

# SUMMETH

Sustainable Marine Methanol



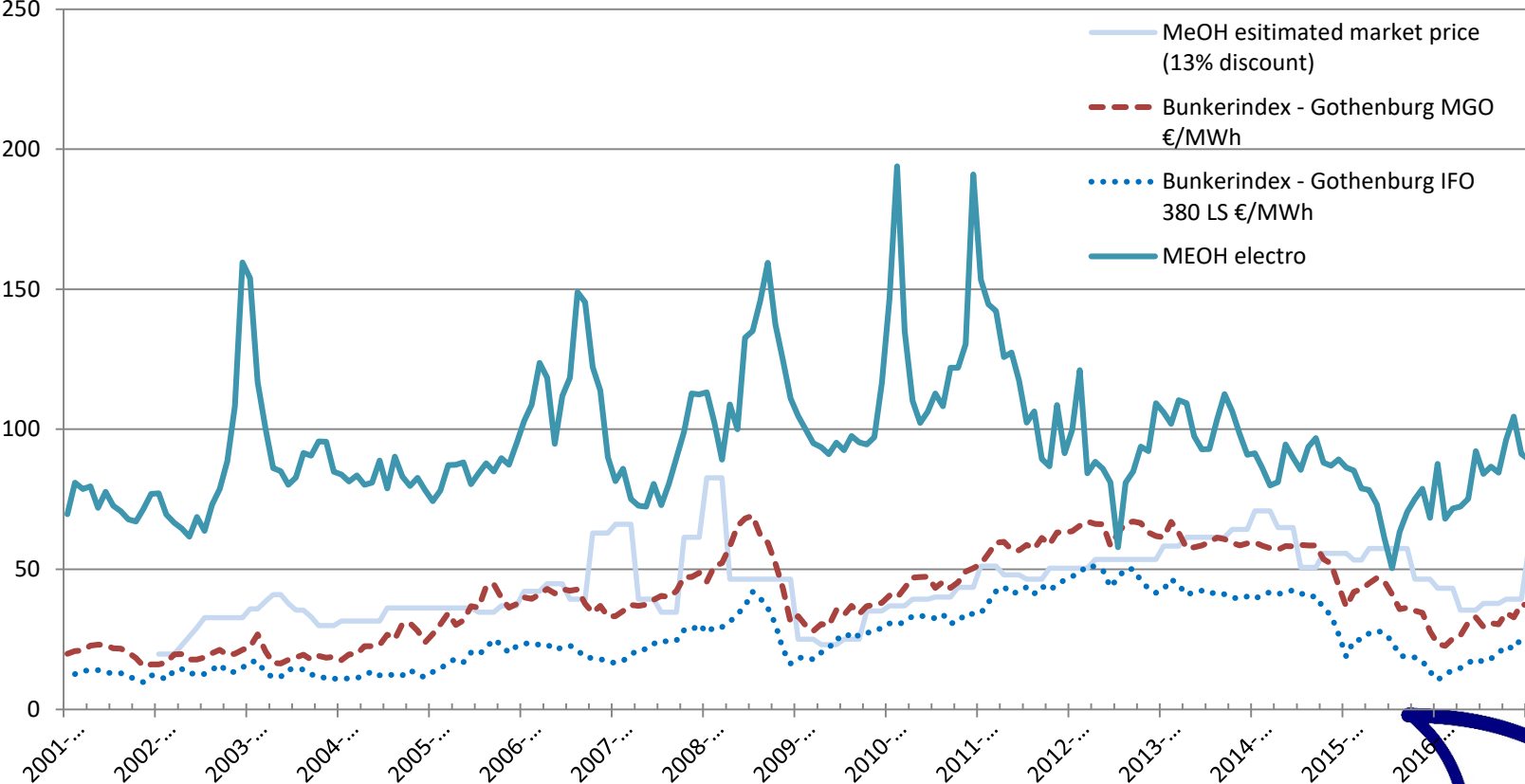
Wrap up & end of day discussion  
Bengt Ramne

# SUSTAINABLE SHIPPING

- Reduce CO2 emission by 70% to 2030
- Fossil free by 2045
- Can we do it?
- How do we do it?
- Can we afford it?
- How can we get this started?



