



# 2020 ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) REPORT



## MESSAGE FROM OUR CEO

The year 2020 has been a year like no other. The synchronized contraction of global economic activity was unprecedented in living memory. The shuttered Covid-19 economy led to a weak dry bulk market, that in addition to the pandemic-related disruptions in our operations, resulted in a 16% drop in voyage revenues for the year. In the face of these challenges, we managed to sustain a strong competitive profile with daily operating expenses of at least 18% below industry average while reducing our financing costs. This was also the year of the implementation of the global sulfur cap which we successfully complied with by completing the installation of Exhaust Gas Cleaning Systems across our fleet, further enhancing our competitive edge.

With this third annual Environmental, Social and Governance (ESG) Report we continue to strengthen our commitment to lead the way in sustainable dry bulk shipping. The challenges of the pandemic have further highlighted the need for global cooperation, social cohesion, resilience, and protection of the environment. This report records our ongoing efforts to further strengthen our environmental stewardship, social contribution and solid governance. It provides a transparent account of our ESG performance, targets, and strategy following rigorous global standards for comparability and comprehensiveness.

The health, safety and security of our employees remains our top priority and we continue to make substantial

improvements on an already successful track record. Since the start of the pandemic we have implemented rigorous Covid-19 protocols to protect the well-being of our people both at sea and on shore. We have a highly skilled and experienced pool of seafarers and we are proud to achieve a high retention rate across all crew rankings and to offer important long-term development opportunities. We promote an inclusive and open corporate culture for our personnel achieving high levels of employee satisfaction. Our outreach to the broader community continues to grow with various humanitarian, educational and social welfare activities.

As the global community is increasingly committing to a zero-carbon emission world by 2050, the fast-emerging climate-related regulatory landscape in shipping will shape the dominant risks and opportunities in the decades ahead. Star Bulk is gearing up to make decarbonization central to our business strategy and competitive advantage. We already have robust environmental and energy management systems and a dedicated in-house team to accurately monitor and report on real time data on vessel performance and environmental parameters. We are implementing several energy efficiency measures to limit our carbon footprint and we actively participate in R&D programs on green technology and alternative fuels. Alongside our ESG report we submitted our 2021 Carbon Disclosure Project detailing efforts in this critical fight. The climate challenge can only be met with broad based efforts throughout the shipping value chain and in this

spirit, we continue to expand our partnerships with global organizations.

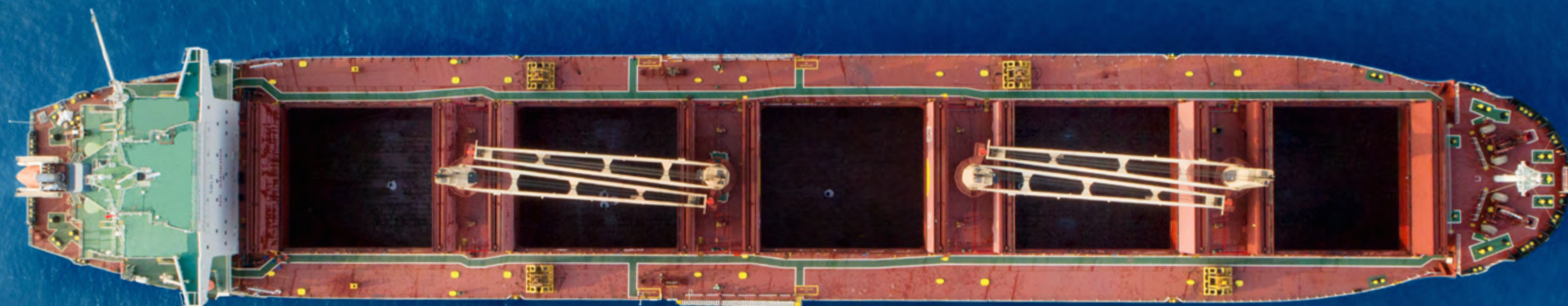
2020 was marred by the turmoil of the pandemic. We draw strength and pride from the way our exceptional team of committed and professional employees navigated these treacherous times. Whether considering our seafarers who extended their stays on board or our shore employees who turned their homes into office spaces, we find hope for the future in these selfless and principled behaviors. 2020 was also a year that human ingenuity and mission based cooperative behavior between academics, governments and businesses brought the amazing vaccine innovation. Let this be the dominant message of the year, with enough commitment, cooperation, and principles we can meet the major challenges of our time and achieve sustainable wellbeing for all.

Petros Pappas, CEO, Star Bulk



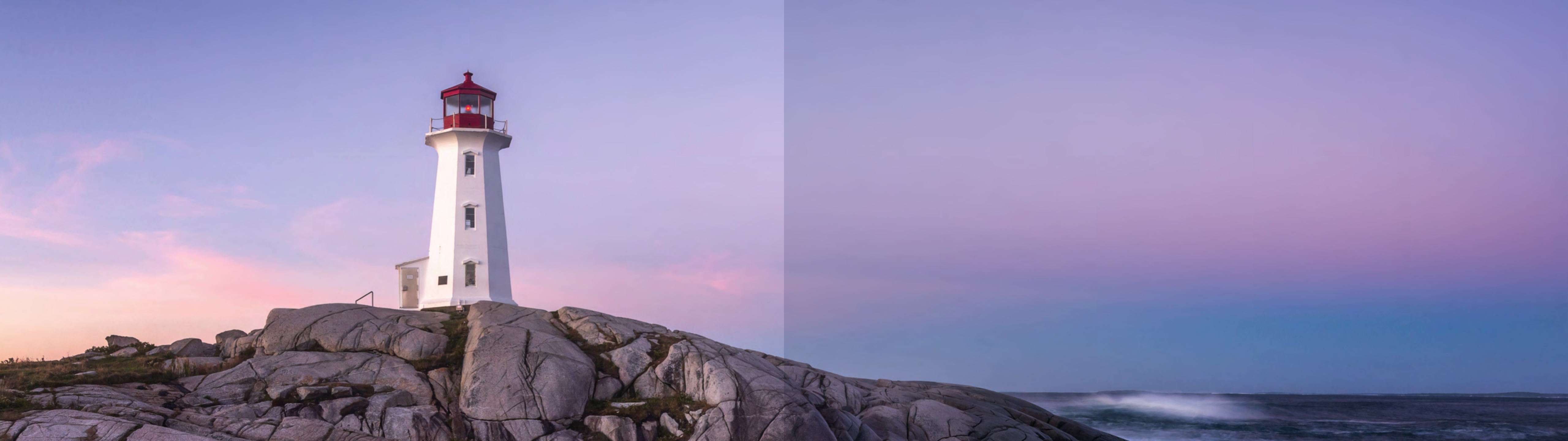
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# ABOUT THIS REPORT



# THIS IS OUR THIRD SUSTAINABILITY REPORT, COMMUNICATING OUR PROGRESS TOWARDS OUR ENVIRONMENTAL, SOCIAL, GOVERNANCE (ESG) MATERIAL ISSUES

Our third Sustainability Report portrays our approach on Environmental, Social, Governance (ESG) issues that are material both for us and our stakeholders, and compares our performance to previous years as well as to industry benchmarks. Through this report we aim to share our efforts in integrating the ESG framework within our broader business strategy and goals.

This report refers to the period **01.01.2020 - 31.12.2020**, and is prepared in accordance with the **GRI Standards Core option**. In addition to the GRI Standards, which ensure that the content and issues disclosed are relevant, consistent and comparable, we also consider the following standards and guidelines:

- The **Sustainability Accounting Standards Board (SASB) for Marine transportation**
- The **NASDAQ ESG Reporting guidelines 2.0**
- The **United Nations Global Compact principles**

In this report, **we present data and information on our total owned fleet**, from 01/01/20 - 31/12/20, including the performance of the vessels managed by third parties (unless otherwise specified) using 2019 as a baseline year.

This Report has been prepared in accordance with the GRI Standards "Core" option and SASB's Marine Transportation material topics.

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**ABOUT STAR BULK  
CARRIERS CORP.**



# STAR BULK AT A GLANCE

**We are a global shipping company which owns and manages a diverse fleet of dry bulk vessels.** Our fleet consists of 128 vessels\* built in world-class shipyards, with an aggregate capacity of more than 14 million DWT. Our vessels are modern, fuel-efficient and high-quality and undertake the transportation of major bulks, such as iron ore, minerals and grain, and minor bulks such as bauxite, fertilizers and steel products.

Star Bulk was incorporated in the Marshall Islands on December 13th, 2006 and maintains offices in Athens, Limassol, New York, Oslo, Singapore and Hamburg. Our common shares trade on the Nasdaq Global Select Market under the symbol "SBLK".

## Vision

To be the global leader in sustainable dry bulk shipping.

## Mission

Star Bulk owns and manages a diverse and modern fleet of high-specification bulk carriers that transport cargoes efficiently and in a way that protects human health, the environment and the vessels in operation, and that meets or exceeds the safety and quality standards of the industry and of our customers. Our vessels are manned by competent and well-trained seafarers and are operated by experienced and highly skilled onshore professionals.

\*As of the release date of this report.

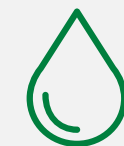
## WE STRIVE TO ACHIEVE THE FOLLOWING GOALS:



Zero incidents



Reduction of emissions



Zero oil spills



Superior service to our charterers



Maximum value for our shareholders

**#1** Largest US listed dry bulk carriers company

**15** Years of presence in the shipping market

**\$693m** Total revenue in 2020

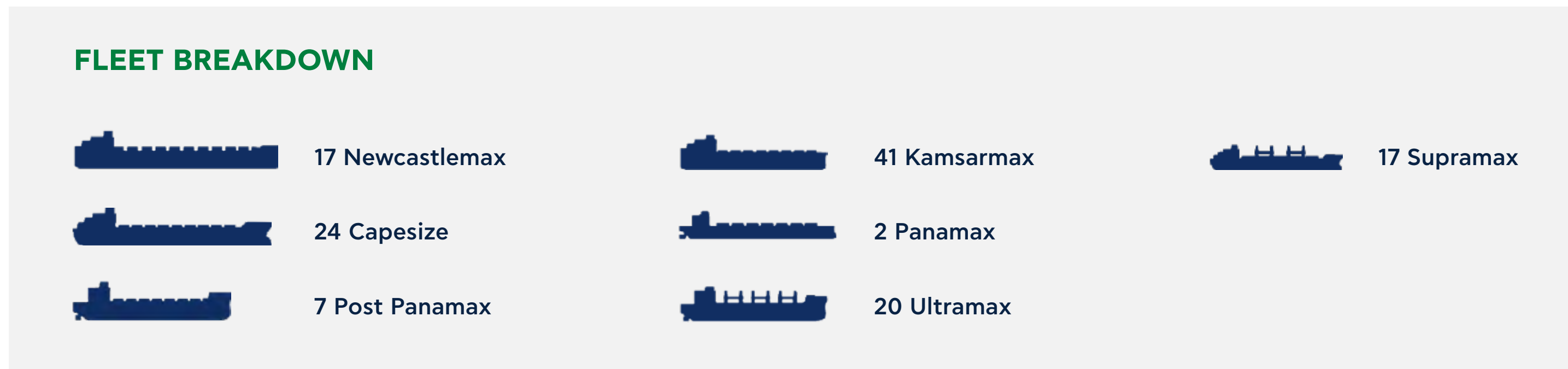
**6** Offices around the world

**> 2,320** Seafarers on board

**> 315** Office employees work ashore for the management of Star Bulk vessels

# WE OWN A MODERN AND DIVERSE FLEET BUILT IN WORLD-CLASS SHIPYARDS

We operate a fleet of 128 vessels, with carrying capacity between 52,247 and 209,537 DWT\*.



## TECHNICAL MANAGEMENT OF OUR OWN FLEET\*

Our in-house team technically manages 66% of our fleet (i.e., 84 vessels) and is responsible for the vessels' day-to-day operations, including technical maintenance, manning, operational performance, health, safety and environmental performance.

For the technical management of the remaining 44 vessels, we cooperate closely with reputable third-party managers, who have long standing experience and track record.

## COMMERCIAL MANAGEMENT OF OUR FLEET\*

The chartering function for all our vessels (128) is undertaken in-house.

\*The information presented reflects our fleet as of the release date of this report.

**128** Vessels as of the release date of this report

**> 14** Million Deadweight tonnage

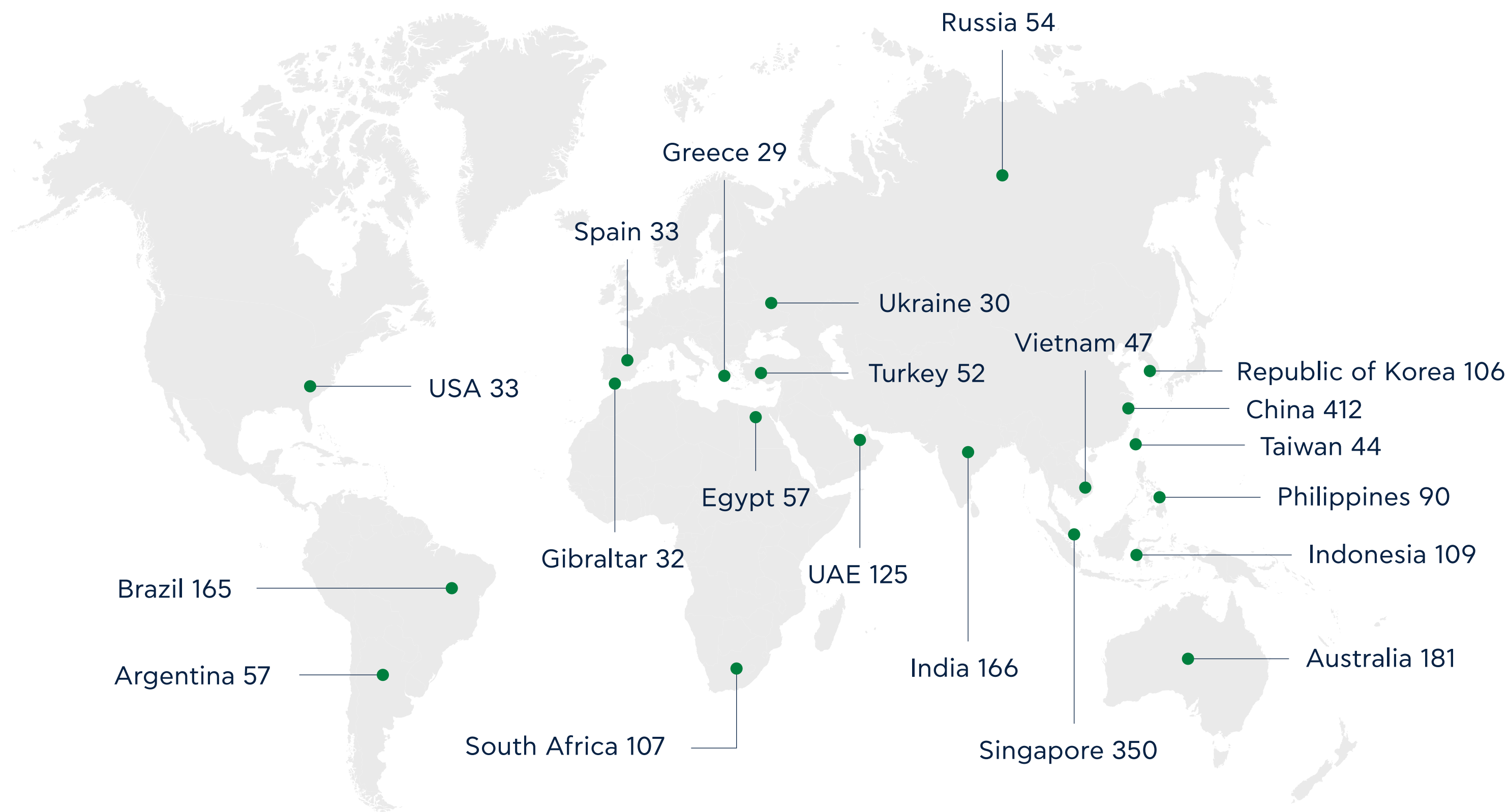
**~ 9.6** Average age of our fleet





# OUR VESSELS TRADE ACROSS THE GLOBE CARRYING MORE THAN 65 M METRIC TONNES OF CARGO

## NUMBER OF PORT CALLS IN THE COUNTRIES VISITED IN 2020



**95** Country calls in 2020

**2,741** Port Calls in 2020

**> 65 (Mmt) mil** Of cargo carried in 2020

**6.9 Mil** Nautical miles travelled in 2020

# OUR REVENUES WERE IMPACTED BY THE PANDEMIC WHILE OUR COSTS REMAINED COMPETITIVE

- During 2020, our **revenues** decreased by 16%, from \$821.37 million for the year ending December 31st, 2019, to \$693.24 million for the year ending December 31st, 2020. Voyage revenues were negatively affected by the impact of the COVID-19 pandemic which led to an overall weak dry bulk market environment.
- The available days for the respective period were also increased by approximately 11% compared to 2019; in which year we implemented the great majority of our EGCS installation programme.
- The **TCE rate** for the reported year was \$11,789, compared to \$13,027 for the previous year.
- We stand out among our US listed peers in achieving profitability during 2020, despite COVID-19 pandemic implications.

## TRADE OF LARGE SIZE VESSELS THROUGH CCL POOL

- The majority of our large size vessels (Capesize and Newcastlemax) participate in the Capesize Chartering Ltd (CCL) pool, which was formed in January 2016 by Star Bulk, Bocimar, C Transport Maritime and Golden Ocean\*. All vessels of the Pool are traded on the spot market and earnings are distributed to each Member according to the Pool Points of the vessel and through a quarterly meeting amongst the Pool Members.

## TRADE OF SMALL AND MEDIUM SIZE VESSELS

- Our in-house team manages the employment of our

small and medium size vessels that are mostly employed on time charter basis on rates that vary according to the length of the charter period, the position of the vessel and its specific characteristics such as age, length/beam and fuel consumption.

## OPERATING EXPENSES

- Our **daily OPEX are consistently below industry average** despite the increase in our average vessel size.
- During 2020 our average daily operating expenses increased by 7% primarily due to the additional crew expenses that resulted from the crew changes needed in response to COVID-19 restrictions.

During 2020, **we achieved a 95% utilization rate**, which was 4% higher than the previous year

### Economic value generated and distributed

\$ '000s	2020	2019
<b>Economic value generated</b>	<b>693,241</b>	<b>821,365</b>
Revenue	693,241	821,365
<b>Economic value distributed</b>	<b>448,854</b>	<b>471,578</b>
OPEX	178,543	160,062
Employee wages	15,295	15,773
Payments to providers of capital	252,761	293,547
Payments to governments	2,255	2,196
<b>Economic value retained</b>	<b>244,387</b>	<b>349,787</b>

### CAPEX on green infrastructure

\$ '000s	2020	2019
<b>Total CAPEX on green infrastructure</b>	<b>71,790</b>	<b>143,419</b>
EGCS CAPEX	65,682	131,792
Ballast Water Treatment CAPEX	6,108	11,627
<b>Solvency (debt/ total capitalization)</b>	<b>50%</b>	<b>49%</b>

**18%** Below average industry daily OPEX

**\$ 1.55 Bil.** of shareholders' equity

**42,456** Ownership days in 2020

**95%** Fleet utilization in 2020

\*Golden Ocean announced their intention to exit the CCL pool on August 10th, 2021

# RESPONDING PROMPTLY AND EFFECTIVELY TO A GLOBAL HEALTH CRISIS

The rapid spread of COVID-19 has caused massive disruptions to global trade and business activities worldwide including the shipping industry.

Our principal priority was to respond timely and effectively by aligning our daily operations to national health guidelines and proactive safety measures in order to safeguard the safety of our people. We adapted effectively to this challenge, enabling the uninterrupted continuity of our business, while ensuring that our people remained safe and protected.



## FOR OUR CREW

- We applied comprehensive safety protocols for COVID-19 to perform the necessary crew changes. Ships deviated from their intended port rotation in order to ensure safety in crew changes.
- We supplied all our vessels with COVID-19 equipment (masks, sanitizers, goggles, gloves, test kits and more).
- We introduced the COVID-19 testing policy to all on board employees.
- We constantly updated our crew with all new prevention protocols and upcoming instructions.
- We supplied our vessels with the required provisions, stores and spares in order to safeguard crew's safety and the continuity of operation.
- We employed local accredited 'certified' surveyors to perform external vessel audits and rolled-out processes and systems to carry out internal audits remotely.

## FOR OUR EMPLOYEES ASHORE

- We introduced a flexible work from home policy every week beyond the government's official guidelines.
- We applied proactive health safety measures for our shore office personnel and implemented relevant work guidelines. We supplied safety equipment and enhanced awareness via health campaigns and posters with COVID-19 instructions in common areas.
- An external specialized company provided deep cleaning and disinfection services in all office areas.
- We introduced a COVID-19 virus testing policy to all employees entailing free PCR tests.
- We activated specific safety and communication protocols in cases of an employee's infection, thereby eliminating risks of shore personnel contamination.

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**ESG AT STAR BULK  
CARRIERS CORP.**



# BECOMING A LEADER IN SUSTAINABLE DRY BULK SHIPPING

## OUR ESG FOCUS AREAS

<b>E</b>	GHG and Air Emissions
	Protection of Marine Environment
	Waste and Water Management
	Research and Development

<b>S</b>	Health, Safety and Security
	Inclusion and Diversity
	People’s Development
	Community Investment

<b>G</b>	Regulatory Compliance
	Ethical Principles
	Risk Management
	Transparency

## OUR DECARBONIZATION STRATEGY

We aspire to being front runners in the industry’s efforts to reduce GHG emissions and lead by example by applying new technologies and forming alliances that aim to decarbonize the industry.

