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Nytt nordiskt samarbete inom sjöfart





Trafikverkets FOI-dag

Svend Søyland,

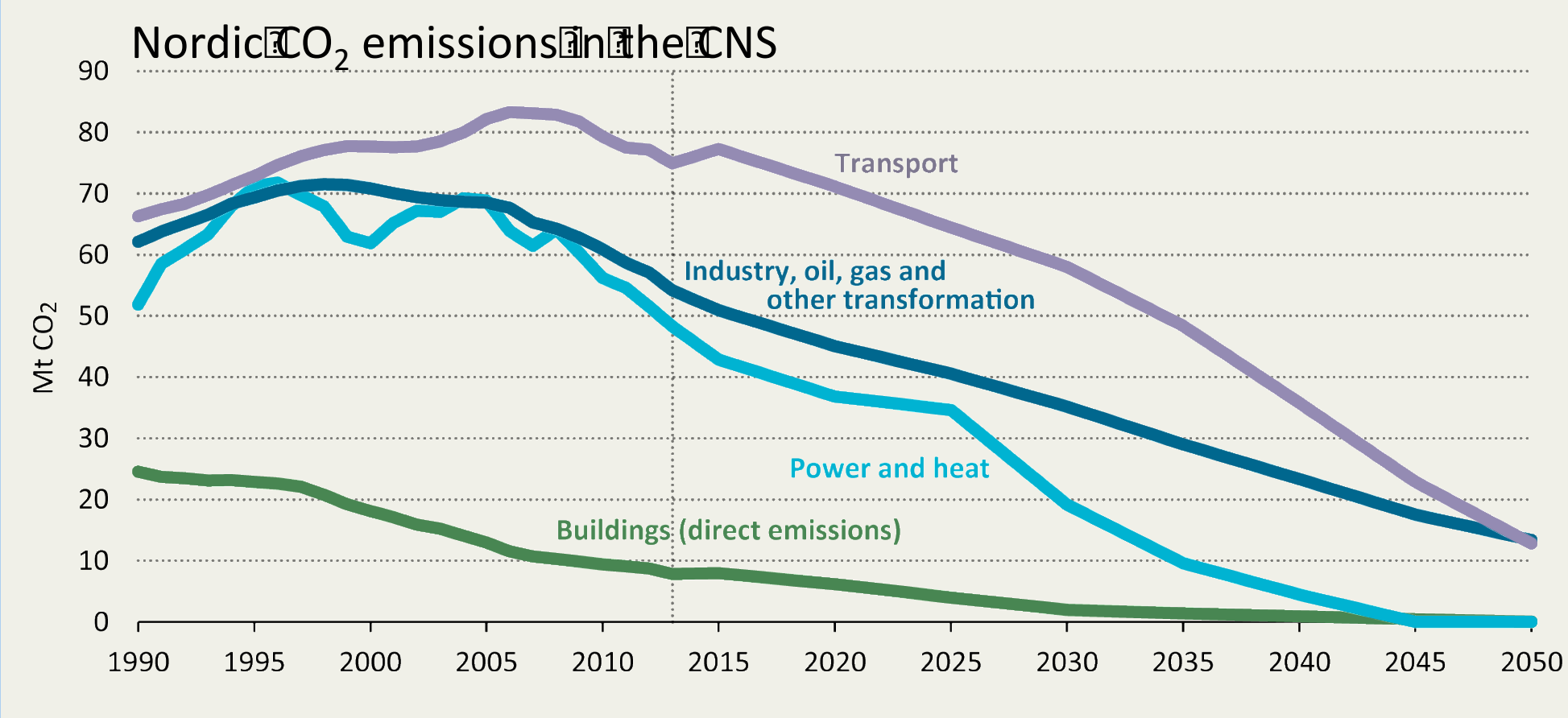
Seniorrådgiver Nordisk Energiforskning

Declaration on Nordic Carbon Neutrality:

