



PANGAEA LOGISTICS SOLUTIONS LTD

# ESG REPORT 2022

# ABOUT PANGAEA

Pangaea Logistics Solutions Ltd (Pangaea or the Company) is a dry bulk shipping company with expertise in the operation of bulk carriers and bulk logistics services. Pangaea is publicly listed on the New York NASDAQ exchange (NASDAQ: PANL).

Pangaea typically operates approximately 60 ocean vessels worldwide, of which 26 vessels are owned by the Company. We are headquartered in Newport, Rhode Island, with offices in Athens, Copenhagen, Singapore and New Orleans.

Pangaea transports a wide variety of commodities, including bauxite, cement, cement clinker, construction aggregates, fertilizers, grains, iron ore, limestone, metallics and steel scrap. The Company also operates dry bulk terminals and provides stevedoring and other dry bulk cargo services.

# OWNED FLEET

Bulk carriers | AS OF 31 DECEMBER 2022

TOTAL FLEET DWT CAPACITY

**1,823,703**

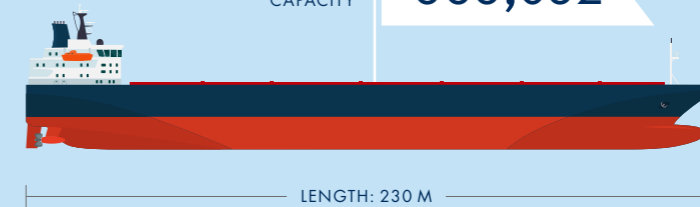
## POST-PANAMAX

**4**

VESSELS

APPROX. DWT CAPACITY

**383,032**



LENGTH: 230 M

NORDIC NULUUJAAK  
NORDIC QINNGUA  
NORDIC SANNGIJUQ  
NORDIC SIKU

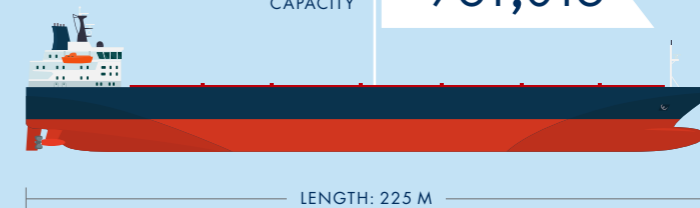
## PANAMAX

**10**

VESSELS

APPROX. DWT CAPACITY

**761,015**



LENGTH: 225 M

NORDIC ODYSSEY  
NORDIC ORION  
NORDIC OSHIMA  
NORDIC ODIN  
NORDIC OLYMPIC  
NORDIC OASIS  
BULK XAYMACA  
BULK PROMISE  
BULK CONCORD  
BULK PANGAEA (SOLD)

