



CARNIVAL  
CORPORATION & PLC

*Sustainability*

# SUSTAINABILITY FROM SHIP TO SHORE

FY2018 SUSTAINABILITY REPORT



# WELCOME ABOARD

We invite you to cruise with us, enjoy the exhilaration of ocean travel and be a part of our sustainability journey. We have a portfolio of nine dynamic cruise brands, which complement each other by geography, serve nearly every segment of the cruise industry and provide our guests with virtually endless vacation choices.





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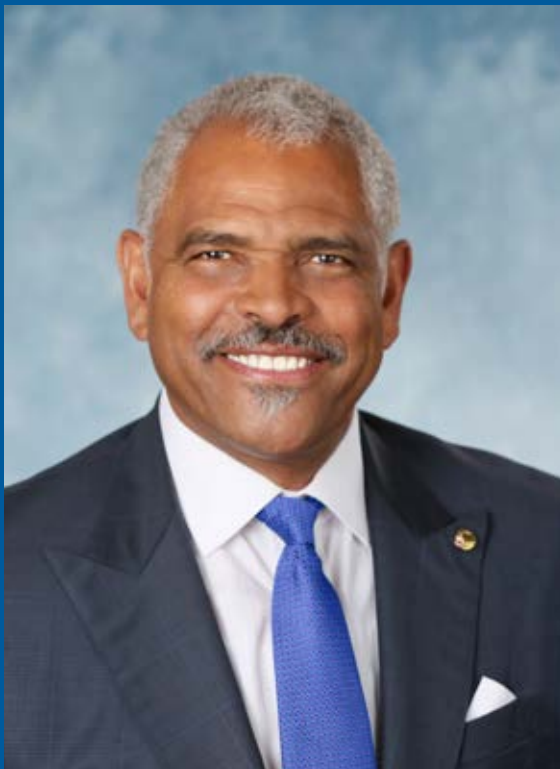
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# MESSAGE FROM THE PRESIDENT & CEO



I want to begin with a heartfelt thank you to our guests, to the communities we visit and to all our passionate and dedicated employees from ship to shore. We understand the interconnectedness of us all and this small planet we share. Our desire as travelers to experience as much of the world as we can must be balanced in a way that is sustainable to the natural environment that we need to protect as well as the communities we treasure. The more we learn, the more we must be willing to share responsibility as we move surely and consistently in the direction of zero-impact. From the removal of single use plastic to cleaner and more efficient energy systems, from lessening our food waste, to using water more judiciously, we must constantly be evaluating how our own personal actions and the operation of our business can be made more aware and ultimately more responsible.

Our ships are home to our guests and crew and we become citizens of the waters we sail. We need to care about them like we do our homes ashore and act accordingly. At Carnival Corporation and our nine world-leading cruise brands, we are deeply committed to our sustainability goals. We must never be complacent in our actions or ever believe that we are doing enough. To whom much is given, much is required. We continue to increase our levels of investment in sustainability and in the communities we partner with all over the world.

We are committed to being leaders in environmental stewardship. We are dedicated to protecting and preserving the beauty and majesty of the waters we sail and the communities we visit. And we are committed to continuously improving our operations and through our ever increasing environmental focus. Whether it's economic development, educational opportunities or environmental stewardship, we want to make every place we visit even better than it was before we went there. And while we are held to a high standard by the public, we hold ourselves to an even higher standard.

**Here are some of our sustainability program accomplishments in 2018:**



# CRUISING

- We welcomed four new, more energy efficient ships to our fleet: *Carnival Horizon* for Carnival Cruise Line, *Nieuw Statendam* for Holland America Line, *Seabourn Ovation* for Seabourn and *AIDAnova* for AIDA Cruises which made history as the first ship completely powered by environmentally friendly LNG.
- We opened the Helix cruise center at the Port of Barcelona in Spain. The new 12,500 square meter state-of-the-art terminal is capable of accommodating next-generation “green” cruise ships powered by liquefied natural gas (LNG), the world’s cleanest burning fossil fuel. The Helix terminal plus the existing terminal represent Carnival Corporation’s largest port investment in Europe at a combined 46 million euros.
- We opened a new cruise terminal in Long Beach, California utilizing a historic building that once housed the famous “Spruce Goose” airplane. The restoration preserves an important part of California history and a landmark on the city’s waterfront.

# COMMITMENT

- In 2018, we launched a new company-wide environmental compliance and stewardship program called Operation Oceans Alive. We will continue to expand this program through an increase in funding, staffing and responsibility. Operation Oceans Alive helps ensure all employees receive proper training and oversight while continuing to demonstrate our company-wide commitment to protecting our oceans, seas, and waterways from environmental harm.
- Over the last three years we have spent almost a billion dollars on environmental initiatives, implemented countless new and more effective procedures, and our crewmembers have taken hundreds of thousands of hours of training -- not just to meet compliance targets but to be the industry leaders in environmental compliance and environmental stewardship.
- Health, environment, safety and security (HESS) issues are paramount to our business, and our Fleet Operation Centers (FOC) are an essential component of our HESS strategy. In 2018, we opened our third FOC in Miami. The FOCs provide our captains, chief engineers, and deck and engineering officers with support, control and planning of nautical and technical operations. Utilizing state-of-the-art tracking and data analysis tools, our FOCs make cruising even more safe, efficient and sustainable.
- In 2017 we met and surpassed our 2020 goal three years ahead of schedule by achieving a 25% reduction in the intensity of carbon emissions from our operations. In 2018, we made even more progress with a 27.6% reduction relative to our 2005 baseline, and we are on track to meet all of our sustainability goals by 2020.
- In 2018, Cruise Lines International Association (CLIA) committed to a 40% reduction in the rate of carbon emissions across the cruise industry’s global fleet by 2030. As a CLIA member, we are doing our part to help achieve this goal. We share the International Maritime Organization’s vision of a carbon-free shipping industry by the end of this century.
- We lead the cruise industry in the adoption of LNG and are adding 10 additional new LNG ships to our fleet between 2019 and 2025.
- We are on schedule with the installation and retrofitting of our existing ships with Advanced Air Quality Systems (AAQS), which reduce sulfur and particulate matter from our engine exhaust with over 70 percent of our fleet already equipped.
- We are expanding cyber security-related processes and procedures for our shipboard Safety Management System. A new Maritime Cyber Security team will continually assess our ships to measure the operational impact and overall effectiveness of our procedures. Several new processes as well as technical systems and equipment have been introduced onboard and are expected to significantly reduce cyber risks.
- During 2018 we made meaningful progress in executing our Environmental Compliance Plan and while there were many improvements cited and the quality and professionalism of our people recognized, there were also a number of mistakes made that were disappointing to us as a company and as individuals. We take these seriously and are addressing each of them.

# COMMUNITY

- Having a good working relationship year-round alongside the communities we visit helps us be more effective and quickly bring aid -- food, water, shelter, medical help and expertise, when urgently needed in case of a disaster. In the Caribbean we are partnering with UNICEF and the United Way as well as local government agencies to help rebuild the islands of St. Maarten, Puerto Rico, Dominica, and Turks and Caicos after a series of devastating storms, and also help them prepare for better recovery and disaster relief in future storms. We pledged to provide up to \$10 million in funding and in-kind support. For communities affected by Hurricane Florence in North and South Carolina, Super Typhoon Mangkhut in the Philippines and Indonesia's earthquake and resulting tsunami in 2018, we pledged up to \$5 million to support the relief and rebuilding efforts.
- Our Carnival Australia brand works in economically-challenged South Pacific Islands on YuMi projects, which translates literally to "you and me." Working with the Australian government, Carnival Australia finds and develops locally-owned shore tour companies in Vanuatu and helps these small local companies overcome the significant hurdles to becoming part of our global supply chain.
- In Italy, our Costa brand has a unique partnership with the Food Bank Foundation, one of the biggest charitable organizations in Europe with a well-established distribution network. In the 4 Good Food Project, our onboard galley crew packages safe and ready-to-eat food and donates it to the food bank in the local port. This unique project has now been replicated in nine ports in Italy, France (including their Caribbean provinces of Martinique and Guadalupe) and in Spain. The project has become a source of pride for our crew and created a bond between our ships and the local community by giving a second life to healthy food and to the beneficiaries who receive it.
- Building a diverse and inclusive workforce continues to be a priority. We earned a perfect score for the second consecutive year from the Human Rights Campaign's Corporate Equality Index, the leading LGBTQ civil rights organization in the U.S. We continue to work with Catalyst, a leading U.S. nonprofit with a mission to expand opportunities for women, and with the Executive Leadership Council (ELC), whose mission is to empower African-American corporate leaders. We were also honored by Forbes as one of America's best employers for diversity based on our commitment to diversity and inclusion, and named to the Forbes list of America's best large employers overall.

**Our journey to this point has been remarkable. We are honored and humbled by recognitions we have received from environmental groups, port communities, industry publications and associations for protecting and sustaining healthy oceans, seas and communities around the world and for our long-standing commitment to being one of the cruise industry leaders in environmental innovation and best practices.**

Yet clearly there is always more that can be done. Ensuring a healthy natural environment is not only essential to the success of our business and exceeding the expectations of our guests and stakeholders, but it is also the right thing to do.



**ARNOLD W. DONALD** – *President & CEO, Carnival Corporation & plc*



"WE ARE DEDICATED TO PROTECTING  
AND PRESERVING THE BEAUTY AND  
MAJESTY OF THE WATERS WE SAIL  
AND THE COMMUNITIES WE VISIT."



# SUSTAINABILITY AT CARNIVAL



**ELAINE HELDEWIER**

Carnival Corporation & plc,  
Sustainability Director

Our sustainability vision includes several important priorities – among them are addressing climate change, improving the quality of our air emissions, protecting the oceans and seas upon which we sail, supporting the communities we visit and providing all employees with a positive work environment and opportunities to build a rewarding career.

In 2017, we achieved and surpassed our sustainability goal to reduce the intensity of carbon emissions from our operations by 25% by 2020, and in 2018, we made further progress by delivering a 27.6% reduction relative to our 2005 baseline. As part of our long-term commitment to support climate change, we aspire to the International Maritime Organization’s vision of a carbon-free shipping industry by the end of the century. In 2018, we worked with leaders across the cruise industry to develop the framework supporting the Cruise Lines International Association’s (CLIA) recent commitment to reduce the rate of carbon emissions across the cruise industry’s global fleet by 40% by 2030. As a CLIA member, we are doing our part to help achieve this goal. In addition to achieving our own carbon emissions goal ahead of schedule, we are on track to meet all of our sustainability goals by 2020.

As we continue to define our sustainability strategy and goals for 2030, we are using the United Nations’ 2030 sustainable development goals (SDGs) as our framework. We know that developing the right sustainability strategy for our organization is essential to our business success and reputation. For additional details on our sustainability journey [click here](#).

**1 NO POVERTY**



**8 DECENT WORK AND ECONOMIC GROWTH**



**10 REDUCED INEQUALITIES**



**4 QUALITY EDUCATION**



**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**



**14 LIFE BELOW WATER**



**15 LIFE ON LAND**



**16 PEACE, JUSTICE AND STRONG INSTITUTIONS**



**2 ZERO HUNGER**



**5 GENDER EQUALITY**



**7 AFFORDABLE AND CLEAN ENERGY**



**13 CLIMATE ACTION**



**17 PARTNERSHIPS FOR THE GOALS**



**3 GOOD HEALTH AND WELL-BEING**



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**6 CLEAN WATER AND SANITATION**



**11 SUSTAINABLE CITIES AND COMMUNITIES**





# CARNIVAL CORPORATION & PLC



## **CAPTAIN RENATO BENDINELLI, CARNIVAL CRUISE LINE**

My crew and I are committed to delivering environmental excellence and are honored to be the first ship in the Carnival Corporation fleet to receive the Environmental Excellence award. This is a never-ending effort for all of us as we constantly work to identify operational improvements.



## **JULIA BROWN, CARNIVAL CORPORATION & PLC, CHIEF PROCUREMENT OFFICER**

We are working with our supply chain to expand the number of sustainable and responsible sourced products and services we purchase across our nine leading cruise lines. This is an important component of our sustainability performance and it includes all aspects of our operation, from the type of fuel we use to power our ships, the amenities we use in our cabins and the food we serve in our restaurants.



## **RICHARD MEADOWS, SEABOURN, PRESIDENT**

We are a diverse organization and we value and support our talented and diverse employee base. We are committed to being an equal opportunity employer, employing people from around the world and hiring people based on the quality of their experience, skills, education, and character, without regard for their identification with any group or classification of people.



## **MARIE MCKENZIE, CARNIVAL CORPORATION & PLC, VP GLOBAL PORTS & CARIBBEAN GOVERNMENT RELATIONS**

Whether its economic development, educational opportunities or environmental stewardship, we want to make every place we visit is even better than it was before we arrived. In the Caribbean, we are partnering with various stakeholders to help rebuild the islands of St. Maarten, Puerto Rico, Dominica, St. Thomas, U.S. Virgin Islands, and Turks and Caicos after a series of devastating storms, and also partnering on better preparation for future possible storms.



## **BO-ERIK BLOMQVIST, CARNIVAL CORPORATION & PLC, SVP SHIPBUILDING**

Incorporating “Green technologies” into our new ships at the design stage is an important component of our sustainability vision. We have designed and built the first cruise ship in the world powered by liquefied natural gas (LNG) both at sea and in port. We are leading the cruise industry’s adoption of LNG to power cruise ships. LNG is the most environmentally friendly and low-emission fuel currently available.



## **ENVIRONMENTAL OFFICER JULIANA COFFEY, HOLLAND AMERICA LINE**

I’m very proud of the role I have as environmental officer and in particular of the opportunity to promote environmental conservation at the destinations we visit. Working with our port management department and volunteer crew members, I have been coordinating the planting of mangrove trees and beach clean-ups in Mahogany Bay Cruise Center, Roatan, Honduras, one of the destinations my assigned ship visits.

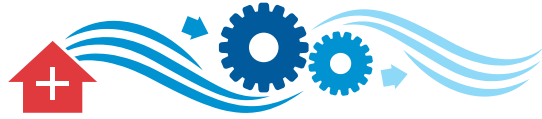
# 2020 SUSTAINABILITY GOALS

ENVIRONMENTAL • SAFETY • LABOR & SOCIAL



## CARBON FOOTPRINT

Reduce the intensity of CO<sub>2</sub>e (equivalent carbon dioxide) emissions from our operations by 25% by 2020 relative to our 2005 baseline, measured in grams of CO<sub>2</sub>e per ALB-km.



## ADVANCED AIR QUALITY SYSTEMS

Continue to improve the quality of our emissions into the air by developing, deploying and operating Advanced Air Quality Systems across the fleet capable of reducing sulfur compounds and particulate matter from our ship's engine exhaust.

## AWWPS TECHNOLOGY

Increase Advanced Waste Water Purification System (AWWPS) coverage of our fleetwide capacity by 10 percentage points by 2020 relative to our 2014 baseline.



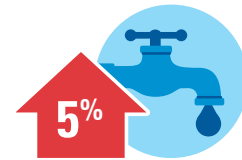
## COLD IRONING CAPACITY

Increase Cold Ironing coverage of our fleetwide capacity in relation to future port capabilities.



## WASTE REDUCTION

Continue to reduce waste generated by our shipboard operations by 5% by 2020 relative to our 2016 baseline\*, as measured by kilograms of non-recycled waste per person per day.



## WATER EFFICIENCY

Continue to improve water use efficiency of our shipboard operations by 5% by 2020 relative to our 2010 baseline, as measured by liters per person per day.



## DIVERSITY & ETHICS

Continue to build a diverse and inclusive workforce and provide all employees with a positive work environment and opportunities to build a rewarding career to further drive employee engagement.



## BUSINESS PARTNER CODE OF CONDUCT AND ETHICS

Further develop and implement vendor assurance procedures ensuring compliance with Carnival Corporation & plc's Business Partner Code of Conduct and Ethics.



## GUEST AND CREWMEMBER HEALTH, SAFETY & SECURITY

Striving to be free of injuries, we continue to build on our commitment to protect the health, safety and security of our guests, employees and all others working on our behalf.



## OUR COMMUNITY

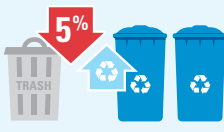
Continue to work on initiatives and partnerships that support and sponsor a broad range of organizations for the benefit of our local and global communities throughout our brands.

\*Based on new waste management accounting practices, the baseline has been revised to 2016

[WWW.CARNIVALCORP.COM](http://WWW.CARNIVALCORP.COM)







## CARBON FOOTPRINT **ACHIEVED IN 2017**

- Made more progress on our goal and achieved a 27.6% reduction relative to our 2005 baseline.
- Delivered the first cruise ship in the world to be powered by liquefied natural gas (LNG) both at sea and in port.
- Fully support the Cruise Line International Association (CLIA) commitment to a 40% carbon rate reduction by 2030.

## ADVANCED AIR QUALITY SYSTEMS **ON TRACK**

- 74% of fleet equipped with Advanced Air Quality Systems.

## AWWPS TECHNOLOGY **ON TRACK**

- Increased fleetwide capacity coverage by 8.6 percentage points.

## COLD IRONING **ON TRACK**

- 46% of fleet equipped with cold ironing capabilities.

## WATER EFFICIENCY **ON TRACK**

- 4.8% efficiency achieved relative to our 2010 baseline.

## WASTE REDUCTION **ON TRACK**

- 3.8% reduction in waste rate.

