



KLIIMAMINISTEERIUM

„Riik, mis avaneb merele, ei saa olla väikeriik.“
“A state that is open to the sea cannot be a small state.”

Lennart Meri
(Eesti Vabariigi endine president)
(former president of Republic of Estonia)

Paldiski vesiniku ümarlaud „Räägime suud puhtaks“

Jaak Viilipus
Merendusosakonna juhataja

2024



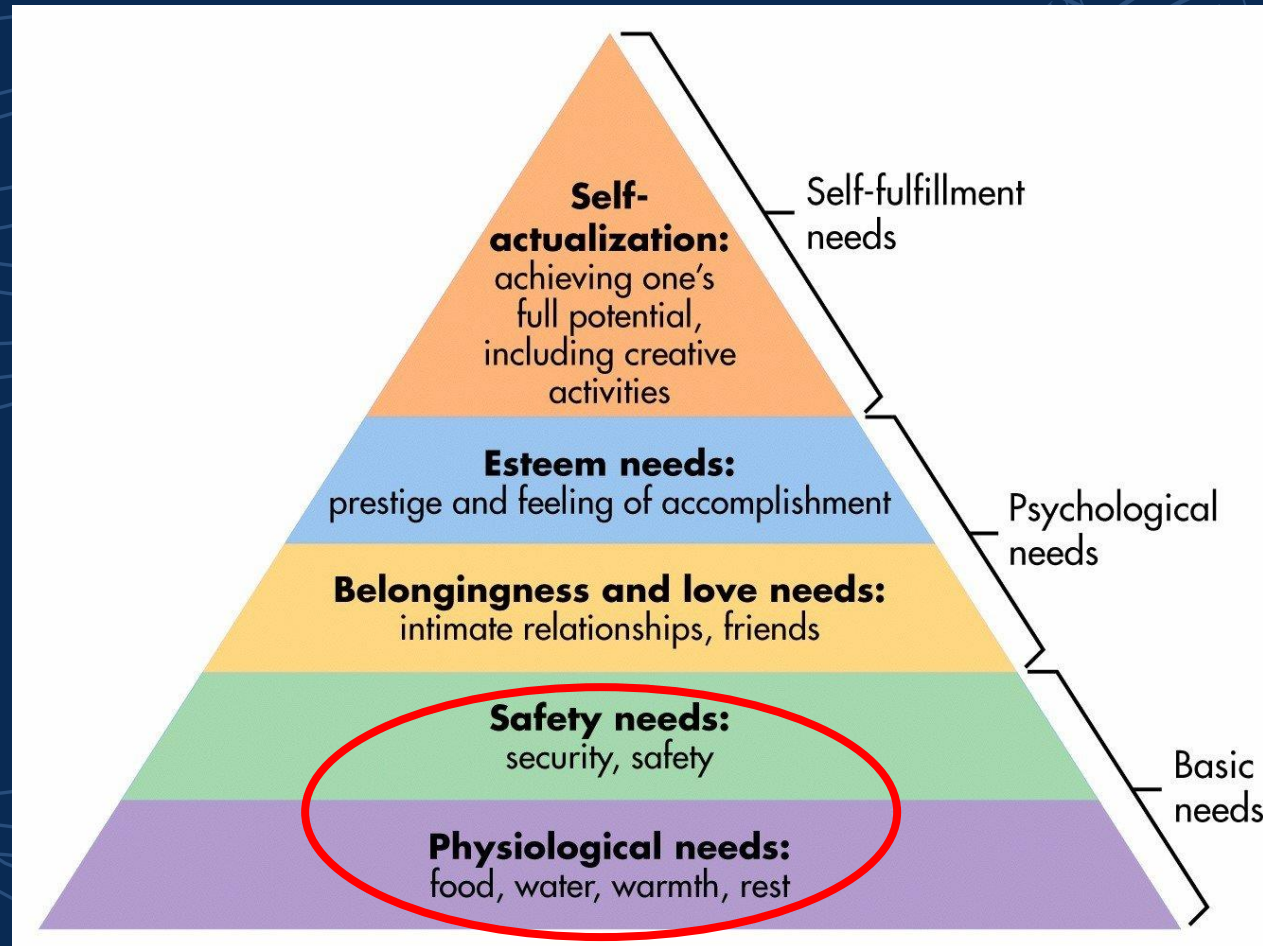
KLIIMAMINISTEERIUM

Milles seisneb meie väljakutse?





Kõik algab inimeste baasvajadustest ...

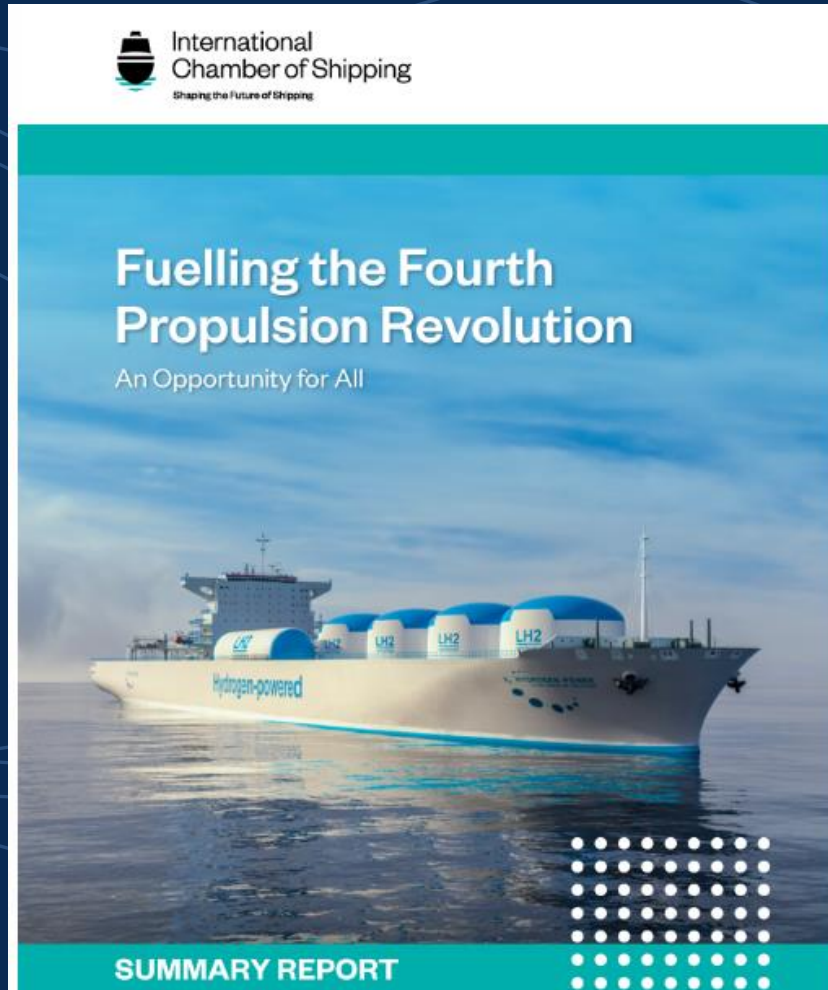


Maslow's Hierarchy Of Needs

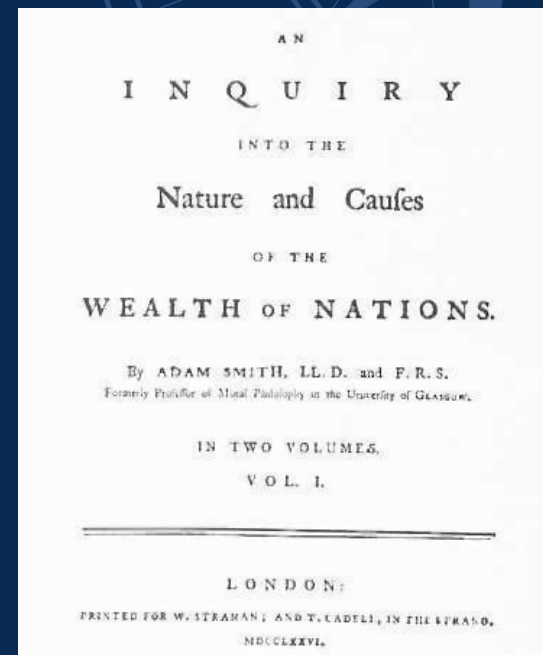




Muutuvad majandusmudelid...