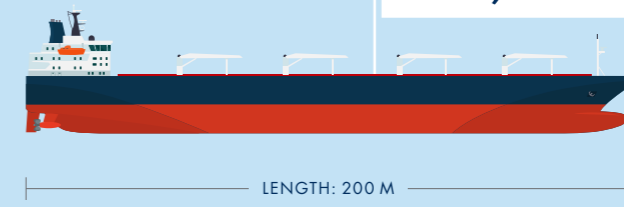
## ULTRAMAX

**3**

VESSELS

APPROX. DWT CAPACITY

**181,393**



LENGTH: 200 M

BULK COURAGEOUS  
BULK DESTINY  
BULK ENDURANCE

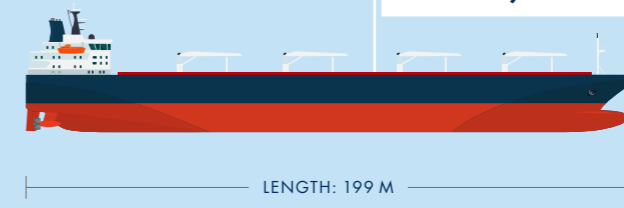
## SUPRAMAX

**9**

VESSELS

APPROX. DWT CAPACITY

**498,263**



LENGTH: 199 M

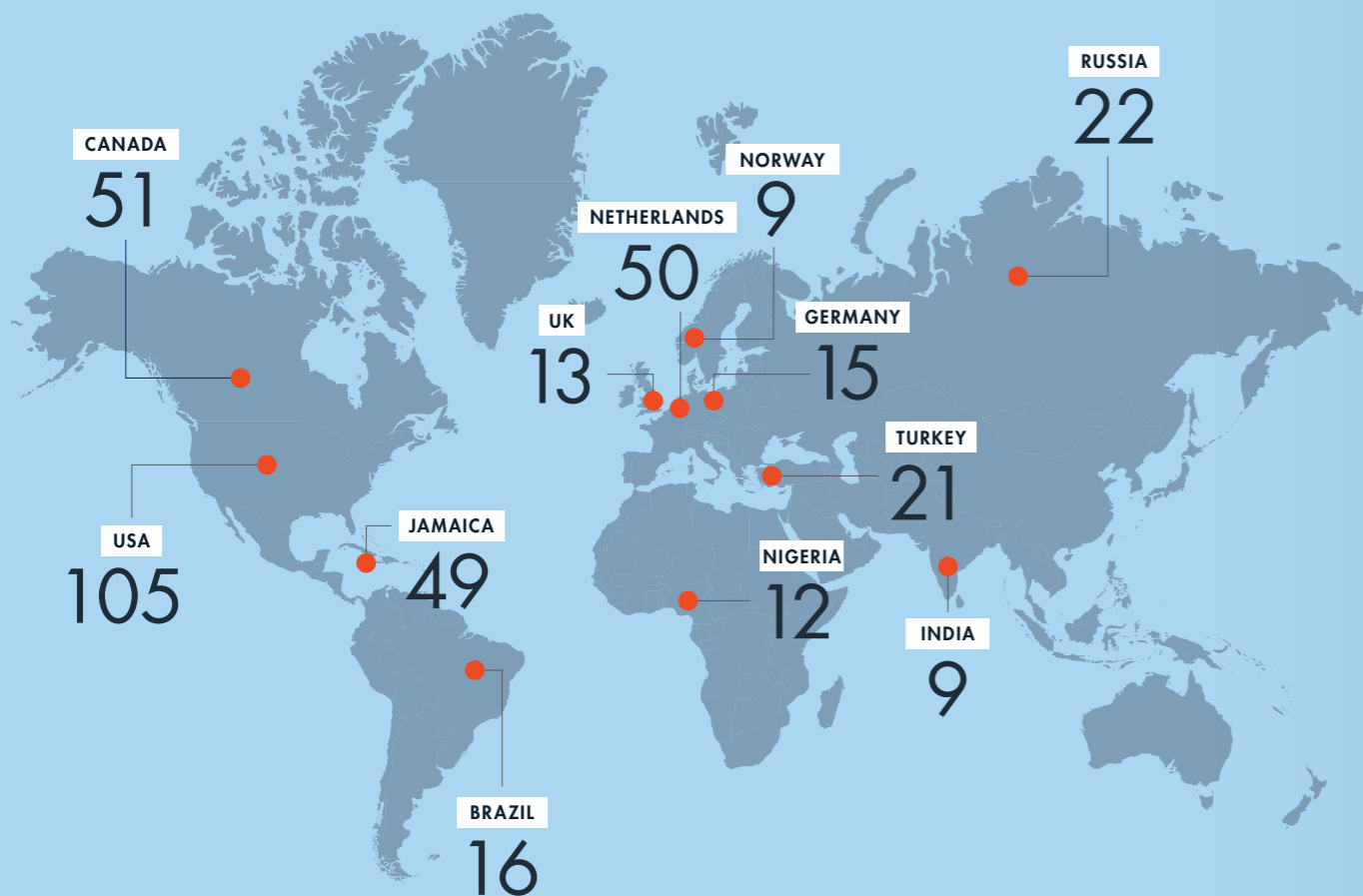
BULK FREEDOM  
BULK FRIENDSHIP  
BULK INDEPENDENCE  
BULK NEWPORT  
BULK PRIDE  
BULK SPIRIT  
BULK TRIDENT  
BULK VALOR  
BULK SACHUEST

## TRANSPARENT REPORTING

This is Pangaea Logistics Solutions Ltd.'s 2022 ESG standalone report. It meets the requirements of the Sustainability Accounting Standards Board (SASB), Marine Transportation Standard (2018). The report presents our performance in environmental, social and governance spectrums for the financial year from 1 January 2022 until 31 December 2022. Throughout this report Pangaea, *the Company*, *we*, *us* and *our* refers to Pangaea Logistics Solutions Ltd and its subsidiaries.

# PANGAEA'S GLOBAL PRESENCE

Number of port calls in our most visited countries in 2022



# CEO STATEMENT

It is with great satisfaction that I present our 2022 ESG report, which showcases the achievements of the entire team at Pangaea.

In 2022, we demonstrated unwavering commitment to our sustainability priorities, with a primary focus on the well-being of our people. Ensuring the highest standards of health, safety and environment (HSE) management and compliance has remained our top priority. By upholding robust HSE practices, both onshore and onboard our vessels, we have cultivated a strong HSE culture within our organization. Despite the challenges posed by the war in Ukraine, our diligent planning processes have proven invaluable in maintaining the continuity of the safe operations of our fleet and dedicated service to our customers. Our people are the cornerstone of our success, and we will continue to prioritize their safety and well-being as an integral part of our sustainability efforts.

Sustainability has emerged as an imperative focus within the maritime industry. This shift is largely driven by the recent initiatives taken by the European Union and the Marine Environment Protection Committee (MEPC), as well as the increasing requirements imposed by clients and finance institutions. As we move towards 2030, we recognize that the decarbonization pathways will significantly impact our operations and future investments. While it remains unclear which technologies will ultimately prove most relevant, Pangaea is already in the process of actively evaluating and assessing various decarbonization alternatives. In 2022, we took a proactive step by conducting trials to evaluate the viability of utilizing biofuels in our fleet. We also invested in data-related entities that may provide opportunities for us to reduce emissions in the future and we have continued renewal of our fleet by replacing older vessels with newer, more efficient ships. However, it is important to note that there is currently no definitive answer regarding future propulsion technologies. Therefore, we remain

committed to staying informed, exploring innovative solutions as we support the transition to a low carbon economy. **During 2022, we improved our AER by 9.3%.** Efficient operations are positive for the environment, and for our bottom line.

Given the nature of shipping, it is important to acknowledge that sustainability encompasses more than just climate concerns. The ocean is the home to a plethora of species that demand our utmost attention and care. Therefore, it is crucial to recognize the broader environmental impact on marine life and prioritize their well-being accordingly. By adopting sustainable practices and implementing sustainable and concrete solutions like designing and building the first dry bulk carriers to carry DNV's SILENT-E (Environmental) class notation, we can ensure the preservation and protection of these diverse species and thriving ecosystems for generations to come.

At Pangaea, we firmly believe that implementing sound corporate practices leads to tangible outcomes. We are currently engaged in developing a comprehensive plan for our sustainability priorities. Scheduled for completion by the end of this year, our sustainability priorities will be integrated into our strategy allowing us to assess our performance, identify areas for improvement and set measurable targets to drive progress in this area.



