



**Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.**

**Copenhagen, 28th of September 2021**

● solutions hub

**actia  
FORUM**

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.



## Actia Forum

Providing services to the maritime and marine industries.



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Actia Forum – our clients





**Selected trade and port market insight before and during pandemic.**

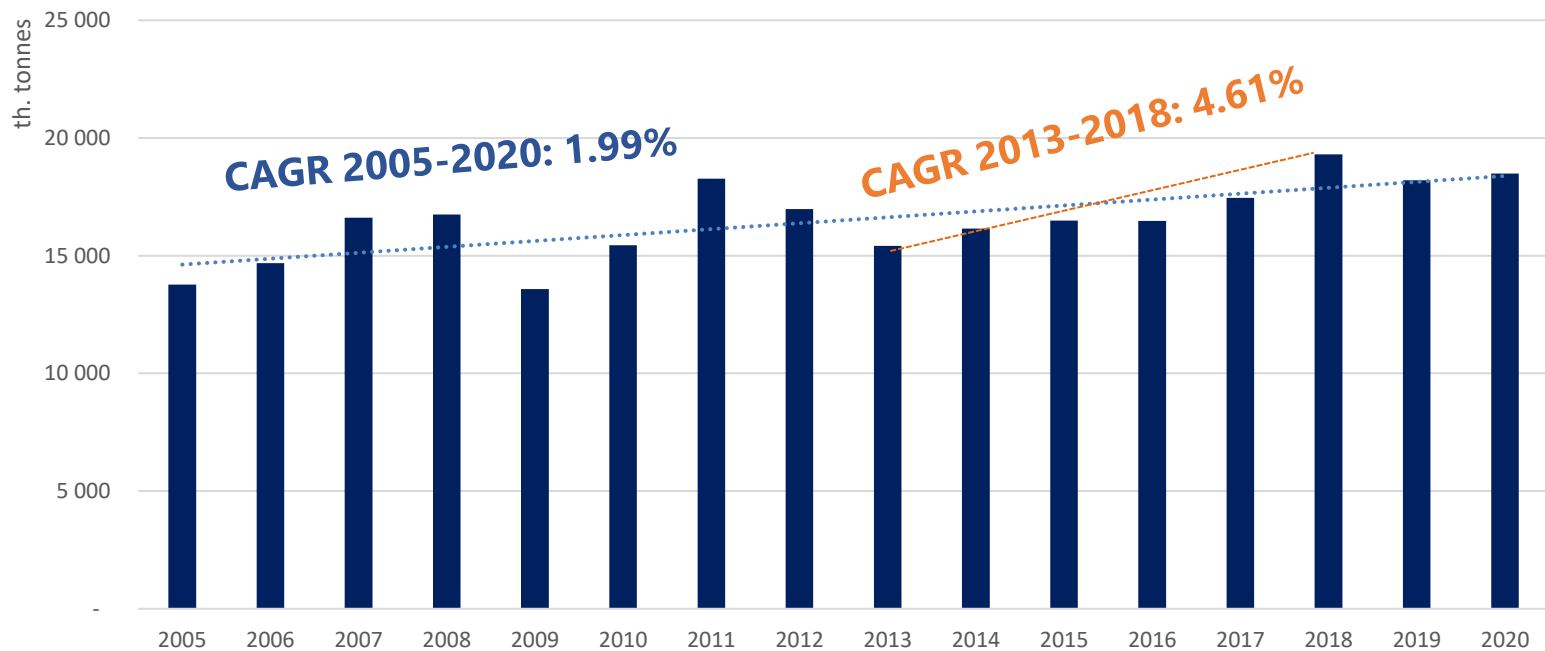
● solutions hub

**actia**  
**FORUM**

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Trade

International trade volume between CEE countries and Sweden, Norway and Denmark in thou. tonnes (2005-2020):



Source: Actia Forum based on Eurostat data

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Total cargo turnover in top 10 Baltic ports

The volume of cargo handled in the Top 10 Baltic ports in 2019, 2020 and H1 2021 [thou. tonnes]:

	2019	2020	Change 2020/2019	H1 2021
Ust Luga	103 852	102 602	-1.20%	52 912
St. Petersburg	59 879	59 884	0.01%	30 639
Primorsk	61 024	49 301	-19.21%	26 119
Gdańsk	52 154	48 038	-7.89%	25 566
Klaipeda	46 260	47 790	3.31%	22 050
Gothenburg*	38 900	37 733	-3.00%	18 859
Szczecin-Świnoujście	32 175	31 178	-3.10%	17 006
Rostock	25 700	25 100	-2.33%	14 400
Gdynia	23 957	24 662	2.94%	13 440
Riga	32 762	23 687	-27.70%	11 168
<b>Total</b>	<b>476 664</b>	<b>449 976</b>	<b>-5.60%</b>	<b>232 158</b>

Source: Actia Forum based on ports' data

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Top 10 Baltic container ports

The volume of containers handling in TOP 10 Baltic container ports in 2019, 2020 and H1 2021 [TEU]:

	2019	2020	Change 2020/2019	H1 2021
<b>St. Petersburg</b>	2 221 724	2 099 649	-5.49%	1 049 054
<b>Gdańsk</b>	2 073 215	1 923 785	-7.21%	1 037 549
<b>Gdynia</b>	896 968	905 121	0.91%	478 278
<b>Gothenburg</b>	772 000	776 000	0.52%	411 000
<b>Aarhus*</b>	589 486	657 786	11.59%	356 000
<b>Klaipeda</b>	703 000	640 000	-8.96%	325 623
<b>HaminaKotka</b>	677 603	621 402	-8.29%	291 622
<b>Helsinki</b>	533 983	507 346	-4.99%	241 956
<b>Riga</b>	466 890	453 577	-2.85%	206 613
<b>Rauma</b>	261 152	217 932	-16.55%	203 878
<b>Total</b>	<b>9 196 021</b>	<b>8 802 598</b>	<b>-4.28%</b>	<b>4 601 573</b>

Source: Actia Forum based on ports' data

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Operational results of the Polish seaports

Turnover in the biggest Polish seaports in years 2019, 2020 and H1 2021 [thou. tonnes]:

	2019	2020	Change 2020/19	H1 2021
Port of Gdańsk	52 154	48 038	-7.89%	25 566
Port of Gdynia	23 957	24 662	2.94%	13 440
Port of Szczecin-Świnoujście	32 175	31 178	-3.10%	17 006
<b>Total</b>	<b>108 286</b>	<b>103 878</b>	<b>-4.07%</b>	<b>56 012</b>

Source: Actia Forum based on ports' data

Container handling in the biggest Polish seaports in 2019, 2020, H1 2021 [TEU]:

	2019	2020	Change 2020/19	H1 2021
Port of Gdańsk	2 073 215	1 923 785	-7.21%	1 049 054
Port of Gdynia	896 968	905 121	0.91%	478 278
Port of Szczecin-Świnoujście	76 143	86 816	14.02%	41 793
<b>Total</b>	<b>3 046 326</b>	<b>2 915 722</b>	<b>-4.29%</b>	<b>1 569 125</b>

Source: Actia Forum based on ports' data



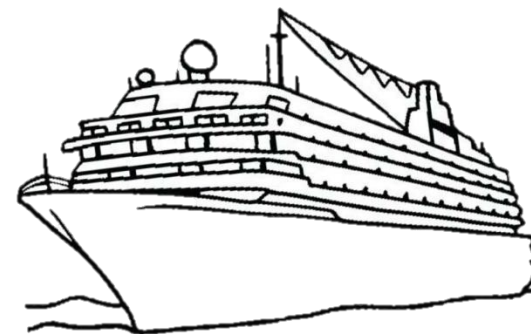
Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Ro-ro ferry traffic in Polish seaports

Ro-ro freight units and passenger cars served in biggest Polish sea ports in 2019, 2020 and H1 2020 [pcs]:

	Passenger cars				Freight units			
	2019	2020	Change 2020/2019	H1 2021	2019	2020	Change 2020/2019	H1 2021
<b>Port of Gdańsk</b>	52 162	45 383	-13.00%	21502	31 484	28 923	-8.13%	16728
<b>Port of Gdynia</b>	107 386	44 839	-58.25%	30099	299 566	263 590	-12.01%	136189
<b>Port of Szczecin-Świnoujście</b>	254 125	219 037	-13.81%	99309	493 994	486 516	-1.51%	269874
<b>Total</b>	413 673	309 259	-25.24%	<b>150910</b>	825 044	779 029	-5.58%	<b>422791</b>

Source: Actia Forum based on ports' data



Baltic Transport Loop Project, Final Conference, Selected insights from the port market and some results from the project's reports.



## Results from Actia Forum projects

**actia FORUM**

**REPORT:**  
A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

**SOUTH BALTIC** **interreg** **EUROPEAN UNION**

**SOUTH BALTIC TRANSPORT LOOP PROJECT**  
Work package 4: Innovative solutions for the Ferry traffic  
Activity 4.2 Traffic forecast for the involved project partner ports June 2020

**SOUTH BALTIC** **interreg** **EUROPEAN UNION**

**Trade, ro-ro and container markets analysis. Cargo volume forecast - perspective 2030**  
Analysis for Port of Karlshamn

**Karlshamns Hamn**

**actia FORUM**

March 2021

**SOUTH BALTIC** **interreg** **EUROPEAN UNION**

**Analysis of Possibilities of Port Infrastructure Adaptation to Handle Biofuels and Liquid Cargo**

Analysis prepared on behalf of Zarząd Portu Morskiego Elbląg Sp. z o.o.  
Contractor: Actia Forum Sp. z o.o.