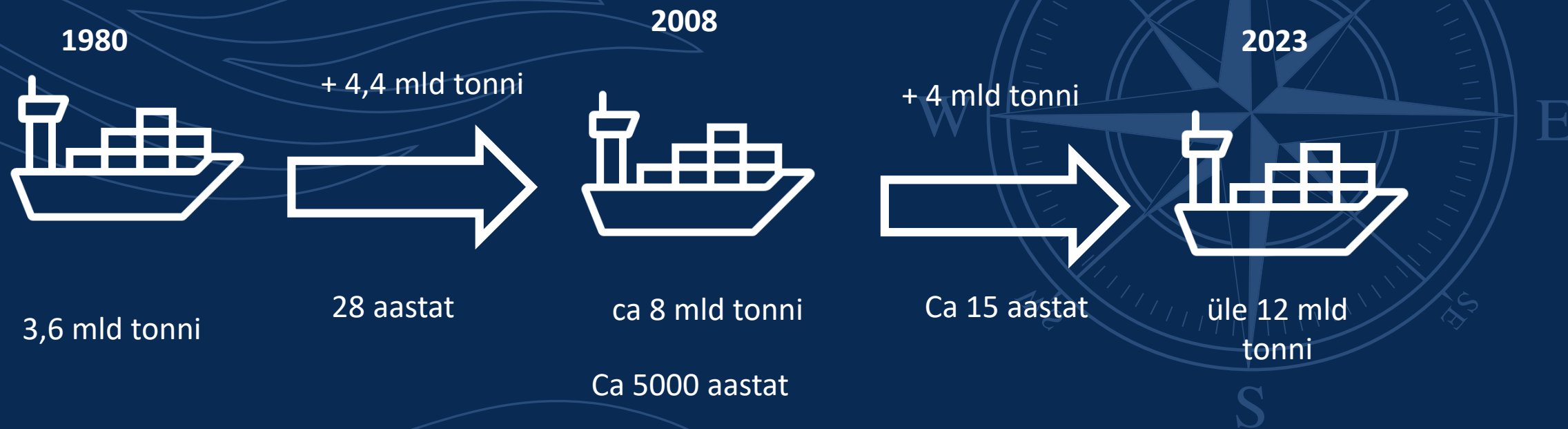


"THE WEALTH OF NATIONS IS
BUILT UPON THE INDUSTRY AND
ECONOMY OF INDIVIDUALS."





Laevandus ja maailma globaliseerumine ...



Viimase 24 aastaga on merevedude mahud x 2!!!



Meretranspordi heide ...

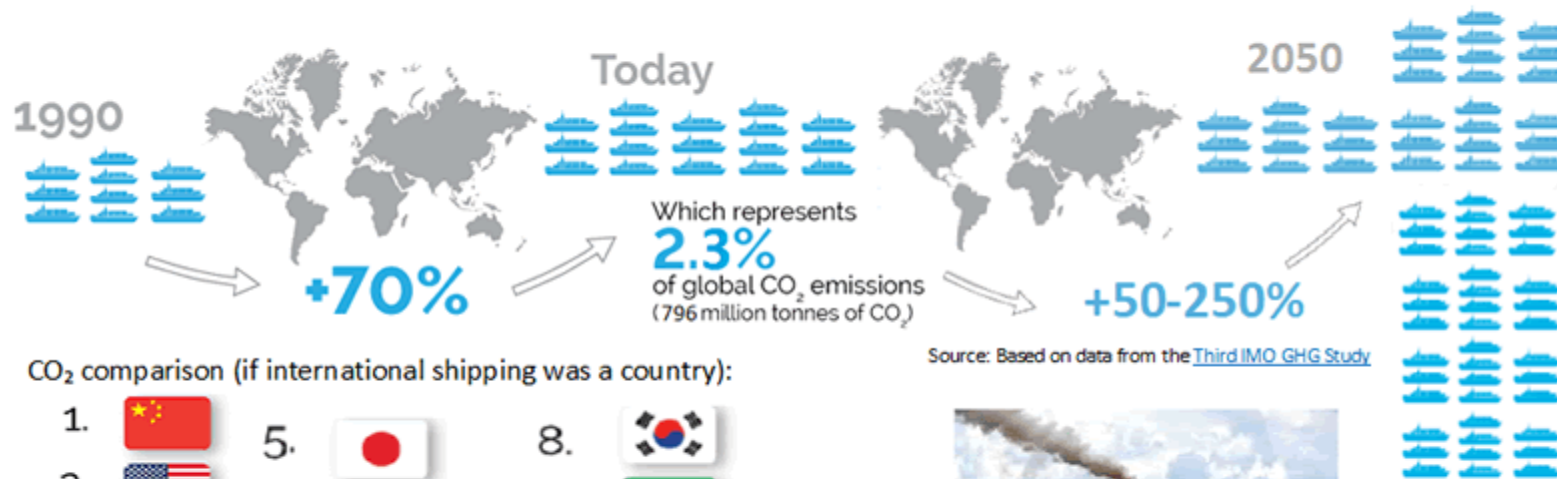
*"Riik, mis avaneb merele, ei saa olla väikeriik."
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2030 Statu

International shipping emissions are the equivalent of Germany's and predicted to increase.



CO₂ comparison (if international shipping was a country):

- | | | |
|----|----|-----|
| 1. | 5. | 8. |
| 2. | 6. | 9. |
| 3. | 7. | 10. |
| 4. | | |



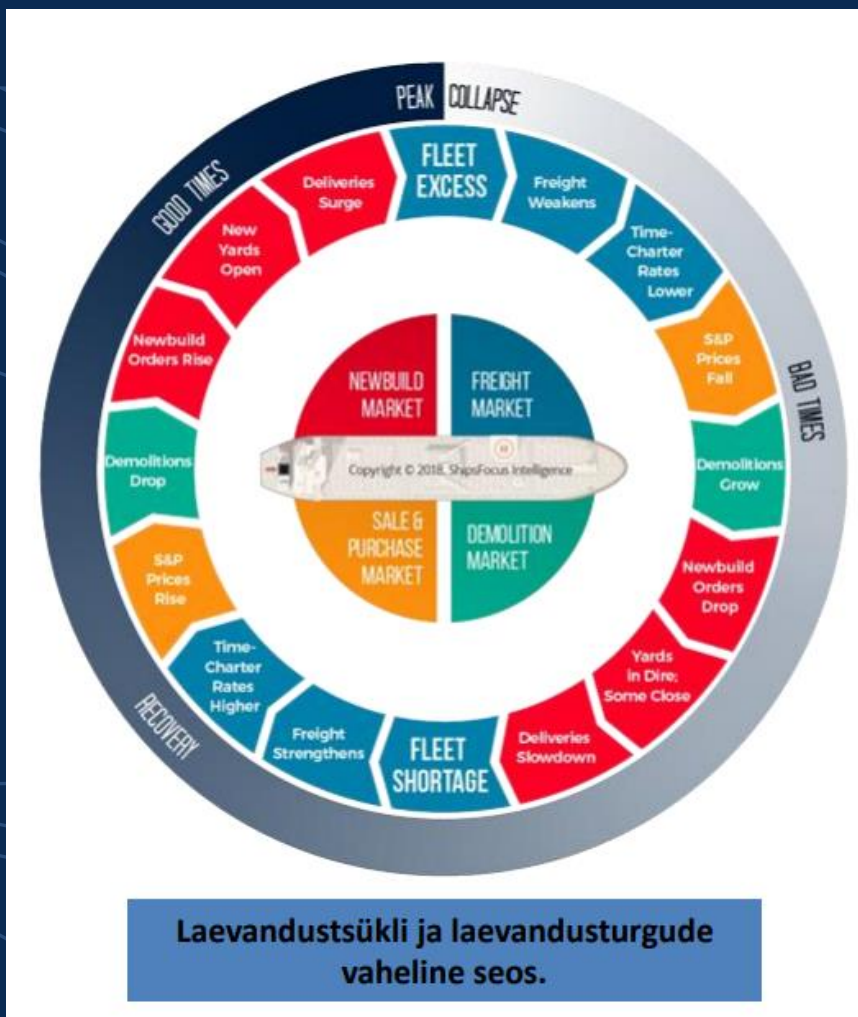
Source: IMO GHG Study, 2009 (*AP Moller-Maersk, 2014)