# Fuel price €/MWh



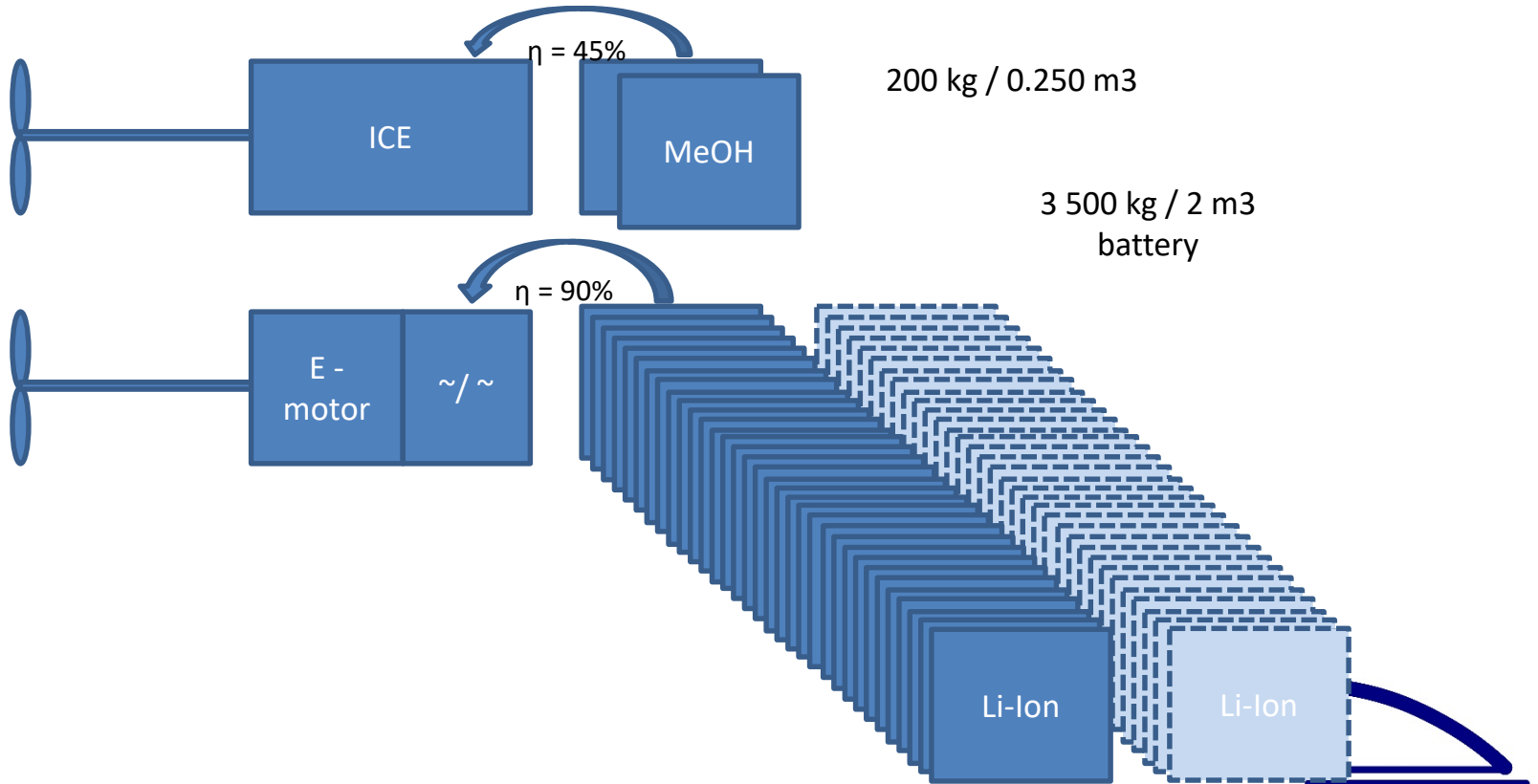
ScandiNAOS AB

# PATH TO FOSSIL FREE SHIPPING