### Monitoring and transparent reporting

We monitor our emissions through an advanced mechanism that ensures validity and reliability of data and assists us in reporting our carbon footprint with accuracy and transparency.

### Improving the efficiency of our fleet

We always stay on top of emerging technology trends and we test and implement tools regularly (including route and speed optimization, hull cleaning and anti-fouling paints), to improve the operational and technical efficiency of our vessels.

### Identifying and assessing climate-related risks and opportunities

Using climate change scenarios we look ahead and prioritize potential climate related physical and transition risks and opportunities and assess potential impacts to our business and stakeholders.

### Participating in R&D for new technologies and alternative fuels

We are active participants in several R&D projects for the development of new technologies and alternative fuels, using our own funding or EU and other funding.

### Developing partnerships and participating in alliances

We establish partnerships with dominant companies and stakeholders across the world, and we participate in multiple initiatives (i.e. UN Global Compact, Getting to Zero Coalition), in order to conjointly, tackle decarbonization in the industry.

# WE PROACTIVELY PREPARE FOR DEVELOPMENTS IN MARITIME REGULATION



- **IMO STRATEGY:** In 2018, the International Maritime Organization (IMO) in its attempt to combat climate change, adopted a strategy including a series of mandatory measures to reduce the GHG emissions and carbon intensity from international shipping, compared to 2008 levels.

by 2030

Reduction of carbon intensity by at least 40%

by 2050

Reduction of carbon intensity by 70%  
Reduction of GHG emission by 50%

- **IMO AMENDMENTS TO THE MARPOL CONVENTION:** requires ships to combine a technical and an operational approach to reduce their carbon intensity.
  - **Technical approach:** Ships must calculate the **Energy Efficiency Existing Ship Index (EEXI)**, meet a specific required EEXI and have on-board a New International Energy Efficiency Certificate approved by ship’s flag administration or Recognized Organization, at the first annual survey **on or after 1 January 2023**, at the latest.
  - **Operational approach:** Ships must calculate and report their annual carbon intensity indicator (CII) and rating, provide a description of the methodology used for the calculation and report to the ship’s flag administration the required annual operational CII for the next 3 years, through SEEMP **by 1 January 2023**.



- **EU GREEN DEAL:** In 2019, the European Commission formulated the Green Deal, which is an action plan, aiming to make the European Union “the first climate-neutral bloc” by 2050. The principal objective of the Deal affecting the shipping industry, is to cut CO<sub>2</sub> emissions from transport by 90% until 2050. All regulations included within the Green Deal will demand extensive transparency on ESG data across all business sectors, including shipping.
- **EU “FIT FOR 55”:** In 2021, the European Commission published its update to the green deal, in reference to the 55% reduction in carbon emissions targeted for 2030, known as “Fit for 55”. “Fit for 55” will impact the shipping industry in several ways and shipping companies will have to explore their involvement in the emissions trading scheme in the coming years. The proposals intend to:
  - Include shipping in the **EU Emissions Trading System (ETS)** for emissions resulting from intra-EU voyages or from voyages which start or end in the EU.
  - Set a maximum limit on the GHG intensity of energy used on-board and certain obligations to use on-shore power supply or zero-emission technology - **The FuelEU Maritime Initiative**.
  - Introduce a minimum tax rate on the relevant fuels used for intra-EU ferry, fishing and freight vessels - **The Energy Taxation Directive (ETD)**.

# OUR ESG HIGHLIGHTS

## TAKING CARE OF OUR PEOPLE AND SUPPORTING OUR COMMUNITY

↓ **45%** In LTIF for the crew of our fleet in 2020
**41%** Women of total workforce ashore
**9** Community investment initiatives undertaken in 2020
**95%** Crew retention rate

**98%** Office personnel retention rate
**100%** Office personnel participation in annual performance review process

## PROTECTING THE ENVIRONMENT

↓ **79%** In SOx emissions

> **\$71 mil** CAPEX for green infrastructure in 2020 (EGCS & BWTS)

**11** Participations in R&D programs, green technology & alternative fuels initiatives

We participated in **CDP in 2021**, which is a carbon disclosure rating that measures the climate resilience and mitigation effort of a company, based on voluntary disclosures

## FOCUSING ON OPERATIONAL EXCELLENCE

**1st** Greek-based dry bulk shipping company to publish a Sustainability Report in 2018

↓ **18%** Below average industry daily OPEX

We are consistently in the **top 5 dry bulk operators** amongst our peer group in **Rightship Ratings**

## UNITED NATIONS GLOBAL COMPACT

In 2020, we became signatory to the UN Global Compact and United Nations Global Compact Network Hellas, and we are committed to its principles of human rights, labour standards, environment and anti-corruption.

**ALIGNING OUR STRATEGY WITH THE SDGS**  
 We have aligned our strategy to the Sustainable Development Goals (SDGs), by incorporating their principles in the way we operate.

# WE SUPPORT THE POSEIDON PRINCIPLES AND THE SEA CARGO CHARTER



POSEIDON PRINCIPLES

Launched on 18 June 2019

The Poseidon Principles establish a framework for assessing and disclosing the climate alignment of ship finance portfolios. They are consistent with the policies and ambitions of the International Maritime Organization, including reduction of shipping’s total annual GHG emissions by at least 50% by 2050.

Represent **\$185 billion** in shipping finance

Signed by **27 leading international banks**

## PRINCIPLES

- **Assessment of climate alignment** of a single vessel, by comparing the vessel’s annual carbon intensity with the decarbonization trajectory for its ship type and size class
- **Accountability:** Rely on classification societies or other IMO-recognized organizations, to assess and report data
- **Enforcement:** Introduce standard covenant clauses in loan agreements, to ensure access to data
- **Transparency:** Disclosure of portfolio climate alignment scoring annually

## OUR CONTRIBUTION

For 2020, we provided data to 8 financial institutions as part of their alignment process with the Poseidon Principles:



SEA CARGO CHARTER

Launched on 7 October 2020

The Sea Cargo Charter provides a framework for aligning chartering activities with responsible environmental behavior to promote international shipping’s decarbonization.

Applicable to bulk ship charterers

Signed by **24 charterers**

## PRINCIPLES

- **Assessment of climate alignment:** Calculation of GHG emission intensity and total GHG emissions, and assessment of climate alignment of chartering activities.
- **Accountability:** Rely on classification societies or other IMO-recognized organizations, to assess and report data
- **Enforcement:** Introduce charter party clause in new business activities to ensure access to high-quality data
- **Transparency:** Disclosure of climate alignment scores of Signatories’ eligible chartering activities on an annual basis

## OUR CONTRIBUTION

We provide data to our charterers upon request as part of their alignment process with the Sea Cargo Charter framework.



# ENGAGING WITH OUR STAKEHOLDERS ON THE ESG ISSUES THAT ARE MOST RELEVANT TO OUR BUSINESS

At Star Bulk we periodically evaluate our most significant ESG-related issues, in order to ensure that our day-to-day operations and overall business strategy align with the issues that matter most to our stakeholders.

## OUR PROCESS



### 1. Issue identification

- Review issues raised by the leading sustainability standards and initiatives as well as industry - SDGs, GRI, SASB, DJSI, etc.
- Explore business and industry landscape on sustainability benchmarking of peers.
- Introduce our company specific issues.
- Group the pool of potentially material sustainability issues into focus areas.



### 2. Assessment and prioritization

- Assess and rank the issues based on their impact to the business, their associated risks and opportunities and the degree of influence over them.
- Utilizing our stakeholder communication channels and feedback, the issues were evaluated and ranked from the perspective of different stakeholders. We obtained input from key stakeholder groups on what they perceive to be the most important issues in relation to our performance. Their input was then evaluated and considered in our prioritization.



### 3. Validation and alignment

- Review of the assessment results and validation that they are aligned with objectives reflecting Star Bulk’s sustainability viewpoint.
- Produce the “Materiality matrix”, focus efforts and allocate resources accordingly.

## MATERIAL ESG ISSUES

Material Topics refer to ESG issues that are of high importance to the business and high importance to stakeholders. These topics define the focus of Star Bulk’s strategy.

### Top ESG issues for Star Bulk and its stakeholders

- Occupational health & safety (especially in times of crisis such as natural disasters, pandemics)
- Corporate governance, ethics & transparency
- Regulatory compliance and application
- Economic performance
- Security of transportations both physical and cyber security
- Air pollution reduction and compliance with respective regulations
- Water pollution prevention, control and compliance with respective regulations
- Impact of environmental regulations
- Fuel and energy efficiency
- Commercial strategy and commercial performance
- Relationship with business partners
- Employee training / competency development
- Risk mitigation and control

The 2020 Stakeholder Questionnaire included 28 topics. Based on the results of the analysis, 23 material topics were identified as material (16 topics), important (4 topics) and relevant (3 topics) for us and our stakeholders, 2 of which were new topics included for the first time in the questionnaire (Impact of environmental regulations on fleet profile and Health and safety during Covid-19 outbreak), compared to 2019. The 2019 Stakeholder Questionnaire included 26 topics and the results of the analysis identified 14 material, 6 important and 3 relevant topics.

# OUR 2020 MATERIALITY MATRIX BASED ON FEEDBACK FROM OUR STAKEHOLDERS

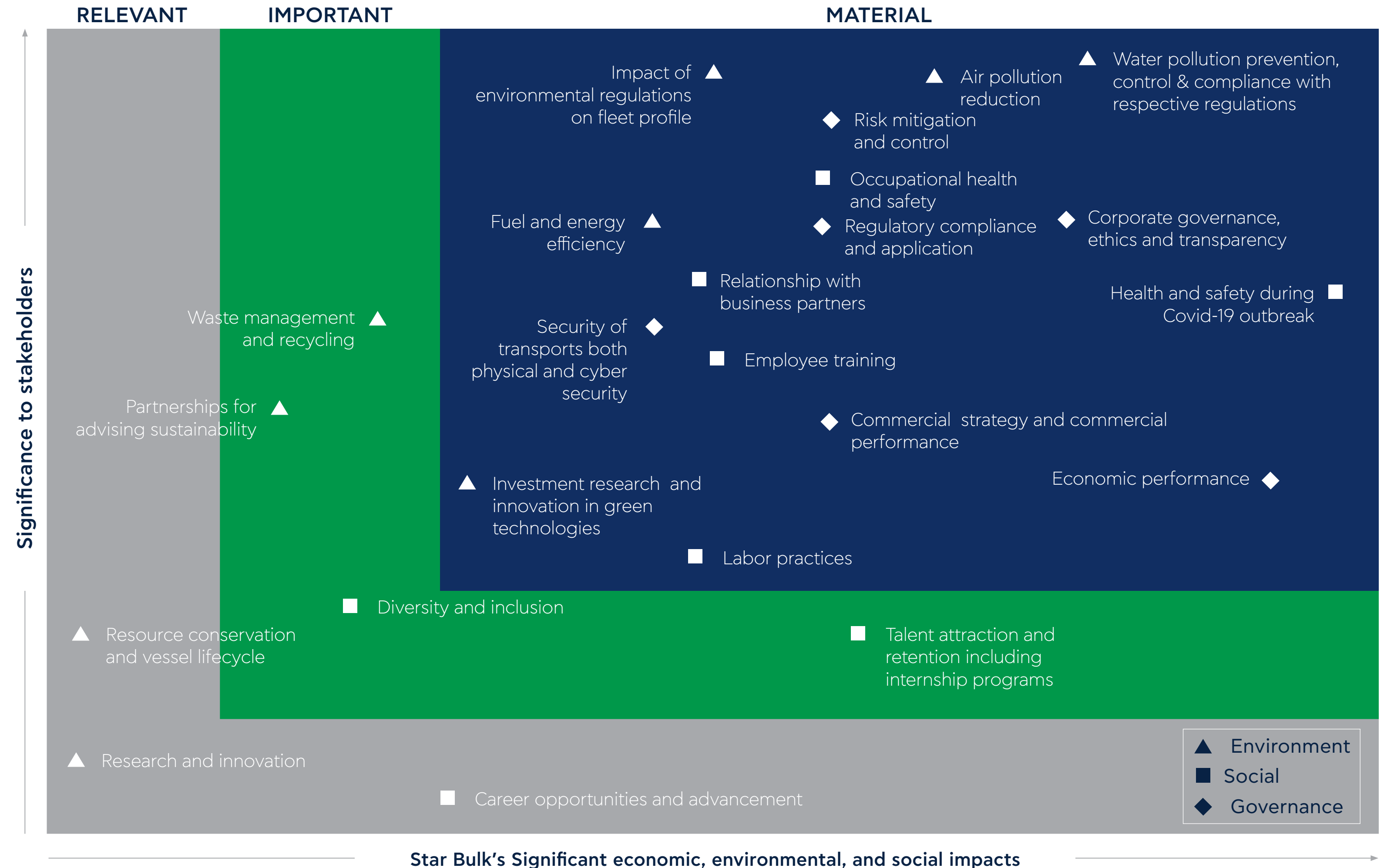
## NUMBER OF ISSUES PER MATERIALITY LEVEL



## Key stakeholder groups:

- External stakeholders**
  - Charterers / Brokers
  - Financial institutions
  - Suppliers / Business Partners
  - State / Regulatory Authorities
  - International / Industry organisations
- Internal stakeholders**
  - Managers and Directors
  - Top Management
  - Board of Directors

Based on the GRI Materiality principle, the axis "Significance to stakeholders" refers to the influence on company's stakeholders assessments and decisions from the identified ESG topics and the axis "Significance of economic, environmental, & social impacts" reflects the impacts created on the broader economy, society and environment, beyond impacts directly on stakeholders.

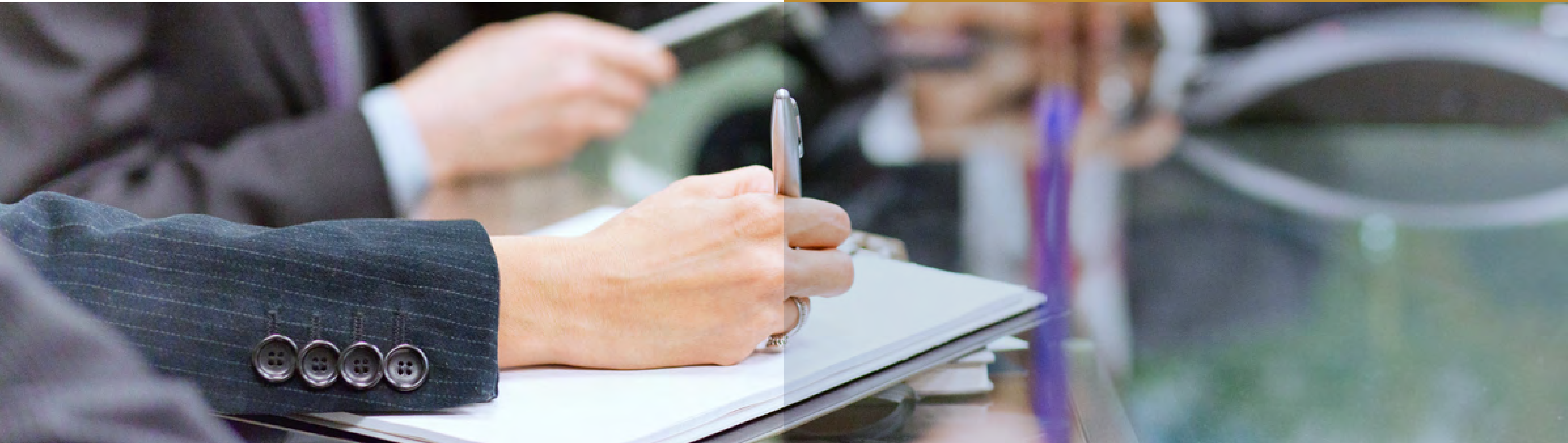


- ▲ Environment
- Social
- ◆ Governance

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# GOVERNANCE

## RELATED SDGS



# WE HAVE ESTABLISHED A STRONG CORPORATE GOVERNANCE FRAMEWORK

## BOARD OF DIRECTORS

The foundations for structuring a strong corporate code are set by the BoD and implemented through the Senior Management. The BoD is additionally supported by several committees which are assigned specific responsibilities.

## NOMINATION AND CORPORATE GOVERNANCE COMMITTEE

Star Bulk's Nominating and Corporate Governance Committee is comprised of three independent directors and is mainly responsible for: (i) recommending to the BoD nominees for Director and Directors for appointment to Committees of the BoD and (ii) advising the BoD with regard to corporate governance practices.

## AUDIT COMMITTEE

Star Bulk's Audit Committee is comprised of two independent directors and is mainly responsible for: (i) reviewing the Company's controls over financial reporting; (ii) making recommendations to the BoD with respect to the engagement of the Company's outside auditor and (iii) reviewing all related party transactions for potential conflicts of interest.

## COMPENSATION COMMITTEE

The Compensation Committee, is comprised of two independent directors and is mainly responsible for recommending to the BoD, the Company's senior executive officers' compensation and benefits.

**18%** Women  
in the BoD

**4.6** Years average  
tenure of Directors  
at the release date  
of this report

Our Board of Directors and Executive Officers, as of the release date of this report, are the following:

BoD COMPOSITION*	ROLE	COMMITTEES
Spyros Capralos	Chairman of the BoD	Compensation Committee, Nomination and Corporate Governance Committee
Petros Pappas	CEO, Director	
Mahesh Balakrishnan	Director	Compensation Committee
Koert Erhardt	Director	Nomination and Corporate Governance Committee, Audit Committee
Nikolaos Karellis	Director	Audit Committee
Arne Blystad	Director	
Raffaele Zagari	Director	
Brian Laibow	Director	Nomination and Corporate Governance Committee
Katherine Ralph	Director	
Eleni Vrettou	Director	
Sherman Lau**	Director	

EXECUTIVE OFFICERS	CAPACITY
Petros Pappas	CEO
Hamish Norton	President
Nicos Rescos	Chief Operating Officer
Christos Begleris	Co-Chief Financial Officer
Simos Spyrou	Co-Chief Financial Officer
Charis Plakantonaki	Chief Strategy Officer

\* Ms. Dawna Men term expired at the 2021 AGM on 13 May 2021.

\*\* Mr. Sherman Lau was appointed on the BoD on 13 May 2021.

# WE OPERATE ETHICALLY AND TRANSPARENTLY

## OUR CODE OF ETHICS

We have adopted and communicated our Code of Ethics to all of our employees (shore based and on-board personnel) including all employees of our subsidiaries.

Our Code of Ethics governs our business activities, and all of our employees (permanent and temporary) are obliged to follow it. The Senior Management is involved in the daily operation of the company and is committed to the implementation of the code and policies from all company staff. Any non-compliance with the Code's principles is treated as a serious violation and may lead to termination of contracts or even legal sanctions.

## OUR ANTI-CORRUPTION POLICY

Our Anti-Corruption Policy includes guidelines aligned with the requirements of the U.S. Foreign Corrupt Practices Act (FCPA) – that aim to ensure that all employees are prohibited from promising, paying, providing, or authorizing the promising, paying or providing of any amount of money or anything of value to a Public Official or Private Sector Counterparty Representative for the purpose of improperly obtaining, directing or retaining business or securing an improper advantage for the Company.



In 2021, we became members of the Maritime Anti-Corruption Network (MACN)

## REPORTING VIOLATIONS OF THE CODE

Our personnel should take all necessary steps to prohibit any form of misconduct by other employees or other Company personnel that violate the Code. Employees shall report any known or suspected misconduct to the Chairman of the Audit Committee or the Company's General Counsel. At Star Bulk, we encourage all our employees and third parties, to raise any issues regarding inter alia suspicious accounting matters, audit practices, internal controls, conflicts of interest, fraud, or insider trading within the Company. The Company's employees and external parties are requested to communicate their complaints on a confidential and/or anonymous basis to the Company's Audit Committee through the Company's "P.O. Box 61323 15104 Maroussi" and through the whistleblower hotline on +306976862707. The Company will not retaliate or allow retaliation for good faith reports.

- 0 Whistleblowing incidents
- 0 Bribery and fraud incidents
- 0 Violations of our Ethical principles & Anti Corruption Policy
- 0 Incidents of corruption related to employees, business partners and public legal cases

## TRANSPARENCY INTERNATIONAL CORRUPTION PERCEPTION INDEX

Our vessels operate globally and thus, geography plays a highly significant role to our exposure to corruption risks.

