

**OCEAN
SHIPPING
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Enhancing Society Together

Constanta opportunity in the Black Sea container trade

*Black Sea Ports &
Shipping 2016*

Carline Bos
26 May 2016

Who are RHDHV?

We form one of Europe's leading consultancy and engineering services providers, ranking globally in the top 10 of independently owned, non-listed companies.

The in-house professions include:

- Port Planners;
- Transport Economists;
- Civil and Structural Engineers;
- Coastal Engineers;
- Mathematical Modellers;
- Geotechnical Engineers;
- Mechanical and Electrical Engineers;
- Port Operational Specialists;
- Contractual and Legal Experts;
- Environmental Scientists;
- Quantity Surveyors;
- Diving Engineers;
- Architects.



Who are RHDHV / OSC?

Ocean Shipping Consultants was acquired by RHDHV in 2011

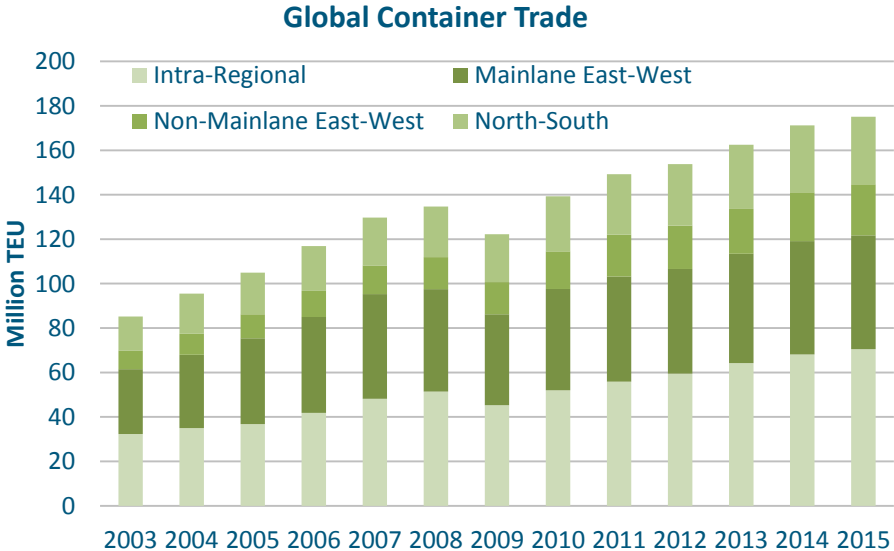
Our professionals can offer expertise in the following consultancy services for the maritime industry:

- Traffic and trade forecasting;
- Project planning and outline design;
- Technical and financial feasibility studies;
- Detailed design, working drawings, specifications;
- Design and technical reviews and analysis;
- Financial Analysis;
- Tender documents and tender appraisals;
- Contract management and site supervision;
- Inspections and appraisals of existing infrastructure;
- Cost estimates (capital, maintenance and operational) and risk analysis;
- Trade forecasts and market assessments;
- Tariff and institutional structuring.



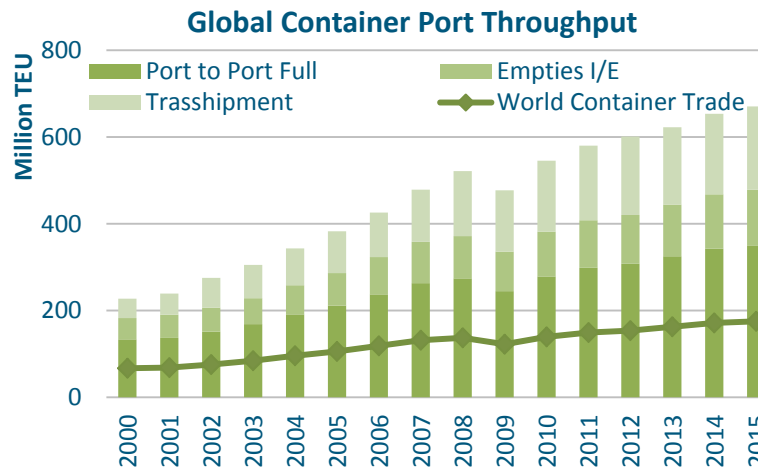
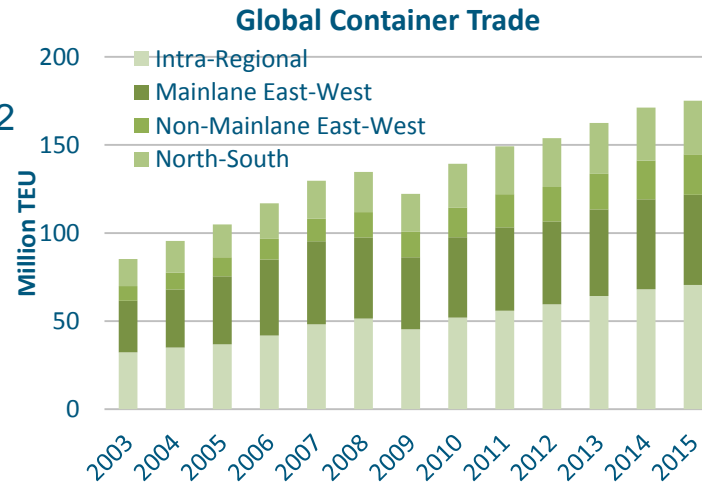
Contents

