European Maritime Safety Agency
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THE IMPACT OF COVID-19

ON THE MARITIME SECTOR IN THE EU

Detailed Report

Impact on EU traffic and trade, EU fleet, Shipyard and Ship Repair Activity, the Ferry and Cruise industry, and Safety and Environmental inspections.

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EMSA

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1. Executive Summary

The COVID-19 crisis escalated to record levels in Europe in March 2020 with subsequent waves along the year, causing severe impact on health and people's daily habits and routine. Many countries have responded to the pandemic by imposing lockdowns or restricting movement, thus eventually creating an unprecedented shock for the worlds' economy. Shipping and international transport, at the forefront of trade, were inevitably equally impacted both directly and indirectly from the outbreak of COVID-19.

The Coronavirus pandemic is an ongoing situation that is evolving day by day and the effects could be deep and long-term. What shipping will look post COVID-19 is still unclear; however, the European Union is responding to the adverse effects of the crisis by adopting a wide range of measures in many areas (health, economy, research, border, mobility, etc.). In doing so, the EU and other stakeholders will need the support of reliable data, to measure the impact and define the most appropriate recovery policies and specific measures.

The scope of this report is to provide an overview of the impact of COVID-19 on the EU traffic and trade, EU fleet, Shipyard and Ship Repair Activity, the Ferry and Cruise industry, and Safety and Environmental inspections.

The European Maritime Safety Agency (EMSA) has collected a number of data sets from different applications hosted in-house and complemented them with a report on the economic impact of COVID-19 on the maritime transport sector, contracted to an external party (tender EMSA/NEG/29/2020, awarded to Clarksons Research).

The report indicates that that maritime traffic and global trade suffered a significant impact in the second quarter of 2020. However, the shipping industry has proven to be resilient enough and, through appropriate adaptation mechanisms, eventually recovered almost entirely to pre-pandemic level in the last quarter of 2020. Intra-EU seaborne trade suffered a decrease of 7.1% y-o-y in 2020 (equivalent to a "loss" in volumes of 43mt), while the EU seaborne trade declined at 9.3% across 2020, corresponding to a 'loss' of 226 million tonnes of trade. Nevertheless, the shipping industry managed to mitigate disruptions and consequently supply chain was retained, flow of goods was maintained and no major impact for the end consumers (in respect to goods availability) was identified in the EU.

Global and EU seaborne freight and charter markets experienced major volatility and disruption across 2020 as a result of the impacts of COVID-19. The global cross-segment ClarkSea Index indicates that vessel charter cost/earnings across the key "volume" shipping sectors averaged just 2% decline y-o-y in 2020, however, significant variation and notable individual sector complexity have been identified. For instance, tanker markets slumped, whilst significant volatility for containerships and gas carriers was registered later in the year.

As expected, the reduction of EU seaborne trade was very much linked to the decrease in the number of ship calls in EU ports (-10%). Measured by port calls, the most affected sector was the cruise segment, which saw a decline, compared to 2019, of 78% across 2020, with a reduction of over 90% in Q2 due to COVID-19; over 90% of the fleet became idle (up from 2% and still over 88% by end 2020). EU ferry activity also experienced a severe impact, with port calls falling by 19% across 2020; disruption peaked at -36% y-o-y in Q2 and improved to -10% in Q4.

Safety measures and controls were inevitably impaired by the pandemic, in particular during Q2 of 2020, when strict restrictions (lockdowns) were imposed. The data reflect a decrease on the number of inspections (especially under the Port State Control regime) during the second quarter of 2020, while in the third and fourth quarter the situation almost normalized again. At the same time, the number of detentions did not reduce during 2020, leading to a higher ratio of inspections resulting in a detention. This could be evidence of a larger number of detected breaches or violations of the provisions of the international conventions governing shipping.

Information on issued statutory and class certificates by Recognized Organizations shows that 2020 was characterized by a stable issuance of new class certificates and suggests that operations were not too much affected by the pandemic, probably due to the use of remote surveys techniques. Finally, statistics on the marine casualties and incidents falling within the scope of Directive 2009/18/EC show a drop in the overall figures of accidents and incidents in 2020 in comparison with the average data from 2016-2019, even if this does not appear homogenous for all the ships types.

On a global level the pandemic led to a challenging year with new vessel orders falling by over 30%, whilst ship recycling activities remained relatively low; in GT terms, 2020 represents the second lowest annual ship recycling volume since the onset of the financial crisis. Ship repair activity remained relatively steady in 2020, despite some COVID-19 related disruption in Q2.

If not specified, data in figures and tables contained in the report have been obtained from EMSA systems, whilst a reference to Clarksons Research's proprietary fleet database is specifically made when data were extracted from the study outsourced to Clarksons. Unless explicitly stated, the report reflects the EU 28, considering that that until the end of 2020, the UK was still a member of the EU.

The report provides an overview of the impact of the COVID-19 pandemic on the EU maritime sector, in support of decision-making at EU and national level. A short version of the report summarising the main data related to the impact of COVID-19 on the EU Maritime Sector can be found at http://www.emsa.europa.eu/COVID19

2. Traffic and Trade

2.1 Introduction

This chapter reports on reports the impact of COVID-19 on traffic in the EU and by EU-MS flagged ship, as well as the impact on trade and freight.

The total number of calls made by vessels flying the flags of EU Member States showed a steady increase each year from 2016 to 2019. In 2020, instead, it presented a decrease of -3.5% in comparison to 2019 and, similarly, the related total gross tonnage decreased by -11.1%. The total number of calls at EU ports (regardless of the ship's flag) had decreased by 1.7% between years 2016 and 2017 and started increasing by 1.6% and 1.5% between years 2017-2018 and 2018-2019 respectively. In 2020 there was a significant decrease of 10.2% in comparison with 2019.

The number of ship calls per ship type indicates that the decrease in the number of ship calls between year 2019 and 2020 applies to all ship types. The cruise ships, passenger ships and vehicle carriers are the ship types for which the highest decrease in ship traffic has been recorded in year 2020 reaching a decrease of 85.8%, 39% and 22.1% respectively. Meanwhile, the number of Bulk carriers, Chemical tankers, Containerships, General Cargo, Liquified gas tankers, Oil tankers, Ropax and Ro-Ro cargo ships had only a small decrease (up to 5%).

Prior to the outbreak of the COVID-19 global pandemic, seaborne trade involving the EU totalled 2.4bn tonnes in full year 2019, accounting for 20% of global seaborne trade (11.9bn tonnes). Intra-EU seaborne trade accounted for 0.6bn tonnes (5% of world seaborne trade) in 2019, seaborne EU external imports accounted for 1.3bn tonnes (11%) and seaborne EU external exports for 0.5bn tonnes (4%).

EU seaborne trade (in tonnes) was impacted by COVID-19 heavier than world seaborne trade in 2020 in terms of good transported, declining overall by -9.3% across 2020 on a year-on-year (y-o-y) basis, corresponding to a 'loss' of 226 million tonnes of EU trade across the period (more than half of "lost" volumes globally). A breakdown of this decline in terms of intra-EU and extra-EU trade, as well as per-commodity, is presented in Chapter 2.6. Globally, the impact of the COVID-19 pandemic led global seaborne trade to decline by -3.6% y-o-y in 2020, a similar rate to the drop in global GDP. EU external seaborne imports were down by -12.2% y-o-y in 2020, with EU seaborne demand negatively impacted by COVID-19 disruption to economic activity in 2020. Intra-EU trade was down by -7.1% y-o-y last year, whilst EU external exports fell by -4.3% y-o-y, with some EU external markets seeing COVID-19 impacts ease more swiftly. China became the leading destination for EU seaborne exports in 2020, reflecting the robust "re-start" of the Chinese economy from April onwards.

2.2 Impact on ship calls at EU ports

This section presents the impact of COVID-19 on ship calls at EU ports. These statistics have been prepared based on ship call information provided by Member States to SafeSeaNet[1] between 2016 and 2020. Only confirmed ship calls (i.e. ship calls for which MSs reported Actual Time of Arrival) have been extracted from SSN and grouped per year quarter. This section presents overall figures and trends as well as detailed statistics per ship type, per Member State and per port. The specific ship types were aggregated under major ship categories, following the same logic of the report on the impact of COVID-19 on shipping traffic which is published on a monthly basis on EMSA's webpage (http://emsa.europa.eu/newsroom/covid19-impact.html).

2.2.1 General statistics

The total number of calls at EU ports had decreased by 1.7% between years 2016 and 2017 and started increasing by 1.6% and 1.5% between years 2017-2018 and 2018-2019 respectively. In 2020 there was a significant decrease of 10.2% in comparison with 2019.

[1] SafeSeaNet is a vessel traffic monitoring and information system, established in order to enhance maritime safety, port and maritime security, marine environmental protection, and efficiency of maritime traffic and maritime transport. SafeSeaNet has been developed and implemented under the leadership of the European Commission (Directorate-General for Mobility and Transport - DG MOVE), which retains overall responsibility for the system. EMSA is responsible for its development, operation and maintenance, and interacts with users on an operational basis. The Member States, as data providers, are recognised as the owners of the data.

The table below shows the number of ship calls per quarter in years between 2016 and 2020 and the trends between different years using year over year data.

Table 1: Number of ship calls reported to SSN between 2016 and 2020 per year quarter.

Year/ Quarter	Q1	Q2	Q3	Q4	Total	Trend vs previous year %
2016	163282	201162	222339	179416	**766199**	**-**
2017	164070	192137	220160	176470	**752837**	**-1.7%**
2018	161784	200585	224895	177389	**764653**	**1.6%**
2019	161846	205460	229441	179727	**776474**	**1.5%**
2020	160424	150939	208566	177695	**697624**	**-10.2%**

The period between 2016 and 2019 was rather stable with little variations. When looking on year 2020 it can be observed that the number of ship calls in the 1st quarter of the year was similar to the figures from 2019 but a significant decrease started in the second quarter of the year (26.5%). The second quarter started shortly after the WHO declared the COVID-19 outbreak a pandemic (12 March 2020). The COVID-19 outbreak escalation across Europe obliged many EU Member States to put in place lockdown measures. In the third quarter of 2020 there was still a decrease of 9.1% in comparison with 2019 but the fourth quarter of 2020 was very similar to 2019 (1.1% decrease only).

The graph below shows the comparison of the number of ship calls per quarter in years between 2016 and 2020:

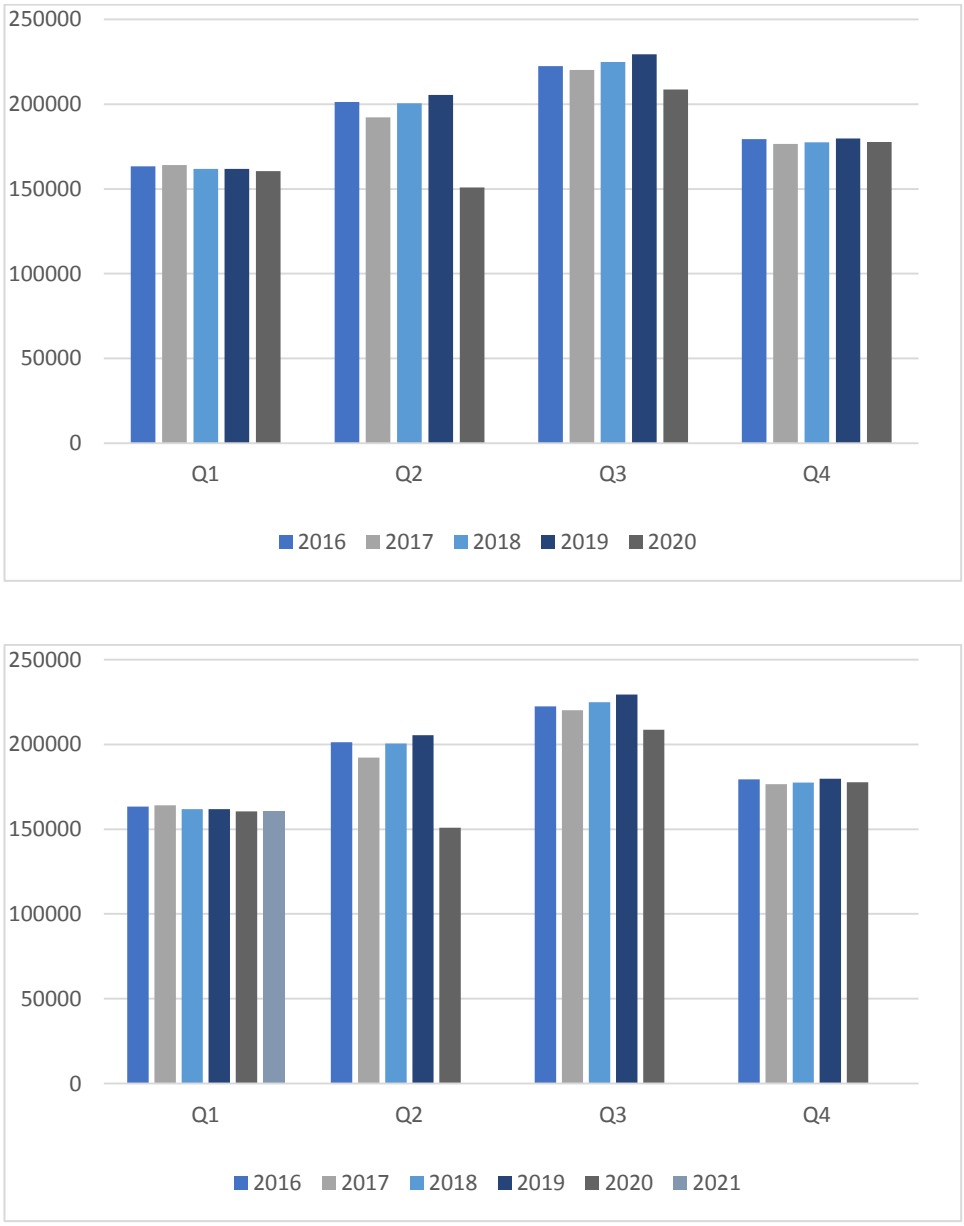


Figure 1: Ship calls reported to SSN between 2016 and 2020 per year quarter.

2.2.2 Statistics per ship type

This section presents the variation between 2016 and 2020 in the total number of port calls at EU ports by ship type and year quarter. Ship calls have been extracted from SSN and ship types retrieved from the MARINFO database using the IMO numbers reported to SSN for cross reference purposes. To better present the situation with Passenger ships (i.e. ship which carries more than twelve passengers according to SOLAS) this ship type has been divided into cruise ships, passenger ships and RoRo/Passenger. Cruise ship refers to ships used to take passengers on a pleasure voyage with various destinations on the way. Passenger ship refers to ship that exclusively carry passengers. In most of the cases this ship navigates on a regulated and scheduled route. RoRo/Passenger refers to ships designed to carry both passengers and cargo.

The table below shows the comparison in the number of ships calls between different years from 2016 to 2020 for the selected ship types.

By looking on the number of ship calls between 2016 and in 2020 it was found that decrease in the number of ship calls between year 2019 and 2020 applies to all ship types. The cruise ships, passenger ships and vehicle carriers are the ship types for which the highest decrease in ship traffic has been detected in year 2020. It is worth to highlight that for cruise ships and passenger ships there was a continuous increase in the number of ship calls between 2016 and 2019 and 2020 was the first year when the decrease was observed.

For the Bulk carriers, Chemical tankers, Containerships, General Cargo, Liquified gas tankers, Oil tankers, Ropax and Ro-Ro cargo ships the decrease between 2019 and 2020 was lower than 5%. It is worth to mention that Chemical tankers, General cargo and Oil tankers had higher decrease of ship call between 2018 and 2019 than between 2019 and 2020.

The detailed quarterly fluctuation (2016-2020) in number of port calls per the above ship types is shown in Appendix A.

Table 2: Variation in number of ship calls reported to SSN between 2016 and 2020 per ship type and year quarter.

ShipType	Year / Quarter	Q1	Q2	Q3	Q4	Total
Bulk carrier	**2017 vs 2016**	-1.0%	-0.8%	-0.6%	4.6%	**0.6%**
	2018 vs 2017	0.1%	5.5%	4.4%	1.4%	**2.8%**
	2019 vs 2018	4.3%	3.3%	1.0%	3.5%	**3.0%**
	2020 vs 2019	4.3%	-5.4%	-2.0%	-4.5%	**-2.0%**
Chemical tanker	**2017 vs 2016**	-4.1%	-9.2%	-10.2%	4.7%	**-5.3%**
	2018 vs 2017	-4.9%	11.6%	-1.2%	-12.6%	**-1.8%**
	2019 vs 2018	-17.6%	-18.0%	3.3%	15.3%	**-4.5%**
	2020 vs 2019	21.8%	15.3%	-14.0%	-25.3%	**-3.3%**
Containership	**2017 vs 2016**	-6.8%	-4.3%	1.1%	10.6%	**0.0%**
	2018 vs 2017	9.1%	7.4%	2.7%	-3.1%	**3.8%**
	2019 vs 2018	-3.5%	-3.2%	-2.4%	-2.5%	**-2.9%**
	2020 vs 2019	-0.2%	-8.9%	-4.6%	-4.1%	**-4.5%**
Cruise	**2017 vs 2016**	-7.4%	1.1%	1.2%	5.2%	**1.4%**
	2018 vs 2017	21.7%	9.0%	1.0%	4.0%	**5.5%**
	2019 vs 2018	4.4%	4.0%	8.7%	6.5%	**6.4%**
	2020 vs 2019	-27.4%	-96.0%	-89.2%	-81.3%	**-85.8%**
General cargo	**2017 vs 2016**	6.8%	-6.4%	-3.6%	-4.6%	**-2.2%**
	2018 vs 2017	-4.3%	4.8%	-1.4%	0.3%	**-0.2%**
	2019 vs 2018	1.0%	-2.8%	-3.8%	-5.7%	**-2.9%**
	2020 vs 2019	-2.5%	-7.9%	-3.2%	3.5%	**-2.7%**
Liquified gas tanker	**2017 vs 2016**	4.8%	6.3%	3.2%	1.5%	**3.9%**
	2018 vs 2017	3.6%	5.5%	0.8%	-0.5%	**2.3%**
	2019 vs 2018	0.6%	3.3%	5.4%	3.4%	**3.2%**
	2020 vs 2019	4.8%	-12.7%	-6.2%	-1.8%	**-4.1%**
Oil tanker	**2017 vs 2016**	3.4%	6.7%	6.8%	10.4%	**6.8%**
	2018 vs 2017	3.4%	3.1%	-1.8%	-5.3%	**-0.3%**
	2019 vs 2018	-3.0%	-1.4%	0.4%	2.6%	**-0.3%**
	2020 vs 2019	5.3%	-2.6%	-0.3%	-2.3%	**-0.1%**
Passenger	**2017 vs 2016**	-7.9%	6.2%	7.6%	-1.3%	**3.7%**
	2018 vs 2017	7.3%	9.8%	22.7%	19.2%	**16.7%**
	2019 vs 2018	30.3%	13.7%	2.8%	-1.7%	**7.7%**
	2020 vs 2019	-13.5%	-82.1%	-27.4%	-13.6%	**-39.0%**
Refrigerated cargo	**2017 vs 2016**	6.1%	-6.0%	-10.8%	-33.6%	**-11.8%**
	2018 vs 2017	-42.4%	-34.3%	-25.7%	-14.5%	**-30.3%**
	2019 vs 2018	-5.2%	-9.9%	-13.7%	-12.0%	**-10.4%**
	2020 vs 2019	-11.5%	-18.4%	-27.6%	-20.4%	**-19.7%**
Ropax	**2017 vs 2016**	-5.4%	-11.1%	-4.4%	-5.9%	**-6.7%**

	2018 vs 2017	-3.1%	3.5%	3.7%	3.5%	**2.1%**
	2019 vs 2018	0.3%	4.3%	3.9%	5.6%	**3.6%**
	2020 vs 2019	-0.4%	-29.0%	3.1%	7.3%	**-4.9%**
Ro-Ro cargo	**2017 vs 2016**	1.2%	-5.2%	0.4%	-0.3%	**-1.0%**
	2018 vs 2017	2.5%	4.3%	-3.4%	-5.0%	**-0.4%**
	2019 vs 2018	-4.1%	-2.9%	1.3%	1.1%	**-1.2%**
	2020 vs 2019	-0.9%	-14.6%	-0.1%	4.9%	**-2.8%**
Vehicle carrier	**2017 vs 2016**	6.2%	2.4%	6.8%	7.7%	**5.7%**
	2018 vs 2017	8.7%	6.5%	-5.1%	-4.9%	**1.2%**
	2019 vs 2018	-6.0%	-6.1%	-1.6%	-4.9%	**-4.8%**
	2020 vs 2019	-7.0%	-50.3%	-20.1%	-8.4%	**-22.1%**

2.2.3 Statistics per Member State

This chapter presents the variation between 2016 and 2020 in the total number of port calls at EU ports by Member State and year quarter. For the purpose of this report, the term Member States refer to EU Member States and EFTA countries (Iceland and Norway).

For Malta, data for the 3rd and 4th quarter of 2020 could not be analysed because the ship calls to Maltese ports are not available in SSN between September and December 2020 due to IT technical problem in the National Maltese SSN system.

For Portugal, data from 2016 and 2017 could not be analysed. The Portuguese SSN system experienced a major failure in its national SSN system that prevented the delivery ship calls to SSN between 25 August 2016 and 19 July 2017.

The most affected countries by the COVID-19 are Croatia, France, Iceland and Spain for which a decrease in the number of ship calls of more than 20% has been detected between 2019 and 2020. This declines in number of ship calls between 2019 and 2020 is attributed to the Cruise and Passenger coastal ships traffic which has been heavily affected by the crisis.

Table 3: Evolution in number of ship calls per Member States and year quarter (2016-2020).

MS	Year / Quarter	Q1	Q2	Q3	Q4	Total
Belgium	**2017 vs 2016**	2%	0%	-1%	0%	**0%**
	2018 vs 2017	2%	1%	6%	1%	**3%**
	2019 vs 2018	0%	0%	-6%	0%	**-2%**
	2020 vs 2019	0%	-16%	-6%	-6%	**-7%**
Bulgaria	**2017 vs 2016**	14%	-3%	9%	7%	**6%**
	2018 vs 2017	-10%	-9%	-2%	-2%	**-6%**
	2019 vs 2018	16%	24%	2%	0%	**10%**
	2020 vs 2019	-5%	-15%	-13%	-1%	**-9%**
Croatia	**2017 vs 2016**	5%	21%	33%	2%	**22%**
	2018 vs 2017	**-17%**	**22%**	**16%**	**31%**	**17%**
	2019 vs 2018	**14%**	**29%**	**15%**	**7%**	**18%**
	2020 vs 2019	**-11%**	**-83%**	**-69%**	**-54%**	**-68%**
Cyprus	**2017 vs 2016**	12%	29%	22%	21%	**21%**
	2018 vs 2017	3%	-5%	-2%	-14%	**-5%**
	2019 vs 2018	-2%	1%	-3%	0%	**-1%**
	2020 vs 2019	-12%	-17%	-5%	1%	**-8%**
Denmark	**2017 vs 2016**	4%	10%	2%	-8%	**1%**
	2018 vs 2017	-1%	-2%	-4%	-1%	**-2%**
	2019 vs 2018	0%	1%	3%	1%	**1%**
	2020 vs 2019	0%	1%	11%	14%	**7%**
Estonia	**2017 vs 2016**	7%	0%	2%	2%	**3%**
	2018 vs 2017	-2%	-7%	-9%	0%	**-5%**
	2019 vs 2018	1%	3%	8%	3%	**4%**
	2020 vs 2019	0%	-16%	-11%	-6%	**-9%**
Finland	**2017 vs 2016**	4%	2%	2%	2%	**3%**
	2018 vs 2017	0%	-1%	-5%	-3%	**-2%**
	2019 vs 2018	3%	4%	5%	-1%	**3%**
	2020 vs 2019	-2%	-27%	-20%	-15%	**-17%**
France	**2017 vs 2016**	5%	5%	5%	17%	**8%**
	2018 vs 2017	0%	1%	1%	-2%	**0%**
	2019 vs 2018	0%	-3%	-4%	-5%	**-3%**

MS	Year / Quarter	Q1	Q2	Q3	Q4	Total
Italy	**2017 vs 2016**	-15%	-3%	-4%	-4%	**-6%**
	2018 vs 2017	-3%	-3%	-3%	-4%	**-3%**
	2019 vs 2018	-2%	-5%	-3%	-4%	**-3%**
	2020 vs 2019	-4%	-31%	-17%	-7%	**-16%**
Latvia	**2017 vs 2016**	8%	5%	2%	-4%	**3%**
	2018 vs 2017	0%	7%	12%	15%	**8%**
	2019 vs 2018	7%	-3%	-7%	-11%	**-4%**
	2020 vs 2019	-7%	-12%	-8%	-5%	**-8%**
Lithuania	**2017 vs 2016**	3%	1%	9%	6%	**5%**
	2018 vs 2017	9%	10%	10%	16%	**11%**
	2019 vs 2018	12%	10%	-4%	-6%	**2%**
	2020 vs 2019	-3%	-8%	-1%	-1%	**-3%**
Malta	**2017 vs 2016**	2%	-4%	-4%	32%	**5%**
	2018 vs 2017	15%	16%	8%	-6%	**8%**
	2019 vs 2018	-12%	-8%	1%	11%	**-2%**
	2020 vs 2019	17%	-18%	-	-	**-2%**
Netherlands	**2017 vs 2016**	-2%	-1%	6%	8%	**2%**
	2018 vs 2017	7%	8%	2%	2%	**5%**
	2019 vs 2018	2%	0%	-4%	-2%	**-1%**
	2020 vs 2019	-1%	-13%	-4%	1%	**-5%**
Norway	**2017 vs 2016**	43%	-19%	-32%	-43%	**-19%**
	2018 vs 2017	-41%	-6%	-7%	1%	**-16%**
	2019 vs 2018	3%	6%	5%	-2%	**3%**
	2020 vs 2019	1%	-23%	-19%	-7%	**-13%**
Poland	**2017 vs 2016**	2%	1%	3%	4%	**3%**
	2018 vs 2017	3%	13%	9%	8%	**9%**
	2019 vs 2018	8%	-1%	-2%	-4%	**0%**
	2020 vs 2019	-3%	-17%	-10%	0%	**-8%**
Portugal	**2017 vs 2016**	-	-	-	-	**-**
	2018 vs 2017	-	-	17%	-8%	**4%**
	2019 vs 2018	1%	-15%	-9%	-6%	**-7%**

	2020 vs 2019	-8%	-37%	-21%	-10%	**-20%**
Germany	**2017 vs 2016**	0%	-4%	-2%	-8%	**-4%**
	2018 vs 2017	4%	3%	2%	9%	**4%**
	2019 vs 2018	0%	-2%	-4%	-4%	**-2%**
	2020 vs 2019	-2%	-20%	-11%	-8%	**-10%**
Greece[2]	**2017 vs 2016**	-15%	-24%	-6%	-20%	**-16%**
	2018 vs 2017	-14%	1%	-9%	-4%	**-6%**
	2019 vs 2018	-8%	-4%	6%	8%	**1%**
	2020 vs 2019	-25%	15%	78%	101%	**51%**
Iceland	**2017 vs 2016**	7%	17%	19%	21%	**17%**
	2018 vs 2017	18%	3%	7%	8%	**8%**
	2019 vs 2018	-6%	13%	6%	-14%	**2%**
	2020 vs 2019	-1%	-42%	-51%	6%	**-30%**
Ireland	**2017 vs 2016**	5%	9%	4%	0%	**4%**
	2018 vs 2017	1%	6%	4%	0%	**3%**
	2019 vs 2018	4%	-3%	-5%	-4%	**-2%**
	2020 vs 2019	-3%	-18%	-9%	6%	**-7%**

	2020 vs 2019	-2%	-27%	-18%	-8%	**-14%**
Romania	**2017 vs 2016**	-10%	-12%	-35%	10%	**-15%**
	2018 vs 2017	8%	-7%	2%	-14%	**-4%**
	2019 vs 2018	-4%	5%	3%	5%	**2%**
	2020 vs 2019	11%	-7%	-8%	0%	**-1%**
Spain	**2017 vs 2016**	5%	1%	0%	2%	**2%**
	2018 vs 2017	5%	8%	15%	-1%	**7%**
	2019 vs 2018	-8%	6%	2%	8%	**2%**
	2020 vs 2019	13%	-52%	-32%	-20%	**-26%**
Sweden	**2017 vs 2016**	8%	22%	30%	39%	**25%**
	2018 vs 2017	9%	1%	-4%	9%	**3%**
	2019 vs 2018	31%	29%	29%	9%	**24%**
	2020 vs 2019	-3%	-16%	-13%	-6%	**-10%**

	Year / Quarter	Q1	Q2	Q3	Q4	Total
Total (all MSs)	**2017 vs 2016**	0.48%	-4.49%	-0.98%	-1.64%	**-1.74%**
	2018 vs 2017	-1.39%	4.40%	2.15%	0.52%	**1.57%**
	2019 vs 2018	0.04%	2.43%	2.02%	1.32%	**1.55%**
	2020 vs 2019	-0.88%	-26.54%	-9.10%	-1.13%	**-10.15%**

2.2.4 Statistics per port

This section shows the impact of COVID-19 on 20 EU ports which, according to Eurostat, were the top 20 EU freight ports in 2018. The following table shows the comparison in the number of ships calls between different years from 2016 to 2020 for the selected ports:

Table 4: Evolution in the number of ship calls per Port and year quarter (2016-2020).

Port	Year / Month	Q1	Q2	Q3	Q4	Total
Algeciras	**2017 vs 2016**	1%	-3%	-14%	-7%	**-6%**
	2018 vs 2017	-6%	-2%	21%	-30%	**-4%**
	2019 vs 2018	-	4%	-2%	48%	**24%**
	2020vs 2019	-	-42%	-41%	-24%	**-22%**
Amsterdam	**2017 vs 2016**	0%	7%	5%	4%	**4%**
	2018 vs 2017	3%	10%	10%	8%	**8%**
	2019 vs 2018	6%	3%	-2%	-3%	**1%**
	2020 vs 2019	-6%	-16%	-15%	-6%	**-11%**
Antwerpen	**2017 vs 2016**	0%	-2%	-3%	-1%	**-1%**
	2018 vs 2017	1%	1%	4%	3%	**2%**
	2019 vs 2018	0%	0%	-3%	-3%	**-1%**
	2020vs 2019	1%	-10%	-5%	-1%	**-4%**
Barcelona	**2017 vs 2016**	6%	0%	5%	4%	**4%**
	2018 vs 2017	8%	5%	-5%	-3%	**1%**
	2019 vs 2018	-2%	-2%	2%	-2%	**-1%**
	2020 vs 2019	-6%	-42%	-28%	-20%	**-25%**
Bremerhaven	**2017 vs 2016**	3%	-3%	-2%	-2%	**-1%**
	2018 vs 2017	-4%	2%	-4%	-7%	**-3%**
	2019 vs 2018	-10%	-15%	-18%	-15%	**-14%**
	2020vs 2019	-7%	-17%	-11%	-24%	**-15%**
Constanta	**2017 vs 2016**	-40%	-40%	-27%	9%	**-27%**
	2018 vs 2017	10%	-14%	2%	-21%	**-7%**
	2019 vs 2018	-17%	0%	-7%	2%	**-5%**

Port	Year / Month	Q1	Q2	Q3	Q4	Total
Le Havre	**2017 vs 2016**	-2%	3%	6%	2%	**2%**
	2018 vs 2017	-4%	1%	3%	0%	**0%**
	2019 vs 2018	-3%	3%	0%	-10%	**-2%**
	2020vs 2019	-11%	-34%	-23%	-8%	**-20%**
Marseille	**2017 vs 2016**	1%	-1%	0%	6%	**1%**
	2018 vs 2017	8%	9%	6%	-4%	**4%**
	2019 vs 2018	-2%	-8%	0%	-4%	**-3%**
	2020 vs 2019	-19%	-43%	-29%	-19%	**-28%**
Piraeus[3]	**2017 vs 2016**	42%	30%	10%	-11%	**15%**
	2018 vs 2017	-24%	-10%	-7%	2%	**-10%**
	2019 vs 2018	1%	5%	20%	11%	**10%**
	2020vs 2019	19%	61%	124%	84%	**77%**
Riga	**2017 vs 2016**	3%	0%	-8%	-9%	**-3%**
	2018 vs 2017	1%	7%	16%	9%	**8%**
	2019 vs 2018	0%	-5%	-11%	-8%	**-6%**
	2020 vs 2019	-6%	-18%	-7%	-6%	**-9%**
Rotterdam	**2017 vs 2016**	0%	-1%	6%	8%	**3%**
	2018 vs 2017	4%	6%	-2%	-2%	**1%**
	2019 vs 2018	2%	0%	-3%	1%	**0%**
	2020vs 2019	-1%	-9%	0%	0%	**-3%**
Sines	**2017 vs 2016**	-	-	-	-	**-**
	2018 vs 2017	-	-	12%	-5%	**3%**
	2019 vs 2018	5%	-4%	-3%	5%	**1%**

[2] The high increase in the number of ship calls for Greece in 2020 is linked to the implementation of new version of the Greek National SSN system aiming at improved data quality and more accurate reporting.
[3] The high increase in the number of ship calls for Piraeus in 2020 is linked to the implementation of new version of the Greek National SSN system aiming at improved data quality and more accurate reporting.

Port	Year / Month	Q1	Q2	Q3	Q4	Total
	2020 vs 2019	19%	-3%	-4%	3%	**3%**
Dunkerque	**2017 vs 2016**	6%	-2%	6%	4%	**4%**
	2018 vs 2017	-2%	4%	2%	0%	**1%**
	2019 vs 2018	-1%	1%	0%	-5%	**-1%**
	2020vs 2019	-3%	-19%	-10%	-1%	**-9%**
Genova	**2017 vs 2016**	10%	1%	2%	-2%	**3%**
	2018 vs 2017	-9%	0%	2%	-4%	**-2%**
	2019 vs 2018	9%	0%	1%	-7%	**0%**
	2020 vs 2019	-6%	-32%	-19%	-8%	**-17%**
Goteborg	**2017 vs 2016**	10%	1%	2%	-2%	**3%**
	2018 vs 2017	-9%	0%	2%	-4%	**-2%**
	2019 vs 2018	9%	0%	1%	-7%	**0%**
	2020vs 2019	-6%	-32%	-19%	-8%	**-17%**
Hamburg	**2017 vs 2016**	5%	-1%	-1%	-7%	**-1%**
	2018 vs 2017	-2%	3%	2%	5%	**2%**
	2019 vs 2018	5%	-2%	-2%	-4%	**-1%**
	2020 vs 2019	-5%	-13%	-7%	-1%	**-7%**

Port	Year / Month	Q1	Q2	Q3	Q4	Total
	2020 vs 2019	0%	-13%	-3%	-11%	**-7%**
Taranto	**2017 vs 2016**	-3%	-21%	-15%	-19%	**-15%**
	2018 vs 2017	-9%	-2%	-12%	-15%	**-10%**
	2019 vs 2018	0%	28%	0%	13%	**10%**
	2020vs 2019	12%	-32%	6%	11%	**-3%**
Trieste	**2017 vs 2016**	-10%	-1%	11%	8%	**2%**
	2018 vs 2017	-8%	-4%	0%	-8%	**-5%**
	2019 vs 2018	-4%	-10%	-18%	-18%	**-13%**
	2020 vs 2019	-6%	-22%	-21%	-1%	**-13%**
Valencia	**2017 vs 2016**	-2%	-5%	3%	0%	**-1%**
	2018 vs 2017	1%	1%	-5%	-3%	**-2%**
	2019 vs 2018	0%	0%	3%	1%	**1%**
	2020vs 2019	1%	-21%	-9%	-4%	**-9%**
Wilhelmshaven	**2017 vs 2016**	1%	27%	13%	38%	**19%**
	2018 vs 2017	11%	-14%	-24%	-16%	**-12%**
	2019 vs 2018	-5%	1%	-7%	-6%	**-4%**
	2020 vs 2019	-2%	-8%	-1%	-10%	**-5%**

For the port of Sines, data from data from 2016 and 2017 could not be analysed. The Portuguese SSN system experienced a major failure in its national SSN system that prevented the delivery ship calls to SSN between 25 August 2016 and 19 July 2017.For the port of Algeciras, data from the 1st quarter of 2019 could not be analysed since the information reported to SSN during this period by port of Algeciras was incomplete.

The decrease in the number of ship calls between years 2019 and 2020 has been detected for all the above-mentioned ports apart from Constanta and Piraeus that had an increase. Algeciras, Barcelona, Le Havre and Marseille are the ports with the highest decrease in the ship traffic (over 20%).

2.3 In-Port activity

This section presents the number of vessels in port based on daily midday positions captured by AIS data[4]. The average number of deep-sea cargo vessels in a port in the EU-MS (including Norway and Iceland), fell by 2.8% in 2020 (2.0% in terms of GT), as illustrated in Table 5, Table 6 and Figure 2 below. Trends for the total cargo fleet and deep-sea cargo fleet generally reflect trends in trade volumes within the EU-MS (see sections 3.7 and 3.8) but there are clear sector specific trends.

Table 5: Average vessels in port in the EU-MS (including Norway and Iceland) – number of vessels.

Vessel Sector	2016	2017	2018	2019	2020	% y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Bulk carriers	324	326	331	330	308	*-6.7%*	-1.7%	-5.3%	-7.1%	-12.6%
Oil Tankers	442	450	462	461	452	*-2.0%*	-0.1%	1.8%	-7.0%	-2.7%
Chemical and Spec Tankers	346	356	374	389	380	*-2.1%*	1.0%	-3.1%	-3.3%	-3.0%
Liquid Gas Tankers	104	106	116	129	122	*-5.0%*	9.7%	-6.8%	-9.0%	-12.1%
Containerships	328	341	339	331	332	*0.3%*	0.1%	0.0%	1.8%	-0.8%
MPP and General Cargo	1221	1197	1215	1210	1228	*1.5%*	-0.3%	2.6%	1.5%	2.2%
Reefers	67	56	55	52	48	*-8.7%*	-5.9%	-24.5%	0.9%	-3.3%
RoRo	124	133	132	137	154	*12.3%*	12.8%	17.4%	14.0%	4.8%
Pure Car Carriers	54	54	56	54	67	*23.5%*	5.5%	44.3%	28.4%	16.5%
Cargo Fleet	3,009	3,017	3,080	3,092	3,090	*-0.1%*	0.7%	1.2%	-0.7%	-1.5%
of which Deep Sea Cargo	*389*	*402*	*407*	*410*	*399*	*-2.8%*	*0.7%*	*1.1%*	*-7.2%*	*-5.6%*

Table 6: Average vessels in port in the EU-MS (including Norway and Iceland) – million GT.

Vessel Sector	2016	2017	2018	2019	2020	% y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Bulkcarriers	10.3	10.6	10.8	10.5	9.6	*-8.5%*	-2.4%	-8.4%	-8.7%	-15.0%
Oil Tankers	11.3	11.4	11.4	11.7	11.5	*-1.3%*	4.8%	4.5%	-11.9%	-1.4%

[4] Source: Clarksons Research. Basis vessels in the fleet on the date specified and the vessel's closest to midday AIS signal. Where a vessel has not transmitted on a particular day, the last position transmitted within the previous 30 days is used. Excludes vessels last seen 30 or more days ago from the date specified. Annual data basis averages of monthly observations. Deep Sea Cargo Vessel series includes oil tankers MR and above, bulkcarriers Panamax and above, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm and PCTCs 6,000+ ceu.

Chemical and Spec Tankers	2.5	2.6	2.7	2.9	2.8	*-2.5%*	2.2%	-3.9%	-4.4%	-3.8%
Liquid Gas Tankers	1.9	2.3	2.7	3.2	2.9	*-8.4%*	15.8%	-2.0%	-8.9%	-34.4%
Containerships	11.0	12.0	12.2	12.2	12.5	*2.4%*	0.6%	-5.3%	5.2%	9.1%
MPP and General Cargo	4.3	4.1	4.2	4.2	4.3	*1.0%*	0.5%	1.7%	0.7%	0.9%
Reefers	0.3	0.3	0.3	0.3	0.2	*-11.4%*	1.4%	-26.9%	-8.0%	-10.1%
RoRo	2.6	2.7	2.8	2.9	3.3	*13.4%*	17.1%	18.2%	13.4%	5.4%
Pure Car Carriers	2.1	2.1	2.2	2.2	2.7	*21.8%*	7.1%	40.4%	26.6%	13.5%
Cargo Fleet	46.2	48.1	49.3	50.1	49.9	*-0.4%*	3.0%	0.5%	-2.2%	-3.0%
of which Deep Sea Cargo	*24.7*	*26.5*	*26.9*	*27.4*	*26.9*	*-2.0%*	*2.2%*	*-1.4%*	*-5.8%*	*-3.2%*

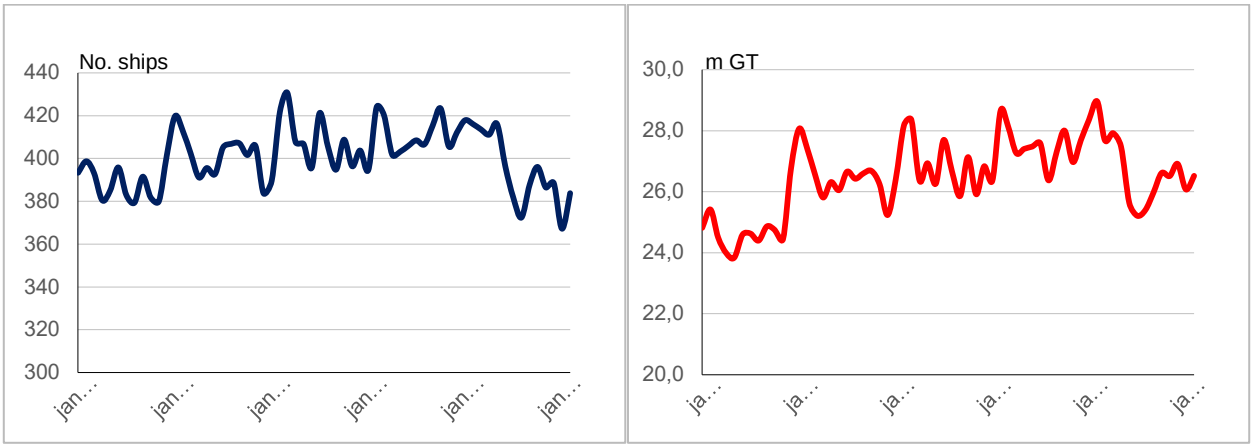


Figure 2: Average deep-sea cargo vessels in ports in the EU-MS (including Norway and Iceland)[5].

Containership saw a 5.3% year-on-year decline in vessels at an EU-MS port in Q2 2020 in terms of GT, but year-on-year increases in Q3 and Q4. This pattern is attributed to lower demand in Q2 as a result of the first wave of COVID-19 lockdowns, with carriers “blanking” (cancelling) sailings and suspending or cancelling services. The rebound in the second half reflects a combination of restocking demand and improved exports.

Elsewhere, demand for dry bulk, oil and oil products, and liquid gas remained supressed throughout 2020, leading to a year-on-year decline in the average daily number of these vessel types in an EU-MS port. Unlike containerships, this demand did not rebound towards the end of the year. In Q4 2020, the average number of bulkers, oil tankers and gas carriers in a port within the EU was 15%, 1.4% and 34.4% lower than Q4 2019 in terms of vessel tonnage.

Weaker demand does not necessarily relate to a decrease in the daily average number of vessels in port. In both the RoRo freight and Pure Car Carriers sectors, increased idling at EU-MS ports resulted in a significant uptick in the average daily tonnage at an EU-MS port (up 13.4% and 21.8% respectively in 2020 compared to 2019). This is further seen in the average time spent in EU-MS ports (see Table 7 below) for these vessel types, which increased by 45% y-o-y for RoRo freight vessels and around 274% y-o-y for PCCs in Q2 2020 as significant number of these vessels temporarily ceased trading when the pandemic first hit.

Table 7: Average time in port (hours) for cargo vessels in the EU-MS.

Vessel Sector	2016	2017	2018	2019	2020	% y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Bulkcarriers	88.8	84.3	82.6	81.8	78.3	*-4%*	-6%	0%	-3%	-8%
Oil Tankers	70.8	77.2	73.1	71.8	72.4	*1%*	-1%	14%	3%	-12%
Chemical and Spec Tankers	44.2	42.6	43.5	45.0	44.5	*-1%*	-1%	0%	-2%	-2%
Liquid Gas Tankers	48.1	43.0	44.0	46.9	48.5	*3%*	13%	6%	0%	-5%
Containerships	26.3	26.1	26.5	26.5	28.4	*7%*	11%	14%	6%	0%
MPP and General Cargo	44.0	42.0	42.5	43.1	43.6	*1%*	6%	7%	-1%	-6%
Reefers	51.3	43.9	51.2	45.2	46.6	*3%*	18%	-25%	25%	4%
RoRo	15.7	16.4	16.0	17.4	19.8	*14%*	27%	45%	4%	-15%
Pure Car Carriers	23.2	21.7	23.2	23.2	41.1	*77%*	45%	274%	6%	14%

[5] Source: Clarksons Research.

Cargo Fleet	43.1	42.3	42.0	42.6	43.7	*3%*	5%	12%	1%	-7%
of which Deep Sea Cargo	*53.9*	*51.7*	*52.2*	*52.3*	*54.6*	*4%*	*-4%*	*14%*	*2%*	*7%*

Average time in port can be affected by a variety of factors including congestion, idling of vessels or changes in the volume of cargo loaded on and off vessels, amongst others.

2.4 Impact on ships flying the flags of EU Member States

This section presents the impact of the COVID-19 outbreak on the activities of ships flying the flags of EU Member States (UK excluded). The port calls of those ships, at any port in the world and the related total GT are counted quarter-by-quarter for the period between 2016 and 2020. This section presents overall figures and trends as well as detailed statistics per ship type and per EU-MS flag.

2.4.1 General statistics

The total number of calls (at all ports in the world) by vessels flying the flags of EU Member States increased each year between 2016 and 2019; in 2020, instead, it presented a decrease of -3.5% in comparison to 2019 and, similarly, the related total gross tonnage decreased by -11.1%. In particular, a significant decrease started in the second quarter of 2020, as an impact of the COVID-19 outbreak escalation across Europe that obliged many EU Member States to put in place lockdown measures. In the third and fourth quarter of 2020, however, this trend appeared more stable, alternating small negative (e.g. in Q3) and positive (e.g. in Q4) variations in comparison to the same periods in 2019.

Table 8: Number of port calls worldwide (at EU and non-EU ports) by EU-MS flagged vessels (UK excluded) between 2016 and 2020 (by quarter), and related total gross tonnage.

Year/ Quarter	Port calls						(Related) Total Gross Tonnage (in million tonnes)					
	Q1	Q2	Q3	Q4	Total	Trend vs previous year %	Q1	Q2	Q3	Q4	Total	Trend vs previous year %
2016	381209	439186	494412	407728	**1722535**	**-**	7161	7781	8625	7683	**31251**	**-**
2017	396193	453493	502310	423730	**1775726**	**3.1%**	7694	8258	8693	8284	**32928**	**5.4%**
2018	402008	468870	515105	437148	**1823131**	**2.7%**	7849	8500	7849	8500	**32699**	**-0.7%**
2019	417838	488565	527972	448057	**1882432**	**3.3%**	8097	8749	8920	8457	**34223**	**4.7%**
2020	442171	403084	522481	448960	**1816696**	**-3.5%**	8955	6890	7483	7097	**30426**	**-11.1%**

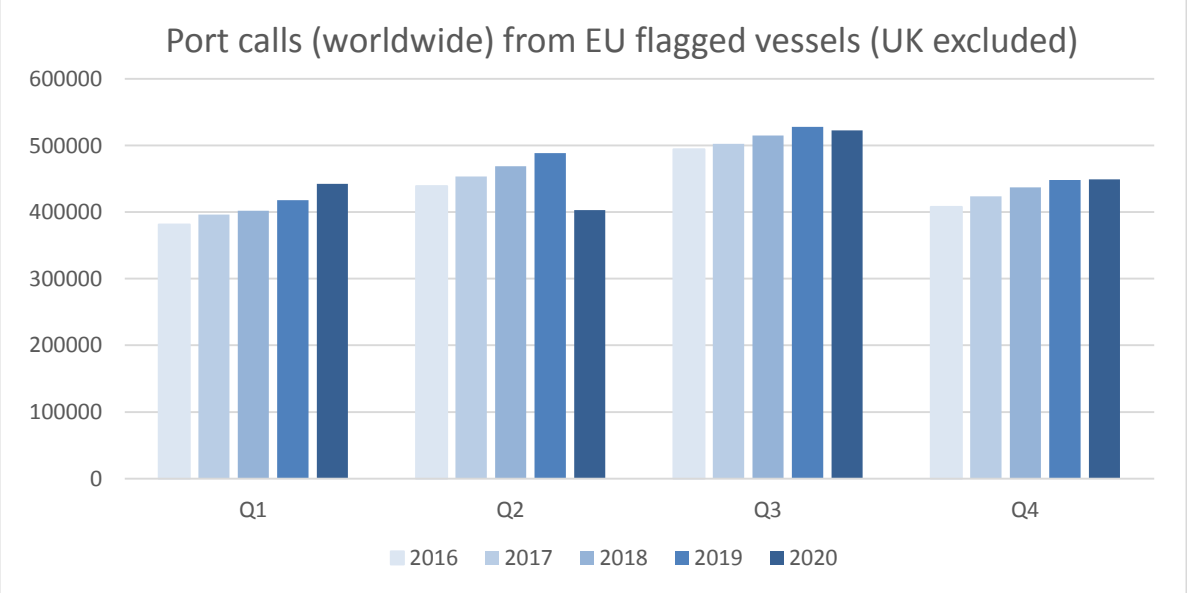


Figure 3: Number of port calls worldwide (at EU and non-EU ports) by MS flagged vessels (UK excluded) between 2016 and 2020 (by quarter).

The data per flag is shown in Table 9. Starting from the second quarter of 2020, due to the COVID-19 outbreak, a reduction in the number of port calls (worldwide) is observed for most of the EU-MS flagged fleets in comparison to the same periods in 2019; the highest decreases were observed for ships flying the flags of Croatia and Spain. The trends for the previous years (between 2016 and 2019), instead, were in general positive for most EU-MS flags.

Appendix A presents the number of vessels flying the flag of each Member States on 31 December 2020 per ship type in an aggregated way as presented in paragraph 3.4.2.

Table 9: Variation between 2016 and 2020 (by quarter and total) in the number of port calls (worldwide) by flag.

Ship type	Year / Month	Q1	Q2	Q3	Q4	Total
Belgium	2017 vs 2016	10%	10%	3%	6%	**7%**
	2018 vs 2017	6%	2%	-4%	-1%	**1%**
	2019 vs 2018	3%	7%	3%	8%	**5%**
	2020 vs 2019	2%	-20%	-23%	-32%	**-18%**
Bulgaria	2017 vs 2016	-3%	-35%	-29%	-29%	**-25%**
	2018 vs 2017	-35%	-11%	-3%	-10%	**-15%**
	2019 vs 2018	-14%	-6%	-6%	1%	**-6%**
	2020 vs 2019	9%	-20%	-35%	-10%	**-16%**
Croatia	2017 vs 2016	-10%	3%	10%	11%	**5%**
	2018 vs 2017	17%	16%	3%	-25%	**3%**
	2019 vs 2018	-24%	-8%	-6%	-7%	**-10%**
	2020 vs 2019	-18%	-71%	-56%	-37%	**-51%**
Cyprus	2017 vs 2016	2%	-5%	-10%	-4%	**-4%**
	2018 vs 2017	-6%	1%	2%	2%	**0%**
	2019 vs 2018	4%	3%	3%	3%	**3%**
	2020 vs 2019	14%	-20%	-16%	-12%	**-9%**
Denmark	2017 vs 2016	2%	2%	0%	4%	**2%**
	2018 vs 2017	-2%	-2%	12%	21%	**7%**
	2019 vs 2018	23%	17%	2%	-1%	**9%**
	2020 vs 2019	10%	6%	30%	20%	**17%**
Estonia	2017 vs 2016	12%	32%	71%	28%	**37%**
	2018 vs 2017	28%	31%	4%	33%	**22%**
	2019 vs 2018	0%	7%	7%	3%	**4%**
	2020 vs 2019	12%	-27%	0%	-10%	**-7%**
Finland	2017 vs 2016	10%	0%	6%	0%	**4%**
	2018 vs 2017	-3%	10%	15%	13%	**9%**
	2019 vs 2018	16%	9%	2%	4%	**7%**
	2020 vs 2019	-1%	-5%	-3%	-1%	**-3%**
France	2017 vs 2016	8%	7%	2%	-2%	**4%**
	2018 vs 2017	3%	0%	7%	3%	**3%**
	2019 vs 2018	4%	9%	1%	-2%	**3%**
	2020 vs 2019	-1%	-46%	-25%	-19%	**-24%**
Germany	2017 vs 2016	-3%	-14%	-17%	-10%	**-12%**
	2018 vs 2017	-6%	21%	23%	18%	**15%**
	2019 vs 2018	18%	9%	0%	6%	**7%**
	2020 vs 2019	-5%	-22%	8%	-6%	**-6%**
Greece	2017 vs 2016	8%	7%	-2%	4%	**3%**
	2018 vs 2017	3%	-2%	-3%	-4%	**-2%**
	2019 vs 2018	-7%	2%	9%	12%	**4%**
	2020 vs 2019	8%	-38%	-10%	-4%	**-12%**
Iceland	2017 vs 2016	-9%	-5%	16%	17%	**5%**
	2018 vs 2017	-26%	-17%	-10%	-21%	**-17%**
	2019 vs 2018	17%	40%	32%	95%	**45%**
	2020 vs 2019	169%	-12%	-40%	-63%	**-10%**
Ireland	2017 vs 2016	-16%	-22%	-3%	24%	**-6%**
	2018 vs 2017	-5%	-4%	-5%	-15%	**-7%**
	2019 vs 2018	-2%	-9%	-9%	-4%	**-6%**
	2020 vs 2019	30%	7%	12%	2%	**12%**
Italy	2017 vs 2016	2%	9%	3%	3%	**4%**
	2018 vs 2017	3%	-1%	-1%	6%	**2%**
	2019 vs 2018	0%	0%	1%	-8%	**-2%**
	2020 vs 2019	-9%	-45%	-7%	-10%	**-18%**
Latvia	2017 vs 2016	-8%	-9%	-17%	-12%	**-12%**
	2018 vs 2017	4%	3%	8%	14%	**7%**
	2019 vs 2018	2%	2%	8%	-4%	**2%**
	2020 vs 2019	2%	-21%	-33%	-25%	**-20%**
Lithuania	2017 vs 2016	-10%	-11%	-10%	23%	**-2%**
	2018 vs 2017	23%	13%	19%	-10%	**10%**
	2019 vs 2018	-6%	18%	11%	13%	**9%**
	2020 vs 2019	17%	-17%	-11%	-17%	**-8%**
Luxembourg	2017 vs 2016	-7%	-5%	-2%	11%	**-1%**
	2018 vs 2017	7%	-2%	-6%	-1%	**-1%**
	2019 vs 2018	7%	25%	29%	14%	**18%**
	2020 vs 2019	24%	-8%	-26%	-3%	**-4%**
Malta	2017 vs 2016	5%	5%	-3%	7%	**3%**
	2018 vs 2017	2%	1%	0%	-1%	**1%**
	2019 vs 2018	2%	4%	3%	5%	**4%**
	2020 vs 2019	12%	-19%	-13%	-19%	**-10%**
Netherlands	2017 vs 2016	-1%	-6%	-6%	0%	**-3%**
	2018 vs 2017	-2%	4%	0%	0%	**1%**
	2019 vs 2018	1%	2%	2%	2%	**2%**
	2020 vs 2019	10%	-6%	-1%	-4%	**0%**
Norway	2017 vs 2016	12%	14%	30%	14%	**18%**
	2018 vs 2017	11%	11%	2%	7%	**7%**
	2019 vs 2018	12%	12%	10%	6%	**10%**
	2020 vs 2019	4%	22%	37%	46%	**28%**
Poland	2017 vs 2016	-19%	1%	-58%	-17%	**-34%**
	2018 vs 2017	21%	-32%	39%	38%	**7%**
	2019 vs 2018	41%	46%	-8%	-10%	**12%**
	2020 vs 2019	-43%	-49%	-37%	110%	**-23%**
Portugal	2017 vs 2016	7%	5%	8%	5%	**6%**
	2018 vs 2017	-3%	1%	-1%	-3%	**-1%**
	2019 vs 2018	0%	-4%	-8%	-4%	**-4%**
	2020 vs 2019	12%	-3%	11%	4%	**6%**
Romania	2017 vs 2016	76%	253%	285%	405%	**254%**
	2018 vs 2017	-13%	-64%	-68%	-70%	**-62%**
	2019 vs 2018	-9%	-18%	-16%	-37%	**-19%**
	2020 vs 2019	30%	39%	-47%	-35%	**-1%**
Spain	2017 vs 2016	8%	8%	7%	8%	**8%**
	2018 vs 2017	2%	10%	9%	11%	**9%**
	2019 vs 2018	13%	5%	5%	5%	**6%**
	2020 vs 2019	-7%	-58%	-27%	-28%	**-31%**
Sweden	2017 vs 2016	-5%	-2%	-3%	-3%	**-3%**
	2018 vs 2017	0%	5%	1%	-11%	**-1%**
	2019 vs 2018	-12%	-12%	-13%	10%	**-8%**
	2020 vs 2019	6%	-2%	15%	23%	**11%**

Ship type	Year / Month	Q1	Q2	Q3	Q4	Total

Total (all MSs)	**2017 vs 2016**	**3.9%**	**3.3%**	**1.6%**	**3.9%**	**3.1%**
	2018 vs 2017	**1.5%**	**3.4%**	**2.5%**	**3.2%**	**2.7%**
	2019 vs 2018	**3.9%**	**4.2%**	**2.5%**	**2.5%**	**3.3%**
	2020 vs 2019	**5.8%**	**-17.5%**	**-1.0%**	**0.2%**	**-3.5%**

2.4.2 Statistics per ship type

This Section presents the variation between 2016 and 2020 in the total number of port calls (worldwide) by EU-MS flagged vessels by ship type and quarter. The vessels have been grouped following the same ship type aggregation used in the previous sections.

Table 10: Variation between 2016 and 2020 of ship calls (worldwide) of EU-MSs flagged vessels, by ship type.

Ship type	Year / Month	Q1	Q2	Q3	Q4	Total
Bulk carrier	**2017 vs 2016**	14%	8%	-7%	9%	**5%**
	2018 vs 2017	-3%	0%	-1%	-7%	**-3%**
	2019 vs 2018	2%	2%	-1%	3%	**1%**
	2020 vs 2019	21%	3%	7%	2%	**8%**
Chemical tanker	**2017 vs 2016**	3%	4%	3%	7%	**4%**
	2018 vs 2017	0%	1%	-1%	-3%	**-1%**
	2019 vs 2018	1%	3%	4%	7%	**4%**
	2020 vs 2019	13%	-14%	-14%	-20%	**-9%**
Containership	**2017 vs 2016**	-2%	-5%	-10%	0%	**-4%**
	2018 vs 2017	-2%	3%	1%	-2%	**0%**
	2019 vs 2018	-2%	-1%	-1%	0%	**-1%**
	2020 vs 2019	15%	-18%	-20%	-21%	**-11%**
Cruise	**2017 vs 2016**	5%	0%	-6%	10%	**2%**
	2018 vs 2017	10%	9%	13%	6%	**9%**
	2019 vs 2018	3%	20%	17%	16%	**15%**
	2020 vs 2019	-4%	-84%	-78%	-77%	**-66%**
General cargo	**2017 vs 2016**	2%	-4%	-4%	0%	**-1%**
	2018 vs 2017	-1%	2%	-1%	0%	**0%**
	2019 vs 2018	1%	4%	2%	4%	**3%**
	2020 vs 2019	15%	-7%	-11%	-10%	**-3%**
Liquified gas tanker	**2017 vs 2016**	10%	14%	7%	11%	**10%**
	2018 vs 2017	7%	7%	5%	2%	**5%**
	2019 vs 2018	3%	4%	1%	2%	**3%**
	2020 vs 2019	8%	-22%	-20%	-15%	**-12%**
Oil tanker	**2017 vs 2016**	2%	2%	-3%	4%	**1%**
	2018 vs 2017	2%	5%	5%	6%	**5%**
	2019 vs 2018	5%	6%	-2%	5%	**3%**
	2020 vs 2019	-9%	-31%	-24%	-32%	**-24%**
Passenger	**2017 vs 2016**	6%	6%	9%	5%	**7%**
	2018 vs 2017	2%	8%	4%	0%	**4%**
	2019 vs 2018	6%	7%	8%	0%	**6%**
	2020 vs 2019	-4%	-33%	8%	31%	**-1%**
Refrigerated cargo	**2017 vs 2016**	20%	40%	29%	21%	**27%**
	2018 vs 2017	7%	-10%	-3%	1%	**-1%**
	2019 vs 2018	4%	12%	3%	-10%	**2%**
	2020 vs 2019	-3%	11%	-12%	4%	**0%**
Ropax	**2017 vs 2016**	5%	8%	6%	3%	**6%**
	2018 vs 2017	5%	3%	5%	13%	**6%**
	2019 vs 2018	9%	5%	1%	1%	**4%**
	2020 vs 2019	0%	-11%	17%	26%	**8%**
Ro-Ro cargo	**2017 vs 2016**	2%	-2%	4%	6%	**2%**
	2018 vs 2017	5%	0%	-3%	-2%	**0%**
	2019 vs 2018	0%	3%	3%	3%	**2%**
	2020 vs 2019	8%	-18%	-3%	-7%	**-5%**
Vehicle carrier	**2017 vs 2016**	17%	3%	1%	9%	**8%**
	2018 vs 2017	-9%	4%	-1%	0%	**-2%**
	2019 vs 2018	3%	1%	7%	1%	**3%**
	2020 vs 2019	-7%	-46%	-40%	-38%	**-33%**

Despite the number of port calls (worldwide) by EU-MS flagged vessels increased almost each year between 2016 and 2019 for most ship types, the COVID-19 outbreak and the lockdown restrictions have had an impact on the activities of EU-MS flagged fleets from the second quarter of 2020; major variations in 2020 compared with equivalent periods in 2019 can be observed for cruise and vehicle carriers. After a significant decrease in the

second quarter of 2020 (compared to the same quarter in 2019), the numbers of port calls (worldwide) from EU-MS flagged Passenger ships and Ropax vessels have shown, instead, an increase in the third and fourth quarters of 2020 in comparison to the same periods in 2019.

Appendix A shows the detailed weekly fluctuation in number of port calls worldwide for EU-MSs flagged ships per ship type.

2.5 Impact on ships owned by EU-MS owners

Port callings for the EU-MS owned fleet fell by 24% y-o-y in Q2 of 2020, compared to 17% for the global average. There was a recovery in activity during Q3 (-13% y-o-y) and Q4 (-5% y-o-y), a marginally slower recovery than global averages. In line with global trends, there was significantly less initial disruption and a quicker recovery for deep sea cargo ships relative to passenger / cruise ships.

The COVID-19 impact varied across shipping segments for EU shipping companies, from disruption for Bulk Carriers of -4% to Cruise of -93% in Q2. By Q4 2020, bulkers, RoRo freight and general cargo vessels owned by EU owners began to show positive growth in port calls relative to Q4 2019, although total cargo vessels were still down 1% owing to tankers and car carriers (See Appendix C for further details)

Given the broad and diverse ownership base in the EU, trends in port callings for the EU-MS owned fleet were broadly in line with global trends during 2020. Port callings for the EU-MS owned fleet (including Norway and Iceland) fell by 23% y-o-y in Q2 of 2020, compared to 17% for the global average. There was a recovery in activity during Q3 (-12% y-o-y) and Q4 (-6% y-o-y), a marginally slower recovery than global averages reflecting an overweighted fleet in the passenger and cruise sectors. In line with global trends, there was significantly less initial disruption and a quicker recovery for deep sea cargo ships relative to passenger / cruise ships. Table 11 above highlights the quarterly disruption in port callings for EU-MS owned vessels in 2020, Table 12 provide more detail on quarterly figures.

Table 11: Annual port calling activity of EU-MS owned vessels ('000 calls)[6].

Ship Type	16-19 CAGR	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 - 20
Bulkcarriers	*3.1%*	86.4	92.8	94.5	94.8	94.1	*-1%*	0%	-4%	0%	1%
Oil Tankers	*-1.0%*	103.5	106.8	104.8	100.4	97.5	*-3%*	1%	-8%	-1%	-4%
Chemical and Spec Tankers	*0.9%*	59.6	63.0	62.8	61.2	58.5	*-4%*	2%	-6%	-7%	-6%
Liquid Gas Tankers	*3.8%*	23.3	25.4	26.0	26.1	24.5	*-6%*	-6%	-12%	-6%	-1%
Containerships	*-1.6%*	261.8	261.8	255.3	249.2	237.1	*-5%*	-3%	-9%	-5%	-3%
MPP and General Cargo	*-0.7%*	164.2	169.3	166.7	160.9	154.4	*-4%*	-4%	-11%	-5%	4%
Reefers	*-11.6%*	8.2	7.6	6.8	5.7	5.5	*-2%*	-11%	-4%	0%	7%
RoRo	*1.1%*	52.9	55.2	56.1	54.7	50.4	*-8%*	-6%	-21%	-5%	2%
Pure Car Carriers	*-1.9%*	10.3	10.5	10.0	9.7	7.8	*-19%*	-7%	-42%	-19%	-9%
Ferries	*4.1%*	420.1	444.8	467.8	473.7	366.1	*-23%*	-8%	-44%	-21%	-11%
Cruise	*6.8%*	12.6	12.7	13.9	15.3	4.3	*-72%*	1%	-93%	-84%	-85%
Total EU-MS owned	***1.3%***	**1,202.8**	**1,249.8**	**1,264.6**	**1,251.6**	**1,100.2**	***-12%***	**-4%**	**-24%**	**-13%**	**-5%**
% global		*39%*	*38%*	*38%*	*37%*	*35%*					
of which Cargo	*-0.3%*	*770.1*	*792.3*	*782.9*	*762.6*	*729.8*	*-4%*	*-2%*	*-10%*	*-4%*	*-1%*
of which Deep Sea Cargo	*1.4%*	197.7	209.0	208.6	206.0	201.5	*-2%*	*1%*	*-5%*	*-2%*	*-2%*
of which Passenger/cruise	*4.2%*	*432.7*	*457.5*	*481.7*	*489.0*	*370.4*	*-24%*	*-8%*	*-46%*	*-23%*	*-14%*
Total EU (inc. Norway/Iceland)	***1.6%***	**1,392.2**	**1,448.1**	**1,464.7**	**1,458.3**	**1,289.4**	***-12%***	**-3%**	**-23%**	**-12%**	**-6%**
% global		*45%*	*44%*	*44%*	*43%*	*41%*					
of which Cargo		*879.3*	*904.9*	*899.2*	*880.5*	*843.5*	*-4%*	*-2%*	*-9%*	*-4%*	*-1%*
of which Deep Sea Cargo		212.1	226.0	228.2	226.4	220.7	*-2%*	*1%*	*-6%*	*-2%*	*-2%*
of which Passenger/cruise		*512.9*	*543.2*	*565.4*	*577.7*	*445.9*	*-23%*	*-6%*	*-43%*	*-22%*	*-15%*
Total Global	***3.1%***	**3,103.6**	**3,277.3**	**3,359.3**	**3,400.9**	**3,135.3**	***-8%***	***-1%***	***-17%***	***-10%***	***-3%***
of which Cargo	*1.9%*	*2,162.3*	*2,257.3*	*2,271.1*	*2,285.7*	*2,314.1*	*1%*	*1%*	*-3%*	*1%*	*6%*
of which Deep Sea Cargo	*2.6%*	*445.4*	*470.8*	*478.5*	*481.3*	*469.2*	*-3%*	*0%*	*-6%*	*-3%*	*-1%*
of which Passenger/cruise	*5.8%*	*941.3*	*1,020.0*	*1,088.2*	*1,115.2*	*821.2*	*-26%*	*-4%*	*-44%*	*-29%*	*-23%*

[6] Source: Clarksons Research. Deep sea cargo includes oil tankers MR and above, bulk carriers Panamax and above, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm and PCTCs 6,000+ ceu. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Table 12: Quarterly port calling activity of EU-MS owned vessels ('000 calls)[7].

Ship Type	2019				2020				2020/2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Bulkcarriers	22.9	23.9	24.0	24.0	22.8	23.0	24.1	24.2	0%	-4%	0%	1%
Oil Tankers	24.7	25.1	25.0	25.6	25.0	23.2	24.7	24.6	1%	-8%	-1%	-4%
Chemical and Spec Tankers	14.5	15.2	16.1	15.4	14.7	14.3	15.0	14.5	2%	-6%	-7%	-6%
Liquid Gas Tankers	6.4	6.6	6.7	6.4	6.0	5.8	6.3	6.4	-6%	-12%	-6%	-1%
Containerships	60.1	63.5	63.8	61.8	58.6	57.4	60.9	60.2	-3%	-9%	-5%	-3%
MPP and General Cargo	39.8	41.2	40.8	39.1	38.2	36.9	38.8	40.6	-4%	-11%	-5%	4%
Reefers	1.5	1.4	1.4	1.3	1.3	1.4	1.4	1.4	-11%	-4%	0%	7%
RoRo	13.6	13.9	14.0	13.2	12.8	11.0	13.2	13.4	-6%	-21%	-5%	2%
Pure Car Carriers	2.4	2.5	2.4	2.4	2.2	1.4	1.9	2.2	-7%	-42%	-19%	-9%
Ferries	92.8	126.3	156.2	98.4	85.0	70.4	123.3	87.5	-8%	-44%	-21%	-11%
Cruise	2.6	4.3	4.7	3.7	2.7	0.3	0.7	0.6	1%	-93%	-84%	-85%
Total EU-MS owned	**281.3**	**323.9**	**355.1**	**291.3**	**269.3**	**245.0**	**310.3**	**275.6**	**-4%**	**-24%**	**-13%**	**-5%**
% global	*36%*	*38%*	*39%*	*35%*	*35%*	*34%*	*38%*	*34%*				
of which Cargo	*185.9*	*193.3*	*194.1*	*189.2*	*181.6*	*174.4*	*186.2*	*187.6*	*-2%*	*-10%*	*-4%*	*-1%*
of which Deep Sea Cargo	*49.8*	*51.7*	*52.3*	*52.3*	*50.2*	*48.9*	*51.3*	*51.1*	*1%*	*-5%*	*-2%*	*-2%*
of which Passenger/cruise	*95.4*	*130.6*	*161.0*	*102.1*	*87.7*	*70.7*	*124.1*	*88.0*	*-8%*	*-46%*	*-23%*	*-14%*
Total EU (inc. Norway/Iceland)	**327.6**	**375.9**	**412.4**	**342.5**	**316.7**	**289.6**	**361.2**	**321.9**	**-3%**	**-23%**	**-12%**	**-6%**
% global	*42%*	*44%*	*45%*	*41%*	*41%*	*40%*	*44%*	*40%*				
of which Cargo	*213.9*	*223.2*	*224.4*	*219.1*	*209.6*	*202.2*	*215.1*	*216.6*	*-2%*	*-9%*	*-4%*	*-1%*
of which Deep Sea Cargo	*54.6*	*56.8*	*57.5*	*57.4*	*55.1*	*53.4*	*56.2*	*56.1*	*1%*	*-6%*	*-2%*	*-2%*
of which Passenger/cruise	*113.7*	*152.7*	*187.9*	*123.4*	*107.1*	*87.4*	*146.1*	*105.3*	*-6%*	*-43%*	*-22%*	*-15%*
Total Global	**780.8**	**863.0**	**920.0**	**837.1**	**775.2**	**720.3**	**826.5**	**813.3**	***-1%***	***-17%***	***-10%***	***-3%***
of which Cargo	550.6	*577.3*	*582.2*	*575.6*	554.5	*559.4*	*587.4*	*612.8*	*1%*	*-3%*	*1%*	*6%*
of which Deep Sea Cargo	115.9	*121.4*	*122.7*	*121.4*	116.1	*114.1*	*119.2*	*119.8*	*0%*	*-6%*	*-3%*	*-1%*
of which Passenger/cruise	*230.2*	*285.7*	*337.8*	*261.5*	*220.6*	*161.0*	*239.1*	*200.5*	*-4%*	*-44%*	*-29%*	*-23%*

2.6 EU Trade Trends

This section presents an overview of the impact of COVID-19 on global and EU seaborne trade in 2020. Key features of the impact and disruption include the severity of the decline in trade volumes in 1H 2020, but also the notable short-term variations in trade volumes and some easing of negative pressures in 2H 2020. Impacts on EU seaborne trade were generally more acute than at a global level, although there was variation across commodities, Member States and partner countries.

The impact of the COVID-19 pandemic led global seaborne trade to decline by -3.6% y-o-y in 2020, a similar rate to the drop in global GDP. Disruption to the world economy from COVID-19 led global GDP to fall by -3.5% in full year 2020 (source: IMF, Jan 2021), a relatively similar rate to the four quarters following the global financial crisis (Q4 08-Q3 09: -2.5%, IMF). Impacted by COVID-19 and the related disruption to the world economy, trade flows and supply chains, world seaborne trade (in tonnes) is estimated to have declined by -3.6% in full year 2020 [8] However, there was notable variation in the rate of decline across seaborne commodities (see Table 15, Table 19, and Table 20), and the overall impact on global seaborne trade in 2020 may not have been as negative as many had initially feared (for context, global seaborne trade in tonnes fell by -4.0% in 2009).

As mentioned at the beginning of this chapter, EU seaborne trade (in tonnes) was more severely impacted by COVID-19 than world seaborne trade in 2020., declining by -9.3% across 2020 on a year-on-year (y-o-y) basis, corresponding to a 'loss' of 226 million tonnes of EU trade across the period (more than half of "lost" volumes globally). EU GDP is estimated to have been impacted more deeply than the global economy as a whole across 2020, shrinking by -6.4% (Eurostat, Feb 2021). With EU seaborne demand negatively impacted by COVID-19 restrictions, including 'lockdowns', on economic activity in 2020, EU external seaborne imports were hardest hit, down by -12.2% y-o-y in 2020, with intra-EU trade down by -7.1% y-o-y, and EU external exports down by -4.3% y-o-y, with some EU external markets seeing impacts ease more swiftly. For context, EU seaborne trade growth averaged 1.2% p.a. across 2016-19, and global seaborne trade growth 2.6% p.a. The impacts of COVID-19

[7] Source: Clarksons Research. Deep sea cargo includes oil tankers MR and above, bulk carriers Panamax and above, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm and PCTCs 6,000+ ceu. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.
[8] Source: Clarksons Research, February 2021.

on EU seaborne trade saw variation across commodities, Member States and partner countries with some pre-existing trends also impacting.

EU and global seaborne trade saw significant short-term variations across 2020, in particular as COVID-19 restrictions varied, parts of the world economy began to see improvement and volumes started to return, led by some consumer-related sectors (e.g. container trade) and as the worst impacts generally started to subside in other key volume sectors (e.g. dry bulk). Global seaborne trade (in tonnes) is estimated to have declined by -6.9% y-o-y in Q2 following the initial impacts of the spread of the COVID-19 crisis, but in Q4 the decline had eased to -2.7% y-o-y. In comparison, pressure on seaborne trade involving the EU saw a similar pattern of easing, but starting from a deeper decline and remaining further below year ago levels towards the end of the year, with seaborne EU trade volumes down by -16.0% y-o-y in Q2 20 and down by -5.1% y-o-y in Q4 (see Table 13). The decline in seaborne intra-EU trade and EU external exports demonstrated notable easing, from -16.5% y-o-y and -12.2% y-o-y respectively in Q2 20 to +0.2% y-o-y and +0.0% y-o-y in Q4. Seaborne EU external imports, however, remained in more significant decline, down by -17.1% y-o-y in Q2 20 and still down by -9.5% y-o-y in Q4.

2.6.1 EU Seaborne Trade Activity[9]

This section summarises the impact of COVID-19 on EU seaborne trade in 2020. Prior to the outbreak of the COVID-19 global pandemic, seaborne trade involving the EU totalled 2.4bn tonnes in full year 2019, accounting for 20% of global seaborne trade (11.9bn tonnes). Intra-EU seaborne trade accounted for 0.6bn tonnes (5% of world seaborne trade) in 2019, seaborne EU external imports accounted for 1.3bn tonnes (11%) and seaborne EU external exports for 0.5bn tonnes (4%). Table 13 provides a summary of EU seaborne trade volumes, and puts them in a global context.

Table 13: EU Seaborne Trade Summary, million tonnes[10].

Trade Flow	16-19 CAGR	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Intra-EU Trade	*2.1%*	**583.8**	**600.4**	**611.8**	**600.6**	**558.0**	*-7.1%*	**143.7**	**126.6**	**138.9**	**148.7**
% y-o-y		*5.6%*	*2.8%*	*1.9%*	*-1.8%*	*-7.1%*		*-6.6%*	*-16.5%*	*-5.3%*	*0.2%*
EU External Imports	*1.2%*	**1,251**	**1,303**	**1,332**	**1,324**	**1,162**	*-12.2%*	**313.5**	**276.1**	**281.1**	**291.5**
% y-o-y		*-0.9%*	*4.2%*	*2.2%*	*-0.6%*	*-12.2%*		*-7.0%*	*-17.1%*	*-15.2%*	*-9.5%*
EU External Exports	*0.2%*	**501**	**503**	**491**	**496**	**475**	*-4.3%*	**122.1**	**109.2**	**116.4**	**126.9**
% y-o-y		*1.7%*	*0.4%*	*-2.5%*	*1.1%*	*-4.3%*		*2.5%*	*-12.2%*	*-7.2%*	*0.0%*
TOTAL EU Trade	*1.2%*	**2,336**	**2,407**	**2,434**	**2,421**	**2,195**	*-9.3%*	**579.3**	**511.9**	**536.4**	**567.1**
% y-o-y		*1.2%*	*3.0%*	*1.1%*	*-0.6%*	*-9.3%*		*-5.1%*	*-16.0%*	*-11.2%*	*-5.1%*
TOTAL Global Trade	*2.6%*	**11,118**	**11,573**	**11,891**	**11,940**	**11,511**	*-3.6%*	**2,831**	**2,790**	**2,937**	**2,954**
% y-o-y		*3.1%*	*4.1%*	*2.7%*	*0.4%*	*-3.6%*		*-1.7%*	*-6.9%*	*-3.0%*	*-2.7%*

[9] EU seaborne trade data is based on customs statistics reported by EU countries, including EU intra-trade and extra-EU trade, held in the Clarksons Research trade data warehouse at an individual HS (Harmonised System; see glossary) customs code and bilateral country-to-country trade level. The data set used here is largely drawn and processed from data sets reported by EU countries to Eurostat, but also in some instances reflects data sets reported to national statistical organisations; in each case the most "established" data set providing the greatest degree of historical consistency and availability has been used. For reference, for a limited number of EU countries the data sets reported to Eurostat offer at an aggregate level a more realistic description of the split between EU Intra-trade and Extra-EU trade than provided by data sets reported to national statistical organisations. The customs data included in these sections covers the period January 2016 to December 2020, basis data as reported at the time of processing the final data set for this study. Year on year (y-o-y) statistics quoted throughout the report are always given as the period in question compared to the same period a year earlier. The original source customs data has been subject to a significant degree of processing to generate a final single consistent database. This processing includes the generation of country data based on defined reporting entities, the grouping of HS codes into 'shipping commodities' (in accordance with standard Clarksons Research classifications), the conversion of reported volumes into consistent metric tonnes units, the selection of unique records for each bilateral commodity trade, the identification, correction and replacement of data anomalies on a manual and automated basis and the estimation and separation of seaborne trade flows. In the final data set, each bilateral country-to-country seaborne commodity trade has been classified as Intra-EU, Extra-EU Import or Extra-EU Export seaborne trade. For reference, estimates of seaborne and landborne components of trade at a country and commodity level have been drawn from a range of information and background knowledge (including commodity specific industry source data and Clarksons Research infrastructure intelligence, for example). Intra-EU data is well reported in country-level customs statistics; in general the data set used here largely reflects reported importer data. However, with respect to Intra-EU trade data, it can be harder to estimate seaborne and landborne components where not made clear in source customs data. Finally, the EU seaborne trade data used here was validated where possible against other available sources (e.g. commodity-specific data) where possible.

[10] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data estimates as of Feb-21.

Share of Global Trade:										
Intra-EU Trade		*5.3%*	*5.2%*	*5.1%*	*5.0%*	*4.8%*	*5.1%*	*4.5%*	*4.7%*	*5.0%*
EU External Imports		*11.3%*	*11.3%*	*11.2%*	*11.1%*	*10.1%*	*11.1%*	*9.9%*	*9.6%*	*9.9%*
EU External Exports		*4.5%*	*4.3%*	*4.1%*	*4.2%*	*4.1%*	*4.3%*	*3.9%*	*4.0%*	*4.3%*
Total EU Trade		*21.0%*	*20.8%*	*20.5%*	*20.3%*	*19.1%*	*20.5%*	*18.4%*	*18.3%*	*19.2%*

With EU seaborne demand negatively impacted by COVID-19 restrictions on economic activity, including consumer and industrial activity in 2020, EU external seaborne imports saw the heaviest impact, declining by -12.2% y-o-y, with intra-EU trade down by -7.1% y-o-y, and EU external exports down by -4.3% y-o-y, with some EU external markets seeing impacts ease more swiftly (for example the Chinese economy had largely "re-started" by April 2020). Overall, EU seaborne trade as a share of the global total slipped to 19.1% in 2020. The fall in volumes of intra-EU seaborne trade and EU external seaborne exports in 2020 also saw the continuation of negative growth trends in 2019, which came against the backdrop of subdued European economic growth. The impact of COVID-19 on EU seaborne trade also produced material variation across commodities (such as oil, dry bulk, and cars and vehicles), Member States and partner countries.