**Mark Filanowski**  
Chief Executive Officer  
Pangaea Logistics Solutions Ltd.

# HIGHLIGHTS OF 2022

## VESSELS

26

OWNED VESSELS

2

NEW ADDITIONS TO THE FLEET

5.4%

TONNAGE RENEWED IN 2022



## DEADWEIGHT TONNAGE

1.82

MILLION

8%

DWT CAPACITY GROWTH



## Environment

### GRAMS OF CO<sub>2</sub> PER TON-NAUTICAL MILE

4.3

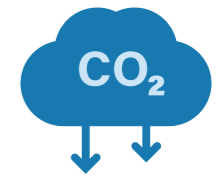
AER

9.3%

AER IMPROVEMENT

8.4

EEOI



## Social

### LTIR (LOST TIME INCIDENTS RATE)

1.9\*

### DIVERSITY AMONG ONSHORE EMPLOYEE

33%

WOMEN



## Governance

### PORT STATE CONTROL DETENTIONS (PSC)

zero

### TOTAL AMOUNT OF MONETARY LOSSES AS A RESULT OF LEGAL PROCEEDINGS ASSOCIATED WITH BRIBERY OR CORRUPTION









zero



\* Vessels accounted for in this report. The Company sold one older vessel (Bulk Pangaea) and acquired two more modern vessels (Bulk Concord and Bulk Sachuest) during 2022.

# EXTERNAL COMMITMENTS

Global sustainability challenges cannot be solved without joint efforts and collaboration. Pangaea is committed to partake in this collective project and work to embed sustainability throughout its operations.

 <p><b>GREEN MARINE ALLIANCE VERTE</b></p> <p>The Marine Mammal Observation Network organized by Green Marine, and applicable when operating in the Canadian Arctic (the company is a reporting member)</p>	 <p><b>Clean OCEAN ACCESS</b></p> <p>Clean Ocean Access supports sustainable activities in and around Narragansett Bay.</p>	 <p><b>Danish Shipping</b></p> <p>Charter for More Women in Shipping in Shipping initiated by Danish Shipping. By signing this charter, Pangaea commits to actively focus on gender equality within its organization.</p>
 <p><b>AMVER</b></p> <p>The vessels under the management of Seamar Management SA are active participants in the Assistance Vessel Rescue System.</p>	 <p><b>The Neptune Declaration on Seafarer Wellbeing and Crew Change</b></p> <p>The Neptune Declaration supports and promotes the welfare of the seafarers.</p>	 <p><b>The Gulf of Guinea Declaration on Suppression of Piracy</b></p> <p>The Gulf of Guinea Declaration counters the rising instances of piracy and assures the safety, well-being and human rights of seafarers.</p>
 <p><b>WOODS HOLE OCEANOGRAPHIC INSTITUTION</b></p> <p>Woods Hole Oceanographic Institute Collaboration with WHOI focused on monitoring the vast and open ocean to enable a long-standing need for more scientific observations.</p>	 <p><b>SAVE THE BAY. NARRAGANSETT BAY</b></p> <p>Save the Bay has a mission to protect, restore, and improve Narragansett Bay.</p>	<p>Pangaea is also a member of The Baltic and International Maritime Council (BIMCO) and the Danish Shipowners' Association through the Danish subsidiary Nordic Bulk Carriers, which is part of the Innovation Committee. Senior leaders at Pangaea are also members of the American Bureau of Shipping (ABS).</p>

# PANGAEA'S SUSTAINABILITY COMMITMENTS

Pangaea's ESG strategy is built on a set of commitments within the environmental, social and governance spectrum. In the first quarter of 2023, we started updating our corporate strategy, and we are committed to seize opportunities within the maritime industry while addressing sustainability challenges. On the next page, you can see how we integrate the UN SDGs in our operations.



## Environment

- 1 Investment into renewal & modernization of the fleet
- 2 Transition to a low carbon economy through digitization of our operations and research of innovative energy-efficiency technologies to reduce our carbon footprint
- 3 Minimizing environmental impacts
- 4 Supporting IMO's GHG Strategy of carbon intensity reductions
- 5 Trial of biofuels as a transition fuel towards decarbonization



## Social

- 6 Fostering safety culture onboard and ashore
- 7 Creating an equal, diverse, and inclusive work environment
- 8 Training, education, and retention of our technical, operations and crew personnel



## Governance

- 9 Compliance with laws and regulations, ensuring ethical conduct in the company
- 10 Ensuring responsible recycling
- 11 Close management of human rights risks in our value chain
- 12 Good and transparent governance

# SUSTAINABLE DEVELOPMENT GOALS

3 GOOD HEALTH AND WELL-BEING



Ensure healthy lives and promote well-being for all at all ages

- Pangaea strictly observes and implements maritime regulatory frameworks, striving to ensure health and well-being of its employees and crew.
- The Company provides their employees with health benefits.
- The Company always promotes a motivating and rewarding workplace for all the people working here. The company strives to create an inspiring atmosphere where people can collaborate and be creative and where initiatives and high performance are being compensated with various other benefits and advancement opportunities.

13 CLIMATE ACTION



Take urgent action to combat climate change and its impacts

- Pangaea focuses on energy efficiency to reduce greenhouse gas (GHG) emissions by endorsing IMO's GHG strategy, modernizing and renewing its fleet - in 2022 we acquired two modern vessels.
- The Company invested in modern hull coatings, enhancing fuel efficiency and reducing the environmental footprint.
- To optimize the speed of its vessels and hence reduce fuel consumption, the Company utilizes performance monitoring and weather routing services that are based on forecasting algorithms and machine learning.
- Pangaea established Ship Energy Efficiency Management Plans (SEEMP) to improve the efficiency of our vessels.
- The Company strictly observes relevant laws and regulations for maritime transport sustainable operations.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- Pangaea strives to create resilient business by focusing on building a modern shipping fleet. Innovation is key to combating climate change and decarbonization of marine shipping industry. Hence, the company adopts innovative, environmentally-oriented technologies, enabling increased operational efficiency and enhancing its positive impact on the planet and people.
- In 2022, Pangaea conducted a biofuel trial on selected parts of the fleet. The results were promising, and future, wider scale application will be considered.
- Pangaea continued its close collaboration with the Woods Hole Oceanographic Institution (WHOI) to assist in projects to advance marine research. (WHOI) to advance marine research.

