SUSTAINABLE
FROM SHIP TO SHORE

2022 SUSTAINABILITY REPORT
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MESSAGE FROM OUR PRESIDENT, CHIEF EXECUTIVE OFFICER AND CHIEF CLIMATE OFFICER

2022 was an extraordinary year for our company on many levels, including the completion of an unprecedented restart and, of course, a leadership transition. From a personal perspective, I am truly honored to have been appointed as Carnival Corporation & plc’s new President, CEO and Chief Climate Officer. I joined the Carnival team in 2002 with a desire to be a part of something bigger and quickly realized our deeper purpose and the profound impact we can have on people’s lives. We have an incredible job – we get to deliver unforgettable happiness by taking people away from their everyday and providing them extraordinary and much-needed vacations. It’s a responsibility we do not take lightly and today, after more than two decades, I am privileged to lead this world-class organization and phenomenal group of people who share that common passion.

Through the hard work and dedication of our shipboard and shoreside team members, we have redoubled our efforts to return to full strength as a company that is more efficient, more sustainable and more energized for the future. Our return to guest cruise operations is essentially complete and we are closing the gap to our 2019 performance. Throughout 2022, our team overcame significant challenges to reopen cruising, build back our operations globally and completely shift our focus from return to service to a return to strong profitability. We achieved all of this while continuing to honor our values and commitments to sustainable performance from ship to shore. In fact, we have an ambitious sustainability roadmap underlying our efforts and supporting our continuous improvement as we drive our business forward. Looking ahead, we can play an even greater role in building a sustainable future for cruising and tourism by continuing our bold progress and advancing our success across our key sustainability target areas:

- Climate Action
- Circular Economy
- Good Health and Well-Being
- Sustainable Tourism
- Biodiversity and Conservation
- Diversity, Equity and Inclusion

In 2022, we maintained our momentum on these priorities, making great strides toward the 2030 sustainability goals and long-term 2050 aspirations we announced just last year, as you will see described in further detail throughout this report.

As the company’s Chief Climate Officer, along with the Boards of Directors, I am responsible for overseeing our approach to Climate Action, including our commitment to decarbonization, which is more important than ever. As part of our strategy, we continued to take delivery of liquefied natural gas (LNG) powered ships, with four more expected for delivery through 2025. In addition, we continue working aggressively toward our carbon reduction goals and ambitions through innovative decarbonization projects, including, rolling out fleetwide technology upgrades to save energy and fuel, investing in key port and destination projects, focusing on itinerary efficiencies across the portfolio and successfully piloting biofuels while realizing the benefit of our fleet optimization measures.

Our collective accomplishments are expected to drive a 15% reduction in fuel consumption per available lower berth day (ALBD) in 2023, along with a 15% reduction in carbon emissions per ALBD on an annualized basis, both as compared to 2019 baseline measures. Our efforts will also contribute to carbon emission reductions in 2024 and beyond. We continue expanding our disclosures by evaluating our greenhouse gas scope 3...
INTRODUCTION

emissions and setting out our performance in line with guidance from the Task Force on Climate-Related Financial Disclosures (TCFD), one of the world’s leading climate reporting frameworks. Of course, our sustainability efforts go beyond reducing our impact on climate change.

Thanks to the concerted dedication of our onboard food and beverage teams, we proudly achieved and surpassed our 2022 goal to reduce food waste per person by 30% as part of our Circular Economy focus area. Additionally, we established a new goal of a 40% reduction by 2025 relative to our 2019 baseline.

Regarding the health and safety of our guests and team members, as society continues moving to a state of pre-pandemic normalcy, we have adjusted as well. We have reduced or eliminated pre-travel testing requirements in line with the mandates of most governments but remain vigilant with our onboard monitoring programs and procedures to always prioritize health and safety.

We value the communities we visit, and we continue working closely with our partners to responsibly develop new destination ports. In 2022, in close cooperation with the Bahamian Government and the Grand Bahama Port Authority, we broke ground on our new cruise port destination on Grand Bahama Island. This investment provides tremendous potential to contribute to the local community through jobs and business opportunities while also further expanding offerings for our guests with a uniquely Bahamian experience. Throughout the year, we also supported Ukraine humanitarian relief efforts with financial contributions, brand specific projects and direct support to our Ukrainian crew members and their families.

Our success stems directly from our strongest asset, our people – a talented and passionate team built on the power that comes from embracing diversity, equity and inclusion (DEI). As a global company, we are inherently diverse, but we also take a holistic approach to intentionally managing our DEI initiatives, encompassing a multitude of layers and perspectives that go beyond geography, culture and ethnicity. Our team members come from approximately 150 countries. Five of our brands, representing more than half of our fleet are led by women, and half of my global direct reports are women. Throughout 2022, we received many awards and recognitions for our performance advancing DEI throughout our global organization, which is a critical component of who we are. Even though we are already among the most diverse companies in the world, we continue to focus our efforts on growing our diverse talent and fostering an inclusive environment where our people can thrive.

Looking ahead to 2023, our business continues to accelerate on a positive trajectory and we are eager to write our next chapter while maintaining our strong commitment to excellence in compliance, protecting the environment, and the health, safety and well-being of every place we sail and life we touch. As we build momentum, with growing excitement from our guests and untapped potential for our brands, we have an opportunity to surpass anything we’ve achieved before. Of course, we have more work to do and there will always be obstacles to face, but with the amazing caliber of people we have across this company, we will readily overcome those challenges together. From my view, our collective outlook could not be brighter. As the travel industry soars to new heights, I look forward to working together with our entire Carnival family to fulfill our purpose and mission day-in and day-out: delivering unforgettable happiness to millions of our guests by providing extraordinary cruise vacations, while honoring the integrity of every ocean we sail, place we visit and life we touch.

Josh Weinstein
President, Chief Executive Officer and Chief Climate Officer

SOCIAL

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Josh Weinstein
President, Chief Executive Officer and Chief Climate Officer

APPENDIX

Purpose

To deliver unforgettable happiness to our guests by providing extraordinary cruise vacations, while honoring the integrity of every ocean we sail, place we visit and life we touch.

Vision

As the global leader in the cruise industry, we will lead the way in innovative and sustainable cruising to deliver memorable vacations and build borderless connections.

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MESSAGE FROM
OUR BOARDS OF DIRECTORS HESS COMMITTEES CHAIR

In 2022, we saw the completion of the Carnival Corporation & plc fleet return to guest service after an unprecedented pause in operations due to the COVID-19 pandemic. This last year with my family I cruised with Cunard and Princess and once again experienced the great service provided by the shipboard teams. I was particularly pleased to see the crew’s excitement to be back doing what they do best.

Over my 10+ years of service to this amazing organization as a Board Member, I can testify that it has never been so evident that the resilience, ingenuity, expertise and commitment of all the Carnival team members was part of the many factors that allowed the company to safely return to cruising for millions of guests around the world. One of the ways the Board members and myself supported the organization during these critical times was through our commitment to keep sustainability an essential component of the organization’s decision-making processes.

As we get back to our new normal, all the Board Committees and in particular the HESS Committees which I have the privilege to chair, continue to spend a great deal of time with Carnival management on the organization’s sustainability performance. We hold quarterly meetings with the leadership team, have resumed our ship visits and are frequently in contact with management across the organization.

The entire Board is committed to decarbonization and we are all pleased with the work that has been accomplished in 2022. Building on our strong governance framework, we have strengthened climate-related risk oversight by appointing the company’s President and Chief Executive Officer to the role of Chief Climate Officer. We also created an executive-level Strategic Risk Evaluation Committee to identify, mitigate and monitor climate related risks and opportunities.

Through the pandemic, the company has taken many proactive steps toward the decarbonization of its operations. Having peaked its absolute direct carbon emissions in 2011, the company has led the industry in the development and operation of liquefied natural gas (LNG) cruise ships and in fiscal year 2022, added three additional LNG ships to the fleet.

These new LNG ships were part of a fleet optimization program that saw the retirement of many older, less-efficient ships and the delivery of larger, more-efficient ships. Investments such as air lubrication systems and service power packages are being made to deliver further efficiency gains across the fleet. The company’s investments in new ports will also deliver greenhouse gas emission reductions. These activities will support the delivery of the company’s near-term goals, but the longer-term aspiration to achieve net carbon-neutral operations will require broad availability of alternative, low or zero carbon fuels and technologies. The Carnival team is also engaged in several cross-sector initiatives that are exploring a wide range of potential pathways to decarbonization.

As part of the Board’s sustainability responsibilities, the HESS Committee members and I approved the revisions made to the HESS policy in 2022. We regularly discuss environmental issues and how they align with the company’s goals in waste management as part of the Circular Economy focus area. We were pleased with the efforts taken to achieve the interim goal to reduce food waste by 30%, and the efforts to eliminate hundreds of millions of single-use items across the fleet. As part of the Sustainable Tourism and Biodiversity and Conservation focus areas, we track progress towards established commitments. Additionally, we regularly review diversity, equity and inclusion (DEI) topics and issues, and while we welcome the many external DEI recognitions and awards the company receives, we know more can and will be done to help ensure the long-term success of the company via its most important assets – its amazing people.

On behalf of the Carnival Corporation & plc Boards of Directors, I’m proud to share the great steps taken by the company in 2022 to position itself for the future with renewed energy and spirit as they are highlighted through this sustainability report.

Sir Jonathon Band
Chairman, Health, Environmental, Safety and Security Committees
Environmental

Remained the only major cruise line to peak absolute greenhouse gas emissions
• Were the first in the cruise industry to trial biofuels on our ships
Achieved our interim goal to reduce unit food waste by 30% and established interim goal to achieve 40% per person food waste reduction by 2025
• Completed the installation of over 600 food waste biodigesters to reduce our impact on the environment
• Engaged with a key supplier to reduce packaging and waste
• Maintained our focus on single-use item elimination/reduction

Social

• Completed the return of 90 ships to guest cruise operations after the COVID-19 pandemic-related pause and provided 7.7 million guests with needed vacations
• Celebrated and were recognized for our DEI efforts and results
• Half of the global direct reports to our Chief Executive Officer are women
Recognized as leaders in DEI by Forbes as one of the World’s Best Employers, one of the World’s Top Female-Friendly Companies (for the second year in a row for both awards), one of the Best Places to Work for Latinos, and one of the Best Places to Work for LGBTQ+ for the sixth consecutive year by the Human Rights Campaign Foundation
• Supported Ukraine relief efforts with financial contributions, brand-specific projects and direct support to our Ukrainian crew members and their families
• Broke ground on our new cruise port destination on Grand Bahama Island, which will bring approximately 1,000 local jobs to Grand Bahama Island
• Re-opened CSMART for in-person training while continuing to provide virtual learning opportunities
• Supported Ukraine relief efforts with financial contributions, brand-specific projects and direct support to our Ukrainian crew members and their families
• Accepted Safety4Sea Training award for excellence in maritime training
• Delivered over 2.2 million hours of training to our team members

Governance

Appointed the Chief Executive Officer as Chief Climate Officer
• Strengthened our compliance program through the appointment of a Chief Risk and Compliance Officer
• Implemented a formal Board of Directors training program on ESG issues
• More explicitly tied executive compensation to ESG performance
Achieved interim targets for responsible food sourcing, despite significant supply chain challenges
Carnival Corporation was incorporated in Panama in 1974 and Carnival plc was incorporated in England and Wales in 2000. Carnival Corporation and Carnival plc operate a dual listed company (DLC), whereby the businesses of Carnival Corporation and Carnival plc are combined through several contracts and through provisions in Carnival Corporation’s Articles of Incorporation and By-Laws and Carnival plc’s Articles of Association. The two companies operate as if they are a single economic enterprise with a single executive management team and identical Boards of Directors, but each has retained its separate legal identity. Carnival Corporation and Carnival plc are both public companies with separate stock exchange listings and their own shareholders. We are one of the world’s largest leisure travel companies with a global portfolio of world-class cruise lines.

Services and Operating Structure
Carnival Corporation & plc is the largest global cruise company, and among the largest leisure travel companies, with a portfolio of world-class cruise lines – AIDA Cruises, Carnival Cruise Line, Costa Cruises, Cunard, Holland America Line, P&O Cruises (Australia), P&O Cruises (UK), Princess Cruises and Seabourn. Each brand in our portfolio is tailored to a unique set of guests and their vacation needs which allows us to penetrate large addressable customer segments. The mobility of cruise ships enables us to move our vessels between regions to meet changing consumer preferences and respond to different macroeconomic factors. Each brand has a responsibility to operate sustainably as part of our strategy.

We manage the company in a “Group” or “Operating Line” structure. During 2022, the following Operating Lines operated and managed one or more of our cruise brands:

- Carnival Cruise Line
- Carnival UK, which operates Cunard and P&O Cruises (UK)
- Costa Group, which operates AIDA Cruises and Costa Cruises
- Holland America Group, which operates Holland America Line, P&O Cruises (Australia), Princess Cruises and Seabourn
- In addition to our cruise operations, we own Holland America Princess Alaska Tours, the leading tour company in Alaska and the Canadian Yukon, which complements our Alaska cruise operations.

Additional details relating to our Company, Corporate Operating Structure and organization are disclosed in the Carnival Corporation & plc 2022 Annual Report to Shareholders and in our Annual Report on Form 10-K, which are available on the Carnival Corporation & plc website.

New Ships
We are building new and innovative ships that are larger, more-efficient and present a wider range of onboard amenities and features. These ships further enhance the attractiveness of a cruise vacation while achieving greater economies of scale.

We added the following new ships in 2022:

- Costa Toscana, powered by LNG was added to Costa Cruises
- AIDAcosma, powered by LNG was added to AIDA Cruises
- Discovery Princess, was added to Princess Cruises
- Seabourn Venture, was added to Seabourn
- Carnival Celebration, powered by LNG was added to Carnival Cruises
- Arvia, powered by LNG was added to P&O (UK) Cruises (in December 2022)
CARNIVAL CORPORATION & PLC'S

BRANDS AT A GLANCE

With nine of the world’s leading cruise lines, we sail to all seven continents.

Five of our nine brands, representing over 50% of our fleet, are led by women: Jan Swartz, Group President of Holland America Group; Christine Duffy, President of Carnival Cruise Line; and Marguerite Fitzgerald, President of P&O Australia.
CARNIVAL CELEBRATION
Carnival Cruise Line

Named in honor of the original MS Celebration, Carnival Celebration is the second Excel-class ship for Carnival Cruise Line and the brand’s second cruise ship that can be powered by LNG. Other environmental technological features on Carnival Celebration include Advanced Waste Water Treatment and Advanced Air Quality Systems, shore power connection capability, comprehensive waste management and recycling, an optimized hull design to minimize drag along with the latest energy efficient technologies to reduce fuel consumption. The new ship offers a wide range of accommodation categories with 180 suites across 11 different categories and boasts six unique themed zones with a variety of food, beverage and entertainment choices. Carnival Celebration also includes BOLT, a roller coaster at sea, an atrium spanning three decks and guest-favorites like Guy’s Pig & Anchor Smokehouse and Shaquille O’Neal’s Big Chicken restaurant.

ENVIRONMENTAL FEATURES

✦ 2nd LNG-Powered ship for Carnival Cruise Line
  pioneered the usage of this fuel for the cruise industry
✦ Shore Power Connection
✦ Food Waste Biodigesters
✦ Advanced Waste Water Treatment System
✦ Ballast Water Treatment System
✦ LED lighting
✦ HVAC automation advanced energy saving system
✦ AC chillers fitted with variable speed drives
✦ Variable speed drive systems on engine room pumps and ventilation fans
✦ Chilled water demand flow system
COSTA TOSCANA
Costa Cruises

Costa Toscana is the second LNG-powered ship for Costa Cruises, designed as a traveling “smart city.” In addition to LNG technology, the ship features a series of cutting-edge technological innovations designed to further reduce environmental impacts such as shore power connection capability, food waste management systems, Advanced Waste Water Treatment Systems, an optimized hull design to minimize drag along with the latest energy-efficient technologies to reduce fuel consumption. The new Archipelago restaurant also incorporates sustainable solutions by featuring driftwood as decorative elements of the restaurant design. For every dinner served at the restaurant, a portion of the proceeds are donated to the Costa Cruises Foundation to support environmental and social projects. The new flagship is a tribute to Tuscany, designed to enhance and bring to life the best of the Italian region in a single location. The furnishings, lighting, fabrics and accessories are all made in Italy and designed specifically for Costa Toscana. On board, guests can enjoy 13 swimming pools and hot tubs, an aqua park, the Solemio Spa, a state-of-the-art fitness center and 21 restaurants and areas dedicated to the “food experience.” The ship was delivered in December 2021 (beginning of our fiscal year 2022).

ENVIRONMENTAL FEATURES

- 2nd LNG-Powered ship for Costa Cruises
- pioneered the usage of this fuel for the cruise industry
- Shore Power Connection
- Food Waste Dehydrators
- Advanced Waste Water Treatment System
- Ballast Water Treatment System
- LED lighting
- HVAC automation advanced energy saving system
- AC chillers fitted with variable speed drives
- Variable speed drive systems on engine room pumps and ventilation fans
- Chilled water demand flow system
AIDACOSMA
AIDA Cruises

AIDACosma is the brand’s second ship to be powered by LNG. Other environmental technological features on AIDACosma include Advanced Waste Water Treatment, shore power connection capability, comprehensive waste management and recycling, an optimized hull design to minimize drag along with the latest energy-efficient technologies to reduce fuel consumption. The ship offers many of the features popular with AIDAnova, such as the Beach Club, the Theatrium with its 360-degree stage, the TV studio and the spacious Body & Soul Organic Spa. On board AIDACosma, guests can experience a variety of offerings, including the new Ocean Deck, extending over four decks and offering an all-round panoramic view of the sea, along with the new Fun Park featuring a large indoor playground and new bouldering wall. Guests also have 17 restaurants and 23 bars and cafés to choose from, including the new specialty restaurant Beach House and the specialty Mamma Mia restaurant offering homemade pasta and fresh Italian cuisine with onsite service. The ship was delivered in December 2021 (beginning of fiscal year 2022).

ENVIRONMENTAL FEATURES

- 2nd LNG-Powered ship for AIDA Cruises
- pioneered the usage of this fuel for the cruise industry
- Shore Power Connection
- Food Waste Dehydrators
- Advanced Waste Water Treatment System
- Ballast Water Treatment System
- LED lighting
- HVAC automation advanced energy saving system
- AC chillers fitted with variable speed drives
- Variable speed drive systems on engine room pumps and ventilation fans
- Chilled water demand flow system
Princess Cruises' sixth and final Royal-class ship, the 3,660-guest *Discovery Princess*, debuted in March 2022. This ship delivers an array of innovative new experiences, including world-class entertainment, gourmet dining, extensive alfresco dining areas, and expansive views from the cruise line's largest balconies at sea in the Sky Suites. Guests can enjoy the State-of-the-art Princess Theater featuring Broadway-style production shows. *Discovery Princess* uses the latest technologies to reduce fuel consumption, improve air quality, treat wastewater, and manage food waste. It offers Princess Medallion Class Vacations with OceanMedallion, the vacation industry's most advanced wearable device, elevating the guest experience with touch-free options and personalization on board. With MedallionNet, guests can share their favorite cruise moments and stay connected with friends and family.

### Environmental Features

- **Shore Power Connection**
- **Food Waste Biodigesters and Dehydrator**
- **Advanced Air Quality Systems**
- **Advanced Waste Water Treatment System**
- **Ballast Water Treatment System**
- **LED lighting**
- **Variable speed drive systems** on engine room pumps
- **HVAC automation advanced energy saving** features

*Discovery Princess* delivers Princess Medallion Class Vacations, featuring OceanMedallion, the vacation industry’s most advanced wearable device, elevating the guest experience by enabling touch-free options and personalization on board. In addition, guests can share their favorite cruise moments and stay connected with friends and family using MedallionNet.
Seabourn Venture is the line’s first purpose-built, ultra-luxury expedition ship and the first expedition ship for Carnival Corporation. Seabourn Venture is designed and built for diverse environments to PC6 Polar Class standards and includes modern hardware and technology that extends the ship's global deployment and capabilities. The ship provides an exceptional luxury small-ship experience with the addition of world-class equipment to offer the line’s widest range of expedition activities led by a world-class 26-person Expedition Team, in addition to carrying kayaks, Zodiaks and two custom-built submarines on board. Seabourn Venture uses the latest technologies to reduce fuel consumption, improve quality of air emissions, treat wastewater and utilize a Micro Auto Gasification System along with a food dehydrator system for processing waste. Venture also features a brand-new innovative design, created specifically for the ultra-luxury expedition traveler, and includes many features that have made Seabourn ships so successful, including 132 ocean-front veranda suites, as well as award-winning dining and eight dining experiences.

**Environmental Features**

- **Micro Auto Gasification System**
  - leading the usage of this technology for the cruise industry
- **Two custom-built submarines on board**
  - leading the cruise industry to expand guest marine experience
- **Use Natural refrigerants (CO₂) for Provision Plant**
  - leading the usage of this technology for the cruise industry
- **Food Waste Dehydrator**
- **Advanced Waste Water Treatment System**
- **Ballast Water Treatment System**
- **LED lighting**
- **Variable speed drive systems** on engine room pumps
- **Marine life friendly with low Under Water Noise** (class notation)
- **Selective Catalytic Reducer for NOx reduction**
- **Use very low GWP (Global Warming Potential) refrigerant** for AC chillers (R513A)
- **HVAC automation advanced energy saving features**
ARVIA
P&O Cruises (UK)

Sister ship to Iona, Arvia joined the P&O Cruises (UK) fleet in December 2022 as its second LNG-powered, Excel-class ship, making it one of the greenest members of the fleet and among Britain’s most environmentally friendly ships. Other environmental features include shore power connection capabilities, an optimized hull design to minimize drag along with the latest energy-efficient technologies to reduce fuel consumption, improve quality of air emissions, treat wastewater and manage food waste on board. The 5,200-guest Arvia is an innovative and future-focused ship and the latest evolution in the P&O Cruises experience, embodying the newest trends in travel, dining and entertainment to offer varied and contemporary holidays. The ship boasts a unique SkyDome with a retractable glass roof, and features the first high ropes experience at sea, in addition to several new dining options and extensive shopping.