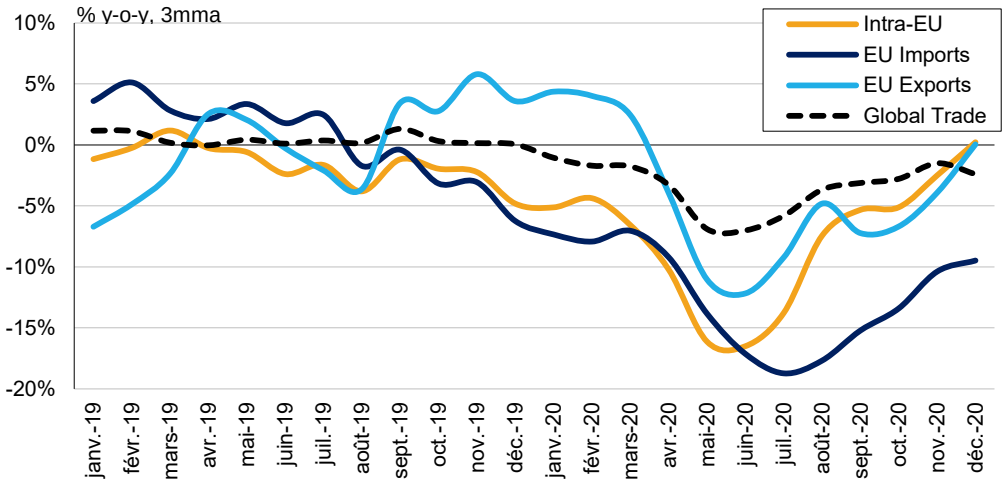


Figure 4: EU Seaborne Trade Summary, tonnes, % y-o-y, 3-month moving average[11].

Both global and EU seaborne trade were subject to significant short-term variations across 2020 as the impacts of, and restrictions related to, COVID-19 evolved through the year and across regions. For example, global seaborne trade is estimated to have declined by -1.7% y-o-y in Q1 2020 with COVID-19 impacts initially heavily focussed on China, and by -6.9% y-o-y in Q2 20 as the pandemic and its impacts spread globally. However, COVID-19 impacts on the world economy eased and volumes began to return in some sectors in 2H 20; global seaborne trade was down by -3.0% y-o-y in Q3 20 and -2.7% in Q4. In comparison, seaborne trade involving the EU saw a similar pattern but remaining below 2019 levels towards the end of the year, with seaborne EU trade volumes down by -16.0% y-o-y in Q2 20 and down by -5.1% y-o-y in Q4.

The decline in seaborne Intra-EU trade eased from -16.5% y-o-y in Q2 to an increase of +0.2% y-o-y by Q4, as the impact of COVID-19 on economic activity in the EU generally eased. Seaborne EU external exports declined by -12.2% y-o-y in Q2 but were steady y-o-y by Q4, with some EU external markets seeing COVID-19 impacts ease more swiftly than in the EU itself. Seaborne Extra-EU imports declined by -17.1% y-o-y in Q2 20 and remained down by -9.5% y-o-y in Q4, as volumes to the EU remained under severe pressure from the impacts of COVID-19 and associated restrictions on the EU economy, as well as some underlying pre-COVID headwinds including declining coal imports. With month-to-month statistics remaining volatile through the year, the 3-month moving averages shown in Figure 4 provide a good illustration of the development of the severity of COVID-19 impacts on global and EU seaborne trade as 2020 progressed.

[11] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data basis published Monthly Global Seaborne Trade Growth Indicator, as at Feb-21.

Table 14: COVID-19 Global & EU Seaborne PossibleTrade Scenarios[12].

Commodity	Global Seaborne Trade Growth 2020 (e)	Global Seaborne Trade Growth 2021 (f)	Possible Global Trade Scenario	Possible EU Trade Scenario
Crude Oil	-7.5%	3.5%	Volumes projected to remain well below 2019 levels in 2021, and approach 2019 levels in 2022, with oil demand and seaborne trade taking multiple years to regain pre-Covid volumes. A return to positive y-o-y growth not expected until late Q2 2021. Overall improvement in 2021 driven by rising oil production (Brazil, Norway, Guyana, Libya) and gradual improvement in global oil demand and refinery throughput, but bounce back limited by ongoing OPEC+ supply cuts, and high inventory levels.	Europe amongst hardest hit region in terms of oil demand with widespread lockdowns. Import bounce back expected to be muted in 2021 (+2%, after -12% fall in 2020) with oil demand still under pressure (esp. for transportation), high inventory levels, and numerous refinery closures announced.
Oil Products	-11.2%	5.6%	Volumes expected to remain well below 2019 levels in 2021 and 2022, with oil demand and seaborne trade taking multiple years to regain pre-Covid volumes. Some improvement in 2021 driven by gradual increase in global oil demand and refinery throughput, but trade rebound limited by high inventories.	Europe amongst hardest hit region in terms of oil demand. Import bounce back expected to be muted in 2021 (+6%, after -14% fall in 2020), with oil demand still under pressure, inventory levels high.
Dry Bulk	-2.1%	3.7%	Global y-o-y trend returning to positive territory in late 2020/early 2021, with volumes projected to exceed 2019 levels this year. Growth supported by further steady expansion in iron ore and grain trade, a firm rebound in minor bulk (to exceed 2019 levels), and a partial recovery in coal trade (+4.7%, after a -9.6% fall in 2020), with overall support from expanding Chinese raw material demand.	European imports of iron ore and minor bulks expected to rebound in 2021 (likely back in positive territory in 1H) but remain below 2019 levels as some economic impacts linger. Coal imports not expected to increase materially in 2021 owing to ongoing shift to cleaner energy sources, with total European dry bulk imports unlikely to reach pre-Covid levels.
Gas	1.0%	5.1%	Global trend returning to positive y-o-y territory in late 2020/early 2021. Volumes increased overall in 2020 and are projected to grow at a firm 5% this year, with support from improving global gas demand and production following disruptions last year. US exports and Asian imports key areas of growth.	European LNG imports projected to remain fairly steady in 2021 compared to the firm overall 2020 level, with support from shift to cleaner fuels. LPG imports projected to improve y-o-y but take multiple years to regain pre-Covid levels.
Containers	-1.4%	5.8%	Volumes already back to positive y-o-y trend in Q3 2020, with strong expansion in Q4 2020. Volumes projected to significantly exceed the pre-Covid level in 2021, with support from unlocked 'pent-up' demand, inventory re-stocking, shifts in consumer activity towards goods, and PPE (and home working equipment) volumes. Demand trends may 'normalise' later in 2021 with potential for vaccines to lead to a gradual shift back towards services spending.	European box imports and exports back in positive y-o-y territory by Sep-20; volumes projected to exceed the pre-Covid level in 2021, with support from similar factors to global trend. Potential for 'normalisation' of demand trends later in 2021.
TOTAL	**-3.6%**	**4.2%**	**Trade projected to exceed 2019 level in 2021; volume trend likely to return to positive y-o-y territory within 1H 2021; overall support from growing Chinese raw material demand, strong container trade expansion, and growing US energy exports.**	**Volume trend expected to be positive in 2021 although trade may remain below 2019 levels, with the oil trade rebound expected to be muted, and pressure on coal imports continuing amid the ongoing 'green transition'.**

Whilst the pace of declines in seaborne trade volumes (in tonnes) eased back towards the latter part of 2020, the future pace of seaborne trade from the impacts of COVID-19, both at a global and an EU level remains subject to major uncertainty. Nevertheless, total global seaborne trade is currently projected to exceed 2019 levels in 2021[13] the overall volume trend appears likely to return to positive y-o-y growth territory in 2021 supported by easing of COVID-19 restrictions as vaccines are rolled out and wider expected economic improvements across the year. However, in terms of EU seaborne trade volumes, most notably imports, the trade volumes is generally expected to lag global trends, and although the trend is expected to be positive in 2021, seaborne trade volumes may remain below 2019 levels. Trends at a global and EU level are also likely to vary significantly across commodities and individual countries and regions, with a range of specific drivers determining trade patterns. For example, seaborne container trade has already bounced back into positive growth territory in many regions, including the EU whilst the outlook for crude oil and oil products trade remain much weaker, with Europe one of the hardest hit regions in terms of oil demand. Underlying trends in some sectors may also have an impact on the potential for seaborne trade to regain 2019 volumes swiftly or indeed at all; for example, EU coal imports are not expected to increase materially in 2021 owing to the ongoing shift to cleaner energy sources. The summary in Table 14 examines potential COVID-19 trade scenarios in key seaborne commodities at both a global and EU level.

2.7 Intra-EU Seaborne Trade

Intra-EU seaborne trade (already under some pressure in 2019) was initially one of the most significantly impacted parts of world seaborne trade following the global spread of COVID-19, declining (in tonnes) by -16.5% y-o-y in Q2 2020, and compared to a -6.9% contraction globally, but has since seen a firm rebound,

[12] Source: Clarksons Research. Seaborne trade data estimates as of Feb-21. (e) = estimate, (f) = forecast.
[13] Source: Clarksons Research, Feb-21, projects a full year total of 12.0 billion tonnes in 2021 compared to 11.9 billion tonnes in 2019;

and was up 0.2% y-o-y in Q4 (compared to -2.7% globally). Overall, intra-EU seaborne trade declined by -7.1% y-o-y in 2020 (equivalent to a "loss" in volumes of 43mt), with exports from and imports into most EU Member States declining, on the back of major impacts on volumes in most seaborne commodities stemming from the economic and logistical impacts of the COVID-19 pandemic. Differences across EU Member States largely reflected their intra-EU seaborne cargo profile. Intra-EU seaborne trade in oil products saw a notably severe decline (down -24.8% y-o-y) in 2020, with a sharp contraction in transportation demand following 'lockdowns', travel restrictions and other COVID-19 related measures.

Prior to the outbreak of the COVID-19 global pandemic, seaborne intra-EU trade totalled around 600 million tonnes in full year 2019, accounting for around a quarter of total seaborne EU trade, and around 5% of global seaborne trade. Containerised/general cargoes accounted for the largest share of intra-EU trade prior to the pandemic (216 million tonnes; 36% of total), followed by dry bulk cargoes (191mt; 32% of total) and oil cargoes (99mt; 17% of the total). There are also significant volumes of intra-EU seaborne trade in gas, chemicals, reefer cargoes, and cars and other vehicles.

Intra-EU trade was already under some pressure prior to the pandemic, having declined by around -1.8% in full year 2019 amid sluggish EU economic growth which impacted a number of commodities (e.g. container and general cargo, dry bulk) and reduced intra-EU oil trade against a backdrop of weak European oil demand growth. Intra-EU trade was then significantly impacted by the COVID-19 pandemic, with volumes declining by -16.5% y-o-y in Q2 2020 (compared to a -6.9% contraction globally). After remaining fairly weak through the late summer (volumes were down -5.3% y-o-y in Q3, vs. a -3.0% contraction globally) intra-EU trade saw a fairly firm rebound towards the end of the year, and was up 0.2% y-o-y across Q4 (compared to a -2.7% contraction globally). Overall, intra-EU seaborne trade declined by -7.1% y-o-y across 2020, with "lost" trade compared to 2019 levels equivalent to 43mt.

Table 15 shows total intra-EU seaborne trade by commodity. **Oil** products trade saw the sharpest decline in intra-EU seaborne trade of any bulk commodity in 2020, declining by -25% y-o-y on the back of a sharp contraction in transportation demand on the back of 'lockdowns' and other COVID-19 control measures. Volumes were down over -30% y-o-y in Q2 and were still down -21% y-o-y by Q4, showing the lasting impacts of continued restrictions on movement in many European nations. European refinery utilisation fell as low as 67% (compared to c.90% pre-Covid) in June. Seaborne crude oil trade between EU nations actually picked up in 2020, as UK exports (84% of total intra-EU crude trade last year) increased as refinery throughput in the UK fell more sharply than in some other European nations.

Intra-EU **dry bulk** trade fell by more than -6% y-o-y in 2020, as industrial activity came under pressure, while containerised and general cargoes trade was down as much as -15% y-o-y in Q2, but recovered swiftly above year-ago levels (+4% y-o-y) by Q4 on the back of a fairly firm rebound in consumer spending, some shifts away from services spending towards goods (a trend seen globally), and easing of Covid-related disruption to supply chains and manufacturing across the continent. Overall, intra-EU seaborne **containerised** and **general cargoes** trade fell by a moderate c.-5% y-o-y across the full year (though this compares to just a c.-1% decline in container trade globally).

Reefer trade also makes up a small but significant share of intra-EU trade flows, and was amongst the better performing commodities in 2020, as demand for foodstuffs was less affected by the pandemic, and many governments took measures to ensure food supplies remained sufficient following some initial concerns about disruption to supply chains as the pandemic unfolded. Meanwhile, intra-EU seaborne **car** and **vehicle** trade, although relatively smaller than the larger bulk cargo trades in tonnes terms, is an important part of the global car industry. With severe disruption to car supply chains and manufacturing, particularly in Q2, and with car dealerships closed in many nations for extended periods, intra-EU car and vehicle trade fell more steeply than any other sector, contracting by nearly -60% y-o-y in Q2 2020 alone, and falling by -23% y-o-y across the full year. A sharp rebound (-4% y-o-y by Q4) was seen later in the year, however, as supply chains recovered, and reflecting a degree of 'pent-up' demand.

Table 15: Intra-EU Seaborne Trade by Commodity, million tonnes[14].

Commodity	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Crude Oil	*-2.1%*	**28.6**	**27.9**	**26.5**	**25.8**	**30.3**	*17.3%*	*12.2%*	*3.7%*	*45.3%*	*8.1%*
Oil Products	*-2.0%*	**87.2**	**84.4**	**78.4**	**73.6**	**55.3**	*-24.8%*	*-21.4%*	*-31.4%*	*-25.3%*	*-20.6%*
TOTAL Oil	*-2.1%*	**115.8**	**112.3**	**104.8**	**99.4**	**85.6**	*-13.9%*	*-12.4%*	*-23.3%*	*-7.0%*	*-12.4%*
LNG	*70.4%*	**0.1**	**0.2**	**0.5**	**1.6**	**1.7**	*9.6%*	*-12.0%*	*19.2%*	*17.1%*	*16.1%*
LPG	*-0.7%*	**3.0**	**2.7**	**2.9**	**2.7**	**2.6**	*-4.7%*	*-21.4%*	*-22.8%*	*13.9%*	*10.4%*
TOTAL Gas	*9.7%*	**3.2**	**3.0**	**3.4**	**4.3**	**4.3**	*0.6%*	*-17.8%*	*-7.9%*	*15.1%*	*12.5%*
Chem. & Oth. Liquids	*4.5%*	**31.1**	**33.0**	**34.2**	**35.0**	**34.3**	*-2.1%*	*1.6%*	*-9.8%*	*-1.5%*	*1.7%*
Iron Ore	*-3.9%*	**14.8**	**14.5**	**15.5**	**11.0**	**11.3**	*2.8%*	*10.7%*	*-23.6%*	*2.1%*	*31.6%*
Coal	*-6.4%*	**4.4**	**4.8**	**4.0**	**3.8**	**3.0**	*-19.4%*	*13.2%*	*1.1%*	*-40.4%*	*-49.4%*
Grain	*1.7%*	**23.5**	**23.2**	**22.6**	**22.0**	**21.9**	*-0.6%*	*0.9%*	*13.2%*	*-15.1%*	*4.7%*
Minor Bulk	*3.7%*	**138.3**	**146.2**	**158.0**	**154.3**	**142.5**	*-7.6%*	*-8.4%*	*-17.3%*	*-6.2%*	*2.0%*
TOTAL Dry Bulk	*2.7%*	**181.0**	**188.6**	**200.1**	**191.0**	**178.7**	*-6.5%*	*-5.8%*	*-14.9%*	*-7.8%*	*2.8%*
Container / Gen. Cargo	*3.0%*	**200.6**	**210.0**	**215.3**	**215.6**	**204.9**	*-5.0%*	*-6.0%*	*-14.6%*	*-2.8%*	*3.7%*
Reefer Cargoes	*1.9%*	**37.9**	**38.9**	**39.0**	**39.8**	**38.3**	*-3.9%*	*-0.7%*	*-7.6%*	*-6.9%*	*-0.5%*
Cars & Vehicles	*5.5%*	**14.2**	**14.5**	**15.0**	**15.4**	**11.9**	*-23.0%*	*-16.6%*	*-58.6%*	*-9.5%*	*-3.9%*
TOTAL Intra-EU Trade	*2.1%*	**583.8**	**600.4**	**611.8**	**600.6**	**558.0**	*-7.1%*	**143.7**	**126.6**	**138.9**	**148.7**
% y-o-y		*5.6%*	*2.8%*	*1.9%*	*-1.8%*	*-7.1%*		*-6.6%*	*-16.5%*	*-5.3%*	*0.2%*
TOTAL Global Trade	*2.6%*	**11,118**	**11,573**	**11,891**	**11,940**	**11,511**	*-3.6%*	**2,831**	**2,790**	**2,937**	**2,954**
% y-o-y		*3.1%*	*4.1%*	*2.7%*	*0.4%*	*-3.6%*		*-1.7%*	*-6.9%*	*-3.0%*	*-2.7%*
Intra-EU as a % of:											
Total Global Trade		*5.3%*	*5.2%*	*5.1%*	*5.0%*	*4.8%*		*5.1%*	*4.5%*	*4.7%*	*5.0%*
Total EU Trade		*25.0%*	*24.9%*	*25.1%*	*24.8%*	*25.4%*		*24.8%*	*24.7%*	*25.9%*	*26.2%*
% of Intra-EU Trade:											
Oil		*19.8%*	*18.7%*	*17.1%*	*16.5%*	*15.3%*		*15.3%*	*15.2%*	*16.3%*	*14.5%*
Gas		*0.5%*	*0.5%*	*0.6%*	*0.7%*	*0.8%*		*0.6%*	*0.7%*	*0.8%*	*0.9%*
Dry Bulk		*31.0%*	*31.4%*	*32.7%*	*31.8%*	*32.0%*		*32.1%*	*32.1%*	*31.3%*	*32.5%*
Container / Gen. Cargo		*34.4%*	*35.0%*	*35.2%*	*35.9%*	*36.7%*		*36.4%*	*36.7%*	*36.8%*	*37.0%*

Figure 5 shows monthly intra-EU seaborne trade in million tonnes (bars; left axis). Trade can be volatile month-to-month, but the improvement in y-o-y trends seen through the second half of 2020 is clearly visible (orange line; right axis), with the pace of the rebound in intra-EU trade narrowly surpassing global trends (blue line; right axis) on a 3-month moving average (3mma) basis by December 2020.

[14] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data estimates as of Feb-21.

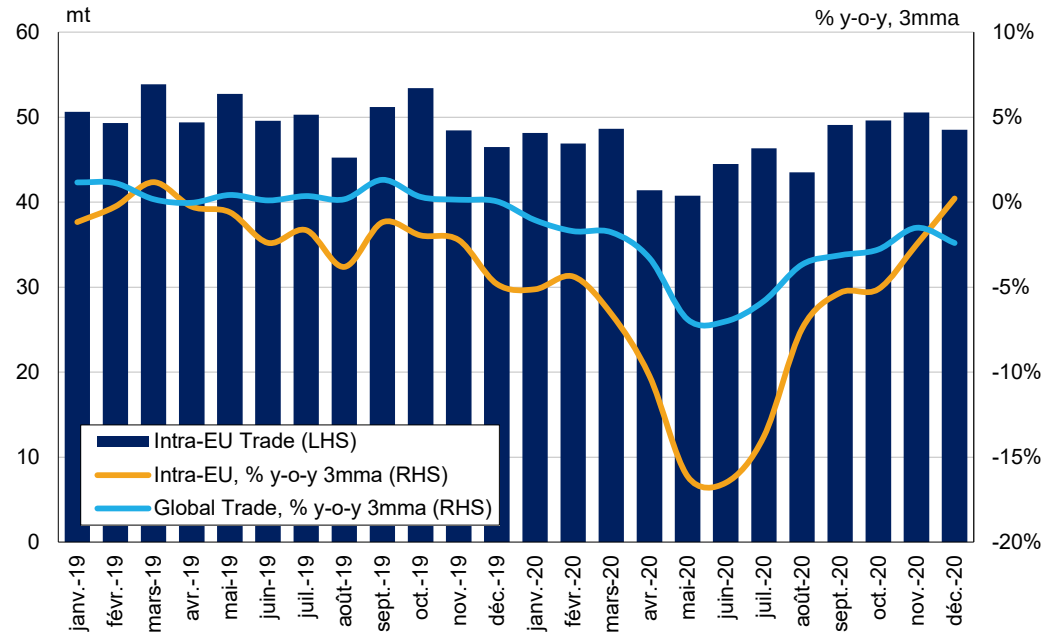


Figure 5: Monthly Intra-EU Seaborne Trade, million tonnes[15].

2.7.1 Intra-EU Seaborne Trade by Member State

This section summarises intra-EU seaborne trade by EU Member State, both in terms of exporter country and importer country. As outlined in the section before, intra-EU seaborne trade prior to the COVID-19 pandemic totalled around 600 million tonnes in full year 2019, In general, the EU Member States with the largest populations, economic output, and industrial sectors account for the largest share of intra-EU trade volumes. However, island nations and countries with fewer or less-developed landborne trade routes to neighbouring countries also conduct a larger share of their international trade by sea, and often account for n larger share of intra-EU seaborne trade compared to their overall economic output or population. Some countries also have major reserves of a specific commodity (e.g. UK's oil and gas production, French agricultural produce, Germany's large manufacturing sector, Mediterranean countries' production of fruit and vegetables etc.) which are major drivers of intra-EU seaborne trade trends.

Table 16 shows intra-EU seaborne trade volumes by exporter country. The UK, with limited non-seaborne international trade routes and the EU's largest crude exporter, was the largest intra-EU seaborne exporter across the study period, shipping 81 million tonnes of cargo in 2019, including around 37mt of crude oil and oil products, followed by Spain (80mt in 2019) and then Sweden (49mt), the Netherlands (46mt), Italy (46mt) and Germany (43mt).

Table 16: Intra-EU Seaborne Trade by Exporter Country, million tonnes[16].

Exporter	16-19 CAGR	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Austria	*-0.6%*	**5.0**	**4.9**	**4.8**	**5.0**	**4.9**	*-0.1%*	*10.2%*	*-9.8%*	*-0.8%*	*0.6%*
Belgium	*0.6%*	**28.6**	**29.9**	**29.3**	**29.1**	**26.2**	*-9.8%*	*-9.0%*	*-17.9%*	*-8.6%*	*-3.6%*
Bulgaria	*4.2%*	**8.8**	**9.2**	**8.9**	**9.9**	**8.4**	*-15.0%*	*-9.5%*	*-5.4%*	*-16.5%*	*-25.9%*
Croatia	*4.7%*	**4.7**	**5.0**	**5.2**	**5.4**	**6.3**	*15.8%*	*2.2%*	*12.1%*	*28.5%*	*18.0%*
Cyprus	*12.8%*	**0.7**	**0.9**	**0.8**	**1.0**	**0.7**	*-35.9%*	*-49.5%*	*-49.6%*	*-12.3%*	*-45.2%*
Czech Republic	*0.1%*	**3.2**	**3.1**	**3.2**	**3.2**	**2.9**	*-9.5%*	*-4.1%*	*-27.6%*	*-5.9%*	*0.5%*
Denmark	*-1.0%*	**15.6**	**16.2**	**14.4**	**15.1**	**14.7**	*-2.8%*	*-3.3%*	*-7.3%*	*-2.5%*	*1.8%*

[15] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data basis published Monthly Global Seaborne Trade Growth Indicator, as at Feb-21.
[16] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland.

Estonia	*5.1%*	**6.5**	**7.2**	**7.3**	**7.5**	**6.2**	*-16.7%*	*-31.0%*	*-21.7%*	*4.0%*	*-12.5%*
Finland	*1.2%*	**30.4**	**30.2**	**31.0**	**31.5**	**28.4**	*-9.8%*	*-12.6%*	*-14.8%*	*-9.6%*	*-1.9%*
France	*2.6%*	**28.6**	**30.8**	**31.7**	**30.9**	**26.1**	*-15.4%*	*-10.9%*	*-23.7%*	*-19.1%*	*-8.2%*
Germany	*0.3%*	**42.7**	**44.9**	**45.6**	**43.0**	**40.1**	*-6.8%*	*-8.0%*	*-19.2%*	*-7.0%*	*7.2%*
Greece	*4.0%*	**10.6**	**10.7**	**11.3**	**11.9**	**13.0**	*9.2%*	*6.4%*	*-2.8%*	*24.2%*	*9.9%*
Hungary	*2.4%*	**2.9**	**3.1**	**3.0**	**3.1**	**3.0**	*-2.3%*	*-7.7%*	*-10.9%*	*-0.6%*	*12.4%*
Ireland	*4.7%*	**11.6**	**11.9**	**13.1**	**13.4**	**12.1**	*-9.4%*	*-4.6%*	*-16.9%*	*-11.7%*	*-4.2%*
Italy	*2.3%*	**42.6**	**44.7**	**44.8**	**45.6**	**42.1**	*-7.7%*	*-3.7%*	*-21.0%*	*-8.2%*	*3.7%*
Latvia	*1.3%*	**11.0**	**11.0**	**13.1**	**11.4**	**11.1**	*-2.9%*	*-8.3%*	*-6.7%*	*-7.3%*	*11.9%*
Lithuania	*1.7%*	**9.1**	**8.5**	**8.7**	**9.6**	**9.9**	*2.9%*	*-5.1%*	*-1.2%*	*8.3%*	*9.7%*
Luxembourg	*-2.7%*	**1.8**	**1.7**	**1.8**	**1.6**	**1.4**	*-13.6%*	*-18.4%*	*-30.2%*	*-0.4%*	*-2.5%*
Malta	*-13.2%*	**1.4**	**1.0**	**1.0**	**0.9**	**0.5**	*-45.7%*	*-73.2%*	*-86.5%*	*-14.9%*	*7.2%*
Netherlands	*1.9%*	**43.6**	**44.1**	**45.4**	**46.1**	**42.2**	*-8.6%*	*-4.5%*	*-17.7%*	*-5.8%*	*-6.4%*
Poland	*2.8%*	**27.5**	**28.3**	**31.4**	**29.9**	**27.5**	*-8.0%*	*-14.7%*	*-21.2%*	*-5.3%*	*11.8%*
Portugal	*3.3%*	**14.3**	**14.9**	**15.5**	**15.7**	**14.1**	*-10.1%*	*-6.0%*	*-22.2%*	*-2.5%*	*-8.6%*
Romania	*4.3%*	**11.8**	**13.3**	**15.5**	**13.4**	**11.7**	*-12.7%*	*-7.7%*	*-20.4%*	*-8.5%*	*-14.9%*
Slovakia	*-0.4%*	**2.0**	**2.1**	**2.0**	**2.0**	**1.7**	*-17.0%*	*-20.8%*	*-36.9%*	*-10.9%*	*3.0%*
Slovenia	*2.7%*	**4.7**	**5.4**	**5.5**	**5.1**	**4.7**	*-7.9%*	*-4.1%*	*-18.5%*	*-6.6%*	*-1.8%*
Spain	*4.7%*	**69.5**	**76.0**	**77.4**	**79.7**	**74.5**	*-6.5%*	*-4.2%*	*-18.0%*	*-6.3%*	*3.8%*
Sweden	*-5.0%*	**56.7**	**56.5**	**56.5**	**48.6**	**47.8**	*-1.6%*	*3.5%*	*-15.4%*	*-3.8%*	*11.0%*
United Kingdom	*-2.8%*	**88.2**	**85.0**	**83.6**	**81.1**	**75.7**	*-6.6%*	*-8.2%*	*-11.9%*	*-1.0%*	*-5.3%*
TOTAL Intra-EU Trade	*2.1%*	**584.1**	**600.4**	**611.8**	**600.6**	**558.0**	*-7.1%*	**143.7**	**126.6**	**138.9**	**148.7**
% y-o-y		*5.6%*	*2.8%*	*1.9%*	*-1.8%*	*-7.1%*		*-6.6%*	*-16.5%*	*-5.3%*	*0.2%*

In 2020, seaborne intra-EU exports (in tonnes) from nearly every EU Member State declined y-o-y across 2020, on the back of major impacts on trade in most commodities as a result of the economic and logistical impacts of the COVID-19 pandemic. UK intra-EU exports were supported to some extent by fairly stable crude exports as domestic demand fell particularly sharply, and cargoes were redirected to other markets, while Swedish intra-EU exports of iron ore (c.10.5mt in 2019) held steady in 2020 as shipments had already come under pressure in 2019 amid weak steel production trends in key markets. Spanish exports overall were supported by the country's leading role in shipments of reefer cargoes, which saw only limited impacts from the pandemic as food demand held up well.

However, some countries saw more marked declines in intra-EU shipments last year. French exports fell notably sharply, declining by around -15% y-o-y, as the country's oil products exports fell by around two thirds amid particularly sharp cuts to refinery throughput. The country is also a major exporter of cars to other European nations, with car trade particularly sharply affected. Overall seaborne exports from Italy and the Netherlands also felt specific pressure from weak intra-EU products trade trends.

For reference, Norway (Europe's largest crude oil producer and exporter) exported more cargo to EU Member States than any EU Member State in the period in question, totalling 89mt in 2019, and declining by around -7% y-o-y to 82.5mt in 2020. The vast majority of this is accounted for by crude oil (52mt in 2019, fairly steady y-o-y in 2020). Iceland, meanwhile, exported around 1.5mt of cargo to the EU in 2019, while shipments were up c.9% y-o-y in 2020.

Table 17 shows intra-EU seaborne trade volumes by importer country. The UK, being it an island with limited non-maritime international trade routes, was the largest intra-EU seaborne importer across the study period, importing 100mt of cargoes from other EU Member States in 2019, followed by the Netherlands (65mt), Spain (55mt), Sweden (47mt), Germany (46mt) and Italy (46mt).

Table 17: Intra-EU Seaborne Trade by Importer Country[17].

Importer	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Austria	*-1.2%*	**2.8**	**3.0**	**2.9**	**2.7**	**2.7**	*-1.5%*	*7.5%*	*-4.1%*	*-8.0%*	*-0.1%*
Belgium	*-1.2%*	**29.5**	**30.2**	**30.4**	**28.5**	**27.6**	*-3.0%*	*-4.0%*	*-14.0%*	*-5.4%*	*13.2%*
Bulgaria	*2.7%*	**5.5**	**6.0**	**6.2**	**5.9**	**6.5**	*10.0%*	*2.6%*	*-6.7%*	*2.6%*	*40.6%*
Croatia	*9.1%*	**4.7**	**5.1**	**5.5**	**6.1**	**5.9**	*-4.3%*	*5.9%*	*-22.8%*	*-7.3%*	*11.4%*
Cyprus	*2.3%*	**3.3**	**3.7**	**3.7**	**3.6**	**3.1**	*-13.2%*	*-13.8%*	*-21.9%*	*-27.4%*	*15.9%*
Czech Republic	*7.0%*	**3.9**	**4.7**	**5.0**	**4.7**	**3.9**	*-17.1%*	*-17.8%*	*-24.9%*	*-20.2%*	*-4.7%*
Denmark	*4.8%*	**15.3**	**16.5**	**18.2**	**17.6**	**17.5**	*-0.4%*	*-2.6%*	*-8.2%*	*2.8%*	*7.0%*
Estonia	*2.5%*	**2.5**	**2.9**	**3.0**	**2.7**	**3.1**	*12.4%*	*-2.8%*	*31.6%*	*9.5%*	*12.5%*
Finland	*0.8%*	**17.1**	**17.2**	**18.3**	**17.5**	**17.1**	*-2.2%*	*-4.4%*	*-1.1%*	*-8.0%*	*5.1%*
France	*0.1%*	**43.6**	**44.5**	**42.8**	**43.7**	**41.7**	*-4.8%*	*-3.9%*	*-17.2%*	*0.9%*	*2.5%*
Germany	*-2.2%*	**49.1**	**47.9**	**47.8**	**45.9**	**44.3**	*-3.5%*	*8.0%*	*-10.1%*	*-7.3%*	*-3.9%*
Greece	*2.1%*	**11.7**	**12.1**	**12.6**	**12.5**	**11.7**	*-6.1%*	*2.2%*	*-18.0%*	*-2.6%*	*-5.8%*
Hungary	*6.4%*	**3.5**	**3.6**	**3.7**	**4.2**	**4.3**	*2.9%*	*14.3%*	*-5.5%*	*1.3%*	*2.1%*
Ireland	*-2.4%*	**20.4**	**19.4**	**20.4**	**19.0**	**18.7**	*-1.7%*	*3.6%*	*-5.0%*	*-1.9%*	*-3.6%*
Italy	*2.1%*	**42.9**	**44.8**	**44.6**	**45.6**	**41.0**	*-10.1%*	*-10.4%*	*-25.1%*	*-2.7%*	*-1.7%*
Latvia	*2.6%*	**2.2**	**2.3**	**2.5**	**2.4**	**2.5**	*3.4%*	*8.8%*	*2.2%*	*0.3%*	*2.6%*
Lithuania	*3.4%*	**4.2**	**4.7**	**4.6**	**4.6**	**4.3**	*-6.8%*	*1.2%*	*-18.4%*	*-5.3%*	*-3.7%*
Luxembourg	*0.8%*	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	*0.7%*	*-4.8%*	*-20.9%*	*6.2%*	*22.7%*
Malta	*-5.3%*	**4.2**	**4.0**	**4.6**	**3.6**	**2.2**	*-37.8%*	*-36.0%*	*-27.1%*	*-40.6%*	*-43.9%*
Netherlands	*1.9%*	**61.0**	**63.6**	**66.8**	**64.5**	**59.5**	*-7.7%*	*-18.8%*	*-18.2%*	*10.0%*	*0.0%*
Poland	*5.8%*	**19.5**	**20.8**	**22.6**	**23.1**	**22.3**	*-3.3%*	*-3.2%*	*-12.4%*	*0.5%*	*2.1%*
Portugal	*3.7%*	**16.6**	**17.7**	**17.4**	**18.5**	**17.3**	*-6.5%*	*4.1%*	*-14.4%*	*-11.8%*	*-2.8%*
Romania	*4.5%*	**11.8**	**12.5**	**13.1**	**13.5**	**13.2**	*-2.2%*	*4.3%*	*-16.8%*	*3.9%*	*0.3%*
Slovakia	*-4.4%*	**1.7**	**1.4**	**1.5**	**1.5**	**1.5**	*3.5%*	*5.9%*	*-27.0%*	*-2.4%*	*41.9%*
Slovenia	*5.0%*	**6.0**	**6.6**	**6.5**	**7.0**	**6.3**	*-9.5%*	*-1.6%*	*-25.9%*	*-9.6%*	*2.6%*
Spain	*-0.6%*	**55.7**	**57.2**	**55.0**	**54.7**	**51.0**	*-6.8%*	*10.3%*	*-13.8%*	*-15.3%*	*-6.5%*
Sweden	*2.6%*	**43.1**	**43.9**	**47.5**	**46.6**	**41.0**	*-12.0%*	*-13.9%*	*-13.5%*	*-13.4%*	*-6.7%*
United Kingdom	*-0.5%*	**101.3**	**103.9**	**104.4**	**99.7**	**87.0**	*-12.7%*	*-18.3%*	*-26.1%*	*-8.3%*	*2.9%*
TOTAL Intra-EU Trade	*2.1%*	**583.8**	**600.4**	**611.8**	**600.6**	**558.0**	*-7.1%*	**143.7**	**126.6**	**138.9**	**148.7**
% y-o-y		*5.6%*	*2.8%*	*1.9%*	*-1.8%*	*-7.1%*		*-6.6%*	*-16.5%*	*-5.3%*	*0.2%*

In 2020, seaborne intra-EU imports (in tonnes) into nearly every EU Member State registered a reduction y-o-y, on the back of major impacts on trade in most commodities as a result of the economic and logistical impacts of the COVID-19 pandemic. In general, variation between performance of different Member States' intra-EU seaborne imports in 2020 reflect differences in commodity breakdown between different Member States' imports, as well as variations in the depth of economic impacts from the COVID-19 pandemic, and the pace of recovery in the latter half of the year.

For example, seaborne intra-EU imports into the UK fell by around -13% y-o-y across 2020, with the country amongst the most affected economies by the COVID-19 pandemic as a whole, and a major importer of cars and oil products – both commodities which were particularly affected by the pandemic. Equally, Sweden (-12%), Spain (-7%) and Italy (-10%) also saw comparatively sharp declines last year, for similar reasons.

On the other hand, Germany (-3.5% y-o-y) and France (-4.8%) both saw softer than average declines in intra-EU seaborne imports last year, although for different reasons. For example, Germany saw a more moderate decline in

[17] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland.

GDP last year than, the UK or Italy, as its larger manufacturing base and export-driven economy was buoyed by robust demand from China later in the year, while its intra-EU imports are also less exposed to the weak oil products and cars sectors than many other European economies. Meanwhile, French intra-EU seaborne imports were supported by an increase in oil products imports amid sharper refinery throughput cuts in the country than in many other EU countries with significant refinery capacity.

For reference, Norway and Iceland's imports from the EU are a less significant part of intra-European trade than their exports and totalled 19.0mt and 1.3mt respectively in 2019. Both declined only marginally (<1% y-o-y) across 2020.

2.7.2 The Intra-EU Freight Market

This section examines the intra-EU freight market, focussing on trends in intra-EU vessel charter cost/earnings and freight costs and the impacts thereon of COVID-19. (For more information on the use of the indexes made in this section, please refer to Appendix G)

Despite the disruption to ship markets from COVID-19, across full year 2020, the ClarkSea Index, which reflects the cost of chartering cargo vessels globally averaged $14,887/day, down just -2% on the 2019 average, although significant variation was seen across the year.

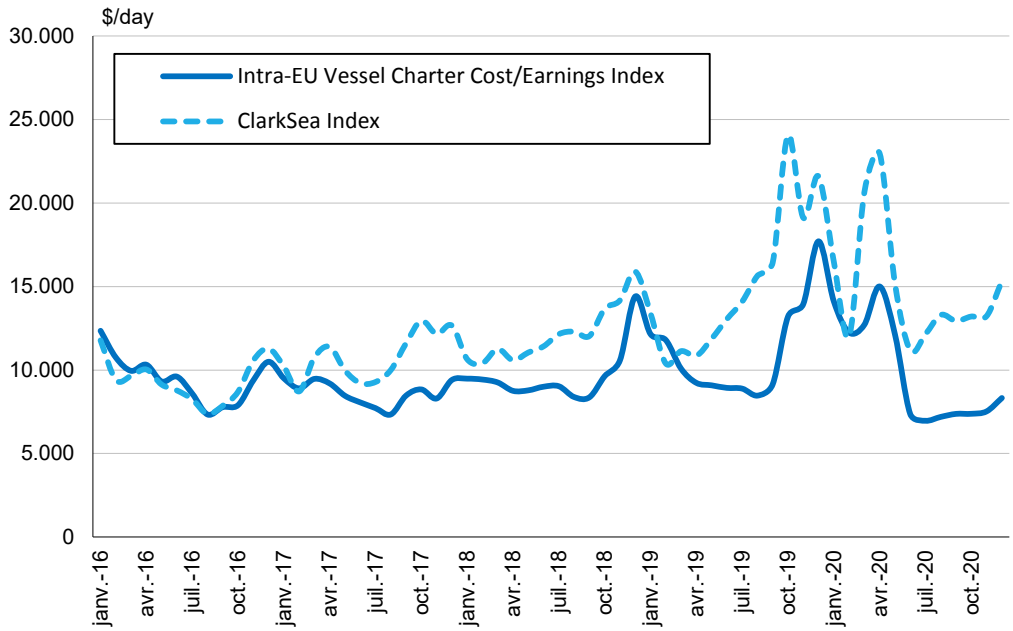


Figure 6: Intra-EU Vessel Charter Cost/Earnings Index[18].

Figure 6 indicates trends in the intra-EU vessel earnings index in 2020 followed a fairly similar pattern to the global ClarkSea Index, although the precise mix of cargo volumes and ship types differs; the intra-EU vessel earnings index is consistently lower than the global ClarkSea Index, largely because intra-EU trade is carried by, on average, smaller ships, with lower daily charter cost/earnings than the larger ship sizes which account for a greater share of activity on longer-haul 'deep-sea' trade routes

The Intra-EU vessel earnings index averaged $9,861/day across, down -11% on 2019, and down -4% on the average across the 2016-20 period. However, variation was seen across the year and across sectors. In 1H 2020 Intra-EU vessel earnings index (trade weighted by sector) averaged $12,264/day, up 20% y-o-y, whilst in 2H 2020 the index averaged 7,459/day, 39% lower than in 1H 2020, and down -37% y-o-y.

In particular, intra-EU vessel charter cost/earnings in the tanker sector saw major volatility across the year, with

[18] Source: Clarksons Research.

intra-EU **crude oil and oil products** tanker shipping markets impacted significantly by the major tanker market 'spike' in 1H, driven by a surge in demand for vessels for usage as 'floating storage' as 'lockdowns' led to a rapid build-up of surplus oil globally and oil prices in contango.

Table 18 shows seaborne cargo freight costs prevailing on a range of intra-EU voyages. The seaborne freight costs per unit all declined on average in 2020 compared to 2019. The cost of transporting a barrel of crude oil or oil products on the featured intra-EU voyages declined in Q2-Q4 2020, compared to Q1 2020, as markets eased back following the tanker market "spike" which had propelled freight costs in Q1 (c.+25% y-o-y for the cross-UKC route listed). In contrast, intra-EU coal freight costs on the Latvia-ARA[19] Kamsarmax route increased in 2H 2020 compared to 1H 2020 (+41%), whilst the featured "short-sea" (3,000t cargo) shipping rates for bulk/breakbulk cargo, largely in North West Europe, dropped in Q2 2020 and Q3 2020 (c.-25% vs Q1 on average) before strengthening back to Q1 levels by Q4.

After the initial tanker market 'spike' in March-April, driven by steep oil market contango and resulting storage demand, the oil tanker market saw challenging market conditions. A significant volume of surplus capacity developed on back of as weak oil demand (particularly from the transportation sector), OPEC+ supply cuts and the drawing down of global oil inventories from record levels continued to undermine vessel demand through 2020.

Table 18: Intra-EU Seaborne Freight Costs Summary[20].

Cargo	Vessel / Cargo Size	Route	Unit	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Crude Oil	Aframax; 80,000t	UKC-UKC	$/BBL	1.31	1.12	0.88	1.05	0.88	*-16%*	1.16	1.03	0.69	0.65
Oil Products	MR; 45,000t	Estonia-UKC	$/BBL	0.31	0.30	0.33	0.40	0.34	*-16%*	0.50	0.39	0.24	0.24
	Handy; 30,000t	UKC-UKC	$/BBL	0.86	0.94	0.92	0.97	0.89	*-8%*	1.28	1.07	0.63	0.60
Coal	Kamsarmax; 70,000t	Latvia-UKC	$/t	5.22	6.41	6.93	7.14	6.62	*-7%*	6.05	4.96	7.37	8.10
Bulk/Brkblk	Short Sea; 3,000t	UKC-N. Spain	$/t	16.59	18.61	20.93	18.38	16.13	*-12%*	18.26	14.41	13.44	18.42
	Short Sea; 3,000t	W. France-UKC	$/t	12.66	14.66	17.61	15.43	13.82	*-10%*	15.76	13.09	11.43	14.99
	Short Sea; 3,000t	Baltic-UKC	$/t	16.44	18.40	20.50	19.18	18.05	*-6%*	21.35	16.34	14.45	20.08
	Short Sea; 3,000t	UKC-W. Med	$/t	22.44	24.01	27.00	23.24	20.99	*-10%*	24.33	20.30	17.23	22.11

2.8 Extra-EU Seaborne Trade

Prior to the outbreak of the COVID-19 pandemic, EU external seaborne trade totalled 1.8 billion tonnes in full year 2019, equivalent to 15%[21] of global seaborne trade volumes. This was made up of 1.3 billion tonnes of EU external seaborne imports (11% of global seaborne trade) and 0.5 billion tonnes of seaborne exports (4% of global seaborne trade).

In 2020, EU external seaborne exports was down (in tonnes) by -4.3% y-o-y in 2020 (equivalent to a "loss" in volumes of 21mt). Exports were less severely impacted by COVID-19 than imports, as some key external markets saw more positive economic trends relative to the EU. China became the leading destination for EU exports in 2020, reflecting the robust "re-start" of the Chinese economy from April onwards. The -4.3% y-o-y decline in EU external seaborne exports compared to a decline of around -3.6% globally, though again improvements were seen in 2H 2020. Exports were down by -12.2% y-o-y in Q2 2020 but had rebounded to 2019 levels by Q4, slightly ahead of overall global trends as demand in key EU export trade partners saw progress. EU seaborne exports to China increased by 13.6% y-o-y across 2020, while exports to the US fell by -18.4%.

Global seaborne freight and vessel charter markets were subject to major volatility and disruption in 2020 as a result of the impacts of COVID-19, and trends in EU shipping markets were largely subject to the same trends. Despite this, the global cross-segment ClarkSea Index averaged -2% down y-o-y in 2020, though there was significant variation and notable individual sector complexity with many sectors at some point during the year. In terms of the freight costs associated with EU seaborne trade, spectacular volatility was seen at points in the year

[20] Source: Clarksons Research. UKC = United Kingdom / Continent region.
[21] 12% according to WTO.

in the oil tanker, gas carrier and container shipping sectors (where late in the year port congestion, including in Europe, had a major impact) in particular.

2.8.1 EU External Seaborne Trade – by commodity

EU external seaborne import trade was down (in tonnes) by -12.2% y-o-y (equivalent to a "loss" in volumes of 162mt), compared to a decline of around -3.6% globally. EU external imports are heavily weighted towards seaborne commodities for which demand was most significantly negatively impacted by COVID-19 (e.g. crude oil, oil products, coal, iron ore as shown in Table 19), but some pre-existing underlying trends were also present. The initial impact was severe with EU seaborne external imports down by -17.1% y-o-y in Q2 2020, and though some limited improvements were seen in 2H 2020 they remained under pressure, down -9.5% y-o-y in Q4 (well below the global trend of -2.7% y-o-y), with renewed COVID-19 restrictions in the EU impacting. EU seaborne imports from China were down by a more moderate -2.4% y-o-y in 2020, benefiting from the robust Q2 "re-start" (following the initial COVID-19 outbreak) and resilience of the Chinese economy. EU seaborne imports from the US were up by 6.2% y-o-y in 2020, driven by increasing US energy exports to Europe (though after a firm rebound, volumes in late 2020 fell below end-2019 levels).

The EU's seaborne external imports were one of the parts of the global seaborne trade matrix most impacted by the COVID-19 pandemic, with EU countries having seen amongst the most severe economic impacts from the pandemic globally, and with EU external imports in particular heavily weighted towards some of the commodities (e.g. crude oil, oil products, coal, iron ore) for which demand has been most significantly negatively impacted. Crude oil and oil products trade was impacted globally by a sharp contraction in oil demand as 'lockdowns' and restrictions on travel sharply impacted transportation demand, OPEC+ supply cuts and a build-up of global inventories. Coal consumption was impacted negatively in the EU by reduced industrial and commercial power demand, with coal power generation seeing the sharpest cuts, rather than cleaner alternatives such as renewables, nuclear and natural gas. Iron ore demand was impacted by a significant decline in steel demand and output as manufacturing and construction activity slowed sharply at the height of the crisis. EU external seaborne imports declined by -12.2% y-o-y in 2020, compared to a decline of -3.6% in global seaborne trade, and a decline of -7.1% in intra-EU trade. For context, US seaborne imports were down -11% y-o-y across 2020, in part reflecting the continued decline of US crude oil imports against a backdrop of growing domestic production (and exports), but also reflecting the impact of COVID-19 on key large importer economies generally, while Chinese imports were up almost 9% y-o-y.

The EU's seaborne external imports, however, saw some limited improvements in 2H 2020. Imports were down as much as -17.1% y-o-y in Q2 2020 but had improved to -9.5% y-o-y by Q4. This, however, remained well below the global trend (-2.7% y-o-y in Q4), and in general EU import demand was amongst the weakest parts of the seaborne trade matrix by the end of 2020. This enduring weakness mainly reflects two factors; firstly, as discussed above, EU imports are heavily weighted towards commodities including crude oil, oil products and coal which have seen the sharpest impacts and the slowest demand rebound, while secondly, new waves of COVID-19 and accompanying restrictions later in the second half of 2020 put European economic activity under renewed pressure.

The EU's seaborne external exports were less severely impacted than external imports last year, as some key external markets (notably China) saw relatively more resilient economic trends last year. EU external seaborne exports declined by -4.3% y-o-y in 2020, compared to a decline of -3.6% globally, and a decline of around -7.1% in intra-EU trade.

The EU's seaborne external exports also saw improvements into the second half of 2020. Exports had been down as much as -12.2% y-o-y in Q2 2020, but had improved to +0.0% y-o-y by Q4, slightly ahead of overall global trends (-2.7% y-o-y in Q4), as demand for many commodities from key export EU partners saw positive progress. However, exports remained behind the firm trend set by the US (+7% y-o-y) and China (+2% y-o-y) by Q4, in large part reflecting the EU's large share of global oil products exports.

Table 19 shows total external EU seaborne imports by commodity.

Table 19: EU External Seaborne Imports by Commodity, million tonnes[22].

Commodity	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Crude Oil	*1.4%*	**441.7**	**473.6**	**467.0**	**469.5**	**404.4**	*-13.9%*	*-4.9%*	*-16.0%*	*-19.8%*	*-14.5%*
Oil Products	*1.4%*	**114.4**	**109.4**	**110.1**	**111.5**	**91.0**	*-18.4%*	*-11.1%*	*-25.0%*	*-23.7%*	*-13.7%*
TOTAL Oil	*1.4%*	**556.1**	**583.0**	**577.0**	**581.0**	**495.4**	*-14.7%*	*-6.1%*	*-17.8%*	*-20.5%*	*-14.3%*
LNG	*20.5%*	**33.3**	**35.9**	**41.4**	**71.1**	**65.6**	*-7.8%*	*32.2%*	*-9.1%*	*-18.7%*	*-30.4%*
LPG	*3.4%*	**11.9**	**10.4**	**12.2**	**12.6**	**12.6**	*-0.5%*	*20.0%*	*-25.5%*	*0.7%*	*1.4%*
TOTAL Gas	*17.0%*	**45.2**	**46.3**	**53.5**	**83.8**	**78.2**	*-6.7%*	*30.0%*	*-11.2%*	*-15.8%*	*-25.4%*
Chem. & Oth. Liquids	*7.8%*	**33.2**	**35.6**	**41.8**	**42.3**	**39.9**	*-5.7%*	*3.5%*	*-12.3%*	*-11.4%*	*-1.3%*
Iron Ore	*-2.9%*	**86.3**	**87.8**	**87.4**	**84.1**	**69.3**	*-17.6%*	*-4.4%*	*-40.4%*	*-18.5%*	*-2.5%*
Coal	*-12.3%*	**139.3**	**142.4**	**138.4**	**98.9**	**67.3**	*-32.0%*	*-40.2%*	*-40.5%*	*-26.6%*	*-18.3%*
Grain	*7.5%*	**32.5**	**35.2**	**42.9**	**42.8**	**37.2**	*-13.3%*	*-25.5%*	*-6.2%*	*-6.8%*	*-10.9%*
Minor Bulk	*2.0%*	**177.0**	**184.2**	**190.1**	**189.3**	**180.1**	*-4.9%*	*-6.1%*	*-2.7%*	*-8.5%*	*-1.9%*
TOTAL Dry Bulk	*-3.0%*	**435.2**	**449.6**	**458.7**	**415.1**	**353.8**	*-14.8%*	*-17.2%*	*-20.4%*	*-14.2%*	*-6.9%*
Container / Gen. Cargo	*4.5%*	**150.2**	**155.4**	**164.7**	**166.0**	**160.1**	*-3.6%*	*-3.5%*	*-13.5%*	*-2.3%*	*5.9%*
Reefer Cargoes	*4.2%*	**26.3**	**27.6**	**29.7**	**29.3**	**29.7**	*1.5%*	*1.8%*	*0.3%*	*2.7%*	*1.6%*
Cars & Vehicles	*11.3%*	**4.9**	**5.8**	**6.3**	**6.6**	**5.2**	*-22.3%*	*-9.2%*	*-52.8%*	*-17.5%*	*-8.0%*
TOTAL EU Imports	*1.2%*	**1,251**	**1,303**	**1,332**	**1,324**	**1,162**	*-12.2%*	**313.5**	**276.1**	**281.1**	**291.5**
% y-o-y		*-0.9%*	*4.2%*	*2.2%*	*-0.6%*	*-12.2%*		*-7.0%*	*-17.1%*	*-15.2%*	*-9.5%*
TOTAL Global Trade	*2.6%*	**11,118**	**11,573**	**11,891**	**11,940**	**11,511**	*-3.6%*	**2,831**	**2,790**	**2,937**	**2,954**
% y-o-y		*3.1%*	*4.1%*	*2.7%*	*0.4%*	*-3.6%*		*-1.7%*	*-6.9%*	*-3.0%*	*-2.7%*
EU Imports as % of:											
Total Global Trade		*11.3%*	*11.3%*	*11.2%*	*11.1%*	*10.1%*		*11.1%*	*9.9%*	*9.6%*	*9.9%*
Total EU Trade		*53.6%*	*54.2%*	*54.7%*	*54.7%*	*53.0%*		*54.1%*	*53.9%*	*52.4%*	*51.4%*
Share of EU Imports:											
Oil		*44.4%*	*44.7%*	*43.3%*	*43.9%*	*42.6%*		*43.4%*	*42.6%*	*42.5%*	*41.9%*
Gas		*3.6%*	*3.5%*	*4.0%*	*6.3%*	*6.7%*		*7.7%*	*7.6%*	*6.2%*	*5.3%*
Dry Bulk		*34.8%*	*34.5%*	*34.4%*	*31.4%*	*30.4%*		*29.6%*	*29.5%*	*30.2%*	*32.4%*
Container / Gen. Cargo		*12.0%*	*11.9%*	*12.4%*	*12.5%*	*13.8%*		*13.1%*	*13.3%*	*14.6%*	*14.2%*

EU external seaborne **oil** imports registered a similarly firm contraction, with crude oil imports down -13.9% y-o-y and oil products imports down 18.4% y-o-y in 2020, on the back of a significant reduction in demand from the transportation sector amid COVID-19 'lockdowns' and significantly reduced international travel. EU external liquefied gas imports saw a softer decline, with LNG imports down -7.8% y-o-y, as majority of power generation cut across the continent focussed on coal. However, LNG imports were down over -30% y-o-y by Q4, as the elevated levels of arbitrage-driven European imports (driven by price differentials) seen in 2019 and early 2020 eased back amid sharply improving gas demand in Asia and the redirection of LNG shipments to the Far East as a result.

Of all commodities, EU imports of **coal** fell most sharply in 2020, declining by -32.0% y-o-y (in tonnes) on the back of a major contraction in demand for the fuel for both power generation and industrial uses as a result of the COVID-19 pandemic. This sharp decline comes on the back of a c.29% y-o-y contraction in 2019 prior to the outbreak of the COVID-19 pandemic, as many European economies have been accelerating efforts to reduce coal's share of the energy mix in favour of lower carbon alternatives, mainly natural gas (supporting LNG imports in recent years) and renewables. Against the backdrop of this underlying long-term trend, EU external seaborne coal imports in 2020 were down by more than 50% from 2016 levels.

[22] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data estimates as of Feb-21.

EU seaborne **iron ore** imports fell by a sharp -17.6% y-o-y across 2020, as steel production capacity across the continent was idled or operated at reduced utilization as a result of a COVID-19 led contraction in demand from the construction and manufacturing sectors. Grain imports fell by -13.3% y-o-y, though this mainly reflected a firm harvest in the EU and hence reduced import demand compared to previous years. Minor bulk trade declined by -4.9% y-o-y across 2020, slightly more severe than the c.-2% y-o-y decline estimated to have been seen globally. Overall, EU external seaborne dry bulk imports fell by -14.8% y-o-y in 2020.

EU external seaborne imports of **containerised and general cargoes** were down by a comparatively moderate -3.6% y-o-y across 2020. Imports had fallen as much as -13.5% y-o-y in Q2, as EU demand came under severe pressure following the global spread of COVID-19, but through the second half of the year trends picked up alongside a global recovery in container trade. Imports were up 5.9% y-o-y in Q4, as consumer spending in many EU Member States had recovered to above pre-crisis levels, a level of 'pent-up' demand was seen, and as retail inventories were rebuilt, having previously been drawn down. EU external imports of reefer cargoes rose marginally y-o-y in 2020, with food demand and supply chains remaining robust.

EU external seaborne imports of **cars and other vehicles** declined by -22.3% y-o-y across 2020, on the back of severe disruption to car supply chains and manufacturing globally, and weakened EU demand, particularly in Q2, with car dealerships across the EU closed for extended periods. Imports were down -52.8% y-o-y in Q2. A fairly sharp rebound was seen later in the year, however, as supply chains in Asia and elsewhere recovered, and also reflecting 'pent-up' demand from consumers, with volumes down a more moderate -8.0% y-o-y in Q4 2020.

Figure 7 shows monthly EU external seaborne imports in million tonnes (bars; left axis). Trade can be volatile month-to-month, but cautious improvements in y-o-y trends seen through the second half of 2020 can be seen (orange line; right axis). However, the pace and strength of the rebound in EU external seaborne imports still significantly lagged behind the global trend (blue line; right axis) on a 3-month moving average (3mma) basis by the end of 2020.

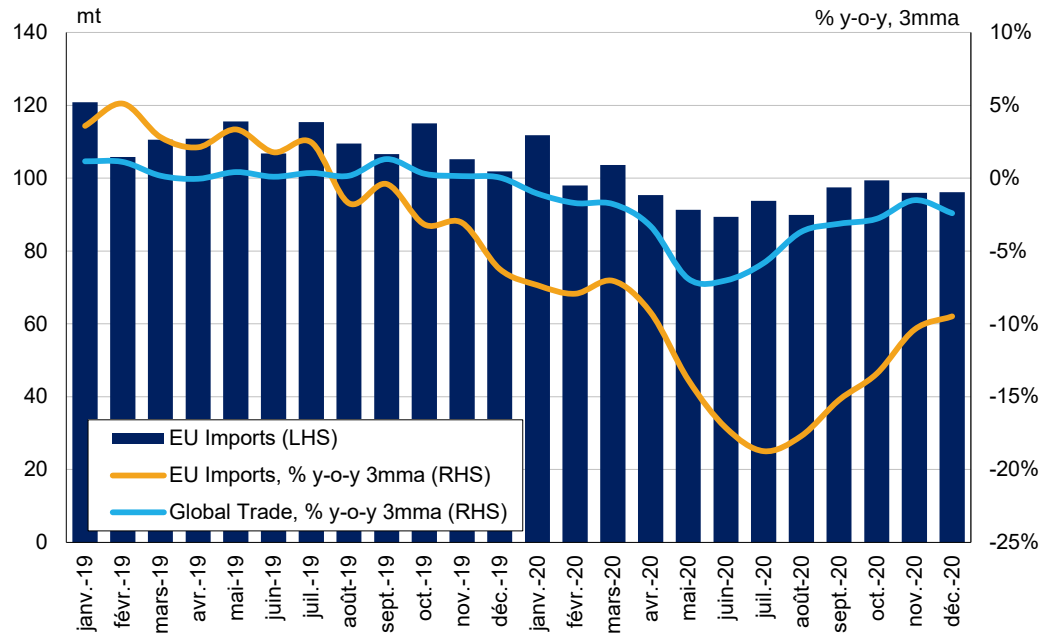


Figure 7: Monthly EU External Seaborne Imports, million tonnes[23].

[23] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data basis published Monthly Global Seaborne Trade Growth Indicator, as at Feb-21.

Table 20 shows total external EU seaborne exports by commodity.

Table 20: EU External Seaborne Exports by Commodity, million tonnes[24].

Commodity	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Crude Oil	*11.1%*	**11.9**	**17.9**	**17.9**	**15.2**	**12.1**	*-20.6%*	*-18.3%*	*-49.8%*	*-43.5%*	*58.4%*
Oil Products	*-0.3%*	**121.7**	**121.3**	**118.7**	**110.6**	**85.8**	*-22.4%*	*-21.5%*	*-31.1%*	*-25.0%*	*-12.1%*
TOTAL Oil	*0.8%*	**133.6**	**139.2**	**136.6**	**125.8**	**97.8**	*-22.2%*	*-21.1%*	*-33.7%*	*-27.4%*	*-5.5%*
LNG	*-58.3%*	**1.2**	**0.3**	**0.8**	**0.1**	**0.1**	*12.9%*	*38.1%*	*42.8%*	*-16.6%*	*7.1%*
LPG	*4.5%*	**2.2**	**2.7**	**2.1**	**2.2**	**2.0**	*-12.1%*	*-21.3%*	*-5.3%*	*-21.5%*	*0.2%*
TOTAL Gas	*-11.3%*	**3.4**	**3.0**	**2.9**	**2.3**	**2.0**	*-11.5%*	*-20.1%*	*-4.6%*	*-21.3%*	*0.4%*
Chem. & Oth. Liquids	*-0.8%*	**18.2**	**19.0**	**18.7**	**18.2**	**19.3**	*6.0%*	*1.3%*	*1.8%*	*15.8%*	*6.0%*
Iron Ore	*12.5%*	**8.5**	**9.5**	**9.1**	**11.2**	**14.7**	*31.4%*	*81.2%*	*35.9%*	*48.9%*	*-14.7%*
Coal	*-0.7%*	**2.5**	**1.0**	**1.3**	**2.1**	**3.5**	*65.3%*	*134.8%*	*24.0%*	*49.8%*	*95.2%*
Grain	*-4.0%*	**42.3**	**30.1**	**27.3**	**38.4**	**45.6**	*18.6%*	*88.6%*	*46.2%*	*-25.3%*	*-9.5%*
Minor Bulk	*-0.6%*	**105.6**	**108.5**	**103.5**	**106.5**	**104.6**	*-1.7%*	*-0.1%*	*-7.1%*	*-1.0%*	*1.5%*
TOTAL Dry Bulk	*-0.8%*	**158.9**	**149.0**	**141.2**	**158.2**	**168.4**	*6.4%*	*25.1%*	*7.5%*	*-2.6%*	*-1.5%*
Container / Gen. Cargo	*0.9%*	**157.1**	**162.8**	**162.6**	**161.5**	**157.4**	*-2.5%*	*1.0%*	*-15.1%*	*0.1%*	*4.1%*
Reefer Cargoes	*3.0%*	**18.7**	**18.3**	**17.3**	**19.0**	**19.9**	*4.9%*	*7.0%*	*5.8%*	*5.6%*	*2.3%*
Cars & Vehicles	*-1.7%*	**10.9**	**11.5**	**11.3**	**10.9**	**9.8**	*-10.7%*	*-7.8%*	*-46.4%*	*0.8%*	*10.6%*
TOTAL EU Exports	*0.2%*	**500.8**	**502.9**	**490.5**	**495.9**	**474.6**	*-4.3%*	**122.1**	**109.2**	**116.4**	**126.9**
% y-o-y		*1.7%*	*0.4%*	*-2.5%*	*1.1%*	*-4.3%*		*2.5%*	*-12.2%*	*-7.2%*	*0.0%*
TOTAL Global Trade	*2.6%*	**11,118**	**11,573**	**11,891**	**11,940**	**11,511**	*-3.6%*	**2,831**	**2,790**	**2,937**	**2,954**
% y-o-y		*3.1%*	*4.1%*	*2.7%*	*0.4%*	*-3.6%*		*-1.7%*	*-6.9%*	*-3.0%*	*-2.7%*
EU Exports as % of:											
Total Global Trade		*4.5%*	*4.3%*	*4.1%*	*4.2%*	*4.1%*		*4.3%*	*3.9%*	*4.0%*	*4.3%*
Total EU Trade		*21.4%*	*20.9%*	*20.2%*	*20.5%*	*21.6%*		*21.1%*	*21.3%*	*21.7%*	*22.4%*
Share of EU Exports:											
Oil		*26.7%*	*27.7%*	*27.9%*	*25.4%*	*20.6%*		*20.0%*	*19.6%*	*20.2%*	*22.5%*
Gas		*0.7%*	*0.6%*	*0.6%*	*0.5%*	*0.4%*		*0.4%*	*0.5%*	*0.4%*	*0.4%*
Dry Bulk		*31.7%*	*29.6%*	*28.8%*	*31.9%*	*35.5%*		*36.7%*	*38.3%*	*34.4%*	*32.8%*
Container / Gen. Cargo		*31.4%*	*32.4%*	*33.1%*	*32.6%*	*33.2%*		*33.0%*	*31.8%*	*34.5%*	*33.2%*

Seaborne **oil** exports from the EU (in tonnes) saw the steepest declines in 2020, with crude exports down -20.6% y-o-y, while **oil products** exports (the EU's largest bulk commodity export prior to the pandemic) fell by -22.4% y-o-y, as demand from the US (the EU's largest market for oil products exports) fell particularly sharply.

EU external seaborne **dry bulk** exports actually rose by 6.4% y-o-y across 2020, as iron ore and coal rendered surplus to requirements as a result of COVID-19 related demand weakness was redirected to other markets, notably in Asia. It was also a firm year for EU grain exports, with shipments up 18.6% y-o-y in 2020, and surpassing 2016 levels for the first time, following a strong harvest yield. Minor bulk exports fell by a modest -1.7% y-o-y across 2020.

EU external seaborne exports of **containerised and general cargoes** fell by around -2.5% y-o-y across 2020, having fallen by as much as -15.1% y-o-y in Q2 as manufacturing and supply chains on the continent were

[24] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data estimates as of Feb-21.

impacted by COVID-19 restrictions, and as demand in key importer regions came under pressure. However, shipments had returned above year-ago levels (+4.1% y-o-y) by Q4, amid rapidly rebounding demand from key markets including China and the US, and some easing of supply chain disruption.

EU external seaborne **car and vehicle** exports were significantly impacted by major COVID-19 related disruption to automotive manufacturing and supply chains in Q2 2020, as well as contracting demand in key markets, and shipments were down -46.4% y-o-y in Q2 as a result. However, with supply chains recovering over the summer and with demand from key markets such as the US, China and Turkey rebounding, shipments were up 10.6% y-o-y by Q4. Overall, total EU external shipments of cars and vehicles fell by 10.7% y-o-y in full year 2020, slightly outperforming global seaborne car trade as a whole, where volumes fell by over -20% y-o-y. The EU is also a significant exporter of reefer cargoes globally, and EU external seaborne exports of reefer cargoes grew by 4.9% y-o-y across 2020, with food demand and supply chains in key export markets remaining robust.

Figure 8 shows monthly EU external seaborne exports in million tonnes (bars; left axis). Trade can be volatile month-to-month, but clear improvements in y-o-y trends seen through the second half of 2020 can be seen (orange line; right axis). The rebound in EU external seaborne exports marginally surpassed the global trend (blue line; right axis) on a 3-month moving average (3mma) basis in December 2020.

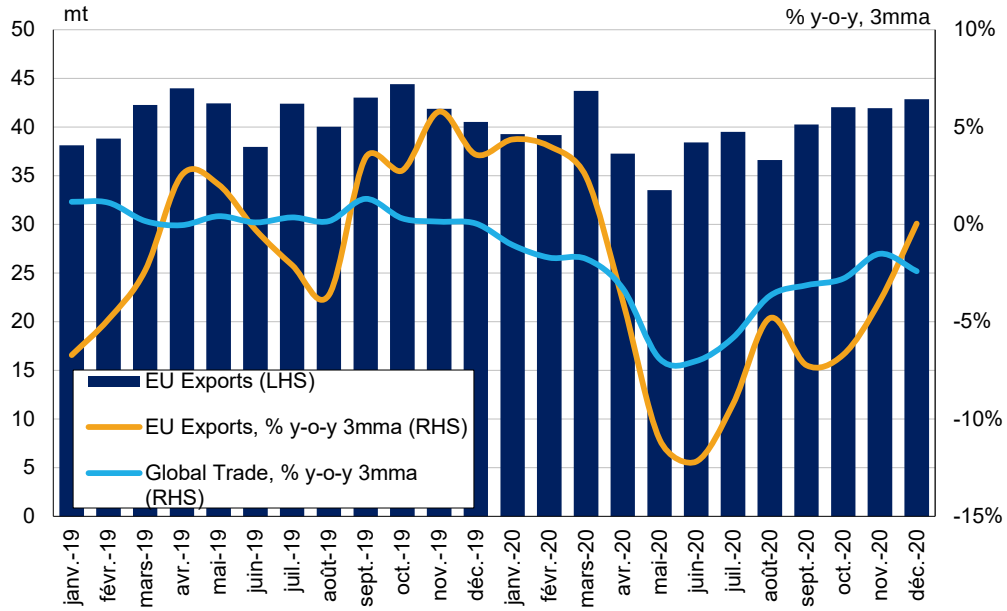


Figure 8: Monthly EU External Seaborne Exports, million tonnes[25].

2.8.2 EU External Seaborne Trade – by partner country

This section summarises EU external trade by major partner countries, both for EU external exports and EU external imports. The EU's largest trade partner in terms of seaborne imports in tonnes into the EU prior to the outbreak of the pandemic was Russia (223mt in 2019), followed by the US (125mt), Norway (89mt), Brazil (75mt) and then China (64mt).

The EU's largest trade partner in terms of seaborne exports from the EU prior to the outbreak of the pandemic was the US (71mt in 2019), followed by China (53mt), and then Turkey (31mt), Norway (19mt) and Morocco (17mt).

Table 21 shows EU external seaborne imports by partner country. EU seaborne imports from China (in tonnes) accounted for 5% of total EU external seaborne imports in 2020 and were down by -2.4% y-o-y, a less sharp rate of decline than the -12.2% y-o-y drop in Extra-EU imports as a whole. The y-o-y trend in EU imports from China improved from -9.2% y-o-y in 1H, to +11.9% y-o-y by Q4 after the robust "re-start" of the Chinese economy starting in Q2 following the initial COVID-19 outbreak, and the notable resilience of Chinese supply chains. EU seaborne

[25] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data basis published Monthly Global Seaborne Trade Growth Indicator, as at Feb-21.

imports from the US accounted for 11% of total EU external seaborne imports in 2020, and were up by 6.2% y-o-y, in stark contrast to the overall trend in EU seaborne external imports, driven by increasing US energy exports to Europe (although this trend softened through the year, with EU imports from the US up 12.6% y-o-y in Q1, but down 5.0% y-o-y by Q4 in comparison to the extremely firm volumes seen in late 2019). EU seaborne imports from the rest of the world accounted for the remaining 83% of the total and were down by 14.8% y-o-y across 2020. Imports from Russia (-13.2% y-o-y), Brazil (-12.9%) and Saudi Arabia (-13.7%) fell particularly sharply, while imports from Norway held up somewhat better (-7.2%).

Table 21: EU External Seaborne Imports by Partner Country, million tonnes[26].

Imports from:	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
United States	*9.4%*	**82.6**	**93.9**	**118.1**	**124.6**	**132.2**	*6.2%*	*12.6%*	*10.7%*	*7.7%*	*-5.0%*
China P.R.	*2.7%*	**57.4**	**57.8**	**61.7**	**63.9**	**62.3**	*-2.4%*	*-10.0%*	*-9.2%*	*-0.9%*	*11.9%*
Total Others:	*0.4%*	**1,111**	**1,152**	**1,152**	**1,136**	**967.6**	*-14.8%*	*-9.1%*	*-20.2%*	*-18.5%*	*-11.2%*
Russia	*1.7%*	**225.7**	**235.1**	**227.5**	**223.1**	**193.6**	*-13.2%*	*-5.0%*	*-21.1%*	*-21.4%*	*-5.5%*
Norway	*0.0%*	**88.4**	**92.1**	**87.8**	**88.9**	**82.5**	*-7.2%*	*-1.7%*	*-16.4%*	*2.7%*	*-12.2%*
Brazil	*-4.5%*	**84.9**	**87.1**	**88.0**	**75.0**	**65.4**	*-12.9%*	*-8.5%*	*-16.8%*	*-4.3%*	*-22.5%*
Saudi Arabia	*4.3%*	**51.5**	**48.7**	**57.7**	**57.2**	**49.3**	*-13.7%*	*-29.3%*	*11.6%*	*-34.6%*	*0.3%*
Nigeria	*2.7%*	**35.2**	**41.0**	**50.7**	**53.6**	**48.7**	*-9.2%*	*17.8%*	*-9.4%*	*-21.4%*	*-18.8%*
Others	*0.2%*	***625.4***	***647.4***	***640.3***	***637.9***	***528.1***	*-17.2%*	*-12.0%*	*-24.4%*	*-20.1%*	*-11.9%*
TOTAL EU Imports	*1.2%*	**1,251**	**1,303**	**1,332**	**1,324**	**1,162**	*-12.2%*	**313.5**	**276.1**	**281.1**	**291.5**
% y-o-y		*-0.9%*	*4.2%*	*2.2%*	*-0.6%*	*-12.2%*		*-7.0%*	*-17.1%*	*-15.2%*	*-9.5%*
Share of EU Imports:											
United States		*6.6%*	*7.2%*	*8.9%*	*9.4%*	*11.4%*		*11.9%*	*10.9%*	*11.5%*	*11.1%*
China P.R.		*4.6%*	*4.4%*	*4.6%*	*4.8%*	*5.4%*		*4.7%*	*5.2%*	*6.0%*	*5.6%*
Others		*88.8%*	*88.4%*	*86.5%*	*85.8%*	*83.3%*		*83.4%*	*83.9%*	*82.5%*	*83.3%*

Table 22 shows EU external seaborne exports by partner country.

Table 22: EU External Seaborne Exports by Partner Country[27].

Exports to:	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
United States	*3.4%*	**62.9**	**65.0**	**70.4**	**71.0**	**57.9**	*-18.4%*	*-14.9%*	*-37.1%*	*-22.6%*	*6.6%*
China P.R.	*7.4%*	**42.0**	**44.9**	**42.7**	**52.7**	**59.9**	*13.6%*	*3.0%*	*21.2%*	*20.3%*	*8.7%*
Total Others:	*-1.2%*	**395.9**	**393.0**	**377.4**	**372.2**	**356.8**	*-4.1%*	*5.8%*	*-11.3%*	*-8.6%*	*-2.2%*
Turkey	*-1.6%*	**33.4**	**36.4**	**28.9**	**31.4**	**30.3**	*-3.7%*	*17.2%*	*-12.7%*	*-6.5%*	*-10.5%*
Norway	*0.8%*	**18.7**	**18.9**	**19.8**	**19.0**	**18.9**	*-0.6%*	*-1.7%*	*0.8%*	*-0.9%*	*-0.7%*
Morocco	*3.1%*	**18.8**	**16.6**	**15.1**	**16.7**	**18.4**	*10.5%*	*11.2%*	*-5.5%*	*27.1%*	*12.9%*
Saudi Arabia	*-4.1%*	**19.4**	**18.8**	**18.3**	**17.2**	**16.2**	*-6.2%*	*48.0%*	*-20.4%*	*-15.4%*	*-21.5%*
Egypt	*-3.2%*	**17.6**	**14.1**	**14.0**	**16.2**	**14.4**	*-11.1%*	*-4.1%*	*-6.4%*	*-16.0%*	*-18.5%*
Others	*-1.2%*	***288.1***	***288.1***	***281.3***	***271.7***	***258.7***	*-4.8%*	*3.2%*	*-12.1%*	*-10.1%*	*0.0%*
TOTAL EU Exports	*0.2%*	**500.8**	**502.9**	**490.5**	**495.9**	**474.6**	*-4.3%*	**122.1**	**109.2**	**116.4**	**126.9**
% y-o-y		*1.7%*	*0.4%*	*-2.5%*	*1.1%*	*-4.3%*		*2.5%*	*-12.2%*	*-7.2%*	*0.0%*
Share of EU Exports:											
United States		*12.6%*	*12.9%*	*14.4%*	*14.3%*	*12.2%*		*12.4%*	*11.4%*	*11.9%*	*12.9%*
China P.R.		*8.4%*	*8.9%*	*8.7%*	*10.6%*	*12.6%*		*9.8%*	*13.8%*	*15.1%*	*12.0%*

[26] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland
[27] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland.

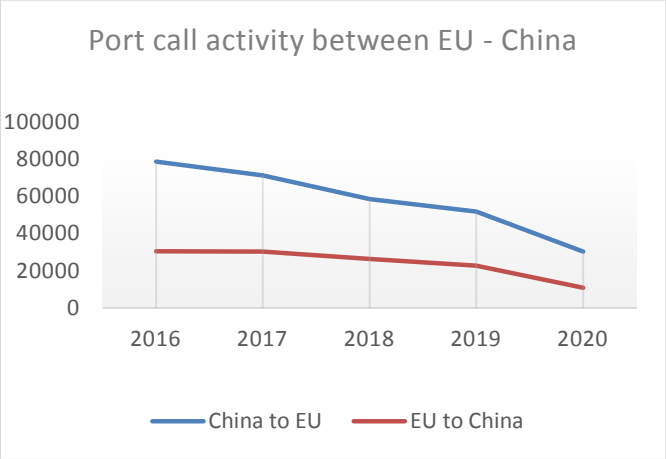
Others		*79.1%*	*78.2%*	*76.9%*	*75.1%*	*75.2%*	*77.8%*	*74.7%*	*73.0%*	*75.1%*

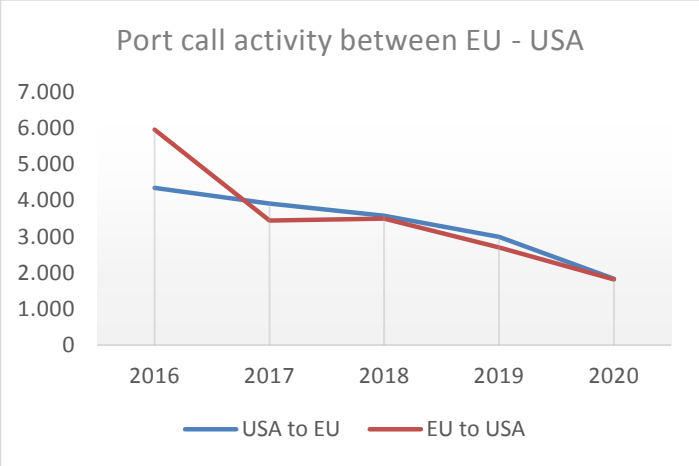
General picture between Europe and China/US[28]

China became the number one destination for EU seaborne exports in 2020 (in tonnes), as volumes grew by 13.6% y-o-y, overtaking the US and securing a 13% share of total EU external seaborne exports in 2020. This trend mainly reflected the robust "re-start" of the Chinese economy in April onwards, following the initial COVID-19 outbreak, which supported Chinese demand.

EU seaborne exports to the **US** accounted for 12% of total EU seaborne exports in 2020, down from 14% in 2019, as volumes fell by a sharp -18.4% y-o-y as a result of the impacts of COVID-19 on both economies. EU seaborne exports to the US were particularly vulnerable, with a large portion of this trade being accounted for by oil products and cars, which saw particularly sharp impacts from the pandemic. However, a significant improvement in EU to US trade volumes was seen through the second half of the year, with shipments up 6.6% y-o-y in Q4, compared to a -37.1% y-o-y decline in Q2. By Q4, EU seaborne exports to the US had overtaken exports to China once again. EU seaborne imports to the rest of the world accounted for the remaining 75% of the total last year and were down by -4.1% y-o-y across 2020.

From the number of port calls, it appears that in certain periods, particularly during March, April and May 2020, ship traffic from Europe to China and the US reduced in comparison to the same periods in 2019. This has already been observed and reported in the COVID impact reports for the shipping traffic EMSA has been making. However, to better set the scene with a longer-term overview moving back to 2016, and before looking at the quarterly evolution of port calls, it is important to first compare the overall calls made each year since 2016 until 2019 and then until 2020. This will allow us to see the broader picture and get a real indication of the expected evolution of the external EU shipping trade (i.e. from and to China and the US) and how has this been affected by the COVID pandemic in 2020. The tables and graphs below aim at observing the year fluctuation of the number of port calls between EU





and US/China that were already present before 2020.

[28] Statistics on the traffic between EU and China (irrespective of ship flags) were referred to in order to identify trends from 2016 to 2020. The statistical overview is based on ship calls in Europe made by ships which had previously called at any Chinese port approximately one month before (a reasonable travel time for a ship journey from China to Europe). The same was calculated for the opposite direction (i.e. from European ports to Chinese ports).
To assess the type of trade that was most affected, these calls were categorised by ship type. Container ships are by far the most frequent ship type sailing between China and Europe, making them the most interesting to assess during the outbreak. For a cargo ship, the voyage duration between China and Europe depends on the route, ship type and speed of the ship. The average voyage duration is between 30 and 33 days. For this figure a voyage duration of 33 days was used.
Furthermore, removing UK from these calculations would have introduced a perturbation effect on sheer COVID-related changes, due to possible intra and extra EU traffic and trade variations related to BREXIT. EMSA applied the same methodology to assess port calls by ships engaged in trade between Europe and the United States of America. In this case the expected voyage duration was set to 10 days.
EMSA recognises that the calculation of the number of ship calls (incoming and outgoing traffic in Europe) provides an indication of import/export volumes, but that it does not provide a sure indication of the real direction of the traded goods. Furthermore, the data available in MARINFO do not indicate whether a ship is loading or unloading, or both, nor the volumes and monetary values of the traded cargo. Nevertheless, this methodology can show the traffic trends from 2016 to 2020, since any inaccuracies affect the calculations for all years in the same way.