- Global container market
- Container vessel development
- Container trades
- Black Sea container market
- Key developments in Black Sea Ports
- Observations



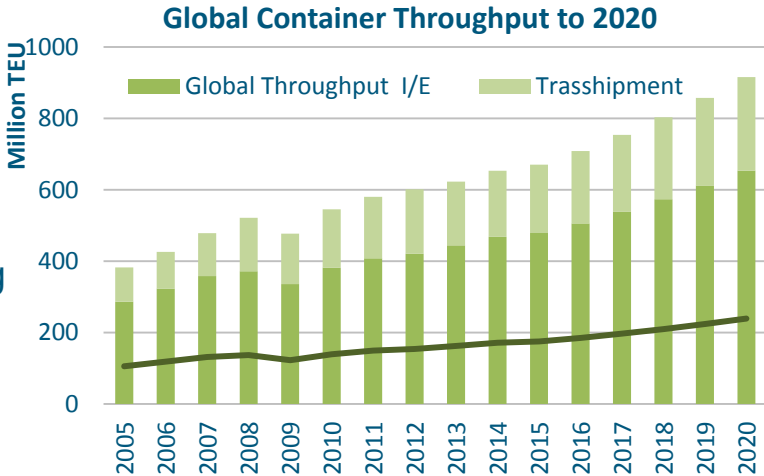
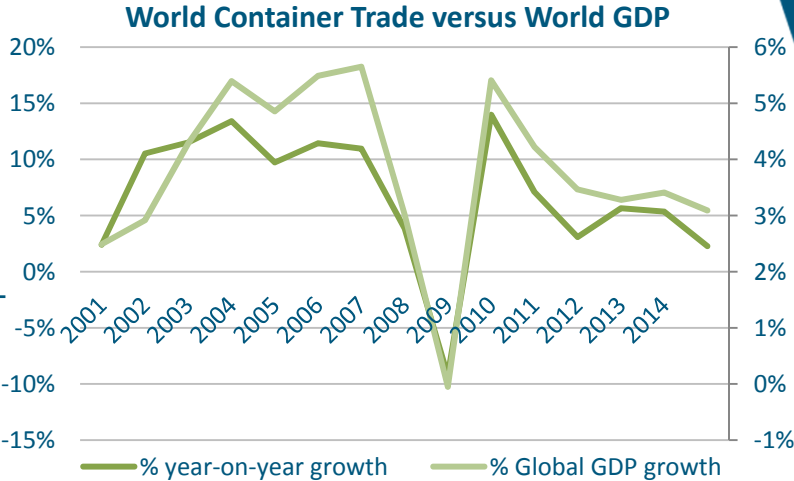
Global container market - historical

- Global containerised trade has been increasing steadily, since the slowdown: 182 million TEUs (full) estimated for 2015.
- 9.8% annual growth in the period 2003-2008.
- 6.6% annual growth in the period 2003-2015.
- Current container shipping generates 680 million TEU moves globally. This includes full, empty, local and transshipment moves (counting double).
- Some structural issues:
 - Transshipment – increasing
 - Empty containers – stable share
 - Global trade slowing down
 - General overcapacity of vessels



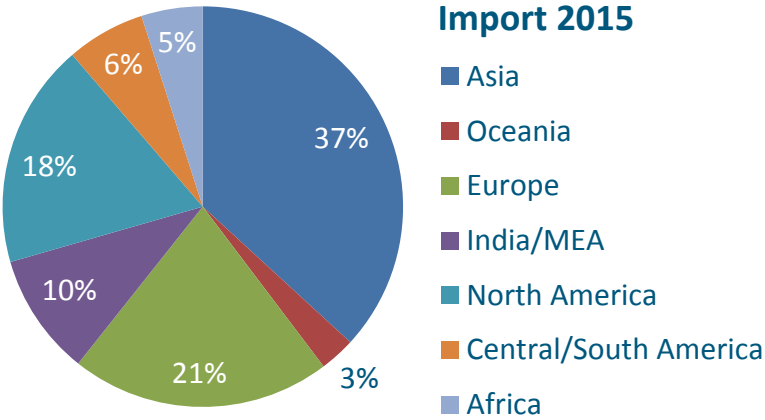
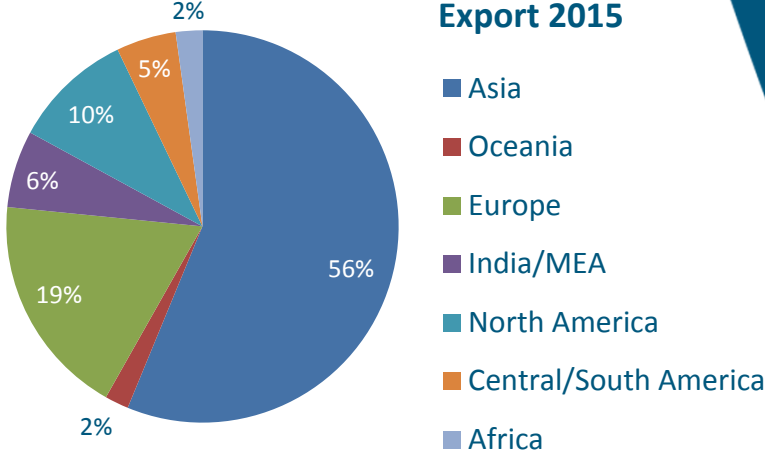
Global container market - forecast