**actia FORUM**

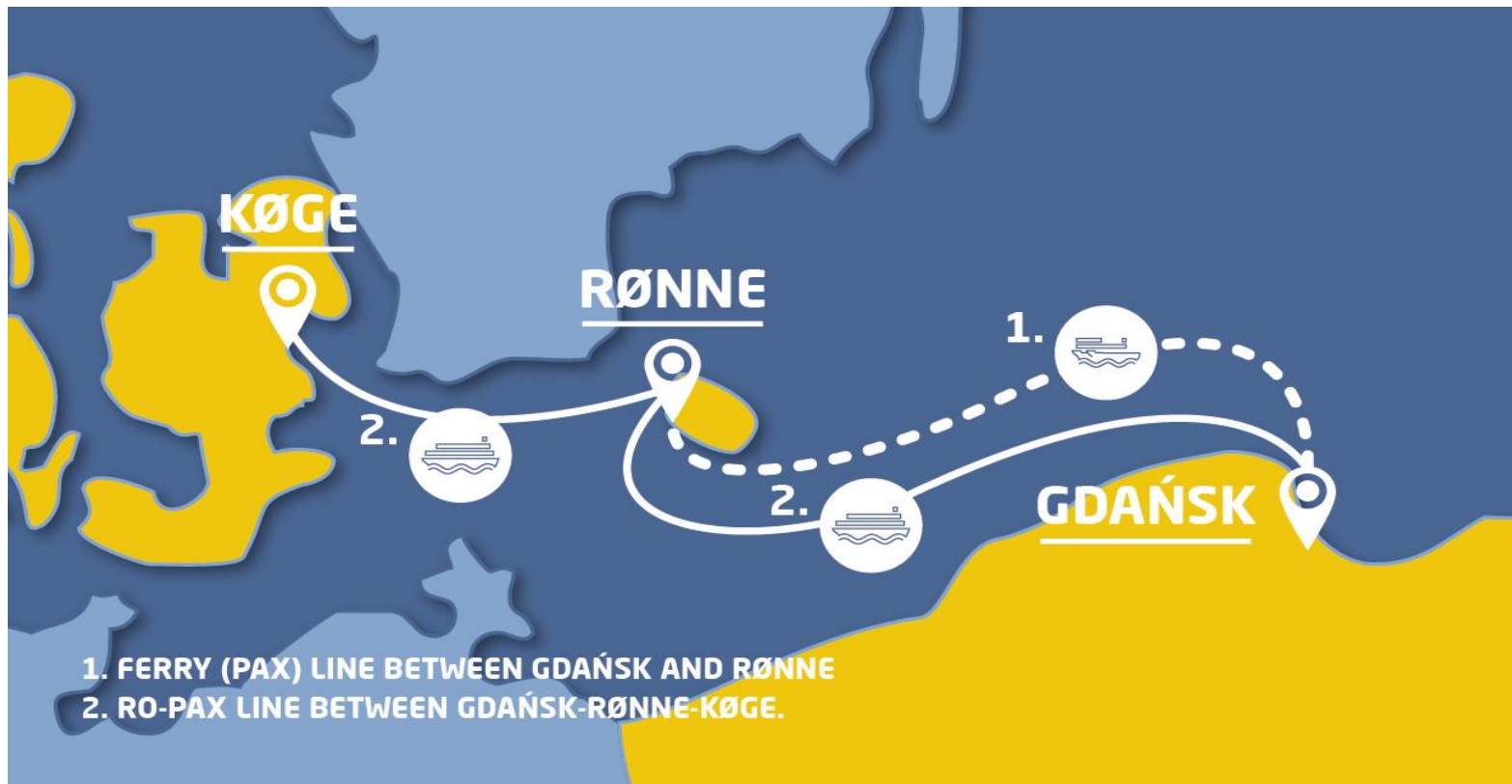
March 2021



## **A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm**

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

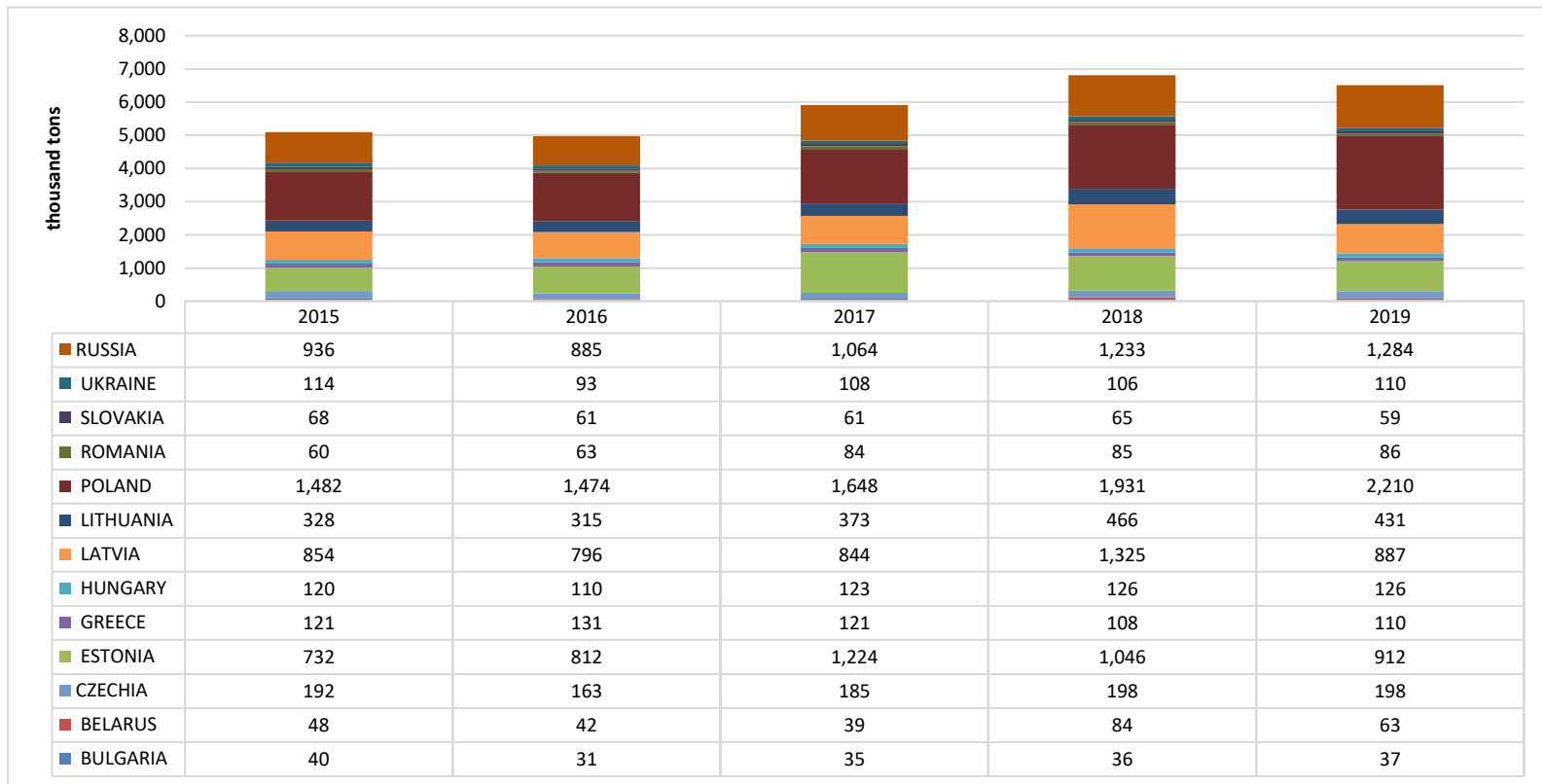
Two business concepts concerning connection between Gdańsk and Rønne:



Source: Actia Forum own elaboration

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

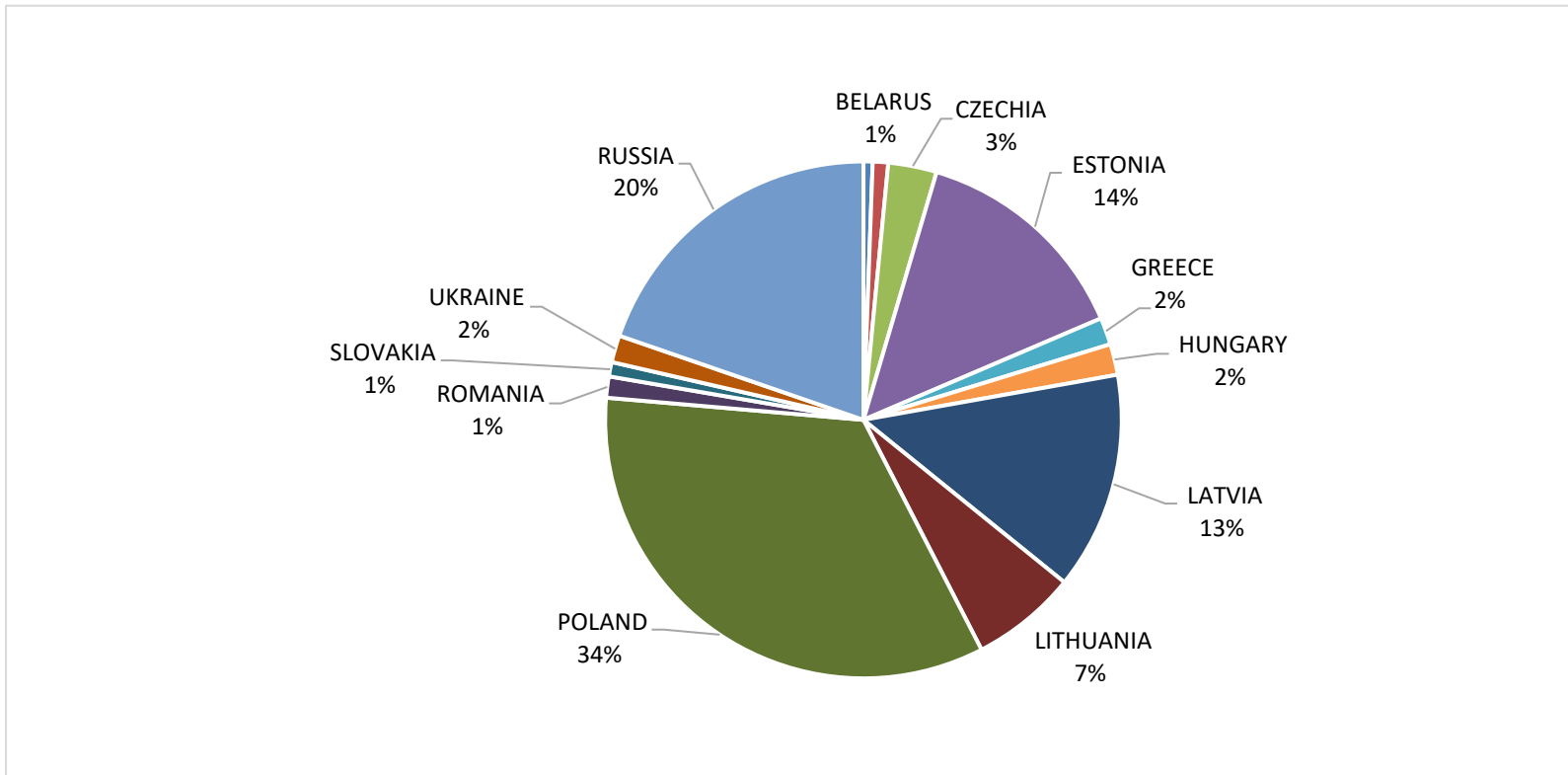
International trade of goods suitable for Ro-Ro transport between Denmark and CEE countries in tons. 2015-2019:



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

International trade of goods suitable for Ro-Ro transport between Denmark and CEE countries. Volume shares in 2019:

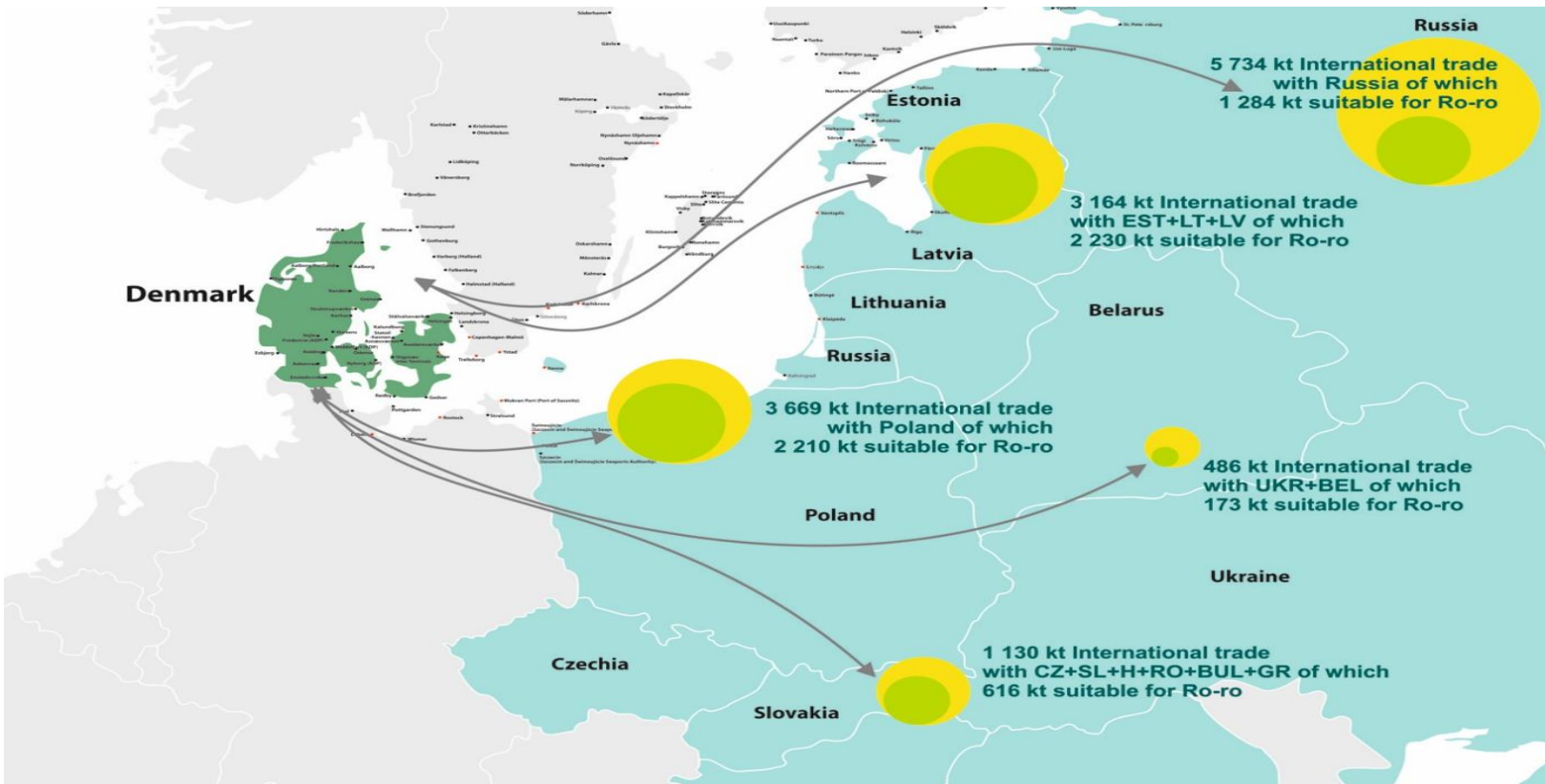


Source: Eurostat

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

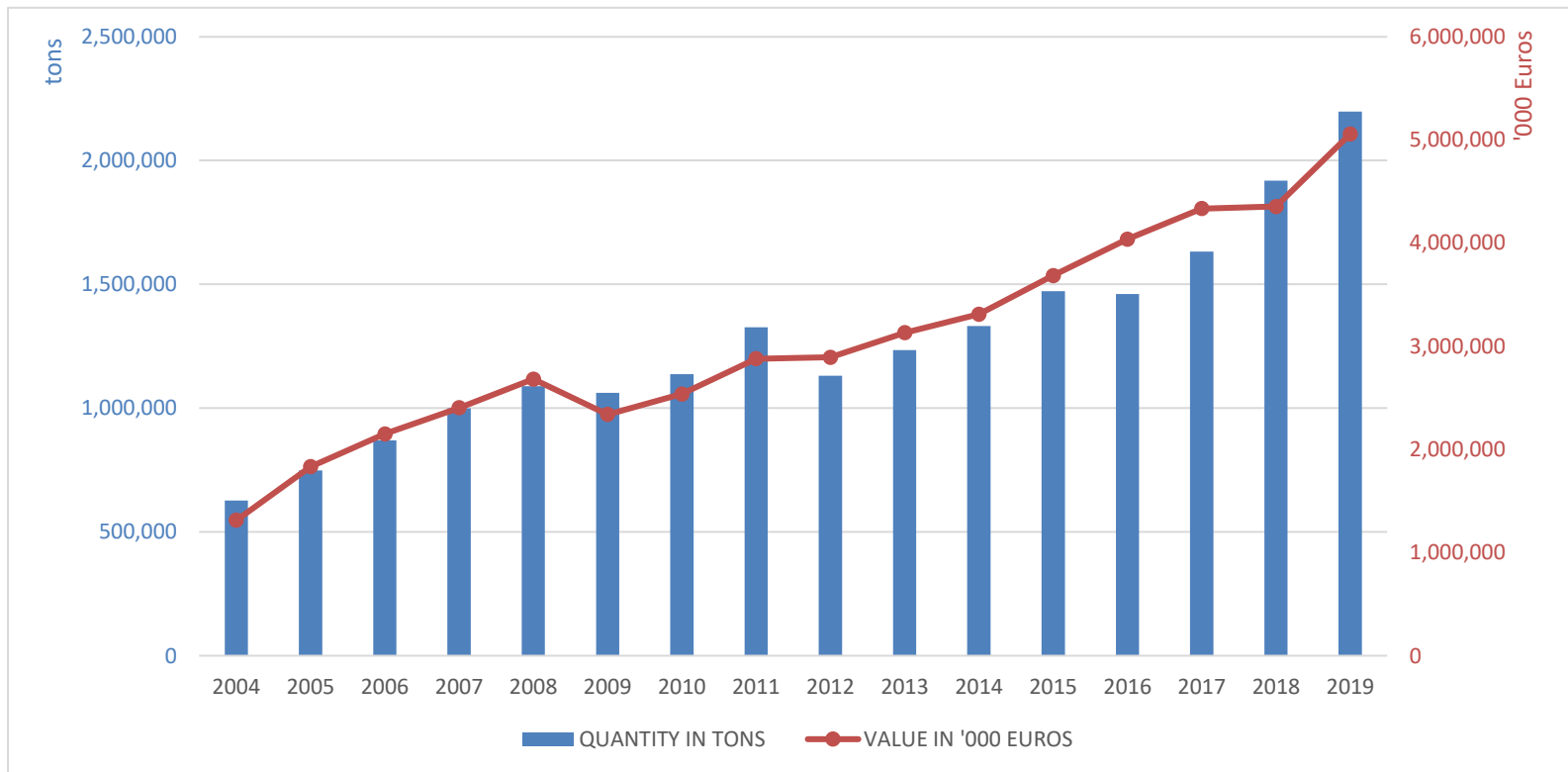
International trade between Denmark and CEE countries (total of goods - yellow and goods suitable for Ro-Ro - green). Volume in 2019:



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

Trade of Ro-Ro suitable goods between Poland and Denmark. Volume in tons, value in thousand Euros. 2004-2019:

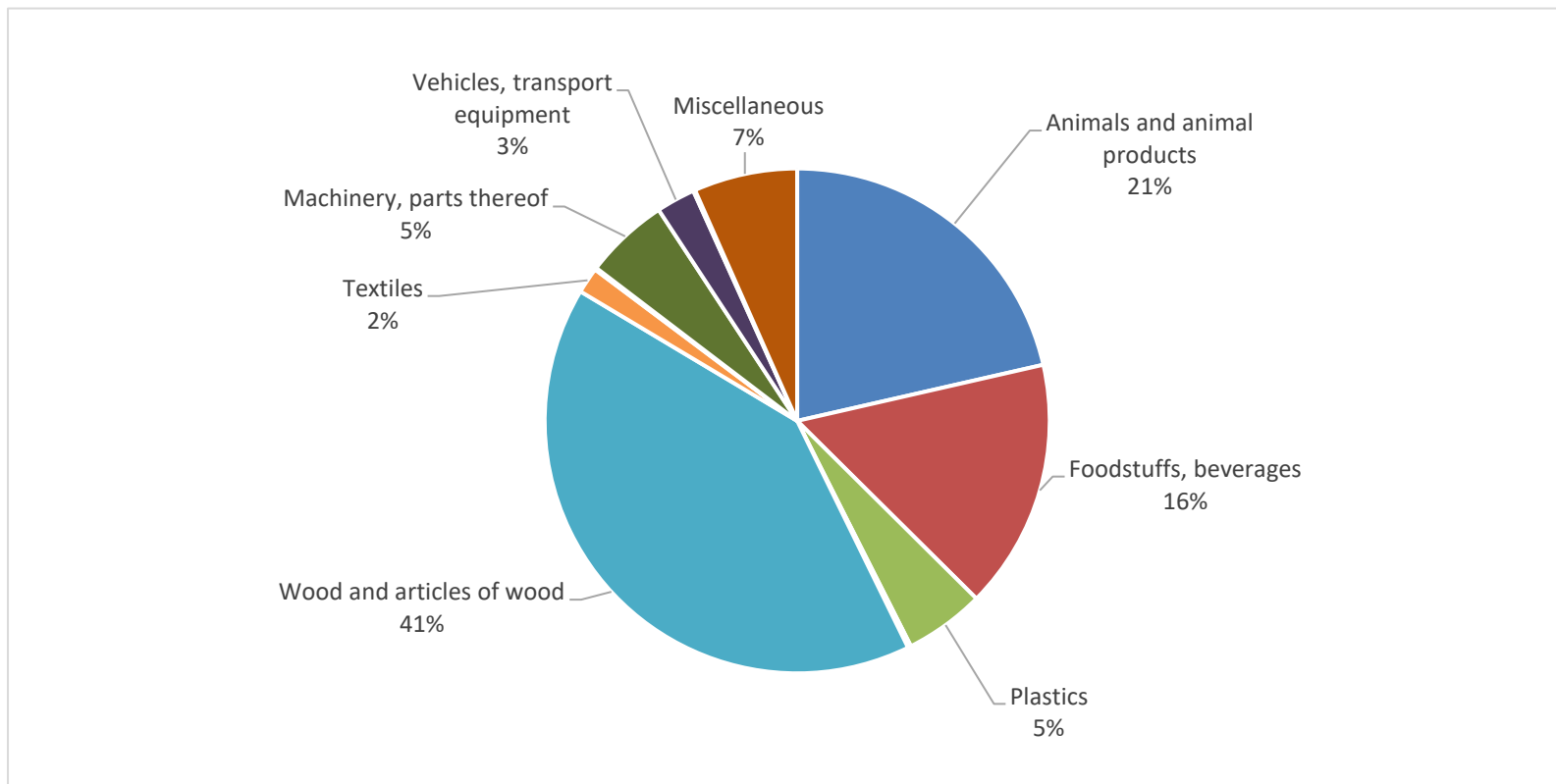




Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

Shares of commodity groups in Ro-Ro suitable trade between Denmark and Poland. Volume in 2019:

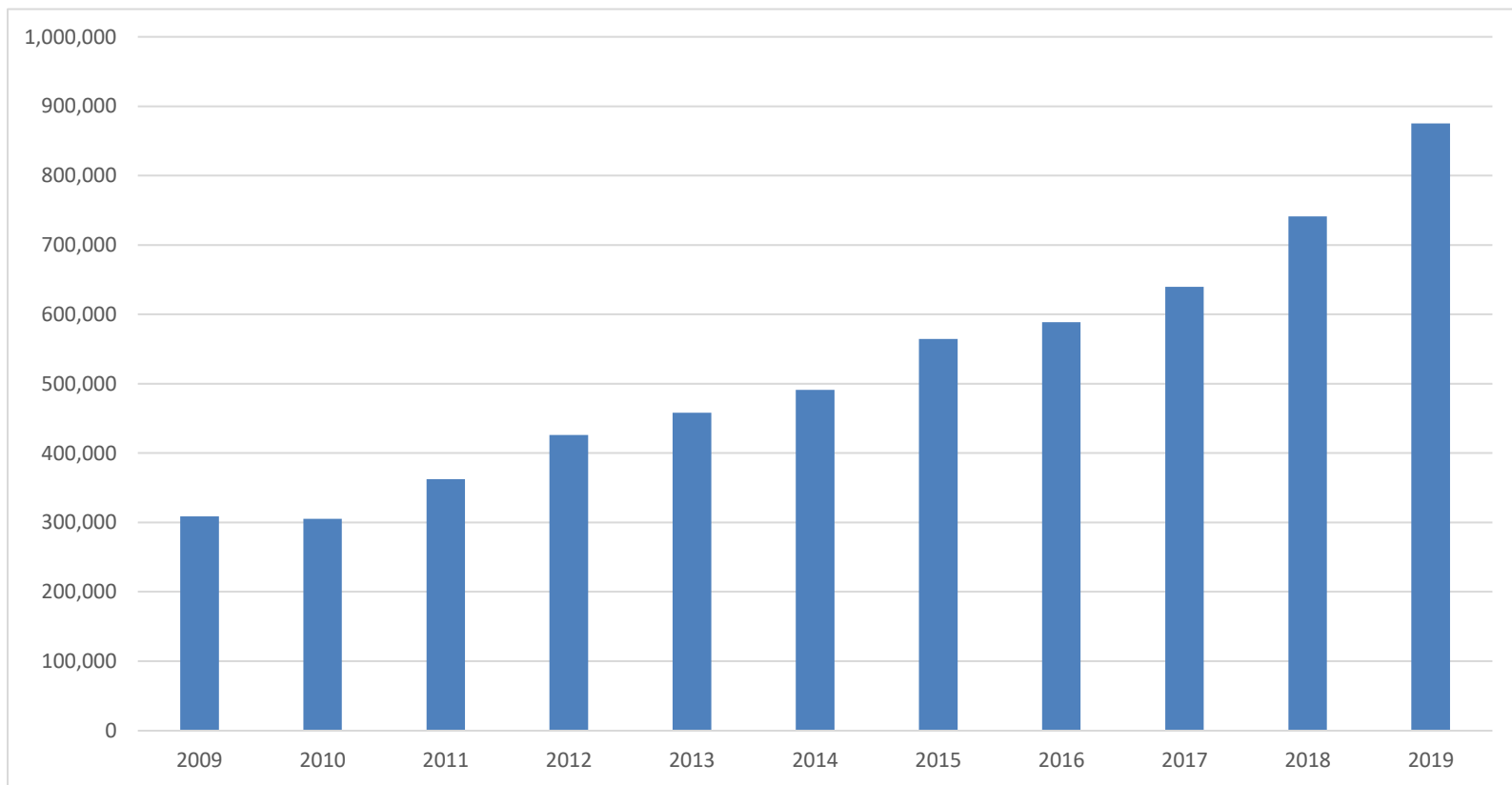


Source: Eurostat

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

**Air passenger transport between Poland and Denmark:**



Source: Eurostat

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

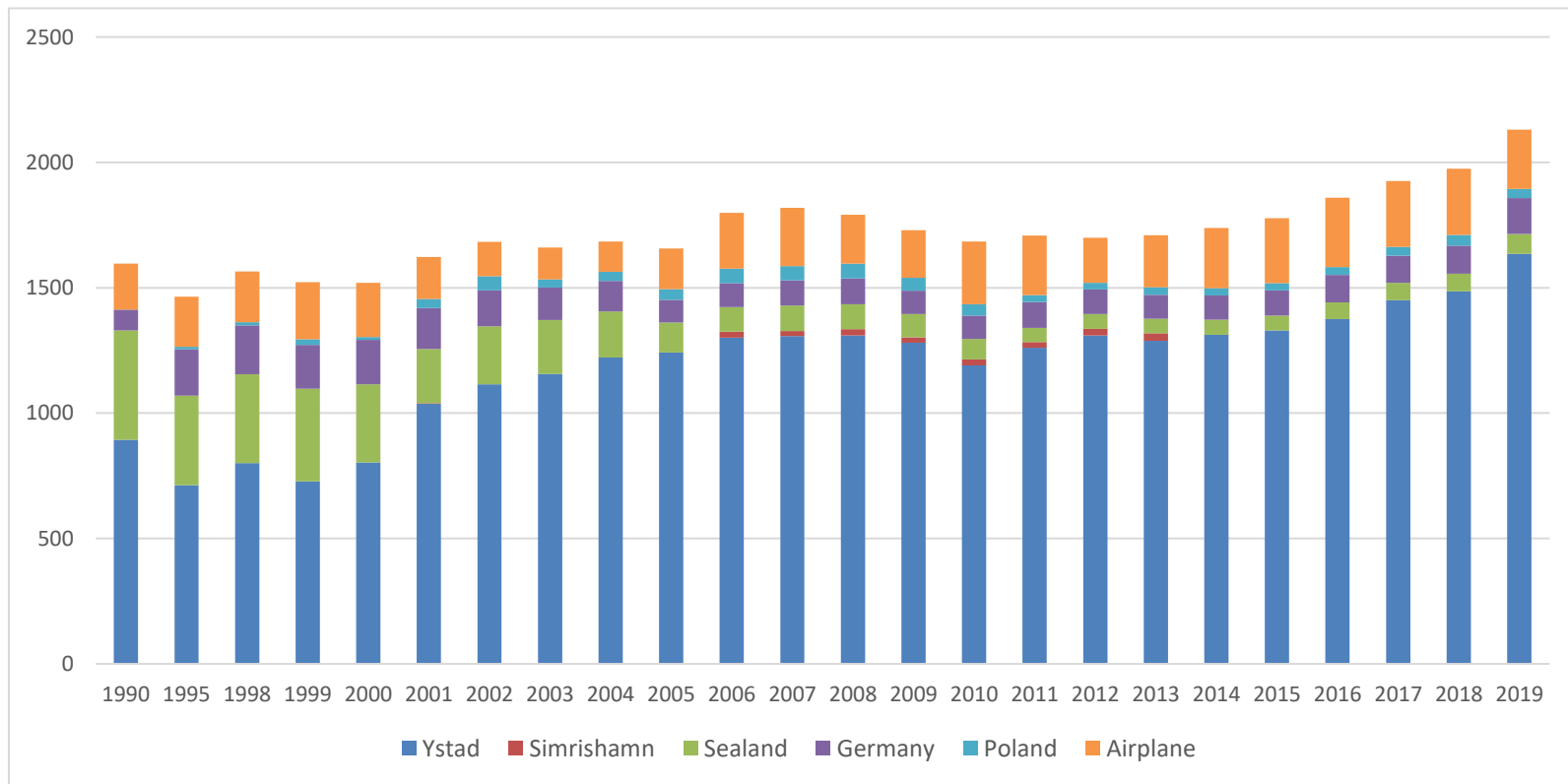
Potential ways of travelling from Poland to Bornholm (red colour – seasonal route):



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

The number of passengers visiting Bornholm based on ferry lines and airline data in thousands:

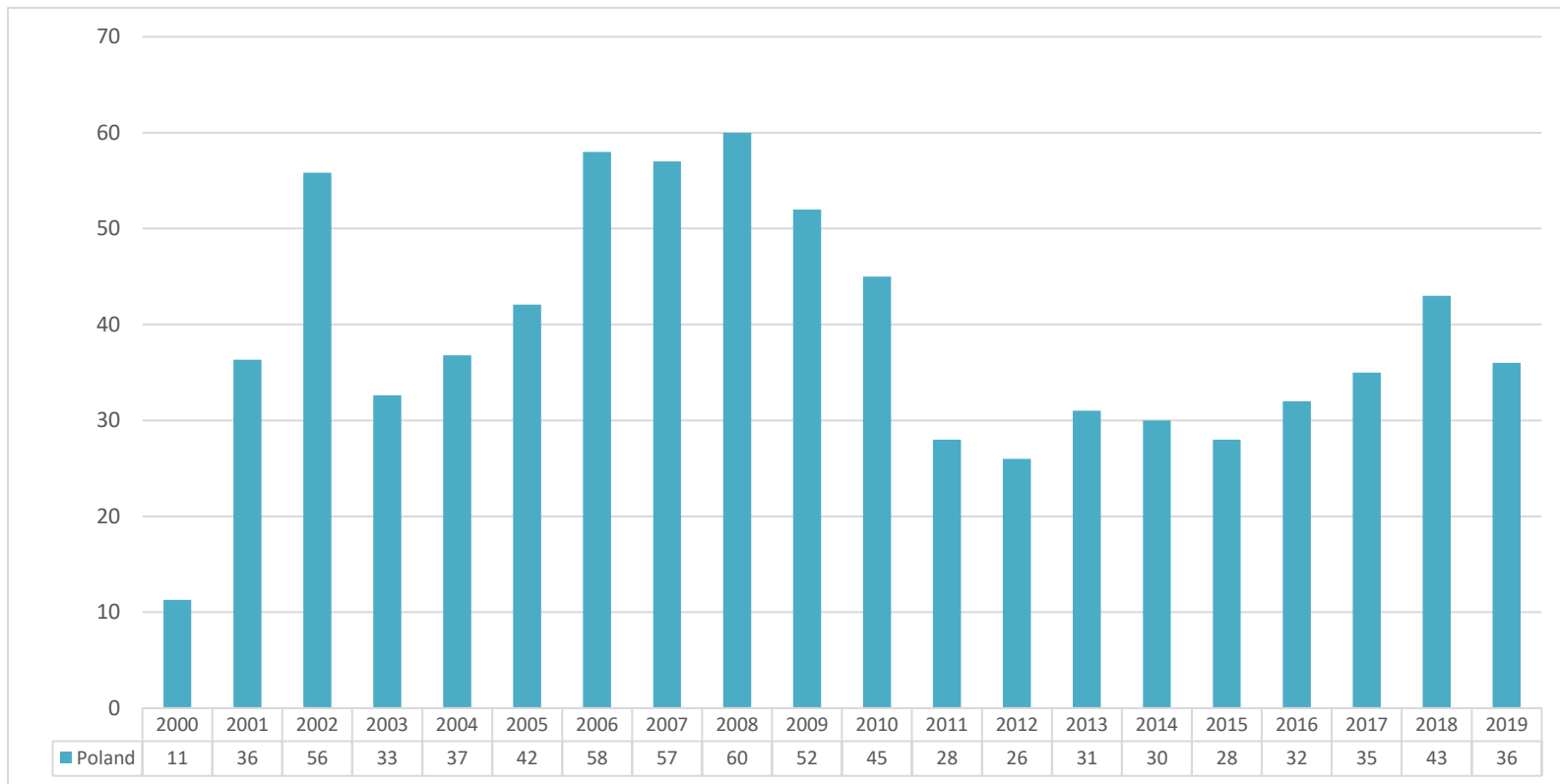


Source: CRT

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

The number of passengers visiting Bornholm via ferry connections with Poland in thousands:



## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

### Conclusions:

- DFDS, when operating the line between Copenhagen and Gdańsk in years 2002-2003, carried 170,000 passengers in one year, mainly Danish tourists.
- The number of visitors from Denmark in Tri-city does not follow the market trends confirms that the main reason is the lack of a ferry line between Denmark and Poland.
- The passenger line between Zealand's port and Gdansk could be used by Danish travellers willing to visit Gdańsk, Tri-City, the Pomeranian region or other parts of Poland. This would bring in at least 120,000 Danish passengers annually (in both directions).
- The total market potential for trade in Ro-Ro goods between a part of Poland and Denmark is estimated at 640,000 tons annually. Between Southern and Eastern neighbouring countries (Czechia, Slovakia, Ukraine), additional 200 + 790 thousand tons per year could be handled.

## A market potential for a new passenger or ro-pax line between Gdańsk region and Bornholm

Finally, both business concepts:

- **opening of passenger sea transportation (ferry line) between Port of Gdańsk and Port of Rønne,**
- **opening of passenger and cargo sea transportation (Ro-Pax line) between Port of Gdańsk, Port of Rønne and potential Danish port at Zealand**

have market potentials for further considerations.

However, based on the research carried out within this study, the best option for the business concept seems to be opening of:

- **a year-round Ro-Pax line between a Zealand's port and the Port of Gdańsk (or Gdynia) in Poland.**

Ro-Pax line Køge-Rønne-Gdańsk, the estimated sailing time would be:

- |                            |                             |
|----------------------------|-----------------------------|
| • Køge-> Rønne – 5.5 hours | • Gdańsk -> Rønne – 9 hours |
| • At Rønne – 1 hour        | • At Rønne – 1 hour         |
| • Rønne-> Gdańsk – 9 hours | • Rønne-> Køge – 5.5 hours  |
| • At Gdańsk – 3 hours      | • At Køge – 3 hours         |





# Trade, ro-ro and container markets analysis. Cargo volume forecast - perspective 2030 - Analysis for Port of Karlshamn

● solutions hub

actia  
FORUM

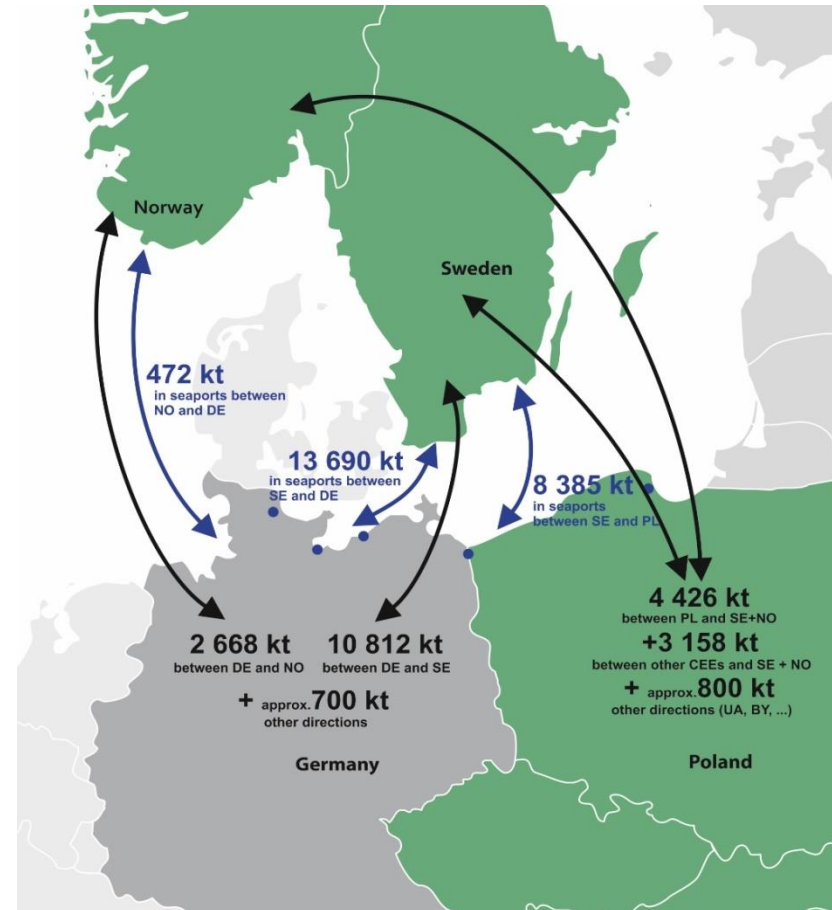


Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Ro-ro maritime transport between Poland, Germany and Sweden

The total volume of **8.4 mill. tonnes of Ro-Ro cargo handled in ports between Poland and Sweden** is very similar to the total volume of the Ro-Ro suitable goods traded between Sweden, Norway and CEE countries (**7.6 mill. tonnes**).