**12%**

Port calls in countries with the 20 lowest rankings in Transparency International's Corruption Perception Index



# OUR STRONG INTERNAL CONTROL SYSTEM SAFEGUARDS THE RESILIENCE OF OUR OPERATIONS

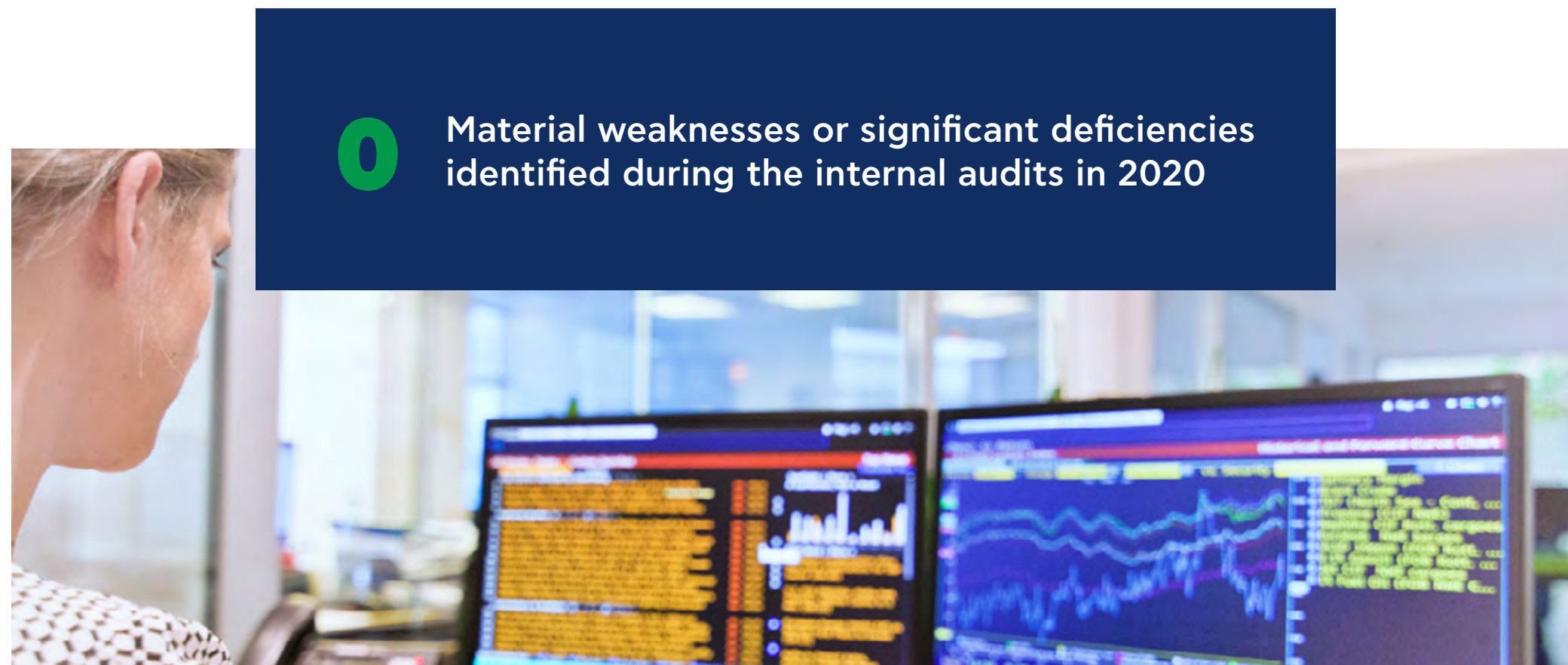
Our Company has an in-house, independent Internal Audit department which reviews the Company's processes and internal controls design and accuracy, and provides recommendations to Management.

Our Internal Audit department also assists in the compliance process with the Sarbanes – Oxley requirements (SOX) regarding the internal control environment for material business cycles related to the financial statements.

The Internal Audit department reports directly to the Audit Committee.

During the internal audits (including SOX related audits) performed by our Internal Audit team in 2020, no material weaknesses or significant deficiencies were identified.

Along with our Internal Audit team, the Company also has an in-house Control Department which oversees the processes related to the operating expenses and ensures efficient and lean operations among the Company's departments.



**0** Material weaknesses or significant deficiencies identified during the internal audits in 2020

## RISK MANAGEMENT

Our Risk Management framework and processes, enable us to continuously monitor, assess and evaluate any potential risks that might affect our business operations, while helping us adopt all necessary measures for the continuation of our day-to-day activities. We have carefully evaluated the most important risks that could significantly affect our business and company, and identified the following key risk areas:

- |   |   |
|---|---|
| <p><b>1</b> Health and safety of our people on board and ashore due to the COVID-19 pandemic</p>                                    | <p><b>6</b> The availability of financing and refinancing</p>                 |
| <p><b>2</b> General dry bulk shipping market conditions (Supply and Demand)</p>   | <p><b>7</b> Counterparty risk</p>   |
| <p><b>3</b> Bunker prices and availability</p>  | <p><b>8</b> Weather related events</p>  |
| <p><b>4</b> Changes in governmental rules and regulations or actions taken by regulatory authorities; and climate related risks</p> | <p><b>9</b> Cyber crime</p>   |
| <p><b>5</b> General domestic and international political conditions</p>   | <p><b>10</b> Disruption in exports of materials due to physical accidents</p> |

# WE CONTINUOUSLY IDENTIFY, ASSESS AND PROACTIVELY RESPOND TO CLIMATE-RELATED RISKS AND OPPORTUNITIES



The climate related risks identified through our participation in the Carbon Disclosure Project (CDP) rating process and incorporated in our risk matrix, are:

<b>BASELINE CALCULATION</b>	We continuously monitor our fleet’s performance and collect data to calculate a baseline against which future climate related risks and opportunities can be identified and assessed.
<b>RESEARCH &amp; PARTNERSHIPS</b>	We analyze historical trends, follow climate science, policies and regulations, and developments in technology. We engage with policy makers, partners, the academic community, and global industry stakeholders.
<b>SCENARIO ANALYSIS</b>	We have initiated a climate change scenario analysis relying on the scenarios of IMO to help us look ahead and prioritize potential risks and opportunities on the intermediate and long-term horizon, and assess the appropriate form and timing of implementing alternative actions.
<b>RISK ASSESSMENT</b>	We closely follow potential developments in the climate change regulatory landscape and assess the climate-related physical and transition risks’ impact on our operations (i.e., increase in energy prices, rising prices of commodities, higher demand to produce renewables and low carbon products, increasing extreme weather events, heat waves and sea level rise).
<b>IMPACT EVALUATION</b>	We focus on broader changes in climate risks and we aim to evaluate the impact on our business prospects and competitive position (business materiality) as well as the impact on our key stakeholders who shape our business landscape.

Our short-, medium- and long-term time horizons for identifying, assessing and responding to climate-related risks and opportunities:

<b>Short-term risks</b> (year 0 to 2)	<b>Medium-term risks</b> (year 2 to 5)	<b>Long-term risks</b> (year 5 to 30)
Risk management based on environmental compliance with current rules and regulations.	Risk management based on announcements of potential changes to the regulatory framework.	Risk management based on the search for alternative fuels and concomitant new build designs, to meet industry’s goals.

# LATEST TECHNOLOGY CYBER SECURITY SYSTEMS AND RIGOROUS POLICIES IN PLACE

**We implement a robust scheme of cyber security governance and controls to protect our information assets. We apply the right architecture, technology and policies to inhibit, identify, prepare for and recover from any cyber attacks promptly.**

## 0 Cyber security incidents

Our **Endpoint protection system** includes:

- Monitoring capabilities (process, network, registry, memory, files)
- Detection capabilities (different types of malware)
- Response capabilities (blocking, host isolation, remote investigation)
- Coverage of all systems within IT environment
- Interoperability with other security solutions in-place
- Bandwidth requirements and potential impact on endpoints (CPU, RAM, hard disk)
- Security controls of the End Point Detection and Response (EDR) solution itself
- Compatibility with existing or future Security Information and Event Management (SIEM) solution

Our **Firewall upgrade** includes advanced features regarding inspection, prevention, monitoring and reporting.

Our **Hardware upgrade** on board include the installation of a server onboard to comply with Cyber Security regulation (user access management, security policies, Control Changes etc).

**> 148,000 €** Invested in Cyber security in 2020

<b>Email and Internet Access Policy</b>	This policy was adopted by the Company’s Security Committee and must be strictly followed by the personnel that has access to certain Internet and Intranet services within the Company (including Email, FTP, Local Area Network, standalone computer terminals and laptop computers).
<b>Network Security Policy</b>	This policy applies to all servers that the Company manages. The Company’s operations staff ensures that all servers have the appropriate anti-virus and/or anti-spyware applications installed.
<b>Password Policy</b>	All employees who are responsible for an account within our Company, have access to the Local Area Network, or store any non-public Company information, must comply with strict guidelines in order to select and secure their passwords.
<b>Personal Communication Devices (PCDs) Policy</b>	PCDs are provided to the personnel who are working remotely or need to be in immediate contact with the Company.
<b>Privacy policy</b>	The Information Sensitivity Policy aims at helping employees distinguish among information that can and cannot be disclosed to non-employees. Company information is divided into two categories: Public and Confidential; all employees need to familiarize themselves with the information labelling and handling guidelines.
<b>Remote access policy</b>	For computer-based systems on board, the purpose of this policy is to protect the transmission of data against unauthorized access. Networks that provide suppliers with remote access should be controlled, and the IT personnel has remote maintenance access to quickly provide assistance when needed.
<b>Removable media policy</b>	This policy aims at ensuring that the use of removable media devices to store and transfer information by all company users is controlled to maintain integrity of data, protect company’s network and ensure the security of Protected and Restricted Information.
<b>Technological equipment disposal policy</b>	This policy indicates that in order to protect our constituent’s data, all storage mediums in technology equipment must be carefully erased before being disposed of.
<b>Travel Policy</b>	This policy aims at minimizing security threats to personnel. Restrictions and guidance are in place for travel identified as being an elevated risk.
<b>Workstation security</b>	This policy provides guidance for workstation security, to ensure the security of information that the workstation may have access to.



# LEVERAGING ADVANCED TECHNOLOGY TO SUPPORT OUR BUSINESS OPERATIONS AND DECISION MAKING

In today's rapidly evolving and highly competitive marketplace, **digitalization and data analytics is one of the key focus areas in maritime industry and a key driver to long-term success.** A variety of digital technologies and solutions have become available for shipping companies to improve analytics for decision-making, automation, safety, route optimization, increase competitiveness and enhance operational efficiency.

The key drivers of digitalization in the shipping industry include:

- Increased competitive pressures
- Evolving customer expectations
- Increasing regulatory requirements
- Disruptive digital technologies

**Incorporating digitalization processes and data analytics into our business is a focal point of our strategy and guide our efforts to drive and deliver sustainable change in Star Bulk.**

Star Bulk's operations are supported by a Microsoft based Enterprise Resource Planning (ERP) system which covers all functions of technical management. The company also uses a cloud based best of breed commercial ERP system which has been integrated with the Microsoft based platform, allowing for an end-to-end automated process across all company's functions. Our ERP capabilities are further enhanced by an advanced business intelligence tool which enables us to monitor our Company's activities and vessel's performance through real-time data capture and reporting. The tool is fully interfaced to an advanced data analytics and Business Intelligence platform, that

provides a variety of reporting options including trend analytics, through visual data tools and dashboards, and supports the decision-making process with complete, accurate and readily available data.

Our digitalized operations enable us to ensure the accuracy of our data and information, to make effective commercial decisions, to stay on track with new regulations, and to comply with existing ones.

- **Microsoft based ERP system**
- **Cloud based commercial ERP system**
- **End-to-end system integration**
- **Advanced Business Intelligence tool**

**Digitalizing our operations enables us to ensure good regulatory and compliance oversight timely and efficiently and it allows for greater transparency and accountability.**

Our digitalization process is supported by a well-designed IT infrastructure, which ensure high levels of security and data protection for our Company's information.

## Our systems supports us in:

- ✓ Enhancing data collection process from multiple sources
- ✓ Improving Efficiency
- ✓ Benchmarking and increasing transparency
- ✓ Optimizing operations & predicting potential risks
- ✓ Meeting Environmental Regulations and Goals
- ✓ Enhancing Information Flow
- ✓ Accessing historical records for reference

# 5

# ENVIRONMENT

## RELATED SDGS



# A ROBUST ENVIRONMENTAL AND ENERGY MANAGEMENT SYSTEM IN PLACE

## ENVIRONMENTAL MANAGEMENT SYSTEM REVIEW REPORT

The **Environmental Management System Report** is an environmental review, designed and performed by Star Bulk, on an annual basis. The Report is in line with **ISO 14001**, and includes the following topics:

- Communication of environmental compliance (i.e. internal/external audits)
- Non-Conformities and corrective actions (i.e. flag and vetting inspections, port state control)
- Process performance (i.e. trainings performed onboard and ashore, incidents, accidents, near misses)
- Analysis of NCR's, complaints, incidents, feedback
- Benchmarking with INTERCARGO publication
- Fulfillment of compliance obligations
- Vessel Environmental Programs Review
- Office Environmental Programs Review

## USE OF TELEMETRY AND ADVANCED MONITORING SYSTEMS

A dedicated, highly skilled in-house team is assigned the responsibility of closely monitoring and reporting our vessels' performance.

To effectively support such performance monitoring, we have deployed **telemetry on the majority of our managed vessels** through our in-house fully customized automated equipment which collect vessel data in real time.

In addition, our team has developed and implemented a **sophisticated Vessel Performance Reporting (VPR) Software**, which is customized to our vessels' specifications and enables the collection of accurate vessel performance data.

Through our VPR software and real time automated measurements, our team collects and analyzes data, to support our technical, operational and commercial activities, optimize the performance of our fleet and support decision-making. The data are visualized through business intelligence reports which illustrate dynamic real-time information.

## ENERGY MANAGEMENT SYSTEM REVIEW REPORT

The **Energy Management System Report**, is an annual review executed by our Company in line with **ISO 50001**, and covers a wide range of energy efficiency and conservation management topics and principles, such as:

- Energy management programs, objectives and action plan
- ISO audit results (i.e. internal/external audits, energy audits onboard, flag and vetting inspections)
- Process performance (i.e. trainings performed onboard and ashore, incidents, accidents, near misses)
- Analysis of NCR's, complaints, incidents, feedback
- Benchmarking with INTERCARGO publication
- Energy review and energy performance indicators (such as, EEOI, EEXI, EEDI, AER)

- Fulfillment of compliance obligations
- Ship Energy Efficiency Management Plan (SEEMP) Evaluation Review

## ENHANCING MONITORING OF EQUIPMENT AND SYSTEM PERFORMANCE

The monitoring of the performance of machineries onboard is the responsibility of the vessels' personnel, whereby the system sends automatic alerts to notify the Technical team if the Propulsion, Electric power generation and auxiliary system performance parameters are not met. These alerts relate to temperature, pressure, electric power data, alarm monitoring etc. and are automatically reported by each vessel to the office.

## QUALITY CERTIFICATION

Along with ISO 14001 and ISO 50001, we are accredited with the following standards:

- ✓ **ISO 9001: 2015** Quality management systems
- ✓ **ISO 45001: 2018** Health and Safety Management

# WE CONTINUOUSLY TRACK AND ASSESS OUR FLEET'S CARBON INTENSITY

## ENERGY EFFICIENCY OPERATING INDEX (EEOI)

We measure and monitor our vessel's transport energy efficiency through the Energy Efficiency Operating Index (EEOI). EEOI is the ratio of annual total CO<sub>2</sub> emissions per transport work (actual cargo transported X distance sailed) in grams of CO<sub>2</sub> / cargo ton-miles.

We apply an array of diverse operational measures, including the application of weather routing systems and speed management optimization practices for achieving in-time arrival at port and minimum time spent at anchorage.

In 2020 the average EEOI of our managed fleet increased by approximately 6%, due to the increased laden/ballast voyages ratio and increased speed compared to 2019\*.

6.22

Weighted average fleet EEOI\*

3.25

Average AER of our fleet

## ANNUAL EFFICIENCY RATIO (AER)

The Annual Efficiency Ratio (AER), is a metric used for the assessment of the energy performance of ships and has been adopted by the Poseidon Principles. AER is the ratio of annual total CO<sub>2</sub> emissions divided by the deadweight capacity X distance sailed, expressed in grams of CO<sub>2</sub> / DWT-mile. In 2020, the average AER of our fleet increased by approximately 0.3%, due to the increase in average speed.

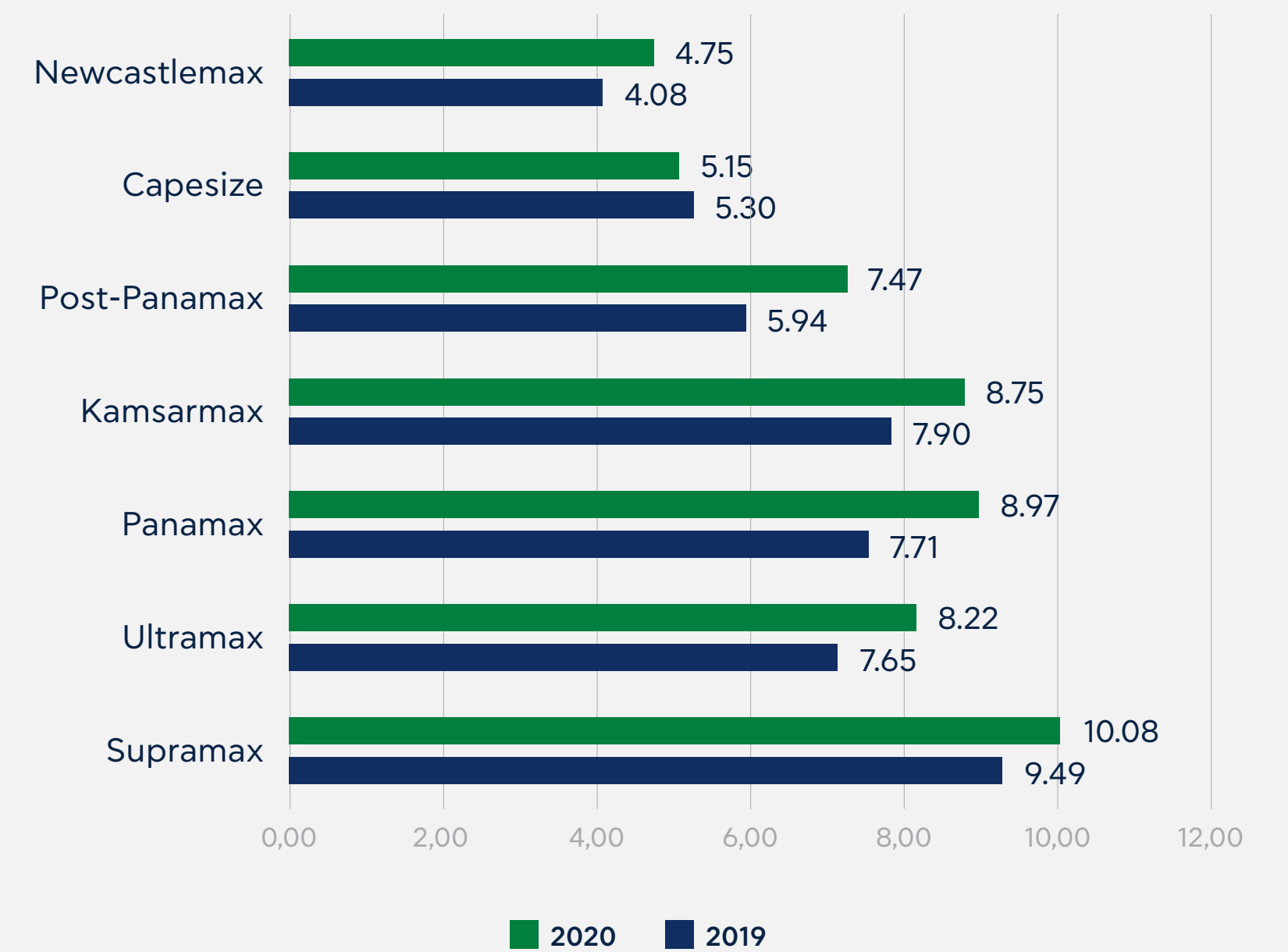
### ENHANCING VOYAGE OPTIMIZATION:

We participate in voyage optimization initiatives, such as:

- Applying an innovative software for weather routing and voyage optimization
- Utilizing a cutting edge technology platform for speed optimization, CO<sub>2</sub> monitoring, bunkering
- Applying a sophisticated platform for speed optimization and hull performance monitoring

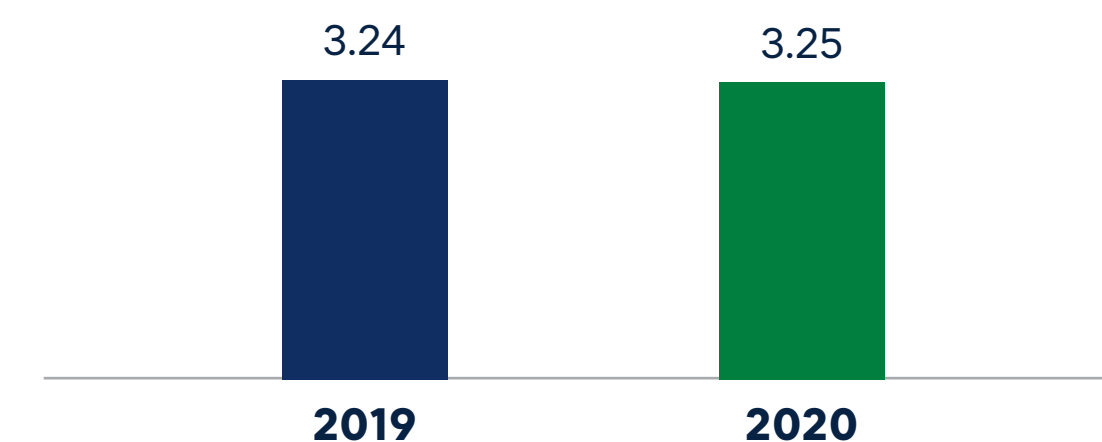
\*The EEOI values for 2019 were revised from the 2019 Sustainability report to include the emissions at ports.