## GUEST AND CREWMEMBER HEALTH, SAFETY & SECURITY **ONGOING**

- Continued to implement a series of initiatives to prevent guest and crew injuries.
- Continued to enhance our health and safety procedures.
- Started to implement additional cyber security processes and procedures.

## DIVERSITY & ETHICS **ONGOING**

- Continued to build a diverse and inclusive workforce.
- Earned a perfect score of 100 for the second consecutive year from the Human Rights Campaign (HRC), the leading LGBTQ civil rights organization in the U.S.
- Continued to work with Catalyst, the leading U.S. nonprofit with a mission to expand opportunities for women.
- Continued to work with Executive Leadership Council (ELC), the leading U.S. organization working to empower African-American corporate leaders.
- Continued to work with the Hispanic Association of Corporate Responsibility, an advocacy organization representing Hispanic organizations across the U.S.
- Continued to work with the Leadership Education for Asian Pacifics (LEAP), a nonprofit organization whose mission is to achieve full participation and equality for Asian and Pacific Islanders through leadership, empowerment and policy.
- Recognized as one of America's Best Large Employers by Forbes media.

## BUSINESS PARTNER CODE OF CONDUCT AND ETHICS **ONGOING**

- Evaluated options and selected a platform that will enhance our supplier engagement process across all brands.
- Started the audit process for the tour operators that offer encounters with dolphins in captivity.

## OUR COMMUNITY **ONGOING**

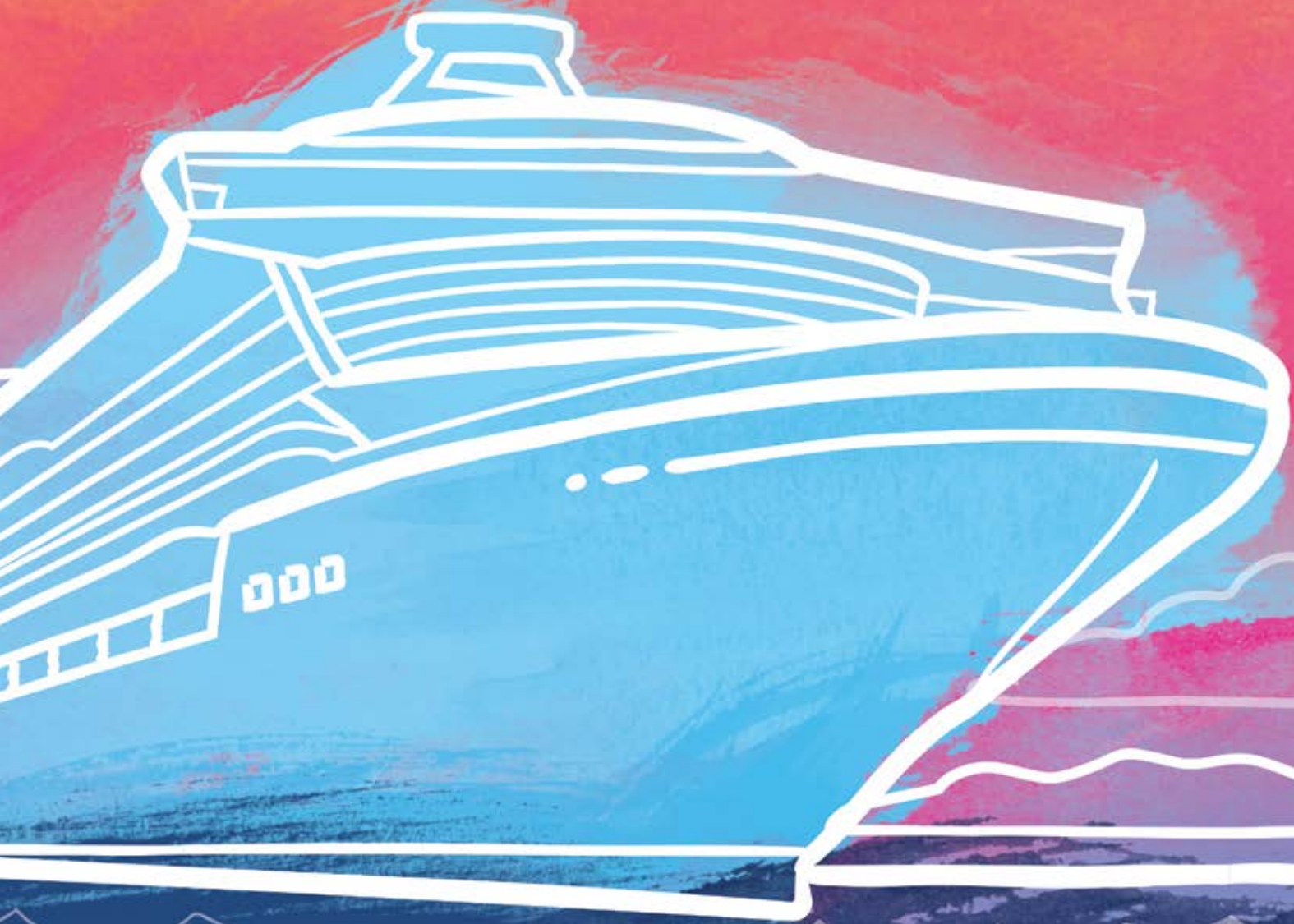
- Pledged up to \$10 million to support the Caribbean Region.
- Pledged up to \$5 million for hurricane relief and rebuilding efforts.
- Continued partnership with Mercy Ships.
- Continued support to the Smithsonian National Museum of African American History & Culture.

# CRUISING

- About Carnival Corporation & plc
- Corporate Governance & Ethics







# ABOUT CARNIVAL CORPORATION & PLC

With a portfolio of nine dynamic brands, Carnival Corporation & plc is the world's largest leisure travel company and among the most profitable and financially strong in the cruise and vacation industries. Together, the corporation's cruise lines operate 104 ships with cruises in all of the world's most popular vacation destinations.

## OUR COMPANY

Carnival Corporation is incorporated in Panama, and Carnival plc is incorporated in England and Wales. Carnival Corporation and Carnival plc operate a dual listed company (DLC) arrangement, whereby the businesses of Carnival Corporation and Carnival plc are combined and they function as a single economic entity through contractual agreements between separate legal entities. Shareholders of Carnival Corporation and Carnival plc have the same economic and voting interest but their shares are listed on different stock exchanges and are not fungible. Carnival Corporation is traded on the New York Stock Exchange (NYSE) under the symbol CCL. Carnival plc is traded on the London Stock Exchange under the symbol CCL and as an American Depository Share on the NYSE.<sup>1</sup>

## OUR HISTORY

Although the name Carnival Corporation didn't come into existence until 1994, the foundation for our company was laid when our flagship brand, Carnival Cruise Line, was formed. Carnival Cruise Line got its start in 1972 with a single ship, *Mardi Gras*, a converted ocean liner. The success of *Mardi Gras* was instrumental in our growth. The entrepreneurial spirit and pioneering vision of our founder, the late Ted Arison, provided a solid foundation for our company's future.

After achieving its position as "The World's Most Popular Cruise Line", in 1987 Carnival Cruise Line made an initial public offering of 20 percent of its common stock, which provided the initial influx of capital that allowed our company to begin expanding through acquisition.

In 2003, agreements were finalized to combine Carnival Corporation with P&O Princess Cruises plc, creating the world's first global cruise operator - Carnival Corporation & plc. Over the years, we have acquired a leadership position in virtually every market segment of the cruise industry.

1) Carnival Corporation & plc includes divisional brand Carnival Cruise Line, referred to in this report as "Carnival Cruise Line."



In May 2016, Carnival Corporation & plc became the first U.S. cruise operator in over 40 years to bring U.S. cruise guests directly from the U.S. to Cuba.

## SERVICES AND OPERATING STRUCTURE

With operations in North America, Australia, Europe and Asia Carnival Corporation's portfolio of brands features Carnival Cruise Line, Holland America Line, Princess Cruises, Seabourn, P&O Cruises (Australia), P&O Cruises (UK), Cunard, AIDA Cruises and Costa Cruises. Each of our cruise brands is a leader in its respective market segment, has a well-known brand name and has a responsibility to operate sustainably as part of our strategy. We manage the company in a "Group" or "Operating Line" structure. During 2018, the following Carnival Corporation & plc 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. Our tour company owns and operates hotels, lodges, glass-domed railcars and motorcoaches. We also operate a portfolio of leading port destinations and private islands in select geographies around the world.

Additional details relating to our company, Corporate Operating Structure and organization are disclosed in the Carnival Corporation & plc 2018 Annual Report to Shareholders and in our Annual Report on Form 10-K, which are available on the Carnival Corporation & plc website: [www.CarnivalCorp.com](http://www.CarnivalCorp.com).

## SCALE OF ORGANIZATION

We employ approximately 120,000 employees worldwide. As of November 30, 2018, we operated 104 cruise ships, with a total passenger capacity (based on double occupancy) of 236,910 guests.

2018 marked another very strong year for us as we delivered record cash from operations of over \$5.5 billion and record revenues of \$18.9 billion.

Key information for 2018 compared to the prior year (additional financial data and details can be found in the 2018 Annual Report on Form 10-K):

- Revenues increased \$1.4 billion to \$18.9 billion from \$17.5 billion in 2017.
- Gross revenue yields (revenue per available lower berth day or ALBD) increased 5.7%.
- Gross cruise costs including fuel per ALBD increased 3.9%.

## BUSINESS EXPANSION

We continue to grow our presence in established markets and increase our penetration in developing markets.

In 2018, Carnival Corporation signed a significant partnership with Dubai-based holding company Meraas, whose aim is to develop the Dubai Cruise Terminal into a major maritime tourism hub.

In 2018, Carnival Corporation launched a cruise joint venture in China. Carnival's and the China State Shipbuilding Corporation's joint venture is named Carnival Cruise Shipping Limited.

In 2018, we opened the Helix cruise center at the Port of Barcelona, Spain. A new 12,500 square meter state-of-the-art terminal. The Helix terminal and the company's existing terminal at the port represent Carnival Corporation's largest combined 46 million euros port investment in Europe.

We opened a new cruise terminal in Long Beach, California utilizing a historic building that once housed the famous "Spruce Goose" airplane. The restoration preserves an important part of California's history and a landmark on the city's waterfront.

## FLEET INVESTMENTS

We are building new, innovative, purpose-built ships that are more fuel efficient, have a greater number of balcony cabins 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 and resulting in improved returns on invested capital. During 2018, we added four new ships, and removed two ships from the fleet:

- *AIDAnova* was added to AIDA Cruises (ship operations commenced in December 2018).
- *Carnival Horizon* was added to Carnival Cruise Line.
- *Nieuw Statendam* was added to Holland America Line.
- *Seabourn Ovation* was added to Seabourn.
- *Adonia* and *Costa Neoclassica* were sold from P&O Cruises (UK) and Costa Cruises respectively.

As of November 2018, we have a total of 21 cruise ships scheduled to be delivered between 2019 and 2025. We continue to make substantial investments in our existing ship enhancement programs to improve our onboard product offerings and enrich our guests' vacation experiences.

Reflecting on our commitment to sustainability and to play a leading role in matters of environmental protection in the cruise industry, we are expanding our investment in the use of low carbon fuels, in particular, liquefied natural gas (LNG). We made history with the first ever cruise ships to use LNG, and in 2018 we took delivery of the first cruise ship able to be completely powered by LNG, our *AIDAnova*. We have an additional ten next-generation cruise ships on order that will also be powered by LNG (both in port and on the open sea) - an innovation that reduces carbon emissions to help protect the environment.

## AWARDS & RECOGNITION

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 commitment to being one of the cruise industry's leaders in environmental innovation and best practices.

Following are noteworthy recognitions received in 2018:

- **100 Best Corporate Citizens 2018 - Corporate Responsibility Magazine - Carnival Corporation**  
The 100 Best Corporate Citizens list recognizes outstanding environmental, social and governance (ESG) performance of public companies across the United States, documenting 260 ESG data points of disclosure and performance measures — harvested from publicly available information in seven categories: environment, climate change, employee relations, human rights, governance, finance, and philanthropy and community support. 2018 marked the third consecutive year and sixth time in the past eight years that Carnival Corporation was recognized, ranking 11th in the environmental category in 2018.
- **British Travel & Hospitality Sustainable Business Award - Carnival Corporation**  
The British Travel and Hospitality Hall of Fame recognizes the highest achievers in the travel, hospitality, tourism and leisure sectors. Carnival received the 2018 sustainable business award for positively impacting their stakeholders, employees, consumers and financials.
- **FTSE4Good Index**  
Since 2006, Carnival Corporation has been a member of the FTSE4Good Index, the socially responsible investment index calculated by global index provider FTSE Group. The FTSE4Good Index measures the performance of companies that meet globally recognized corporate responsibility standards and facilitates investment in those companies.



- Most Eco-Friendly Line - Porthole Cruise Magazine Readers' Choice Awards - Holland America Line**  
 Readers in 2018, as well as previous years, recognized the line's commitment to safeguarding the oceans and the environment, its use of shore power, and responsible management of energy, water and waste.
- Green Controlling Award 2018 - Péter Horváth Foundation - AIDA Cruises "Green Cruising" project**  
 The award, presented in cooperation with the International Controlling Association, recognizes the most innovative and effective "green" goals for design and control of ecological strategies, programs, projects and procedures in corporations and public institutions. AIDA's Green Cruising project includes both ecologic and economic goals at every stage of planning.
- Seatrade Award for Corporate Social Responsibility - Costa 4GOODFOOD Program**  
 The award, presented in 2018, recognizes companies delivering innovative corporate social responsibility initiatives that successfully contributed to the welfare of the company's employees, its local community and its business performance overall. With its 4GOODFOOD program, which considers every aspect of food preparation and consumption onboard, Costa Cruises aims to cut in half the food waste onboard its ships by 2020, which is 10 years ahead of the United Nations 2030 Agenda Sustainable Development Goals.
- Human Rights Campaign's Corporate Equality Index**  
 Building a diverse and inclusive workforce continues to be a priority. We earned a perfect score for the second consecutive year from the Human Rights Campaign's Corporate Equality Index, the leading LGBTQ civil rights organization in the U.S.
- Forbes - America's Best Large Employers**  
 We were honored by Forbes as one of America's best employers for diversity based on our commitment to diversity and inclusion, and were also named on the Forbes list of America's Best Large Employers overall.



# INTRODUCING AIDANOVA



*AIDAnova makes history as the world's first cruise vessel to be powered at sea and in port by liquefied natural gas, the world's cleanest burning fossil fuel. AIDAnova is the first of a new class of next-generation "green" cruise ships that combine design, innovation, state-of-the-art technology and inspiring onboard features. AIDAnova commenced operations in December 2018. [Click here to learn more.](#)*



# INTRODUCING CARNIVAL HORIZON



*Carnival Horizon is the second in the line's Vista-class series and introduces several innovations, including the first-ever Dr. Seuss water park and several unique dining concepts, including the world's first Guy's Pig & Anchor Bar-B-Que Smokehouse | Brewhouse by popular celebrity chef Guy Fieri. [Click here to learn more.](#)*



# INTRODUCING NIEUW STATENDAM



*Nieuw Statendam, the second Pinnacle Class ship in the fleet, is the ultimate expression of the brand's evolution, with grand light-filled spaces; visual drama; and sumptuous interiors inspired by the fluid curves of musical instruments. As the sixth ship in the company's history to carry the Statendam name, Nieuw Statendam is a celebration of the company's past, present and future. [Click here to learn more.](#)*



# INTRODUCING SEABOURN OVATION



*Seabourn Ovation, the brand's fifth ultra-luxury ship, expands and builds on the line's award-winning and highly acclaimed Odyssey-class ships, which revolutionized ultra-luxury cruising with enhanced accommodations and innovative amenities. Seabourn Ovation features 300 all-oceanfront suites and maintains the line's high ratio of space per guest, enabling highly personalized service and a "home away from home" onboard experience. [Click here to learn more.](#)*



# GRAND

**FY2018 Business Dimensions & Direct Economic Value Generated and Distributed<sup>1</sup>**

## BUSINESS DIMENSIONS

NUMBER OF GUESTS

**12.4 MILLION**

GUEST CAPACITY<sup>2</sup>

**236,910**

NUMBER OF SHIPS<sup>3</sup>

**104**

APPROXIMATE NUMBER OF  
OF EMPLOYEES WORLDWIDE

**120,000**

## CONTACT US

**For questions or to provide feedback regarding this Sustainability Report or its contents, please contact:**

Elaine Heldewier, Director Sustainability Programs or Alana Enge, Manager Sustainability Programs  
Maritime Policy & Analysis at Carnival Corporation & plc • 3655 N.W. 87<sup>th</sup> Avenue, Miami, Florida 33178-2428 U.S.A.

**Email: [Sustainability@Carnival.com](mailto:Sustainability@Carnival.com)**

# TOTALS



## FINANCIAL DATA<sup>4</sup>

REVENUES

**\$18.9 BILLION**

TOTAL ASSETS

**\$42.4 BILLION**

PAYROLL AND RELATED

**\$2.2 BILLION**

INTEREST EXPENSE, NET  
OF CAPITALIZED INTEREST

**\$0.2 BILLION**

OPERATING COSTS

**\$15.6 BILLION**

DIVIDENDS

**\$1.4 BILLION**

CASH FROM  
OPERATIONS

**\$5.5 BILLION**

DEBT TO CAPITAL

**29.7%**

<sup>1</sup> As of November 30, 2018 Annual Report on Form 10-K

<sup>2</sup> Capacity is based on two guests per cabin

<sup>3</sup> Does not include *AIDAnova* as ship operations commenced in December 2018

<sup>4</sup> Additional financial data can be found in the 2018 Annual Report on Form 10-K



# OUR BRANDS AT A GLANCE



Each of our Carnival Corporation cruise brands have a unique character and potentially a different audience. What they all share in common is a commitment to exceeding guest expectations, to operational excellence, and sustainability.