The difference of **0.8 mill. tonnes** may be subject of trade between Sweden, Norway and other CEE countries such as Belarus or Ukraine.



## Ferry services and cargo statistics



Map of ro-ro connections between Poland and Sweden and volumes in 2019 [thousand tonnes]

Source: Actria Forum based on Eurostat

	2012	2013	2014	2015	2016	2017	2018	2019	Change 2019/2018
Karlskrona-Gdynia	1 102	1 164	1 574	1 773	1 721	1 949	1 880	1 778	-5,43%
Ystad-Świnoujście	2 705	2 957	2 851	2 913	3 169	3 422	3 514	3 040	-13,47%
Trelleborg-Świnoujście	1 697	1 571	2 186	2 638	2 757	2 890	2 900	3 184	9,77%
Nynäshamn-Gdańsk	257	118	100	146	168	188	226	383	69,47%
<b>Total</b>	<b>5 761</b>	<b>5 810</b>	<b>6 711</b>	<b>7 470</b>	<b>7 815</b>	<b>8 449</b>	<b>8 520</b>	<b>8 385</b>	<b>-1,58%</b>

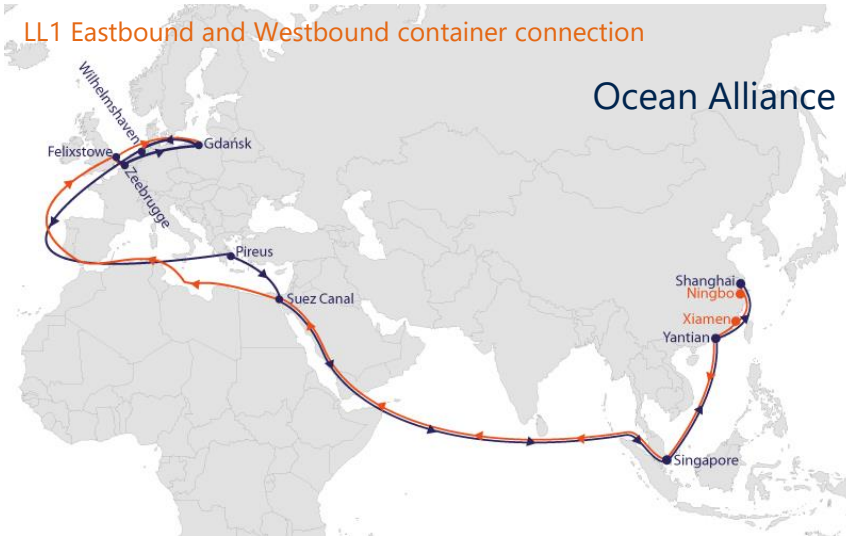
The volumes of ro-ro cargo transported on routes between Sweden and Poland [thousand tonnes]

Source: Actria Forum based on Eurostat

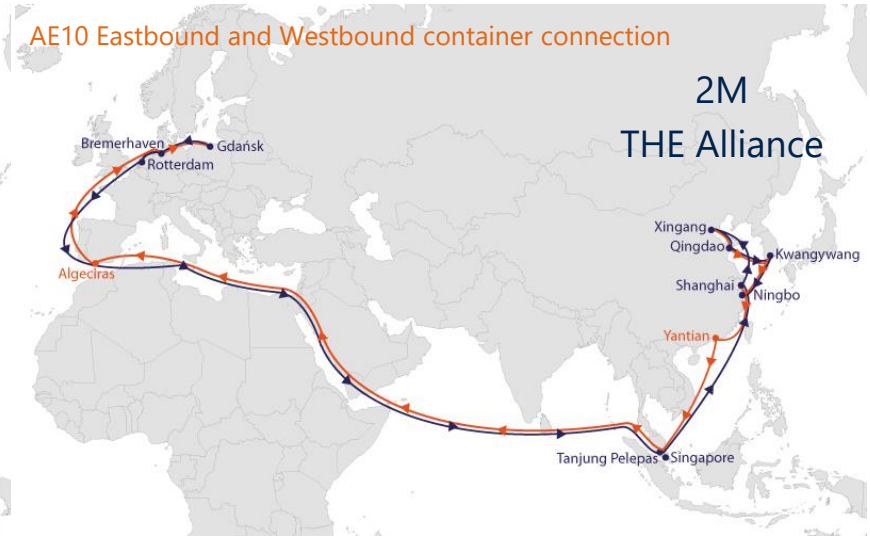
Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

# Ocean container connections from/to Asia to/from Sweden and Poland

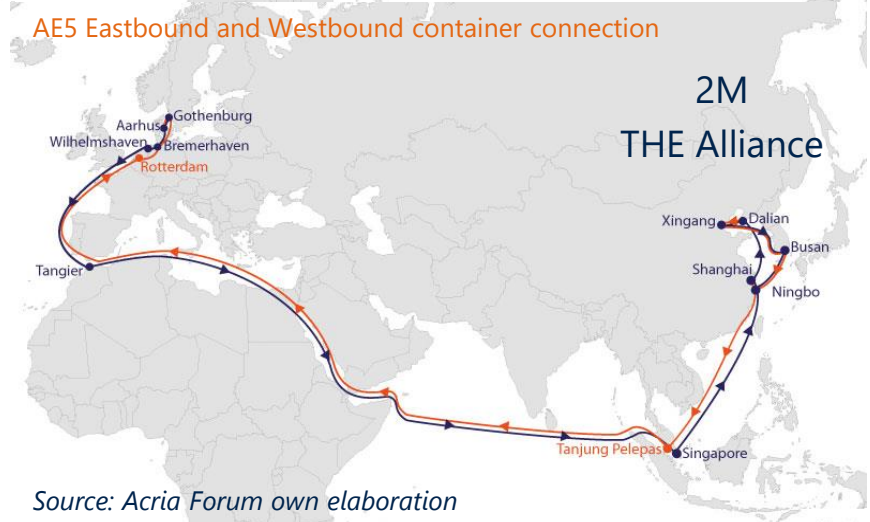
LL1 Eastbound and Westbound container connection



AE10 Eastbound and Westbound container connection



AE5 Eastbound and Westbound container connection



There are **3 direct ocean services from/to China/East Asia to/from Baltic Sea Region**. These are:

- one service to/from Gothenburg and Aarhus provided by 2M and THE Alliance
- two services to/from Gdańsk one of them provided by Ocean Alliance and the second one provided by 2M and THE Alliance

## Feeder connections from/to North-West Europe to/from Sweden

- A total of **25 services** are linking the South coastline of Sweden with the biggest seaports in North-West Europe.
- The most extensive network is available from **seaports in Helsingborg and Gothenburg**, which are connected with European hub seaports by **12 and 9 services** respectively.
- The large number of connections are offered by the **Unifeeder**, which provides a total of **10 services**.

Seaport in Sweden	No. of services	Rotterdam	Antwerp	Bremerhaven	Hamburg	Wilhelmshaven
Helsingborg	12	3	2	5	6	-
Gothenburg	9	3	3	1	5	-
Halmstad	5	-	-	4	3	-
Norrköping	4	-	1	3	1	2
Stockholm	3	-	1	2	2	-
Gävle	3	-	1	2	1	1
Åhus	1	-	-	1	1	-

Feeder container connections from North-West Europe to South coastline of Sweden

Source: Actia Forum analysis based on Baltic Yearbook 2019/2020 and published operators' schedules. Data collection date: January-February 2021

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Intra-Baltic container connection between Poland and Sweden

Operators	Service	Connection
Sealand - A Maersk Company Unifeeder	Poland-Latvia-Sweden	Gdańsk-Riga-Norrköping-Gävle-Gdańsk

Intra-Baltic container connection between Poland and Sweden

Source: Actia Forum analysis based on Baltic Yearbook 2019/2020 and Unifeeder and Sealand – A Maersk Company schedules published in January-February 2021



MV Hanni, container ship

Source: <https://www.vesselfinder.com/>



Intra-Baltic container connection between Poland and Sweden

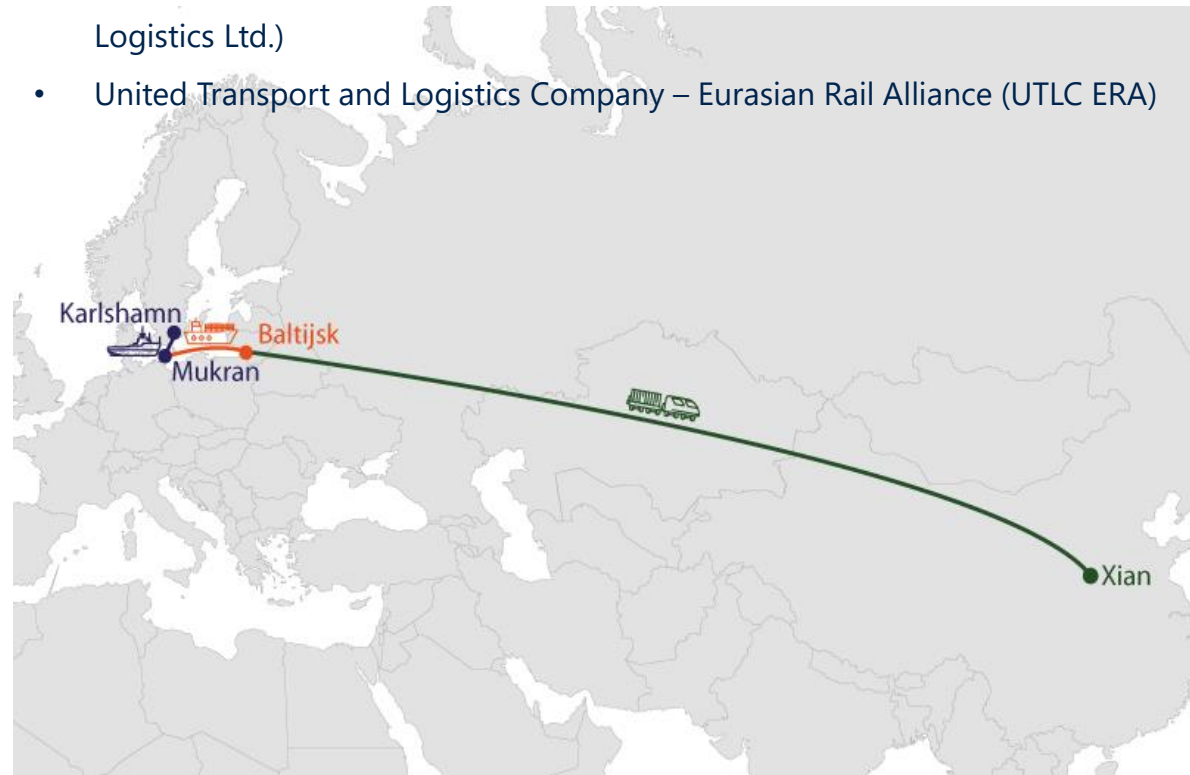
## Route Karlshamn-Xian via Mukran and Baltijsk

### Advantages:

- Transit time Karlshamn-Xi'an only about 15 days, in normal conditions
- Mukran-Xi'an on one single SMGS/CIM Railway-Bill
- Mukran Port (Baltic Sea Bridge GmbH) controls feeder shuttle Mukran-Baltijsk
- flexible adjustment to train arrivals/departures
- 4 feeder departures per week in each direction Mukran-Baltijsk-Mukran, Karlshamn-Mukran
- 3 train departures per week
- Mukran Port (Baltic Sea Bridge GmbH) charter the container slots Karlshamn-Mukran
- Competitive prices

