THE ENERGY TRANSITION AND ITS COMMERCIAL IMPACT ON SHIPPING

Capital Link, Oslo
June 2023

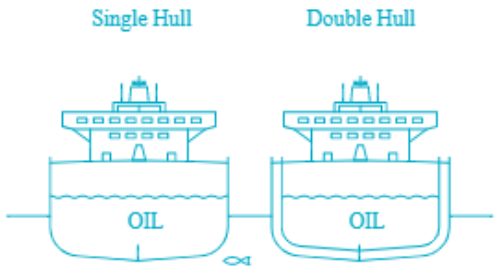
Martin Kjendlie – Managing Director, ViaMar
martin@viamar.no

ViaMar
A Veson Company

AGENDA

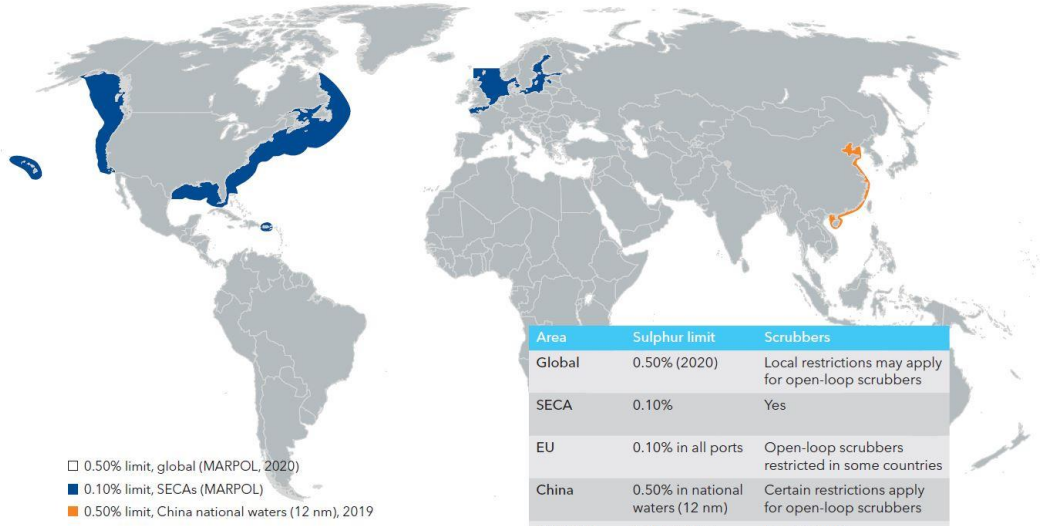
- Regulations & Legislation
- Challenges and opportunities in today's shipping market
- Decarbonization timeline
- Implications and opportunities – operational
- Implications and opportunities – commercial
- Conclusion

REGULATIONS & LEGISLATION IN SHIPPING



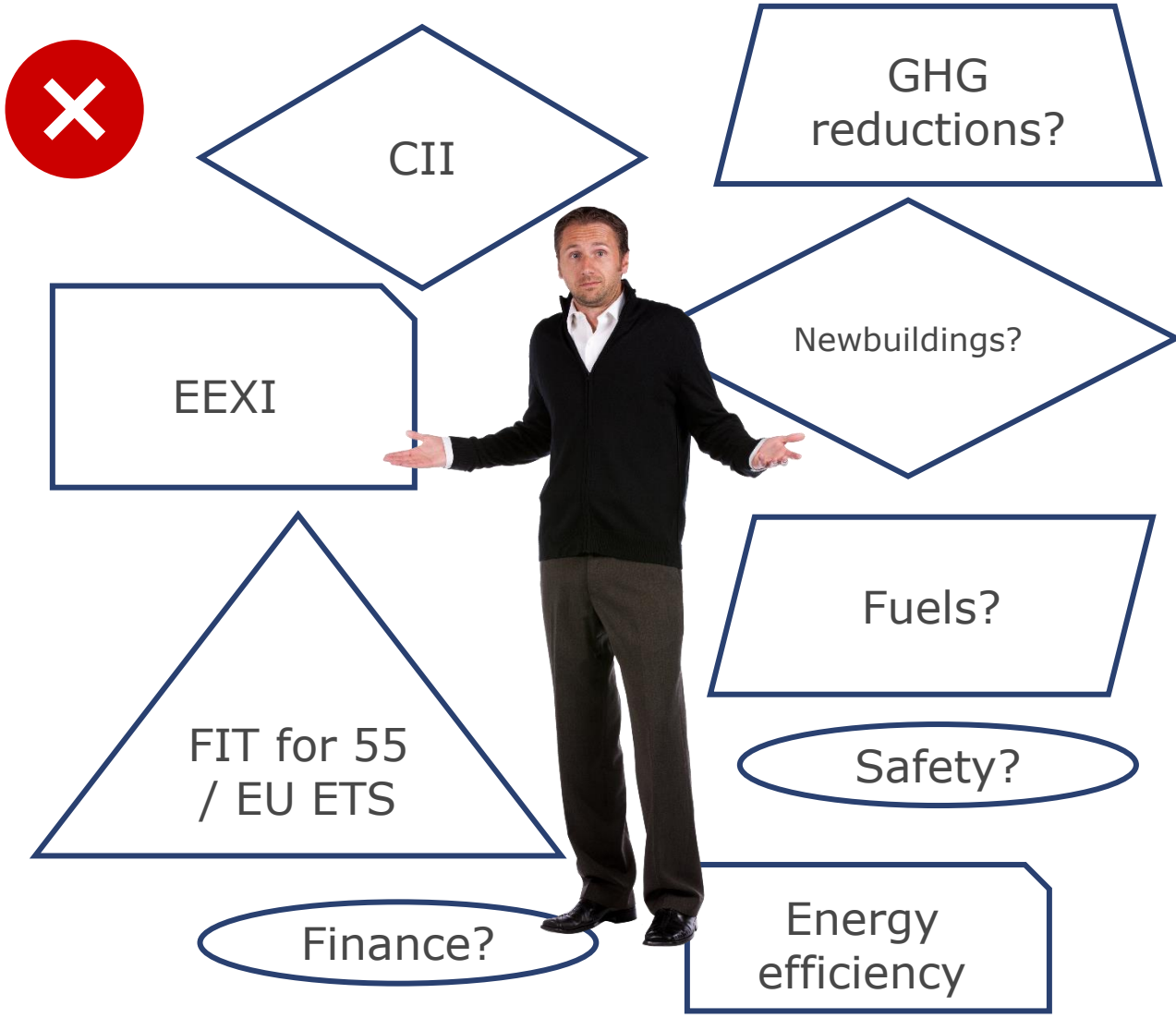
Complying with the Ballast Water Management Convention