**AIDA CRUISES**

Rostock, Germany  
Total # of Ships: 12  
(Does not include *AIDAnova*)



**CARNIVAL CRUISE LINE**

Miami, FL, USA  
Total # of Ships: 26



**COSTA CRUISES**

Genoa, Italy  
Total # of Ships: 14



**CUNARD**

Southampton, UK  
Total # of Ships: 3



**HOLLAND AMERICA LINE**

Seattle, WA, USA  
Total # of Ships: 15



**P&O CRUISES AUSTRALIA**

Sydney, Australia  
Total # of Ships: 5



**P&O CRUISES UK**

Southampton, UK  
Total # of Ships: 7



**PRINCESS CRUISES**

Santa Clarita, CA, USA  
Total # of Ships: 17



**SEABOURN**

Seattle, WA, USA  
Total # of Ships: 5



# CELEBRATING OUR BRANDS

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AIDA

22<sup>ND</sup>

ANNIVERSARY



Carnival®

46<sup>TH</sup>

ANNIVERSARY



Costa

70<sup>TH</sup>

ANNIVERSARY



CUNARD®

178<sup>TH</sup>

ANNIVERSARY



P&O CRUISES

181<sup>ST</sup>

ANNIVERSARY



Holland  
America Line®

145<sup>TH</sup>

ANNIVERSARY



PRINCESS  
CRUISES

53<sup>RD</sup>

ANNIVERSARY

P&O CRUISES  
AUSTRALIA

86<sup>TH</sup>

ANNIVERSARY



SEABOURN®

31<sup>ST</sup>

ANNIVERSARY



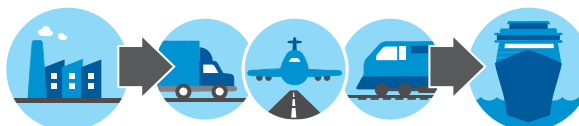
# CORPORATE GOVERNANCE & ETHICS

Our corporate governance model provides the structures and processes for the direction and control of our company. Good corporate governance and ethics processes help us operate more efficiently, improve our access to capital, mitigate risk and safeguard against mismanagement. It makes us accountable and transparent and gives us the tools to respond to stakeholder concerns.

## 2020 GOAL & UPDATE

### Business Partner Code of Conduct and Ethics

Further develop and implement vendor assurance procedures ensuring compliance with Carnival Corporation & plc's Business Partner Code of Conduct and Ethics.



- Evaluated options and selected a platform that will enhance our supplier engagement across all brands.
- We committed to audit all the dolphin in captivity tour encounters used by our cruise brands.

## FY2018 CORPORATE GOVERNANCE & ETHICS PERFORMANCE



### BOARDS OF DIRECTORS

Quarterly performance data, including relevant summaries and trends, are reported to our corporate and brand management, Board-level Committees and Boards of Directors. Specifically, the Health, Environmental, Safety and Security (HESS) Committees are briefed by management on the status, progress of and plans for HESS and sustainability-related matters, as well as on HESS audit results.



### TRANSPARENCY

As part of our transparency efforts, we disclose key environmental and social data in our annual reports, the performance summary on pages 106-107 of this report, as well as internationally recognized sustainability platforms.

# FY2018 CORPORATE GOVERNANCE & ETHICS PERFORMANCE CONTINUED...



## FINES AND SANCTIONS

We did not receive any sanctions or significant fines for non-compliance with non-environmental laws and regulations.



## MODERN SLAVERY ACT

Our Code of Business Conduct and Ethics explicitly condemns all forms of child exploitation and forced labor and states our intent to comply with and support laws and regulations relevant to slavery and human trafficking. We expect our business partners to share this commitment as evidenced by acknowledgement of our Business Partner Code of Conduct and Ethics which requires our business partners to respect and follow applicable laws and regulations and to promote ethical decisions in all aspects of their business. In 2018, we revised our Modern Slavery Statement. For more information please see the Statement Pursuant to Modern Slavery Act 2015 in the Appendix.



## ANIMAL WELFARE

- Farm Animals:
  - We continue to work on expanding our sourcing of cage free eggs. Our goal is to be 100% cage free by 2025.
  - We continue to align welfare standards for broiler chicken, ensuring that 100% of chicken sourced will be certified by the Global Animal Partnership by 2024.
- Tour Operators:
  - We continued our partnership with the Association of British Travel Agents (ABTA) to help us ensure we are responsibly managing excursions involving interactions with animals. We started to audit the dolphin in captivity tour encounters used by our cruise brands in 2018 and our goal is to complete the process in 2019.



## BOARD MEMBER UPDATE

In 2018 we completed the search for a new board member. Katie Lahey officially started her role as a non-executive board member in January 2019 and serves on the Audit Committees. Her career spans over 30 years, with outstanding networks at the highest levels of government and business throughout Australia and New Zealand. She was named one of Australia's 50 Most Powerful Women in Business by The Australian magazine in 2015. She is a seasoned executive with experience in the tourism, talent sourcing, cultural transformation, governmental, retail, and the arts sectors in a variety of leadership roles, including the cruise industry. Upon her joining the Boards, 33% of the Board members are women (being 4 of 12).

For profiles of all the current board members, please visit our website at [www.CarnivalCorp.com](http://www.CarnivalCorp.com).



## SEATRADE CRUISE GLOBAL - AGENT ESSENTIALS: NAVIGATING THE COMPLEX WATERS OF COMPLIANCE

In 2018, we co-sponsored a seminar during the Seatrade cruise industry annual meeting on corporate governance. Data privacy, anticorruption basics and collective action to combat corruption were discussed.



## ARISON MARITIME CENTER

We continue training our officers in our world-class facility equipped with the latest technology and equipment. The center provides rigorous safety training for bridge, engineering and environmental officers responsible for the navigation, operation and environmental compliance of the world's largest fleet of cruise ships. Participants receive a maritime training experience that fosters critical thinking, problem solving, ethical decision making and skill development.

For more information please visit [www.csmartalmere.com](http://www.csmartalmere.com).



# BOARDS OF DIRECTORS SPOTLIGHT



Helen Deeble has served on Carnival Corporation & plc's Boards of Directors since 2016 and is a key member of the Board's HESS Committee.

After qualifying as a UK Chartered Accountant and working for a major UK retailer, Helen started her shipping career at Stena Line in 1993, becoming finance director of the merged P&O Stena Line in 1998. In 2003 she became Chief Operating Officer of P&O Ferries Division Holdings Ltd., a Pan-European shipping and logistics business carrying 8M passengers and 2.5M freight units a year. After leading an extensive transformation program, she became Chief Executive Officer and held that post from 2006 to 2017.

From 2011 to 2013 she was Vice President and President of the UK Chamber of Shipping, the trade body that supports and promotes the shipping industry, and was the first female President in its 174-year history. She was appointed Commander of the Order of the British Empire in 2013 for her contribution to the shipping industry. Most recently in 2018, she was featured in a Fairplay magazine "Women in Maritime: Making their Mark" article.

Deeble's over 30 years of experience in shipping, logistics and leisure travel has positioned her to further support Carnival's growth in the areas of health, environmental, safety, security and overall sustainability performance as a member of the HESS Committees.

We are thankful for and benefit greatly from Helen's leadership, experience and foresight as a key member of our Board's HESS Committees.

**"Since joining Carnival, I have been hugely impressed with the technical skill, passion for excellence and extensive experience of Carnival's people and am in admiration of our industry-leading learning and development facility in Almere. Our industry does seem to be in a period of unprecedented technological change, making it all the more important that we support our teams onboard and ashore with the right equipment, training and resources. Protecting our environment whilst keeping guests and colleagues safe and well remains the priority for everyone at Carnival."**

**Helen Deeble - Health, Environment, Safety and Security (HESS) Committees**

## OUR COMMITMENT

We recognize our responsibility to provide industry leadership and to conduct our business as a responsible corporate citizen. We are committed to achieving and maintaining the highest standards of professional and ethical conduct. Adherence to the rule of law, ethical working practices, good corporate governance and transparency are extremely important to our stakeholders, and they are central to our sustainable business success.

Our ships are regulated by the various international, national, state and local laws, regulations and treaties in force in the jurisdictions in which our ships operate. Our ships are registered in The Bahamas, Bermuda, Italy, Malta, the Netherlands, Panama and the UK. They are regulated by these countries and by the international conventions that govern health, environmental, safety and security matters in relation to guests, crew members and the ships themselves.

Representatives of each "Flag," or country of registry, conduct periodic inspections, surveys and audits to verify compliance with these regulations. In addition, we are subject to the decrees, directives, regulations and other requirements of the more than 700 ports that our ships visit every year as they apply to the various aspects of our ships' operations. The Summary of Key Regulations Governing Our Operations on pages 118-132 summarizes the principal laws, acts, codes, directives, legislation, protocols, statutes, rules, regulations and voluntary guidelines related to international environmental, maritime safety and labor requirements with which we comply.

## OUR STRATEGY

The daily operations of our company are executed by our employees under the direction and supervision of our President and Chief Executive Officer (CEO), Arnold W. Donald, and the CEOs and Presidents of each of our brands. Micky Arison is Chairman of the Boards. Our Boards of Directors are responsible for governance of our performance and strategies. We provide further details in the Corporate Governance section on our website and in the annual Proxy Statement at [www.CarnivalCorp.com](http://www.CarnivalCorp.com), including:

- Mechanisms for shareholders and employees to provide recommendations or direction to the Boards of Directors.
- Processes for the Boards of Directors to ensure conflicts of interest are avoided.
- Processes for determining the required qualifications and expertise of the members of the Boards of Directors.
- Processes for evaluating the performance of the Boards of Directors.
- Linkages between compensation for executives and senior managers, and the company's performance.

We have policies and safeguards in place which exceed regulatory requirements and promote high ethical standards. Our leadership is committed to our Code of Business Conduct and Ethics and our Business Partner Code of Business Conduct and Ethics, which require that every employee, member of the Boards of Directors, and business partner use sound judgment, maintain high ethical standards and demonstrate honesty in all business dealings. As part of our ethics program, we conduct periodic risk assessments and audits to help us direct and focus our compliance resources and work plans to address identified compliance risk.

Integrity is a fundamental value for all business units. Our employees are informed about our Code of Business Conduct and Ethics when they are hired and at pre-defined intervals thereafter.

In addition, all shoreside employees at the director level and above, or the local equivalent, and personnel in purchasing or recruiting roles, complete and sign a Business Ethics Disclosure Form annually, indicating that they have read, understood and agree to comply with our Code of Business Conduct and Ethics (available in eight languages internally). To reinforce our commitment to ethical business behavior, we also provide issue-specific ethics training to employees and board members on the basis of their roles and responsibilities in relation to identified compliance risk.

Transparency and disclosure are key to our corporate governance and ethics strategy. We monitor, track and report grievances, environmental incidents and other incidents. To facilitate reporting, we have established formal procedures to report concerns in person or via a dedicated hotline telephone number and website. We have a rigorous internal incident reporting system that requires the reporting of spills, releases or discharges internal within the ship or external to the ship. Spills, releases or discharges are reported to external authorities as required by applicable regulations.



Leadership Team



We occasionally receive grievances about labor practices, human rights, impacts on society, environment, guest privacy and guest relations, among others. We evaluate all grievances that we receive. Our goal is to complete their evaluation within a reasonable time frame based on circumstances and legal complexity. However, thorough investigation may require an extended period of time to close some complaints.

We are active members of the Maritime Anti-Corruption Network (MACN). MACN is a global business network working towards the vision of a maritime industry free of corruption that enables fair trade to the benefit of society at large. Established in 2011, MACN has become one of the pre-eminent examples of collective action to tackle corruption. MACN continues to develop its strong platform to better understand the challenges and has executed on its strategy, which focuses on capacity building in the maritime industry, driving global collective initiatives against corruption, and building partnerships to improve integrity. Further, MACN has actively engaged with stakeholders, including governments, on shared solutions to improve integrity standards in port operations. We abide by the Cruise Lines International Association's (CLIA) anti-corruption principles. The principles cover for example bribery and corruption, facilitation payments and hospitality. For more details, please refer to the CLIA website at <https://cruising.org/about-the-industry/policy-priorities/cruise-industry-policies/Other>.



# MISSION & HESS COMMITMENTS

## MISSION

Together, we deliver joyful vacation experiences and breakthrough shareholder returns by exceeding guest expectations and leveraging our industry-leading scale.

## OUR HESS COMMITMENTS

Given our global reach and impact, we are committed to the following health, environment, safety, security (HESS) and sustainability core values:

- Protecting the health, safety and security of our passengers, guests, employees and all others working on our behalf, thereby promoting an organization that always strives to be free of injuries, illness and loss.
- Protecting the environment, including the marine environment in which our vessels sail and the communities in which we operate, striving to prevent adverse environmental consequences and using resources efficiently and sustainably.
- Complying with or exceeding all legal and statutory requirements related to health, environment, safety, security and sustainability throughout our business activities.
- Assigning health, environment, safety, security and sustainability matters the same priority as other critical business matters.

Our management ensures that the values and objectives stated in our HESS Policy are clearly understood by everyone in the organization and articulated on a regular basis. Senior management reviews the HESS Policy at least annually. If changes are warranted, it will be updated; otherwise the policy remains unchanged. The full text of our HESS Policy can be found on page 133, as well as on our website at [www.CarnivalCorp.com](http://www.CarnivalCorp.com).



OUR CORPORATE GOVERNANCE MODEL  
PROVIDES THE STRUCTURES AND  
PROCESSES FOR THE DIRECTION AND  
CONTROL OF OUR COMPANY.





**CARNIVAL**  
CORPORATION & PLC  
— Sustainability —



# COMMITMENT

- Risk Management • Safety • Health • Security
- Environmental Management • Energy & Emissions
- Water Management • Waste Management • Biodiversity



# RISK MANAGEMENT

Risk management is ingrained in our corporate culture. Effective risk management strategies allow us to identify impacts, risks and opportunities, thereby helping us to mitigate risks while executing our business strategies.

## 2020 GOAL & UPDATE

### Business Partner Code of Conduct and Ethics

Further develop and implement vendor assurance procedures ensuring compliance with Carnival Corporation & plc's Business Partner Code of Conduct and Ethics.



We comply with regulatory requirements and follow best management practices addressing human rights, ethics, and environmental protection throughout our operations and expect our business partners to adopt and incorporate these into their own organization.

### CYBERSECURITY

Maritime Cyber Risk Management has been incorporated by the International Maritime Organization (IMO) into a global standard for the safe management and operations of ships. Carnival is expanding and implementing additional cyber security related processes and procedures for inclusion into our shipboard Safety Management System. A Maritime Cyber Security team has been formed and will continue to assess our ships and measure the operational impact and overall effectiveness of our procedures. Several additional processes and technical systems and equipment have been introduced onboard our ships and are expected to significantly reduce cyber risks.

### MODERN SLAVERY ACT

Our Code of Business Conduct & Ethics explicitly condemns all forms of child exploitation and forced labor and states our intent to comply with and support laws and regulations relevant to slavery and human trafficking. For more information please see the Statement Pursuant to Modern Slavery Act 2015 in the Appendix.

## ANIMAL WELFARE

- Farm Animals:
  - We continue to work on expanding our sourcing of cage free eggs. Our goal is to be 100% cage free by 2025.
  - We continue to align welfare standards for broiler chicken, ensuring that 100% of chicken sourced will be certified by the Global Animal Partnership by 2024.
- Tour Operators:
  - We continue our partnership with the Association of British Travel Agents (ABTA) to help us ensure we are responsibly managing excursions involving animals.
  - We started to audit the dolphin in captivity tour encounters used by our cruise brands in 2018 and our goal is to complete the process in 2019.

## FY2018 RISK MANAGEMENT PERFORMANCE



### FLEET CAPTAIN AND FLEET ENGINEER PROGRAM

We continue our Fleet Captain and Fleet Chief Engineer program, which provides regular training and mentoring for our shipboard staff, provided by our top shipboard officer performers who rotate through the program.



### FLEET OPERATIONS CENTER

In 2018, we opened our third state-of-the-art Fleet Operations Center (FOC) in Miami, U.S. The first FOC was opened in Hamburg, Germany in 2015 and the second was opened in Seattle, U.S. in 2016. Our three FOCs are equipped with the most advanced ship to shore communications technologies available. These centers are designed to assist our captains, chief engineers, and deck and engineering officers with all aspects of operations, including digital support, planning, routing and any other nautical and/or technical operational need. The centers are staffed 24 hours a day, allowing for continuous communications between the ship and shore, and providing real-time support to our ships in order to minimize risk and improve operational efficiency.

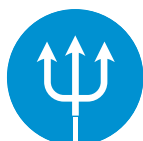


### AUDIT AND INVESTIGATIONS

Our ships are regulated by various international, national, state and local laws, regulations and treaties enforced in the jurisdictions in which they operate. Compliance with these laws and regulations is verified through inspections, surveys and audits. Independent third-party regulatory compliance is performed periodically through inspections, surveys and audits conducted by representatives from each ship's country of registry, Port State and Classification Societies.

Internal regulatory and/or compliance audits Health, Environment, Safety and Security (HESS) are conducted annually of each brand's head offices, 100% of our fleet, our ports, hotels and land transport assets. All incident investigation recommendations, audit observations, findings and non-conformities are reported to the brands and to relevant corporate groups for review and resolution. Additionally, internal focus reviews are performed based on identified root causes from incident investigations, audits, and management risk assessments.

