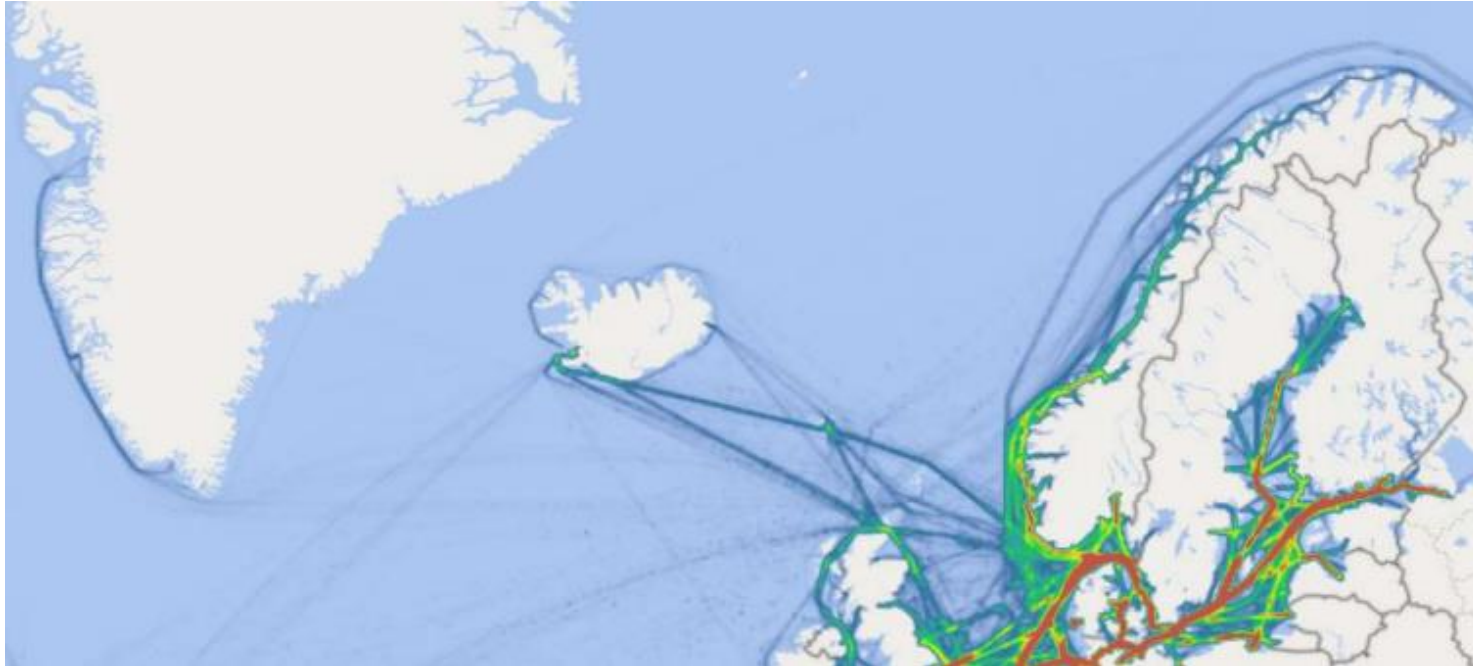


# Nordic Ship Traffic and Green Shipping Corridor Potential

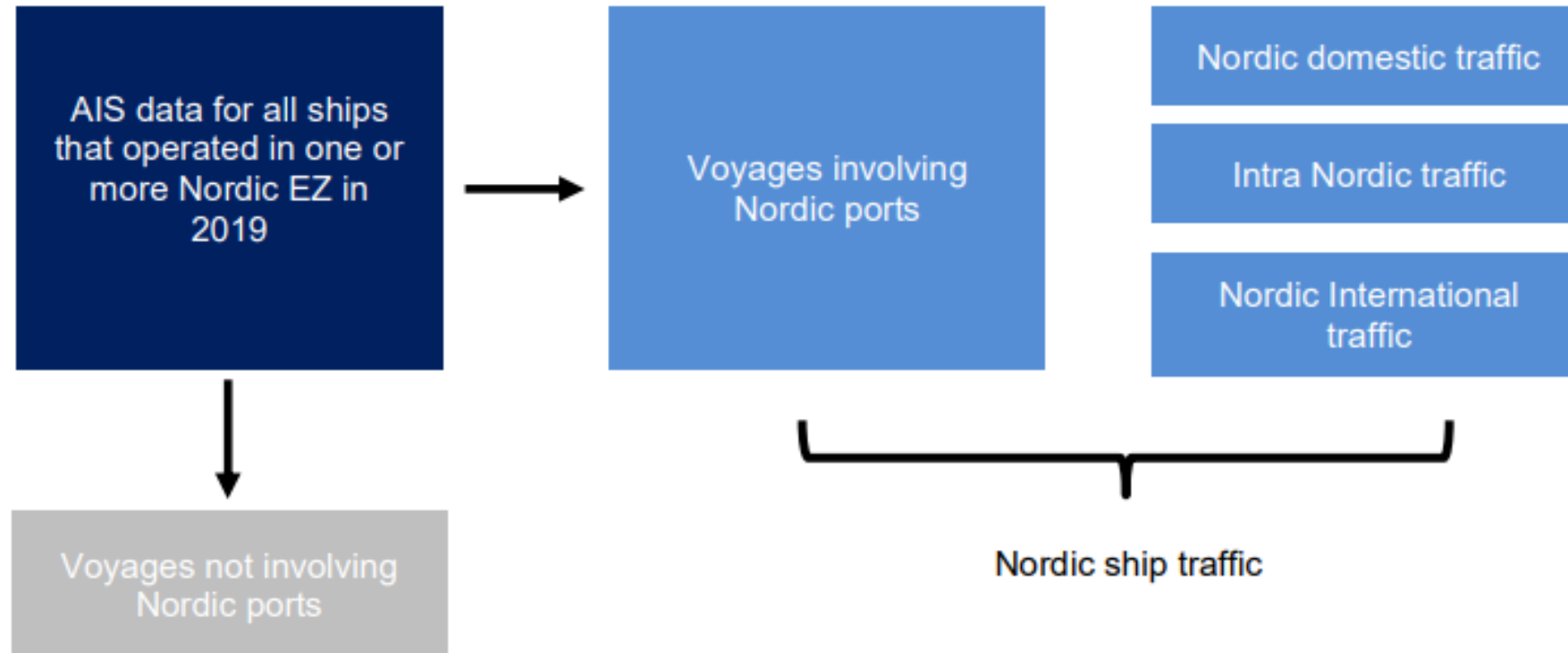
Nordic Roadmap for the Introduction of Sustainable Zero-Carbon Fuels in Shipping – Task 2A: AIS Analysis of Nordic Ship traffic

# AIS Analysis of Nordic Ship Traffic – Why?



- Estimate energy consumption and emission from Nordic ship traffic
- Provide description of the geographical distribution of Nordic ship traffic
- Identify dominating ship routes (potential green corridors) and potential geographical demand of future fuels (energy hubs)

# What do we mean by Nordic Ship traffic?



*In the analysis, we include the full voyage all the way to the end port, also when this is outside of the Nordic countries*

