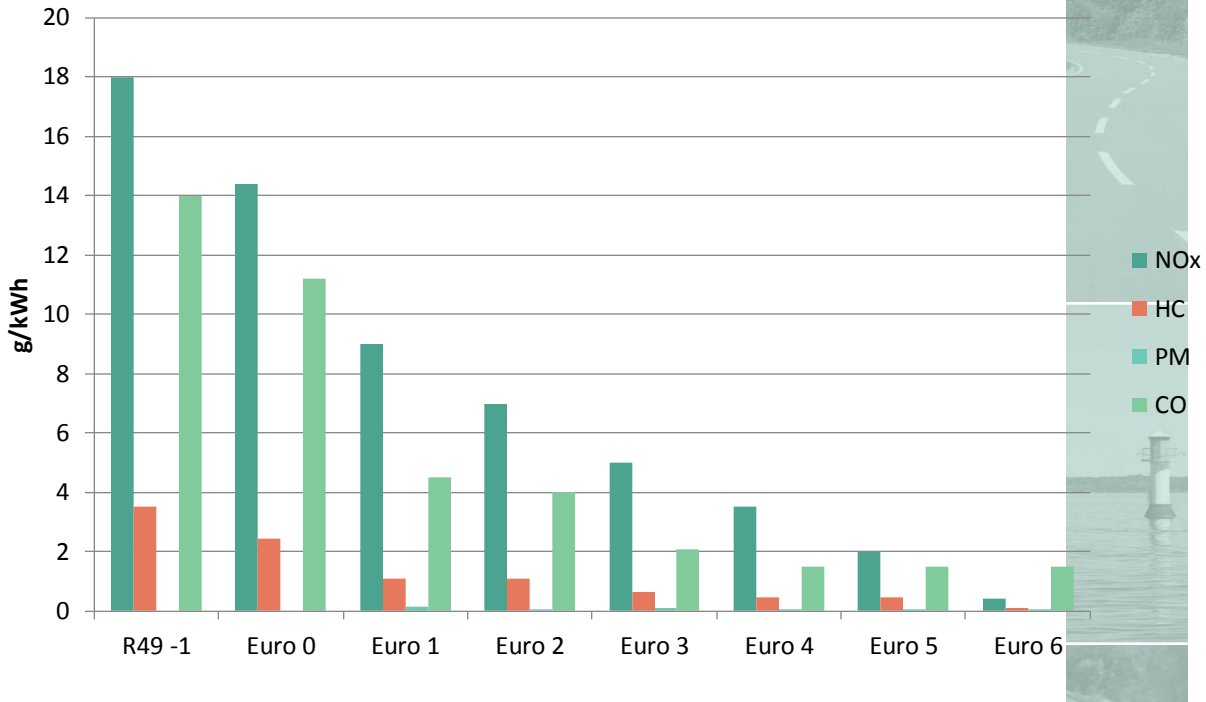


Road : SE < 10 ppm (Mk1), 1991
EU < 10 ppm, 2009

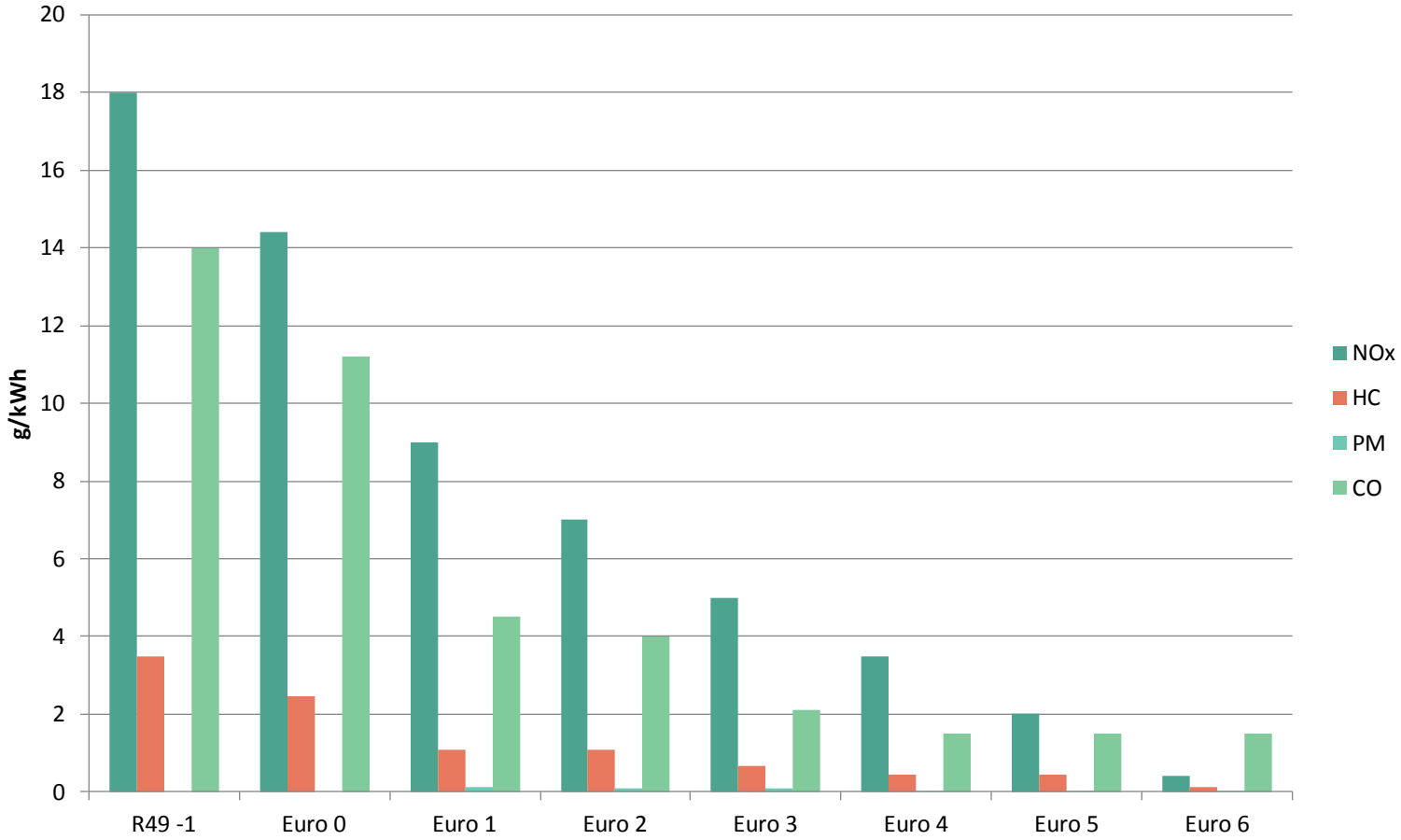
Sea: SECA < 1000, 2015

Over fertilization (nitrogen oxides, NOx)