Stopping the spread of invasive aquatic species



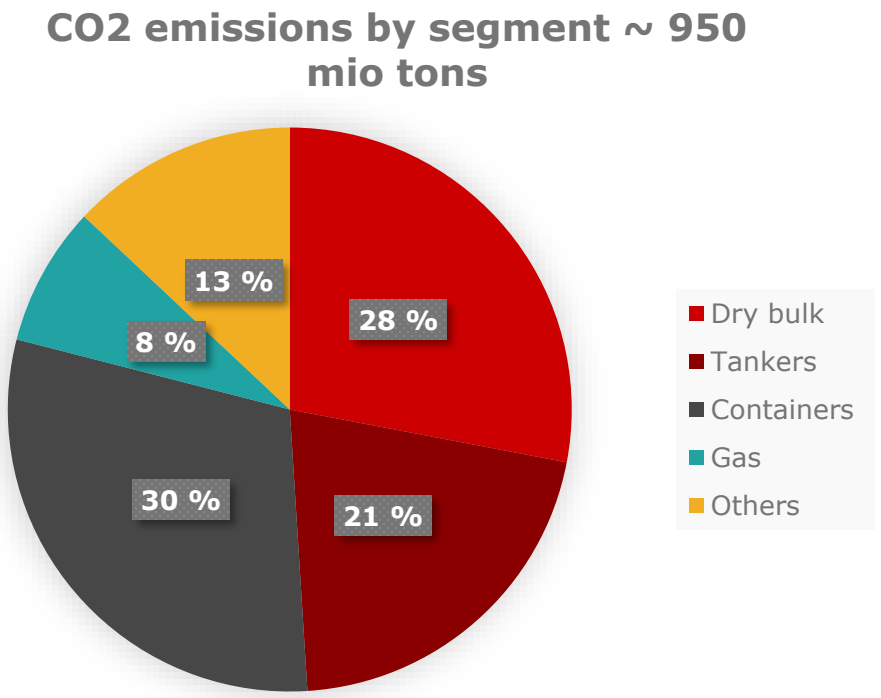
Area	Sulphur limit	Scrubbers
Global	0.50% (2020)	Local restrictions may apply for open-loop scrubbers
SECA	0.10%	Yes
EU	0.10% in all ports	Open-loop scrubbers restricted in some countries
China	0.50% in national waters (12 nm)	Certain restrictions apply for open-loop scrubbers
California	0.10% within 24 nm	No, only with research exemption

