

Outlook and expectations for global, sustainable shipping

FRAMTIDENS SJÖFART, LUELÅ, 4. MAJ 2020



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Global Head of dry cargo
chartering
Fearnleys AS

EARLY MOVER IN EMERGING MARITIME AND ENERGY RELATED INDUSTRIES

- 150 YEARS OF INNOVATION



More relevant tomorrow than today!

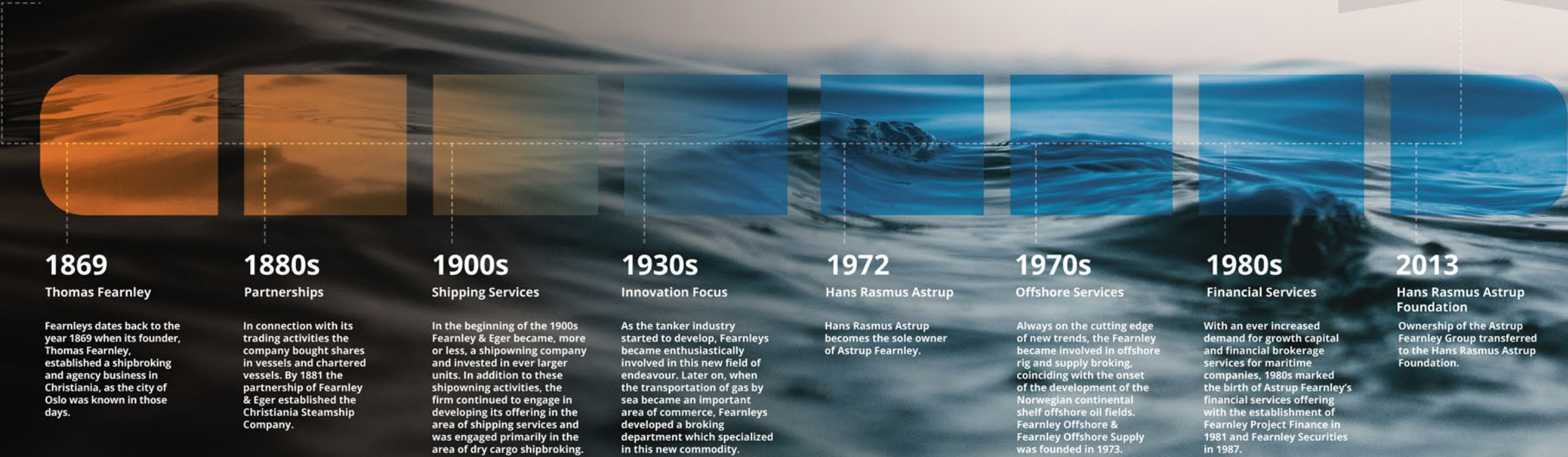
The Astrup Fearnley Group represents 150 years of history, growth and excellence in the areas of shipping, offshore and energy related services. This legacy is created by dedicated employees and generations of the Astrup Fearnley Family.

2020 | TODAY

Global Leader

Today, The Astrup Fearnley Group is a leading, independent and global provider of brokerage, research, financial- and advisory services to investors and maritime companies worldwide. The Group has a strong global presence with 331 professionals in 9 countries.

TIMELINE KEY HISTORIC MILESTONES THROUGH 150 YEARS IN BUSINESS



SOURCE:

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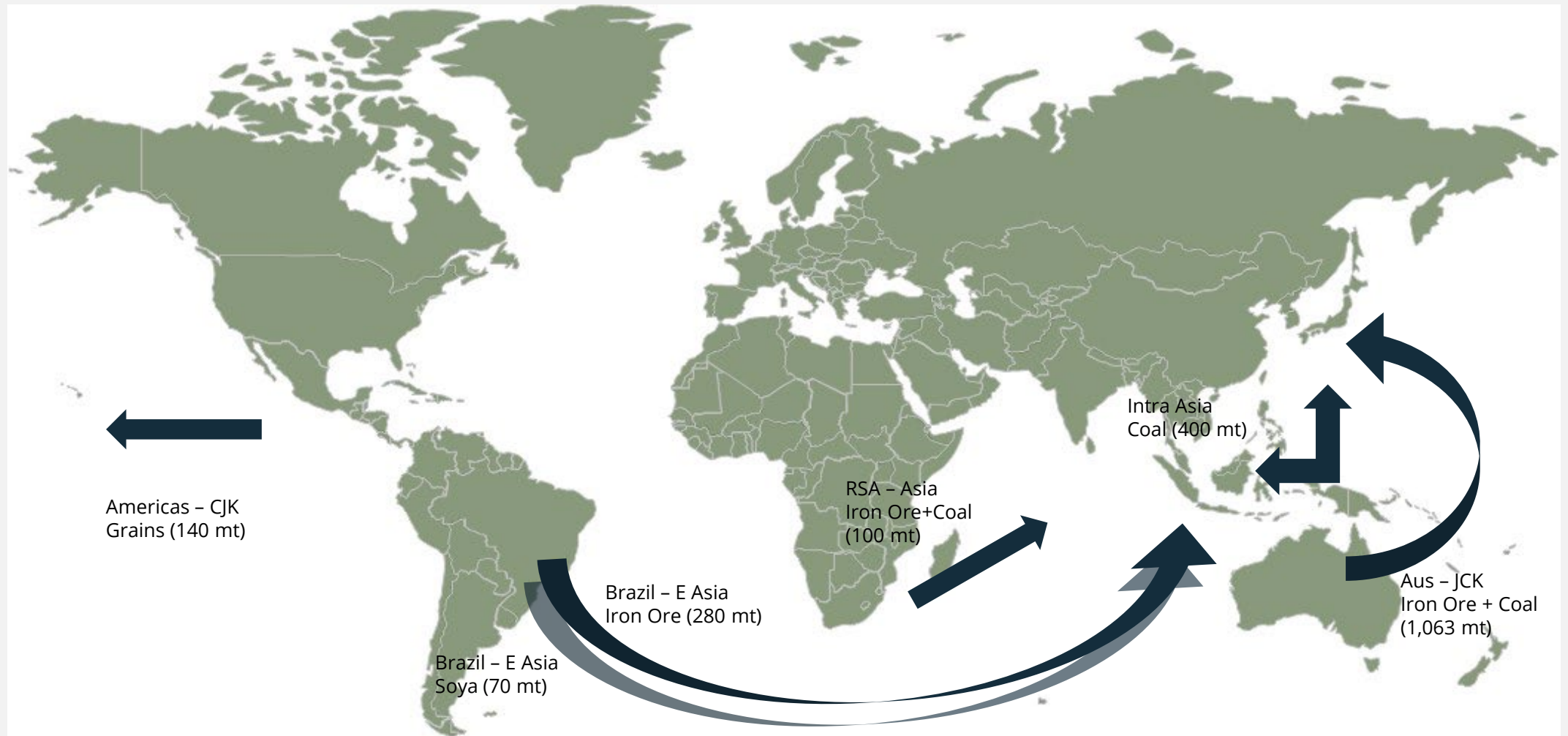
BROKERAGE DIVISIONS WITHIN THE ASTRUP FEARNLEY GROUP

The brokerage and support areas within the Astrup Fearnley Group can be broadly divided into four divisions