- Historically, there is a close correlation between World GDP growth and container trade growth.
- This has been called into question but remains a remarkably robust indicator – especially for supply/demand overviews.
- Forecast is based on IMF projections on World GDP growth and anticipated multipliers and transshipment assessment.
- Further strong demand growth under Base Case economic assumptions – transshipment underlining / supporting demand growth.



Global container market - per region

- Distribution is based on full TEUs in import and export per region.
- Demonstrates the dominant position of the Asia region (includes intra regional trade) handling 56 per cent of the global export volumes and 37 per cent imports.
- Asia handled approx. 65 million full export TEUs in 2015
- Europe is more balanced as a region with 21 per cent on export volumes and 19 per cent of the total import volumes globally (respectively 22 million TEU on export and 20 million imports).
- North America imports are almost twice the volume of the exports.



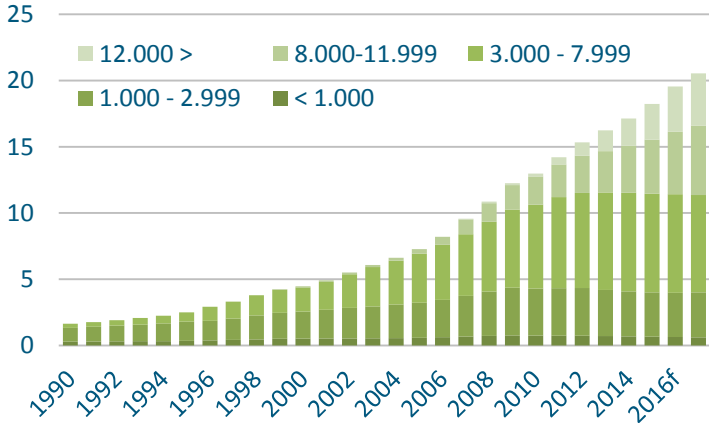
Capacity on the increase...

- Accelerated growth pattern in vessel sizes
 - An 8,000 TEU vessel did not appear before 2000
 - The first 12,000+ TEU vessel was deployed by 2008
 - The segment of large container vessels reached 10% of the fleet by 2013
 - This has already reached 15% in 2015 and is estimated to grow to 20% by 2017

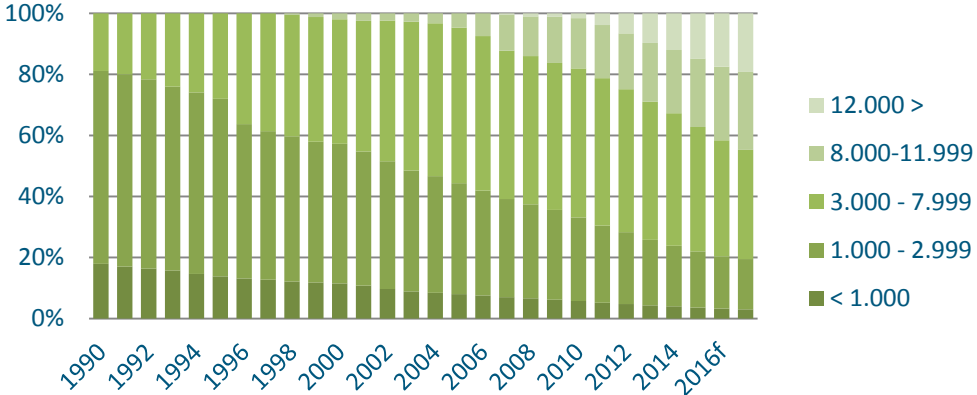
- The majority of newbuilding orders are for the Ultra Large Container Carriers

- This is driven by the race towards cost efficiency on the large key routes, Asia – Europe and recently also more on the Pacific

Total Fleet Capacity by Category (1,000 TEU)



Total Fleet Capacity by Category (TEU)