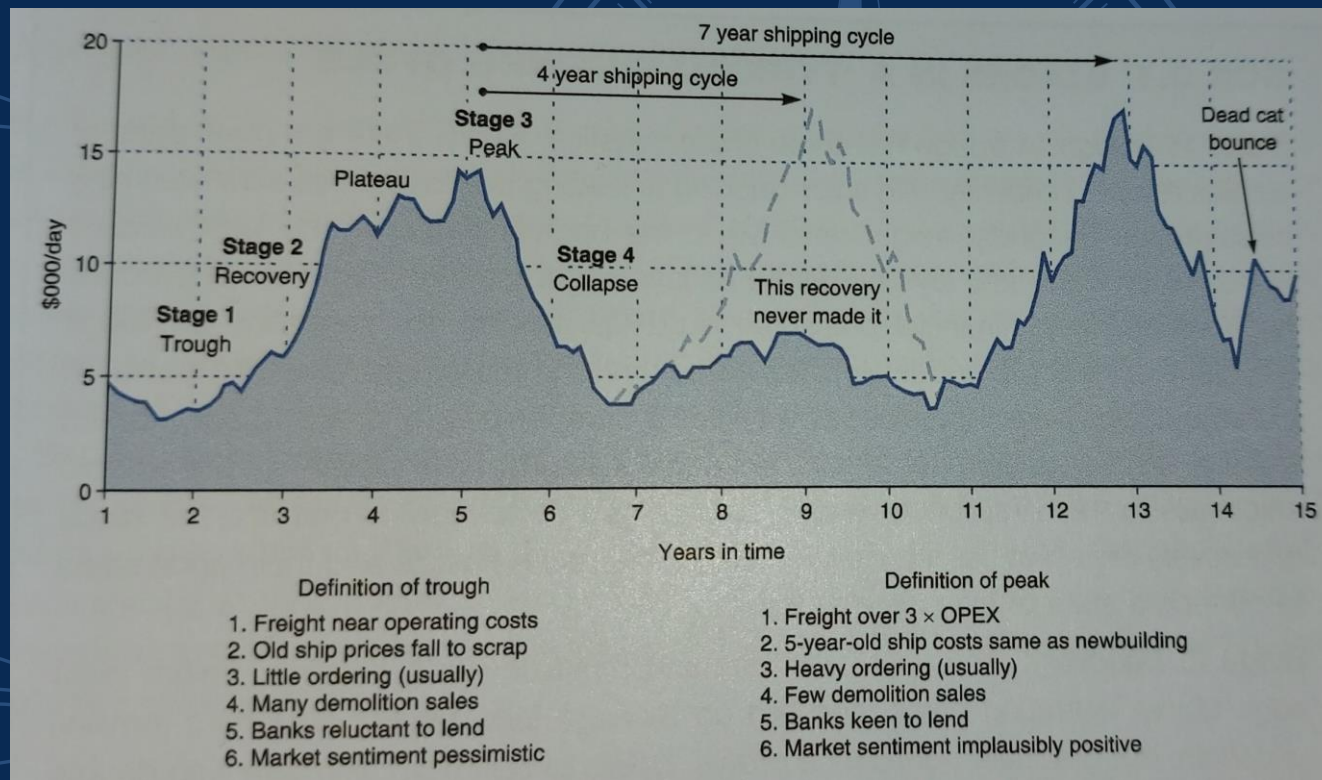
Meretranspordi eripära ...

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Laevandustsükli ja laevandusturgude vaheline seos.



Source: Dr. Martin Stopford



Globaalsed trendid ...

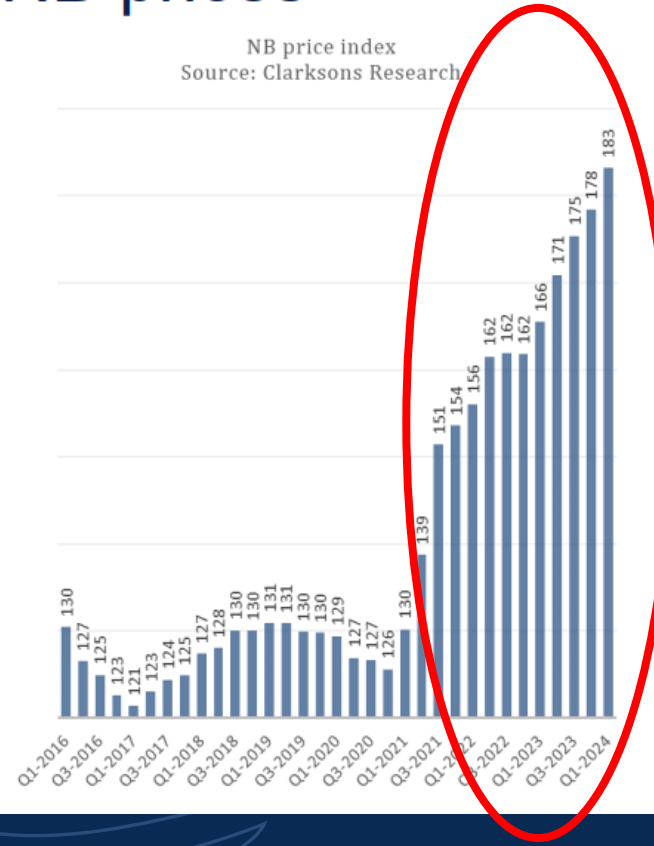
Uute laevade ehitushinnad on 16 aasta kõrgeimad, mis suurendab olemasolevate veomahtude elushoidmise vajadust sh ka vajadust retrofittida laevu.