Decarbonization towards 2030 & 2050

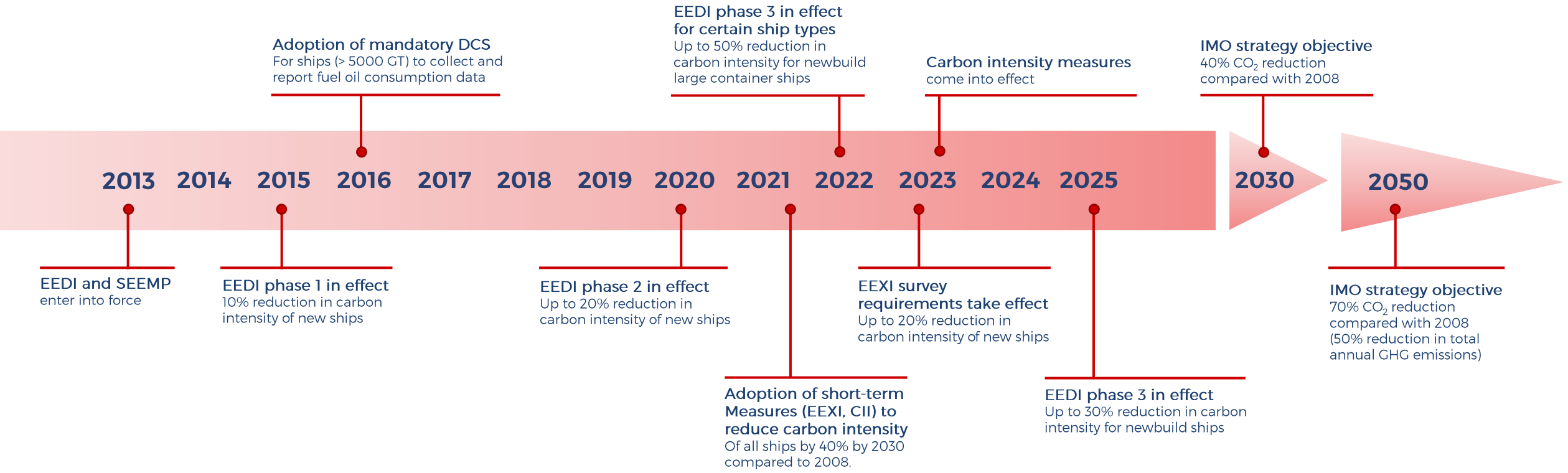


CHALLENGES & OPPORTUNITIES

- The shipping market today is at **a crossroads**
- From a paralysing **pandemic** to a challenging **decarbonization**
- **Transition** not a shift! *"change of gear"*
- It's all about a **combination** of efforts
- **Well-to-wake** uncertainty
- **CII and EEXI** and compliance
- **ETS**
- The **clean v. the efficient** ship
- The **cost** of becoming cleaner and more efficient
- The **benefits** of becoming cleaner and more efficient
- The creation of **multi-tier** markets and ships
- **A long-term ROI for us all**



