Port of Tallinn as the Green Fuel Hub

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PORT OF TALLINN
The Port of Good News

NASDAQ BALTIC AWARDS
2021 INVESTOR RELATIONS OF THE YEAR

Port of Tallinn is a Listed Company

Port of Tallinn is listed on Nasdaq Tallinn Stock Exchange since June 13, 2018.

Shareholders include:

67% Republic of Estonia
33% Investment funds,
pension funds, private investors

Nasdaq acknowledged Port of Tallinn as the most remarkable stock exchange debut of the year.

NASDAQ BALTIC AWARDS 2019
STOCK EXCHANGE EVENT OF THE YEAR
IPO OF TALLINNA SADAM IN ESTONIA

PORT OF TALLINN

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BUSINESS FIELDS

Port of Tallinn aims to become the **most innovative port on the shores of the Baltic Sea** by offering its customers the best **environment** and **development** opportunities.

Passengers*

- 10 mln passengers a year
- 5000 ferry calls a year
- Old City Harbour and Saaremaa Harbour
- Welcoming passenger ships, offering and developing the port infrastructure, serving passengers and vehicles

Cargo

- 22 mln tons of cargo a year
- 1600 cargo ship calls a year
- Muuga Harbour, Paldiski South Harbour
- Welcoming cargo ships, offering and developing the port infrastructure, serving passengers and vehicles

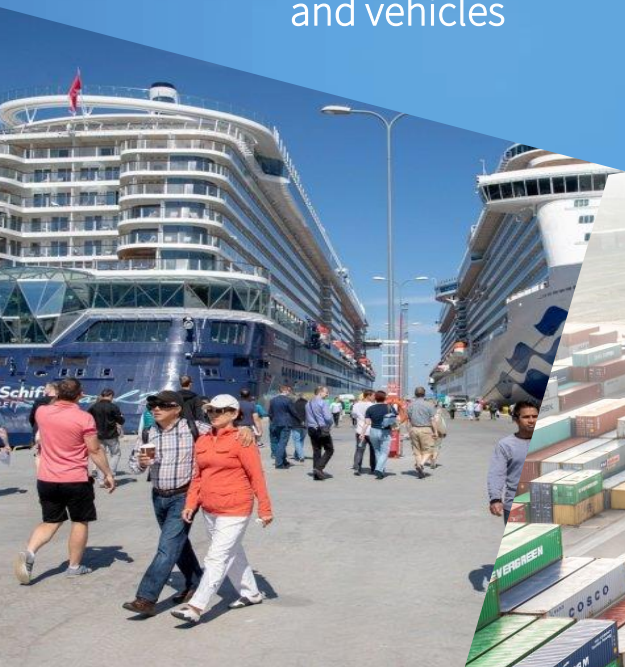
Shipping

- Operating ferry traffic between the mainland and major islands
- 2 mln passengers, 1 mln vehicles a year
- Ice breaking in the ports of Northern Estonia

Offshore Marine services

Real Estate

- 16 ha Old City Harbour real estate development
- 76 ha Muuga Industrial Park
- 39 ha Paldiski South Harbour Industrial Park
- 10 ha Saaremaa Harbour
- Land and commercial space



** pre-COVID-19 figures*

We Operate Ports & Develop Real Estate

Port of Tallinn operates 4 ports.

As a landlord we ensure the safe navigation in our waters & maintain and develop the infrastructure of the ports and lease territories to operators.

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Port of Tallinn's Subsidiaries

TS LAEVAD

TS Laevad OÜ

Operating **ferry traffic** between Estonia's major island and the mainland.

TS Shipping

TS Shipping OÜ

Providing **icebreaking** and other maritime support/offshore services with the multifunctional icebreaker **MPSV Botnica**, being contracted by state of Estonia for winter periods. It also provides full management services for vessels, including **commercial, technical and crewing.**

Green Marine
Your Partner on the Green Planet

Green Marine AS

Providing and coordinating **waste management services** to ships within the ports of Port of Tallinn, focuses also on sea pollution prevention, localization and removal issues.

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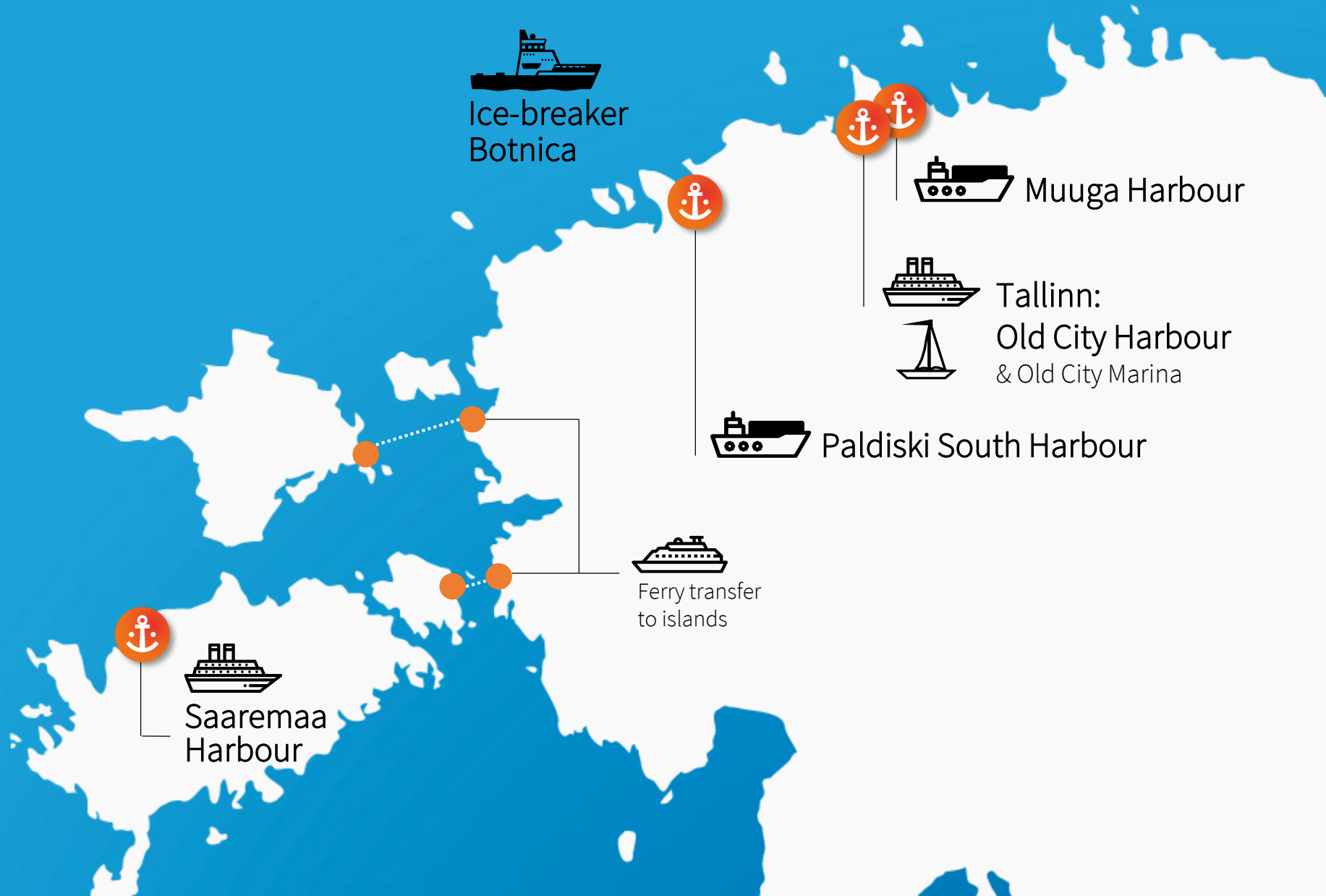
Where we operate