*"Riik, mis avaneb merele, ei saa olla väikeriik."
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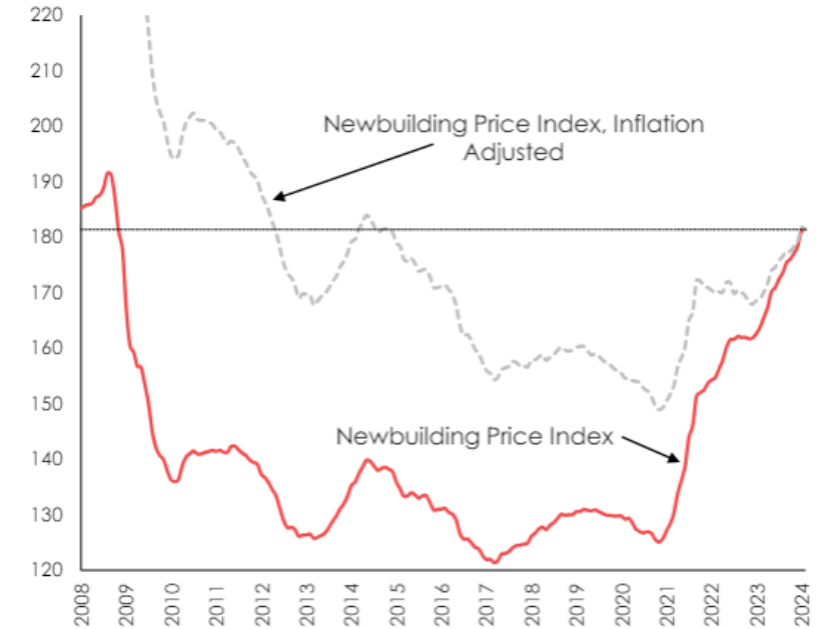
Lennart Meri
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NB prices

NB price index
Source: Clarksons Research



Newbuilding Price Index





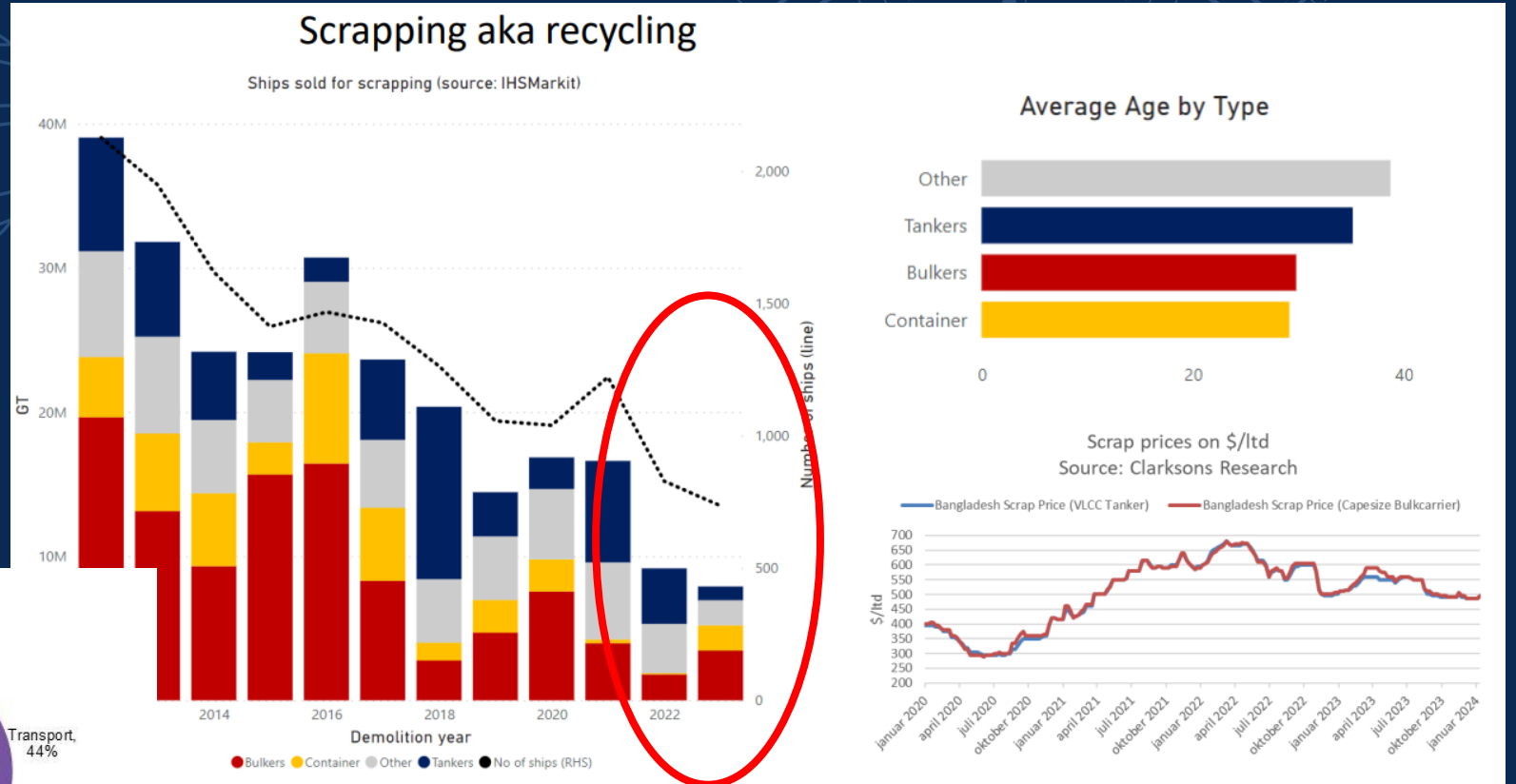
Globaalsed trendid ...

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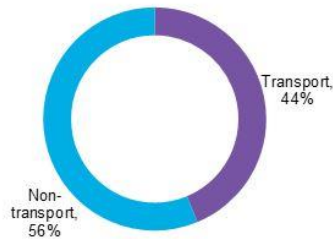
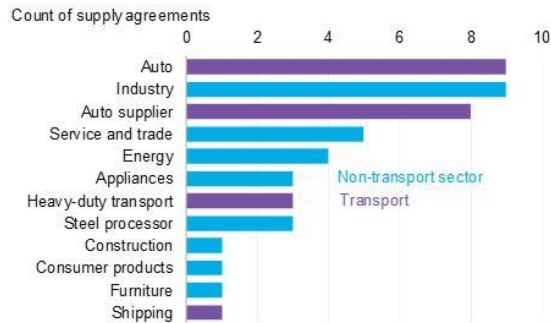
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Laevade eluiga suureneb ja mahakandmine läbi aegade madalaim ehk retrofit nõudlus suureneb

Green steel?



Tracked supply agreements for green steel



Source: BloombergNEF, company announcements. Data as of May 2023.



Globaalsed trendid ...

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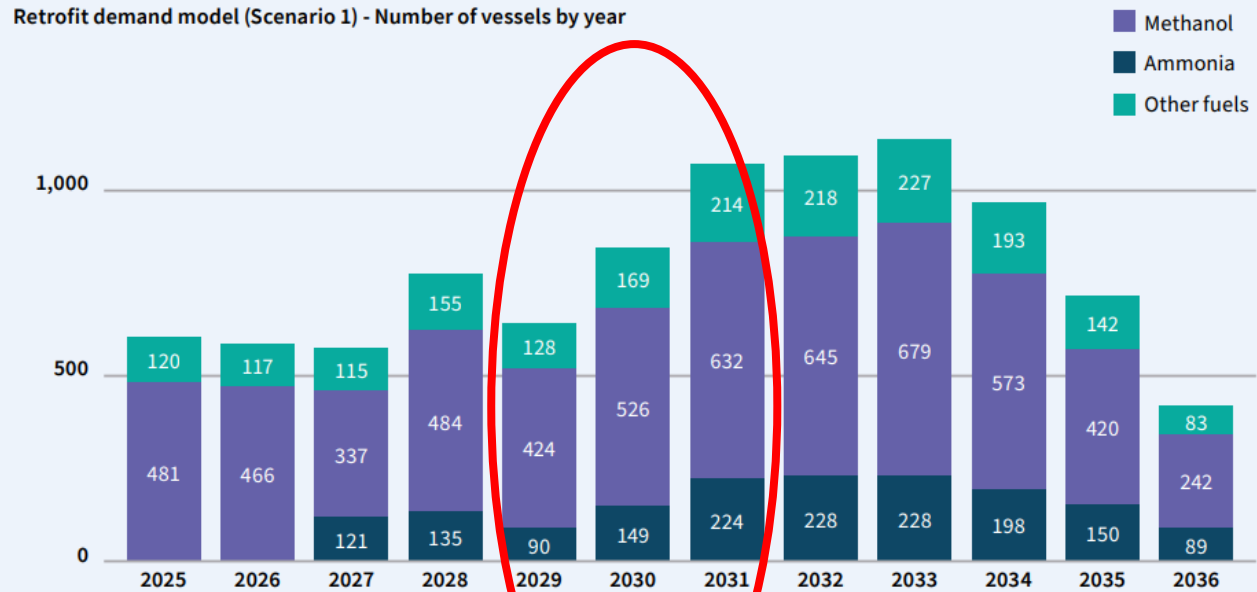
ENGINE RETROFIT REPORT 2023:



Applying alternative fuels to existing ships

1 Early adoption of zero-emission newbuilds, maximum retrofit age of 10 years, no delay in uptake on smaller vessels

Retrofit demand model (Scenario 1) - Number of vessels by year



This scenario envisions that the transition to building only zero-emission vessels begins in 2027. This leaves a population of around 9,400 conventionally fuelled vessels still trading in 2050 that are candidates for retrofits. Under this scenario, around 5,900 vessels are candidates for methanol retrofits while 1,600 are candidates for ammonia retrofits. The ten-year age limit on converting vessels – and the fact that for some vessel types a retrofit is only likely to be viable at five years - means that the retrofitting period is compressed between 2025, when methanol conversions begin, and 2036, when the last conventionally fuelled vessels (built in 2031) are converted.

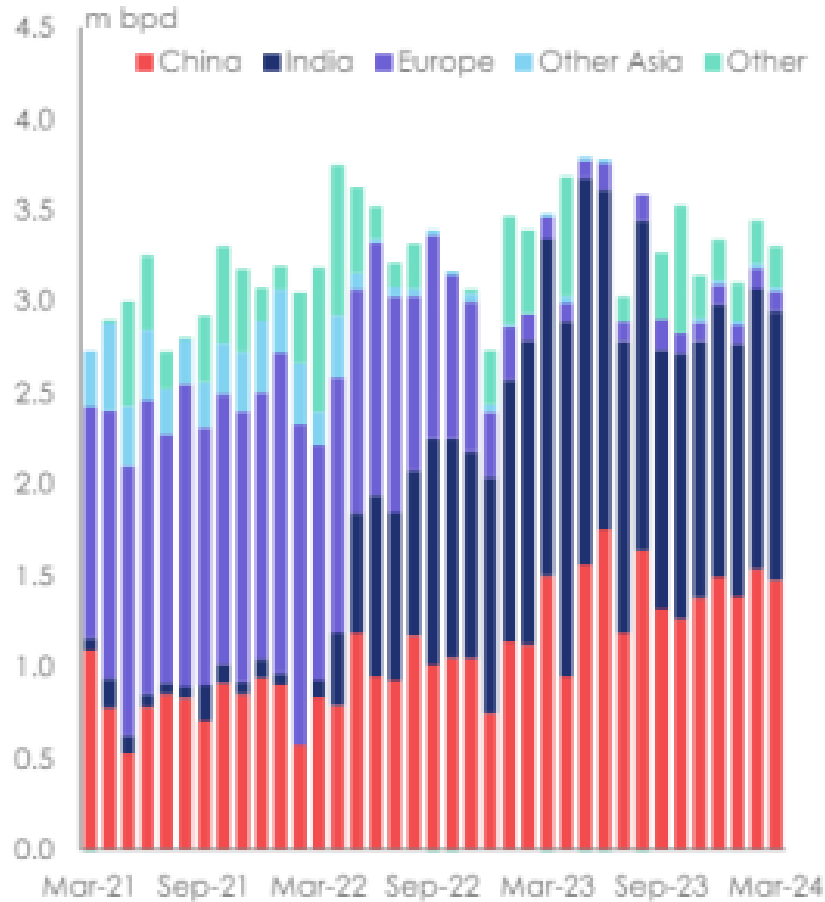


Geopoliitika muudab olukorda ...

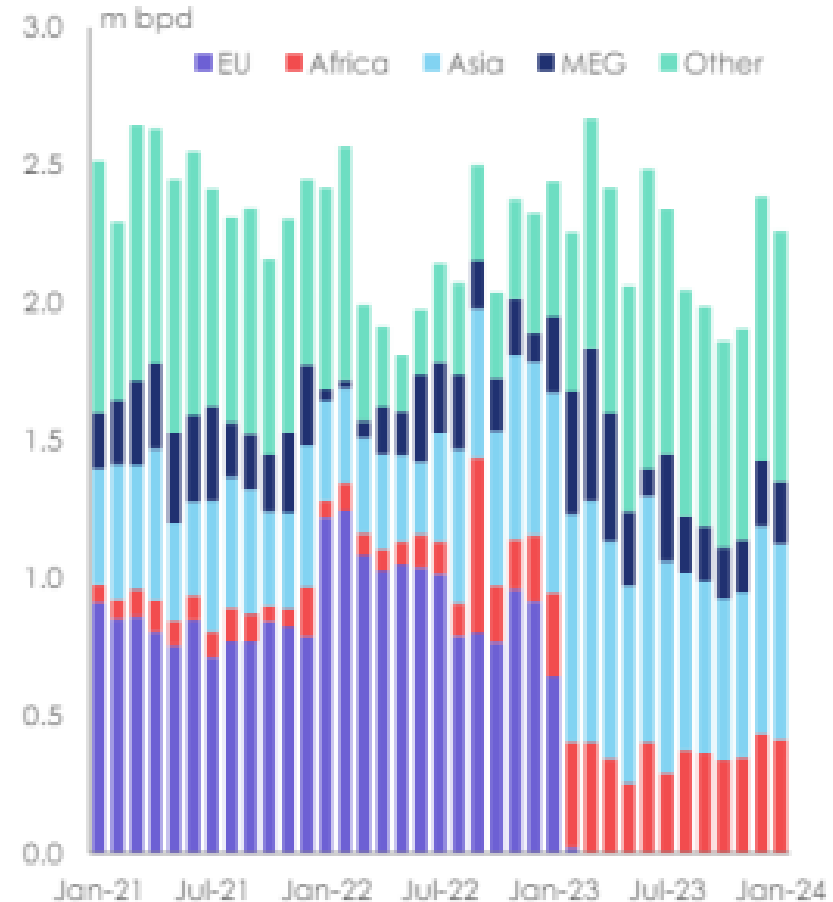
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Russian crude exports to India and China have risen, despite ongoing OPEC+ cuts



Russian products exports to Asia, Africa, Latin America and Turkey have increased