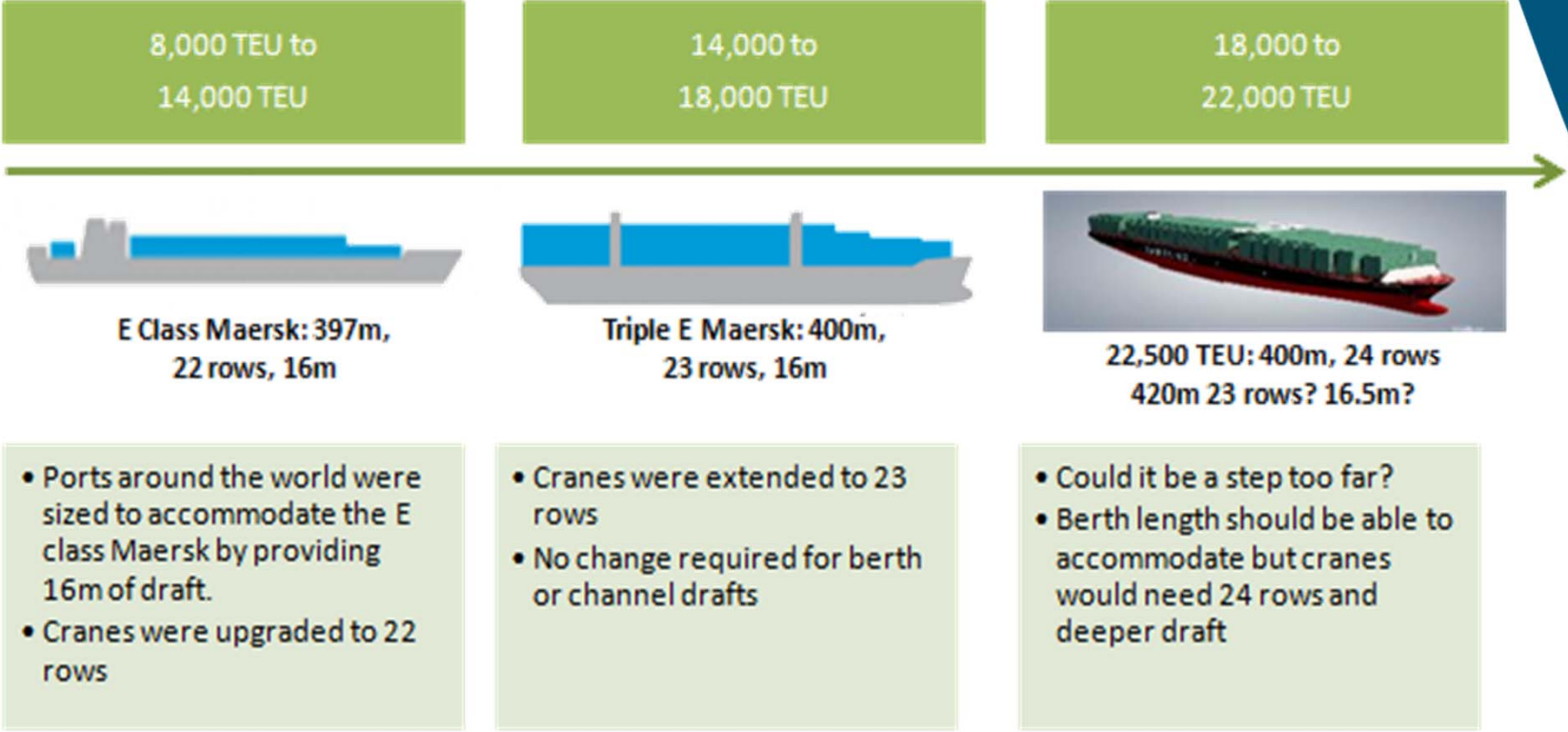


Vessel growth acceleration



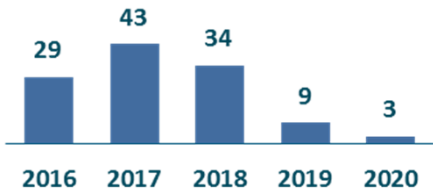
Liners are ordering and deploying larger vessels to lower their cost per slot

Pushing port boundaries

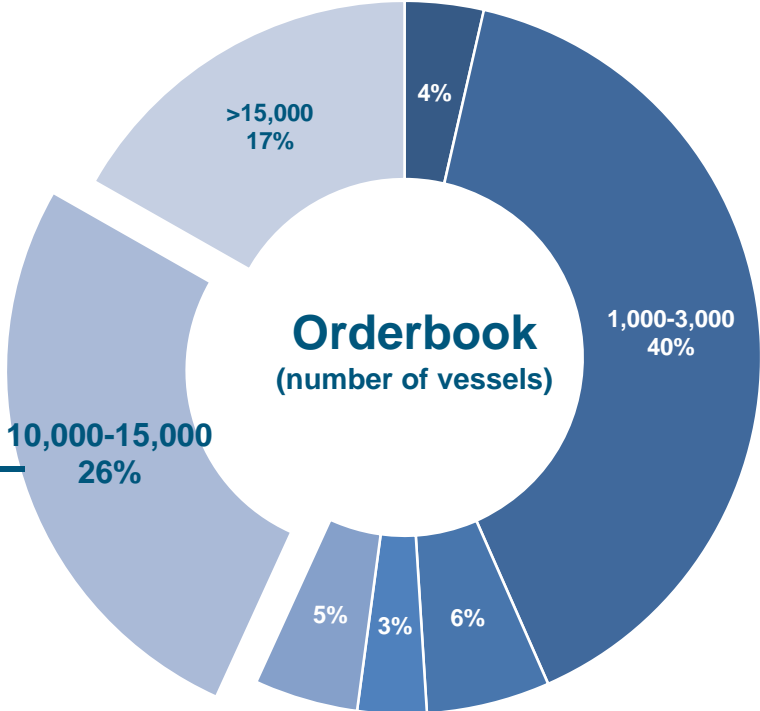


When vessel sizes increased initially, ports have accommodated as the increases were incremental. The next size of container vessels could result in significant capacity redundancies