from harbours to vessel operations

Port of Tallinn doesn't by far mean ports in the city limits of Tallinn.

Port of Tallinn is a port complex with harbours located all over Estonia.



Passenger traffic

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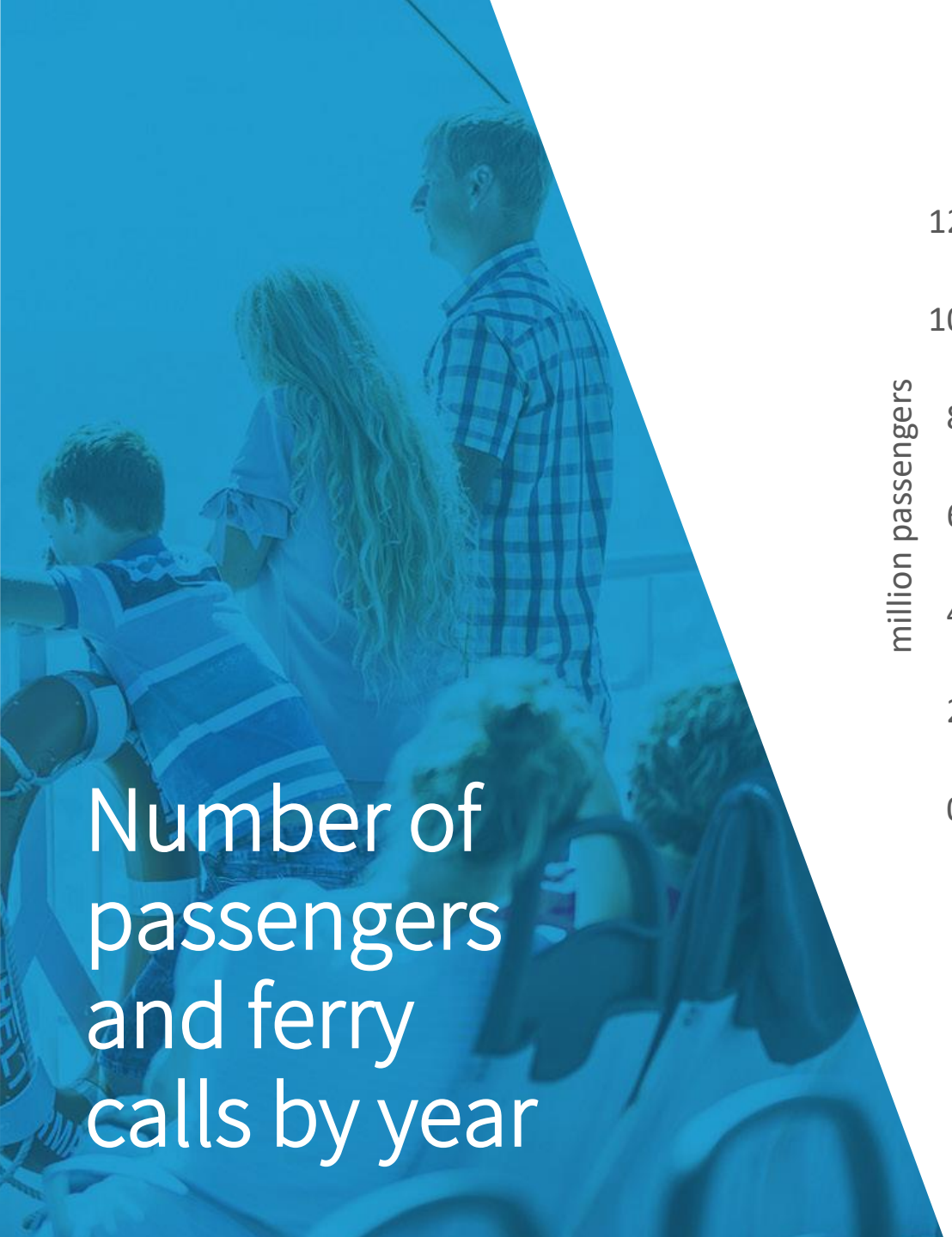
TALLINN OLD CITY HARBOUR