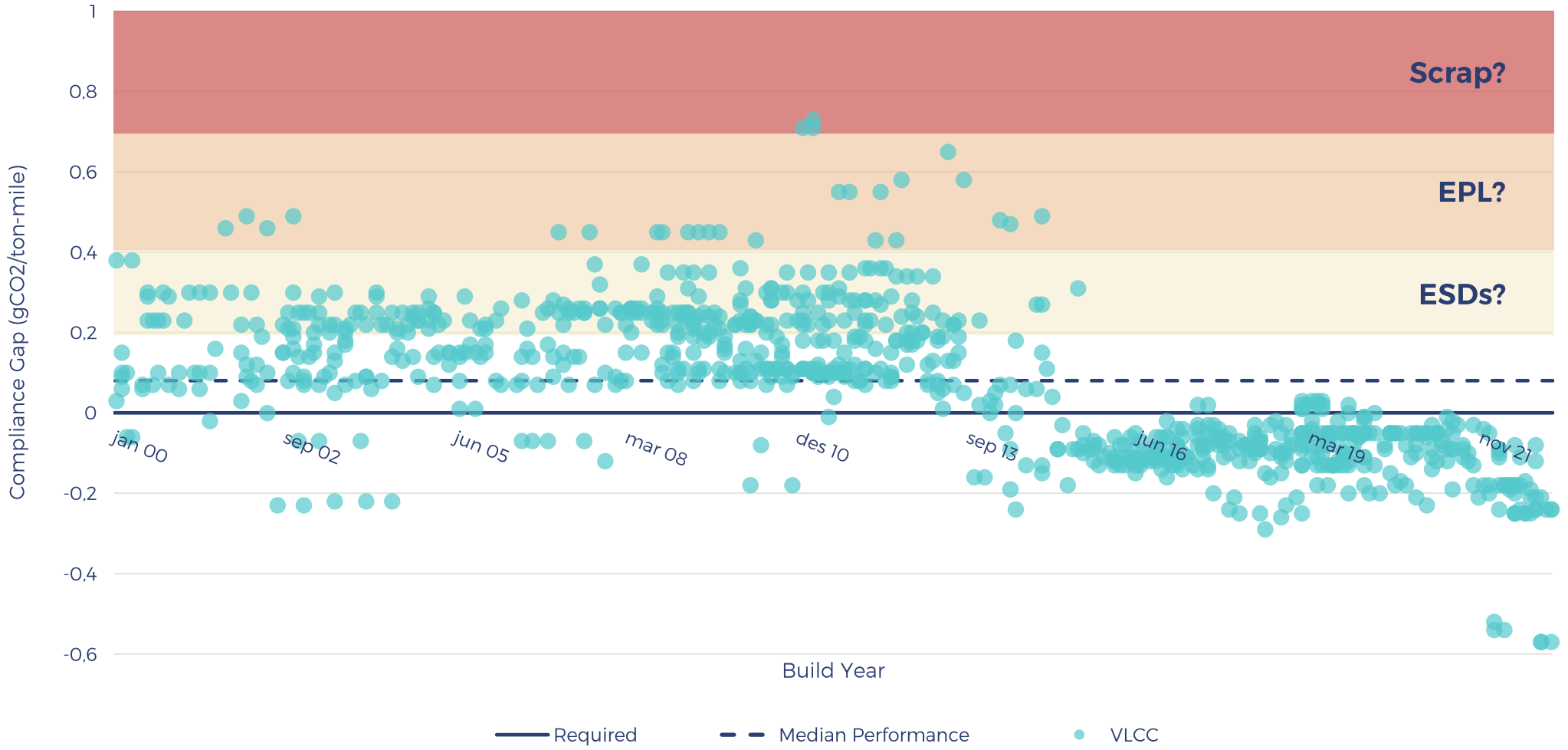
DECARBONIZATION TIMELINE



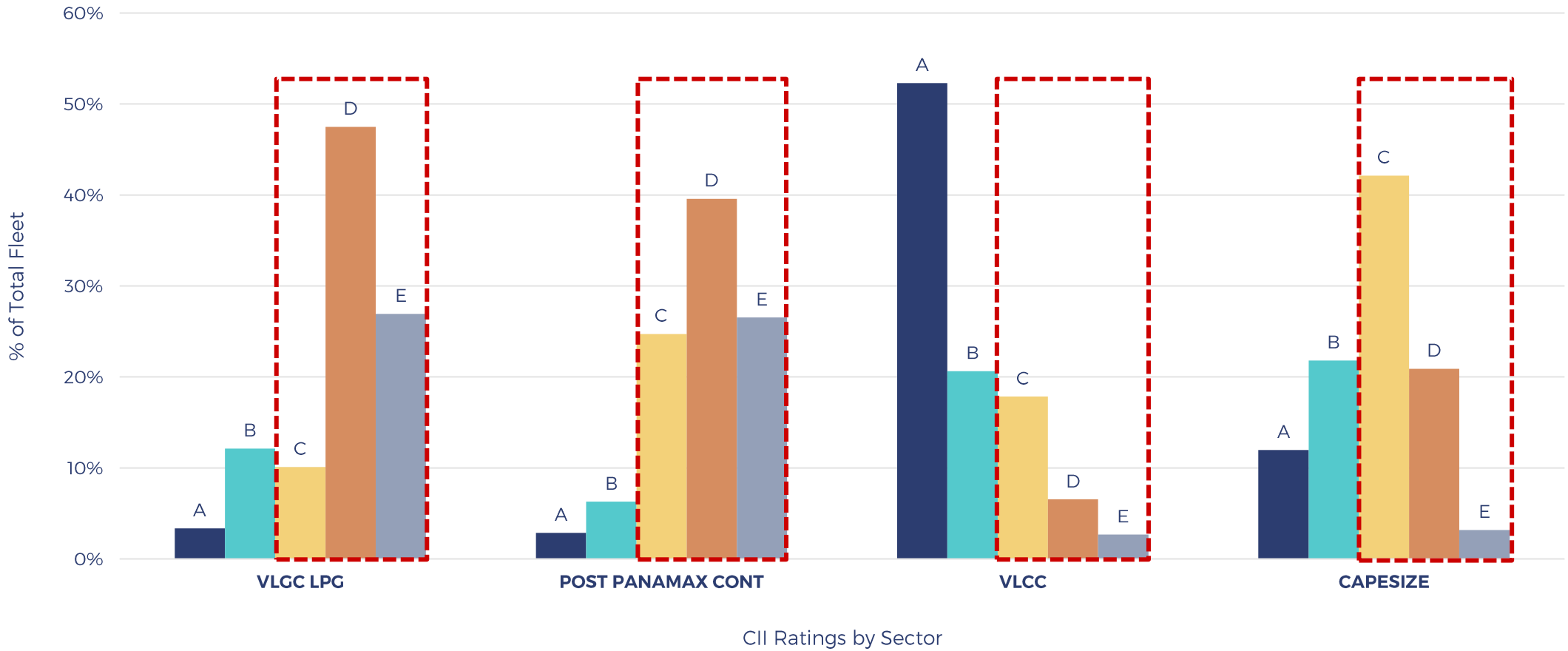
Having an efficient ship is key to both meeting emission regulations and increasing competitive advantage