Average EEOI per vessel size (gr CO<sub>2</sub> / tonne - mile) of our fleet\*



\*Excluding the vessels managed by our third-party managers

Average AER (gr CO<sub>2</sub> / DWT-mile) of our fleet



# OUR CARBON FOOTPRINT INCREASED BY 10%, DRIVEN BY HIGHER FLEET AVAILABILITY

We have implemented on board our vessels a variety of energy efficiency measures, initiatives and systems to accurately monitor fuel consumption and CO<sub>2</sub> emissions. In 2020, our vessels travelled a distance of 6,877,404 nautical miles, and emitted 2,574,606 tonnes of CO<sub>2</sub>. The total fuel consumption during the same period was 823,676 tonnes.

The CO<sub>2</sub> emissions (Scope 1)\* and fuel consumption for 2019 and 2020 reflect the total emissions of our entire fleet of 116 vessels\*\*. The overall increase of 10% in 2020, can be attributed to the increase in the number of the vessels' available days and a small increase in vessels' average speed. In 2020 our vessels recorded 40,274 available days while in 2019, our vessels recorded 36,403 available days, the less available days (and by extent, less carbon emissions) are due to the D/Ds and EGCS installations that took place during 2019.

The total fuel consumption for 2020 was 823,676 mt (HFO: 703,861 mt, VLSFO: 29,569 mt, MGO: 90,246 mt) increased by approximately 10% compared to 2019, when the total fuel consumption was 746,929 mt (HFO: 694,179 mt, VLSFO: 556 mt, MGO: 52,194 mt).

The average fuel consumption per day per vessel totaled 19.48 mt/ day, increased by approximately 8% compared to the 2019 levels (from 17.98 mt/ day in 2019, to 19.48 mt/day in 2020) due to a small increase in vessels' average speed.

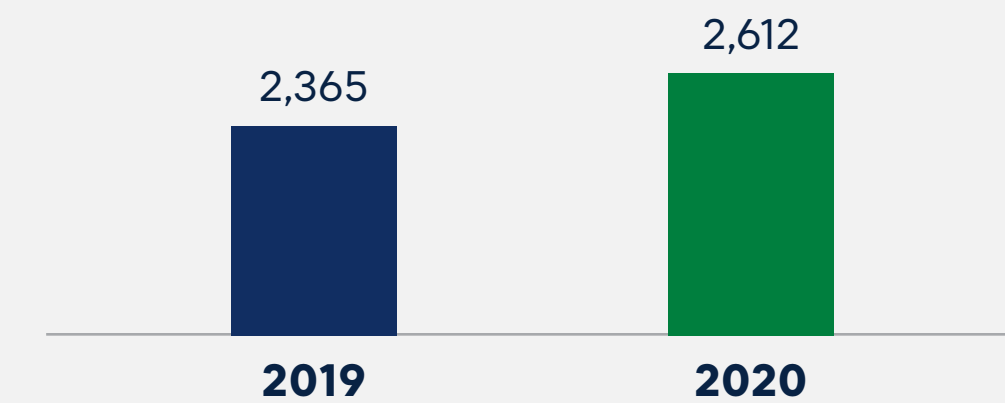
Finally, the total energy consumption of our fleet which is directly related to the fuel consumption on board, was 33,381,746 GJ in 2020, an increase of approximately 11% compared to 2019, when the total energy consumption was 30,157,855 GJ.

**2,574,606 mt** Total CO<sub>2</sub> emissions of our fleet in 2020

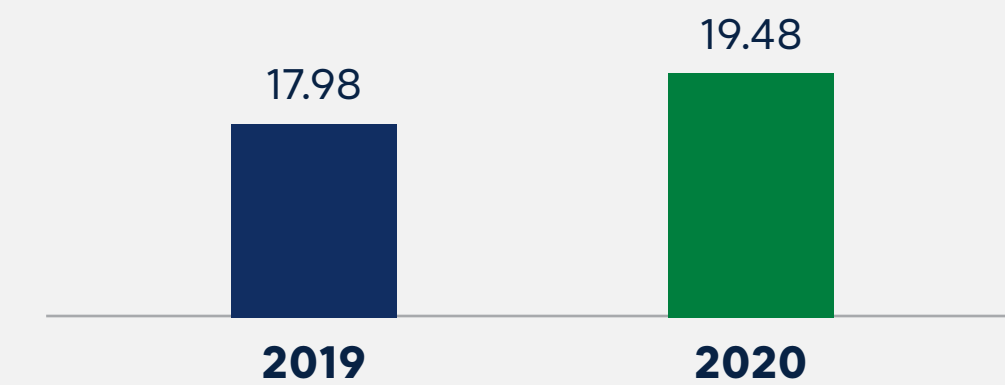
**823,676 mt** Total fuel consumption in 2020

**33,381,746 GJ** In total energy consumption of our fleet in 2020

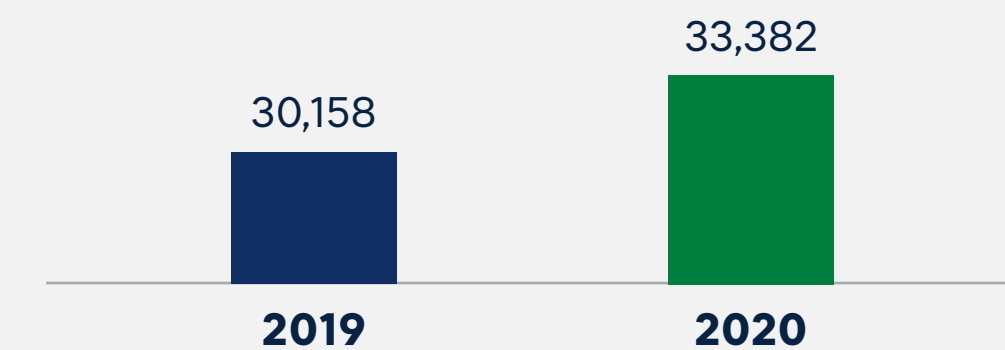
GHG emissions ('000 tonnes CO<sub>2</sub>e) - Our fleet



Average fuel consumption per day (tonnes) - Our fleet



Total energy consumption ('000 GJ) - Our fleet



\*The CF conversion factor used between fuel consumption and CO<sub>2</sub> emission is based on IMO Resolution MEPC.245(66) & MEPC 75-7-15 - Fourth IMO GHG Study 2020 - Final report (Secretariat): HFO (3.1144) / LFO (3.151) / MGO (3.206).

\*\*The total values for the CO<sub>2</sub> emissions, fuel consumption and energy consumption for 2019 were revised from the 2019 Sustainability report. The CO<sub>2</sub> emissions and fuel consumption values were revised to reflect our entire fleet of 116 vessels, including the consumption at ports.

\*\*\*The GWPs used in the calculation of CO<sub>2</sub>e are based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) over a 100-year period, HFO/LFO (CH<sub>4</sub>: 1.27kg/ton fuel, N<sub>2</sub>O: 44.24kg/ton fuel) - MGO (CH<sub>4</sub>: 0.81kg/ton fuel, N<sub>2</sub>O: 43.19kg/ton fuel), source: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>.

# WE REDUCED OUR FLEET'S SOx EMISSIONS BY 79% COMPARED TO 2019

Our fleet significant pollutants to the atmosphere are nitrogen oxides (NOx) and Sulfur Oxides (SOx). During 2020, our vessels' SOx emissions were lower compared to 2019.

## SULFUR EMISSIONS

- On January 1st, 2020, the IMO introduced regulations to reduce the sulfur limit in the fuels used by ships from 3.50% to 0.50%. The amount of sulfur oxides emitted to the atmosphere is almost directly proportional to the amount of sulfur in the fuel (% m/m) burnt and the total amount of fuel used in vessel engines.
- We have completed the installation of Exhaust Gas Cleaning Systems (EGCS) to 114 of our vessels and purchased Low-Sulfur fuel (0.5%) in order to reduce the SOx emissions.
- In 2020, the total SOx emissions of our fleet were 7,346 tonnes, reduced by approximately 79%.

## NITROXIDE EMISSIONS

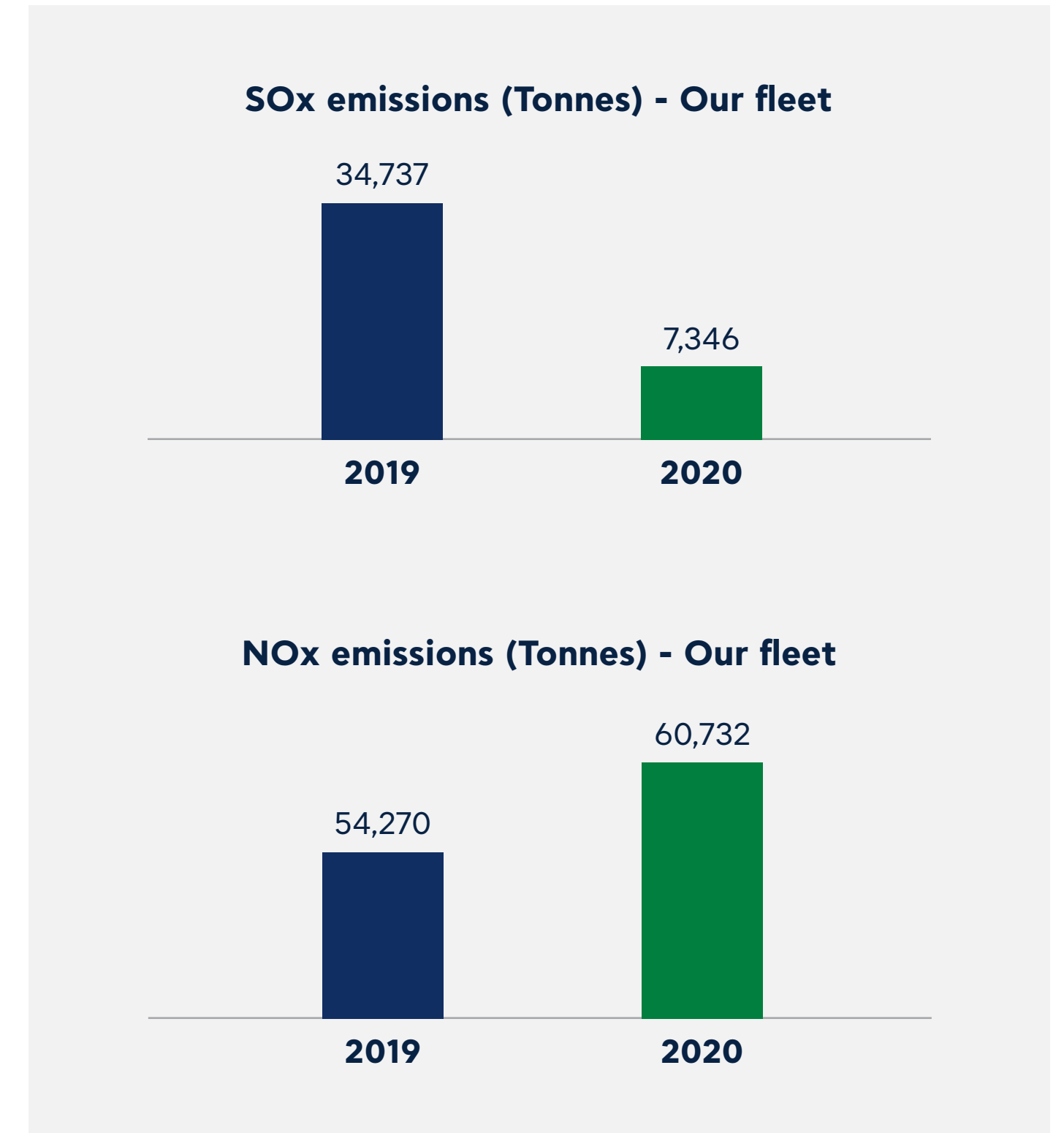
- NOx emissions are released in the air by the reaction of nitrogen and oxygen gases during the fuel combustion at high temperatures in vessel's engines.
- We have in place controls on equipment replacement,

calibration and sailing phases in order to avoid excessive NOx emissions.

- In 2020, our total fleet emitted 60,732 tonnes of NOx, increased by approximately 12%, due to the increase in vessels' available days and a small increase in vessels' average speed compared to 2019.

The SOx and NOx emissions for both 2019 and 2020 reflect the total emissions of our entire fleet of 116 vessels\*.

\*The total values for the SOx and NOx emissions for 2019 were revised from the 2019 Sustainability Report to reflect our entire fleet of 116 vessels, including the emissions at ports.



**7,346 mt** Total SOx emissions of our fleet

**60,732 mt** In NOx emissions of our fleet

# NEW ONBOARD INITIATIVES TO FURTHER REDUCE OUR ENVIRONMENTAL IMPACT

## WASTE MANAGEMENT

All our vessels comply with MARPOL Annex V, which aims at reducing the amount of waste being discharged in the sea from ships. In addition, as we are fully aware of the impact of improper waste disposal, we have developed and implemented a waste management system that specifies the ways in which all types of waste are handled and disposed of. For instance, regarding the waste management on board our vessels, waste is being collected, and then separated and deposited in ports for proper disposal, in line with all respective regulations.

## WATER MANAGEMENT

Fresh water consumed on board is either produced on board by a fresh water generator (through sea water) or supplied from the shore. We are committed to using fresh water efficiently through continuous monitoring and consumption control. In 2020, the fresh water consumption for our fleet was 1,105,960 bottles.

We have started using Drinking Water Filtration Systems since the beginning of 2019 on board our vessels. We plan to expand with the installation of reverse osmosis water filtration systems to an additional 55 vessels aged up to 12 years old in

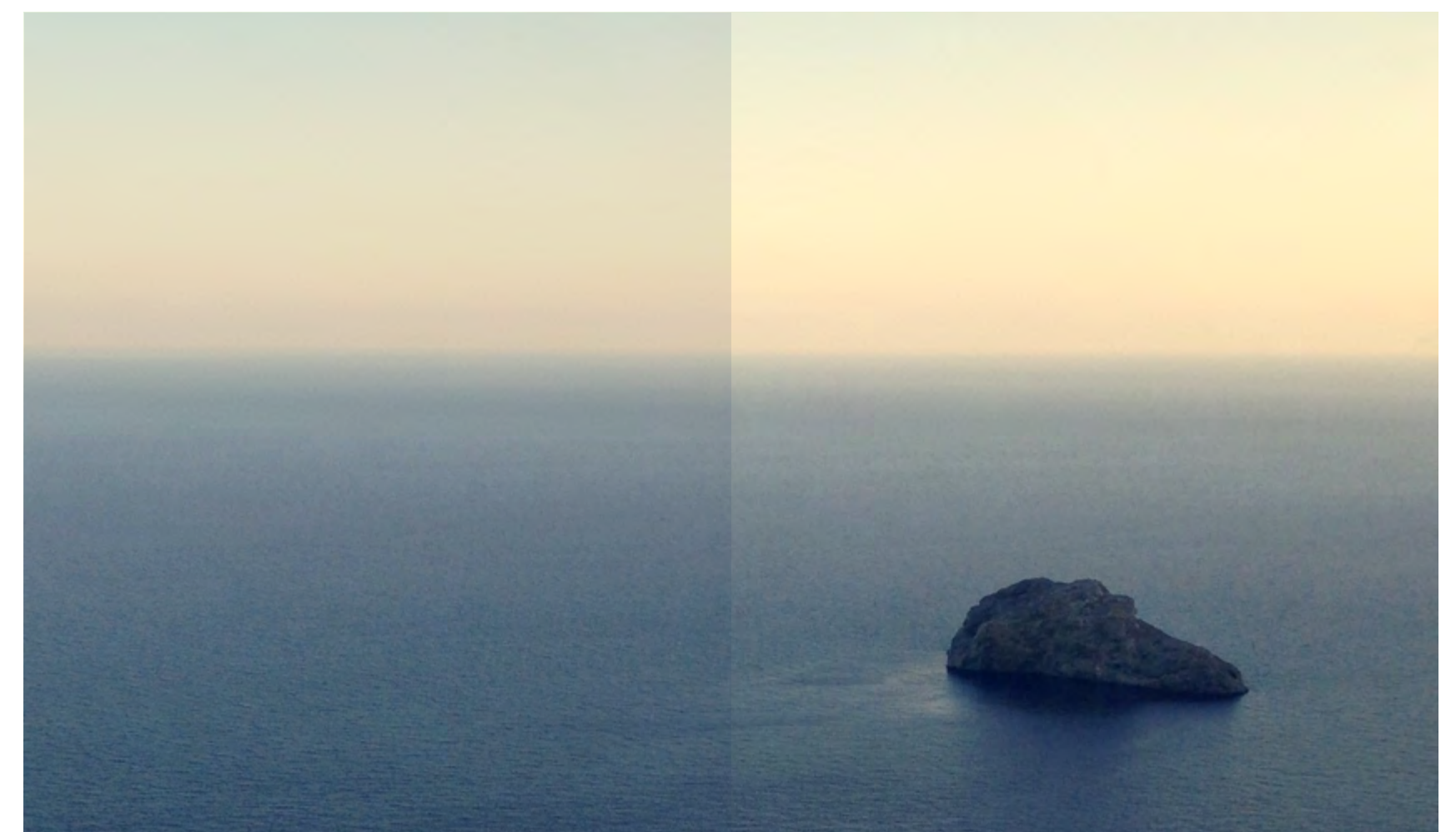
the coming years. Our aim is to reduce the use of plastic water bottles by over 90%, minimize plastic waste and reduce costs, while ensuring a safe stock on board to cover possible equipment failure.

## LED-LAMP RETROFIT PROJECT

We have initiated the installation of LED lights on board to reduce emission and fuel oil consumption and improve our Carbon Intensity Indicator (CII), bunker cost and OPEX. We have installed LED lamps from three 3 different LED makers in various areas.

Based on the feedback received from these vessels we are proceeding with installation on the majority of our fleet.

### Project Implementation Plan



# TAKING ACTIONS TO REDUCE OUR ENVIRONMENTAL FOOTPRINT ASHORE

We place great emphasis on the monitoring of our offices' environmental footprint, more specifically the energy, paper and water consumption from our premises, and we apply measures to continually improve our environmental footprint at work.

We have initiated Environmental Management Programs to monitor and minimize the electric energy, paper and batteries consumption in the office and further actions to enhance our employees' awareness.

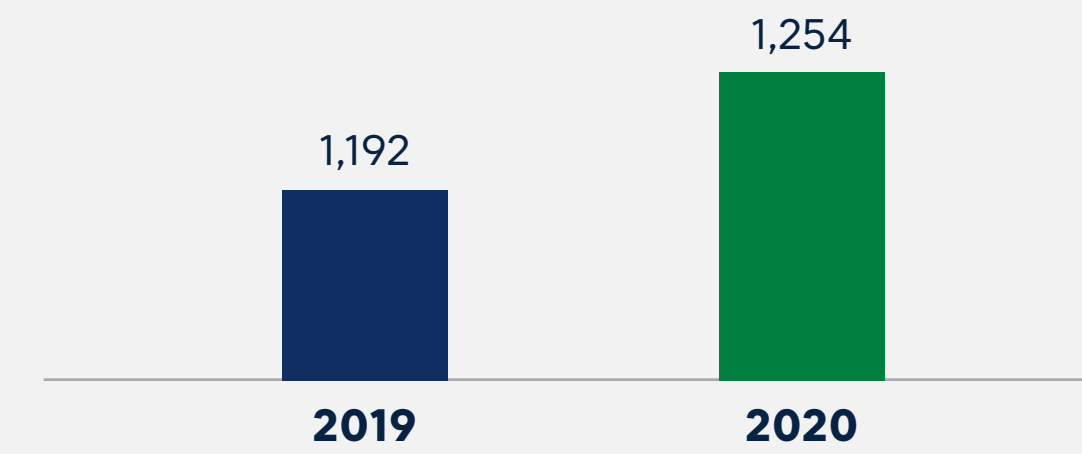
In 2020, the paper consumption was reduced by 10% in comparison with 2019. The water consumption fluctuated at approximately the same levels as in 2019. It should be noted that in 2020, the consumption of our office in Singapore is included, resulting in an increase of approximately 5% in the total annual energy consumption.