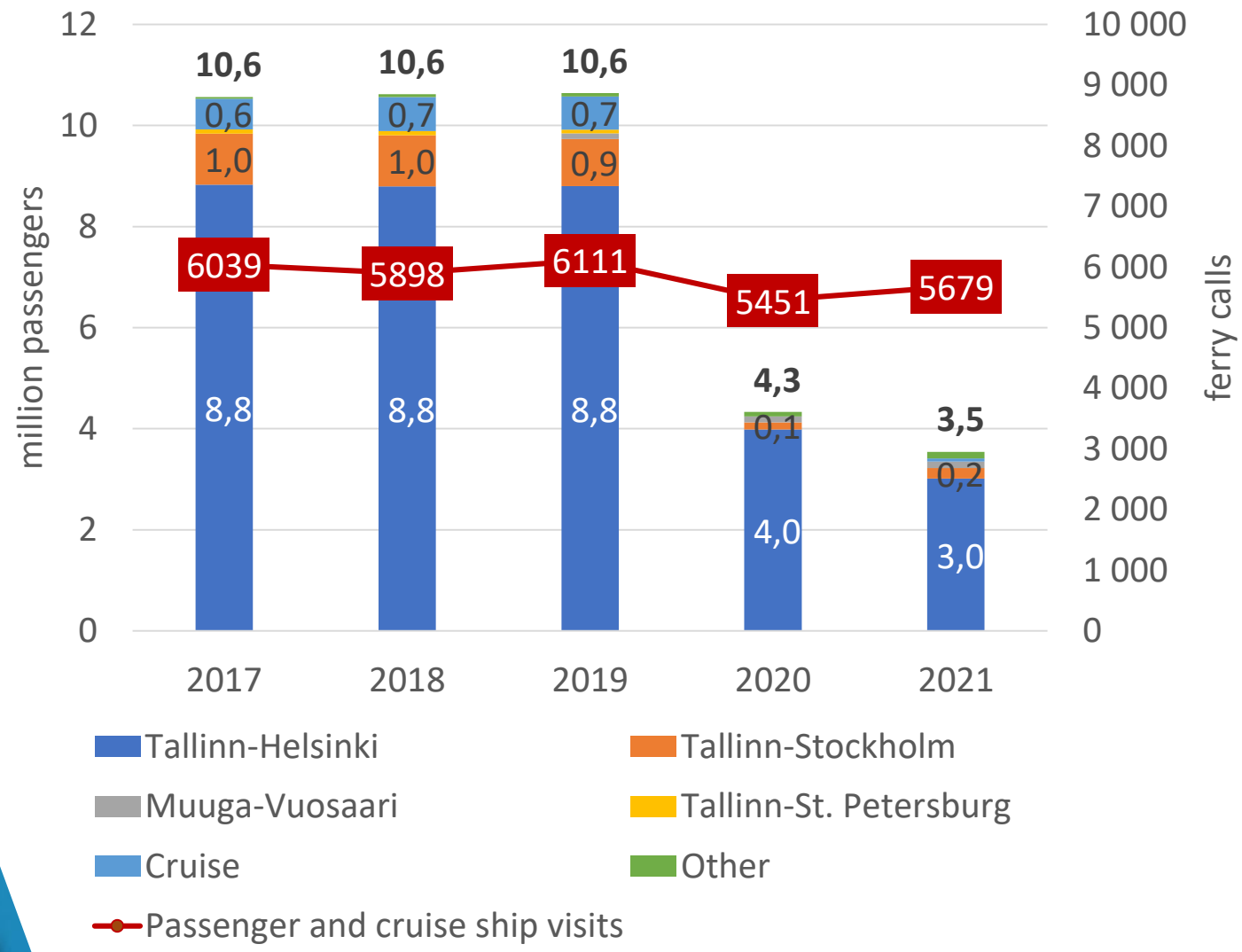
Estonia's Biggest Tourism Gateway

Territory	55,3 ha
Aquatory	94 ha
Tot. length of berths	5 km
Number of berths	24
Max. Depth	10,7 m
Max. Ship Length	340+ m

- Passengers: ferries, cruises, yachts
- Ro-Ro



Number of passengers and ferry calls by year



* In 2020, the number of passengers was affected by the COVID 19 pandemic and the resulting restrictions.

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2 of our harbours service passengers: Old City Harbour and Saaremaa Harbour

Regular passenger lines from Tallinn's Old City Harbour:

Tallinn – Helsinki – Tallinn
Tallinn – Mariehamn – Stockholm – Mariehamn – Tallinn
St. Petersburg – Helsinki – Stockholm – Tallinn– St. Petersburg

TALLINK

ECKERÖ LINE

VIKING LINE

MOBY • SPL

New cruise terminal

- Net area 4030 m²
- Organizing of events for up to 2000 people
- Rooftop restaurant open for everybody

Innovative & sustainable solutions:

- Heating and cooling of the building based on seawater
- More than 700 solar panels