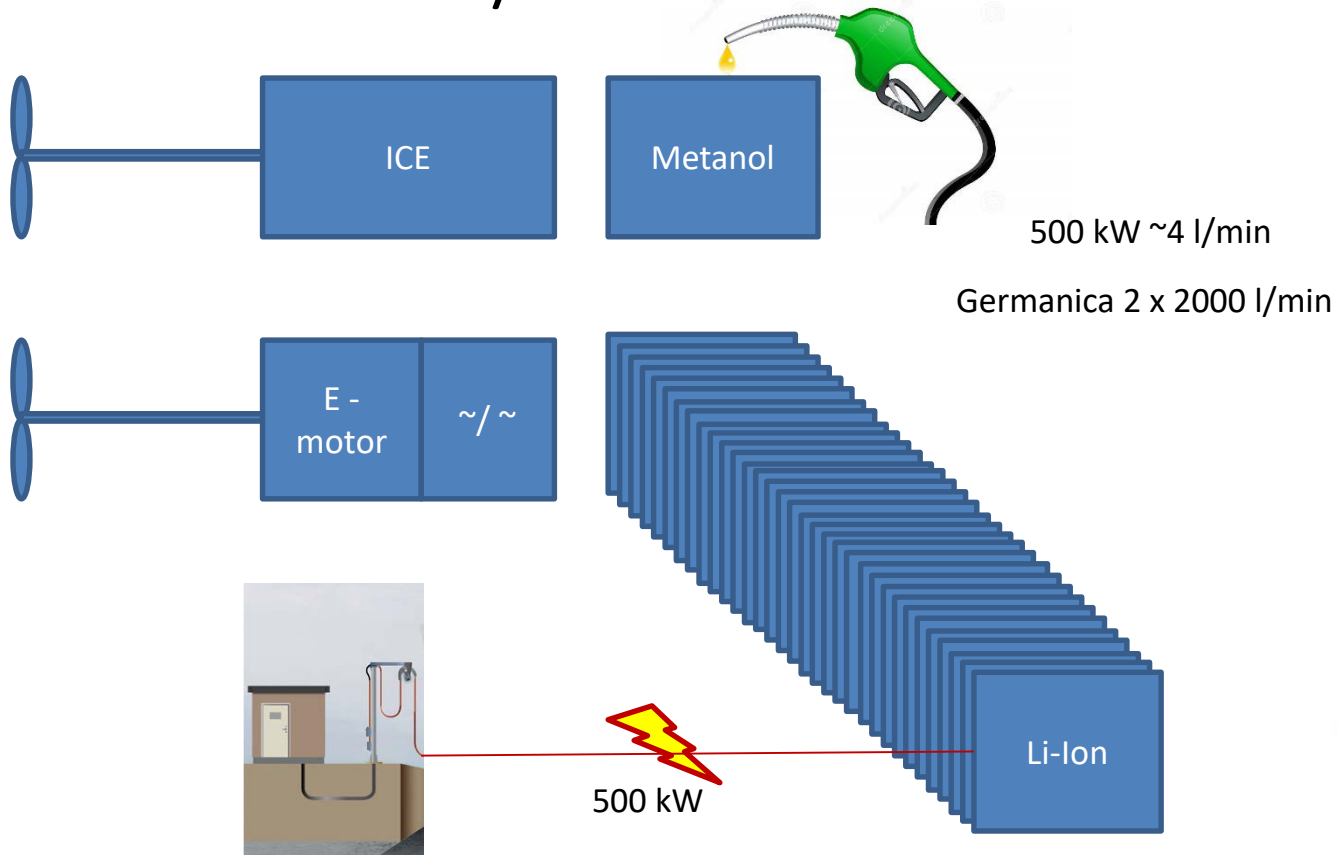
1. Use the sustainable produced synthetic diesel that is available
2. Electrify
3. Convert to methanol