# Nordic Ship Traffic – Number of ships, total fuel consumption and emissions

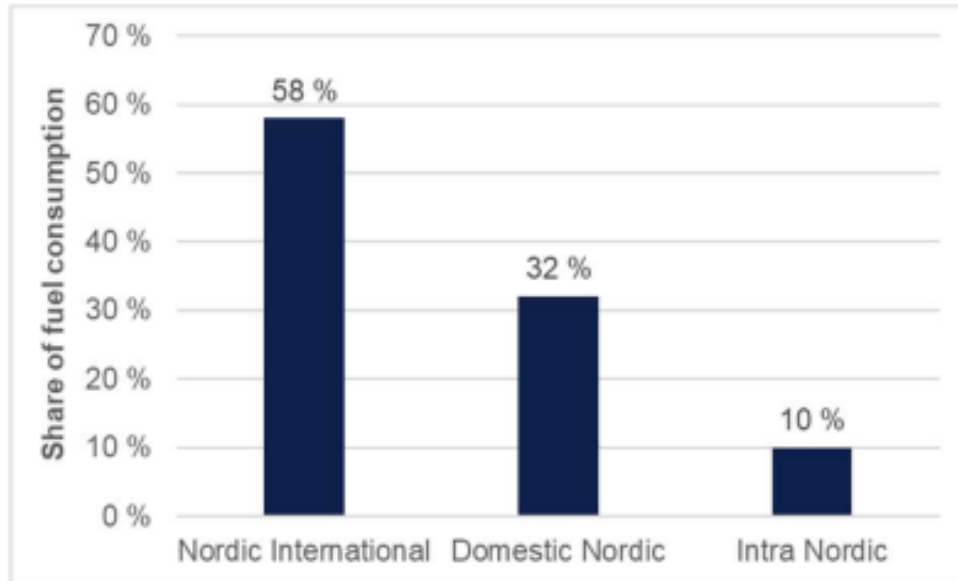
Close to 9000  
ships

27 Mtonnes  
CO2 emissions

40% of ships are above 5000 GT – these  
stand for 75% of emissions

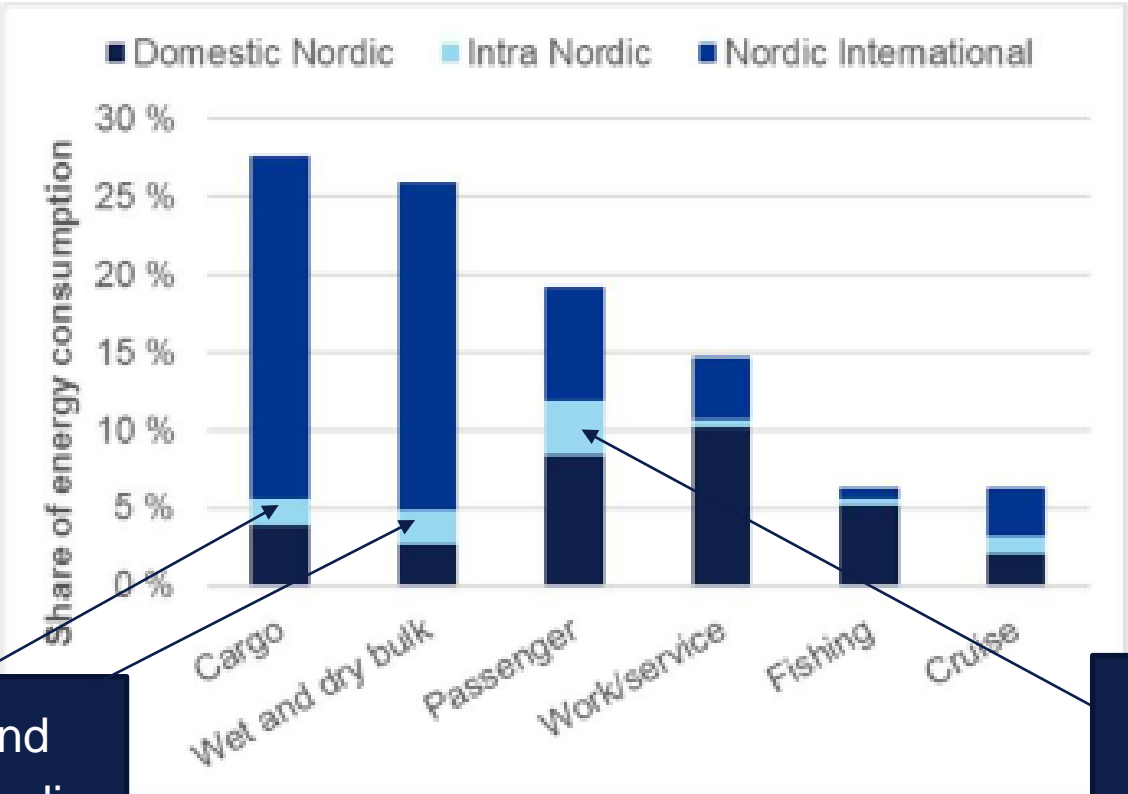
Ship Category	Number (share) of vessel	Share of CO2 emissions
Cargo vessels	2584 (29%)	28%
Wet and dry bulk vessels	2160 (24%)	26%
Passenger vessels	804 (9%)	19%
Cruise vessels	155 (2%)	6%
Work/service vessels	1972 (22%)	15%
Fishing vessels	1211 (14%)	7%
<b>Total</b>	<b>8886 (100%)</b>	<b>100%</b>