ENVIRONMENTAL FEATURES

- 2nd LNG-Powered ship for P&O Cruises (UK) pioneered the usage of this fuel for the cruise industry
- Air Lubrication System
- Shore Power Connection
- Food Waste Biodigesters
- Advanced Wastewater Treatment System
- Ballast Water Treatment System
- LED lighting
- HVAC automation advanced energy saving system
- AC chillers fitted with variable speed drives
- Variable speed drive systems on engine room pumps and ventilation fans
- Chilled water demand flow system
OUR APPROACH TO SUSTAINABILITY
We recognize the need and the obligation to be responsible corporate citizens, to have a positive impact on the people and communities we visit and to protect the environments within which we deliver great experiences for our guests. Further, given that we visit hundreds of destinations globally, it is imperative for us to contribute to the preservation of our planet. We have developed our global sustainability program, Sustainable from Ship to Shore, and our 2030 Sustainability Goals and 2050 Aspirations, around the United Nation’s Sustainability Development Goals and established a sustainability strategy centered on six focus areas that are of great importance to our business and our stakeholders:

- Climate Action
- Circular Economy
- Sustainable Tourism
- Good Health and Well-Being
- Biodiversity and Conservation
- Diversity, Equity and Inclusion

Our entire global team, from executive management to our crew members on board and with oversight from our Boards of Directors, is focused on delivering meaningful progress toward a sustainable future through the current decade and beyond. As part of our strategy, we focus on transparency. We follow the Global Reporting Index (GRI) standard for preparing our sustainability reports and have our greenhouse gas emissions and other performance data assured by a third party. As disclosure frameworks emerge and evolve, we also disclose our performance aligned with:

- CDP Climate Change and Water Security - Latest score available on CDP website here
- Task Force on Climate-related Financial Disclosures (TCFD) - Latest disclosure included in Carnival Corporation & plc 2022 Annual Report on Form 10-K here and on the Carnival Sustainability Website here
- Sustainability Accounting Standards Board (SASB) - Fiscal Year 2022 included in appendix section, page 92
We strive to be a company that people want to work for and to be an exemplary global corporate citizen. Our commitment and actions to keep our guests and crew members safe and well, protect the environment, develop and provide opportunities for our workforce, strengthen stakeholder relations and enhance both the communities where we work as well as the port communities that our ships visit, are reflective of our brands’ core values and vital to our success.

In 2021, we established sustainability goals for 2030 and aspirations for 2050 which incorporate six key focus areas that align with elements of the United Nation’s Sustainable Development Goals and build on the momentum of our successful achievement of our 2020 sustainability goals: Climate Action, Circular Economy, Sustainable Tourism, Good Health & Well-Being, Biodiversity & Conservation and Diversity, Equity & Inclusion.

**CLIMATE ACTION**
We support the adaptation of alternative fuels and are testing new technologies as they become available. We are investing in new low-carbon or zero-carbon emission technologies, developing and installing advanced air quality systems and partnering with organizations and stakeholders to support our decarbonization efforts.

**CIRCULAR ECONOMY**
As the world shifts towards a circular economy model where materials flow around a ‘closed loop’ system, we are shifting how we work with our supply chain partners to reduce waste.

**SUSTAINABLE TOURISM**
As we travel the world, we have the privilege to explore many cultures and environments. It is our collective responsibility to respect and help them maintain their culture, history and natural resources.

**GOOD HEALTH & WELL-BEING**
Our employees are at the heart of our operation, and we are working on expanding our well-being programs to support their physical and mental health, encourage social connectivity with family and friends and promoting a balanced lifestyle.

**BIODIVERSITY & CONSERVATION**
Our efforts are focused on implementing best practices across our operations, investing in programs that support biodiversity and conservation, working with our supply chain and partnering with the communities we visit to help maintain and improve their ecosystems.

**DIVERSITY, EQUITY & INCLUSION**
Our success depends on the diversity, talent and dedication of our global employee base. We strive to provide an inclusive and supportive work environment with equal opportunities for professional growth throughout their career path.
## SUSTAINABILITY

### 2030 Goals and 2050 Aspirations

#### Climate Action

**2030 Goals**
- Achieve 20% carbon intensity reduction relative to our 2019 baseline measured in both grams of CO₂e per ALB-km and kilograms of CO₂e per ALBD.
- Achieved 50% reduction in absolute particulate matter emissions relative to our 2015 baseline.
- Increase fleet shore power connection capability to 60% of the fleet.
- Expand liquefied natural gas (LNG) program.
- Optimize the reach and performance of our Advanced Air Quality Systems (AAQS) program.
- Expand battery, fuel cell and biofuel capabilities.
- Reduce scope 3 (indirect) emissions associated with food procurement and waste management.
- Identify carbon offset options only when energy efficiency options have been exhausted.

**2050 Aspirations**
- Achieve net carbon-neutral ship operations.
- Achieve 100% fleet shore power.

#### Circular Economy

**2030 Goals**
- Achieved 50% single-use plastic item reduction in 2021.
- Achieved 30% food waste reduction per person in 2022.
- Established interim goal to achieve 40% unit food waste reduction by 2025.
- Achieve 50% food waste reduction per person by 2030.
- Increase Advanced Waste Water Treatment System coverage to >75% of our fleet capacity.
- Send a larger percentage of waste to waste-to-energy facilities where practical.
- Send 100% of waste to waste-to-energy facilities.
- Partner with primary vendors to reduce upstream packaging volumes.
- Achieve 100% cage-free eggs by the end of 2025.
- Achieve 100% responsible chicken sourcing by end of 2025.
- Achieve 100% gestation crate-free pork by end of 2025.

**2050 Aspirations**
- Build ships without the need to discharge to the ocean or air.
- Send 100% of waste to waste-to-energy facilities.
- Partner with primary vendors to ensure near 100% reuse of packaging materials.

#### Sustainable Tourism

**2030 Goals**
- Establish partnerships with destinations focused on sustainable economic development, preservation of local traditions and capacity management.
- Continue to support disaster resilience, relief and recovery efforts.
- Build stronger community relationships in our employment bases and destinations via employee volunteering programs.
- Increase Advanced Waste Water Treatment System coverage to >75% of our fleet capacity.
- Send a larger percentage of waste to waste-to-energy facilities where practical.
- Partner with primary vendors to reduce upstream packaging volumes.

**2050 Aspirations**
- Be recognized as the leader in global sustainable tourism.

#### Good Health & Well-Being

**2030 Goals**
- Committed to continued job creation.
- Establish measurable Company Culture metrics in 2022 and set annual improvement targets.
- Implement global well-being standards by 2023.
- Reduce the number of guest and crew work-related injuries.

**2050 Aspirations**
- Be a leader in employee well-being measures.
- Reduce the number of guest and crew work-related injuries.

#### Biodiversity & Conservation

**2030 Goals**
- Support biodiversity & conservation initiatives through select NGO partnerships.
- Conduct audits and monitor animal encounter excursions regularly.

**2050 Aspirations**
- Have deep NGO partnerships embedded in the business and supporting strategy execution.
- Supply 100% of seafood needs through sustainable fishery programs.

#### Diversity, Equity & Inclusion

**2030 Goals**
- Ensure our overall shoreside employee base reflects the diversity of the world.
- Expand shipboard and shoreside diversity, equity and inclusion across all ranks and departments.

**2050 Aspirations**
- Make diversity, equity and inclusion in management a “given,” not a measurement.
## TRACKING OUR PROGRESS

### ACTION

<table>
<thead>
<tr>
<th>CLIMATE</th>
<th>2030 GOAL</th>
<th>FY2022 PROGRESS</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Achieve 20% carbon intensity reduction relative to our 2019 baseline measured in both grams of CO₂e per ALB-km and kilograms of CO₂e per ALBD</td>
<td>Achieved 2% carbon intensity reduction on an ALB-km basis and 4% on an ALBD basis</td>
<td>🟢</td>
</tr>
<tr>
<td></td>
<td>Reduce absolute particulate matter air emissions by 50% relative to our 2015 baseline</td>
<td>Achieved 2% carbon intensity reduction on an ALB-km basis and 4% on an ALBD basis</td>
<td>🟢</td>
</tr>
<tr>
<td></td>
<td>Increase fleet shore power connection capability to 60% of the fleet</td>
<td>57% of the fleet has shore power connection capability, up from 46% in 2021</td>
<td>🟢</td>
</tr>
<tr>
<td></td>
<td>Expand liquefied natural gas (LNG) program</td>
<td>7 LNG ships in operation across the fleet (as of November 30, 2022)</td>
<td>🟢</td>
</tr>
<tr>
<td></td>
<td>Optimize the reach and performance of our Advanced Air Quality System (AAQS) program</td>
<td>93% of the fleet has an Advanced Air Quality System (AAQS) installed¹</td>
<td>🟢</td>
</tr>
<tr>
<td></td>
<td>Expand battery, fuel cell and biofuel capabilities</td>
<td>Piloted the use of biofuels as a replacement for fossil fuel on two ships</td>
<td>🟢</td>
</tr>
<tr>
<td></td>
<td>Reduce Scope 3 (indirect) emissions associated with food procurement and waste management</td>
<td>Completed an inventory of our Scope 3 emissions; following the Greenhouse Gas Protocol, we estimate that our Scope 3 emissions represent approximately half of our total emissions</td>
<td>🟢</td>
</tr>
<tr>
<td></td>
<td>Identify carbon offset options only when energy efficiency options have been exhausted</td>
<td>Continuing to monitor the carbon offset market and options, as well as exploring carbon capture and storage opportunities</td>
<td>🟢</td>
</tr>
</tbody>
</table>

¹Excluding LNG ships

On Track: Quantifiable/numerical goals that are showing a positive trend towards achieving the goal. Ongoing: Qualitative/non-numerical goals which are currently in progress.
## 2030 Goal FY2022 Progress Status

### ECONOMY

<table>
<thead>
<tr>
<th>2030 Goal</th>
<th>FY2022 Progress</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve 50% single-use plastic item reduction in 2021</td>
<td>Achieved</td>
<td>✔️</td>
</tr>
<tr>
<td>Achieve 30% unit food waste reduction by 2022 and 50% unit food waste reduction by 2030</td>
<td>Achieved 2022 Goal ▶ Established interim goal to achieve 40% unit food waste reduction by 2025</td>
<td>✔️</td>
</tr>
<tr>
<td>Increase Advanced Waste Water Treatment System coverage to &gt;75% of our fleet capacity</td>
<td>Achieved 64% coverage of fleet capacity, up from 59% in 2021</td>
<td>✔️</td>
</tr>
<tr>
<td>Send a larger percentage of waste to waste-to-energy facilities where practical</td>
<td>Completed a baseline of our waste programs in the U.S.</td>
<td>✔️</td>
</tr>
<tr>
<td>Partner with primary vendors to reduce upstream packaging volumes</td>
<td>Completed a packaging reduction pilot program with our primary engine supplier and achieved a reduction of approximately 44%</td>
<td>✔️</td>
</tr>
</tbody>
</table>

### & WELL-BEING

<table>
<thead>
<tr>
<th>2030 Goal</th>
<th>FY2022 Progress</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committed to continued job creation</td>
<td>Increased the number of employees on board our ships from the reduced levels during the pause in guest cruise operations</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Opened and filled a significant number of shoreside positions</td>
<td>✔️</td>
</tr>
<tr>
<td>Implement global well-being standards by 2023</td>
<td>Continued to work with authorities to arrange for COVID-19 vaccinations and boosters for our crew members, many of whom may not have had access to vaccines</td>
<td>✔️</td>
</tr>
<tr>
<td></td>
<td>Maintained and evolved onboard public health protocols to reflect the changing nature of the pandemic while protecting our guests and crew members responsibly</td>
<td>✔️</td>
</tr>
</tbody>
</table>

**On Track**: Quantifiable/numerical goals that are showing a positive trend towards achieving the goal. **Ongoing**: Qualitative/non-numerical goals which are currently in progress.
## SUSTAINABLE TOURISM

### 2030 GOAL

- Animal welfare - responsible sourcing: Achieve 100% cage-free eggs by the end of 2025; Achieve 100% responsible chicken sourcing by the end of 2025; Achieve 100% gestation crate-free pork by the end of 2025

### FY2022 PROGRESS

- Continued to work with our supply chain and met our glidepath targets for FY2022 - achieved 58% cage free eggs, 25% responsible chicken and 29% gestation crate-free pork purchases

### STATUS

- ✔ On Track

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On Track: Quantifiable/numerical goals that are showing a positive trend towards achieving the goal. Ongoing: Qualitative/non-numerical goals which are currently in progress.
### Diversity & Conservation

**2030 Goal**
Support biodiversity and conservation initiatives through select NGO partnerships

**FY2022 Progress**
- Continued working with the Ocean 100 Dialogues to support ocean stewardship with a focus on climate change and biodiversity

**Status**
- On Track

---

**2030 Goal**
Conduct audits and monitor animal encounter excursions regularly

**FY2022 Progress**
- Published Animal Welfare Statement for Excursions & Experiences on our website

**Status**
- On Track

### Equity & Inclusion

**2030 Goal**
Ensure our overall shipboard and shoreside employee base reflects the diversity of the world

**FY2022 Progress**
- Continued to employ shipboard crew members from approximately 150 countries around the world

**Status**
- Achieved

---

**2030 Goal**
Expand shipboard and shoreside diversity, equity, and inclusion across all ranks and departments

**FY2022 Progress**
- Half of the global direct reports to our CEO are women
- 11% of our deck officers and 14% of our environmental officers are female
- Named as one of the World’s Top Female-Friendly Companies by Forbes
- Named as one of the World’s Best Employers by Forbes
- Recognized as one of America’s Best Employers for Diversity by Forbes
- Named among Best Companies for Latinos to Work by Latino Leaders Magazine
- Earned a perfect score of 100 from the Human Rights Campaign (HRC) and designation as one of the Best Places to Work for LGBTQ+ equality

**Status**
- On Track
We regularly and proactively engage and collaborate with a broad range of stakeholder groups that have interests in our sustainability policies, practices and performance through formal and informal channels. We also engage with specific stakeholders based on their involvement with and expertise on issues of importance to the company.

We develop a common understanding of the issues relevant to the challenges we face through active and ongoing stakeholder communications. We engage with our stakeholders in various ways. We have one-on-one meetings, group meetings, virtual meetings, town halls, e-mail communication and social media interaction, among others. These engagement processes help to ensure that all stakeholders have an opportunity to ask questions and voice their concerns.

**Guests**
Measuring our guest satisfaction and addressing guest feedback provides a powerful indicator about our sensitivity to their needs and interests.

**Travel Professionals**
We work in close collaboration with travel advisors, including through a number of brand advisory boards and expert panels, to gather balanced, objective feedback on an ongoing basis. This open exchange of ideas and perspectives has helped shape many programs, policies and strategies we’ve introduced to support the success of the travel agency community. From offering training that empowers travel professionals with new skills and knowledge, to rewarding advisors with bonuses and incentives designed to grow their business, we make it a priority to invest in and champion our valued travel partners.

**Suppliers**
We are part of a complex network of interdependent companies. Our active dialogue with our business partners ensures sustainability is part of each relationship.

**Non-Governmental Organizations**
We collaborate with and belong to organizations that work to address issues of concern to our industry and stakeholder groups.

**Investors**
We engage with a wide range of our investors throughout the year on our environmental, social and governance (ESG) disclosures, initiatives and performance.

**Employees**
We listen to and act upon our employees’ perspectives and ideas.

**Port Communities**
We meet with community leaders to discuss business and community planning and ways to interact sustainably.

**Government Agencies and Policy Makers**
We strive to positively impact public policy and regulation by contributing cruise industry expertise.

**Media**
We communicate with media regularly on a variety of subjects related to our business and impact.

**Business Organizations and Industry Associations**
We work with key stakeholders to address a broad range of sustainability issues in the cruise industry, the broader maritime industry and companies representing other industries.
**ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) MATERIALITY**

We regularly perform a materiality analysis and a benchmarking review of publicly available information for major hospitality, travel and marine industry companies. This process helps us determine how important specific environmental, social and governance (ESG) issues are to our organization and stakeholders. As part of our materiality assessment process we:

- Reevaluate the significant issues presented in our previous sustainability materiality assessment and identify new or evolving issues
- Review ESG aspects and indicators and their materiality as they apply to our business by analyzing recent stakeholder sustainability engagements, including investor and customer inquiries, employee and guest surveys, questionnaires and surveys from rating organizations, industry reports and analyses, supplier engagement, and policies and regulatory guidance, among others
- Validate the assessment through internal meetings with executive management

Through this process, we strive to ensure all stakeholders are well-informed of our ESG strategy and actions.

We have identified stakeholder and company issues using a double materiality approach, identifying the priorities using social, environmental and financial criteria. The double materiality approach acknowledges that a company should report simultaneously on sustainability matters that are:

- Financially material in influencing business value
- Material to the market, the environment, and people

The results are shown on the right.
This Sustainability Report provides information related to our Company's fiscal year 2022 performance (December 1, 2021 to November 30, 2022). This is our thirteenth annual sustainability report. This report was developed in accordance with the Global Reporting Initiative (GRI) Universal Standard 2021. This report also includes our annual disclosure in line with the Sustainability Accounting Standards Board (SASB) 2018 Cruise Lines Standard and a link to our latest Task Force on Climate related Financial Disclosures (TCFD) disclosures.

The scope of this Sustainability Report encompasses the direct operation of the ships, as well as the support facilities and personnel charged with managing the brands and the corporate headquarters. For the ports we own and operate, as well as our exclusive destinations, this report provides an overview of their sustainability projects. Their environmental and social performance data is not included in the scope of this report.

Disclaimer with Respect to Forward-Looking Statements

The data included in this report has been collected and processed with the materials at our disposal. Nevertheless, errors in the materials are possible. Some of the statements, estimates or projections contained in this report are forward-looking statements that involve risks, uncertainties and assumptions with respect to our Company, including some statements concerning future results, operations, outlooks, plans, goals reputation, cash flows, liquidity and other events which have not yet occurred. These statements are intended to qualify for the safe harbors from liability provided by Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical facts are statements that could be deemed forward-looking statements. These statements are based on current expectations, estimates, forecasts and projections about our business and the industry in which we operate and the beliefs and assumptions of our management. In particular, measurement standards for many sustainability issues are still evolving. We have tried, whenever possible, to identify these statements by using words like “will,” “may,” “could,” “should,” “would,” “believe,” “depends,” “expect,” “goal,” “aspiration,” “anticipate,” “forecast,” “project,” “future,” “intend,” “plan,” “estimate,” “target,” “indicate,” “outlook” and similar expressions of future intent or the negative of such terms.

Please refer to the “Risk Factors” section of our latest Annual Report on Form 10-K and our latest Quarterly Reports on Form 10-Q for important cautionary statements of the known factors that we consider could materially affect the accuracy of our forward-looking statements and adversely affect our business, results of operations, performance, achievements and financial position. Additionally, many of these risks and uncertainties are currently, and in the future may continue to be, amplified by our substantial debt balance as a result of the pause of our guest cruise operations. It is not possible to predict or identify all such risks. There may be additional risks that we consider immaterial, or which are unknown.

Forward-looking and other statements in this document may also address our sustainability progress, plans and goals (including climate change- and environmental-related matters). In addition, historical, current and forward-looking sustainability- and climate-related statements may be based on standards and tools for measuring progress that are still developing, internal controls and processes that continue to evolve, and assumptions and predictions that are subject to change in the future and may not be generally shared.
OUR PARTNERS

Carnival Corporation & plc works, collaborates and partners with a variety of organizations worldwide. This is a list of some of our corporate and brand-specific partnerships.

CLIMATE ACTION
MAMII
Methane Abatement in Maritime Initiative

CIRCULAR ECONOMY
SEA 2 CRADLE

SUSTAINABLE TOURISM
ETHI SPHERE

TRADE ASSOCIATION

DIVERSITY, EQUITY & INCLUSION
THE EXECUTIVE LEADERSHIP COUNCIL
The Power of Inclusive Leadership

United Way of Miami-Dade

WORLD TRAVEL & TOURISM COUNCIL

ABTA
Travel with confidence

Banco Alimentare

WORLD OCEAN COUNCIL

Maritime UK

UK Chamber of Shipping

CLIR Cruise Lines International Association

Florida-Caribbean Cruise Association

International Chamber of Shipping

Getting to Zero Coalition

Ocean 100 Dialogues

Travelife
Sustainability in tourism

Sea-LNG

sGMf

Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping
We are honored by the recognition we receive as a corporation as well as the recognition our individual cruise brands receive for their collective commitment to protecting and sustaining healthy oceans, seas and communities around the world. The independent accolades come from environmental groups, port communities, industry publications and associations that have recognized our long-standing efforts and best practices. Following are noteworthy corporate recognitions received in 2022.

**SAFETY4SEA**

**SAFETY4SEA Training Award (2022)**

Carnival Corporation & plc’s CSMART Training Center received the 2022 SAFETY4SEA EUROPORT Training Award for the 3rd time. The Center was recognized for providing high-quality maritime training services for industry wide safety, sustainability and operational excellence. Find more information [here](#).

**Forbes**

**America’s Best Employers for Diversity (2022)**

Carnival Corporation & plc was recognized for the fourth consecutive year as one of America’s Best Employers for Diversity for 2022 by Forbes. Forbes recognized only the top 500 companies out of thousands of organizations, representing the top 2% of all U.S. companies with over 1,000 employees. The full list of America’s Best Employers for Diversity for 2022 is available [here](#).

**Forbes**

**World’s Best Employers (2022)**

For a second consecutive year, Carnival Corporation & plc was named as one of the World’s Top Female-Friendly Companies of 2022 by Forbes. The full list of the World’s Top Female Friendly Companies for 2022 is available [here](#).