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Cargo Traffic

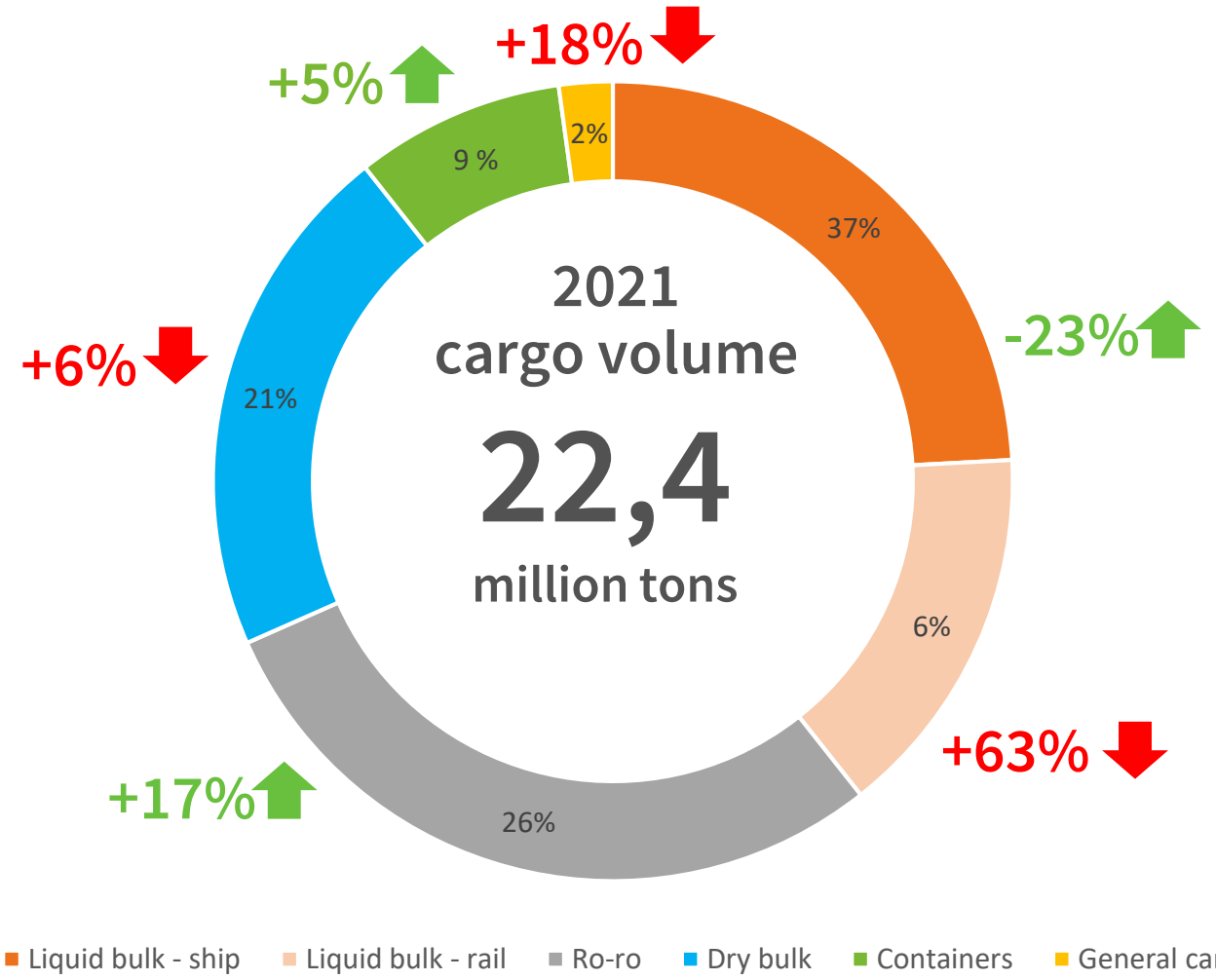
Regular Cargo Lines

Ro-Ro

Containers

Diverse cargo structure

2016-2020 CAGR 1,5%



Cargo type

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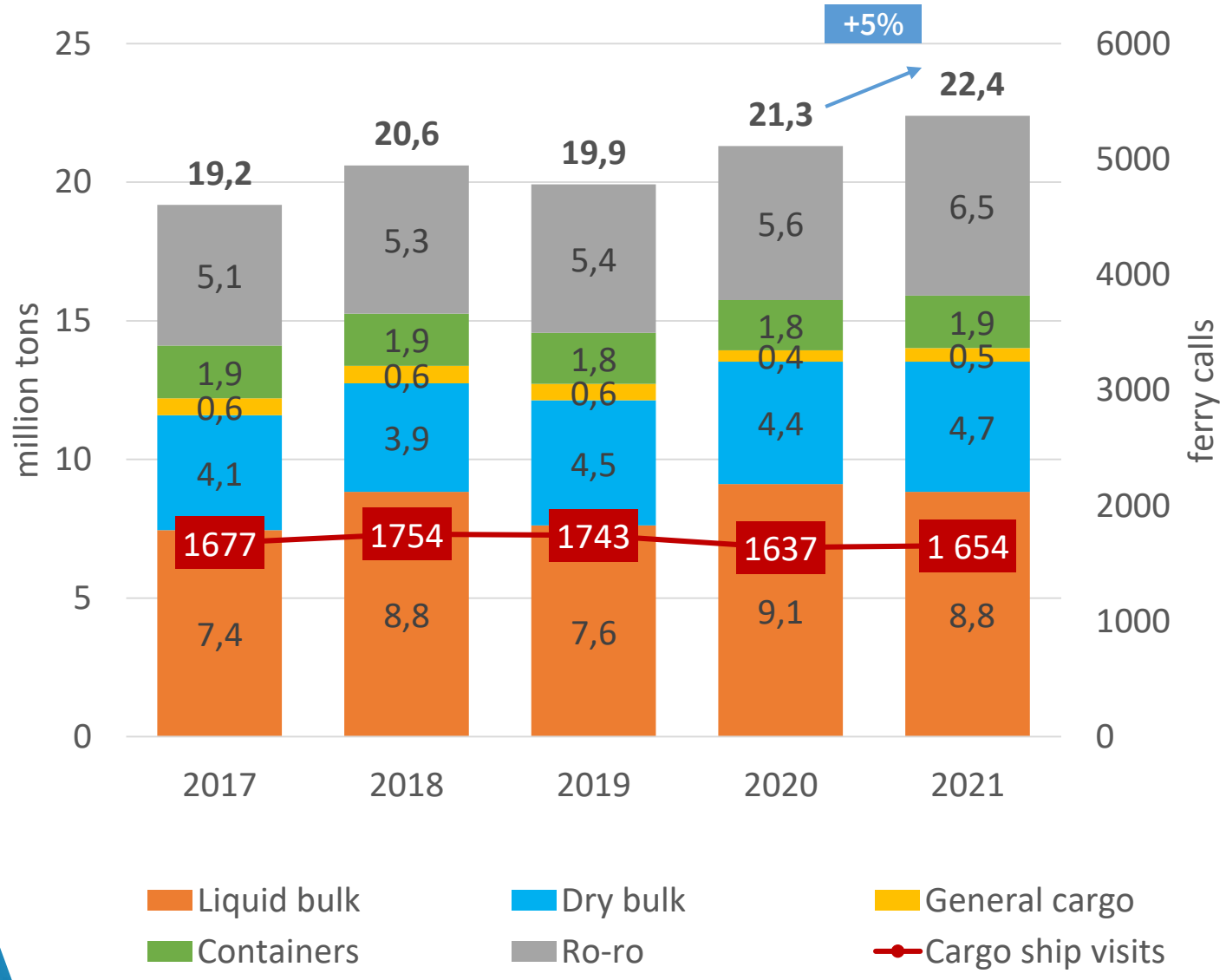

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MUUGA HARBOUR

Estonia's Biggest Cargo Harbour

Territory	567 ha
Aquatory	682 ha
Tot. length of berths	6,4 km
Number of berths	29
Max. Depth	18 m
Max. Ship Length	300+ m

- Containers
- Liquid bulk
- Dry bulk
- General cargo
- Ro-ro

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Muuga Industrial Park

Eastern part plots & Development Plans

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PALDISKI SOUTH HARBOUR

Potential Industrial Hub of Estonia

- Ro-ro
- General cargo
- Dry bulk
- Liquid bulk

Territory	119 ha
Aquatory	147 ha
Tot. length of berths	1,85 km
Number of berths	10
Max. Depth	14,5 m
Max. Ship Length	230 m

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Paldiski South Harbour Industrial Park

Plots & Development Plans

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SAAREMAA HARBOUR

Deepwater Harbour on Estonia's Biggest Island

Territory	20 ha
Aquatory	41 ha
Tot. length of berths	445 m
Number of berths	3 + floating quay
Max. Depth	10 m
Max. Ship Length	200 m

- Passengers: cruises, yachts
- Cargo

Hydrogen will help Port of Tallinn create new value chains and economic opportunities and in doing so reach carbon neutrality.