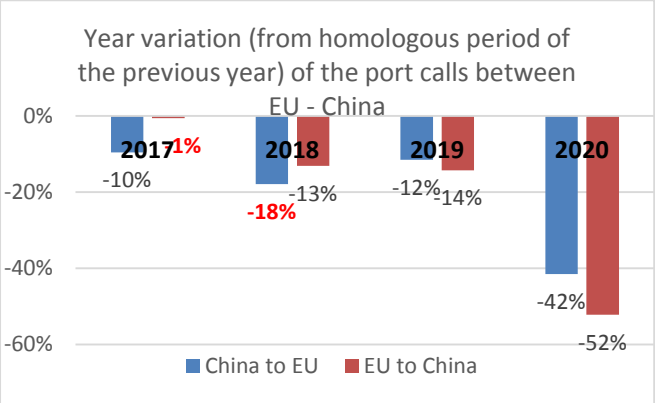


Figure 11: Yearly variation of the number of port calls between EU and China (and vice versa).

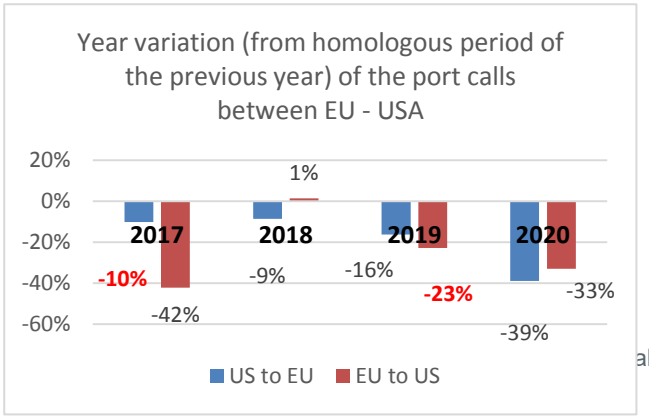


Figure 12: Yearly variation of the number of port calls between EU and the US (and vice versa).

We can see from Figure 11 and Figure 12 that the numbers of port calls between EU and China and between EU and the US were almost steadily decreasing for all years before 2020, ranging from -1% to -18% in the case of China and from +1% to -42% in the case of the US (see also Figure 13 and Figure 14 with the year variations between EU and each of these destinations broken down by quarterly values and variations). These decreases have obviously other explanations (e.g. transshipments) as COVID can only explain the decreases observed in the shipping traffic in 2020. In order to filter the variations due to other reasons from the COVID effect, the cumulated decrease in the period 2016-2019 has been subtracted from the decrease in the period 2016-2020, providing an estimation of the NET COVID impact (see Table 23).

Table 23: Comparison of the port call variation from 2016 to 2019 and from 2016 to 2020 between EU and China and between EU and the US (due to cumulated earlier decreases).

	Port call variation	
Years	China to EU	EU to China
From 2016 to 2019	-34%	-26%
From 2016 to 2020	-62%	-65%
NET COVID impact	**-28%**	**-39%**

	Port call variation	
Years	US to EU	EU to US
From 2016 to 2019	-31%	-55%
From 2016 to 2020	-58%	-70%
NET COVID impact	**-27%**	**-15%**

The overview of the traffic from China to Europe has been reducing in terms of number of port calls and by 2019 it had reduced already by -34% since 2016. In the year 2020, most likely due to the COVID-19 pandemic, this reduction reached -62% when compared to 2016. In the opposite direction, that is from Europe to China these reductions are -26% from 2016 to 2019 reaching -65% from 2016 to 2020. This continuous reduction of the number of port calls may be possibly explained by the fact that larger containerships have been built in the recent years and this could explain a reduction of the number of voyages. However, this assumption would need further validation.

A similar exercise was made for port calls with the United States of America, since the US represents the most important destination of goods exported by the EU29. The number of port calls by ships trading between the EU and the US are much lower compared to the equivalent calls for the EU and China, but not necessarily the traded volumes and especially the value of the goods.

A decrease of -31% in port calls by ships travelling from the US to Europe was observed from 2016 to 2019 passing to -58% in 2020. These reductions are more representatives in the opposite direction, i.e. from Europe to

[29] http://www.europarl.europa.eu/factsheets/en/sheet/160/a-uniao-europeia-e-os-seus-parceiros-comerciais

US, being -55% from 2016 to 2019 and -70% from 2016 to 2020. A similar explanation, as presented above for China (increase of Containership DWT), could explain this continuous decrease of the number of port calls, considering that the traffic between Europe and these two destinations is dominated by the Containership segment. Further report of the total deadweight displaced in these voyages show also a decrease in the DWT trend like the one observed for the number of port calls.

Thus, the conclusion is that the direct exchange of goods via maritime routes between Europe and US and Europe and China have been reducing since 2016 and even more in 2020. To note, however, that a higher decrease has happened in the past (from 2016 to 2017) in the port calls from the EU to the US with 42% decrease, while the year overall decrease from 2019 to 2020 was only of 33%. See year variation bars above.

As this decreasing tendency is not an expected outcome, this could be a sign of a possible re-routing of the maritime trade from China/US to the EU, with cargo trans shipments to smaller ships that will then be calling EU ports. This meaning that the larger containerships departing from China/US may not be calling EU ports.

The tables presented below will now address the number and the variation of the port calls from a quarterly perspective.

Table 24 and Table 25 show the number of port calls by quarter between EU - China and EU – US from 2016 to 2020, respectively and the quarter and year variation of these ports calls within the referred years and quarters when compared with the homologous period of the previous year.

There we can observe that the impact of the pandemic is visible from the Q2 (second quarter) onwards, and in the case of the trade from China to EU is even accentuated in Q3 and Q4 (the third and fourth quarters). On the other hand, in the opposite direction, that is from EU to China, the port call activity shows some recuperation in Q4.

Table 24: Number of port calls per quarter between EU and China from 2016 to 2020 and quarter variation (with homologous period of previous years).

CHINA TO EU					
Year	Q1	Q2	Q3	Q4	**Total**
2016	19,131	21,352	20,151	18,106	**78,740**
2017	17,284	18,644	16,817	18,506	**71,251**
2018	15,215	15,179	14,072	14,028	**58,494**
2019	12,952	13,933	12,570	12,302	**51,757**
2020	**13,971**	**8,275**	**4,477**	**3,550**	**30,273**

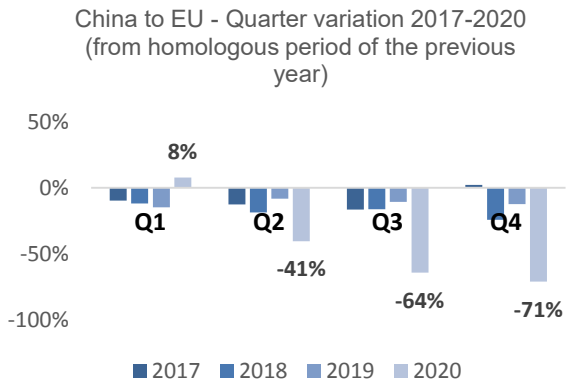
EU TO CHINA					
Year	Q1	Q2	Q3	Q4	Total
2016	6,047	6,742	9,617	8,095	30,501
2017	8,283	7,009	7,941	7,108	30,341
2018	6,409	7,013	6,597	6,348	26,367
2019	6,221	5,980	5,775	4,631	22,607
2020	**5,140**	**1,878**	**1,787**	**1,996**	**10,801**

Quarter variation (with homologous period)

	Q1	Q2	Q3	Q4	**Total**
2017	-10%	-13%	-17%	2%	**-10%**
2018	-12%	-19%	-16%	-24%	**-18%**
2019	-15%	-8%	-11%	-12%	**-12%**
2020	**8%**	**-41%**	**-64%**	**-71%**	**-42%**

Quarter variation (with homologous period)

	Q1	Q2	Q3	Q4	**Total**
2017	37%	4%	-17%	-12%	**-1%**
2018	-23%	0%	-17%	-11%	**-13%**
2019	-3%	-15%	-12%	-27%	**-14%**
2020	**-17%**	**-69%**	**-69%**	**-57%**	**-52%**



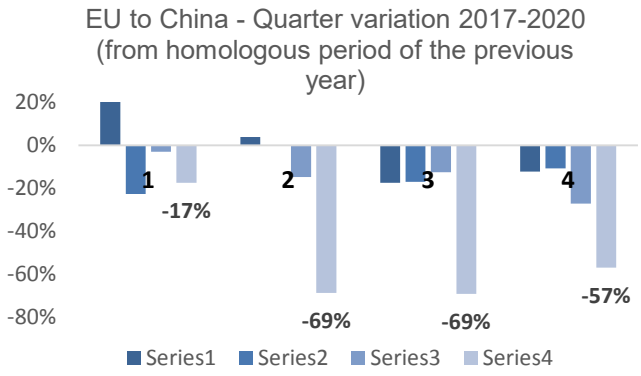


Figure 13: Quarter variation of the number of port calls from China to EU and from EU to China from 2017 to 2020 (with the homologous period of previous years since 2016).

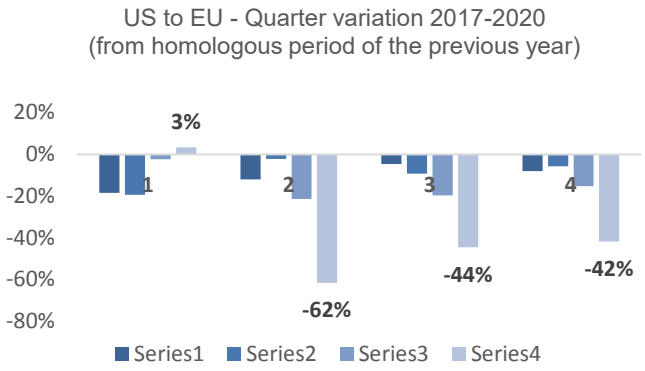
Table 25: Number of port calls per quarter between EU and US and between US and EU from 2016 to 2020 and quarter variation (with homologous period).

US TO EU					
Year	Q1	Q2	Q3	Q4	**Total**
2016	919	1,131	1,450	852	**4,352**
2017	749	995	1,384	784	**3,912**
2018	604	973	1,257	740	**3,574**
2019	590	765	1,009	627	**2,991**
2020	***610***	***294***	***560***	***365***	***1,829***

EU TO US					
Year	Q1	Q2	Q3	Q4	**Total**
2016	1,118	1,689	2,343	810	**5,960**
2017	510	893	1,170	875	**3,448**
2018	542	980	1,311	664	**3,497**
2019	409	767	875	646	**2,697**
2020	***456***	***476***	***512***	***365***	***1,809***

Quarter variation (with homologous period)					
	Q1	Q2	Q3	Q4	**Total**
2017	-18%	-12%	-5%	-8%	**-10%**
2018	-19%	-2%	-9%	-6%	**-9%**
2019	-2%	-21%	-20%	-15%	**-16%**
2020	**3%**	**-62%**	**-44%**	**-42%**	**-39%**

Quarter variation (with homologous period)					
	Q1	Q2	Q3	Q4	**Total**
2017	-54%	-47%	-50%	8%	**-42%**
2018	6%	10%	12%	-24%	**1%**
2019	-25%	-22%	-33%	-3%	**-23%**
2020	**11%**	**-38%**	**-41%**	**-43%**	**-33%**



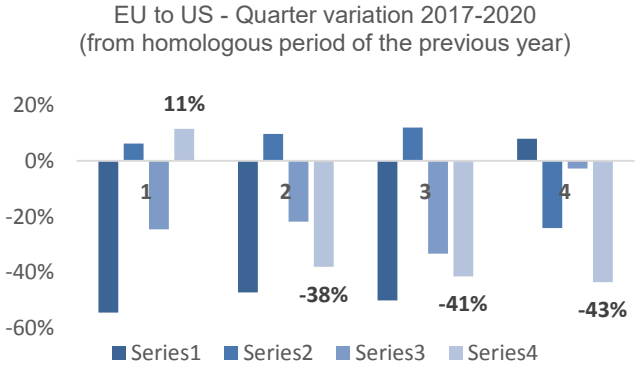


Figure 14: Quarter variation of the number of port calls from US to EU and from EU to US from 2017 to 2020 (with the homologous period since 2016).

Trade between China and Europe by ship type

As said above, the main ship type engaged in the international trade between Europe and China is containership. Vehicle carriers are also shown in this section as they suffered from a severe impact from the COVID pandemic that could be observed from the perspective of the number of port calls, even if these are much less than for containerships.

Table 26 and Table 27 show the quarter variation (from the homologous period) of the port call activity by these two ship types from China to Europe and vice versa from 2016 to 2020.

The number of port calls from containerships coming and going to China (from Europe) has been decreasing steadily year by year starting from 2017, with percentages between -10% and -18%. However, it is important to recall what was reported at the beginning of this section regarding this negative evolution of volume of port calls from China to Europe; this trend can also be explained by the transshipment tendency from larger sized containerships to smaller ones sailing to Europe, and not necessarily by a reduction of the volume of goods traded with Europe. More data investigation would be required to eliminate this effect and estimate more accurately the trade itself (as opposed to the number of port calls from one region to another).

In any case, 2020, most likely due to the COVID impact, shows a much higher reduction of the number of port calls from a variation of -11% from 2018 to 2019 and of -42% from 2019 to 2020 (China to EU) and respectively -17% to -57% (EU to China) (See Table 26).

For vehicle carriers the port call overview is not as straightforward as for containerships, with more fluctuations along the years, having increased the port calls significantly in 2017 (and in the first two quarters of 2018), especially from China to EU by +33% and by +5% from EU to China. In 2019 the balance was positive from EU to China by 3% (compared with 2018) but in 2020 the pandemic shows a decrease of -59% (compared with 2019) while on the opposite direction, from China to EU, this is of -42% (compared with 2019) (See Table 27).

The impact is higher on outgoing voyages from the EU to China and lower on incoming voyages from China to the EU. The differences in the impact measured by the reduction of the volume of port calls is, however, very similar for containerships and for vehicle carriers between China and Europe.

One can observe that in the first quarter of 2020 the traffic shows, from China to EU, a slight increase from containerships (7%) and a significant increase of vehicle carriers (63%). The effect of the pandemic in the traffic intensity is noted from Q2 onwards with abnormal decreases of the number of port calls from -40% to -73%, in the containerships and from -59% to -75%, in the vehicle carriers (all directions included).

Table 26: Quarter variation for Containerships (from the homologous period) of the number of port calls between China and EU and vice versa from 2016 to 2020.

CONTAINERSHIPS

CHINA TO EU						EU TO CHINA					
Quarter variation (with homologous period)						Quarter variation (with homologous period)					
	Q1	Q2	Q3	Q4	**Total**		Q1	Q2	Q3	Q4	**Total**
2017	-10%	-12%	-17%	-1%	**-10%**	2017	45%	8%	-21%	-9%	**1%**
2018	-14%	-22%	-15%	-23%	**-18%**	2018	-21%	-7%	-15%	-11%	**-14%**
2019	-13%	-7%	-12%	-14%	**-11%**	2019	-3%	-14%	-19%	-35%	**-17%**
2020	**7%**	**-40%**	**-65%**	**-73%**	**-42%**	**2020**	**-25%**	**-73%**	**-73%**	**-65%**	**-57%**

Table 27: Quarter variation for Vehicle carriers (from the homologous period) of the number of port calls between China and EU and vice versa from 2016 to 2020.

VEHICLE CARRIERS

CHINA TO EU						EU TO CHINA					
Quarter variation (with homologous period)						Quarter variation (with homologous period)					
	Q1	Q2	Q3	Q4	**Total**		Q1	Q2	Q3	Q4	**Total**
2017	11%	6%	53%	58%	**33%**	2017	13%	-3%	12%	-1%	**5%**
2018	47%	24%	-45%	-24%	**-8%**	2018	-31%	8%	-27%	-13%	**-17%**
2019	-44%	-1%	29%	4%	**-7%**	2019	-12%	11%	13%	-5%	**3%**
2020	**63%**	**-59%**	**-62%**	**-67%**	**-42%**	**2020**	**-3%**	**-66%**	**-75%**	**-75%**	**-59%**

Trade between US and Europe by ship type

The main ship types engaged in trade between EU and US are containerships and vehicle carriers.

Table 28 and Table 29 show the quarter variation (from the homologous period) of the port call activity by these two ship types from US to EU and vice versa from 2016 to 2020.

Again, the number of port calls from containerships coming and going to US (from Europe) has been decreasing every year from 2017 on, and the reduction of the number of calls from the EU to US has inclusive been higher from 2016 to 2017 (with a -50% year reduction) than from 2019 to 2020 (with -20% year reduction, compared to 2019). A consideration similar to above has to be noted for trade between US and Europe regarding possible cargo transshipments occurring in non-EU countries close to the EU borders, which may reduce the number of port calls in EU ports of the actual ships departing from US ports.

In any case, for containerships, 2020 shows overall a higher reduction of the number of port calls, most likely a result of the COVID impact, with variations of -31% from 2018 to 2019 and of -38% from 2019 to 2020 (US to EU). On the other hand, for the opposite direction, that is from EU to US, in fact, a smaller reduction is seen in 2020 of -20% from 2019 to 2020 while compared with the previous year variation that was of -26% from 2018 to 2019. For vehicle carriers there is an overall variation of +6% from 2018 to 2019 and of -43% from 2019 to 2020 (a very severe impact from US to EU) and an increased reduction from -20% to -73% (EU to US).

In 2020 vehicle carriers are a severely affected ship type, in both directions, but with higher impact for outgoing voyages from the EU to US reaching reductions of -97% and -94% in Q2 and Q3-2020, compared with the homologous quarters of 2019, while in the opposite direction the reductions are -70% for Q2-2020 and -49% in Q3-2020 compared to same quarters of 2019.

Table 28: Quarter variation for Containerships (from the homologous period) of the number of port calls between US and EU and vice versa from 2016 to 2020.

CONTAINERSHIPS

US TO EU						EU TO US					
Quarter variation (with homologous period)						**Quarter variation (with homologous period)**					
	Q1	Q2	Q3	Q4	**Total**		Q1	Q2	Q3	Q4	**Total**
2017	-21%	-12%	-39%	-15%	**-23%**	2017	-60%	-50%	-62%	11%	**-50%**
2018	-22%	-6%	21%	-11%	**-4%**	2018	4%	1%	4%	-28%	**-5%**
2019	-13%	-30%	-35%	-45%	**-31%**	2019	-20%	-28%	-28%	-24%	**-26%**
2020	**-28%**	**-63%**	**-28%**	**-29%**	**-38%**	**2020**	**4%**	**-26%**	**-24%**	**-29%**	**-20%**

Table 29: Quarter variation for Containerships (from the homologous period) of the number of port calls between US and EU and vice versa from 2016 to 2020.

VEHICLE CARRIERS

US TO EU						EU TO US					
Quarter variation (with homologous period)						**Quarter variation (with homologous period)**					
	Q1	Q2	Q3	Q4	**Total**		Q1	Q2	Q3	Q4	**Total**
2017	-34%	-10%	62%	19%	**19%**	2017	-2%	-31%	13%	-11%	**-9%**
2018	1%	-11%	-47%	-6%	**-28%**	2018	-30%	-1%	-16%	2%	**-11%**
2019	46%	-29%	-2%	30%	**6%**	2019	-32%	-3%	-28%	-21%	**-20%**
2020	***4%***	***-70%***	***-49%***	***-53%***	***-43%***	***2020***	***3%***	***-97%***	***-94%***	***-23%***	***-73%***

2.8.3 EU External Seaborne trade – by Member State

EU external seaborne exports, meanwhile, totalled 0.5 billion tonnes in 2019, prior to the outbreak of the COVID-19 pandemic, equivalent to 4% of global seaborne trade. Eight EU Member States accounted for EU external seaborne exports of more than 25mt in 2019 (see Table 30) – France, Germany, Italy, Spain, Sweden and the UK along with the Netherlands and Belgium (both hubs for exporting cargoes). For individual country context, total Chinese seaborne exports totalled 0.6 billion tonnes on 2019, 5% of global seaborne trade, and US seaborne imports 0.8 billion tonnes, 7% of global seaborne trade.

The COVID-19 pandemic caused major disruption to EU external seaborne trade in 2020 (as mentioned above) due to the extraordinary situation the entire segment had to face.

Table 30 shows EU external seaborne imports by EU Member State. Basis customs statistics, the Netherlands remained the largest EU external seaborne importer in 2020, though imports fell by -12.0% y-o-y (in tonnes), in line with overall EU imports. Imports into Germany (-10.1% y-o-y) also fell in line with the overall EU trend, but saw amongst the firmest rebounds, with imports up 0.9% y-o-y by Q4. Imports into Spain (-15.9%), Italy (-15.8%) and France (-19.3%) all fell notably sharply in 2020, with these countries seeing amongst the steepest overall economic impacts from the COVID-19 pandemic last year, and with coal imports into these nations falling particularly sharply. Meanwhile, imports into the UK (-8.2%) fared slightly better than the EU average over the full year, as the UK is not

a major importer of coal, and imports of crude oil from the US and Norway held up well, although imports were down -14.5% y-o-y in Q4.

For reference extra-EU imports into Norway and Iceland were relatively limited (17mt in 2019) in comparison to EU external imports reflecting the countries' smaller populations and economies and were down -8% y-o-y across 2020.

Table 30: EU External Seaborne Imports by Member State, million tonnes[30].

Importer	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Austria	*8.7%*	**10.0**	**11.0**	**12.6**	**12.8**	**10.9**	*-15.3%*	*-13.7%*	*-20.3%*	*-7.1%*	*-20.5%*
Belgium	*2.1%*	**67.4**	**69.4**	**73.9**	**71.7**	**64.7**	*-9.8%*	*1.3%*	*-14.5%*	*-15.7%*	*-9.7%*
Bulgaria	*3.1%*	**12.9**	**13.7**	**12.8**	**14.2**	**12.3**	*-13.0%*	*7.4%*	*-18.8%*	*-20.1%*	*-19.0%*
Croatia	*-4.6%*	**6.5**	**6.2**	**6.0**	**5.7**	**6.6**	*16.8%*	*24.3%*	*36.0%*	*0.2%*	*13.6%*
Cyprus	*4.2%*	**1.6**	**2.0**	**2.0**	**1.8**	**1.4**	*-25.9%*	*-12.0%*	*-24.1%*	*-37.2%*	*-28.2%*
Czech Republic	*15.5%*	**4.9**	**7.0**	**7.1**	**7.5**	**6.2**	*-17.4%*	*-10.0%*	*-33.7%*	*-24.4%*	*2.6%*
Denmark	*3.3%*	**14.1**	**14.9**	**15.6**	**15.5**	**13.8**	*-11.2%*	*-16.5%*	*0.4%*	*-15.6%*	*-12.2%*
Estonia	*12.5%*	**0.6**	**0.7**	**0.8**	**0.9**	**0.7**	*-20.6%*	*-32.8%*	*-38.1%*	*-4.7%*	*8.1%*
Finland	*0.9%*	**27.3**	**27.6**	**28.9**	**28.0**	**26.6**	*-5.1%*	*7.7%*	*-4.9%*	*-7.4%*	*-13.9%*
France	*3.1%*	**136.7**	**146.4**	**148.9**	**149.9**	**121.0**	*-19.3%*	*-12.2%*	*-27.6%*	*-20.7%*	*-16.6%*
Germany	*1.1%*	**137.5**	**142.0**	**140.9**	**142.1**	**127.7**	*-10.1%*	*-12.9%*	*-13.4%*	*-14.5%*	*0.9%*
Greece	*1.5%*	**37.7**	**38.8**	**40.9**	**39.4**	**38.5**	*-2.3%*	*-6.3%*	*5.6%*	*-10.3%*	*3.0%*
Hungary	*16.1%*	**2.9**	**4.1**	**5.0**	**4.5**	**2.9**	*-34.9%*	*-27.5%*	*-51.6%*	*-30.5%*	*-18.0%*
Ireland	*0.5%*	**14.8**	**14.9**	**16.2**	**15.1**	**15.1**	*0.4%*	*-4.0%*	*1.9%*	*-1.2%*	*5.3%*
Italy	*-0.3%*	**152.1**	**154.6**	**153.4**	**150.7**	**126.9**	*-15.8%*	*-5.9%*	*-23.3%*	*-18.8%*	*-15.1%*
Latvia	*10.1%*	**0.4**	**0.4**	**0.5**	**0.5**	**0.6**	*22.9%*	*10.8%*	*3.8%*	*26.3%*	*49.2%*
Lithuania	*13.8%*	**2.2**	**2.8**	**3.1**	**3.2**	**3.6**	*9.9%*	*-3.4%*	*81.6%*	*-1.4%*	*-16.1%*
Luxembourg	*1.9%*	**0.2**	**0.2**	**0.1**	**0.2**	**0.1**	*-17.6%*	*-29.2%*	*-39.5%*	*1.7%*	*3.2%*
Malta	*5.5%*	**0.7**	**0.9**	**0.8**	**0.8**	**0.7**	*-12.0%*	*22.2%*	*-39.2%*	*23.0%*	*-42.6%*
Netherlands	*-1.6%*	**232.2**	**226.1**	**224.4**	**221.0**	**194.6**	*-12.0%*	*-8.1%*	*-16.3%*	*-15.6%*	*-7.9%*
Poland	*11.6%*	**32.8**	**38.0**	**44.5**	**45.6**	**41.0**	*-10.1%*	*-12.1%*	*-17.1%*	*-9.8%*	*-1.8%*
Portugal	*2.2%*	**27.8**	**29.8**	**30.4**	**29.7**	**24.1**	*-18.7%*	*-10.1%*	*-35.8%*	*-12.0%*	*-17.2%*
Romania	*4.3%*	**20.4**	**20.9**	**22.4**	**23.1**	**21.2**	*-8.6%*	*1.2%*	*-24.5%*	*-6.3%*	*-3.9%*
Slovakia	*23.8%*	**1.6**	**1.9**	**2.7**	**3.1**	**3.0**	*-0.4%*	*-31.3%*	*-9.0%*	*6.3%*	*30.1%*
Slovenia	*4.7%*	**4.7**	**5.1**	**5.8**	**5.4**	**4.8**	*-12.1%*	*-3.6%*	*-18.2%*	*-20.9%*	*-6.0%*
Spain	*3.2%*	**145.2**	**162.7**	**165.6**	**159.8**	**134.4**	*-15.9%*	*-13.4%*	*-20.6%*	*-17.3%*	*-12.3%*
Sweden	*0.0%*	**35.5**	**35.9**	**36.7**	**35.5**	**33.7**	*-4.9%*	*3.1%*	*-7.0%*	*-17.1%*	*2.8%*
United Kingdom	*4.2%*	**120.6**	**125.2**	**129.6**	**136.3**	**125.1**	*-8.2%*	*5.0%*	*-12.2%*	*-11.4%*	*-14.5%*
TOTAL EU Imports	*1.2%*	**1,251**	**1,303**	**1,332**	**1,324**	**1,162**	*-12.2%*	**313.5**	**276.1**	**281.1**	**291.5**
% y-o-y		*-0.9%*	*4.2%*	*2.2%*	*-0.6%*	*-12.2%*		*-7.0%*	*-17.1%*	*-15.2%*	*-9.5%*

Table 31 above shows EU external seaborne exports by Member State. According to customs statistics, the Netherlands remained the largest Member State by EU external seaborne exports in 2020 (in tonnes), with its exports down -4.7% y-o-y. Spain remained in second place, with its exports down -6.8% y-o-y, while Germany remained in third place, with its exports actually increasing by 4.8% y-o-y across the period, led by robust exports of various commodities to China. Swedish exports were up 10.0% y-o-y in 2020, on the back of a firm increase in

[30] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data as at Feb-21.

iron ore exports to China, while the UK (-15.8% y-o-y) saw amongst the most severe declines of any EU Member State, reflecting its leading role in exports of crude oil and oil products.

Significantly, seaborne exports from Norway and Iceland to non-EU Member States increased by over 80% y-o-y in 2020, totalling 26.9mt compared to 14.5mt in full year 2019, as Norwegian crude exports to China rose from 3mt in 2019 to c.15mt in 2020, on the back of a significant increase in the country's oil production following the start-up of the large Johan Sverdrup oilfield.

Table 31: EU External Seaborne Exports by Member State, million tonnes[31].

Exporter	16-19 CAGR	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Austria	*-0.3%*	**5.2**	**5.7**	**5.4**	**5.1**	**4.7**	*-8.4%*	*-1.2%*	*-19.8%*	*-12.5%*	*0.2%*
Belgium	*2.6%*	**34.0**	**36.7**	**37.5**	**36.7**	**35.6**	*-3.0%*	*-1.3%*	*-24.5%*	*3.3%*	*12.0%*
Bulgaria	*1.8%*	**10.7**	**11.2**	**8.6**	**11.3**	**9.6**	*-15.0%*	*20.7%*	*3.7%*	*-34.9%*	*-36.7%*
Croatia	*0.1%*	**4.5**	**5.4**	**4.8**	**4.5**	**4.3**	*-5.4%*	*-1.7%*	*-1.2%*	*-9.2%*	*-8.0%*
Cyprus	*-18.5%*	**2.5**	**1.7**	**1.9**	**1.3**	**1.5**	*7.9%*	*19.8%*	*-24.4%*	*16.5%*	*31.8%*
Czech Republic	*11.5%*	**3.3**	**3.5**	**3.7**	**4.6**	**4.3**	*-6.6%*	*0.4%*	*-16.4%*	*-11.3%*	*2.0%*
Denmark	*-1.5%*	**5.5**	**5.7**	**5.9**	**5.3**	**5.3**	*0.0%*	*-1.6%*	*-5.2%*	*-4.7%*	*12.5%*
Estonia	*6.8%*	**2.0**	**2.7**	**2.8**	**2.5**	**2.3**	*-7.3%*	*-11.0%*	*-3.8%*	*-3.6%*	*-9.1%*
Finland	*5.0%*	**12.2**	**12.6**	**12.7**	**14.1**	**12.0**	*-15.0%*	*-18.1%*	*-14.4%*	*-21.0%*	*-6.5%*
France	*-3.2%*	**39.3**	**33.9**	**35.6**	**35.7**	**35.2**	*-1.3%*	*5.2%*	*12.5%*	*-15.0%*	*-7.4%*
Germany	*-0.8%*	**52.0**	**52.4**	**49.8**	**50.7**	**53.1**	*4.8%*	*13.9%*	*-6.7%*	*0.9%*	*11.6%*
Greece	*-0.3%*	**25.3**	**26.9**	**27.5**	**25.0**	**20.8**	*-16.6%*	*-15.1%*	*-22.8%*	*-23.5%*	*-3.2%*
Hungary	*-0.3%*	**1.6**	**1.6**	**1.6**	**1.6**	**1.6**	*-0.7%*	*9.3%*	*-17.3%*	*-3.4%*	*8.2%*
Ireland	*9.0%*	**2.5**	**3.4**	**3.1**	**3.3**	**3.1**	*-7.1%*	*-5.5%*	*-23.4%*	*17.0%*	*-10.3%*
Italy	*-2.1%*	**46.3**	**48.1**	**45.2**	**43.4**	**40.2**	*-7.4%*	*-1.6%*	*-15.7%*	*-9.2%*	*-3.3%*
Latvia	*6.6%*	**3.1**	**3.1**	**2.7**	**3.8**	**4.2**	*11.4%*	*33.7%*	*-22.0%*	*16.4%*	*16.4%*
Lithuania	*-1.1%*	**7.6**	**7.6**	**6.2**	**7.3**	**6.4**	*-12.2%*	*-14.9%*	*-42.6%*	*2.9%*	*4.7%*
Luxembourg	*-3.6%*	**0.9**	**0.9**	**0.9**	**0.8**	**0.6**	*-21.7%*	*-26.3%*	*-28.3%*	*-25.8%*	*-2.9%*
Malta	*3.8%*	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	*-15.5%*	*-28.4%*	*7.5%*	*-27.2%*	*-5.4%*
Netherlands	*-0.8%*	**64.6**	**58.7**	**60.5**	**63.0**	**60.0**	*-4.7%*	*3.8%*	*-12.0%*	*-7.2%*	*-3.4%*
Poland	*-2.1%*	**18.2**	**16.7**	**16.3**	**17.1**	**20.6**	*20.6%*	*31.7%*	*12.9%*	*12.8%*	*25.2%*
Portugal	*-8.5%*	**11.6**	**11.7**	**9.5**	**8.9**	**8.5**	*-4.4%*	*-8.1%*	*-26.1%*	*12.3%*	*5.3%*
Romania	*0.5%*	**18.3**	**16.5**	**15.1**	**18.5**	**16.4**	*-11.5%*	*29.3%*	*-10.3%*	*-31.1%*	*-24.4%*
Slovakia	*2.0%*	**1.3**	**1.3**	**1.3**	**1.4**	**1.4**	*-1.2%*	*-11.8%*	*-15.9%*	*10.8%*	*12.7%*
Slovenia	*4.7%*	**3.3**	**3.3**	**3.6**	**3.8**	**3.9**	*2.4%*	*2.9%*	*-8.4%*	*13.3%*	*2.5%*
Spain	*0.0%*	**58.3**	**60.1**	**58.1**	**58.4**	**54.4**	*-6.8%*	*-4.0%*	*-14.4%*	*-2.5%*	*-5.9%*
Sweden	*2.5%*	**27.1**	**27.7**	**27.5**	**29.2**	**32.2**	*10.0%*	*15.6%*	*13.0%*	*15.3%*	*-2.7%*
United Kingdom	*-0.9%*	**39.6**	**43.8**	**42.6**	**38.5**	**32.4**	*-15.8%*	*-13.2%*	*-35.6%*	*-25.6%*	*15.6%*
TOTAL EU Exports	*0.2%*	**500.8**	**502.9**	**490.5**	**495.9**	**474.6**	*-4.3%*	**122.1**	**109.2**	**116.4**	**126.9**
% y-o-y		*1.7%*	*0.4%*	*-2.5%*	*1.1%*	*-4.3%*		*2.5%*	*-12.2%*	*-7.2%*	*0.0%*

[31] Source: Clarksons Research. Basis EU customs data up to and including December 2020. Basis EU-28, does not include Norway or Iceland. Global seaborne trade data as at Feb-21.

2.8.4 The Global Freight Markets[32]

This section examines the global freight market and trends in vessel charter costs/earnings and freight costs related to EU external imports and exports, and the impacts thereon of COVID-19. Cargo shipping markets involving Extra-EU trade are in the main a deeply integrated part of the global cargo shipping sector, with the tonnage employed on, and demand trends within, extra-EU trade connected to and forming part of a global marketplace. Trends in vessel charter costs/earnings and seaborne freight costs are typically highly correlated with developments in the global cargo shipping markets. (For more information on the use of the indexes made in this section, please refer to Appendix G).

The ClarkSea Index averaged $14,839/day in 2020, down by just -2% y-o-y, with all of the major shipping segments experiencing a volatile yearThe impacts of COVID-19 led to a wide range of impacts, with specific "sector complexities" in many cargo shipping markets and also often significant variation across the year. Perhaps remarkably given the global economic backdrop, 1H 2020 was the best half year for the ClarkSea Index in a decade, averaging $16,373/day, though the average in the second half of the year slipped back to $13,304/day.

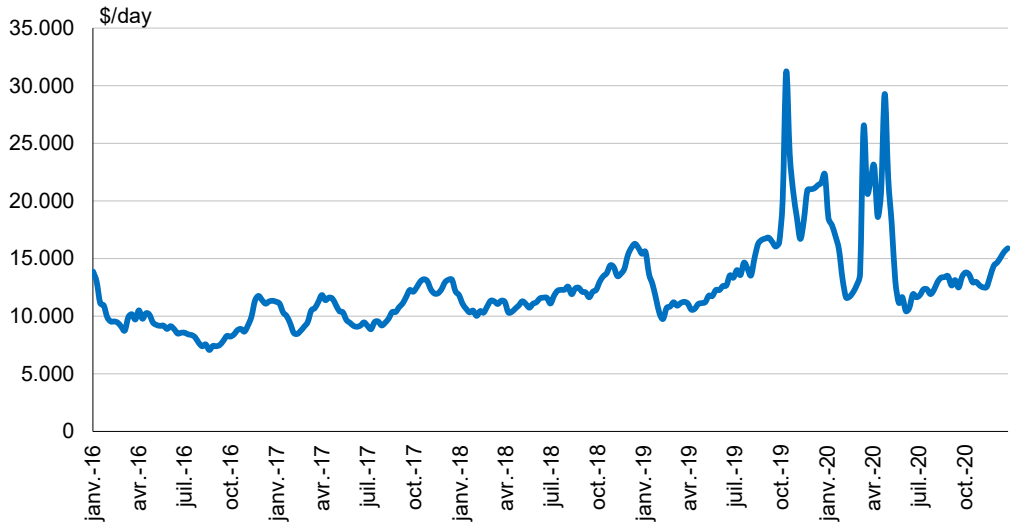


Figure 15: ClarkSea Index, $/day[33].

The **tanker market** saw a major 'spike' in 1H 2020, driven by a surge in demand for 'floating storage' tanker usage as 'lockdowns' led to a rapid build-up of surplus oil globally and oil prices in contango. Subsequent oil production cuts and unwinding of 'floating storage' led to a very weak 2H (earnings averaged just $9,339/day). In 2020, however, tanker earnings averaged $24,249/day, up 9% y-o-y, and the second highest annual average since 2008.

In the **bulk carrier** sector, 2020 began on a very weak note, with weather-related disruption to Brazilian iron ore exports exerting significant pressure (average Capesize earnings stood at less than $2,000/day in Q1). However, improvements materialized from mid-year, with support from strongly rebounding Chinese dry bulk imports, and periods of port congestion. Capesize earnings briefly reached c.$30,000/day in June and October. Across full year 2020, bulk carrier earnings averaged $9,431/day, down -18% y-o-y, and the weakest level since 2016.

The **containership sector** saw severe negative impacts from COVID-19 in 1H 2020, with box trade declining sharply. 2H 2020 saw a firm rebound in box trade, which, combined with widespread port congestion and logistical disruption resulted in a spectacular surge in freight and charter rates towards end 2020, with spot box freight rates jumping to all-time highs, and boxship charter rates rising to the highest level since 2008. Overall, average containership charter market earnings edged up 3% y-o-y to $14,103/day in full year 2020 but ended the year above $20,000/day.

[32] Seaborne freight cost data featured in this chapter in $/tonne, $/bbl or $/TEU basis is also generally basis Clarkson Research "broker market assessments", with the exception of the container sector where the freight cost data is basis the SCFI (Shanghai Containerized Freight Index, Shanghai Shipping Exchange).
[33] Source: Clarksons Research.

Gas carrier markets also saw significant volatility. before spiking in December to over $100,000/day, with support from firm growth in long-haul US exports and delays at the Panama Canal. **The LNG carrier sector** also saw a weak Q2-Q3 owing to the negative impacts of COVID-19 on gas demand and US production. However, a cold winter in Asia drove a quick rebound in long-haul US-Asia trade in late 2020, whilst Panama Canal delays further tightened supply.

The **car carrier** market experienced significant pressure in 1H 2020 from the severely negative impacts of COVID-19 on the auto industry (seaborne car trade was down c.-60% y-o-y in April-May). Timecharter rates for a 6,500 PCTC fell by -38% across 1H to $10,000/day, before rebounding in 2H in line with improving trade, ending the year at $15,500/day.

EU Imports and Exports. As a result of impact related to COVID-19, unit freight costs of **importing** cargo into the EU varied notably in 2020, subject to the volatility of shipping markets which are also subject to their own complexities. While vessels serving EU external trades make up part of typically very global trading fleets, EU imports (including significant volumes of crude oil and oil products) in 2020 were particularly exposed to major volatility in the tanker markets also the spectacular increases in the costs of importing containers into the EU, particularly from Asia, towards the end of the year. Despite the disruption from COVID-19, the EU Extra-Imports vessel earnings index averaged $21,470/day across 2020, down by just -6% on the 2019 average, and remaining 17% above the 2016-20 average of $18,375day. However, as Figure 15 and Figure 16 clearly illustrate, major variation was seen across the year

As a result of impacts related to COVID-19, unit freight costs of **exporting** cargo from the EU varied notably in 2020, though with regard the major shipping commodities, and in particular “bulk” shipping, the EU tends to be a key importer rather than a major exporter. Meanwhile, the EU Extra Exports vessel earnings index averaged $15,732, 4% up on 2019, and 18% above the 2016-20 average level, despite the impacts of COVID-19. However once again 2H 20 saw a decline, with the EU Extra Export vessel charter cost/earnings index 13% lower in 2H 20 averaging $14,615/day, compared to $16,849/day in 1H 2020.

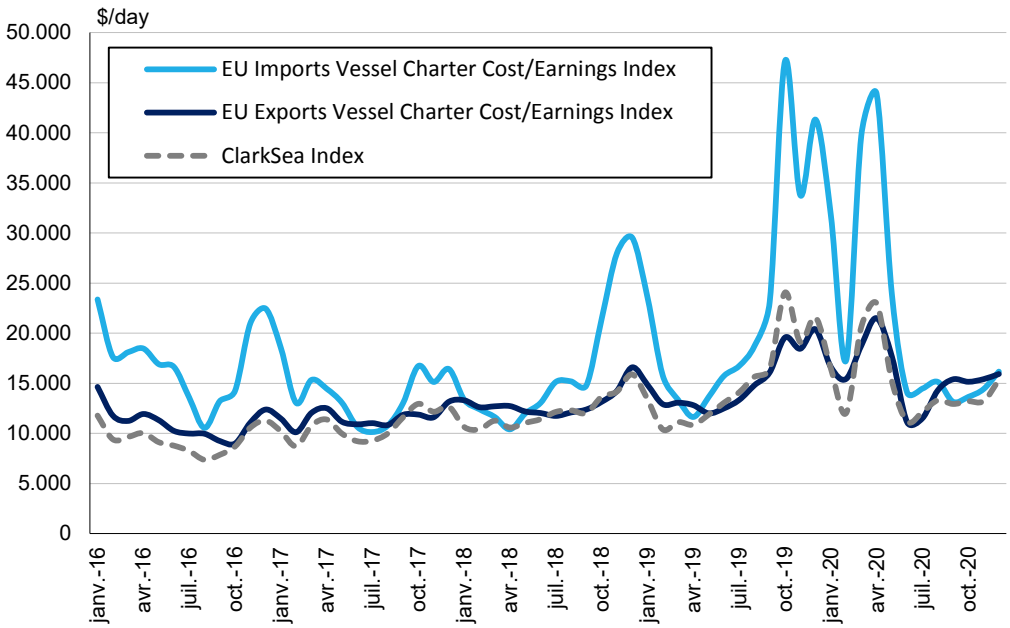


Figure 16: Extra-EU Vessel Charter Cost/Earnings Indices[34].

The average freight cost to import **crude oil** from the Middle East Gulf to the EU on a VLCC oil tanker increased by 37% in 2020 compared to 2019, to average $2.29/bbl, although the tanker market “spike” saw an average in 1H

[34] Source: Clarksons Research.

2020 of $3.46/bbl, which slumped by 68% to $1.11/bbl in 2H 2020 as tanker markets softened. The freight cost to import oil products from the US followed a similar pattern; the average cost increased by 11% in 2020, to average $2.60/bbl, although the average dropped from $3.23/bbl in 1H 2020 to $1.97/bbl in 2H 2020.

In the **dry bulk sector**, the cost of freight to import iron ore from Brazil dropped by -20% on average across 2020 compared to 2019 to $6.60/tonne, though the cost increased from $5.16/tonne in 1H to $8.04 in 2H. The cost of freight to import coal from the USEC saw similar pattern, falling by -17% on average across 2020 to $9.79/tonne, though increasing from $8.24/tonne in 1H to $11.35 in 2H as bulkcarrier markets improved. The cost of freight to import grain from Brazil increased by 32% across 2020 on average.

In the **container sector**, across 2020 the average spot freight cost to import a box to Northern Europe from China increased by 54% y-o-y to $1,172/TEU, with 2H 2020 seeing an average of $1,491/TEU and spot box freight rates on the route increasing spectacularly to record highs by the end of the year and the spot freight cost topping $4,000/TEU. The major increases in container freight rates in the latter part of 2020 were the result of a "perfect storm" of market conditions, with the impact of a swift return of volumes after the initial impacts of COVID-19 (initially supported also by robust capacity management by liner companies) amplified by the logistical disruption in the form of a shortage of empty containers and major regional container port disruption, all against the backdrop of 'manageable' containership capacity growth.

Figure 17 illustrates the major volatility seen in EU seaborne import freight costs in 2020 in the crude oil and container sectors as a result of COVID-19 impacts, showing monthly average import spot freight costs for two key EU seaborne import trade routes: container imports from Shanghai, China to Northern Europe in dollars per TEU, and crude oil imports from the MEG (Middle East Gulf) to the UKC (UK/Continent) region in dollars per barrel (bbl). Container spot freight rates on the Far East-Europe trade route spiked sharply in late 2020, amid a record tightening of container freight markets globally (see above), and reached a high of over $4,000/TEU by the last week of the year, nearly 5 times the average across the 2016-20 period as a whole. Oil freight markets also saw significant "spikes" in late 2019 and 1H 2020, with the tanker market 'turbocharged' first by changes to the US sanctions list (which reduced the pool of available tonnage) in October 2019, driving the spot rate on the crude oil MEG-UKC route from c.$1/bbl at the start of the year to over $4/bbl, and secondly driven by steep oil market contango which sharply increased demand for tonnage for oil storage purposes (see above), driving the spot rate on the MEG-UKC route to over $6.50/bbl in March 2020, over 4 times the average across the 2016-20 period as a whole.

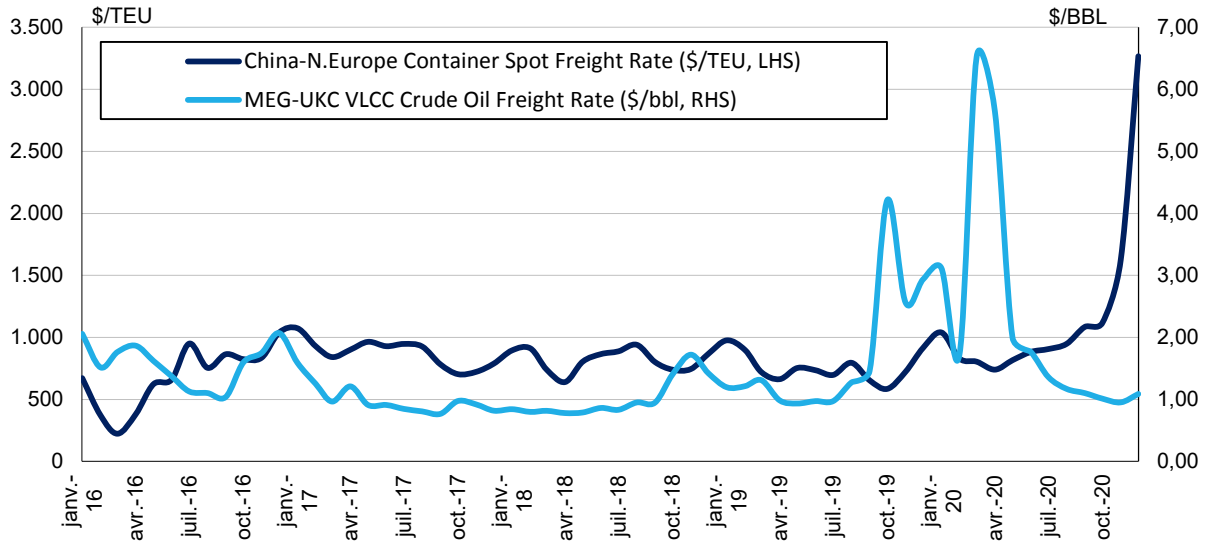


Figure 17: EU External Container & Crude Oil Imports – Key Freight Cost Volatility[35].

[35] Source: Clarksons Research, Shanghai Shipping Exchange.

3. The fleet flagged by EU Member States

3.1 Introduction[36]

This chapter provides an overview of the fleet flying flags from EU member states and a look at the impact of trading patterns as a result of the COVID-19 pandemic. For the purposes of this report, Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country.

The fleet includes all cargo carrying vessels over 100 GT as well as cruise and passenger vessels and is sourced from the Clarksons Research vessel database on the 1st January 2021.

The data reported shows that the COVID-19 pandemic had limited effects on flagging in the EU, as the growth in the EU-MS flagged fleet has been steadily in decline over the last few years. In addition, the deployment patterns of the EU-MS flagged fleet did not change in 2020 compared to previous years.

The EU-MS flagged fleet accounts for 17% of the global fleet in terms of GT (14% in vessel numbers). The two largest flags, Malta and Greece are ranked 6th and 9th respectively of the largest flags in the world. In the past five years, the Maltese flagged fleet has added the most tonnage to its fleet, with total fleet capacity growing by a CAGR of 5.9% over this period relative to global fleet CAGR (compound annual growth rate) of 3.1%. In 2020, of the largest flag states in the EU, the French, Portuguese and Danish flags showed the greatest growth in % GT terms, while the Norwegian flag showed similar above trend growth rates.

Growth in the EU-MS flagged fleet has slowed in recent years with a 5-year CAGR of 1.9% compared to a 10 year of 2.3% and a 20 year of 3.6% (5-, 10- and 20-year CAGRs for global fleet growth is 3.4%, 4.1% and 4.9% respectively). Recent growth is also significantly below that of the global fleet (2020: 0.1% EU-MS flag vs 3.0% global), with five of the ten largest EU-MS flag states declining in size over the course of 2020. In comparison, the four largest flag states globally, Panama, Liberia, Marshall Islands and Hong Kong showed growth of 3.8%, 8.2%, 4.1% and 2.0% in 2020 respectively.

76% of the tonnage of the EU-MS flagged fleet is accounted for by tankers, bulkers and containerships. However, in numeric terms, 23% is accounted for by ferries alone. In the global context, EU-MS flag is well represented in RoRo (58% of global fleet by GT), Ferry (49%) and Cruise (35%), which were shipping segments most materially impact by the COVID-19 pandemic.

The average age of the EU-MS flagged fleet is slightly lower than the global average (20.2 vs 20.5).

The majority of the EU-MS flagged fleet is deployed in the North Sea, Baltic Sea and Mediterranean. 60% of the EU-MS flagged fleet in terms of tonnage was located in these regions at the end of 2020 and deployment over the last 5 years shows little change in trading patterns. Over the past twelve months, it is estimated that 87% (53% by number of ships) of the EU-MS flagged fleet (including Norway and Iceland) in terms of GT was internationally trading with the balance trading regionally or within national waters.

9% of the EU-MS flagged fleet by tonnage was idle at peak in June 2020 compared to just 3% at the start of 2020, although this eased to 7% at the end of December 2020. The vast majority of this increase is related to cruise and passenger vessel - half of the EU-MS flagged cruise and passenger fleet in terms of GT was idle at the peak in June, while 46% was still idle at the end of the year.

[36] For the purposes of this chapter, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country. See Table 65 in Appendix B for an overview of country groupings.
The fleet includes all cargo carrying vessels over 100 GT as well as cruise and passenger vessels and is sourced from the Clarksons Research vessel database on the 1st January 2021. Table 66 in Appendix B details the ship types covered by the report and those not covered (e.g. tugs, offshore support, dredgers). Port callings and vessel movements data is also sourced from Clarksons Research and covers the period from the start of 2016 up to and including December 2020. Data is based on hourly AIS observations for vessels with a valid IMO and MMSI number.

A number of tankers were additionally pulled out of service in Q1 and Q2 for use as floating storage, resulting in some 'upside' for the tanker market. 10% of EU-MS flagged tanker fleet capacity over 10,000 dwt was used as floating storage at the peak in May 2020 (74 million barrels (bbls) of capacity). As a result, on a global level, earnings for tanker owners as tracked by Clarksons Research, saw the best half year since 2008, with earnings in 1H 2020 more than doubling the post-2009 average. However, the gradual unwinding of this storage activity subsequently placed significant pressure on the markets.

3.2 The EU-MS flagged fleet in context

The EU-MS flagged fleet of cargo carrying vessels over 100 GT, including cruise and passenger vessels stood at 9,177 vessels of a combined 238m GT or 17% of the equivalent global fleet as of the end of December 2020.

Growth in the EU-MS flagged fleet has been steadily in decline over the last few years and stalled in 2020 recording only 0.1% growth in terms of GT during the full year, following two consecutive years of c. 1% growth (see Figure 18 below). Long-term growth has also lagged that of the global fleet (10-year compound annual growth rates (CAGR) of 2.3% compared to 4.1% for the global fleet) and as a result, the global fleet share of EU-MS flags has gradually trended downwards since a peak of 23% of fleet capacity in 2003.

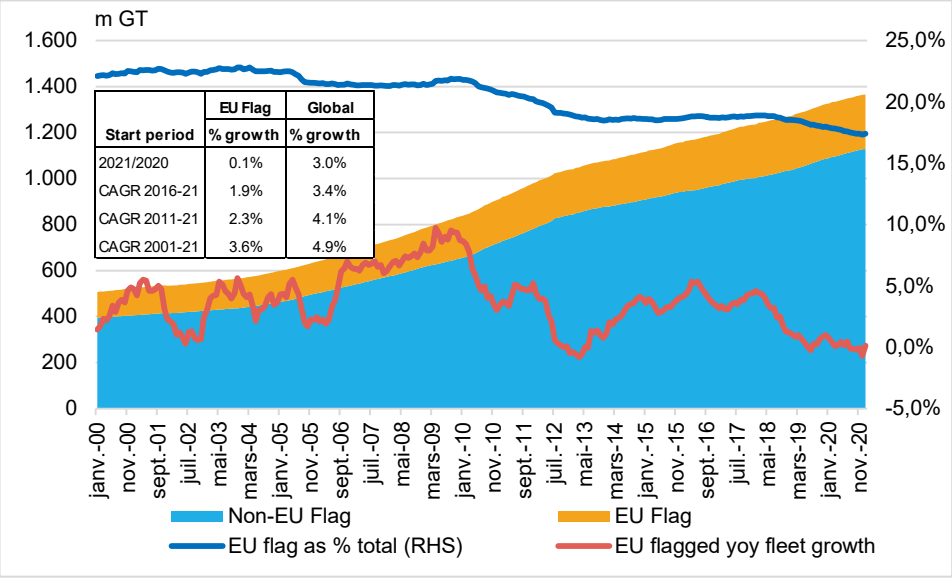


Figure 18: Long-term fleet development of EU-MS flagged fleet[37].

While at an EU-MS level fleet growth has been weak for several years, there are notable exceptions within the largest flag states. Malta, the largest EU-MS flag, has seen a 5-year CAGR of 5.9%, well above global averages. Similarly, the 5-year CAGR for Denmark, the fourth largest flag country, and Portugal, the fifth largest, stands at 8.6% and 18.5% respectively. See Appendix B for statistics on all EU member states.

Figure 19 provides a closer look at the EU-MS flagged fleet share of the global fleet (with and without the UK, Norway and Iceland). The falling share between the start of 2020 and 2021 demonstrates a continuation of pre-COVID trends.

[37] Source: Clarksons Research.

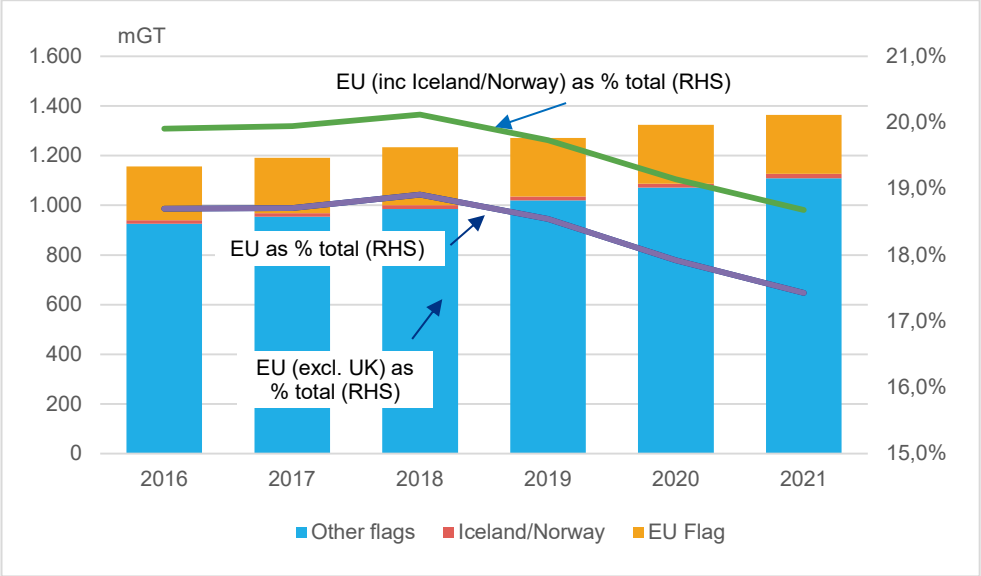


Figure 19: Short-term fleet development[38].

Table 32 shows the 10 largest flag countries in the EU (including Norway and Iceland). Malta alone accounts for a third of all tonnage flagged in the region and is the sixth largest flag globally in terms of fleet tonnage behind Panama, Liberia, the Marshall Islands, Hong Kong and Singapore (Greece ranks 9th). In total, of the 255m GT flying a flag of an EU member state, 92% belongs to one of the top 10 member countries. The table also illustrates the penetration of green and eco vessel features in the EU-MS flagged fleet, 248 vessels in the EU-MS (including Norway and Iceland) flagged fleet can use an alternative fuel (a fuel that is not heavy fuel oil, diesel or a similar heavy fraction of crude oil. Can include fuels such as LNG, LPG or ammonia). Of these 248 vessels, 126 are LNG (liquefied natural gas) carriers and of the remaining 122 vessels, 98 can also use LNG as a fuel (including 44 passenger ferries).

Table 32: Summary of the top 10 flag countries including the EU-MS, Norway and Iceland[39].

Rank	Flag Country	Fleet					Fleet Eco Profile			
		Number	US$ bn	'000 GT	Average GT	Average Age	No. BWTS	No. Eco Engine	No. Alternative Fuel	No. SOx Scrubber
1	Malta	1,996	55.3	80,908	40,535	11.9	1,009	512	40	282
2	Greece	1,088	18.0	37,619	34,577	24.4	340	159	35	154
3	Cyprus	869	10.6	22,146	25,484	15.1	329	132	21	72
4	Denmark	515	12.4	21,878	42,481	17.8	173	175	11	127
5	Norway	1,148	15.0	17,066	14,866	26.9	277	131	66	45
6	Portugal	620	8.4	16,493	26,602	14.3	280	166	3	92
7	Italy	821	20.0	13,885	16,912	26.9	136	32	5	101
8	United Kingdom	524	9.4	10,790	20,591	18.1	119	53	4	59
9	Germany	338	3.6	7,049	20,854	33.8	54	35	4	29
10	France	265	5.1	6,619	24,979	23.1	82	33	8	26
	Others (17)	*2,165*	*19.4*	*20,337*	*9,394*		*421*	*70*	*51*	*131*
Top 10		***8,184***	***157.8***	***234,453***	***28,648***		*2,799*	*1,428*	*197*	*987*
Top 10 as % Total		*79%*	*89%*	*92%*			*87%*	*95%*	*79%*	*88%*
Total (inc. Norway, Iceland)		**10,349**	**177.2**	**254,790**	**24,620**	**21.0**	3,220	1,498	248	1,118
Total EU		**9,177**	**162.1**	**237,711**	**25,903**	**20.2**	2,943	1,367	182	1,073
EU as % Global		*14%*	*21%*	*17%*			*18%*	*15%*	*30%*	*24%*
Total EU excl. UK		**8,653**	**152.7**	**226,921**	**26,225**	**20.3**	2,705	1,261	174	955
EU excl. UK as % Global		*13%*	*20%*	*17%*			*17%*	*15%*	*29%*	*23%*
Global		**65,829**	**760.4**	**1,363,964**	**20,720**	**20.5**	**15,557**	**8,521**	**598**	**4,144**

[38] Source: Clarksons Research. Annual data basis start-year fleet. See Table 65 Appendix B for data by individual flag. Note: RHS = Right hand side axis.
[39] Source: Clarksons Research. Table 65 in Appendix B for full listing.

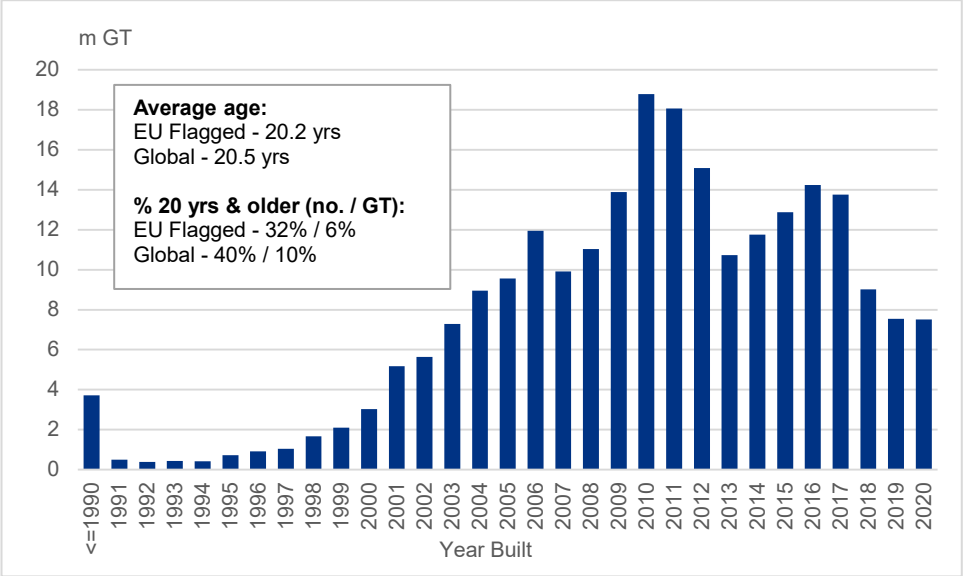


Figure 20: Age profile of EU-MS flagged fleet (including UK)[40].

The average age of the EU-MS flagged fleet is fairly similar to the global fleet at 20.2 years. Figure 20 also highlights the slowdown in deliveries of new vessels into the EU-MS flagged fleet since 2018, despite a relatively steady rate of deliveries into the global fleet over the last few years.

Table 33 and Table 34 below examine the breakdown of the EU-MS flagged fleet in terms of vessel type, highlighting in particular the over-representation of the ferry and cruise fleets within EU-MS flags. While 17.4% of the global fleet is flagged in the EU-MS, almost 50% of ferry tonnage and 35% of cruise tonnage is flagged by an EU-MS flag. As such, the cessation of cruise activities and the reduction in travel as a result of national lockdowns had a clear disproportionate effect on the EU-MS flagged fleet in 2020.

Table 33: Summary of global and EU-MS flagged fleet by vessel type[41].

	Global Total				EU-MS flagged fleet				EU as % Global		
	No	mGT	$bn	Avg Age	No	mGT	$bn	Avg Age	No	mGT	$bn
Bulkcarriers	12,312	503.7	173.3	10.5	1,279	57.1	18.3	9.9	10.4%	11.3%	10.5%
Oil Tankers	11,405	340.1	143.9	19.5	1,300	58.1	24.0	16.9	11.4%	17.1%	16.7%
Chemical and Spec Tankers	4,363	31.3	33.7	17.3	713	5.1	4.8	15.8	16.3%	16.3%	14.3%
Liquid Gas Tankers	2,120	88.2	98.0	14.0	299	14.2	18.0	9.5	14.1%	16.1%	18.4%
Containerships	5,431	252.4	125.5	13.1	1,146	65.6	32.9	12.0	21.1%	26.0%	26.2%
MPP and General Cargo	18,567	48.1	28.7	27.3	1,743	7.1	5.6	25.3	9.4%	14.7%	19.5%
Reefers	1,466	4.4	2.2	30.4	43	0.2	0.1	30.3	2.9%	4.4%	4.2%
RoRo	830	12.9	9.9	23.4	268	7.5	5.6	17.4	32.3%	58.0%	56.2%
Pure Car Carriers	756	37.3	18.0	13.5	93	4.2	2.2	12.8	12.3%	11.2%	12.3%
Ferries	8,120	21.2	39.9	28.1	2,149	10.3	16.1	32.0	26.5%	48.8%	40.3%
Cruise	459	24.4	87.3	21.7	144	8.4	34.6	18.5	31.4%	34.6%	39.6%
Total	**65,829**	**1364.0**	**760.4**	**20.5**	**9,177**	**237.7**	**162.1**	**20.2**	**13.9%**	**17.4%**	**21.3%**

Table 34: Summary of EU-MS flagged fleet by vessel type for i) EU excluding UK and ii) EU including UK, Norway and Iceland[42].

	EU-MS Flagged (Excluding UK)				as % Global			EU-MS Flagged (Inc. Norway and Iceland)				as % Global		
	No	mGT	$bn	Avg Age	No	mGT	$bn	No	mGT	$bn	Avg Age	No	mGT	$bn
Bulkcarriers	1,232	54.4	17.5	9.9	10.0%	10.8%	10.1%	1,386	60.7	20.0	10.0	11.3%	12.1%	11.5%
Oil Tankers	1,265	57.7	23.8	16.7	11.1%	17.0%	16.5%	1,398	62.7	26.8	16.8	12.3%	18.4%	18.6%

[40] Source: Clarksons Research
[41] As above
[42] As above

Chemical and Spec Tankers	627	4.2	3.9	16.1	14.4%	13.5%	11.6%	819	6.7	6.6	15.7	18.8%	21.5%	19.7%
Liquid Gas Tankers	293	13.8	17.6	9.5	13.8%	15.7%	17.9%	358	17.1	21.2	9.8	16.9%	19.3%	21.6%
Containerships	1,079	61.7	31.1	11.9	19.9%	24.5%	24.8%	1,147	65.6	32.9	12.0	21.1%	26.0%	26.2%
MPP and General Cargo	1,622	6.7	5.2	25.8	8.7%	13.9%	18.0%	1,991	7.6	5.9	27.9	10.7%	15.9%	20.5%
Reefers	41	0.2	0.1	30.6	2.8%	4.3%	4.2%	58	0.2	0.1	28.7	4.0%	5.3%	6.0%
RoRo	256	7.2	5.3	17.4	30.8%	55.8%	53.6%	275	7.8	5.6	17.4	33.1%	60.3%	56.9%
Pure Car Carriers	83	3.7	2.0	13.0	11.0%	9.9%	11.2%	126	6.3	3.1	12.8	16.7%	16.8%	17.3%
Ferries	2,023	9.8	15.1	32.4	24.9%	46.4%	37.9%	2,626	11.2	18.8	31.6	32.3%	53.0%	47.1%
Cruise	132	7.4	31.1	18.4	28.8%	30.5%	35.6%	165	8.9	36.0	18.6	35.9%	36.5%	41.3%
Total	**8,653**	**226.9**	**152.7**	**20.3**	**13.1%**	**16.6%**	**20.1%**	**10,349**	**254.8**	**177.2**	**21.0**	**15.7%**	**18.7%**	**23.3%**

While around three quarters of the total tonnage of the EU-MS flagged fleet is accounted for by tankers, bulkers and containerships, in terms of value these three segments constitute only 46% of the fleet, as highlighted in Figure 21.

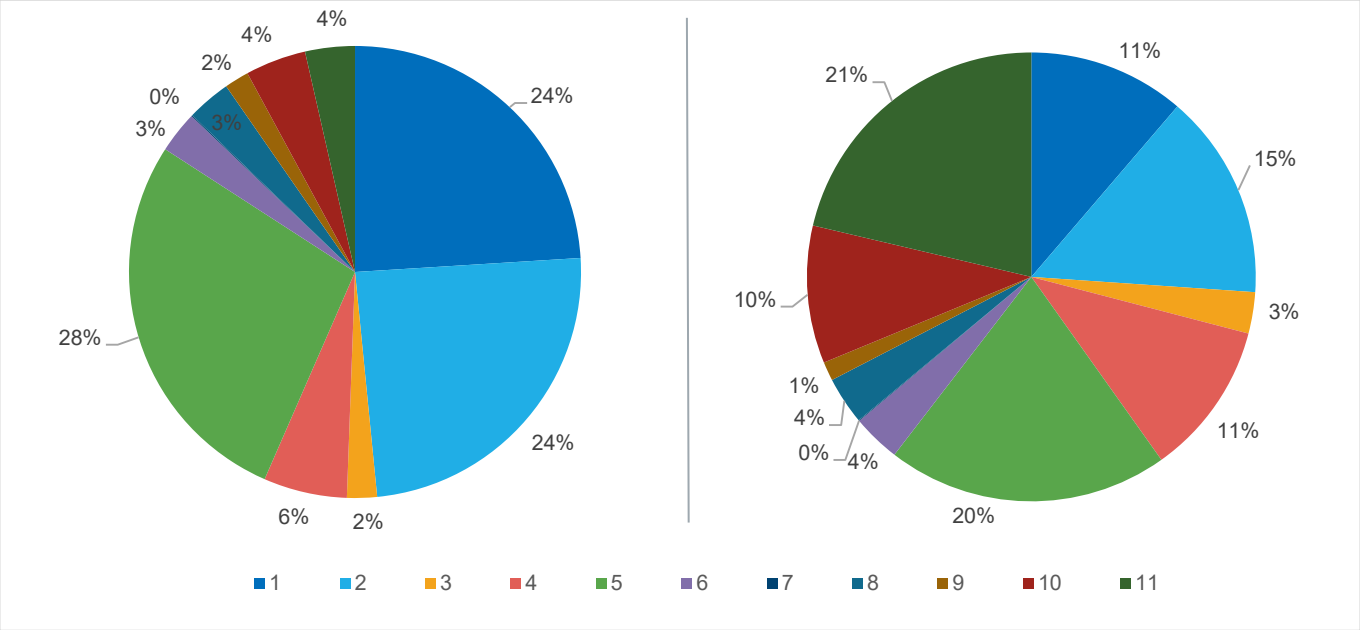


Figure 21: EU-MS flagged fleet by type (GT) on the LHS and EU-MS flagged fleet by vessel type (US$) on the RHS[43].

3.3 Vessel activity and commercial update

This section examines vessel deployment patterns as well as using port call data as a useful "proxy" for trading activity. Data is derived from AIS movements data and are subject to some limitations and may not necessarily match statistics available from other sources.

The EU-MS flagged fleet is predominantly deployed in Europe, the Mediterranean and Asia, with EU-MS flagged passenger and cruise vessels almost exclusively operating in the region with the exception of some Cruise vessels in the Caribbean and Canada/Alaska. Table 36 below provides a snapshot of deployment of the EU-MS flagged fleet at midday on the 31st December 2020, while Table 37 indicates the time the fleet spent in each region per year.

[43] Source: Clarksons Research. World fleet value basis estimates of the value of each vessel based on type, size and age. For specialised & non-cargo vessels, coverage may not be comprehensive.

Table 36: Deployment of EU-MS flagged vessels (including Norway and Iceland)[44].

Deployment location	No	% of total	Total GT	% of total	Total DWT	Total TEU	Total Cu.M
United Kingdom/Continent	3,284	38%	37,827,136	15%	38,797,320	981,737	17,248,066
Mediterranean / Black Sea	1,910	22%	32,111,816	13%	36,779,196	715,951	20,460,876
South East Asia	523	6%	31,865,808	13%	50,654,892	626,955	21,650,487
East Asia	517	6%	33,260,270	13%	47,493,152	1,263,845	13,849,298
East Coast North America	514	6%	20,052,363	8%	25,432,485	561,761	14,025,001
West Coast Africa	476	6%	18,686,438	7%	26,308,439	349,424	16,139,468
East Coast South America	265	3%	11,321,861	5%	17,707,434	169,711	7,334,632
Indian Subcontinent	253	3%	14,874,869	6%	22,510,070	404,936	13,556,548
Middle East	249	3%	15,176,234	6%	21,529,578	454,515	14,275,089
West Coast North America	217	3%	13,893,383	6%	17,467,796	712,465	5,344,071
East Coast Africa	185	2%	9,737,812	4%	15,679,319	219,513	5,880,728
Australasia	130	2%	7,223,272	3%	11,582,925	112,011	1,737,023
West Coast South America	62	1%	2,702,337	1%	3,669,281	110,244	1,451,929
North Asia	33	0%	1,676,660	1%	2,289,559	51,225	1,076,040
Arctic	19	0%	741,732	0%	801,338	4,370	575,336
Total EU-MS Flag (83% coverage)	8,637		251,151,991		338,702,784	6,738,663	154,604,592

Table 37: Time spent in deployment region per year for the EU-MS flagged fleet[45].

Deployment location	2016	2017	2018	2019	2020
United Kingdom/Continent	32.5%	32.3%	32.8%	32.8%	32.9%
Mediterranean / Black Sea	26.9%	26.7%	26.4%	27.0%	27.0%
East Asia	5.8%	6.0%	6.2%	6.1%	6.5%
South East Asia	5.6%	5.7%	5.5%	5.5%	5.8%
East Coast North America	6.0%	6.2%	6.3%	6.2%	5.8%
West Coast Africa	7.0%	6.9%	6.7%	6.6%	6.3%
Indian Subcontinent	2.4%	2.5%	2.6%	2.6%	2.6%
West Coast North America	1.8%	2.0%	2.1%	2.0%	2.0%
Middle East	3.0%	2.8%	2.8%	2.9%	2.9%
East Coast Africa	2.5%	2.5%	2.4%	2.5%	2.5%
East Coast South America	3.7%	3.5%	3.2%	3.1%	3.0%
Australasia	1.3%	1.4%	1.4%	1.4%	1.2%
West Coast South America	0.8%	0.9%	0.9%	0.9%	0.8%
North Asia	0.5%	0.4%	0.5%	0.4%	0.4%
Arctic	0.3%	0.3%	0.3%	0.3%	0.3%
Southern Ocean	0.0%	0.0%	0.0%	0.0%	0.0%

Despite the market shock of COVID-19, deployment patterns changed very little in 2020 as highlighted above. Further study of both vessel activity and deployment in 2020 shows that 87% of the EU-MS flagged fleet in terms of GT was internationally trading.

[44] Source: Clarksons Research. December 2020. Data based on the start-December 2020 fleet and basis vessel positions received by AIS on or around midday on the 31st December. Only includes vessels with a valid IMO and MMSI number.
[45] Source: Clarksons Research. Time Spent In Location based on vessel movements data for full years indicated. Calculations only include vessels in the fleet, with one or more locations recorded during the time period (excludes vessels with locations recorded whilst on order, reported sold for scrap, under conversion etc.). Time spent in calculated from location 'callings', based on the difference in time between when the vessel was first recorded in a location shape and when it was last recorded.

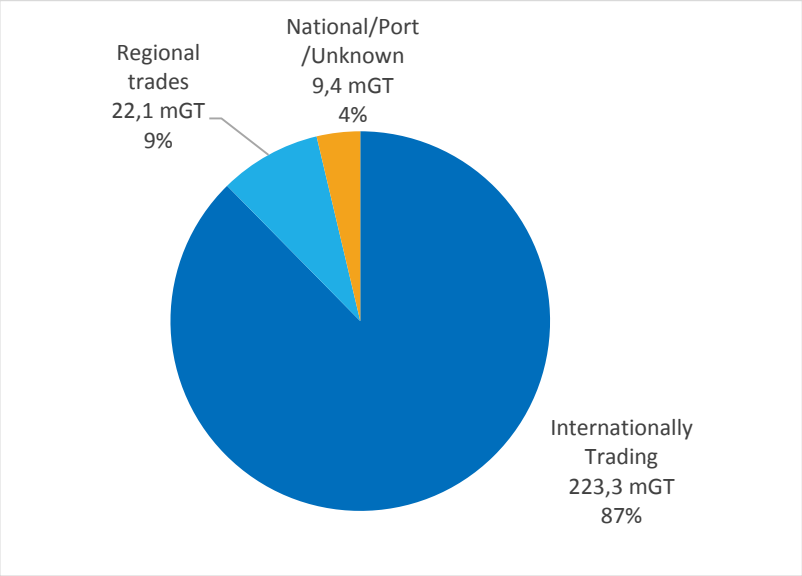


Figure 22: Trading profile of the EU-MS flagged fleet (including Norway and Iceland)[46].

Despite the decline in port call activity, the total tonnage of cargo vessels standing 'idle' grew only moderately from 3% of the EU-MS flagged fleet in terms of GT at the start of 2020 to 5% at its peak in June 2020. By contrast, at its peak in June 2020, half of the passenger and cruise fleet was recorded as 'idle'.

One 'upside' in terms of vessel earnings to the disruption caused by COVID-19 was seen in the oil tanker segment. By May 2020, 10% of the total barrel (bbl) capacity of the EU-MS flagged tanker fleet was being deployed in storage activity (includes both temporary and dedicated storage) as a result of weakened demand for crude oil and oil products. This has the dual effect of both providing employment to tanker vessels and reducing the 'active' capacity of tanker vessels available for trade. As a result, the global tanker market as a whole experienced a significant earnings spike towards the end of Q1 and early Q2 2020. Storage activity, however, has since started to unwind, with 3% of EU-MS flagged fleet capacity utilised in storage at the end of 2020.

[46] Source: Clarksons Research. Based on vessel activity in the previous 12 months.

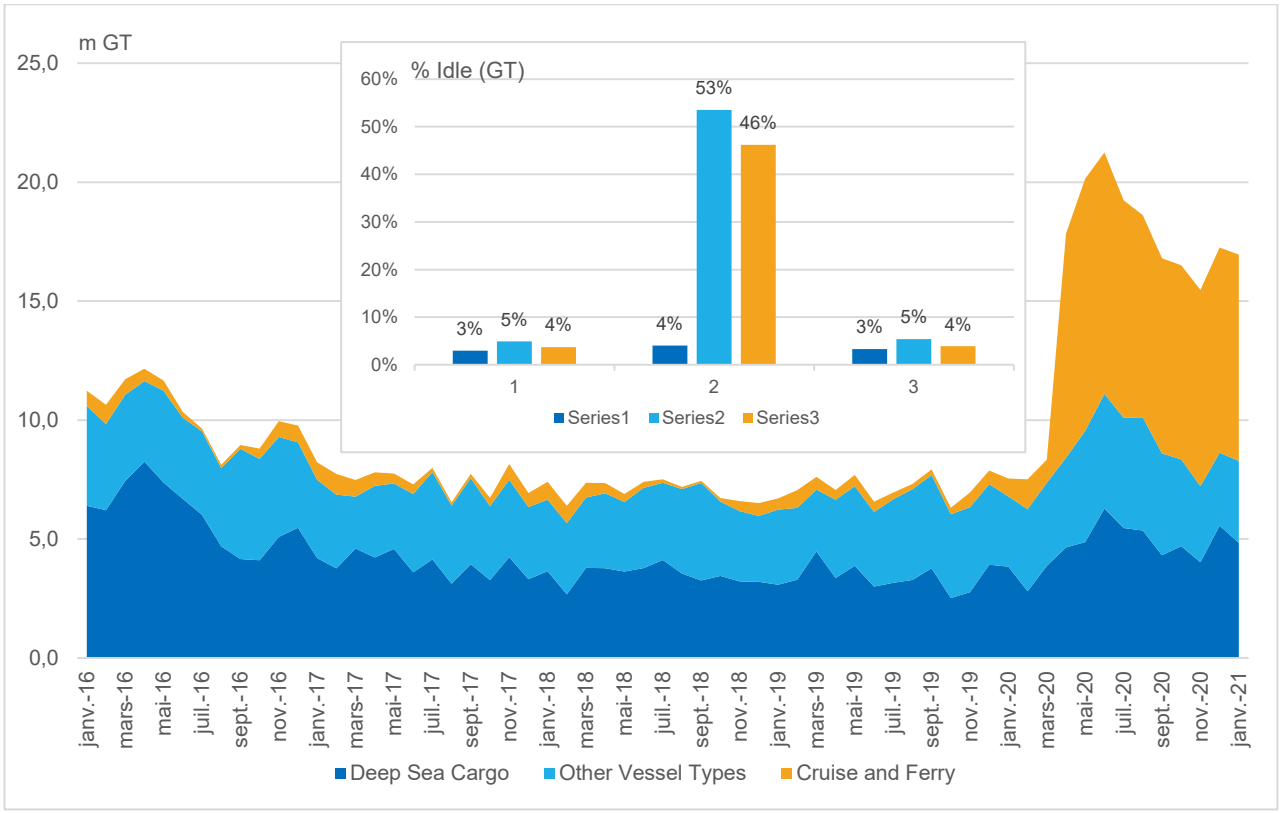


Figure 23: Idle vessel development for the EU-MS flagged fleet (excluding Norway and Iceland)[47].

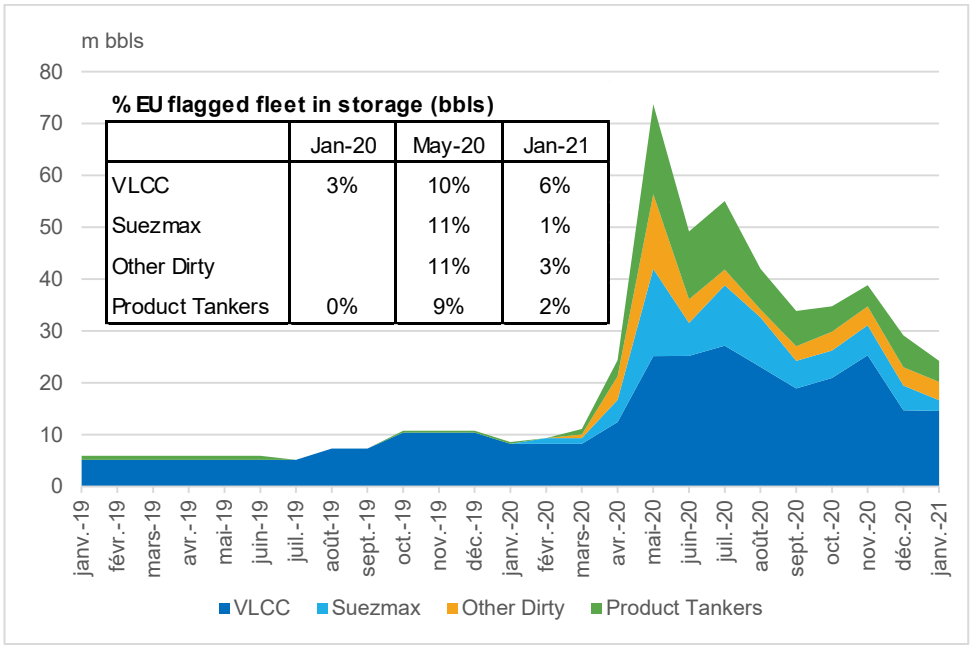


Figure 24: Floating storage development for EU-MS flagged oil tankers (excluding Norway and Iceland)[48].