Container Vessel Orderbook as of May 2016



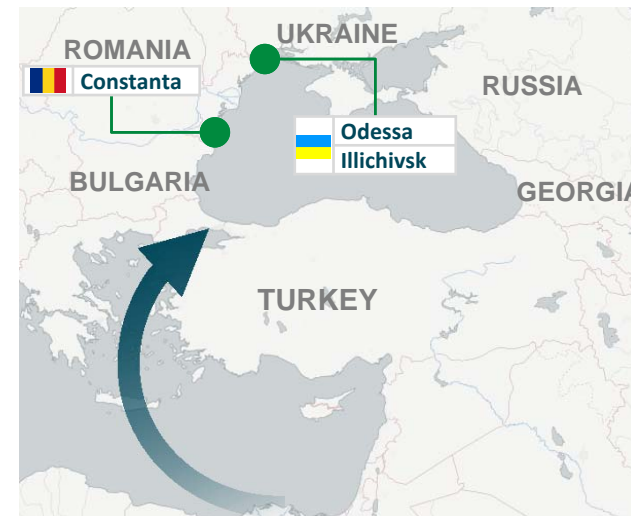
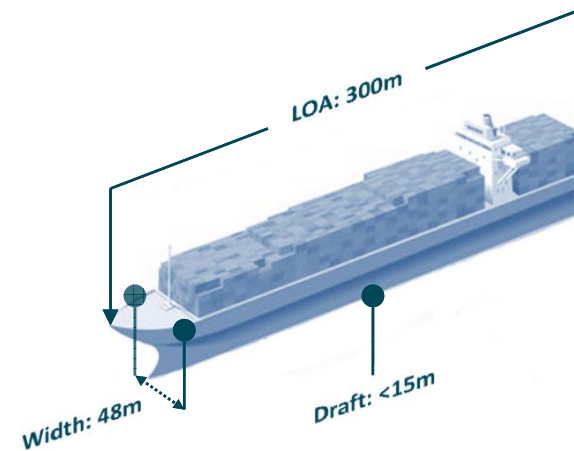
1.49m TEU



- <1,000
- 1,000-3,000
- 3,000-5,000
- 5,000-7,000
- 9,000-10,000
- 10,000-15,000
- >15,000

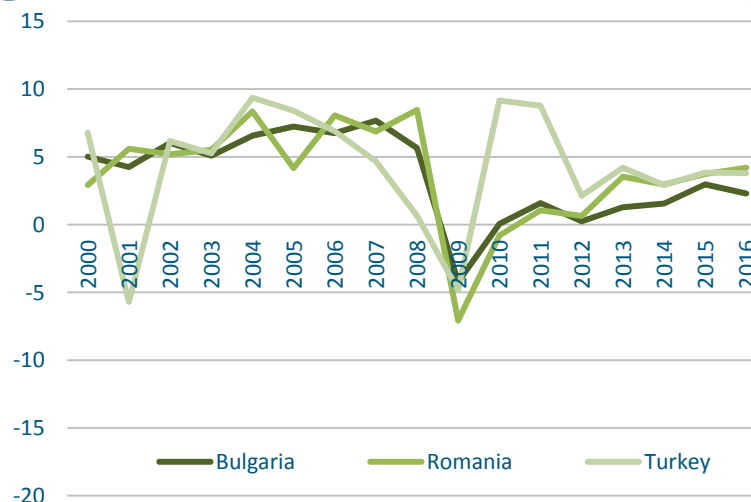
Bosphorus-Max container vessels

- Bosphorus-Max is a new container ship design introduced for specific trades such as Asia-Turkey-the Black Sea.
- Offer biggest loading capacity while meeting the technical constraints required by the Strait of the Bosphorus.
- CMA CGM has a series of 28 ships from 9,400 to 10,900 TEU that are being delivered from 2014 to the Q3 2016.
- 9 vessels are currently being deployed in the Bosphorus Express service, operated by CMA CGM, COSCO and UASC.
- The port rotation includes the Black Sea ports of Constanta, Odessa and Illichivsk.