Gas carriers, car
containerships n

Gulf of Aden Vessel An

0%

-20%

-40%

-60%

-80%

-100%

-120%

Crude Tankers

Product Tankers

Clarkson

Ir

Sou

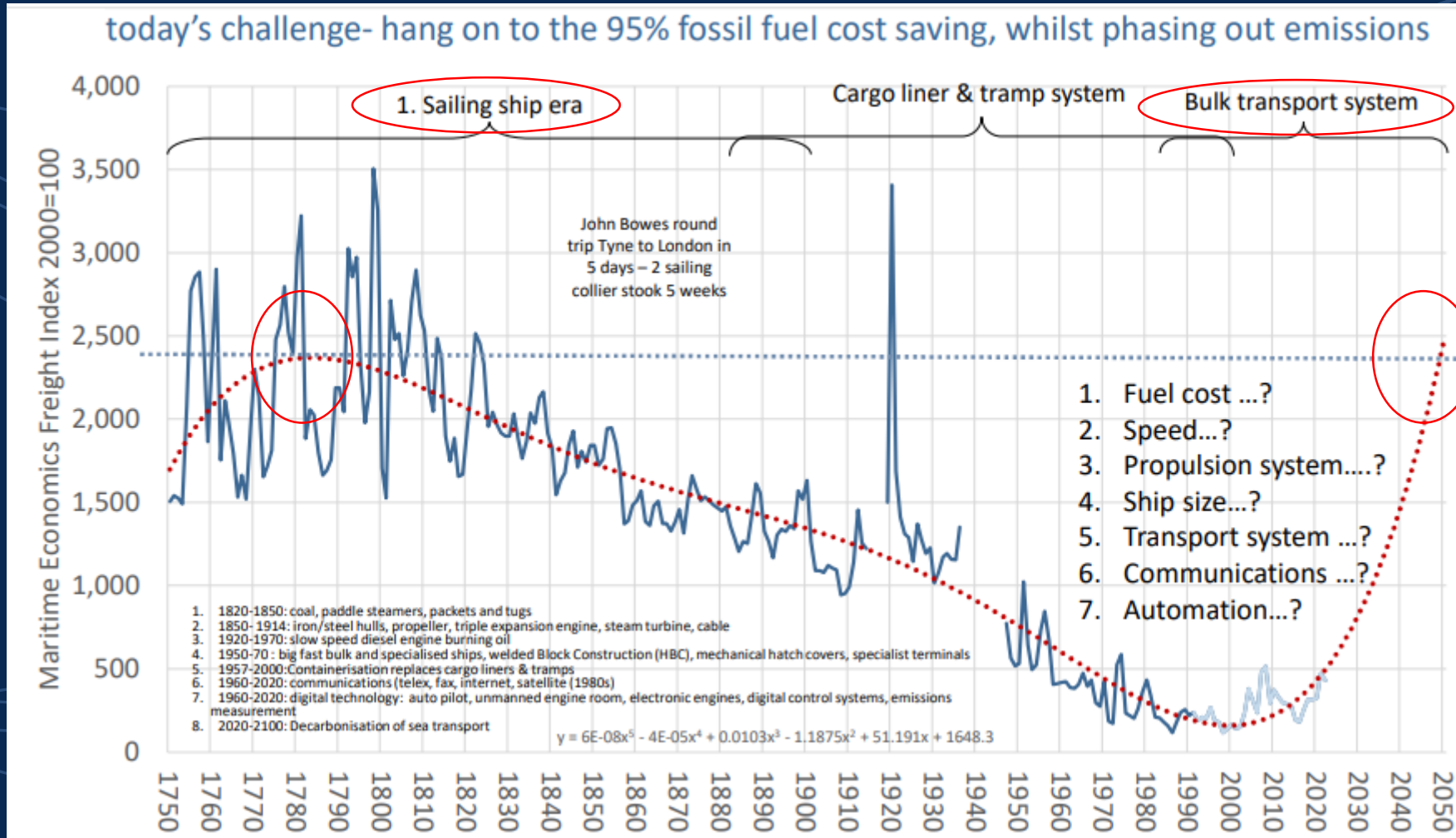
WALK IN OCEAN



Meretranspordi eripära ...

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50 mln tonni vedamiseks oli vaja 3500 parklaeva (barques), siis 12 mld tonni vedamiseks oleks vaja 1,4 mln parklaeva.



Source: Wikipedia

Source: Dr. Martin Stopford



Võimalused...

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Shipping needs \$3.4trn investment to meet 2050 decarbonisation target, Stopford says

Renowned economist says shipowners must invest in new types of vessels
The Maritime Executive
INTELLECTUAL CAPITAL FOR LEADERS

15 April 2021 13:34 GMT UPDATED 16 Apr 2021
By Max Tingyao Lin in London
2143 Views 7 Shares



The shipping industry will need to invest \$3.4 trillion over the next 30 years to meet the target, a leading maritime researcher says.

Report: Lack of Shipyard Capacity Could Impact Decarbonization Retrofits



- Decarbonizing shipping by 2050 will require large investments, with some estimates suggesting an additional **\$8 billion to \$28 billion annually**, to enable ships to decarbonize by this date.
- **Fuel infrastructure investments are expected to surpass onboard investments.** Scaling up fuel production, distribution and bunkering infrastructure to supply 100 per cent carbonneutral fuels by 2050 will require annual investments of around **\$28 billion to \$90 billion.**

Estimates suggest that full decarbonization could raise annual fuel costs by 70 to 100 per cent compared to current levels.

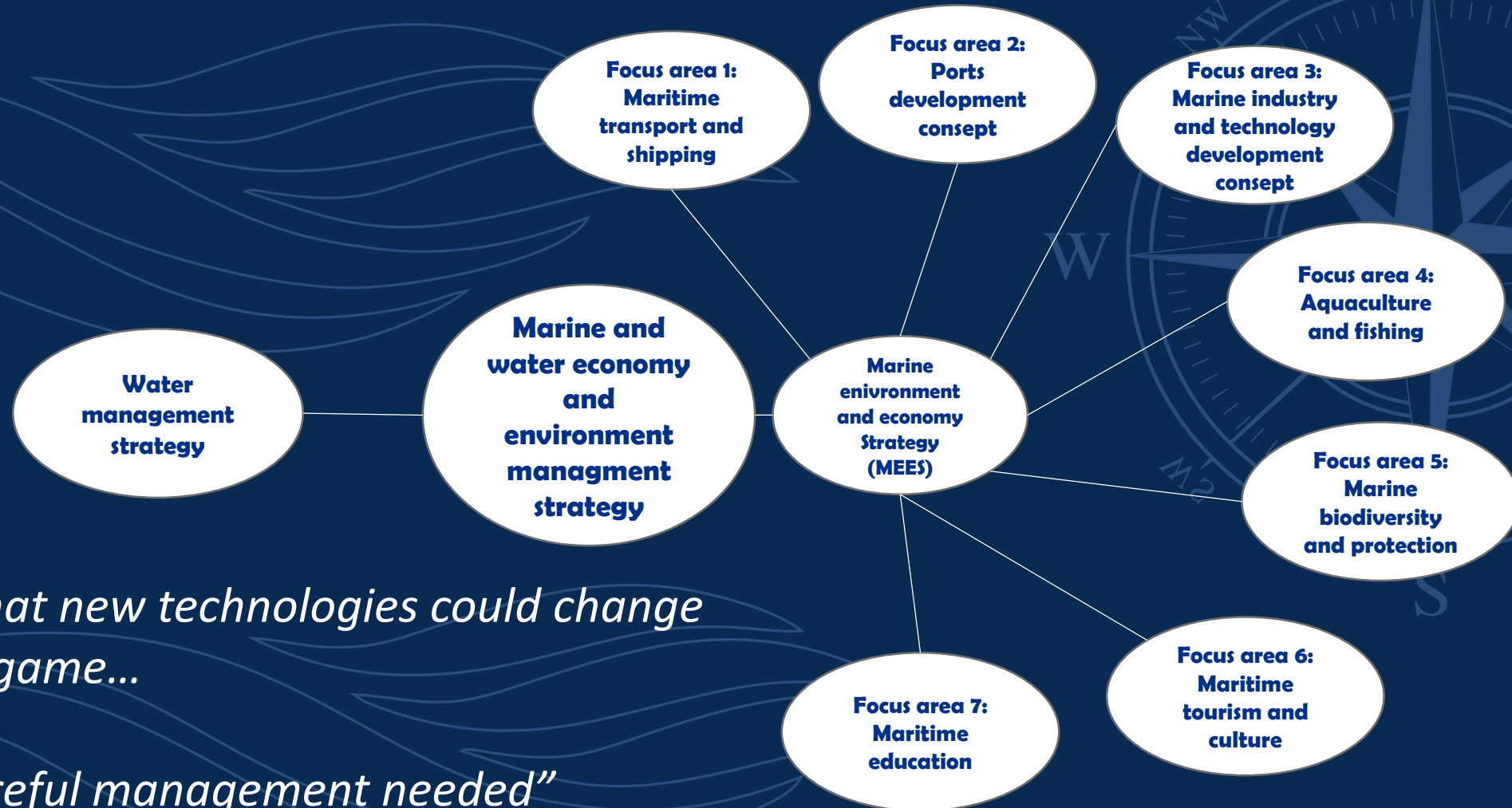




Strateegiline juhtimine ...