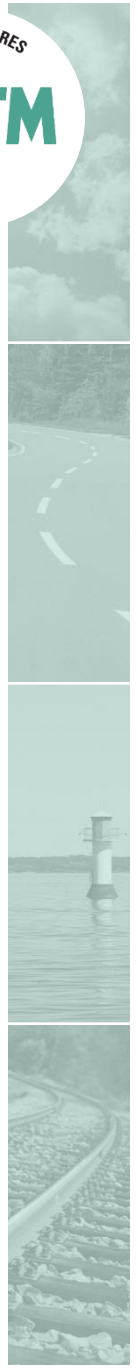


Ground level ozone, (hydro carbons HC) - HDV

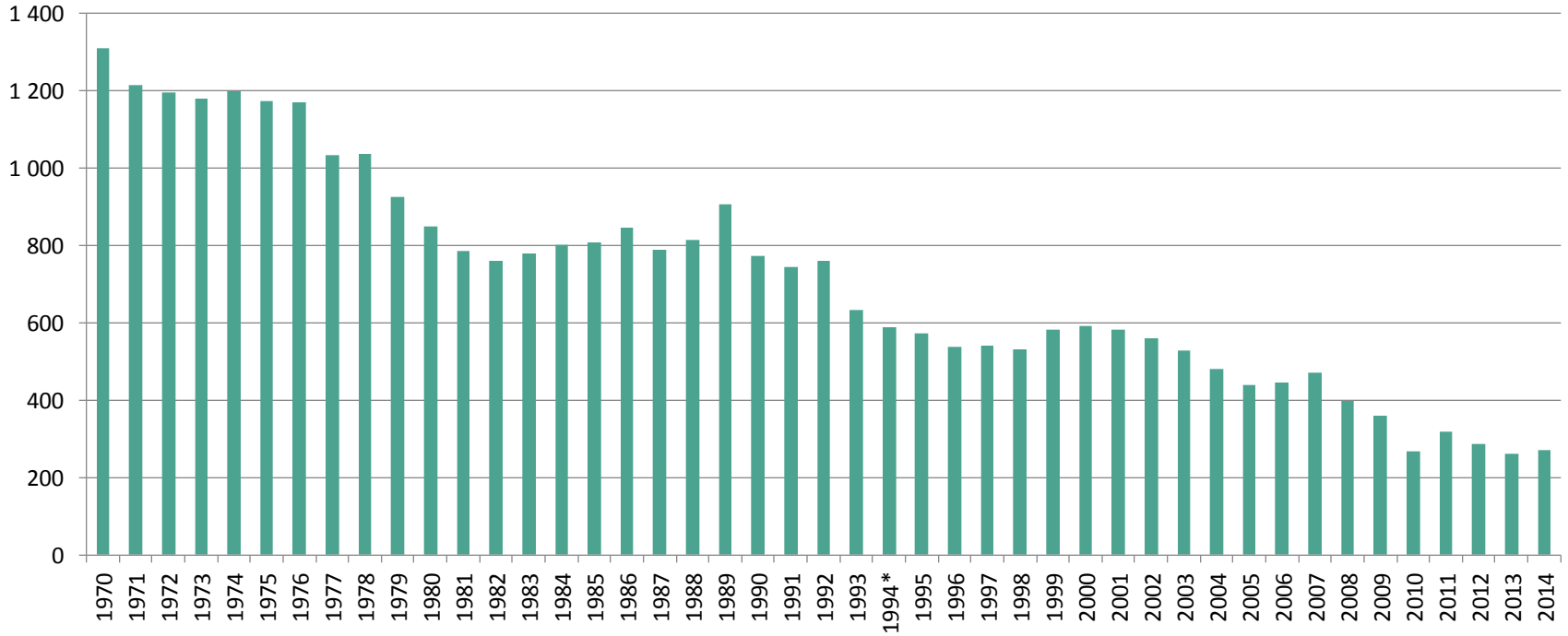


Ozone layer

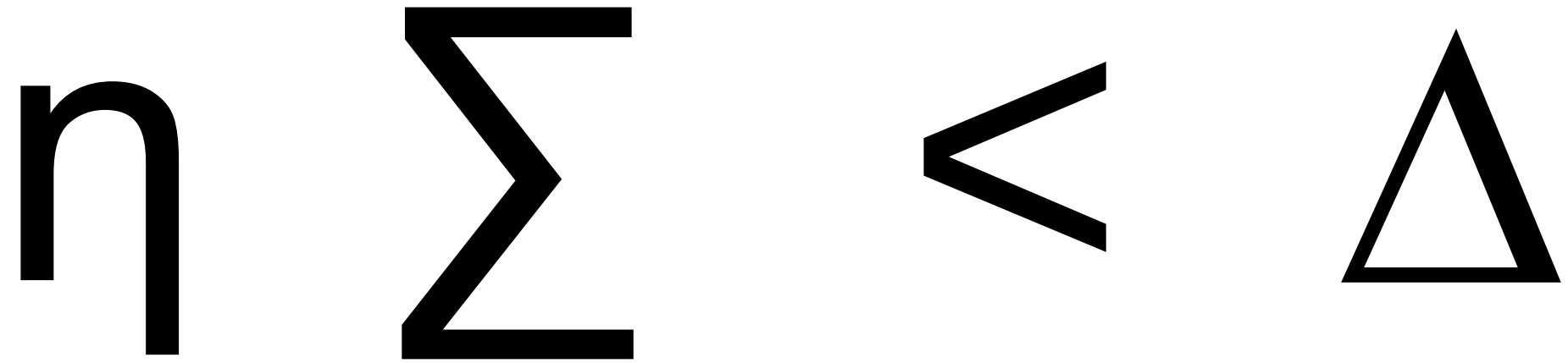
- Montreal protocol 1987
- Montreal protocol 1990
- Montreal protocol 1992
- Montreal protocol 2007
- Recovered by 2070 according to NASA…
- **Montreal** protocol **2016 och HFC**