# International voyages dominates the overall energy demand



- Nordic International: Short distance to continental North Europe - 76% of energy consumption on international traffic is for voyages between Nordics and Europe – of which most is continental North-west Europe and the Baltics
- Domestic Nordic: Domestic passenger traffic, work/service vessels (offshore) and fishing, as well as coastal cargo traffic
- Intra Nordic: Ro-Pax traffic between Sweden and Finland, Norway and Denmark; cargo traffic Denmark – Faroe Islands – Iceland – Greenland, as well as mixed cargo and wet and dry bulk between all Nordic countries

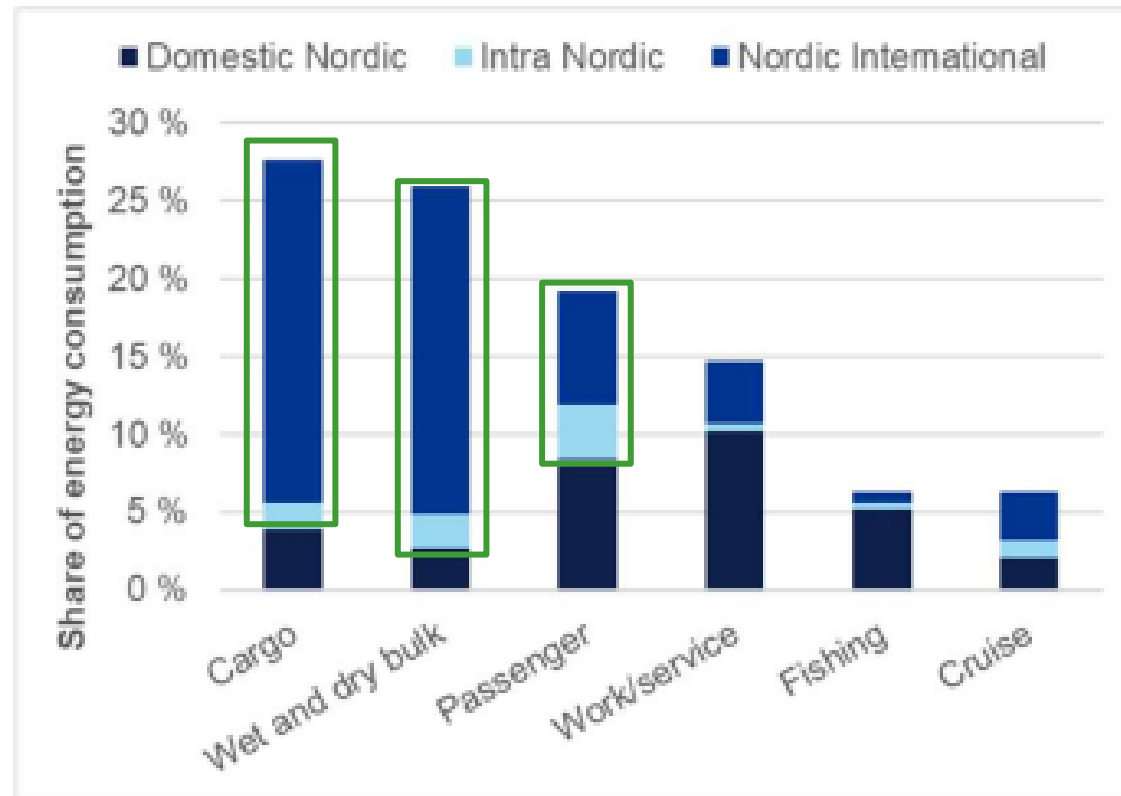
# Cargo, bulk and passenger ships dominate Nordic International and Intra Nordic energy demand



Intra Nordic cargo and bulk: **41%** of intra-Nordic emissions - **68%** of ships

Intra Nordic passenger (Ro-Pax): **38%** of intra-Nordic emissions - **3%** of ships