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Hydrogen Strategy 2021

Central Node in Hydrogen Ecosystem

Kickstarting
the Hydrogen Value Chain

Becoming
the Baltic hydrogen hub

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Facilitating
collaboration within the port area

Operating
H_2 vessels and internal logistics

Hydrogen potential in maritime and logistics

- Ferry with hydrogen readiness (EHYTRANSP)
- Updating the port service fleet
- Shore power for cruise ships (EstH2OPS)
- Hydrogen storage sites, possible export terminals and filling stations in Muuga Harbor (HYEELIWTS) and Paldiski South Harbor (EstH2HUB)

Tallinn's Old City Harbour OPS

EstH2OPS

OPS – Onshore Power Supply

- Fit to 55
- OPS at least for 4 cruise ships with max 16 MW each
- Challenges:
  - seasonal
  - high peak demand
  - lack of existing grid
  - lack of space for infrastructure/facilities
  - next to city center

PORT OF TALLINN ALEXELA HDF ENERGY stargate hydrogen

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TS Laevad & H_2

EHYTRANSP

- Whole H_2 value chain
  - Retrofit the presently operating LMG 150-DE ferries to battery/hydrogen hybrid operation
  - H_2 production
  - filling stations
  - H_2 trailers, busses and trains

- AS Eesti Energia

  Port of Tallinn, TS Laevad

  AS Alexela

H_2 terminal in Paldiski

EstH2Hub

- Big regional hub :
  - H_2 production and storage
  - port infrastructure
  - filling stations

- AS Balti Gaas
  Port of Tallinn
  AS Alexela

Paldiski South Harbour

H_2 terminal in Muuga

HYEELIWTS

- Local hub :
  - H_2 production and storage
  - port infrastructure
  - grid connection

- AS Eesti Energia
  Liwathon
  Port of Tallinn

Muuga Harbour

Potential partners (so far)

Port Gdynia

HDF Energy

TS Laevad

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Port of Rotterdam

Alexela

PORT OF ROENNE
Together we create

Eesti Energia

LIWATHON E.O.S.