[47] Source: Clarksons Research.Idle status applied to vessels not recorded with an average speed >1 knot for 14 days or more , not identified as subject to another status (e.g. laid up, under repair, storage or similar) or recorded as undertaking a voyage fixture
[48] Source: Clarksons Research. Includes vessels employed in both temporary and dedicated storage. Basis crude and product tankers of 10,000 dwt or above. Data basis start of specified period.

4. The fleet of EU ship-owners

4.1 Introduction[49]

This chapter provides an overview of the fleet owned in EU member states and a look at the impact of trading patterns as a result of the COVID-19 pandemic. For the purposes of this chapter, Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country. See Table 65 in Appendix B for an overview of country groupings.

The fleet includes all cargo carrying vessels over 100 GT as well as cruise and passenger vessels and is sourced from the Clarksons Research vessel database on the 1st January 2021.

The data reported shows that the COVID-19 pandemic had limited effects on the fleet owned by f EU ship-owners in terms of fleet development. In addition, the deployment patterns did not change in 2020 compared to previous years and there was no significant impact on the orderbook of EU ship-owners. The major difference noteworthy to mention regards the use of oil tankers as storage either temporary or dedicated basis which peaked in Q2 of 2020.

EU shipping companies own 33% of global tonnage, trending down from 35% ten years ago. At the end of 2020, the fleet owned by EU-MS owners (including the UK) stood at 15,355 vessels of a combined 482m GT, 35% of global fleet tonnage. Excluding the UK, EU global market share is 33% and valued at $231bn, increasing to 39% if UK, Norway and Iceland are included. Ownership in the EU is heavily concentrated within a few owner nations with the top 10 owner nations accounting for 96% of the total tonnage in the EU fleet. Owners from Greece alone control half of EU tonnage, Greece being the largest owner nation in the world (238m GT), ahead of China in second place (197m GT), Japan in third (177m GT) and the second largest EU owner nation Germany in fourth (66m GT). Norway, Italy and Denmark also appear in the top 10 owner nations globally. Relative to the volume of seaborne trade involving the EU, shipping companies have strong market share despite this declining trend.

Growth of EU shipping companies has been trending below average global growth levels, with this trend accelerating in recent years. In 2020, the EU-MS owned fleet grew at half the rate of global growth (1.4% vs 3.0%). The EU-MS owned fleet has lagged behind global growth in recent years, despite above trend growth from the largest owner nation, Greece. This is partly attributed to the effects of the financial crisis in 2008 and the subsequent decline of ownership in certain countries, notably Germany, which historically saw private investment in shipping via Kommanditgesellschaft (KG) funds but has seen limited activity since. The German owned cargo carrying fleet (including cruise and passenger vessels) peaked in 2013 as a result of pre-downturn orders but has since declined by 30% to 66m GT at the start of 2021. There has also been above average growth of some Asian countries, in particular of Chinese shipping companies, with factors including stronger Asian and non-OECD trade growth and Chinese ship finance being relevant.

Besides some exceptions of big companies present in the market, EU shipping companies are typically relatively small and privately owned. Ownership in the EU has historically been dominated by small private companies and of the circa 3,400 owner companies identified by Clarksons Research based in the EU, Norway or Iceland, 95% are private companies controlling 70% of total EU tonnage. Only 3% of ship owning companies in the EU are publicly listed, although combined they control 26% of the total tonnage in the fleet. Athens is the largest shipping cluster for owners in the EU, followed by Hamburg. Although there are some very large ship owning companies, the average company has 5 ships.

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[49] Owner details provided are intended to show the primary reference company, defined as the company with the main commercial responsibility for the ship. Nationality is defined as the "Real Nationality", i.e. the home country/region of the interests behind the primary reference company. None of the information provided is intended to confirm or otherwise the legal status of the companies or the ships associated with them.
For the purposes of this report, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country. See Table 65 in Appendix B for an overview of country groupings.
The fleet includes all cargo carrying vessels over 100 GT as well as cruise and passenger vessels and is sourced from the Clarksons Research vessel database on the 1st January 2021. Table 66 in Appendix B details the ship types covered by the report and those not covered (e.g. tugs, offshore support, dredgers). Port callings and vessel movements data is also sourced from Clarksons Research and covers the period from the start of 2016 up to and including December 2020. Data is based on hourly AIS observations for vessels with a valid IMO and MMSI number.

EU shipping companies are well-represented globally in the Ferry sector (53% of global tonnage capacity), a market particularly impacted by COVID-19 disruption. Just over 67% of global RoRo capacity is owned in the EU and Norway, 54% of global containership capacity and 53% of global ferry tonnage. The ferry fleet is numerous and elderly. 86% of the EU-MS owned fleet in terms of GT is accounted for by bulk carriers, oil tankers (includes both crude and product tankers) and containerships. EU-MS containership owning represents 54% of global capacity (this includes liner companies and charter owners), although the containership market has seen a strong rebound in activity, volumes and profitability in the second half of 2020.

The EU-MS owned fleet is younger than the world fleet by around 3 years. However, investment in new ships has slowed in recent years, with this trend accelerating in 2020 due to COVID-19 economic uncertainty and technology uncertainty around alternative fuels. The EU-MS owned fleet has an average age of 17.3 years compared to a global average of 20.5 years. Although only 7% of the EU-MS owned fleet is over 20 years of age, this number rises to 25% basis number of ships reflecting a relatively large number of elderly, but small vessels owned. The orderbook as a percentage of fleet GT stands at 5.9% at present, down from a peak of 47% at the start of 2009, and below the global average of 8.5%.

The EU-MS owned fleet trades predominantly on a global basis, with the exception of ferries which are by and large deployed in European waters only. Based on vessel trading profiles over the last 12 months, 92% of the EU-MS owned fleet (including Norway and Iceland) is internationally trading. As at February 2021, 87% of the fleet was deployed in Europe and the Mediterranean, including almost all EU-MS owned passenger vessels.

Idle tonnage for EU shipping companies peaks in Q2 2020, while tanker storage was equally significant for EU tanker owners in 2020. Idle tonnage for EU based shipping companies (excluding Norway and Iceland) peaked in Q2 2020 at over 31m GT and stood at 6.5% of the fleet at the end of June 2020. Meanwhile, at its peak in May 2020, 11% of the capacity of the EU-MS owned tanker fleet (10,000 dwt and above) was being used for storage, either on a temporary or dedicated basis (174 million bbls of capacity).

4.2 The EU-MS owned fleet in context

The EU-MS owned fleet of cargo carrying vessels over 100 GT, including cruise and passenger vessels stood at the end of December 2020 at 15,355 vessels of a combined 482m GT, 35% of global fleet tonnage.

The EU-MS owned fleet has lagged behind global growth in recent years, despite above trend growth from the largest owner nation, Greece. This is partly attributed to the effects of the financial crisis in 2008 and the subsequent decline of ownership in certain countries, notably Germany, which historically saw private investment in shipping via Kommanditgesellschaft (KG) funds but has seen limited activity since. The German owned cargo carrying fleet (including cruise and passenger vessels) peaked in 2013 as a result of pre-downturn orders but has since declined by 30% to 66m GT at the end of 2020. There has also been above average growth of Chinese shipping companies that has supported global growth with key factors including Chinese-centric trade growth and growing Chinese ship finance at a time when European banks have been reducing their shipping exposure. In 2008, all top 10 ship finance banks in terms of total portfolio value were based in Europe, compared to just 50% in 2020.

Figure 25 below shows long-term fleet development of the EU-MS owned fleet (short term developments are highlighted in Figure 26 below). The trend of slowing EU shipping company growth relative to global trends and increasing market share has increased over the past five years (2.2% vs 3.4%) and particularly in 2020 (1.4% vs 3.0%), although this can be attributed to recent trends rather than a short-term impact of COVID-19. However, over the past twenty years, EU growth has been consistent with global trends (5.1% vs 4.9%) and maintained market share.

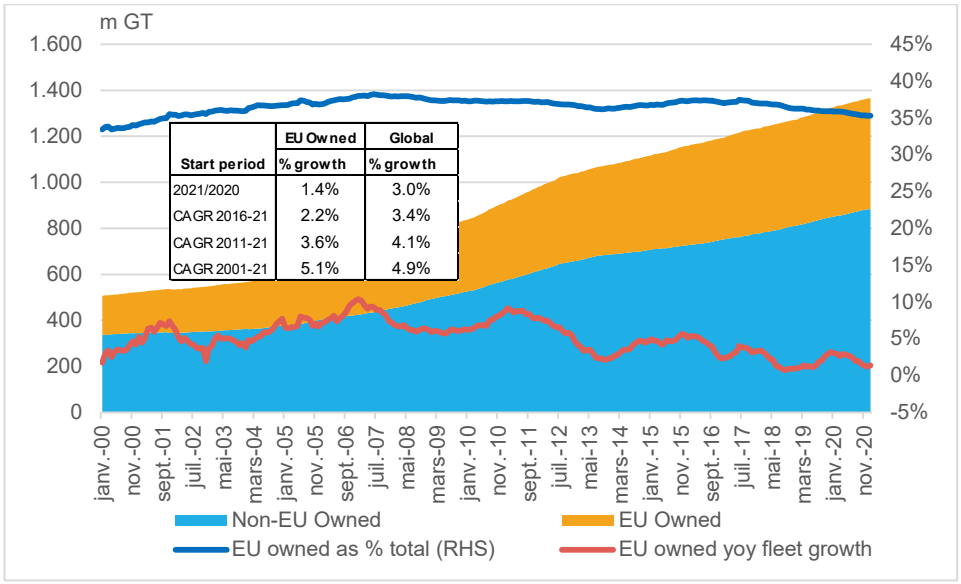


Figure 25: Long-term fleet development of EU-MS owned fleet[50].

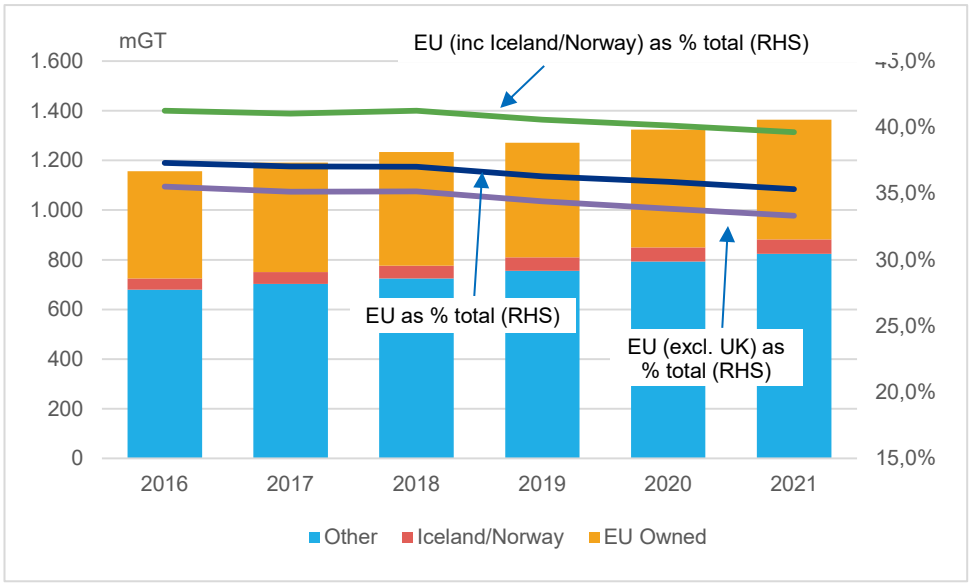


Figure 26: Short-term fleet development[51].

[50] Source: Clarksons Research. Note: RHS = right hand side axis.
[51] Source: Clarksons Research. See Table 96 in Appendix D for data by individual owner country. Note: RHS = right hand side axis.

Table 38: Summary of the top 10 EU owner nations[52].

Rank	Owner Nationality	Fleet					Fleet Eco Profile			
		Number	US$ bn	'000 GT	Average GT	Average Age	No. BWTS	No. Eco Engine	No. Alternative Fuel	No. SOx Scrubber
1	Greece	5,428	100.1	238,152	43,875	14.5	2,833	1,208	97	747
2	Germany	2,655	35.5	66,382	25,003	15.7	900	485	17	219
3	Norway	2,168	38.1	58,513	26,990	20.3	925	429	99	209
4	Italy	1,430	32.4	43,273	30,261	20.7	430	298	1	385
5	Denmark	928	20.3	37,998	40,946	15.5	348	344	3	170
6	United Kingdom	917	16.3	27,279	29,749	16.1	368	217	9	97
7	France	408	10.3	16,360	40,099	17.1	167	110	17	44
8	Belgium	252	6.5	15,995	63,474	11.5	145	87		7
9	Netherlands	988	7.8	10,200	10,324	16.3	313	62	21	91
10	Sweden	460	5.6	6,706	14,578	30.8	91	52	24	42
	Others	*1,919*	*13.4*	*19,741*	*10,287*		*332*	*122*	*19*	*36*
Top 10		***15,634***	***272.8***	***520,860***	***33,316***		***6,520***	***3,292***	***288***	***2,011***
Top 10 as % Total		*89%*	*95%*	*96%*			*95%*	*96%*	*94%*	*98%*
Total (inc. Norway, Iceland)		**17,553**	**286.2**	**540,601**	**30,798**	**17.7**	6,852	3,414	307	2,047
Total EU		**15,355**	**247.9**	**481,971**	**31,389**	**17.3**	5,923	2,983	208	1,833
EU as % Global		*23%*	*33%*	*35%*			*38%*	*35%*	*35%*	*44%*
Total EU excl. UK		**14,438**	**231.6**	**454,691**	**31,493**	**17.4**	5,555	2,766	199	1,736
EU excl. UK as % Global		*22%*	*30%*	*33%*			*36%*	*32%*	*33%*	*42%*
Global		65,829	760.4	1,363,964	20,720	20.5	15,557	8,521	598	4,144

The top owner nations above do not necessarily represent the country or city of operation of owners, which could be outside of the EU depending on the organisational structure of each company. The figure below looks at the offices for EU owners with at least 1 million GT in their respective fleet and assigns them to a city “cluster” (defined as an approximate 40km radius around a city).

[52] Source: Clarksons Research. See Annex for full listing.

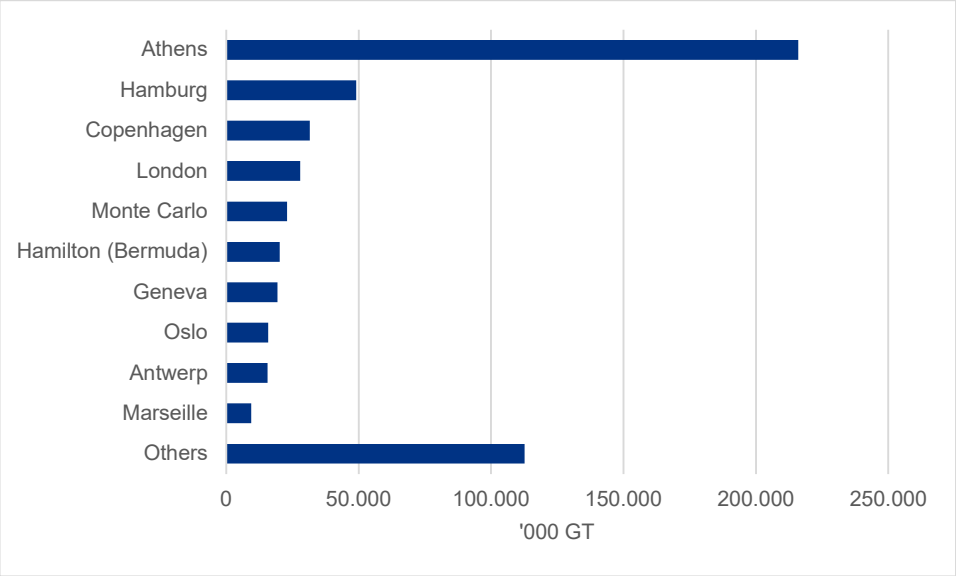
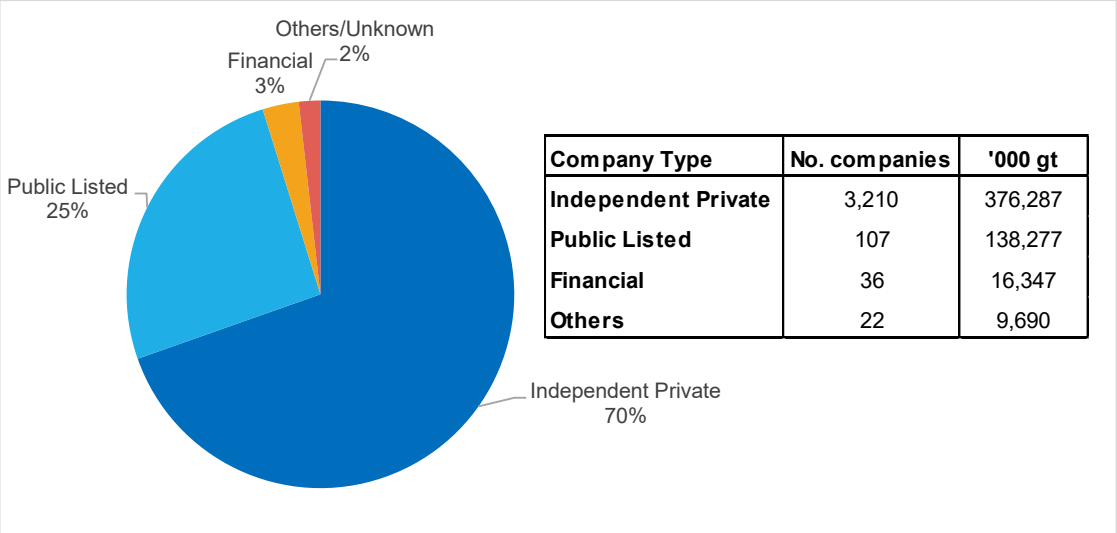


Figure 27: Regional ownership "clusters" of EU-MS owned vessels[53].

EU owner nations have a long history of ship owning and there are subsequently a large number of very small independent private ship owing companies within the region. The figure below (Figure 28) shows the EU-MS owned fleet (including Norway and Iceland) by company type. Only 3% of ship owning companies in the EU are publicly listed, although combined they control 26% of the total tonnage in the fleet. Of the owners identified in the figure below, 2,685 have a fleet of just 5 vessels or fewer, while just 9 owners have a fleet of 100 vessels or more.



Company Type	No. companies	'000 gt
Independent Private	3,210	376,287
Public Listed	107	138,277
Financial	36	16,347
Others	22	9,690

Figure 28: Share of fleet GT by company type for owners in the EU, Norway and Iceland[54].

Table 39 below details the orderbook of the 5 largest owner nationalities with vessels on order, which combined account for 80% of the total capacity on order for owners based in the EU, Norway or Iceland. The orderbook is defined as the sum of all vessels with a firm contract that have yet to be delivered from a shipyard, including confirmed orders where construction has yet to begin.

[53] Source: Clarksons Research.
[54] Source: Clarksons Research.

Table 39: Top 5 EU owner orderbook[55].

Rank	Owner Nationality	Fleet		Orderbook			Orderbook delivery schedule			
		Number	'000 GT	Number	'000 GT	% fleet GT	2021	2022	2023	2024+
1	Greece	5428	238,152	159	13,484	5.7%	8,171.2	5,025.0	287.6	
2	Italy	1430	43,273	51	3,963	9.2%	2,101.0	687.8	367.5	807.0
3	Germany	2655	66,382	77	3,196	4.8%	1,084.2	425.4	1,364.4	322.0
4	Norway	2,168	58,513.3	89.0	3,071	5.2%	1,484.9	1,135.7	450.2	
5	United Kingdom	917	27,279	31	2,149	7.9%	830.1	917.7	401.1	
Top 5		12598	433,600	407	25,863	32.8%	13,671.5	8,191.5	2,870.9	1,129.0
Top 5 as % Total		*72%*	*80%*	*74%*	*82%*		*76%*	*88%*	*98%*	*100%*
Total (inc. Norway, Iceland)		**17,553**	**540,601**	**552**	**31,430**	**5.8%**	**18,105.0**	**9,264.1**	**2,931.7**	**1,129.0**
Total EU		**15,355**	**481,971**	**463**	**28,359**	**5.9%**	**16,620.0**	**8,128.5**	**2,481.4**	**1,129.0**
as % Global		*23%*	*35%*	*19%*	*25%*		*27%*	*24%*	*19%*	*17%*
Total EU excl. UK		**14,438**	**454,691**	**432**	**26,210**	**5.8%**	**15,789.9**	**7,210.8**	**2,080.3**	**1,129.0**
as % Global		*22%*	*33%*	*18%*	*23%*		*26%*	*21%*	*16%*	*17%*
Global		**65,829**	**1,363,964.0**	**2,452.0**	**115,598**	**8.5%**	**61,792.3**	**34,353.0**	**12,987.3**	**6,465.8**

The orderbook as a percentage of fleet tonnage, as illustrated by Figure 29, peaked at 50% for EU owners in September 2008 but has since declined to a low of just 5.9% at the start of 2021 (EU owners includes the UK). In comparison the global orderbook is currently equivalent to 8.5% of the global fleet in terms of GT. The data reported shows that the pandemic did not seem to have any influence on the programming and planning of the orderbook of EU owners.

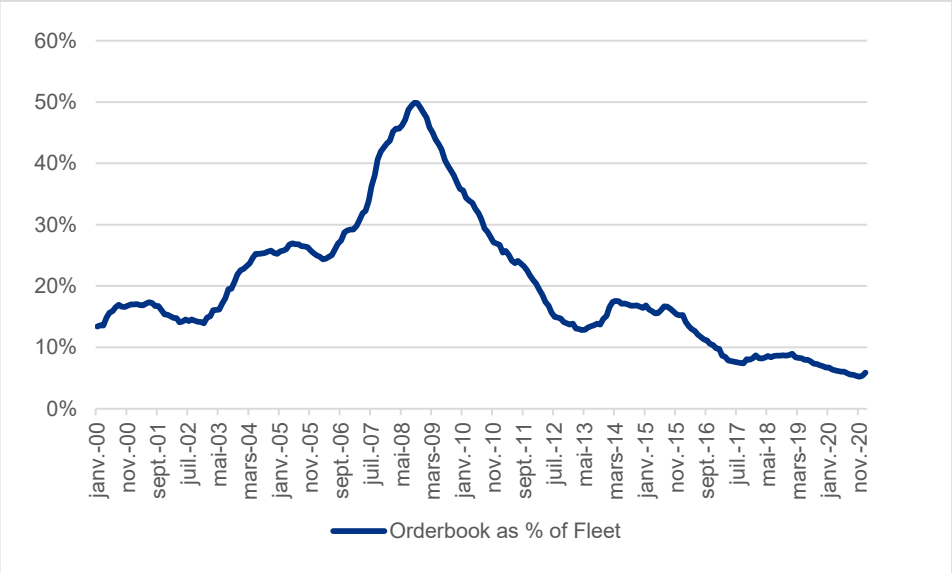


Figure 29: Orderbook of EU-MS owned fleet as a percentage of fleet GT[56].

The average age of the EU-MS owned fleet is relatively youthful at 16.8 years compared to 20.5 for the global fleet. The age profile as shown below, mirrors that of the global fleet with a spike in 2010 and 2011 as a result of an ordering boom in the run-up to the financial crisis of 2008.

Figure 30 provides comparison statistics for the EU excluding the UK and the EU including the UK, Norway and Iceland. Over half of all global containership, Roro freight and ferry (including Ropax) capacity is owned by owners

[55] Source: Clarksons Research. The orderbook delivery schedule is based on reported orders and scheduled delivery dates. These are subject to delays and cancellations and does not necessarily represent the expected pattern of future deliveries
[56] Source: Clarksons Research.

based in the EU, Norway or Iceland. In total, 40% of all global tonnage is owned by owners in these regions and a similar amount in terms of value.

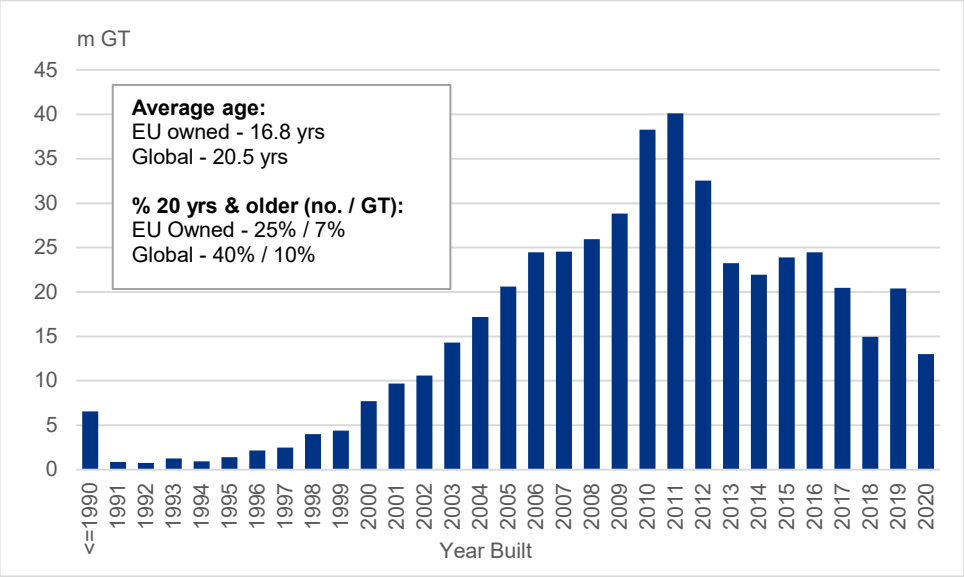


Figure 30: Age profile of EU-MS owned fleet[57].

EU shipping companies are well represented globally in the Ferry sector (53% of global tonnage capacity), a market particularly impacted by COVID-19 disruption. Just over 67% of global RoRo capacity is owned in the EU and Norway, 54% of global containership capacity and 53% of global ferry tonnage. The ferry fleet is numerous and elderly. 86% of the EU-MS owned fleet in terms of GT is accounted for by bulk carriers, oil tankers (includes both crude and product tankers) and containerships. EU containership owning represents 54% of global capacity (this includes liner companies and charter owners), although the containership market has seen a strong rebound in activity, volumes and profitability in the second-half of 2020. The figures reported for the ferry sector confirm the exposure of the sector and the impact of the restrictions of movement of citizens and, thus, passengers.

Table 40: Summary of EU-MS owned fleet by vessel type[58].

	Global Total				EU-MS owned fleet				EU as % Global		
	No	mGT	$bn	Avg Age	No	mGT	$bn	Avg Age	No	mGT	$bn
Bulkcarriers	12,312	503.7	173.3	10.5	3,559	149.6	48.7	10.2	28.9%	29.7%	28.1%
Oil Tankers	11,405	340.1	143.9	19.5	2,688	130.6	54.2	14.2	23.6%	38.4%	37.7%
Chemical and Spec Tankers	4,363	31.3	33.7	17.3	799	6.6	5.9	15.4	18.3%	21.2%	17.6%
Liquid Gas Tankers	2,120	88.2	98.0	14.0	524	22.0	29.4	10.0	24.7%	25.0%	30.0%
Containerships	5,431	252.4	125.5	13.1	2,526	132.8	60.9	13.2	46.5%	52.6%	48.5%
MPP and General Cargo	18,567	48.1	28.7	27.3	2,530	11.9	8.4	24.2	13.6%	24.8%	29.1%
Reefers	1,466	4.4	2.2	30.4	173	1.3	0.5	28.1	11.8%	29.7%	22.9%
RoRo	830	12.9	9.9	23.4	292	7.9	5.8	17.9	35.2%	61.3%	58.9%
Pure Car Carriers	756	37.3	18.0	13.5	96	4.6	2.2	13.1	12.7%	12.2%	12.3%
Ferries	8,120	21.2	39.9	28.1	2,058	10.3	15.6	32.0	25.3%	48.5%	39.0%
Cruise	459	24.4	87.3	21.7	110	4.4	16.2	24.1	24.0%	18.2%	18.6%
Total EU-MS owned	**65,829**	**1364.0**	**760.4**	**20.5**	**15,355**	**482.0**	**247.9**	**16.8**	**23.3%**	**35.3%**	**32.6%**

Table 41: Summary of EU-MS owned fleet by vessel type for i) EU excluding UK and ii) EU including UK, Norway and Iceland[59].

	EU-MS owned (Excluding UK)				as % Global			EU-MS owned (Inc. Norway and Iceland)				as % Global		
	No	mGT	$bn	Avg Age	No	mGT	$bn	No	mGT	$bn	Avg Age	No	mGT	$bn
Bulkcarriers	3,389	142.2	46.0	10.3	27.5%	28.2%	26.6%	3,897	165.5	54.9	10.2	31.7%	32.9%	31.7%

[57] As above
[58] As above
[59] Source: Clarksons Research.

Oil Tankers	2,562	126.0	52.4	14.1	22.5%	37.0%	36.4%	2,920	145.9	61.6	14.1	25.6%	42.9%	42.8%
Chemical and Spec Tankers	732	6.1	5.3	15.5	16.8%	19.6%	15.8%	1,088	10.9	10.0	15.3	24.9%	35.0%	29.6%
Liquid Gas Tankers	481	19.8	26.1	10.4	22.7%	22.4%	26.7%	638	29.4	38.7	9.8	30.1%	33.3%	39.5%
Containerships	2,340	122.3	55.6	13.2	43.1%	48.5%	44.3%	2,606	136.7	63.1	13.1	48.0%	54.2%	50.3%
MPP and General Cargo	2,374	11.2	7.8	24.4	12.8%	23.3%	27.0%	2,965	13.3	9.2	25.6	16.0%	27.7%	32.1%
Reefers	160	1.2	0.5	28.2	10.9%	27.5%	21.5%	227	1.6	0.7	27.6	15.5%	36.6%	29.5%
RoRo	287	7.8	5.7	18.0	34.6%	60.6%	57.7%	317	8.7	6.4	17.6	38.2%	67.3%	64.7%
Pure Car Carriers	82	3.8	1.8	13.5	10.8%	10.0%	9.9%	235	12.4	5.9	13.1	31.1%	33.1%	32.7%
Ferries	1,931	10.1	15.1	32.2	23.8%	47.7%	37.9%	2,527	11.3	18.6	31.3	31.1%	53.3%	46.7%
Cruise	100	4.2	15.2	23.6	21.8%	17.1%	17.4%	133	4.9	17.0	24.9	29.0%	20.1%	19.5%
Total	**14,438**	**454.7**	**231.6**	**17.4**	**21.9%**	**33.3%**	**30.5%**	**17,553**	**540.6**	**286.2**	**17.7**	**26.7%**	**39.6%**	**37.6%**

4.3 Vessel activity and commercial update

This section presents vessel deployment patterns as well as using port call data as a useful "proxy" for trading activity. Data is derived from AIS movements data and are subject to some limitations and may not necessarily match statistics available from other sources.

The EU-MS owned fleet trades predominantly on a global basis, with the exception of ferries, which tend to operate within European waters. Based on vessel trading profiles over the last 12 months, 92% of the EU-MS owned fleet (including Norway and Iceland) in terms of tonnage is internationally trading (see Figure 32). This figure is 65% in terms of vessel numbers, the disparity reflecting the tendency for higher tonnage cargo ships to trade internationally.

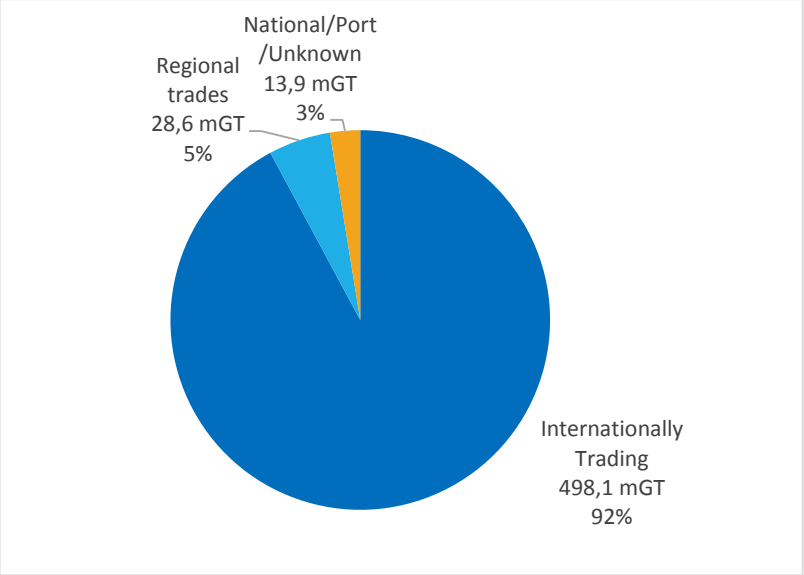


Figure 32: Trading profile of the EU-MS owned fleet including Norway and Iceland[60].

Table 42 shows a snapshot of the EU-MS owned fleet as at midday 31st December 2020. As of December 2020, 80% of the fleet was deployed in Europe and the Mediterranean (45% of capacity).

Table 42: Deployment of EU-MS owned vessels (including Norway and Iceland)[61].

Deployment location	No	% of total	Total GT	% of total	Total DWT	Total TEU	Total Cu.M
United Kingdom/Continent	4,220	49%	58,569,086	23%	68,936,032	1,675,140	30,592,089

[60] Source: Clarksons Research. Based on vessel activity in the previous 12 months.
[61] Source: Clarksons Research. December 2020. Data based on the start-December 2020 fleet and basis vessel positions received by AIS on or around midday on the 31st December. Only includes vessels with a valid IMO and MMSI number.

Mediterranean / Black Sea	2,639	31%	55,792,276	22%	71,531,513	1,548,967	34,500,629
South East Asia	1,481	17%	75,958,366	30%	124,549,555	1,454,922	50,835,912
East Asia	1,423	16%	78,823,557	31%	120,952,886	2,380,064	33,599,888
East Coast North America	1,205	14%	45,030,099	18%	63,178,265	1,205,453	35,038,821
West Coast Africa	1,069	12%	41,456,694	17%	63,912,674	899,525	35,385,486
Middle East	748	9%	37,999,662	15%	58,685,027	920,661	39,234,817
East Coast South America	704	8%	28,079,838	11%	45,139,987	504,585	16,089,608
Indian Subcontinent	635	7%	33,769,828	13%	53,336,114	783,046	29,380,912
East Coast Africa	522	6%	26,708,736	11%	43,929,382	514,139	16,237,683
West Coast North America	489	6%	26,550,282	11%	35,706,803	1,143,651	11,340,489
Australasia	319	4%	16,249,622	6%	25,927,010	317,588	4,018,388
West Coast South America	182	2%	6,871,745	3%	9,424,206	285,233	3,692,428
North Asia	72	1%	2,455,451	1%	3,537,481	69,959	862,149
Arctic	24	0%	713,178	0%	902,715	5,083	548,396
Total EU-MS owned (90% coverage)	**15,732**		**535,028,420**		**789,649,650**	**13,708,016**	**341,357,695**

Table 43 below indicates the time spent in each global region by the EU-MS owned fleet since 2016. In full year 2020, the EU-MS owned fleet spent over 50% of the year outside the UK/Continent (includes North Sea and Baltic Sea) and Mediterranean/Black Sea region. Similar to the EU-MS flagged fleet, deployment patterns changed little as a result of COVID-19.

Table 43: Time spent in deployment region per year for the EU-MS owned fleet (excluding Norway and Iceland)[62].

Deployment location	2016	2017	2018	2019	2020
United Kingdom/Continent	24.0%	23.6%	23.7%	23.4%	23.2%
Mediterranean / Black Sea	20.8%	20.5%	20.3%	20.8%	20.4%
East Asia	7.6%	8.0%	8.1%	8.3%	8.9%
South East Asia	8.4%	8.3%	8.2%	8.4%	8.8%
East Coast North America	7.6%	7.7%	7.8%	7.7%	7.2%
West Coast Africa	8.2%	8.1%	8.1%	8.1%	8.0%
Indian Subcontinent	3.4%	3.6%	3.7%	3.7%	3.8%
West Coast North America	2.5%	2.7%	2.7%	2.6%	2.7%
Middle East	4.8%	4.5%	4.6%	4.6%	4.8%
East Coast Africa	3.5%	3.6%	3.5%	3.6%	3.8%
East Coast South America	5.6%	5.4%	5.2%	4.9%	4.8%
Australasia	1.8%	1.9%	1.9%	1.8%	1.8%
West Coast South America	1.3%	1.3%	1.3%	1.3%	1.2%
North Asia	0.5%	0.5%	0.5%	0.5%	0.5%
Arctic	0.2%	0.2%	0.2%	0.2%	0.2%
Southern Ocean	0.0%	0.0%	0.0%	0.0%	0.0%

Idle tonnage for EU based shipping companies (excluding Norway and Iceland) peaked in Q2 2020 at over 31m GT and stood at 6.5% of the fleet at the end of June 2020. Idling was particularly acute in the cruise and ferry sector where almost 43% of EU-MS owned fleet capacity was idle at the peak (start of May 2020). At the start of 2021, 35% of the EU-MS owned cruise and ferry fleet in terms of GT is still understood to be idle. Figure 33 illustrates the trend in idle tonnage since the start of 2016.

[62] Source: Clarksons Research. Time Spent In Location based on vessel movements data for full years indicated. Calculations only include vessels in the fleet, with one or more locations recorded during the time period (excludes vessels with locations recorded whilst on order, reported sold for scrap, under conversion etc.). Time spent in calculated from location 'callings', based on the difference in time between when the vessel was first recorded in a location shape and when it was last recorded. Vessels known that were in lay-up (so not available promptly to add to the pool of active supply), were not moving for any other reason (e.g. storage or repairs) or that were under contract for a fixture at that time were not included in the computation.

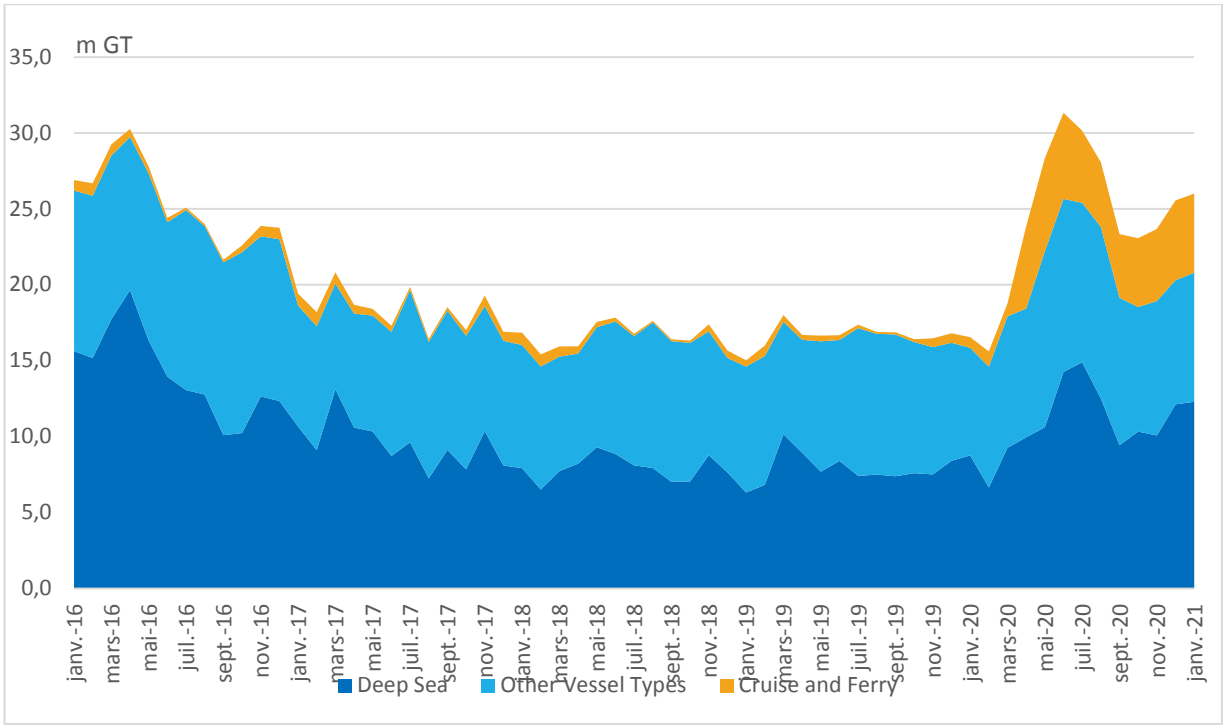


Figure 33: Idle vessel development for the EU-MS owned fleet (excluding Norway and Iceland)[63].

Tanker Storage was significant for EU tanker owners in 2020, highlighted in Figure 34. At its peak in May 2020, 11% of the capacity of the EU-MS owned tanker fleet (10,000 dwt and above) was being used for storage, either on a temporary or dedicated basis (174 million bbls of capacity). This did decline in Q3 and Q4 2020 and 4% of EU-MS owned tanker capacity was employed in storage at the start of 2021 compared to 1% a year earlier. The trend observed for EU owners mirrors the global trend closely, which also peaked at just over 11% of capacity in May 2020, falling to around 6% at the start of 2021.

[63] Source: Clarksons Research. Idle status applied to vessels not recorded with an average speed >1 knot for 14 days or more, not identified as subject to another status (e.g. laid up, under repair, storage or similar) or recorded as undertaking a voyage fixture.

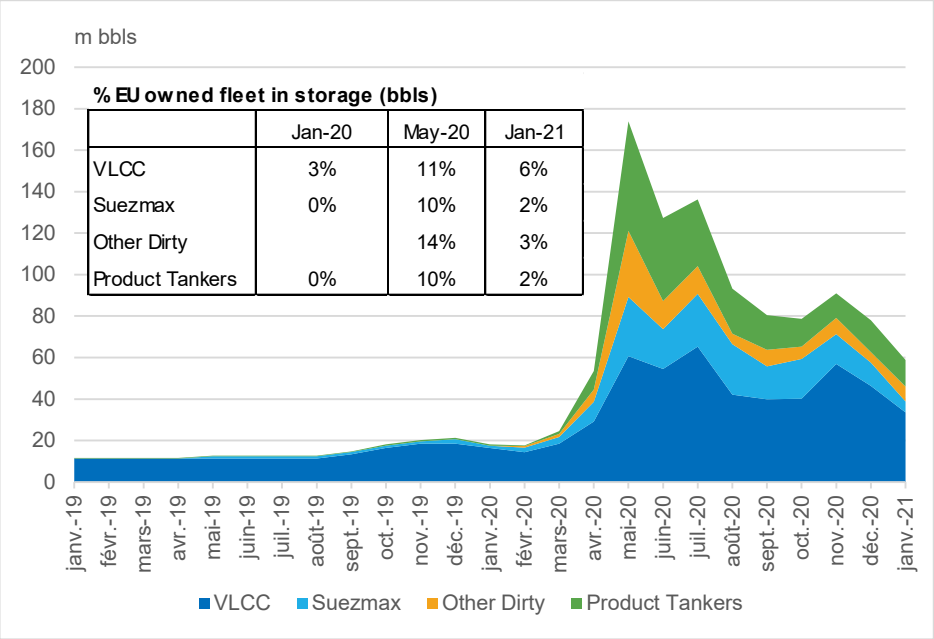


Figure 34: Floating storage development for EU-MS owned oil tankers (excluding Norway and Iceland)[64].

[64] Source: Clarksons Research. Includes vessels employed in dedicated storage. Basis crude and product tankers of 10,000 dwt or above. Data basis start of specified period.

5. Orders, New Building and Deliveries[65]

This chapter provides an overview of the global and EU shipbuilding markets, with an assessment of the impact of COVID-19 on shipyard activity and ship repair activity over the past 12 months.

In 2020 the COVID-19 pandemic led to a challenging year for the global shipbuilding industry. Disruption was relatively well managed from an output perspective, but new orders dropped more sharply. Although global shipyard *output* fell by 15% y-o-y, the impact of COVID-19 on shipbuilders' *delivery* volumes was not as severe as many might have expected, despite some yard closures early in 2020, particularly in China. *Orders* fell more sharply, by over 30% from already low levels (34% in CGT terms), with economic uncertainty and weak investor sentiment due to COVID-19 amplifying existing concerns over newbuild fuelling and technology choices. However, there was an uptick in ordering activity in Q4 against the backdrop of improved market conditions in some sectors, notably containerships, which has continued in early 2021.

The long-term market share trend for the European shipbuilding industry has been steady decline, although this had started to stabilise prior to 2020 when it declined again to 4.6%. EU market share of global shipbuilding output in 2020 by CGT (Compensated Gross Tonnes, a measure of yard work content) was 4.6%, down from 5.7% in 2019 (due in part to declining deliveries of Cruise vessels). EU shipyards took orders for a total of 325 vessels of 12.0m CGT across the period 2016-20 (not including Norway/Iceland), accounting for 10% of the global total in compensated gross tonnage terms.

Cruise newbuilding deliveries from EU yards fell by 34% in GT in 2020 (compared to a 15% decline globally), with new orders down 98% y-o-y (compared to 34% decline globally).

The growing newbuilding cruise sector has been a major European success story and around which the European shipbuilding sector has become very focused with a >90% global market share. However, this has been the sector most severely impacted by the COVID-19 pandemic. Cruise ship activity declined by over 90% from normal levels for most of 2020 As a result, all of the major cruise lines are facing huge challenges, and all have announced delays to their newbuilding programmes. There are currently 94 cruise ships on order at EU shipyards (including Norway and Iceland), with a total newbuild value of c.$60bn. As such the focus of these shipyards has adjusted rapidly from expansion and building up shipyard capacity, towards management of the existing orderbook. Although there have not been outright cancellations of vessels reported to date, the current cruise orderbook is being 'extended' across the next decade with new orders for large ships not likely for some time.

Overall, the global orderbook reached new lows in Q4 2020, to stand at 2,452 ships (merchant cargo and passenger units) of 115.6m GT at the end of 2020. Limited contracting and relatively resilient delivery volumes continued to drive a decline in the size of the global orderbook, which has reached a 30-year low of c.7% of the global fleet in tonnage terms. The **bulk carrier** sector accounted for the largest share of the global shipbuilding orderbook as of end 2020, with 617 vessels of 30.1m GT on order. Meanwhile, there were 560 tankers of 29.1m GT and 305 containerships of 22.6m GT on order as of end 2020. The 'big 3' shipbuilding nations of China, South Korea and Japan continue to dominate the industry, and accounted for 88% of tonnage on order as of end 2020. Meanwhile, EU shipbuilders had 182 ships on order as of the end of 2020, with half of this total accounted for by the cruise sector. Global newbuild prices fell over the course of 2020 but started to pick up towards the end of the year.

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[65] Ownership details, where included are defined as in Chapter 5. 'Builder Country/Region' data is defined according to the physical location of the shipyard at which a given vessel order/delivery is reported to have taken place. None of the information provided is intended to confirm or otherwise the legal status of the companies or the ships associated with them. Value information, where provided, is based on a combination of reported (where available) and estimated newbuild contract prices.
For the purposes of this report, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country. See Table 65 in Appendix B for an overview of country groupings.
The fleet includes all cargo carrying vessels over 100 GT as well as cruise and passenger vessels and is sourced from the Clarksons Research vessel database on the 1st January 2021. Table 66 in Appendix B details the ship types covered by the report and those not covered (e.g. tugs, offshore support, dredgers).

Ship-recycling activity remained relatively low in 2020 compared to recent years. Global ship recycling activity totalled 565 vessels of a combined 17.4m GT (all merchant sectors) in 2020, up year-on-year but still the second lowest volume since the start of the financial crisis. Aside from market conditions which were also impacted by the pandemic (e.g. weak container markets in Q2 encouraged some demolition), COVID-19 restrictions in the Indian Sub-Continent held back volumes, especially in Q2. 'Green recycling' regulation has continued to have an impact. A record 1.6m GT was reported sold for scrap to Turkish recyclers in 2020, with a number of these yards approved under the EU SRR; that said, most approved yards within the EU are still unable to competitively bid for tonnage in the volume shipping sectors.

Ship repair activity remained relatively steady in 2020, despite some COVID-19 related disruption in Q2. EU yards have a larger global market share (17% of activity 2019-20) in ship repair than in newbuilding (~5%). Some volume of work was impacted at EU yards in 2020 by yard disruption / closures and special survey deferrals following the COVID-19 outbreak, peaking in Q2 2020 when activity fell by around 10%. Scrubber retrofit activity at yards started the year very high (particularly in the first half of the year, although this then slowed significantly as the rush to meet IMO 2020 low sulphur deadline passed and the price differential between low and high sulphur fuel oil narrowed). Ballast water management system (BWMS) retrofits have also been significant sources of activity. Retrofits of ESTs (notably, ahead of the introduction of IMO short-term GHG measures in 2023 / 2025) and even fuel conversions are likely to provide significant work for repair yards in the EU and elsewhere over the next few years.

5.1 The EU shipbuilding industry in context

A total of 716 merchant cargo and passenger vessels (100+ GT) of a combined 18.6m CGT were contracted globally in 2020 (see Table 44) a 34% decline year-on-year in CGT term. Overall, around 40% of contracting (in CGT terms) took place in Q4; this momentum has continued into 2021, with the 'surge' in boxship ordering continuing in January and February. As shown in Table 44, contracting declined in every builder region except for 'Other Europe' (including Russia), where there was an increase in LNG carrier contracting. The decline in contracting was particularly significant at EU shipyards, where ordering declined 92% year-on-year, due mainly to the sharp drop in cruise ship ordering.

Table 44: Annual Contracting by Builder Country/Region[66].

Builder Country/Region	No. Vessels						m. CGT					
	2016	2017	2018	2019	2020	y-o-y	2016	2017	2018	2019	2020	y-o-y
EU	107	63	61	69	25	*-64%*	3.1	3.4	2.2	3.1	0.2	*-92%*
China	380	669	559	473	350	*-26%*	4.9	12.3	10.4	9.2	7.8	*-16%*
South Korea	76	207	285	229	185	*-19%*	2.2	7.8	13.4	9.7	8.0	*-18%*
Japan	178	282	395	340	86	*-75%*	2.4	3.5	7.0	5.1	1.4	*-73%*
Other Europe	28	49	41	25	23	*-8%*	0.4	0.4	0.5	0.2	0.9	*283%*
Other Asia	180	245	129	93	43	*-54%*	1.0	2.1	1.0	0.9	0.3	*-61%*
Rest of World	68	112	15	13	4	*-69%*	0.3	0.4	0.0	0.1	0.0	*-82%*
Global Total	**1,017**	**1,627**	**1,485**	**1,242**	**716**	***-42%***	**14.2**	**29.9**	**34.5**	**28.3**	**18.6**	***-34%***

Across the major cargo sectors, ordering fell significantly year-on-year, with global **bulker** ordering down 58% in tonnage terms (181 orders of 13.5m dwt), while **tanker** ordering declined by 8% (217 orders of 24.0m dwt). Meanwhile, **boxship** contracting increased slightly in capacity terms in 2020, to 89 ships of c.890,000 TEU (73% of which was ordered in Q4). In the **cruise** sector, there was only one order between March 2020 and the end of the year as the industry grappled with extremely difficult trading conditions, amid coronavirus outbreaks on cruise ships early in 2020, and ongoing restrictions on travel.

Newbuild prices fell on a global level across 2020, with the limited demand for newbuild vessels pushing pricing down slightly. This is shown in Figure 35, which shows the change in newbuild prices since 2019 for a range of sectors, as well as the Clarksons Newbuilding Price Index. However, pricing started to increase towards the end of the year as some ordering interested picked up and steel prices also picked up

[66] Source: Clarksons Research.

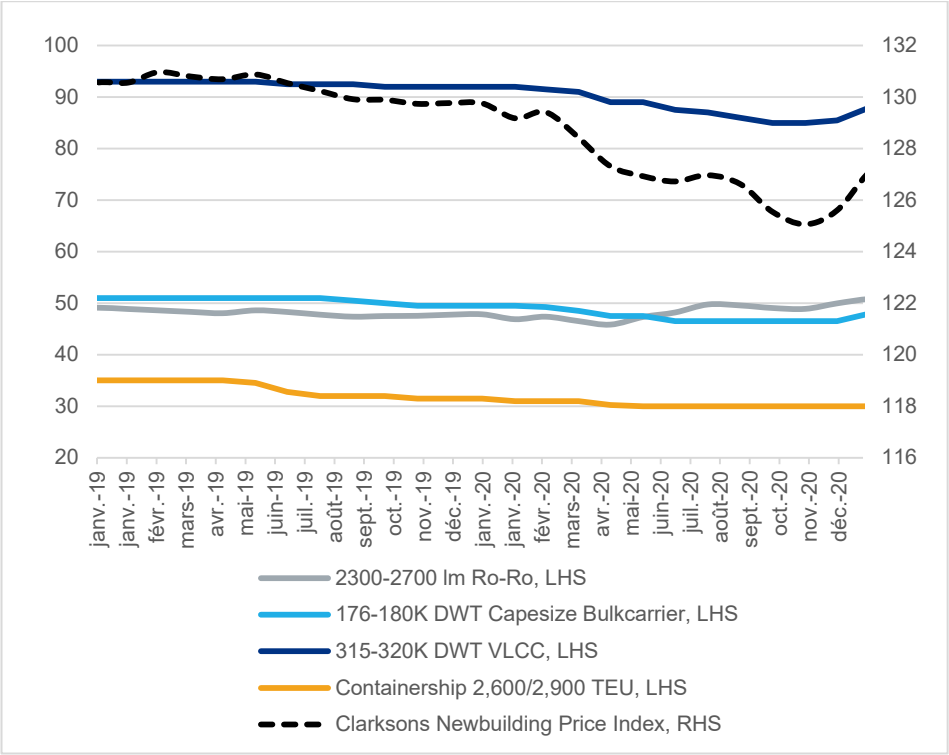

Figure 35: Monthly Newbuild Prices (Selected Sectors & Clarksons Index)[67].

Table 45 outlines the regional breakdown of global deliveries in 2020. Shipyard output declined slightly in 2020, to total 1,322 merchant cargo and passenger ships (100+ GT) of a combined 28.1 CGT. This represented a decrease of 15% in CGT terms and the lowest annual total since 2004. That said, the volume of deliveries declined less than might be expected following the initial COVID-19 outbreak, which led to widespread closures in Q1, particularly in China. Owing to the limited scale of shutdowns elsewhere, and initiatives in China such as overtime working, output returned to 'normalised' levels for most of 2020.

Delivery volumes increased slightly in the bulk carrier sector, while tanker, boxship and gas carrier deliveries fell year-on-year. Elsewhere, cruise ship output also fell despite the large orderbook, with some owners reportedly negotiating delivery delays from European yards as a result of the COVID-19 pandemic. Shipyard output declined across all major builder countries in 2020. In CGT terms, the 'big 3' builder countries of China, South Korea and Japan accounted for 90% of output in 2020, as shown in Table 45. In contrast, EU yards (excluding Norway and Iceland) represented 5% of total output: 40 vessels of 1.3m CGT, down 34% year-on-year in CGT terms.

Table 45: Annual Deliveries by Builder Country/Region[68].

Builder Country/Region	No. Vessels						m. CGT					
	2016	2017	2018	2019	2020	y-o-y	2016	2017	2018	2019	2020	y-o-y
EU	77	94	66	75	40	*-47%*	1.7	1.8	1.7	1.9	1.3	*-34%*
China	612	638	573	611	489	*-20%*	10.7	11.5	10.8	11.1	10.3	*-7%*
South Korea	346	275	180	227	210	*-7%*	12.0	10.3	7.5	9.5	8.7	*-8%*
Japan	411	396	371	447	399	*-11%*	7.0	6.8	7.6	8.2	6.2	*-24%*
Other Europe	12	16	26	45	35	*-22%*	0.1	0.1	0.2	0.4	0.2	*-41%*
Other Asia	175	189	222	194	134	*-31%*	1.5	1.9	2.1	1.5	1.3	*-17%*
Rest of World	68	78	69	103	15	*-85%*	0.4	0.4	0.4	0.5	0.0	*-90%*

[67] Source: Clarksons Research. Clarksons Newbuilding Price Index includes a wide range of newbuild prices across the bulkcarrier, tanker, containership, gas carrier and other dry cargo sectors, weighted by their size in dwt. January 1988=100.
[68] Source: Clarksons Research.

Global Total	**1,701**	**1,686**	**1,507**	**1,702**	**1,322**	***-22%***	**33.4**	**32.7**	**30.2**	**33.1**	**28.1**	***-15%***

5.2 The Global and EU-owned orderbook

The global orderbook reached new lows in Q4 2020, to stand at 2,452 ships (merchant cargo and passenger units) of 115.6m GT at the end of 2020. Limited contracting and relatively resilient delivery volumes continued to drive a decline in the size of the global orderbook, which has reached a 30 year low of c.7% of the global fleet in tonnage terms. The bulk carrier sector accounted for the largest share of the global shipbuilding orderbook as of end 2020, with 617 vessels of 30.1m GT on order. Meanwhile, there were 560 tankers of 29.1m GT and 305 containerships of 22.6m GT on order as of end 2020.

EU owners account for ~25% of the global orderbook (Although EU ordering activity fell in 2020, EU owners maintained this market share of newbuild contracting. In contrast to the European shipyard orderbook, EU owners' orderbook is more evenly balanced across the major shipping sectors. EU owners (including Norway) have around 550 ships on order as of start 2021, including 49 bulkers, 137 tankers and 48 containerships. Passenger vessels still make up a significant proportion of the EU-owned orderbook (96 units), though a much lower share in comparison to EU shipbuilders' orderbook.

Contracting by EU owners decreased in 2020 in line with global trends (down 9% y-o-y), against the backdrop of the COVID-19 pandemic, although it increased marginally as a proportion of the global total (9.8m GT including Norway and Iceland, a 27% market share). This compares to a 22% share if UK, Norwegian and Icelandic owners are excluded from the total. In investment value terms, contracting by EU owners fell more sharply in 2020, by an estimated 49% year-on-year, due partly to the collapse in cruise ship newbuild ordering. Since Q4 2020, the main source of newbuild investment has been the containership sector (with over 100 boxship orders of above 1.0m TEU since start October). This has included significant investment by European owners; significant further ordering is expected across 2021 from some of the major liner and charter owners that have not yet placed large series orders.

EU owners' share of global delivery volumes fell to 28% in 2020 (15.9m GT including Norway and Iceland), from 34% a year earlier. This is down over a 5-year timeframe from 45% in 2016. As previously, Greek owners accounted for almost 50% of tonnage delivered in 2020 (7.4m GT), while deliveries to Norwegian (3.7m GT) and UK (1.5m GT) owners were also significant. However, deliveries to most owner countries declined as per the overall trend. Please note that Contracting and Deliveries data tables in estimated investment value ($bn) terms are available in the Appendixes.

5.3 EU Shipbuilding Yards

European shipbuilders have generally lost market share over time to shipyards in East Asia. As such, since the early 1990's Asian shipyards have accounted for the majority of the global newbuilding orderbook. Meanwhile, the fate of European shipbuilding in recent years has generally been dependent on the ability to specialise in higher value, complex sectors (most notably cruise ships). Shipyards which have been able to leverage specialist technical knowledge to win contracts for higher-spec or more bespoke vessels have often been able to remain in business. However, those which failed to diversify away from the higher volume sectors have generally struggled, with most being forced to exit the newbuilding market for merchant vessels. In 2020, the COVID-19 pandemic exerted further pressure on European shipbuilding, with weakened investor sentiment limiting contract volumes. The impact has been particularly severe in the cruise sector, which has been central to European shipbuilding in recent years.

EU shipyards won orders for just 25 merchant cargo and passenger vessels (100+ GT) of 0.23m CGT in 2020, a year-on-year decline of 92% in CGT terms. This decline was primarily driven by a collapse in cruise ship ordering against the backdrop of the COVID-19 pandemic's severe impact on the industry. Only five cruise ships of c.990 berths were ordered at European yards in 2020, down from 34 units of c.61,600 berths in full year 2019 (the second highest annual total on record in capacity terms). Order volumes outside of the cruise market were generally subdued in 2020, amid weakened investor sentiment related to the COVID-19 pandemic and concern over newbuild fuelling and technology. Apart from the Netherlands, where builders took a similar number of orders (10 vessels) to recent years, predominantly in the general cargo sector, newbuilding contracting volumes were generally well below recent historical levels in most countries. In particular, shipbuilding countries with a significant focus on the cruise ship sector (such as Germany, Italy and France) saw much lower order volumes in CGT terms than in previous years.

Table 46 shows the sector breakdown of orders at EU yards (including Norway/Iceland). Activity in 2020 was limited mainly to the passenger ferry (6 orders) and general cargo (11 orders) sectors, with some small cruise ship orders also placed before the outbreak of the COVID-19 pandemic.

In terms of Output from EU shipbuilders (including Norway), this reached 58 units of 1.42m CGT in 2020, down 37% year-on-year in CGT terms. This decrease was largely driven by a decline in cruise ship output from 24 to 14 units. With the vast majority of cruise owners' operations remaining suspended throughout 2020 and into 2021, there have been widespread reports of owners negotiating delays to the delivery of their vessels (see cruise newbuilding focus). Local 'lockdowns' across Europe related to the COVID-19 pandemic (notably in Italy) were reported to cause some delays to the delivery schedule. However, many European yards were quick to implement new working practices, limiting the impact of the pandemic on output volumes.

Delivery 'Slippage' of vessels on the European orderbook increased significantly in 2020. Measured as a proportion of the start year orderbook which was not delivered during 2020, delivery slippage at European yards (including all non-EU countries) increased from c.10% in 2019 to c.40% in 2020. This was largely a result of increased slippage at cruise shipbuilders, with notable increases in slippage in major cruise builder countries. It is also notable that outright cancellation of vessels was relatively limited in 2020; the vast majority of vessels not reported delivered during 2020 still remain on shipyards' orderbooks.

Table 46: Annual Contracting at EU Shipyards, by Builder Country[69].

Builder Country	No. Vessels						m. CGT					
	2016	2017	2018	2019	2020	% y-o-y	2016	2017	2018	2019	2020	% y-o-y
Bulgaria	2	0	0	0	0		0.01	0.00	0.00	0.00	0.00	
Croatia	22	7	6	3	0	*-100%*	0.20	0.02	0.07	0.02	0.00	*-100%*
Denmark	0	0	1	0	1		0.00	0.00	0.00	0.00	0.00	
Estonia	2	0	0	0	0		0.01	0.00	0.00	0.00	0.00	
Finland	2	4	1	5	1	*-80%*	0.04	0.68	0.12	0.29	0.03	*-91%*
France	4	5	2	5	0	*-100%*	0.33	0.81	0.17	0.69	0.00	*-100%*
Germany	23	5	8	8	2	*-75%*	1.10	0.42	0.52	0.74	0.02	*-97%*
Greece	6	2	2	0	0		0.02	0.00	0.01	0.00	0.00	
Italy	13	15	9	15	0	*-100%*	1.24	1.25	1.12	1.14	0.00	*-100%*
Lithuania	0	0	0	0	1		0.00	0.00	0.00	0.00	0.00	
Netherlands	5	10	13	11	14	*27%*	0.02	0.07	0.06	0.06	0.07	*24%*
Poland	16	3	6	2	0	*-100%*	0.02	0.03	0.03	0.02	0.00	*-100%*
Portugal	1	0	2	0	4		0.02	0.00	0.04	0.00	0.09	
Romania	3	5	0	7	0		0.01	0.03	0.00	0.06	0.00	
Spain	8	5	7	9	2	*-78%*	0.08	0.05	0.08	0.06	0.01	*-76%*
United Kingdom	0	2	4	4	0	*-100%*	0.00	0.00	0.01	0.01	0.00	*-100%*
Total EU	**107**	**63**	**61**	**69**	**25**	***-64%***	**3.09**	**3.36**	**2.23**	**3.09**	**0.23**	***-92%***
Total EU excl. UK	**107**	**61**	**57**	**65**	**25**	***-62%***	**3.09**	**3.36**	**2.22**	**3.08**	**0.23**	***-92%***
Norway	16	24	22	10	1	*-90%*	0.31	0.20	0.24	0.09	0.00	*-98%*
Total (inc. Norway, Iceland)	**123**	**87**	**83**	**79**	**26**	***-67%***	**3.40**	**3.56**	**2.46**	**3.18**	**0.23**	***-93%***

Table 47: Annual Contracting at EU Shipyards, by Vessel Sector[70].

Vessel Sector	No. Vessels						m. GT					
	2016	2017	2018	2019	2020	% y-o-y	2016	2017	2018	2019	2020	% y-o-y
Bulkcarriers	4	0	0	1	0	*-100%*	0.04	0.00	0.00	0.01	0.00	*-100%*
Oil Tankers	6	0	0	0	1		0.21	0.00	0.00	0.00	0.00	
Chem. & Spec. Tankers	5	0	0	1	1	*0%*	0.02	0.00	0.00	0.00	0.00	*12%*
Liquid Gas Tankers	1	0	0	3	1	*-67%*	0.00	0.00	0.00	0.01	0.00	*-45%*
Containerships	3	0	1	0	0		0.05	0.00	0.00	0.00	0.00	
MPP/General Cargo	5	7	15	8	11	*38%*	0.07	0.04	0.04	0.02	0.05	*109%*
Reefers	0	0	0	0	0		0.00	0.00	0.00	0.00	0.00	
RoRo	8	3	3	4	1	*-75%*	0.24	0.07	0.07	0.01	0.03	*213%*
Pure Car Carriers	0	0	0	0	0		0.00	0.00	0.00	0.00	0.00	
Ferries	57	48	41	28	6	*-79%*	0.15	0.17	0.25	0.14	0.00	*-97%*
Cruise	34	29	23	34	5	*-85%*	2.53	3.24	1.92	2.64	0.05	*-98%*

[69] Source: Clarksons Research.
[70] As above.

Total	**123**	**87**	**83**	**79**	**26**	***-67%***	**3.31**	**3.52**	**2.28**	**2.83**	**0.14**	***-95%***

5.3.1 Focus on the Cruise Sector

The cruise sector has been the major success story for European yards in recent years. However, this has been the sector most severely impacted by the COVID-19 pandemic. Cruise ship activity declined by over 90% from normal levels for most of 2020. As a result, all of the major cruise lines are facing huge challenges, and all have announced delays to their newbuilding programmes. There are currently 94 cruise ships on order at EU shipyards (including Norway and Iceland), with a total estimated newbuild value of c.$57bn. As such the focus of these shipyards has adjusted rapidly from expansion and building up shipyard capacity, towards management of the existing orderbook. Although there have not been outright cancellations of vessels, the current cruise orderbook is being 'extended' across the next decade, with new orders for large ships not likely for some time.

Table 48 gives a summary of the current cruise orderbook at EU shipyards in both numerical and estimated contract value terms. The delivery schedule shows this orderbook split by scheduled year of delivery. The table shows that 12 cruise ship deliveries are already scheduled for 2025 and later, and further deferrals of delivery dates are expected to be publicised over the coming months.

Table 48: Current Cruise Orderbook Delivery Schedule at EU Shipyards (No. Vessels & $bn)[71].

Country/ Region	Shipyard	Total Cruise Orderbook (No.)	Delivery Schedule (No.)					Total Cruise Orderbook ($bn)	Delivery Schedule ($bn)				
			2021	2022	2023	2024	2025+		2021	2022	2023	2024	2025+
Croatia	Brodosplit	3	3					0.3	0.3				
	Uljanik Brod.	1	1					0.1	0.1				
Finland	Helsinki Shipyard	3	1	2				0.4	0.1	0.2			
	Meyer Turku	6	1	2	1	1	1	6.1	1.0	2.1	0.6	1.2	1.2
France	Chantiers Atlantique	11	1	4	2	2	2	11.7	0.9	4.2	2.3	2.0	2.2
Germany	Meyer Werft	9	2	4	3			7.2	1.9	3.0	2.3		
	MV Werften Stralsund	4		4				1.0		1.0			
	MV Werften Wismar	8		3	3	2		5.8		2.8	1.8	1.2	
Italy	Fincantieri Ancona	7	1	2	2	1	1	2.8	0.4	0.7	0.9	0.4	0.4
	Fincantieri Marghera	7	1	1	1	1	3	5.8	0.5	0.9	0.9	0.9	2.7
	Fincantieri Monfalco	12	2	2	2	2	4	9.9	1.8	2.0	1.6	1.5	3.1
	Fincantieri Sestri	6	2	2	1		1	4.0	1.1	1.4	0.8		0.7
	T. Mariotti	2	1	1				0.3	0.2	0.2			
Norway	Ulstein Ulsteinvik	1	1					0.1	0.1				
	VARD Langsten	1	1					0.1	0.1				
	VARD Soeviknes	5	2	3				1.2	0.6	0.5			
Portugal	West Sea	5	1	2	2			0.4	0.1	0.2	0.2		
Spain	Astillero Barreras	2	2					0.1	0.1				
	Metalships	1	1					0.0	0.0				
Total EU (incl. Norway)		94	24	32	17	9	12	57.3	9.4	19.1	11.3	7.2	10.3

5.4 Ship recycling

Global ship recycling activity totalled 565 vessels of a combined 17.4m GT in 2020 (all merchant sectors, GT data shown in Table 49), representing a 46% year-on-year increase in tonnage terms, albeit on limited 2019 levels. Following the global spread of the COVID-19 pandemic, some shipping observers expected a large volume of ships to be sold for scrap across 2020. However, in GT terms 2020 represented the second lowest annual ship recycling volumes since the onset of the financial crisis, with the impact of the pandemic on shipping markets arguably not as damaging as initially expected, and widespread COVID-19 related restrictions limiting recycling yard activity (across Q2 in particular).

[71] Source: Clarksons Research.

Table 49: Demolition by Ship Recycling Location (2016-20)[72].

Country	Total Ship Recycling 2016-2020 (m GT)	2016	2017	2018	2019	2020
India	29.0	9.4	6.8	4.7	3.2	4.9
Bangladesh	36.9	9.5	6.7	8.6	6.7	5.5
Pakistan	16.7	5.4	4.1	4.0	0.3	2.9
ISC (Unknown Country)	2.2	0.2	0.0	0.0	0.1	2.0
China	8.3	3.5	3.8	0.5	0.4	0.2
EU + Norway (incl. UK)	0.3	0.0	0.0	0.1	0.0	0.1
Turkey	5.5	0.9	1.2	0.7	1.0	1.6
Other	1.4	0.3	0.3	0.3	0.2	0.3
Global Total	**100.3**	**29.3**	**22.9**	**18.8**	**11.9**	**17.4**

Following the introduction of the EU Ship Recycling Regulation (SRR) at the beginning of 2019, 'green recycling' has continued to gain prominence across the maritime sector. During 2020, a record 1.6m GT was reported sold for scrap to Turkish recyclers, with several owners of European-flagged cruise and containership owners choosing to recycle at 'approved yards' in compliance with the EU SRR. Given that no Indian sub-continent yard has yet been approved by the EU, and concerns about limited capacity in Turkey, it is possible that owners of European-flagged vessels will begin to sell more vessels for scrap at recycling facilities within the EU itself.

5.5 Ship repair

In general, ship repair activity remained relatively steady in 2020, and the ship repair industry stabilised quickly following yard disruption due to COVID-19 (in China, activity in February 2020 was down 40% on Q4 2019 levels), with activity ramping up in the second half of the year. In total, Clarksons Research data shows over 11,000 'repair events' in 2020, including surveys, retrofits, repairs, refurbishments and conversions.

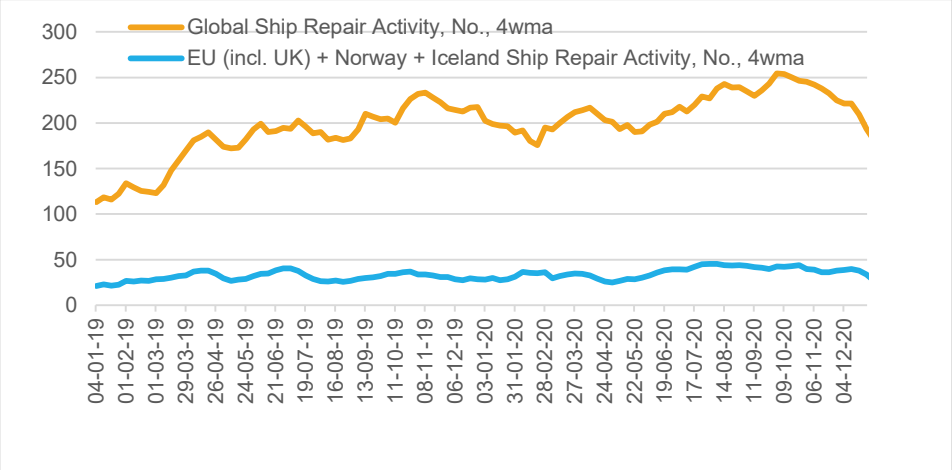

Figure 36: Weekly ship repair activity 2019-20 (Global and EU, all activity types)[73].

Despite disruption in Q1, Chinese repair yards remain dominant, accounting for 49% of global repair events in 2020, ahead of yards in Turkey (9%) and the U.A.E. (4%) and up from 45% in 2019. In total, as shown on Figure 36, repair activity dipped by around 10% in February/March 2020 as a result of COVID-19 related disruption, although this impact was bigger in China in particular than it was in Europe.

[72] Source: Clarksons Research.
[73] Source: Clarksons Research. Note: Weekly data. Includes all types of 'ship repair event' reported by Clarksons Research, including special surveys, equipment retrofits, repairs, offshore conversions and cruise refurbishments. Data on special surveys and other events is collected by combining information from a range of sources, including AIS data.

EU yards have a larger global market share (17% of activity 2019-20 including Norway/Iceland) in ship repair than in newbuilding (~5%). As shown by Table 50, this share has remained relatively consistent over the past two years. Overall ship repair activity increased in 2020 despite the COVID-19 pandemic, largely as a result of increased scrubber and ballast water management system (BWMS) retrofitting. As elsewhere, European ship repair yards have benefitted from the increased volume of work available in recent years, particularly ballast water management system (BWMS) and scrubber retrofits.

Table 50: Quarterly ship repair activity (Global and EU, all activity types)[74].

Year	Quarter	Global	EU (inc. UK)	*% EU (inc. UK)*	EU (excl. UK)	*% EU (excl. UK)*	EU (incl. UK) + Norway + Iceland	*% EU (incl. UK) + Norway + Iceland*
2019	Q1	1,805	335	*19%*	322	*18%*	364	*20%*
	Q2	2,462	405	*16%*	390	*16%*	457	*19%*
	Q3	2,539	361	*14%*	346	*14%*	385	*15%*
	Q4	2,861	376	*13%*	361	*13%*	399	*14%*
2020	Q1	2,580	400	*16%*	384	*15%*	444	*17%*
	Q2	2,629	373	*14%*	359	*14%*	406	*15%*
	Q3	3,145	523	*17%*	503	*16%*	566	*18%*
	Q4	2,867	444	*15%*	421	*15%*	474	*17%*

[74] Source: Clarksons Research

6. Cruise Ships, Passenger Ships and RoPax

6.1 Introduction

The COVID-19 pandemic has caused unprecedented disruption across the global ferry market, albeit not as severe as Cruise and with some earlier recovery signs. Ferry activity globally, as defined by port calls, dropped by nearly 40% y-o-y in Q2 2020, although this trend does appear to have bottomed out and is slowly improving (in Europe – 34% y-o-y in May and -26% y-o-y in July). Reports from European ferry companies suggest that revenues may have dropped by 60-80%, although these levels may also have "bottomed out" and more recent reports suggest revenues are now down c.20% y-o-y. With significant financial stress in the system, support will be needed and a well-managed COVID-19 recovery for ferry markets to recover.

EU owners and EU-MS flags represent around 50% of ferry tonnage globally.

EU ferry activity by port calls fell by 20% across 2020, but disruption peaked at -42% y-o-y in Q2 and improved to -10% in Q4. In full year 2020, passenger ferry callings declined 20% whilst callings at EU member states including Norway and Iceland declined 19% year-on-year. Ferry port calling activity within the EU fell by 42% in Q2, before recovering to be 10% down y-o-y by Q4.

Prior to the impact of the COVID-19 pandemic, the global cruise market was in a significant growth, phase reaching 30 million passengers and with a growing fleet driven by a record newbuilding program mainly being constructed at European shipyards. The global cruise industry in 2019 was estimated to be worth around $40 billion and over 30 million passengers took a cruise, up from 19 million ten years earlier. Passenger numbers grew by 5% in 2019. There were generally positive fundamentals for the industry, good financial performance from cruise lines and new companies entering the market. Annual growth fleet capacity grew at 7.1% in 2019.

Europe represents 25% of the global cruise market in terms of passenger volumes, with 7.5m passengers in 2019 up from 5 million ten years earlier. Most of the activities is in the Mediterranean, which represented about 17% of global cruise capacity in 2019. Moreover, around one third of global activity involved EU ports in the same year.

Around 35% of the global cruise fleet is EU-MS flagged (30% excluding the UK) and around 18% is owned by EU companies (at the parent group nationality level) in GT terms.

Cruise market has been deeply impacted by COVID-19 pandemic, both globally and in the EU. The pandemic had an almost immediate impact on the cruise industry with several cases on ships being reported early in the pandemic. Global port callings globally declined ~80% in 2020. Lines have tried to demonstrate that safe operation of their vessels is possible, but the recovery of the sector is dependent on the wider state of the pandemic and travel restrictions being lifted. The global cruise fleet has contracted in numeric terms in 2020, with deliveries slipping (14 vessels, down from 27) and demolition increasing (15 vessels, up from 2), to reach 459 vessels of 24m GT.

Cruise ship operators have faced significant financial difficulties since the outbreak, with all the publicly listed owners announcing large losses. Whilst share prices have recovered marginally since March (cruise lines have had to raise large volumes of finance, primarily through debt markets. Bookings for 2021 are reportedly still steady across the major lines possibly owing to high customer loyalty and 'pent-up' demand. Globally, short term demand is still closely tied to the pandemic, but long-term demand is still potentially strong: ageing populations are likely to generate future demand.

Measured by port calls, callings at EU Member States fell by 79% across 2020 by over 90% in Q2. Recovery potential has been limited to date. In addition, European yards, where the majority of cruise newbuildings are being built, faced delays to the planned orderbook schedule; however, there have been no cancellations reported. There is some positivity around the return of cruise lines for Europe. Lines are preparing for a moderate return to the Mediterranean this summer. Cruises are likely to be more destination focused with a greater potential for domestic type operations such as Greek/Aegean islands.

The fleet in this chapter complements those in Chapters 3 and 4 and looks closer at the cruise and passenger ferry sector. Figure 37 provides some fleet definitions used in this chapter, which covers the passenger ferry and cruise sector but excludes cargo carrying RoRo freight vessels and car carriers. The global cruise fleet totalled 459 vessels of 24.4m GT with a further 106 vessels of 9.4m GT on order. EU owners (including Norway and Iceland)

accounted for 20% of global tonnage (see Table 51). The passenger ferry fleet totalled 8,120 ferries globally, EU owners (including Norway and Iceland) accounted for 53% of global tonnage (Table 52).

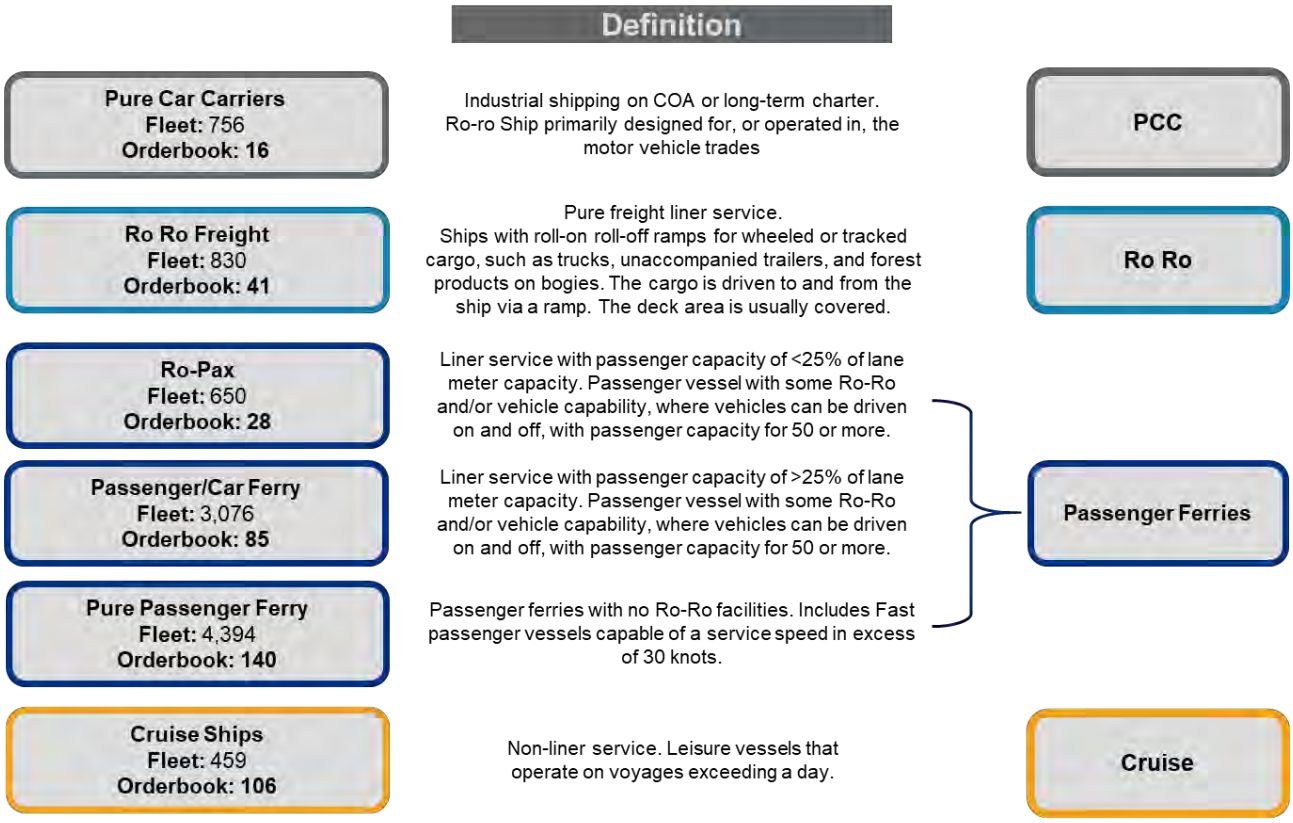

Figure 37: Breakdown of the Passenger/Freight Capable Fleet (PCC & Ro Ro Freight excl. from this chapter).