# Looking at green shipping corridor potentials in dominating intra and international categories

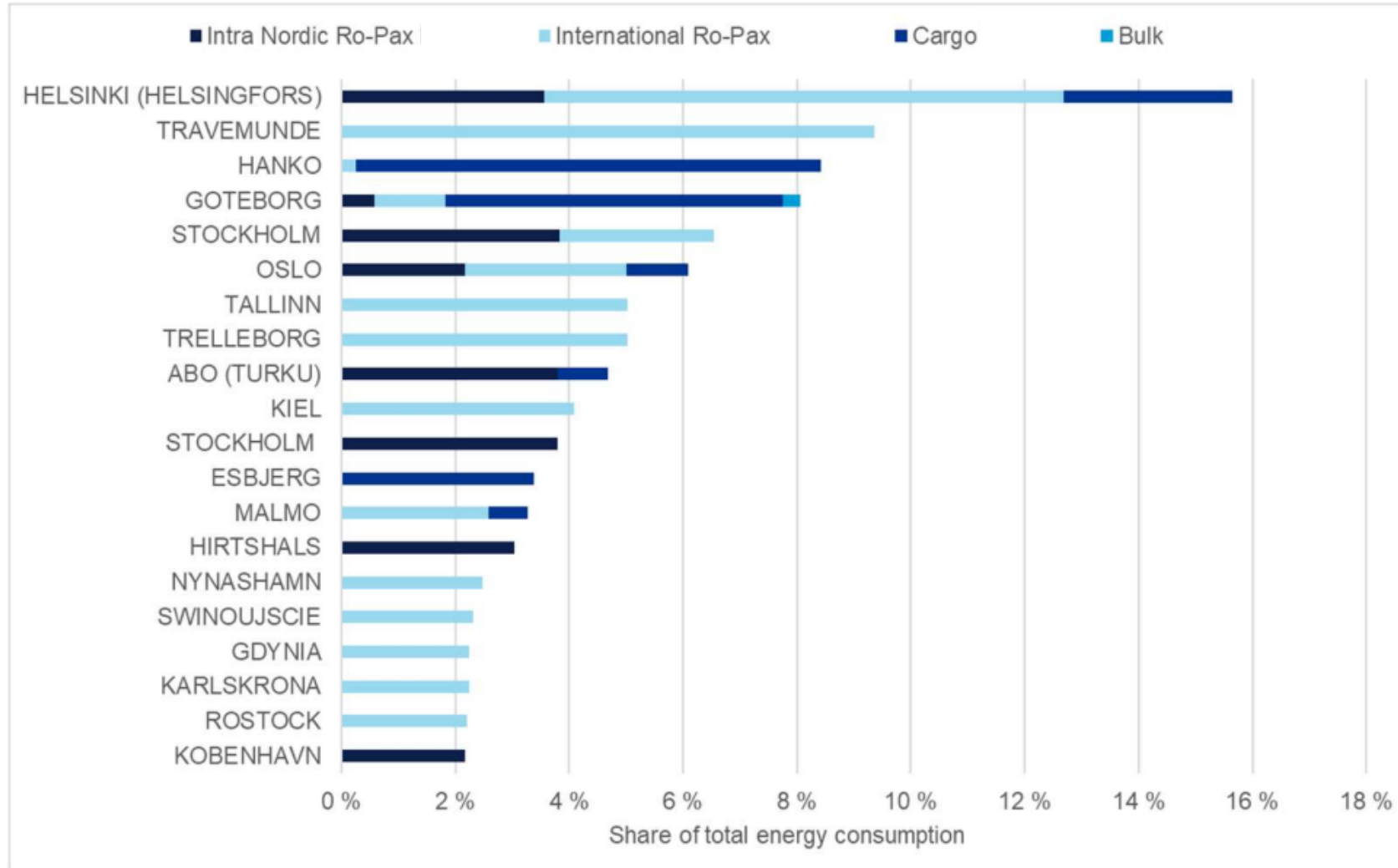


# Potential green shipping corridors – regular routes with significant energy demand

Route type	Number of routes	% of Nordic ship traffic energy demand
Intra Nordic Ro-Pax	18	4.4%
Nordic International Ro-Pax	23	8.1%
Intra/international cargo	20	3.6%
Intra/international bulk	20	0.8%
<b>Total</b>	<b>81</b>	<b>17%</b>