**Human Rights Campaign’s Corporate Equality Index**

**Best Place to Work for LGBTQ+ Equality**

For the sixth consecutive year, Carnival Corporation & plc earned a perfect score of 100 on the Human Rights Campaign (HRC) Foundation’s 2022 Corporate Equality Index (CEI), designating the company as a Best Place to Work for LGBTQ+ Equality. The full list of companies is available [here](#).

**Latino Leaders Magazine**

**Best Companies for Latinos to Work (2022)**

Carnival Corporation & plc was again named among the Best Places to Work for Latinos by Latino Leaders Magazine, the only national magazine in the U.S. fully dedicated to showcasing and promoting leadership in the Latino community. The company’s inclusion marks the second consecutive year it has been recognized as the only cruise company on the listing of best employers for Latinos. The full list of companies is available [here](#).
WE ARE FOCUSED ON DECARBONIZATION

A key focus of our sustainability efforts is Climate Action, which includes our commitment to reduce carbon emissions and our aspiration to achieve net carbon-neutral operations in support of the Paris Agreement’s ambition to limit global average temperature rise. We are working aggressively toward our 2030 carbon intensity reduction goals. This includes technology upgrades currently being rolled out across our fleet, investing in port and destination projects and even more focus on itinerary efficiency and operational execution across the portfolio, while also realizing the benefit of our fleet optimization efforts. All of these actions combine to drive down our carbon footprint, fuel consumption and cost.

Our entire management team, including our Boards of Directors, is committed to these ongoing efforts. To further strengthen our climate action governance, in 2022 the Boards of Directors appointed our Company’s President and Chief Executive Officer at the time to the role of Chief Climate Officer (CCO) and created a Strategic Risk Evaluation (SRE) Committee. Following the August 2022 change in leadership, Josh Weinstein assumed the role of CCO. During 2022, the Boards of Directors also approved the update of our greenhouse gas emissions baseline year to 2019 from 2008 and strengthening our 2030 carbon intensity reduction goal. This new baseline year will help us better communicate recent progress against our climate goals to our investors and stakeholders as well as modernize our disclosures in alignment with developing best practice and reporting standards.

We recognize that addressing climate change requires energy sources and technologies that do not yet exist for our industry. Therefore, we continue to partner with other companies, universities and research bodies, non-governmental organizations, and relevant stakeholders. We also understand that carbon capture and/or offsets may play a role in our decarbonization pathway if technological innovations and alternative fuels are not sufficient or available in necessary volumes to eliminate our emissions. As we navigate our decarbonization journey, we are committed to evaluating options, working with various stakeholders and adjusting our path as needed.
Our Decarbonization Strategy has four components:

1. **FLEET OPTIMIZATION**
   Delivering larger, more-efficient ships as part of our ongoing newbuild program, replacing some of the existing ships in our fleet.

2. **ENERGY EFFICIENCY**
   Improving the existing fleet's energy efficiency through investment in projects such as service power packages and air lubrication systems and expanding shore power capabilities.

3. **ITINERARY EFFICIENCY**
   Designing more energy-efficient itineraries and focusing on operational execution and investing in port and destination projects in strategic locations to support these efforts.

4. **NEW TECHNOLOGIES AND ALTERNATIVE FUELS**
   Investing in a first-of-its-kind lithium-ion battery storage system, testing fuel cells powered by hydrogen derived from methanol and exploring carbon capture and storage. We are also supporting the adaptation of alternative fuels including LNG and other bio and synthetic hydrogen-derived fuels.

**WE ARE FOCUSED ON DECARBONIZATION**

*We aspire to achieve net carbon neutral ship operations by 2050.*
Decarbonization Strategy

Our decarbonization strategy has four components: (1) fleet optimization; (2) energy efficiency; (3) itinerary efficiency; and (4) new technologies and alternative fuels. The following is a summary of our efforts and achievements across each of these components during 2022.

Fleet Optimization

New Ships
As part of our newbuild program, we added three additional LNG powered ships to the fleet in fiscal year 2022, AIDAcosma, Costa Toscana and Carnival Celebration, for a total of seven LNG-powered ships within our fleet, as of November 30, 2022. We also delivered two ships that, while not using LNG, are fitted with the latest energy saving technology.

Selling Ships
During fiscal year 2022, we entered into an agreement to sell one ship and completed the sale of three ships, which represents a passenger-capacity reduction of 8,220 berths.

Recycling Ships
At the end of a ship’s life cycle, there is a dismantling and recycling phase. As further described on page 48 of this report, when we recycle a ship, we work with companies that adhere to a broad set of standards set forth by the European Union (EU), International Maritime Organization (IMO), International Labor Organization (ILO), Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009, and the Basel Convention. We also work with nonprofit organizations with expertise in managing recycling ship projects. In 2022, we sold another two ships for recycling.

Energy Efficiency

Service Power Packages
During 2022, we announced the global rollout of Service Power Packages, a comprehensive set of technology upgrades which will be implemented over the next several years across a portion of the fleet. These upgrades include the following elements designed to reduce both fuel usage and greenhouse gas emissions while also contributing to cost savings:

- Comprehensive upgrades to ship hotel HVAC systems
- Technical system upgrades, including variable speed drives on pumps and fans
- State-of-the-art LED lighting systems
- Remote monitoring and optimization of energy usage and performance

The Service Power Package upgrades are part of our ongoing energy efficiency investment program and are expected to further improve energy savings and reduce fuel consumption. Upon completion, these upgrades are expected to deliver an average of 5-10% fuel savings per ship.

Air Lubrication Systems
We have five Air Lubrication Systems (ALS) fitted in our fleet and are currently installing ALS on six ships with eight additional systems on order. ALS cushion the flat bottom of a ship’s hull with air bubbles which reduces the ship’s frictional resistance and the propulsive power required to drive the ship through the water, which results in energy and fuel consumption savings as well as reduction in carbon emissions. We plan to continue to expand the program for installation of ALS, which is expected to generate savings in fuel consumption and carbon emissions, by reducing hull drag, by approximately 5%.

Shore Power Capabilities
As part of our emission abatement program, 57% of our ships are fully equipped to utilize shore power technology. Shore power enables our ships to use shoreside electric power, where available, while in port rather than running their engines to power their onboard services.

Based on our itineraries, less than 5% of the ports we call on offer shore power connections, and our ships have connected to shore power in Southampton, UK; Hamburg, Kiel and Rostock, Germany; Vancouver, Halifax and Montreal, Canada; Seattle, Washington, Juneau, Alaska; San Diego, San Francisco, Los Angeles and Long Beach, California; and Brooklyn, New York in the United States; Kristiansand, Norway; and Shanghai, China. Approximately half of these ports have confirmed they are providing electricity from renewable sources such as hydro, wind and solar. We are currently working with the ports of Miami, Galveston, Barcelona, Savona and Genoa to support their shore power development efforts.

In 2023, our energy savings investments, along with fleet optimization and itinerary reviews, are expected to deliver a 15th reduction in greenhouse gas emissions per ALBD on an annualized basis compared to 2019.

Itinerary Efficiency

Itinerary Efficiency & Design
We continue to explore opportunities to reduce our emissions by focusing on developing more energy-efficient itineraries. We seek to continuously improve on and reduce our absolute carbon emissions through operational improvements and using techniques such as weather routing, using ports with shore power, speed reduction where possible and shorter distances traveled.
New Technologies and Alternative Fuels

Batteries
In 2019, we signed an agreement with Corvus Energy, the world’s leading marine battery supplier, to begin production and installation of a first-of-its-kind lithium-ion battery storage system on board a cruise ship. The technology is currently set to become the world’s largest battery storage system ever installed on a passenger ship. The 10 MWhr battery system was installed on AIDAprima in August 2022 and final operational approvals are in progress.

Fuel Cells
Carnival Corporation & plc’s AIDA brand, the Meyer Werft shipyard, Freudenberg Sealing Technologies and other partners are participating in a research and development project funded by the German Federal Ministry of Transport and Digital Infrastructure. The objective of the project is to find practical solutions for climate neutral mobility across all of shipping. The groundbreaking “Pa-X’eliz” project specifically aims to develop a decentralized energy network and a hybrid energy system by using a new generation of fuel cells in oceangoing passenger vessels. The fuel cells have been installed on AIDAnova and final operational approvals are in progress. The fuel cells will be powered by hydrogen derived from methanol.

Carbon Capture and Storage
We understand that carbon capture and storage may play a role in our decarbonization pathway if technological innovations are not sufficient to eliminate our emissions. To address those potential gaps in the future, we are exploring carbon capture and storage opportunities while we continue to monitor the carbon offset market.

Liquefied Natural Gas (LNG)
As part of our plan for carbon footprint reduction, we have 11 LNG powered cruise ships that are expected to join the fleet through 2025, including eight ships already in operation as of December 31, 2022. In total, these ships are expected to represent 20% of our total capacity by summer 2025. All of our LNG ships also have the capability to run on conventional fuels. Due to the high price of LNG in certain markets, at times we have used conventional fuels to power our LNG ships.

LNG is a fossil fuel and generates carbon emissions. Its direct CO₂ emissions are lower than those of conventional fuels and emits effectively zero sulfur oxides, reducing nitrogen oxides by 85% and particulate matter by 95%-100%. The types of engines that we use are subject to small amounts of methane slip (the passage of un-combusted methane through the engine).

Ports and Destinations Projects
In May 2022, our Carnival Cruise Line brand, in cooperation with the Grand Bahama Port Authority and the Government of The Bahamas, held a groundbreaking ceremony for its new cruise port destination on Grand Bahama Island. The new Carnival Grand Bahama cruise port destination, expected to open in 2025, is being developed on the south side of the island and will continue to serve as a gateway to Grand Bahama while also offering guests a uniquely Bahamian experience with many exciting features and amenities, along with business opportunities for the residents of Grand Bahama.

Our investment in this port destination will support our efforts to design more energy efficient itineraries based on its strategic location.

DECARBONIZATION TIMELINE

- **2005** STARTED focusing on energy efficiency programs throughout the fleet.
- **2011** PEAKED emissions for scope 1 & 2.
- **2015** SURPASSED our 2015 carbon intensity reduction goal by delivering a 23.4% reduction.
- **2017** ACHIEVED AND SURPASSED our 2020 carbon intensity reduction goal by delivering a 26.3% reduction.
- **2019** COMMITTED to a new carbon intensity reduction goal of 40% by 2030 relative to a 2008 baseline & achieved a 24.9% reduction.
- **2022** BOARDS OF DIRECTORS APPOINTED company’s President and Chief Executive Officer to the role of Chief Climate Officer.
- **2050** ASPIRE to achieve net-zero carbon ship emissions, aligned with the Paris Agreement’s ambition and exceeding IMO’s goal of 50% absolute emission reduction.
- **2100** IMO’s ultimate goal is to achieve zero-emission shipping.
There are different views relating to the measurement of the environmental impact of LNG, including the methane slip. Our disclosures report our emissions, including methane slip, as part of our total carbon emissions (reported as CO₂e) using the 100-year global warming potential time frame and measured on a “tank to wake” basis. We are working closely with our engine manufacturers and other technology providers to further mitigate methane slip and have recently joined the Methane Abatement in Maritime (MAM) Innovation Initiative, where we will partner with other major maritime players to seek solutions for this challenge.

Biofuels

During 2022, we piloted the use of biofuel as a replacement for fossil fuel on two of our ships. AIDAprima became the first larger-scale cruise ship to be powered with a blend of marine biofuel, made from 100% sustainable raw materials (predominantly used cooking oil and animal fats, also known as tallow), and marine gasoil. In addition, the Holland America Line Volendam completed two pilots, one using a blend of marine biofuel and another using 100% biofuel, becoming the first larger-scale cruise ship to be powered with 100% biofuel. The certified biofuels used in these pilots offer environmental benefits compared to using fossil fuels alone through their lifecycle CO₂ reductions. These biofuels can be used in existing ship engines without modifications to the engine or onboard fuel infrastructure, including on ships already in service. We are working with suppliers to encourage investment in a reliable supply infrastructure.

Other Fuels

Through our key partnerships and Classification Societies, we are also assessing methanol, bio-LNG, eLNG and hydrogen as future low carbon fuel options for cruise ships. In maritime applications, the use of hydrogen as a replacement for fossil fuel on two of our ships. During 2022, we piloted the use of biofuel as a replacement for fossil fuel on two of our ships. AIDAprima became the first larger-scale cruise ship to be powered with a blend of marine biofuel, made from 100% sustainable raw materials (predominantly used cooking oil and animal fats, also known as tallow), and marine gasoil. In addition, the Holland America Line Volendam completed two pilots, one using a blend of marine biofuel and another using 100% biofuel, becoming the first larger-scale cruise ship to be powered with 100% biofuel. The certified biofuels used in these pilots offer environmental benefits compared to using fossil fuels alone through their lifecycle CO₂ reductions. These biofuels can be used in existing ship engines without modifications to the engine or onboard fuel infrastructure, including on ships already in service. We are working with suppliers to encourage investment in a reliable supply infrastructure.

Partnering to Support Industry Decarbonization

We recognize that addressing climate change requires a global effort and commitment and we are working and partnering with others within the industry to reduce our emissions and develop alternative fuels and technologies. Our efforts to deliver cleaner emissions from our ships also rely on the support of, and the collaboration with, key partners.

Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping

Carnival Corporation & plc joined the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping as a strategic partner. The Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping is a not-for-profit, independent research and development center working with industry players across the energy and shipping sectors to mature viable decarbonization pathways for global shipping. With its partners, the Center facilitates the development and implementation of new energy and maritime technologies and accelerates the transition by defining strategic ways to drive the required systemic and regulatory change. The Center has a global partner base across the maritime sector. In early 2022, we became a mission ambassador to the Center’s work through a formalized network and information flow. For more information, see www.zerocarbonshipping.com.

Getting to Zero Coalition

We became the first cruise company to join the coalition in 2019. This coalition is an alliance of organizations across the maritime, energy, infrastructure and finance sectors committed to accelerating the decarbonization of the international shipping industry. The alliance’s goal also includes scalable infrastructure for zero-carbon energy sources, including production, distribution, storage and bunkering. Supported by key governments and intergovernmental organizations, the coalition represents a leading group of over 80 companies, including global stakeholders from a variety of shipping-related industries such as fuel suppliers, engine manufacturers, marine classification societies, shipping companies, major ports and more.

Wärtsilä Partnership

In 2017, as part of our plans to address our impact on climate change, we enhanced our long-term partnership with Wärtsilä, one of our main engine manufacturers. We executed a 12-year strategic agreement valued at approximately $1 billion, which includes all engine maintenance and monitoring for the majority of our ships. As part of the agreement, engine-level efficiency and fuel consumption have been measured on a regular basis, providing transparency into engine performance that has resulted in further improvements to engine operations. The data provided has also allowed for tailored optimization of the combustion process, which has also improved the quality of our air emissions.
Carnival Corporation & plc has agreed to become a first mover in a partnership with port communities and other organizations in the Alaska and Pacific Northwest maritime industry to explore methods to accelerate the reduction of greenhouse gas emissions associated with passenger shipping. This Alaska Cruise Green Corridor will initially evaluate the landscape of capabilities presently available, or in development, and identify recommendations to align efforts of the full “well to wake” chain so that low/no greenhouse gas cruising may happen as quickly as possible. Through the leadership of our global experts, we will leverage work done by several other Green Corridor programs across the globe.

The partnership includes the Port of Seattle, Alaskan City and Borough of Juneau, Canada’s Vancouver Fraser Port Authority and Carnival Corporation & plc brands including Holland America Line, Princess Cruises, Carnival Cruise Line, Seabourn and Cunard. It also includes other cruise line companies, Global Maritime Forum, Blue Sky Maritime Coalition and Washington Maritime Blue. Through this initiative, as well as other partnerships, we continue to support the development, testing and further refinement of technologies that support our commitment to decarbonization.
INTRODUCTION

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**Methane Abatement in Maritime (MAM) Innovation Initiative**

In September 2022, we joined a coalition of shipping leaders to identify, accelerate and advocate technology solutions for the maritime industry to measure and manage methane emissions activity. The MAM Innovation Initiative aims to minimize the environmental impact of LNG in shipping, while aiding the transition to future fuel solutions.

Led by Safetytech Accelerator, established by Lloyd’s Register, MAM is a technology acceleration program whose activities will initially be supported by seven partners and draw on the expertise of academics, civil society and other stakeholders, such as the National Physical Laboratory. During its first year, members will seek to identify and pilot new technologies to monitor and reduce ‘methane slip’ from vessels fueled by LNG.

**Greenhouse Gas Scope 1, 2 and 3 Emissions**

We quantify, report and verify our greenhouse gas (GHG) emissions for our direct (Scope 1) and indirect (Scope 2) emissions. Our fiscal year 2022 direct GHG emissions, which are largely generated from our ships, represented over 99% of our total Scope 1 and 2 emissions. During 2022, we performed an inventory of our Scope 3 greenhouse gas emissions using a baseline year of 2019 (our last full year of guest cruise operations). Following the Greenhouse Gas Protocol guidance, we determined that our Scope 3 emissions were estimated to be approximately one half of our total emissions, based on the assumptions made and the emission factors selected in our analysis. We plan to measure Scope 3 emissions annually going forward.

**Carbon Disclosure Frameworks**

In addition to disclosing our greenhouse gas emissions performance within our sustainability reports, since 2007, we have disclosed our performance through the CDP (formerly known as the Carbon Disclosure Project). In 2022, we received a B- score from CDP. We also disclose our greenhouse gas emissions performance through the Sustainability Accounting Standards Board (SASB) cruise line standard and the Task Force on Climate related Financial Disclosures (TCFD).

**Scope 3 Value Chain Emissions**

We completed our Scope 3 inventory for fiscal year 2019 in accordance with the GHG Protocol and determined this to be our baseline year. Scope 3 GHG emissions are the CO2 equivalents generated from our upstream and downstream value chain. Our 2019 baseline was approximately 10.6 million metric tons per CO2e. Of the 15 scope 3 categories within the GHG Protocol, nine were identified as relevant for our business. Of these, the highest percentages were as shown below:
Our TCFD disclosure is available in our 2022 Annual Report on Form 10-K here and on our sustainability website here. This latest disclosure expands on our prior disclosures and qualitative and quantitative scenario analysis to further assess our climate-related risks and opportunities over the short, medium and long term.

We qualitatively applied two distinct plausible climate scenarios, global warming limited to below 1.5 °C above preindustrial levels by 2100 “Steady Path to Sustainability” and global warming of 2.8 °C above pre-industrial levels by 2100 “Regional Rivalry.” The scenarios were used to generate the climate-related risks and opportunities.

We quantitatively applied three distinct plausible climate scenarios to determine the potential impacts of the risks and opportunities assessed. Using transition scenario assumptions from the International Energy Agency and climate and transition scenarios from the Intergovernmental Panel on Climate Change, we utilized two interlocking types of pathways, the Representative Concentration Pathways and Shared Socioeconomic Pathways to create three sets of scenarios to understand the relative materiality and possible range of impacts to the business from the selected climate-related risks and opportunities under different potential futures.
At Carnival Corporation & plc, our mission is to deliver unforgettable happiness to our guests by providing extraordinary cruise vacations, while honoring the integrity of every ocean we sail, place we visit and life we touch.

The health and sustainability of the oceans and destinations we visit are a necessity for our business. Four of our six Focus Areas are directly linked to the environment: Climate Action, Circular Economy, Biodiversity & Conservation and Sustainable Tourism. Within these environmental focus areas, we are committed to reducing our environmental impacts well beyond the progress we’ve made to date.

We are committed to reducing our carbon emissions and we aspire to achieve net carbon-neutral ship operations by 2050. Our efforts in this area center around fleet optimization, energy efficiency improvements of the existing fleet, itinerary efficiency improvements and the identification of and investment in new technologies, including working to influence the aggressive development and availability of alternative (low or zero carbon) fuels.

We are also working toward a circular economy model. Waste generated by our operations and the activities of our guests and crew mirrors the waste generated by hotels and resorts worldwide. We are committed to minimize the waste generated by our operations and activities and to maximize its reuse. In our onboard recycling centers, we have dedicated team members sorting and segregating recyclable items. We also have dedicated equipment to process and package the recyclable items prior to offloading them ashore to designated recycling vendors. This dedicated management process generally exceeds practices found in hotels and resorts. A challenge that limits the volume of material recycled is the lack of recycling infrastructure available at certain ports we visit worldwide.
Fleet Environmental Performance Snapshot as of November 30, 2022

- **98%** Percentage of the fleet with Ballast Water Treatment Systems installed
- **64%** Percentage of Advanced Waste Water Treatment fleet capacity coverage
- **57%** Percentage of the fleet with shore power capability
- **> 600** Number of food waste biodigesters installed across the fleet
- **93%** Percentage of non-LNG fleet equipped with Advanced Air Quality Systems
- **14%** LNG capable percentage of company’s ship capacity
- **5%** Percentage of the fleet with Air Lubrication Systems installed

To minimize our impact on watersheds and biodiversity, we work diligently to protect marine life and closely collaborate with our supply chain. In particular, we work with suppliers on sustainable food sourcing and with our tour operators on sustainable animal welfare practices. The oceans are not only the means by which we take our guests to see the world, they are also our main water source. We produce approximately 87% of the water we use on board our ships from sea water and the remaining 13% is purchased from the ports we visit. Before our ships visit a port, we determine whether potable water is available and abundant. In ports or regions experiencing water scarcity or restrictions, our water sourcing patterns are modified in order to avoid impacting local water supplies in times of water shortages. We are able to adjust based on our ships’ holding capacities, equipment and additional port options within the itinerary. Therefore, our ship operations pose minimal water sourcing impacts to the port communities we visit. In addition to disclosing our water consumption figures in the Environmental Performance Summary of this report, we also disclose our water performance annually to the CDP Water Security framework. In 2022, we scored a B.