Traffic safety
- Fatalities in Sweden



Pilllars for change…



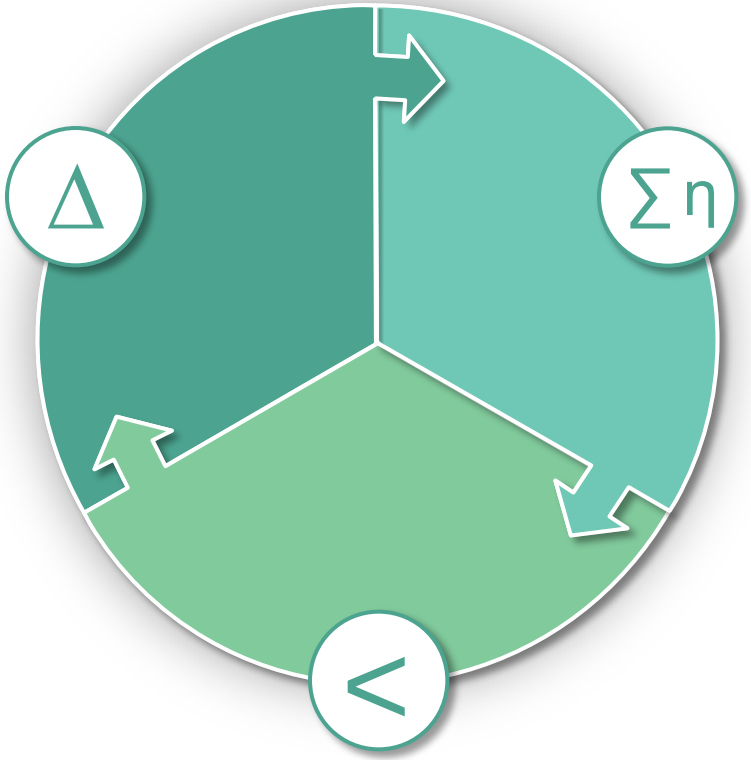
NTM provides:
- support for continuous transport improvement

Improvement measures

”Best practice”

<u>Activities</u>
Members
EU
Swedish Transport adm.
KNEG
Closer

<u>Default data</u>
Air
Rail
Road
Sea
Nodes



Evaluate performance measures
(Tools for transport supplier evaluation)

-NTM*E*$_2$*cap*

Measure and assess performance

- NTM*Calc*

Methods
PCR/EPD
EN 16 258
GLEC
Learn

<u>Data</u>
Air
Rail
Road
Sea
Nodes
Fuels & Electricity
- **HVO**
- Electric mix
- Ethanol
- Methane
- FAME
- Diesel & Petrol