Quarterly, the Board of Directors HESS Committees are briefed on the status and progress of plans for HESS and sustainability-related matters, as well as on HESS audit and investigation results. HESS audit and investigation results are used to determine compliance, improve effectiveness and efficiency, analyze trends, support newbuild and retrofit decisions, and promote best management practices.



### DATA AGGREGATION AND ANALYSIS PLATFORM - NEPTUNE

In 2018, we continued the implementation of a state-of-the-art data aggregation and analysis platform called Neptune that enables real-time information transfer and sharing between our ships and shoreside teams supporting fleet operations. Our proprietary system significantly improves communication from ship to shore, providing new capabilities for enhancing the safe passage of ships at sea while improving operational efficiencies and supporting overall environmental, safety and security initiatives. The platform provides visual representations of ships routing, real-time navigational notifications, integrated weather data and traffic information and major equipment performance data, all which support operational efficiencies and minimize risk.



# FY2018 RISK MANAGEMENT PERFORMANCE CONTINUED...

In 2018, the system expanded its aggregation and analysis in three areas:

- **Engine:** Enhancements are planned to start monitoring Liquefied Natural Gas (LNG) ships starting in 2019. The live dashboard will be modified to monitor engines' technical parameters behavior when ships use LNG fuel.
- **Advanced Air Quality Systems (AAQS):** Additional special geographical areas have been added to Neptune with the aim to align the analysis according to international/local environmental restrictions.
- **Energy Efficiency:** Analytics for basic energy usage data are now available for 95 ships in the fleet. Remaining ships are scheduled for completion in 2019.



## ARISON MARITIME CENTER

We continue to train our officers in our world-class facility equipped with the latest maritime simulation technology and equipment. The Center provides rigorous safety training for bridge, engineering and environmental officers responsible for the navigation, operation and environmental compliance of the world's largest fleet of cruise ships. Participants receive a maritime training experience that fosters critical thinking, problem solving, ethical decision making and skill development. For more information please visit [www.csmartalmere.com](http://www.csmartalmere.com).



## ENVIRONMENTAL OFFICER TRAINING

In 2018, the Environmental Officer (EO) training program was expanded to include a second course for continuous professional development.



## TRAVELSEACURE

We continued our global travel risk management program, named travelSEACURE. This program aims to support all employees, both shoreside and onboard, with security, health and unforeseen event assistance while on business travel. In 2018, travelSEACURE captured travel data for over 60,000 employees traveling on nearly 200,000 flights around the globe. This data was used to analyze travel risk patterns in order to keep our employees safe and secure.



## VISIBLE BODY WORN CAMERAS

In 2018, three additional brands implemented the use of Body Worn Cameras by their security teams to record their interactions with passengers and gather video evidence of developing security situations. The use of cameras is clearly marked on the security officer's uniforms. These cameras have proven to be very useful in capturing interactions between guests and crew members and in preventing confrontations by defusing tense situations.



## PORT VULNERABILITY AND THREAT ASSESSMENTS

We regularly conduct port vulnerability and threat assessments to ensure the safety and well-being of our passengers and crew. These assessments document a port's physical security, vulnerabilities, and any threats specific to the location. The assessments dictate the risk mitigation actions that must be taken by ships calling on the port. In 2018, Carnival Corporation formalized and implemented a destination vulnerability and threat assessment tool as a supplement to our port assessment program to ensure the safety and well-being of our passengers and crew while away from the port and participating in shore excursions. These assessments summarize the port/destination's physical security, identify threats specific to the location, and allow Carnival's security procedures to address vulnerabilities.



## PSYCHOMETRIC EVALUATION PROGRAM

Carnival Corporation implemented a Psychometric Evaluation Program for its Deck and Technical Officers in January 2017. The program is utilized across all brands for the selection and promotion of Deck and Technical officers through the evaluation of specific psychological attributes at certain career stages. To ensure that all Officers possess the attributes required for each of their roles, a variety of psychometric evaluations, both online and in person with psychologists are used. The program includes a series of online and proctored evaluations as part of the new hire process, a comprehensive day-long, in-person evaluation as part of the senior officer promotion process and ongoing "check in" evaluations of our senior officers. In 2018, a new program designed to evaluate new hire Environmental Officer candidates was implemented.

## OUR COMMITMENT

Like companies in any industry, we face a number of challenges and opportunities related to our performance, including the regulatory environment, global political and socioeconomic landscape and the advancement of science and technology. We take an active approach to identifying risks and opportunities and use a variety of strategies to manage and take advantage of them. We work to identify the best approaches to managing these issues, while simultaneously focusing on our sustainability performance and addressing the interests of our stakeholders.

## OUR STRATEGY

Risk management is embedded throughout our organization. Our strategy to manage our risks and seek out opportunities consists of a system of internal controls comprised of our management systems, organizational structures, audit processes, investigations, standards, and our Code of Business Conduct and Ethics. Risks are managed at every level of the organization and discussed openly with leadership in order to minimize the impact of foreseen and unforeseen events. Upper 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, security and sustainability policies and procedures.

Our key impacts, risks and opportunities are addressed throughout this report. The following is a partial list of our impacts, risks and opportunities:

- Protecting the health and safety of our guests and crew.
- Ensuring the security of our guests, crew and ships.
- Building and maintaining trust and integrity in our supply chain.
- Preserving the natural environment.
- Remaining transparent in our sustainability performance accountability and reporting.
- Recruiting, training and retaining qualified employees.
- Operating in a changing geopolitical climate.
- Improving our performance through technological solutions and initiatives.
- Conserving fuel and minimizing engine emissions.
- Climate change - reducing greenhouse gas (GHG) emissions.
- Operating in an evolving regulatory landscape.
- Improving natural resource management.
- Strengthening stakeholder engagement.
- Partnering with communities/ports-of-call.

Our health, environment, safety, security and sustainability 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 the plan and processes. Studying the actual results of implementation and comparing against the expected results, we then take action on significant differences between actual and planned results. Finally, we analyze these differences to determine their root causes and then determine where to apply changes that will improve the process or results.

Identification and mitigation of risks is a management responsibility. To facilitate this process, the Risk Advisory and Assurance Services department (RAAS) provides the enterprise with a holistic risk framework and methodology for quantifying risk and assessing management's capabilities for improving risk management. RAAS also provides services via their internal audit program that can provide assurance that risk mitigations are designed and operating effectively.

Pursuant to this program, the RAAS department works closely with management to perform annual assessments, identify risks and evaluate controls to ensure compliance with company policies and procedures, as well as laws and regulations. Management reviews the assessments and updates with the Audit Committees.



# SAFETY

Safety is paramount to our business' success, and we focus on delivering safe operations fleet-wide every day. We are fully committed to the safety of our guests, employees and all others working on our behalf. We take this responsibility seriously and continuously evaluate ways to further improve and build a culture where safety is always intrinsic in everything we do.

## 2020 GOAL & UPDATE

### Guest and Crewmember Health, Safety & Security

Striving to be free of injuries, we continue to build on our commitment to protect the health, safety and security of our guests, employees and all others working on our behalf.



Across our cruise brands we have implemented a series of initiatives to prevent guest and crew injuries.

#### Some examples include:

- Improved cabin illumination.
- Updated carpet color scheme on stairs.
- Adjusted door dampers.
- Implemented programs to further support safety culture.
- Implemented knife safety program for food and beverage departments.

## FY2018 SAFETY PERFORMANCE



### SEAEVENT

In 2018, we developed and began implementing a fleetwide health, environment, safety and security (HESS) event reporting platform. This platform will standardize HESS event reporting and analysis capabilities across our entire fleet.

# FY2018 SAFETY PERFORMANCE CONTINUED...



## MONITORING

Management monitors safety performance through a weekly company-wide safety performance dashboard and monthly meetings designed to evaluate trends and assess performance. We actively look for ways to learn from our experiences. We also take part in cross-industry working groups which also include shipbuilders and Classification Societies to ensure best practices from throughout the sector are considered for adoption.



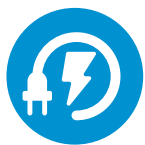
## EMERGENCY RESPONSE EFFICIENCY – ELECTRONIC MUSTERING SYSTEM

Electronic mustering systems improve the speed with which we can account for personnel in emergency situations. By the end of 2018, 90% of the fleet was outfitted with these systems, which are designed to deliver a faster, more efficient mustering process and provide accurate, real-time measurement of assembly and evacuation, if ever needed.



## AUDIT AND INVESTIGATIONS

- Internal Health, Environment, Safety and Security (HESS) compliance audits are conducted annually of each of our brands' head offices, 100% of our fleet, our ports, hotels and land transport assets. HESS investigations are also carried out as needed to determine the root cause of incidents and to identify corrective and preventative actions that will reduce the risk of future occurrences. All incident investigation recommendations, audit observations, findings and non-conformities are reported to the brands and to relevant corporate groups for review and resolution. Additionally, internal focus reviews are performed based on identified root causes from incident investigations, audits, and management risk assessments.
- Our ships are regulated by various international, national, state and local laws, regulations and treaties enforced in the jurisdictions in which they operate. Compliance with these laws and regulations is verified through regular third-party inspections, surveys and audits.



## EMERGENCY POWER & VULNERABILITY MITIGATION

To further reduce the risks of fire onboard, we completed an in-depth assessment of electricity generation under emergency conditions and committed to additional investments in this area as follows:

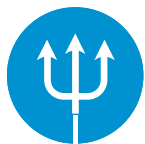
- Our ships are outfitted with an additional Emergency Diesel Generator for added redundancy and additional power generation if needed during an emergency.
- We have added protective, fire-resistant coating on vulnerable electric cables, have rerouted some electrical cables away from potential fire sources, and have added fire insulation near vulnerable electrical switchboards.



## FIRE PREVENTION

The majority of our fleet has been upgraded with the latest engine room fire prevention, detection and suppression technologies. In 2016, we completed phase I of the program. In 2017, we completed approximately 80% of phase II and in 2018 we completed an additional 10%. Phase II includes:

- Engine control room audio & video recording.
- The installation of machinery space hydrocarbon gas/oil leak detection technologies and CCTV oil mist, smoke and fire analytics equipment.
- Double wall fuel hoses for our main engines.



## DATA AGGREGATION AND-ANALYSIS PLATFORM - NEPTUNE

In 2018, we continued the implementation of a state-of-the-art data aggregation and analysis platform called Neptune that enables real-time information transfer and sharing between our ships and shoreside teams supporting fleet operations. The proprietary system significantly improves communication from ship to shore, providing new capabilities for enhancing the safe passage of ships at sea while improving operational efficiencies and supporting overall environmental initiatives. The platform provides visual representations of ships routing, real-time navigational notifications, integrated weather data and traffic information and major equipment performance data, all which support operational efficiencies and minimize risk.



# FY2018 SAFETY PERFORMANCE CONTINUED..

In 2018, the system expanded its aggregation and analysis, these are some examples:

- **Engine:** Enhancements are planned to start monitoring Liquefied Natural Gas (LNG) ships starting in 2019. The live dashboard will be modified to monitor engine's technical parameters behavior when ships use LNG fuel.
- **Advanced Air Quality Systems (AAQS):** Additional special geographical areas have been added to Neptune with the aim to align the analysis according to international/local environmental restrictions.
- **Energy Efficiency:** Analytics for basic energy usage data are now available for 95 ships in the fleet. Remaining ships are scheduled for completion in 2019.



## PSYCHOMETRIC EVALUATION PROGRAM

Carnival Corporation implemented a Psychometric Evaluation Program for its Deck and Technical Officers in January 2017. The program is utilized across all brands for the selection and promotion of Deck and Technical officers through the evaluation of specific psychological attributes at certain career stages. To ensure that all officers possess the attributes required for each of their roles, a variety of psychometric evaluations, both online and in person with psychologists are used. The program includes roles, a series of online and proctored evaluations as part of the new hire process, a comprehensive day-long in-person evaluation as part of the senior officer promotion process and ongoing "check in" evaluations of our senior officers. In 2018, a new program designed to evaluate new hire Environmental Officer candidates was implemented.



## ARISON MARITIME CENTER

We continue to train our officers in our world-class facility equipped with the latest maritime simulation technology and equipment. The center provides rigorous safety training for bridge, engineering and environmental officers responsible for the navigation, operation and environmental compliance of the world's largest fleet of cruise ships. Participants receive a maritime training experience that fosters critical thinking, problem solving, ethical decision making and skill development. For more information please visit [www.csmartalmere.com](http://www.csmartalmere.com).



## FLEET OPERATIONS CENTER

In 2018, we opened our third state-of-the-art Fleet Operations Center (FOC) in Miami, U.S. The first FOC was opened in Hamburg, Germany in 2015 and the second was opened in Seattle, U.S. in 2016. The FOCs are equipped with the most advanced ship to shore communications technologies available. These centers are designed to assist our captains, chief engineers, and deck and engineering officers with all aspects of operations, including digital support, planning, routing and any other nautical and/or technical operational need. The centers are staffed 24 hours a day, allowing for continuous communications between the ship and shore, and providing real-time support to our ships in order to minimize risk and improve operational efficiency.



## VISIBLE BODY WORN CAMERAS

In 2018, three additional brands implemented the use of Body Worn Cameras by their security teams to record their interactions with passengers and gather video evidence of developing security situations. The use of cameras is clearly marked on the security officer's uniform. These cameras have proven to be very useful in capturing interactions between guests and crew members and in preventing confrontations by defusing tense situations.



## PORT AND DESTINATION VULNERABILITY AND THREAT ASSESSMENTS

We regularly conduct port vulnerability and threat assessments to ensure the safety and well-being of our passengers and crew. These assessments document a port's physical security, vulnerabilities, and any threats specific to the location. The assessments dictate the risk mitigation actions that must be taken by ships calling on the port. In 2018, Carnival Corporation formalized and implemented a destination vulnerability and threat assessment tool as a supplement to our port assessment program to ensure the safety and well-being of our passengers and crew while away from the port and participating in shore excursions. These assessments summarize the port/destination's physical security, identify threats specific to the location, and allow Carnival's security procedures to address vulnerabilities.

## OUR COMMITMENT

A core part of our company vision is to deliver safe and memorable vacations for our guests while ensuring the safety of our crew who work and live onboard our ships. We have developed and implemented best-practice safety policies and procedures that go beyond compliance with the International Maritime Organization's Safety of Life at Sea (SOLAS) requirements. Our occupational health and safety management system is based on and incorporates the principles and practices delineated in OHSAS 18001:2007, the world's most recognized occupational health and safety management system standard. In fact, several of our brands have obtained voluntary third-party certification in accordance with the OHSAS 18001 standard. We continually update our safety standards and practices by leveraging the expertise across our brand teams to introduce improved training procedures, incorporate new knowledge and learnings, identify and implement best management practices and evaluate new technologies.

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. Our ships are equipped with automated fire detection and suppression systems in all staterooms, galleys, machinery spaces, control rooms and public areas. Water mist and CO<sub>2</sub> systems on our ships are designed to contain, suppress and extinguish fires. We continue to invest in our fire safety systems, leveraging proven technologies that help us to ensure that fires are prevented whenever possible, and promptly detected and extinguished if they do occur. We also continuously evaluate new, innovative technology and often trial them onboard our ships.

## OUR STRATEGY

### CREW

Because our crew work and live onboard our ships, we maintain a 24/7 responsibility for the safety of our sea-going employees. 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 for our crew.

The vast majority 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 and best practices throughout their respective fleets and across fleets through cross-brand safety working groups.

### GUESTS

We do not underestimate the importance of ensuring the safety of our 12 million guests annually. International, national, flag state administration, and most importantly, our own regulations via our Safety Management System require us to provide a safe physical environment onboard for our guests and ensure they are informed about what to do in an emergency situation.

Our safety strategy is based on injury and accident prevention through the implementation of related procedures and processes, performance measurement, and continuous improvement activities. Our SMS establishes accountability for safety throughout the organization and incorporates both regulatory and company management safety requirements that go beyond compliance.

Our safety practices comply with or exceed international ship safety standards, employ state-of-the-art technologies in ship design and operations, require rigorous staff safety training and proficiency drills, utilize a variety of guest communication tools, administer ongoing ship audit and inspection programs and ensure all safety equipment is maintained. We examine new technologies that have the potential to positively influence the safety environment of our guests.