14 LIFE BELOW WATER



Conserve and sustainably use the oceans, seas and marine resources for sustainable development

- Pangaea actively addresses sea and marine resources by ensuring compliance with relevant international laws and regulations.
- Pangaea is committed to conservation and protection of marine resources by closely monitoring its vessels with regards to protection of marine resources, especially when operating in marine protected areas. We report on shipping duration in marine protected areas.
- By having appropriate environmental safety processes in place, the Company prevents potential spills.
- To reduce the risks for potential pollution, the Company is working with ports authorities to maximize the management efforts.
- To combat the problem of pollution with invasive species from one area to another, Pangaea invested in modern ballast water treatment in 88% of its owned fleet.
- The Company is collaborating with various organizations (WHOI, Green Marine, Save the Bay, Clean Ocean) to support and promote clean oceans and protect marine resources.

## ENVIRONMENT

The marine shipping industry inherently affects air and water quality, which in turn impacts marine and terrestrial ecosystems, marine biodiversity and societies. Pangaea recognizes its responsibility to manage and minimize its adverse environmental impacts and works continuously to comply with all relevant environmental laws and regulations.

## EMISSIONS

### GHG EMISSIONS

Pangaea considers decarbonization to be one of the maritime industry's main challenges and seeks to contribute to the transition from reliance on fossil-based fuels. The Company has made a commitment to reduce its carbon footprint by endorsing the International Maritime Organization (IMO) strategy for the reduction of greenhouse gas (GHG) emissions. This strategy aims to achieve a 40% reduction in CO<sub>2</sub> emissions by 2030. To realize this ambition, Pangaea is actively investing in fleet modernization and efficiency improvements, as well as embracing innovative technologies.

For instance, to enhance efficiency of its fleet, the Company utilizes performance monitoring and weather routing services on both its owned and chartered fleet. Using sophisticated forecasting algorithms and machine learning, the Company optimizes the power of its vessels to reduce the amount of fuel consumed, especially when the ships encounter adverse weather and/or currents.

In 2022, we:

- Decreased AER by 9.3 %
- Increased DWT capacity by 8 %

Pangaea is aiming to track fuel and power consumption of its owned fleet in real-time, which will provide access to immediate and actionable data allowing us to operate and maintain our fleet in the most efficient manner. Part of the Pangaea fleet is ice classed, designed for operations in harsh weather and ice. These ships have more engine power than conventional ships, and ensuring optimal power management is important to ensure efficient fuel consumption.

With increasing regulations to curb CO<sub>2</sub> and expectations from both capital markets and stakeholders, there is undoubtedly a lot of pressure on the marine shipping industry. Unfortunately, at present, there is no viable solution for carbon-free marine transportation. Until such a viable solution is available, Pangaea will focus its current GHG reduction efforts on energy efficiency measures and operational optimization. Despite an increase in CO<sub>2</sub> emissions in absolute terms, Pangaea improved its Annual Efficiency Ratio by 9.3%, from 4.73% in 2021 to 4.29% in 2022. We regard this as a significant improvement, and it proves that our tonnage is becoming more efficient.

To improve the efficiency of our vessels, we have established Ship Energy Efficiency Management Plans (SEEMP). Through the SEEMP, we ensure that all our ships are operated efficiently by:

- optimizing the speed of the vessel
- making course changes to avoid higher fuel consumption caused by rough weather
- hull treatment and coating with modern technology coatings in dry dock to improve speed and reduce fuel consumption

## AIR QUALITY

Air pollutants, such as sulfur oxides (SOX), nitrogen oxides (NOX) and particulate matter (PM), are closely connected to fuel usage in the marine shipping industry. They impact air quality and human health, especially affecting port cities and local populations. Hence, there is a strong, growing trend of increasing environmental regulations, pushing toward more fuel-efficient engines and the use of cleaner fuels in vessels.

The costs of the environmental regulations may have a significant financial impact on companies in the marine shipping industry that do not reduce their emissions. Therefore, Pangaea takes an active risk approach to tackling its emissions by maximizing fuel efficiency. In this way, the Company reduces

- propeller polishing at regular, frequent intervals
- assess the need for hull cleaning frequently
- apply optimal anti-fouling hull coating
- continue to explore robotic hull-cleaning technologies

These measures help to increase Pangaea's ships' efficiency and generate operational improvement. As the SEEMP is specific to each ship and must be tailored to the ship, cargo type, routing and other factors, a SEEMP cannot be established on a group or fleet level. Consequently, we expect to enhance our fleet efficiency performance as we target improvements on specific vessels.

Additionally, we operate a fleet of chartered-in vessels. The number of chartered-in vessels depends on market conditions and the transportation needs of our clients at any given time. For these vessels, we typically seek to employ the most fuel-efficient designs available, as more efficient vessels provide a competitive advantage and better economic return.

its adverse environmental impacts, providing Pangaea with a better market position financially. This approach provides Pangaea with a tangible competitive advantage, by offering its customers an attractive fleet in terms of emissions and cost efficiency. Moreover, it allows Pangaea to demonstrate that it meets the increased expectations of a broad spectrum of stakeholders.

Pangaea's investment in fleet renewal is part of the Company's long-term strategy of building a sustainable and commercially viable business. While allocating capital in upgrading Pangaea's fleet in the short-term constitutes a tangible expense, it will be offset by significant savings in fuel costs over the long-term.