Lastly, as a ship operator, vacation provider for millions of guests and operator of several destinations, we recognize our responsibility to protect ecosystems and to help maintain the biodiversity of the communities we visit. As such, we seek partnerships with environmental protection and conservation organizations to support programs and initiatives related to our operations. For additional details regarding our partnerships, see page 26.

**HESS and Environmental Policies**

Our Health, Environment, Safety, Security and Sustainability (HESS) corporate policy sets the foundation for our approach. We evaluate and act upon environmental risks, develop standards and procedures, and closely monitor our environmental performance and leadership. We have a rigorous internal incident reporting system that requires the reporting of spills, releases or discharges internally within the ship or external to the ship. We foster a speak up culture, which allows our team members to feel comfortable and safe to report any noncompliance matters to their direct supervisor or upper management, without fear or concern of retaliation for making a report in good faith. We also have a whistleblower system with a range of options for employees and external stakeholders to communicate which includes a dedicated hotline telephone number and website. The hotline is monitored by an independent third party and is available 24 hours a day, seven days a week.

Environmental compliance on board our ships is the responsibility of all crew members. Each ship in our fleet has a full time Environmental Officer (EO) on board, whose main responsibilities include monitoring environmental compliance, the implementation of environmental procedures and supporting shipboard teams with their environmental compliance needs. Each EO reports directly to the ship’s Captain and has a direct line of communication with their Compliance Officer ashore. For further detail on the EO’s responsibilities please see our sustainability website.

Our Environmental Management System (EMS) is certified to the ISO 14001:2015 Environmental Management System standard. An independent, third-party organization audits and certifies our EMS in accordance with ISO 14001.
Sustainability Initiatives at the Ports we Own and Operate

We strive to develop and operate our ports in a way that supports our sustainability focus areas, and we have implemented programs accordingly. The ports we own and operate include: Puerta Maya Cozumel, Mexico; Grand Turk Cruise Center, Turks & Caicos Islands; Amber Cove; Puerto Plata, Dominican Republic; Mahogany Bay Cruise Center, Roatan, Honduras. We also have two exclusive destinations in the Bahamas, Half Moon Cay and Princess Cays, as well as two additional port facilities, Barcelona and Santa Cruz De Tenerife.

Biodiversity & Conservation Initiatives

Mangrove Reforestation Project: As part of our ongoing reforestation project in the Dominican Republic, we planted 50 mangroves at our port, Amber Cove. We also volunteered alongside a local NGO to plant another 1,000 mangroves within the community.

Reforestation Project: We planted approximately 150 trees at our port facilities and in the local communities including the planting of an additional 500 Sea Oat, Fountain Grass and Neem Trees at one of our ports, not just as ornamental trees, but to assist in the critical prevention of beach erosion, aid in the rebuilding of the shorelines and repel mosquitos and sandflies.

Coral Reefs: We continued monitoring the coral health and water quality in our artificial reefs.

Coastal and Community Clean Ups: We participated in nine coastal cleanup events, removing waste and debris from the seabed in the areas around our ports and local communities.

Circular Economy Initiatives

Composting: Our ports generate approximately 40 metric tons of compost soil per year. The new soil is used for landscaping and our port staff is also welcomed to take some home for their plants.

Recycling: We continued partnerships with local recycling entities, which received approximately 37 metric tons of recycled materials, including glass, plastic, cardboard, aluminum, electronics and batteries.

Saving Water: Advanced Waste Water Treatment Systems are used to treat wastewater at three of our ports. Treated effluent is reused for landscape irrigation, saving a significant amount of water. Additionally, some of our ports collect rainwater from building catch systems that are repurposed for fire suppression systems and bathroom toilet flushing.

Good Health & Well-Being Initiatives

In 2022, we created and sponsored port sport leagues, created communal vegetable gardens and encouraged gym and health challenges. We also partnered with Roatan Marine Park in Honduras, to implement a variety of training programs for our port staff. These included local endangered species education, first-aid, fire prevention, wastewater treatment, waste management and work safety education. Other similar in-house trainings are also offered to our port staff.

We also extended a secondary education completion program to our port team members. In 2022, five team members enrolled and three graduated.

Sustainable Tourism Initiatives

We showcase educational mural paintings by local artists of local flora and fauna which are in delicate or endangered states. In 2022, we added a sea turtle mural in Mahogany Bay and informational banners focused on conservation throughout our Puerta Maya port in Cozumel.

Throughout the rest of our ports, there are also cultural displays (some made from repurposed discarded items) that teach guests and crew alike about local island history, local endangered species and preservation efforts to ensure that we can enjoy these destinations for years to come.
As part of our company-wide environmental stewardship program, Operation Oceans Alive, we launched a fleetwide video challenge to promote crew engagement during World Oceans Day on June 8th. All nine brands were engaged in this challenge. Three winners were awarded by our CEO, Josh Weinstein, and won a cash prize for the ship’s employee welfare fund. Operation Oceans Alive is a call to action for all team members to care about and protect our oceans, seas and waterways from environmental harm - ensuring ecosystems, plant life, and aquatic animals thrive both now and in the future.

As part of the program, over the past five years, special coins have been presented to team members as a means of recognition for embodying our culture essentials such as leading by example, having innovative ideas and raising concerns by speaking up. Each coin was designed to signify the importance of the marine environment. Since the program was created, many of these coins have been awarded throughout the fleet. Below are some stories of exemplary shipboard team members who earned this year’s Operations Oceans Alive coin:

Seabourn team members were awarded for spotting fishing gear and a 50-meter industrial grade plastic pipe floating in the ocean and took action to remove these items.

On an AIDA ship, three team members - a Senior Assistant Housekeeper, a Tailor and an Engine cadet were awarded for taking extra caution to ensure proper waste separation and improving processes within their departments.

A Sanitation Officer at P&O Cruises Australia was awarded for his constant collaboration and training of crew members responsible for operating the new food biodigesters on board.

A Safety Officer at Holland America Line was awarded for going above and beyond and designing an ingenious scupper cover for the lifeboat deck to contain an accidental fluid leak.
Biodiversity & Conservation: Respecting and Protecting Whales

At Carnival Corporation & plc, we understand navigating the oceans, home to many marine species, is an incredible privilege. We recognize that our vessel transit areas often intersect with whale habitats or migration areas. As the ocean is their home, whales always have the right of way, and we do everything we can to protect them throughout our operations.

As part of our ongoing commitment to the conservation and protection of whale habitats, we have established internal procedures, training, and resources to respect and protect these incredible animals. Our bridge officers receive annual training on marine mammal avoidance. This year over 2,800 bridge officers have completed this training.

There are several established whale sanctuaries throughout the world and our vessels adhere to specific local guidance such as speed reduction, minimum distance, and reporting all whale sightings to local agencies. In addition, we have provided our vessels with company guidance to:

- Never assume a whale will move out of our vessel's away
- Avoid or minimize travel distances through whale habitats and Right Whale critical habitats, especially during the night
- Never position our vessels in the path of a whale and never approach a whale head-on
- Reduce to a slow, safe speed and make a turn to give a wide berth if a whale is spotted
- Steer behind a whale's path of travel to avoid crossing ahead of a whale.
- Avoid areas of reported whale concentrations altogether and never place a vessel between two or more whales
- Never attempt to maneuver around any whales that approach our vessels and instead slow or stop until the animals move away

The training our bridge officers receive was developed as a cooperative effort between the Company, the United States National Park Service, and the National Oceanographic and Atmospheric Administration (NOAA)’s National Marine Fisheries Services. Our bridge officers receive information on common whale behavior, precautionary measures to follow when transiting whale habitat areas, how to maintain a vigilant watch for marine mammals, as well as reporting requirements. In addition to the above guidance, our bridge officers know that whenever there are mother/calf pairs, groups or large assemblages of whales observed forward of the ship, our vessels must reduce to a safe, slow speed to allow them to pass. If a single whale is observed at the surface, it may indicate the presence of submerged whales in the vicinity and therefore, our vessels take precautionary measures as well. When inside designated whale areas, all whale sightings are reported to local authorities so other vessels in the area are alerted.

The following are some of the whale species that are protected in the areas we operate in: Blue Whales, Southern Right Whales, Humpback Whales, Sperm Whales, North Atlantic Right Whales, Fin Whales, and Killer Whales. Whales are ranked according to their identified risk of extinction by the International Union for Conservation of Nature (IUCN). Click here to learn more.
Biodiversity & Conservation: Giglio Island

Giglio Island sits off the coast of Italy and its waters have two biodiversity hotspots: Posidonia (seagrass) and Coralligenous (hard bottom from calcareous encrusting algae). Costa Cruises has supported clean up and restoration initiatives on Giglio Island over the past 10 years.

Restoration efforts are ongoing and have been conducted by local universities under the supervision of the Tuscan Environmental Observatory. The habitat’s restoration efforts have included seagrass and soft corals transplanting to areas that can accelerate natural growth. Over the past three years, approximately 1,500 sqm of seagrass with a density of about 27-31 bundles/m² has been transplanted in the area. Additionally, 353 gorgonians (soft corals) have been transplanted on the seabed as well as experimental marine sponge transplants.

These restoration efforts have been more successful than expected with positive changes in biodiversity observed. New marine life species have colonized the area and old species have returned. It is predicted that if restoration successfully continues, these habitats may become a source of repopulation for neighboring areas.
Our home is the sea, and our future depends on its health. As part of our environmental stewardship program, Operation Oceans Alive, we participate in World Oceans Day and “International Coastal Cleanup Day” with a variety of activities for guests and team members. Both days are international celebrations that highlight the importance of protecting our oceans, seas and beaches. World Oceans Day, celebrated annually on June 8th, also aims to support the implementation of worldwide sustainable development goals (SDGs) and fosters public interest in the sustainable management of the ocean’s resources. Every September, International Coastal Clean-Up Day is the largest clean up drive for beaches and coastlines that not only clean treasured environments, but also documents the type of trash collected for research and to inform governments that can enact policy changes.

We encourage volunteerism to clean up our oceans and coastlines during these celebrations. These holidays are celebrated by many of our ships alongside port officials around the world in the Caribbean, Mexico, Bermuda and even Greece. Some team members on board our ships even paddled in kayaks to collect trash from mangroves. Furthermore, our shoreside team members and partners in Miami, Hamburg and Italy also participated.

Crew Members in Maui, Hawaii.
We encourage our guests and team members to protect the animals they see and interact with through various experiences at the port destinations we visit. Animal experiences can provide opportunities to learn and appreciate different animal species while supporting conservation efforts. However, when such animal interactions are not well managed, there is potential for harm to the well-being of the animals involved, the well-being of the local community, or the safety and health of humans involved.

To help us responsibly manage excursions and experiences involving animals, we work with animal welfare professionals, sustainable tourism consultants and non-governmental organizations. We take seriously applicable industry-recognized standards and certifications to determine which activities and operators to include as part of our excursion portfolio.

We recognize that without careful management, there is the potential to cause stress to animals involved in excursions. We oppose practices that are illegal and will evaluate allegations of inappropriate animal welfare practices; if warranted, an independent evaluation will be performed. Animal welfare concerns may be reported using the corporation’s dedicated hotline telephone number and website.
As the world shifts towards a circular economy model where materials flow around a closed loop system, we are changing how we work with our supply chain partners to reduce waste. **In order to reduce our environmental impact and to continuously improve our sustainability practices, we recycle, reuse, and rethink resource use based on the principles of a circular economy.**

**Single-Use Items and Plastics Reduction**

In 2022, we continued our efforts to reduce single-use plastic items. Despite the pandemic and the need to continue to use some single-use items for health and sanitation reasons, we remained focused on eliminating and reducing single-use plastic items and replacing them with more sustainable alternatives throughout the fleet.

Traditionally, plastic items such as straws, cutlery, stir sticks, cocktail/garnish picks, cups, lids and chopsticks have been eliminated or replaced with alternatives such as paper, wood or bamboo products.

To expand on the success we achieved in 2021, we continued to change our approach with our supply chain partners to purchase products in bulk instead of single use containers such as butter packets, sauce packets, yogurt and amenity bottles. As of the end of 2022, we have eliminated over 5 million individual amenity bottles, 10 million individual yogurt containers and 50 million individual sauce packets relative to 2018. We have also updated our internal procedures to reduce the consumption of plastic bin liners and reduced consumption by over 25 million in 2022.

[CLICK HERE FOR AN UPDATE ON OUR PROGRESS]
Single-Use Items and Plastics Reduction

Since 2018 we have eliminated over 500 million single-use items.

We remain focused on further eliminating and reducing additional single-use items.

We continue to replace single-use items with sustainable alternatives.
Food Waste Management

The safe management of food waste is a key component in our ongoing commitment to reducing our impact on the oceans we sail. One way in which we ensure the efficient management of food waste is through investments in technology such as biodigesters and dehydrators. By the end of 2022, we had installed over 600 food waste biodigesters and over 25 food waste dehydrators across our fleet.

Food waste biodigester technology uses a natural aerobic digestion process inside each machine to efficiently break down food waste, utilizing a mix of beneficial microorganisms. Biodigesters reduce the amount of methane and carbon dioxide emitted into the atmosphere while also reducing the demand on the ocean for complete food waste decomposition.

Performing automated digestion 24 hours per day, biodigesters process a wide range of food items. Through this ongoing process, the biodigesters are also able to help collect and prevent any plastic or other inorganic materials trapped in food waste from being discharged overboard.

Food waste dehydrators use heat to remove water content from food waste. Dehydrators offer an alternative method for food waste processing that has the potential to reduce waste volume by about 90%. Dehydrators produce a mostly dry inert biomass output, which is offloaded in port or incinerated on board.

Benefits of Food Waste Biodigesters

1. Prevents any plastic materials trapped in food waste from being discharged overboard
2. Reduces the demand on the ocean for complete food waste decomposition
3. Supports our overall sustainability agenda

The installation of biodigesters and dehydrators across our vessels support Carnival Corporation & plc’s Circular Economy focus area and Sustainability Goals. In 2022, we achieved a 31% reduction in unit food waste relative to our 2019 baseline and we are working towards our next interim goal of 40% unit food waste reduction by 2025 and a 50% reduction by 2030.
Ship Recycling Program

At the end of its life, a ship is dismantled and recycled. This is a complex process involving many components for reuse, recycling and disposal of waste materials. We only carry out ship recycling in countries that are signatories of the Hong Kong Convention, and in facilities that can show they comply with the relevant international standards on labor conditions and anti-corruption. Further, our ship recycling policy requires the use of ship recycling yards that are compliant with the following regulations:

- The European Union Waste Shipment Regulation (Regulation (EC) No 1013/2006);
- The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships 2009; and,

In 2020, we worked with the specialized ship recycling experts Sea2Cradle to formulate an approach for dismantling and recycling our ships. They also helped to identify best-in-class certified maritime vessel retirement solutions worldwide that are able to reuse, reclaim and recycle retired ships in support of our commitment to a sustainable cruise industry.

In 2022, we sold two of our ships for recycling, and selected Turkey-based EGE CELIK and its sister yard METAS to recycle the ships based on their track records of compliance with key national and international environmental agreements and regulations, as well as on-site inspections of their facilities carried out by Sea2Cradle. Both companies comply with the relevant parts of the above regulations and are therefore strictly required to adhere to the complex matrix of standards set forth by the European Union (EU), International Maritime Organization (IMO), International Labor Organization (ILO) and the Basel Convention multilateral environmental agreement. Each ship recycling plan includes a complete inventory of hazardous and regulated materials and the procedures planned for safely removing and processing the materials in an environmentally friendly way. Once these materials are safely removed and processed, the ship dismantling process can begin.

Ships are stripped of machinery, electronic equipment, glass, wood and other materials that can be directly upcycled for reuse in new ships, used in ship repair or repurposed for other applications. Steel and metal scraps are salvaged and recycled for direct use or are sent to the mill for producing other products and goods. Working on behalf of Carnival Corporation & plc and as an added assurance, Sea2Cradle supervises ship dismantling and recycling at the demolition yards throughout the entire process to ensure the highest health, safety and environmental standards are maintained.
Sustainable packaging supports a more circular economy and collaboration with our vendors is imperative to address the challenges of waste reduction and to foster a more sustainable use of resources. As part of our 2030 sustainability goals, we are partnering with primary vendors to reduce upstream packaging volumes. Together with our long-term partner and one of our main engine manufacturers Wärtsilä, we conducted a pilot project to reduce plastic packaging for shipping engine parts by replacing them with more recyclable and eco-friendly materials. The collaboration involved joint brainstorming sessions on packaging design and material specification decisions as well as onboard testing.

Traditionally, engine parts are packed in plastic moldings and pouches to provide the necessary protection against high humidity and other external factors for the highly sensitive components to prevent corrosion, vibration damage or dents and dings among others. Carnival Cruise Line was the first in the industry to test the new eco-friendlier packaging materials for ship engine parts. The project was piloted on board Carnival Splendor and Carnival Freedom. Through this collaborative effort, we were able to replace plastic packaging such as ultraviolet (UV) protected bags, bubble wrap, plastic tape and plastic nets with more sustainable paper-based and biodegradable packaging options wherever possible. This included switching to paper bags, paper tape and paper labels from recycled Forest Stewardship Council certified (FSC) sources. The FSC label indicates that all paper and/or other wood-based materials used in production are recyclable and sustainably sourced. To guarantee that the parts remain in their perfect condition, extensive testing was conducted to ensure that the new paper-based packaging would withstand the considerably high temperatures, dew point and humidity during transportation and storage in outbound areas and in the engine room, as well as changing outside temperatures, without any damage. Tests proved that even after four months in the wooden transport crate and a travel time of approximately six weeks at sea, the new packaging material and engine parts remained in perfect condition.

As a result of this effort, we were able to reduce and replace plastic-based packing by approximately 44% across the two pilot ships. Moving forward, an additional 20% plastic reduction is expected to be achieved by replacing the heavy-duty plastic cylinders used for ship fuel injection components with sturdy paper-based alternatives. We have not yet identified reliable packaging alternatives for all engine parts but are trying to replace plastic packaging with paper-based alternatives wherever possible without harming the quality of the product.

With the pilot project being a success, we will roll out the project jointly with Wärtsilä across our entire fleet and work toward identifying additional opportunities to improve.
CARNIVAL CORPORATION & PLC

SOCIAL
SAFETY, HEALTH AND WELL-BEING

The safety, health and well-being of every life we touch - our guests, crew, and those in the communities we visit is vital. We focus on delivering safe operations fleetwide every day and everywhere around the world. We take this responsibility seriously and continuously evaluate ways to further improve and build a culture where safety, health, and well-being is part of everything we do.

Our success as a business is due in large part to the talent, passion and dedication of our team members, both on board our ships and ashore. Their diversity is also a driver of our success. We strive to be travel & leisure’s employer of choice by providing our team members an inclusive and supportive company culture and work environment with equal opportunities for professional growth throughout their career path. Protecting their safety, health and well-being is a top priority. Our multifaceted approach focuses on their physical, mental and emotional well-being. Throughout the return to guest operations in 2022, the intense focus we had on crew well-being during the pause in guest operations remained in place as we welcomed thousands of crew members back to the fleet.

We have established comprehensive safety and health standards that go beyond regulatory requirements to help protect our guests, crew and port team members. These standards are implemented and enforced by each of our brands, on all our ships and within the port facilities that we own and operate. As part of our commitment, we also lead and participate in safety and health-related cruise industry task forces and working groups.

CLICK HERE FOR AN UPDATE ON OUR PROGRESS
Shipboard Safety
Compliance with international health and safety regulations is the bedrock of our shipboard safety program. Our maritime classification societies establish and maintain rules and regulations for the construction and maintenance of our ships. Our vessels and safety equipment are regularly inspected by each ship’s classification society, flag administration, port state control inspectors and internal auditors to verify that safety standards are met.

We also maintain compliance with the International Maritime Organization’s Safety of Life at Sea (SOLAS) requirements.

In addition, our best practice safety policies and procedures often go beyond the regulatory requirements for our industry. Our occupational health and safety management system is based on, and incorporates, the principles and practices delineated in the Occupational Health and Safety Management System standard (OHSAS 18001:2007). Several of our brands have obtained voluntary third-party certification in accordance with the OHSAS 18001 standard.

Our safety practices require rigorous staff safety training and proficiency drills, utilize a variety of guest communication tools, administer ongoing ship audit & inspection programs and ensure all safety equipment is maintained. We regularly update our safety standards and practices by leveraging the expertise across our brand teams to reduce risk, introduce improved training procedures, incorporate new knowledge, identify and implement best management practices and evaluate new technologies. Based on our collective lessons learned, we implement changes to strengthen our safety practices, proactively mitigate issues and continuously improve our safety performance.

Shipboard Health
We take a proactive role in addressing the quality of shipboard medical care. Our onboard facilities are designed to be able to provide emergency medical care for guests and crew, stabilize patients, initiate reasonable diagnostic and therapeutic intervention and facilitate the evacuation of seriously ill or injured patients when feasible and deemed necessary.

Our public health programs are developed from worldwide health and sanitation regulations, best practices and ship operating experience. Our programs are audited both internally by public health specialists and externally by officers from health authorities worldwide. We coordinate with internal and external Medical and Public Health experts, who help to drive our ongoing health strategies and focus on continuous improvement.

In the U.S., we are regulated by and actively engage with the Centers for Disease Control and Prevention (CDC), an agency of the U.S. Department of Health and Human Services, which oversees health and sanitary conditions on all passenger vessels visiting U.S. ports. The CDC provides standards and conducts unannounced ship inspections. We work with the CDC throughout a ship’s life to maintain safe standards through regular inspections, crew training and guest education.

In Europe, we collaborate with the EU Healthy Gateways Joint Action, which aims to support cooperation and coordinated action of EU Member States to improve their public health preparedness and response capacities at points of entry.

We have worked closely with health and medical experts globally and nationally, as well as with authorities in destination countries, to put in place comprehensive health and safety protocols for protection against and mitigation of COVID-19 across the entire cruise experience. Protocols continue to be updated based on evolving scientific and medical knowledge related to mitigation strategies.