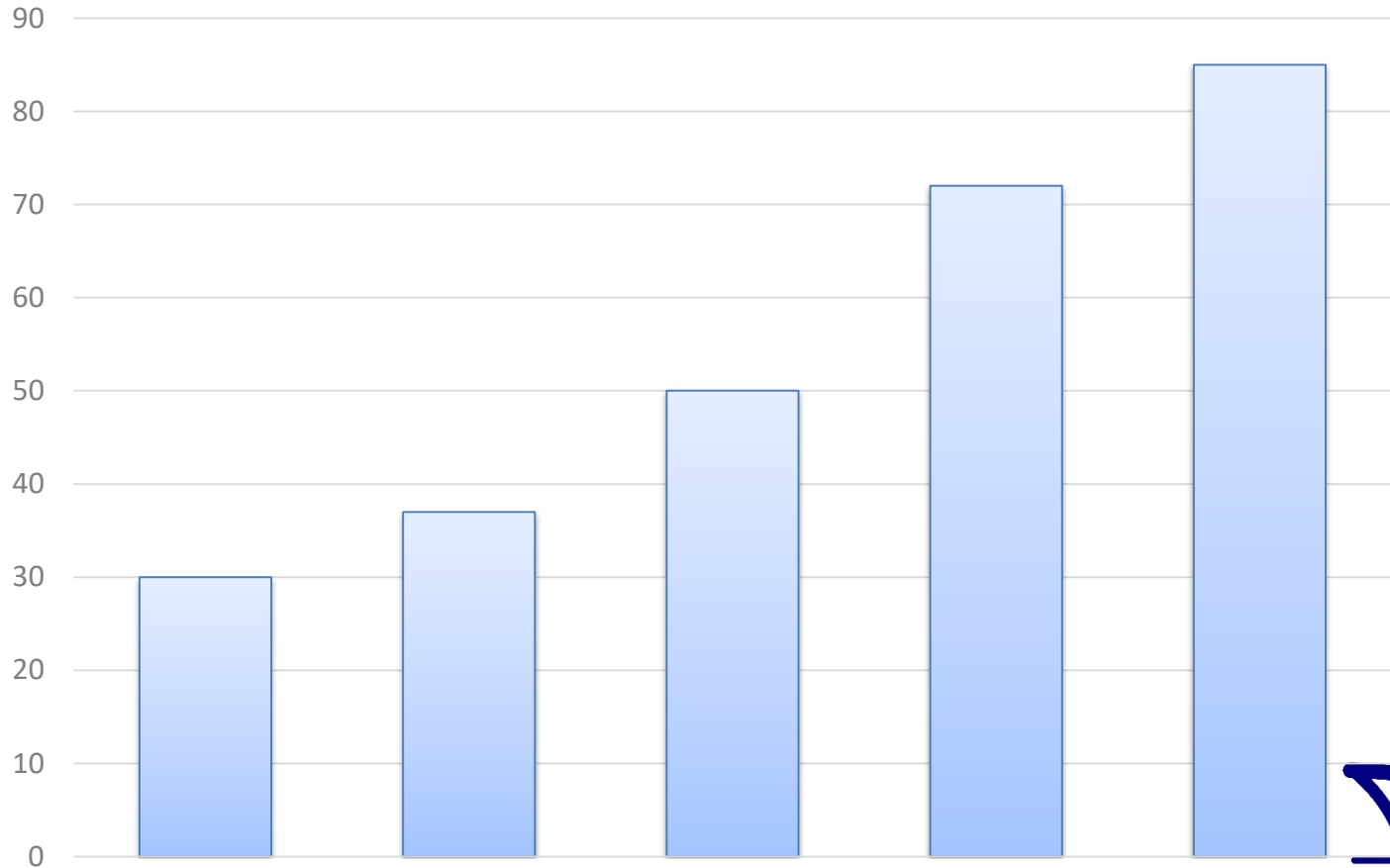
# ENERGY DENSITY



# BUNKERING/STORAGE



# €/MWh November 2017



El

MGO

Fossil metanol

Metanol från  
skogsråvara

Metanol från el och  
CO2

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# CAN WE AFFORD FOSSIL FREE PILOTING?

	Fossilt bränsle		Biobränsle	
Personalkostnader lotsar	183		183	
Personalkostnader båtmän	118		118	
Personalkostnad lotsbeställning	22		22	
Resor till uppdrag	17		17	
Drivmedel lostbåtar	12	2,2%	24	4.4%
Fastighetskostnader och hyror	18		18	
Underhåll lotsbåtar	20		20	
Avskrivning lotsbåtar	19		19	
Samkostnader	118		118	
Övrigt	23		23	
	550		562	
<b>Fossilfritt bränsle ökar lotsningskostnaderna med 2%</b>				