## FORGING INNOVATION TO COMBAT CLIMATE CHANGE

### BIOFUELS

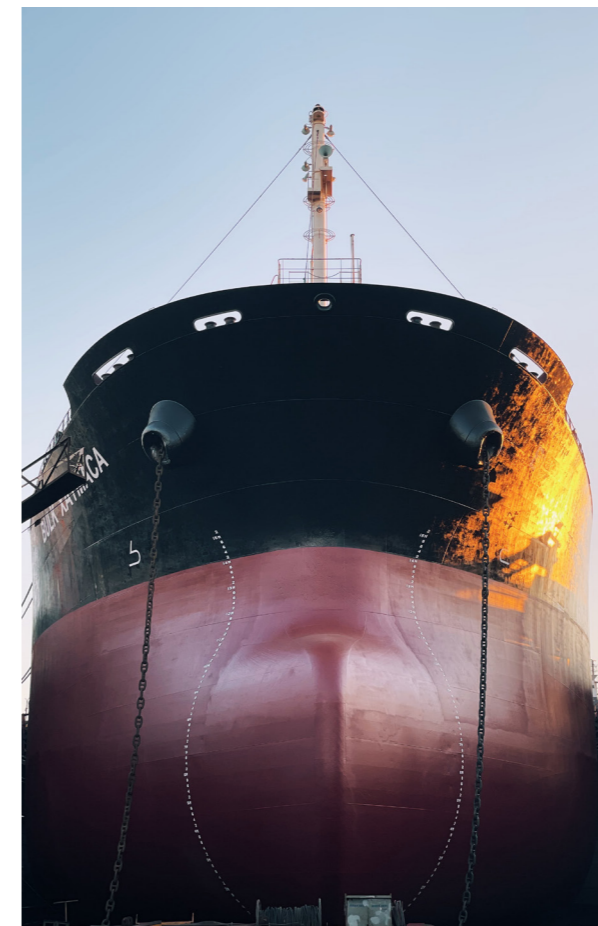
In 2022, Pangaea explored the viability of using biofuels to power its fleet. The trial of utilizing biofuel yielded results in line with expectations, demonstrating promising performance. However, the access to biofuel options is still in the developmental stage. The insights gained from this trial are important in assessing the technical viability and the potential of biofuels as a long-term alternative fuel option.

### SCIENCE RoCS

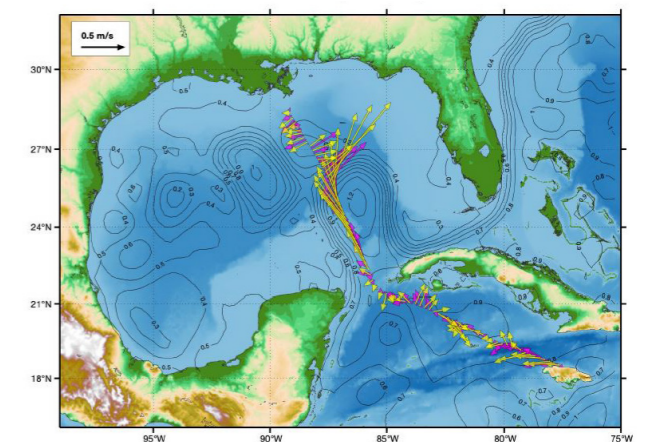
Pangaea collaborates with the Woods Hole Oceanographic Institution's (WHOI) on the Science Research on Commercial Ships (Science RoCS), an initiative connecting scientists with commercial vessels to regularly monitor the vast

and open ocean, particularly along repeat routes in hard-to-reach areas. Pangaea's vessel Bulk Xaymaca began participating in the project in the first quarter of 2022. The vessel is currently installed with a scientific sensor to track hurricane intensity and other ocean conditions across the Loop Current on its regular 17-day round trip route between Jamaica and New Orleans. This sensor is one of approximately a dozen installed by Woods Hole worldwide, able to obtain this kind of data.

The vessel collects data, such as the speed of ocean currents, seawater temperature and salinity, which helps scientists forecast weather, understand climate change, and predict flows that spread flora, fauna, and contaminants. The initiative is focused on making ships' science data streams broadly available onshore and to help inform changes that can make human activity, including shipping, more sustainable as it relates to the health of the ocean.



### M/V BULK XAYMACA SHIPBOARD ADCP PROGRESS



Data recorded during M/V Bulk Xaymaca transit 10/16-10/22, 2022. Black contours indicate sea surface height (CMEMS Copernicus sea level altimetry product) in meters. Yellow arrow represent "shallow" (60-204 m) vertically averaged ocean velocities. Pink arrows show the same for a "deep" layer 220-396 m. Velocities are interpolated to 1 hr intervals.



## ECOLOGICAL IMPACTS

### POLLUTION

Ballast water is used to provide stability, optimize trim and reduce stress on the vessel's hull. However, ballast water contains various organisms and when taken from one region and released in another, the species can potentially become invasive to ecosystems and pose a serious ecological or economic risk, potentially endangering local communities.

The Company has invested in installation of modern ballast water systems in its owned fleet. Per year-end 2022, 100% of Pangaea's owned fleet was equipped with modern ballast water treatment systems.

In addition, we have chosen not to install scrubbers on our fleet, eliminating any need for additional fluid discharge into the marine environment that is caused by open loop scrubbing. In the case of closed-loop scrubbing, it reduces the need for the necessary periodic removal of toxic waste to shore, which again introduces the need for disposal.

Our technical management policies and strict system processes reflect our commitment to avoidance of any potential spills.

We foster a company culture that ensures environmental protection, and our target of zero spills reflects

our ambitions in this area. In 2022, Pangaea reached the target with no spill incidents.

### RECYCLING

We are committed to responsible recycling, performed with respect for the environment, human health and safety. The Company retires its oldest vessels through industry recycling methods, including scrapping in ship breaking yards on the Indian subcontinent. These recycling methods are being closely reviewed by various official and unofficial entities who are attempting to designate new international standards for work safety and environmental concerns in the recycling processes.

Pangaea is closely monitoring the developments in the regulatory landscape so that when appropriate standards come into force, the Company will implement them. In the meantime, Pangaea focuses on strict compliance with the standards developed under the International Maritime Organization's Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships.

In the Company's ongoing strategy development, Pangaea aims to establish a tangible target for the recycling of waste in the next year.

# SOCIAL

The success of our company relies on the work and dedication of all the talented people that constitute Pangaea's family. We promote an equal, diverse and inclusive environment where everyone is treated with respect and dignity, encouraged to develop themselves professionally. Our people are our greatest asset, therefore, Pangaea considers their health and safety of utmost importance.