Shipboard Well-Being
We have well-being programs in place to support our crew’s physical and mental health, to encourage social connectivity with family and friends, and to promote a healthy and balanced lifestyle.

Because our crew work and live on board our ships, we maintain a 24/7 responsibility for their safety and health. Our Safety Management Systems (SMS), workplace safety committees and focused shipboard and shoreside training programs are in place to ensure the safest possible working environment. Most of our workforce is represented through formal joint management and worker health and safety committees.

During regularly scheduled meetings, shipboard safety committees review and address specific workplace safety topics. These committees play a key role in reducing shipboard accidents through hazard assessments, accident reviews and inspections. These sessions also serve as a forum for promoting safety awareness and for raising, discussing and identifying solutions for shipboard safety issues. Safety representatives in brand shoreside departments communicate and share experiences as well as best practices throughout their respective fleets and across other fleets to ensure continuous improvement.
INTRODUCTION  SUSTAINABILITY  ENVIRONMENT  SOCIAL  GOVERNANCE  APPENDIX

Life with COVID-19

In the face of the global impact of COVID-19, we paused our guest cruise operations in mid-March 2020 and began resuming guest cruise operations in 2021. By the end of 2022, our return to guest cruise operations was essentially complete. Based on the evolving nature of COVID-19 and our ongoing collaboration with local and national public health authorities, we have responsibly relaxed our related protocols, including greatly reducing or eliminating testing requirements and vaccination protocols to more closely align with the broader travel industry and strengthening our competitiveness.

We collaborate with public health inspection programs throughout the world, such as the Centers for Disease Control and Prevention (CDC) in the U.S. and the SHIPSAN Project in the EU, to ensure that development of these programs leads to enhanced health and hygiene on board our ships. Through our collaborative efforts, we work with the authorities to develop and revise guidelines, review plans and conduct on-site inspections for all newbuilds and significant ship renovations. We work closely with governments and health authorities around the world to ensure that our health and safety protocols meet the requirements of each location. In addition, we leverage and monitor for change to applicable public health guidelines in our protocols, we comply with public health inspection requirements, we report communicable illnesses and regularly conduct crew public health training and guest education programs.

In 2022, we continued to provide COVID-19 vaccinations and boosters and other vaccines for our crew members. Nearly all our onboard crew are fully vaccinated and the vast majority of those eligible have also received one or more vaccine booster doses.

Employee Benefits

We know our team members are at the heart of inspiring unforgettable happiness which powers our business, so we strive to be the world’s number one choice for hospitality, travel and leisure careers. On our journey, we remain committed to continued job creation with competitive benefits. We try to work flexibly, allowing our shoreside team members to find a healthy work-life balance that suits their needs. Shoreside team members that join our team have access to the following standard benefits and additional benefits based on role and brand:

- Healthcare
- Employee assistance and well-being programs
- Paid time off
- Retirement Plans such as 401ks or pension scheme equivalents
- Employee stock purchase plans (ESPP)
- Cruising discounts
- Maternity, paternity and adoption leave
- Career Development and Growth

On ships, our team members live where they work so all room and board necessities such as accommodations, water, electricity and food are provided for them while at sea. We also provide discounted internet rates so our crew can communicate back home, as well as recreational areas such as an employee gym, game room and dedicated outdoor spaces to encourage exercise and to build camaraderie. Besides enjoying the benefits of living on one of our impressive vessels, we provide free medical care, flights to and from the ship and learning and development opportunities for all onboard crew members. Additionally, when ashore, our crew enjoy available discounts from many businesses in the ports we visit.

Many of our team members say that the best benefit of working with us is traveling the world and making cherished friendships with people across diverse cultures and backgrounds.
We have closely monitored the invasion of Ukraine with concern for our team members who have been impacted. Our thoughts and prayers have remained with them and their families and friends who remain in their home country.

**Showing Our Support For Those in Need**

Our brand, Carnival Cruise Line, made a **$50,000 donation to World Central Kitchen** in support of its team members and crew members from Ukraine. Our brands Costa Cruises and AIDA donated essential everyday items to regions in Ukraine and to refugees in Italy and Germany. Ukrainian refugees in Germany were able to take shelter in the homes of some of our generous team members. In addition, AIDA’s customer service offices in Rostock, Germany, were transformed, in part, into a donation center to help cover refugees’ daily needs. Thanks to the generosity of our team members and the Carnival Foundation, **we were able to send 3.5 tons of food to areas impacted by food shortages.** One of our vessels, Costa Firenze, welcomed the Ukrainian National Academic Folk Choir of Honor G. Veryovka on board to help spread awareness and support for the country.

In the Netherlands, the Holland America Line ship, Volendam, was chartered by the City of Rotterdam to temporarily home 1,500 Ukrainians for five months. The vessel cancelled previously scheduled itineraries in order to accommodate the charter. As part of the charter, the ship provided three hot meals per day, private stateroom accommodations, housekeeping services, use of public spaces, fitness facilities, internet access and other necessities to Ukrainian refugees.

Across our fleet, shipboard team members from the region have received and continue to receive mental health services, free internet service to communicate with family and scheduling support such as early disembarkation or an extension to remain on board, as needed.

“We join the global community in opposing the unjust invasion of Ukraine, and our hearts go out to all those whose lives have been affected by Russia’s continued act of violence, including many of our own team members and guests,” said Josh Weinstein, President, CEO and Chief Climate Officer of Carnival Corporation & plc. “We strongly support those working towards peace and towards a swift end to this senseless suffering. With crew members from approximately 150 countries, as well as guests from countries around the world, we feel deeply impacted by this humanitarian crisis and support relief efforts along with many others.”
Our success depends, in large part, on the skills and contributions of our team members, and on our ability to recruit, develop and retain high quality, diverse team members. A team of highly motivated and engaged team members is key to providing extraordinary cruise vacations tailored to each brand’s unique guest base.

Understanding the critical skills that are needed for outstanding performance is crucial to hire, train and retain our officers, crew and shoreside personnel. We believe in building trust-based relationships and listening to and acting upon our team members’ perspectives and ideas and using employee feedback tools to monitor and improve our progress in this area. We are a diverse organization and we value and support our talented and diverse employee base. We are committed to employing people from around the world and hiring individuals based on the quality of their experience, skills, education and character without regard for their identification with any group or classification.

We comply with the requirements of the International Labor Organization (ILO), which develops and oversees international labor standards. These standards include a broad range of requirements, such as the definition of a seafarer, minimum age of seafarers, medical certificates, recruitment practices, training, repatriation, food, recreational facilities, health and welfare, hours of work and rest, accommodations, wages and entitlements.

We have also entered into agreements with unions covering certain employees on our ships and in our shoreside hotel and transportation operations. The percentages of our shipboard and shoreside employees that are represented by collective bargaining agreements are 55% and 24%, respectively. We consider our employee and union relationships to be strong.
Employee Attraction, Retention and Engagement

To facilitate the recruitment, development and retention of our valuable team members, we strive to make Carnival Corporation & plc a diverse, inclusive and safe workplace, with opportunities for our team members to grow and develop in their careers. It is through building these aforementioned trust-based relationships, where we are able to focus on listening to our team members’ perspectives and ideas by utilizing feedback tools, that we continuously improve our progress in this area.

Our shipboard and shoreside employees are sourced from approximately 150 countries. In connection with our resumption of guest cruise operations in 2022, we increased the number of employees on board our ships from the reduced levels during 2021 and 2020. In 2022, we had an average of 75,000 employees on board our ships, excluding employees on leave. Our shoreside operations had an annual average of 10,000 full time and 2,000 part time/seasonal employees. Holland America Princess Alaska Tours significantly increases its workforce during the late spring and summer months in connection with the Alaskan cruise season.

In addition, to support the resumption of guest cruise operations in 2022, we hired over 3,000 full time employees shoreside. We also evolved the way we work by shifting to a flexible approach, supporting both remote and hybrid work models, and introducing our Remote Work Policy to support this approach.
In 2022, Carnival Corporation & plc successfully executed a smooth leadership transition, announcing Josh Weinstein as the company’s President, Chief Executive Officer and Chief Climate Officer. In his new position, he expanded the number of leadership roles held by women throughout the company. Today, half of his global direct reports are women.

**Women on Our Executive Team**

**Jan Swartz**  
Group President, Holland America Group  
Jan has been with the organization since 2001. In her role as President of Holland America Group, Jan oversees four of Carnival Corporation’s nine cruise brands including Princess Cruises, Holland America Line, Seabourn and P&O Cruises Australia. In addition, she is responsible for Holland America Princess Alaska Tours, which is the largest tour operator in Alaska in the Yukon, and their portfolio of hotels, trains and buses. Jan, who has an MBA from Harvard Business School, also serves on the board of directors of MGM Resorts International, the leading global gaming and entertainment company. Jan and her husband Rob co-founded The Goodness Web, a social venture philanthropy fund focused on accelerating solutions in youth mental health through radical collaboration.

**Christine Duffy**  
President, Carnival Cruise Line  
Christine has been with the organization since 2015. In this role, Christine leads our namesake brand with a fleet of 24 ships. Christine extends her leadership role in the travel industry to other sectors, sitting on the board of directors for Aimbridge Hospitality, a leading operator of hotels, and Herschend Family Entertainment, which operates theme parks and attractions. Christine recently completed a two-year term as chair of the U.S. Travel Association, the industry’s leading voice in Washington, DC and in 2023 was reappointed by the U.S. Secretary of Commerce to another term on the United States Travel and Tourism Advisory Board, most recently serving on the group’s climate change subcommittee. In June 2022, Christine was named by Women Leading Travel & Hospitality as one of its top women in travel and hospitality. During her tenure at Carnival, the company has twice been honored by St. Jude Children’s Research Hospital, including as Corporate Partner of the Year, and she sits on the hospital’s Professional Advisory Board.
Bettina Deynes
Global Chief Human Resources Officer (CHRO)

Bettina, a native of Uruguay, is new to the role of Global Chief Human Resources Officer of Carnival Corporation & plc. Bettina joins the role after serving as Chief Human Resource Officer at Carnival Cruise Line. Her wealth of industry knowledge adds value to her role as Global CHRO where she focuses her expertise on enhancing the company culture and leading the organization’s diversity, equity and inclusion efforts. In this role, she is also dedicated to optimizing the human resource functions that attract, retain and reward talent throughout the organization. In 2022, Bettina was named one of the Top 100 Women in Business at the National Women’s Conference.

Renata Ribeiro
Senior Vice President, Strategic Operations

Renata, a native of Brazil, has been with the organization since 2008. Assuming the role of Senior Vice President of Strategic Operations, Renata leads Global Ports and Destinations Development, Group Strategy and Global Connectivity. She currently oversees six company-operated destinations in the Caribbean and multiple port and destination projects. With experience in global operations and strategic management consulting, Renata’s knowledge enables the company to continue diversifying its cruise offerings while creating positive economic impacts in the local communities it visits and serve around the world. She also represents Carnival Corporation & plc as a board member at White Pass & Yukon Railway Group and serves as a board member at Ashtead Group plc.

Jody Venturoni
Chief Communications Officer

Jody joined the organization in 2022 and leads the company’s internal and external communications, as well as its philanthropic arm, the Carnival Foundation. Jody has over 30 years of experience as a senior executive in both agency and corporate roles, including over two decades with global cruise lines. Her work spans a notable roster of Fortune 500 companies, national sports teams and leagues, high-profile CEOs, major nonprofits and start-ups. Jody has received recognition from PRWeek as a “Top 20 Agency Manager in the U.S.,” was named a “PR Team Leader finalist by PR News” and was recognized by American Advertising Federation as a “Woman to Watch.”

Aubrie Brake
Chief of Staff

Aubrie, an attorney, has been with the organization since 2013 and is currently serving in a newly created position that is responsible for coordinating activities and driving initiatives across the overall leadership team of the corporation. Aubrie recently served as Ethics and Compliance Chief of Staff. As part of her work in Environmental Compliance, Aubrie supported the execution of several initiatives aimed at promoting environmental stewardship, such as Operation Oceans Alive. She played a crucial role in the implementation of the company’s Environmental Compliance Plan, engaging both internal and external stakeholders to provide compliance oversight and help drive best practices throughout the organization. Her experience of improving compliance and culture efforts will continue in her new role.
Employee Culture Essentials and Surveys

We continue to focus on our Culture Essentials (our Core Values), which are the key actions and behaviors we encourage and reinforce to further strengthen our culture.

During fiscal 2022, we developed and launched a Cross Brand Culture Survey program featuring a common survey focused on our Culture Essentials across ship and shore operations for all of our employees. This comprehensive semi-annual survey is now a key management tool for tracking our cultural health and putting in place initiatives, setting targets and action plans to improve our culture where appropriate. In connection with this, our operating companies will develop and implement specific initiatives—many of which will build upon our initial Culture Action Plan whereby brand leaders and senior management met with their direct reports to discuss these key behaviors. These initiatives are expected to include a series of extensive and consistent communications about the Culture Essentials to increase awareness; new and innovative training sessions to promote further understanding; and new expectations that will be measured and incorporated into performance evaluations. More specifically, through these steps, each brand will drive and incentivize the key behaviors that will strengthen our corporate culture.

In 2022, with the full support of the Boards of Directors, we continued to build upon and expand our initiatives designed to engage with and care for our workforce. Key areas of focus include outreach and wellness, culture, staffing and motivation.

1. **Speak up**
   
   Our voice is our strength. Every one of us, regardless of level or role, speaks up when we have questions, comments, concerns or new ideas. If we see something wrong or that doesn’t seem right, we say something and trust our voices will be heard without fear of retaliation.

2. **Respect & Protect**
   
   The health, safety and well-being of our people and the planet are vital. We choose to take decisive actions to respect and protect every life we touch, the places we sail and the laws that govern us.

3. **Empower**
   
   We and our team members have the time, tools and support we need to do our best work. We’re empowered to take personal ownership and accountability to succeed, and we take pride in our work.

4. **Improve**
   
   Our business is built on forward motion. We have the courage to dream big, driving innovation and continuous improvement in guest and team member experiences, operations, compliance, sustainability and beyond.

5. **Listen & Learn**
   
   We listen actively and seek to understand before responding, because the more perspectives we have, the better decisions we make. We value and respect the words and ideas of others, keeping an open mind, and learning from our successes and failures.

6. **Communicate**
   
   We openly share our knowledge, skills and information across brands, functions and the entire company to further our collective success. Together we champion our mission, vision, values and company priorities.
Leadership & Development

Providing our team members with the learning tools to perform their jobs and grow their career within our Company is key to our success. We believe in investing in our team members through the training and development of both shoreside and shipboard team members. We leverage a combination of virtual and in-person training to ensure that our teams are well-prepared to carry out their individual and collective responsibilities. For our shipboard deck, technical, and environmental officers, our goal is to be a leader in delivering high quality professional maritime training, as evidenced by the Arison Maritime Center. The Center is home to the Center for Simulator Maritime Training (CSMART). The leading-edge CSMART Academy features the most advanced bridge and engine room simulator technology and equipment available, with the capacity to provide annual professional training for all our bridge, engineering and environmental officers.

We conduct performance reviews of all team members. Performance reviews help us to determine how effectively we maintain and improve employee competencies, behaviors and overall performance. We monitor and measure employee engagement through in-depth surveys and monitoring of turnover rates.

Lastly, our Boards of Directors believe that planning for succession is an important function. Our multi-brand structure enhances our succession planning process. At the corporate level, a highly-skilled management team oversees a collection of cruise brands. We continually strive to foster the professional development of management and team members in other critical roles. As a result, we have developed a very experienced and strong group of leaders, with their performance subject to ongoing monitoring and evaluation, as potential successors to all our executive positions, including our CEO.

In demonstration of the efficacy of our succession planning process, in August 2022, Josh Weinstein, previously our Chief Operations Officer, was appointed President, CEO and Chief Climate Officer. Josh Weinstein has a long history of success in critical senior-level roles for our company. In his most recent assignment for the past two years as Chief Operations Officer, he oversaw all major operational functions including global maritime, global ports and destinations, global sourcing, global IT and global auditing. During this time, he also oversaw Carnival UK, the operating company for P&O Cruises (UK) and Cunard, which he previously managed directly for three years as president. Prior to his role with Carnival UK, he was our company’s treasurer for 10 years.

Training Programs

Our global team is what makes us unique. Everyone within our team comes from a diverse background and has obtained a set of unique skills, education and personal experiences that they bring to their jobs every day. We give our team members the tools they need to be successful in their day-to-day responsibilities. This includes mandatory training programs and opportunities for learning and development.

A variety of methods are used to train our team members. Many take a hybrid approach, encompassing on-the-job training, computer-based training, videos and job aids. Training is a valuable resource to make sure all team members are up to date on important company information, reiterating our company Culture Essentials, and maintaining relevant skillsets. Team members also prepare for their roles at training centers. The training centers we use for shipboard and shoreside personnel are located around the world and serve as an essential component of our training approach. These training centers are located in Brazil, China, India, Indonesia, Italy, Germany and the United Kingdom. In addition, we operate the Center for Simulator Maritime Training academy (CSMART), a maritime training facility located in the Netherlands which delivers advanced safety and environmental training for our Deck, Technical and
Environmental Officers. These training facilities not only prepare team members for their roles but also help them maintain skills in an ever-changing environment.

As part of our continuous improvement initiatives, in 2022, we added additional governance to our HESS Operational Training Programs and Corporate Training Framework to ensure that shipboard officers and designated personnel with Health, Environment, Safety and Security related responsibilities receive the appropriate training and development opportunities. Executive leaders are responsible for providing direction and oversight of training related programs. Training programs are created collaboratively with instructional design experts and subject matter experts throughout the corporation and our partners. We also furthered the development of competency frameworks for many shipboard team members. A competency framework lays out a multi-stage career progression map, transparently outlining skills needed for career development.

For shoreside team members, we expanded continuous development opportunities. These are additional benefits we offer our team members. Additionally, some shoreside positions with integral roles in environmental and marine operations must complete designated trainings based on areas of their responsibility. We have twelve standardized shoreside training hours courses throughout the corporation. In 2022, shoreside team members completed over 14,000 training hours.

Training programs and hours vary depending on the role, for shipboard team members. The following information provides a consolidated view of our training programs that are standardized across the entire organization and do not consider brand-specific training opportunities.

**Environmental Training**

Our Environmental Training program stresses to each team member that it is our responsibility to ensure compliance with the law, as well as the protection of our environment. The Company trains all its shipboard personnel on its commitment to environmental compliance as well as how to identify and report environmental incidents, and on the steps that can be taken to reduce environmental impact while living and working on board. As part of our training program, team members also receive training on pollution prevention control equipment specific to their position. In addition to brand-specific programs, we have thirteen standardized environmental courses throughout the fleet. In 2022, our team members completed over 180,000 training hours.

All of our ships have one Environmental Officer (EO) on board, whose responsibility is to oversee environmental compliance on board the ship. EO’s are expected to attend a course at CSMART for one week each year as part of their continuing education requirements.

**Liquefied Natural Gas (LNG) Training**

Implementing new technology and processes on board and ashore requires designated personnel to undergo extensive training regarding safe liquefied natural gas management and operations. We have a dedicated competency framework for designated officers certified under the International Code of Safety for Ships using Gases or other low-flashpoint fuels (IGF).

We also provide designated officers with equipment specific training and workplace familiarization. All crew on LNG vessels also undergo LNG awareness training. We have six LNG training programs throughout the fleet. In 2022, our team members completed over 26,000 training hours.

**Ethics and Compliance Training**

Ethics and compliance training is important to encourage appropriate behavior in the workplace, to set our company’s expectations, to demonstrate the organization’s commitment to ethics and compliance, and to inform employees of laws or regulatory principles that may not be common knowledge and need to be refreshed. We have four standardized ethics and compliance training courses throughout the fleet. In 2022, our team members completed over 45,000 training hours.

**Emergency Response Training**

Emergency response or crisis management training is conducted to prepare crew members for their emergency duties in case an emergency arises. The training is crucial to ensure that all team members understand what to do and when to act to avoid any harm to guests, crew, or the vessel. All shipboard team members have an emergency role on board and regularly have to participate in drills to practice and demonstrate competency. In 2022, our team members collectively spent over 1.3 million training hours in emergency response drills. In addition, we have six standardized emergency response training courses throughout the fleet and our team members have completed over 50,000 extra training hours in 2022.

**Occupational Health & Safety (OH&S) Training**

Our OH&S training focuses on protecting workers from accidents, injuries and exposure to harmful environments. From conducting hot work to storing chemicals properly, our training provides the necessary information on how to identify and mitigate risks in the workplace. In addition to brand-specific training, we have six standardized OH&S courses throughout the fleet. In 2022, team members completed over 60,000 training hours.
In 2022 our shipboard and shore-side employees completed the following training hours.

- **180,000+ Hours** of Environmental Training
- **26,000+ Hours** of LNG Training
- **45,000+ Hours** of Ethics Training
- **50,000+ Hours** of Emergency Response Training
- **60,000+ Hours** of Occupational Health & Safety Training
- **47,000+ Hours** of Security Training
- **347,000+ Hours** of Public Health Training
- **10,000+ Hours** of Additional HESS-Related Competency Training

**Security**

To keep vessels secure, all team members on board are trained in personal security and cyber security awareness. In addition to brand-specific training, we have three standardized security courses throughout the fleet. In 2022, our team members completed over 47,000 training hours.

**Public Health**

We are also committed to providing a healthy environment for our guests and crew. To prevent an outbreak of any illness on board, team members are trained in proper hygiene and sanitation practices. Team members that handle food are extensively trained in proper food handling. Our housekeeping staff are properly trained in cleaning and disinfection practices. Key positions on board are trained in outbreak management and response and contact tracing. We have twenty-three standardized public health courses throughout the fleet. In 2022, our team members completed over 347,000 training hours.

**Additional HESS-Related Competency Training**

As part of our training approach, we provide ongoing in-person and computer based professional and leadership development programs for various positions. We have five standardized additional HESS-related competency courses throughout the fleet. In 2022, our team members completed over 10,000 training hours.