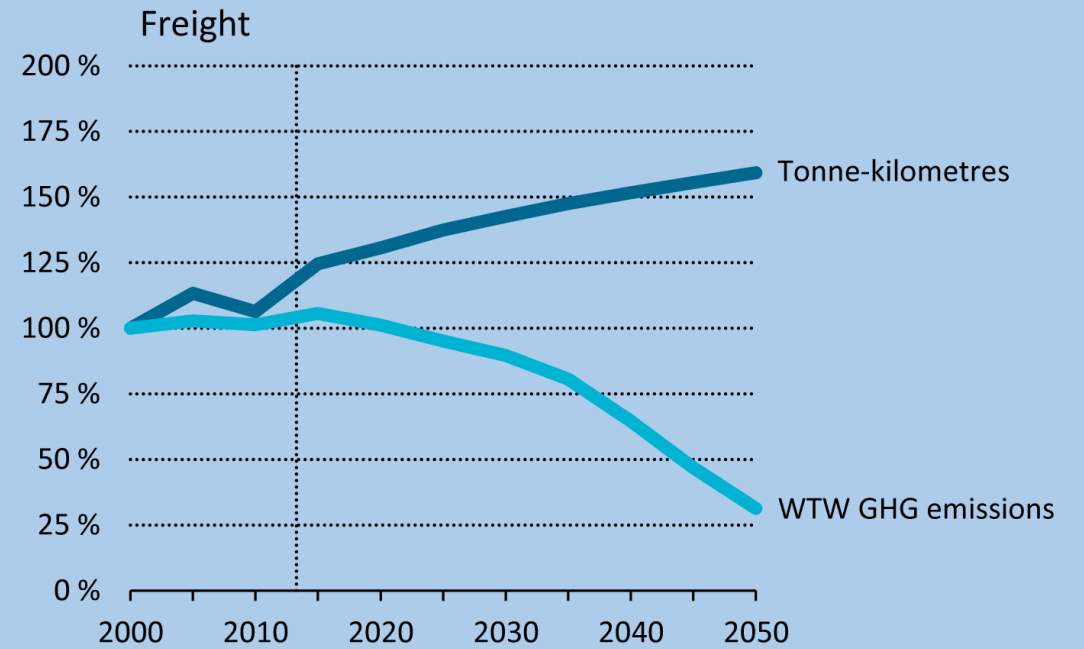
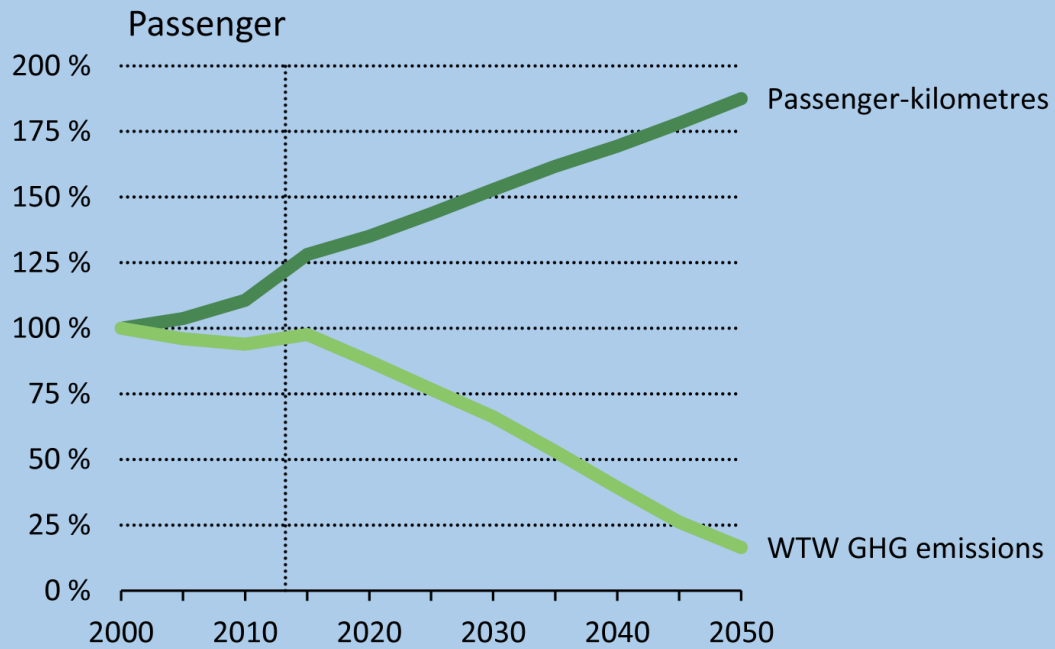
“We will intensify our cooperation by (...) decarbonizing the transport sector, including through an inter-modal shift, efficiency, electrification, and use of sustainable renewable fuels”