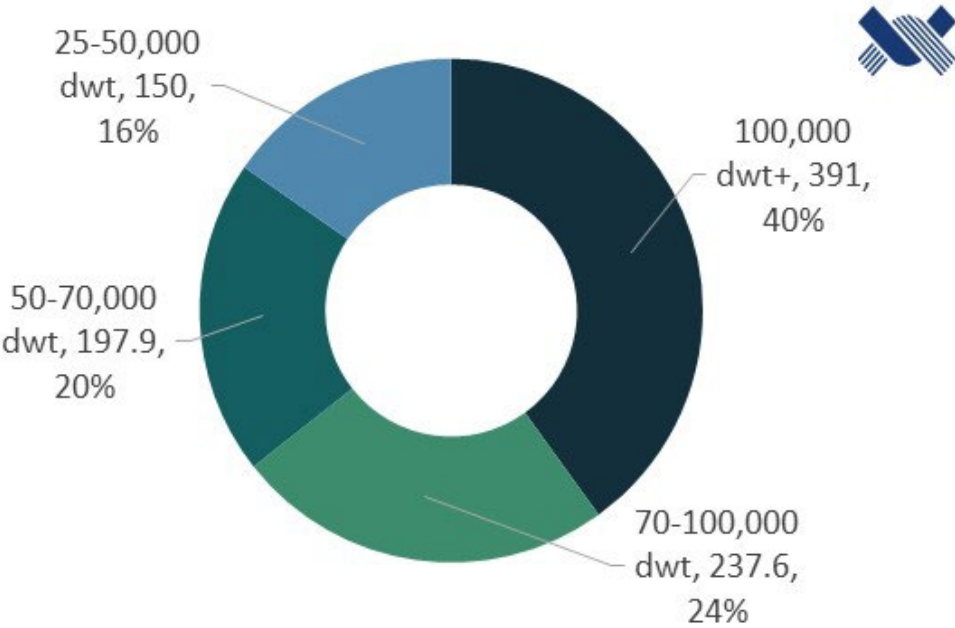
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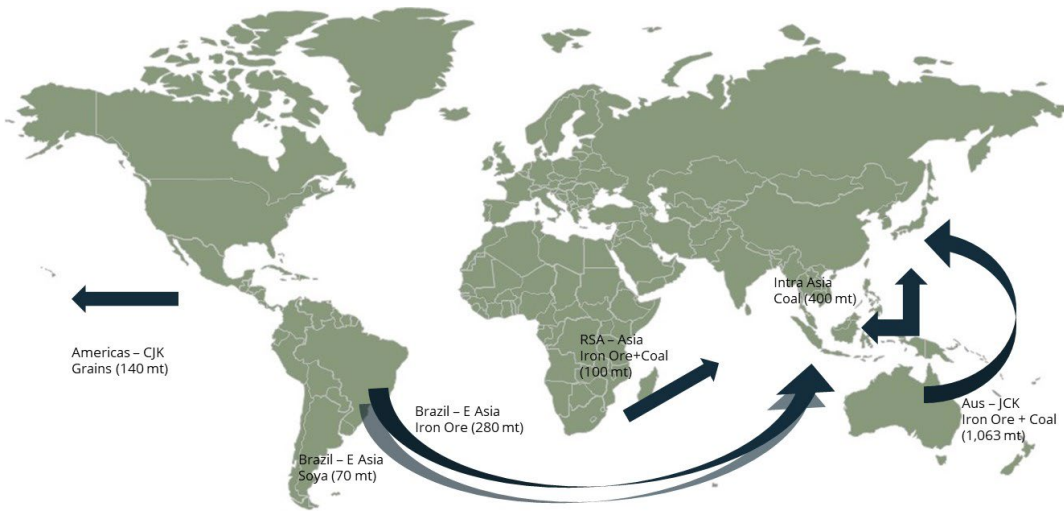




Existing dry bulk fleet



Some main dry bulk trading routes





Maritime GHG status

1

In 2018 maritime GHG emissions were about 1,076 Mtons, or 2.9% of global emissions

2

The maritime sector consumed about 340 Mtons Heavy Fuel Oil (equiv.)

3

The IMO aims to reduce emissions by at least 50% in 2050 compared to 2008

4

This represents a reduction in GHG emissions of at least 679 Mtons CO_{2eq}.

5

Alternative, carbon-neutral fuels hardly exist.