**Anti-Harassment and Anti-Discrimination**

We believe every individual deserves an open, tolerant and inclusive place to work. An important element of our approach is to foster a culture where all team members are empowered to “Speak Up,” encouraging open communications and reporting of concerns. This approach applies to both our team members and any of our stakeholders. We work to ensure that our workplace is free from harassment, which would include any form of unwelcome conduct by one person toward another that has the purpose or effect of creating an intimidating, hostile or offensive work environment. As part of our compliance program, we established a Speak Up program, including ways for our team members to feel comfortable and safe to report any noncompliance matters to their direct supervisor, upper management or to a hotline without fear or concern of retaliation for making a report in good faith. As part of our approach, our policies and practices are designed to:

- Ensure a positive work environment by treating others with respect
- Promote diversity and inclusion to ensure fair employment decisions
- Base decision making on merit rather than factors like personal relationships or legally protected traits such as age, sex, race, disability, national origin, sexual orientation, religion or veteran status
Our world-class training facility, the Arison Maritime Center includes CSMART and an on-campus hotel. CSMART houses four full mission bridge simulators and four full mission engine control room simulators along with numerous classrooms and briefing rooms. CSMART focuses on developing and implementing operational training for deck, technical and environmental personnel with input from relevant subject matter experts and shoreside managers. CSMART participants receive maritime training experience that fosters advanced knowledge and skills development, critical thinking and problem solving; all in a professional learning environment where our corporate culture is reinforced. CSMART also offers training on liquefied natural gas (LNG) technology, Advanced Air Quality Systems as well as an environmental officer training program and additional environmental courses for bridge and engineering officers to further enhance our training on environmental awareness and protection.

After a two year pause in onsite training due to the COVID-19 pandemic, we welcomed participants back to the simulators in February 2022. While training has shifted back to in-person, CSMART has continued to provide virtual learning opportunities to our team members, evolving the corporate training philosophy to “onsite/online/onboard.” Throughout 2022, CSMART offered over 400 courses onsite and online to an audience of over 4,000 shipboard officers. Team members completed over 166,000 training hours. In addition, CSMART presented 22 webinars to a global audience of over 1,500 viewers. CSMART also supports the fleet through its wellness centers, psychometric evaluation center, officer promotion panels and fleet simulation studies.

In October, CSMART was again awarded the Safety4Sea Training award for excellence in maritime training, specifically for the outstanding work in online training, competency framework development and remote simulation support to the fleet. For more information, please visit our CSMART website.
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COMMUNITIES

We embrace the culture of the communities in which we operate, including our headquarters locations, homeports, exclusive destinations and ports of call. We want our ships and crew to always be welcomed, bringing hope, prosperity and good will wherever they sail. We continually strive to promote sustainable tourism by contributing to our communities in a positive social, environmental and economic manner, working in conjunction with local governments, trade associations, tourism organizations and other community stakeholders.

New Ports and Exclusive Destinations

New Cruise Port Destination on Grand Bahama Island

May 2022, in close cooperation with the Bahamian government and the Grand Bahama Port Authority, we started construction on what will be our newest cruise port destination slated for completion in 2025. As part of this process, we hosted more than 500 local business representatives and residents during a two-day series of informational sessions. We are committed to developing this new cruise port in a sustainable and responsible manner, meeting or exceeding all applicable environmental standards while preserving a 100-acre wetland area and creating a beautiful nature path where visitors will be able to enjoy the unspoiled island wilderness and seek information on the island and its local flora and fauna.

This major investment represents an opportunity to create jobs as we partner with the local community and build a business relationship that will have both immediate and long-term benefits. We estimate the investment will generate 1,000 local jobs throughout its development, construction, and ongoing operation and ultimately create a one-of-a-kind experience for visitors from around the world.

The new cruise port destination will be positioned on a sweeping, pristine beachfront showcasing some of the most beautiful waters The Bahamas has to offer. In addition, the development is being designed and maintained to highlight the natural beauty and culture of the island. As part of the cultural experience, our guests will also have the opportunity to enjoy several Bahamian-operated retail, food and beverage options.
With our new expedition-built vessel, Seabourn Venture, we are extending our global deployment and capability to provide guests with unparalleled nature experiences by using modern hardware and technology that comply with Polar Class Standards (PC6).

The ship and its equipment offer expeditions that provide close-up views of wildlife and natural scenery, as well as unforgettable intimacy with the underwater wonders of the ocean. In addition, our dedicated Expedition Team comprised of wildlife experts, scientists, historians and naturalists provides an in-depth overview of each place our guests visit.

Since July 2022, guests have been enjoying expeditions from the Arctic to Antarctica. Our equipment and Expedition team have been exploring with guests in Zodiacs under cliffs teeming with birds, kayaking among bobbing icebergs, visiting ancient Incan sites and Antarctic research stations, snorkeling unspoiled coral gardens, and diving undersea in submarines to explore beneath the sea.

In 2022, we celebrated 30 years of bringing guests to our exclusive white sand resort, Princess Cays. Comprised of nearly 40 acres on the southern part of Eleuthera, Princess Cays actively supports sustainability in the local community. Some of our sustainable practices on the island include collecting food scraps and delivering them to local animal farmers. We also recycle aluminum cans by working with a non-profit organization in Nassau, Bahamas, Cans for Kids. This organization educates the public on the long-term benefits of recycling and raises funds for children in The Bahamas. In addition, we donate used cooking oil to The Bahamas Sustainable Fuels in Nassau to assist with their bio-diesel program which provides local businesses and homeowners with biofuels.

In 2022, we celebrated 25 years of offering guests one of the most unique and memorable experiences to visit Half Moon Cay, a 2,400-acre private island and international bird sanctuary in The Bahamas. Over the years, we have worked to carefully maintain the natural environment of the island while allowing for our guests to enjoy the beauty of this region and making a significant contribution to The Bahamian tourism industry. Some of our sustainable practices on the island includes using seaweed to fertilize coconut trees, using vegetation compost for landscaping, and eradicating Casuarina, which is considered an invasive species by The Bahamas National Trust and causes beach erosion. Half Moon Cay has been rated the “Best Private Island” by Porthole Cruise Magazine’s Readers’ Choice Awards every year for the last 20 years.
Community Donations

Our cruise brands, shipboard and shoreside team members, and our brand foundations support a variety of local and international organizations through monetary and in-kind donations, philanthropic programs, employee fundraisers and numerous volunteer initiatives. In 2022, we supported the following initiatives:

Supporting Education
AIDA Cruises has supported the construction of schools in emerging and developing countries since 2005. In 2022, four schools were built through donations raised from AIDA’s “Cruise and Help” initiative with charitable contributions from our guests, crew members, and partners for a total of thirty-seven schools to date. These schools are built to support education and improve the prospects of children in some of the poorest parts of the world:

- Nagulapuram, India - school for 90 children
- Khasa, India - school for 190 children
- Gundamala, India - school for 120 children
- Venkatampalli, India - preschool for 25 children

In August 2022, Carnival Cruise Line joined Miss Universe Bahamas, Chantel O’Brian, for a special back-to-school event with the Leading Ladies Project. Together, they surprised a group of Bahamian high school girls throughout the Nassau area with school supplies including tablets, backpacks, folders, and art supplies for the school year ahead. O’Brian is a recipient of the “Spirit of Carnival Award” and co-founded the Leading Ladies Project. This organization is dedicated to promoting education and empowerment for young women in the Bahamas.

As a leader in the Alaska cruise market, Holland America Line donated more than $85,000 to school districts throughout the state. These donations have gone toward classroom supplies, computers, musical instruments, sports equipment, and furniture; helping students gain access to higher learning and broader opportunities.

Supporting Hunger Relief
In Europe, our Costa Cruises brand has continued to address hunger across many communities. In 2022, they provided more than 45,000 meals to families in need.

Supporting Cancer Research
P&O Cruises’ passengers and crew can participate in a program called “Trek the Deck” to raise money for teenage cancer research. In 2022, more than $55,000 was raised. In addition, Carnival Cruise Line helped raise $60,000 for St. Jude Children’s Research Hospital. Carnival Cruise Line was awarded the Reader’s Digest Most Trusted Cruise Line for the 7th time, partially due to its contributions to a broad range of philanthropic organizations like St. Jude Children’s Research Hospital in the fight against childhood cancer.

In-Kind and Cash Donations
In 2022, our brands collectively donated over 3,000 pieces of furniture to various non-profit organizations for redistribution to local charities. During refurbishment efforts on board our vessels, we try to find local organizations that can give our used items a second life. The following are some examples of our donation network in action during 2022.

- In the United Kingdom, we donated approximately five pallets of crockery, books, and linens to the Reuse Network which redistributed the items to families in need.
- Before heading to the shipyard to be recycled, the Carnival Ecstasy donated gently used books, children’s toys, shoes, stationery and clothing to the United Way of Southwest Alabama.
- Some of our Holland America vessels donated approximately 700 costumes to the Salvation Army for redistribution to a local theater group in Rotterdam.
- Cash donations to philanthropic organizations from our brands have totaled more than $500,000 combined. Our global casino department created a donation fund for World Central Kitchen by collecting guests’ leftover change which raised $100,000 through this initiative. Cunard and P&O Cruises raised over $90,000 for The Prince’s Trust, an organization that supports young adult homelessness, mental health problems, or trouble with the law. Carnival Cruise Line donated $25,000 to the Miami Veterans Affairs Healthcare System during the naming ceremony of the Carnival Celebration. The donation will support medical and health services to more than 6,000 women veterans in Miami, Florida. Costa Cruises donated over $17,000 to the Pink is Good Project an organization that supports women battling the fight against breast cancer and breast cancer research. These donations demonstrate our commitment to good health and well-being across the communities we touch and serve.
Corporate Governance and the Boards of Directors
We are committed to governance policies and practices that enable shareholder and other stakeholder interests to be represented in a thoughtful and independent manner. Sound principles of corporate governance are critical to obtaining and retaining the trust of investors. They are also vital in securing respect from other key stakeholders and interested parties, including our workforce, guests and suppliers, the communities in which we conduct business, government officials and the public at large.

Our corporate governance principles are set forth in our Corporate Governance Guidelines and the charters of our Board Committees. The actions described in these documents, which the Boards have reviewed and approved, implement applicable requirements, including the New York Stock Exchange listing requirements and, to the extent practicable, the UK Corporate Governance Code published by the UK Financial Reporting Council in July 2018 as well as our own vision of good governance. We continue to monitor governance developments in the U.S. and the UK to ensure a vigorous and effective corporate governance framework of the highest international standards.

Our Corporate Governance Guidelines, copies of the charters of our Board Committees and our organizational documents are available under the “Governance” section of our website at carnivalcorp.com and carnivalplc.com.

The Boards of Directors are elected by the shareholders to exercise business judgment to act in what they reasonably believe to be in the best interests of Carnival Corporation & plc and its shareholders. The Boards select and oversee the members of senior management, who are charged by the Boards with conducting the business of the company.

The Boards currently meet the Parker Review recommendation of having at least one ethnic minority director by the beginning of 2023. Please see our corporate website for further information.
Chair of the Boards

*Micky Arison*

Board Committees

- Audit
- Compensation
- Compliance
- Health, Environmental, Safety & Security (“HESS”)
- Nominating & Governance

Gender Distribution

<table>
<thead>
<tr>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>31%</td>
<td>69%</td>
</tr>
</tbody>
</table>

Our goal is to have at least 33% women on the Boards. We expect to achieve this in 2023.

### Board Education

Upon becoming a member of the Boards of Directors of Carnival Corporation & plc, each new Director participates in an induction process including a meeting with all the current Directors, the provision of an induction pack, site visits, and meetings with senior and operational management teams. The Directors also update their skills, knowledge and familiarity with Carnival Corporation & plc by receiving updates and training coordinated by management.

The Boards of Directors have ultimate oversight of Environmental, Social and Governance (ESG) related risks and opportunities. Hence, ESG-related matters are a recurring Board discussion item, part of the orientation program for new Directors, and a topic of the Directors’ continuing education program.

To enable the Boards of Directors to fulfill their responsibility to oversee climate-related risks and opportunities, a Board ESG and Task Force on Climate-Related Financial Disclosures (TCFD) education program has been established, with core education components and optional self-study courses. This ESG and TCFD education program has been developed with support from external advisors and the Presiding Director/Senior Independent Director. The core education components of the program were completed in November 2022. An annual refresher education program, including updates to ESG and TCFD considerations, has been established. In addition, we provide organizational documents, materials regarding the obligations of Directors of U.S. and UK public companies, and other training materials or resources to the Boards of Directors through our Board portal for their review. The goal is to provide training, information and resources to the Boards of Directors on the current issues, best practices and changes in laws and regulations applicable to Carnival Corporation & plc to assist them in discharging their duties.

### Environmental, Social and Governance (ESG) Oversight

Our ESG issues, risks, and performance are monitored and overseen by several layers of management. The Boards of Directors have ultimate oversight of ESG related risks and opportunities. Additionally, our Boards of Directors have the Health, Environmental, Safety, Security & Sustainability (HESS) Committees, whose principal function is to assist the Boards of Directors in fulfilling their responsibility to supervise and monitor our health, environment, safety, security and sustainability policies, programs and initiatives at sea and ashore and compliance with related legal and regulatory requirements. The HESS Committees and our management...
team review all significant HESS and sustainability risks or exposures, including, but not limited to, those related to ship operations and cybersecurity. HESS audits, internal and external investigations into significant ship incidents, and HESS-related hotline complaints, and assess the steps management has taken to minimize such risks.

We are committed to implementing appropriate measures to manage identified ESG opportunities and risks effectively.

Building on our strong governance framework, in 2022, we strengthened climate-related risk oversight by appointing our President and Chief Executive Officer to the role of Chief Climate Officer. Our Chief Maritime Officer oversees our global maritime operations, including sustainability, maritime policy, maritime affairs, training, shipbuilding, asset management, ship refit and research and development. In addition, our Chief Risk and Compliance Officer is responsible for overseeing our ethics and compliance governance function, including selected areas of HESS and ESG.

Additionally, management has the responsibility to support our collective ESG initiatives, goals, and aspirations.

To oversee ESG matters and to help ensure that we are compliant with legal and regulatory requirements and that these areas of our business operate in an efficient and effective manner we:

- Provide regular health, environmental, safety and security support, training, guidance and information to guests, team members and others working on our behalf
- Develop and implement effective and verifiable management systems to fulfill our health, environmental, safety, security and sustainability commitments
- Perform regular shoreside and shipboard audits and take appropriate action when deficiencies are identified
- Report and investigate health, environmental, safety and security incidents and strive to take appropriate action to prevent recurrence
- Identify those team members responsible for managing health, environment, safety, security and sustainability programs and aim to establish clear lines of accountability
- Identify the aspects of our business with potential to impact the environment and continue to take appropriate action to minimize that impact
- Monitor an anonymous hotline for any reported allegations or concerns and the related responses
- Review and work to improve policies and procedures designed to prevent, detect, respond and correct any regulatory violations and other misconduct
- Monitor compliance with the Code of Business Conduct and Ethics and policies and procedures for reporting concerns of complaints, such as via our hotline
- Promote diversity and inclusion and have partnered with organizations focused on improving the diversity and inclusiveness of workplaces and by extension, society in general
- Oversee our workforce engagement efforts

Environmental, Social and Governance (ESG) Executive Compensation

The Boards of Directors’ Compensation Committees promote behaviors consistent with our top priorities, which include maintaining our commitment to excellence in compliance, environmental protection and looking after the safety, health and well-being of every life we touch. The 2022 management bonus plan rewarded performance for our named executive officers in part on ESG metrics: greenhouse gas intensity reduction and individual commitments to promote Culture Essentials and compliance. For more detail, please refer to our 2023 Proxy Statement here.

Chief Climate Officer

Our CEO and President, Josh Weinstein is also our Chief Climate Officer. In this role, he leads the identification of climate-related risks and opportunities and oversees how these are embedded in our strategic decision-making and risk management processes. In conjunction with the Boards of Directors, he is responsible for the oversight of climate-related matters and is directly supported by members of executive management.

To further support our climate-related efforts, a Strategic Risk Evaluation (SRE) Committee was created. The SRE Committee consists of members of executive management and an advisor and reports to the Chief Climate Officer. Their primary responsibility is to assist him in fulfilling his responsibility to identify, monitor and review the management of climate-related risks and opportunities. Common recurring activities of the SRE Committee include:

- Discussing climate considerations to the planning processes to further support focus on decarbonization such as the recently adopted Corporate Itinerary Decarbonization Reviews.
- Considering if any new climate risks or opportunities should be included in the list of identified climate risks and opportunities.
- Ensuring appropriate assignment of identified climate risks and opportunities to risk owners, who are responsible for their day-to-day evaluation and management.
- Obtaining at least annual reporting from the risk owners on the monitoring and management of identified risks and opportunities and reviewing, scrutinizing, and challenging management of climate risks and opportunities.
- Reviewing and approving the climate risk management framework.
OUR LEADERSHIP TEAM

Josh Weinstein
President, Chief Executive Officer and Chief Climate Officer
Carnival Corporation & plc

Christine Duffy
President
Carnival Cruise Line

Jan Swartz
Group President
Holland America Group

David Bernstein
Chief Financial Officer and Chief Accounting Officer
Carnival Corporation & plc

Vice Admiral William Burke USN (Ret.)
Chief Maritime Officer
Carnival Corporation & plc

Our Leadership Team and Boards of Directors as of April 6, 2023.
SUPPLY CHAIN MANAGEMENT

We strive to build strong relationships with our business partners and suppliers. Our Business Partner Code of Conduct and Ethics outlines our expectations and requirements for all our business partners. It also highlights our commitments related to human rights and forced labor, respectful treatment and equal opportunity, anticorruption, environmental protection, and sustainability.

To provide an exceptional cruise experience for our guests, we source significant quantities of goods and services from a global supply base. We also invest significantly in materials to support the refurbishment and enhancements of our vessels as well as to build new ships. We approach our spending strategically and look for suppliers who also demonstrate the ability to help us leverage our scale in terms of cost, quality, service, innovation and sustainability. We work with over 20,000 business partners worldwide, managed by our supply chain and sourcing teams. Our supply base is diverse and many of our business partners provide goods and services across multiple brands within our portfolio of cruise brands.

We are progressively developing a more comprehensive map of our supply chains, including the categories of products and services sourced and their geographic locations. In support of this effort, we have recently become a member of SEDEX, one of the world’s leading ethical trade membership organizations supporting businesses to operate ethically and sustainably and fight modern slavery.

Global supply markets and supply chains have been impacted by certain global events, resulting in shortages, extended lead times and increased inflation, impacting our operations and profitability. We continue to apply several strategies to mitigate the impact of these challenges on our operations, including extending our demand planning, placing purchase orders earlier, leveraging corporate

[CLICK HERE FOR AN UPDATE ON OUR PROGRESS]
contracts, utilizing short-term or long-term contracts as needed, seeking alternative sources, utilizing substitute products and leveraging our supplier relationships.

**Responsible Food Sourcing**

Responsible food sourcing encompasses the entire value chain, from farmers and growers to processors and manufacturers, distributors, retailers and consumers, and the transportation that links the chain together. We work with our global supply chain to help meet our animal welfare goals for the food we serve on board our ships. In the event the supply needed to help meet our goals is not available, we continue to engage with our vendors to understand their plans to offer these products, and work diligently to identify new vendors that provide them. In instances where supply is insufficient or other supply chain uncertainties or constraints impact our ability to meet these goals, we will share this information and modify our goals as necessary.

In December 2021, we published a sourcing glidepath indicating progress toward our goals for eggs, chicken and pork. In FY2022, we continued to work with our supply chain on our glidepath and achieved 58% cage-free egg sourcing, 25% responsible chicken sourcing, and 29% gestation crate-free pork. We were able to achieve these percentages despite the disruption in the supply chain as result of the invasion of Ukraine, avian flu and other economic factors impacting global supply chains.

**Alaska Sustainable Seafood**

All six of our Holland America’s ships that sail to Alaska were awarded Responsible Fisheries Management (RFM), being the first and only cruise line to achieve this distinguished credential by serving only fresh, certified, sustainable, and traceable wild Alaskan seafood. RFM is a third-party certification program for wild-capture fisheries and is aligned with the United Nations Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries, the most comprehensive set of international standards and best practices for wild fisheries. The RFM ecolabel includes the seafood product’s origin and tells consumers where their food comes from every step of the way—starting with Alaska fishers and processors and continuing to the cruise line’s receipt of product and to the guest’s plate. Use of the RFM logo signifies solid commitment to a distinctive chain-of-custody program that assures buyers and guests that their seafood is legally harvested, obtained from responsibly managed certified sustainable fisheries, and can be traced back to its origin.

“Holland America Line has shared Alaskan adventures with our guests for 75 years and supporting sustainable fishing and local business is an important commitment for us,” said Holland America Line President Gus Antorcha. “We’ve pledged to buy and serve only local, sustainable, fresh seafood on Alaska voyages, and RFM certification is a crucial step in the commitment to sustainability that we share with our guests and fishing families of Alaska.”

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**SOURCING GLIDEPATH**

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Goal</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggs</td>
<td>100% cage-free eggs by end of 2025</td>
<td>20%</td>
<td>58%</td>
<td>40%</td>
<td>70%</td>
</tr>
<tr>
<td>Chicken</td>
<td>100% responsible chicken sourcing by end of 2025</td>
<td>15%</td>
<td>25%</td>
<td>30%</td>
<td>60%</td>
</tr>
<tr>
<td>Pork</td>
<td>100% gestation crate-free pork by end of 2025</td>
<td>15%</td>
<td>29%</td>
<td>30%</td>
<td>70%</td>
</tr>
</tbody>
</table>
Protecting data and the privacy of personal information is of critical importance to our business. As a company, we are entrusted with personal information belonging to our guests, team members and business partners. Our Chief Information Officer, Chief Privacy Officer and the Audit Committees within our Boards of Directors are responsible for risk management with respect to information technology operations, innovation, cybersecurity, compliance and data privacy.