### Operators:

- DFDS
- Mukran Port Terminals GmbH & Co.KG
- BahnOperator GmbH (and sister company: Beijing Trans Eurasia International Logistics Ltd.)
- United Transport and Logistics Company – Eurasian Rail Alliance (UTLC ERA)

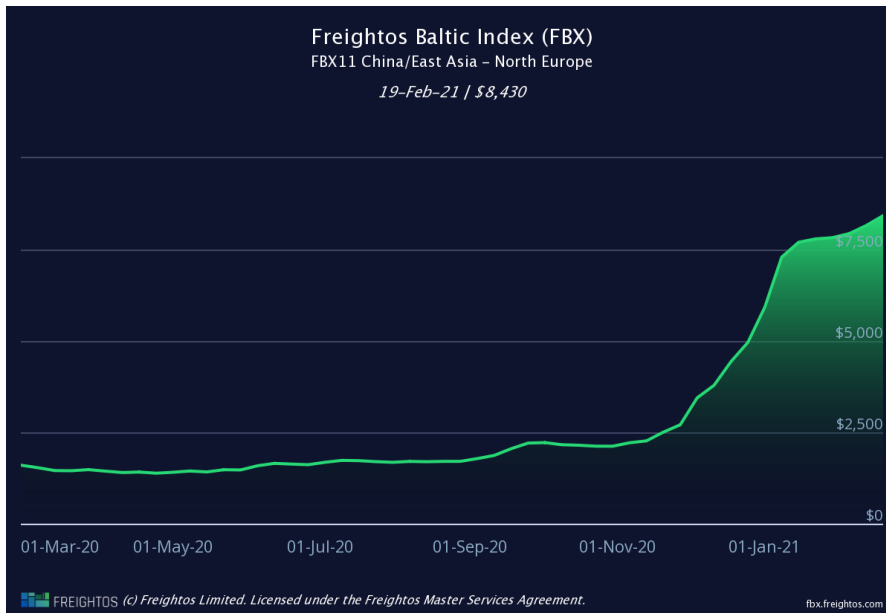


Karlshamn-Xian link via Mukran and Baltijsk

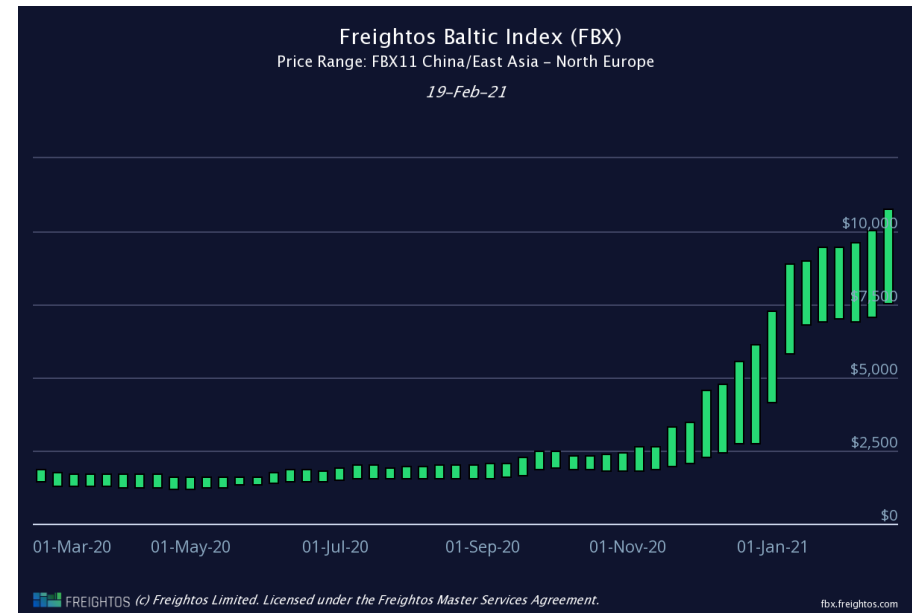
Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Ocean freight rates

According to Freightos Baltic Index in the mid of February 2021 the prices on China/East Asia-North Europe route were ranging from **7.5 to 10.8 thou. USD per standard forty-foot container**. The median price was at the level of **8,430 USD per FEU**. The median price was **426%** higher than in the previous year.



Freightos Baltic Index. China/East Asia to North Europe (data from 28 Feb 2020 to 19 Feb 2021)  
Source: [fbx.freightos.com](https://fbx.freightos.com)



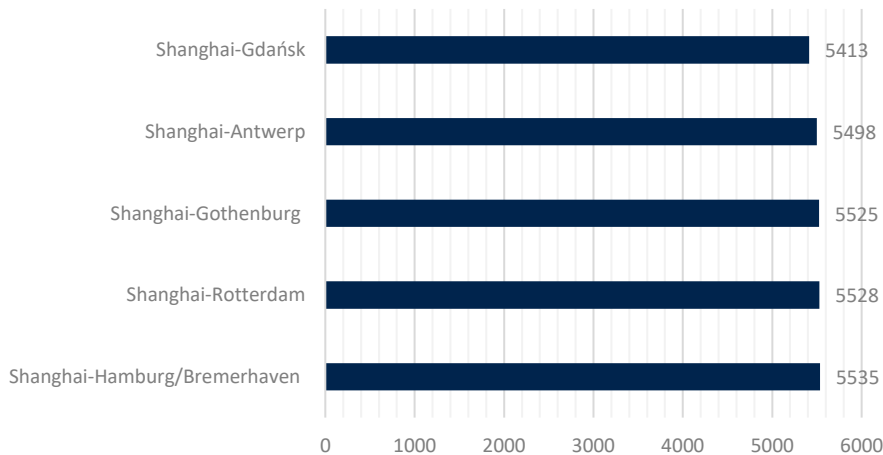
Freightos Baltic Index. Prices Range. China/East Asia to North Europe (data from 24 Feb 2020 to 15 Feb 2021)  
Source: [fbx.freightos.com](https://fbx.freightos.com)

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

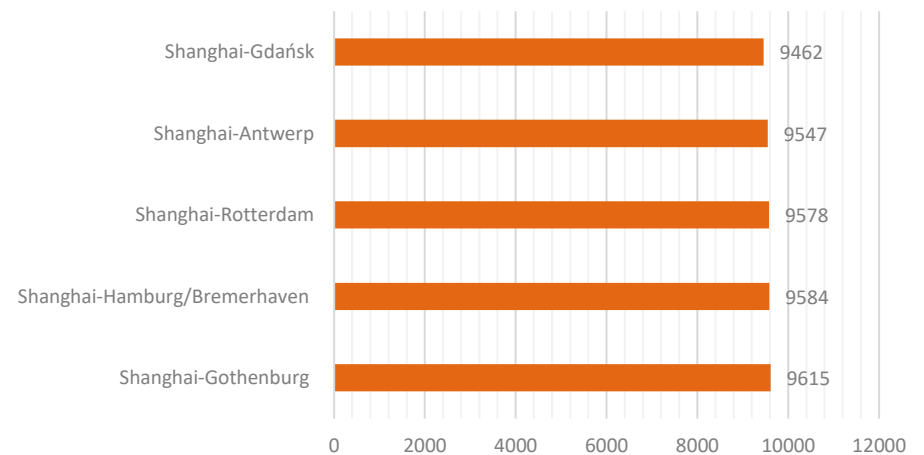
## Ocean spot freight rates on routes between Asia and North Europe and Baltic Sea Region

Total presented costs include **basic rate + other charges (inter alia terminal handling charges, documentation fees, low sulphur surcharges).**

USD per TEU



USD per FEU



Total spot container freight rates on Shanghai-North European ports route, USD per TEU (as of the end of January/beginning of February 2021)

Source: forwarding companies

Total spot container freight rates on Shanghai-North European ports route, USD per FEU (as of the end of January/beginning of February 2021)

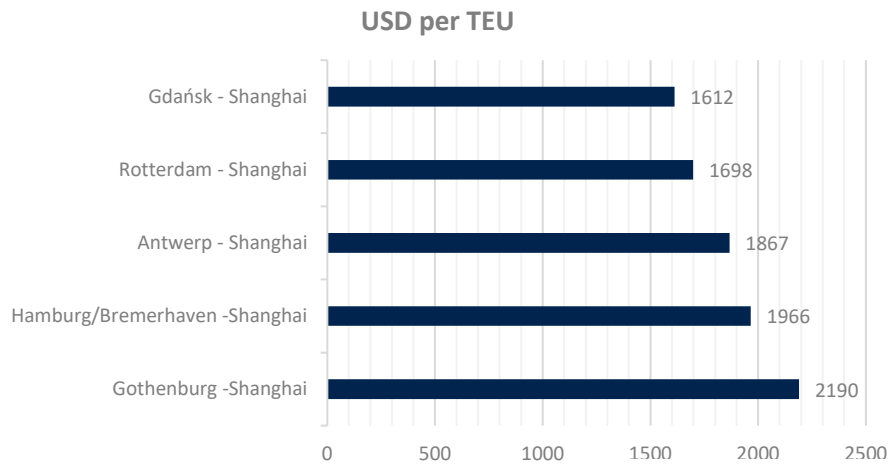
Source: forwarding companies



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.



## Ocean spot freight rates on routes between Asia and North Europe and Baltic Sea Region

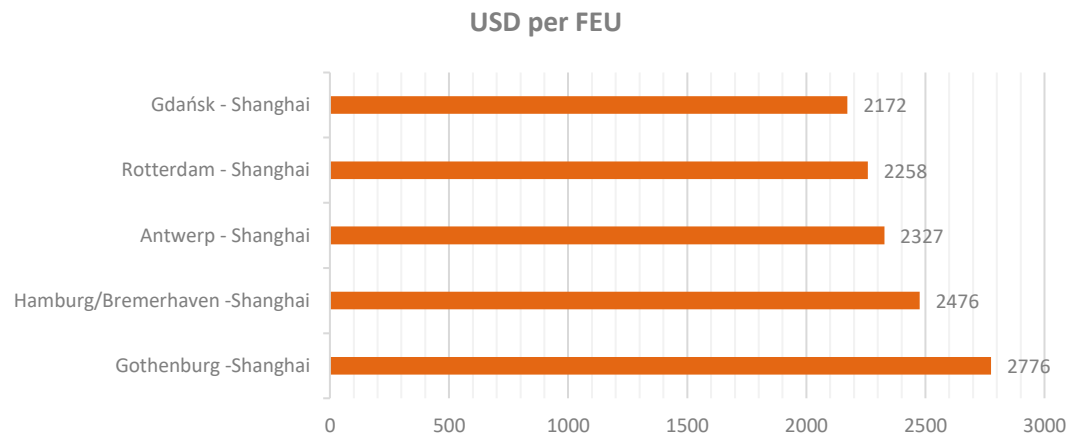


Total spot container freight rates on North European ports – Shanghai route, USD per TEU (as of the end of January/beginning of February 2021)

Source: forwarding companies

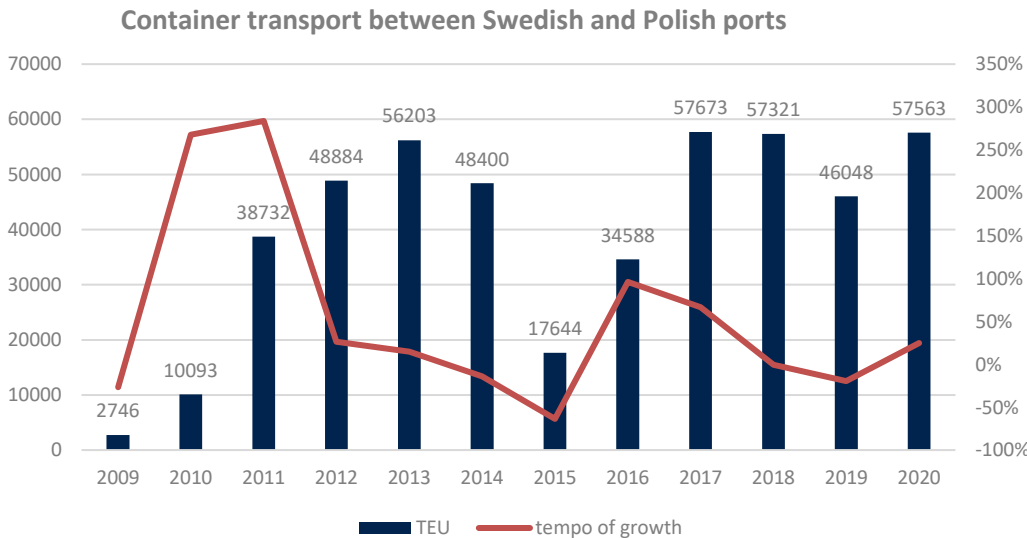
Total spot container freight rates on North European ports – Shanghai route, USD per FEU (as of the end of January/beginning of February 2021)

Source: forwarding companies



## Advantages and disadvantages of Intra Baltic feeding and prospects for development of new feeder services between Gdańsk/Gdynia and Sweden

Excluding the drops connecting with the various market circumstances, in the last several years the container transport on Sweden-Poland route reached the levels of around **56 - 57 thou. TEU**. As this accounts for only **3,5%** of total container turnover in Swedish ports, it can be estimated that the potential for such services is greater.