**1,254 GJ** Energy consumed in 2020 by our offices

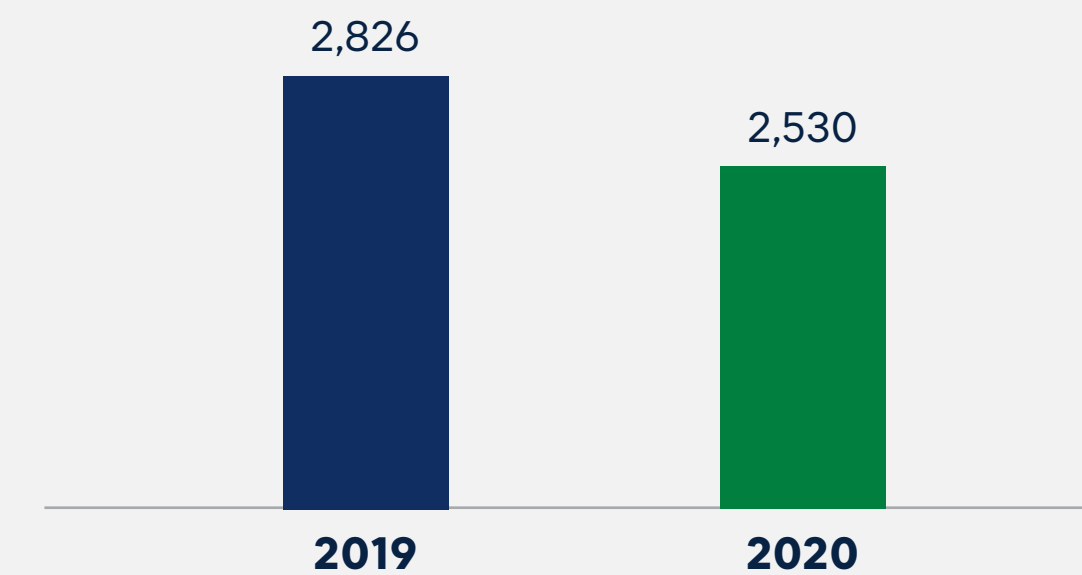
**2,530 kg** Paper consumption in 2020 in our offices

**380 m<sup>3</sup>** Water consumption in 2020 by our offices

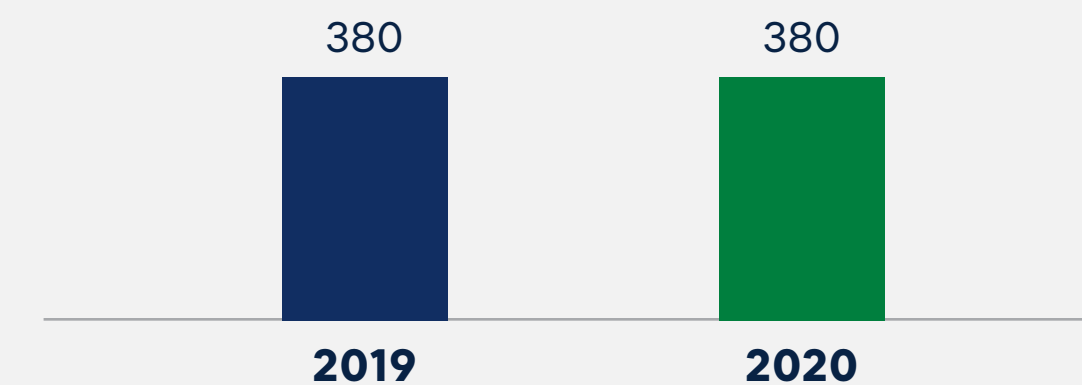
Energy consumption (GJ) - Our offices



Paper consumption (kg) - Our offices



Water consumption (m<sup>3</sup>) - Our offices





# WE COMPLY TIMELY AND EFFECTIVELY WITH ALL ENVIRONMENTAL REGULATIONS

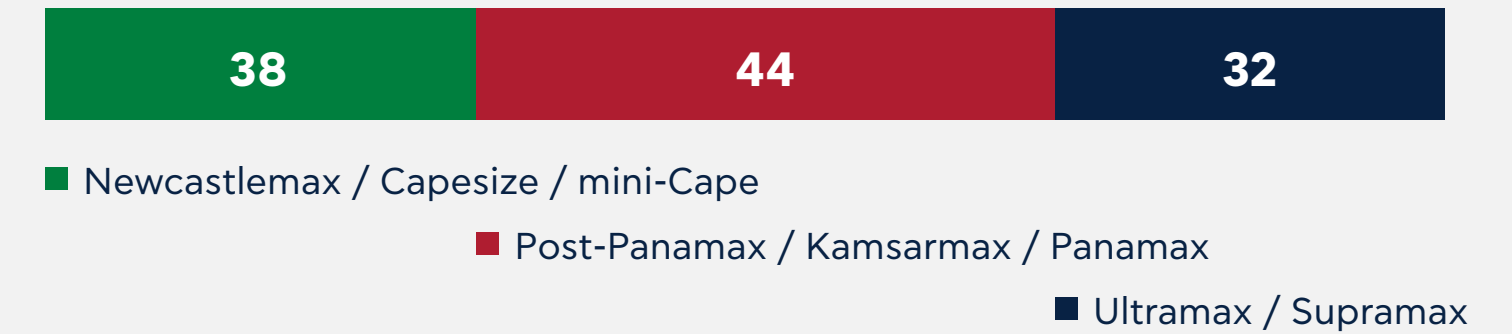
## EGCS FITTED FLEET

On January 1st, 2020, the IMO introduced regulations to reduce the sulfur limit from 3.50% to 0.50%, in all fuels used by ships. In response to IMO's sulfur cap regulation, we invested in the installation of Exhaust Gas Cleaning Systems (EGCS) on board our vessels with first class shipyards, securing berth space and competitive installation cost. This year, we successfully completed our retrofit plan based on our installation schedule, by completing the installment for 114 of vessels with EGCS, as initially planned.

## BALLAST WATER TREATMENT

On September 8th, 2017, the IMO Ballast Water Management Convention was entered into force and requires all shipping companies to manage and prevent the spread of potentially harmful aquatic or marine microbes, plants and animals in ships' ballast water. In response to the IMO Ballast Water Management Convention, we have already fitted 70% of our fleet with Ballast Water Treatment Systems (BWTS) and have scheduled to have 100% of the fleet fitted by 2023.

### Exhaust Gas Cleaning Systems Installation Schedule in 2020



### Ballast Water Treatment Installation Schedule\*



\*The information presented reflects our fleet as of the release date of this report.



# WE COMPLY TIMELY AND EFFECTIVELY WITH ALL ENVIRONMENTAL REGULATIONS (CONT'D)

## SAFE SHIP RECYCLING

We are fully compliant with EU regulation (1257/2013 on Ship Recycling) that came in force on December 31<sup>st</sup>, 2020. The regulation refers to vessel recycling activities and the identification and monitoring of hazardous materials. All our fleet vessels currently hold a verified IHM certificate.

## ENERGY EFFICIENCY EXISTING SHIP INDEX (EEXI)

We have proactively calculated the EEXI values for our vessels, based on the guidelines by IMO that were adopted in June 2021 (MEPC 76), and initiated a cooperation with a classification society for the verification of the EEXI value per vessel.

## REFRIGERANTS & BIODEGRADABLE LUBRICANTS

We strictly prohibit the use of any refrigerants that significantly affect the ozone layer (such as R22), in order to reduce the impact on the ozone layer and global warming. During our maintenance activities both ashore and onboard, eco friendly refrigerants are used (such as R407 and R404).

We used biodegradable lubricants & eco friendly stern tube systems (air, seal) in 56% and 44% of our vessels, respectively, in 2020. Biodegradable lubricants and/or eco friendly stern tube systems are obligatory for vessels that transport cargo or visit ports in the United States.

## EU MRV and IMO DCS

We comply with the EU MRV and IMO DCS regulations. We have established a well-structured validated procedure to ensure completeness, consistency and accuracy in our emissions monitoring and reporting process.

We collect, calculate and analyze the Company's data, with the help of our in-house Vessel Performance Monitoring (VPM) system. Our vessel's CO<sub>2</sub> emissions emissions are subjected to third party verification by an independent accredited verifier.

**100%** of our fleet In compliance with the IHM regulation

**56%** of our fleet Use biodegradable lubricants in the stern tube system

**44%** of our fleet Use eco friendly stern tube systems

# ACTIVE PARTICIPATION IN R&D PROGRAMS ON GREEN TECHNOLOGY AND ALTERNATIVE FUELS

PROGRAMS AND INITIATIVES WE PARTICIPATED IN 2020

Program title	Brief description
<b>AIRCOAT</b> (Fuel saving)	<ul style="list-style-type: none"> <li>• Air Induced friction Reducing ship COATING: The Air Induced friction Reducing ship COATING (AIRCOAT) project aims to develop a passive air lubrication technology inspired by the Salvinia effect. Applying the AIRCOAT technology to ship-hull surfaces will produce a thin permanent air layer when submerged in water. This will reduce the overall frictional resistance while acting as a physical barrier between water and the hull surface. In addition to reducing energy consumption, the air barrier will inhibit the attachment of maritime organisms (biofouling).</li> </ul>
<b>Ecospray</b>	<ul style="list-style-type: none"> <li>• Cooperation with equipment maker Ecospray for the implementation of exhaust gas treatment processes like the Selective Catalytic Reduction (SCR) and the Water Fuel Emulsion (WFE), which reduce NOx emissions and the PM reduction with Wet Electrostatic Precipitator, which captures the survived dangerous fuel particles and other initiatives such as the Molten Carbonate Fuel Cells (MCFC) that separates the CO<sub>2</sub> from the other gases and the Wash Water filtration (WWF) that reduces gases, foams and PAH.</li> </ul>
<b>Weather routing and Voyage Optimization</b>	<ul style="list-style-type: none"> <li>• Pilot adoption of a weather and voyage optimization software aiming to decrease fuel oil consumption and CO<sub>2</sub> footprint</li> <li>• Speed optimization, CO<sub>2</sub> monitoring, bunkering, hull performance monitoring.</li> </ul>
<b>Water Filtration for the EGCS</b>	<ul style="list-style-type: none"> <li>• Wash Water Filtration for the EGCS wash water- aiming to tackle heavy metals, soot particles, gasses and foams- Installed/ tested/ commissioned with BV - 1 Capesize vessel installed and tested results ready. Maker of the Filter is Alfa Filter in cooperation with Ecospray.</li> </ul>
<b>Emission Reduction</b>	<ul style="list-style-type: none"> <li>• <b>SOx Reduction</b> EGCS installed in 114 (SBLK) vessels. 3 EGCS' Makers (Ecospray, VDL and Green Pacific).</li> <li>• <b>NOx Reduction</b> Selective Catalytic Reduction, reducing NOx up to 70%. Pilot vessel 1 Kamsarmax, in cooperation with Ecospray.</li> <li>• <b>PM Reduction</b> <ul style="list-style-type: none"> <li>- Wet Electrostatic Precipitator (WESP), fitted in the exhaust side and captures PM2.5 and lower particles. Pilot Vessel 1 Kamsarmax , in cooperation with Ecospray.</li> <li>- Water Fuel Emulsion (WFE), reduces PM (50%) and also NOx emissions. Pilot Vessel 1 Kamsarmax, in cooperation with Ecospray.</li> </ul> </li> </ul>

# ACTIVE PARTICIPATION IN R&D PROGRAMS ON GREEN TECHNOLOGY AND ALTERNATIVE FUELS (CONT'D)

PROGRAMS AND INITIATIVES WE PARTICIPATED IN 2020

Other initiatives	Brief description
<b>Alternative fuel and Combustion Improvements</b>	<ul style="list-style-type: none"> <li>• UNIFUEL/ Biofuels - Investigation and pilot testing of drop-in waste biofuels, aiming to decrease the CO<sub>2</sub> emissions. Results will be evaluated to check CII impact.</li> <li>• Combustion improvement - BlueMarble - Fuel additive tested with the aim of fuel oil consumption reduction in one of our Newcastlemax vessels.</li> <li>• LNG Retrofit - Seho Marine/GTT - LNG retrofit feasibility study for a Newcastlemax vessel with a Singaporean engineering office</li> <li>• LNG Newbuilding - BV - LNG Newcastlemax design newbuilding feasibility study in cooperation with Bureau Veritas.</li> </ul>
<b>Fuel savings</b>	<ul style="list-style-type: none"> <li>• LED lighting upgrade project - 3 Newcastlemax vessels were selected, project during Q2-Q3 2020, 3 different LED makers, 600 LED lamps (various areas) retrofitted, aim to reduce the electrical power consumption and improve the Carbon intensity indicator (CII) rating, bunker cost and OPEX (2020)</li> <li>• Energy Saving Devices - BSM (Mewis Duct) / Schneekluth - Investigation for installation of energy saving devices aiming to reduce propulsion power required and CO<sub>2</sub> emissions (2020).</li> </ul>



# ACTIVE PARTICIPATION IN R&D PROGRAMS ON GREEN TECHNOLOGY AND ALTERNATIVE FUELS (CONT'D)


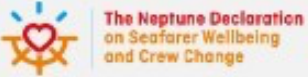


ONGOING PROGRAMS AND INITIATIVES FROM PREVIOUS YEARS

Program title	Brief description
<b>BUGWRIGHT2</b>	<ul style="list-style-type: none"> <li>Autonomous Robotic Inspection and Maintenance on Ship Hulls and Storage Tanks: The objective of BUGWRIGHT2 will be to bridge the gap between the current and desired capabilities of ship inspection and service robots by developing and demonstrating an adaptable autonomous robotic solution for servicing ship outer hulls. By combining the survey capabilities of autonomous Micro Air Vehicles (MAV) and small Autonomous Underwater Vehicles (AUV) with teams of magnetic-wheeled crawlers operating directly on the surface of the structure, the project inspection and cleaning system will be able to seamlessly merge the acquisition of a global overview of the structure with performing a detailed multi-robot visual and acoustic inspection of the structure, detecting corrosion patches or cleaning the surface as necessary - all of this with minimal user intervention.</li> </ul>
<b>GATERS</b> (Fuel Saving)	<ul style="list-style-type: none"> <li>GATE Rudder System as a Retrofit for the Next Generation Propulsion and Steering of Ships: GATERS proposes the first retrofit application of a novel propulsion and maneuvering device for ships, called "Gate Rudder System". It specifically aims "to develop and demonstrate to TRL6 and higher innovative, cost-effective retrofit solution for marine shipping to provide substantial improvements regarding environmental impacts and life cycle cost". By leveraging on the remarkable fuel saving (a max of 14% in trials and 30% in-service) and excellent maneuverability of the gate rudder system, "GATERS will demonstrate significantly reduced emissions from ships particularly within coastal and port areas to challenge and even exceed the current and future legislative requirements of the IMO for emissions".</li> </ul>
<b>ShipFC</b> (Alternative Fuel)	<ul style="list-style-type: none"> <li>Piloting Multi MW Ammonia Ship Fuel Cells: ShipFC's main mission is to prove and show the case for large-scale zero-emission shipping. We do this through developing, piloting and replicating a modular 2MW fuel cell technology using ammonia as fuel. The project will first adapt and scale-up existing fuel cell solutions to a 2MW system, develop ship and land fuel systems for ammonia and integrate the full system on board a large offshore construction vessel. Then the solution will be validated through commercial operation for at least 3000 hours during a one-year period. Moreover, socio-technical models and analysis will be performed and a full feasibility study on a series of additional vessels will be conducted.</li> </ul>
<b>i-MARINE</b> (Optimization and Monitoring)	<ul style="list-style-type: none"> <li>Intelligent adaptive-controllable alignment in marine propulsion systems for performance optimization and failure prevention.</li> </ul>
Other initiatives	Brief description
<b>Alternative fuel</b>	<ul style="list-style-type: none"> <li>Striving to innovate, Star Bulk is currently exploring several alternative fuels including hydrogen and ammonia. In this vein, Star Bulk has participated in a Joint Development Project and HAZID workshop (HAZard Identification) with different partners including Engine Builders, Shipbuilder, Classification Societies, Shipping companies, Vendors to work together on Ammonia as an alternative fuel for the marine industry. The deliverable of the workshop relates to the introduction of Rules/Regulations, Safety aspects, Design requirements, and operational procedures.</li> </ul>

# WE LEAD IN SUSTAINABILITY EFFORTS FOR OUR INDUSTRY THROUGH RECOGNIZED ORGANIZATIONS AND INITIATIVES

Program title	Brief description
	<p>Star bulk has established a long-standing contractual relationship Rightship, the world’s leading maritime risk management and environmental assessment organisation, receiving vetting and inspections services, for the purpose of verifying the standards of excellence and high-level performance, that Star Bulk always adheres to.</p>
	<p>The United Nations Global Compact and the United Nations Global Compact Network Hellas are voluntary initiatives, that encourage businesses worldwide to adopt sustainable and socially responsible policies, align strategies with universal principles on human rights, labour, environment and anti-corruption and take actions that advance societal goals. <b>Star Bulk became signatory to the UN Global Compact and to UN Global Compact Network Hellas in 2020.</b></p>
	<p>The Global Maritime Forum is an international not-for-profit organization committed to shape the future of global seaborne trade, increase sustainable long-term economic development and human wellbeing. The Forum brings together international maritime industry leaders with policy-makers, NGOs, experts, and other influential decision-makers to work together on developing new solutions and recommendations for action. <b>Star Bulk supports the Global Maritime Forum as a Partner.</b></p>
	<p>The “Getting to Zero Coalition” is an alliance of companies across the maritime, energy, infrastructure and finance sectors, supported by key governments and IGOs, and is committed to getting commercially viable, deep-sea, zero-emission vessels, powered by zero-emission fuels, into operation by 2030: maritime shipping’s moon-shot ambition. The Coalition is defined by this ambition and a set of core principles that all members share. <b>Star Bulk is an active member of the Coalition.</b></p>
	<p>The International Association of Dry Cargo Shipowners (INTERCARGO) is representing the interests of quality dry cargo shipowners, and works with Members, Regulators and other Shipping Associations to ensure that shipping operates safely. <b>Star Bulk is an active member of the association.</b></p>
	<p>The International Bunker Industry Association (IBIA) represents all stakeholders across the global bunker industry value chain, provides an international forum for bunker industry issues, represents the industry in discussions and negotiations with national and international policy makers, legislators and other groups and bodies and aims to increase the professional understanding and competence of all who work in the industry. IBIA has consultative status in the IMO as a non-governmental organization, and is actively engaging in the assessment of all future and alternative fuels and participates in related public deliberations. <b>Star Bulk is an active member of IBIA.</b></p>
	<p>The Clean Shipping Alliance 2020 (CSA 2020) represents a group of 38 global leading companies from the commercial shipping and cruise industries that have been leaders in emission control efforts and have made significant investments in research and analysis, funding and committing resources to comply with 2020 fuel requirements through the installation of Exhaust Gas Cleaning Systems (EGCS) on their fleets. <b>Star Bulk is an active member of the Alliance.</b></p>

# WE LEAD IN SUSTAINABILITY EFFORTS FOR OUR INDUSTRY THROUGH RECOGNIZED ORGANIZATIONS AND INITIATIVES (CONT'D)

Program title	Brief description
	<p>Hellenic Marine Protection Association (HELMPEPA) is the pioneering voluntary commitment of Greek seafarers and ship owners to safeguard the seas from ship-generated pollution by spreading a pollution prevention and safety spirit throughout the industry. <b>Star Bulk is an active member of the Association.</b></p>
	<p>The Neptune Declaration on Seafarer Wellbeing and Crew Change targets the promotion and protect the welfare of seafarers. The initiative was launched as a result of the crew change crisis that derived from COVID-19 implications and outlines the main actions to safeguard the rights and welfare of seafarers. <b>Star Bulk is a signatory to the Neptune Declaration on Seafarer Wellbeing and Crew Change.</b></p>
	<p><b>Star Bulk became signatory to the Gulf of Guinea Declaration on Suppression of Piracy in 2021</b>, which aims to prevent the number of piracy and kidnappings attacks through active anti-piracy operations, including law enforcement by non-regional naval forces, by 80% by the end of 2023.</p>
	<p><b>Star Bulk is a member to the Maritime Anti-Corruption Network (MACN).</b> MACN and its members work towards the elimination of all forms of maritime corruption.</p>

We actively participate in working groups and shaping the future of international shipping:

- ✓ **Getting to Zero Coalition workstreams:** “Motivating First Movers” and “Closing the Competitiveness Gap”.
- ✓ **Intercargo’s EEXI Working Group** which will participate in IMO’s Correspondence Group on the development of carbon intensity reduction issues.
- ✓ **IBIA’s (International Bunker Industry Association) Working Groups** for ammonia, methanol, LNG and alternative ways.

# 6

## SOCIAL

### RELATED SDGS





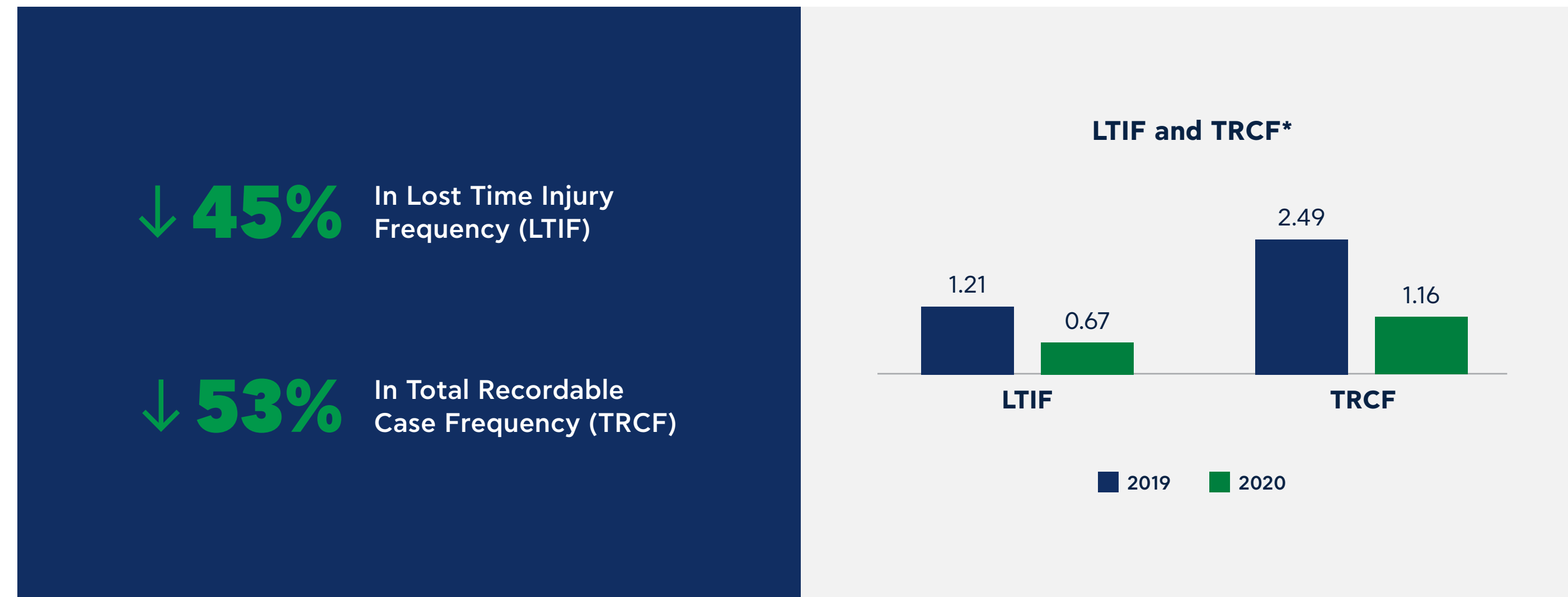
# MANAGEMENT OF HEALTH & SAFETY RISKS IS A CORE PRIORITY OF OUR ESG STRATEGY

The health and safety of our people has always been at the forefront of our corporate philosophy. Health and safety risks are being regularly and effectively monitored and managed by an in-house team, which is supported by a variety of sophisticated and accredited data management tools and systems. Our team reviews and evaluates the risks and processes associated with our operations and activates additional safeguards and mitigation measures once deemed necessary. We follow the Oil Companies International Marine Forum (OCIMF) categorization for the recording of seafarer accidents.