With the increasing size and sophistication of cruise ships, the technologies employed to enhance guest experiences and operate ships have grown ever more complex and integrated. We have a Chief Information Officer (CIO) who is responsible for leading three critical global functions across our brands: information technology, innovation and cybersecurity/compliance. All our brands actively collaborate to maximize the business value of our information technology solutions, standards and processes to eliminate redundancies and drive process efficiencies, while increasingly leveraging our scale and common technologies. In order to achieve our goals, we are focusing on several key factors including applications, compliance, connectivity, cybersecurity, data privacy, infrastructure, modernization and innovation.

In response to the increasing threat of continuously evolving cybersecurity risks, we have also continued to invest in our information and operational technology cybersecurity programs, managing risk and protecting our company’s business operations through targeted people, process and technology-focused improvements. This includes the implementation of routine data privacy and security-focused training for our shoreside and certain shipboard team members. We have a Chief Information Security Officer who reports to the CIO and is responsible for leading global cybersecurity risk reduction efforts and compliance.

In light of numerous jurisdictional data privacy and security laws/regulations, we have data privacy and security requirements and expectations across the corporation.
We have a Chief Privacy Officer and Data Protection Officers who oversee our focus on the proper processing of personal information in alignment with our Privacy Policy. To protect data and personal information, we:

- Have policies and procedures that govern data security, data privacy and disaster recovery
- Provide training to our team members related to their job responsibilities to ensure understanding of and compliance with our policies and procedures related to data security, data privacy and disaster recovery
- Employ a robust phishing program to prepare our workforce to identify and respond to phishing attacks as the first line of defense
- Incorporate security and privacy in the development of new systems and infrastructure
- Invest in cybersecurity, talent and third-party service providers to enhance our data security
- Monitor and test our own ability to detect and respond to an incident which could cause a breach in data security, lapse in data privacy or natural disaster and where incidents occur, take appropriate remedial action
- Align our technology planning, infrastructure, security, data privacy and applications to maximize the business value of our information technology investments

In addition, we model our Information Security Program and Security Architecture in part, by adopting, following, or seeking best practice guidance from domestic and international entities and/or standards bodies including, but not limited to:

- The National Institute of Standards and Technology (NIST)
- International Standards Organization (ISO) 27001
- The UK Cyber Security Council
- Risk management practices from the Information Systems Audit and Control Association (ISACA)

Our Security Program Incorporates the Following Elements:

1. Security in Layers: Our global security architecture and strategy are based on deploying progressive layers of security at critical points within our operating infrastructure starting with perimeter firewalls and intrusion detection systems on our internet-facing systems supplemented by additional layers of security moving inward.

2. Host Level Protections: As our first line of defense, we have deployed leading anti-virus and endpoint detection and response technologies to protect our servers and workstations.

3. Proactive Security Measures: Vulnerability scanning and penetration testing programs have been added to detect vulnerabilities present on our internal and external systems so they can be remedied before they are potentially exploited.

4. Proactive Security Monitoring: We have deployed industry leading security incident and event monitoring technologies and enrolled the services of a leading managed detection and response provider to continuously monitor our systems for suspicious activities and provide real-time actions to isolate or stop suspicious activities.

5. Security Patching and Upgrading: Prioritizing the patching and updating of our systems is consistent with our policies and practices to further harden the systems storing or processing our data.

6. Encryption: Various forms of data encryption are used in storage and during transmission for some of our most sensitive systems and data.
RISK MANAGEMENT & COMPLIANCE

Our Boards of Directors have overall responsibility for determining the strategic direction of our business and have established a framework to manage risk and determine the nature and extent of the principal and emerging risks acceptable to our business. Our framework is designed to identify and manage, rather than eliminate, risk to the achievement of our strategic objectives. The Boards of Directors, through their committees and executive management, have carried out a robust assessment of our principal and emerging risks, including to ensure that they are effectively managed and/or mitigated.

Maritime Governmental Regulations

Our ships are regulated by numerous international, national, state and local laws, regulations, treaties and other legal requirements, as well as voluntary agreements, which govern health, environmental, safety and security matters in relation to our guests, crew and ships. These requirements change regularly, sometimes daily, depending on the itineraries of our ships and the ports and countries visited. If we violate or fail to comply with any of these laws, regulations, treaties and other requirements, we could be fined or otherwise sanctioned by regulators. We are committed to complying with, or exceeding, all relevant requirements. The primary regulatory bodies that establish maritime laws and requirements applicable to our ships include:

The International Maritime Organization (IMO): All our ships, and the maritime industry as a whole, are subject to the maritime safety, security and environmental regulations established by the IMO, a specialized agency of the United Nations. The IMO’s principal sets of requirements are mandated through its International Convention for the Safety of Life at Sea (SOLAS) and its International Convention for the Prevention of Pollution from Ships (MARPOL).

The International Labor Organization (ILO): The ILO develops and oversees international labor standards and includes a broad range of requirements, such as the definition of a seafarer, minimum age of seafarers, medical certificates, recruitment practices,
training, repatriation, food, recreational facilities, health and welfare, hours of work and rest, accommodations, wages and entitlements. The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, as amended, establishes additional minimum standards relating to training, including security training, certification and watchkeeping for our seafarers.

Flag States: Our ships are registered, or flagged, in The Bahamas, Bermuda, Italy, the Netherlands, Panama and the UK, which are also referred to as Flag States. Our ships are regulated by these Flag States through international conventions that govern, among other things, health, environmental, safety and security matters in relation to our guests, crew and ships. Representatives of each Flag State conduct periodic inspections, surveys and audits to verify compliance with these requirements.

Ship classification societies: Class certification is one of the necessary documents required for our cruise ships to be flagged in a specific country, obtain liability insurance and legally operate as passenger cruise ships. Our ships are subject to periodic class surveys, including dry dock inspections, by ship classification societies to verify that our ships have been maintained in accordance with the rules of the classification societies and that recommended repairs have been satisfactorily completed. Dry dock frequency is a statutory requirement mandated by SOLAS. Our ships dry dock once or twice every five years, depending on the age of the ship.

National, regional and other authorities: We are subject to the decrees, directives, regulations and requirements of the European Union (EU), the United Kingdom, the U.S., other countries and hundreds of other authorities including international ports that our ships visit every year.

Port regulatory authorities (Port State Control): Our ships are also subject to inspection by the port regulatory authorities, which are also referred to as Port State Control, in the various countries that they visit. Such inspections include verification of compliance with the maritime safety, security, environmental, customs, immigration, health and labor requirements applicable to each port, as well as with regional, national and international requirements. Many countries have joined together to form regional Port State Control authorities.

Risk Management and Internal Audit Program

Risk management is embedded in all areas of our business and is reflected across our policies and procedures. Our risk management oversight consists of the Boards of Directors, their Committees, Risk Advisory and Assurance Services (RAAS), Global Ethics and Compliance and executive management. Our approach to managing risk and to identify opportunities consists of our management systems, Board-level risk committees’ oversight, management’s internal controls, organizational structures, ethics and compliance processes, fully independent audits and investigations, standards and our Code of Business Conduct and Ethics. Risks are managed at every level of the organization and discussed openly, with leadership to minimize the impact of foreseen and unforeseen events. Executive management and the Boards of Directors are regularly advised on corporate risk management issues and on the status of compliance with our health, environment, safety, and security policies and procedures.

Our environmental, social and governance (ESG) material issues reflect a portion of the organization's financial risks. Please refer to the materiality section on page 24 for a list of our ESG material issues and to our annual financial disclosures for a list of material financial risks.

Our health, environment, safety, and security risk management principles focus on detection, prevention, implementation, feedback and improvement. We plan and establish objectives and processes necessary to achieve the required and expected results. We then implement plans and processes and study the results of implementation and compare against the expected results.
We act on significant differences between actual and expected results. Finally, we analyze these differences to determine their root causes and determine where to apply changes that will improve the process or results. Further, RAAS provides the enterprise with professional and fully independent internal audit services, which include identifying risks and evaluating controls to ensure compliance with company policies and procedures, as well as laws and regulations. Apart from RAAS, our Global Ethics & Compliance Department employs a professional team that assesses, monitors, performs and reports on various controls to ensure compliance with laws and regulations. Additionally, our fully independent Incident Analysis Group helps us learn and avoid repeats of mistakes and incidents across the health, environmental, safety and security disciplines.

Our internal audit program consists of various audit activities designed to identify and evaluate risk across the organization, including:

Risk-based HESS audits focused on the effectiveness of the shipboard and shoreside HESS management systems designed to identify opportunities for continuous improvement.

Grievance Management

As part of our ethics processes, we established several means through which all our team members can feel comfortable and safe to report any noncompliance matters to their direct supervisor, the human resources department or upper management without fear or concern of retaliation for making a report in good faith. We monitor, track and report grievances and operational incidents. We have a rigorous internal incident reporting system in place that requires the reporting of spills, releases or discharges internal within the ship or external to the ship. Spills, releases or discharges are promptly reported to external authorities as required by applicable regulations. To further facilitate reporting, we have established a whistleblower system with a range of options for all our team members and external stakeholders to communicate which includes a dedicated hotline telephone number and website. The hotline is monitored by an independent third party and is available 24 hours a day, seven days a week. During 2022, a total of 1,373 calls were made to the hotline. The following table provides a breakdown of the calls received by category.

The numbers provided in the table reflect only those reports received through the hotline reporting system managed by an outside third party. There are many other channels where team members, contractors and third parties may report issues and those numbers are not reflected in the total count. Employee relation matters encompass a wide variety of issues pertaining to employment and the majority are not reports of violations of any employment laws.

Our goal is to investigate and respond to reports within a reasonable time frame based on circumstances and legal complexity. Based on the reports received, we take necessary actions to address the concerns, for example by reviewing our corporate policies and training programs. We also abide by the Cruise Lines International Association’s (CLIA) anti-corruption principles. The principles include the prohibition of bribery, corruption and facilitation payments. For more details, please refer to the CLIA website.

<table>
<thead>
<tr>
<th>Category</th>
<th>% in 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources Issues</td>
<td>68.9%</td>
</tr>
<tr>
<td>Environment, Health, Safety &amp; Security</td>
<td>18.5%</td>
</tr>
<tr>
<td>Protecting Company Assets</td>
<td>3.8%</td>
</tr>
<tr>
<td>Customers, Vendors &amp; Alliances</td>
<td>3.2%</td>
</tr>
<tr>
<td>Legal &amp; Regulatory Issues</td>
<td>1.7%</td>
</tr>
<tr>
<td>Other</td>
<td>3.9%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
## Performance Summary: Environmental

### Operations

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Ships ¹</td>
<td>Number</td>
<td>104</td>
<td>93</td>
<td>91</td>
<td>93</td>
</tr>
<tr>
<td>Passengers</td>
<td>Millions</td>
<td>12.9</td>
<td>N/A</td>
<td>1.2</td>
<td>7.7</td>
</tr>
<tr>
<td>Available Lower Berth Days ²</td>
<td>Millions</td>
<td>87.4</td>
<td>N/A</td>
<td>N/A</td>
<td>72.5</td>
</tr>
</tbody>
</table>

### Greenhouse Gas (GHG) Emissions and Intensity ³

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total GHG emissions (Scope 1 and 2)</td>
<td>MT CO₂ (000s)</td>
<td>10,770</td>
<td>6,297</td>
<td>4,438</td>
<td>8,582</td>
</tr>
<tr>
<td>Scope 1 Direct GHG emissions</td>
<td>MT CO₂ (000s)</td>
<td>10,723</td>
<td>6,269</td>
<td>4,409</td>
<td>8,539</td>
</tr>
<tr>
<td>Scope 2 Indirect GHG emissions - Location Based</td>
<td>MT CO₂ (000s)</td>
<td>47</td>
<td>28</td>
<td>29</td>
<td>43</td>
</tr>
<tr>
<td>Scope 2 Indirect GHG emissions - Market Based</td>
<td>MT CO₂ (000s)</td>
<td>46</td>
<td>29</td>
<td>32</td>
<td>45</td>
</tr>
<tr>
<td>Scope 3 ⁴</td>
<td>MT CO₂ (000s)</td>
<td>10,572</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHG emissions Intensity (ship fuel)</td>
<td>kg CO₂ / ALBD</td>
<td>120</td>
<td>N/A</td>
<td>N/A</td>
<td>115</td>
</tr>
<tr>
<td>Ship Fuel GHG Emission Intensity (per ALBD)</td>
<td>g CO₂ / ALB-Km</td>
<td>246</td>
<td>298</td>
<td>330</td>
<td>241</td>
</tr>
</tbody>
</table>

### Energy and Other Emissions

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1 - Direct (Energy Production from Fuel)</td>
<td>MWh (000s)</td>
<td>38,298</td>
<td>22,466</td>
<td>15,752</td>
<td>30,853</td>
</tr>
<tr>
<td>Scope 2 - Indirect (Purchased Electricity)</td>
<td>MWh (000s)</td>
<td>114</td>
<td>65</td>
<td>82</td>
<td>107</td>
</tr>
<tr>
<td>SOx Emissions</td>
<td>MT (000s)</td>
<td>99</td>
<td>6</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>NOx Emissions</td>
<td>MT (000s)</td>
<td>203</td>
<td>114</td>
<td>74</td>
<td>149</td>
</tr>
<tr>
<td>Particulate Matter Emissions</td>
<td>MT (000s)</td>
<td>15</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Advanced Air Quality System Fleet Coverage ⁵</td>
<td>Percentage</td>
<td>79%</td>
<td>82%</td>
<td>90%</td>
<td>93%</td>
</tr>
<tr>
<td>LNG-capable ship capacity</td>
<td>Percentage</td>
<td>2.0%</td>
<td>6.3%</td>
<td>8.5%</td>
<td>14.1%</td>
</tr>
</tbody>
</table>
## Performance Summary: Environmental

### Water

<table>
<thead>
<tr>
<th>Metric</th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Consumption Rate</td>
<td>Liters/Person/Day</td>
<td>216</td>
<td>251</td>
<td>309</td>
<td>217</td>
</tr>
<tr>
<td>Total Water Consumption</td>
<td>MT (000s)</td>
<td>27,122</td>
<td>11,083</td>
<td>5,730</td>
<td>17,844</td>
</tr>
<tr>
<td>Percentage of Water Produced On Board</td>
<td>Percentage</td>
<td>82%</td>
<td>83%</td>
<td>87%</td>
<td>87%</td>
</tr>
</tbody>
</table>

### Waste Management

<table>
<thead>
<tr>
<th>Metric</th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilge Water Discharged to Sea</td>
<td>MT (000s)</td>
<td>148</td>
<td>99</td>
<td>53</td>
<td>74</td>
</tr>
<tr>
<td>Grey Water Discharged to Sea</td>
<td>MT (000s)</td>
<td>18,117</td>
<td>6,823</td>
<td>3,037</td>
<td>9,994</td>
</tr>
<tr>
<td>Grey Water to Sea Discharge Rate</td>
<td>Liters/Person-Day</td>
<td>144.4</td>
<td>155.1</td>
<td>163.6</td>
<td>121.7</td>
</tr>
<tr>
<td>Black Water Discharged to Sea</td>
<td>MT (000s)</td>
<td>8,522</td>
<td>4,022</td>
<td>2,347</td>
<td>7,330</td>
</tr>
<tr>
<td>Black Water to Sea Discharge Rate</td>
<td>Liters/Person-Day</td>
<td>67.9</td>
<td>91.4</td>
<td>126.5</td>
<td>89.3</td>
</tr>
<tr>
<td>Advanced Waste Water Treatment Fleet Capacity Coverage</td>
<td>Percentage</td>
<td>51%</td>
<td>55%</td>
<td>59%</td>
<td>64%</td>
</tr>
<tr>
<td>Total Waste Generated</td>
<td>MT (000s)</td>
<td>371</td>
<td>184</td>
<td>122</td>
<td>231</td>
</tr>
<tr>
<td>Hazardous Waste</td>
<td>MT (000s)</td>
<td>133</td>
<td>87</td>
<td>70</td>
<td>92</td>
</tr>
<tr>
<td>Non-Hazardous Waste</td>
<td>MT (000s)</td>
<td>238</td>
<td>97</td>
<td>53</td>
<td>139</td>
</tr>
<tr>
<td>Waste Recycled</td>
<td>MT (000s)</td>
<td>102</td>
<td>53</td>
<td>44</td>
<td>70</td>
</tr>
<tr>
<td>Waste Rate (excluding Recycling)</td>
<td>kg/Person-Day</td>
<td>2.1</td>
<td>3.0</td>
<td>4.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Waste Recycling Rate</td>
<td>Percentage</td>
<td>27.6</td>
<td>29.0</td>
<td>35.8</td>
<td>30.2</td>
</tr>
</tbody>
</table>
### Performance Summary: Social - Shipboard

<table>
<thead>
<tr>
<th>People</th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Number of Full Time Employees</strong></td>
<td>Number</td>
<td>92,000</td>
<td>58,000</td>
<td>30,000</td>
<td>75,000</td>
</tr>
<tr>
<td>**Gender Distribution - Male</td>
<td>Female**</td>
<td>82%</td>
<td>84%</td>
<td>85%</td>
<td>83%</td>
</tr>
<tr>
<td><strong>Percent</strong></td>
<td></td>
<td>18%</td>
<td>16%</td>
<td>15%</td>
<td>17%</td>
</tr>
</tbody>
</table>

**Officer Gender Distribution**

- **Deck Department - Male | Female**
  - Number
  - 89% | 11%

- **Technical Department - Male | Female**
  - Number
  - 97% | 3%

- **Environmental Officer - Male | Female**
  - Number
  - 86% | 14%

**Employee Turnover**

- **Percent**
  - 16% | 11% | 26% | 34%

**Employees covered by Collective Bargaining Agreement (CBA)**

- **Percent**
  - 58% | 63% | 58% | 55%

---

1 Deck, Technical and Environmental officer positions include some of the leadership roles onboard our ships. Fiscal year 2022 is our first disclosure year.

2 High employee turnover due to closeout of crew members who have not worked in the past 6 months. This closeout process was reinstated in fiscal year 2022 after being put on hold during the pause in guest cruise operations due to the global COVID-19 pandemic.
Performance Summary: Social - Shipboard

<table>
<thead>
<tr>
<th>Labour Sourcing Regions</th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>Percent</td>
<td>72%</td>
<td>71%</td>
<td>65%</td>
<td>75%</td>
</tr>
<tr>
<td>Europe</td>
<td>Percent</td>
<td>18%</td>
<td>20%</td>
<td>27%</td>
<td>15%</td>
</tr>
<tr>
<td>North &amp; Central America</td>
<td>Percent</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>South America</td>
<td>Percent</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Africa</td>
<td>Percent</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Australia</td>
<td>Percent</td>
<td>&lt; 1%</td>
<td>&lt; 1%</td>
<td>&lt; 1%</td>
<td>&lt; 1%</td>
</tr>
</tbody>
</table>

Top 3 Countries

<table>
<thead>
<tr>
<th>Region</th>
<th>Unit</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>Percent</td>
<td>35%</td>
</tr>
<tr>
<td>India</td>
<td>Percent</td>
<td>19%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Percent</td>
<td>17%</td>
</tr>
<tr>
<td>Europe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>Percent</td>
<td>3%</td>
</tr>
<tr>
<td>Germany</td>
<td>Percent</td>
<td>2%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Percent</td>
<td>2%</td>
</tr>
</tbody>
</table>

3 Asia and Europe represent our top labour sourcing regions. Fiscal year 2022 is our first disclosure year listing the top three countries within those regions.
<table>
<thead>
<tr>
<th><strong>Performance Summary: Social - Shipboard</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standardized Training</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Courses completed</td>
</tr>
<tr>
<td>Training hours completed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Health and Safety</strong></th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major injuries - Employees</td>
<td>Number</td>
<td>583</td>
<td>390</td>
<td>167</td>
<td>342</td>
</tr>
<tr>
<td>Major injuries per 200,000 exposure hours - Employees</td>
<td>Number</td>
<td>0.138</td>
<td>0.169</td>
<td>0.115</td>
<td>0.099</td>
</tr>
<tr>
<td>Accidental Deaths - Employees</td>
<td>Number</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Employees Represented by Health &amp; Safety Committees</td>
<td>Percent</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Average CDC VSP Inspection Score&lt;sup&gt;5&lt;/sup&gt;</td>
<td>Number</td>
<td>95</td>
<td>98</td>
<td>-</td>
<td>96</td>
</tr>
<tr>
<td>Percentage of Public Health Food Safety and/or Environmental Sanitation inspections failed&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Percent</td>
<td>0.9</td>
<td>2.8</td>
<td>0</td>
<td>1.2</td>
</tr>
</tbody>
</table>

<sup>a</sup> This is a consolidated view of the training programs that are standardized across the organization for Health, Environment, Safety, Security and Ethics. Fiscal year 2022 is our first disclosure year.

<sup>5</sup> Due to the pause in guest operations as a result of COVID-19 the Center for Disease Control and Prevention (CDC) did not perform any inspections under the Vessel Sanitation Program (VSP) in fiscal year 2021. Fiscal year 2022 was independently verified by Lloyd's Quality Assurance (LRQA).