NTMCalc Advanced 4.0

Environmental Performance Calculator

Transport mode

Avoid ferry routes

Route

A Enter start point

B Enter end point

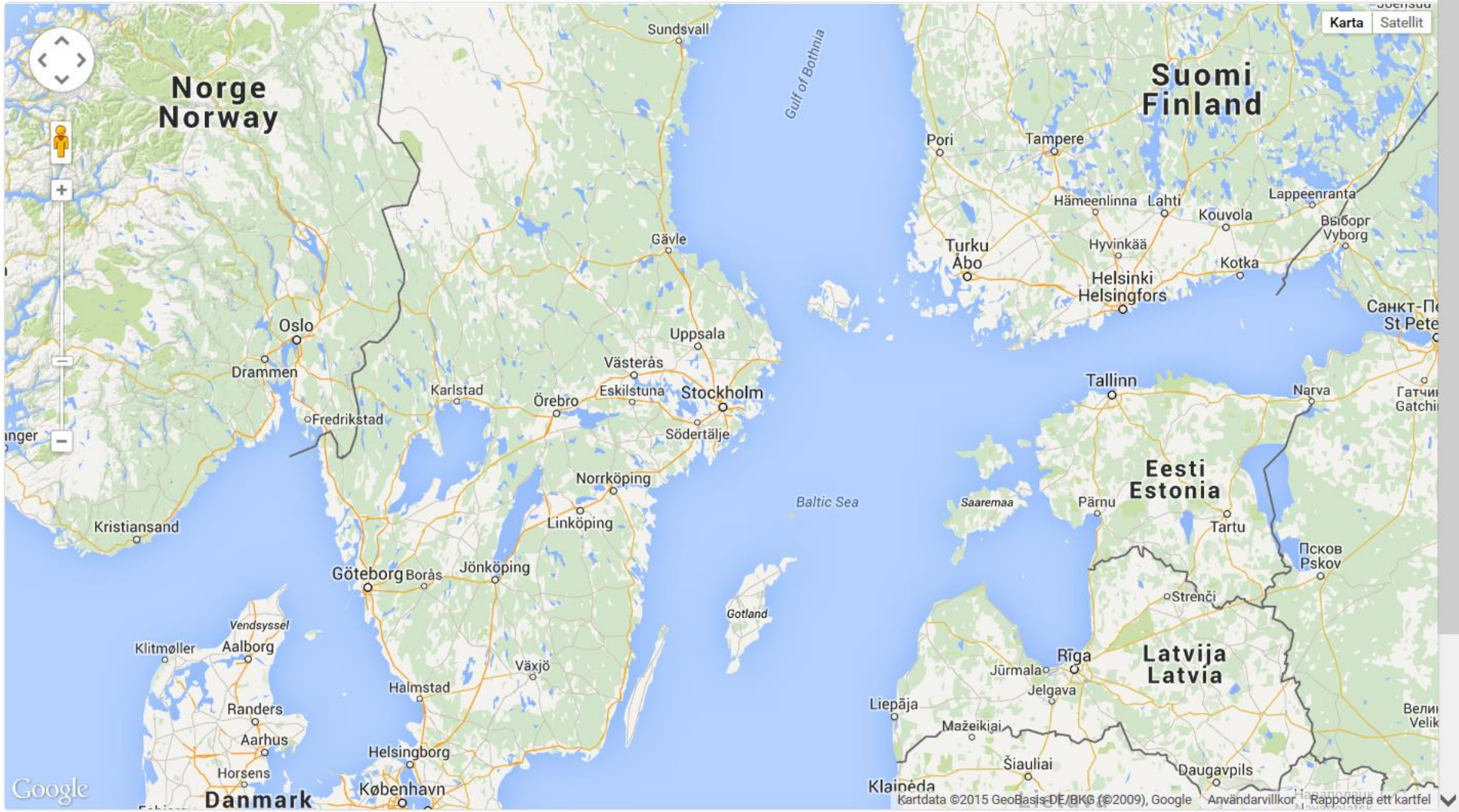
Create | Clear | More

Transport activities

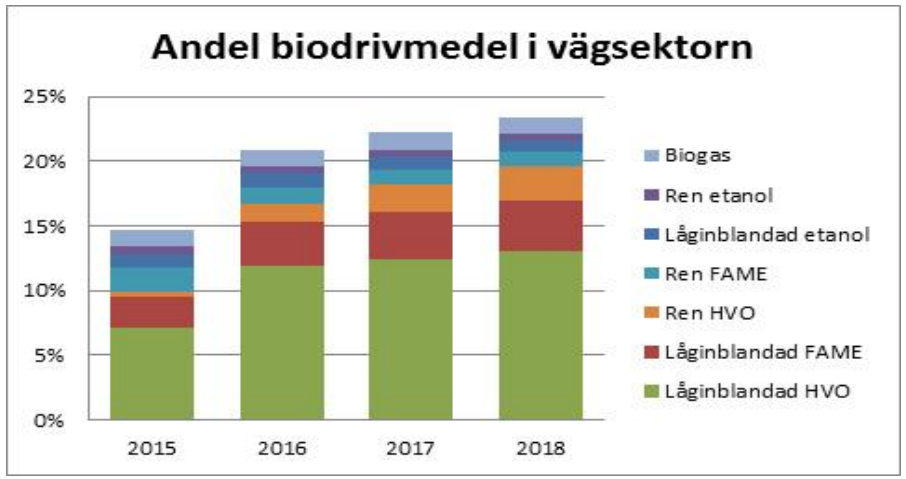