IMPLICATIONS AND OPPORTUNITIES - OPERATIONAL

VOYAGE IMPLICATIONS WITH EEXI



ESTIMATED 2022 CII RATING BY SECTOR



Stricter requirements YoY

Source: VesselsValue Jan 2023

VOYAGE IMPLICATIONS WITH CII

Idling

- Port operations
- Congestion
- Multiple discharges
- Multiple cargoes
- Regional trade
- Contractual obligations

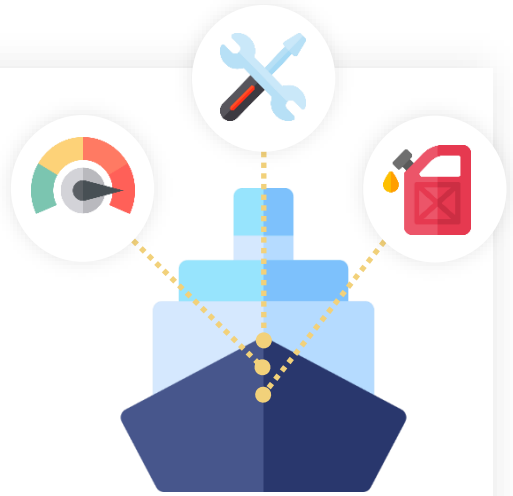
Creating multi-tier trades

VOYAGE IMPLICATIONS WITH CII

Performance

- Age
- Speed
- Yard
- ESD's
- Fuel options

Creating multi-tier ships



IMPLICATIONS AND OPPORTUNITIES - COMMERCIAL

ETS AND CARBON PRICING (THEORETICAL EXAMPLE)

- From 2024
  - 40% of 24' emissions to be paid in 25'
  - 70% of 25' emissions to be paid in 26'
  - 100% of 26' emissions to be paid in 27'

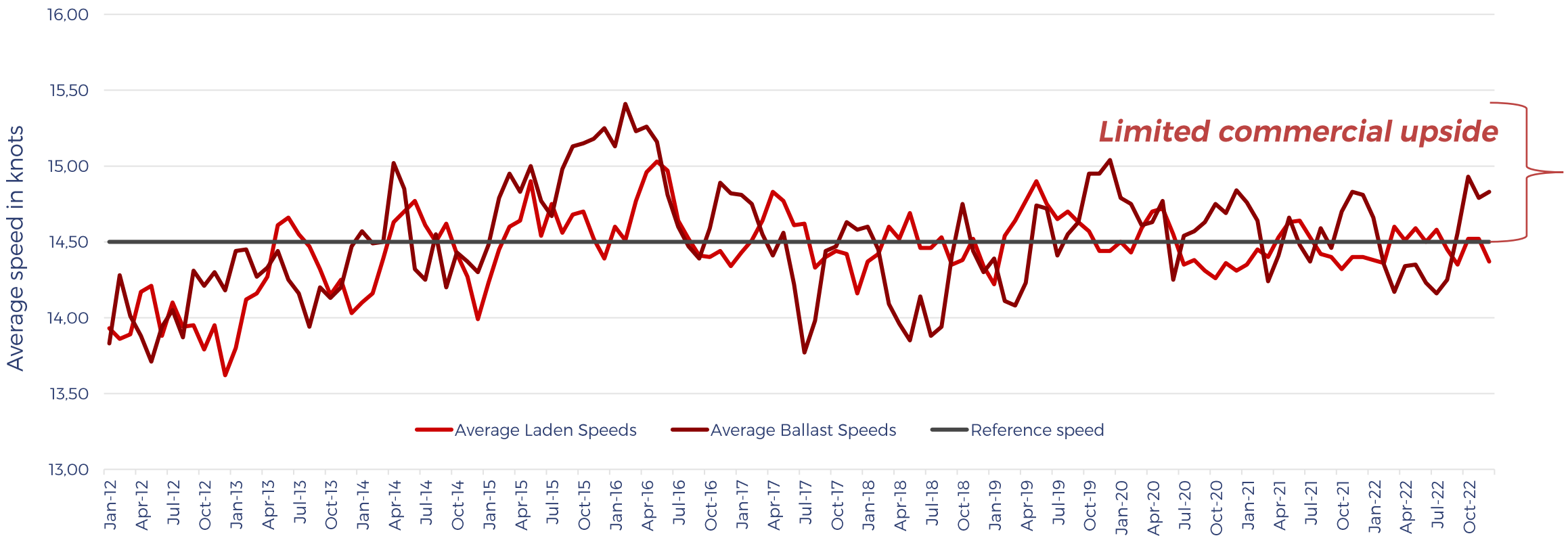
High freight environment

- A VLGC example on carbon cost
  - BLPG2 @ **$ 95** (USG – Flushing) ***($ 99,29)***
- Standard VLGC 2016 built – VLSFO
  - EUA: $ 80 per ton CO2e
- Carbon cost per voyage: **$ 198.390** (19% of voyage costs)
- Voyage costs from 856k to 1054k (**23% up**)
- Daily TCE would go from 110k to 104k (**5% reduction**)