6

Engine technologies for some of these fuels are immature or do not exist

7

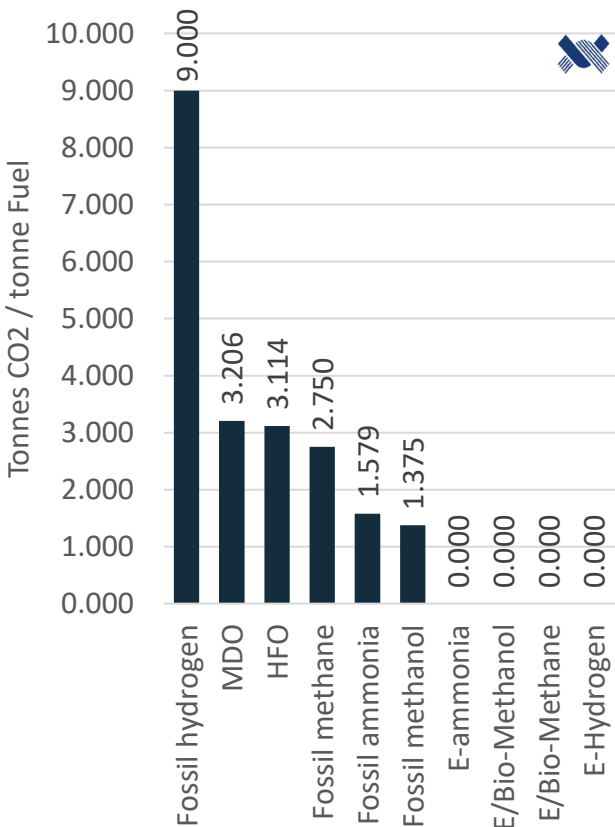
So, what are the implications?