Table 51: Global Passenger Fleet by Owner Nationality[75].

By Owner Nationality	Cruise		Total Ferries		*of which pure passenger*		*of which RoPax/Car*		Total Cruise/Ferry	
	Number	'000 GT	Number	'000 GT	*Number*	*'000 GT*	*Number*	*'000 GT*	Number	'000 GT
Total EU	110	4,441	2,058	10,277	*1,021*	*354*	*1,037*	*9,924*	**2,168**	**14,718**
as % Global	*24%*	*18%*	*25%*	*49%*	*23%*	*18%*	*28%*	*52%*	***25%***	***32%***
Total EU excl. UK	100	4,185	1,931	10,095	*984*	*342*	*947*	*9,753*	**2,031**	**14,280**
as % Global	*22%*	*17%*	*24%*	*48%*	*22%*	*17%*	*25%*	*51%*	***24%***	***31%***
Total (inc. Norway, Iceland)	133	4,905	2,527	11,275	*1,153*	*389*	*1,374*	*10,886*	**2,660**	**16,180**
as % Global	*29%*	*20%*	*31%*	*53%*	*26%*	*19%*	*37%*	*57%*	***31%***	***35%***
Global	459	24,406.7	8,120	21,171.2	*4,387*	*2,018.4*	*3,733*	*19,152.8*	**8,579**	**45,577.8**

[75] Source: Clarksons Research: Owner details provided are intended to show the primary reference company, defined as the company with the main commercial responsibility for the ship. Nationality is defined as the "Real Nationality", i.e. the home country/region of the interests behind the primary reference company. None of the information provided is intended to confirm or otherwise the legal status of the companies or the ships associated with them. For the purposes of this report, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country.

Table 52: Global Passenger Fleet by Flag State[76].

By Flag Country	Cruise		Ferries		*of which pure passenger*		*of which RoPax/Car*		Total Cruise/Ferry	
	Number	'000 GT	Number	'000 GT	*Number*	*'000 GT*	*Number*	*'000 GT*	Number	'000 GT
Total EU	144	8,443	2,149	10,333	*1,103*	*373*	*1,046*	*9,960*	**2,293**	**18,777**
as % Global	*31%*	*35%*	*26%*	*49%*	*25%*	*19%*	*28%*	*52%*	***27%***	***41%***
Total EU excl. UK	132	7,434	2,023	9,831	*1,068*	*363*	*955*	*9,468*	**2,155**	**17,265**
as % Global	*29%*	*30%*	*25%*	*46%*	*24%*	*18%*	*26%*	*49%*	***25%***	***38%***
Total (inc. Norway, Iceland)	165	8,901	2,626	11,215	*1,242*	*409*	*1,384*	*10,805*	**2,791**	**20,116**
as % Global	*36%*	*36%*	*32%*	*53%*	*28%*	*20%*	*37%*	*56%*	***33%***	***44%***
Global	459	24,406.7	8,120	21,171.2	*4,387*	*2,018.4*	*3,733*	*19,152.8*	**8,579**	**45,577.8**

6.2 Impact of COVID-19 on the European Passenger Ferry Market[77]

This section will present statistics displaying the impact of the COVID-19 pandemic on the passenger ferry sector.

The COVID-19 pandemic has caused unprecedented disruption across the global ferry market, albeit not as severe as Cruise. Between 2017 and 2019, the Ferry/Ro-Pax and Ro-Ro markets were generally healthy, with an improving European economy, low fleet growth and tighter tonnage availability after the surpluses post financial crisis. However, as a result of the COVID-19 pandemic, global activity, based on port calling activity declined by 23% in full year 2020, with the most severe drop in Q2, showing a 41% decline on the same quarter in 2019. Activity at ports in the European Union (including Norway and Iceland) recorded a similar decline in activity in Q2 but displayed a slightly better recovery towards the end of the year, with ferry callings at EU ports (including Norway and Iceland) down 10% year-on-year in Q4 compared to a 19% decline globally.

Passenger ferry callings at EU members in 2020 generally tracked below 2019 but the number of callings recovered towards the end of the year nearly reaching 2019 levels. As with cruise vessel calling Q1 2020 was at the same levels as Q1 2019. Once the COVID-19 pandemic reached Europe in mid-March this began to affect movements as national lockdowns came into force. Callings reach a nadir in early April before recovering through the year tracking the typical seasonal pattern. The dip at the end of the year is due to the Christmas holidays and the reduced services during this period of the year.

The majority of the Ferry fleet is owned and operated so, despite some correlation, the charter and sale and purchase market are relatively thin compared to the Ro Ro freight market. Activity is significantly less liquid compared to the tanker or bulker markets. As a result, commercial indicators are difficult to compile.

Table 53 shows callings at EU member states by passenger ferries over 5,000 GT. This is broken down by EU Member States and territories. Due to their geographic remoteness to their parent countries the Azores, Canary Islands and Madeira have been listed separately to highlight the importance of the passenger sector to these local economies. Of the most active member states in terms of port callings, activity in Q4 2020 in Italy and Sweden in particular returned to pre-COVID levels, while callings in Norway were down only 9% y-o-y in Q4 compared to a 19% global decline.

Despite the pandemic Croatia and Cyprus were the only countries with a significant number of callings and a positive year-on-year growth rate. Callings at Croatian ports were up 12% year-on-year and up 7% on 2018 callings. Meanwhile, callings at Cypriot ports increased 31% year-on-year.

Elsewhere, callings at French ports declined 25% year-on year in 2020 as traffic slowed between France and Algeria (see Figure 38 and Figure 39) as well as other destinations.

[76] Source: Clarksons Research.
[77] For guidance, the passenger ferry calling data at a member state level includes passenger ferries and Ro-Paxes over 5,000 GT only, unless otherwise specified. Callings data can be difficult to capture for smaller ferries that have fast port turnaround times and data at a member state level for smaller vessels may therefore undercount reality, although trends are considered more reliable at an aggregate level. Full callings data for all passenger ferries above 100 GT can be found in the Appendixes.

Table 53: Global Passenger Ferry >5,000 GT Callings at EU Member States, 2016-2020[78].

Owner Nationality	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 - 20
Bulgaria	*3.4%*	48	38	48	53	48	*-9%*	*-15%*	*-18%*	*0%*	*-6%*
Croatia	*9.8%*	2,685	2,970	3,720	3,551	3,980	*12%*	*21%*	*3%*	*13%*	*14%*
Cyprus	*-8.2%*	1,685	1,256	1,361	1,304	1,702	*31%*	*5%*	*33%*	*43%*	*37%*
Denmark	*11.4%*	17,224	18,418	21,647	23,805	22,310	*-6%*	*-3%*	*-20%*	*-3%*	*1%*
Ireland	*-1.9%*	5,114	5,015	4,724	4,835	4,395	*-9%*	*-15%*	*-13%*	*-12%*	*6%*
Estonia	*-4.6%*	2,912	3,135	2,625	2,529	1,960	*-22%*	*12%*	*-19%*	*-43%*	*-36%*
Finland	*2.3%*	19,159	22,702	20,232	20,539	16,632	*-19%*	*-3%*	*-36%*	*-13%*	*-22%*
France	*-11.5%*	22,763	18,294	15,585	15,757	10,783	*-32%*	*-6%*	*-66%*	*-25%*	*-21%*
Germany	*7.9%*	12,169	14,451	14,313	15,284	14,468	*-5%*	*0%*	*2%*	*-11%*	*-11%*
Greece	*3.2%*	17,799	19,214	19,662	19,576	15,463	*-21%*	*1%*	*-38%*	*-26%*	*-11%*
Italy	*-0.8%*	32,266	31,937	32,737	31,464	28,806	*-8%*	*-16%*	*-25%*	*0%*	*7%*
Malta	*9.4%*	792	819	688	1,036	844	*-19%*	*10%*	*-44%*	*-14%*	*-19%*
Netherlands	*-100.0%*	3	4	8	0	1					
Poland	*3.4%*	3,474	3,625	3,775	3,838	4,622	*20%*	*16%*	*39%*	*26%*	*4%*
Portugal	*11.7%*	597	690	782	832	683	*-18%*	*-40%*	*-41%*	*-1%*	*10%*
Romania	*-100.0%*	1	0	0	0	0					
Slovenia	*-100.0%*	334	103	0	0	0					
Spain	*14.3%*	14,488	17,129	19,668	21,645	16,731	*-23%*	*13%*	*-44%*	*-26%*	*-27%*
Sweden	*6.6%*	22,184	23,577	27,316	26,858	23,838	*-11%*	*0%*	*-19%*	*-15%*	*-9%*
United Kingdom	*-8.1%*	29,008	31,938	31,994	22,504	6,969	*-69%*	*-78%*	*-86%*	*-53%*	*-11%*
Norway	*8.4%*	16,731	20,965	21,618	21,291	16,378	*-23%*	*0%*	*-38%*	*-21%*	*-30%*
Total EU-MS owned (5,000+ GT)	***1.7%***	**204,657**	**215,277**	**220,837**	**215,357**	**174,187**	***-19%***	***-13%***	***-36%***	***-16%***	***-10%***
% global		60%	58%	58%	55%	49%					
Total EU (excl. UK) (5,000+ GT)	***3.2%***	**175,649**	**183,339**	**188,843**	**192,853**	**167,218**	***-13%***	***-2%***	***-27%***	***-13%***	***-9%***
% global		51%	49%	49%	49%	47%					
Total EU (inc. Norway/Iceland)	***2.2%***	**221,436**	**236,280**	**242,503**	**236,701**	**190,613**	***-19%***	***-12%***	***-36%***	***-16%***	***-12%***
(5,000+ GT) % global		65%	64%	63%	60%	54%					
Total Global (5,000+ GT)	***4.6%***	**342,274**	**371,043**	**383,060**	**391,901**	**352,450**	***-10%***	***4%***	***-22%***	***-13%***	***-6%***

Total EU (100GT+)	***4.1%***	**418,793**	**443,314**	**466,047**	**471,877**	**364,520**	***-23%***	***-8%***	***-44%***	***-21%***	***-11%***
% global		48%	47%	46%	45%	46%					
Total EU (excl. UK) (100GT+)	***5.1%***	**375,559**	**398,697**	**421,569**	**435,774**	**347,574**	***-20%***	***-2%***	***-41%***	***-20%***	***-11%***
% global		43%	42%	42%	42%	44%					
Total EU (inc. Norway/Iceland)	***4.1%***	**487,672**	**517,678**	**538,460**	**549,658**	**435,185**	***-21%***	***-6%***	***-41%***	***-20%***	***-11%***
(100GT+) % global		56%	54%	53%	53%	55%					
Total Global (100GT+)	***5.9%***	**873,982**	**950,323**	**1,015,341**	**1,039,387**	**797,151**	***-23%***	***-4%***	***-41%***	***-26%***	***-19%***

[78] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Figure 38: Passenger Ferry Movements, Q3 2019[79].

Figure 39: Passenger Ferry Movements, Q3 2020[80].

Figure 38 and Figure 39 compare passenger ferry movements in Q3 2019 and 2020. Whilst most routes are still clearly delineated in Figure 39 there are some notable absences. Routes between Marseille and Algeria are much fainter, denoting decreased voyages, and routes between Ireland and Spain appeared to have been suspended due to decreased demand.

Most Adriatic, Aegean, Baltic traffic is visible though as Table 54 indicates callings were down year-on-year. A service between the Canary Islands, Madeira and Portugal appears to have been reduced in the period.

[79] Source: Clarksons Research. Sea/net.
[80] As above.

Table 54: Global Passenger Ferry >5,000 GT Callings by European Union Flag States, 2016-2020[81].

Flag Country	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 -20
Bulgaria	3.4%	48	38	48	53	48	-9.4%	-15%	-18%	0%	-6%
Croatia	11.4%	2,570	2,970	3,720	3,551	3,980	12.1%	21%	3%	13%	14%
Cyprus	34.0%	11,954	11,572	14,284	28,790	29,570	2.7%	84%	-16%	-17%	4%
Denmark	7.6%	14,071	15,088	15,962	17,520	14,234	-18.8%	0%	-31%	-21%	-20%
Estonia	-0.7%	11,626	11,791	11,608	11,386	9,069	-20.3%	-5%	-38%	-15%	-22%
Finland	8.5%	7,636	8,230	9,112	9,762	9,197	-5.8%	5%	-6%	-10%	-10%
France	1.3%	17,982	18,266	18,526	18,717	14,448	-22.8%	0%	-48%	-21%	-14%
Germany	2.8%	6,918	8,885	8,100	7,525	8,300	10.3%	-11%	14%	23%	13%
Greece	2.1%	16,328	16,580	17,433	17,391	14,120	-18.8%	-1%	-34%	-24%	-9%
Italy	-2.2%	31,336	30,806	31,202	29,309	26,048	-11.1%	-20%	-35%	-1%	12%
Latvia	23.6%	380	687	731	718	277	-61.4%	-17%	-81%	-55%	-90%
Lithuania	2.6%	2,075	2,013	2,279	2,244	2,291	2.1%	-2%	-10%	5%	16%
Malta	-4.1%	2,572	2,300	1,951	2,269	1,705	-24.9%	-31%	-55%	1%	-1%
Netherlands	6.6%	2,240	2,665	2,759	2,714	2,574	-5.2%	-2%	-8%	-10%	-2%
Portugal	15.8%	422	548	532	656	539	-17.8%	-26%	-39%	-2%	-9%
Romania	-100.0%	1	0	0	0	0					
Spain	8.7%	15,693	17,287	19,013	20,139	14,223	-29.4%	3%	-54%	-30%	-33%
Sweden	1.5%	16,236	18,186	17,001	16,983	14,415	-15.1%	-1%	-27%	-18%	-12%
United Kingdom	-9.0%	36,509	40,789	39,880	27,557	20,462	-25.7%	-37%	-34%	-12%	-17%
Norway	5.2%	12,223	13,733	14,111	14,232	11,825	-16.9%	4%	-26%	-15%	-27%
Total EU-MS flagged (5,000+ GT)	**3.4%**	**196,597**	**208,701**	**214,141**	**217,284**	**185,500**	**-14.6%**	**-3%**	**-30%**	**-14%**	**-10%**
% global		57%	56%	56%	55%	53%					
Total EU (excl. UK) (5,000+ GT)	**5.8%**	**160,088**	**167,912**	**174,261**	**189,727**	**165,038**	**-13.0%**	**5%**	**-30%**	**-14%**	**-9%**
% global		47%	45%	45%	48%	47%					
Total EU (inc. Norway/Iceland) (5,000+ GT)	**3.5%**	**208,820**	**222,434**	**228,252**	**231,516**	**197,325**	**-14.8%**	**-2%**	**-30%**	**-14%**	**-11%**
% global		61%	60%	60%	59%	56%					
Total Global (5,000+ GT)	**4.6%**	**342,274**	**371,043**	**383,060**	**391,901**	**352,450**	**-10.1%**	**4%**	**-22%**	**-13%**	**-6%**

Total EU (100GT+)	**5.1%**	**408,789**	**436,002**	**459,837**	**474,939**	**376,900**	**-21%**	**-3%**	**-42%**	**-20%**	**-11%**
% global		47%	46%	45%	46%	47%					
Total EU (excl. UK) (100GT+)	**6.8%**	**356,393**	**381,349**	**406,438**	**433,900**	**346,564**	**-20%**	**1%**	**-42%**	**-20%**	**-10%**
% global		41%	40%	40%	42%	43%					
Total EU (inc. Norway/Iceland) (100GT+)	**4.9%**	**473,343**	**503,115**	**525,041**	**546,606**	**443,429**	**-19%**	**-1%**	**-39%**	**-19%**	**-10%**
% global		54%	53%	52%	53%	56%					
Total Global (100GT+)	**5.9%**	**873,982**	**950,323**	**1,015,341**	**1,039,387**	**797,151**	**-23%**	**-4%**	**-41%**	**-26%**	**-19%**

Whilst callings by passenger vessels flagged by EU-MS flag states declined c.15% year-on-year overall in 2020, this was not uniform. Callings by French flagged vessels declined 23% year-on-year whilst UK flagged vessel calling fell 26% year-on-year. Elsewhere, callings by Norwegian flagged vessels >5,000 GT declined 17%. Meanwhile, callings by German and Lithuanian flagged vessels improved year-on-year by 10% and 2% respectively

Table 55: Global Passenger Ferry >5,000 GT Callings by EU Member Countries, 2016-2020[82].

Owner Nationality	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 -20
Bulgaria	3.4%	48	38	48	53	48	-9%	-15%	-18%	0%	-6%
Croatia	9.8%	2,685	2,970	3,720	3,551	3,980	12%	21%	3%	13%	14%
Cyprus	-8.2%	1,685	1,256	1,361	1,304	1,702	31%	5%	33%	43%	37%
Denmark	11.4%	17,224	18,418	21,647	23,805	22,310	-6%	-3%	-20%	-3%	1%
Ireland	-1.9%	5,114	5,015	4,724	4,835	4,395	-9%	-15%	-13%	-12%	6%
Estonia	-4.6%	2,912	3,135	2,625	2,529	1,960	-22%	12%	-19%	-43%	-36%
Finland	2.3%	19,159	22,702	20,232	20,539	16,632	-19%	-3%	-36%	-13%	-22%
France	-11.5%	22,763	18,294	15,585	15,757	10,783	-32%	-6%	-66%	-25%	-21%
Germany	7.9%	12,169	14,451	14,313	15,284	14,468	-5%	0%	2%	-11%	-11%
Greece	3.2%	17,799	19,214	19,662	19,576	15,463	-21%	1%	-38%	-26%	-11%
Italy	-0.8%	32,266	31,937	32,737	31,464	28,806	-8%	-16%	-25%	0%	7%
Malta	9.4%	792	819	688	1,036	844	-19%	10%	-44%	-14%	-19%
Netherlands	-100.0%	3	4	8	0	1					
Poland	3.4%	3,474	3,625	3,775	3,838	4,622	20%	16%	39%	26%	4%
Portugal	11.7%	597	690	782	832	683	-18%	-40%	-41%	-1%	10%

[81] Source: Clarksons Research.
[82] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Romania	-100.0%	1	0	0	0	0					
Slovenia	-100.0%	334	103	0	0	0					
Spain	14.3%	14,488	17,129	19,668	21,645	16,731	-23%	13%	-44%	-26%	-27%
Sweden	6.6%	22,184	23,577	27,316	26,858	23,838	-11%	0%	-19%	-15%	-9%
United Kingdom	-8.1%	29,008	31,938	31,994	22,504	6,969	-69%	-78%	-86%	-53%	-11%
Norway	8.4%	16,731	20,965	21,618	21,291	16,378	-23%	0%	-38%	-21%	-30%
Total EU-MS owned (5,000+ GT)	**1.7%**	**204,657**	**215,277**	**220,837**	**215,357**	**174,187**	**-19%**	**-13%**	**-36%**	**-16%**	**-10%**
% global		*60%*	*58%*	*58%*	*55%*	*49%*					
Total EU (excl. UK) (5,000+ GT)	**3.2%**	**175,649**	**183,339**	**188,843**	**192,853**	**167,218**	**-13%**	**-2%**	**-27%**	**-13%**	**-9%**
% global		*51%*	*49%*	*49%*	*49%*	*47%*					
Total EU (inc. Norway/Iceland) *(5,000+ GT)*	**2.2%**	**221,388**	**236,242**	**242,455**	**236,648**	**190,565**	**-19%**	**-12%**	**-36%**	**-16%**	**-12%**
% global		*65%*	*64%*	*63%*	*60%*	*54%*					
Total Global (5,000+ GT)	**4.6%**	**342,274**	**371,043**	**383,060**	**391,901**	**352,450**	**-10%**	***4%***	***-22%***	***-13%***	***-6%***

Total EU (100GT+)	**4.1%**	**418,793**	**443,314**	**466,047**	**471,877**	**364,520**	**-23%**	**-8%**	**-44%**	**-21%**	**-11%**
% global		*48%*	*47%*	*46%*	*45%*	*46%*					
Total EU (excl. UK) (100GT+)	**5.1%**	**375,559**	**398,697**	**421,569**	**435,774**	**347,574**	**-20%**	**-2%**	**-41%**	**-20%**	**-11%**
% global		*43%*	*42%*	*42%*	*42%*	*44%*					
Total EU (inc. Norway/Iceland) *(100GT+)*	**4.1%**	**487,672**	**517,678**	**538,460**	**549,658**	**435,185**	**-21%**	**-6%**	**-41%**	**-20%**	**-11%**
% global		*56%*	*54%*	*53%*	*53%*	*55%*					
Total Global (100GT+)	**5.9%**	**873,982**	**950,323**	**1,015,341**	**1,039,387**	**797,151**	**-23%**	***-4%***	***-41%***	***-26%***	***-19%***

In 2020 Italian owned vessels accounted for around 15% of all callings by EU-MS owned ferries in the period between 2016-2020. Callings by Cypriot controlled ferries >5,000 GT increased 31% year-on-year; however, this in part may be due to the growth of the Cypriot owned fleet in 2020.

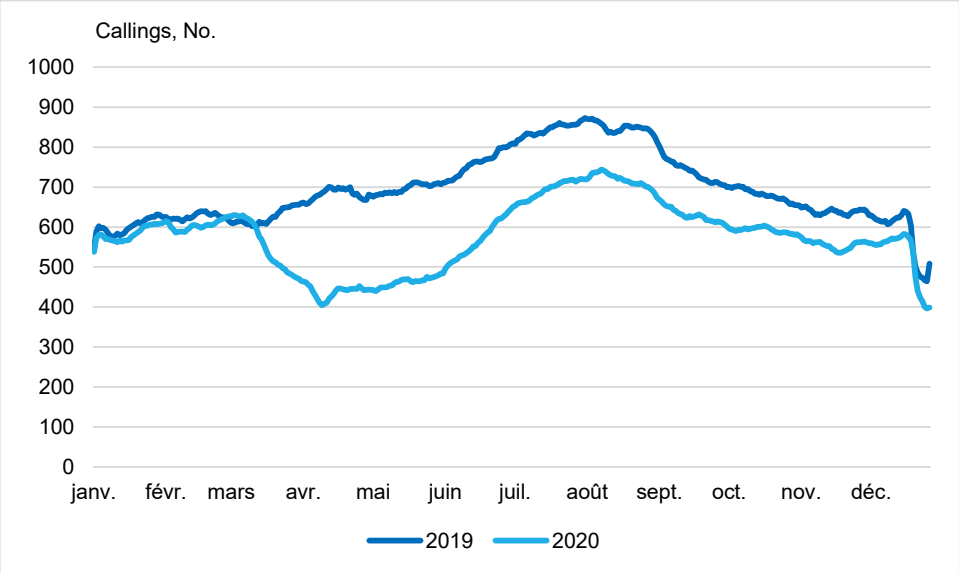

Figure 40: Passenger Ferry >5,000 GT Callings at EU MS including the United Kingdom, Norway and Iceland, 2019-2020[83].

[83] Source: Clarksons Research. Note: Data basis calls at all ports globally. Series basis 7 day moving average. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Data basis date vessel first recorded in port location. *Total Deep Sea Cargo Vessels: Includes oil tankers MR and above, bulkcarriers Panamax and above, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm, PCTCs 6,000+ ceu. Source: Clarksons Research, Sea/net (beta).

6.3 Impact of COVID-19 on European Union Cruise Market[84]

EU member states experienced a 80% decline in callings by cruise vessels in 2020 (see Table 56). This was most acutely felt in France, Greece, Italy and Spain which accounted for 60% of all cruise callings between 2016 and 2020. Outside of the EU member states calls to Norwegian Ports fell 60% year-on-year and callings to Iceland declined 98%. Meanwhile the EU's share of global cruise port calls fell from 31% of all callings in 2019 to 20% of all callings in 2020. Including Norway and Iceland this decline was more moderate with the share of cruise callings falling from 48% of global callings to 40% of callings.

The decline in callings accelerated in Q2 2020 with a more moderate 14% year-on-year decline in Q1 2020 which worsened to a 91% drop in callings in Q2 2020. Although this slowly recovered throughout Q3 and Q4 2020 with (85% and 76% year-on-year declines respectively) Greece, Portugal and Spain continued to experience above average declines in cruise callings.

Table 56: Cruise Callings at EU Member States and Territories, 2016-2020[85].

Member state	16-19 CAGR	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 -20
Belgium	*2.8%*	176	177	186	191	9	*-95%*	-22%	-97%	-100%	-100%
Bulgaria	*-100.0%*	9	4	0	0	0					
Croatia	*4.5%*	1,178	1,116	1,128	1,345	185	*-86%*	-43%	-97%	-82%	-96%
Cyprus	*0.8%*	125	117	108	128	129	*1%*	575%	-46%	25%	-34%
Denmark	*10.9%*	393	478	523	536	94	*-82%*	-50%	-92%	-84%	8%
Ireland	*13.3%*	194	223	271	282	3	*-99%*	200%	-100%	-100%	-100%
Estonia	*9.8%*	263	319	351	348	10	*-97%*		-100%	-97%	-63%
Finland	*5.3%*	565	633	652	659	78	*-88%*	1%	-100%	-99%	-100%
France	*0.2%*	2,093	2,106	2,210	2,108	617	*-71%*	-16%	-93%	-66%	-83%
Germany	*6.4%*	664	757	870	800	239	*-70%*	-33%	-86%	-72%	-11%
Greece	*-4.0%*	3,573	2,906	2,679	3,159	375	*-88%*	-33%	-96%	-88%	-83%
Italy	*1.2%*	4,420	4,066	4,373	4,575	786	*-83%*	-26%	-96%	-89%	-66%
Latvia	*7.4%*	63	84	86	78	0	*-100%*		-100%	-100%	-100%
Lithuania	*0.7%*	49	63	58	50	2	*-96%*		-100%	-94%	-100%
Malta	*5.5%*	325	351	326	382	107	*-72%*	-17%	-89%	-84%	-45%
Netherlands	*4.8%*	387	401	488	445	150	*-66%*	-42%	-65%	-64%	-83%
Poland	*12.8%*	83	114	122	119	7	*-94%*		-100%	-94%	0%
Portugal	*1.5%*	837	929	924	875	151	*-83%*	-21%	-96%	-97%	-96%
Romania	*-53.6%*	10	3	0	1	0	*-100%*				-100%
Slovenia	*1.0%*	69	74	77	71	0	*-100%*	-100%	-100%	-100%	-100%
Spain	*5.0%*	3,502	3,943	4,152	4,056	757	*-81%*	-22%	-92%	-95%	-91%
Sweden	*6.3%*	640	726	741	769	147	*-81%*	-6%	-96%	-88%	-80%
United Kingdom	*6.0%*	1,817	1,922	2,076	2,167	899	*-59%*	103%	-72%	-77%	10%
Gibraltar	*-4.7%*	232	243	250	201	88	*-56%*	38%	-42%	-58%	-91%
Iceland	*23.7%*	320	393	513	606	14	*-98%*	0%	-100%	-97%	-100%
Norway	*0.3%*	11,965	12,055	12,235	12,089	4,824	*-60%*	-9%	-83%	-64%	-77%
Total EU	***2.5%***	**21,667**	**21,755**	**22,651**	**23,345**	**4,833**	***-79%***	**-14%**	**-91%**	**-85%**	**-76%**
% global		*32%*	*31%*	*31%*	*31%*	*20%*					
Total 1,000+ berths	*3.9%*	*12,960*	*12,995*	*13,909*	*14,518*	*3,114*	*-79%*	*-24%*	*-90%*	*-86%*	*-72%*
of which (1,000-1,999 berths)	*2.4%*	*5,070*	*4,874*	*5,467*	*5,439*	*987*	*-82%*	*-26%*	*-92%*	*-88%*	*-83%*
of which (2,000-2,999 berths)	*3.5%*	*4,703*	*4,705*	*4,870*	*5,209*	*1,164*	*-78%*	*-21%*	*-90%*	*-85%*	*-71%*
of which (3,000+ berths)	*6.7%*	*3,187*	*3,416*	*3,572*	*3,870*	*963*	*-75%*	*-25%*	*-89%*	*-86%*	*-56%*
Total <1,000 berths	*0.5%*	*8,707*	*8,760*	*8,742*	*8,827*	*1,719*	*-81%*	*11%*	*-92%*	*-83%*	*-83%*
of which (<500 berths)	*-1.7%*	*5,831*	*5,510*	*5,443*	*5,534*	*1,069*	*-81%*	*-40%*	*-91%*	*-78%*	*-80%*
of which (500-999 berths)	*4.6%*	*2,876*	*3,250*	*3,299*	*3,293*	*650*	*-80%*	*148%*	*-93%*	*-92%*	*-87%*
Total EU (exc. UK)	***2.3%***	**19,618**	**19,590**	**20,325**	**20,977**	**3,846**	***-82%***	**-20%**	**-93%**	**-86%**	**-80%**
% global		*29%*	*28%*	*28%*	*28%*	*16%*					
Total 1,000+ berths	*3.7%*	*12,110*	*12,067*	*12,881*	*13,506*	*2,342*	*-83%*	*-26%*	*-94%*	*-90%*	*-79%*

[84] More Tables and Figures can be found in the Appendix E.
[85] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

of which (1,000-1,999 berths)	*2.2%*	*4,704*	*4,466*	*5,025*	*5,014*	*640*	*-87%*	*-23%*	*-91%*	*-86%*	*-82%*
of which (2,000-2,999 berths)	*2.5%*	*4,533*	*4,509*	*4,565*	*4,881*	*973*	*-80%*	*-16%*	*-84%*	*-86%*	*-79%*
of which (3,000+ berths)	*7.9%*	*2,873*	*3,092*	*3,291*	*3,611*	*729*	*-80%*	*-17%*	*-89%*	*-92%*	*-71%*
Total <1,000 berths	*-0.2%*	*7,508*	*7,523*	*7,444*	*7,471*	*1,504*	*-80%*	*-2%*	*-91%*	*-79%*	*-83%*
of which (<500 berths)	*-2.7%*	*5,037*	*4,700*	*4,585*	*4,645*	*1,024*	*-78%*	*-39%*	*-90%*	*-73%*	*-79%*
of which (500-999 berths)	*4.6%*	*2,471*	*2,823*	*2,859*	*2,826*	*480*	*-83%*	*89%*	*-95%*	*-90%*	*-86%*
Total EU (inc. Norway/Iceland)	***2.0%***	**33,952**	**34,203**	**35,399**	**36,040**	**9,671**	***-73%***	**-11%**	**-89%**	**-79%**	**-76%**
% global	*-1.9%*	*50%*	*49%*	*49%*	*48%*	*40%*					
Total 1,000+ berths	*4.5%*	*13,881*	*13,994*	*15,037*	*15,857*	*3,150*	*-80%*	*-24%*	*-91%*	*-88%*	*-73%*
of which (1,000-1,999 berths)	*2.5%*	*5,476*	*5,224*	*5,861*	*5,901*	*1,016*	*-83%*	*-27%*	*-92%*	*-89%*	*-84%*
of which (2,000-2,999 berths)	*5.0%*	*5,020*	*5,133*	*5,397*	*5,819*	*1,168*	*-80%*	*-21%*	*-91%*	*-87%*	*-72%*
of which (3,000+ berths)	*6.9%*	3,385	3,637	3,779	4,137	966	*-77%*	*-25%*	*-89%*	*-88%*	*-56%*
Total <1,000 berths	*0.2%*	20,071	20,209	20,362	20,183	6,521	*-68%*	*-5%*	*-86%*	*-72%*	*-79%*
of which (<500 berths)	*-0.4%*	15,055	15,278	15,228	14,868	4,907	*-67%*	*-13%*	*-84%*	*-74%*	*-76%*
of which (500-999 berths)	*1.9%*	5,016	4,931	5,134	5,315	1,614	*-70%*	*40%*	*-91%*	*-67%*	*-90%*
Total Global	***4.0%***	**67,340**	**69,638**	**72,874**	**75,763**	**24,010**	***-68%***	***-17%***	***-83%***	***-86%***	***-82%***

Throughout 2019 the percentage of the fleet that was idle averaged 1.4% in capacity terms (7.0% in number). This increased dramatically in 2020 to average 87.4% of the fleet in 2020 (see Figure 41). This peaked at over 90% of the fleet from June to August 2020. Whilst it has decreased since it remained at record levels throughout the remainder of the year.

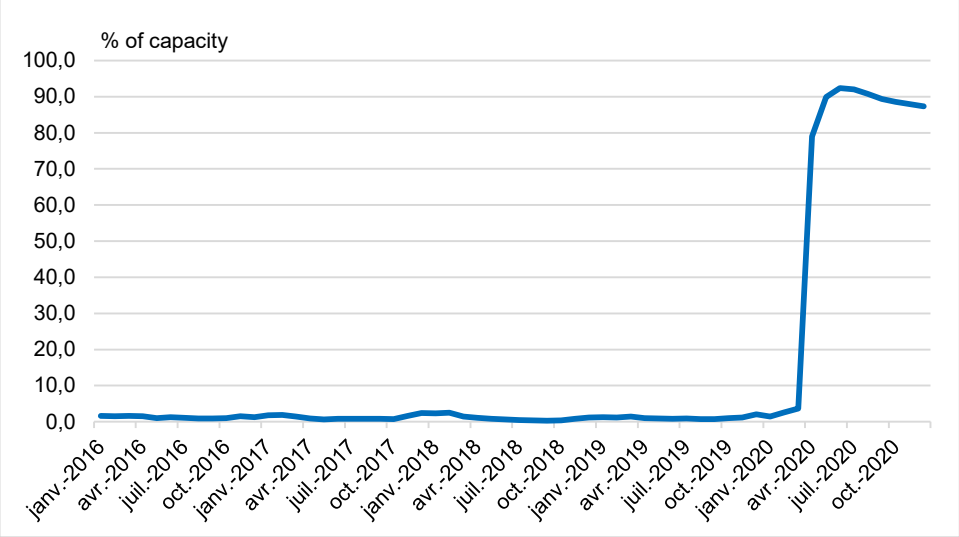

Figure 41: Idle Cruise Capacity as a Percentage of the Fleet[86].

On a vessel segment basis EU-MS share of cruise vessels <1,000 berths callings declined more than >1,000 berth callings. In 2019, EU members accounted for 27% of global callings by cruise vessels with <1,000 berths, in 2020 this fell to 16% of callings. However, when Iceland and Norway are included in the statistics callings at EU or Norwegian and Icelandic ports accounted for the same proportion of callings in 2019 and 2020 (62%).

Callings by large cruise vessels (1,000+ berths) at EU ports declined c.80% year-on-year in 2020. On a quarterly basis, callings declined 24% year-on-year in Q1 2020, this then deteriorated to a 90% decline year-on-year in Q2 as lockdowns prevented movement of travellers.

However, there were some notable upticks in some states. Cyprus experienced a 150% year-on-year increase in Q1 2020 as vessel repositioned to safe berths similarly the United Kingdom had a 44% uptick in callings. This was repeated in Q4 2020 as UK ports experienced an 87% uptick in callings, bucking the EU-wide trend of a 72% year-on-year decrease in callings.

[86] Source: Clarksons Research.

Table 57: Cruise 1,000+ berths Callings at EU Member States and Territories, 2016-2020[87].

Member state	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 - 20
Belgium	*0.5%*	129	132	131	131	6	*-95%*	-14%	-100%	-100%	-100%
Bulgaria	*-100.0%*	3	1	0	0	0					
Croatia	*5.0%*	486	463	519	562	12	*-98%*	-71%	-99%	-98%	-97%
Cyprus	*28.9%*	28	29	9	60	68	*13%*	150%	-50%	133%	-28%
Denmark	*9.0%*	247	276	297	320	45	*-86%*	-100%	-94%	-87%	-13%
Ireland	*31.1%*	67	83	125	151	0	*-100%*		-100%	-100%	-100%
Estonia	*9.6%*	165	193	220	217	10	*-95%*		-100%	-94%	-57%
Finland	*4.2%*	467	508	521	529	77	*-85%*	1%	-100%	-100%	-100%
France	*1.5%*	1,292	1,272	1,351	1,351	228	*-83%*	-27%	-96%	-94%	-92%
Germany	*10.5%*	400	465	534	540	116	*-79%*	-22%	-89%	-80%	-47%
Greece	*2.0%*	1,505	1,367	1,340	1,595	191	*-88%*	-49%	-96%	-89%	-79%
Italy	*1.6%*	3,040	2,662	2,905	3,192	652	*-80%*	-26%	-95%	-88%	-55%
Latvia	*-3.6%*	29	35	26	26	0	*-100%*		-100%	-100%	
Lithuania	*7.4%*	25	30	25	31	0	*-100%*		-100%	-100%	
Malta	*5.1%*	236	246	229	274	78	*-72%*	-64%	-88%	-84%	-27%
Netherlands	*6.5%*	260	280	353	314	91	*-71%*	-29%	-78%	-66%	-83%
Poland	*17.1%*	33	39	45	53	0	*-100%*		-100%	-100%	-100%
Portugal	*1.0%*	233	231	267	240	31	*-87%*	12%	-100%	-100%	-97%
Azores	*5.7%*	55	53	72	65	16	*-75%*	-25%	-94%	-100%	-87%
Madeira	*0.6%*	223	228	226	227	56	*-75%*	-34%	-100%	-100%	-99%
Romania	*-100.0%*	3	1	0	0	0					
Slovenia	*10.1%*	36	35	50	48	0	*-100%*		-100%	-100%	-100%
Spain	*5.0%*	1,856	2,049	2,205	2,151	183	*-91%*	-28%	-98%	-99%	-99%
Canary Islands	*2.0%*	768	821	843	816	373	*-54%*	-31%	-64%	-33%	-76%
Sweden	*5.4%*	524	568	588	613	109	*-82%*	-5%	-95%	-92%	-95%
United Kingdom	*9.1%*	684	768	863	889	725	*-18%*	44%	-36%	-44%	87%
Gibraltar	*-9.5%*	166	160	165	123	47	*-62%*	-13%	-50%	-55%	-88%
Iceland	*24.0%*	54	69	78	103	1	*-99%*		-100%	-100%	-100%
Norway	*12.5%*	867	930	1,050	1,236	35	*-97%*	-38%	-100%	-99%	-96%
Total EU	***3.9%***	**12,960**	**12,995**	**13,909**	**14,518**	**3,114**	***-79%***	**-24%**	**-90%**	**-86%**	**-72%**
% global		*34%*	*34%*	*34%*	*34%*	*23%*					
of which (1,000-1,999 berths)	*2.4%*	*5,070*	*4,874*	*5,467*	*5,439*	*987*	*-82%*	*-26%*	*-92%*	*-88%*	*-83%*
of which (2,000-2,999 berths)	*3.5%*	*4,703*	*4,705*	*4,870*	*5,209*	*1,164*	*-78%*	*-21%*	*-90%*	*-85%*	*-71%*
of which (3,000+ berths)	*6.7%*	*3,187*	*3,416*	*3,572*	*3,870*	*963*	*-75%*	*-25%*	*-89%*	*-86%*	*-56%*
Total EU (exc. UK)	***3.7%***	**12,110**	**12,067**	**12,881**	**13,506**	**2,342**	***-83%***	**-26%**	**-95%**	**-90%**	**-79%**
% global		*87%*	*86%*	*86%*	*85%*	*74%*					
of which (1,000-1,999 berths)	*2.2%*	*4,704*	*4,466*	*5,025*	*5,014*	*640*	*-87%*	*-23%*	*-91%*	*-86%*	*-82%*
of which (2,000-2,999 berths)	*2.5%*	*4,533*	*4,509*	*4,565*	*4,881*	*973*	*-80%*	*-16%*	*-84%*	*-86%*	*-79%*
of which (3,000+ berths)	*7.9%*	*2,873*	*3,092*	*3,291*	*3,611*	*729*	*-80%*	*-17%*	*-89%*	*-92%*	*-71%*
Total EU (inc. Norway/Iceland)	***4.5%***	**13,881**	**13,994**	**15,037**	**15,857**	**3,150**	***-80%***	**-25%**	**-91%**	**-88%**	**-73%**
% global		*37%*	*36%*	*37%*	*37%*	*23%*					
of which (1,000-1,999 berths)	*2.5%*	*5,476*	*5,224*	*5,861*	*5,901*	*1,016*	*-83%*	*-27%*	*-92%*	*-89%*	*-84%*
of which (2,000-2,999 berths)	*5.0%*	*5,020*	*5,133*	*5,397*	*5,819*	*1,168*	*-80%*	*-21%*	*-91%*	*-87%*	*-72%*
of which (3,000+ berths)	*6.9%*	3,385	3,637	3,779	4,137	966	*-77%*	*-25%*	*-89%*	*-88%*	*-56%*
Total Global	***4.6%***	**37,625**	**38,738**	**41,115**	**43,104**	**13,487**	***-69%***	***-17%***	***-83%***	***-86%***	***-82%***
of which (1,000-1,999 berths)	*0.8%*	*13,577*	*13,588*	*13,811*	*13,890*	*3,702*	*-73%*	*-22%*	*-86%*	*-88%*	*-88%*
of which (2,000-2,999 berths)	*3.4%*	*15,405*	*15,541*	*16,275*	*17,037*	*5,550*	*-67%*	*-17%*	*-82%*	*-84%*	*-81%*
of which (3,000+ berths)	*12.1%*	*8,643*	*9,609*	*11,029*	*12,177*	*4,235*	*-65%*	*-10%*	*-80%*	*-86%*	*-77%*

[87] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Figure 42: Cruise 1,000+ berth Vessel Movements Q2 2019[88].

Figure 43: Cruise 1,000+ berth Vessel Movements Q2 2020[89].

Figure 42 and Figure 43 show the movements made by cruise ships with a capacity of 1000 berth or more during Q2 2019 and 2020. As can be seen from the density maps there was substantial more activity in 2019 that 2020 particularly in the Mediterranean, Adriatic and Aegean. Whilst there are some hotspots off Gibraltar and the south coast of the United Kingdom these are primarily due to cruise ship positioning for berthing rather than movement of passengers.

Table 58 shows the top 50 EU ports for larger cruise ships. All experience declines in port visits and only a handful of ports saw any increases in Q1 2020 as ships berthed to idle.For completeness, callings by smaller cruise ships at EU Member states (excluding Norway and Iceland) declined 81% year-on-year in 2020. Whilst there were some

[88] Source: Clarksons Research, Sea/net.
[89] As above.

notable upticks in Q1 2020 in Gibraltar, Malta the United Kingdom and Canary Islands this was likely due to positioning by cruise lines to ensure ships were in berths as the industry shut down with national lockdowns.

Greece and Italy, which accounted for over a third of callings by cruise vessel <1,000 berth between 2016 and 2020, saw year-on-year declines of 88% and 90% respectively in callings. Callings at Greek ports failed to recover through the year with no calling reported in Q4 2020.

There were notable upticks in Q1 2020 in Gibraltar, Malta, the United Kingdom and Canary Islands in cruise <1,000 berth callings. This is understood to be due to vessels arriving at free berths to idle through the worsening pandemic rather than an uptick in typical activities. For most of the states and territories calling subsequently declined on a year-on-year basis as the year progressed. (More tables on Cruise vessels with <1,000 berths can be found in the Appendixes).

Table 58: Top 50 EU Ports by Cruise 1,000+ berths Callings, 2016-2020[90].

Rank	Port	Port Country	16-19 CAGR	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 -20
1	Barcelona	Spain	*4.5%*	585	628	682	667	54	*-92%*	-38%	-98%	-99%	-100%
2	Civitavecchia	Italy	*1.4%*	621	542	580	647	198	*-69%*	-14%	-95%	-83%	-31%
3	Stockholm	Sweden	*1.6%*	460	498	494	482	91	*-81%*	-5%	-100%	-93%	-95%
4	Palma De Mallorca	Spain	*4.0%*	451	450	510	508	38	*-93%*	-22%	-100%	-100%	-100%
5	Southampton	United Kingdom	*0.3%*	386	402	439	390	239	*-39%*	-3%	-30%	-59%	-32%
6	Marseilles	France	*-0.2%*	433	392	438	431	72	*-83%*	-33%	-88%	-92%	-91%
7	Piraeus	Greece	*-0.8%*	397	380	336	388	52	*-87%*	-45%	-87%	-93%	-80%
8	Venice	Italy	*0.4%*	377	333	370	381	1	*-100%*	-67%	-100%	-100%	-100%
9	Mariehamn	Finland	*-0.4%*	330	345	340	326	76	*-77%*	1%	-100%	-100%	-100%
10	Napoli	Italy	*-1.1%*	401	266	304	388	58	*-85%*	-100%	-95%	-90%	-61%
11	Dubrovnik	Croatia	*-2.3%*	323	285	297	301	2	*-99%*	-67%	-100%	-99%	-100%
12	Corfu	Greece	*-3.0%*	293	251	274	267	9	*-97%*	-50%	-100%	-98%	-90%
13	Santa Cruz De Tenerife	Spain (Canary Islands)	*1.4%*	231	235	247	241	138	*-43%*	-29%	-19%	30%	-69%
14	Livorno	Italy	*0.2%*	281	231	241	283	15	*-95%*	-53%	-100%	-97%	-94%
15	Valletta Harbors	Malta	*5.7%*	232	244	227	274	34	*-88%*	-64%	-99%	-91%	-71%
16	Genoa	Italy	*4.9%*	228	200	211	263	83	*-68%*	-25%	-91%	-67%	-61%
17	Funchal	Portugal (Madeira)	*0.6%*	223	228	224	227	56	*-75%*	-34%	-100%	-100%	-99%
18	Copenhagen	Denmark	*4.8%*	211	215	228	243	4	*-98%*		-100%	-97%	-100%
19	Las Palmas	Spain (Canary Islands)	*-1.9%*	199	193	203	188	105	*-44%*	-27%	-41%	17%	-69%
20	Lisboa	Portugal	*1.7%*	195	189	210	205	26	*-87%*	14%	-100%	-100%	-99%
21	Puerto De Arrecife	Spain (Canary Islands)	*4.1%*	179	191	182	202	59	*-71%*	-34%	-100%	-100%	-90%
22	Tallinn	Estonia	*9.2%*	165	193	219	215	10	*-95%*		-100%	-94%	-57%
23	Katakolon	Greece	*-8.3%*	193	202	170	149	24	*-84%*	-40%	-100%	-88%	-54%
24	Malaga	Spain	*2.2%*	162	189	183	173	21	*-88%*	-24%	-96%	-100%	-100%
25	Mikonos	Greece	*4.2%*	181	175	166	205	0	*-100%*	-100%	-100%	-100%	-100%
26	Cadiz	Spain	*4.1%*	165	167	178	186	28	*-85%*	-9%	-95%	-98%	-95%
27	Bari	Italy	*19.6%*	128	131	197	219	10	*-95%*	-67%	-100%	-96%	-89%
28	Helsinki	Finland	*12.6%*	136	159	178	194	0	*-100%*		-100%	-100%	-100%
29	Gibraltar	Gibraltar	*-9.5%*	166	160	165	123	47	*-62%*	-13%	-50%	-55%	-88%
30	Savona	Italy	*-10.9%*	178	170	155	126	25	*-80%*	-13%	-100%	-97%	-75%
31	Hamburg	Germany	*7.3%*	127	150	168	157	37	*-76%*	-14%	-94%	-73%	-75%
32	Rostock	Germany	*7.6%*	130	147	162	162	10	*-94%*		-100%	-93%	-43%
33	Messina	Italy	*-2.9%*	143	132	127	131	23	*-82%*	20%	-100%	-98%	-47%
34	Kiel	Germany	*5.7%*	122	118	132	144	22	*-85%*	-100%	-100%	-88%	140%
35	Valencia	Spain	*2.5%*	119	129	130	128	12	*-91%*	-14%	-100%	-100%	-100%
36	La Spezia	Italy	*0.8%*	120	120	98	123	48	*-61%*		-79%	-89%	-5%
37	Split	Croatia	*11.6%*	113	99	127	157	0	*-100%*	-100%	-100%	-100%	-100%
38	Santa Cruz De La Palma	Spain (Canary Islands)	*1.7%*	98	114	107	103	35	*-66%*		-100%	-100%	-77%
39	Ibiza	Spain	*24.7%*	68	125	104	132	0	*-100%*	-100%	-100%	-100%	-100%
40	Heraklion	Greece	*4.1%*	108	75	117	122	5	*-96%*	-57%	-100%	-95%	-100%
41	Palermo	Italy	*0.7%*	95	87	108	97	33	*-66%*	-60%	-100%	-70%	-17%
42	Rodhos	Greece	*16.8%*	86	98	90	137	3	*-98%*	50%	-100%	-100%	-100%
43	Le Havre	France	*6.1%*	88	101	118	105	2	*-98%*	-71%	-100%	-100%	-100%
44	Zeebrugge	Belgium	*1.0%*	95	97	98	98	4	*-96%*	-43%	-100%	-100%	-100%
45	Amsterdam	Netherlands	*0.9%*	75	82	126	77	2	*-97%*	-100%	-100%	-100%	-75%
46	Cannes	France	*4.1%*	85	89	82	96	0	*-100%*	-100%	-100%	-100%	-100%
47	Velsen	Netherlands	*0.0%*	67	66	93	67	1	*-99%*	0%	-100%	-100%	-100%
48	Puerto Del Rosario	Spain (Canary Islands)	*24.0%*	32	55	72	61	24	*-61%*	-22%	-100%		-90%
49	Cagliari	Italy	*6.9%*	45	70	59	55	13	*-76%*		-100%	-96%	71%
50	Cartagena	Spain	*2.5%*	51	66	58	55	4	*-93%*	-33%	-100%	-100%	-100%
Others			*9.8%*	2,583	2,731	3,085	3,419	1,261	*-63%*	-24%	-88%	-83%	-66%
Total EU			***3.9%***	**12,960**	**12,995**	**13,909**	**14,518**	**3,114**	***-79%***	**-24%**	**-90%**	**-86%**	**-72%**
% global				*34%*	*34%*	*34%*	*34%*	*23%*	*0%*	*0%*	*0%*	*0%*	*0%*
of which (1,000-1,999 berths)			*2.4%*	*5,070*	*4,874*	*5,467*	*5,439*	*987*	*-82%*	*-26%*	*-92%*	*-88%*	*-83%*

[90] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

of which (2,000-2,999 berths)	*3.5%*	*4,703*	*4,705*	*4,870*	*5,209*	*1,164*	*-78%*	*-21%*	*-90%*	*-85%*	*-71%*
of which (3,000+ berths)	*6.7%*	3,187	3,416	3,572	3,870	963	*-75%*	*-25%*	*-89%*	*-86%*	*-56%*
Total EU (exc. UK)	***3.7%***	**12,110**	**12,067**	**12,881**	**13,506**	**2,342**	***-83%***	**-26%**	**-95%**	**-90%**	**-79%**
% global		*87%*	*86%*	*86%*	*85%*	*74%*	*0%*	*0%*	*0%*	*0%*	*0%*
of which (1,000-1,999 berths)	*2.2%*	*4,704*	*4,466*	*5,025*	*5,014*	*640*	*-87%*	*-23%*	*-91%*	*-86%*	*-82%*
of which (2,000-2,999 berths)	*2.5%*	*4,533*	*4,509*	*4,565*	*4,881*	*973*	*-80%*	*-16%*	*-84%*	*-86%*	*-79%*
of which (3,000+ berths)	*7.9%*	2,873	3,092	3,291	3,611	729	*-80%*	*-17%*	*-89%*	*-92%*	*-71%*
Total Global	***4.6%***	***37,625***	***38,738***	***41,115***	***43,104***	***13,487***	***-69%***	***-17%***	***-83%***	***-86%***	***-82%***
of which (1,000-1,999 berths)	*0.8%*	*13,577*	*13,588*	*13,811*	*13,890*	*3,702*	*-73%*	*-22%*	*-86%*	*-88%*	*-88%*
of which (2,000-2,999 berths)	*3.4%*	15,405	15,541	16,275	17,037	5,550	*-67%*	*-17%*	*-82%*	*-84%*	*-81%*

Figure 44 shows global cruise ship callings over 2019 to 2020. As can be seen from the graph callings in Q1 2020 were generally on trend with 2019 and then subsequently collapsed as national lockdowns and travel restrictions were introduced. Where typically cruise ships would be making over 200 callings per day in the summer season the number of callings rarely peaked above 50 callings per day on a 7dma basis in 2020.

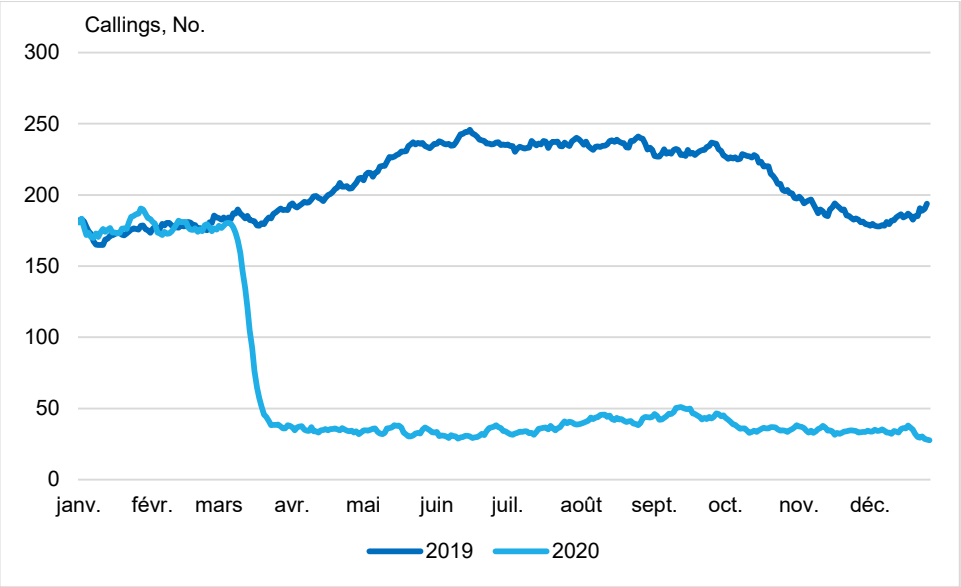

Figure 44: Global Cruise Ship Callings, 2019-2020, 7 day moving average[91].

Figure 45 shows callings made at EU Member states plus the United Kingdom, Norway and Iceland. Callings in Q1 2020 were on trend with Q1 2019 and even briefly exceeded 2019's 7dma. However, this was likely due to all cruise ships in region calling into ports in order to berth as national lockdowns were brought into place. Callings then declined dramatically whereas typically the cruise season would be just starting. Callings through Q2 2020 were around 10% of what would be usual in the period. Callings slowly ticked up in Q3 2020, mainly due to increased callings at Norwegian ports, though as EU members became subsumed in the second wave of the pandemic in Q4 2020 callings declined again.

[91] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

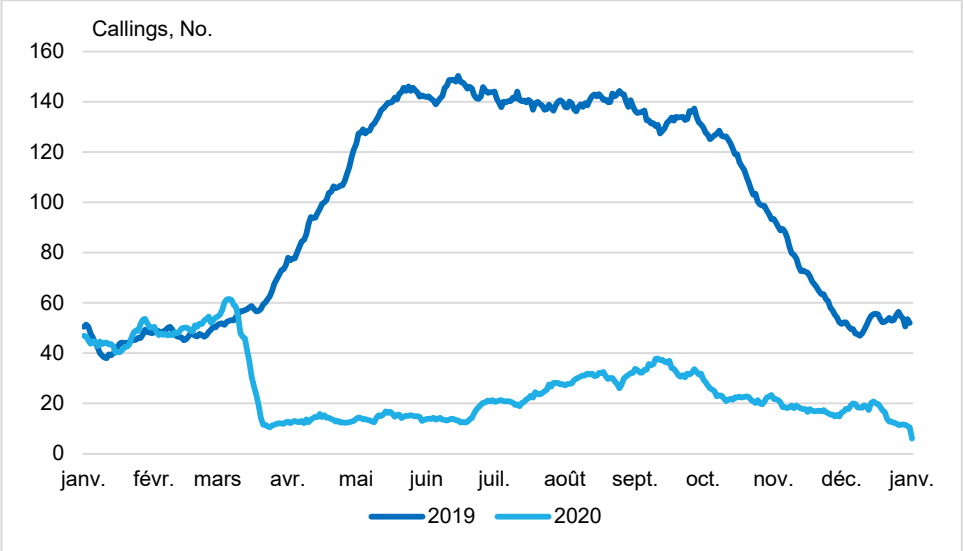

Figure 45: Cruise Ship Callings at EU Member States (including UK, Norway and Iceland), 2019-2020, 7 day moving average [92].

6.4 Impact on the number of Persons on Board (PoB)

The COVID-19 outbreak created a high degree of public concern about the approach to health and safety on board cruise ships. Large numbers of people in confined spaces on cruise ships can make both passengers and crew prone to infectious diseases, and in this case, the coronavirus. Moreover, many shipping companies and operators had several difficulties in repatriating passengers and crew in spring/summer of 2020.

Using Persons on Board (PoB) information reported to SSN[93], EMSA analysed the changes in the PoB numbers for different ship types.

For cruise ships and other passenger ships, there is a significant decrease in the number of Persons on Board (as shown in Figure 46, Figure 47 and Figure 48). The figures show the PoB per year quarter and per ship type in the period between 2016 and 2020.

Cruise ship operators almost lost their businesses during the COVID-19 pandemic. The Figure 48 clearly demonstrates that the number of PoB began to decrease gradually from the 2nd quarter of 2020. Currently, the numbers remain at a very low level and correspond to crew members on board these ships.

An increase in the number of PoB on board of Passenger ships and Ro-Ro/ Passenger ships was observed in the 3rd and 4th quarters of 2020 but the figures still remain lower than in previous years.

There are no changes to the number of Persons on Board for cargo ships (bulk carriers, oil tankers, container ships, etc.), as safe manning needs to be ensured.

[92] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.
[93] The PoB is used in SSN to report the total number of passengers and crew.

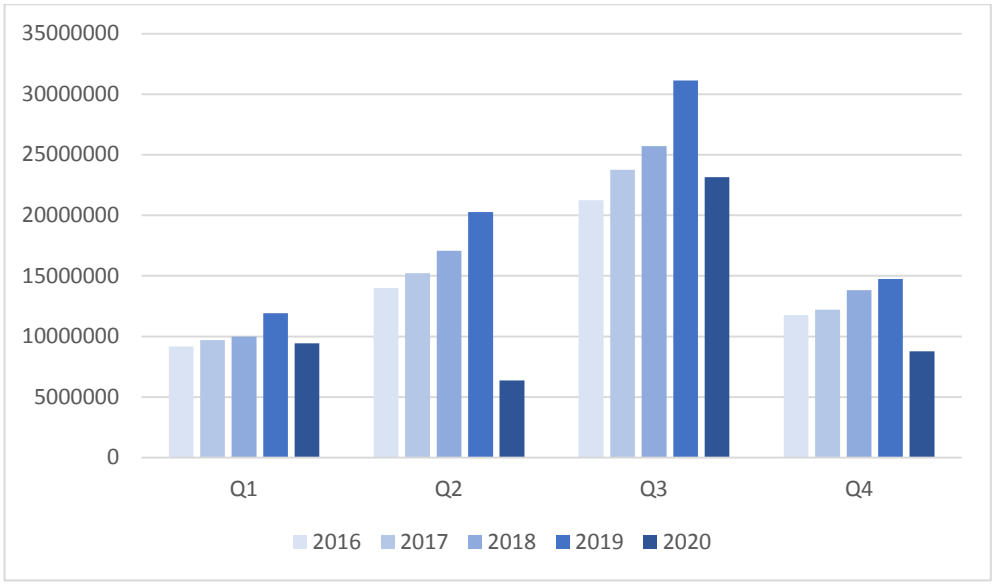

Figure 46: Number of Persons on Board cruise ships per year quarter (2016-2020).

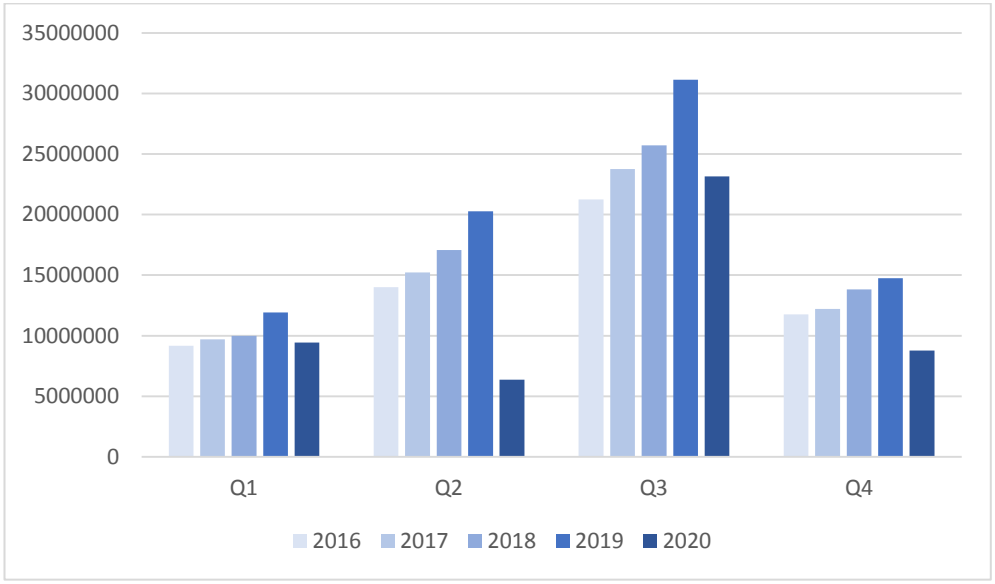

Figure 47: Number of Persons on Board passenger ships per year quarter (2016-2020).

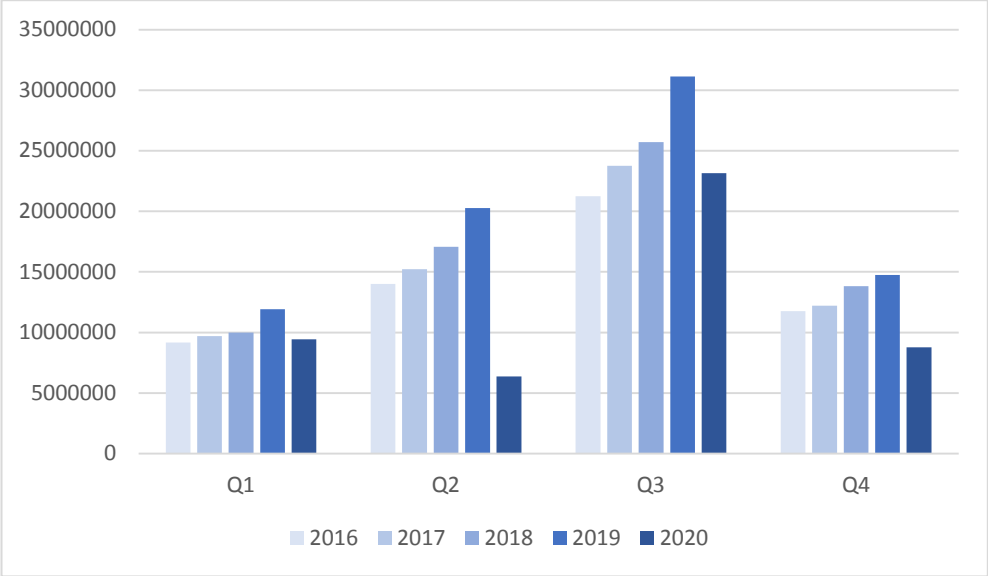

Figure 48: Number of Persons on Board Ro-Ro/Passenger ships per year quarter (2016-2020).

7. Safety and Environmental Inspections

7.1 Impact on PSC Inspections as reported in THETIS and APCIS[94]

This section presents PSC inspection activities by the EU countries of the Paris MoU and the signatory countries of the Tokyo MoU in the period between 2016-2020. A comparison is made between the inspection effort in both areas where the detention ratio (percentage of detained ships over inspected ships) is considered an indicator for overall compliance with the International Conventions, both inside as well as outside the months affected by the pandemic.

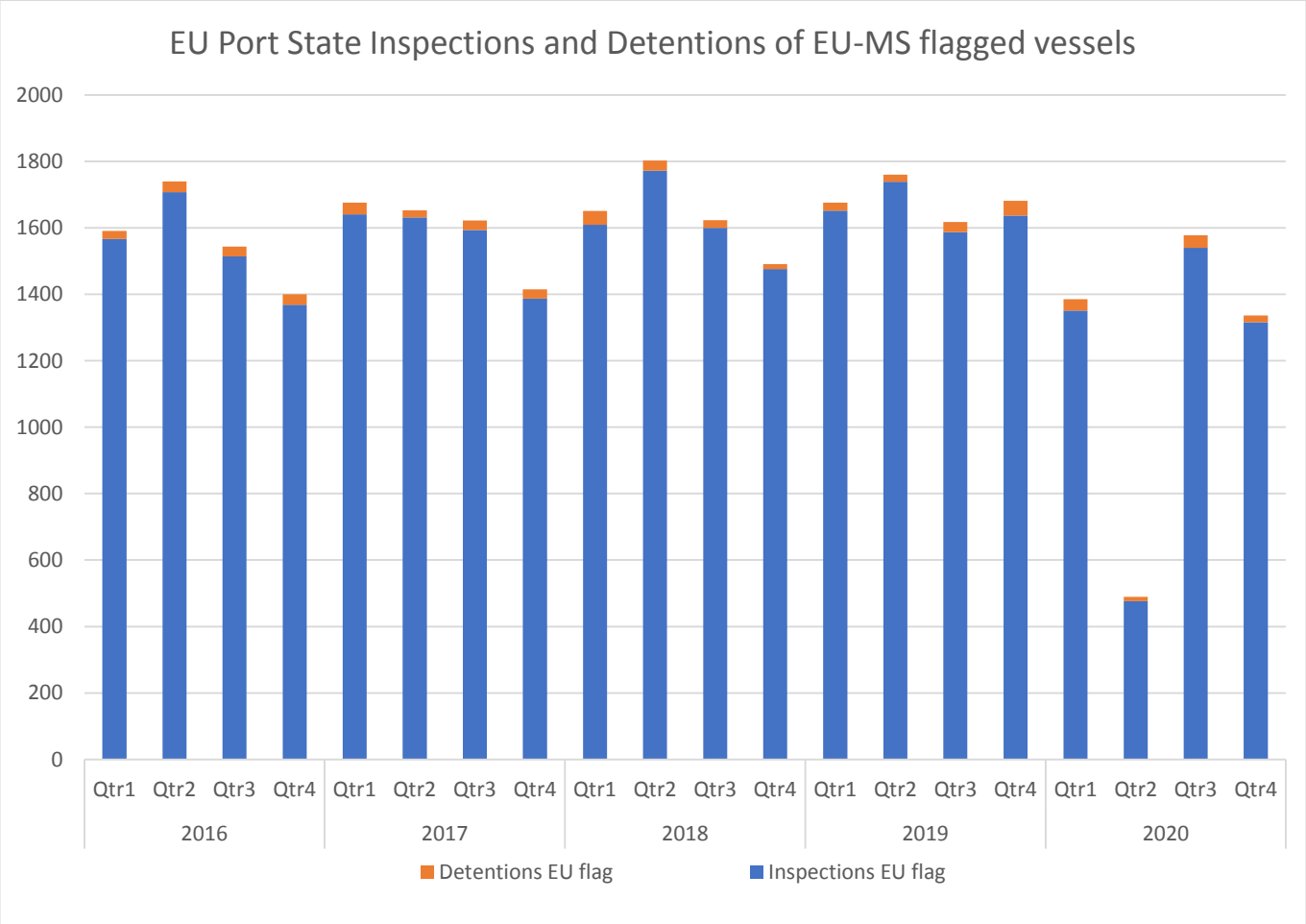

Figure 49: EU Port State inspections and detentions EU-MS flag.

The data shows a strong impact on the number of inspections during the second quarter of 2020, while in the third and fourth quarter the situation as regards inspections of EU-MS flagged vessels almost normalized again. At the same time, it can be noted that the number of detentions did not reduce during the year affected by COVID-19, leading to a higher ratio of inspections leading to detention. This is evidence of a larger amount of detected breaches or violations of the provisions of the Internal Conventions governing shipping.

[94] APCIS: The Asia Pacific Computerized Information System

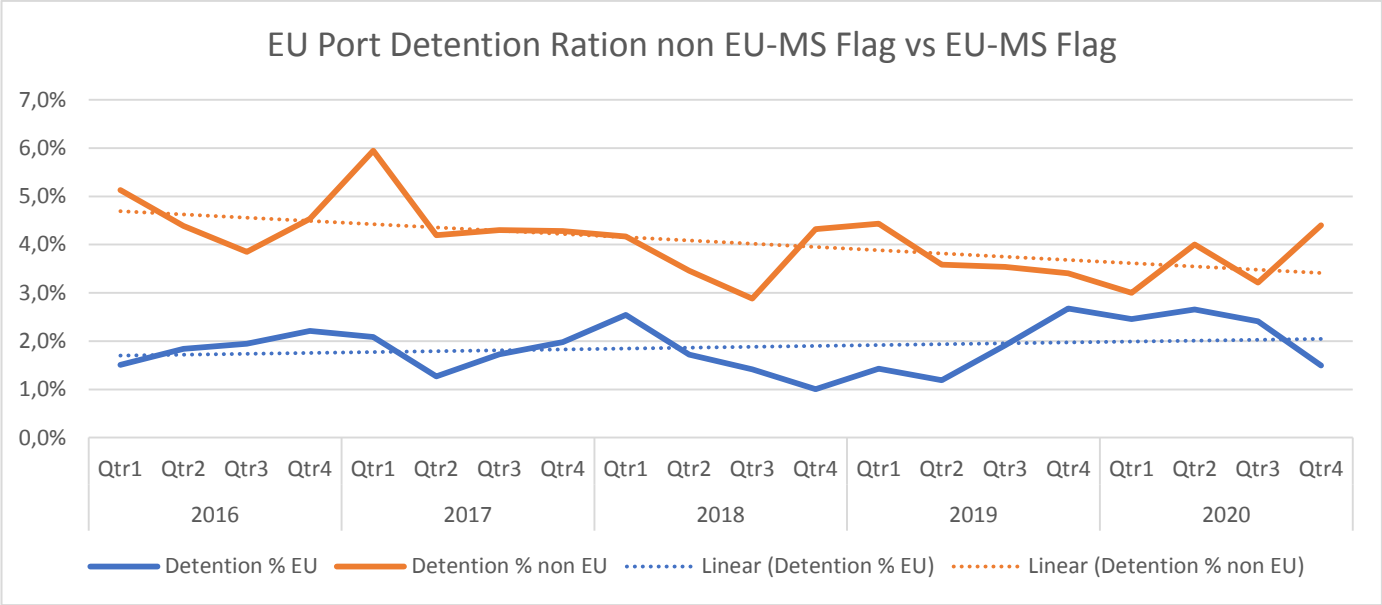

Figure 50: EU Port State detention ratios Non-EU-MS flag vs EU-MS flag.

The occurrence of inspections leading to detentions as performed by the EU-MS being member of the Paris MoU appears rather stable in the past 5 years, although the long-term trend for EU-MS flagged ships is negative. Especially during 2020 an increase in the ratio of detentions may be noted which is also not reflected in sections on ships with a non-EU-MS flag at the time of the inspection. However, even during the worsening period in 2020, EU-MS flagged ships are still doing better than non-EU-MS flagged ships.

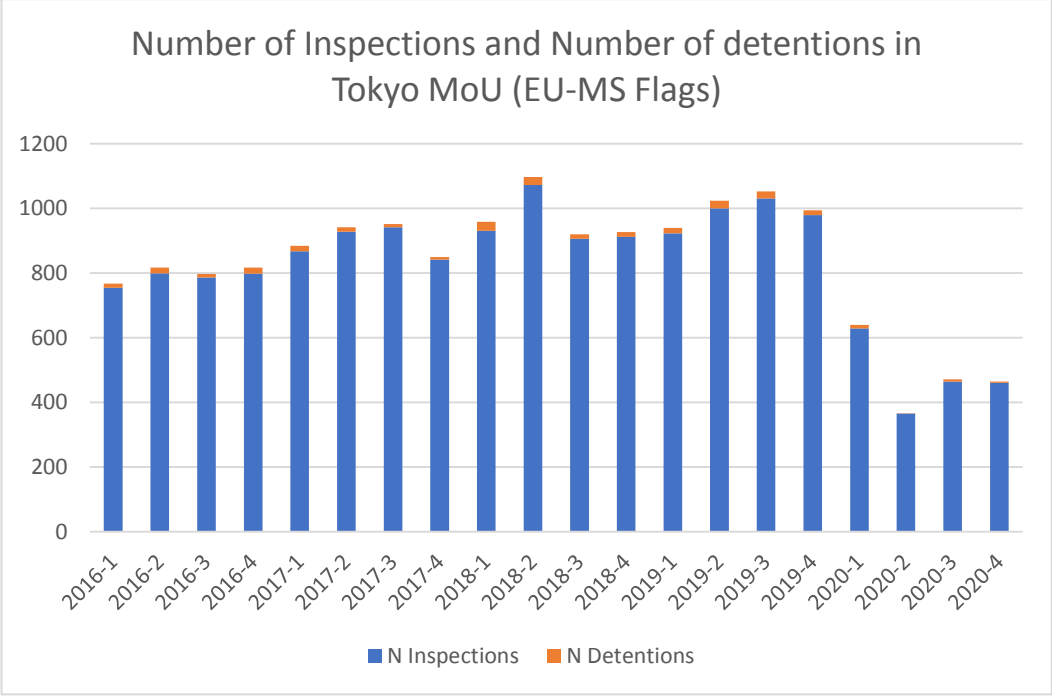

Figure 51: Tokyo MoU inspections and detentions of vessels flying an EU-MS flag.

From the data it is evident that the pandemic also seriously affected the possibilities for Port State Control inspections by maritime authorities in the Tokyo MoU area. Interesting to note is that the volume of inspections was affected throughout the year rather than just the second quarter of 2020 as in the EU area.

Furthermore, it is interesting to note that contrary to what happened in the EU area, inspections leading to detentions of EU-MS flagged ships diminished significantly during 2020. This is even more clearly visible in the following graph showing the ratios of detention of EU-MS flagged versus Non-EU-MS flagged ships.

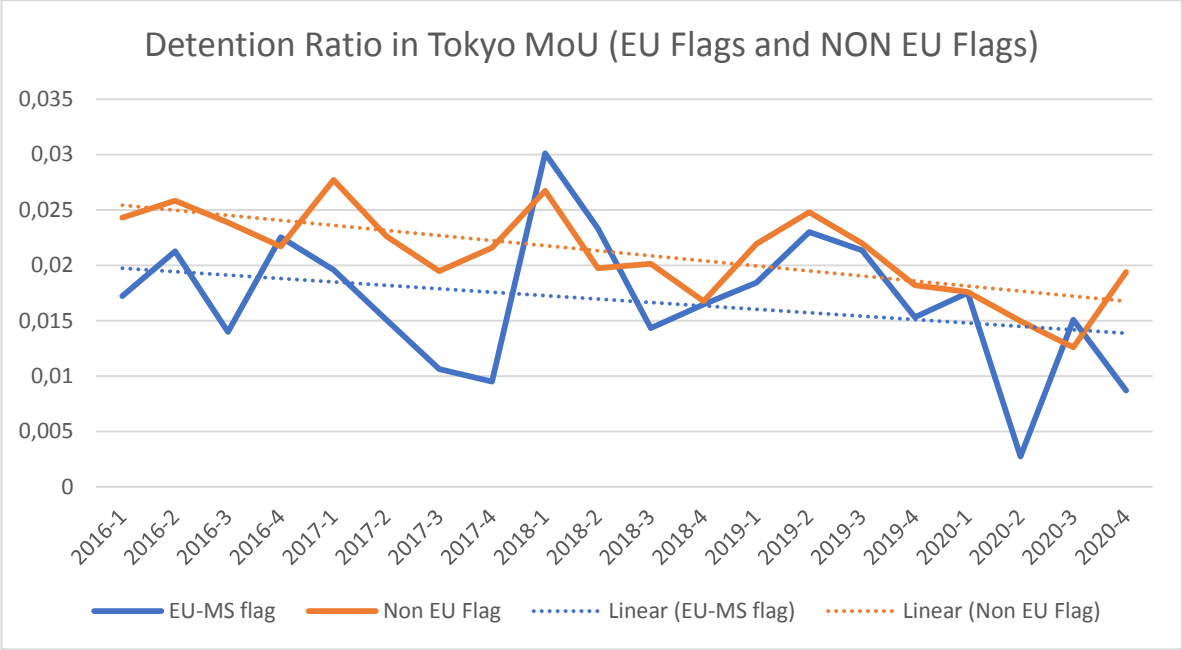

Figure 52: Tokyo MoU detention ratios Non-EU-MS flag vs EU-MS flag.

Detention ratios (percentage of inspections leading to detention) in the Tokyo MoU area have been improving over the years. Surprisingly, only the occurrence of detentions of EU-MS flagged ships dropped significantly during the second quarter of 2020 as compared to both itself in previous quarters, and the ratio of non-EU-MS flagged ships in the same quarter. Overall, the occurrence of inspections leading to detention is rather low compared to similar figures from EU Port States. (1,5% for Tokyo MoU inspections versus 3% for Paris MoU inspections performed by EU-MS).

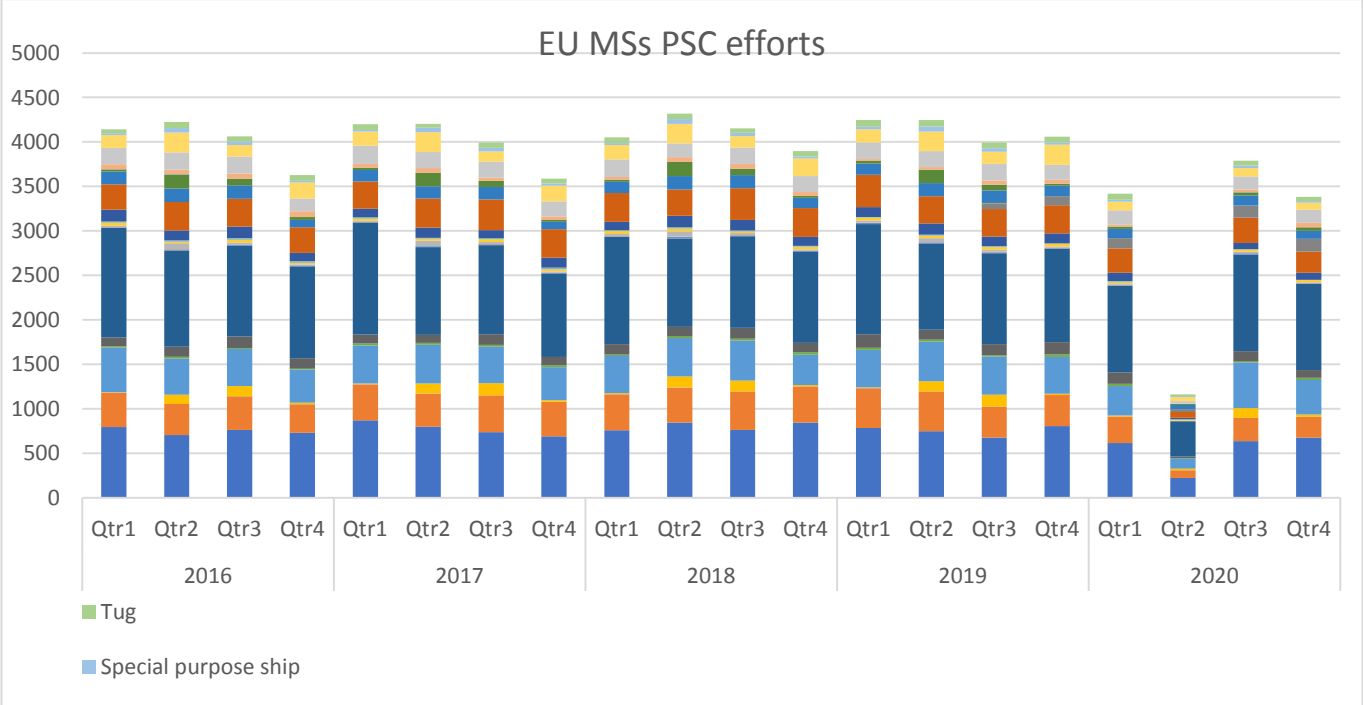

Figure 53: EU-MS PSC inspection effort.