Transport - the biggest (Nordic) challenge



Source: Nordic Energy Technology Perspectives 2016



Nordic Transport and prosjekter finansiert av NMR/EK-E

- P2X for heavy transport (tender)
- Nordic Sustainable Aviation (tender)
- Transport Minister Conference, Copenhagen 7th May (administrasjon)

NER: Energy and Transport programme (2014)

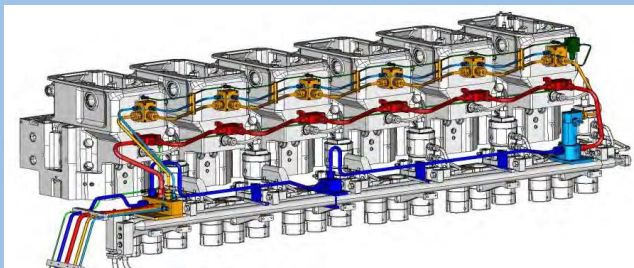
- Alcohol [Spirits] and Ethers as Marine Fuel (SPIRETH-project)



Stena Scanrail 2014



Stena Germanica 2015



Stena Jutlandica 2018-20

Nordic Energy and Maritime Transport Outlook 2020

- Track policies and pilots
- Present Nordic mitigation options
- Opportunities for joint action

Publication in partnership with, ITF (OECD).
To be presented at COP 26 Glasgow



Prospects for energy and maritime transport in the Nordic region

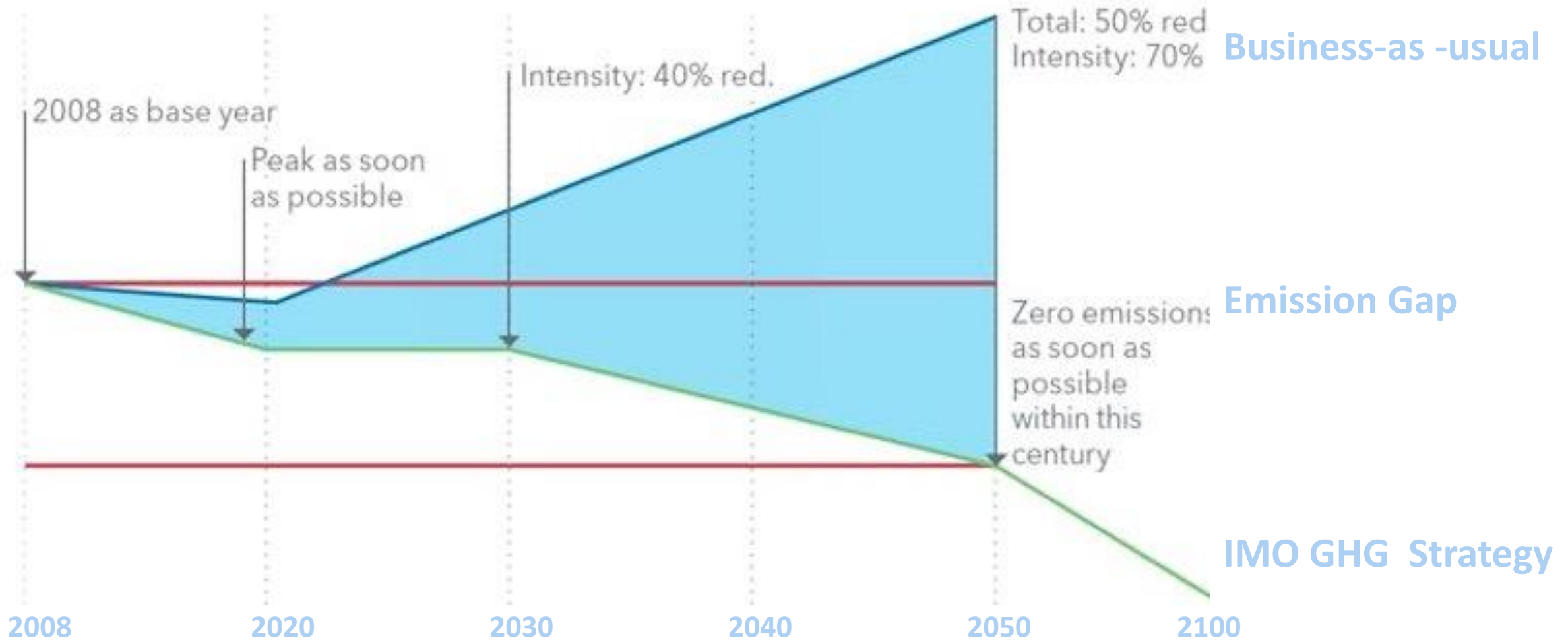
Achieving the goals of the initial IMO strategy on reduction of GHG emissions from ships