## SAFETY, LABOR CONDITIONS, AND HUMAN RIGHTS



### EMPLOYEE HEALTH AND SAFETY, AND SECURITY

Pangaea's number one priority is the safety and well-being of its employees. Our commitment is reflected in numerous safety standards and processes in place globally across the Company. We work continuously to minimize the safety risks associated with incidents that are inherent to the industry. The greatest safety risks for our crew are associated with the exposure to hazardous weather conditions and handling cargos at ports.

The health and safety of our crew is also critical for safe and effective operations of the Company. Therefore, Pangaea is committed to work relentlessly to ensure the safety of our workers, fleet and the environment by implementing adequate and effective safety management processes. Pangaea's HSE performance is regularly presented to and reviewed by the Board.

We strive to foster a Company's culture that ensures safety both at sea and onshore. We continue our efforts to always be ready for external inspections, and we are implementing several measures to promote staff continuity.

Pangaea's targets reflect its ambitions and guide the performance within HSE.





By upholding robust HSE practices, both onshore and onboard our vessels, we have cultivated a strong HSE culture within our organization.

Mark Filanowski, CEO



zero

Fatalities

Incidents<sup>1</sup>

Complaints<sup>2</sup>

PSC detentions<sup>3</sup>

<sup>1</sup> Employees to identify and eliminate their unsafe behaviors and those of their co-workers proactively and routinely. Behaviors, unsafe conditions, and other precursors that can lead to incidents to be recorded, analyzed, and addressed.

<sup>2</sup> Complains related to MLC 2006: Promote health awareness of seagoing personnel. Improvement of applicable health, safety, and quality standards. Continuous reduction of occupational health hazards.

<sup>3</sup> An intervention action by the port state, taken when the condition of a ship or its crew does not correspond substantially with the applicable conventions.

In 2022, we achieved our targets related to fatalities, complaints and detentions. There were zero incidents recorded during 2022.

In 2022, we experienced no serious injuries to people and no material damage to any of our ships. Our lost time incident rate (LTIR) was 1.9 in 2022, an increase from the previous year (1.1 in 2021). We are constantly working on improving safety awareness and preventing any job-related injuries.

Going forward, we prioritize our HSE strategy by focusing on managing risks in our operations, developing HSE leadership and creating proactive HSE company culture.

### DIVERSITY, EQUALITY AND INCLUSION

Pangaea recognizes the importance of inclusion, diversity, non-discrimination and equality regardless of ethnicity, national origin, gender, age, disability, sexual orientation or religion. We strive to provide an inclusive work environment for our employees.

As diversity is a priority for Pangaea, the Company has signed the Charter for More Women in Shipping initiated by Danish Shipping, by which Pangaea commits to actively focus on gender equality within the organization.

By the end of 2022, there were 33% women in our total onshore workforce, representing a 10% improvement from last year. There were three women in leadership positions. There was one female Board member in 2022 and the process to enhance the gender balance will continue, also in terms of exploring ways to attract female crew members.

### CREW AND EMPLOYEES

In 2022, each of our vessels was crewed with 19-22 independently contracted officers and crew members and, on certain vessels, directly contracted officers.

Our technical managers were responsible for locating, contracting and retaining qualified officers for its vessels. To ensure that all the crew members on Pangaea's vessels have the qualifications and licenses required to comply with international regulations and shipping conventions, Pangaea has established detailed training policies. In terms of diversity, Pangaea recognizes that the gender balance of seafarers needs to be addressed. However, we already have a small number of female seafarers onboard and we plan to increase the number.

By 31 December 2022, the Company had 81 shore-based personnel and approximately 540 independently contracted seagoing personnel on its owned vessels. The shore-based personnel are employed in the United States, Athens, Copenhagen and Singapore.

### HUMAN RIGHTS

Pangaea is committed to respecting and protecting human rights as stipulated in the International Bill of Rights, the International Labor Organization's Fundamental Conventions and the Maritime Labor Convention.

Being an international company, with global operations and supply chain, we recognize and assume our responsibilities to protect and promote human rights across our value chain.

Pangaea has implemented a Human Rights Responsibility Policy that outlines the Company's support and respect for internationally recognized human rights, addressing also human trafficking and child labor. Pangaea strictly prohibits the use of human trafficking, bonded/forced work, and child labor, and expects these same standards from the vendors, agents and suppliers of products we purchase and whose services we employ.

Going forward, Pangaea will strive to continuously work towards strengthening human rights management in its operations as well as in the value chain and focus on building awareness in the Company.

# GOVERNANCE

Good corporate governance is a foundation for ensuring that a company conducts business properly. It regulates risks, ensures compliance and helps to cultivate company culture, based on integrity, transparency and ethical business performance.

Pangaea's governing documents and procedures guide its performance, inform the Company's risk management and ensure compliance with relevant

international and national laws and regulations. Pangaea is committed to responsible and ethical business conduct throughout its operations.

Good corporate governance is also a main priority for Pangaea's Board. The Board, consisting currently of seven members, approves the Company's policies, oversees its operations, and reviews updates on compliance and the Company's ESG performance. In addition, the Board has established three committees to ensure that Pangaea fulfills its responsibilities to various stakeholders.

## 1 Audit Committee

The Audit Committee assists the Board in fulfilling its responsibilities to shareholders and oversees the Company's financial reporting processes. It also assesses risk monitoring and management processes. The Audit Committee also shares responsibility with the Board to oversee sustainability initiatives and climate-related risks.

## 2 Compensation Committee

The Compensation Committee assists the Board in ensuring retention and succession plans for key executives, as well as the periodic review of the Company's compensation strategy and its alignment with the long-term goals of the Company.

## 3 Nominating Committee

The Nominating Committee assists the Board in ensuring the appropriate size, functioning, and needs of the Board including, but not limited to, recruitment of high-quality Board members and committee composition and structure.