The inspection effort by EU Port States is regulated by the “fair share” or “annual commitment” stipulated in Directive 2009/16 EU on Port State Control. The commitment is agreed annually, and States comply with the set target throughout the year. During the second quarter of 2020 many national Health authorities imposed a ban on the performance of inspections, which led to a strong overall reduction in the numbers.

In the third quarter the ban was partially raised, and several Member States started inspecting again, even beyond their originally agreed commitment. This led to a similar effort overall, but a different distribution of inspections among member States.

The fourth quarter saw a restart of inspections in all Member States, and a level as before the pandemic were almost achieved. Still, the impact is significant, even at the end of 2020.

From the graph it may be concluded that the pandemic and associated reduction in inspections in the EU area has not led to an uneven spread over the various identified ship types.

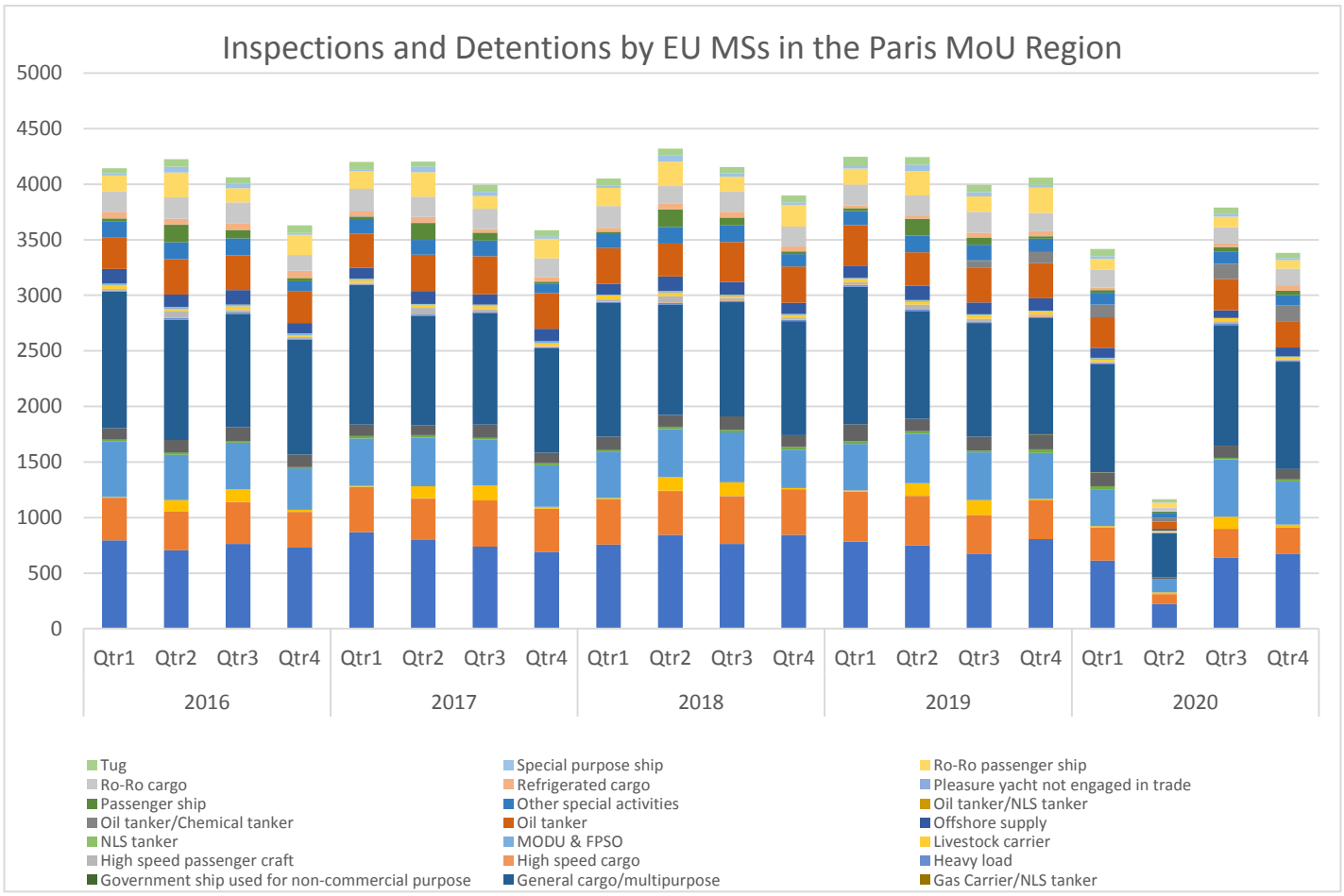

Figure 54: EU-MS States PSC inspection effort by ship type.

7.2 Impact on Surveys performed by EU Recognised Organisations

Information on issued statutory and class certificates by EU Recognised Organisations in accordance with Regulation 2009/391 (EU) on common rules and standards for ship inspection and survey organizations is stored in EMSA applications and may be analyzed. The following graph presents the number of ships issued with a new Class certificate in the period 2016 to 2020. Issuance of a new full-term class certificate is indicative of the activities undertaken by the Recognized Organizations, which are together responsible for a fleet in service of approximate 36.500 ships.

The graph presents the number of ships to which a Class certificate was issued with date of issuance in the respective years between 2018 to 2020. The data is composed of all ships registered in the database of the listed ROs, where the flag has not been considered. The details above may allow two conclusions:

- 2020 in general saw a stable issuance of new Class Certificates, where class certificates represent the completion of renewal (special) surveys. This suggests that operations were not too much affected by the pandemic.
- However, the last quarter of 2020 saw a reduction of the number of ships issued with a new class certificate. This may be explained by a stronger impact of the pandemic worldwide or may be due to the fact that work has possibly been done earlier during the year.

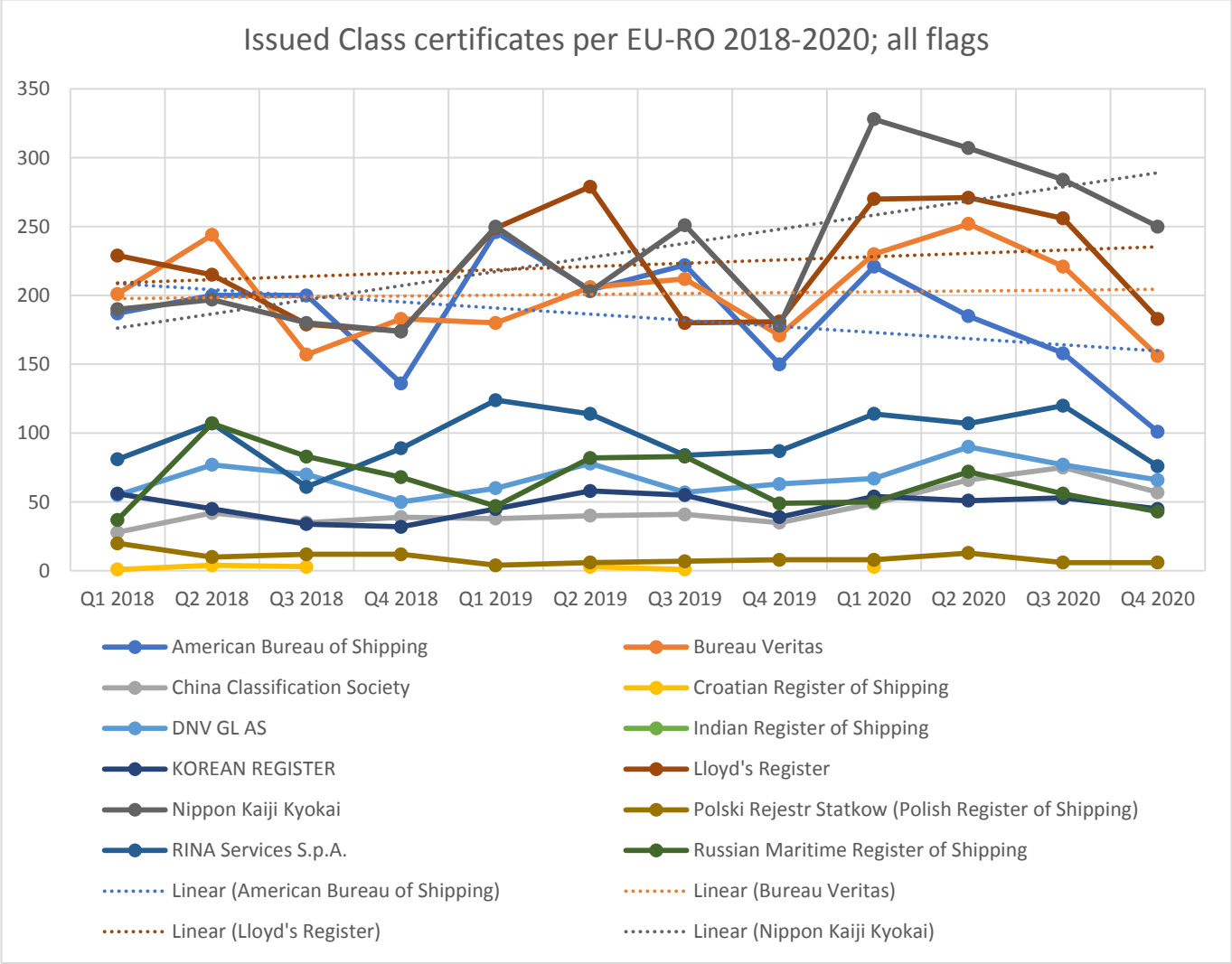

Figure 55: Issued Class certificates per EU-RO 2018-2020, all flags.

7.3 Impact on the marine casualties and incidents as reported in the EMCIP system

This section presents statistics on the marine casualties and incidents falling within the scope of Directive 2009/18/EC that were reported to EMCIP (European Marine Casualty Information Platform) between 2016-2020. This includes accidents and incidents that:

- occurred to EU-MS flagged vessels, wherever in the world;
- occurred to any flag within MS' territorial sea; and
- involve other substantial interest of the MS.

Figures are presented by quarters and their average between 2016-2019 is compared with the relevant period in 2020 to assess their variation. Marine casualties and incidents concerning cargo ships, passenger ships, fishing vessels and service ships have been analyzed following three categorizations as per EMCIP taxonomy:

a. number of reported occurrences, grouped by severity:

   1. Very serious (VS);
   2. Marine casualties other than very serious (OMC); and
   3. Marine incidents (MI).

b. number of vessels involved, grouped by the above-mentioned ships' types.

c. number of casualty events, grouped by the following categories:

1. Collision;
2. Grounding;
3. Contact;
4. Capsizing/ listing;
5. Loss equipment;
6. Fire/ explosion;
7. Flooding;
8. Loss control;
9. Other occurrences with ships (OWS)[95]; and
10. Occurrences with persons (OWP)[96].

For each ships' and events' type, the average figures of the period 2016-2019 has been compared with the corresponding figures for 2020 to calculate the percent variation by quarters[97]. The table and the chart below show a general drop of marine casualties and incidents occurred in 2020 in comparison with the previous 4-year period (2016-2019).

Table 59: Number of occurrences by severity (2016 – 2020).

Severity	2016				2017				2018				2019				2020				Total[98]
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
VS	19	24	15	20	19	14	11	17	22	20	29	31	20	22	10	24	13	9	11	9	**359**
OMC	690	637	759	632	663	675	668	601	598	626	655	653	684	685	747	606	620	512	568	472	**12,751**
MI	104	89	109	101	135	128	132	153	158	133	131	144	156	108	87	97	166	104	125	117	**2,477**
Totals	**813**	**750**	**883**	**753**	**817**	**817**	**811**	**771**	**778**	**779**	**815**	**828**	**860**	**815**	**844**	**727**	**799**	**625**	**704**	**598**	**15,587**

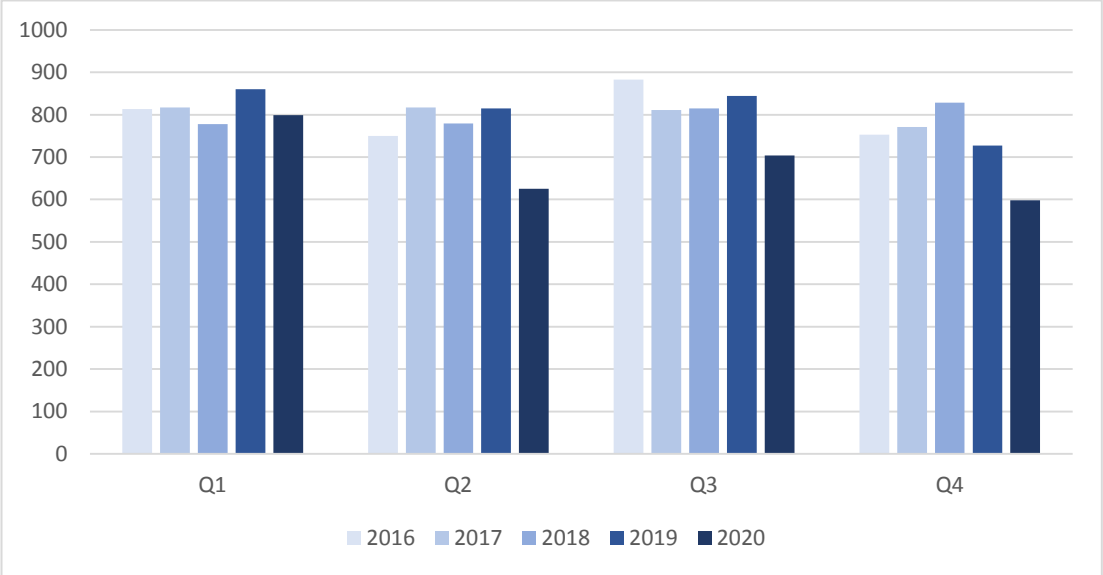

Figure 56: Occurrence distribution per quarter and year.

During Q1 2020 the number of occurrences slightly decreased (-2.20%) respect to the average of the previous 4-year period, while the drop was more pronounced during Q2 (-20.91%) and Q4 (-22.31%).

Very serious marine casualties scored the most significant reduction in the second and fourth quarter 2020 (about --55% and 60.87% respectively).

[95] Including hull failure and missing ships.
[96] Including occupational accidents.
[97] $\% \, variation = \frac{ValuePeriod1 - ValuePeriod0}{ValuePeriod0}$

[98] Figures for Q4 2020 are excluded.

7.4 Impact on sulphur inspections as reported in THETIS-EU[99]

This section presents an overview comparing the sulphur inspection activities in the EU between 2018, 2019 and 2020. Analysing the total monthly inspections in 2020 as a percentage of the total average monthly inspections conducted in 2018 and 2019, it can be observed that during the months of January and February the number of inspections remained at comparable levels however since March there was a decrease in the total number of inspections. In particular, in March 2020 43% of the 2019 were conducted and in April 2020 only 10% of the inspections were carried out. A recovery was however observed from June. In September 2020, 5% more inspections than in the 2018-2019 average were carried out. More fluctuations were observed during September-December. The month with the highest impact in the total number of inspections was April 2020.

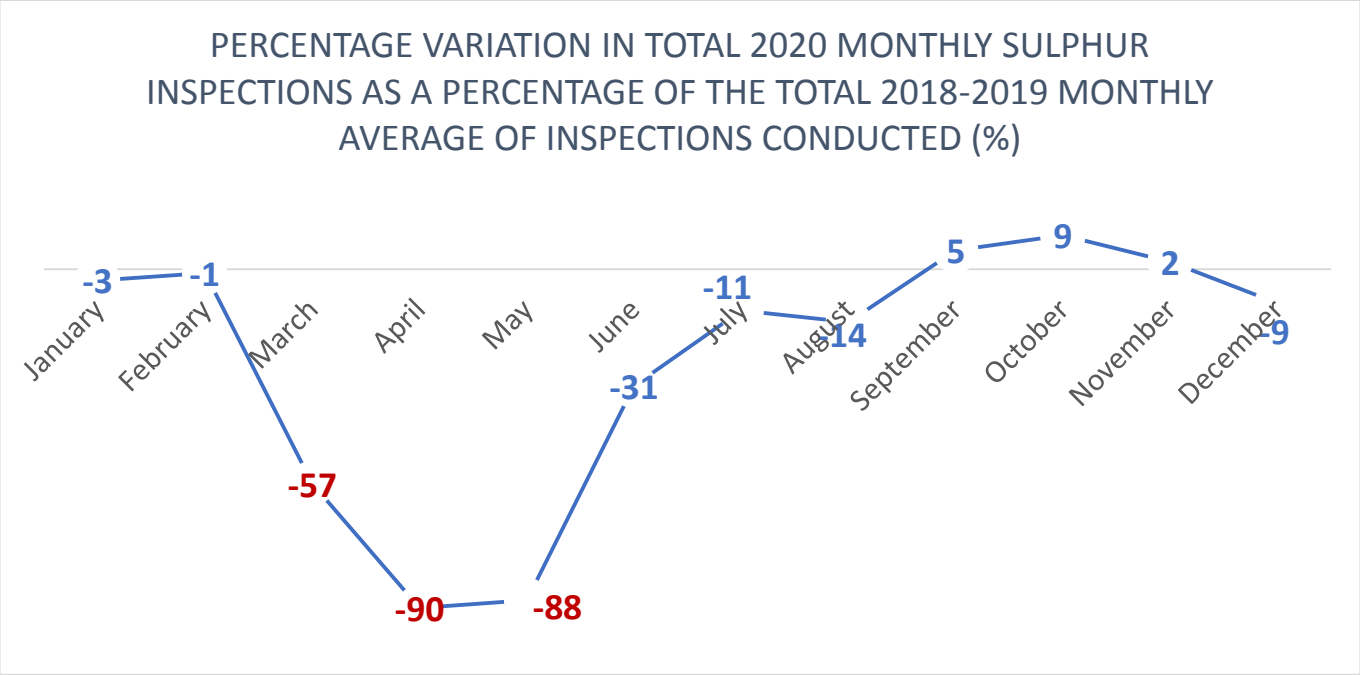

Figure 57: Percentage variation in total 2020 monthly sulphur inspections compared to the total 2018-2019 monthly average of inspections conducted (%).

In terms of total number of inspections per sea region, the greatest reduction compared to previous years in total number of inspections have been observed in the North Sea, followed by the Baltic Sea and to a lesser extent, outside the SECA areas.

[99] Inspection Database to support EU Legislation other than PSC

Appendix A Additional Tables to Chapter 2 Traffic and Trade

Bulk carriers[100]

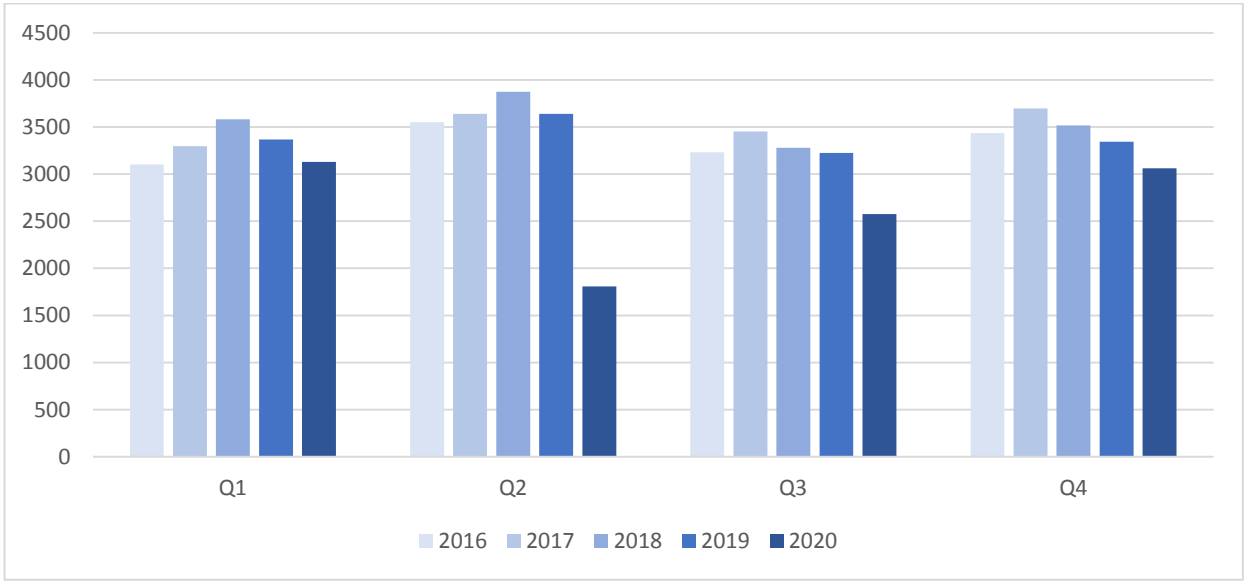

Figure 58: Ship calls of bulk carriers reported to SSN between 2016 and 2020 per year quarter.

Chemical tankers[101]

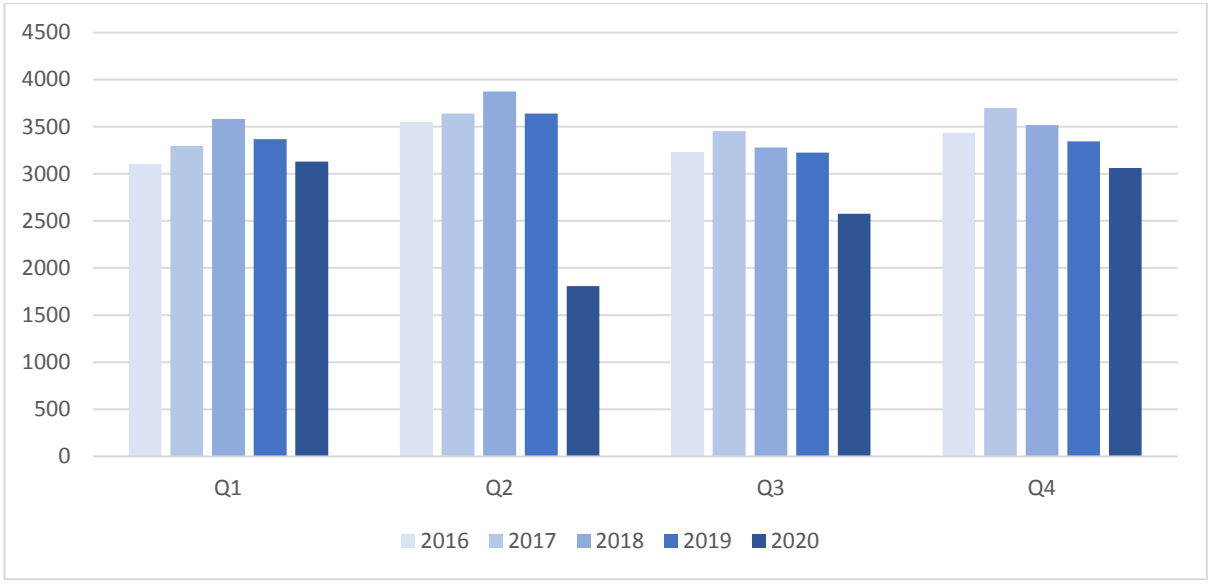

Figure 59: Ship calls of chemical tankers reported to SSN between 2016 and 2020 per year quarter.

[100] Bulk carriers includes the following ship types: Bulk Carrier, Laker, Powder Carrier, Bulk/Oil Carrier (OBO), Urea Carrier, Ore Carrier, Limestone Carrier, Refined Sugar Carrier, Bulk Carrier Laker Only, Ore/Oil Carrier, Bulk Carrier Self-discharging, Aggregates Carrier, Cement Carrier, Wood Chips Carrier , Bulk Carrier (with Vehicle Decks), Bulk/Caustic Soda Carrier (CABU), Bulk/Sulphuric Acid Carrier.
[101] Chemical tanker includes the following ship types: Chemical Tanker, Wine Tanker, Latex Tanker, Edible Oil Tanker, Vegetable Oil Tanker, Molten Sulphur Tanker.

Container ships[102]

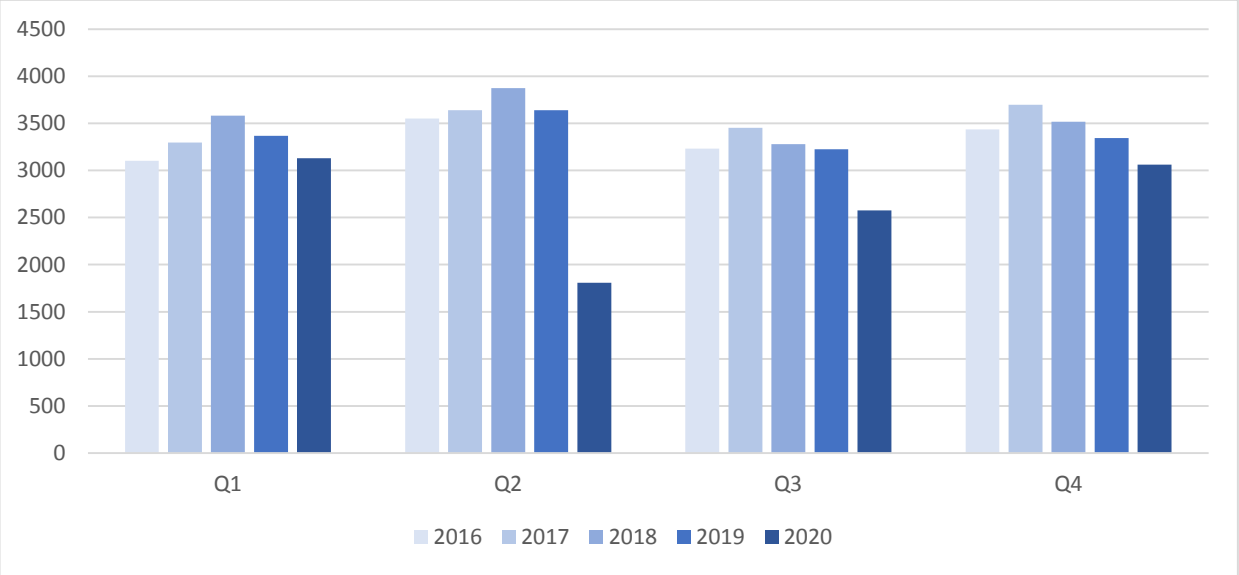

Figure 60: Ship calls by container ships reported to SSN between 2016 and 2020 per year quarter.

Cruise ships[103]

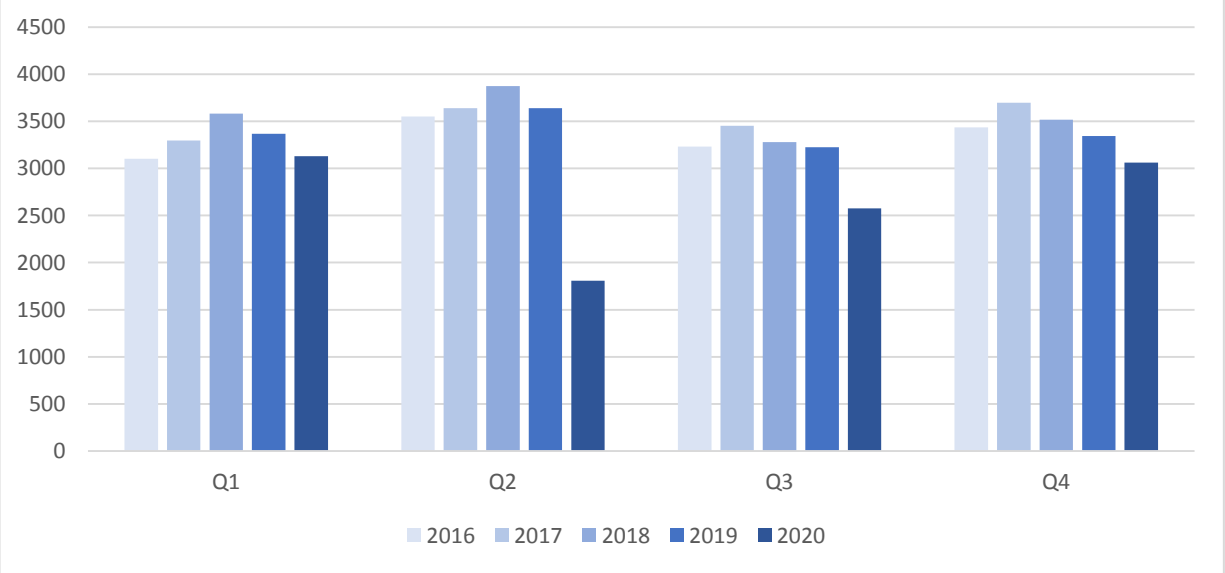

Figure 61: Ship calls by cruise ships reported to SSN between 2016 and 2020 per year quarter.

[102] Container ship includes the following ship types: Container Ship (Fully Cellular/Ro-Ro Facility), Container Ship (Fully Cellular), Passenger/Container Ship.
[103] Cruise ships include the following ship types: Passenger/Cruise.

General cargo[104]

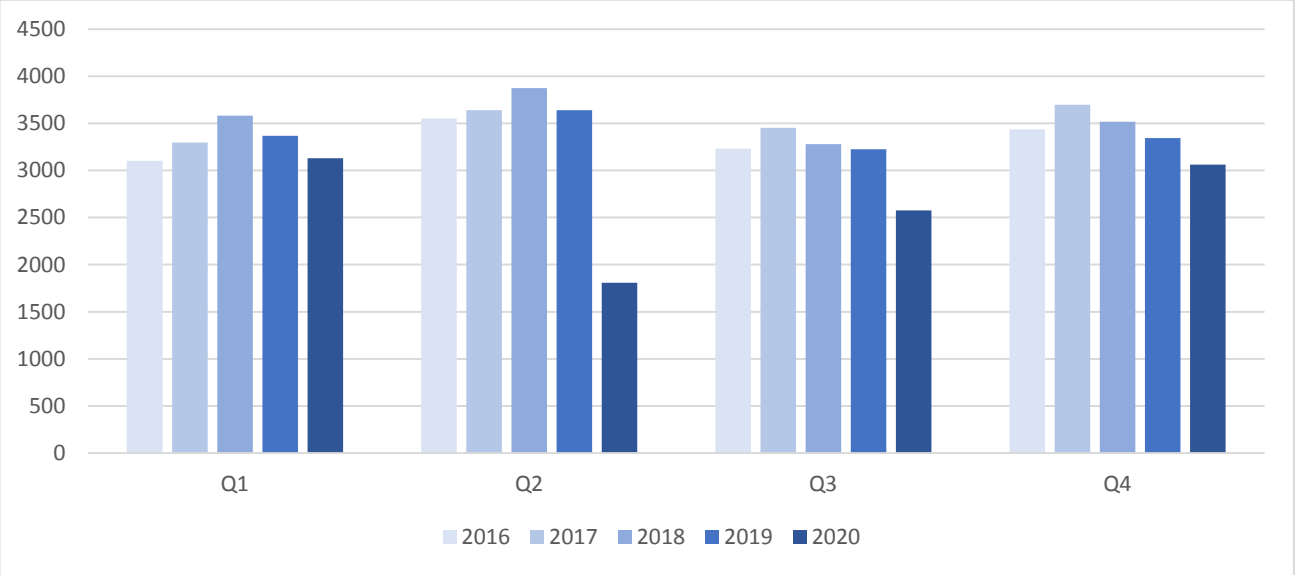

Figure 62: Ship calls of general cargo ships reported to SSN between 2016 and 2020 per year quarter.

Liquified gas tanker[105]

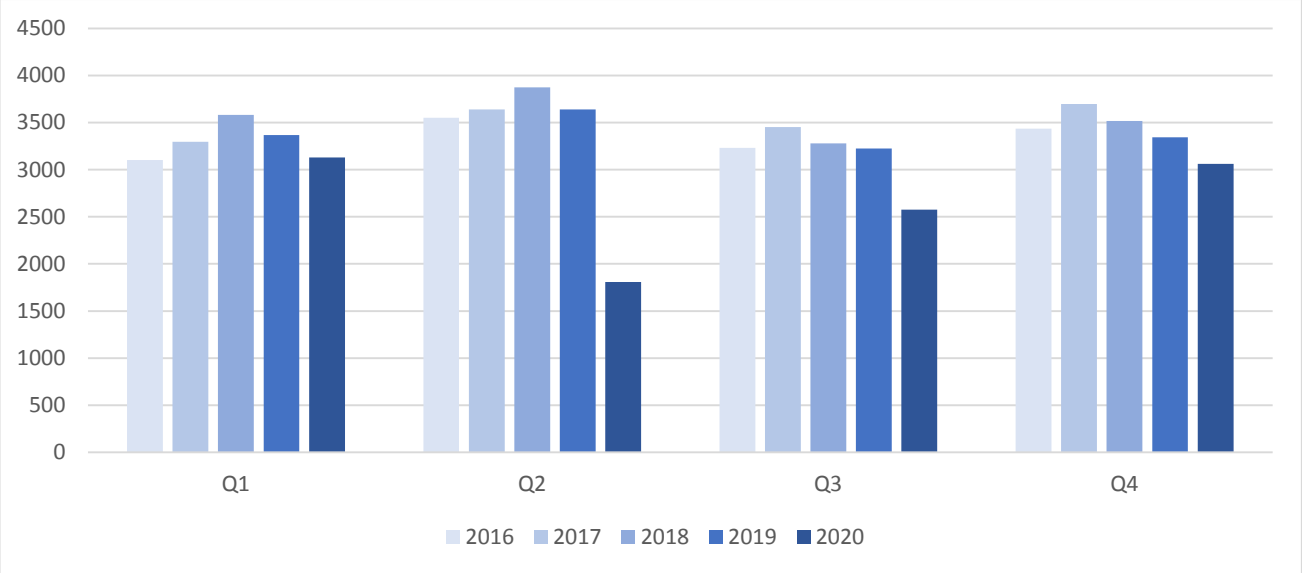

Figure 63: Ship calls by liquefied gas tankers reported to SSN between 2016 and 2020 per year quarter.

Oil tanker[106]

[104] General cargo ship includes the following ship types: General Cargo/Passenger Ship, Palletised Cargo Ship, General Cargo Ship (with Ro-Ro facility), General Cargo/Tanker, Deck Cargo Ship, Heavy Load Carrier, Nuclear Fuel Carrier Yacht Carrier semi-submersible, Livestock Carrier, Nuclear Fuel Carrier (with Ro-Ro facility), General Cargo Ship, General Cargo Ship Self-discharging, Heavy Load Carrier semi-submersible, Open Hatch Cargo Ship.
[105] Liquefied gas tanker includes the following ship types: Gas Processing Vessel, LPG Tanker, CO2 Tanker, LNG Tanker, LPG/Chemical Tanker, Combination Gas Tanker (LNG/LPG).

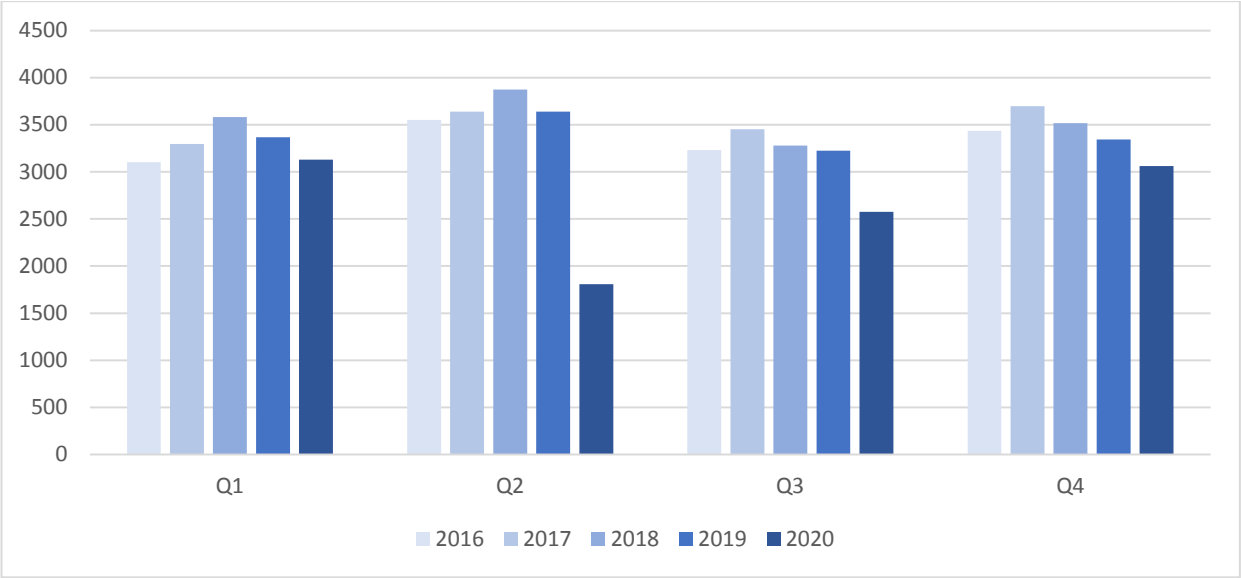

Figure 64: Ship calls by oil tankers reported to SSN between 2016 and 2020 per year quarter.

Passenger

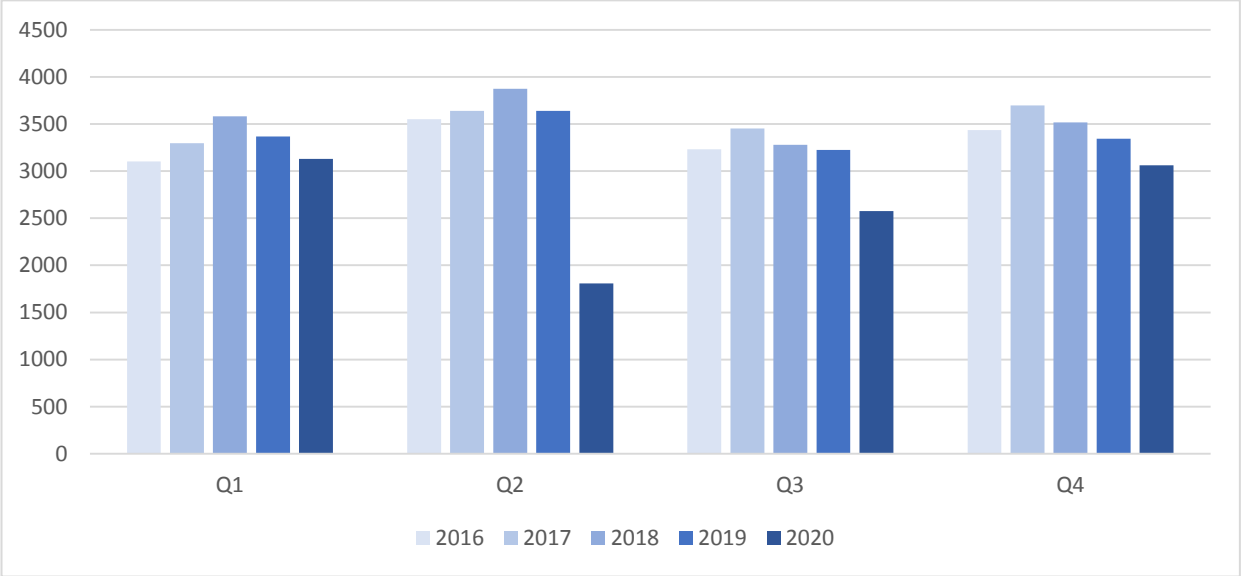

Figure 65: Ship calls by passenger ships reported to SSN between 2016 and 2020 per year quarter.

[106] Oil tanker includes the following ship types: Crude Oil Tanker, Tanker (unspecified), Coal/Oil Mixture Tanker, Products Tanker, Asphalt/Bitumen Tanker, Bunkering Tanker, Crude/Oil Products Tanker, Shuttle Tanker, Oil Products Tanker, Bitumen Tanker, Chemical/Oil Product Tankers and Chemical/Products Tanker

Refrigerated cargo

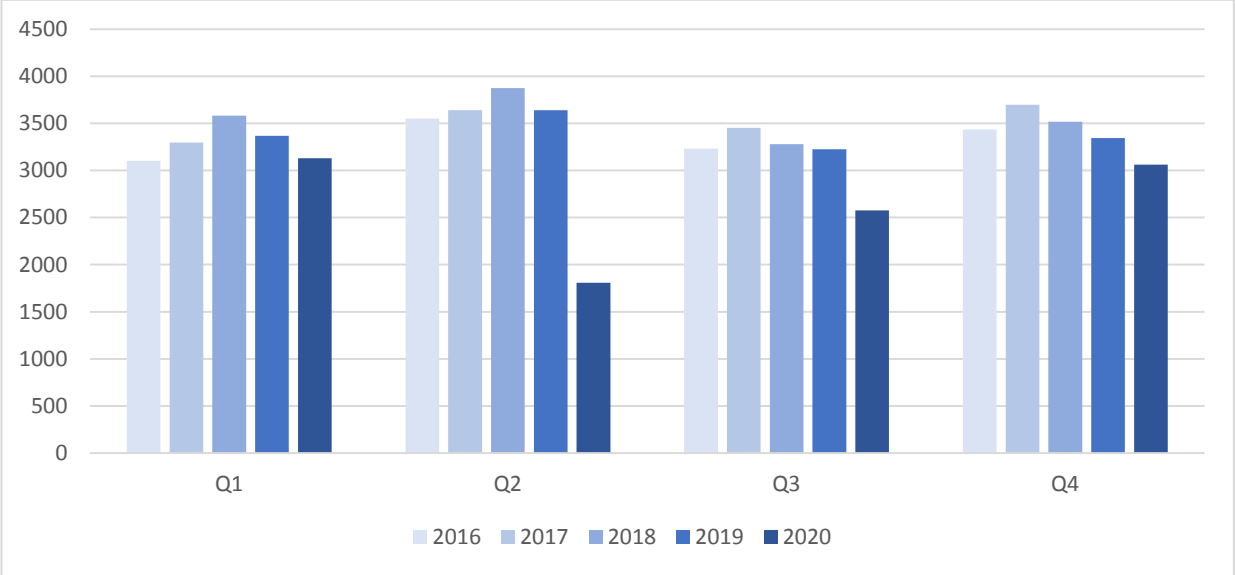

Figure 66: Ship calls by refrigerated cargo ships reported to SSN between 2016 and 2020 per year quarter.

Ro-ro/passenger[107]

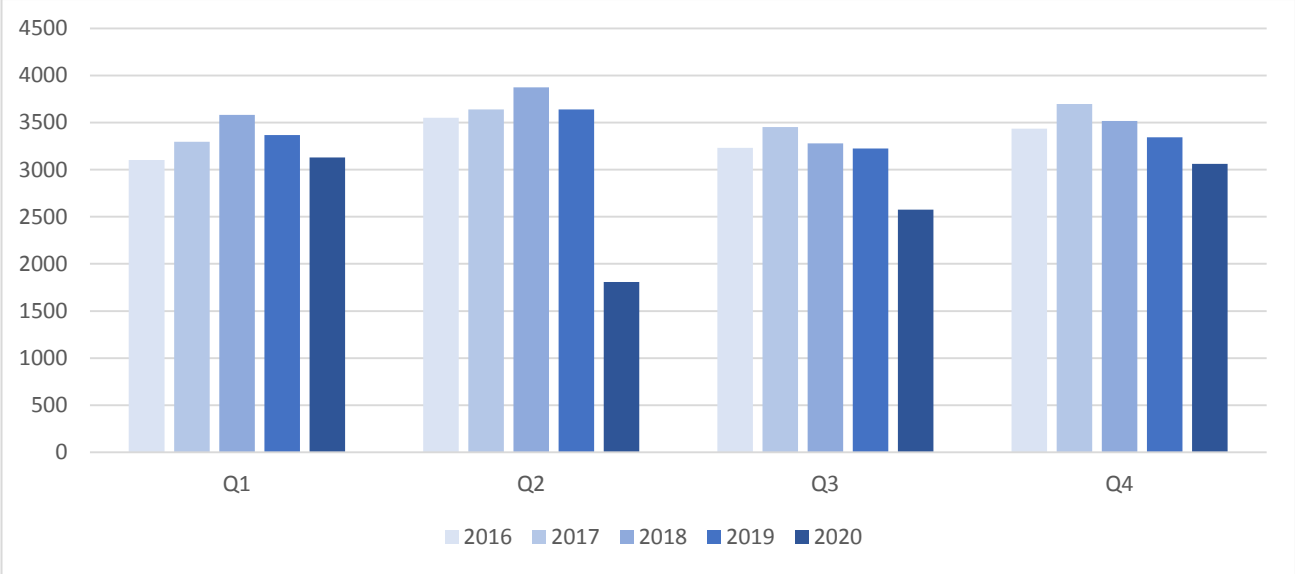

Figure 67: Ship calls by ro-ro/passenger ships reported to SSN between 2016 and 2020 per year quarter.

[107] Ro-Ro/Passenger ship includes the following ship types: Passenger/Landing Craft, Passenger/Ro-Ro Ship (Vehicles/Rail), Passenger/Ro-Ro Ship (Vehicles), Passenger/Ro-Ro Cargo Ship.

Ro-ro/cargo[108]

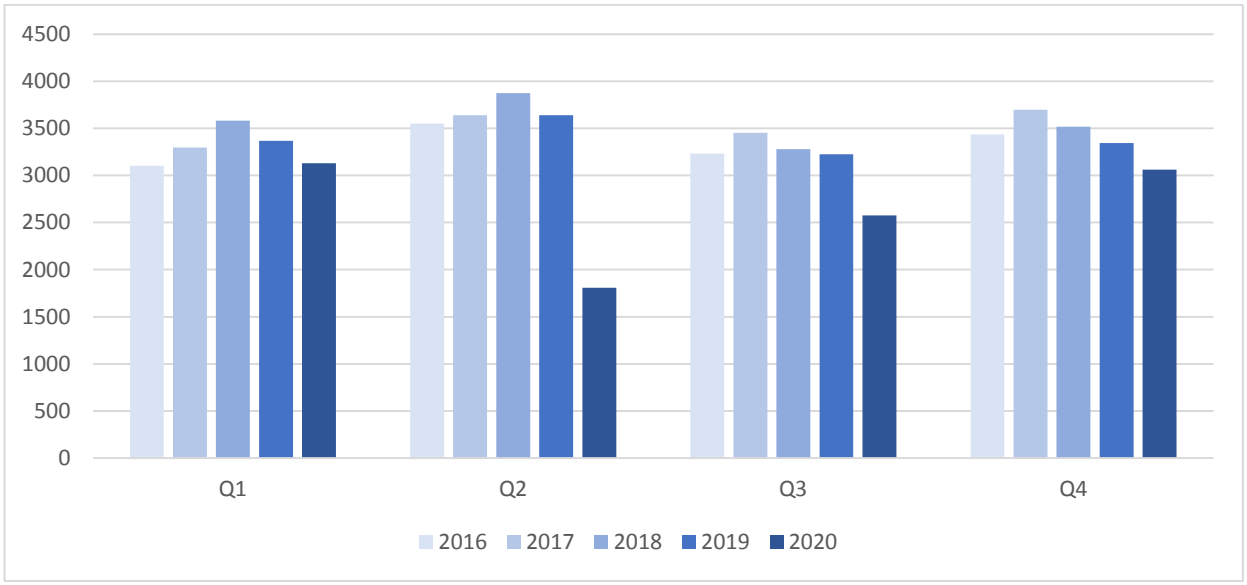

Figure 68: Ship calls by ro-ro/cargo ships reported to SSN between 2016 and 2020 per year quarter.

Vehicle carrier

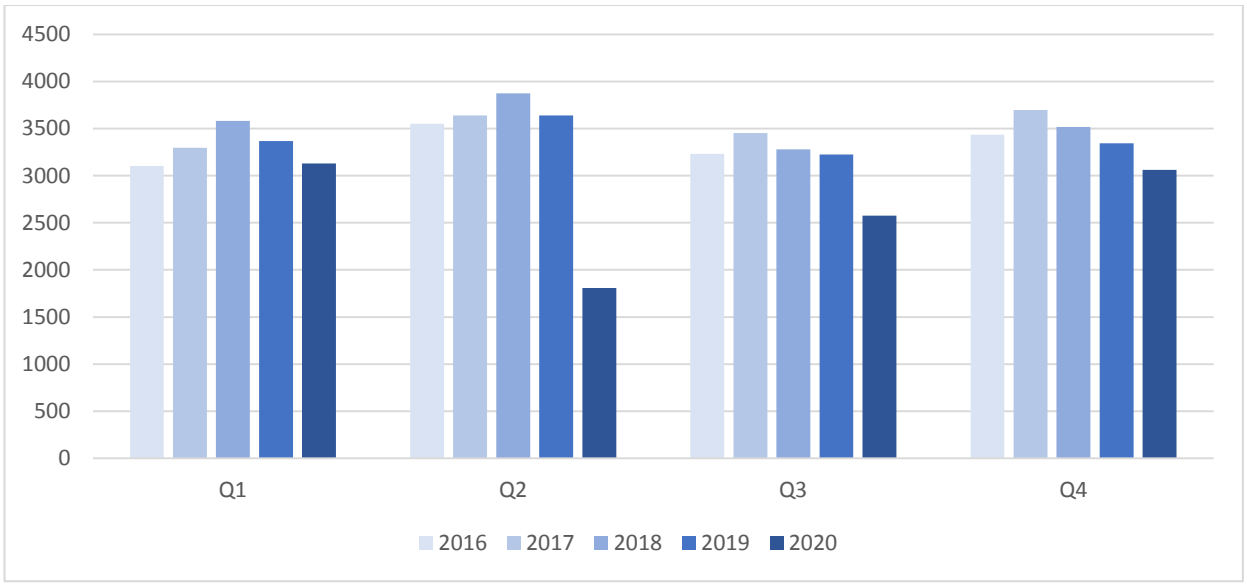

Figure 69: Ship calls by vehicle carriers reported to SSN between 2016 and 2020 per year quarter.

[108] Ro-Ro/Cargo ship includes the following ship types: Rail Vehicles Carrier, Landing Craft, Container/Ro-Ro Cargo Ship, Ro-Ro Cargo Ship.

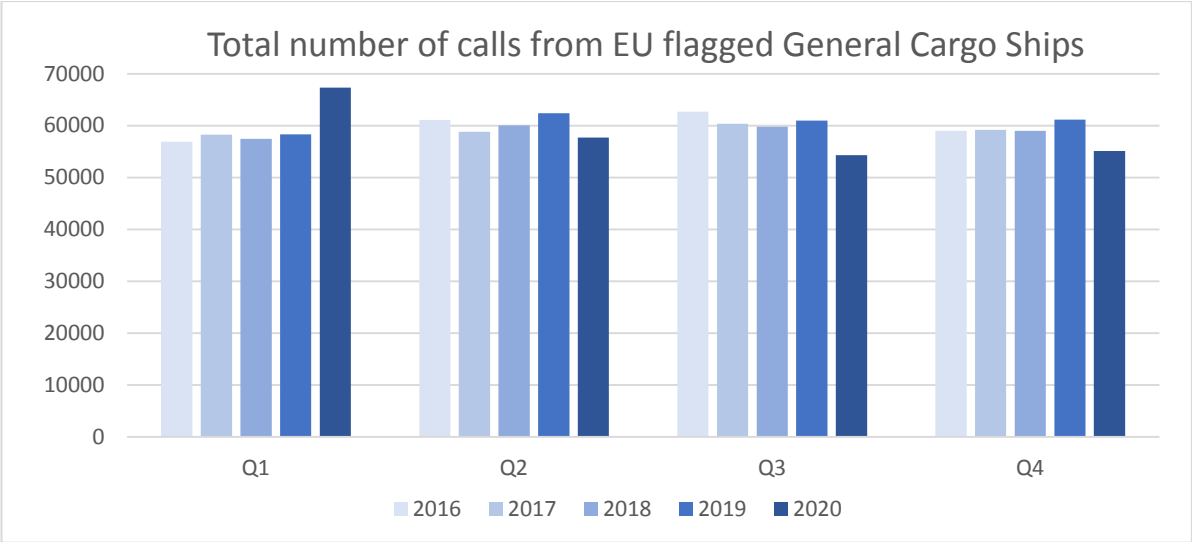

Figure 70: Total number of EU-MSs flagged vessels calls (worldwide) between 2016 and 2020 (by quarter) for General Cargo.

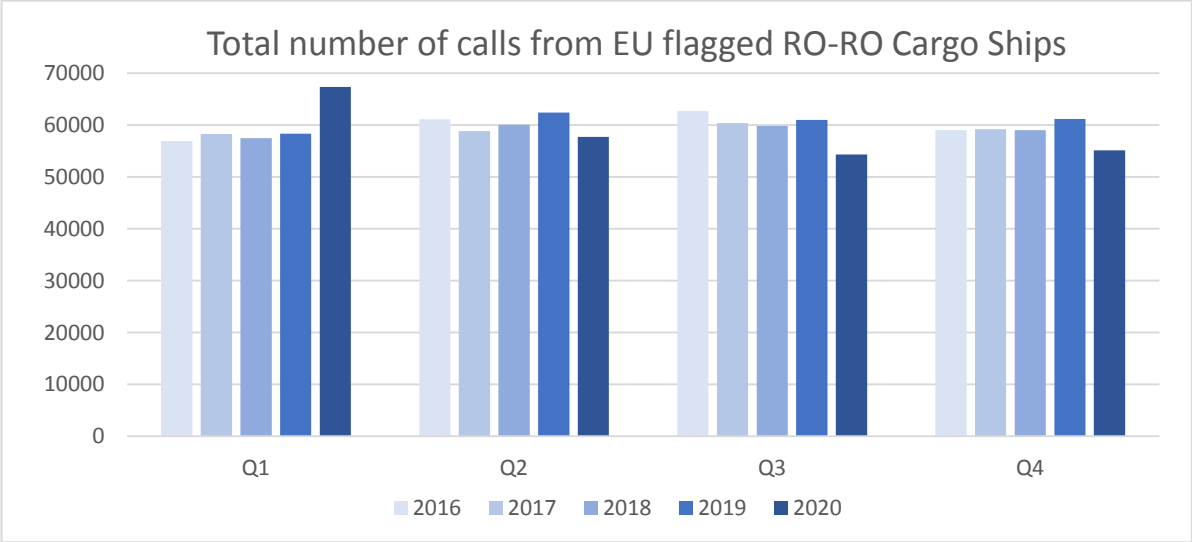

Figure 71: Total number of EU-MSs flagged vessels calls (worldwide) between 2016 and 2020 (by quarter) for Ro-Ro Cargo ships.

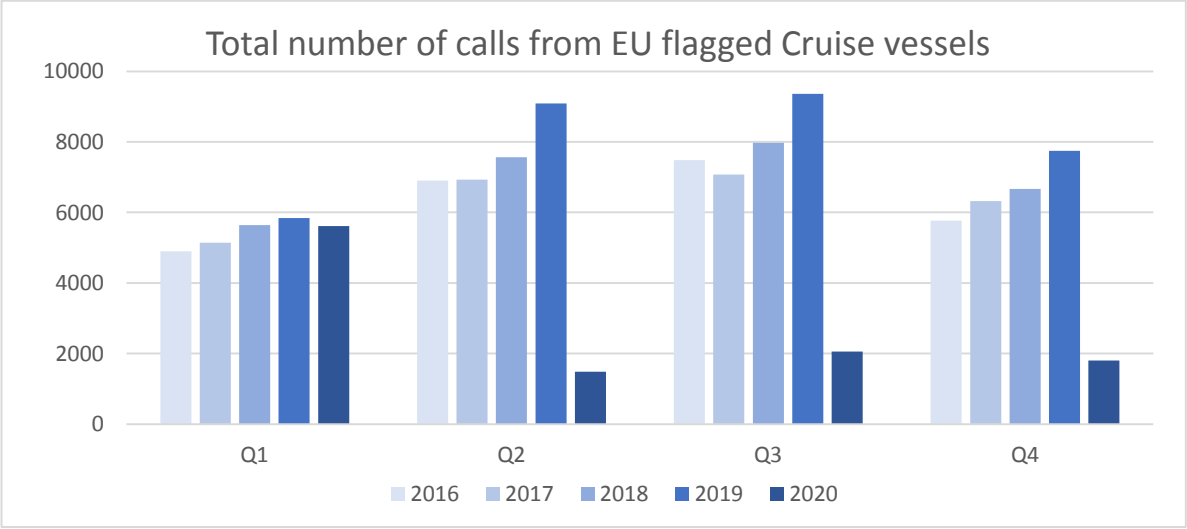

Figure 72: Total number of EU-MSs flagged cruise ships calls (worldwide) between 2016 and 2020 (by quarter).

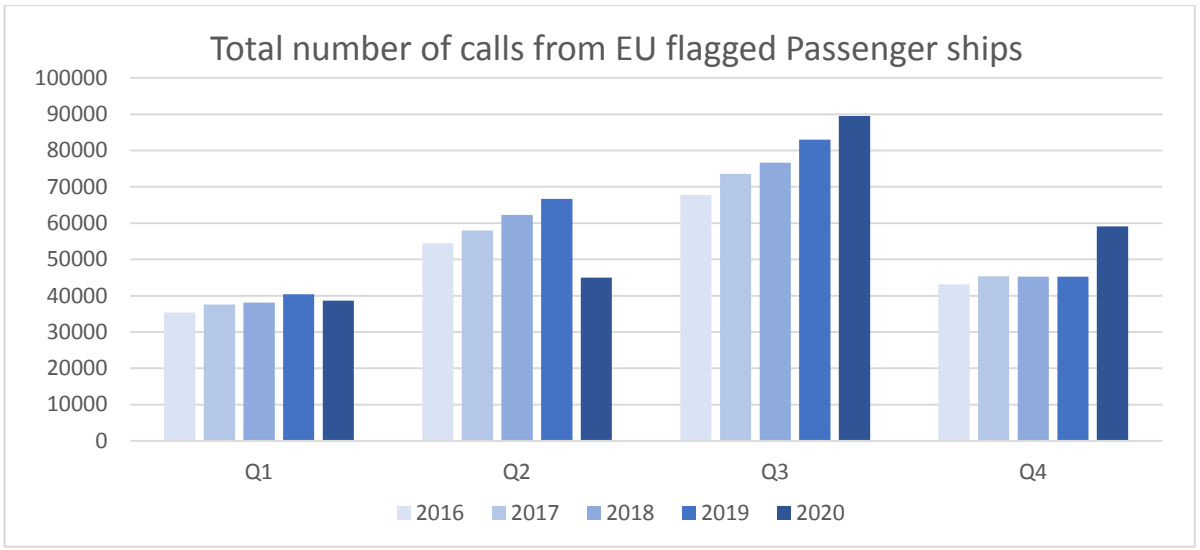

Figure 73: Total number of EU-MSs flagged passenger ships calls (worldwide) between 2016 and 2020 (by quarter).

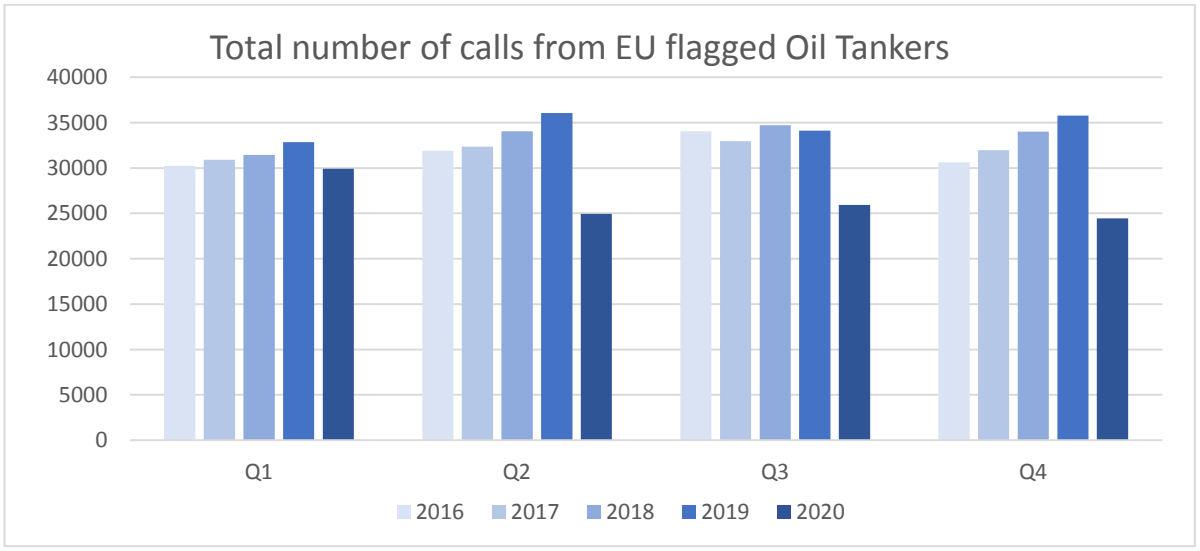

Figure 74: Total number of EU-MSs flagged oil tankers calls (worldwide) between 2016 and 2020 (by quarter).

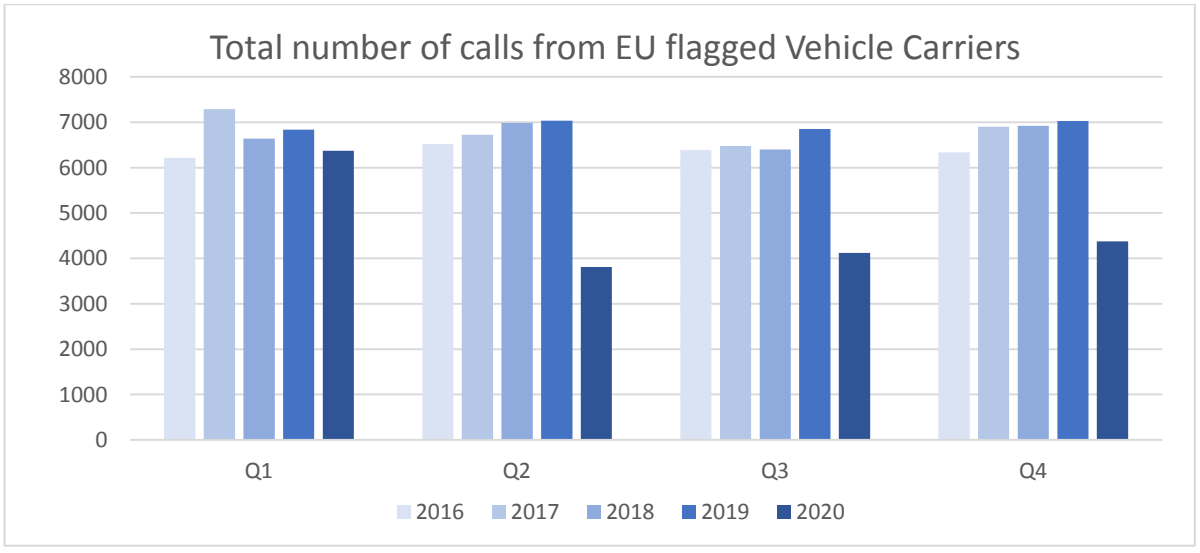

Figure 75: Total number of EU-MSs flagged vehicle carrier calls (worldwide) between 2016 and 2020 (by quarter).

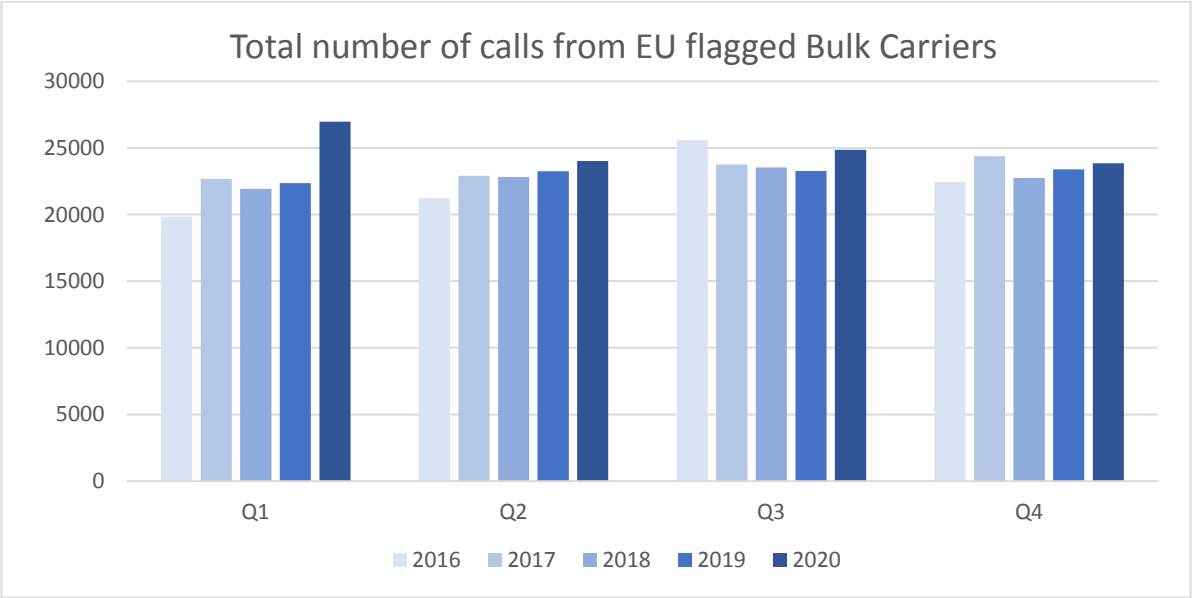

Figure 76: Total number of EU-MSs flagged bulk carriers calls (worldwide) between 2016 and 2020 (by quarter).

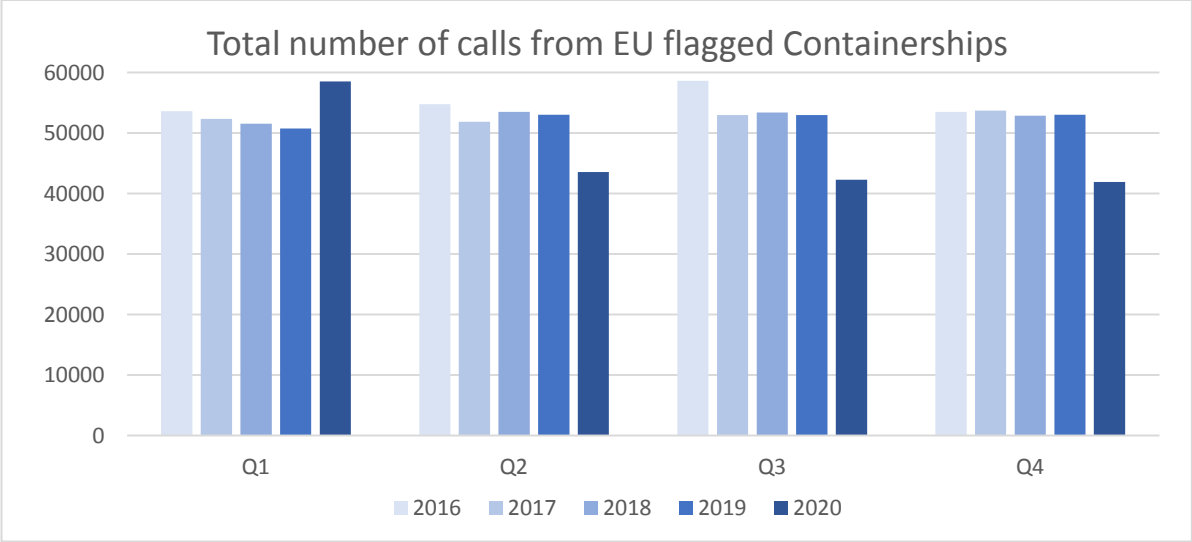

Figure 77: Total number of EU-MSs flagged containerships calls (worldwide) between 2016 and 2020 (by quarter).

Table 60: EU External Seaborne Imports Freight Costs Summary[109].

Cargo	Vessel / Cargo Size	Route	Unit	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Crude Oil	VLCC; 280,000t	MEG-UKC	$/BBL	1.57	1.00	1.01	1.67	2.29	*37%*	3.79	3.14	1.21	1.02
	Suezmax; 140,000t	MEG-Med	$/BBL	0.87	0.57	0.61	1.08	1.15	*7%*	1.92	1.69	0.54	0.46
	Suezmax; 130,000t	WAF-UKC	$/BBL	1.38	1.12	1.29	1.78	1.70	*-4%*	2.77	2.15	1.02	0.84
	Aframax; 100,000t	Baltic-UKC	$/BBL	0.91	0.77	0.94	1.11	0.84	*-24%*	1.27	1.03	0.55	0.50
	Aframax; 80,000t	Libya-S.France	$/BBL	0.74	0.68	0.81	0.92	0.80	*-13%*	1.07	0.93	0.58	0.62
Oil Products	LR1; 60,000t	Red Sea-UKC	$/BBL	2.36	2.30	2.64	3.32	3.43	*3%*	3.59	5.34	2.29	2.50
	MR; 38,000t	USG-UKC	$/BBL	1.93	1.93	2.21	2.33	2.60	*11%*	3.44	3.02	2.41	1.53
	Handy; 30,000t	Black Sea-Med	$/BBL	1.09	1.11	1.19	1.53	1.47	*-3%*	1.98	2.12	1.01	0.79
Chemicals	Chem. Parcel; 15,000t	MEG-UKC	$/t	53.34	50.46	52.36	53.96	63.10	*17%*	67.03	69.10	60.75	55.53
	Chem. Parcel; 5,000t	Far East-UKC	$/t	76.00	76.31	79.90	73.68	72.28	*-2%*	80.11	76.17	67.73	65.12
	Chem. Parcel; 5,000t	USG-UKC	$/t	56.29	49.37	47.89	52.30	53.06	*1%*	61.75	51.67	50.90	47.93
Iron Ore	Capesize; 177,000t	ECSA-UKC	$/t	4.90	7.80	8.67	8.27	6.60	*-20%*	5.16	5.16	8.66	7.42
	Capesize; 156,000t	Quebec-UKC	$/t	4.66	6.70	8.77	8.79	7.37	*-16%*	7.80	5.59	8.14	7.96
Coal	Capesize; 166,500t	NCSA-UKC	$/t	5.48	8.34	9.51	9.67	8.04	*-17%*	7.23	5.78	9.93	9.23
	Capesize; 131,000t	USEC-UKC	$/t	5.94	8.80	11.26	11.83	9.79	*-17%*	8.99	7.49	12.07	10.63
	Kamsarmax; 70,000t	N.Russia-UKC	$/t	5.58	6.98	7.92	6.89	6.39	*-7%*	5.57	4.98	7.29	7.72
Grain	Kamsarmax; 60,000t	ECSA-UKC	$/t	9.47	13.25	13.17	10.72	14.10	*32%*	11.12	10.76	18.35	16.15
Minor Bulk	Panamax; 49,000t	Guinea-N.Spain	$/t	6.58	8.87	10.14	9.87	8.47	*-14%*	8.66	6.14	9.77	9.30
Container	Lrg. Boxship; (varies)	China-N.Eur	$/TEU	683	876	820	760	1,172	*54%*	891	813	980	2,002
	Lrg. Boxship; (varies)	China-Med	$/TEU	675.7	817.3	795.4	811.5	1,266	*56%*	1,019	894	1,032	2,119

Table 61: EU External Seaborne Exports Freight Costs Summary[110].

Cargo	Vessel / Cargo Size	Route	Unit	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Crude Oil	Aframax; 80,000t	UKC-USEC	$/BBL	2.10	1.77	1.71	1.85	1.61	*-13%*	2.28	1.97	1.16	1.04
Oil Products	LR1; 55,000t	UKC-USG	$/BBL	2.40	2.19	2.44	2.94	2.50	*-15%*	3.73	3.10	1.60	1.56
	LR1; 60,000t	UKC-WAF	$/BBL	1.62	1.59	1.71	2.21	2.73	*23%*	3.41	3.83	2.11	1.57
	MR; 37,000t	UKC-USEC	$/BBL	1.78	1.85	2.01	2.35	2.33	*-1%*	3.14	2.98	1.75	1.45
Chemicals	Parcel; 5,000t	UKC-USG	$/t	32.65	30.69	30.84	30.96	33.53	*8%*	36.74	35.19	31.23	30.94
Grain	Panamax; 60,000t	UKC-Red Sea	$/t	20.39	24.59	24.81	22.36	21.97	*-2%*	23.04	18.64	23.37	22.82

[109] Source: Clarksons Research, Shanghai Shipping Exchange. MEG = Middle East Gulf; WAF = West Africa; UKC = United Kingdom / Continent region; USG = US Gulf; ECSA = East Coast South America; NCSA = North Coast South America; USEC = US East Coast.
[110] Source: Clarksons Research. UKC = United Kingdom / Continent region; USEC = US East Coast; USG = US Gulf; WAF = West Africa.

Appendix B Additional Tables to Chapter 3 The fleet flagged by EU Member States

Table 62: Summary of EU-MS flagged fleet by ship-type[111].

Country of Flag	Bulk carrier	Chemical tanker	Containership	Cruise	General cargo	Liquified gas tanker	Oil tanker	Passenger	Refrigerated cargo	Ropax	Ro-Ro cargo	Vehicle carrier	Total
Belgium	20	1	7	4	11	30	21				5		**99**
Bulgaria	1				5	1	4	1		1	4		**17**
Croatia	15	10		26	11		7	170		51	2		**292**
Cyprus	267	50	181	2	185	13	51	7	4	74	12	5	**851**
Denmark	10	145	145		42	25	31	25	1	69	20		**513**
Estonia							5	1	1	20	1		**28**
Finland	3	3	3		42		4	16		51	29		**151**
France	3	20	31	14	20	8	16	40		57	22		**231**
Germany		5	77		64	8	20	72		25	6	3	**280**
Greece	165	61	5	4	48	47	273	150		198	9	1	**961**
Iceland					5		2	12		3			**22**
Ireland	2				42			17		4	3		**68**
Italy	35	102	7	28	37	17	35	137	4	170	57	24	**653**
Latvia		1			23		3	2		3			**32**
Lithuania		1	4		12		1		5	8	5		**36**
Luxembourg	6	9	1		19	2	4				2		**43**
Malta	578	365	301	52	192	93	271	17		10	45	34	**1958**
Netherlands	13	47	36	21	536	27	13	25	3	16	14		**751**
Norway	76	124	1	11	238	57	72	131	13	309	9	36	**1077**
Poland					8		1	16		8			**33**
Portugal	85	42	260	7	137	5	22	34		10	7	10	**619**
Romania		1			4		2						**7**
Spain	4	6			21	15	11	88	4	42	8	3	**202**
Sweden	7	32		4	20		10	91		57	17	7	**245**
Total	**1290**	**1025**	**1059**	**173**	**1722**	**348**	**879**	**1052**	**35**	**1186**	**277**	**123**	**9169**

[111] Source: Marinfo

Table 63: Summary of EU-MS flagged fleet by flag state[112].

Flag Country	Fleet					Fleet Eco Profile			
	Number	US$ bn	'000 GT	Average GT	Average Age	No. BWTS	No. Eco Engine	No. Alternative Fuel	No. SOx Scrubber
Belgium	99	2.6	5,817	58,758	12.3	48	28	5	4
Bulgaria	37	0.0	125	3,381	39.3	1			1
Croatia	317	0.9	1,221	3,853	26.3	7	8		
Cyprus	869	10.6	22,146	25,484	15.1	329	132	21	72
Denmark	515	12.4	21,878	42,481	17.8	173	175	11	127
Estonia	31	0.8	362	11,693	25.5	2		1	
Finland	161	1.5	1,572	9,762	37.2	9	5	5	27
France	265	5.1	6,619	24,979	23.1	82	33	8	26
Germany	338	3.6	7,049	20,854	33.8	54	35	4	29
Greece	1,088	18.0	37,619	34,577	24.4	340	159	35	154
Irish Republic	68	0.3	253	3,715	20.6	33	2		
Italy	821	20.0	13,885	16,912	26.9	136	32	5	101
Latvia	38	0.1	135	3,562	30.3	2			
Lithuania	45	0.3	369	8,209	28.6	11			5
Luxembourg	41	0.3	355	8,652	14.2	15	5		
Malta	1,996	55.3	80,908	40,535	11.9	1,009	512	40	282
Netherlands	771	7.8	5,581	7,239	16.7	260	6	17	83
Poland	48	0.0	31	645	41.1				
Portugal	620	8.4	16,493	26,602	14.3	280	166	3	92
Reunion	7	0.0	3	361	13.4				
Romania	23	0.0	58	2,504	42.8				
Slovenia	2	0.0	0	194	92.3				
Spain	180	2.6	2,305	12,805	22.6	9	4	12	1
Sweden	273	2.1	2,136	7,825	43.8	24	12	11	10
United Kingdom	524	9.4	10,790	20,591	18.1	119	53	4	59
Total EU	**9,177**	**162**	**237,711**	**25,903**	**20.2**	**2,824**	**1,314**	**178**	**1,014**
as % Global	*14%*	*21%*	*17%*			*18%*	*15%*	*30%*	*24%*
Total EU excl. UK	**8,653**	**153**	**226,921**	**26,225**	**20.3**	**2,705**	**1,261**	**174**	**955**
as % Global	*13%*	*20%*	*17%*			*17%*	*15%*	*29%*	*23%*
Norway	1,148	15.0	17,066	14,866	26.9	277	131	66	45
Iceland	24	0.1	14	584	35.9				
Total (inc. Norway, Iceland)	**10,349**	**177.2**	**254,790**	**24,620**	**21.0**	**3,220**	**1,498**	**248**	**1,118**
as % Global	*16%*	*23%*	*19%*			*21%*	*18%*	*41%*	*27%*
Global	**65,829**	**760.4**	**1,363,964**	**20,720**	**20.5**	**15,557**	**8,521**	**598**	**4,144**

[112] Source: Clarksons Research. Vessels over 100 GT.

Table 64: Annual fleet development of EU-MS flagged fleet by flag state[113].

Flag	Start Year ('000 GT)						% growth	
	2016	2017	2018	2019	2020	2021	2016-2020 CAGR	2021/2020
Belgium	4,760	4,528	4,863	5,872	5,906	5,817	5.5%	-1.5%
Bulgaria	120	127	108	135	135	125	3.0%	-7.2%
Croatia	1,276	1,328	1,337	1,311	1,247	1,221	-0.6%	-2.1%
Cyprus	20,581	20,857	21,678	21,828	22,401	22,146	2.1%	-1.1%
Denmark	14,975	14,920	16,733	20,140	20,803	21,878	8.6%	5.2%
Estonia	374	395	363	360	361	362	-0.9%	0.5%
Finland	1,657	1,653	1,487	1,563	1,602	1,572	-0.8%	-1.9%
France	5,334	5,551	5,414	5,743	5,976	6,619	2.9%	10.8%
Germany	10,133	9,664	9,075	7,755	7,730	7,049	-6.5%	-8.8%
Greece	40,848	41,386	41,339	39,771	39,911	37,619	-0.6%	-5.7%
Irish Republic	200	184	197	221	243	253	5.0%	3.9%
Italy	15,417	15,469	15,274	14,501	14,015	13,885		-0.9%
Latvia	119	95	133	115	137	135	3.6%	-1.3%
Lithuania	350	286	360	306	361	369	0.8%	2.4%
Luxembourg	1,962	1,284	826	584	376	355	-33.8%	-5.7%
Malta	63,143	66,586	71,609	73,882	79,347	80,908	5.9%	2.0%
Netherlands	6,290	6,100	6,023	6,040	5,958	5,581	-1.3%	-6.3%
Poland	38	41	41	33	28	31	-7.3%	10.3%
Portugal	7,722	11,773	15,087	14,605	15,228	16,493	18.5%	8.3%
Reunion	1.6	2.1	2.5	2.5	2.5	2.5	12.3%	0.0%
Romania	58	58	60	61	58	58	0.0%	-1.1%
Slovakia	1.9	1.9						
Slovenia	0.4	0.4	0.4	0.4	0.4	0.4	0.0%	0.0%
Spain	2,111	2,292	2,318	2,313	2,302	2,305		
Sweden	2,528	2,202	2,081	2,133	2,035	2,136	-5.3%	5.0%
United Kingdom	16,154	16,197	16,831	16,410	11,239	10,790	-8.7%	-4.0%
Total EU	**216,155**	**222,980**	**233,239**	**235,686**	**237,403**	**237,711**	**2.4%**	**0.1%**
as % Global	*18.7%*	*18.7%*	*18.9%*	*18.5%*	*17.9%*	*17.4%*		
Total EU excl. UK	**200,001**	**206,783**	**216,408**	**219,276**	**226,164**	**226,921**	**3.1%**	**0.3%**
as % Global	*17.3%*	*17.4%*	*17.5%*	*17.3%*	*17.1%*	*16.6%*		
Iceland	10.4	10.5	10.3	10.7	14.0	14.0	7.8%	0.0%
Norway	13,973.9	14,732.8	14,891.1	15,155.3	16,162.2	17,065.7	3.7%	5.6%
Total (inc. Norway, Iceland)	**230,139**	**237,723**	**248,141**	**250,852**	**253,579**	**254,790**	**2.5%**	**0.5%**
as % Global	*19.9%*	*19.9%*	*20.1%*	*19.7%*	*19.1%*	*18.7%*		
Global	**1,155,990**	**1,191,830**	**1,233,292**	**1,271,090**	**1,324,679**	**1,363,964**	**3.5%**	**3.0%**

[113] Source: Clarksons Research.

Table 65: EU country, flag and territory groupings.

Country	Flag/Territory
Austria	Austria
Belgium	Belgium
Bulgaria	Bulgaria
Croatia	Croatia
Cyprus	Cyprus
Denmark	Danish Int'l Register
	Denmark
Estonia	Estonia
Finland	Finland
France	France
	Registre International Francais
Guadeloupe	Guadeloupe
Reunion	Reunion
Martinique	Martinique
Mayotte	Mayotte
Germany	German Int'l Register
	Germany
Greece	Greece
Iceland	Iceland
Irish Republic	Irish Republic
Italy	Italy
Latvia	Latvia
Lithuania	Lithuania
Luxembourg	Luxembourg
Malta	Malta
Netherlands	Netherlands
Norway	Norway
	Norwegian Int'l Register
Poland	Poland
Portugal	Portugal
	Azores
	Madeira
Romania	Romania
Slovenia	Slovenia
Spain	Spain
	Canary Islands
Sweden	Sweden
United Kingdom	United Kingdom
	Gibraltar

The table shows the country groupings that appear in this report on the left, and the constituent flags/territories on the right. Note that the French Departments have been kept as independent regions in the majority of tables in this report.

