BALTIC LOOP FACT SHEET #2

DISCOVER BUSINESS MODELS FOR SMART AND SUSTAINABLE SEA LOGISTIC AND PORT OPERATIONS

THE MARITIME INDUSTRY

constitutes the backbone of global trade. International maritime transportation is forecasted to grow by an average annual growth rate of **3.5%** over the period of 2019-2024 . It has a long tradition and hence it has until today remained conservative and a slow adaptor of measures modernising the industry to become more environmentally friendly and operationally more efficient.

IDENTIFIED PROBLEMS AND WHAT THEY BRING

System mainly serves the purposes of shipping very large cargo loads

- one customer at a time
- strict and exclusive (bilateral) freight agreements.

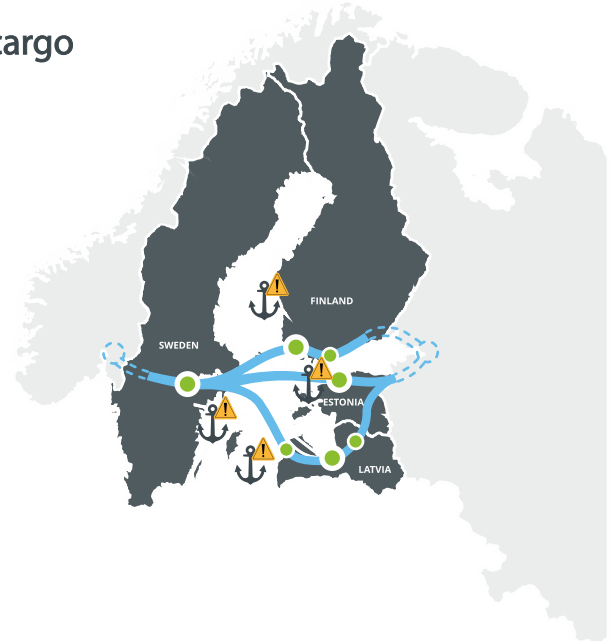
Sea voyages without cargo

- burden on economic activity (excessive cost and lost system capacity)
- non-productive consumption of fuel and emissions

Such rigidity, economic waste, and environmental impact is in stark contrast to EUSBSR objectives of saving the sea, increasing prosperity and connecting the region, and constitute unambiguous obstacles for fulfilling the Europe 2020 objectives in this domain.

Inefficiencies to be tackled in the BSR short sea dry bulk cargo shipping of large ports:

- Radically reducing the waiting times outside the ports
- Radically reducing the time ships spend in ports
- Radically reducing sailing in ballast i.e. without cargo
- Increasing system-wide market-based coordination of activities (cargo coordination)
- Reducing CO_2- and other emissions, both in absolute terms and per ton of cargo transported
- Increasing competitiveness and economic performance of all key system stakeholders and consequently the BSR member states
- Making BSR short sea shipping a more flexible and relevant mode of transportation, capable of replacing road transportation



BALTIC LOOP RESEARCH REVEALS

#1 Current logistics solutions in short sea shipping are not efficient

- Low vessel utilization
- long port call durations

#2 Way of organizing the logistic chain is inevitably outdated and in need of reform

- high number of actors involved in the transportation chain
- increased shipping costs
- disruption of information flow in transportation flows
- lack of transparent and timely ac¬cess to relevant information

#3 ship operators have a limited ability to plan their operations so that vessels would be maximally utilized

- low vessel utilization
- unnecessarily high freight rates and emissions

#4 Sailing in ballast conditions should be solved

- no revenue
- informational failure

#5 Time spent in ports is a waste

- rushing to wait ('first come, first served')
- suboptimal sailing
- excessive fuel consumption
- emiccions

slow cargo loading and unloading

#5 Lack of competitiveness through automation and digitalisation

- anchor in the past
- discontinuation point in supply chains and supply chain efficiency
- conservative and uncoordinated communication and information transmission methods
- no adaption to possibilities of automation and digitalisation
- lack of understanding of big data
- poor optimisation of port operations
- untapped potential to limit energy consumption and environmental impact
- little used sensors

#6 Old port locations are less competitive

- far from big hubs and not along good traffic connections
- cargo types often generates externalities and fits in poorly in an urban environment

QUICK FACT #1

Industrial customers consider sea logistics as a 'black box', which is largely impossible to affect, and whose efficiency or inefficiency cannot be really ascertained.

QUICK FACT #2

Currently, sea logistics is by and large detached from operation planning in industrial organizations, and treated as an isolated function of its own.

QUICK FACT #3

About half of the vessels in dry bulkand general cargo segment operating in the Baltic Sea currently spend at least 40% of their time in ports – and most of this is time not spent creatingeconomic value and earning revenue.

QUICK FACT #4

In many Baltic ports, there is no clear slot system that would allow booking in advance a certain time for the vessel to arrive, load or unload, even if the arrival of a vessel is known days before and could be targeted with accuracy during sailing.