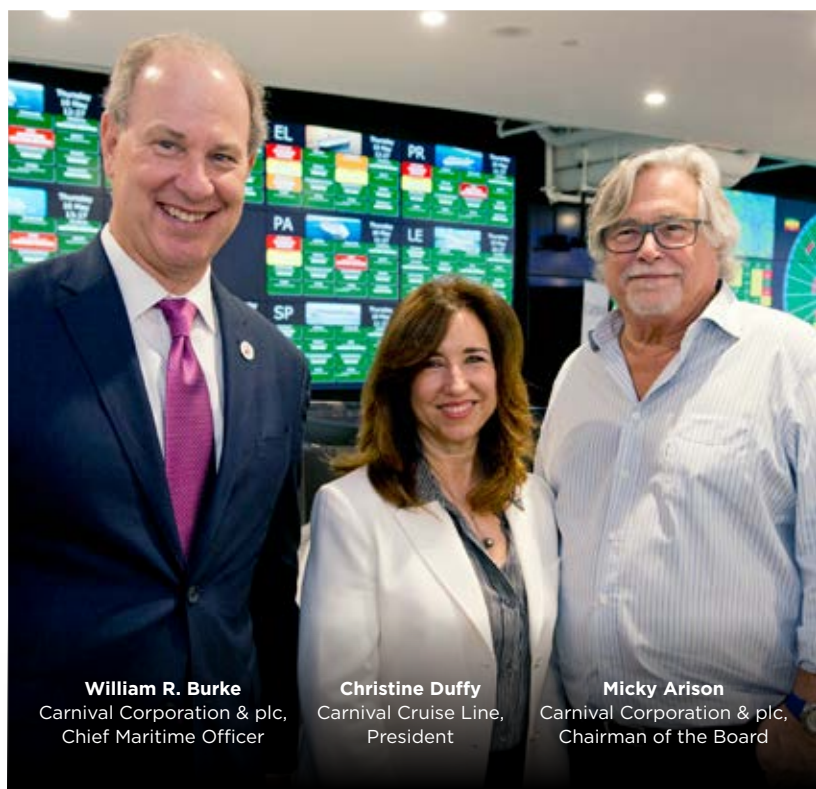
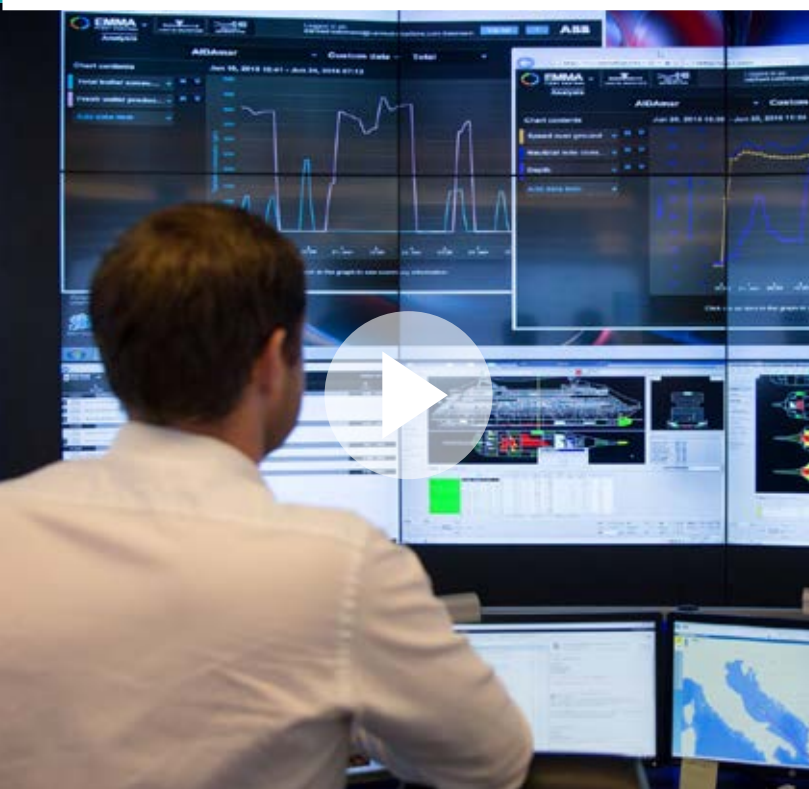
# FLEET OPERATIONS CENTERS

## IMPROVING OPERATIONAL EXCELLENCE

Health, environment, safety and security (HESS) is paramount to our business and our Fleet Operations Centers (FOC) are an essential component of our HESS strategy. A first in the cruise industry, our FOCs are designed to assist our captains, chief engineers, and deck and engineering officers with support, control and planning of ship nautical and technical operations. We have three regional FOCs in operation. The first FOC was opened in Hamburg, Germany in 2015, the second was opened in Seattle, U.S. in 2016 and the third was opened in Miami, U.S. in 2018. These centers provide real-time support for our fleet of ships.

The Miami FOC, opened in May of 2018, is the largest and most technologically advanced in the cruise industry. The 35,000-square-foot facility was custom-designed, and it is anchored by a 74-foot-long video wall composed of 57 LED screens. The high-definition wall displays the status of all ships, including weather, itinerary updates, safety, engine and environmental updates. Additionally, the status of ports, ships logistics, guest operations and a host of other functions are monitored. The FOC supports the work of cross-functional teams, including technical, nautical, port and guest operations, environmental operations and compliance, occupational safety, technical services, and other key areas.

Carnival Corporation's FOCs are staffed 24 hours a day, allowing for communications between the ship and shore whenever needed, and providing immediate and continuous support to our ships. The FOCs feature custom-built tools such as the proprietary software application Neptune. This state-of-the-art tracking and data analysis platform was created for Carnival Corporation & plc to support its fleet of ships. Neptune helps make cruising more safe, efficient and sustainable. It specifically provides real-time information sharing between ships and shoreside teams who are trained to support fleet operations.



**William R. Burke**  
Carnival Corporation & plc,  
Chief Maritime Officer

**Christine Duffy**  
Carnival Cruise Line,  
President

**Micky Arison**  
Carnival Corporation & plc,  
Chairman of the Board



The system provides new capabilities for enhancing the safe passage of ships at sea while improving operational efficiencies and supporting overall environmental initiatives. The system also manages risks by providing the company with visual representations of ship movements and voyage plans, real-time navigational notifications, integrated weather data and traffic as well as port information.

Neptune continuously captures thousands of data points and provides real-time analytics of distinct parameters supporting ship-level navigational safety and focuses on the following strategic areas to optimize safety, environmental operations and overall fleet performance:

### NAUTICAL SAFETY

- Neptune constantly monitors the ships and tracks their position, speed and direction. The platform also provides visual routing and information on the traffic and weather at the ships' location.
- As Neptune sends real-time notifications in case a vessel deviates from defined standards, the Fleet Operations Center can provide immediate support.

### ENVIRONMENT

- Neptune monitors the Advanced Air Quality Systems and their emissions, as well as the system usage in controlled areas. Neptune reports any deviation from targeted values.

### ENERGY MANAGEMENT

- For each ship, Neptune collects and downloads almost two million data points daily. The data is used for immediate and subsequent analyses to identify trends and optimize forecast models. It supports operations to improve fleet engine performance and optimizes resources.



Carnival Corporation's commitment to raising the bar on HESS has already generated several major enhancements, including its world-class CSMART Academy training facility where its deck and technical officers receive the industry's most progressive training using state-of-the-art simulators. Carnival Corporation is taking its commitment to the next level with its Neptune support system and cutting-edge FOCs that enable the company to support HESS using real-time data in ways that have never been done in the cruising and commercial maritime industries. Together, its HESS training programs and innovative technological capabilities like Neptune add even more strength to its comprehensive approach to operational excellence as the number one priority for Carnival Corporation.

# HEALTH

We strive to deliver exceptional vacation experiences wherever we travel. Our crew embodies this as the face and spirit of our brands. Integral to achieving this is the health and well-being of our guests, crew and port employees.

## 2020 GOAL & UPDATE

### Guest and Crewmember Health, Safety & Security

Striving to be free of injuries, we continue to build on our commitment to protect the health, safety and security of our guests, employees and all others working on our behalf.



- We continue to enhance our health and safety procedures for our ships. In 2018, we further improved our procedures regarding food safety and the management of medical emergencies.

## FY2018 HEALTH PERFORMANCE



### PUBLIC HEALTH TRAINING

New, interactive food safety training modules were developed and launched on all of our ships in 2018. In 2019, we will further enhance the program with the development of additional modules covering outbreak management, potable water and recreational water facility management.



### PUBLIC HEALTH INSPECTIONS

14 of our ships received a perfect score of 100 from voluntary Centers of Disease Control (CDC) Vessel Sanitation inspections. Three of our ships received failing scores and initiatives were launched to further enhance public health standards and avoid such instances in the future.



### SEACARE

The implementation of a single, standard electronic health record (EHR) platform was completed across our fleet. This program, known as SeaCare, is enhancing many aspects of our medical operations and services. Initial training of medical staff to support SeaCare was completed.

# FY2018 HEALTH PERFORMANCE CONTINUED...



## ZIKA VIRUS

Our response to the worldwide Zika virus outbreak continued with the implementation of a range of prevention measures including:

- Provision of specific health advice to passengers, crew, medical staff and port employees.
- Provision of appropriate insect repellents onboard and during shore excursions.
- Application of mosquito prevention strategies both onboard and in our ports.

In 2018, no significant health impacts were reported on our ships or at the ports we own. At the end of the year, we returned to our routine mosquito prevention.



## OFFICER WELLNESS PROGRAM

A pilot executive health assessment program was launched at the clinic and medical wellness facility at the Arison Maritime Center (known as CSMART), for Deck and Technical Officers. We anticipate that these regular health assessments, together with access to better personal health information and expert advice, will lead to longer term health improvements among our officers over time.



## GUEST AND CREW CARE TEAMS

Our CareTeams continue to provide compassionate care in the event of an emergency while onboard. CareTeam employees receive specialized training on how to sensitively and appropriately support guests, crew and their families during an emergency. They are available 24 hours a day, seven days a week and respond to a variety of guest and crew emergencies, primarily medical-related situations, and are dispatched to locations throughout our cruising regions to provide personalized support and assistance as needed to all of our brands.



## MARITIME PUBLIC HEALTH PROCEDURE DEVELOPMENT

Throughout the year, we contribute to the review of a number of international health procedures and guidance developed by various organizations including:

- The updated CDC Vessel Sanitation Program Operations Manual and Construction Guidelines which were issued in summer 2018.
- The American College of Emergency Physicians Healthcare Guidelines for Cruise Ship Medical Facilities.
- The new Healthy Gateways European Union (EU) Joint Action, which addresses health preparedness at all points of entry (ground crossings, airports and seaports) in Europe. This builds on work previously completed as part of the EU SHIPSAN Joint Action. In 2018, a standard grading system for ship health inspections was developed and is currently being piloted.



## INDUSTRY COMMUNICATION AND BEST PRACTICE SHARING

As members of the Cruise Lines International Association (CLIA), we regularly discuss health matters and communicate with all member lines to share best practices. In 2018, we participated in several CLIA health programs and initiatives, such as:

- Consultation on a revised directive for the quality of water intended for human consumption in Europe (98/83 EC), working with the Directorate General for the Environment (DG ENV) and other organizations.
- The development of Healthy Gateways and SHIPSAN health initiatives.



## PORT HEALTH INITIATIVES

We continue to develop and implement comprehensive health standards and procedures at the ports we own and operate. These ports include Puerto Maya, Cozumel, Mexico; Grand Turk Cruise Center, Turks & Caicos Islands; Amber Cove Cruise Center, Puerto Plata, Dominican Republic; and Mahogany Bay Cruise Center, Roatán, Honduras.



## OUR COMMITMENT

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

We have taken a proactive role in addressing the quality of shipboard medical care. All of our medical personnel are expected to meet the qualification standards outlined in our medical and public health procedures. Our onboard facilities are designed to be able to provide emergency medical care for guests and crew, stabilize patients and initiate reasonable diagnostic and therapeutic intervention and facilitate the evacuation of seriously ill or injured patients when deemed necessary.

## OUR STRATEGY

Our public health programs have been 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 internal cross-brand and external cross-company Medical and Public Health Working Groups, which help to drive our ongoing health strategies and focus on continuous improvement. Through these forums, we are able to leverage the extensive health expertise and experience that exists both within our individual brands and across the cruise industry. In the U.S., we collaborate 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 guidelines, reviews plans and conducts unannounced ship inspections. We continue to work with the CDC throughout a ship's life to maintain safe standards through regular inspections, crew training and guest education.

One of our priorities remains promoting the prevention of gastrointestinal illness onboard our ships and the port facilities we own and operate. Our fleetwide Outbreak Prevention and Response Plan guides our actions to prevent and respond to outbreaks of illness onboard our ships. The strategy detailed in the plan addresses health screening and surveillance measures, the communication and provision of health advice, isolation of ill guests and crew, medical treatment, reporting to health authorities and the use of proven sanitation and infection control measures.

Additionally, we collect relevant data on all cases of gastrointestinal illness and report this information to international health agencies. This information helps with identification of types of infection, potential sources, and the likely methods of transmission, thereby allowing us to implement even more effective risk mitigation strategies.



WE HAVE ESTABLISHED  
COMPREHENSIVE HEALTH  
STANDARDS THAT GO BEYOND  
REGULATORY REQUIREMENTS TO HELP  
PROTECT THE HEALTH OF OUR GUESTS,  
CREW AND PORT EMPLOYEES.



# SECURITY

Criminal activities are always a potential threat to our business given our global footprint and reach. Therefore, we are focused on maintaining a high level of security for our guests, crew and assets. We take every possible action to foresee and guard against such risks. These efforts start long before any passenger boards our vessels or any voyage sails.

## 2020 GOAL & UPDATE

### Guest and Crewmember Health, Safety & Security

Striving to be free of injuries, we continue to build on our commitment to protect the health, safety and security of our guests, employees and all others working on our behalf.



Maritime Cyber Risk Management has been incorporated by the International Maritime Organization (IMO) into a global standard for the safe management and operations of ships. Carnival is expanding and implementing additional cyber security related processes and procedures for inclusion into our shipboard Safety Management System. A Maritime Cyber Security team has been formed and will continue to assess our ships and measure the operational impact and overall effectiveness of our procedures. Several additional processes and technical systems and equipment have been introduced onboard our ships and are expected to significantly reduce cyber risks.

## FY2018 SECURITY PERFORMANCE



### CYBERSECURITY

Maritime Cyber Risk Management has been incorporated by the International Maritime Organization (IMO) into a global standard for the safe management and operations of ships. Carnival is expanding and implementing additional cyber security related processes and procedures for inclusion into our shipboard Safety Management System. A Maritime Cyber Security team has been formed and will continue to assess our ships and measure the operational impact and overall effectiveness of our procedures. Several additional processes and technical systems and equipment have been introduced onboard our ships and are expected to significantly reduce cyber risks.



# FY2018 SECURITY PERFORMANCE CONTINUED...



## INSIDER THREAT PROGRAM

Carnival is implementing an Insider Threat Program across all ships to mitigate risks related to shipboard employees who may seek to use their position to harm the safety and welfare of our passengers or other employees, or to damage vital company interests. A part of the program includes additional security screening of potential new employees. In 2018, the Corporation conducted over 17,000 security screenings on new employees.



## ACTIVE ASSAILANT PROGRAM

Carnival is implementing an Active Assailant Program with the objective of reducing risk and protecting guests and crew members from bodily harm on our ships. In 2018, we introduced fleetwide emergency response protocols in the case of any active assailant incident occurring onboard our ships.



## ASIA PACIFIC SUMMIT

In 2018, three Carnival Corporation ships were chartered by the Asia-Pacific Economic Cooperation (APEC) Committee to serve as hotels and a conference center for the annual APEC Chief Executive Officer Summit hosted in Port Moresby, Papua New Guinea. Approximately 1,400 guests and visitors participated in sessions or were accommodated onboard the three ships, including 19 heads of state and/or senior governmental representatives. We worked closely with multiple national governments to implement and manage numerous security measures for the duration of the conference.



## SEAVENT

In 2018, we developed and began implementing a fleetwide health, environment, safety and security (HESS) event reporting platform. This platform will standardize HESS event reporting and analysis capabilities across our entire fleet.



## VISIBLE BODY WORN CAMERAS

In 2018, three additional cruise brands implemented the use of Body Worn Cameras by their security teams to record their interactions with passengers and gather video evidence of developing security situations. The use of cameras is clearly marked on the security officer's uniform. These cameras have proven to be very useful in capturing interactions between guests and crew members and in preventing confrontations by defusing tense situations.



## DUAL-VIEW X-RAY SYSTEMS

In an ongoing effort to strengthen security and improve the passenger experience, our brands continue to evaluate and implement new security screening technologies, including the use of Dual-View X-ray Systems. In 2018, our cruise brands invested in cutting-edge screening equipment and technology that utilizes sophisticated algorithms to help detect concealed items and possible threats while equipping screeners with high-resolution images to enhance the screening process while reducing the need to re-scan items. Additionally, these systems enhanced the passenger experience by improving throughput, thereby helping to expedite security checks.



## PSYCHOMETRIC EVALUATION PROGRAM

Carnival Corporation implemented a Psychometric Evaluation Program for its Deck and Technical Officers in January 2017. The program is utilized across all brands for the selection and promotion of Deck and Technical Officers through the evaluation of specific psychological attributes at certain career stages. To ensure that all officers possess the attributes required for each of their roles, a variety of psychometric evaluations, both online and in person with psychologists, are used. The program includes a series of online and proctored evaluations as part of the new hire process, a comprehensive day-long in person evaluation as part of the senior officer promotion process and ongoing "check in" evaluations of our senior officers. In 2018, a new program designed to evaluate new hire Environmental Officer candidates was implemented.

# FY2018 SECURITY PERFORMANCE CONTINUED..



## SECURITY OFFICER TRAINING PROGRAM (SOTP)

Carnival Corporation's SOTP is based in the Philippines and provides a comprehensive two-week curriculum that prepares our new hire security team members for duty onboard any of our ships as a security officer. In 2018, we trained over 300 ship security personnel at the facility, 38% of whom were females. The curriculum is regularly reviewed and updated by brand security experts so that the training reflects the company's latest procedures, requirements and best practices.



## ADVANCED KEY CONTROL TECHNOLOGY

In 2018, additional cruise brands have implemented an enhanced key control security system. This state-of-the-art system provides several security benefits including the prevention of unauthorized access and mitigating risks associated with lost keys.