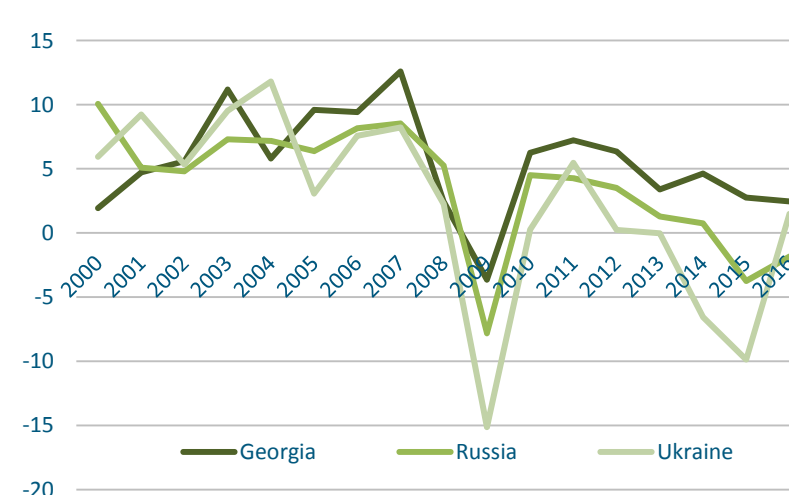


Black Sea area GDP growth

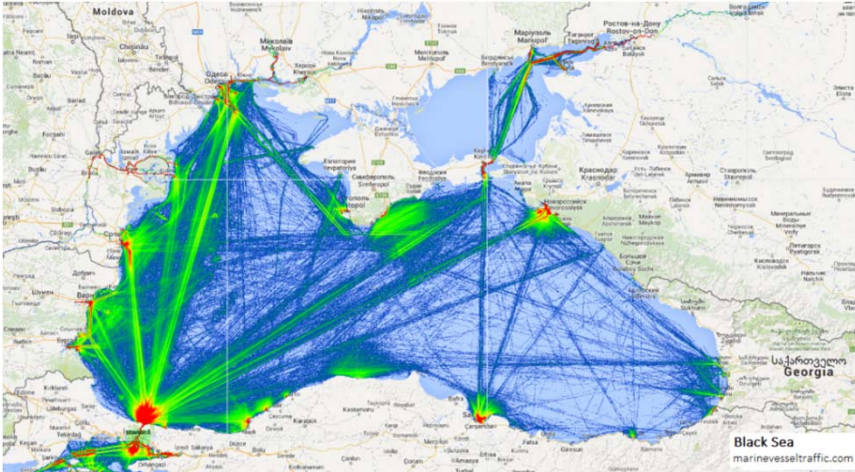
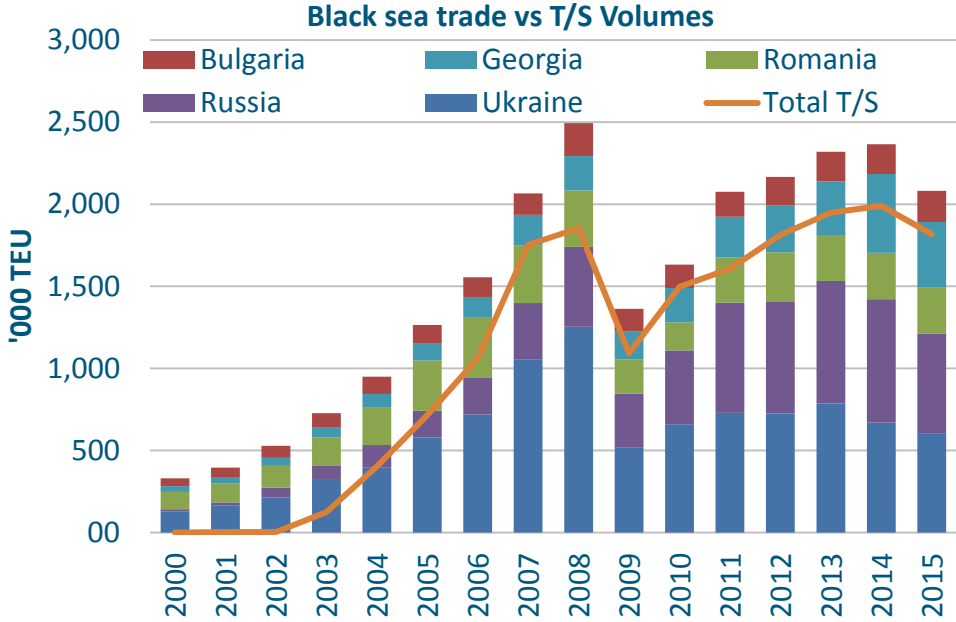
- Turkish economy has grown at 3.3% per year for the last five years
- Romanian economy has witnessed a growth of 3.0% during the same time frame.
- Bulgaria's economy has struggled along with around 1.6% growth per year.



- Georgia has grown its economy at 3.9% per year for the last five years.
- The Russian economy has stagnated at approx. 0% growth for last five years – but this hides a significant decline during 2015 of -3.8%.
- Similarly the Ukrainian economy has suffered for several years with low growth – but for 2014/2015 there were a -6.6% and -9.9% drop in the economy.