Lower freight environment

- A VLGC example on carbon cost
  - BLPG2 @ **$ 45** (USG – Flushing) ***($ 49,29)***
- Standard VLGC 2016 built – VLSFO
  - EUA: $ 80 per ton CO2e
- Carbon cost per voyage: **$ 198.390** (19% of voyage costs)
- Voyage costs from 856k to 1054k (**23% up**)
- Daily TCE would go from 38k to 32k (**16% reduction**)

SPEED CAP VS. SLOW-STEAMING

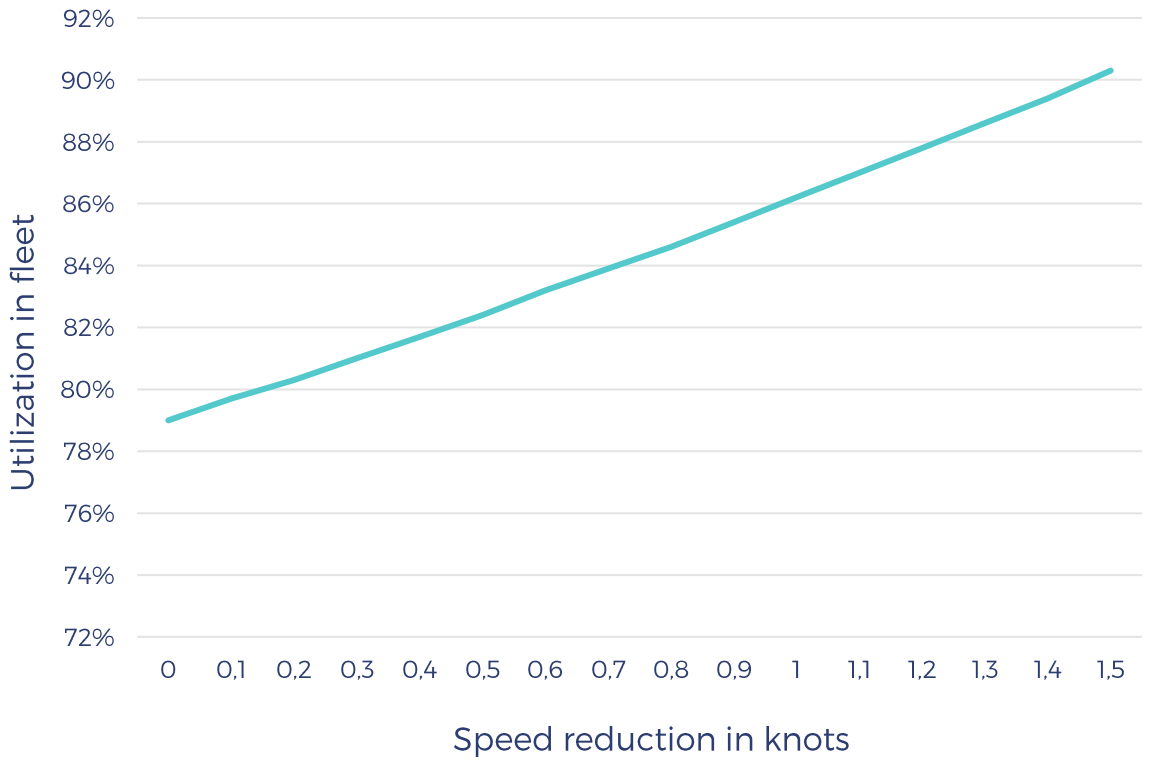


Emission mitigation like EPL will limit operational upside and decrease individual earnings