Table 66: Vessel Categories.

Bulkcarriers	Dry bulk carriers include single deck dry cargo vessels in excess of 10,000 deadweight tonnes
Oil Tankers	Crude oil and oil product tankers
Chemical and Spec Tankers	Tankers suitable for chemical trades, including chemical parcel and chemical bulk tankers and specialised tankers designed to carry liquid bulk cargoes other than oil or chemicals, e.g. fruit juice carriers & wine
Liquid Gas Tankers	Vessels designed to carry liquefied natural gas (LNG) at -162 degrees Celsius or liquefied petroleum gases (LPG), ammonia and other gasses in pressurised or refrigerated tanks (or a combination of both)
Containerships	A vessel specifically designed to carry ISO standard containers, with cell-guides under deck and necessary fittings and equipment on deck. Cellular capacity greater than 100 TEU
MPP and General Cargo	A single or multi deck cargo vessel for the carriage of various types of dry cargo or non-cellular container capable vessels
Reefers	Vessels designed for the transport of refrigerated goods including fish
RoRo	Cargo vessels with Roll-on Roll-off ramps for wheeled or tracked cargo, e.g. trucks and trailers
Pure Car Carriers	Ro-Ro ship primarily designed for, or operated in, the motor vehicle trades
Ferries	Pure passenger ferries & passenger/car ferries (RoPax)
Cruise	Leisure vessels that operate on voyages exceeding one day.

The table details the high-level vessel categories used in this report. For more detail on ship types please see World Fleet Register.

Appendix C Additional Tables to Chapter 4 The fleet of EU-MS owners

Table 67: Summary of EU-MS owned fleet by owner nationality[114].

Owner Nationality	Fleet					Fleet Eco Profile			
	Number	US$ bn	'000 GT	Average GT	Average Age	No. BWTS	No. Eco Engine	No. Alternative Fuel	No. SOx Scrubber
Austria	4	0.0	21.2	5,305	11.9	4			
Belgium	252	6.5	15,995.5	63,474	11.5	145	87		7
Bulgaria	99	0.5	1,227.6	12,400	24.2	23	13		3
Croatia	317	1.0	1,562.6	4,929	25.5	10	10		
Cyprus	185	1.7	4,012.2	21,688	18.6	50	18	1	
Denmark	928	20.3	37,997.8	40,946	15.5	348	344	3	170
Estonia	103	0.3	497.5	4,830	26.5	2	2		1
Finland	173	2.2	2,170.6	12,547	33.9	19	12	6	7
France	408	10.3	16,360.3	40,099	17.1	167	110	17	44
Germany	2,655	35.5	66,382.4	25,003	15.7	900	485	17	219
Greece	5,428	100.1	238,152.3	43,875	14.5	2,833	1,208	97	747
Guadeloupe	16	0.0	5.4	336	31.1				
Ireland	121	1.5	1,320.2	10,910	14.2	75	21	1	5
Italy	1,430	32.4	43,272.6	30,261	20.7	430	298	1	385
Latvia	66	0.1	225.3	3,413	26.4	20			
Lithuania	68	0.1	196.0	2,882	28.0	2			
Luxembourg	12	0.2	644.1	53,678	6.6	6	5		1
Malta	76	0.5	753.0	9,908	22.8	7	1		3
Martinique	2	0.0	0.8	396	48.8				
Mayotte	8	0.0	2.9	364	11.9				
Netherlands	988	7.8	10,200.1	10,324	16.3	313	62	21	91
Poland	154	1.0	1,932.3	12,547	25.4	61	11		
Portugal	93	0.6	954.9	10,267	25.9	9	8		
Romania	117	0.3	846.9	7,239	32.5	9	3		1
Slovenia	3	0.0	18.4	6,135	31.5				
Spain	272	3.1	3,232.3	11,883	22.7	31	16	11	10
Sweden	460	5.6	6,706.0	14,578	30.8	91	52	24	42
United Kingdom	917	16.3	27,279.5	29,749	16.1	368	217	9	97
Total EU	**15,355**	**248**	**481,971**	**31,389**	**17.3**	**5,923**	**2,983**	**208**	**1,833**
as % Global	*23%*	*33%*	*35%*			*38%*	*35%*	*35%*	*44%*
Total EU excl. UK	**14,438**	**232**	**454,691**	**31,493**	**17.4**	**5,555**	**2,766**	**199**	**1,736**
as % Global	*22%*	*30%*	*33%*			*36%*	*32%*	*33%*	*42%*
Norway	2,168	38.1	58,513.3	26,990	20.3	925	429	99	209
Iceland	30	0.1	116.7	3,891	28.3	4	2		5
Total (inc. Norway, Iceland)	**17,553**	**286**	**540,601**	**30,798**	**17.7**	**6,852**	**3,414**	**307**	**2,047**
as % Global	*27%*	*38%*	*40%*			*44%*	*40%*	*51%*	*49%*
Global	**65,829**	**760.4**	**1,363,964**	**20,720**	**20.5**	**15,557**	**8,521**	**598**	**4,144**

[114] Source: Clarksons Research.

Table 68: EU-MS owned orderbook and delivery schedule[115].

Owner Nationality	Fleet		Orderbook			Orderbook delivery schedule			
	Number	'000 GT	Number	'000 GT	% fleet GT	2021	2022	2023	2024+
Austria	4	21							
Belgium	252	15,995	13	1,016	6.4%	870.5	145.8		
Bulgaria	99	1,228	4	77	6.3%	38.7	38.7		
Croatia	317	1,563	1	9	0.6%	8.8			
Cyprus	185	4,012							
Denmark	928	37,998	30	1,660	4.4%	1,246.7	413.1		
Estonia	103	498	1	5	1.1%	5.2			
Finland	173	2,171	6	299	13.8%	186.7	112.7		
France	408	16,360	18	1,346	8.2%	1,284.4	61.1		
Germany	2655	66,382	77	3,196	4.8%	1,084.2	425.4	1,364.4	322.0
Greece	5428	238,152	159	13,484	5.7%	8,171.2	5,025.0	287.6	
Guadeloupe	16	5							
Ireland	121	1,320	7	27	2.1%	27.3			
Italy	1430	43,273	51	3,963	9.2%	2,101.0	687.8	367.5	807.0
Latvia	66	225							
Lithuania	68	196	1	2	1.0%	2.0			
Luxembourg	12	644							
Malta	76	753							
Martinique	2	1							
Mayotte	8	3	1	1	17.2%	0.5			
Netherlands	988	10,200	21	215	2.1%	178.6	36.5		
Poland	154	1,932	2	38	2.0%	38.0			
Portugal	93	955	5	47	4.9%	9.3	18.6	18.6	
Romania	117	847							
Slovenia	3	18							
Spain	272	3,232	6	77	2.4%	73.5	3.6		
Sweden	460	6,706	29	748	11.2%	463.2	242.5	42.2	
United Kingdom	917	27,279	31	2,149	7.9%	830.1	917.7	401.1	
Total EU	**15,355**	**481,971**	**463**	**28,359**	**5.9%**	**16,620.0**	**8,128.5**	**2,481.4**	**1,129.0**
as % Global	*23%*	*35%*	*19%*	*25%*		*27%*	*24%*	*19%*	*17%*
Total EU excl. UK	**14,438**	**454,691**	**432**	**26,210**	**5.8%**	**15,789.9**	**7,210.8**	**2,080.3**	**1,129.0**
as % Global	*22%*	*33%*	*18%*	*23%*		*26%*	*21%*	*16%*	*17%*
Norway	2,168	58,513.3	89.0	3,071	5.2%	1,484.9	1,135.7	450.2	
Iceland	30	116.7							
Total (inc. Norway, Iceland)	**17,553**	**540,601**	**552**	**31,430**	**5.8%**	**18,105.0**	**9,264.1**	**2,931.7**	**1,129.0**
as % Global	*27%*	*40%*	*23%*	*27%*		*29%*	*27%*	*23%*	*17%*
Global	**65,829**	**1,363,964.0**	**2,452.0**	**115,598**	**8.5%**	**61,792.3**	**34,353.0**	**12,987.3**	**6,465.8**

[115] Source: Clarksons Research.

Table 69: Annual fleet development of EU-MS owned fleet[116].

Owner Nationality	Start Year ('000 GT)						% growth	
	2016	2017	2018	2019	2020	2021	2016-2020 CAGR	2021/2020
Austria	29	26	26	26	21	21	-7.9%	0.0%
Belgium	14,667	17,416	17,021	16,067	16,186	15,995	2.5%	-1.2%
Bulgaria	873	942	1,070	1,052	1,178	1,228	7.8%	4.2%
Croatia	1,606	1,669	1,668	1,657	1,630	1,563	0.4%	-4.2%
Cyprus	3,756	3,863	3,737	3,314	3,770	4,012	0.1%	6.4%
Denmark	34,078	33,587	35,687	37,704	38,050	37,998	2.8%	-0.1%
Estonia	250	305	313	333	501	498	19.0%	-0.6%
Finland	2,072	2,129	2,010	2,168	2,141	2,171	0.8%	1.4%
France	15,557	14,040	14,298	15,307	15,431	16,360	-0.2%	6.0%
Germany	87,034	80,664	77,017	72,103	68,880	66,382	-5.7%	-3.6%
Greece	189,730	200,282	213,285	221,317	230,844	238,152	5.0%	3.2%
Guadeloupe	6	6	5	5	5	5		0.0%
Ireland	1,053	1,191	1,172	1,231	1,272	1,320	4.8%	3.8%
Italy	36,792	39,295	41,986	40,743	43,139	43,273	4.1%	0.3%
Latvia	100	175	145	175	202	225	19.2%	11.3%
Lithuania	265	195	171	173	189	196	-8.2%	3.9%
Luxembourg	412	412	412	412	644	644	11.8%	0.0%
Malta	311	434	512	542	660	753	20.7%	14.1%
Martinique	1	1	1	1	1	1		
Mayotte	1	2	3	3	3	3		
Netherlands	10,209	10,371	10,787	10,230	10,477	10,200	0.6%	-2.6%
Poland	1,737	1,657	1,706	1,816	1,920	1,932	2.5%	0.6%
Portugal	616	616	763	774	950	955	11.4%	0.5%
Romania	725	708	660	681	734	847		
Slovenia	29	29	27	18	18	18	-10.7%	0.0%
Spain	2,145	2,188	2,332	2,803	3,071	3,232		
Sweden	6,718	6,712	6,794	6,679	6,573	6,706	-0.5%	2.0%
United Kingdom	20,554	22,512	22,988	24,032	26,891	27,279	6.9%	1.4%
Total EU	**431,328**	**441,427**	**456,594**	**461,367**	**475,380**	**481,971**	**2.5%**	**1.4%**
as % Global	*37.3%*	*37.0%*	*37.0%*	*36.3%*	*35.9%*	*35.3%*		
Total EU excl. UK	**410,774**	**418,915**	**433,606**	**437,336**	**448,489**	**454,691**	**2.2%**	**1.4%**
as % Global	*35.5%*	*35.1%*	*35.2%*	*34.4%*	*33.9%*	*33.3%*		
Iceland	113	105	103	103	106	117	-1.4%	9.8%
Norway	45,417	47,616	52,034	54,171	56,272	58,513	5.5%	4.0%
Total (inc. Norway, Iceland)	**476,858**	**489,148**	**508,731**	**515,642**	**531,758**	**540,601**	**2.8%**	**1.7%**
as % Global	*41.3%*	*41.0%*	*41.2%*	*40.6%*	*40.1%*	*39.6%*		
Global	**1,155,990**	**1,191,830**	**1,233,292**	**1,271,090**	**1,324,679**	**1,363,964**	**3.5%**	**3.0%**

[116] Source: Clarksons Research.

Table 70: EU-MS owned fleet by type and owner nationality (number of ships)[117].

Owner Nationality	Bulkcarriers	Oil Tankers	Chemical and Spec Tankers	Liquid Gas Tankers	Containerships	MPP and General Cargo	Reefers	RoRo	Pure Car Carriers	Ferries	Cruise	Total
Austria						4						4
Belgium	58	82	9	34	22	13	5	29				252
Bulgaria	50	8	3	1		26	1	3		7		99
Croatia	26	17	4			41	1			220	8	317
Cyprus	62	52	7	3	1	36	5	3		15	1	185
Denmark	61	184	103	20	342	77	5	51		85		928
Estonia	5	10	1		2	58	12	1		14		103
Finland	9	13	5	1	1	57		11		75	1	173
France	20	19	25	19	150	38		16		106	15	408
Germany	353	126	106	67	1,003	802	11	13	9	141	24	2,655
Greece	2,406	1,428	162	249	489	189	40	20	16	408	21	5,428
Guadeloupe						6				10		16
Ireland	12	20	4	1	5	57	2			20		121
Italy	136	305	99	23	236	86	4	88	19	416	18	1,430
Latvia	3	7				54				2		66
Lithuania		2	1		8	45	8			4		68
Luxembourg	12											12
Malta	8	30	14			5	3			14	2	76
Martinique						2						2
Mayotte						1				7		8
Netherlands	63	90	64	48	62	551	46	20	5	34	5	988
Poland	59	10	11		2	26	1	2		43		154
Portugal	19	1	1		7	18	1			41	5	93
Romania	11	21	1		8	66	1	2	1	6		117
Slovenia						1				2		3
Spain	10	59	20	11	2	51	13	6	5	95		272
Sweden	6	78	92	4		64	1	22	27	166		460
United Kingdom	170	126	67	43	186	156	13	5	14	127	10	917
Total EU	**3,559**	**2,688**	**799**	**524**	**2,526**	**2,530**	**173**	**292**	**96**	**2,058**	**110**	**15,355**
as % Global	*29%*	*24%*	*18%*	*25%*	*47%*	*14%*	*12%*	*35%*	*13%*	*25%*	*24%*	*23%*
Total EU excl. UK	**3,389**	**2,562**	**732**	**481**	**2,340**	**2,374**	**160**	**287**	**82**	**1,931**	**100**	**14,438**
as % Global	*28%*	*22%*	*17%*	*23%*	*43%*	*13%*	*11%*	*35%*	*11%*	*24%*	*22%*	*22%*
Iceland		2			6	4	3			15		30
Norway	338	230	289	114	74	431	51	25	139	454	23	2,168
Total (inc. Norway, Iceland)	**3,897**	**2,920**	**1,088**	**638**	**2,606**	**2,965**	**227**	**317**	**235**	**2,527**	**133**	**17,553**
as % Global	*32%*	*26%*	*25%*	*30%*	*48%*	*16%*	*15%*	*38%*	*31%*	*31%*	*29%*	*27%*
Total Global	**12,312**	**11,405**	**4,363**	**2,120**	**5,431**	**18,567**	**1,466**	**830**	**756**	**8,120**	**459**	**65,829**

[117] Source: Clarksons Research.

Table 71: EU-MS owned fleet by type and owner nationality ('000 GT)[118].

Owner Nationality	Bulkcarriers	Oil Tankers	Chemical and Spec Tankers	Liquid Gas Tankers	Containerships	MPP and General Cargo	Reefers	RoRo	Pure Car Carriers	Ferries	Cruise	Total
Austria						21						21
Belgium	3,939	9,392	128	765	735	16	70	950				15,995
Bulgaria	1,095	5	3	2		61	0	45		17		1,228
Croatia	804	544	6			34	0			170	5	1,563
Cyprus	2,159	1,471	30	12	25	180	42	22		64	7	4,012
Denmark	1,844	5,623	966	226	27,128	209	29	1,400		574		37,998
Estonia	196	14	2		24	186	26	1		49		498
Finland	174	651	66	7	10	133		107		987	35	2,171
France	718	163	198	576	13,386	162		154		856	147	16,360
Germany	13,632	4,108	858	1,254	38,952	5,135	115	109	411	489	1,320	66,382
Greece	107,219	89,166	1,211	14,298	22,710	552	351	192	596	1,326	532	238,152
Guadeloupe						1				4		5
Ireland	144	586	62	110	51	192	0			174		1,320
Italy	4,670	9,377	649	198	18,433	317	58	3,817	977	2,754	2,022	43,273
Latvia	47	7				170				0		225
Lithuania		3	0		53	94	39			7		196
Luxembourg	644											644
Malta	233	344	92			12	13			47	11	753
Martinique						1						1
Mayotte						0				2		3
Netherlands	1,826	1,543	459	1,515	697	3,145	402	378	169	49	15	10,200
Poland	1,462	29	50		42	58	11	45		237		1,932
Portugal	688	2	2		53	54	0			64	92	955
Romania	183	347	0		34	214	6	10	10	44		847
Slovenia						5				14		18
Spain	451	950	212	492	13	147	29	105	73	760		3,232
Sweden	112	1,627	1,123	318		126	10	465	1,516	1,409		6,706
United Kingdom	7,336	4,638	525	2,252	10,408	681	99	94	808	182	256	27,279
Total EU	**149,576**	**130,589**	**6,645**	**22,025**	**132,755**	**11,908**	**1,302**	**7,893**	**4,560**	**10,277**	**4,441**	**481,971**
% Global	*30%*	*38%*	*21%*	*25%*	*53%*	*25%*	*30%*	*61%*	*12%*	*49%*	*18%*	*35%*
Total EU excl. UK	**142,240**	**125,951**	**6,120**	**19,773**	**122,346**	**11,227**	**1,203**	**7,799**	**3,751**	**10,095**	**4,185**	**454,691**
% Global	*28%*	*37%*	*20%*	*22%*	*48%*	*23%*	*27%*	*61%*	*10%*	*48%*	*17%*	*33%*
Iceland		1			87	8	10			11		117
Norway	15,932	15,340	4,297	7,343	3,868	1,415	290	777	7,798	987	464	58,513
Total (inc. Norway, Iceland)	**165,508**	**145,930**	**10,942**	**29,368**	**136,710**	**13,331**	**1,602**	**8,671**	**12,358**	**11,275**	**4,905**	**540,601**
as % Global	*33%*	*43%*	*35%*	*33%*	*54%*	*28%*	*37%*	*67%*	*33%*	*53%*	*20%*	*40%*
Total Global	**503,686**	**340,089**	**31,285**	**88,229**	**252,407**	**48,087**	**4,381**	**12,880**	**37,344**	**21,171**	**24,407**	**1,363,964**

[118] Source: Clarksons Research.

Table 72: Global quarterly port callings for vessels owned in the EU[119].

Year	Quart.	Bulk-carriers	Oil Tankers	Chemical and Spec Tankers	Liquid Gas Tankers	Container-ships	MPP and General Cargo	Reefers	RoRo	Pure Car Carriers	Ferries	Cruise	*Total Cargo*	*Total Deep Sea Cargo*	*Total Passenger*	Total EU-MS owned	% Glob.	Total Glob.
2016	Q1	20,351	25,369	14,505	5,724	64,292	39,887	2,046	12,449	2,578	81,522	2,138	***187,201***	*47,029*	***83,660***	**270,861**	*38%*	**714,750**
	Q2	21,229	26,073	14,887	5,776	66,620	41,958	2,036	13,625	2,783	111,591	3,630	***194,987***	*49,361*	***115,221***	**310,208**	*39%*	**796,559**
	Q3	22,076	26,410	15,245	5,776	66,505	41,164	2,038	13,388	2,394	136,921	4,066	***194,996***	*51,048*	***140,987***	**335,983**	*40%*	**829,645**
	Q4	22,748	25,670	14,936	6,031	64,361	41,205	2,071	13,416	2,501	90,021	2,767	***192,939***	*50,309*	***92,788***	**285,727**	*37%*	**762,654**
2017	Q1	22,404	25,828	15,062	6,221	63,007	40,635	1,953	13,080	2,549	85,775	2,185	***190,739***	*49,614*	***87,960***	**278,699**	*37%*	**755,058**
	Q2	23,186	26,930	15,834	6,483	66,868	42,815	1,902	14,134	2,717	118,297	3,652	***200,869***	*52,501*	***121,949***	**322,818**	*39%*	**832,250**
	Q3	23,574	27,515	16,320	6,369	66,738	43,259	1,873	14,431	2,497	145,165	4,025	***202,576***	*53,826*	***149,190***	**351,766**	*40%*	**877,436**
	Q4	23,638	26,493	15,769	6,357	65,155	42,594	1,849	13,574	2,707	95,543	2,823	***198,136***	*53,060*	***98,366***	**296,502**	*36%*	**812,516**
2018	Q1	22,944	25,383	15,162	6,386	62,886	40,786	1,738	13,300	2,512	86,833	2,419	***191,097***	*50,897*	***89,252***	**280,349**	*36%*	**778,793**
	Q2	24,397	26,878	16,019	6,663	65,829	42,939	1,784	14,419	2,627	123,884	4,068	***201,555***	*53,363*	***127,952***	**329,507**	*38%*	**866,709**
	Q3	23,616	26,726	16,337	6,618	64,362	41,659	1,686	14,734	2,393	153,816	4,350	***198,131***	*52,943*	***158,166***	**356,297**	*40%*	**897,281**
	Q4	23,505	25,821	15,249	6,378	62,217	41,293	1,585	13,617	2,451	103,244	3,079	***192,116***	*51,356*	***106,323***	**298,439**	*37%*	**816,511**
2019	Q1	22,864	24,727	14,459	6,414	60,146	39,833	1,488	13,583	2,379	92,774	2,629	***185,893***	*49,766*	***95,403***	**281,296**	*36%*	**780,810**
	Q2	23,921	25,119	15,219	6,566	63,451	41,222	1,420	13,942	2,476	126,305	4,257	***193,336***	*51,676*	***130,562***	**323,898**	*38%*	**862,968**
	Q3	24,033	25,018	16,056	6,694	63,786	40,765	1,402	13,975	2,396	156,229	4,742	***194,125***	*52,320*	***160,971***	**355,096**	*39%*	**920,033**
	Q4	23,963	25,566	15,433	6,402	61,793	39,096	1,348	13,166	2,430	98,365	3,704	***189,197***	*52,261*	***102,069***	**291,266**	*35%*	**837,060**
2020	Q1	22,840	24,978	14,681	6,030	58,586	38,192	1,322	12,787	2,214	84,991	2,661	***181,630***	*50,202*	***87,652***	**269,282**	*35%*	**775,162**
	Q2	22,988	23,174	14,290	5,801	57,446	36,877	1,370	10,972	1,440	70,352	302	***174,358***	*48,864*	***70,654***	**245,012**	*34%*	**720,332**
	Q3	24,087	24,680	14,993	6,265	60,859	38,770	1,399	13,232	1,929	123,326	743	***186,214***	*51,311*	***124,069***	**310,283**	*38%*	**826,488**
	Q4	24,219	24,627	14,491	6,354	60,207	40,578	1,443	13,438	2,214	87,461	557	***187,571***	*51,078*	***88,018***	**275,589**	*34%*	**813,277**
2020 vs 2019	Q1	-0.1%	1.0%	1.5%	-6.0%	-2.6%	-4.1%	-11.2%	-5.9%	-6.9%	-8.4%	1.2%	***-2.3%***	*0.9%*	***-8.1%***	**-4.3%**		**-0.7%**
	Q2	-3.9%	-7.7%	-6.1%	-11.7%	-9.5%	-10.5%	-3.5%	-21.3%	-41.8%	-44.3%	-92.9%	***-9.8%***	*-5.4%*	***-45.9%***	**-24.4%**		**-16.5%**
	Q3	0.2%	-1.4%	-6.6%	-6.4%	-4.6%	-4.9%	-0.2%	-5.3%	-19.5%	-21.1%	-84.3%	***-4.1%***	*-1.9%*	***-22.9%***	**-12.6%**		**-10.2%**
	Q4	1.1%	-3.7%	-6.1%	-0.7%	-2.6%	3.8%	7.0%	2.1%	-8.9%	-11.1%	-85.0%	***-0.9%***	*-2.3%*	***-13.8%***	**-5.4%**		**-2.8%**
2020 vs 2016-2019 avg	Q1	3.2%	-1.4%	-0.8%	-2.5%	-6.4%	-5.2%	-26.8%	-2.4%	-11.6%	-2.0%	13.6%	***-3.8%***	*1.8%*	***-1.6%***	**-3.1%**		**2.4%**
	Q2	-0.8%	-11.7%	-7.7%	-9.0%	-12.6%	-12.7%	-23.3%	-21.8%	-45.7%	-41.4%	-92.3%	***-11.8%***	*-5.5%*	***-43.0%***	**-23.8%**		**-14.2%**
	Q3	3.3%	-6.6%	-6.2%	-1.6%	-6.9%	-7.1%	-20.0%	-6.4%	-20.3%	-16.7%	-82.7%	***-5.7%***	*-2.3%*	***-18.6%***	**-11.3%**		**-6.2%**
	Q4	3.2%	-4.9%	-5.6%	1.0%	-5.0%	-1.1%	-15.8%	0.0%	-12.2%	-9.6%	-82.0%	***-2.9%***	*-1.3%*	***-11.9%***	**-5.9%**		**0.8%**

[119] Source: Clarksons Research. Deep sea cargo includes oil tankers MR and above, bulkcarriers Panamax and above, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm and PCTCs 6,000+ ceu. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Table 73: Global quarterly port callings for vessels owned in the EU including Norway and Iceland[120].

Year	Quarter	Bulk-carriers	Oil Tankers	Chemical and Spec Tankers	Liquid Gas Tankers	Container-ships	MPP and General Cargo	Reefers	RoRo	Pure Car Carriers	Ferries	Cruise	*Total Cargo*	*Total Deep Sea Cargo*	*Total Passenger*	Total Owned*	% Global	Total Global
2016	Q1	22,693	27,163	20,106	6,848	65,757	49,243	3,555	13,248	4,437	95,836	4,703	***213,050***	*50,445*	***100,539***	**313,589**	*44%*	**714,750**
	Q2	23,638	27,944	20,544	6,864	68,127	53,083	3,530	14,542	4,828	129,349	6,460	***223,100***	*52,954*	***135,809***	**358,909**	*45%*	**796,559**
	Q3	24,525	28,330	20,799	6,884	67,992	52,027	3,617	14,291	4,375	157,320	7,217	***222,840***	*54,726*	***164,537***	**387,377**	*47%*	**829,645**
	Q4	25,177	27,497	20,352	7,142	65,955	51,702	3,690	14,287	4,548	106,429	5,564	***220,350***	*54,018*	***111,993***	**332,343**	*44%*	**762,654**
2017	Q1	24,761	27,679	20,454	7,258	64,595	50,415	3,445	13,936	4,523	101,710	4,691	***217,066***	*53,244*	***106,401***	**323,467**	*43%*	**755,058**
	Q2	25,692	28,892	21,391	7,581	68,502	53,273	3,427	14,966	5,295	137,467	6,535	***229,019***	*56,720*	***144,002***	**373,021**	*45%*	**832,250**
	Q3	26,161	29,505	22,083	7,563	68,465	53,833	3,415	15,365	5,185	167,055	7,151	***231,575***	*58,338*	***174,206***	**405,781**	*46%*	**877,436**
	Q4	26,231	28,547	21,446	7,542	66,959	53,034	3,370	14,692	5,468	112,912	5,678	***227,289***	*57,735*	***118,590***	**345,879**	*43%*	**812,516**
2018	Q1	25,487	27,517	20,574	7,505	64,786	50,275	3,088	14,376	5,323	102,677	5,189	***218,931***	*55,635*	***107,866***	**326,797**	*42%*	**778,793**
	Q2	27,110	29,234	21,725	7,794	67,672	53,202	3,301	15,544	5,645	143,138	7,030	***231,227***	*58,277*	***150,168***	**381,395**	*44%*	**866,709**
	Q3	26,212	29,066	22,103	7,801	66,269	51,992	3,276	15,843	5,155	174,809	7,275	***227,717***	*57,897*	***182,084***	**409,801**	*46%*	**897,281**
	Q4	25,978	28,053	20,888	7,527	64,240	51,417	3,174	14,686	5,373	119,566	5,760	***221,336***	*56,393*	***125,326***	**346,662**	*42%*	**816,511**
2019	Q1	25,381	26,898	20,035	7,427	62,202	49,126	2,953	14,675	5,170	108,403	5,282	***213,867***	*54,591*	***113,685***	**327,552**	*42%*	**780,810**
	Q2	26,467	27,424	21,001	7,607	65,725	51,563	2,819	15,172	5,418	145,634	7,060	***223,196***	*56,826*	***152,694***	**375,890**	*44%*	**862,968**
	Q3	26,534	27,286	21,786	7,823	66,102	51,424	2,864	15,318	5,277	180,355	7,592	***224,414***	*57,491*	***187,947***	**412,361**	*45%*	**920,033**
	Q4	26,439	27,785	21,193	7,425	63,977	49,632	2,736	14,507	5,357	117,062	6,352	***219,051***	*57,448*	***123,414***	**342,465**	*41%*	**837,060**
2020	Q1	25,252	26,997	20,206	7,012	60,529	48,111	2,581	14,091	4,826	102,037	5,090	***209,605***	*55,059*	***107,127***	**316,732**	*41%*	**775,162**
	Q2	25,449	25,165	19,624	6,697	59,433	47,646	2,677	12,274	3,243	86,469	886	***202,208***	*53,397*	***87,355***	**289,563**	*40%*	**720,332**
	Q3	26,603	26,837	20,440	7,283	63,008	49,652	2,579	14,561	4,156	144,124	1,997	***215,119***	*56,200*	***146,121***	**361,240**	*44%*	**826,488**
	Q4	26,722	26,642	19,875	7,406	62,353	51,401	2,684	14,787	4,715	104,165	1,142	***216,585***	*56,053*	***105,307***	**321,892**	*40%*	**813,277**
2020 vs 2019	Q1	-0.5%	0.4%	0.9%	-5.6%	-2.7%	-2.1%	-12.6%	-4.0%	-6.7%	-5.9%	-3.6%	***-2.0%***	*0.9%*	***-5.8%***	**-3.3%**		**-0.7%**
	Q2	-3.8%	-8.2%	-6.6%	-12.0%	-9.6%	-7.6%	-5.0%	-19.1%	-40.1%	-40.6%	-87.5%	***-9.4%***	*-6.0%*	***-42.8%***	**-23.0%**		**-16.5%**
	Q3	0.3%	-1.6%	-6.2%	-6.9%	-4.7%	-3.4%	-10.0%	-4.9%	-21.2%	-20.1%	-73.7%	***-4.1%***	*-2.2%*	***-22.3%***	**-12.4%**		**-10.2%**
	Q4	1.1%	-4.1%	-6.2%	-0.3%	-2.5%	3.6%	-1.9%	1.9%	-12.0%	-11.0%	-82.0%	***-1.1%***	*-2.4%*	***-14.7%***	**-6.0%**		**-2.8%**
2020 vs 2016-2019 avg	Q1	2.7%	-1.2%	-0.4%	-3.4%	-5.9%	-3.3%	-20.8%	0.2%	-0.8%	-0.1%	2.5%	***-2.8%***	*3.0%*	***0.0%***	**-1.9%**		**2.4%**
	Q2	-1.1%	-11.3%	-7.3%	-10.2%	-12.0%	-9.7%	-18.1%	-18.5%	-38.8%	-37.7%	-86.9%	***-10.8%***	*-5.0%*	***-40.0%***	**-22.2%**		**-14.2%**
	Q3	2.9%	-6.0%	-5.8%	-3.1%	-6.2%	-5.1%	-21.7%	-4.2%	-16.8%	-15.2%	-72.7%	***-5.1%***	*-1.6%*	***-17.5%***	**-10.5%**		**-6.2%**
	Q4	3.0%	-4.7%	-5.2%	0.0%	-4.5%	-0.1%	-17.2%	1.7%	-9.1%	-8.6%	-80.4%	***-2.4%***	*-0.6%*	***-12.1%***	**-5.8%**		**0.8%**

[120] Source: Clarksons Research. Deep sea cargo includes oil tankers MR and above, bulkcarriers Panamax and above, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm and PCTCs 6,000+ ceu. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location

Appendix D Additional Tables to Chapter 5 Orders, New Building and Deliveries

Table 74: Contracting by EU Owners 2016-2020 (Estimated contract value)[121].

Owner Nationality	Year ($m, est. contract value)					% Change
	2016	2017	2018	2019	2020	2020 vs 2019
Belgium	342.0	468.7	269.0	367.4	187.5	-49.0%
Bulgaria	-	117.0	-	92.0	-	-100.0%
Croatia	83.3	-	-	-	-	
Cyprus	-	100.0	30.0	-	-	
Denmark	300.5	944.1	1,205.3	465.6	305.0	-34.5%
Estonia	-	60.0	40.0	-	-	
Finland	48.0	203.9	-	431.0	52.0	-87.9%
France	937.8	1,739.3	380.0	497.0	65.0	-86.9%
Germany	544.0	370.5	4,055.0	505.0	1,393.7	176.0%
Gibraltar	-	-	-	-	-	
Greece	3,120.5	5,603.0	10,875.9	6,070.2	3,418.6	-43.7%
Ireland	192.8	90.0	201.8	-	-	
Italy	1,870.6	5,861.0	1,939.2	5,614.9	414.5	-92.6%
Latvia	-	-	-	-	-	
Lithuania	-	-	-	-	10.0	
Malta	82.6	-	-	-	-	
Mayotte	-	-	-	-	10.7	
Netherlands	216.1	410.0	26.0	516.8	13.0	-97.5%
Poland	-	110.0	25.0	-	-	
Portugal	110.0	24.0	159.9	-	323.9	
Spain	124.0	354.7	249.4	-	10.0	
Sweden	542.6	228.9	367.2	817.9	107.0	-86.9%
United Kingdom	2,662.3	1,312.0	1,952.1	193.0	1,015.8	426.3%
Total EU	**11,177.0**	**17,997.1**	**21,775.8**	**15,570.8**	**7,326.6**	**-52.9%**
as % Global	*33.1%*	*29.2%*	*30.3%*	*22.4%*	*19.5%*	
Total EU excl. UK	**8,514.8**	**16,685.1**	**19,823.7**	**15,377.8**	**6,310.8**	**-59.0%**
as % Global	*25.2%*	*27.1%*	*27.5%*	*22.1%*	*16.8%*	
Iceland	-	104.0	-	-	-	
Norway	1,260.2	3,538.4	4,893.6	1,733.4	1,506.7	-13.1%
Total (inc. Norway, Iceland)	**12,437.2**	**21,639.4**	**26,669.4**	**17,304.2**	**8,833.3**	**-49.0%**
as % Global	*36.8%*	*35.1%*	*37.1%*	*24.9%*	*23.5%*	
Global	**33,751.0**	**61,671.6**	**71,978.4**	**69,494.1**	**37,611.8**	**-45.9%**

[121] Source: Clarksons Research.

Table 75: Deliveries by EU Owners 2016-2020 (Estimated contract value)[122].

Owner Nationality	Year ($m, est. contract value)					% Change
	2016	2017	2018	2019	2020	2020 vs 2019
Belgium	2.3	0.7	0.5	0.4	0.2	-56.2%
Bulgaria	0.0	0.0	-	0.0	0.0	-11.0%
Croatia	0.0	0.1	0.0	0.0	-	-100.0%
Cyprus	0.1	0.1	0.0	0.0	0.1	66.7%
Denmark	0.5	1.8	2.1	1.3	0.6	-52.2%
Estonia	0.0	0.1	-	0.0	-	-100.0%
Finland	0.1	0.3	0.2	0.0	-	-100.0%
France	0.1	0.9	1.0	0.5	0.6	28.5%
Germany	2.5	2.3	1.8	1.7	0.6	-64.2%
Gibraltar	-	-	-	-	-	#DIV/0!
Greece	10.4	8.4	6.9	7.6	7.0	-7.6%
Ireland	0.0	0.0	0.2	0.0	0.0	25.0%
Italy	3.2	3.5	1.5	3.4	0.7	-78.4%
Latvia	-	-	-	-	-	#DIV/0!
Luxembourg	-	-	-	0.0	-	-100.0%
Malta	-	-	-	0.1	0.0	-82.1%
Mayotte	-	-	-	-	-	
Netherlands	0.5	0.3	0.2	0.5	0.0	-95.9%
Poland	0.0	0.1	0.1	0.0	-	-100.0%
Portugal	0.0	0.1	-	0.2	0.1	-67.3%
Romania	-	-	-	0.0	0.0	0.0%
Spain	0.0	0.1	0.5	0.5	-	-100.0%
Sweden	0.5	0.4	0.4	0.4	0.3	-35.0%
United Kingdom	2.0	0.7	1.1	1.9	2.1	5.5%
Total EU	**22.1**	**19.8**	**16.5**	**19.0**	**12.4**	**-34.5%**
as % Global	*33.4%*	*30.4%*	*27.5%*	*29.9%*	*23.5%*	
Total EU excl. UK	**20.1**	**19.1**	**15.4**	**17.0**	**10.4**	**-39.1%**
as % Global	*30.3%*	*29.3%*	*25.6%*	*26.8%*	*19.6%*	
Iceland	-	-	-	0.0	0.0	
Norway	4.3	4.0	2.9	3.5	3.4	-4.0%
Total (inc. Norway, Iceland)	**26.4**	**23.8**	**19.4**	**22.5**	**15.8**	**-29.7%**
as % Global	*39.8%*	*36.5%*	*32.4%*	*35.5%*	*30.0%*	
Global	**66.2**	**65.0**	**60.0**	**63.3**	**52.8**	**-16.7%**

[122] Source: Clarksons Research.

Table 76: Annual Contracting by EU owners ('000 GT)[123].

Owner Nationality	Year ('000 GT)					% Change
	2016	2017	2018	2019	2020	2020 vs 2019
Belgium	428.4	413.3	399.8	205.1	269.5	31.4%
Bulgaria	-	174.4	-	77.5	-	-100.0%
Croatia	57.8	4.9	1.9	0.6	-	-100.0%
Cyprus	-	147.1	8.5	-	-	
Denmark	150.3	1,176.7	774.1	239.8	402.7	67.9%
Estonia	-	132.6	5.2	-	-	
Finland	60.2	63.0	-	175.1	61.3	-65.0%
France	261.2	2,284.2	63.3	63.7	38.3	-39.9%
Germany	205.3	560.3	1,853.8	609.2	1,543.7	153.4%
Gibraltar	-	0.4	-	-	-	
Greece	2,949.0	8,871.5	10,150.7	5,909.9	4,790.2	-18.9%
Ireland	91.5	32.6	67.3	0.5	-	-100.0%
Italy	393.2	3,298.2	884.0	1,565.9	513.3	-67.2%
Latvia	-	0.5	-	-	-	
Lithuania	-	-	-	-	2.0	
Malta	9.0	-	-	-	-	
Mayotte	0.5	-	-	-	0.5	
Netherlands	57.6	293.5	12.1	196.9	8.1	-95.9%
Poland	-	33.0	5.0	-	-	
Portugal	9.9	35.8	55.2	-	37.2	
Spain	171.5	96.7	50.6	0.4	3.6	867.0%
Sweden	259.1	105.5	209.1	409.2	49.2	-88.0%
United Kingdom	505.5	1,332.2	1,676.0	152.8	1,069.4	599.7%
Total EU	**5,610.0**	**19,056.4**	**16,216.6**	**9,606.6**	**8,789.0**	**-8.5%**
as % Global	*25.6%*	*32.3%*	*25.0%*	*18.8%*	*24.5%*	
Total EU excl. UK	**5,104.5**	**17,724.2**	**14,540.6**	**9,453.7**	**7,719.5**	**-18.3%**
as % Global	*23.3%*	*30.0%*	*22.4%*	*18.5%*	*21.5%*	
Iceland	-	55.9	-	-	-	
Norway	664.5	2,849.4	4,445.8	1,150.5	972.6	-15.5%
Total (inc. Norway, Iceland)	**6,274.6**	**21,961.7**	**20,662.4**	**10,757.1**	**9,761.6**	**-9.3%**
as % Global	*28.6%*	*37.2%*	*31.8%*	*21.1%*	*27.2%*	
Global	**21,929.0**	**59,034.1**	**64,884.4**	**50,970.1**	**35,939.1**	**-29.5%**

[123] As above.

Table 77: Annual Deliveries to EU owners ('000 GT)[124].

Owner Nationality	Year ('000 GT)					% Change
	2016	2017	2018	2019	2020	2020 vs 2019
Belgium	3,412.2	953.1	529.4	573.0	271.0	-52.7%
Bulgaria	27.8	27.8	-	56.9	58.1	2.2%
Croatia	55.6	129.2	7.2	5.8	0.2	-97.3%
Cyprus	68.4	78.9	5.2	42.3	110.3	160.7%
Denmark	449.1	2,144.3	2,512.7	1,312.9	548.0	-58.3%
Estonia	5.2	15.0	-	66.3	-	-100.0%
Finland	60.9	50.4	154.3	60.2	-	-100.0%
France	36.9	896.7	985.7	188.2	399.0	112.0%
Germany	2,454.6	2,311.0	1,069.1	1,061.2	774.7	-27.0%
Gibraltar	-	-	-	0.4	-	-100.0%
Greece	11,721.5	10,035.4	7,393.8	10,200.5	7,366.7	-27.8%
Ireland	6.0	12.0	64.4	25.2	20.7	-17.9%
Italy	3,879.0	2,365.3	629.0	2,822.6	777.8	-72.4%
Latvia	-	-	-	0.5	-	-100.0%
Luxembourg	-	-	-	94.4	-	-100.0%
Malta	-	-	-	15.3	6.7	-56.2%
Mayotte	-	1.0	-	-	-	
Netherlands	292.0	205.8	81.0	253.8	11.3	-95.5%
Poland	25.3	50.6	119.5	25.3	-	-100.0%
Portugal	34.4	104.7	-	152.7	9.3	-93.9%
Romania	-	-	-	26.3	26.3	0.0%
Spain	4.4	34.5	423.1	277.8	0.4	-99.9%
Sweden	313.4	240.1	211.9	208.6	174.4	-16.4%
United Kingdom	1,969.1	567.5	706.4	1,651.7	1,560.9	-5.5%
Total EU	**24,815.9**	**20,223.2**	**14,892.5**	**19,121.8**	**12,116.0**	**-36.6%**
as % Global	*38.4%*	*31.5%*	*26.4%*	*29.3%*	*21.5%*	
Total EU excl. UK	**22,846.8**	**19,655.7**	**14,186.2**	**17,470.1**	**10,555.1**	**-39.6%**
as % Global	*35.4%*	*30.6%*	*25.2%*	*26.8%*	*18.7%*	
Iceland	-	-	0.5	3.3	26.0	
Norway	4,513.0	3,774.6	2,256.4	3,024.7	3,727.5	23.2%
Total (inc. Norway, Iceland)	**29,328.9**	**23,997.7**	**17,149.4**	**22,149.7**	**15,869.5**	**-28.4%**
as % Global	*45.4%*	*37.3%*	*30.4%*	*34.0%*	*28.1%*	
Global	**64,603.6**	**64,294.1**	**56,380.8**	**65,169.1**	**56,435.2**	**-13.4%**

[124] Source: Clarksons Research.

Table 78: Current European-Owned Orderbook By Vessel Sector (No. Vessels)[125].

Owner Country	Bulk-carriers	Oil Tankers	Chem/ Spec Tankers	Liquid Gas Tankers	Container-ships	MPP/Gen. Cargo	Reefers	RoRo	Pure Car Carriers	Ferries	Cruise	Total
Greece	12	89	0	46	12	0	0	0	0	0	0	159
Germany	16	1	7	6	11	25	0	1	0	4	6	77
Italy	0	3	4	0	5	8	0	11	2	6	12	51
U.K.	2	2	0	9	11	2	0	0	0	2	3	31
Denmark	6	15	0	4	0	0	0	1	0	4	0	30
Sweden	0	2	14	0	0	1	0	2	4	6	0	29
Netherlands	1	0	0	3	0	10	0	2	0	4	1	21
France	0	1	2	0	7	3	0	0	0	2	3	18
Belgium	0	7	0	2	2	0	0	2	0	0	0	13
Ireland	0	0	0	0	0	7	0	0	0	0	0	7
Other	4	4	3	1	0	0	0	0	0	8	6	26
Total EU	**41**	**124**	**30**	**71**	**48**	**56**	**0**	**19**	**6**	**36**	**31**	**462**
Total EU excl. UK	**39**	**122**	**30**	**62**	**37**	**54**	**0**	**19**	**6**	**34**	**28**	**431**
Norway	8	13	0	20	0	13	0	2	1	29	0	86
Total EU (incl. Norway, Iceland)	**49**	**137**	**30**	**91**	**48**	**69**	**0**	**21**	**7**	**65**	**31**	**548**

Table 79: Annual Orderbook (Timeseries) & Delivery Schedule by Builder Country/Region (No. Vessels)[126].

Builder Country/Region	Orderbook (Start Year, No. Vessels)						Delivery Schedule (No. Vessels)				
	2016	2017	2018	2019	2020	2021	2021	2022	2023	2024	2025+
EU	232	256	223	202	189	**169**	80	51	17	9	12
China	1,994	1,552	1,500	1,437	1,232	**1,068**	724	287	53	4	
South Korea	766	461	388	474	474	**439**	231	146	45	17	
Japan	1,242	999	865	865	746	**432**	334	92	6		
Other Europe	31	47	80	92	72	**60**	24	15	3	7	11
Other Asia	496	494	541	445	335	**244**	213	31			
Rest of World	198	180	208	146	56	**40**	35	5			
Global Total	**4,959**	**3,989**	**3,805**	**3,661**	**3,104**	**2,452**	**1,641**	**627**	**124**	**37**	**23**

[125] Source: Clarksons

Table 80: Annual Deliveries from EU Shipyards, by Builder Country[127].

Builder Country	No. Vessels						m. CGT					
	2016	2017	2018	2019	2020	% y-o-y	2016	2017	2018	2019	2020	% y-o-y
Bulgaria	0	0	1	1	0	*-100%*	0.00	0.00	0.00	0.00	0.00	*-100%*
Croatia	14	14	14	12	2	*-83%*	0.09	0.12	0.05	0.08	0.01	*-84%*
Denmark	1	0	0	2	0	*-100%*	0.02	0.00	0.00	0.00	0.00	*-100%*
Estonia	0	2	0	1	0	*-100%*	0.00	0.01	0.00	0.00	0.00	*-100%*
Finland	1	2	2	3	1	*-67%*	0.11	0.15	0.14	0.30	0.17	*-46%*
France	2	2	3	2	3	*50%*	0.19	0.16	0.32	0.32	0.13	*-59%*
Germany	6	10	9	8	4	*-50%*	0.36	0.41	0.44	0.46	0.27	*-41%*
Greece	8	6	8	7	0	*-100%*	0.02	0.01	0.03	0.02	0.00	*-100%*
Italy	7	7	8	8	6	*-25%*	0.48	0.50	0.52	0.54	0.56	*3%*
Netherlands	16	15	7	9	10	*11%*	0.07	0.07	0.03	0.05	0.07	*29%*
Poland	3	21	2	1	4	*300%*	0.02	0.08	0.01	0.01	0.02	*226%*
Portugal	0	0	0	1	1	*0%*	0.00	0.00	0.00	0.02	0.02	*-4%*
Romania	11	9	4	2	3	*50%*	0.32	0.23	0.04	0.03	0.03	*27%*
Spain	5	6	7	13	2	*-85%*	0.03	0.02	0.08	0.10	0.01	*-93%*
United Kingdom	3	0	1	5	4	*-20%*	0.01	0.00	0.00	0.01	0.01	*-33%*
Total EU	**77**	**94**	**66**	**75**	**40**	***-47%***	**1.72**	**1.76**	**1.67**	**1.95**	**1.29**	***-34%***
Total EU excl. UK	**74**	**94**	**65**	**70**	**36**	***-49%***	**1.71**	**1.76**	**1.66**	**1.94**	**1.29**	***-34%***
Norway	3	3	15	27	18	*-33%*	0.01	0.01	0.11	0.30	0.12	*-58%*
Total (inc. Norway, Iceland)	**80**	**97**	**81**	**102**	**58**	***-43%***	**1.73**	**1.77**	**1.77**	**2.24**	**1.42**	***-37%***

Table 81: Annual Deliveries from EU Shipyards, by Vessel Sector[128].

Vessel Sector	No. Vessels						m. GT					
	2016	2017	2018	2019	2020	% y-o-y	2016	2017	2018	2019	2020	% y-o-y
Bulkcarriers	4	1	2	2	2	*0%*	0.31	0.01	0.03	0.02	0.03	*49%*
Oil Tankers	6	10	4	5	1	*-80%*	0.32	0.55	0.23	0.23	0.03	*-89%*
Chem. & Spec. Tankers	2	3	2	2	1	*-50%*	0.04	0.06	0.01	0.01	0.00	*-55%*
Liquid Gas Tankers	1	1	2	0	0		0.00	0.01	0.02	0.00	0.00	
Containerships	2	1	0	0	1		0.19	0.01	0.00	0.00	0.00	
MPP/General Cargo	17	15	7	9	10	*11%*	0.06	0.06	0.03	0.03	0.03	*10%*
Reefers	0	0	0	0	0		0.00	0.00	0.00	0.00	0.00	
RoRo	3	7	2	4	2	*-50%*	0.05	0.16	0.04	0.07	0.03	*-53%*
Pure Car Carriers	0	1	0	0	0		0.00	0.06	0.00	0.00	0.00	
Ferries	36	49	48	56	27	*-52%*	0.09	0.10	0.12	0.15	0.06	*-58%*
Cruise	9	9	14	24	14	*-42%*	1.02	1.02	1.32	1.64	1.09	*-34%*
Total	**80**	**97**	**81**	**102**	**58**	***-43%***	**2.10**	**2.03**	**1.79**	**2.15**	**1.28**	***-40%***

Table 82: Annual Slippage/Cancellation at European Shipyards, by Builder Country[129].

	2018				2019				2020			
	Start Year O.B.	Deliveries	Slippage (%)	Cancell-ation (%)	Start Year O.B.	Deliveries	Slippage (%)	Cancell-ation (%)	Start Year O.B.	Deliveries	Slippage (%)	Cancell-ation (%)
Croatia	0.53	0.02	*80%*	*15%*	0.33	0.03	*45%*	*48%*	0.16	0.02	*88%*	*0%*
Finland	0.16	0.14	*14%*	*0%*	0.33	0.33	*-1%*	*0%*	0.18	0.18	*0%*	*0%*
Germany	0.51	0.48	*7%*	*0%*	0.50	0.49	*3%*	*0%*	0.81	0.29	*64%*	*0%*
Italy	0.56	0.48	*13%*	*2%*	0.53	0.53	*0%*	*0%*	0.49	0.52	*-5%*	*0%*
Netherlands	0.10	0.05	*46%*	*0%*	0.10	0.04	*49%*	*12%*	0.19	0.10	*49%*	*0%*
Norway	0.12	0.08	*32%*	*0%*	0.18	0.19	*-10%*	*0%*	0.09	0.07	*24%*	*0%*
Romania	0.12	0.10	*13%*	*0%*	0.08	0.03	*61%*	*0%*	0.06	0.03	*51%*	*0%*
Turkey	0.12	0.08	*38%*	*0%*	0.13	0.13	*1%*	*0%*	0.09	0.09	*2%*	*0%*
Other	0.86	0.66	*22%*	*2%*	0.85	0.68	*1%*	*19%*	0.75	0.34	*53%*	*2%*
Total	3.09	2.08	*29%*	*3%*	3.04	2.45	*8%*	*11%*	2.84	1.64	*42%*	*0%*

Table 83: Current Orderbook At European Shipyards by Vessel Sector (No. Vessels)[130].

Builder Country	Bulk-carriers	Oil Tanker	Chem/ Spec Tankers	Liquid Gas Tankers	Container-ships	MPP/Gen. Cargo	Reefers	RoRo	Pure Car Carriers	Ferries	Cruise	Total
Croatia	0	0	2	0	0	0	0	1	1	1	4	9
Denmark	0	0	0	0	0	0	0	0	0	1	0	1
Finland	0	0	0	0	0	0	0	0	0	2	9	11
France	0	0	0	0	0	0	0	0	0	0	11	11
Germany	0	0	2	0	0	0	0	1	0	2	21	26
Greece	0	0	0	0	0	0	0	0	0	1	0	1
Italy	0	0	0	0	0	0	0	0	0	3	34	37
Lithuania	0	0	0	0	0	0	0	0	0	1	0	1
Netherlands	1	0	1	3	0	27	0	0	0	5	0	37
Norway	0	0	0	0	0	0	0	1	0	5	7	13
Poland	0	0	0	0	0	1	0	0	0	4	0	5
Portugal	0	0	0	0	0	0	0	0	0	1	5	6
Romania	0	0	0	0	0	0	0	2	0	6	0	8
Spain	0	1	0	1	0	3	0	0	0	6	3	14
United Kingdom	0	0	0	0	0	0	0	0	0	2	0	2
Total EU	**1**	**1**	**5**	**4**	**0**	**31**	**0**	**4**	**1**	**35**	**87**	**169**
Total EU excl. UK	**1**	**1**	**5**	**4**	**0**	**31**	**0**	**4**	**1**	**33**	**87**	**167**
Total EU (incl. Norway, Iceland)	**1**	**1**	**5**	**4**	**0**	**31**	**0**	**5**	**1**	**40**	**94**	**182**

Table 84: Annual Orderbook (Timeseries) & Delivery Schedule by Builder Country/Region (m. CGT)[131].

Builder Country/Region	Orderbook (Start Year, m. CGT)						Delivery Schedule (m. CGT)				
	2016	2017	2018	2019	2020	2021	2021	2022	2023	2024	2025+
EU	6.8	8.1	9.7	10.0	11.0	**9.7**	2.0	3.2	1.8	1.1	1.6
China	40.1	30.6	30.1	28.8	25.9	**22.9**	13.3	6.7	2.5	0.4	0.0
South Korea	30.3	19.6	17.0	22.3	22.5	**21.3**	10.5	6.2	3.2	1.5	0.0
Japan	26.0	21.3	17.7	16.6	13.2	**8.3**	6.3	1.9	0.1	0.0	0.0
Other Europe	0.2	0.5	0.9	1.1	0.9	**1.6**	0.4	0.3	0.0	0.4	0.4
Other Asia	5.4	4.7	4.8	3.7	2.8	**1.9**	1.7	0.2	0.0	0.0	0.0
Rest Of World	1.7	1.2	1.1	0.7	0.4	**0.3**	0.2	0.0	0.0	0.0	0.0
Global Total	**110.4**	**86.0**	**81.2**	**83.1**	**76.6**	**65.9**	**34.4**	**18.6**	**7.6**	**3.4**	**2.0**

Appendix E Additional Tables to Chapter 6 Cruise Ships, Passenger Ships and RoPax

Table 85: Top 50 EU and Norway and Iceland Ports by Cruise 1,000+ berths Callings, 2016-2020[132].

Rank	Port	Port Country	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 - 20
1	Barcelona	Spain	*4.5%*	585	628	682	667	54	*-92%*	-38%	-98%	-99%	-100%
2	Civitavecchia	Italy	*1.4%*	621	542	580	647	198	*-69%*	-14%	-95%	-83%	-31%
3	Stockholm	Sweden	*1.6%*	460	498	494	482	91	*-81%*	-5%	-100%	-93%	-95%
4	Palma De Mallorca	Spain	*4.0%*	451	450	510	508	38	*-93%*	-22%	-100%	-100%	-100%
5	Southampton	United Kingdom	*0.3%*	386	402	439	390	239	*-39%*	-3%	-30%	-59%	-32%
6	Marseilles	France	*-0.2%*	433	392	438	431	72	*-83%*	-33%	-88%	-92%	-91%
7	Piraeus	Greece	*-0.8%*	397	380	336	388	52	*-87%*	-45%	-87%	-93%	-80%
8	Venice	Italy	*0.4%*	377	333	370	381	1	*-100%*	-67%	-100%	-100%	-100%
9	Mariehamn	Finland	*-0.4%*	330	345	340	326	76	*-77%*	1%	-100%	-100%	-100%
10	Napoli	Italy	*-1.1%*	401	266	304	388	58	*-85%*	-100%	-95%	-90%	-61%
11	Dubrovnik	Croatia	*-2.3%*	323	285	297	301	2	*-99%*	-67%	-100%	-99%	-100%
12	Corfu	Greece	*-3.0%*	293	251	274	267	9	*-97%*	-50%	-100%	-98%	-90%
13	Santa Cruz De Tenerife	Canary Islands	*1.4%*	231	235	247	241	138	*-43%*	-29%	-19%	30%	-69%
14	Livorno	Italy	*0.2%*	281	231	241	283	15	*-95%*	-53%	-100%	-97%	-94%
15	Valletta Harbors	Malta	*5.7%*	232	244	227	274	34	*-88%*	-64%	-99%	-91%	-71%
16	Genoa	Italy	*4.9%*	228	200	211	263	83	*-68%*	-25%	-91%	-67%	-61%
17	Funchal	Madeira	*0.6%*	223	228	224	227	56	*-75%*	-34%	-100%	-100%	-99%
18	Copenhagen	Denmark	*4.8%*	211	215	228	243	4	*-98%*		-100%	-97%	-100%
19	Las Palmas	Canary Islands	*-1.9%*	199	193	203	188	105	*-44%*	-27%	-41%	17%	-69%
20	Lisboa	Portugal	*1.7%*	195	189	210	205	26	*-87%*	14%	-100%	-100%	-99%
21	Puerto De Arrecife	Canary Islands	*4.1%*	179	191	182	202	59	*-71%*	-34%	-100%	-100%	-90%
22	Bergen	Norway	*2.8%*	186	192	219	202	3	*-99%*	-40%	-100%	-100%	-100%
23	Tallinn	Estonia	*9.2%*	165	193	219	215	10	*-95%*		-100%	-94%	-57%
24	Katakolon	Greece	*-8.3%*	193	202	170	149	24	*-84%*	-40%	-100%	-88%	-54%
25	Malaga	Spain	*2.2%*	162	189	183	173	21	*-88%*	-24%	-96%	-100%	-100%
26	Mikonos	Greece	*4.2%*	181	175	166	205	0	*-100%*	-100%	-100%	-100%	-100%
27	Cadiz	Spain	*4.1%*	165	167	178	186	28	*-85%*	-9%	-95%	-98%	-95%
28	Bari	Italy	*19.6%*	128	131	197	219	10	*-95%*	-67%	-100%	-96%	-89%
29	Helsinki	Finland	*12.6%*	136	159	178	194	0	*-100%*		-100%	-100%	-100%
30	Gibraltar	Gibraltar	*-9.5%*	166	160	165	123	47	*-62%*	-13%	-50%	-55%	-88%
31	Savona	Italy	*-10.9%*	178	170	155	126	25	*-80%*	-13%	-100%	-97%	-75%
32	Hamburg	Germany	*7.3%*	127	150	168	157	37	*-76%*	-14%	-94%	-73%	-75%
33	Rostock	Germany	*7.6%*	130	147	162	162	10	*-94%*		-100%	-93%	-43%
34	Port D' Ajaccio	France	*-4.7%*	165	117	138	143	5	*-97%*	25%	-100%	-100%	-100%
35	Messina	Italy	*-2.9%*	143	132	127	131	23	*-82%*	20%	-100%	-98%	-47%
36	Kiel	Germany	*5.7%*	122	118	132	144	22	*-85%*	-100%	-100%	-88%	140%
37	Fort De France	France	*3.5%*	93	131	135	103	64	*-38%*	-3%	-100%	-100%	-100%
38	Stavanger	Norway	*10.4%*	119	119	118	160	1	*-99%*	-75%	-100%	-100%	-100%
39	La Spezia	Italy	*0.8%*	120	120	98	123	48	*-61%*		-79%	-89%	-5%
40	Split	Croatia	*11.6%*	113	99	127	157	0	*-100%*	-100%	-100%	-100%	-100%
41	Heraklion	Greece	*4.1%*	108	75	117	122	5	*-96%*	-57%	-100%	-95%	-100%
42	Palermo	Italy	*0.7%*	95	87	108	97	33	*-66%*	-60%	-100%	-70%	-17%
43	Le Havre	France	*6.1%*	88	101	118	105	2	*-98%*	-71%	-100%	-100%	-100%
44	Alesund	Norway	*20.7%*	71	90	116	125	1	*-99%*		-100%	-100%	-100%
45	Valencia	Spain	*3.4%*	96	98	89	106	11	*-90%*	83%	-100%	-100%	-100%
46	Santa Cruz De La Palma	Canary Islands	*2.8%*	82	100	95	89	32	*-64%*	-37%	-100%	-100%	-82%
47	Amsterdam	Netherlands	*0.9%*	75	82	126	77	2	*-97%*	-100%	-100%	-100%	-75%
48	Pointe A Pitre	France	*5.0%*	63	79	97	73	43	*-41%*	-22%	-100%		-100%
49	Geiranger	Norway	*18.1%*	54	75	80	89	0	*-100%*		-100%	-100%	-100%
50	Ibiza	Spain	*25.1%*	46	83	77	90	0	*-100%*	-100%	-100%	-100%	-100%
Others			*11.2%*	3,297	3,573	3,962	4,538	1,250	*-72%*	3%	-81%	-94%	-74%
Total EU			***3.9%***	**12,982**	**13,013**	**13,929**	**14,546**	**3,131**	***-78%***	**-26%**	**-94%**	**-90%**	**-79%**
		% global		*35%*	*34%*	*34%*	*34%*	*23%*	*0%*	*0%*	*0%*	*0%*	*0%*
		of which (1,000-1,999 berths)	*2.3%*	*5,091*	*4,891*	*5,482*	*5,449*	*991*	*-82%*	*-27%*	*-92%*	*-88%*	*-83%*
		of which (2,000-2,999 berths)	*3.6%*	*4,704*	*4,706*	*4,875*	*5,227*	*1,177*	*-77%*	*-20%*	*-90%*	*-85%*	*-71%*
		of which (3,000+ berths)	*6.7%*	3,187	3,416	3,572	3,870	963	*-75%*	*-25%*	*-89%*	*-86%*	*-56%*
Total EU (exc. UK)			***3.6%***	**12,298**	**12,245**	**13,066**	**13,657**	**2,406**	***-82%***	**-20%**	**-87%**	**-88%**	**-83%**
		% global		*88%*	*87%*	*87%*	*86%*	*76%*	*0%*	*0%*	*0%*	*0%*	*0%*

Research.
[132] Source: Clarksons Research.

of which (1,000-1,999 berths)	*1.8%*	*4,798*	*4,553*	*5,118*	*5,066*	*657*	*-87%*	*-29%*	*-97%*	*-92%*	*-92%*
of which (2,000-2,999 berths)	*2.6%*	*4,574*	*4,543*	*4,616*	*4,943*	*1,009*	*-80%*	*-16%*	*-84%*	*-86%*	*-79%*
of which (3,000+ berths)	*7.6%*	2,926	3,149	3,332	3,648	740	*-80%*	*-17%*	*-89%*	*-92%*	*-71%*
Total EU (inc. Norway/Iceland)	***4.5%***	**13,903**	**14,012**	**15,057**	**15,885**	**3,167**	***-80%***	**-20%**	**-87%**	**-88%**	**-83%**
% global	*0*	*37%*	*36%*	*37%*	*37%*	*23%*	*0%*	*0%*	*0%*	*0%*	*0%*
of which (1,000-1,999 berths)	*2.4%*	*5,497*	*5,241*	*5,876*	*5,911*	*1,020*	*-83%*	*-28%*	*-92%*	*-89%*	*-84%*
of which (2,000-2,999 berths)	*5.1%*	*5,021*	*5,134*	*5,402*	*5,837*	*1,181*	*-80%*	*-20%*	*-91%*	*-87%*	*-72%*
of which (3,000+ berths)	*6.9%*	3,385	3,637	3,779	4,137	966	*-77%*	*-25%*	*-89%*	*-88%*	*-56%*
Total Global	**4.6%**	**37,625**	**38,738**	**41,115**	**43,104**	**13,487**	**-69%**	**-17%**	**-83%**	**-86%**	**-82%**
of which (1,000-1,999 berths)	*0.8%*	*13,577*	*13,588*	*13,811*	*13,890*	*3,702*	*-73%*	*-22%*	*-86%*	*-88%*	*-88%*
of which (2,000-2,999 berths)	*3.4%*	15,405	15,541	16,275	17,037	5,550	*-67%*	*-17%*	*-82%*	*-84%*	*-81%*

Table 86: Cruise <1,000 berths Global Callings at EU Member States and Territories, 2016-2020[133].

Member State	16-19 CAGR	2016	2017	2018	2019	2020	*y-o-y*	Q1 '20	Q2 '20	Q3 '20	Q4 - 20
Belgium	*8.5%*	47	45	55	60	3	*-95%*	-50%	-92%	-100%	-100%
Bulgaria	*-100.0%*	6	3	0	0	0					
Croatia	*4.2%*	692	653	609	783	173	*-78%*	-40%	-94%	-72%	-94%
Cyprus	*-11.2%*	97	88	99	68	61	*-10%*	1000%	-42%	-40%	-41%
Denmark	*13.9%*	146	202	226	216	49	*-77%*	-33%	-89%	-81%	40%
Ireland	*1.0%*	127	140	146	131	3	*-98%*	200%	-100%	-100%	-100%
Estonia	*10.2%*	98	126	131	131	0	*-100%*		-100%	-100%	-100%
Finland	*9.9%*	98	125	131	130	1	*-99%*		-100%	-99%	-100%
France	*-1.9%*	801	834	859	757	389	*-49%*	-2%	-88%	2%	-67%
Germany	*-0.5%*	264	292	336	260	123	*-53%*	-100%	-78%		
Greece	*-8.9%*	2,068	1,539	1,339	1,564	184	*-88%*	-17%	-96%	-86%	-88%
Italy	*0.1%*	1,380	1,404	1,468	1,383	134	*-90%*	-24%	-98%	-93%	-86%
Latvia	*15.2%*	34	49	60	52	0	*-100%*		-100%	-100%	-100%
Lithuania	*-7.5%*	24	33	33	19	2	*-89%*		-100%	-86%	-100%
Malta	*6.7%*	89	105	97	108	29	*-73%*		-91%	-86%	-75%
Netherlands	*1.0%*	127	121	135	131	59	*-55%*	-71%	-37%	-60%	-83%
Poland	*9.7%*	50	75	77	66	7	*-89%*		-100%	-90%	200%
Portugal	*3.1%*	206	268	245	226	32	*-86%*		-90%	-91%	-91%
Azores	*-7.2%*	55	82	49	44	1	*-98%*	-100%	-100%		-90%
Madeira	*3.9%*	65	67	65	73	15	*-79%*	27%	-100%		-97%
Romania	*-47.7%*	7	2	0	1	0	*-100%*				-100%
Slovenia	*-11.3%*	33	39	27	23	0	*-100%*				-100%
Spain	*8.5%*	715	896	906	913	71	*-92%*	-39%	-97%	-93%	-98%
Canary Islands	*2.6%*	163	177	198	176	130	*-26%*	200%	-3%	-40%	-82%
Sweden	*10.4%*	116	158	153	156	38	*-76%*	-50%	-96%	-79%	78%
United Kingdom	*4.1%*	1,133	1,154	1,213	1,278	174	*-86%*	139%	-94%	-99%	-95%
Gibraltar	*5.7%*	66	83	85	78	41	*-47%*	88%	-29%	-62%	-96%
Iceland	*23.7%*	266	324	435	503	13	*-97%*	-100%	-100%	-96%	-100%
Norway	*-0.7%*	11,098	11,125	11,185	10,853	4,789	*-56%*	-9%	-80%	-56%	-76%
Total EU	***0.5%***	**8,707**	**8,760**	**8,742**	**8,827**	**1,719**	***-81%***	**12%**	**-93%**	**-80%**	**-87%**
% global		*29%*	*28%*	*28%*	*27%*	*16%*					
of which (<500 berths)	*-1.7%*	*5,831*	*5,510*	*5,443*	*5,534*	*1,069*	*-81%*	*-40%*	*-91%*	*-78%*	*-80%*
of which (500-999 berths)	*4.6%*	2,876	3,250	3,299	3,293	650	*-80%*	*148%*	*-93%*	*-92%*	*-87%*
Total EU (exc. UK)	***-0.2%***	**7,508**	**7,523**	**7,444**	**7,471**	**1,504**	***-80%***	**13%**	**-92%**	**-83%**	**-82%**
% global		*37%*	*37%*	*37%*	*37%*	*23%*					
of which (<500 berths)	*-2.7%*	*5,037*	*4,700*	*4,585*	*4,645*	*1,024*	*-78%*	*-39%*	*-90%*	*-73%*	*-79%*
of which (500-999 berths)	*4.6%*	2,471	2,823	2,859	2,826	480	*-83%*	*89%*	*-95%*	*-90%*	*-86%*
Total EU (inc. Norway/Iceland)	***0.2%***	**20,071**	**20,209**	**20,362**	**20,183**	**6,521**	***-68%***	**-3%**	**-85%**	**-67%**	**-82%**
% global		*68%*	*65%*	*64%*	*62%*	*62%*					
of which (<500 berths)	*-0.4%*	*15,055*	*15,278*	*15,228*	*14,868*	*4,907*	*-67%*	*-13%*	*-84%*	*-74%*	*-76%*
of which (500-999 berths)	*1.9%*	5,016	4,931	5,134	5,315	1,614	*-70%*	*40%*	*-91%*	*-67%*	*-90%*
Total Global	***3.2%***	**29,715**	**30,900**	**31,759**	**32,659**	**10,523**	***-68%***	***-6%***	***-87%***	***-78%***	***-83%***
of which (<500 berths)	*2.7%*	*22,047*	*22,785*	*23,451*	*23,856*	*7,573*	*-68%*	*-12%*	*-86%*	*-80%*	*-81%*
of which (500-999 berths)	*4.7%*	*7,668*	*8,115*	*8,308*	*8,803*	*2,950*	*-66%*	*9%*	*-89%*	*-73%*	*-90%*

[133] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Table 87: Top 50 EU Ports by Cruise <1,000 berths Callings, 2016-2020.

Rank	Port	Port Location	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 -20
1	Piraeus	Greece	-0.5%	331	266	257	326	40	-88%	33%	-90%	-90%	-90%
2	Dubrovnik	Croatia	-0.7%	186	150	132	182	36	-80%	-61%	-94%	-70%	-93%
3	Civitavecchia	Italy	-5.9%	187	153	171	156	11	-93%	-75%	-100%	-98%	-81%
4	Split	Croatia	-4.2%	166	133	129	146	27	-82%	-50%	-94%	-74%	-97%
5	Rodhos	Greece	-14.6%	193	143	119	120	11	-91%	700%	-97%	-98%	-97%
6	Corfu	Greece	-8.1%	174	145	117	135	5	-96%	-100%	-100%	-95%	-93%
7	Mikonos	Greece	-12.3%	188	133	111	127	4	-97%	100%	-100%	-98%	-96%
8	Barcelona	Spain	6.7%	111	148	145	135	17	-87%	-67%	-96%	-84%	-85%
9	Venice	Italy	-6.9%	145	132	127	117	21	-82%	163%	-100%	-100%	-100%
10	Lisboa	Portugal	-3.1%	121	140	127	110	25	-77%	38%	-86%	-89%	-84%
11	Tallinn	Estonia	9.1%	94	118	120	122	0	-100%		-100%	-100%	-100%
12	Livorno	Italy	-2.0%	104	108	113	98	16	-84%	-86%	-96%	-80%	-76%
13	Malaga	Spain	10.4%	84	110	110	113	20	-82%	-67%	-87%	-48%	-100%
14	Copenhagen	Denmark	5.4%	87	108	113	102	5	-95%	-100%	-100%	-92%	-100%
15	Helsinki	Finland	6.2%	91	107	107	109	0	-100%		-100%	-100%	-100%
16	Valletta Harbors	Malta	6.5%	87	101	96	105	18	-83%	450%	-100%	-97%	-82%
17	Gustavia	France	4.8%	80	85	96	92	41	-55%	-13%	-100%		-100%
18	Nice	France	0.0%	80	94	89	80	30	-63%	-100%	-100%	-4%	-27%
19	Gibraltar	UK (Gibraltar)	5.7%	66	83	85	78	41	-47%	88%	-29%	-62%	-96%
20	Marseilles	France	8.5%	58	58	76	74	82	11%	-60%	-27%	50%	35%
21	Cadiz	Spain	12.7%	65	81	102	93	4	-96%	0%	-100%	-100%	-100%
22	Hvar	Croatia	1.1%	86	71	70	89	23	-74%	-33%	-100%	-64%	-93%
23	Palma De Mallorca	Spain	6.9%	68	91	82	83	2	-98%	0%	-100%	-100%	-100%
24	Dublin	Ireland	0.4%	75	74	88	76	1	-99%	0%	-100%	-100%	-100%
25	Stockholm	Sweden	5.6%	67	83	78	79	7	-91%		-96%	-90%	-67%
26	Sibenik	Croatia	-6.9%	83	73	65	67	12	-82%	-38%	-100%	-85%	-100%
27	Oban	United Kingdom	-1.7%	78	72	72	74	0	-100%	-100%	-100%	-100%	-100%
28	Napoli	Italy	-6.3%	84	69	67	69	4	-94%	-100%	-100%	-100%	-86%
29	Navplio	Greece	-10.8%	86	77	57	61	3	-95%	-100%	-100%	-89%	-92%
30	Portoferraio	Italy	-19.1%	83	88	68	44	1	-98%	-100%	-100%	-100%	-83%
31	Belfast	United Kingdom	13.0%	54	63	76	78	5	-94%	0%	-90%	-98%	-100%
32	Southampton	United Kingdom	2.7%	49	71	57	53	40	-25%	620%	-73%	-100%	-100%
33	Valencia	Spain	6.6%	62	70	62	75	0	-100%	-100%	-100%	-100%	-100%
34	Ermoupolis	Greece	-5.8%	79	46	61	66	10	-85%	0%	-100%	-80%	-67%
35	Kirkwall	United Kingdom	4.8%	60	66	66	69	1	-99%	-50%	-100%	-100%	-100%
36	Siracusa	Italy	46.6%	27	54	77	85	2	-98%		-100%	-100%	-92%
37	Cartagena	Spain	15.6%	46	64	61	71	2	-97%	-71%	-100%	-100%	-100%
38	Limassol	Cyprus	-2.0%	52	59	48	49	30	-39%		-67%	-55%	-20%
39	Giardini	Italy	-5.2%	67	57	45	57	3	-95%		-100%	-100%	-63%
40	Itea	Greece	-9.0%	65	51	41	49	6	-88%	-100%	-100%		-86%
41	Dover	United Kingdom	26.0%	38	37	51	76	4	-95%	-56%	-100%	-100%	-100%
42	Bremerhaven	Germany	2.4%	41	45	52	44	6	-86%		-67%	-100%	100%
43	Lipari	Italy	16.3%	40	46	37	63	0	-100%		-100%	-100%	-100%
44	Paros	Greece	2.3%	43	36	50	46	8	-83%		-100%	-67%	-86%
45	Idhra	Greece	12.5%	40	51	21	57	5	-91%		-100%	-96%	-50%
46	Stornoway Harbor	United Kingdom	0.0%	50	35	37	50	0	-100%		-100%	-100%	-100%
47	Kiel	Germany	15.9%	27	38	48	42	8	-81%	-100%	-100%	-78%	0%
48	Portimao	Portugal	12.2%	29	43	50	41	0	-100%	-100%	-100%	-100%	-100%
49	Funchal	Portugal (Madeira)	12.0%	32	35	35	45	13	-71%	44%	-100%	-100%	-100%
50	Poros	Greece	-12.3%	46	41	31	31	8	-74%		-100%	-50%	-80%
Others			0.5%	4,352	4,458	4,547	4,418	1,061	-76%	42%	-90%	-78%	-80%
Total EU			**0.5%**	**8,707**	**8,760**	**8,742**	**8,827**	**1,719**	**-81%**	**12%**	**-93%**	**-80%**	**-87%**
% global				*29%*	*28%*	*28%*	*27%*	*16%*	*0%*	*0%*	*0%*	*0%*	*0%*
		of which (<500 berths)	*-1.7%*	*5,831*	*5,510*	*5,443*	*5,534*	*1,069*	*-81%*	*-40%*	*-91%*	*-78%*	*-80%*
		of which (500-999 berths)	*4.6%*	2,876	3,250	3,299	3,293	650	*-80%*	*148%*	*-93%*	*-92%*	*-87%*
Total EU (exc. UK)			**-0.2%**	**7,508**	**7,523**	**7,444**	**7,471**	**1,504**	**-80%**	**13%**	**-92%**	**-83%**	**-82%**
% global				*37%*	*37%*	*37%*	*37%*	*23%*	*0%*	*0%*	*0%*	*0%*	*0%*
		of which (<500 berths)	*-2.7%*	*5,037*	*4,700*	*4,585*	*4,645*	*1,024*	*-78%*	*-39%*	*-90%*	*-73%*	*-79%*
		of which (500-999 berths)	*4.6%*	2,471	2,823	2,859	2,826	480	*-83%*	*89%*	*-95%*	*-90%*	*-86%*
Total Global			**3.2%**	**29,715**	**30,900**	**31,759**	**32,659**	**10,523**	**-68%**	**-6%**	**-87%**	**-78%**	**-83%**
		of which (<500 berths)	*2.7%*	*22,047*	*22,785*	*23,451*	*23,856*	*7,573*	*-68%*	*-12%*	*-86%*	*-80%*	*-81%*
		of which (500-999 berths)	*4.7%*	7,668	8,115	8,308	8,803	2,950	*-66%*	*9%*	*-89%*	*-73%*	*-90%*

Table 88: Global Callings of Cruise 1,000+ berths Made by vessels controlled by EU Member States, 2016-2020[134].

Owner Nationality	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 -20
Finland	*-0.6%*	680	702	698	668	151	*-77%*	*-3%*	*-100%*	*-100%*	*-100%*
Germany	*21.5%*	1,773	2,244	2,682	3,180	952	*-70%*	*-13%*	*-90%*	*-86%*	*-79%*
Greece	*-6.1%*	946	859	809	784	95	*-88%*	*-7%*	*-98%*	*-100%*	*-95%*
Italy	*9.9%*	2,833	2,929	3,416	3,763	1,021	*-73%*	*-7%*	*-92%*	*-90%*	*-83%*
Portugal		0	0	0	0	2					
United Kingdom		0	0	0	0	35					
Norway	*1.0%*	173	167	194	178	28	*-84%*	*-7%*	*-96%*	*-100%*	*-100%*
Total EU-MS owned	***10.4%***	**6,232**	**6,734**	**7,605**	**8,395**	**2,284**	***-73%***	***-9%***	***-92%***	***-90%***	***-84%***
% global		*17%*	*17%*	*18%*	*19%*	*17%*					
of which (1,000-1,999 berths)	*5.3%*	*3,621*	*3,775*	*4,000*	*4,223*	*934*	*-78%*	*-11%*	*-93%*	*-95%*	*-93%*
of which (2,000-2,999 berths)	*3.4%*	15,405	15,541	16,275	17,037	5,550	*-67%*	*-12%*	*-87%*	*-80%*	*-66%*
of which (3,000+ berths)	*26.5%*	*1,002*	*1,131*	*1,619*	*2,026*	*572*	*-72%*	*0%*	*-94%*	*-90%*	*-83%*
Total EU (inc. Norway/Iceland)	***10.2%***	**6,405**	**6,901**	**7,799**	**8,573**	**2,284**	***-73%***	**-9%**	**-92%**	**-90%**	**-84%**
% global		*17%*	*18%*	*19%*	*20%*	*17%*					
of which (1,000-1,999 berths)	*5.1%*	*3,794*	*3,942*	*18,005*	*4,401*	*962*	*-78%*	*-11%*	*-94%*	*-95%*	*-93%*
of which (2,000-2,999 berths)	*3.4%*	15,405	15,541	16,275	17,037	5,550	*-67%*	*-12%*	*-87%*	*-80%*	*-66%*
of which (3,000+ berths)	*26.5%*	*1,002*	*1,131*	*1,619*	*2,026*	*572*	*-72%*	*0%*	*-94%*	*-90%*	*-83%*
Total Global	***4.6%***	**37,625**	**38,738**	**41,115**	**43,104**	**13,487**	***-69%***	***-17%***	***-83%***	***-86%***	***-82%***
of which (1,000-1,999 berths)	*0.8%*	*13,577*	*13,588*	*13,811*	*13,890*	*3,702*	*-73%*	*-22%*	*-86%*	*-88%*	*-88%*
of which (2,000-2,999 berths)	*3.4%*	*15,405*	*15,541*	*16,275*	*17,037*	*5,550*	*-67%*	*-17%*	*-82%*	*-84%*	*-81%*
of which (3,000+ berths)	*12.1%*	*8,643*	*9,609*	*11,029*	*12,177*	*4,235*	*-65%*	*-10%*	*-80%*	*-86%*	*-77%*

[134] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location. Owner details provided are intended to show the primary reference company, defined as the company with the main commercial responsibility for the ship. Nationality is defined as the "Real Nationality", i.e. the home country/region of the interests behind the primary reference company. None of the information provided is intended to confirm or otherwise the legal status of the companies or the ships associated with them. For the purposes of this report, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country.

Table 89: Global Callings of Cruise <1,000 berths made by vessels controlled by EU Member States, 2016-2020[135].