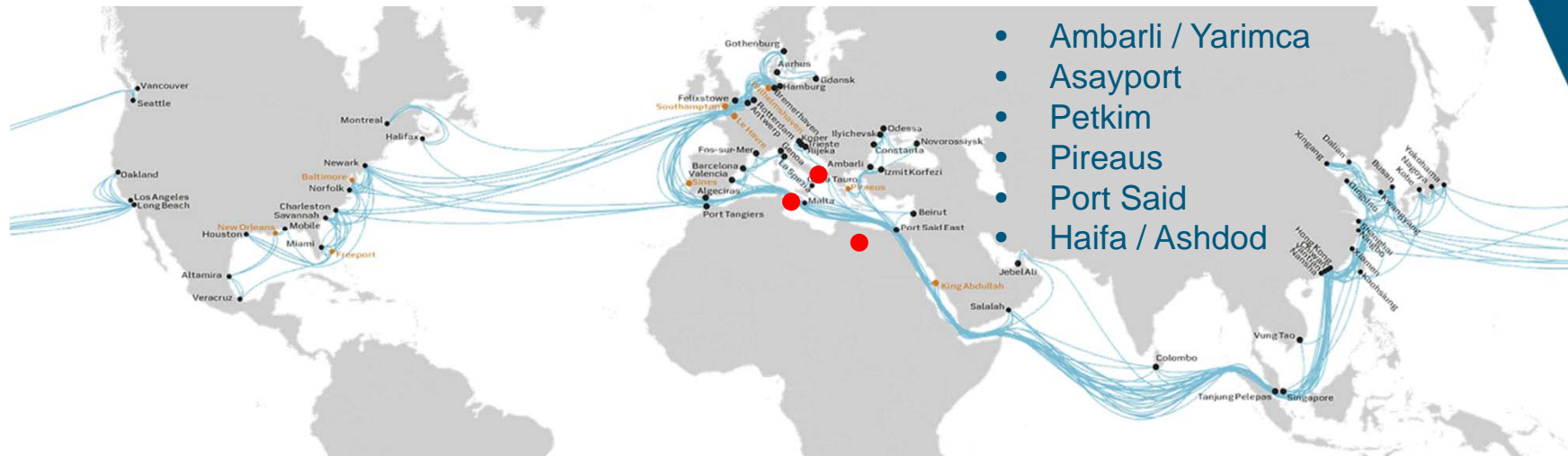


Container trades in Black Sea



Direct or Tranship?

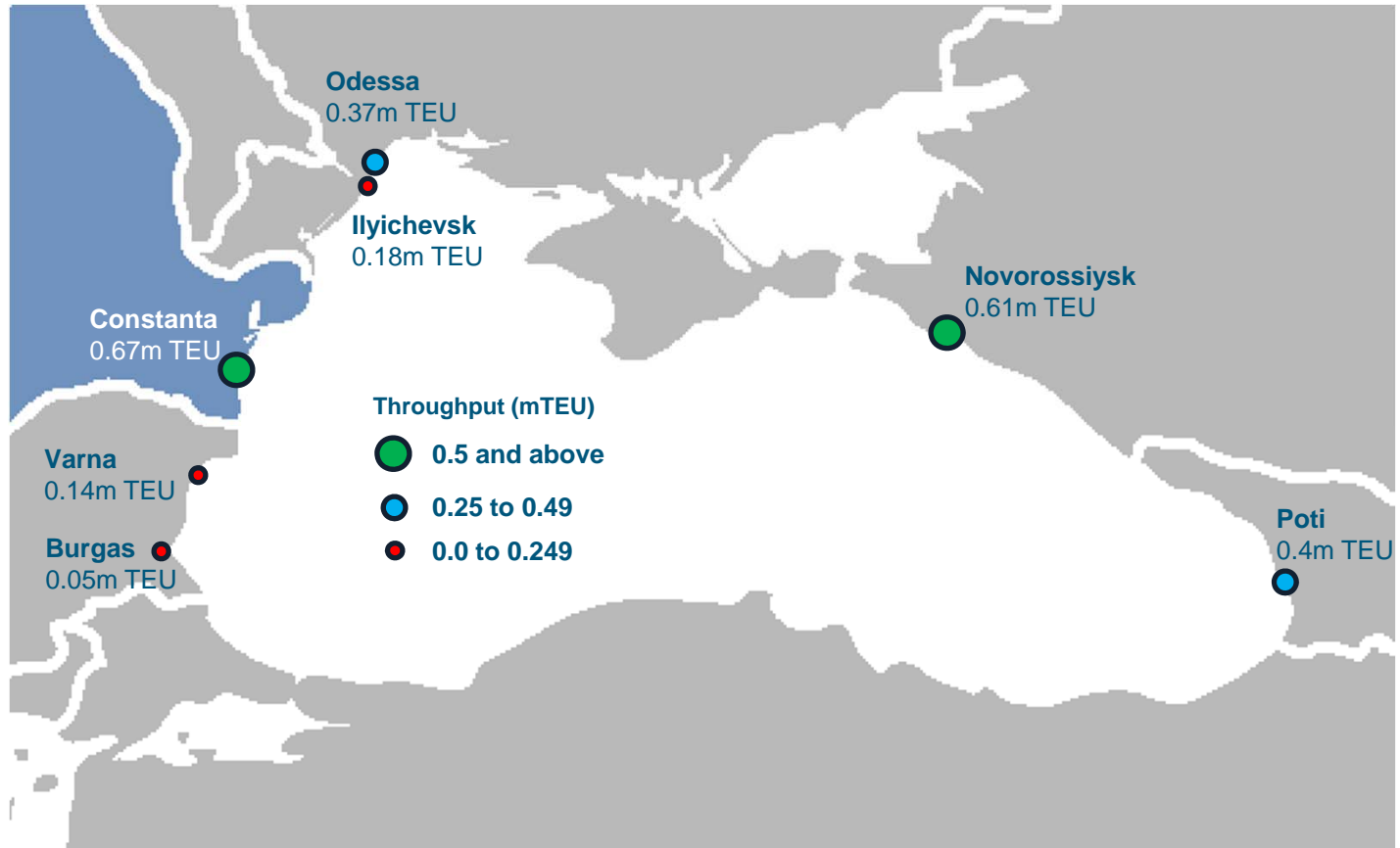
- Continued growth of Black Sea economies will drive direct services
- Continued consolidation and increase in vessel size to reduce costs will drive transshipment
- Limitations of vessel size and congestion Bosphorus will impact that decision
- Many locations will vie for volumes, but not all will have space available