Container transport between Swedish and Polish ports 2009-2020 (TEU)

Source: Own elaboration based on Eurostat  
\*2020 estimations

The attractiveness of Intra Baltic feeder services between Poland and Sweden will depend on:

- Frequency of the Intra Baltic service
- Offered capacity – the greater capacity the more attractive option
- Cost of transport
- Transit time
- Frequency of ocean services to Poland



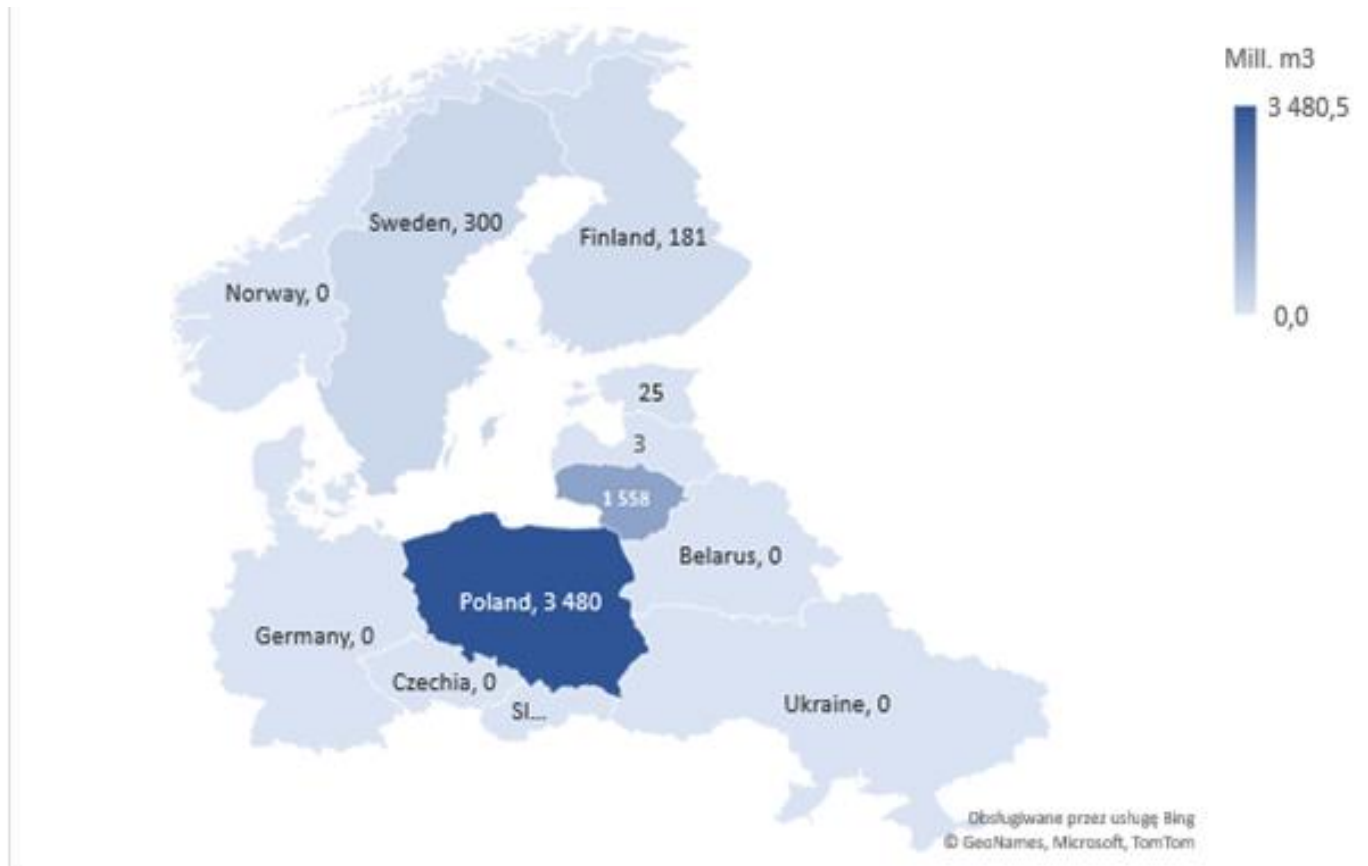
# Analysis of Possibilities of Port Infrastructure Adaptation to Handle Biofuels and Liquid Cargo - Analysis for Port of Elbląg

● solutions hub

actia  
FORUM

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

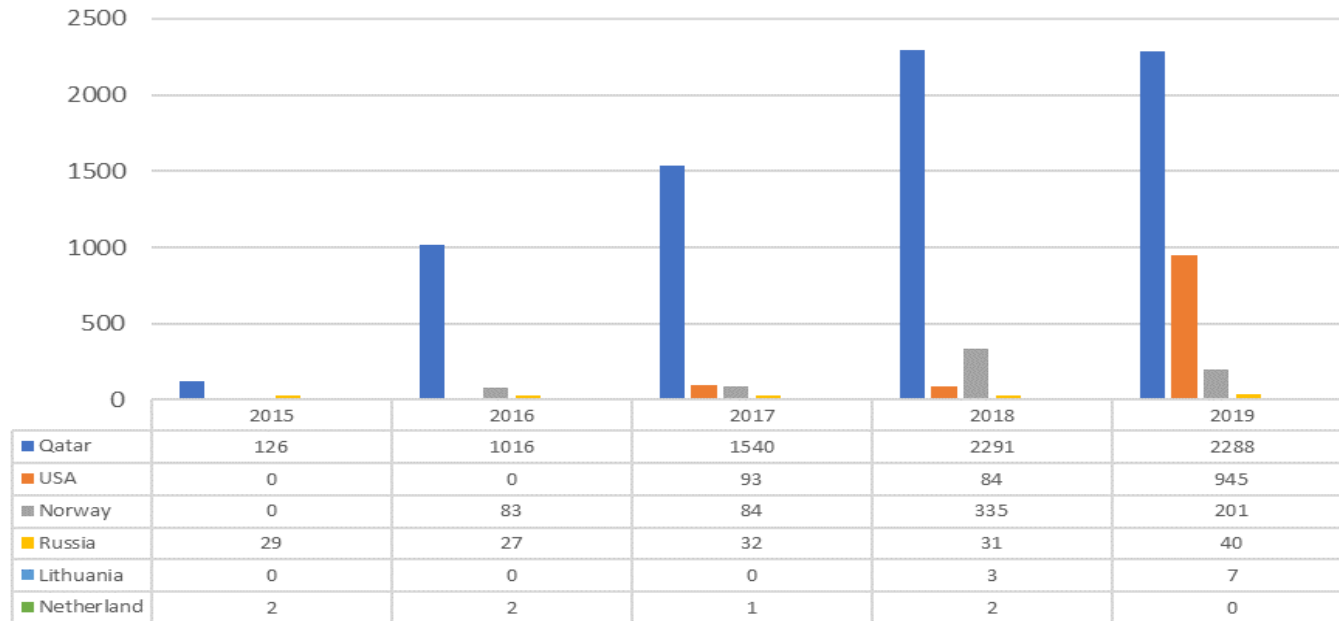
## LNG imports in the Baltic Sea region in 2019



LNG imports in the Baltic Sea region in 2019

Source: Eurostat

## The import of LNG to Poland

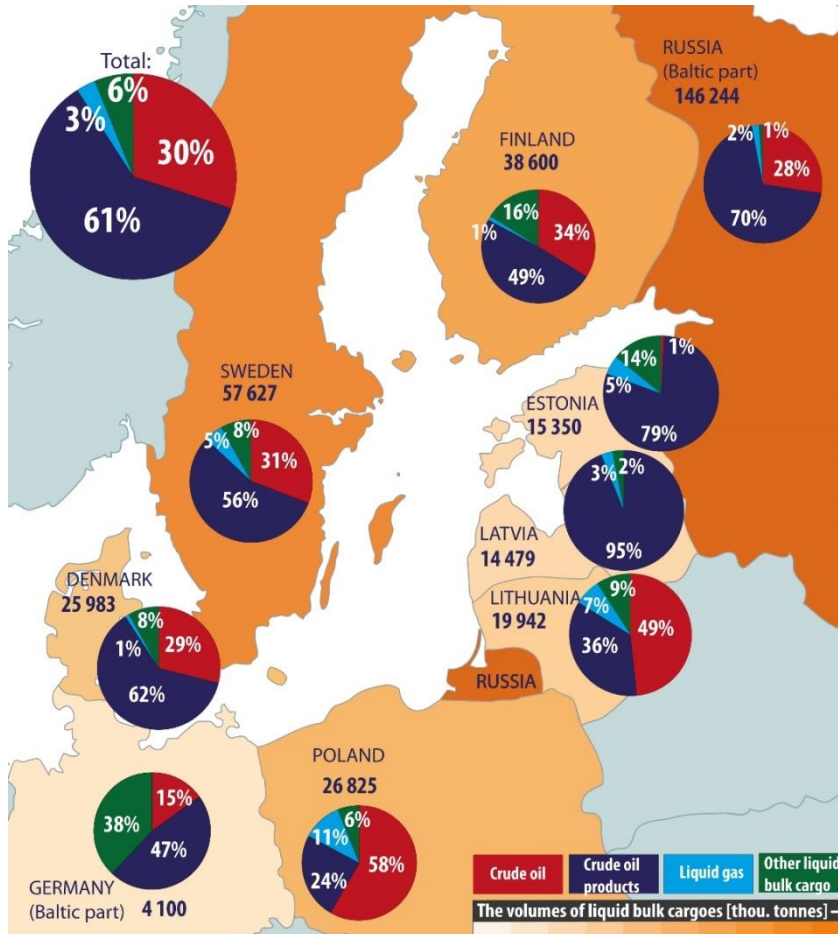


Main sources and volume of LNG imports to Poland in million m3 (after regasification).

Source: Eurostat

- Poland started to import LNG at the end of 2015.
- In 2015-2019, imports from **Qatar** dominated (**2.3 billion m3 after regasification in 2019**).
- LNG imports from the **USA** increased significantly in 2019 (**to nearly 1 billion m3**).
- Small amounts of imports also from: Norway, Russia, Lithuania and the Netherlands.

## Liquid bulk cargo turnover in ports in the Baltic Sea Region



Share of cargo groups in total turnover of liquid bulk in Baltic ports in 2019 [thousand tonnes].

Source: Own elaboration based on Eurostat and ports' data

- All the Baltic countries together handled about **350 million tonnes of liquid bulk cargoes in 2019**
- **Russia** has the largest share in the total turnover of BSR countries in the liquid bulk group. Its turnover account for more than **40%** of the turnover of the analyzed countries.
- Poland is responsible for **7.7%**
- Analysing all the Baltic countries together, it can be noticed that the structure of liquid bulk cargo handled in Baltic ports is dominated by **oil products (61%), the crude oil accounts for 30%.**

## Liquid bulk cargo turnover in Polish ports in relations with Baltic countries



Transshipments of Polish ports in relation to Baltic countries in the liquid bulk group in 2019 [thousand tons].