In 2020, we recorded 15 Lost Time Injuries (LTI) and 26 Medical Treatment Cases (MTC), in 22,486,098 hours of exposure.

In 2020, the accident rate for our fleet\*\* was 1.82, while we had zero accidents in the office in total 619,735 hours of work.

During the reporting period, we managed to:



As per our management approach on health and safety we have been certified with the ISO 45001:2018 Health and Safety Management.

## INTERNATIONAL SHIP AND PORT FACILITY SECURITY CODE (ISPS)

- We take all necessary precautionary measures, in order to ensure that the crew members' security on board, remains intact.
- During 2020, 0.07 incidents/vessel on average in our total owned managed vessels were encountered (minor security violations, not piracy attempts).
- According to the ISPS code boundaries of the VRA (Voluntary Reporting Area) and the HRA (High Risk Area), we have equipped our own managed vessels with security equipment, depending on the vessels' size and the usual areas through which they transit.
- During the HRA transits, armed guards are assigned to board the vessels, for the protection from piracy attempts.
- We strongly advise our vessels when in transit through the limits of the VRA to remain an average of 150-220nm from the HRA boundaries, in order to ensure that there is not even the slightest chance of piracy threat.

\*The reported data refer to our managed vessels as of December 31, 2020.

\*\*Accident rate was calculated based on 1,000,000 hours worked.

# CONTINUOUSLY IMPROVING OUR PORT STATE CONTROL PERFORMANCE

## ON BOARD INSPECTIONS, AUDITS AND PORT STATE CONTROLS

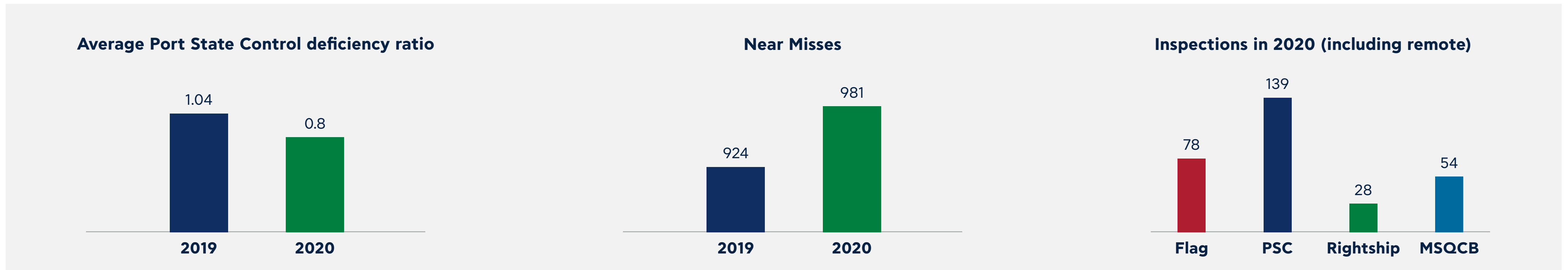
- Internal and external audits take place in order to ensure that we comply with all international and legal requirements related to the safety and integrity of our operations.
- Our target is to inspect every vessel 4 times per year-

two inspections by a Technical superintendent and two more by a Marine Safety and Quality superintendent.

- During 2020, our **Port State Controls (PSC) deficiency ratio was reduced by 23% compared to 2019.**
- Some countries developed a process for remote inspections in 2020. Our company successfully participated in this process by complying with the

outlined requirements.

- Marine Safety Quality Control Boarding (MSQCB): Appointed local inspectors in China and Australia to perform physical inspections instead of our marine superintendents due to COVID-19 restrictions.



↓ **23%** In PSC deficiency ratio in 2020

↑ **6%** In reported near misses in 2020

**1.9** Inspections/vessel in 2020 (including remote)



## OUR CREW



# OUR RETENTION RATES REMAIN HIGH ACROSS OUR SKILLED AND EXPERIENCED SEAFARERS

## OUR POOL OF SEAFARERS

- In 2020, a total of 2,320 seafarers were assigned to sea duties from a pool of 3,944 active seafarers.
- We continued our long-term exclusive cooperation with a manning agency in Philippines that provides us with crew management services and supplies our vessels with a highly experienced crew. Through the help of the agency, the seafarers undergo a series of recruitment, selection, training and development programmes.
- Approximately 95% of our seafarers were recruited by our Philippines agent, while the remaining 5% was sourced by our third-party managers.

## CREW CHARACTERISTICS

- We employ a diverse pool of male seafarers, from five (5) different countries.
- The majority of our seafarers originate from the Philippines (95%).

## RETENTION AND CAREER DEVELOPMENT

We are committed to developing our crew capabilities and skills and promoting a rewarding work environment for all our seafarers. As a result, in 2020 we:

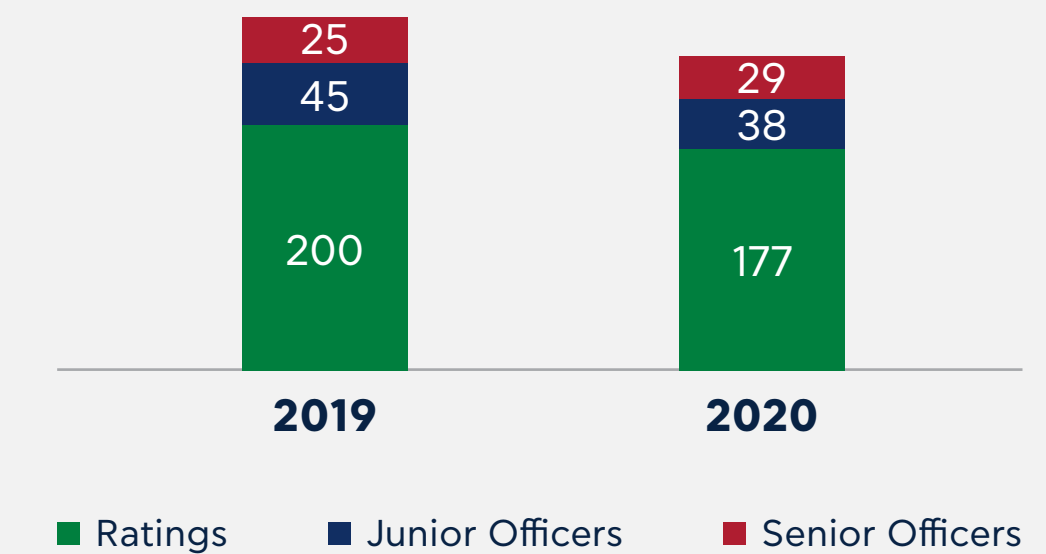
- Managed to achieve high retention rates across all crew rankings, with an average of 94.6%.
- Enhanced our internal promotion programs in order to effectively fulfill arising succession planning requirements internally by our existing crew members. Our aim is to provide our seafarers with long-term career development opportunities that will propel their growth within our Company.
- 100% of our seafarers participated in the annual performance review process.

<b>2,320</b>	Seafarers on board
<b>3,944</b>	Pool of seafarers
<b>41.7</b>	Average crew age
<b>95%</b>	Average crew retention rate

Crew country of origin

Philippines	95,0%
Ukraine	4,1%
Bulgaria	0,3%
Romania	0,3%
Russia	0,3%

Crew Promotions



The crew change crisis that derived from COVID-19 implications, posed a significant challenge to crew welfare. Recognizing the need to safeguard the rights and welfare of our seafarers, we are committed signatories to the **“Neptune Declaration on Seafarer Wellbeing and Crew Change”**.

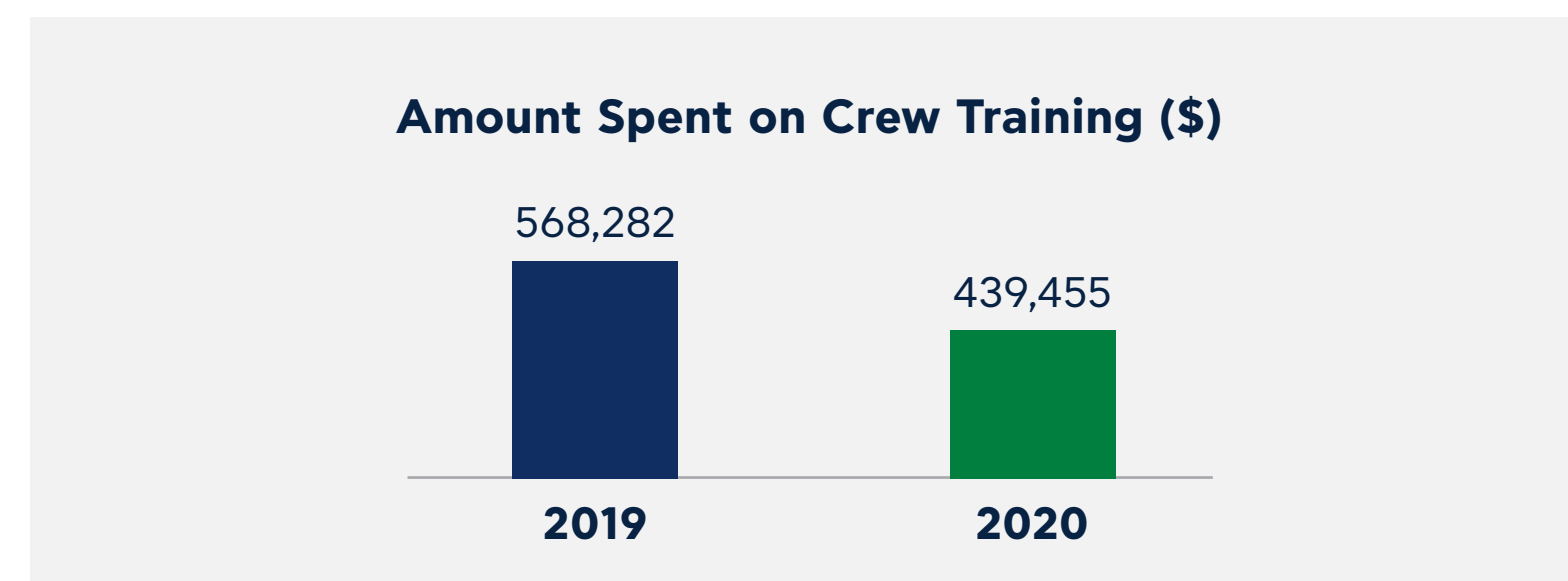
# CREW WELFARE AND DEVELOPMENT IS OUR TOP PRIORITY

## CREW TRAININGS

At Star Bulk, we are active supporters of equal opportunity in employment, personnel administration, salaries, training and promotion. Trainings are an integral part of our business strategy; we believe that enriching our crew’s skills can help us build a high-performing shipping company.

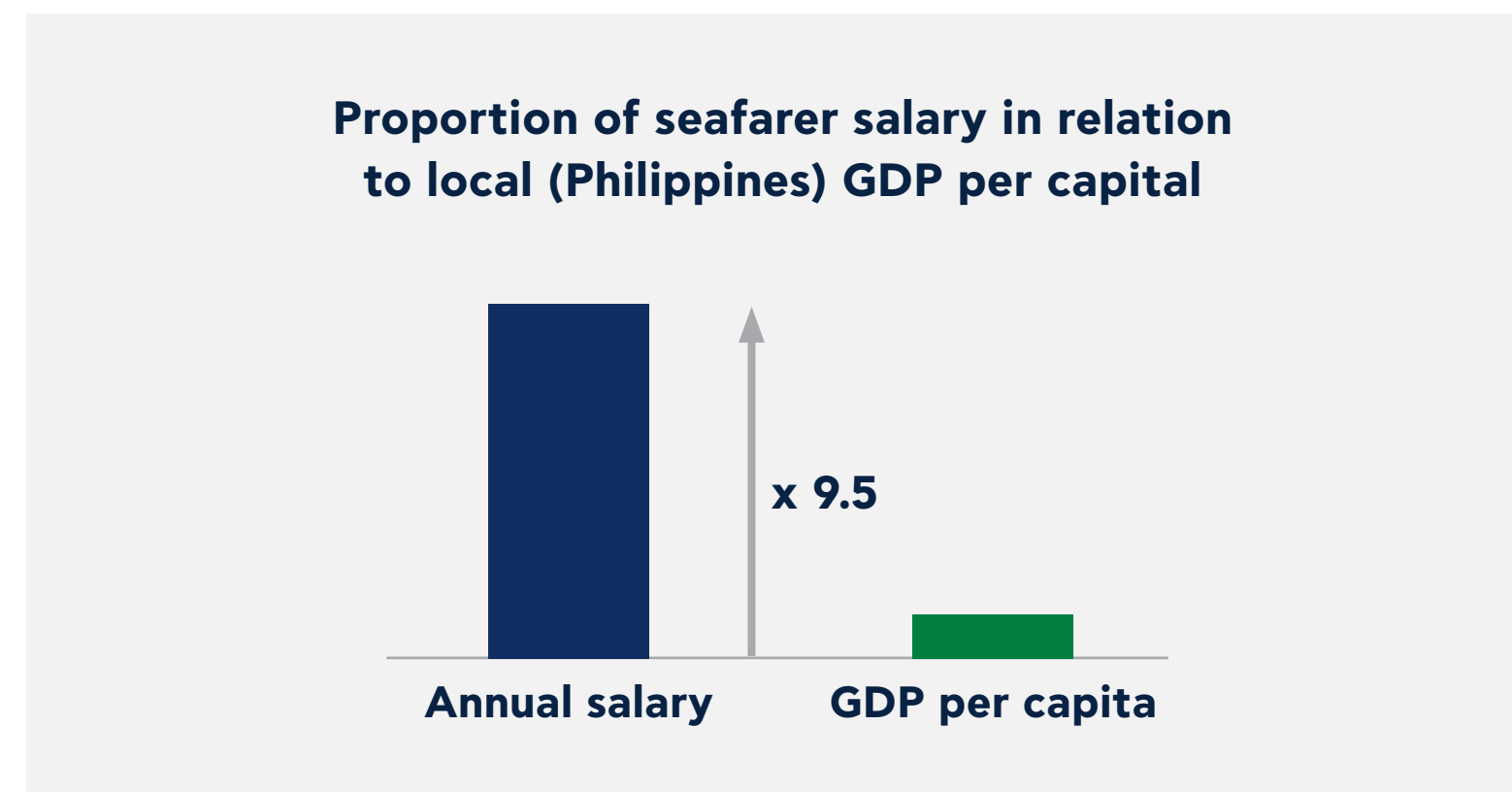
We operate a sophisticated training and development program, through long-standing collaboration with qualified and accredited external training centers, and our own technical and MSQ teams. The trainings are conducted prior to boarding our vessels, during which our seafarers attend a comprehensive series of in-house training sessions and CBT trainings.

In 2020 we initiated a series of remote trainings, in order to adapt to the restrictions posed by the COVID-19 pandemic, whilst also ensuring that the quality of training to our crews would not be adversely affected by these restrictions. The cost efficiencies associated with the online learning, resulted in a significant reduction in the amount spent on trainings.



**SEAFARERS RENUMERATION** is essential to the welfare of our crew:

- We remunerate and provide benefits to our crew fairly, based on the competency requirements of each position
- In 2020, we paid to our seafarers \$ 89.4 million in wages, remittances, bonuses, social security payments and cash advances.
- The average salary of our crew is approximately 9.5 times higher than the local GDP per capita (considering the Philippines which is where most of our crew is from).
- Specifically for cash advances we are open to relevant requests for the coverage of medical emergencies, personal needs, relief from natural disasters, etc.



**> \$89 m**  
In crew salaries, bonuses and social security contributions in 2020





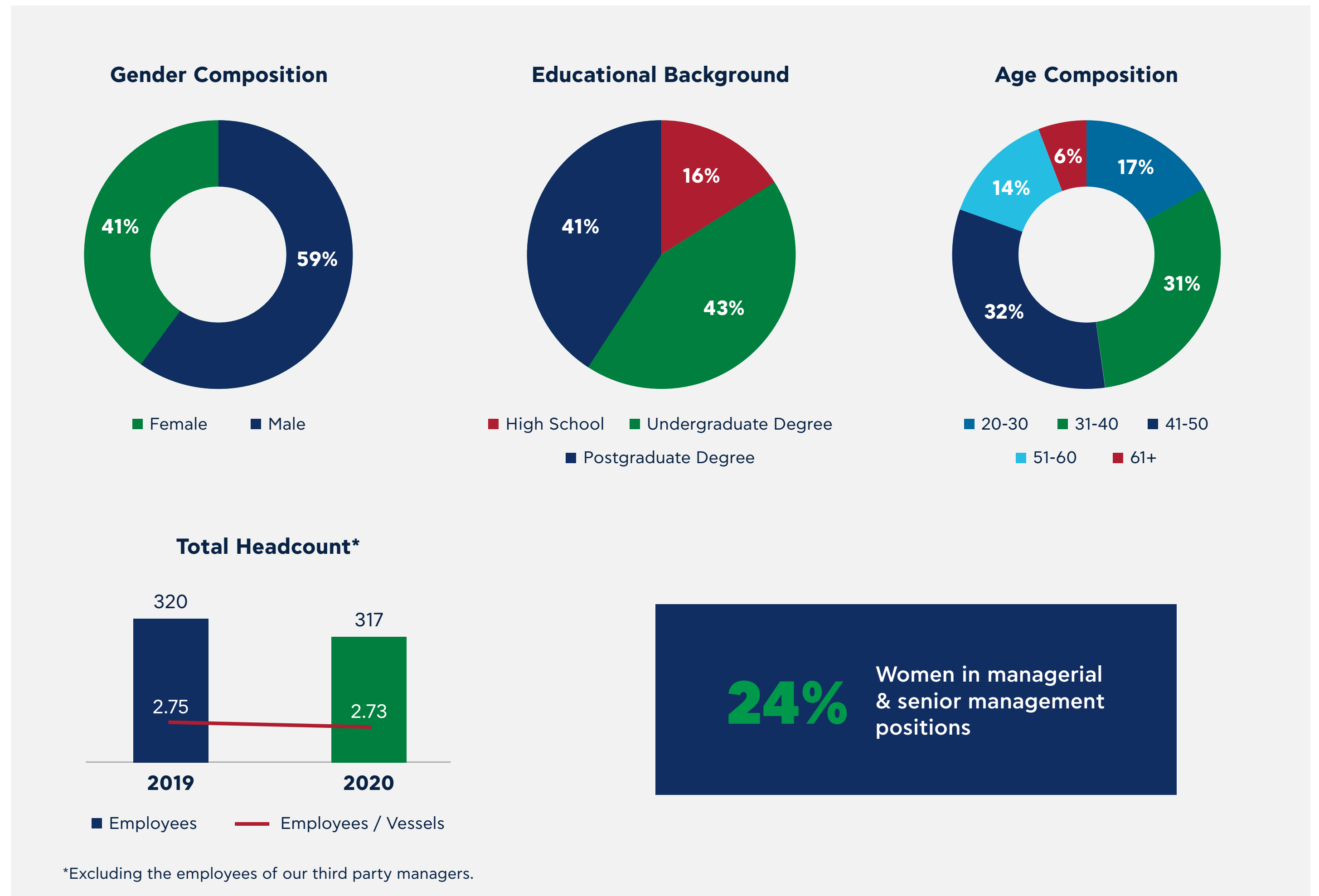
## OUR ONSHORE EMPLOYEES



# PROMOTING AN INCLUSIVE CORPORATE CULTURE FOR OUR PEOPLE ASHORE

Apart from our crew, a team of high-skilled employees work in our offices across the world, to support our vessels' operations. At Star Bulk we are committed to embracing the diversity, individuality, and humanity of our employees, and giving back to society as a good corporate citizen. Particularly:

- We employ an onshore team of more than **315 employees** under full-time contracts, for the management of Star Bulk vessels, which consists of a diverse educational and professional background.
- We maintain a **2.73 employee / vessel ratio** to better support our vessels activities from ashore.
- **27% of our operational workforce** (i.e. employees of Technical, Operations and MSQ Departments) involved in the technical management of the vessels managed by Star Bulk, has significant seagoing experience.
- We have **zero tolerance for any form of discrimination or harassment** and we provide equal opportunities between men and women. Approximately, **41% of our employees are women**, while 24% of our management and senior management positions are held by women.
- We strive to sustain a motivating and rewarding workplace for our people, and thus we offer multiple career advancement opportunities, tangible benefits and bonus schemes in recompense for employees' high performance.