EXPERT WORKSHOP, WMU 26-27 February 2020



New IMO – strategy April 2018



Maersk statement 5.December 2018

- Carbon neutral vessels commercially viable by 2030
- Cut net carbon emissions to zero by 2050

20-25 years vessel lifetime - start develop new types of ships now!

HOW?

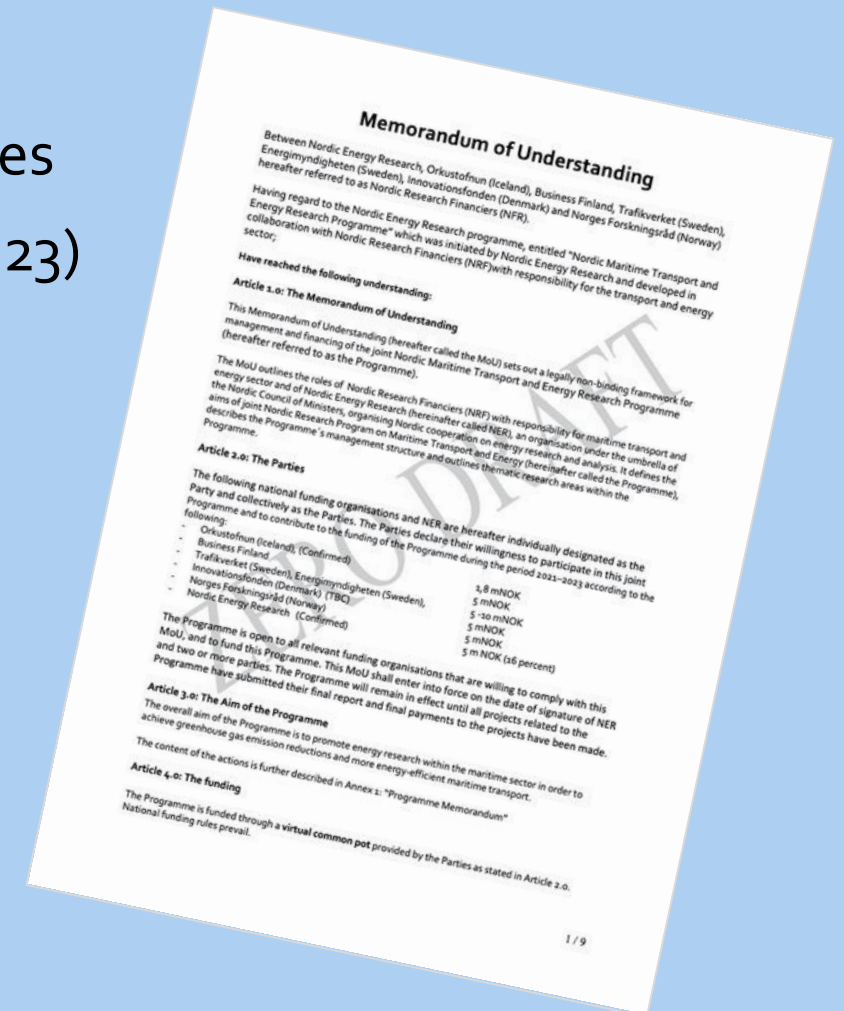
Accelerate new innovations and adaption of new technology.