## Pangaea's governing documents

- Code of Ethics
- Human Rights Responsibility
- Anti-Corruption Compliance Policy
- Insider Trading Policy
- Related Person Transactions Policy
- Whistleblowing Policy
- IT Acceptable Use Policy

## WHISTLEBLOWING

Pangaea encourages reporting of any wrongdoing and relies on the good faith of its employees and external parties to report justified complaints of wrong-doing and/or inappropriate behavior at any level. The Whistleblower Policy outlines the complaint and investigation procedures for concerns regarding any alleged misconduct, including in particular questionable accounting or auditing matters, violations of law, rules, regulations and/or direct threats to public interest, such as fraud, health or safety violations, and corruption. Complaints and concerns are treated in strict confidence and as anonymously as possible in the required investigations. In 2022, no whistleblowing cases were reported.

## BUSINESS ETHICS AND ANTI-CORRUPTION

As a company with global operations, we are often exposed to a vast array of challenges. Some are due to legislative frameworks, some to different cultures, while others place us in ethically challenging situations. Facilitation payment demands in ports, or other forms of corruption, are not an uncommon phenomenon for companies in the shipping industry. Therefore, shipping companies are under increasing international scrutiny to ensure strict compliance with anti-corruption and anti-bribery laws. Corruption impedes access to global markets, increases operational costs and poses legal and reputational risks to a company's social license to operate.

Therefore, good and transparent governance is a crucial part of how we conduct business, both on shore and on our vessels. Pangaea's Code of Ethics stipulates high standards, and guides our behavior with regards to business integrity, transparency, compliance and ethical business conduct. Pangaea's Anti-Corruption Compliance Policy ensures the Company's compliance with applicable anti-corruption laws and strictly prohibits all improper payments, transfers, bribes, all types of corrupt activity and payments to public officials. The policies apply to all employees.

Suspected activities breaching our Anti-Corruption Compliance Policy should be communicated to our managers, the Board, Company's Legal Department or the whistleblowing channel.

In 2022, no monetary loss as a result of legal proceedings associated with bribery or corruption was recorded.

## INSIDER TRADING

Pangaea enforces strict policies on insider trading and related person transactions, which are supplemented by securities laws applicable to Pangaea and its employees. Individuals who fail to comply with the requirements of Pangaea's Insider Trading Policy are subject to disciplinary action, at the sole discretion of the Company, including dismissal for cause.



# SASB DISCLOSURES

Accounting metric | Unit of measure | Data 2022 | Data 2021 | Data 2020 | Code

## GREENHOUSE GAS EMISSIONS

CO <sub>2</sub> emissions <sup>A</sup>					
Gross global Scope 1 emissions: Financial control approach	Metric tons CO <sub>2</sub> -e	359,109	296,274	266,250	TR-MT-110a.1
Discussion 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	Qualitative description	See pages 16-17			TR-MT-110a.2
Scope 2 emissions	Scope 2 emissions	55	Not reported	Not reported	Additional

Energy consumed <sup>B</sup>					
(1) Total energy consumed	Gigajoules (GJ)	5,098,965	4,009,986	3,066,488	TR-MT-110a.3
	Percentage (%)	100	100	100	
(2) Percentage heavy fuel oil	Gigajoules (GJ)	4,037,792	3,080,427	2,896,746	
	Percentage (%)	79	79 <sup>1</sup>	29	

EEDI					
Average Energy Efficiency Design Index (EEDI) for new ships	Grams of CO <sub>2</sub> per ton-nautical mile	3.55	3.55	No new ships in 2020	TR-MT-110a.4

AER <sup>C</sup>					
Average Efficiency Ratio (AER): weighted average	Grams of CO <sub>2</sub> per ton-nautical mile	4.29	4.73	4.75	Additional
Energy Efficiency Operating Indicator (EEOI): fleet average	Grams of CO <sub>2</sub> per ton-nautical mile	8.39	Not reported	Not reported	Additional

Accounting metric | Unit of measure | Data 2022 | Data 2021 | Data 2020 | Code

## AIR QUALITY

Other emissions to air <sup>D</sup>					
(1) NO <sub>x</sub> (excluding N <sub>2</sub> O)	Metric tons	6,196	6,636	7,509	TR-MT-120a.1
(2) SO <sub>x</sub>	Metric tons	575	785	777	
(3) Particulate matter	Metric tons	116	519 <sup>2</sup>	156	

## ECOLOGICAL IMPACTS

Marine protected areas <sup>E</sup>					
Shipping duration in marine protected areas or areas of protected conservation status	Number of travel days	Not reported	306 <sup>3</sup>	113	TR-MT-160a.1

Implemented ballast water					
(1) Exchange	Percentage (%)	4	21	60	TR-MT-160a.2
(2) Treatment	Percentage (%)	96	88	45	

Spills and releases to the environment					
(1) Number	Number	0	0	0	TR-MT-160a.3
(2) Aggregate volume	Cubic metres (m <sup>3</sup> )	0	0	0	

## BUSINESS ETHICS

Corruption index					
Number of calls at ports in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Number	69	60	47	TR-MT-510a.1

Corruption					
Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	Reporting currency	0	0	0	TR-MT-510a.2

<sup>1</sup> Note that Percentage heavy fuel oil includes HSHFO and LSHFO in 2021 while in the calculation for 2020 included only HSHFO.

<sup>2</sup> Due to a change of a method of calculation, for the sake of comparability, PM emissions can only be compared to emissions from 2019.

<sup>3</sup> Due to lack of data availability resulting from sanction-related issues, the figure covers only 10 out of 24 vessels.