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“What new technologies could change the game...”

“Careful management needed”

M.Stopford



Mõned näited ...

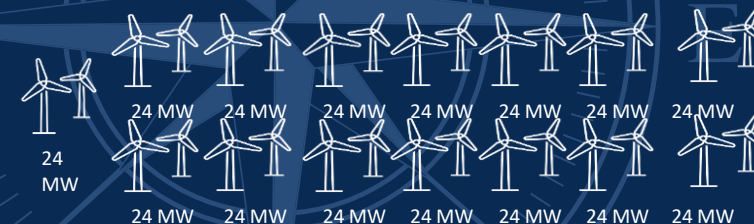
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400 t green
methanol

=360 MW=



30 x 12MW tuulikut

1 konteinerlaev saab 1 päeva
sõita

30 tuuliku rajamine ca 790 mln dollarit ja 60 tuh dollarit igapäevane
opereerimiskulu

**Maailmas on ca veidi alla 6000
konteinerlaeva!**

Mida saab riik teha?

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Fookus: Laevaomanikud
01.07.2020 Laevanduspakett 1.0
- 2026 Laevanduspakett 2.0

Fookus: Laevaomanikud ja
meretööstus

Fookus: Laevaomanikud,
sadamad ja meretööstus

2022

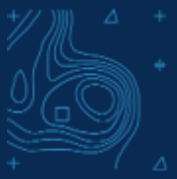
Erimaksurežiim
laevaomanikele ja
meremeestele

2023

Ekspordi ja käendus
meetmed

2024

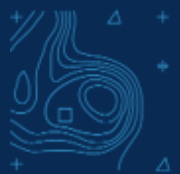
Meetmed turule
sisenemiseks ja
innovatsiooni
toetamiseks



Estonian
Marine Greentech
& Retrofit
HUB

Mida on Eestil pakkuda?





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HUB

Mida on Eestil pakkuda?

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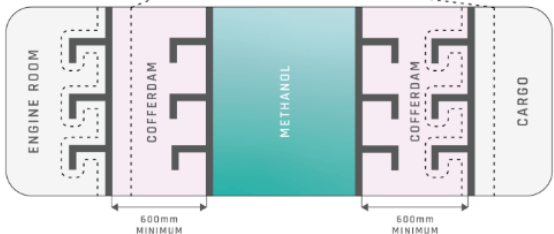
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The Maritime Executive

INTELLECTUAL CAPITAL FOR LEADERS

INCREASE UP TO +85% METHANOL FUEL TANK VOLUME

A Traditional Storage



B SRC Methanol SuperStorage



OFFSHORE ENERGY Green Marine Hydrogen Marine Energy Subsea Fossil Energy Altern Fuels

Home > Clean Fuel >

Hydrogen fuel-cell ferry wins LR's AIP

CERTIFICATION & CLASSIFICATION

February 6, 2024, by Jasmina Ovcina Mandra

The Estonian State Fleet has won Approval in Principle (AIP) from L Register (LR) for a hydrogen fuel-cell ferry designed by Finnish ship and engineering company Deltamarin.



Saarte Hääl > Maakond

Tõllust sai esimene hübriidlaev

SH Saarte Hääl
3. september 2020, 00:22



OFFSHORE ENERGY Green Marine Hydrogen Marine Energy Subsea Fossil Energy Altern Fuels

< Back to overview

Home > Shipbuilding >

Contract signed for Estonia's first 100% alternatively fueled workboat

BUSINESS DEVELOPMENTS & PROJECTS

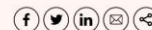
January 26, 2024, by Naida Hakirevic Previjak

Estonian shipbuilder Baltic Workboats AS signed a contract with the Estonian State Fleet for the design and construction of a new environmentally friendly multipurpose vessel.



UUDISED • Äripäev • 13. oktoober 2022 kell 20:30

Äripäev



Aasta ettevõtte tiitli sai Baltic Workboats



LTH Baas

Company News

LTH-Baas – the most successful Estonian company 2019

By Chief Editor | 19.01.2020 | No Comments

- Partnership in Norway with ultra deep terminal **Skipavika**
- Methanol integration, SPS development**, projects preparation (partnership - NCL, DNV, MAN, AlfaLaval, SRC. Other intrested parties MSC, Maersk, Stena Line, ...). **SRC is playing with big boys!**

2022

- Organization change** for more global approach , skills and knowledge increase. Buyout of the one business partner (20%).
- SRC NL moved to **Port of Rotterdam**
- First ever SRC own product for offshore came to the market - **Fairlead remote locking system**
- Our CEO Hannes Lilp was nominated for **Entrepreneur of the Year** by Ernst & Young Estonia and SRC was winning **Exporter of the Year Award in Estonia!**

- Kick-off for inhouse **electrical function/team/knowledge** build up
- SRC Poland** was established
- Knowledgeable **marketing** activity kick-off
- Accounting and BI **major software development** and integration

2021

- SRC Italy SRL** was established
- US active** cruise industry sales started
- SRC NO** reorganization