Estonian Association of Hydrogen Technologies

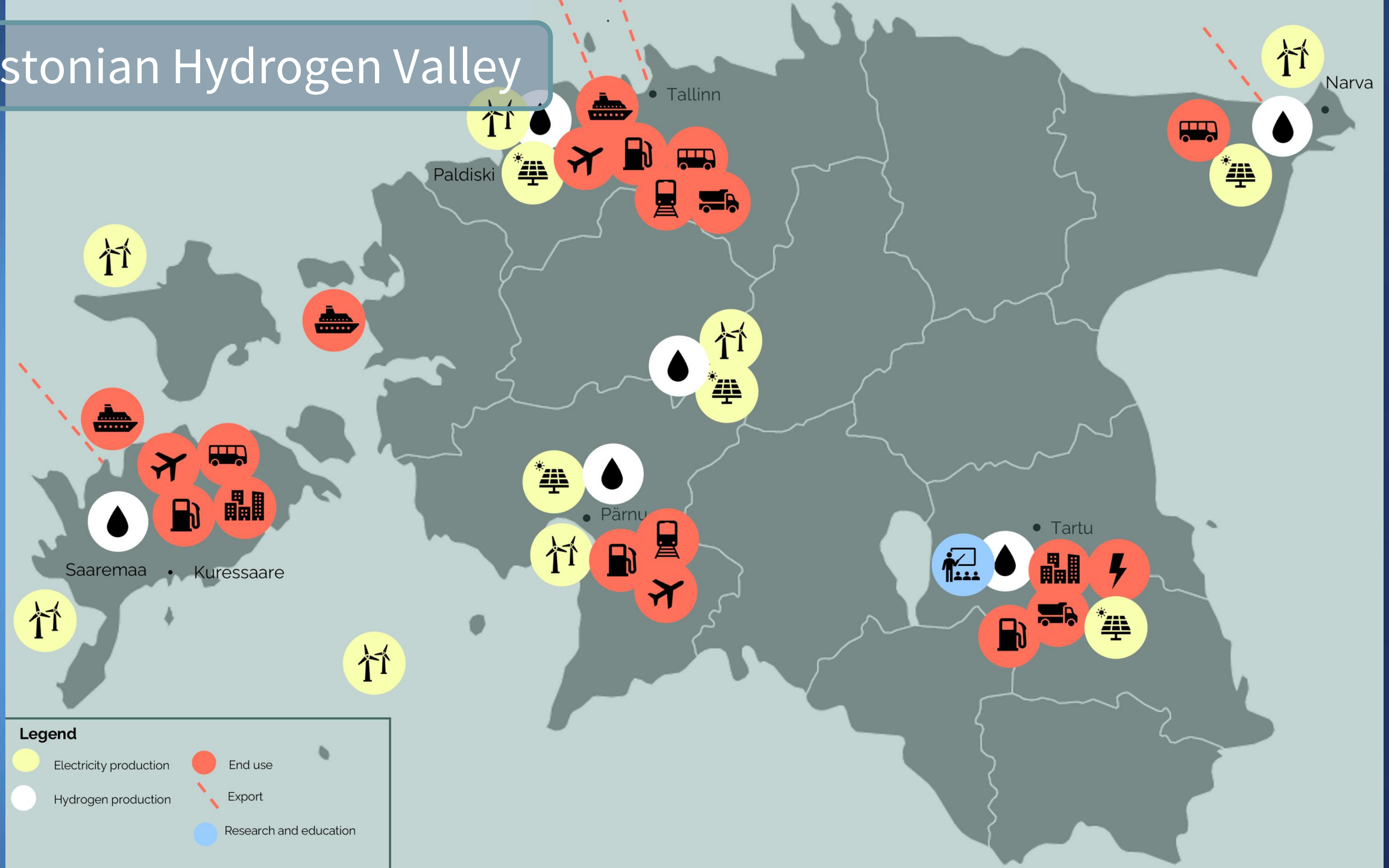
Port of Hamburg

SKYCORP

Port of Amsterdam

HHLA | TK Estonia

Estonian Hydrogen Valley



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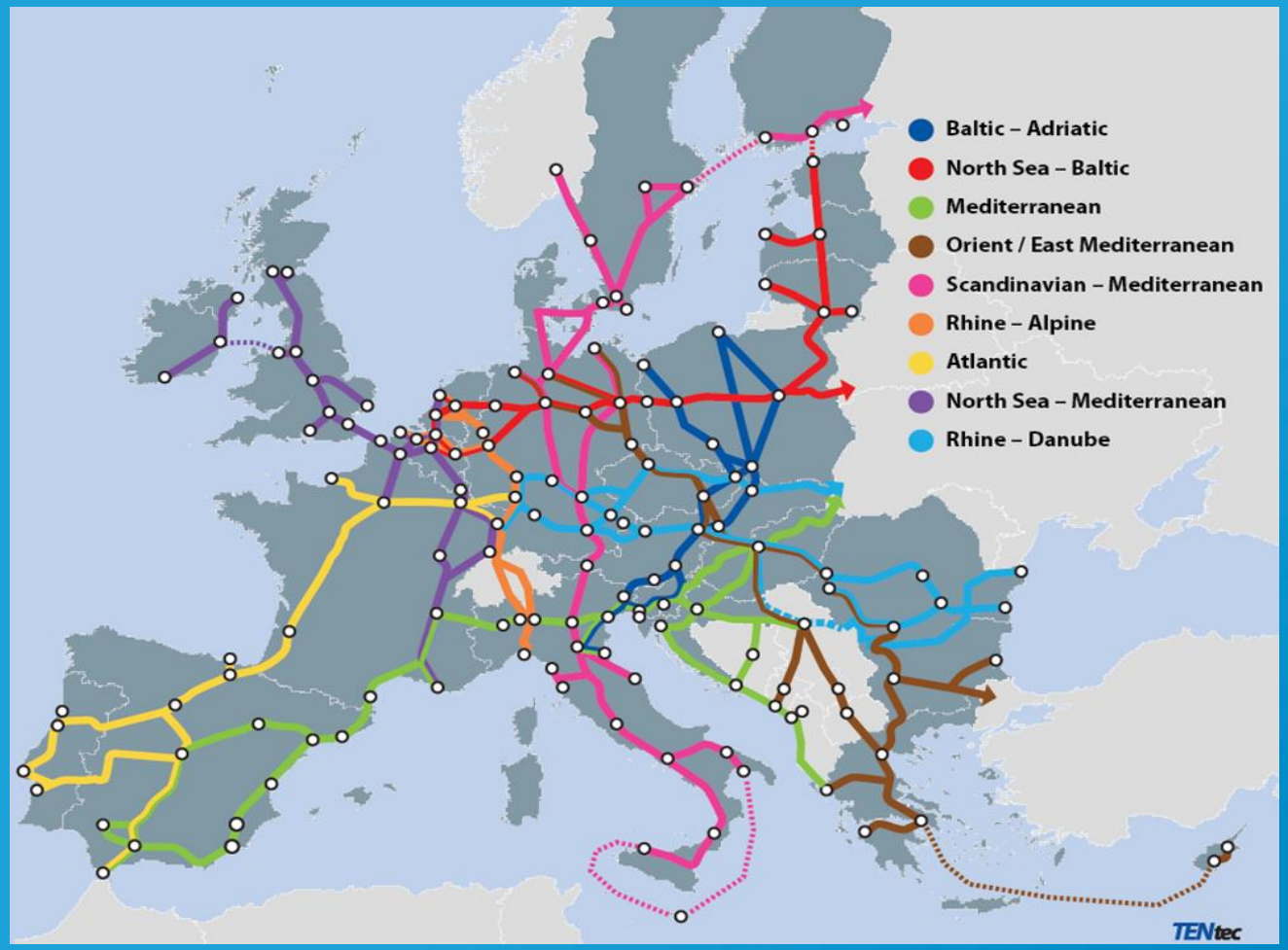
Opportunities for the Baltic Sea region

TEN-T North Sea - Baltic



Rail Baltica

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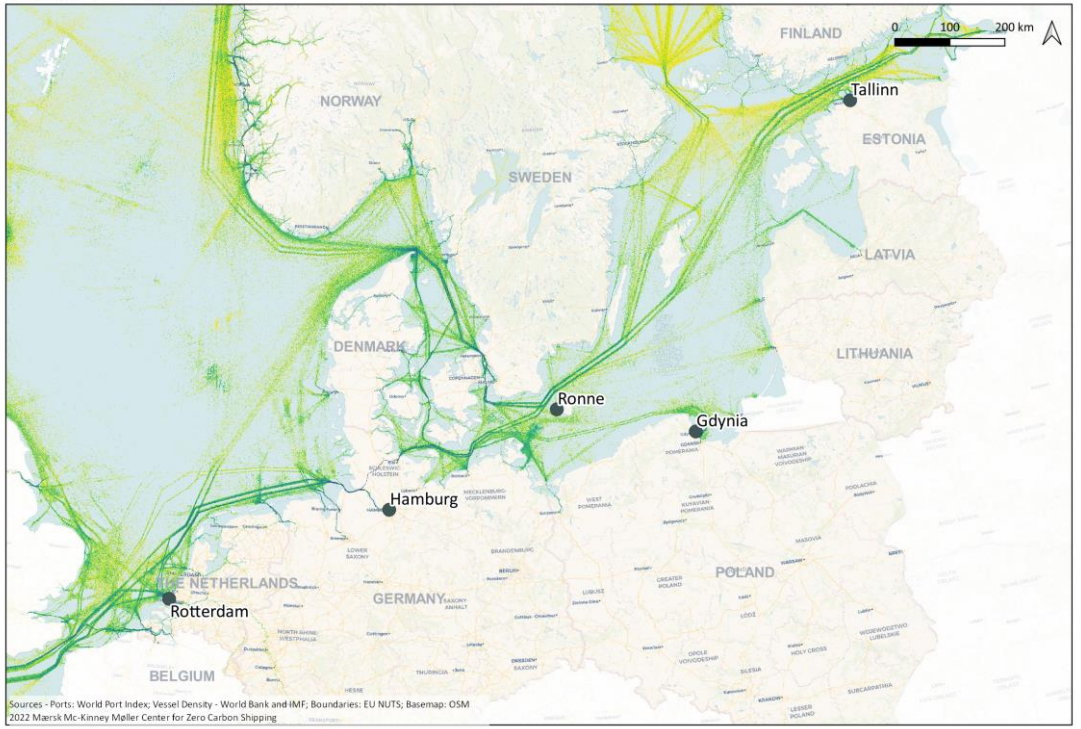
Northern European Baltic Green Corridor Network