Maersk CO₂ emissions 2017 = 35.5 million tonnes = Denmark

Nordic Energy and Maritime Transport Research programme

- Ad-hoc programgruppe etablert, MOU utarbeides
- Virtual Common Pot, ca. 30 mNOK/3-årig (2021-23)
- Fokus på alternative maritime drivstoffer
- Involvering av industripartnere
- Tverrfaglig tilnærming
- NEF vil bidra med top-up



Alternative fuels and energy carriers



Biofuels



Electric



LNG/LBG



Hydrogen



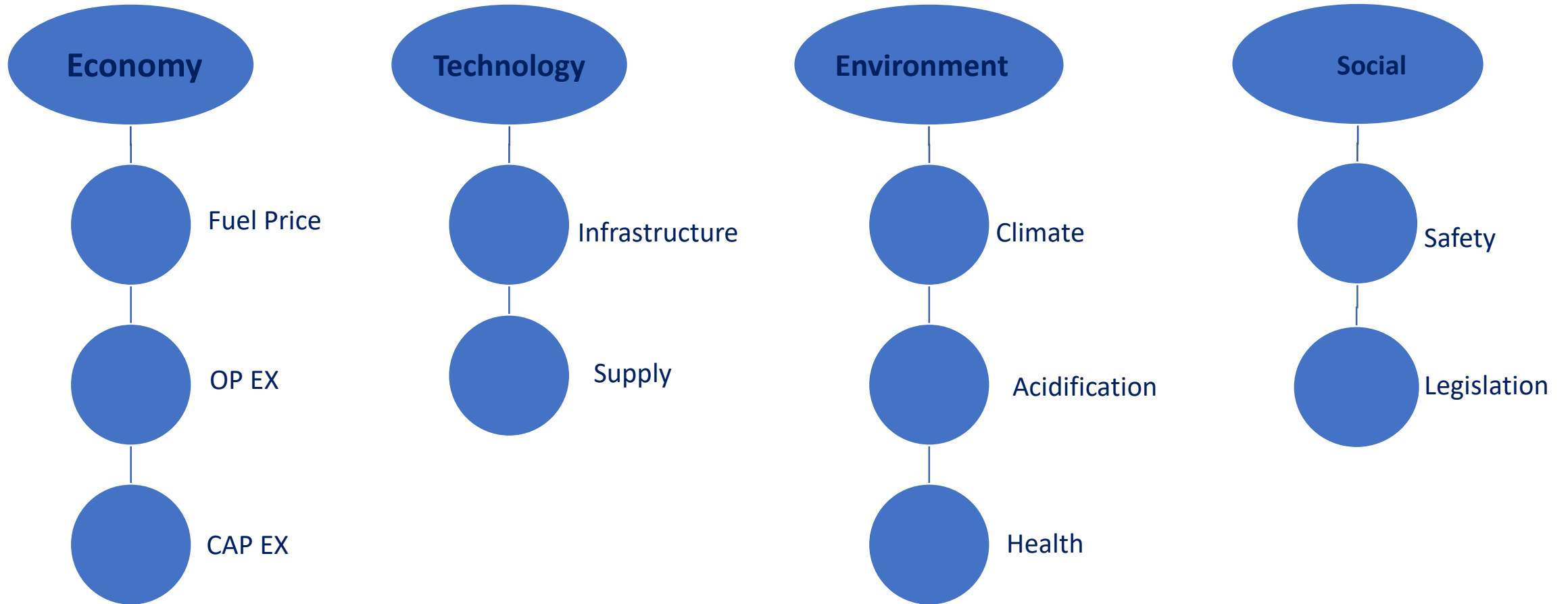
Methanol



Ammonia?