2020

- Kick-off for inhouse **engineering function/team/knowledge** build up

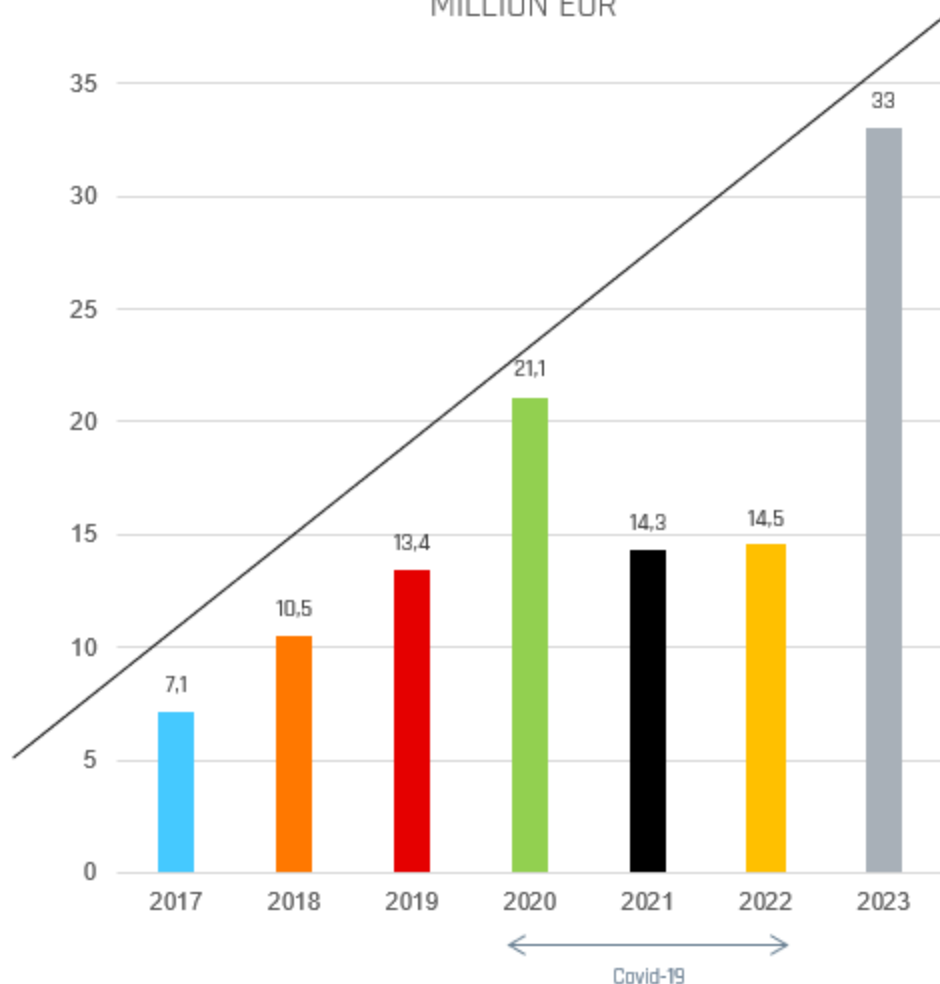
2018

- New SRC business strategy implementation** - knowledge related services, capability to do more than one major project at the same time - global sales network in the market hotspots.
- SRC Netherlands B.V** was established

2017

Scaleup Company

CONSOLIDATED ADJUSTED SALES REVENUE,
MILLION EUR





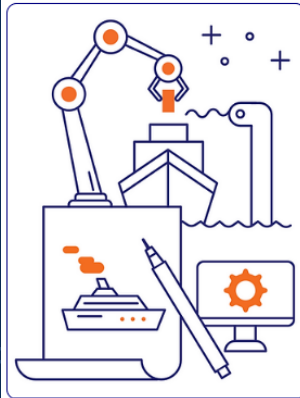
+35 organisatsioonid

Estonian Maritime Cluster (EMC) is a dynamic and innovative network of maritime industry professionals, companies, and organisations working together to promote the growth and innovation of Estonia's maritime sector.



Our Concept

EMI unites specialists and professionals from various sectors to provide tailor-made solutions for your marine and land construction projects.



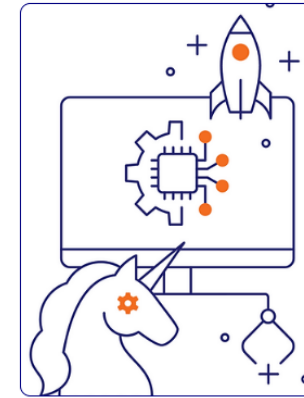
Shipbuilding



International
Purchase services



Design Manufacturing

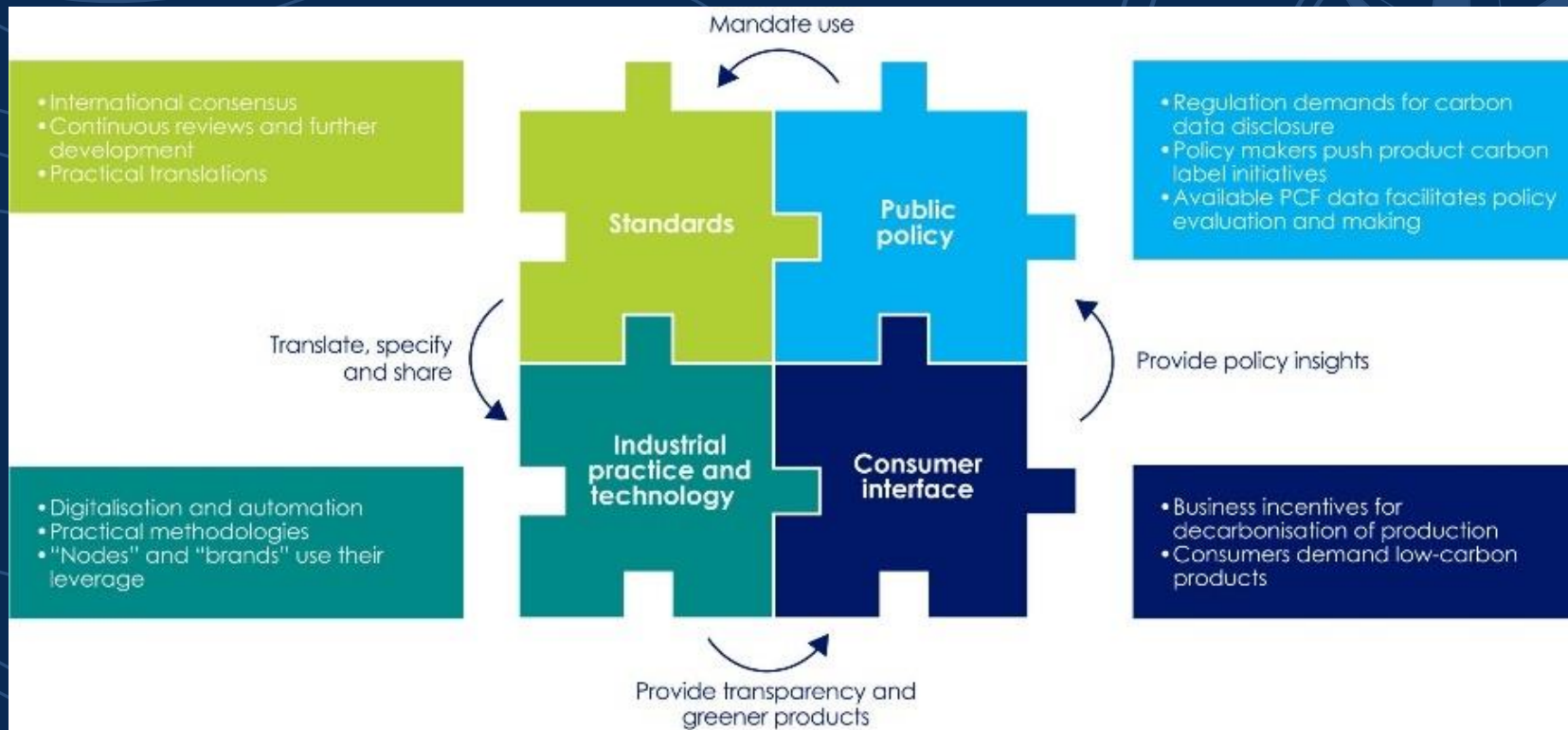


IT - Solutions

23 ettevõtet



Elame eelmiste mudelite järgi ning ei saa oma rollidest aru - Eesti potentsiaal jääb kasutamata





- Turumajanduse alustalad on muutumas – senised arusaamad peavad muutuma
- Riik ja erasektor peavad tegema tihedat koostööd, et konkurentsipüsida
- Eestil on võimalus väärtusahelaid kombineerides oma tugevusi maksimaalselt ära kasutada.

Policy recommendations

To effectively address the fast-evolving operating environment and emerging challenges in shipping, stakeholders must consider a number of priority actions. These should include responding to heightened market uncertainty and volatility while ensuring sustainability, resilience, and the continued efficient delivery of global trade. Actions include the following:

Improve the industry's capacity to better navigate through uncertainty, which undermines timely investment in fleet renewal and ship carrying capacity

- Improve understanding of issues at stake and identify solutions by conducting feasibility studies, monitoring market trends, and consulting with experts.
- Promote information sharing and provide timely access to relevant data to inform decisions and policies pertaining to fleet capacity investment, renewal, resale, and recycling. Data in particular can enable reliable forecasting, predictive analysis, and informed planning.
- Strengthen cooperation among countries, shipyards, and maritime supply chain stakeholders to share information about shipyard capacity and resources and ways to avoid bottlenecks in shipbuilding.





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Täna^W!