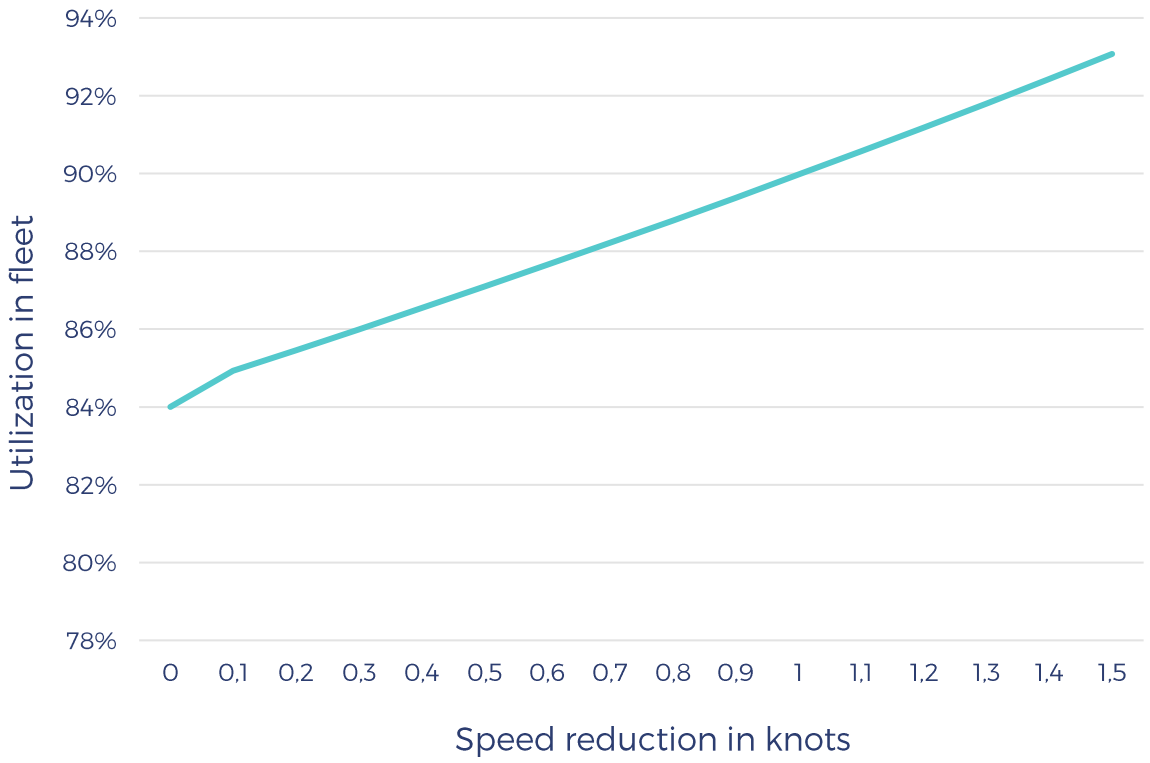
Basis a VLGC

OVER-ALL BALANCE IMPACTED – SLOW-STEAMING

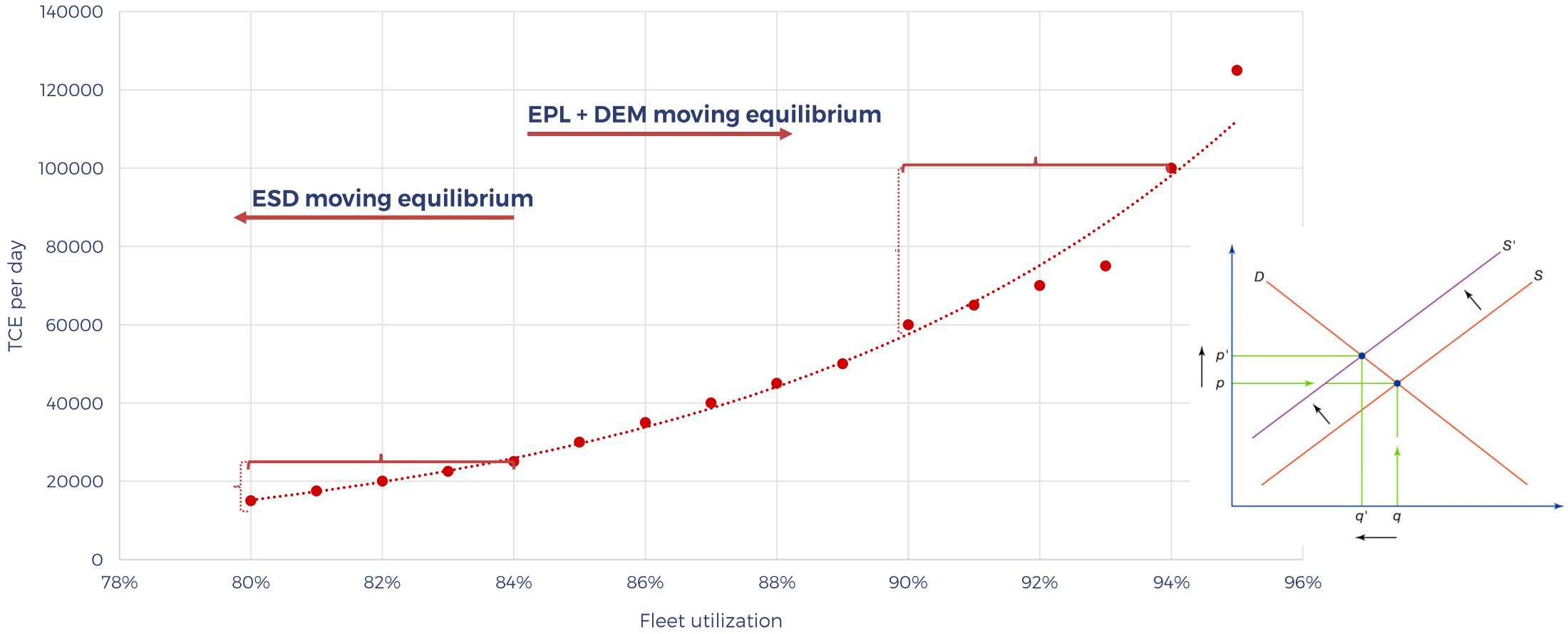
Speed reduction increasing fleet utilization – VLCC fleet