Vehicle type

Rigid truck 12-14 t

Add new | Load from store

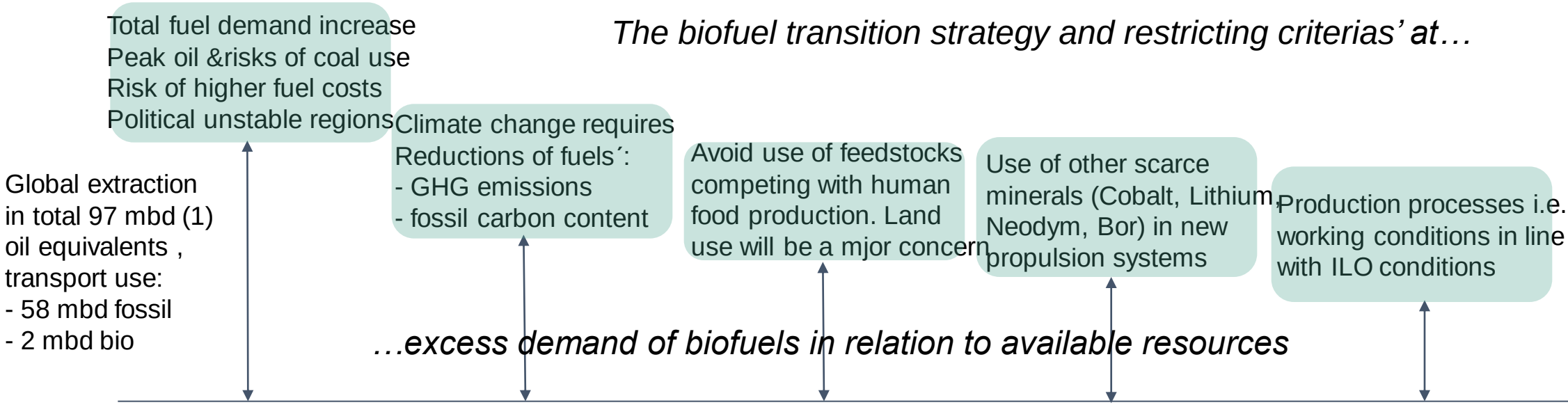


Transport progress



”Back in the day, 100 years way back in the day, alternative fuel meant anything that wasn’t fed to a horse” Leslie Kendall