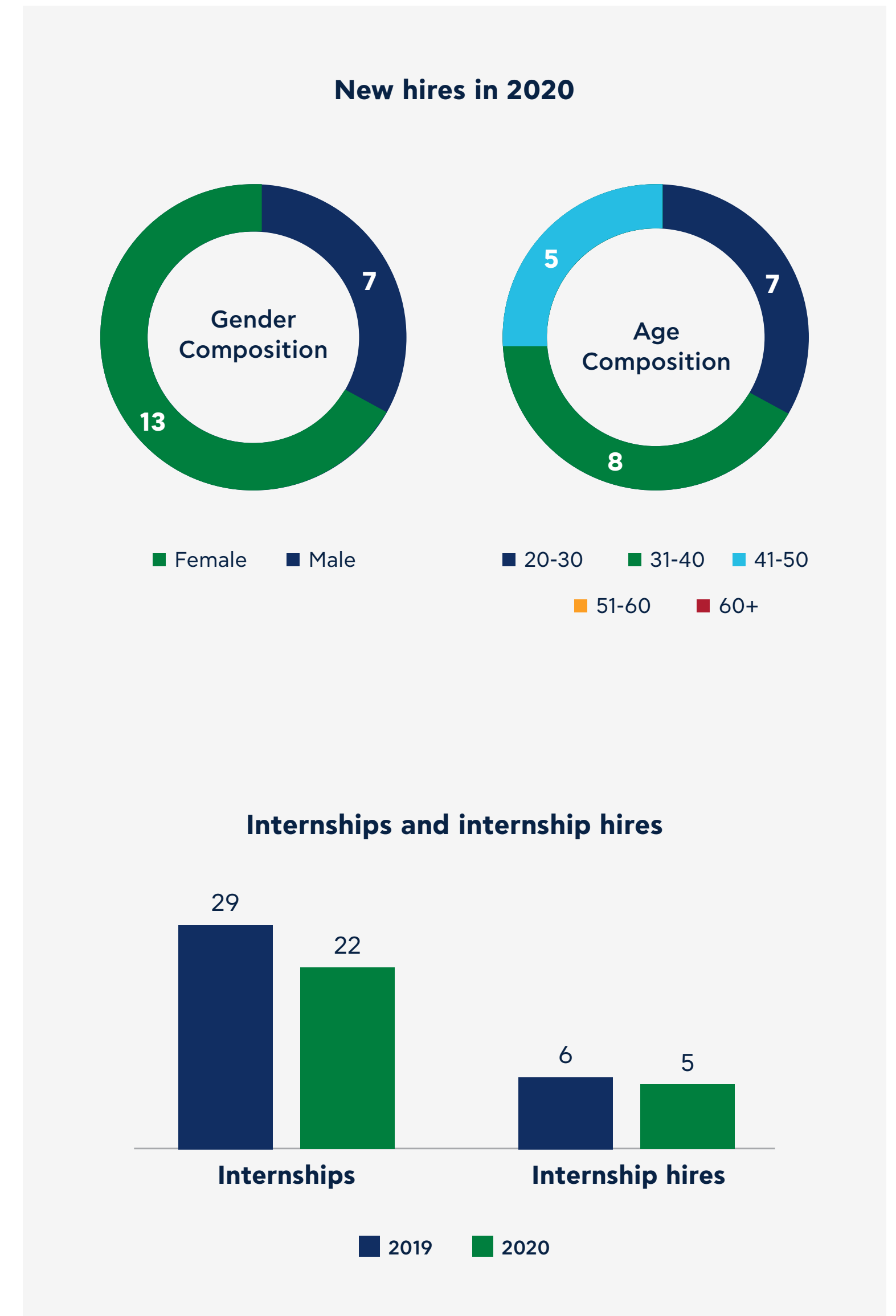
# FOCUSING ON OUR EMPLOYEES' WELL-BEING AND CONTINUOUS DEVELOPMENT

Our principal priority at Star Bulk is to support, empower and professionally develop our employees, and as such we strive to create for them a motivating and learning working environment, where they can excel. In order to maintain and develop a high-performing team, each year we execute an **annual performance review** process addressing all employees ashore. This process includes objective setting (performance and development) between managers and employees at the beginning of the year, a mid-year review and a year-end evaluation during which each employee is evaluated against both, a company-wide competency model and the performance objectives set at the beginning of the year. The annual evaluations begin with a self-assessment process and the agreed and finalized evaluations are linked to the performance correlated compensation and benefits scheme.

Throughout the years, our corporate culture generates high levels of employee satisfaction, which are validated by our high retention rates. Notably, our employee retention rate has been consistently above 95%.

In addition, at Star Bulk, we place great emphasis in **promoting employment opportunities for the younger generations**. Thus, we have established long-lasting collaborations with academic

institutions, and offer internship programs to students regularly, in order to equip them with a hands-on experience and the necessary skillset for today's highly competitive job market. It should also be noted that, over the years, many of the internships that we offer have resulted in permanent hire, while, we have been consistently increasing our intern intakes and maintaining a steady intern hiring rate. The number of new hires (13 female, 7 male), promotions (1 female, 5 male), internal job transfers (1 female, 6 male), and internships were reduced in 2020, due to COVID-19 implications.





# FOCUSING ON OUR EMPLOYEES' WELL-BEING AND CONTINUOUS DEVELOPMENT (CONT'D)

**98%** Retention rate in 2020

**100%** Of our employees ashore participate in annual performance review process

**22** Internships executed in 2020

**5** Interns were temporarily or permanently hired

**6%** New hires rate

**4%** Turnover rate

## EMPLOYEE WELL-BEING INITIATIVES:

- Constant medical and health advice to all employees by a qualified occupational physician
- Flexible and remote working arrangements
- Orthopedic office equipment for all employees

## WOMEN'S INTERNATIONAL SHIPPING & TRADING ASSOCIATION (WISTA)



### Supporting the empowerment of women in shipping

Active memberships of the Association among our female employees while one member of our managerial team, served as President of WISTA Hellas from 2014 till 2020.



# WE MAINTAIN SOLID PROCUREMENT PRACTICES AND ENSURE HIGH QUALITY AND ETHICAL STANDARDS

We collaborate with leading suppliers internationally and place great emphasis on building and maintaining strong relationships with them.

We regularly monitor our business partners to ensure that they execute their business with integrity, aligned with our quality and environmental standards, through our **supplier's evaluation process**. We have initiated two forms of evaluation, our vessels rank all services provided by the suppliers and the responsible employees ashore evaluate all suppliers with high yearly turnover. During 2020, our vessels evaluated 833 suppliers (stores/provisions), and 87% of them successfully ranked above 70%.

We apply a **Social Responsibility Policy** which ensures that our suppliers conduct their activities in a socially responsible manner. We request from our suppliers to complete a form, which includes product and material information (such as, the amount of hazardous materials contained) and ensures that their materials comply with existing regulations (i.e. regulation 4 of the IMO Hong Kong Convention, the UN recommendation "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" and more).

We use an online e-procurement platform, that

provides us access to a broad and qualified suppliers base, and which enables us to achieve competitive prices and minimize our costs.

We aim to **consolidate our shipment and forwarding activities** in order to continually optimize our operational and cost efficiency. In 2020, the total number of purchase orders was 14,081, the majority of which were from Asia. There was an average of 4.2 purchase orders per shipment - irrespective of vessel - approximately at the same level as in 2019.



**100%** Of our suppliers passed our quality evaluation benchmark during 2020

**115** Unique suppliers evaluated within 2020

**~ 4.2** Purchase orders / shipment consolidation rate

**14,081** Purchase orders within 2020

# STRENGTHENING OUR COMMUNITY WITH TANGIBLE CONTRIBUTIONS

<p><b>COVID-19 Relief Aid</b></p>	<p>During the reported year, Star Bulk was also involved in donation contributions related to the pandemic. Specifically, the Company donated material relief aid to the Greek Government for the purchase of COVID-19 Personal Protective Equipment (PPE).</p>	<p><b>Rehab School, Ilion Athens</b></p>	<p>The Rehab School in Ilion is a Public Technical School of Secondary Education for children with mobility disabilities in Greece. In 2020 Star Bulk donated a vertical stilt and a Bobath bed for students' mobility therapies.</p>
<p><b>SYN-ENOSIS</b></p>	<p>In 2016, members of the union of Greek Shipowners established the Greek Shipowners' social welfare company SYN-ENOSIS. The mission of the company is to support the Greek society via social welfare programs and activities for vulnerable social groups through the provision of humanitarian and charitable aid. Star Bulk has been providing annual financial contribution to SYN-ENOSIS for the past years.</p>	<p><b>AMVER Awards Commemorative Album</b></p>	<p>Our Company sponsored the AMVER Awards Album, published by the International Propeller Club, a non-profit charity association. AMVER is the Automated Mutual Assistance Vessel Rescue, an international computer-based and voluntary ship reporting system, applied across the world by search and rescue authorities, through the use of commercial ships to rescue suffering people at sea globally.</p>
<p><b>CTY Greece</b></p>	<p>The Stavros Niarchos Foundation Endowed Scholarship Fund represents an endowed fund at Anatolia College in support of the Center for Talented Youth ("CTY"). The fund supports the access of deserving underprivileged students to the CTY Summer Program. As Star Bulk, we are committed to supporting the CTY scholarships for a period of five years (2018 – 2022).</p>	<p><b>Argo Ekdotiki</b></p>	<p>The Greek Shipping Miracle is the first online maritime museum. The organization's purpose is to increase awareness about the Greek shipping sector and its long-lasting contribution to both the Greek and the international economy.</p>
<p><b>PROJECT CONNECT</b></p>	<p>Project Connect is a Non-Profit Organization of professionals from the Shipping and HR industries who offer practical solutions to the problem of youth employability. During 2020 Star Bulk made a financial contribution to support the project's activities.</p>	<p><b>Paros International Wind Surf Competition</b></p>	<p>Star Bulk sponsored the Professional Windsurfing Association's (PWA) World Cup, hosted in Paros island. The event consists of a series of competitions featuring different sporting activities, e.g., course racing, slalom and wave sailing.</p>
<p><b>FRIENDS OF LIBERTY ASSOCIATION</b></p>	<p>The Association's purpose is the maintenance and management of a floating boat exhibit named HELLAS LIBERTY, which is one of the three remaining ships in its category and was given to the Greek Republic by the United States Government. Star Bulk has provided funds to support the Association's efforts to maintain the exhibit.</p>		

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APPENDICES



Appendix A

# STAR BULK PERFORMANCE METRICS

ENVIRONMENT	KPI	2020	2019	Page
	Average fleet Energy Efficiency Operation Index (EEOI) (gr CO <sub>2</sub> / TEU-mile)*	6.22	5.89	28
	Average fleet Annual Efficiency Ratio (AER) (gr CO <sub>2</sub> / DWT-mile)	3.25	3.24	28
	CO <sub>2</sub> emissions (tn)	2,574,605	2,331,036	29
	Fuel consumption (tn)	823,676	746,929	29
	SOx emissions (tn)	7,346	34,737	30
	NOx emissions (tn)	60,732	54,270	30
	Total fleet and office Energy Consumption (GJ)	33,383,000	30,159,047	29,32
	Number and volume of spills and releases to the environment	0	0	7
	Percentage of fleet equipped with EGCS	98%	90%	33
Percentage of fleet equipped with BWTS**	55%	47%	33	

\*Excluding the vessels managed by our third party managers

SOCIAL	KPI	2020	2019	Page
	Number of seafarers	3,944	4,300	44
	Seafarers' retention rate (%)	95%	93%	44
	Employees ashore	>315	>320	47
	Women employees (%)	41%	40%	47
	% of employees with seagoing experience	27%	29%	47
	Number of serious marine incidents	0	3	-
	Number of port state control (1) deficiencies and (2) detentions	111 / 2	318 / 5	-
	Average Port State Control deficiency ratio	0.8	1.04	42
	Lost time injury (LTIF) rate per 1.000.000 manhours	0.67	1.21	41
Total Recordable Cases Frequencies (TRCF) per 1.000.000 manhours	1.16	2.49	41	





GOVERNANCE	KPI	2020	2019	Page
	Port calls in countries that have the 20 lowest rankings in the Transparency International CPI (%)	12%	8%	21
	Amount of legal and regulatory fines associated with bribery or corruption	0	0	-
	Number of material weaknesses or deficiencies	0	0	22





\*\*The information presented reflects our fleet as of the release date of this report

Appendix B

# OUR STAKEHOLDERS

At Star Bulk we appreciate the role and significance of our stakeholders when it comes to defining our sustainability strategy. Their insight enriches our understanding of their needs which assists our decision making process and ensures that our sustainability actions and reporting is relevant and responsive to their expectations and concerns.

STAKEHOLDER GROUP	STAKEHOLDER TYPE
 <b>Customers</b>	<ul style="list-style-type: none"> <li>• Vessel owners</li> <li>• Charterers</li> <li>• Cargo owners</li> </ul>
 <b>Seafarers &amp; office employees</b>	<ul style="list-style-type: none"> <li>• Crew on board</li> <li>• Office employees</li> <li>• Manning agents</li> </ul>
 <b>Shareholders / Investors</b>	<ul style="list-style-type: none"> <li>• Natural persons</li> <li>• Institutional shareholders</li> <li>• Funds/Private Equities</li> </ul>
 <b>Financial Institutions</b>	<ul style="list-style-type: none"> <li>• Banks</li> <li>• Leasing financial institutions</li> <li>• Underwriter</li> <li>• Insurance companies</li> </ul>

STAKEHOLDER GROUP	STAKEHOLDER TYPE
 <b>Authorities</b>	<ul style="list-style-type: none"> <li>• Governments</li> <li>• IMO</li> <li>• Flag administration</li> <li>• Port authorities / coast guards</li> </ul>
 <b>Bunker traders and physical suppliers</b>	<ul style="list-style-type: none"> <li>• Brokers</li> <li>• General suppliers</li> </ul>
 <b>Community &amp; society</b>	<ul style="list-style-type: none"> <li>• Academic institutions</li> <li>• Local communities</li> <li>• NGOs</li> <li>• Media</li> </ul>
 <b>Industry organisations</b>	<ul style="list-style-type: none"> <li>• Classification societies</li> <li>• Recognized organizations</li> <li>• P&amp;I clubs</li> <li>• Insurers</li> <li>• Vetting companies</li> </ul>

For more details regarding the engagement process followed for each stakeholder group, please refer to “Appendix B - Stakeholders engagement”

Appendix B

# STAKEHOLDERS ENGAGEMENT PROCESS

STAKEHOLDER GROUP	BASIS FOR ENGAGEMENT	ENGAGEMENT METHODS	FREQUENCY	KEY AREAS OF INTEREST	OUR RESPONSE
<p><b>Clients</b></p> <ul style="list-style-type: none"> <li>• Vessel owners</li> <li>• Charterers</li> <li>• Cargo Owners</li> </ul>	<p>Customers, including charterers, cargo owners etc. are vital to the organisation’s success and have a direct interest in our market impact and sustainability performance.</p>	<ul style="list-style-type: none"> <li>• Charter Parties</li> <li>• Service feedbacks</li> </ul>	<ul style="list-style-type: none"> <li>• Ad hoc</li> <li>• Strategic</li> </ul>	<ul style="list-style-type: none"> <li>• Service quality</li> <li>• Business ethics</li> <li>• Financial performance</li> <li>• Vessel condition</li> </ul>	<p>We constantly strive to increase our service quality in order to deliver sustainable and value adding services to all our clients.</p>
<p><b>Seafarers &amp; office employees</b></p> <ul style="list-style-type: none"> <li>• Crew on board</li> <li>• Employees ashore</li> <li>• (Affiliated) Manning agents</li> </ul>	<p>Our people are critical to our business, strategy and decision making. We therefore aim to maintain a safe and rewarding work environment whilst engaging and collaborating with them to achieve our goals.</p>	<ul style="list-style-type: none"> <li>• Performance feedback</li> <li>• Open communication channels</li> </ul>	<ul style="list-style-type: none"> <li>• Daily</li> <li>• Annually</li> </ul>	<ul style="list-style-type: none"> <li>• Financial performance</li> <li>• Work conditions</li> <li>• Health and safety</li> <li>• Remuneration and benefits</li> <li>• Career development</li> </ul>	<p>We put health and safety first and foster an open and inclusive work environment both on board and ashore. We fairly reward and offer career advancement opportunities to our people.</p>
<p><b>Shareholders / Investors</b></p> <ul style="list-style-type: none"> <li>• Natural persons</li> <li>• Institutional investors</li> <li>• Funds/ Private Equities</li> </ul>	<p>Shareholders are essential to the company’s operations and growth and have a direct interest in the company’s performance.</p>	<ul style="list-style-type: none"> <li>• Annual General Meetings</li> <li>• Quarterly / Annual financial results</li> <li>• Investor briefings and roadshows</li> <li>• Web site / Press releases</li> </ul>	<ul style="list-style-type: none"> <li>• Annually</li> <li>• Quarterly</li> <li>• Ad hoc</li> </ul>	<ul style="list-style-type: none"> <li>• Financial performance</li> <li>• Business strategy</li> <li>• Governance</li> <li>• Regulatory compliance</li> </ul>	<p>We regularly inform our shareholders on the company’s development and strategy. We conduct our business and take actions with the ultimate goal of increasing the company’s value.</p>
<p><b>Financial institutions</b></p> <ul style="list-style-type: none"> <li>• Banks</li> <li>• Leasing financial institutions</li> <li>• Underwriting agents</li> <li>• Insurance companies</li> </ul>	<p>Financial institutions require information on the company’s performance with a rising interest in sustainability.</p>	<ul style="list-style-type: none"> <li>• Quarterly / Annual financial results</li> </ul>	<ul style="list-style-type: none"> <li>• Annually</li> <li>• Quarterly</li> <li>• Ad hoc</li> </ul>	<ul style="list-style-type: none"> <li>• Financial performance</li> <li>• Business strategy</li> <li>• Governance</li> <li>• Regulatory compliance</li> </ul>	<p>We provide transparent information about the performance, strategy and outlook of the company.</p>

Appendix B

# STAKEHOLDERS ENGAGEMENT PROCESS (CONT'D)

STAKEHOLDER GROUP	BASIS FOR ENGAGEMENT	ENGAGEMENT METHODS	FREQUENCY	KEY AREAS OF INTEREST	OUR RESPONSE
<p><b>Bunker traders and physical suppliers</b></p> <ul style="list-style-type: none"> <li>• Brokers</li> <li>• Port Agents</li> </ul>	<p>We aim to understand our suppliers' concerns and develop channels of mutual support that enhance the quality of our supply chain and foster long term collaboration and opportunities.</p>	<ul style="list-style-type: none"> <li>• Supplier evaluations</li> <li>• Contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Ad hoc</li> </ul>	<ul style="list-style-type: none"> <li>• Financial performance</li> <li>• Business ethics</li> <li>• Evaluation criteria</li> <li>• Environmental performance</li> </ul>	<p>We evaluate the performance of our suppliers and integrate sustainability related issues within the evaluation process.</p>
<p><b>Industry organisations</b></p> <ul style="list-style-type: none"> <li>• Classification societies</li> <li>• Recognized organizations</li> <li>• P&amp;I clubs</li> <li>• Insurers</li> <li>• Vetting companies</li> </ul>	<p>Industry standards and regulations set by maritime organisations play a major role in the manner we conduct our business.</p>	<ul style="list-style-type: none"> <li>• Partnerships</li> <li>• Formal meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic</li> </ul>	<ul style="list-style-type: none"> <li>• Business ethics</li> <li>• Environmental performance</li> <li>• Health and safety</li> </ul>	<p>We participate and engage with all industry organizations regarding the various business issues that may arise.</p>
<p><b>Community &amp; society</b></p> <ul style="list-style-type: none"> <li>• Academic institutions</li> <li>• Local communities</li> <li>• Media</li> <li>• NGOs</li> </ul>	<p>We aim to have a positive impact on society by creating strong partnerships with the communities in which we operate.</p>	<ul style="list-style-type: none"> <li>• Conferences</li> <li>• Community engagement initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Ad hoc</li> </ul>	<ul style="list-style-type: none"> <li>• Support of People</li> <li>• Community support</li> <li>• Responsible business practices</li> <li>• Environmental Performance</li> </ul>	<p>We support the local society with community-focused initiatives and take their needs into consideration to maximise shared value.</p>
<p><b>Authorities</b></p> <ul style="list-style-type: none"> <li>• Governments / Local / Port authorities</li> <li>• IMO</li> <li>• Flag administration</li> </ul>	<p>Active engagement with state and regulatory authorities ensures compliance with all applicable standards and regulation.</p>	<ul style="list-style-type: none"> <li>• Audits</li> <li>• Public forums</li> </ul>	<ul style="list-style-type: none"> <li>• Ad hoc</li> </ul>	<ul style="list-style-type: none"> <li>• Regulatory compliance</li> <li>• Business ethics</li> <li>• Environmental performance</li> <li>• Health and safety</li> </ul>	<p>We follow and comply with State and regulatory authorities' rules and regulations. We follow and implement all instructions and we aim for zero non-conformities.</p>



Appendix B

# MANAGEMENT AND IMPACT OF MATERIAL ISSUES

The following table presents each material issue and the main stakeholder groups concerned with / affected by the issue.