## PORT AND DESTINATION VULNERABILITY AND THREAT ASSESSMENTS

We regularly conduct port vulnerability and threat assessments to ensure the safety and well-being of our passengers and crew. These assessments document a port's physical security, vulnerabilities, and any threats specific to the location. The assessments dictate the risk mitigation actions that must be taken by ships calling on the port. In 2018, Carnival Corporation formalized and implemented a destination vulnerability and threat assessment tool as a supplement to our port assessment program to ensure the safety and well-being of our passengers and crew while away from the port and participating in shore excursions. These assessments summarize the port/destination's physical security, identify threats specific to the location, and allow Carnival's security procedures to address vulnerabilities.



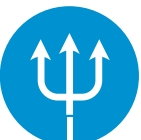
## MAN OVERBOARD DETECTION SYSTEMS

We continue to research, test and pilot man overboard detection systems and associated technologies. These systems are intended to support shipboard personnel by identifying an incident involving a person falling or jumping overboard as it occurs. Because these technologies are immature and tend to have an unacceptably high rate of false alarms, we have been strongly supporting the development of an international design and performance standard against which we will require these systems to be certified. We expect the international standard to be finalized in 2019. The standard will require a high detection rate with a low false alarm rate (to avoid unnecessary distractions to the Bridge team navigating the ship) under a variety of maritime conditions. We continue to engage with manufacturers as we await the finalization of the international design and performance standard.



## TRAVELSEACURE

We continued our global travel risk management program, named travelSEACURE. This program aims to support all employees, both shoreside and onboard, with security, health and unforeseen event assistance while on business travel. In 2018, travelSEACURE captured travel data for over 60,000 employees traveling on nearly 200,000 flights around the globe. This data was used to analyze travel risk patterns in order to keep our employees safe and secure.



## DATA AGGREGATION AND ANALYSIS PLATFORM - NEPTUNE

In 2018, we continued the implementation of our state-of-the-art data aggregation and analysis platform called Neptune that enables real-time information transfer and sharing between our ships and shoreside teams supporting fleet operations. Our proprietary system significantly improves communication from ship to shore, providing new capabilities for enhancing the safe passage of ships at sea while improving operational efficiencies and supporting overall environmental, safety and security initiatives. The platform provides visual representations of ships routing, real-time navigational notifications, integrated weather data and traffic information and major equipment performance data, all which support operational efficiencies and minimize risk.



## FLEET OPERATIONS CENTER

In 2018, we opened our third state-of-the-art Fleet Operations Center (FOC) in Miami, U.S. The first FOC was opened in Hamburg, Germany in 2015 and the second was opened in Seattle, U.S. in 2016. Our three FOCs are equipped with the most advanced ship to shore communications technologies available. These centers are designed to assist our captains, chief engineers, and deck and engineering officers with all aspects of operations, including digital support, planning, routing and any other nautical and/or technical operational need. The centers are staffed 24 hours a day, allowing for continuous communications between the ship and shore, and providing real-time support to our ships in order to minimize risk and improve operational efficiency.

## OUR COMMITMENT

The security of our guests and crew is of paramount importance. Our ships are subject to the International Ship and Port Facility Security (ISPS) Code, a set of regulations and guidelines created and approved by the International Maritime Organization (IMO). All of our ships and their daily operations meet or exceed the requirements of the ISPS Code. The code defines security standards, requirements, arrangements and procedures for ships, ports, and governments. It also prescribes the responsibilities for governments, shipping companies, shipboard personnel, and port/facility personnel, among others, to develop security plans, detect security threats and take preventative measures against potential security incidents affecting ships or port facilities. Compliance is verified by inspections and surveys conducted by the Flag State, or by its delegated representative (usually a classification society), and certificates are issued that confirm compliance. Cruise ships are also subject to domestic security regulations in the countries they visit. Our ships meet or exceed the requirements of the U.S. Maritime Transportation Safety Act (MTSA) and domestic regulations in the other countries we visit. We have developed and issued a comprehensive set of security procedures that go beyond regulatory requirements to further ensure the security of our guests, crew and ships.

## OUR STRATEGY

Our security professionals, most of whom come from a military or law enforcement background, maintain close working relationships with law enforcement, coast guards, naval authorities and governmental agencies around the world. They participate in and many times lead government/private sector and industry maritime security working groups. Some of these relationships include the U.S. Department of Defense, U.S. State Department, Federal Bureau of Investigation (FBI), UK Foreign & Commonwealth Office (FCO) and International Criminal Police Organization (INTERPOL). Specifically, our security leaders serve in various roles/capacities on the following organizations: The U.S. Department of State's Overseas Security Advisory Council's Maritime Security Working Group, the FBI's Domestic Security Alliance Council's (DSAC) Intelligence and Threats Committee and the DSAC's Leadership Council.

These relationships result in information-sharing arrangements and collaborative efforts that are essential to our proactive security program. Further, our security professionals monitor numerous information and intelligence platforms to detect issues before they impact our passengers, crew, or vessels. Many of the ports that our vessels call on are assessed by our security professionals on a scheduled basis beyond any requirements set forth by applicable laws, rules, or code.

Our security processes are designed to minimize security-related risks while allowing for the smooth but controlled flow of guests, crew and supplies. Guests and crew will notice a visible security presence while embarking the ship and throughout each cruise. Security personnel maintain strict access control to our ships. We employ a variety of technologies to assist security personnel. These include surveillance technologies such as closed-circuit television and screening technologies such as metal detectors, x-ray machines and explosives detection equipment. We also are constantly assessing and evaluating new technologies for future projects and security enhancements.

Our security processes guard against criminal activity threats. Each ship in our fleet must report alleged criminal activity. Depending on jurisdictional considerations and the severity of alleged offenses, we coordinate investigative efforts with appropriate law enforcement authorities.



# ENVIRONMENTAL MANAGEMENT

Across our nine brands, we host 12.4 million guests a year and visit over 700 ports of call around the world. The health and vitality of the oceans, seas, and communities through which we travel is absolutely essential to our business. That makes protecting the environment and biodiversity one of our most critical areas of focus. Our employees not only take great pride in making sure our guests' vacation exceeds their expectations, but are also deeply committed to protecting the oceans and seas.

## 2020 GOAL & UPDATE:

We achieved our carbon footprint goal ahead of schedule and continue to make progress on our environmental 2020 sustainability goals. These goals include:

- Reducing Emissions - we made more progress on our goal and achieved a 27.6% reduction relative to our 2005 baseline.
- Installing Advanced Air Quality Systems (AAQS).
- Increasing cold ironing capacity.
- Increasing advanced waste water purification system (AWWPS) capacity.
- Increasing water efficiency and reducing waste.

Detailed progress for each environmental goal can be found on pages 12-13.



## FY2018 ENVIRONMENTAL MANAGEMENT PERFORMANCE



### ISO 14001: 2015 CORPORATE CERTIFICATION

To further support our environmental strategies in 2018, our Environmental Management System was certified at the corporate level vs. at the individual brand level for the first time, confirming our commitment to consistent, best-practice environment management practices across our brands.



### OPERATION OCEANS ALIVE

In 2018, Carnival launched Operation Oceans Alive. The goal of this initiative is to instill in all employees a sense of personal commitment to protect and care for the marine environment as our business is dependent on healthy oceans.

# FY2018 ENVIRONMENTAL MANAGEMENT PERFORMANCE



## CARNIVAL CORPORATION ENVIRONMENTAL EXCELLENCE AWARD

In 2018, Carnival started the Environmental Excellence Award to honor the ships within the Carnival fleet with the best environmental performance. One ship from each cruise brand is selected and from those one ship is recognized as the best from the fleet.



## WORLD OCEANS DAY

In 2018, Carnival's cruise brands celebrated World Oceans Day both onboard and shoreside with events, activities and communications to promote ocean education and conservation.



## REMOVING SINGLE-USE PLASTICS

In 2018, we started an initiative to evaluate our collective use of single-use plastic items and alternative options available in the market. As part of this initiative, we have identified items we can replace with reusable non-plastic alternatives or biodegradable options available for straws, take away cups and other items. Our goal is to remove single-use plastics within our operations whenever feasible.



## PARTNERSHIPS

We are leading the way to cleaner emissions from cruise ships with the support of and collaboration with key partners:

- We started a new partnership with the Bellona Foundation in an advisor capacity to support our climate change initiatives.
- We continue our partnership with Wärtsilä designed to improve the energy efficiency of our fleet of over 400 Wärtsilä engines.
- We continue our partnership with EcoSpray to develop and install the most advanced air quality systems at sea.



## ENVIRONMENTAL COMPLIANCE

In 2013, an environmental crime was reported by an engineer on one of our ships. Following an investigation by the Department of Justice, we learned that the misconduct involved multiple ships over several years. We took responsibility and signed a plea agreement in 2016. Our probation includes a five-year Environmental Compliance Plan (ECP) that began on April 19, 2017. The ECP requires independent audits as well as oversight by a Court Appointed Monitor. In 2019, the company agreed to revised terms of probation to resolve a petition for revocation of probation. For further details please visit: [click here](#).



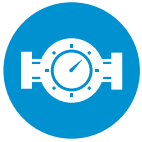
## ENVIRONMENTAL OFFICER TRAINING

In 2018, the Environmental Officers (EO) training program was expanded to include a second course for continuous professional development.



## IMO AND CLIMATE CHANGE

We remain active and interested in the worldwide strategies and frameworks being designed and developed to address climate change and air emissions. Specific to the maritime industry, the International Maritime Organization (IMO) is the specialized agency of the United Nations responsible for regulating shipping. We participate in IMO meetings and working groups through our trade association, the Cruise Lines International Association (CLIA). In 2018, the IMO established an initial greenhouse gas (GHG) emissions from ships reduction strategy in line with the COP21 (Paris Agreement). The strategy includes likely implementation of further phases of the Energy Efficiency Design Index (EEDI) for new ships, reducing international shipping's average unit CO<sub>2</sub> emissions by at least 40% by 2030 and by 70% by 2050 (relative to 2008), and reducing absolute international shipping GHG emissions by at least 50% by 2050 compared to 2008 and pursuing efforts to phase them out.



### **BALLAST WATER**

In accordance with certain United States Coast Guard and IMO Ballast Water Management Convention requirements, we are outfitting ships with ballast water treatment systems certified to meet one or both standards based on the ship's area of operation.



### **2018 BRITISH TRAVEL & HOSPITALITY SUSTAINABILITY BUSINESS AWARD**

Carnival was recognized by the British Travel & Hospitality Hall of Fame for its sustainability performance. The award honors travel or hospitality businesses that place sustainable business practices at the core of their company ideology.

## **OUR COMMITMENT**

We are committed to protecting the environment. Through our Business Partner Code of Business Conduct and Ethics we communicate our expectations that our business partners will join us in following the same standards. Our impacts include our use of fuel, electricity, water and food; discharge of wastewater; generation and disposal of solid wastes; emissions from combustion and refrigeration equipment; and our diverse supply chain (see illustration on page 59 for more details). In this report we discuss the following aspects of our environmental footprint with respect to our commitment to protect the environment:

- Energy and Emissions
- Water Management
- Waste Management
- Biodiversity

## **OUR STRATEGY**

Our environmental management strategy is based on the values and objectives set forth in our Health, Environment, Safety and Security (HESS) Policy and our 2020 sustainability goals. We carefully manage environmental activities and address environmental stewardship at every level of our organization.

In 2015, we reached a significant milestone in our sustainability journey by announcing 2020 sustainability goals to further drive, improve and support our strategies. Six of our ten sustainability goals focus on our environmental performance.

There are multiple elements of our strategy, including addressing climate change, investing in port communities, complying with a changing regulatory landscape, evaluating new technologies, addressing stakeholder needs, and expanding partnerships, all of which are designed to protect the environment while supporting our objective to exceed expectations.

We evaluate environmental risks, develop standards and procedures and put high emphasis on our associated environmental leadership and performance.

We have consolidated our brand's best environmental practices and procedures into a single corporate wide HESS management system to ensure a consistent approach across all our brands.

Our management teams identify and manage environmental aspects and impacts, supervise the environmental performance of our ships and ensure compliance with environmental statutory requirements, best management practices and company environmental procedures. Most importantly, our dedicated ships' officers and crew carry out our policies and procedures onboard, every day.

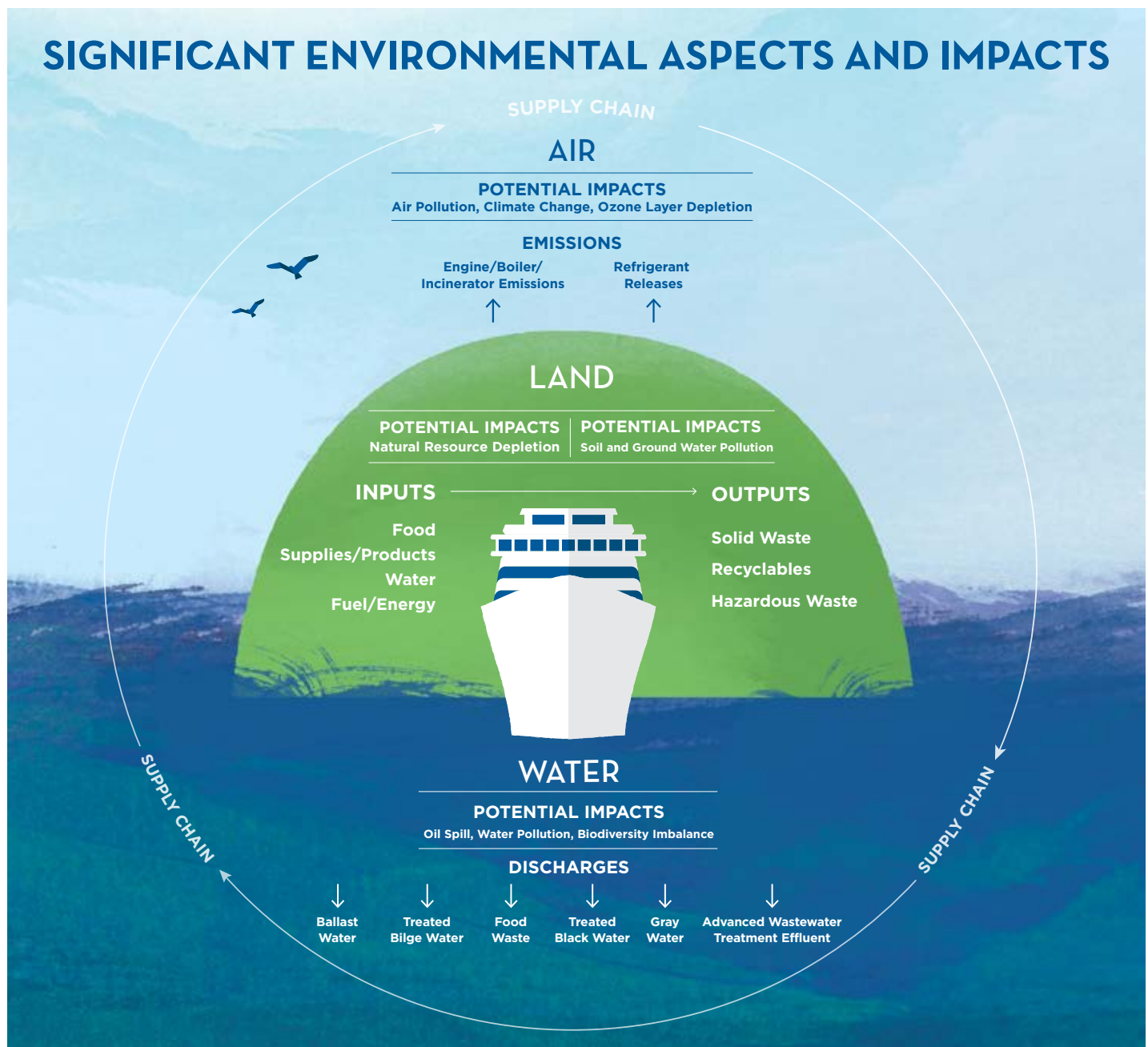
To further support our environmental strategies, our Environmental Management System (EMS) is certified in accordance with the ISO 14001:2015 Environmental Management System standard. An independent, third-party organization audits and certifies our EMS in accordance with ISO 14001. We have also developed a greenhouse gas inventory management plan (GHG IMP) in accordance with the requirements of the ISO 14064-1:2006 and The Greenhouse Gas Protocol, which enables our third-party GHG verifier to certify our GHG emissions inventory to that standard.



Each ship in our fleet has a full-time Environmental Officer (EO), who oversees environmental compliance and implementation of environmental procedures (for more details see the EO section in the Appendix).

We have invested in a number of environmental initiatives based on our impacts. We are also actively involved in research and development projects for our existing ships and for new ships under development. We have dedicated departments that evaluate technologies and new systems for installation throughout our fleet. These departments evaluate technical, regulatory, safety, environmental and operational aspects associated with maritime environmental systems/technologies. Among the challenges typically encountered when adapting shore-based technologies to maritime use are adjustments for space, weight and access limitations, material standards, operating environment and regulatory approvals. All of these factors increase the complexity of projects to improve environmental technologies in the maritime domain. In order to efficiently evaluate these opportunities, ships within the fleet are regularly selected to test systems/technologies and run pilot programs.

We partner with a variety of environmentally-focused organizations. The goals of these partnerships vary depending on the type of organization. Learn more about our partnerships in the Appendix.



# OPERATION OCEANS ALIVE

In 2018, we launched Operation Oceans Alive, a new environmental compliance and stewardship program.

**Operation Oceans Alive is a call to action for all employees to care about and protect our oceans, seas, and waterways from environmental harm, ensuring their ecosystems, plant life and aquatic animals thrive both now and in the future.**

This past year, as part of that commitment, we continued to install the most advanced technology for cleaning our exhaust system emissions and completed fitting equipment that meets the latest standards for treating bilge water. We've accelerated our environmental training efforts, as we aspire to create a culture of compliance.