Phase out finite fuels & electricity delimitations



1) million barrels per day

Source: Conlogic

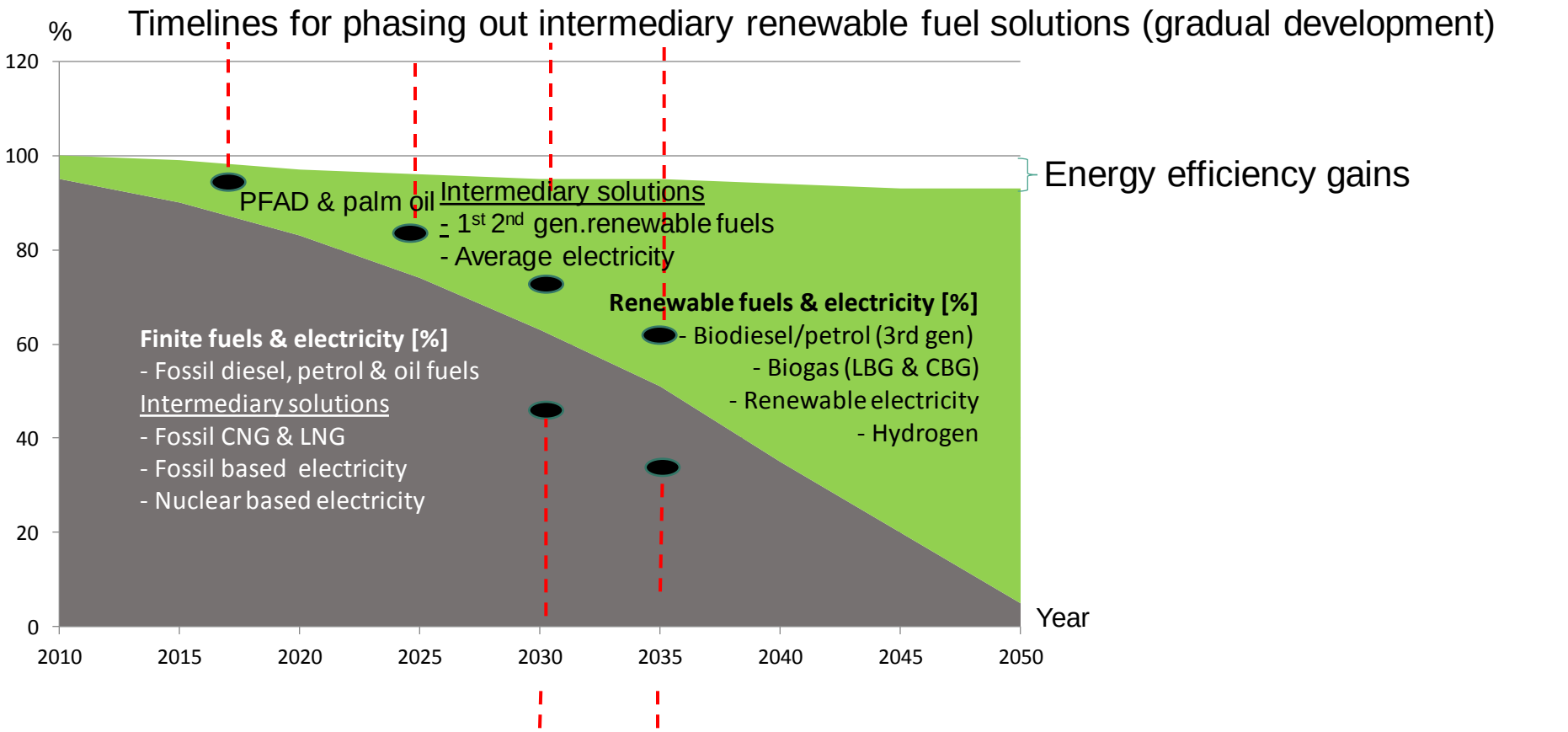
Sweden towards 2030?