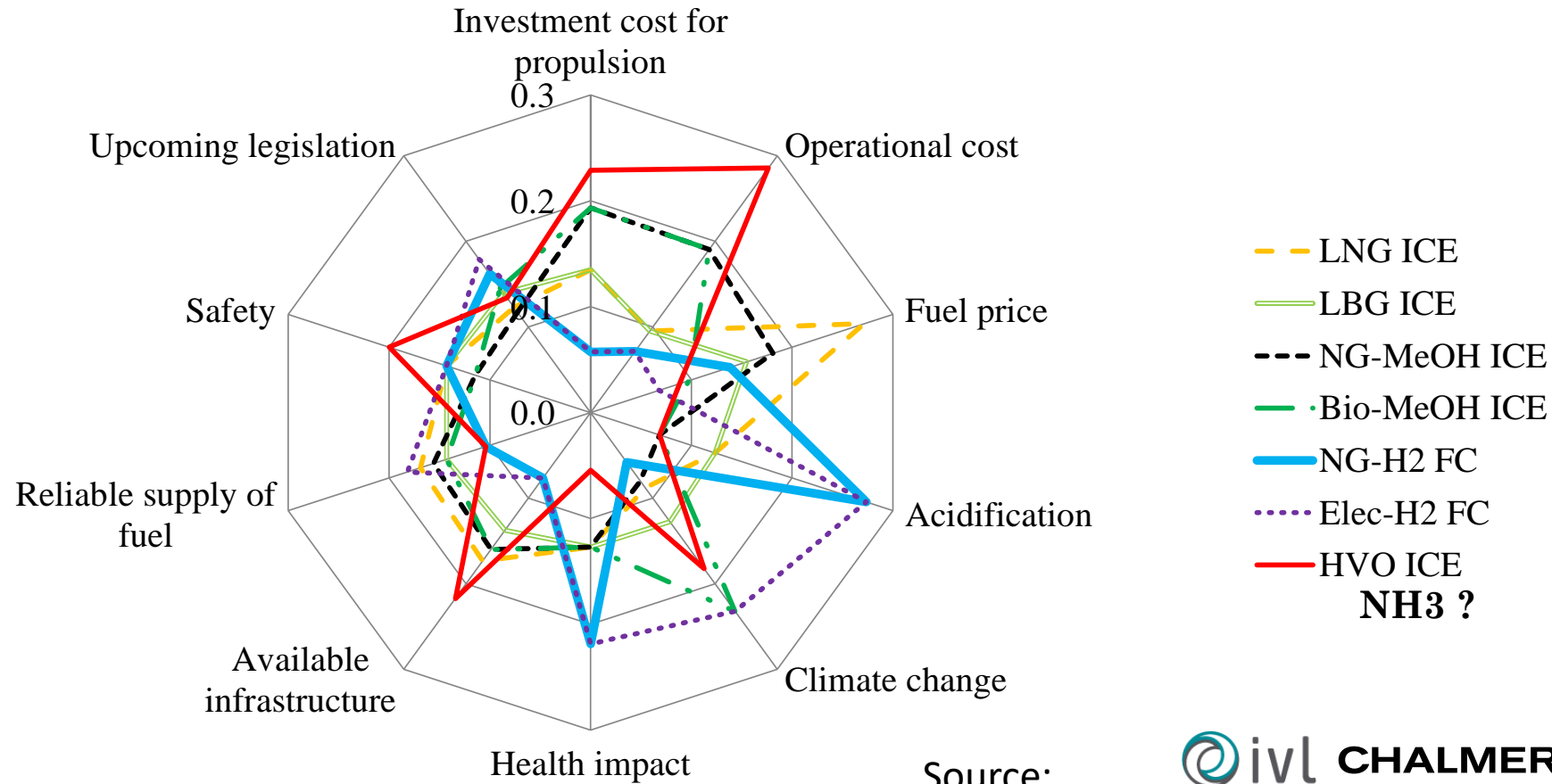


Green Fuels - influencers



Source: DNVGL Maritime Outlook 2018

Comparing fuels



Source:



Keeping all transportation fuels on the table!

- Energy Efficiency - the least expensive fuel!
- Drop-in fuels (ICE)
- Sustainable fuels from biomasse
- Electrofuels from renewables
- Hydrogen/fuel cells
- Electrification