SUMMETH seminar - Wrap up & end of day discussion - Bengt Ramne

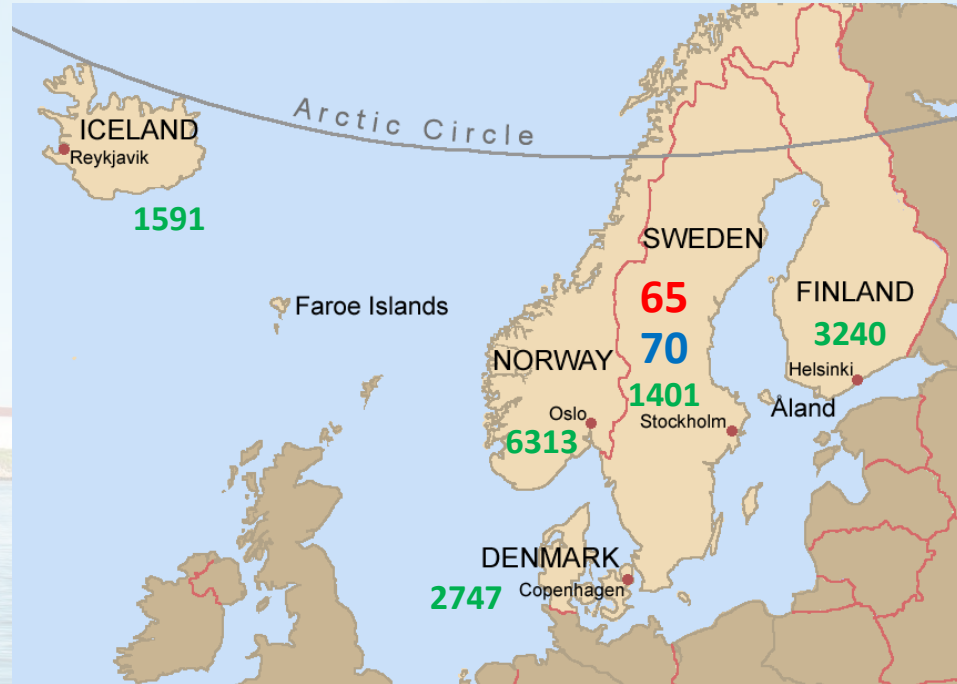


# CAN WE AFFORD FOSSIL FREE ROAD FERRIES?

- The fuel cost is about 10% of the total cost for the Swedish Road Ferry operation
- A doubling of the fuel cost will increase the total cost of operation with 10%
- Does not seem unaffordable



# SUITABLE VESSELS



<b>Western European Inland Waterway Fleet</b>	<b>30 000</b>
<b>Standard Inland Shipping Waterway vessel</b>	
<b>L</b>	<b>110</b>
<b>B</b>	<b>11,4</b>
<b>Draft</b>	<b>4</b>
<b>Dwt</b>	<b>up to 3000</b>
<b>TEU</b>	<b>200</b>
<b>Typical power</b>	<b>4 x 400 kW</b>



# MARKET

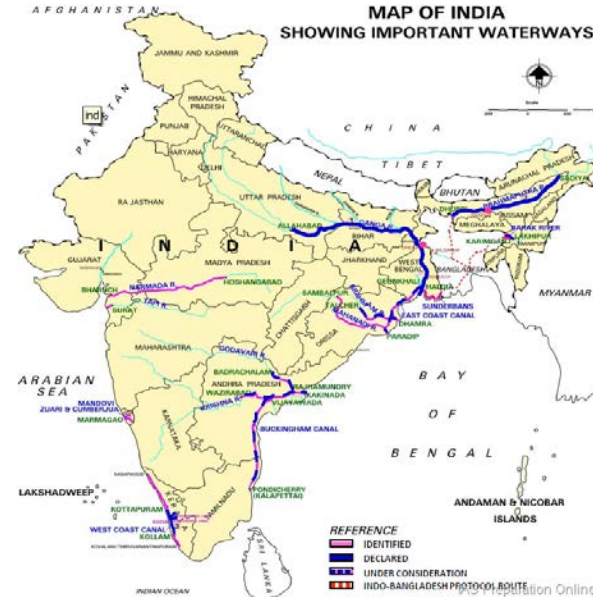
– Yangtze river



# INLAND WATERWAYS

## National Waterways Act, 2016

- The Statement of Objects and Reasons of the Bill states that while **inland waterways** are recognised as a **fuel efficient, cost effective and environment friendly** mode of transport, it has received lesser investment as compared to roads and railways. Since inland waterways are lagging behind other modes of transport, the **central government has evolved a policy for integrated development of inland waterways**



# The work continuous



GreenPilot



## SUMMETH II





Co-financed by

# Thank You



Project partners