Drivmedel och el	2016 [TWh]	%	2030 [TWh]		Kommentar
Bensin	29	30%	7,8	8%	Ersatt av biogas samt el, 40% inblandning av etanol
Diesel	43	45%	21	22%	Ersatt av biodiesel samt el, 40 % inblandning av främst HVO
Etanol	1,3	1%	7,2	7%	Ökning som inblandning i bensin. EUs regelverk kan begränsa
Biodiesel	14,51	15%	34	35%	Enligt kommande reduktionsplikt från 30 % till 40 %
Naturgas	0,43	0%	1	1%	Finns eventuelltkvar av ekonomiska eller andra skäl
Biogas	1,15	1%	10	10%	Biogasstrategi anger 12 för transport
El	3,15	3%	12,6	13%	Enkelt beräknat som fyrfaldigat
Flygbränsle	2,16	2%	2,16	2%	Ej studerat, men ökar sannolikt
Eo1	0,39	0%	0,39	0%	Eldningsolja ej studerat
Eo2	0,05	0%	0,05	0%	"
Inrikes totalt	95,14		96,2		
Utrikes sjöfart	23,4				Ej inkluderat
Flygbränsle utrikes	10				"
Totalt	128,54				
Med detta scenario samt under antagandet att ökande andel el kommer från förnybart: 66% förnybara källor					
Notera att utrikes sjö och flyg inte ingår i dettta					
Finite fuels				34%	
Renewable fuels				66%	

Source:Conlogic

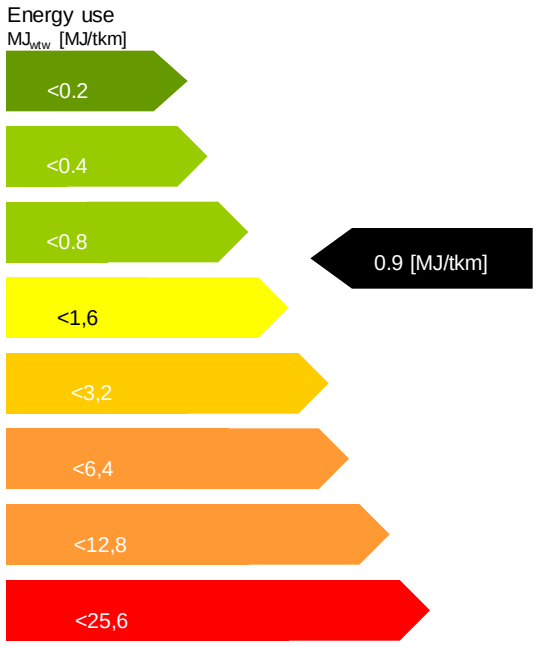
Towards 2045

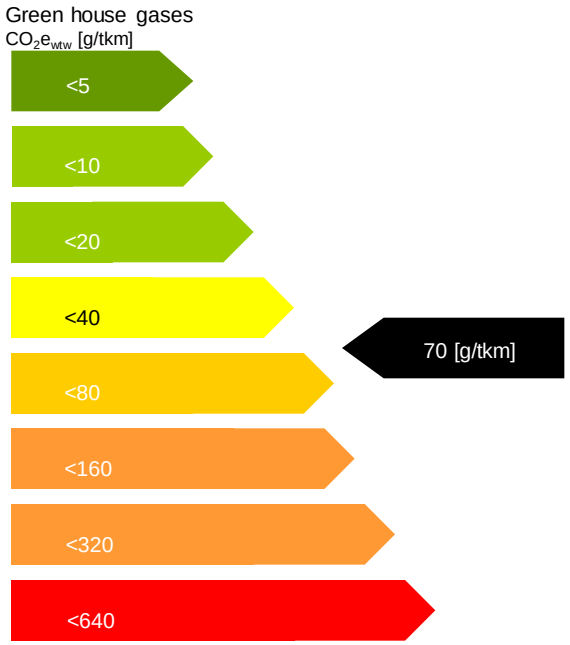
- Phase out finite fuels & electricity from finite source