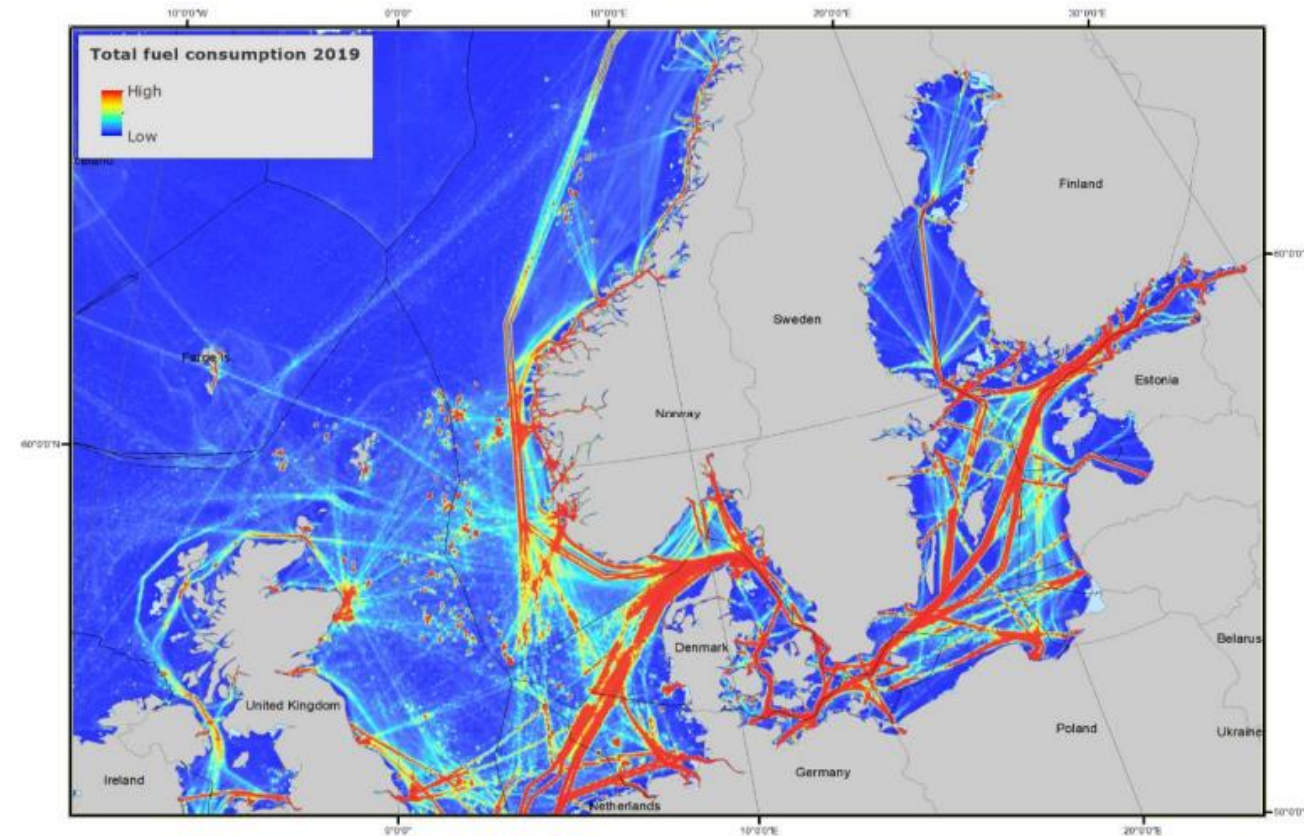


# Top ports involved with potential corridors



# Closing remarks

- Nordics/North-west Europe/Baltics – high activity area for passenger and short sea cargo/bulk shipping
- Intra Nordic and international Ro-Pax lines – high regularity and relatively short routes
- Nordic future fuel initiatives have potential spin-off effects to e.g. domestic shipping, with fishing and work vessels activity, as well as long-haul inter-continental cargo and bulk shipping
- AIS assessment indicates energy demand and emission reduction potential – just one of many stepping-stones for realizing green shipping corridors and energy hubs
- A long list of green shipping corridors and potential energy hubs are identified – to be further explored in the project



# Thank you!