Together, we celebrated World Oceans Day at sea with our guests and crew and ashore at our brands' headquarters. World Oceans Day is an international day of ocean celebration and collaboration. We presented Environmental Excellence Awards to honor the ships within the Carnival fleet with the best environmental performance. One ship from each cruise brand was selected and from those, one ship was recognized as the best from the entire fleet. We also rolled out a new health, environmental, safety and security (HESS) employee of the month program. In 2018, we continued to work closely with environmentally-focused organizations to help preserve the beautiful world we live in.



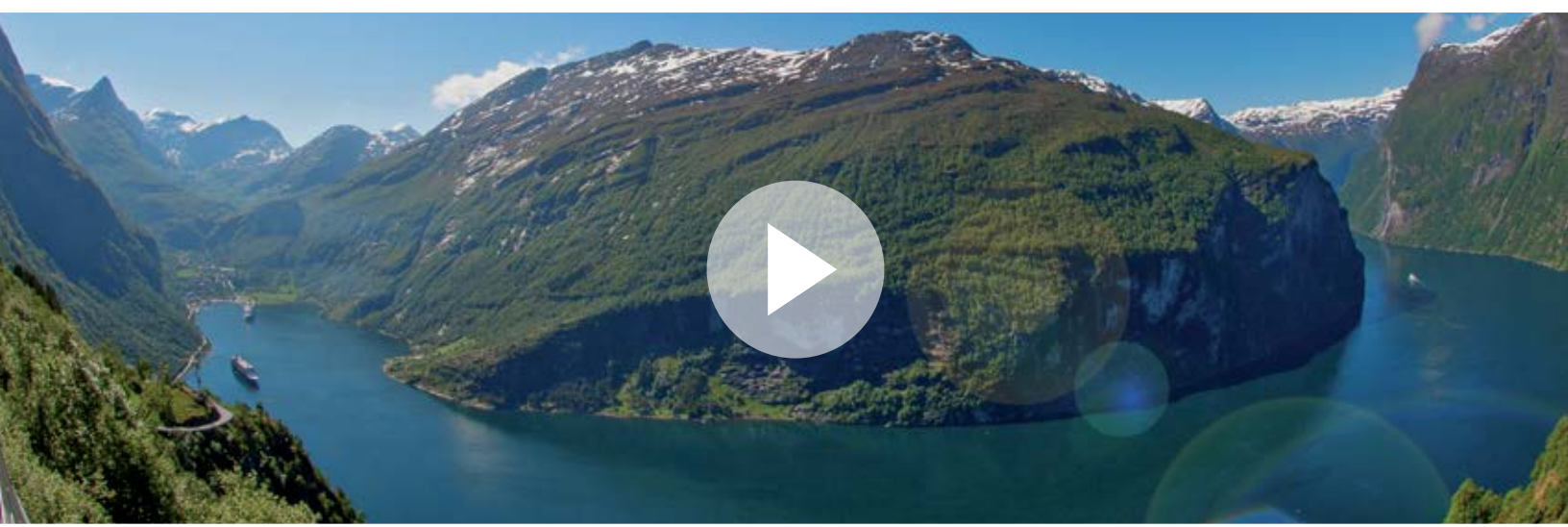
We have accomplished a tremendous amount together over the last year, through better communication, coordination and collaboration.

We are committed to protecting and preserving the beauty and majesty of the oceans, seas and land environments that we visit. And we are committed to continuously improving our operations and heightening our environmental focus.

That's what Operation Oceans Alive is all about. In 2019, we will continue our efforts to be proactive stewards, ambassadors and guardians of our environment.

After all, **these waters are our home. Our future.**





OPERATION™  
OCEANS ALIVE

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OUR HOME.  OUR FUTURE.



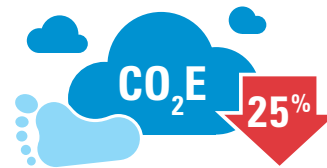
# ENERGY & EMISSIONS

We have initiatives underway across each of our brands to reduce our carbon footprint. We actively participate in the process on an industry level to improve our technology, systems, and operations.

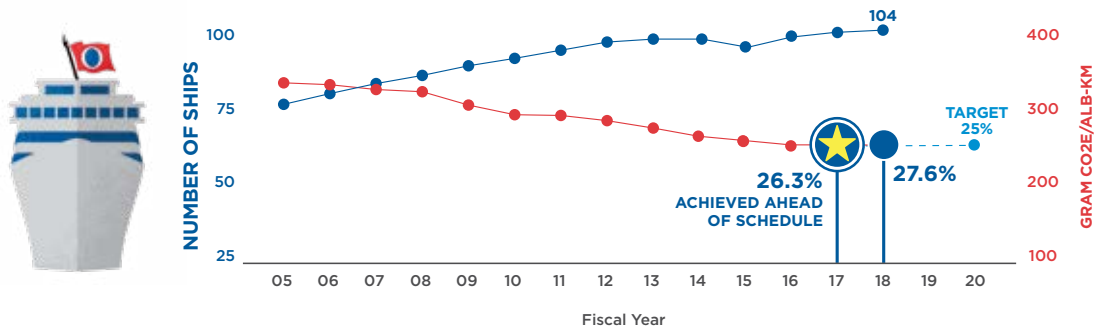
## 2020 GOAL & UPDATE

### Carbon Footprint

Reduce the intensity of CO<sub>2</sub>e (equivalent carbon dioxide) emissions from our operations by 25% by 2020 relative to our 2005 baseline, measured in grams of CO<sub>2</sub>e per ALB-km.



**Reducing Emissions - we made more progress on our goal and achieved a 27.6% reduction relative to our 2005 baseline.**



Continuing our efforts to reduce our carbon footprint we:

- Delivered the first cruise ship in the world (the *AIDAnova*) powered at sea and in port by liquefied natural gas (LNG).
- Continued our partnership with Wärtsilä to drive further gains in engine efficiency.
- Started a partnership with the Bellona Foundation.

## 2020 GOAL & UPDATE

### Advanced Air Quality Systems

Continue to improve the quality of our emissions into the air by developing, deploying and operating Advanced Air Quality Systems across the fleet capable of reducing sulfur compounds and particulate matter from our ship's engine exhaust.



We continue to improve the quality of our emissions into the air by installing and Advanced Air Quality Systems across the fleet. These systems significantly reduce sulfur compounds and particulate matter, including black carbon, from our ship's engine exhaust.

- 74% of our fleet is equipped with Advanced Air Quality Systems.

## 2020 GOAL & UPDATE

### Cold Ironing Capacity

Increase cold ironing coverage of our fleetwide capacity in relation to future port capabilities.



We continue to improve the quality of our emissions into the air by further increasing the cold ironing coverage of our fleetwide capacity.

- 46% of our fleet is equipped with cold ironing capabilities.

## FY2018 ENERGY & EMISSIONS PERFORMANCE



### LIQUEFIED NATURAL GAS (LNG)

As part of our commitment to reducing our air emissions and improving air quality in the environments we visit, we are pioneering the use of LNG, the world's cleanest fossil fuel. In 2018 we:

- Delivered the first cruise ship in the world (the *AIDAnova*) powered at sea and in port by Liquefied Natural Gas (LNG).
- Began construction of additional LNG ships.



### OPERATIONAL EFFICIENCY

We continued our 12-year agreement with Wärtsilä to maintain the highest possible levels for cruise ship diesel engine safety and reliability. In 2018, we achieved a 0.6% fuel reduction.



### INTERNATIONAL MARITIME ORGANIZATION (IMO) AND CLIMATE CHANGE

We remain active and interested in the worldwide strategies and frameworks being designed and developed to address climate change and air emissions. Specific to the maritime industry, the International Maritime Organization (IMO) is the specialized agency of the United Nations responsible for regulating shipping. We participate in IMO meetings and working groups through our trade association, the Cruise Lines International Association (CLIA). In 2018, the IMO established an initial greenhouse gas (GHG) emissions from ships reduction strategy in line with the COP21 (Paris Agreement). The strategy includes likely implementation of further phases of the Energy Efficiency Design Index (EEDI) for new ships, reducing international shipping's average unit CO<sub>2</sub> emissions by at least 40% by 2030 and by 70% by 2050 (relative to 2008), and reducing absolute international shipping GHG emissions by at least 50% by 2050 compared to 2008 and pursuing efforts to phase them out.



### GHG MONITORING, REPORTING AND VERIFICATION

In 2018, we started to report our carbon emissions on all voyages to, from and between European Union ports. This program began on January 1, 2018 and requires any ship calling on or departing from a European Union or European Economic Area port to measure and report fuel consumption on the associated leg.

# FY2018 ENERGY & EMISSIONS PERFORMANCE CONTINUED..



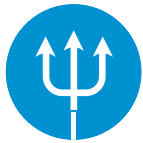
## 2018 EUROPEAN UNION OUR OCEANS CONFERENCE - BALI

Carnival Corporation provided progress on our efforts to pioneer Liquefied Natural Gas in the cruise industry. This is part of Carnival's approach to reduce greenhouse gas emissions. The Our Oceans conference seeks public commitments to actions that will reduce marine pollution, manage aquatic resources sustainably, mitigate climate change and establish marine sanctuaries.



## DIRECT & INDIRECT EMISSIONS

We quantify, report and verify our greenhouse gas (GHG) emissions, including our direct (Scope 1) and indirect (Scope 2) emissions. Our direct GHG emissions were 99.5 percent of our total emissions, and the emissions generated from our ships' fuel consumption represented the vast majority of our GHG emissions (97.4 percent). Our indirect GHG emissions represent only 0.5 percent of our total emissions, the bulk of which are attributed to electricity purchased to power our shore-based buildings. The graphic on page 70 depicts our energy use and related emissions.



## DATA AGGREGATION AND ANALYSIS PLATFORM - NEPTUNE

In 2018, we continued the implementation of a state-of-the-art data aggregation and analysis platform called Neptune that enables real-time information transfer and sharing between our ships and shoreside teams supporting fleet operations. Our proprietary system significantly improves communication from ship to shore, providing new capabilities for enhancing the safe passage of ships at sea while improving operational efficiencies and supporting overall environmental, safety and security initiatives. The platform provides visual representations of ships routing, real-time navigational notifications, integrated weather data and traffic information and major equipment performance data, all which support operational efficiencies and minimize risk.



## SCOPE 3 EMISSIONS

We have reported our Scope 3 emissions in the CDP (formerly known as the Carbon Disclosure Project) since 2009. Scope 3 emissions are derived from the energy used in other upstream and downstream indirect emissions like business travel, passenger transportation to and from our ships, fuel transport, waste disposal and deliveries of supplies. See Climate Change CDP Report for more information.

## OUR COMMITMENT

We believe in communicating transparently about climate change. We actively participate in the process of determining our company and industry's role in addressing climate change. We have publicly disclosed our carbon footprint since 2006 and are taking specific and proactive steps to reduce this footprint. Energy is vital to our business so that guests can enjoy our facilities and amenities on our ships while at sea and in port. Fuel is the primary source of energy consumed for the propulsion of our fleet and our onboard hotel power requirements.

Our shipboard fuel consumption contributes to more than 97% of our direct (Scope 1) carbon emissions and is therefore the most significant contributor to our carbon footprint and the number one focus of our carbon reduction efforts. See the graphic on page 70 for further details.

## OUR STRATEGY

We have implemented multiple energy-savings initiatives to manage our emissions footprint. See Energy-Saving Initiatives in the Appendix for further details.

We have established a Corporate Energy Conservation group charged with reducing our overall energy consumption. The goal of this group is to identify both immediate and long-term opportunities for saving fuel.

We are actively involved in new shipbuilding research and development for emission abatement technologies and new equipment to further improve energy efficiency. We are pioneering the use of liquefied natural gas (LNG) for the cruise industry. LNG is the world's cleanest fossil fuel and in December 2018 we took delivery of our first ship to be



powered by LNG – both in port and at sea. We have ten additional new LNG ships on order. We also continue to work on practical feasible energy reduction and conservation initiatives to help us reach our targets. Reducing fuel use and driving energy efficiency takes multi-million-dollar investments and a multi-pronged, multi-year strategy.

These include abatement technologies and equipment to further reduce engine emissions such as:

- Advanced Air Quality Systems (AAQS) that use proprietary technology to remove sulfur oxides and particulate matter from engine exhaust.
- Cold ironing capabilities that allow us to plug into a port’s electrical grid while in port if the shoreside infrastructure is available.
- Air Lubrication Systems using air bubbles to reduce friction between ship’s hull and the water.
- A performance-based maintenance and engine efficiency monitoring agreement with Wärtsilä, our largest main engine manufacturer.

We quantify, monitor, report and verify our GHG emissions. We developed a GHG Inventory Management Plan (GHG IMP) in 2010 in accordance with the requirements of ISO 14064-1:2006 and The Greenhouse Gas Protocol. Our GHG emissions are independently verified by a third-party. Lloyd’s Register Quality Assurance Inc. (LRQA) certified our scope 1 and scope 2 GHG emissions inventory. For more information on our third-party verification visit our Assurance Statement in the Appendix.

We continue to train and certify employees responsible for main engine, refrigeration and air-conditioning plants. We use recovery units certified to meet refrigerant recycling and recovery requirements and we implement programs to reduce Ozone Depleting Substance (ODS) releases.

# ADVANCED AIR QUALITY SYSTEMS

In 2013, we announced our plans to install advanced air quality systems (AAQS), generically known as exhaust gas cleaning systems (EGCS) or scrubbers, on our ships. These systems remove sulfur compounds and particulate matter from our ships' engine exhaust at any operating state of a ship – at sea, during maneuvering and in port. Due to the initial limited availability of ship-ready AAQS for marine applications, Carnival Corporation led the way in developing the technology to successfully function in the restricted spaces available on cruise ships. Making the necessary investments, -- totaling approximately \$500 million of installations to date -- has led to a significant development in shipboard environmental technology.

As of FY2018, 74% of our fleet is equipped with AAQS and we plan to develop and deploy the systems on more than 85 ships across our global fleet by 2020 – significantly improving the quality of air emissions from our ships and reinforcing our environmental commitment.

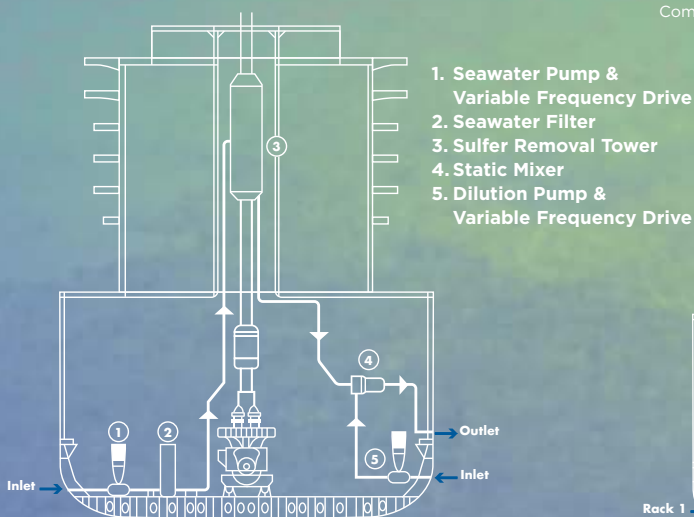
Through extensive independent testing, the systems have proven capable of outperforming low-sulfur fuel alternatives such as marine gas oil (MGO) in terms of overall cleaner air emissions and no negative environmental impact to oceans and seas, all as originally intended by the International Maritime Organization (IMO). Ships using AAQS to scrub heavy fuel oil (HFO) are also effective in reducing particulate matter and typically have lower sulfur oxide (SO<sub>2</sub>) emission levels than MGO, as well as lower NO<sub>x</sub> and fewer polycyclic aromatic hydrocarbons (PAHs).

## OPEN LOOP SYSTEM

Carnival Corporation's AAQS are open loop systems that use a sea water spray for removing sulfur from engine exhaust, converting it to sulfates (which are abundant in the sea) before returning the seawater to the ocean. The seawater is monitored by pH, PAH and Turbidity sensors through this process to ensure that it meets or exceeds the IMO required standards before returning to the ocean. A further filtration process while in port ensures a seawater quality meeting other applicable environmental standards for operations.

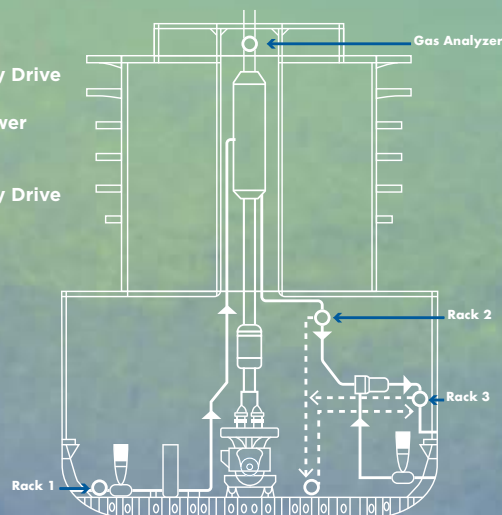
## CARNIVAL'S OPEN LOOP ADVANCED AIR QUALITY SYSTEM

### MAIN SYSTEM COMPONENTS



### COMPLIANCE MONITORING EQUIPMENT

Compliance Monitoring Equipment is used to monitor the Compliance Parameters for Exhaust and EGCS wash water.