ENVIRONMENT		SOCIAL		GOVERNANCE	
Material issue	Boundaries / Stakeholders affected	Material issue	Boundaries / Stakeholders affected	Material issue	Boundaries / Stakeholders affected
<b>Air pollution reduction &amp; compliance with respective regulations</b>	Seafarers and office employees, Customers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations	<b>Career opportunities and advancement</b>	Seafarers and office employees, Customers, Community and society	<b>Commercial strategy &amp; Commercial performance</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Financial institutions
<b>Fuel and energy efficiency</b>	Seafarers and office employees, Customers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations	<b>Diversity and inclusion</b>	Seafarers and office employees, Shareholders / Investors, Community and society	<b>Corporate governance, ethics and transparency</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations, Community and society
<b>Impact of environmental regulations on fleet profile</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations, Community and society	<b>Employee training / competency development</b>	Seafarers and office employees, Customers, Shareholders / Investors, Community and society	<b>Economic performance</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Financial institutions
<b>Investments Research &amp; Innovation in green technologies and alternative fuels</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Financial institutions, Industry organisations	<b>Health and safety during COVID-19 outbreak</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Industry organisations, Community and society	<b>Regulatory Compliance and application</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations
<b>Partnerships for advancing Sustainability</b>	Seafarers and office employees, Customers, Shareholders / Investors, Industry organisations	<b>Labor practices depicting the relationship between Management and employees</b>	Seafarers and office employees, Customers, Shareholders / Investors, Authorities, Industry organisations, Community and society	<b>Risk mitigation and control</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Financial institutions
<b>Research and innovation</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Financial institutions, Industry organisations	<b>Occupational health and safety</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Industry organisations, Community and society	<b>Security of transportations both physical and cyber security</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations, Community and society
<b>Resource conservation and vessel lifecycle</b>	Seafarers and office employees, Customers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations	<b>Relationship with business partners</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors		
<b>Waste management and recycling</b>	Seafarers and office employees, Customers, Suppliers, Shareholders / Investors, Authorities, Industry organisations, Community and society	<b>Talent attraction and retention including internship programs</b>	Seafarers and office employees, Shareholders / Investors, Community and society		
<b>Water pollution prevention, control &amp; compliance with respective regulations</b>	Seafarers and office employees, Customers, Shareholders / Investors, Authorities, Financial institutions, Industry organisations, Community and society				

## Appendix C

# UN GLOBAL COMPACT

The table below shows the 10 principles of the United Nations Global Compact with the corresponding contents of the report.

	UNGC Principles	Section	Page
<b>Human Rights</b>	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights	ESG at Star Bulk Carriers Corp. Social	15 44-45, 47-49
	Principle 2: Businesses should make sure that they are not complicit in human rights abuses	ESG at Star Bulk Carriers Corp. Social	15 44-45, 47-49
<b>Labour</b>	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	ESG at Star Bulk Carriers Corp. Social	15 44-45, 47-49
	Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labour	ESG at Star Bulk Carriers Corp. Social	15 44-45, 47-49
	Principle 5: Businesses should uphold the effective abolition of child labour	ESG at Star Bulk Carriers Corp. Social	15 44-45, 47-49
	Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation	ESG at Star Bulk Carriers Corp. Governance Social	15 21 47-49
<b>Environment</b>	Principle 7: Businesses should support a precautionary approach to environmental challenges	Environment	31-39
	Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility	Environment	38-39
	Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies	Environment	31, 35-37
<b>Anti-Corruption</b>	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery	Governance	21

Appendix D

# GRI CONTENT INDEX

Disclosure	Section / Comment	Page	External Assurance	
<b>GRI 102 General disclosures</b>	<b>102-1</b> Name of the organization	About Star Bulk Carriers Corp.	6	
	<b>102-2</b> Activities, brands, products, and services	About Star Bulk Carriers Corp.	7-9	
	<b>102-3</b> Location of headquarters	About Star Bulk Carriers Corp.	7	
	<b>102-4</b> Location of operations	About Star Bulk Carriers Corp.	7	
	<b>102-5</b> Ownership and legal form	About Star Bulk Carriers Corp.	7	
	<b>102-6</b> Markets served	About Star Bulk Carriers Corp.	7-9	
	<b>102-7</b> Scale of the organisation	About Star Bulk Carriers Corp.	7	
	<b>102-8</b> Information on employees and other workers	About Star Bulk Carriers Corp.	7, 43-49	√
	<b>102-9</b> Supply chain	About Star Bulk Carriers Corp.	7-9	
	<b>102-10</b> Significant changes to the organization	No Significant changes to the organization's size, structure, ownership, or supply chain occurred in 2020.		√
<b>102-11</b> Precautionary Principle or approach	Environment	31-39		
<b>102-12</b> External initiatives	Environment	35-37		
<b>102-13</b> Membership of associations	Environment	38-39		
<b>102-14</b> Statement from senior decision-maker	Message from our CEO	2		
<b>102-16</b> Values, principles, standards, and norms of behavior	Governance	21		
<b>102-17</b> Mechanisms for advice and concerns about ethics	Governance	21		
<b>102-18</b> Governance structure	Governance	20		

Disclosure	Section / Comment	Page	External Assurance	
<b>GRI 102 General disclosure</b>	<b>102-40</b> List of stakeholder groups	Appendix B	54-56	√
	<b>102-41</b> Collective bargaining agreements	Our employees are not covered by collective bargaining agreements.		
	<b>102-42</b> The basis for identifying and selecting stakeholders with whom to engage	Appendix B	54-56	√
	<b>102-43</b> Approach to stakeholder engagement	ESG at Star Bulk Carriers Corp.	17-18	
	<b>102-44</b> Key topics and concerns raised	ESG at Star Bulk Carriers Corp.	17	
	<b>102-45</b> Entities included in the consolidated financial statements	About Star Bulk Carriers Corp.	7	
	<b>102-46</b> Defining report content and topic Boundaries	Appendix B	57	√
	<b>102-47</b> List of material topics	ESG at Star Bulk Appendix B	17-18 57	√
	<b>102-48</b> Restatements of information	Environment	28-30	√
	<b>102-49</b> Changes in reporting	ESG at Star Bulk Carriers Corp.	17	√
	<b>102-50</b> Reporting period	About this Report	5	
	<b>102-51</b> Date of most recent report	Our 2019 Sustainability Report was published in October 2020.		
	<b>102-52</b> Reporting cycle	About this Report	5	
	<b>102-53</b> Contact point for questions regarding the report	Contact information	67	
	<b>102-54</b> Claims of reporting in accordance with the GRI Standards	About this Report	5	√
	<b>102-55</b> GRI content index	Appendix D	59-61	√
	<b>102-56</b> External assurance	Independent Verification Statement	64-66	

Appendix D

# GRI CONTENT INDEX

GRI Standard	Disclosure	Section / Comment	Page	External Assurance
<b>Economic performance</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	About Star Bulk Carriers Corp.	10	
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 201 Economic performance</b>	<b>201-1</b> Direct economic value generated and distributed			
<b>Anti-corruption</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Governance	21	√
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 205 Anti-corruption</b>	<b>205-3</b> Confirmed incidents of corruption and actions taken			
<b>Energy</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Environment	29, 32	√
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 302 Energy</b>	<b>302-1</b> Energy consumption within the organisation			

GRI Standard	Disclosure	Section / Comment	Page	External Assurance
<b>Emissions</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Environment	29	√
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 305 Emissions</b>	<b>305-1</b> Direct (Scope 1) GHG emissions	Environment	30	√
	<b>305-7</b> Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions			
<b>Effluents and waste</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Environment	7	√
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 306 Effluents and waste</b>	<b>306-3</b> Significant spills			
<b>Environmental compliance</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Environment	33, 34	
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 307 Environmental compliance</b>	<b>307-1</b> Non-compliance with environmental laws and regulations			

Appendix D

# GRI CONTENT INDEX

GRI Standard	Disclosure	Section / Comment	Page	External Assurance
<b>Employment</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Social	48-49	√
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 401 Employment</b>	<b>401-1</b> New employee hires and employee turnover			
<b>Occupational health and safety</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Social	41-42	√
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 403 Occupational health and safety</b>	<b>403-1</b> Occupational health and safety management system			
	<b>403-2</b> Hazard identification, risk assessment, and incident investigation			
	<b>403-3</b> Occupational health services			
	<b>403-4</b> Worker participation, consultation, and communication on occupational health and safety			
	<b>403-5</b> Worker training on occupational health and safety			
	<b>403-6</b> Promotion of worker health			
	<b>403-7</b> Prevention and mitigation of occupational health and safety impacts directly linked by business relationships			
	<b>403-9</b> Work-related injuries			√

GRI Standard	Disclosure	Section / Comment	Page	External Assurance
<b>Training and Education</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Social	44, 49	√
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 404 Training and education</b>	<b>404-3</b> Percentage of employees receiving regular performance and career development reviews			
<b>Diversity and equal opportunities</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	Governance Social	20 44, 47-48	
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 405 Diversity and equal opportunities</b>	<b>405-1</b> Diversity of governance bodies and employees			
<b>Non-discrimination</b>				
<b>GRI 103 Management approach</b>	<b>103-1</b> Explanation of the material topic and its Boundary	We had no incidents of discrimination in 2020		
	<b>103-2</b> The management approach and its components			
	<b>103-3</b> Evaluation of the management approach			
<b>GRI 406 Non-discrimination</b>	<b>406-1</b> Incidents of discrimination and corrective actions taken			

## Appendix E

# SASB MARINE TRANSPORTATION MATERIAL ISSUES

Category	Disclosure topic	Code	Page reference	External Assurance
<b>GHG emissions</b>	Gross global Scope 1 emissions	TR0301-01	29	
	Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	TR0301-02	13	
	Total energy consumed, percentage from heavy fuel oil, percentage from renewables	TR0301-03	29	
	Energy Efficiency Design Index (EEDI) for new ships	TR0301-05	-	
<b>Air Quality</b>	Air emissions for the following pollutants: NO <sub>x</sub> , SO <sub>x</sub> , and particulate matter (PM)	TR0301-04	30	
<b>Ecological impacts</b>	Shipping duration in marine protected areas and areas of protected conservation status	TR0301-06	-	
	Percentage of fleet implementing (1) ballast water exchange and (2) ballast water treatment	TR0301-07	33	
	Number and aggregate volume of spills and releases to the environment	TR0301-08	7	
<b>Employee health and safety</b>	Lost time injury rate (LTIR)	TR0301-12	41	
<b>Business ethics</b>	Number of calls at ports in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	TR0301-09	21	
	Amount of legal and regulatory fines and settlements associated with bribery or corruption	TR0301-10	53	
<b>Accident &amp; safety management</b>	Number of serious marine incidents	TR0301-11	53	√
	Number of Conditions of Class or Recommendations	TR0301-13	-	
	Number of port state control (1) deficiencies and (2) detentions	TR0301-14	53	√

Appendix F

# NASDAQ ESG REPORTING GUIDE 2.0

	Disclosure	Section	Page
ENVIRONMENTAL (E)	E1. GHG Emissions	Environment	29
	E2. Emissions Intensity	Environment	28
	E3. Energy Usage	Environment	29, 32
	E4. Energy Intensity)	-	
	E5. Energy Mix	-	
	E6. Water Usage	Environment	31-32
	E7. Environmental Operations	Environment	27
	E8. Climate Oversight / Board	-	
	E9. Climate Oversight / Management	Governance	22-23
	E10. Climate Risk Mitigation	Governance	22-23
SOCIAL (S)	S1. CEO Pay Ratio	-	
	S2. Gender Pay Ratio	-	
	S3. Employee Turnover	Social	49
	S4. Gender Diversity	Social	47-48
	S5. Temporary Worker Ratio	-	
	S6. Non-Discrimination	-	
	S7. Injury Rate	Social	41
	S8. Global Health & Safety	Social	41-42
	S9. Child & Forced Labor	-	
	S10. Human Rights	-	

	Disclosure	Section	Page
CORPORATE GOVERNANCE (G)	G1. Board Diversity	Governance	20
	G2. Board Independence	Governance	20
	G3. Incentivized Pay	-	
	G4. Collective Bargaining	-	
	G5. Supplier Code of Conduct	Governance	50
	G6. Ethics & Anti-Corruption	Governance	21
	G7. Data Privacy	Governance	24
	G8. ESG Reporting	Our 2019 Sustainability Report was published in October 2020.	
	G9. Disclosure Practices	ESG at Star Bulk Carriers Corp.	13-16
	G10. External Assurance	Independent Verification Statement	64-66



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## INDEPENDENT ASSURANCE STATEMENT

### TO THE MANAGEMENT OF STAR BULK CARRIERS CORP.

The “2020 Environmental, Social & Governance (ESG) Report” (“the Report”) of Star Bulk Carriers Corp. (“the Company”) has been prepared by the Company’s Management, which is responsible for the collection and presentation of the information contained therein. Our responsibility is limited in carrying out a “limited level” assurance engagement of specific scope.

Our responsibility in performing our assurance engagement is solely to the Company’s Management and in accordance with the terms of reference agreed between us. We neither accept nor we assume any responsibility and for any other purpose, to any other person or organization. Any reliance any third party may place on the Report is entirely at its own risk and responsibility.

### WORK SCOPE AND CRITERIA

The assurance engagement has been planned and performed in accordance with the International Standard on Assurance Engagements 3000 “Assurance Engagements Other Than Audits or Reviews of Historical Financial Information” (ISAE3000 revised), in order to provide:

1. Limited level assurance on the accuracy and completeness of quantitative data and the plausibility of qualitative information related to the GRI General Disclosures GRI 102-8, GRI 102-10, GRI 102-40, GRI 102-42, GRI 102-46, GRI 102-47, GRI 102-48, GRI 102-49, GRI 102-54 and GRI 102-55.

2. Limited level assurance on the accuracy and completeness of quantitative data and plausibility of statements against the requirements of specific GRI Standards Topic Specific Disclosures and SASB Industry Standards Metrics. Those disclosures, based on GRI Standards, are the GRI 401-1, GRI 404-3, GRI 205-3, GRI 302-1, GRI 305-1, GRI 305-7, GRI 306-3, GRI 403-9. The metrics according to the SASB Industry Standards are TR-MT-540a.1. and TR-MT-540a.3.

The GRI General and Topic Specific Disclosures under the scope of our engagement are indicated in the Report’s GRI Content Index, found on pages 59-61. The SASB Industry Standard Metrics within the scope of our work are indicated in the SASB marine transportation material issues Content Index, found on page 62.

### WHAT WE DID TO FORM OUR CONCLUSIONS

In order to form our conclusions in relation to the scope and criteria mentioned above, we performed (but were not limited to) the steps outlined below:

- Reviewed information in order to substantiate quantitative data and statements regarding the Company’s sustainable development performance -within our scope of work- as these are presented in the Report.



- Interviewed executives responsible for managing, collecting and processing data related to -within our scope of work- the GRI General and Topic Specific Disclosures (marked in the column External Assurance of the GRI table), and to the Metrics of the SASB Standards (marked in the column External Assurance of the SASB marine transportation material issues Content Index) for purposes of both internal information and for reference purposes to third parties.
- Reviewed relevant documentation, systems and report procedures, including, among others, data collation tools, standards and work instructions.
- Reviewed the Report for the appropriate transposition and presentation of the - under the scope of our assurance engagement- sustainability data linked to the GRI General and Topic Specific Disclosures and to the disclosures of the SASB Industry Standards (marked in the column External Assurance of the GRI table and the SASB marine transportation material issues Content Index), including limitations and assumptions relating to how these data are presented within the Report.

## LEVEL OF ASSURANCE

Our procedures for collecting evidence were designed, in order to obtain a “limited level” of assurance, as set out in ISAE 3000 (revised) on which we formed our conclusions. The extent of the procedures for collecting evidence for obtaining a “limited level” of assurance is less than those designed to obtain a reasonable level of assurance and therefore a lower level of assurance is obtained compared to a reasonable assurance engagement.

## LIMITATIONS OF OUR REVIEW

- Our review was limited to the English version of the Report for the year 2020. In the event of any inconsistency in translation between the English and other (if any) versions, as far as our conclusions are concerned, the English version of the Report prevails.
- Our work did not cover activities performed by third parties or the performance of any third parties, nor our involvement in stakeholder engagement activities. In addition, it did not include any review of the accuracy of survey results assigned to third parties, nor Information Technology systems used by third parties, but was instead limited to the proper transposition of the final results -within the scope of our engagement- to the

Report.

- Our review did not include financial data and the corresponding narrative text in the Report, nor the Information Technology systems used or upon which the collection and aggregation of data was based by the Company.
- We do not provide any assurance relating to future information such as estimates, expectations or targets, or their achievability.

## CONCLUSIONS

Based on our work and according to the terms of reference and the limitations of our review, we report the following conclusions. Our conclusions are based on the appropriate application of the selected criteria and should be read in conjunction with the “What we did to form our conclusions” section above.

Nothing has come to our attention that causes us to believe that errors or inaccuracies exist in the collection of the quantitative data related to the GRI Standards and Disclosures and the SASB Industry Standards Metrics of the within the scope of our engagement, or in the transposition of these data to the Report, that would materially affect the way they are presented.

We have reviewed information and explanations on selected Management statements related to the GRI Standards and Disclosures and the Metrics of the SASB Industry Standards -within the scope of our engagement- as these are presented in the Report, for which no misstatements came to our attention.

Based on our work, nothing has come to our attention that causes us to believe that the Report does not meet the requirements of the “In accordance – Core” option and the Metrics of the SASB Industry Standards, as presented in the GRI Content Index and the SASB marine transportation material issues Content Index, found on pages 59-61 and 62 respectively.

## INDEPENDENCE

We have implemented a set of audit quality control policies and practices which meet the requirements of the International Standards on Quality Control issued by the International Auditing and Assurance Standards Board (IAASB), including International Quality Control Standard No. 1 (ISQC No.1). We conducted our engagement in compliance with the requirements of the IFAC Code of Ethics for Professional Accountants (“the Code”), which requires, among other requirements that the members of the engagement team, as well as the assurance Firm, are independent of the client, including not being involved in writing the Report. EY has systems and processes in place to monitor compliance with the existing independence rules as they are defined by the Code. EY and all professional personnel involved in this engagement have met these independence requirements.

## OUR ASSURANCE TEAM

The professionals who participated in the engagement are members of and are supported by the EY Climate Change and Sustainability Services global network, which undertakes similar engagements in Greece and at a global level.

Athens, November 5th, 2021

For and on behalf of

ERNST & YOUNG (HELLAS)  
Certified Auditors Accountants S.A.

Yannis Pierros

# CONTACT

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Matters discussed in this report may constitute forward looking statements. The Private Securities Litigation Reform Act of 1995 provides safe harbor protections for forward-looking statements in order to encourage companies to provide prospective information about their business. Forward-looking statements include statements concerning plans, objectives, goals, strategies, future events or performance, and underlying assumptions and other statements, which are other than statements of historical facts.

The Company desires to take advantage of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and is including this cautionary statement in connection with this safe harbor legislation. The words "believe," "anticipate," "intends," "estimate," "forecast," "project," "plan," "potential," "may," "should," "expect," "pending" and similar expressions identify forward-looking statements.

The forward-looking statements in this report are based upon various assumptions, many of which are based, in turn, upon further assumptions, including without limitation, examination by the Company's management of historical operating trends, data contained in its records and other data available from third parties. Although the Company believes that these assumptions were reasonable when made, because these assumptions are inherently subject to significant uncertainties and contingencies which are difficult or impossible to predict and are beyond the Company's control, the Company cannot assure you that it will achieve or accomplish these expectations, beliefs or projections.

In addition to these important factors, other important factors that, in the Company's view, could cause actual results to differ materially from those discussed in the forward-looking statements include general dry bulk shipping market conditions, including fluctuations in charter rates and vessel values; the strength of world economies; the stability of Europe and the Euro; fluctuations in interest rates and foreign exchange rates; changes in demand in the dry bulk shipping industry, including the market for our vessels; changes in our operating expenses, including bunker prices, dry docking and insurance costs; changes in governmental rules and regulations or actions taken by regulatory authorities; potential liability from pending or future litigation; general domestic and international political conditions; potential disruption of shipping routes due to accidents or political events; the availability of financing and refinancing; our ability to meet requirements for additional capital and financing to complete our newbuilding program and grow our business; the impact of the level of our indebtedness and the restrictions in our debt agreements; vessel breakdowns and instances of off hire; risks associated with vessel construction; potential exposure or loss from investment in derivative instruments; potential conflicts of interest involving our Chief Executive Officer, his family and other members of our senior management and our ability to complete acquisition transactions as planned. Please see our filings with the Securities and Exchange Commission for a more complete discussion of these and other risks and uncertainties. The information set forth herein speaks only as of the date hereof, and the Company disclaims any intention or obligation to update any forward looking statements as a result of developments occurring after the date of this communication.



Thank you



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