<sup>a</sup> Includes any ship inspected by a relevant regulatory oversight authority (i.e. CDC VSP and other port state regulatory agencies) as per the SASB Cruise Line Standard.
Performance Summary: Social - Shoreside

<table>
<thead>
<tr>
<th>People</th>
<th>Unit</th>
<th>FY2019</th>
<th>FY2020</th>
<th>FY2021</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Number of Full Time Employees</td>
<td>Number</td>
<td>12,000</td>
<td>11,000</td>
<td>9,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Average Number of Part Time/Seasonal Employees</td>
<td>Number</td>
<td>2,000</td>
<td>1,000</td>
<td>1,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Shoreside Employee Status - Full Time</td>
<td>Percent</td>
<td>86%</td>
<td>92%</td>
<td>90%</td>
<td>83%</td>
</tr>
<tr>
<td>Shoreside Employee Status - Part Time</td>
<td>Percent</td>
<td>14%</td>
<td>8%</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Global Gender Distribution - Male</td>
<td>Female ¹</td>
<td>42%</td>
<td>58%</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>Total Board Members - Male</td>
<td>Female ²</td>
<td>73%</td>
<td>27%</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>Leadership Team - Male</td>
<td>Female ³</td>
<td>-</td>
<td>-</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>Non-Director Senior Management and Company Secretary - Male</td>
<td>Female</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-Director Senior Management and Company Secretary Direct Reports - Male</td>
<td>Female</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Employee Turnover ⁴</td>
<td>Percent</td>
<td>13%</td>
<td>29%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Employees Covered by Collective Bargaining Agreement (CBA)</td>
<td>Percent</td>
<td>25%</td>
<td>26%</td>
<td>28%</td>
<td>24%</td>
</tr>
<tr>
<td>Employees Represented by Health &amp; Safety Committees</td>
<td>Percent</td>
<td>70%</td>
<td>63%</td>
<td>67%</td>
<td>62%</td>
</tr>
</tbody>
</table>

Employees By Brand Headquarter Region: ⁵

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Percent</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Europe</td>
<td>Percent</td>
<td>32%</td>
<td>38%</td>
<td>41%</td>
<td>37%</td>
</tr>
<tr>
<td>North America</td>
<td>Percent</td>
<td>65%</td>
<td>59%</td>
<td>56%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Global Gender Distribution

2019 2020 2021 2022

- - - -
# Performance Summary: Social - Shoreside

## Standardized Training 6

<table>
<thead>
<tr>
<th>Unit</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses completed</td>
<td>Number</td>
</tr>
<tr>
<td>Training hours completed</td>
<td>Number</td>
</tr>
</tbody>
</table>

## EEO-1 U.S. Ethnic Diversity Breakdown 7

<table>
<thead>
<tr>
<th>Unit</th>
<th>Unit</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic/Latino</td>
<td>Percent</td>
<td>23%</td>
</tr>
<tr>
<td>White</td>
<td>Percent</td>
<td>56%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>Percent</td>
<td>10%</td>
</tr>
<tr>
<td>Asian</td>
<td>Percent</td>
<td>8%</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>Percent</td>
<td>1%</td>
</tr>
<tr>
<td>Native Hawaiian/Other Pacific Islander</td>
<td>Percent</td>
<td>1%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>Percent</td>
<td>3%</td>
</tr>
</tbody>
</table>

## EEO-1 U.S Gender Breakdown By Job Category 7

<table>
<thead>
<tr>
<th>Unit</th>
<th>Unit</th>
<th>FY2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exec/Sr. Officials &amp; Managers · Male</td>
<td>Female</td>
<td>Percent</td>
</tr>
<tr>
<td>First/Mid Officials &amp; Managers · Male</td>
<td>Female</td>
<td>Percent</td>
</tr>
<tr>
<td>Professionals · Male</td>
<td>Female</td>
<td>Percent</td>
</tr>
<tr>
<td>Others · Male</td>
<td>Female</td>
<td>Percent</td>
</tr>
</tbody>
</table>

---

1. While we present male and female, we acknowledge that this is not fully encompassing of all gender identities.
2. As a result of regular internal data review, the originally reported Boards of Directors gender ratio disclosed for fiscal year 2019 and 2020 have been revised.
3. Refer to page 71 for leadership team members.
4. This number does not include shoreside employees on unpaid leave.
5. In addition to our headquarters locations, other offices are located worldwide. Due to varying legal requirements worldwide, further detail on employee base is limited.
6. This is a consolidated view of the training programs that are standardized across the organization for Health, Environment, Safety, Security and Ethics. Fiscal year 2022 is our first disclosure year.
7. Fiscal year 2021 data per the Employment Information Report (EEO-1) filing to the U.S. Equal Employment Opportunity Commission. Fiscal year 2022 data was not available at the time the report was published. We will update the fiscal year 2022 EEO-1 data as they become available.
LRQA Independent Assurance Statement

Relating to Carnival Corporation & plc’s Greenhouse Gas Emissions Inventory and Sustainability Data for the Fiscal Year 2022

This Assurance Statement has been prepared for Carnival Corporation & plc. in accordance with our contract.

Terms of Engagement:
LRQA was commissioned by Carnival Corporation & plc. (Carnival) to provide independent assurance of its Greenhouse Gas Emissions Inventory and Sustainability Data (the Report) for the fiscal year (FY) 2022 December 1, 2021, to November 30, 2022, against the assurance criteria below to a limited level of assurance and materiality, and the professional judgement of the verifier using ISO 14064 - Part 2 for greenhouse gas emissions and LRQA’s verification procedure for sustainability data. LRQA’s verification procedure is based on current best practice and in accordance with ISAE 3000 and ISAE 3410.

Our assurance engagement covered Carnival’s operations and activities in its global operations and specifically the following requirements:
- Verify the completeness with which:
  - Carnival reporting methodologies for the selected data;
  - ISO 14064 and 51606
  - Carnival is conforming to the methodology from the GHG Protocol as it relates to the quantification of GHG emissions.
- Evaluate the accuracy and reliability of data and information for the selected data.
- LRQA, the emissions inventory includes Scope 3 emissions from the following categories:
  - Direct Scope 2 (P&L) and Energy Intensity (Scope 2 GHG emissions).
  - In addition to the 4 categories above and ISAE, the GHG emissions inventory includes Scope 3 emissions from the following categories:
  - Direct Scope 2 (P&L) and Energy Intensity (Scope 2 GHG emissions).

LRQA, the Sustainability Data Assertion includes the twenty two sustainability parameters included in Table 1 below:

Our assurance engagement excluded the data included in the first tier of Carnival’s suppliers, contracts, and any third parties mentioned in the report. Also, the following were excluded from the GHG emissions inventory on the basis of their environmental contributions to the total direct and indirect energy and greenhouse gas emissions:

- Inclusion of civil/industrial emissions from low-emission sources in low-emission technologies;
- From the GHG protocol inventory:
- From the GHG protocol inventory:
- From the GHG protocol inventory:
- Electric power consumed from high-efficient [0.3] or low-emission [0.6] electric power sources:
- Electric power consumed from high-efficient [0.3] or low-emission [0.6] electric power sources:
- Electric power consumed from high-efficient [0.3] or low-emission [0.6] electric power sources:
- Electric power consumed from high-efficient [0.3] or low-emission [0.6] electric power sources:

Table 1: Summary of Carnival’s GHG Emissions and Sustainability Data for Fiscal Year 2022:

<table>
<thead>
<tr>
<th>Data Parameter &amp; Units</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct (Scope 1) GHG Emissions (Tonne CO2e)</td>
<td>8,318,803</td>
</tr>
<tr>
<td>Energy Intensity (Scope 2) GHG Emissions - Location Based (Tonne CO2e)</td>
<td>42,707</td>
</tr>
<tr>
<td>GHG Emissions Inventory (Tonne CO2e)</td>
<td>45,111</td>
</tr>
<tr>
<td>Ship Fuel GHG Emissions Rate - (kg CO2e/Available Lower Heating Value)</td>
<td>729</td>
</tr>
<tr>
<td>Total Ship Fuel Emissions - (kg CO2e)</td>
<td>9,388</td>
</tr>
<tr>
<td>Total Ship CO2E Emissions - (kg CO2e/100,000 Miles)</td>
<td>1,473</td>
</tr>
<tr>
<td>Total Ship Energy Consumption - (kWh)</td>
<td>110,786,779</td>
</tr>
<tr>
<td>Total Ship Fuel Consumption - (Tonne)</td>
<td>2,602,656</td>
</tr>
<tr>
<td>Ship Fuel Consumption Rate (Renewable Fuel: Renewable Lower Heating Value)</td>
<td>79.3</td>
</tr>
<tr>
<td>High Sulphur Fuel Oil (Percent of total Ship fuel consumption)</td>
<td>6.2</td>
</tr>
<tr>
<td>Low Sulphur Fuel Oil (Percent of total Ship fuel consumption)</td>
<td>0</td>
</tr>
<tr>
<td>Marine Diesel Oil/Marine Gas Oil (Percent of total Ship fuel consumption)</td>
<td>46.8</td>
</tr>
<tr>
<td>Liquid Natural Gas (Percent of total Ship fuel consumption)</td>
<td>2.30</td>
</tr>
<tr>
<td>Total Potable Water Purchased (Tonne)</td>
<td>2,406,619</td>
</tr>
<tr>
<td>Total Potable Water Produced (Tonne)</td>
<td>10,430,943</td>
</tr>
<tr>
<td>Total Number of ODC VSP Inspections</td>
<td>7</td>
</tr>
<tr>
<td>Total Number of CDC VSP Inspections - Ships scoring &gt;80%</td>
<td>1</td>
</tr>
<tr>
<td>Total Number of CDC VSP Inspections - Ships scoring &lt;80%</td>
<td>6</td>
</tr>
<tr>
<td>Total Number of CDC VSP Inspections - Ships scoring &lt;85%</td>
<td>0</td>
</tr>
<tr>
<td>Average ODC VSP Inspection Score</td>
<td>0.03</td>
</tr>
<tr>
<td>Ridge Water Discharge to Sea Rate (Tonne)</td>
<td>73,850</td>
</tr>
<tr>
<td>Discharge Rate (Tonne)</td>
<td>10.0</td>
</tr>
</tbody>
</table>

LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. Carnival’s responsibility is toLRQA: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes. LRQA’s responsibility is to Carnival: LRQA discloses any liability or responsibility to others, as are imposed in the end footnotes.

Sustainability

Environment

Social

Governance

Appendix

Signed

Date: March 2, 2023

LRQA Lead Verifier

Carnival Corporation & plc.

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Houston, TX 77017

LRQA reference: LQ000003951

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## GRI Index: General Standard Disclosures (G102-419)

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**Glossary**

**Advanced Air Quality Systems (AAQS)**
Commonly referred to as exhaust gas cleaning systems or "scrubbers," are a significant technological innovation designed to improve air emissions, meet and exceed environmental regulatory standards and support sustainable operations in the global shipping industry.

**Audit**
Systematic, documented, periodic and objective assessment of an organization's performance, management systems and processes.

**Available Lower Berth (ALB)**
Guest beds available on a cruise ship, assuming two people occupy each cabin.

**Advanced Waste Water Treatment Systems (AWWTS)**
Remove contaminants from black and gray water and convert it into an effluent that can be returned to the water cycle with minimum impact on the environment, or directly reused.

**Air Lubrication Systems**
Air Lubrication Systems (ALS) use a carpet of air bubbles to lubricate the flat bottom of a ship’s hull which reduces the ship’s frictional resistance and the propulsive power required to drive the ship through the water, thus giving savings in energy and fuel consumption.

**Ballast Water**
Seawater that is taken on board a ship and stored in tanks to control draft, list, trim and stability.

**Biodigesters**
Food waste biodigesters are clean and green technology that use oxygen, water and microorganisms to break down food waste into environmentally safe liquid effluent. Digesting reduces the amount of methane and carbon dioxide emitted into the atmosphere as well as reduces the demand on the ocean for complete food waste decomposition.

**Bilge Water**
Water from equipment maintenance and minor leaks that collects in the lowest part of the ship.

**Black Water**
Wastewater from toilets, urinals and medical sinks.

**Bunkered Water**
Potable water that is purchased from a municipal or private system at a port and stored on board in tanks.

**CFC-11 Equivalent**
A measure used to compare various substances based on their relative ozone depletion potential. The reference level of 1 is the potential of CFC-11 and CFC-12 to cause ozone depletion.

**Chlorofluorocarbons (CFCs)**
Commonly known by the trade name “freon,” used primarily as a refrigerant in air-conditioning and refrigeration systems and equipment. CFCs are known to have destructive effects on the ozone layer. For this reason, their use has now been banned by legislation.

**Cold Ironing**
Cold ironing, or shore power connection is the process of providing shoreside electrical power to a ship at berth while its main and auxiliary engines are turned off.

**CO₂ (Carbon Dioxide)**
A naturally occurring chemical compound composed of two oxygen atoms covalently bonded to a single carbon atom. It is a gas at standard temperature and pressure, and it exists in Earth’s atmosphere in this state, as a trace gas at a concentration of 0.39 percent by volume.

**Dehydrators**
Food waste dehydrators use heat to remove water content from food waste. Dehydrators offer an alternate method for food waste processing that has the potential to reduce waste volume by about 90%. Dehydrators produce a mostly dry inert biomass output, which is offloaded in port or consumed by onboard equipment.

**Circular Economy**
The circular economy is an economic model that aims to avoid waste and to preserve the value of resources (raw materials, energy and water) and keep them in a ‘closed loop’ for as long as possible. Products and materials are continuously (re)circulated - as opposed to a linear model in which they are discarded as waste after use.

**CO₂e (Equivalent Carbon Dioxide)**
A measure used to compare the emissions from various greenhouse gases based on their global warming potential (GWP). The CO₂ equivalent for a gas is derived by multiplying the tonnes of the gas by the associated GWP.

**CFC-11 Equivalent**
A measure used to compare various substances based on their relative ozone depletion potential. The reference level of 1 is the potential of CFC-11 and CFC-12 to cause ozone depletion.

**Dehydrators**
Food waste dehydrators use heat to remove water content from food waste. Dehydrators offer an alternate method for food waste processing that has the potential to reduce waste volume by about 90%. Dehydrators produce a mostly dry inert biomass output, which is offloaded in port or consumed by onboard equipment.

**Environmental Aspects**
Element of Company activities that may have a significant impact on the environment directly and/or indirectly.

**Environmental Impact**
How an environmental aspect may affect the environment.

**Environmental Management System (EMS)**
An EMS refers to the management of an organization's environmental programs in a comprehensive, systematic, planned and documented manner. It includes the organizational structure, planning and resources for developing, implementing and maintaining policy for environmental protection.

**Emissions – Scope 1, 2 and 3**
Scope 1 (direct) emissions come from sources that are owned or controlled by the reporting organization.
Scope 2 (indirect) emissions result from the activities of the reporting organization, but that are generated at sources owned or controlled by another organization.
Scope 3 (indirect) emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

**Energy Saved**
The reduced amount of energy needed to carry out the same processes or tasks. The term does not include overall reduction in energy consumption from reduced organizational activities.

**Flexible Berth**
A berth that can be effectively used for a variety of purposes.

**Greenhouse Gases (GHGs)**
A group of gases in Earth's atmosphere that are responsible for the greenhouse effect, which traps heat in the Earth's atmosphere, as a result warming the Earth's surface.

**GWP**
A measure used to compare the emissions from various greenhouse gases based on their global warming potential (GWP). The CO₂ equivalent for a gas is derived by multiplying the tonnes of the gas by the associated GWP.
Footprint
The amount of environmental impact related to a specific resource.

Global Reporting Initiative (GRI)
A network-based organization that produces a comprehensive sustainability reporting framework that is widely used around the world. GRI’s core goals include the mainstreaming of disclosure on environmental, social and governance performance.

Global Warming Potential (GWP)
A relative measure of how much heat a greenhouse gas trap in the atmosphere. It compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of carbon dioxide. A GWP is calculated over a specific time interval, commonly 20, 100 or 500 years.

Grey Water
Wastewater generated from activities such as laundry, bathing, cooking and dish washing.

Greenhouse Gas (GHG)
A gas in the atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect, which many believe is the cause of global warming. The primary greenhouse gases in the Earth’s atmosphere are water vapor, carbon dioxide, methane, nitrous oxide and ozone. Greenhouse gases greatly affect the temperature of the Earth; without them, Earth’s surface would be on average about 13 degrees C (99 degrees F) colder than at present. The greenhouse gases thought to be major contributors to global warming are carbon dioxide (CO₂); methane and biomethane emissions (CH₄); nitrogen oxide (N₂O) and chlorofluorocarbons (CFC).

Greenhouse Gas (GHG) Protocol Initiative
The Greenhouse Gas Protocol Initiative’s vision is to harmonize greenhouse gas emission accounting and reporting standards internationally. It aims to provide a multi-stakeholder framework ensuring that different trading schemes and other climate-related initiatives adopt consistent approaches to GHG accounting.

Heating, Ventilation and Air-Conditioning (HVAC) System
The technology used for indoor environmental climate control.

Heavy Fuel Oil (HFO)
A type of blended oil used in ship’s engines, made from the residues from various refinery distillation and cracking processes.

Indicator
A means used to measure the effects of sustainability management initiatives or the condition of environmental, social or governance issues.

Indirect Energy
Energy produced outside the reporting organization’s boundary that is consumed to supply energy for the organization’s energy needs (e.g., electricity, or for heating and cooling). The most common example is fuel consumed outside the reporting organization’s boundary in order to generate electricity to be used inside the organization’s boundary.

Injury Severity Levels
Work-related crew member and contractor injuries are classified as major, serious or minor, based on the following criteria:

- **Major injury:** Any fracture, loss of any body part, loss of vision (temporary or permanent), dislocation of a joint or a ruptured ligament or tendon, hypothermia or hyperthermia secondary to environmental exposure that requires medical treatment, an injury resulting in trauma that requires advanced life support or any other injury requiring hospitalization on board or on shore for more than 24 hours following the injury.
- **Serious injury:** Any injury, other than a major injury, which results in time off work for more than three consecutive days following the injury, or that results in disembarkation without return on board.
- **Minor injury:** Any injury that is not a serious or major injury and that results in time off work of 24 hours or more following the injury.

International Labour Organization (ILO)
The United Nations’ agency that seeks the promotion of social justice and internationally recognized human and labor rights.

International Maritime Organization (IMO)
The United Nations’ agency responsible for improving maritime safety and preventing pollution from ships.

International Organization for Standardization (ISO)
An international standard-setting body composed of representatives from various national standards organizations. An ISO Standard is an international specification that establishes a common framework of reference or a common technical language between suppliers and customers, thus facilitating trade and the transfer of technology.

International Safety Management (ISM) Code
International code for the safe management and operation of ships and for pollution prevention.

ISO 14001
Global standards for Environmental Management System developed by the ISO.

International Ship and Port Security (ISPS) Code
A part of SOLAS that prescribes responsibilities of governments, shipping companies, shipboard personnel, and port/facility personnel to “detect security threats and take preventative measures against security incidents affecting ships or port facilities used in international trade.”

Liquefied Natural Gas (LNG)
Liquefied natural gas or LNG is natural gas (predominantly methane, CH₄) that has been converted to liquid form for ease of storage or transport.

Marine Sanitation Devices (MSD)
Liquefied natural gas or LNG is natural gas (predominantly methane, CH₄) that has been converted to liquid form for ease of storage or transport.

An international treaty that provides comprehensive rights and protection at work for the world’s seafarers. The convention sets out seafarers’ rights to decent conditions of work on a wide range of subjects and aims to be globally applicable, easily understandable, readily updatable and uniformly enforced.
MARPOL
The International Convention for the Prevention of Pollution from Ships. MARPOL is one of the most important marine environmental conventions, which was designed to minimize pollution of the seas.

NOx
Oxides of nitrogen that are a family of gases released from the combustion of fuel.

Ozone Depleting Potential (ODP)
The relative potential of various gases to deplete the ozone in the atmosphere.

Ozone-Depleting Substance (ODS)
Any substance with an ozone depletion potential greater than zero that can deplete the stratospheric ozone layer. Most ozone-depleting substances are regulated under the Montreal Protocol and its amendments, and include CFCs, HCFCs, halons and methyl bromide.

Primary Source
The initial form of energy consumed to satisfy the reporting organization’s energy demand. This energy is used either to provide final energy services (e.g., space heating, transport) or to produce intermediate forms of energy, such as electricity and heat.

Protected Area
A geographically defined area that is designated, regulated, or managed to achieve specific conservation objectives.

Refrigerants
Refrigerants Gases that are used in HVAC systems on board.

Renewable Energy
Renewable energy is derived from natural processes that are replenished constantly. This includes electricity and heat generated from solar, wind, ocean currents, hydropower, biomass, geothermal resources or biofuels, as well as hydrogen derived from renewable resources.

Safety Management System (SMS)
ISM code-certified system that informs employees how to perform their duties in accordance with all safety and environmental laws.

Safety of Life at Sea (SOLAS) Convention
The most important and comprehensive international treaty governing the safety of merchant ships.

SASB
Sustainability Accounting Standards Board (SASB) enables businesses around the world to identify, manage and communicate financially-material sustainability information to their investors.

Significant Air Emissions
Air emissions that are regulated under international conventions and/or national laws or regulations, including those listed on environmental permits for the reporting organization’s operations.

Solid Waste
All used and discarded solid material produced on board during ship operations.

SOx
Oxides of sulfur are a family of gases produced by the combustion of fuel which contains sulfur. The quantity of oxides of sulfur is proportional to the quantity of sulfur in the fuel.

Stakeholder
Any individual or group, within or outside a company, that has an interest in or may be impacted by that company, and that accordingly has expectations, requires information or holds legitimate economic interests.

STCW
The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, which sets qualification standards for masters, officers and watch personnel on seagoing merchant ships.

Sustainable Development Goals (SDG)
The Sustainable Development Goals (SDGs) are a collection of 17 global goals set by the United Nations. The broad goals are interrelated though each has its own targets to achieve. The total number of targets is 169. The SDGs cover a broad range of social and economic development issues. These include poverty, hunger, health, education, climate change, gender equality, water, sanitation, energy, environment and social justice.

TCFD
The Task Force on Climate-Related Financial Disclosures was established by The Financial Stability Board to develop recommendations for more effective climate related disclosures that could promote more informed investment, credit and insurance underwriting decisions and, in turn, enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system’s exposures to climate related risks.

Total Water Withdrawal
The sum of all water drawn into the boundaries of the reporting organization from all sources (including surface water, ground water, rainwater, and municipal water supply) for any use over the course of the reporting period.

Turnover
Turnover includes voluntary separation, retirement, terminations and layoffs in the reporting year and excludes seasonal employees at Holland America Princess Alaska Tours.
CONTACT US
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