Black Sea ports receive containers both via direct calls and transshipment



The largest container port by throughput on the Black Sea is Constanta



Russia - Black Sea

Novorossiysk container terminal

- NUTEP will double container capacity
- A new modern berth for mega-ships – of capacity of 10,000TEU
- US\$60 million investment should be completed by 2018
- Total container capacity will be 700,000TEU per year
- DP World could provide some funding as it recently took 49% stake in the terminal
- This project is crucial in addressing the shortage of container capacity in Russia Black Sea



Georgia

Anaklia container terminal

- The Georgian government has announced the construction of a large port on the Black Sea coast.
- It will cover 400 hectares
- The concession will be for 49 years
- There is a deep water approach at this location – thus minimising the dredging required
- Post-Panamax vessels can to berth
- The government has committed US\$100m
- Construction scheduled to begin by end-2016
- When fully built-out the port will be able berth up to 6 container vessels



Romania & Bulgaria

Constanta

- A modernising programme for the port has been announced by the government
- There will be a new passenger terminal and a car terminal in Constanta Sud Port
- The basins and port channels will also be cleaned
- A new EUR 250 million artificial island in the port will be constructed for a new cereal and container terminals.



Varna

- The port of announced last year that there will be an investment of US\$3.6 million
- This will be used to new equipment and to expand facilities to meet anticipated growth in traffic

Ukraine

Odessa

- Odessa seaport will increase capacity to 400,000TEUs by 2018
- The US\$220 million expansion is in two phases, of which the first phase was completed in Aug 2014 . It has an annual capacity of 290,000TEU – and has two berths with total length 650m. The terminal can handle 10,000TEU vessels.



Ilyichevsk

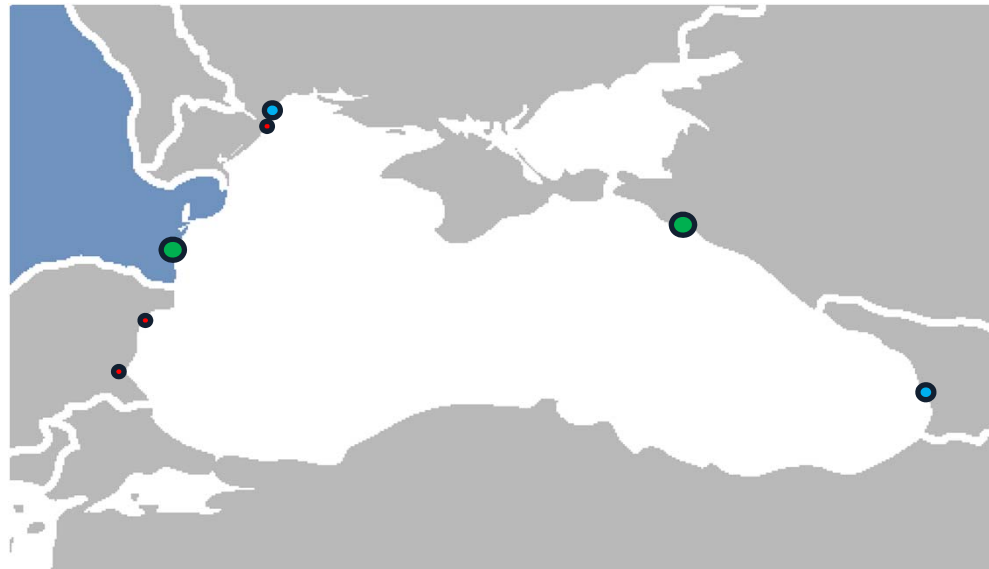
- There are concerns that the port may become bankrupt – if the government win it's proceedings against ICT who operate the container terminal.

Yuzhny

- The Port is seeking capital investment of US\$500 million between 2015-2019
- The investment will be to modernise the berths for loading and unloading as well as the number of handling facilities.
- The Port is keen to boost capacity and throughput at the port.
- There are also plans to construct a new grain terminal.

Observations

- Interesting times for Black Sea container region
- Growth, but at more moderate pace
- Ship sizes are on the increase worldwide, also in this port region due to cascading
- Choices will have to be made between large vessels, low cost operations and transshipment versus direct with lower tonnage
- Volume is the critical criteria for good & profitable utilization, but not all lines have the critical mass or market shares
- Constanta could increase its market position – as Ukrainian ports suffer continued throughput decline



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