## EMPLOYEE HEALTH & SAFETY

Lost time incident rate <sup>f</sup>					
Lost time incident rate (LTIR)	Rate	1.9	1.1 <sup>4</sup>	1.5	TR-MT-320a.1

## ACCIDENT & SAFETY MANAGEMENT

Marine casualties <sup>g</sup>					
Incidents	Number	0	2 <sup>4</sup>	2	TR-MT-540a.1
Very serious marine casualties	Percentage (%)	0	0	0	

Conditions of class <sup>h</sup>					
Number of Conditions of Class or Recommendations	Number	15	28 <sup>4</sup>	15	TR-MT-540a.2

Port state control <sup>i</sup>					
(1) Deficiencies	Rate	0.51	0.88	0.44	TR-MT-540a.3
(2) Detentions	Number	0	0	0	

## OUR OPERATIONS IN NUMBERS

Number of shipboard personnel	Number	543	504	TR-MT-000.A
Total distance travelled by vessels	Nautical miles (nm)	1,192,565	888,872	TR-MT-000.B
Operating days	Days	8,817	7 281	TR-MT-000.C
Deadweight tonnage	Deadweight tons	1,823,703	1,691,453	TR-MT-000.D
Number of vessels in fleet	Number	26	24	TR-MT-000.E
Number of vessel port calls	Number	620	563	TR-MT-000.F

# DISCLAIMER AND ASSUMPTIONS

Figures provided as per the end of the financial year (December 31).

Figures provided in this report are based on the estimates outlined below:

**A CO<sub>2</sub> emissions:** Calculations are based on IMO emission factors and fuel consumed. The financial control approach has been applied for Scope 1. Scope 2 emissions for operations in Newport, Athens, and Copenhagen (market based, AIB and EIA conversion factors (2020)).

**B Energy consumption:** Calculations are based on tonnes of oil equivalents (toe) using DEFRA conversion factors to calculate energy consumed in gigajoules (GJ). Note that Percentage heavy fuel oil includes HSHFO and LSHFO in 2021 while in the calculation for 2020 included only HSHFO.

**C Average efficiency ratio (AER):** Carbon intensity metric estimated based on fuel consumed, distance travelled (nm), and deadweight tonnage (DWT).

**D Other emissions to air (NO<sub>x</sub>, excluding N<sub>2</sub>O, SO<sub>x</sub> and particulate matter):** The method of calculation was updated in 2023. In previous years, estimated based on distance travelled (nm) and a tool developed by Danish Shipping for calculating emissions from bulk carrier vessels.

**E Marine protected areas:** For 2022, we do not have a complete data set, and thus figures are not disclosed.

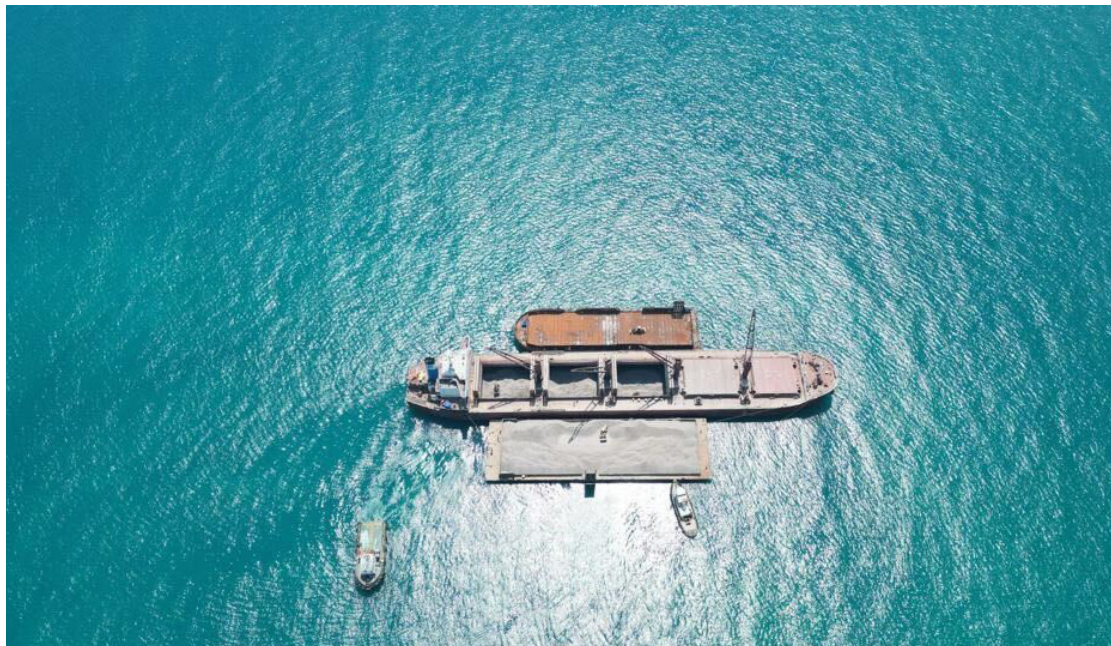
Due to lack of data availability, resulting from sanction-related issues, the figure for 2021 covers only 10 out of 24 vessels.

**F Lost time incident rate (LTIR):** The rate is calculated based on (lost time incidents) / (1,000,000 hours worked), and includes incidents resulting in absence from work beyond the date or shift when they occurred. Due to lack of data, resulting from sanction-related issues, the figure for 2021 covers only 14 out of 24 vessels.

**G Marine casualties:** The definition of a marine casualty is based on the United Nations International Maritime Organization's (IMO) Code of International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident Resolution MSC 255(84), paragraph 2.9, chapter 2 of the general provisions. Due to lack of data availability, the figure for 'Incidents' for 2021, covers only 14 out of 24 vessels.

**H Conditions of class:** The data provided represents the number of Conditions of Class or Recommendations Nordic Bulk Carriers has received from a Flag Administration or a Recognized Organization (RO) that has been delegated to the authority to issue such findings. The scope of disclosure includes all Conditions of Class regardless of whether they resulted in withdrawal, suspension, or invalidation of a vessel's Class certificate.

**I Port state control:** Deficiency rate is calculated using the number of deficiencies vessels received from regional port state control (PSC) divided by total number of port state control inspections.



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