Speed reduction increasing fleet utilization - VLGC fleet

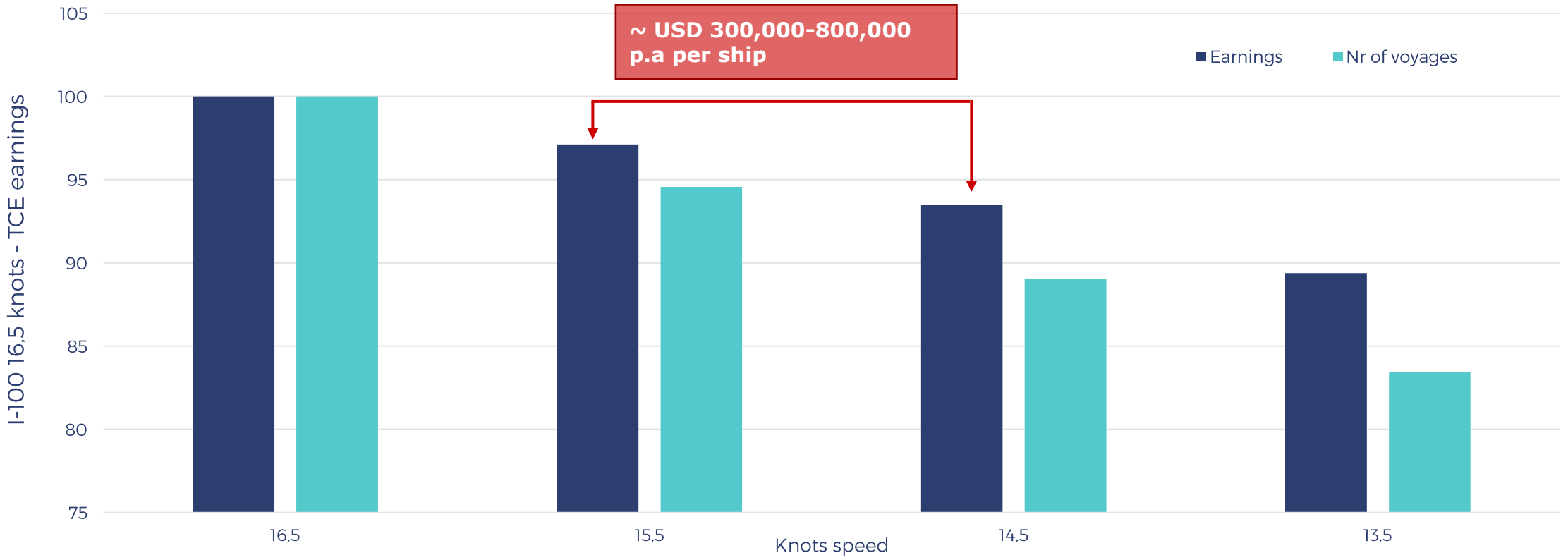


INCREASED UTILIZATION AND RATE IMPACT



The stronger the freight market, the more impact slow-steaming will have, creating more volatility

SLOW STEAMING AND TCE IMPACT (THEORETICAL FIGURES)



Slow-steaming not only impacting the individual voyage result, but also number of possible voyages

Basis a VLGC

AGE AND FUEL OPTIONS – TCE SIMULATIONS (THEORETICAL)

30%+ gain to be achieved on age and fuel choice

Basis a VLGC

RISK & REWARD

- Slow-steaming/steam-cap will move the S&D equilibrium.
- Energy efficiency is key in a fragmented vessel eco system and will give a competitive advantage.
- «Greener» fuels with lower CO2 content an intermediate solution.
- Demolitions likely to accelerate in low-earning environment benefiting the S&D balance

- Slow-steaming/steam cap will limit commercial upside at peak earnings.
- Alternative fuels currently expensive and question of availability.
- Carbon pricing will increase total costs of shipping.
- Multi-tier vessel segments will disfavor older ships unless retrofitted with energy saving devices.

CONCLUSION

- Uncertain and complex implementation of decarbonization efforts
- It's a transition with a collective long-term ROI for us all
- Decarbonization v. energy efficiency
- Substantial operational and commercial impact from CII and EEXI
- Creation of multi-tier trade and vessels
- Solid upside and commercial advantages arising from the multi-tier vessel scenarios

ViaMar

A Veson Company

viamar.no

viamar@viamar.no
+47 22 39 82 50