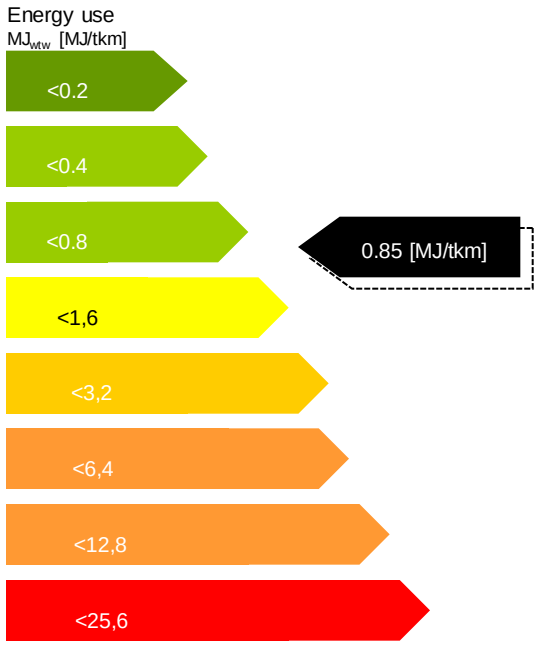
Source: Conlogic

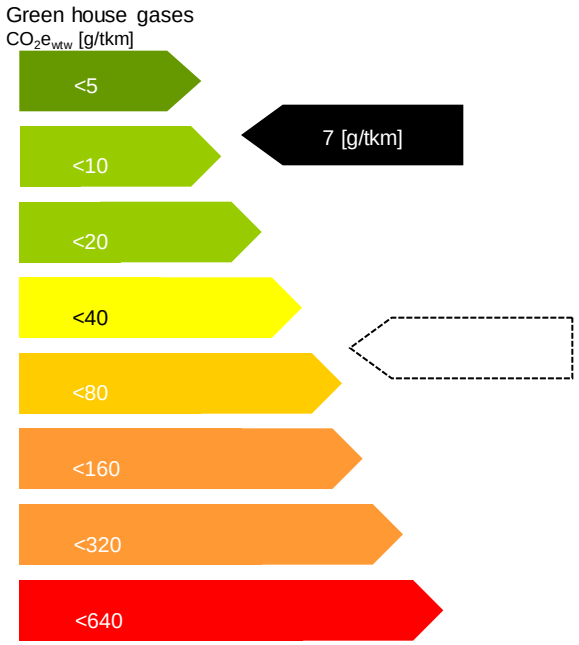
Present solution - NTME_2cap



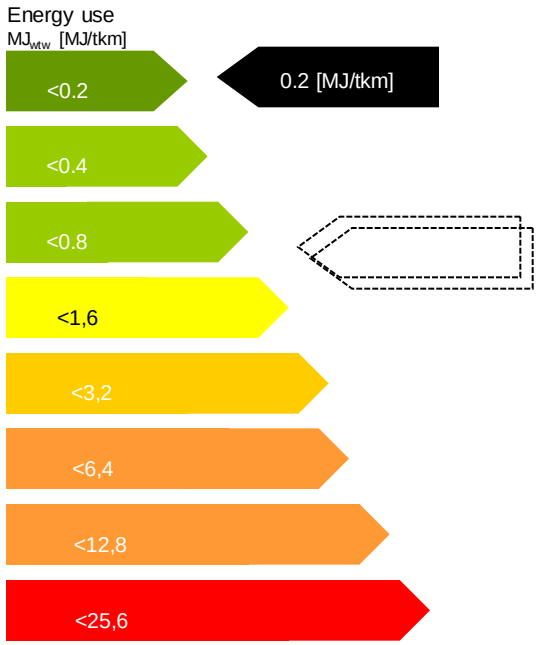


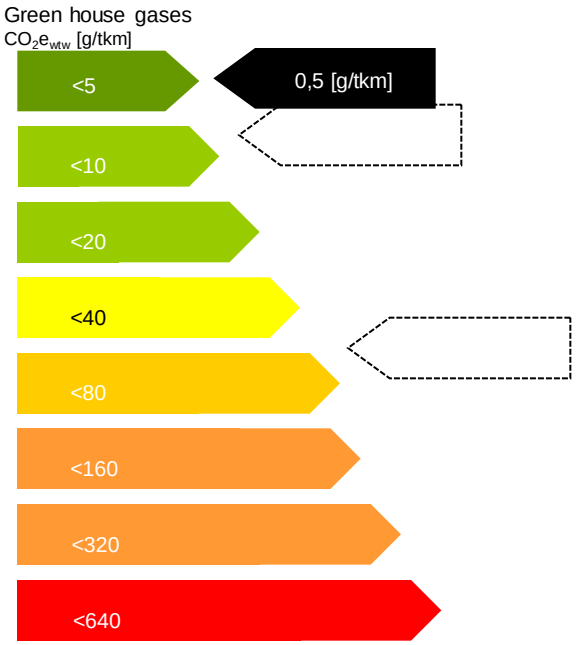
Increasing transport efficiency and using biofuels - NTM*E$_2$cap*





Transport efficiency, biofuels and electrified solutions - NTM*E$_2$cap*





Future transport development is driven by reduction of GHG emissions and use of fossil fuels

Hyper loop illustration

Starship illustration

Hydrogen aircraft illustration

Autonomous ship illustration

Volvo Vera illustration

www.transportmeasures.org