Owner Nationality	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 -20
Croatia	*441.8%*	1	1	14	159	62	*-61%*		*-89%*	*-50%*	*-84%*
Cyprus		0	0	0	0	0					
Denmark	*-100.0%*	229	0	0	0	0					
Finland	*-100.0%*	6	0	0	0	0					
France	*15.8%*	1,069	1,090	1,229	1,660	644	*-61%*	*8%*	*-91%*	*-53%*	*-78%*
Germany	*-0.5%*	1,781	1,620	1,596	1,752	498	*-72%*	*0%*	*-94%*	*-80%*	*-85%*
Greece	*3.3%*	1,716	1,727	1,897	1,892	237	*-87%*	*-10%*	*-97%*	*-92%*	*-98%*
Italy		0	0	0	2	7	*250%*		*-50%*		
Malta		0	51	53	55	33	*-40%*	*67%*	*-86%*	*-55%*	*71%*
Netherlands	*4.9%*	155	131	163	179	82	*-54%*	*6%*	*-75%*	*-82%*	*-100%*
Portugal	*4.6%*	147	148	140	168	72	*-57%*	*69%*	*-92%*	*-71%*	*-41%*
United Kingdom	*-5.4%*	1,265	1,183	1,219	1,070	372	*-65%*	*78%*	*-96%*	*-97%*	*-94%*
Norway	*-1.2%*	11,170	11,203	11,144	10,776	4,824	*-55%*	*-8%*	*-79%*	*-55%*	*-77%*
Total EU-MS owned	***2.9%***	**6,369**	**5,951**	**6,311**	**6,937**	**2,007**	***-71%***	***-9%***	***-92%***	***-90%***	***-84%***
% global		*21%*	*19%*	*20%*	*21%*	*19%*					
of which (<500 berths)	*3.2%*	*4,691*	*4,529*	*4,827*	*5,162*	*1,449*	*-72%*	*-7%*	*-93%*	*-74%*	*-85%*
of which (500-999 berths)	*1.9%*	1,678	1,422	1,484	1,775	558	*-69%*	*91%*	*-98%*	*-94%*	*-91%*
Total EU (inc. Norway/Iceland)	***0.3%***	**17,539**	**17,154**	**17,455**	**17,713**	**6,831**	***-61%***	***-1%***	***-85%***	***-66%***	***-81%***
% global		*59%*	*56%*	*55%*	*54%*	*65%*					
of which (<500 berths)	*0.7%*	*13,537*	*13,843*	*14,007*	*13,836*	*5,199*	*-62%*	*-9%*	*-83%*	*-71%*	*-78%*
of which (500-999 berths)	*-1.1%*	4,002	3,311	3,448	3,877	1,632	*-58%*	*32%*	*-92%*	*-51%*	*-94%*
Total Global	***3.2%***	**29,715**	**30,900**	**31,759**	**32,659**	**10,523**	***-68%***	***-6%***	***-87%***	***-78%***	***-83%***
of which (<500 berths)	*2.7%*	*22,047*	*22,785*	*23,451*	*23,856*	*7,573*	*-68%*	*-12%*	*-86%*	*-80%*	*-81%*
of which (500-999 berths)	*4.7%*	*7,668*	*8,115*	*8,308*	*8,803*	*2,950*	*-66%*	*9%*	*-89%*	*-73%*	*-90%*

[135] Source: Clarksons Research.

Table 90: Global Callings of Cruise 1,000+ berths made by vessels flagged by EU Member States, 2016-2020[136].

Flag State	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 '20
Italy	*2.2%*	5,724	5,870	5,819	6,115	1,652	*-73%*	-21%	-90%	-91%	-81%
Malta	*11.2%*	5,379	5,763	6,450	7,390	2,202	*-70%*	-14%	-87%	-87%	-80%
Netherlands	*4.7%*	2,382	2,349	2,480	2,737	864	*-68%*	-22%	-81%	-83%	-86%
Sweden	*-0.6%*	680	702	698	668	151	*-77%*	-3%	-100%	-100%	-100%
United Kingdom	*0.2%*	1,315	1,468	1,510	1,324	376	*-72%*	-42%	-78%	-84%	-85%
Portugal		0	0	263	317	76	*-76%*	-26%	-90%	-96%	-100%
Total EU-MS flagged	***6.2%***	**15,480**	**16,152**	**17,220**	**18,551**	**5,321**	***-71%***	**-20%**	**-87%**	**-88%**	**-83%**
% global		*41%*	*42%*	*42%*	*43%*	*39%*					
of which (1,000-1,999 berths)	*-1.0%*	*6,909*	*6,840*	*6,901*	*6,707*	*1,597*	*-76%*	*-28%*	*-89%*	*-89%*	*-92%*
of which (2,000-2,999 berths)		*6,685*	*6,903*	*7,346*	*8,111*	*2,546*	*-69%*	*-16%*	*-84%*	*-86%*	*-79%*
of which (3,000+ berths)	*11.1%*	1,682	1,865	1,939	2,309	698	*-70%*	*-17%*	*-89%*	*-92%*	*-71%*
Total EU (inc. Norway/Iceland)	***6.2%***	**15,480**	**16,152**	**17,220**	**18,551**	**5,321**	***-71%***	**-20%**	**-87%**	**-88%**	**-83%**
% global		*41%*	*42%*	*42%*	*43%*	*39%*					
of which (1,000-1,999 berths)	*-1.0%*	*6,909*	*6,840*	*6,901*	*6,707*	*1,597*	*-76%*	*-24%*	*-87%*	*-89%*	*-89%*
of which (2,000-2,999 berths)	*6.7%*	*6,685*	*6,903*	*7,346*	*8,111*	*2,546*	*-69%*	*-16%*	*-84%*	*-86%*	*-79%*
of which (3,000+ berths)	*11.1%*	1,682	1,865	1,939	2,309	698	*-70%*	*-17%*	*-89%*	*-92%*	*-71%*
Total Global	***4.6%***	**37,625**	**38,738**	**41,115**	**43,104**	**13,487**	***-69%***	***-17%***	***-83%***	***-86%***	***-82%***
of which (1,000-1,999 berths)	*0.8%*	*13,577*	*13,588*	*13,811*	*13,890*	*3,702*	*-73%*	*-22%*	*-86%*	*-88%*	*-88%*
of which (2,000-2,999 berths)	*3.4%*	*15,405*	*15,541*	*16,275*	*17,037*	*5,550*	*-67%*	*-17%*	*-82%*	*-84%*	*-81%*
of which (3,000+ berths)	*12.1%*	*8,643*	*9,609*	*11,029*	*12,177*	*4,235*	*-65%*	*-10%*	*-80%*	*-86%*	*-77%*

[136] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Table 91: Global Callings of Cruise <1,000 berths made by vessels flagged by EU Member States, 2016-2020[137].

Flag State	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 -20
Belgium	-1.6%	270	276	262	257	131	-49%	28%	-97%	-24%	-76%
Croatia		0	0	0	118	60	-49%			-40%	-81%
Cyprus	-6.9%	135	127	115	109	0	-100%		-100%	-100%	-100%
Finland	-100.0%	6	0	0	0	0					
France	19.1%	799	814	967	1,350	433	-68%	-10%	-92%	-66%	-77%
Germany		0	0	0	0	0					
Greece	0.0%	737	730	775	738	160	-78%	2%	-95%	-79%	-87%
Malta	2.7%	2,881	2,950	3,066	3,120	686	-78%	-19%	-92%	-89%	-92%
Netherlands	-4.4%	276	256	302	241	64	-73%	-27%	-94%	-88%	-100%
Sweden	2.8%	35	33	35	38	22	-42%	-17%	-58%	-27%	-56%
United Kingdom	11.2%	291	309	317	400	241	-40%	1100%	-100%	-100%	-99%
Portugal	12.8%	258	300	339	370	114	-69%	88%	-96%	-83%	-73%
Norway	1.0%	11,003	11,292	11,490	11,353	4,938	-57%	-8%	-80%	-57%	-79%
Total EU-MS flagged	**5.8%**	**5,688**	**5,795**	**6,178**	**6,741**	**1,911**	**-72%**	**12%**	**-93%**	**-80%**	**-87%**
% global		*19%*	*19%*	*19%*	*21%*	*18%*					
of which (<500 berths)	*5.4%*	*4,447*	*4,562*	*4,806*	*5,205*	*1,385*	*-73%*	*-14%*	*-93%*	*-76%*	*-86%*
of which (500-999 berths)	*7.4%*	1,241	1,233	1,372	1,536	526	*-66%*	*-41%*	*-98%*	*-98%*	*-96%*
Total EU (inc. Norway/Iceland)	**2.7%**	**16,691**	**17,087**	**17,668**	**18,094**	**6,849**	**-62%**	**-3%**	**-85%**	**-67%**	**-82%**
% global		*56%*	*55%*	*56%*	*55%*	*65%*					
of which (<500 berths)	*1.5%*	*13,183*	*13,766*	*13,862*	*13,784*	*5,097*	*-63%*	*-11%*	*-83%*	*-72%*	*-78%*
of which (500-999 berths)	*7.1%*	3,508	3,321	3,806	4,310	1,752	*-59%*	*30%*	*-90%*	*-55%*	*-94%*
Total Global	**3.2%**	**29,715**	**30,900**	**31,759**	**32,659**	**10,523**	**-68%**	**-6%**	**-87%**	**-78%**	**-83%**
of which (<500 berths)	*2.7%*	*22,047*	*22,785*	*23,451*	*23,856*	*7,573*	*-68%*	*-12%*	*-86%*	*-80%*	*-81%*
of which (500-999 berths)	*4.7%*	*7,668*	*8,115*	*8,308*	*8,803*	*2,950*	*-66%*	*9%*	*-89%*	*-73%*	*-90%*

[137] Source: Clarksons Research. Port calls data based on vessel movements data. Port calls data basis all instances of a vessel entering and leaving a defined port location, excluding instances where vessel not recorded as travelling at less than 1 knot, and combining multiple consecutive instances at the same port where the vessel has not left a buffered shape around the port or within the same day (in selected vessel sectors). Port calls dated according to date of entry into port location.

Table 92: Top 50 EU and Norway and Iceland Ports by Cruise <1,000 berths Callings, 2016-2020[138].

Rank	Port	Port Country	16-19 CAGR	2016	2017	2018	2019	2020	y-o-y	Q1 '20	Q2 '20	Q3 '20	Q4 - 20
1	Tromso	Norway	2.1%	687	676	716	732	365	-50%	-6%	-69%	-61%	-68%
2	Alesund	Norway	-1.4%	709	727	742	680	236	-65%	-21%	-93%	-55%	-92%
3	Svolvaer	Norway	0.0%	640	625	658	640	299	-53%	-15%	-68%	-63%	-65%
4	Trondheim	Norway	0.2%	643	651	669	647	213	-67%	-15%	-98%	-61%	-93%
5	Bodo	Norway	1.2%	623	635	645	645	271	-58%	-12%	-80%	-62%	-79%
6	Hammerfest	Norway	-3.7%	607	613	601	542	308	-43%	-15%	-63%	-29%	-64%
7	Kristiansund	Norway	-4.2%	552	561	546	485	160	-67%	-20%	-98%	-60%	-96%
8	Bronnoysund	Norway	3.6%	468	399	489	520	180	-65%	-6%	-98%	-58%	-93%
9	Rorvik	Norway	-18.2%	565	558	524	309	76	-75%	-53%	-97%	-38%	-100%
10	Sortland	Norway	1.2%	453	355	443	470	213	-55%	17%	-98%	-60%	-74%
11	Bergen	Norway	2.6%	419	442	448	452	161	-64%		-82%	-66%	-86%
12	Sandnessjoen	Norway	0.2%	416	440	441	418	111	-73%	-33%	-99%	-68%	-95%
13	Molde	Norway	-7.3%	455	398	386	363	147	-60%	17%	-98%	-51%	-95%
14	Harstad	Norway	-12.8%	438	348	328	290	265	-9%	189%	25%	-48%	-54%
15	Stokkmarkes	Norway	-2.3%	374	320	355	349	125	-64%		-96%	-59%	-92%
16	Risoyhamn	Norway	-1.9%	307	287	317	290	116	-60%	-13%	-98%	-52%	-70%
17	Batsfjorden	Norway	19.6%	191	289	303	327	196	-40%	-10%	-44%		-55%
18	Piraeus	Greece	-0.5%	331	266	257	326	40	-88%	33%	-90%	-90%	-90%
19	Vardo	Norway	6.8%	202	309	277	246	107	-57%	-23%	-90%	-63%	-49%
20	Honningsvag	Norway	-0.2%	211	231	356	210	133	-37%	-87%	-25%	-27%	-24%
21	Havoysund	Norway	-9.7%	288	250	216	212	106	-50%	25%	-68%	-46%	-92%
22	Kirkenes	Norway	-15.0%	300	279	152	184	142	-23%	51%	-35%	-33%	-52%
23	Floro	Norway	22.3%	129	134	146	236	74	-69%	2%	-98%	-75%	-90%
24	Dubrovnik	Croatia	-0.7%	186	150	132	182	36	-80%	-61%	-94%	-70%	-93%
25	Finnsnes	Norway	19.6%	97	185	112	166	125	-25%		-71%	-69%	-8%
26	Civitavecchia	Italy	-5.9%	187	153	171	156	11	-93%	-75%	-100%	-98%	-81%
27	Maloy	Norway	-9.5%	151	176	145	112	47	-58%	-21%	-100%	-13%	-100%
28	Oksfjorden	Norway	10.4%	98	139	131	132	89	-33%	54%	13%	-74%	-91%
29	Skjervoy	Norway	2.5%	118	156	121	127	67	-47%	-69%	-19%	-50%	-14%
30	Longyearbyen	Norway	6.6%	124	133	151	150	25	-83%	-67%	-92%	-76%	-100%
31	Corfu	Greece	-8.1%	174	145	117	135	5	-96%	-100%	-100%	-95%	-93%
32	Mikonos	Greece	-12.3%	188	133	111	127	4	-97%	100%	-100%	-98%	-96%
33	Barcelona	Spain	6.7%	111	148	145	135	17	-87%	-67%	-96%	-84%	-85%
34	Venice	Italy	-6.9%	145	132	127	117	21	-82%	163%	-100%	-100%	-100%
35	Lisboa	Portugal	-3.1%	121	140	127	110	25	-77%	38%	-86%	-89%	-84%
36	Split	Croatia	-5.8%	140	115	97	117	27	-77%		-93%	-70%	-95%
37	Malaga	Spain	10.4%	84	110	110	113	20	-82%	-67%	-87%	-48%	-100%
38	Mehamn	Norway	22.5%	62	106	89	114	53	-54%		-96%	-84%	-40%
39	Valletta Harbors	Malta	6.5%	87	101	96	105	18	-83%		-100%	-97%	-82%
40	Gustavia	France	4.8%	80	85	96	92	41	-55%	-13%	-100%		-100%
41	Nice	France	0.0%	80	94	89	80	30	-63%	-100%	-100%	-4%	-27%
42	Rodhos	Greece	-15.7%	107	108	76	64	3	-95%		-100%	-100%	-100%
43	Hvar	Croatia	1.1%	86	71	70	89	23	-74%		-100%	-64%	-93%
44	Vadso	Norway	-23.0%	129	34	44	59	52	-12%		-13%	0%	-31%
45	Sibenik	Croatia	-6.9%	83	73	65	67	12	-82%		-100%	-85%	-100%
46	Oban	United Kingdom	-1.7%	78	72	72	74	0	-100%		-100%	-100%	-100%
47	Navplio	Greece	-10.8%	86	77	57	61	3	-95%	-100%	-100%	-89%	-92%
48	Portoferraio	Italy	-19.1%	83	88	68	44	1	-98%	-100%	-100%	-100%	-83%
49	Reykjavik	Iceland	22.1%	50	59	74	91	6	-93%	-100%	-100%	-91%	-100%
50	Livorno	Italy	18.2%	43	65	82	71	13	-82%	-80%	-95%	-81%	-72%
Others			2.9%	7,096	7,384	7,591	7,730	1,710	-78%	-1%	-88%	-74%	-80%
Total EU			**0.5%**	**8,718**	**8,776**	**8,761**	**8,837**	**1,726**	**-80%**	**12%**	**-93%**	**-80%**	**-87%**
% global				*29%*	*28%*	*28%*	*27%*	*16%*	*0%*	*0%*	*0%*	*0%*	*0%*
of which (<500 berths)			-1.7%	*5,837*	*5,514*	*5,452*	*5,540*	*1,073*	-81%	-40%	-91%	-78%	-80%
of which (500-999 berths)			4.6%	2,881	3,262	3,309	3,297	653	-80%	147%	-93%	-92%	-87%
Total EU (exc. UK)			**-0.1%**	**7,585**	**7,622**	**7,548**	**7,559**	**1,552**	**-79%**	**-2%**	**-91%**	**-79%**	**-83%**
% global				*38%*	*38%*	*37%*	*37%*	*24%*	*0%*	*0%*	*0%*	*0%*	*0%*
of which (<500 berths)			-2.5%	*5,084*	*4,756*	*4,652*	*4,706*	*1,042*	-78%	-40%	-90%	-74%	-79%
of which (500-999 berths)			4.5%	2,501	2,866	2,896	2,853	510	-82%	99%	-94%	-90%	-87%
Total EU (inc. Norway/Iceland)			**0.2%**	**20,082**	**20,225**	**20,381**	**20,193**	**6,528**	**-68%**	**-3%**	**-85%**	**-67%**	**-82%**
% global			0	*68%*	*65%*	*64%*	*62%*	*62%*	*0%*	*0%*	*0%*	*0%*	*0%*
of which (<500 berths)			-0.4%	*15,061*	*15,282*	*15,237*	*14,874*	*4,911*	-67%	-13%	-84%	-74%	-76%
of which (500-999 berths)			1.9%	5,021	4,943	5,144	5,319	1,617	-70%	40%	-91%	-67%	-90%
Total Global			**3.2%**	**29,715**	**30,900**	**31,759**	**32,659**	**10,523**	**-68%**	**-6%**	**-87%**	**-78%**	**-83%**
of which (<500 berths)			2.7%	*22,047*	*22,785*	*23,451*	*23,856*	*7,573*	-68%	-12%	-86%	-80%	-81%
of which (500-999 berths)			4.7%	7,668	8,115	8,308	8,803	2,950	-66%	9%	-89%	-73%	-90%

[138] Source: Clarksons Research.

Table 93: Global Passenger Fleet by Owner Nationality[139].

By Owner Nationality	Cruise		Total Ferries		*of which pure passenger*		*of which RoPax/Car*		Total Cruise/Ferry	
	Number	'000 GT	Number	'000 GT	*Number*	*'000 GT*	*Number*	*'000 GT*	Number	'000 GT
Total EU	110	4,441	2,058	10,277	*1,021*	*354*	*1,037*	*9,924*	**2,168**	**14,718**
as % Global	*24%*	*18%*	*25%*	*49%*	*23%*	*18%*	*28%*	*52%*	***25%***	***32%***
Total EU excl. UK	100	4,185	1,931	10,095	*984*	*342*	*947*	*9,753*	**2,031**	**14,280**
as % Global	*22%*	*17%*	*24%*	*48%*	*22%*	*17%*	*25%*	*51%*	***24%***	***31%***
Total (inc. Norway, Iceland)	133	4,905	2,527	11,275	*1,153*	*389*	*1,374*	*10,886*	**2,660**	**16,180**
as % Global	*29%*	*20%*	*31%*	*53%*	*26%*	*19%*	*37%*	*57%*	***31%***	***35%***
Global	459	24,406.7	8,120	21,171.2	*4,387*	*2,018.4*	*3,733*	*19,152.8*	**8,579**	**45,577.8**

Table 94: Global Passenger Fleet by Flag State[140]

By Flag Country	Cruise		Ferries		*of which pure passenger*		*of which RoPax/Car*		Total Cruise/Ferry	
	Number	'000 GT	Number	'000 GT	*Number*	*'000 GT*	*Number*	*'000 GT*	Number	'000 GT
Total EU	144	8,443	2,149	10,333	*1,103*	*373*	*1,046*	*9,960*	**2,293**	**18,777**
as % Global	*31%*	*35%*	*26%*	*49%*	*25%*	*19%*	*28%*	*52%*	***27%***	***41%***
Total EU excl. UK	132	7,434	2,023	9,831	*1,068*	*363*	*955*	*9,468*	**2,155**	**17,265**
as % Global	*29%*	*30%*	*25%*	*46%*	*24%*	*18%*	*26%*	*49%*	***25%***	***38%***
Total (inc. Norway, Iceland)	165	8,901	2,626	11,215	*1,242*	*409*	*1,384*	*10,805*	**2,791**	**20,116**
as % Global	*36%*	*36%*	*32%*	*53%*	*28%*	*20%*	*37%*	*56%*	***33%***	***44%***
Global	459	24,406.7	8,120	21,171.2	*4,387*	*2,018.4*	*3,733*	*19,152.8*	**8,579**	**45,577.8**

[139] Source: Clarksons Research. Owner details provided are intended to show the primary reference company, defined as the company with the main commercial responsibility for the ship. Nationality is defined as the "Real Nationality", i.e. the home country/region of the interests behind the primary reference company. None of the information provided is intended to confirm or otherwise the legal status of the companies or the ships associated with them. For the purposes of this report, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country.

[140] Source: Clarksons Research.

Table 95: Global Cruise Fleet and Orderbook by Owner Nationality, January 202[141].

Owner Nationality	Fleet		Orderbook			Orderbook delivery schedule			
	Number	'000 GT	Number	'000 GT	% fleet GT	2021	2022	2023	2024+
United States	243	17,724.6	53	5,308.5	29.9%	988.3	1,858.6	1,023.4	1,438.2
Italy	18	2,021.8	12	1,775.4	87.8%	346.5	374.4	247.5	807.0
Germany	24	1,320.1	6	467.6	35.4%	34.1	0.0	111.5	322.0
Malaysia	11	684.6	12	1,061.0	155.0%	0.0	621.0	264.0	176.0
Greece	21	531.6	0	0.0	0.0%	0.0	0.0	0.0	0.0
Norway	23	464.1	0	0.0	0.0%	0.0	0.0	0.0	0.0
China P.R.	6	302.5	3	303.0	100.2%	0.0	37.0	133.0	133.0
United Kingdom	10	255.8	3	330.0	129.0%	110.0	110.0	110.0	0.0
Japan	7	249.7	0	0.0	0.0%	0.0	0.0	0.0	0.0
France	15	147.3	3	52.4	35.6%	30.4	22.0	0.0	0.0
Portugal	5	91.7	5	46.5	50.7%	9.3	18.6	18.6	0.0
Marshall Is.	1	70.5	0	0.0	0.0%	0.0	0.0	0.0	0.0
Israel	2	57.7	0	0.0	0.0%	0.0	0.0	0.0	0.0
Russia	9	56.9	3	33.4	58.8%	10.7	22.7	0.0	0.0
India	1	48.6	0	0.0	0.0%	0.0	0.0	0.0	0.0
Turkey	1	37.3	0	0.0	0.0%	0.0	0.0	0.0	0.0
Finland	1	34.9	0	0.0	0.0%	0.0	0.0	0.0	0.0
Hong Kong	2	34.2	0	0.0	0.0%	0.0	0.0	0.0	0.0
Australia	8	30.9	3	28.6	92.4%	28.6	0.0	0.0	0.0
St. Vincent & G.	1	22.1	0	0.0	0.0%	0.0	0.0	0.0	0.0
Vir Is British	1	18.6	0	0.0	0.0%	0.0	0.0	0.0	0.0
Chile	5	17.2	0	0.0	0.0%	0.0	0.0	0.0	0.0
Mexico	1	15.6	0	0.0	0.0%	0.0	0.0	0.0	0.0
Netherlands	5	15.1	1	6.3	41.8%	6.3	0.0	0.0	0.0
Canada	3	14.0	0	0.0	0.0%	0.0	0.0	0.0	0.0
Malta	2	11.3	0	0.0	0.0%	0.0	0.0	0.0	0.0
Monaco	3	9.0	0	0.0	0.0%	0.0	0.0	0.0	0.0
Ecuador	6	8.8	0	0.0	0.0%	0.0	0.0	0.0	0.0
Cyprus	1	6.8	0	0.0	0.0%	0.0	0.0	0.0	0.0
Philippines	1	5.1	0	0.0	0.0%	0.0	0.0	0.0	0.0
Croatia	8	4.6	1	8.8	191.7%	8.8	0.0	0.0	0.0
Argentina	1	2.8	0	0.0	0.0%	0.0	0.0	0.0	0.0
New Zealand	3	1.6	0	0.0	0.0%	0.0	0.0	0.0	0.0
Fiji	2	1.6	0	0.0	0.0%	0.0	0.0	0.0	0.0
Maldive Is.	1	0.9	0	0.0	0.0%	0.0	0.0	0.0	0.0
Singapore	1	0.6	0	0.0	0.0%	0.0	0.0	0.0	0.0
Grenada	1	0.3	0	0.0	0.0%	0.0	0.0	0.0	0.0
Falkland Islands	1	0.1	0	0.0	0.0%	0.0	0.0	0.0	0.0
French Poly.	0	0.0	1	14.5	0.0%	0.0	14.5	0.0	0.0
Total EU	**110**	**4,441**	**42**	**3,718**	**83.7%**	**545.3**	**525.0**	**487.6**	**1,129.0**
as % Global	*24%*	*18%*	*40%*	*39%*		*35%*	*17%*	*26%*	*39%*
Total EU excl. UK	**100**	**4,185**	**39**	**3,388**	**80.9%**	**435.3**	**415.0**	**377.6**	**1,129.0**
as % Global	*22%*	*17%*	*37%*	*36%*		*28%*	*13%*	*20%*	*39%*
Norway	23	464.1	0.0	0	0.0%	0.0	0.0	0.0	0.0
Iceland	0	0.0							
Total (inc. Norway, Iceland)	**133**	**4,905**	**42**	**3,718**	**75.8%**	**545.3**	**525.0**	**487.6**	**1,129.0**
as % Global	*29%*	*20%*	*40%*	*39%*		*35%*	*17%*	*26%*	*39%*
Global	**459**	**24,406.7**	**106.0**	**9,436**	**38.7%**	**1,572.9**	**3,078.8**	**1,908.0**	**2,876.2**

[141] Source: Clarksons Research. January 2021. The orderbook delivery schedule is based on reported orders and scheduled delivery dates. These are subject to delays and cancellations and does not necessarily represent the expected pattern of future deliveries. Owner details provided are intended to show the primary reference company, defined as the company with the main commercial responsibility for the ship. Nationality is defined as the "Real Nationality", i.e. the home country/region of the interests behind the primary reference company. None of the information provided is intended to confirm or otherwise the legal status of the companies or the ships associated with them. For the purposes of this report, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country.

Table 96: Global Cruise Fleet by Flag State[142].

Flag State	Fleet											
	<500 berths		500-999 berths		1,000-1,999 berths		2,000-2,999 berths		3,000+ berths		Total	
	Number	'000 GT	Number	'000 GT	Number	'000 GT	Number	'000 GT	Number	'000 GT	Number	'000 GT
Bahamas	41	526.1	18	624.8	22	1,384.2	20	1,856.6	25	4,155.8	126	8,547.5
Panama	4	22.9	2	35.3	7	427.8	15	1,409.0	12	1,637.0	40	3,532.1
Malta	15	117.8	5	159.3	6	387.5	19	2,028.9	5	831.8	50	3,525.2
Italy	0	0.0	0	0.0	4	170.4	12	952.1	12	1,580.4	28	2,702.9
Bermuda	0	0.0	1	30.3	9	672.1	5	534.1	10	1,260.6	25	2,497.1
United Kingdom	3	3.0	2	116.2	1	77.4	3	340.6	3	472.0	12	1,009.3
Netherlands	4	14.8	0	0.0	6	451.9	4	372.3	0	0.0	14	838.9
Norway	11	95.1	10	362.9	0	0.0	0	0.0	0	0.0	21	458.0
Marshall Islands	2	6.7	6	232.5	2	132.3	0	0.0	0	0.0	10	371.5
Liberia	1	6.3	2	49.2	1	77.5	0	0.0	0	0.0	4	133.0
France	12	119.9	0	0.0	0	0.0	0	0.0	0	0.0	12	119.9
Portugal	6	53.7	1	10.4	1	52.9	0	0.0	0	0.0	8	117.1
United States	25	34.6	0	0.0	0	0.0	1	80.4	0	0.0	26	115.0
Japan	2	25.1	2	76.7	0	0.0	0	0.0	0	0.0	4	101.8
Cyprus	1	6.8	1	15.4	1	56.8	0	0.0	0	0.0	3	78.9
Russia	7	45.1	1	9.2	0	0.0	0	0.0	0	0.0	8	54.3
Sweden	1	0.4	0	0.0	1	34.9	0	0.0	0	0.0	2	35.3
Ecuador	12	29.3	0	0.0	0	0.0	0	0.0	0	0.0	12	29.3
Sierra Leone	1	23.2	0	0.0	0	0.0	0	0.0	0	0.0	1	23.2
Jamaica	1	15.8	0	0.0	0	0.0	0	0.0	0	0.0	1	15.8
Chile	4	11.9	0	0.0	0	0.0	0	0.0	0	0.0	4	11.9
Australia	5	9.5	0	0.0	0	0.0	0	0.0	0	0.0	5	9.5
Belgium	2	8.2	0	0.0	0	0.0	0	0.0	0	0.0	2	8.2
Cambodia	0	0.0	1	7.7	0	0.0	0	0.0	0	0.0	1	7.7
Fiji	4	6.3	0	0.0	0	0.0	0	0.0	0	0.0	4	6.3
Philippines	1	5.1	0	0.0	0	0.0	0	0.0	0	0.0	1	5.1
Greece	6	4.5	0	0.0	0	0.0	0	0.0	0	0.0	6	4.5
St. Vincent & Grenadines	2	4.0	0	0.0	0	0.0	0	0.0	0	0.0	2	4.0
Croatia	7	3.2	0	0.0	0	0.0	0	0.0	0	0.0	7	3.2
Togo	1	2.8	0	0.0	0	0.0	0	0.0	0	0.0	1	2.8
Maldive Islands	3	2.3	0	0.0	0	0.0	0	0.0	0	0.0	3	2.3
Bolivia	1	1.7	0	0.0	0	0.0	0	0.0	0	0.0	1	1.7
Indonesia	2	1.7	0	0.0	0	0.0	0	0.0	0	0.0	2	1.7
St. Kitts & Nevis	3	1.7	0	0.0	0	0.0	0	0.0	0	0.0	3	1.7
New Zealand	3	1.6	0	0.0	0	0.0	0	0.0	0	0.0	3	1.6
Malaysia	1	0.7	0	0.0	0	0.0	0	0.0	0	0.0	1	0.7
Tanzania	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	1	0.4
Vanuatu	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	1	0.3
Total EU	**57**	**332.1**	**9**	**301.3**	**20**	**1,231.9**	**38**	**3,693.9**	**20**	**2,884.2**	**144**	**8,443.4**
as % Global	*29%*	*27%*	*17%*	*17%*	*33%*	*31%*	*48%*	*49%*	*30%*	*29%*	*31%*	*35%*
Total EU excl. UK	**54**	**329.1**	**7**	**185.1**	**19**	**1,154.4**	**35**	**3,353.3**	**17**	**2,412.1**	**132**	**7,434.1**
as % Global	*27%*	*27%*	*13%*	*11%*	*31%*	*29%*	*44%*	*44%*	*25%*	*24%*	*29%*	*30%*
Norway	11	95.1	10	362.9	0	0.0	0	0.0	0	0.0	21	458.0
Iceland	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total (inc. Norway, Iceland)	**68**	**427.2**	**19**	**664.2**	**20**	**1,231.9**	**38**	**3,693.9**	**20**	**2,884.2**	**165**	**8,901.4**
as % Global	*34%*	*34%*	*37%*	*38%*	*33%*	*31%*	*48%*	*49%*	*30%*	*29%*	*36%*	*36%*
Global	**200**	**1,239.3**	**52**	**1,729.9**	**61**	**3,925.8**	**79**	**7,574.1**	**67**	**9,937.6**	**459**	**24,406.7**

[142] Source: Clarksons Research.

Table 97: Global Passenger Fleet & Orderbook by Owner Nationality[143].

Owner Nationality	Fleet			*of which pure passenger*			*of which RoPax/Car*		
	Number	'000 GT	'000 Pax	Number	'000 GT	'000 Pax	Number	'000 GT	'000 Pax
Italy	416	2,753.8	207.4	212	54.9	26.4	204	2,698.9	181.0
Sweden	166	1,408.7	66.4	86	26.7	15.6	80	1,382.0	50.8
Greece	408	1,325.9	162.6	190	74.7	22.9	218	1,251.2	139.7
Finland	75	986.6	58.3	18	6.4	1.5	57	980.3	56.8
France	106	855.8	50.2	45	17.2	3.0	61	838.7	47.2
Spain	95	759.6	51.2	41	11.6	5.3	54	748.1	45.9
Denmark	85	574.1	35.2	20	4.8	2.0	65	569.3	33.2
Germany	141	488.8	66.0	91	45.4	31.0	50	443.4	35.0
Poland	43	237.0	11.9	24	9.2	3.1	19	227.8	8.8
United Kingdom	127	182.3	37.0	37	11.9	8.2	90	170.4	28.8
Ireland	20	174.3	9.2	12	2.6	1.1	8	171.7	8.1
Croatia	220	169.5	36.1	160	54.3	9.6	60	115.2	26.4
Cyprus	15	64.5	3.7	7	2.9	1.1	8	61.6	2.6
Portugal	41	63.7	19.7	27	12.8	11.6	14	51.0	8.1
Netherlands	34	49.5	13.0	22	7.5	2.8	12	41.9	10.3
Estonia	14	48.8	4.7	2	1.1	0.5	12	47.7	4.2
Malta	14	47.2	7.2	5	1.4	1.0	9	45.8	6.2
Romania	6	43.7	0.6	4	2.4	0.4	2	41.2	0.2
Bulgaria	7	16.7	0.7	6	2.3	0.6	1	14.4	0.1
Slovenia	2	13.6	1.7	1	0.1	0.2	1	13.5	1.5
Lithuania	4	6.5	2.4			0.0	4	6.5	2.4
Latvia	2	0.4	0.0	2	0.4	0.0			0.0
Total EU	**2,041**	**10,271**	**845**	**1,012**	**351**	**147.8**	**1,029**	**9,920**	**697**
as % Global	*25%*	*49%*	*38%*	*23%*	*18%*	*23%*	*28%*	*52%*	*28%*
Total EU excl. UK	**1,914**	**10,089**	**808**	**975**	**339**	**139.6**	**939**	**9,750**	**669**
as % Global	*24%*	*48%*	*38%*	*22%*	*17%*	*22%*	*25%*	*51%*	*51%*
Norway	454	986.9	113.0	122	34.0	14.1	332	952.9	98.9
Iceland	15	10.8	2.1	10	1.9	0.9	5	8.9	1.2
Total (inc. Norway, Iceland)	**2,510**	**11,269**	**960**	**1,144**	**387**	**162.8**	**1,366**	**10,882**	**798**
as % Global	*31%*	*53%*	*38%*	*28%*	*20%*	*26%*	*37%*	*56%*	*57%*
Global	**8,120**	**21,171.2**	**2,230.1**	**4,387**	**2,018.4**	**620.4**	**3,733**	**19,152.8**	**1,609.7**

[143] Source: Clarksons Research. Owner details provided are intended to show the primary reference company, defined as the company with the main commercial responsibility for the ship. Nationality is defined as the "Real Nationality", i.e. the home country/region of the interests behind the primary reference company. None of the information provided is intended to confirm or otherwise the legal status of the companies or the ships associated with them. For the purposes of this report, the UK (including Gibraltar) has been included as part of the EU. Norway and Iceland are also included in the statistics but excluded from "Total EU" figures unless expressly stated otherwise. In addition, French overseas territories have been included as independent countries while autonomous regions such as Madeira and the Canary Islands have been grouped together with the parent country.

Table 98: Global Passenger Fleet by flag country and ship type[144].

Flag Country	Fleet			*of which pure passenger*			*of which RoPax/Car*		
	Number	'000 GT	'000 Pax	Number	'000 GT	'000 Pax	Number	'000 GT	'000 Pax
Italy	414	2,451.7	210.3	217	54.9	27.3	197	2,396.8	183.0
Cyprus	83	1,430.1	71.1	7	4.6	2.6	76	1,425.5	68.5
Greece	393	1,076.9	140.8	200	66.3	23.4	193	1,010.6	117.4
Sweden	158	868.9	54.8	94	28.6	15.8	64	840.3	39.0
France	126	858.5	45.7	62	17.9	6.1	64	840.6	39.6
Finland	70	609.3	28.4	21	6.8	1.5	49	602.4	26.9
United Kingdom	126	502.1	43.3	35	10.1	6.9	91	492.1	36.5
Denmark	90	492.0	40.1	17	3.9	1.7	73	488.1	38.4
Spain	84	483.7	39.8	40	12.5	4.9	44	471.1	34.9
Estonia	21	350.6	20.3	1	0.2	0.1	20	350.5	20.2
Netherlands	52	297.3	22.3	33	9.9	3.3	19	287.4	19.0
Germany	127	265.0	54.8	91	33.1	30.3	36	231.9	24.6
Croatia	238	176.9	36.7	176	58.5	9.8	62	118.4	26.9
Lithuania	9	144.6	5.5			0.0	9	144.6	5.5
Malta	39	133.3	12.1	28	37.9	4.7	11	95.4	7.4
Latvia	6	77.3	5.9	2	0.4	0.0	4	77.0	5.9
Romania	5	41.8	0.5	3	0.6	0.3	2	41.2	0.2
Portugal	43	37.0	13.3	31	15.6	11.9	12	21.5	1.4
Bulgaria	6	16.3	0.5	5	1.9	0.4	1	14.4	0.1
Poland	34	13.6	4.7	25	6.7	2.6	9	6.9	2.1
Irish Republic	16	3.4	1.5	13	2.8	1.1	3	0.6	0.4
Slovenia	2	0.4	0.0	2	0.4	0.0	0	0.0	0.0
Total EU	**2,142**	**10,331**	**855**	**1,103**	**373**	**155**	**1,039**	**9,957**	**700**
as % Global	*26%*	*49%*	*38%*	*25%*	*19%*	*25%*	*28%*	*52%*	*43%*
Total EU excl. UK	**2,016**	**9,829**	**811**	**1,068**	**363**	**148**	**948**	**9,465**	**664**
as % Global	*25%*	*46%*	*36%*	*24%*	*18%*	*24%*	*25%*	*49%*	*41%*
Iceland	17	11.1	2.4	12	2.2	1.1	5	8.9	1.2
Norway	460	870.1	103.6	130	36.5	14.8	330	833.6	88.8
Total (inc. Norway, Iceland)	**2,520**	**11,273**	**961**	**1,153**	**389**	**171**	**1,367**	**10,883**	**790**
as % Global	*31%*	*53%*	*43%*	*26%*	*19%*	*27%*	*37%*	*57%*	*49%*
Global	**8,120**	**21,171.2**	**2,230.1**	**4,387**	**2,018.4**	**620.4**	**3,733**	**19,152.8**	**1,609.7**

[144]Source: Clarksons Research.

Appendix F Additional Tables and Charts to Chapter 7 Safety and Environmental Inspections

Table 99: Percent variation by quarters.

Severity	Percent variation (Avg 2016-2019 vs 2020)			
	Q1	Q2	Q3	Q4
VS	-35,00%	-55,00%	-32,31%	-60,87%
OMC	-5,88%	-21,92%	-19,69%	-24,24%
MI	20,07%	-9,17%	8,93%	-5,45%
Totals	**-2,20%**	**-20,91%**	**-16,02%**	**-22,31%**

Table 100: Number of ships involved in marine casualties and incidents by ship's type (2016 - 2020).

Type of ship	2016				2017				2018				2019				2020				Total
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Cargo ship	446	344	387	399	427	361	378	408	417	352	364	430	500	363	333	353	405	321	309	304	**7,601**
Fishing vessel	159	132	140	149	170	160	143	152	164	157	131	152	164	154	149	160	164	148	175	145	**3,068**
Passenger ship	178	246	309	184	178	263	258	181	144	227	293	198	193	271	325	171	162	125	167	111	**4,184**
Service ship	103	89	113	92	109	99	92	94	109	95	95	108	88	98	105	80	98	72	81	73	**1,893**
Totals	**886**	**811**	**949**	**824**	**884**	**883**	**871**	**835**	**834**	**831**	**883**	**888**	**945**	**886**	**912**	**764**	**829**	**666**	**732**	**633**	**16,746**

Table 101: Percent variation by quarters.

Type of ship	Percent variation (Avg 2016-2019 vs 2020)			
	Q1	Q2	Q3	Q4
Cargo ship	-9.50%	-9.58%	-15.46%	-23.52%
Fishing vessel	-0.15%	-1.82%	24.33%	-5.38%
Passenger ship	-6.49%	-50.35%	-43.63%	-39.51%
Service ship	-4.16%	-24.41%	-20.00%	-21.93%
Totals	**-6.57%**	**-21.90%**	**-19.00%**	**-23.53%**

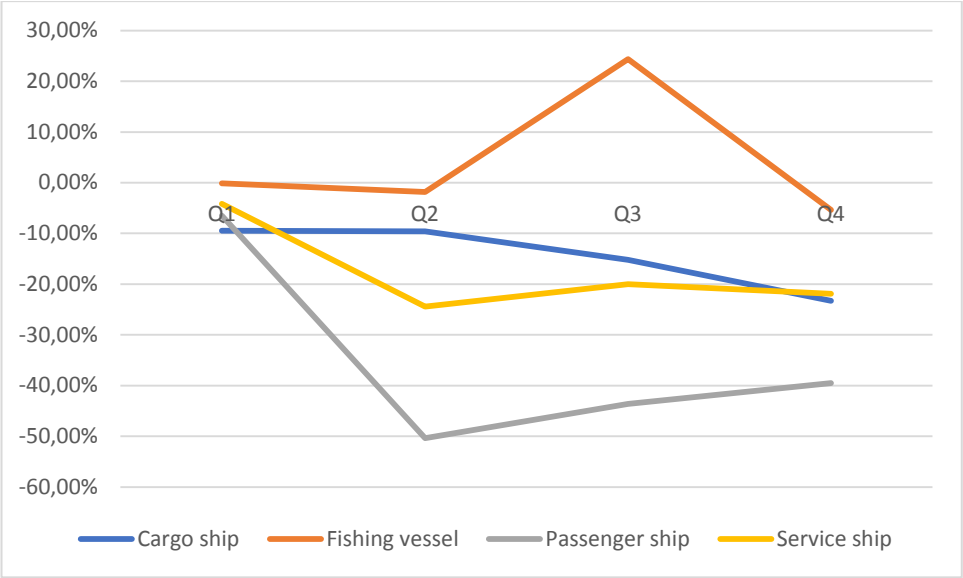

Figure 78: Percent variation by quarter and ship type.

Table 102: Number of Casualty event distribution (2016 - 2020).

Event	2016				2017				2018				2019				2020				Total
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Capsizing/ Listing	1	4	2	3	7	3	3	5	4	2	5	6	8	4	2	5	2	1	2	2	**71**
Collision	73	71	95	75	68	71	86	69	55	67	92	71	81	86	85	43	37	42	54	42	**1,363**
Contact	105	85	78	83	100	103	99	117	101	80	91	114	121	102	79	86	119	80	85	82	**1,910**
Damage / loss of equipment	110	83	83	80	87	75	73	76	107	76	80	80	85	89	75	75	102	68	75	84	**1,663**
Fire/ Explosion	37	27	38	29	28	41	32	34	38	28	34	39	39	35	30	29	28	25	39	30	**660**
Flooding/ Foundering	11	14	17	16	17	19	15	19	12	11	8	12	16	8	16	15	5	13	10	18	**272**
Grounding/ stranding	74	68	86	61	69	85	76	65	77	66	82	75	55	55	77	70	61	43	60	56	**1,361**
Loss of control	166	139	203	171	195	153	201	202	172	200	195	206	211	211	256	207	212	191	216	170	**3,877**
Other OWS	16	6	2	0	6	0	0	0	3	2	0	1	0	2	2	2	0	2	2	1	**47**
OWP	228	265	288	243	250	273	232	200	221	260	251	250	283	250	245	224	247	178	187	141	**4,716**
Totals	**892**	**821**	**955**	**827**	**890**	**887**	**877**	**851**	**843**	**836**	**894**	**908**	**978**	**910**	**935**	**795**	**842**	**682**	**760**	**660**	**17,043**

Table 103: Percent variation by quarters.

Event	Percent variation (Avg 2016-2019 vs 2020)			
	Q1	Q2	Q3	Q4
Capsizing/ Listing	-60.00%	-69.23%	-33.33%	-57.89%
Collision	-46.57%	-43.05%	-39.66%	-34.88%
Contact	11.48%	-13.51%	-2.02%	-18.00%
Damage / loss of equipment	4.88%	-15.79%	-3.54%	8.04%
Fire/ Explosion	-21.13%	-23.66%	16.42%	-8.40%
Flooding/ Foundering	-64.29%	0.00%	-28.57%	16.13%
Grounding/ stranding	-11.27%	-37.23%	-25.23%	-17.34%
Loss of control	13.98%	8.68%	1.05%	-13.49%
Other occurrences with ships	-100.00%	-20.00%	100.00%	33.33%
Occurrences with persons	0.61%	-32.06%	-26.38%	-38.50%
Totals	-2.55%	-20.10%	-14.47%	-20.71%

Table 104: Percent variation by quarters (navigational accident).

	Percent variation (AVG 2016-2019 vs 2020)			
Event type	**Q1**	**Q2**	**Q3**	**Q4**
Navigational accidents (collision, grounding, contact)	-11.34%	-29.71%	-22.42%	-22.50%

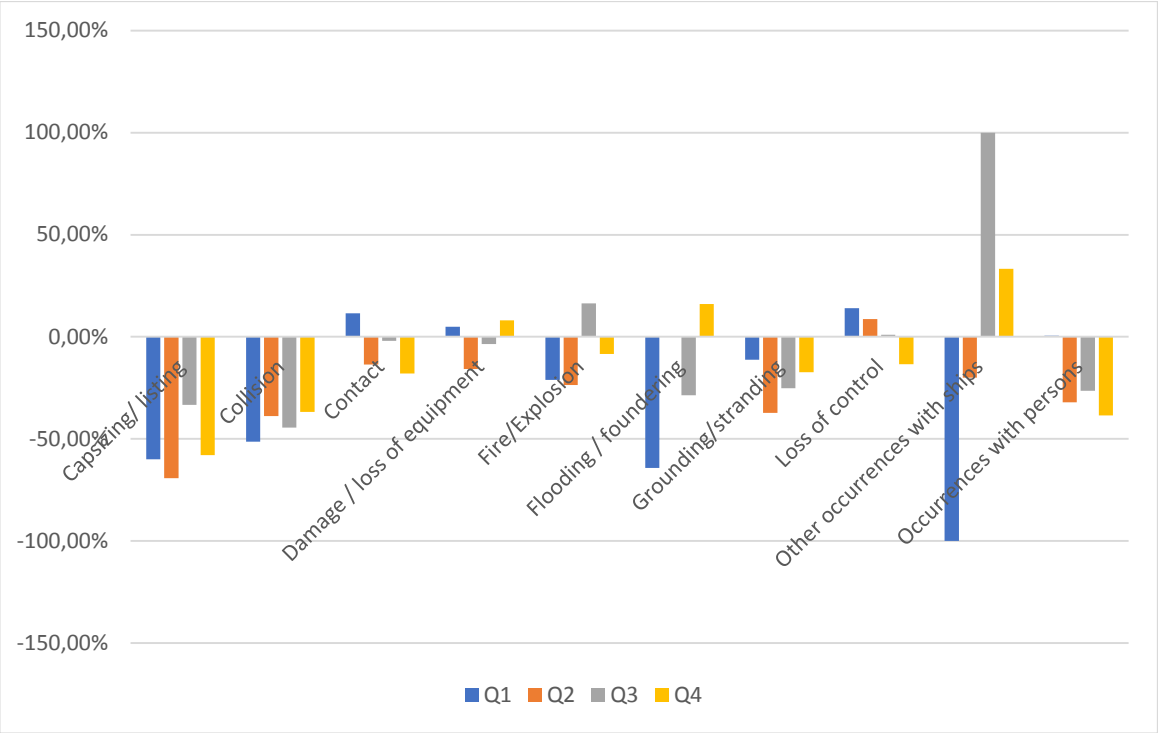

Figure 79: Percent variation by quarter and casualty event.

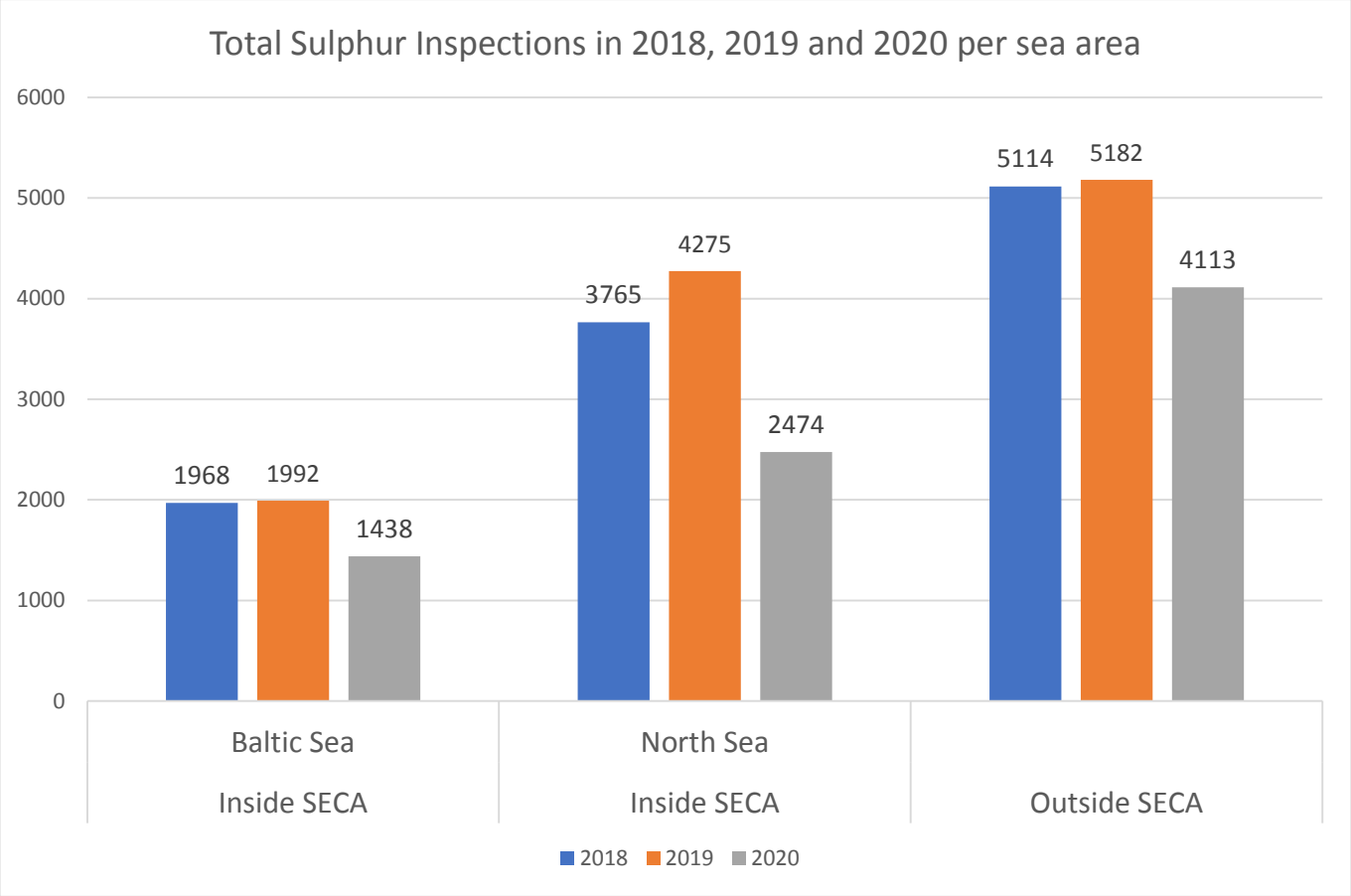

Figure 80: Total 2020 monthly sulphur inspections as a percentage of the total 2019 inspections per Member State.

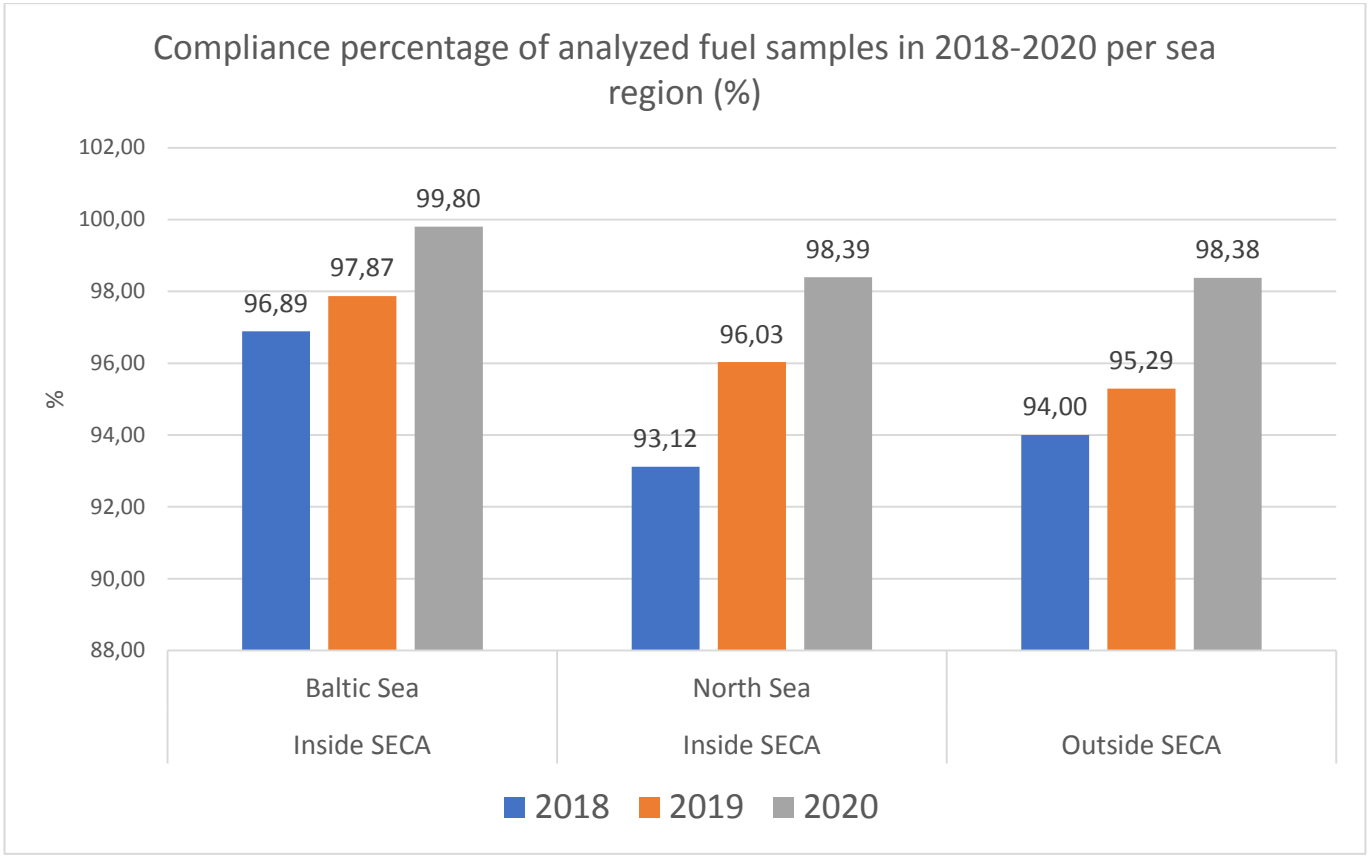

Figure 81: Compliance percentage of analysed fuel samples in 2018-2020 per sea region (%).

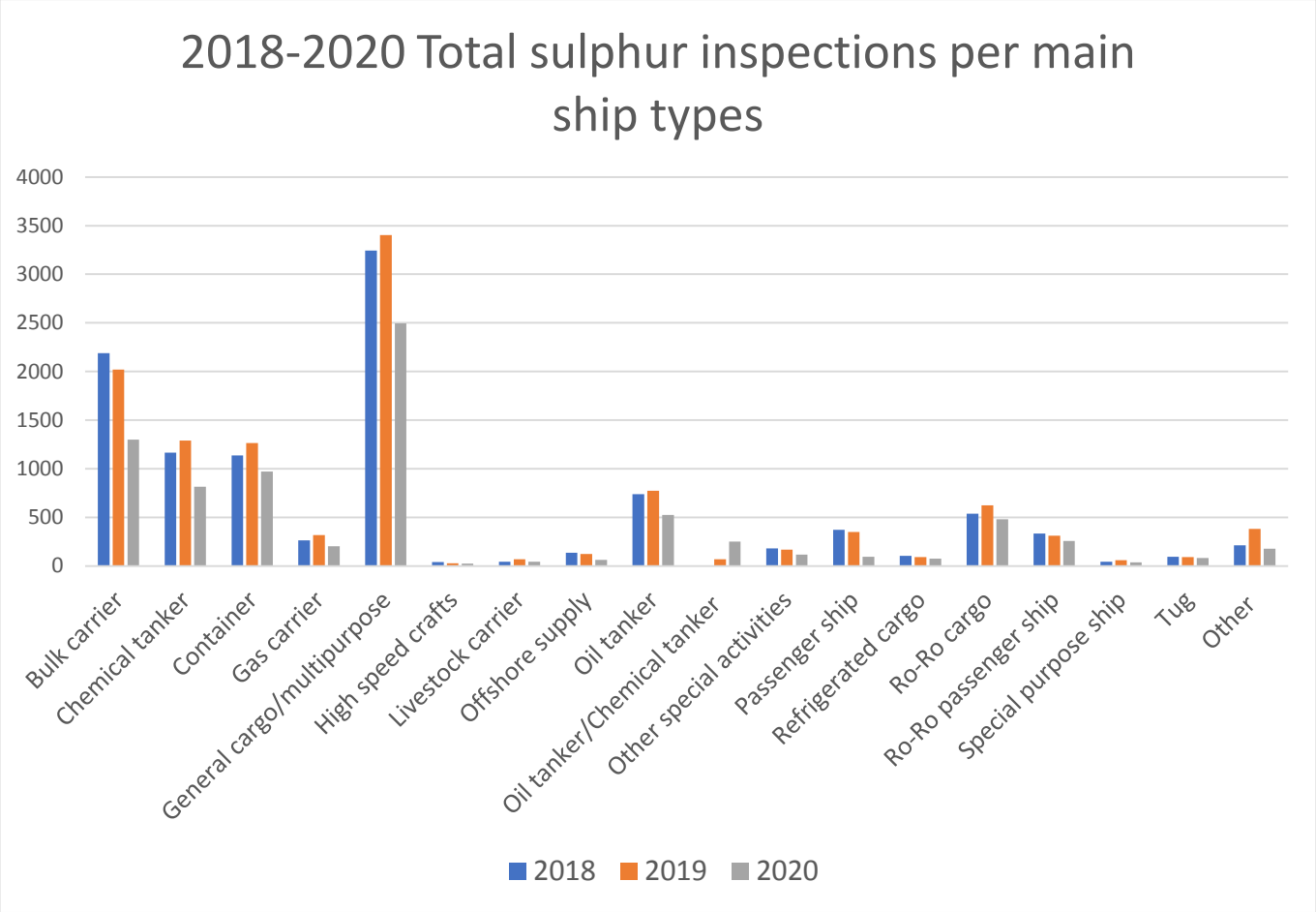

Figure 82: 2018-2020 Total sulphur inspections per main ship types.

Appendix G The ClarkSea Index, and the freight market indices related to the EU

The freight market indices related to EU seaborne trade featured in this report follow a similar methodology to the established cross-segment weekly ClarkSea Index which has been used widely across the shipping industry for many years. The ClarkSea Index indicates movements in average vessel charter cost/earnings across the key "volume" shipping sectors – tankers, bulkcarriers, containerships and gas carriers (weighted by the size of each fleet sector).

The EU freight market indices, in a similar fashion, indicate movements in vessel charter cost/earnings related to Intra-EU trade and EU Extra-trade. In each case a 'basket' of vessel charter rates/earnings time-series has been selected based on existing monthly average vessel charter cost/earnings series available in the Clarksons Research database which track "timecharter equivalent" (TCE) daily vessel cost/earnings on specific standard Intra-EU trade and EU Extra-trade voyages or timecharter (including "tripcharter") daily charter cost/earnings for vessels typically deployed on Intra-EU trade or EU Extra-trade routes.

In each instance the vessel charter cost/earnings series are expressed in $/day, allowing indices to be created on a consistent unit basis. The underlying time-series are based on the wide range of weekly and monthly "broker market assessments" collected by Clarksons Research from the Clarksons Platou global broker network to form a database stretching back, in some cases, over 30 years. Assessments are based upon latest market trends, with best estimates of likely market "fixing" levels provided where no relevant market fixtures have been made, based on guideline standard voyages and vessels. Voyage freight rates, expressed for example in $/tonne or Worldscale (WS, for tankers) enable the calculation of TCE vessel hire / earnings in $/day, basis a range of assumptions. In broad terms, earnings for each route are calculated by taking the total revenue net of commission, deducting bunker costs based on latest prices at representative regional bunker ports, estimated port costs (after currency adjustments) and then dividing the result by the number of voyage days. Details of the calculations and their constituent parameters and assumptions are set out in Clarksons Research's Sources & Methods document. TCE vessel cost/earnings are calculated on the basis of standard ship types also listed in the same document. Timecharter (including tripcharter) vessel charter cost/earnings collected are quoted in $/day.

To create the EU freight indices featured in this report, each component of each 'basket' (Intra-EU trade, Extra-EU Imports, Extra-EU Exports) is weighted by trade volume related to its cargo sector (basis 2016) to generate average monthly index values. Each index reflects the vessel charter cost/earnings in the sectors covered by existing Clarksons Research assessments. The Intra-EU charter earnings index includes vessel charter cost/earnings for crude tankers, product tankers, bulk carriers, chemical tankers, containerships, multi-purpose vessels, general cargo ships (including short sea), car carriers and ro-ros related to typical intra-EU trading patterns.

Seaborne freight cost data featured in this report in $/tonne, $/bbl or $/TEU basis is also generally basis Clarkson Research "broker market assessments", with exception of the container sector where the freight cost data is basis the SCFI (Shanghai Containerized Freight Index, Shanghai Shipping Exchange). It is important to note that both the vessel charter cost/earnings and freight cost time-series series are only intended as benchmark indicators of the direction of the market. As such, they should not be taken to represent the precise costs/earnings of specific cargoes/vessels.

The Extra-EU Imports vessel charter cost/earnings index (reflecting the average cost of chartering standard vessels for EU imports) includes vessel charter cost/earnings for crude tankers, product tankers, bulkcarriers, LPG carriers, LNG carriers, containerships, multi-purpose vessels and car carriers. The Extra-EU Exports vessel charter/hire earnings index (reflecting the average cost of chartering standard vessels for EU exports) includes vessel charter cost/earnings for crude tankers, product tankers, bulkcarriers, containerships, multi-purpose vessels and car carriers. It is important to note that both the vessel charter cost/earnings and freight cost time-series series featured in this chapter are only intended as benchmark indicators of the direction of the market. As such, they should not be taken to represent the precise costs/earnings of specific cargoes/vessels.

The freight indices featured here for the cost of chartering vessels related to EU seaborne trade indicate varying trends following the impact of COVID-19, in each instance related to the mix of cargo volumes included, but also broadly following similar patterns to the overall ClarkSea Index.

Appendix H List of Abbreviations – Glossary of Terms

Aframax	All vessels designed for the carriage of liquid bulk cargoes 85,000 - 124,999 dwt, including oil and products, chemical and other specialised cargoes.
AHTS	Anchor handling tug/supply. Dual-purpose tug designed for rig anchor-handling and offshore supply.
APCIS	The Asia Pacific Computerized Information System (APCIS), the information system for the Memorandum of Understanding on Port State Control in the Asia Pacific Region (Tokyo MOU). The APCIS is aimed to collect Port State Control (PSC) inspection data from the Tokyo MOU member Authorities and to provide information exchange by PSC data within the region.
ARA	Amsterdam, Rotterdam, Antwerp
BDI	Baltic Dry Index. A composite of Capesize, Panamax, Supramax and Handysize bulk carrier timecharter averages as published by the Baltic Exchange. Since July 1, 2009, the Index has been a composite of timecharter averages derived from the Baltic Exchange's sector-specific indices, notably the Baltic Capesize Index (BCI), Baltic Panamax Index (BPI), Baltic Supramax Index (BSI) and Baltic Handysize Index (BHSI), divided by four, then multiplied by a constant.
Bareboat charter	Involves the use of a vessel usually over longer periods of time ranging over several years. In this case, all voyage related costs, mainly vessel fuel and port dues, as well as all vessel-operating expenses, such as day-to-day operations, maintenance, crewing and insurance, are for the charterer's account. The owner of the vessel receives monthly charter hire payments on a US dollar per day basis and is responsible only for the payment of capital costs related to the vessel. A bareboat charter is also known as a "demise charter" or a "time charter by demise."
BBLs	Barrels. A unit of volume used to measure crude oil and oil products.
Berths	A term refereeing to passenger cabins aboard cruise ships and overnight ferries.
Boxship	Fully Cellular Containership (see below).
Bulk Cargo	Oil and products tanker, bulk carrier, combined ore/oil or bulk/oil carrier.
Bulk carriers	Vessels designed and built to carry large volume bulk cargoes.
Bunkers	Fuel, consisting of fuel oil and diesel, burned in a vessel's engines.
BWMC	Ballast Water Management Convention.
Capesize	A bulk carrier with a cargo-carrying capacity exceeding 100,000 dwt. These vessels generally operate along long-haul iron ore and coal trade routes.
CEU	Car Equivalent Units. Unit of measurement for the car carrying capacity of vehicle carriers.
Charter	The hire of a vessel for the transportation of a cargo. The contract for a charter is commonly called a "charterparty".
Charter-in	A lease of a vessel by which the owners of a vessel sublet or let the entire vessel, or some principal part of the vessel, to another party that uses the vessel for its own account under its charge.
Charter owner	Owners of containerships that charter vessels to shipping service operators, known as liner companies, rather than directly operating container shipping services for shippers.
Charterer	The party that hires a vessel under the charterparty.
Classification Society	An independent society that certifies that a vessel has been built and maintained according to the society's rules for that type of vessel and complies with the applicable rules and regulations of the country of the vessel's registry and the international

	conventions of which that country is a signatory. A vessel that receives its certification is referred to as being “in-class.” A vessel may be classified by more than one class at any one time.
ClarkSea Index	The ClarkSea Index is a weekly indicator of earnings across the main commercial vessel types (bulk carriers, tankers, containerships and gas carriers), weighted by the number of vessels in each fleet.
Clarkson Newbuilding Price Index	An indicator of newbuilding prices calculated by averaging the $ per dwt values of the various ship types. The base of 100 is taken as the average index value as of January 1988.
Combined carrier	Combined carriers, also known as Combos, are vessel which can carry either a full load of dry or liquid bulk (usually oil). Some Combos have reinforced hulls so that they are able to carry extremely dense iron ore. Theoretically, this ability to carry both liquid and dry cargoes enables owners to switch between the dry and wet markets, optimising profits when one market is poor.
CGT	Compensated Gross Tonnage. This measures the level of shipbuilding output, taking account of the work content of the ship. Prior to the development of this unit of measurement by the OECD in 1977, shipbuilding output was based solely on the carrying capacity a vessel, and therefore output was seen to be higher on a large tanker than a smaller passenger ferry. This had become misleading, so the CGT unit was devised: a more accurate and reliable formula that takes into account the influence of both the ship type and size, as well as the ships' carrying capacity.
CAGR	Compound annual growth rate. Is the annual growth rate required if the value being measured had grown at the same rate every year across the period specified.
Cubic feet (cu. ft)	Cubic feet is the imperial version of cubic metres, and because of precedence, it is used in the long-established reefer market. Given that the majority of reefer cargoes, such as fruit and vegetables, are low density items, volume is more relevant than weight when measuring a vessel’s cargo capacity.
Cubic metres (cbm, cu.m)	Cubic metres is a measure of the amount of cargo that a vessel can carry, but in terms of the cargo’s volume rather than weight. CBM is mostly used for vessels carrying low density material including LPG and LNG, where volume rather than cargo weight will become the limiting factor on how much can be carried.
DWT	Deadweight tonne. A unit of a vessel’s carrying capacity, including cargo, fuel, oil, water, stores and crew; measured in metric tonnes.
Deep Sea Cargo Vessel	Deep sea cargo includes oil tankers MR and above, bulk carriers Panamax and above, containerships 3,000+ TEU, VLGCs, LNG carriers 60,000+ cbm and PCTCs 6,000+ ceu.
Dredgers	A vessel equipped for the removal of sand or sediment from the seabed. The main types of specialised dredgers are backhoe/dipper/grab, cutter suction/bucket wheel and trailing suction hopper.
Drill ship	A maritime vessel that has been fitted with drilling apparatus. It is most often used for exploratory offshore drilling of new oil or gas wells or for scientific drilling. The drillship can also be used as a platform to carry out well maintenance or completion work. Their mobility and greater capacity make them well suited to offshore drilling in remote areas (operates in depths up to 3,650 metres).
Dry Bulk	Non-liquid cargoes of commodities shipped in an unpackaged state, such as coal, iron ore and grain, etc. that is loaded in bulk and not in bags, packages or containers.
EMCIP	European Marine Casualty Information Platform.
EMSA	European Maritime Safety Agency.
EU	European Union.
EU-MS	Member States of the European Union.
Feeder	A vessel which is part of a cargo network in which the larger, faster vessels only call at

	the major ports at both ends of the area being covered and the smaller ports are served by the smaller feeder vessels which transfer the cargo to and from the major port terminals. This process keeps the larger vessels filled closer to capacity and spares them the expense and loss of time loading and unloading cargo in smaller ports.
Feeder Containership (100-2,999 TEU)	A fully cellular containership category of vessels smaller than 3,000 TEU. These vessels are deployed mainly on intra-regional trades as well as North-South routes, and often used as 'feeders' to link mainlane services with ports not covered by direct calls.
Fixture	The agreement of a new charter.
Flag State	The country where a vessel is registered.
Freight	A sum of money paid to the ship owner by the charterer under a voyage charter, usually calculated either per tonne loaded or as a lump-sum amount.
Fully cellular containership	A vessel specifically designed to carry ISO standard containers, with cell-guides under deck and necessary fittings and equipment on deck.
Gear	On-board equipment used to load and unload vessels, a vessel can be geared or gearless.
GT	Gross Tonnage. A unit of measurement of the volume of all ship's enclosed spaces measured to the outside of the hull framing. One gross tonne is equal to 100 cubic feet or 2.832 cubic metres.
Handymax	A bulk carrier with a cargo carrying capacity of approximately 40,000 to 64,999 dwt. These vessels operate on a large number of geographically dispersed global trade routes, carrying primarily grains and minor bulks. Vessels below 64,999 dwt are usually built with on-board cranes enabling them to load and discharge cargo in countries and ports with limited infrastructure.
Handysize (bulk carrier)	A bulk carrier with a cargo carrying capacity of approximately 10,000 to 39,999 dwt. These vessels carry generally minor bulk cargo. Handysize vessels are well suited for small ports with length and draft restrictions that may lack the infrastructure for cargo loading and unloading.
Handysize (tanker)	All vessels designed for the carriage of liquid bulk cargoes with a cargo carrying capacity of approximately 10,000 to 54,999 dwt, including crude oil and products, chemical and other specialised cargoes.
HS Code	Harmonised System of coding used to classify products traded globally and the most typical categorisation used in customs statistics.
Hull	Shell or body of a ship.
Ice Class	Vessels with an ice class have a strengthened hull (plus other potential modifications) to enable them to navigate through sea ice.
IMO	International Maritime Organization, a UN agency that establishes international standards for shipping.
IMO I, II or III (chemical tanker)	Vessels with tanks designed to IMO Class I, II or III specifications respectively.
Intermediate Containership (3,000-5,999 TEU)	A fully cellular containership category of vessels between 3,000 TEU and 5,999 TEU. These vessels are deployed on a variety of routes, from the Transpacific and Transatlantic mainlanes to North-South, non-mainlane East-West and intra-regional services. This sector includes 'narrow-beam' designs, with a beam that allows them to transit the old locks of the Panama Canal, and 'wide-beam' designs, which are now able to transit the expanded Panama Canal locks. The 'wide beam' ships typically have a shallower draft, enabling them access to a greater number of ports, in Latin America and Africa in particular, than equivalent capacity 'narrow beam' designs.
Intermediate Containership (6,000-7,999 TEU)	A fully cellular containership category of vessels between 6,000 TEU and 7,999 TEU. These vessels are deployed on a variety of routes, from the Transpacific and Transatlantic mainlanes to North-South, non-mainlane East-West and intra-regional

	services. Ships in this size range are able to transit the expanded Panama Canal locks.
Jack-Up	A self-elevating drilling platform whose legs rest on the sea bed when drilling. These are limited to shallow waters (operates in depths up to 150 metres).
Lay-up	Temporary cessation of trading of a ship by a ship owner, usually during a period when there is a surplus of ships in relation to the level of available cargoes.
ldt	Lightweight tonne or (ldt). The actual weight of a vessel without cargo, fuel or stores. A vessel's ldt is the physical weight of the vessel and represents the amount of steel recoverable in the vessel. The value of a vessel to a breaker is determined by multiplying the vessel's lightweight by the price of scrap steel.
Liner company	A company that operates ocean carriers that carry many different cargoes on the same voyage on regular schedules (generally in containers).
LNG	Liquefied Natural Gas (LNG). Methane gas cooled to -162 0C, at which temperature it can then be stored and transported as a liquid in cryogenic tanks.
LPG	Liquefied Petroleum Gas (LPG). The liquid form of the commercial gases propane and butane.
Kamsarmax	Maximum length overall 229 meters refers to a new type of ships, larger than panamax, that are suitable for berthing at the Port of Kamsar (Republic of Guinea), where the major loading terminal of bauxite is restricted to vessels not more than 229 meters.
MARPOL	The International Convention for the Prevention of Pollution from Ships.
MR	Medium range tanker (MR). An oil products tanker of capacity in the region 40,000 to 54,999 dwt.
Minor Bulk	Dry bulk cargoes aside the 'major bulks' (iron ore, coal and grain). Includes cargoes such as steel products, forest products, agribulks, fertilisers, other ores, cement, scrap metal, salt, etc. when moved in bulk.
MRV	Monitoring, Reporting and Verification Regulation.
MPP	Multipurpose ship (MPP). A newer version of general cargo ship with holds designed for container stowage. The holds generally have tween decks and containers can be stacked and lashed onto the hatch covers. The MPP is still capable of carrying breakbulk cargoes, and bulk cargoes. Some are also equipped with tanks for liquid cargoes. It generally also has its own cranes and derricks, sometimes with heavy lift capability.
Neo-Panamax Containership (8,000-11,999 TEU)	A fully cellular containership category of vessels between 8,000 TEU and 11,999 TEU. These vessels offer fairly flexible deployment opportunities and are mainly employed on the Far East-Europe, Transpacific and some North-South trades. Ships in this size range can transit the expanded Panama Canal locks.
Neo-Panamax Containership (12,000-14,999 TEU)	A fully cellular containership category of vessels between 12,000 TEU and 14,999 TEU. These vessels are principally deployed on the Far East-Europe trade lane. Ships in the size range will generally be able to transit the expanded Panama Canal locks.
Newbuild	A new vessel under construction or just completed.
Non-delivery	A vessel that was scheduled to be delivered according to the start of year orderbook, but due to delays, cancellation, re-negotiations of contracts and new market information, did not yet enter the fleet in that year.
Open hatch bulker carrier	A bulk carrier larger than 10,000 dwt that has a hatch width which is 75% or greater than the extreme breadth of the ship.
Orderbook	A reference to outstanding orders for the construction of vessels.
Panamax (bulk carrier)	A bulk carrier with a cargo carrying capacity of approximately 65,000 to 99,999 dwt, and which do not exceed the maximum length, depth and draft capable of passing fully loaded through the Panama Canal. Panamax bulk carriers carry coal, grains, and, to a lesser extent, minor bulks, including steel products, forest products and fertilizers.

Panamax (tankers)	All vessels designed for the carriage of liquid bulk cargoes with a cargo carrying capacity of approximately 55,000 - 84,999 dwt, including crude oil and products, chemical and other specialised cargoes.
Paris MoU	Paris Memorandum of Understanding on Port State Control.
Platform Supply Vessel (PSV)	Offshore supply vessel and/or pipe carrier generally of North Sea design.
Post-Panamax	A vessel that exceeds the dimensions required to transit the Panama Canal. The current maximum dimensions are a beam of 49 meters, overall length of 366 meters and draft of 15.2 meters.
Post-Panamax Containership (15,000+ TEU)	A fully cellular containership category of vessels exceeding 15,000 TEU. These vessels are principally deployed on the Far East-Europe trade lane. Ships in this size range are too large to transit the expanded Panama Canal locks.
Products Tanker	Tankers suitable for oil products trades with a cargo carrying capacity typically of up to 125,000 dwt. Includes coated non-IMO graded tankers. All IMO III tankers, IMO II tankers between 30-60,000 dwt which meet the criteria; average tank size >3,000 cbm and tanks <75% segregated, excluding tankers with any stainless steel tanks, and uncoated non-IMO graded tankers between 10-60,000 dwt. Excludes tankers designed to carry specialised cargoes such as bitumen and wine.
PCC	Pure Car Carrier (PCC). A vessel specifically designed for the transportation of vehicles.
ROs	Recognised Organisations. Recognised Organisations are private entities/companies authorized by the Flag States to perform, on their behalf, statutory certification and services under mandatory IMO instruments and national legislation.
Ro-Ro	Ro-Ro (Roll-On Roll-Off vessels). Vessels designed for wheeled or tracked cargo that can load itself on-board. Cargo generally drives onto the vessel through decks via ramps, rather than being lifted through hatches.
Scrapping	The sale of a vessel as scrap metal.
Shuttle Tankers	Specialised ships designed to transport crude oil and condensates from offshore oil field installations to onshore terminals and refineries. They are equipped with sophisticated loading systems and dynamic positioning systems.
Spot charter	A voyage charter or a trip charter that generally lasts from 10 days to three months. Under both types of spot charters, the ship owner pays for vessel operating expenses, which include crew costs, provisions, deck and engine stores, lubricating oil, insurance, maintenance and repairs, and for commissions on gross revenues. The ship owner is also responsible for the vessel's intermediate and special survey costs.
Spot market	The market for a vessel for single voyages.
Suezmax	All vessels designed for the carriage of liquid bulk cargoes with a cargo carrying capacity of approximately 125,000 to 199,999 dwt, including crude oil and products.
TCE	Time charter equivalent rate (TCE). A shipping industry performance measure used primarily to compare daily earnings generated by vessels on time charters with daily earnings generated by vessels on voyage charters, because charter hire rates for vessels on voyage charters are generally not expressed in per day amounts while charter hire rates for vessels on time charters generally are expressed in such amounts. TCE is expressed as per ship per day rate and is calculated as voyage and time charter revenues less voyage expenses during a period divided by the number of our operating days during the period, which is consistent with industry standards.
THETIS	THETIS is an inspection data base, developed, maintained and hosted by EMSA that supports the Port State Control inspection regime foreseen by Directive 2009/16/EC as amended and its four implementing regulations. The system serves both the EU Member States and the wider region of the Paris Memorandum of Understanding on PSC (Paris MoU) which includes Canada, Iceland, Norway, the Russian Federation and the UK.
Time charter	A charter under which the vessel owner is paid charter hire on a daily basis for a specified

	period of time. Typically, the ship owner receives semi-monthly charter hire payments on a US dollar per day basis and is responsible for providing the crew and paying vessel operating expenses, while the charterer is responsible for paying the voyage expenses and additional voyage insurance. Under time charters, including trip time charters, the charterer pays voyage expenses such as port, canal and fuel costs and bunkers.
Trip charter (short time charter)	A time charter for one trip only to carry a specific cargo from a delivery point via load and discharge ports to a redelivery point at a set daily rate.
TEU	Twenty-foot equivalent unit (TEU). The international standard measure for containers and containership capacity.
Tokyo MoU	Tokyo Memorandum of Understanding on Port State Control.
VLCC	VLCC (Very Large Crude Carrier). vessels designed for the carriage of liquid bulk cargoes with a cargo carrying capacity of greater than 200,000 dwt, including crude oil and products.
VLGC	VLGC (Very Large Gas Carrier). LPG Carriers of 65,000 cbm and above. A significant number of LPG carriers are also able to transport ammonia and petrochemical gas cargoes, such as ethylene, propylene and butadiene.
VLOC	VLOC (Very Large Ore Carrier). A bulk carrier with a cargo carrying capacity of greater than 220,000 dwt, specifically designed to carry very dense iron ore on the long haul voyages of Brazil and Australia to China.
Voyage charter	A charter involving the carriage of a specific amount and type of cargo on a load port-to-discharge port basis, subject to various cargo handling terms. Most are of a single voyage nature, as trading patterns do not encourage round voyage trading. The owner of the vessel receives one payment derived by multiplying the tonnage of cargo loaded on board by the agreed upon freight rate expressed on a US dollar per ton basis. The owner is responsible for the payment of all voyage and operating expenses, as well as the capital costs of the vessel.
Worldscale	The method used by the tanker industry to negotiate freight rates. Each year the Worldscale Panel meets in London and New York to set the cost of transporting a tonne of cargo using the standard vessel on a round voyage for each tanker route. This cost is known as ‘Worldscale 100’ or the ‘Worldscale flat’ rate. Freight for each tanker voyage is subsequently fixed with reference to the ‘Worldscale 100’ rate, whereby WS 50 is worth 50% of the flat rate, WS 75 is worth 75% of the flat rate, and so on. The method makes it easier for shipowners and charterers to compare the earnings/costs of fixing vessels on different routes, since two different routes with similar Worldscale rates will typically generate similar returns for owners.
Year-on-year (y-o-y)	It is an expression used to denote the time-period over which the percentage change has occurred.

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