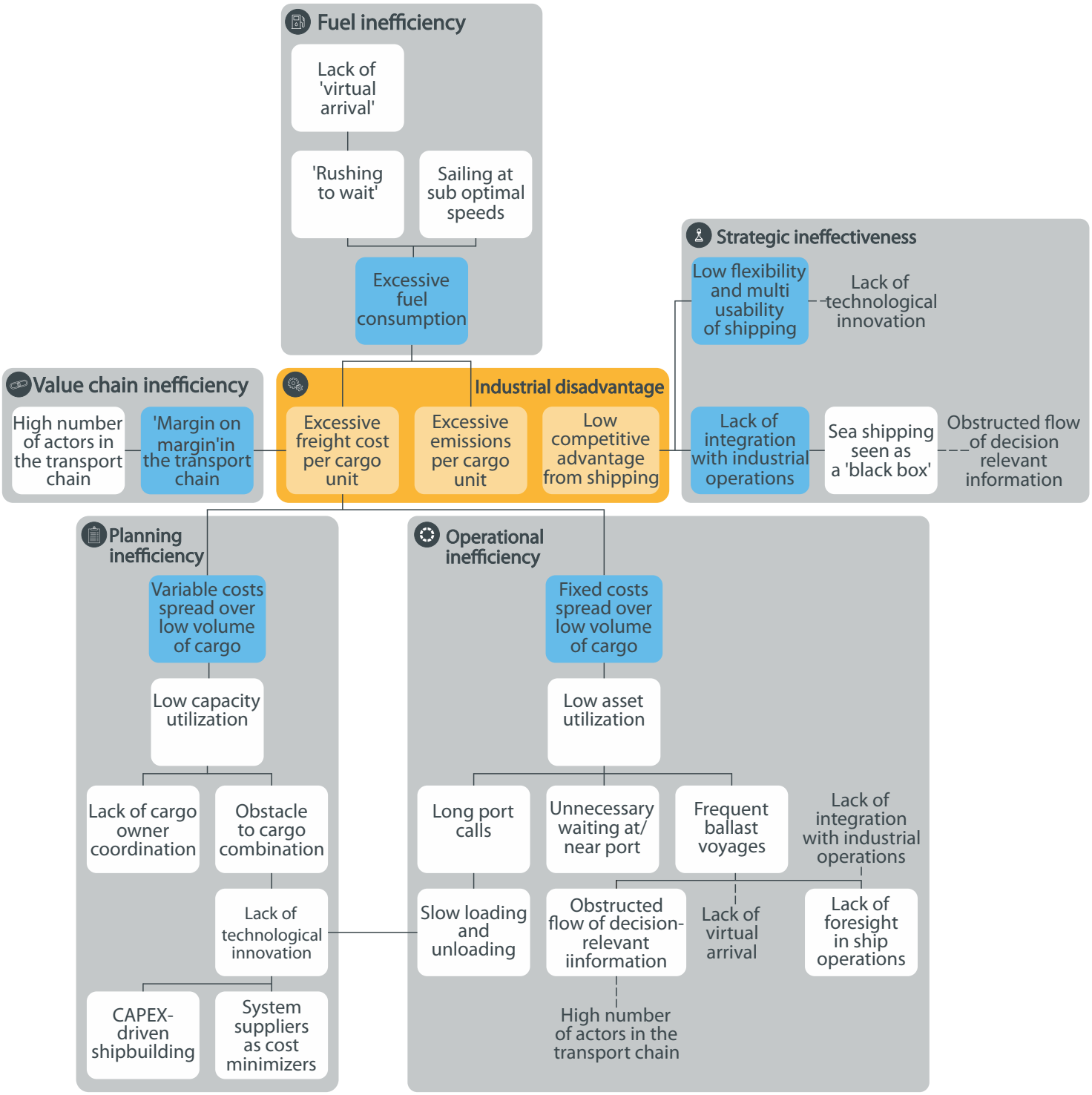
QUICK FACT #5

It is not uncommon that unloading, cleaning, and loading– i.e. the port turn-around – of a typical bulk and general cargo vessel takes two days or more. This is by and large a result of using outdated technology.

QUICK FACT #6

Until recently, the shipping industry, including ports, have been anchored firmly in the past and generally formed a discontinuation point in supply chains and supply chain efficiency due to conservative and uncoordinated communicationand information transmission methods between the relevant stakeholders.

Inefficiencies in short sea shipping and their effect on industry



THE FUTURE

The maritime transport industry has nevertheless started to undergo a profound transformation catalysed mainly by **changing trade patterns, technological development** and **digital disruption** and an **expanding environmental agenda.**

Environmental sustainability has become a priority on the global policy agenda, putting much-awaited pressure and scrutiny on the maritime industry and, consequently, affecting market dynamics, ports, supply chains and maritime policy governance.

Read more on www.balticloop.eu

Baltic loop, 2021

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