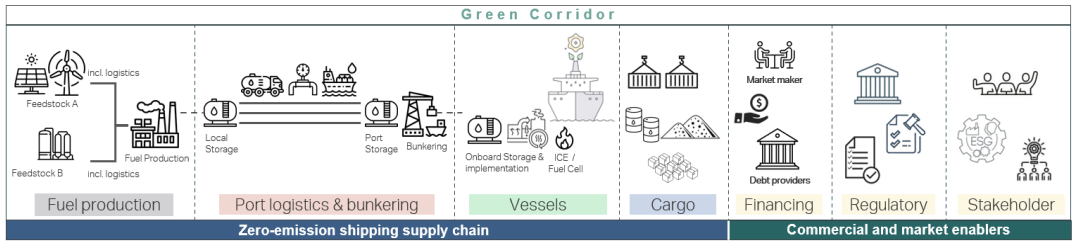
Vision – "To establish **Green Corridors**[1] in Northern Europe and the Baltic Sea by mid decade"

Pre-feasibility project on

- Vision & Objectives
- Mapping
  - Trade routes
  - Segments
  - Fuel choice
  - Funding options
- Stakeholder Rounds

Baltic Project Partner Ports





Port of Rotterdam

HPA Hamburg Port Authority

PORT OF ROENNE

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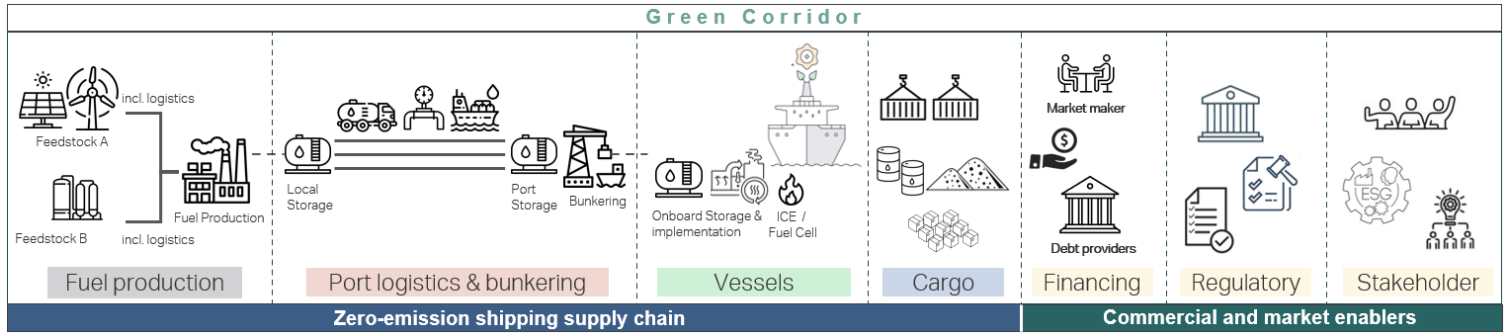
Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping



1. Cross-value-chain collaboration:

A green corridor requires stakeholders that are committed to decarbonization and are willing to explore new forms of cross-value-chain collaboration to enable zero-emission shipping from both the demand and supply side!

2. A viable fuel pathway:

Availability of zero-emission fuels, along with bunkering infrastructure to service zero-emission vessels, are essential factors!

3. Customer demand:

Conditions need to be in place to mobilize demand for green shipping and to scale zero-emission shipping on the corridor!

4. Policy and regulation:

Policy incentives and regulations will be necessary to narrow the cost gap and expedite safety measures!

What is a Green Shipping Corridor?

The Getting to Zero Coalition suggested that four critical building blocks need to be in place to establish a green corridor

Recommendations for next steps

Potential green shipping corridors to be assessed in depth

- **National and interregional ferry lines** (RoPax, RoRo, Vehicle) with potential to operate on green fuel!
- **Identifying feeder operator(s)** to decarbonize loops from Rotterdam/Hamburg/Bremerhaven into the Baltic sea, which can tab into fuel infrastructure established for ferries
- Build initial fuel supply, port and bunkering infrastructure for the above at selected locations, which followers can subsequently tab into!
  - **"Hot-spots" in the region would be ports with significant ferry and cargo activities**
- Develop economic incentive across value chain for first movers to enable the start of a transition!
  - **What can each stakeholder do or offer?**
  - **Determine end customers with a willingness to pay for green service**

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PORT OF TALLINN · Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping

Service ports for offshore wind farms

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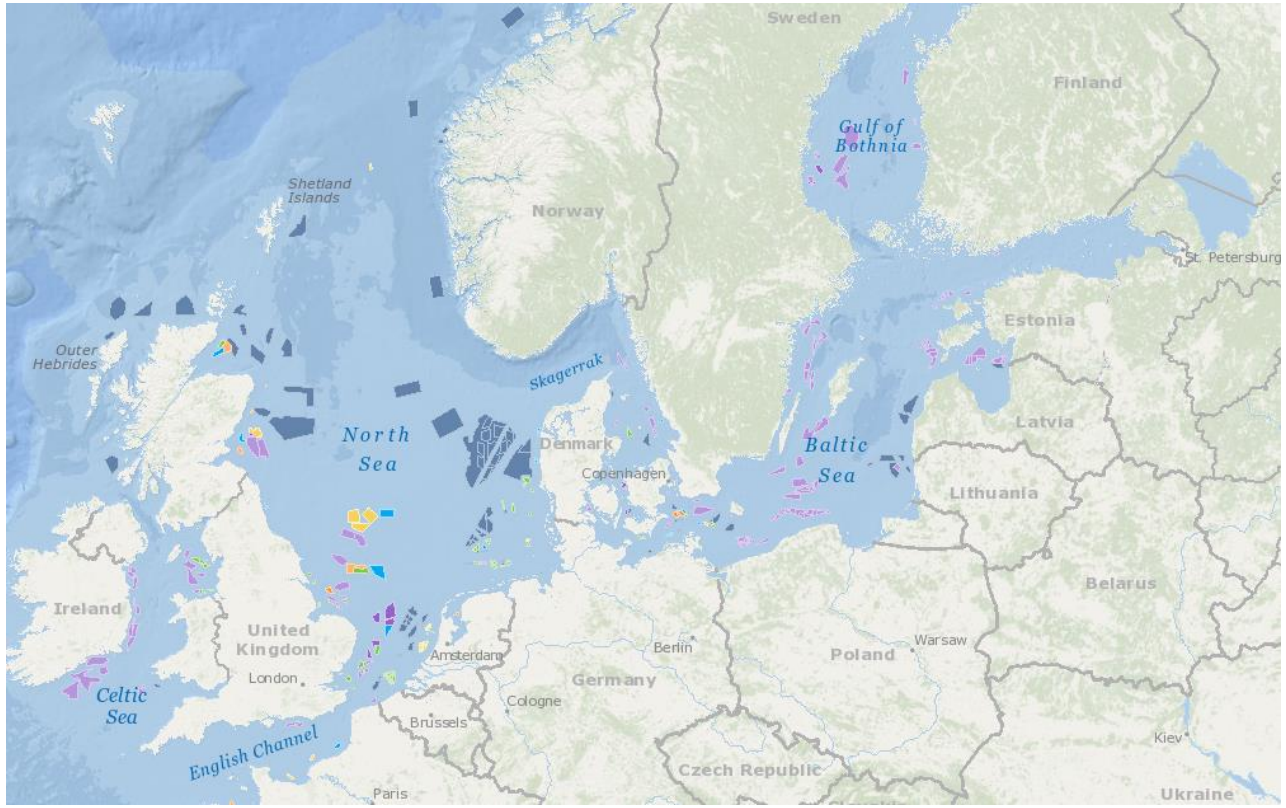

Offshore wind farms

Service ports

Opportunities in Wind Farms for shipping

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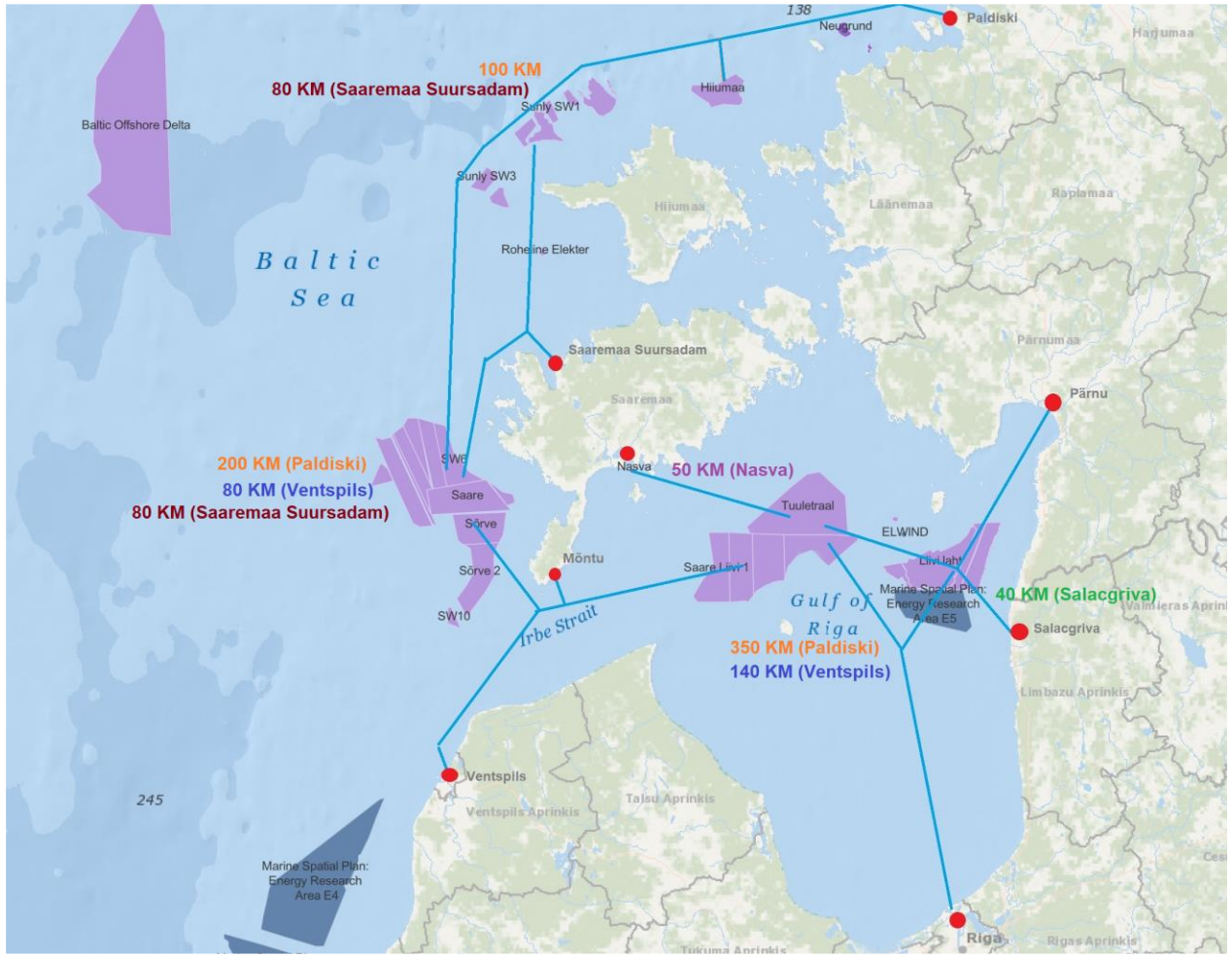

Paldiski South Harbour

Saaremaa Harbour

Base harbour for offshore wind farms in Paldiski

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Co-funded by the European Union

- Additional quay investment EUR 53M, incl. EU funding EUR 20M
- Three MOUs signed
- Sketch design 2021
- Tender for design and construction 2022
- Construction completed 2025
- Value proposition with industrial park areas and maintenance fleet

Value proposition

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- Assembly
- Installation
- Logistics and/or production
- Shipping
- Crewing, training
- Maintenance

TS Shipping

TS LAEVAD

Thank You!

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