Items 1-4 source: The 4th IMO GHG Study, 2020

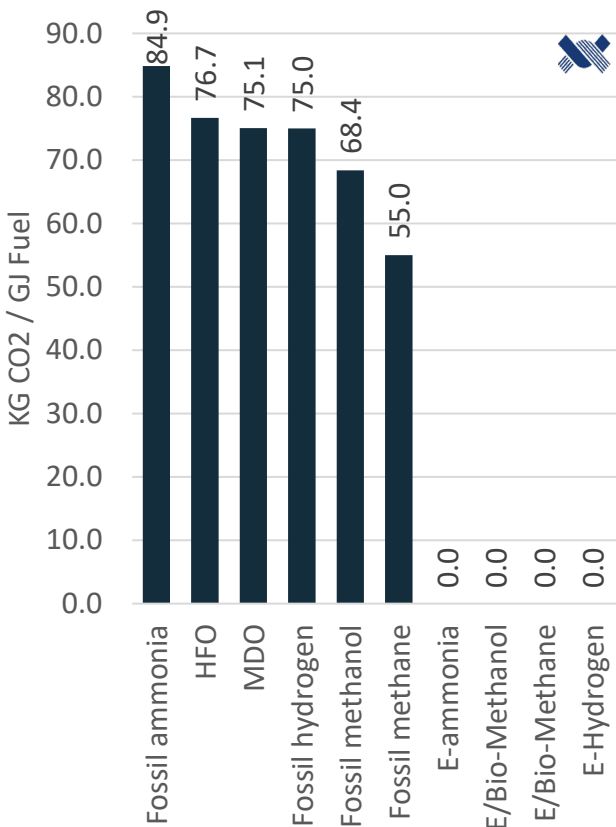
CO2 intensities



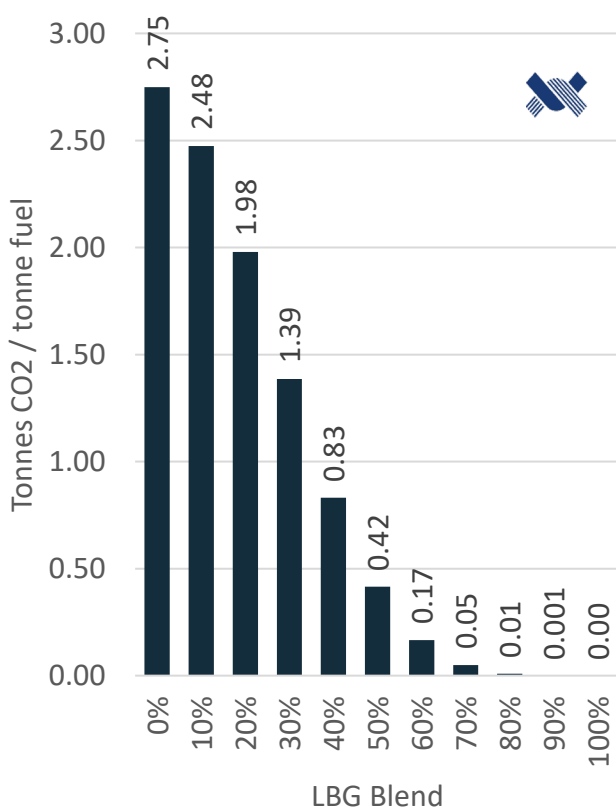
CO2 intensity per tonne fuel



CO2 intensity per GJ fuel



CO2 intensity bio methane blend



Regionalisation vs. globalisation



Handysize – regionalisation of trade



Key features

- Flexible, short-to-long haul trades
- Self-sustained in loading/discharging
- Best-in-class operators: <10% ballast (no cargo) voyages
- Cargo base: Steel, sugar, coal, grains, oil seeds, fertilisers, steel scrap, cement, copper, salt, bauxite, alumina, metallic ores, logs, lumber....ANYTHING

Valemax – globalised trade



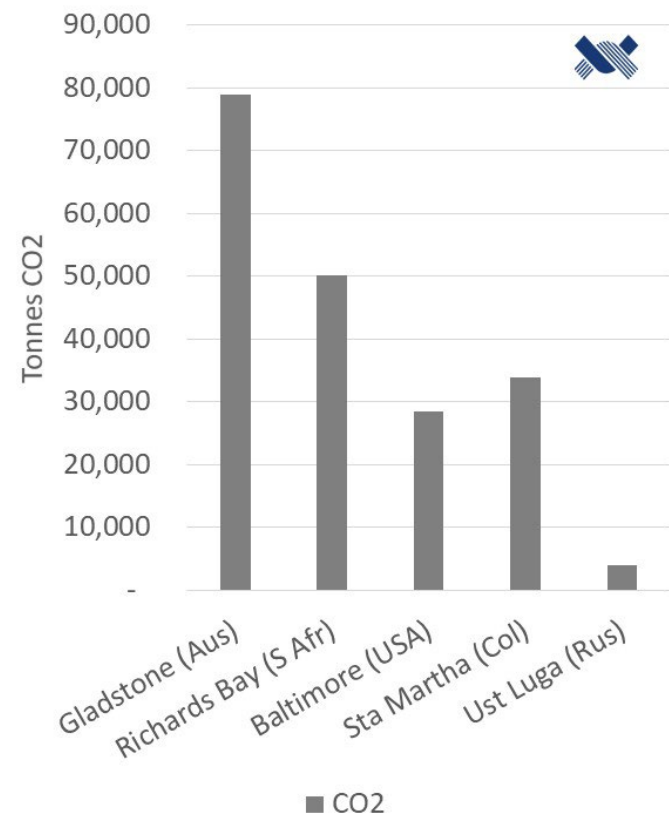
Key features

- Long-haul, pendulum trade
- Massive port infrastructure
- +/- 50% ballast (no cargo) voyages
- Cargo base: Iron ore

In light of decarbonising the maritime sector we believe in more regionalised trade and a move away from long-haul, globalised trades with low transportation efficiency. We believe resource pressures and decarbonisation will push regionalisation in trade forwards.



Emissions



- Sweden 970,000 mt coal from Australia in 2021
- In 16 Panamax shipments
- Est. CO2 emissions were about 79,000 mt CO2 for the ocean voyages from Gladstone to EC Sweden.
- Without considering coal qualities, even trans-Atlantic sourcing of coal would halve the emissions.
- Sourcing in Russian Baltic would almost eliminate emissions.
- The inclusion of shipping into the EU ETS in 2023 will impact trading routes.
- At today's EUA price, the ETS cost would be about 3.2 m€ for the Australian coal whereas the Russian coal would be only 0.3 m€.
- Clearly, the ETS will contribute to shorter haul sourcing for the entire EU

Combination carrier revival...??



Bulk/Oil/Chemical Carrier, built 2020



The combination carrier concept

- Oil/Bulk/Ore (OBO) carriers and Ore/Oil (OO) carriers was the flavour of the season in the 1970s.
- One foot in the dry bulk market and one in the tanker market.
- One could profit from the freight cycles in both markets
- A fantastic concept on paper, but often a commercial disaster in real life.
- Combined with regionalization in trade and the drive for decarbonisation we would not rule out a return of the combination carrier.

Thank you for your attention