Source: Actia Forum based on Eurostat data

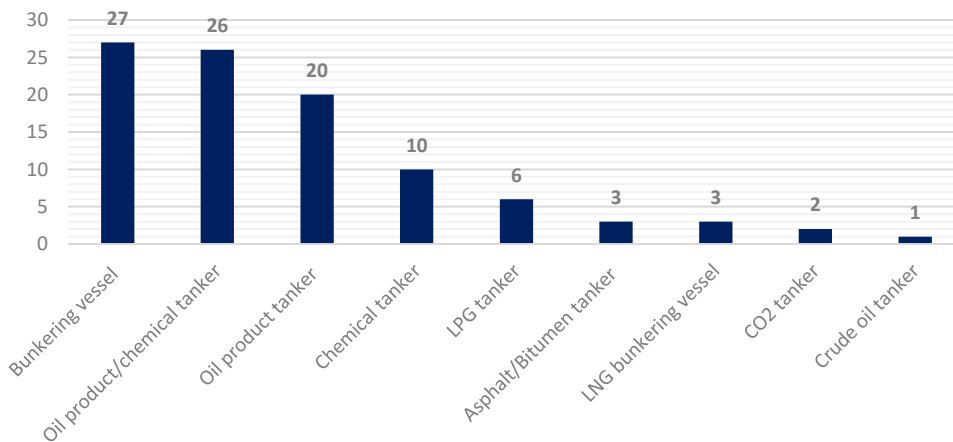
- Handlings of liquid bulk cargo in relation with the Baltic countries amounted to **5.7 mln tonnes** and accounted for **21%** of the total liquid bulk turnover in Polish ports.
- Polish ports recorded the highest turnover in relation with **Russian ports** - in 2019, it amounted to **4,025 thousand tonnes**, which is more than **70%** with respect to the total turnover in relations to the Baltic countries

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.



## Small tanker fleet in the Baltic Sea region (up to 5000 DWT)

The number of small tankers (up to 5000 DWT) operating within BSR



Number of tankers of a given type under 5000 DWT operating in the Baltic Sea region in mid-February 2021

Source: compiled by Actia Forum based on <https://www.marinetraffic.com/>

Range of typical parameters for tankers by deadweight ranges (under 5000 DWT)

Source: compiled by Actia Forum based on <https://www.marinetraffic.com/>

	<1000 DWT	1000-1999 DWT	2000-2999 DWT	3000-3999 DWT	4000-4999 DWT
length (m)	40-50	60-80	70-80	80-100	92-110
width (m)	8-10	10-12.5	12-14	12.5-14.5	12.5-17
draft (m)	2.5-3.5	3.5-4.5	4.0-5.5	4.5-6.5	5.5-6.5

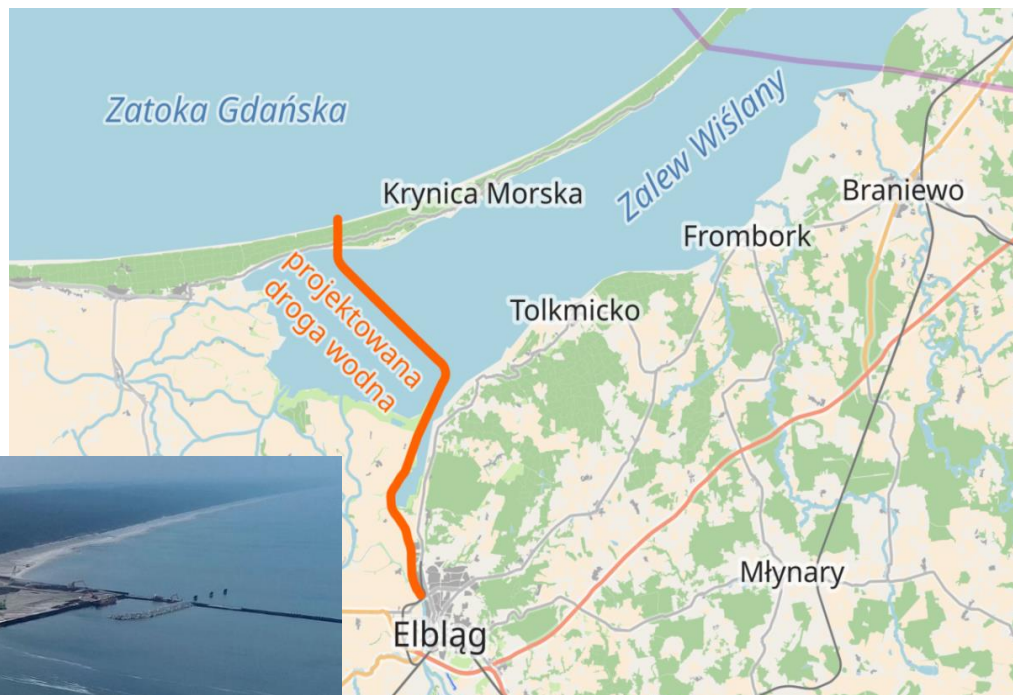
- Small tankers of up to **5,000 DWT** constitute almost 1/3 of the tankers operating in the Baltic Sea.
- In mid-February 2021, there were **98 tankers** in the Baltic Sea not exceeding this size.



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Vistula Spit cut – ongoing investment

- The Vistula Lagoon is accessible from the Baltic Sea through the Strait of Baltiysk - located in the Russian part of the Vistula Lagoon.
- Navigation to the port of Elbląg will be facilitated by the Vistula Spit cut - the construction of a navigation canal through the Vistula Spit. **It will be possible to enter the Vistula Spilt bypassing the Russian territory**
- The parameters of the canal will enable the entrance to the Port of Elbląg of vessels with a **draft up to 4.5 m, length not exceeding 100 m and a maximum width of 20 m.**



Planned waterway connecting Elbląg with the Gdańsk Bay  
Source: Information Sheet of the project "Waterway connecting the Vistula Lagoon with the Bay of Gdańsk - location Nowy Świat", Maritime Office in Gdynia

## Directions from which liquid cargo could be transported to the Port of Elbląg - LNG



LNG terminals in the Baltic Sea region (existing and planned)  
Source: prepared by Actia Forum

Several potential directions for LNG transportation to Elbląg can be identified:

- LNG export terminal in Vysotsk (existing),
- FSRU import terminal in Klaipeda - re-export option (existing),
- FSRU import terminal in Kaliningrad - re-export option (existing),
- LNG export terminal (Ust-Luga) - planned (2023/2024),
- LNG import terminal in Świnoujście - after completion of investment in loading berth for smaller gas carriers (2022/2023),
- FSRU import terminal in Gdańsk - re-export option (2026/2027).

Among the discussed options, the most optimal one would be the transport from domestic LNG terminals, after completion of investments in Świnoujście and Gdańsk.

## Potential localisations and components of small scale LNG investment in Port of Elbląg



Potential location of an LNG carrier loading berth

Source: <https://www.google.com/maps>

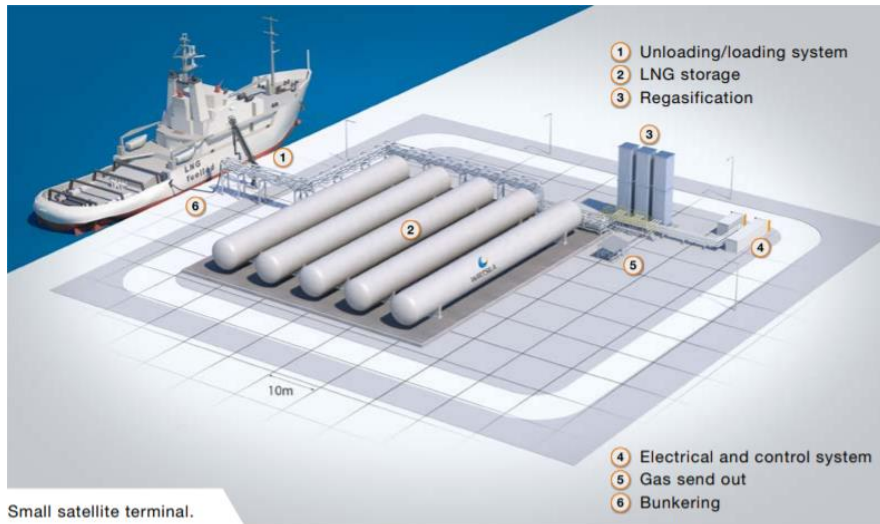
In general, the entire investment for LNG handling capability in Elbląg may consist of three major components:

1. LNG Terminal, which includes: facilities for receiving LNG from a ship, LNG tanks, and facilities for regasification of LNG).
2. Port infrastructure for handling small LNG carriers (berth equipped with all necessary facilities, such as navigation equipment, mooring, etc., fire water intake platform, overpass for technological pipelines).
3. Dredging of the waterway to Elbląg and dredging at the quay. Necessary dredging works on the waterway to Elbląg on the length of about 15 km to the depth of 5 m (current depth 3.2-3.5 m) and at the quay (the current depth is 2.5 m).

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Example of small scale LNG terminal

The capacity of the LNG tanks in Port of Elbląg to serve Power Plant in Elbląg could be in the range of **5000-6000 m<sup>3</sup>**. Most suitable option are bullet tanks (**about 4-5 tanks with a capacity of 1200 m<sup>3</sup> each**)

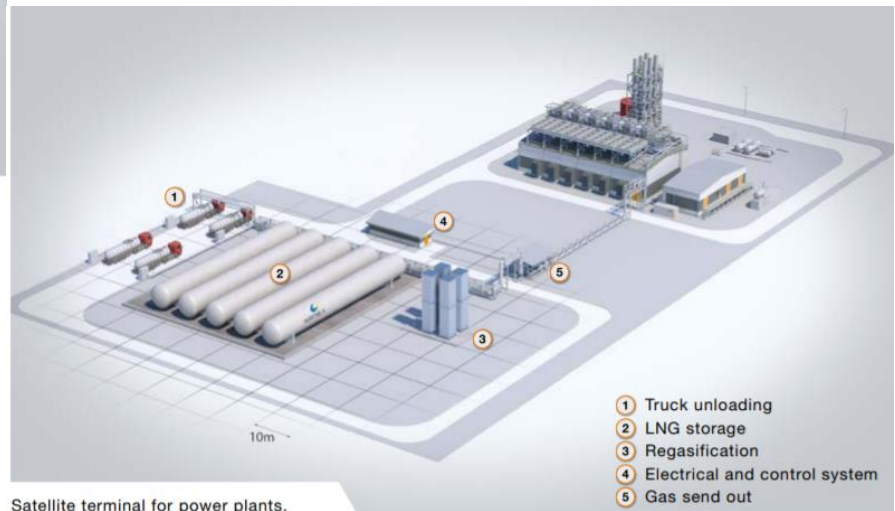


Example of small scale visualization of an LNG terminal

Source: Wärtsilä

Example visualization of a small LNG plant for power utilities.

Source: Wärtsilä



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Alternative options to serve LNG at a small scale

### LNG storage and regasification barge



Example visualization of LNG storage and regasification barge and LNG vessel during unloading  
Source: Wärtsilä

### Transport of LNG in containers by container vessel (or by land transport)



Containers with LNG loaded on the ship

Source: [www.prnewswire.com/news-releases/a-first-in-the-industry-130-lng-tank-containers-are-shipped-to-northern-china-300758082.html](http://www.prnewswire.com/news-releases/a-first-in-the-industry-130-lng-tank-containers-are-shipped-to-northern-china-300758082.html)

Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.

## Potential localisations and needed investments to serve petroleum products in Port of Elbląg



### 1. At the quay of Port of Elbląg Storage and Handling Terminal located on the left bank of the Elbląg River.

At present no tanks for liquid cargo. Maximum parameters of the vessels : length - 70 m, width - 12 m, draft - 2 m, i.e. units with a maximum capacity of 1000-2000 DWT.

To serve larger vessels: the dredging of the waterway over a length of about 15 km to a depth of 5 m and the dredging at the quay will be required (current depth is 3.5 m). Once the depth of 5 m has been reached, it will be possible to call vessels with a draft of up to approx. 4 m and a maximum of 4.5 m, i.e. vessels with a carrying capacity of up to 3000-4000 DWT.

### 2. Handling of petroleum products could also take place on the land adjacent to the Storage and Handling Terminal.

This area of 0.57 ha is currently undeveloped, but about 100-150 m of the quay and a storage zone for liquid fuels could be built there.

Potential locations for handling petroleum products in the port of Elbląg  
Source: <https://www.google.com/maps>



Baltic Transport Look Project, Final Conference, Selected insights from the port market and some results from the project's reports.



## Some final remarks:

- **Baltic – very dynamic environment**
- **Pandemic impact – low for cargo volumes**
- **New port infrastructure, new ships**
- **Emission regulations**



**Thank you for watching.**