**Gas Analyzer** - measures the SO<sub>2</sub> and CO<sub>2</sub> content of the exhaust gases which allows the SO<sub>2</sub>/CO<sub>2</sub> ratio to be calculated.

**Sea Suction Rack (Rack 1)** - measures the PAH and Turbidity of the inlet wash water at the sea suction. Although not required for compliance, on some systems pH is also measured.

**DeSOx Outlet Rack (Rack 2)** - measures the PAH and Turbidity of the wash water at the outlet of the DeSOx Tower.

**Overboard Discharge Rack (Rack 3)** - measures the pH of the wash water at the overboard discharge.



## USING ADVANCED AIR QUALITY SYSTEMS

Removes **99%** of Sulfur

Removes **> 50%** of Particulate Matter

Reduces **10%** of Nitrogen Oxides

### INDEPENDENT TWO-YEAR SCIENTIFIC WASH WATER STUDY

In March 2019 we released the Carnival/DNVGL 2018 Wash Water Assessment a four-year scientific wash water study that collected 281 wash water samples from 53 Carnival ships, conducted lab analyses on each sample for 54 different parameters including PAHs and metals, and partnered with DNVGL to evaluate and compare the results to major national and international water quality standards. To provide further understanding and perspective on the quality of the discharged wash water, the study demonstrated that the AAQS wash water samples were well below the limits set by several major national and international land-based water quality standards up to and including the World Health Organization (WHO) standards for drinking water.

Specific to IMO wash water requirements, the study confirmed results from previous studies showing the quality of the water used in the AAQS process was always far below the IMO monitoring limits for PAHs and the annual limits for nitrates. In fact, when measured against IMO standards, the average wash water test results in this study were over 90 percent lower than maximum allowable levels. In many cases, the materials were completely undetectable in the laboratory testing process.

Other standards the results were compared against include, German Waste Water Ordinance, which as a “point source discharge” standard was the most directly applicable, and also the EU Industrial Emissions Standards and the Surface Water Standards of the EU’s Water Framework Directive, both “water quality” standards. The AAQS test results compared favorably with all of these major benchmark standards, demonstrating that the composition of the water was not only consistently below, but in most cases, significantly below the most stringent limits. The full study briefing can be found at: [http://media.corporate-ir.net/media\\_files/IROL/14/140690/Carnival-DNVGL\\_Washwater\\_Analysis\\_2018.pdf](http://media.corporate-ir.net/media_files/IROL/14/140690/Carnival-DNVGL_Washwater_Analysis_2018.pdf)

### EMISSIONS PROFILE

To further enhance our emissions profile, we have also started to install a catalytic reactor on the engine exhaust to reduce particulate matter (PM) even before the exhaust reaches the AAQS tower, which also is effective in reducing PM. Our standard AAQS removes 99% of sulfur (in the form of  $\text{SO}_2$ ) and up to 75% of the particulate matter, including elemental and organic and black carbon, as well as PAHs. The combined effect of the AAQS, catalytic reactor and other systems is a further reduction of the particulate matter, including the very fine PM 10 and 2.5 particles. The use of AAQS with HFO fuel and other systems creates a reduction of between 5-15% compared to MGO fuel use.

All AAQS comply with international regulations and are certified by a classification society. In addition, all systems are equipped with continuous monitoring equipment to automatically record required parameters – specifically  $\text{SO}_2$  in the exhaust gas and pH, PAH and Turbidity in the wash water.

In 2018, Carnival Corporation was a founding member of Clean Shipping Alliance 2020, a new industry association consisting of 39 leading shipping and maritime companies, and providing education and information on the benefits of AAQS, as well as a public voice. Collectively, these companies represent over 3,000 ships across the sectors of commercial shipping and cruising.



# PIONEERING LIQUEFIED NATURAL GAS (LNG)

Reflecting on our commitment to sustainability, we are continuing to pioneer the use of liquefied natural gas (LNG), the world's cleanest fossil fuel, and are expanding our LNG investment.

We began the implementation of our LNG vision by using LNG in port. In 2015, *AIDA Sol* was the first cruise ship in the world to be supplied with power by an LNG Hybrid barge while in Hamburg, Germany. The LNG Hybrid Barge, a unique pilot project with Becker Marine Systems, was designed, constructed and commissioned in three years. Since then, we have expanded our LNG capabilities to supply LNG directly to two ships, each with a dual-fuel powered engine (*AIDA Prima* and *AIDA Perla*). These ships use LNG while in port drawing fuel directly from trucks alongside the ship.

In 2018, we made history with the launch of *AIDA Nova*, the first cruise ship in the world powered by LNG both at sea and in port. Leading the cruise industry's use of LNG to power cruise ships, we have a further 10 sister vessels due for delivery between 2019 and 2025 for Costa Cruises, AIDA Cruises, P&O Cruises UK, Carnival Cruise Line and Princess Cruises.

## FIRST CRUISE SHIP POWERED BY LNG AT SEA AND IN PORT

We began construction on *AIDA Nova* in 2016 and the history-making ship joined the fleet in late 2018. The largest cruise ship ever built at a German shipyard, *AIDA Nova* also marks an exciting new generation of "green" cruise ships that will be powered at sea and in port by LNG. In December 2018, *AIDA Nova* made its maiden call in the Canary Islands at the Santa Cruz de Tenerife Terminal, a concession operated by Carnival Corporation that can accommodate next-generation "green" cruise ships powered by LNG. The first LNG supply for *AIDA Nova* at the port took place upon its arrival and was made possible through our partnership with Shell.

## SWITCHING FROM MARINE DIESEL TO LNG



Sulfur Dioxide Emissions

**95-100%**

Reduction in Particulate Matter

**85%**

Reduction in Nitrogen Oxides

**Up to 20%**

Reduction in Carbon Emissions



## STRENGTHENING OUR LNG SUPPLY CHAIN

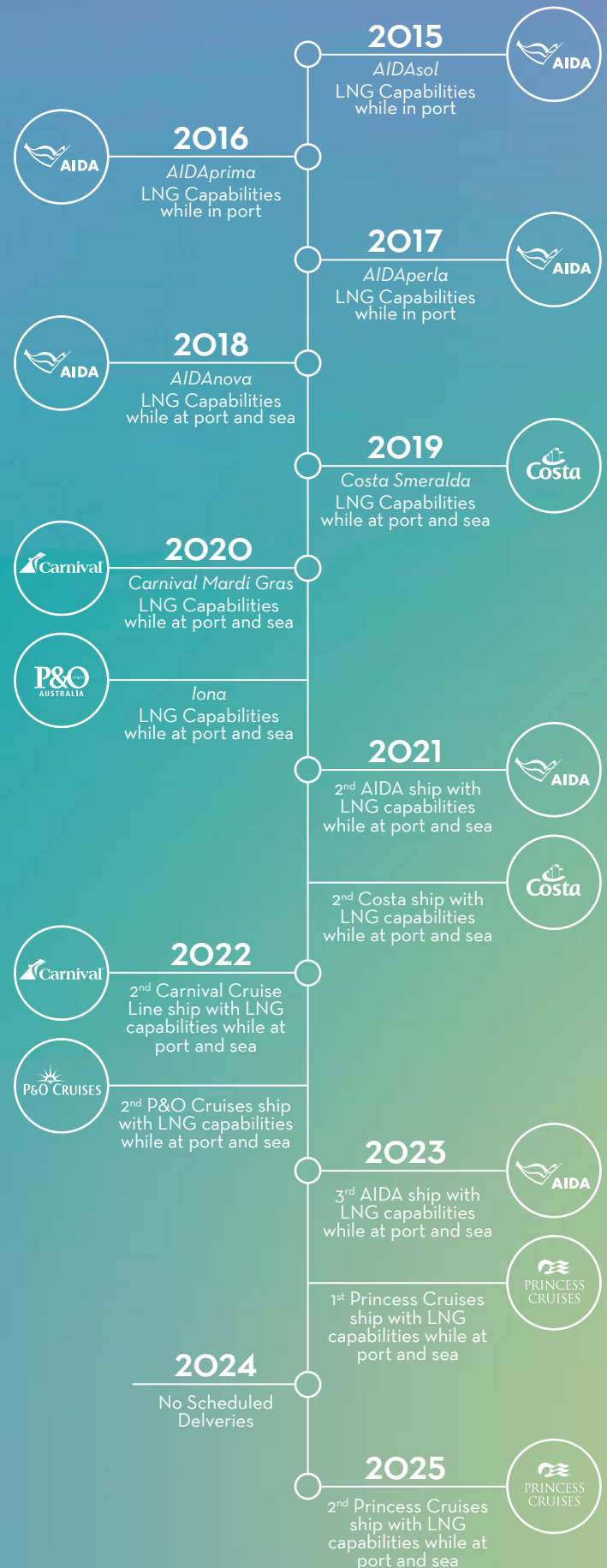
In 2017, we expanded our partnership with Shell to fuel North America's first next-generation LNG-powered cruise ships - the first of which, the *Mardi Gras*, will arrive in October 2020. As part of the agreement, the two ships, built with a next-generation "green cruising" ship design, will be fueled through Shell's Partner Quality LNG transport (Q-LNG) Bunker Barge (LBB) - a project that is part of Shell's strategic plan to develop a global LNG bunkering network. The ocean-going LBB, which is designed to support growing cruise line demand for LNG as a marine fuel, will be the first of its kind in the U.S. and will allow these ships to refuel with LNG at ports along the southern U.S. East Coast.

We are proud to be on the forefront of advancing LNG as a fuel source for the cruise industry. One of the keys to establishing LNG as a standard for powering cruise ships is building out an extensive, safe and reliable infrastructure across the globe for this clean burning fossil fuel. We are looking forward to working closely with Shell as they help to bring LNG to North America in what we hope will be the first step in building a strong foundation for the future of LNG fuel supply for cruise ships in the region.

## EXPANDING OUR LNG SHIP ORDERS TO 2025

Looking to 2019, we have 10 next-generation cruise ships on order that will be the first in the industry to be powered by LNG at sea and in port. We began construction on *Costa Smeralda* in 2017. The new Costa Cruises ship will be the brand's first ship powered by LNG and is expected to join the fleet in late 2019. *Costa Smeralda* will be the world's first LNG- powered ship to be broadly marketed to consumers from multiple countries, including Italy, France, Spain, Germany and Switzerland. A second Costa LNG ship is scheduled for delivery in 2021. P&O Cruises UK will launch *Iona* in 2020 as the brand's first LNG ship. *Iona* will also debut as the largest cruise ship ever built for the British market. P&O's second LNG ship is scheduled for delivery in 2022. Carnival Cruise Line's *Mardi Gras* will debut in 2020 as the first cruise ship in North America powered by LNG and will be the largest Carnival Cruise Line ship ever constructed. The brand's second LNG ship is scheduled for delivery in 2022. Our Princess Cruises brand also has two LNG ships on order with expected delivery dates in 2023 and 2025. In addition to the new *AIDAnova*, our AIDA Cruises brand has two additional LNG ships on order due in 2021 and 2023.

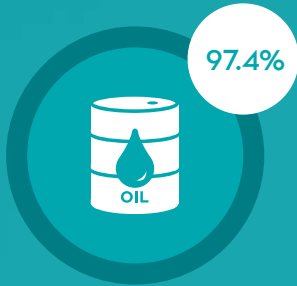
## LNG PROGRAM TIMELINE



# ENERGY & GREENHOUSE GAS EMISSIONS

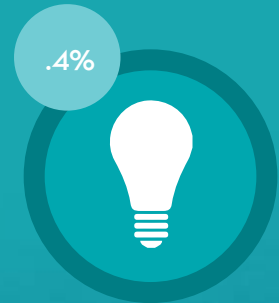
(SCOPE 1)  
**99.5% DIRECT GHG EMISSIONS**

(SCOPE 2)  
**.5% INDIRECT GHG EMISSIONS**



## SHIP FUEL DIRECT GHG EMISSIONS

Fuel to propel the ships and run the ships generators to provide electricity.



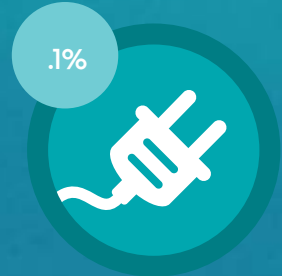
## SHORE INDIRECT GHG EMISSIONS

Electricity purchased and used to power the corporate and brand headquarters buildings and the land-based hotels.



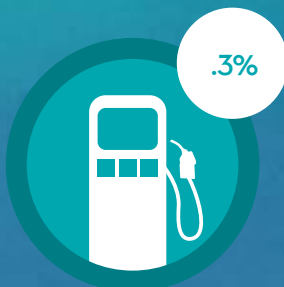
## SHIP REFRIGERANT DIRECT GHG EMISSIONS

Refrigerants to cool appliances such as refrigerators and AC units on the ships.



## SHIP INDIRECT GHG EMISSIONS

Electricity purchased at the port of call for power while docked. (Cold Ironing)



## SHORE DIRECT GHG EMISSIONS

Fuel for company cars and building generators.





# WATER MANAGEMENT

Water is essential to our operations as it is part of the guest experience. We are committed to finding innovative ways to improve our water use efficiency and decreasing our demand for water at the communities we visit without affecting the guest experience.

## 2020 GOAL & UPDATE

### Water Efficiency

Continue to improve water use efficiency of our shipboard operations by 5% by 2020 relative to our 2010 baseline, as measured by liters per person per day.



- Achieved a 4.8% improvement in water use efficiency of shipboard operations relative to our 2010 baseline.

## FY2018 WATER MANAGEMENT PERFORMANCE



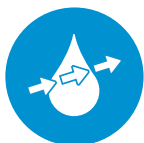
### WATER BUNKERED

We purchase approximately 21% of our water from the ports or the water suppliers in the ports we visit.



### WATER PRODUCED

We produce approximately 79% of the water we use onboard our ships from sea water.



### WATER EFFICIENCY

- Our water use rate is 59.6 gallons per person per day vs. the U.S. National average of 90 gallons per person per day. This represents a 0.5 gallon per person reduction achieved from our FY2017 performance.
- We continue to implement measures to improve our water use efficiency.

## OUR COMMITMENT

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 79% of the water we use onboard our ships from sea water and the remaining 21% is purchased from the ports or the water suppliers in the ports we visit. Before our ships visit a port, we determine whether potable water is available and abundant there. In ports or regions experiencing water scarcity or restrictions, our water sourcing patterns are modified in order to only bunker water from ports where water is abundant, of high quality and cost effective to purchase. Due to our ships' holding capacities and equipment, we adapt our water sourcing patterns in order to avoid impacting local water supplies in times of water shortages. Consequently, our ship operations pose minimal water sourcing impacts to the port communities where we purchase water.

## OUR STRATEGY

Improving water use efficiency is essential for us to remain economically sustainable, as it is more cost effective to use less water than to continuously purchase or desalinate and treat water (and it helps us to reduce our carbon footprint). Over time, we have increased the percentage of water we produce onboard relative to the total water bunkered, which helps us to reduce the risk associated with disruption of water supplies in the ports of call where we bunker water.

We encourage our guests to assist us in our water use efficiency efforts by making them aware of options available onboard to conserve water such as reusing towels and sheets. Our crew is trained on water efficiency practices as part of our environmental training program.

We are continuously replacing systems that are highly dependent on water with more water efficient management options. Examples include efficient laundry machines and dishwashers, among others. In addition, to improve our water use efficiency, we have installed sink aerators and low-flow shower heads in cabins and public areas. Our water procurement at the ports we visit is determined based on water quality, availability, reliable and abundant supply and cost. If there is a water scarcity risk issue, such as droughts, we will change our water procurement so as to not purchase water in those communities, thereby eliminating any potential impact from our operations.

Water quality is an essential component of our water management plan. Water quality is managed and monitored onboard the ships based on the U.S. Center of Disease Control Vessel Sanitation Program (VSP) guidelines. For the ports we own and operate (i.e. Puerta Maya, Cozumel, Mexico; Grand Turk Cruise Center, Turks & Caicos Islands; Amber Cove Cruise Center, Puerto Plata, Dominican Republic and Mahogany Bay Cruise Center, Roatán, Honduras), water quality is managed and monitored in accordance with local health requirements and port specific procedures developed based on VSP and World Health Organization (WHO) guidelines. In addition, water treatment systems and water quality laboratories have been installed in all of our ports.

We continually monitor new regulations that are being proposed and engage with regulators and interested stakeholders either directly or through industry trade organizations like Cruise Line International Association (CLIA) to address their concerns and to discuss feasible solutions whenever such regulatory issues arise.

Each ship in our fleet has a full-time Environmental Officer (EO), who oversees environmental compliance and implementation of environmental procedures (for more details see the EO section in the Appendix).

We also disclose our water management practices through the water CDP (formerly known as the Carbon Disclosure Project) and we have been disclosing since 2010.



# WASTE MANAGEMENT

As a global company serving more than 12.4 million guests around the world, we generate waste every day. We are committed to reducing, reusing, recycling as well as to properly dispose of the waste we generate.

## 2020 GOAL & UPDATE

### Waste Reduction

Continue to reduce waste generated by our shipboard operations by 5% by 2020 relative to our 2016 baseline, as measured by kilograms of non-recycled waste per person per day.

As part of our initiatives to continue to reduce waste generated by our shipboard operations, we continue to work closely with waste vendors and ports to identify new opportunities to reduce waste.

- Achieved 3.8% reduction in waste rate.



### AWWPS Technology

Increase Advanced Waste Water Purification System (AWWPS) coverage of our fleetwide capacity by 10 percentage points by 2020 relative to our 2014 baseline.

We increased fleetwide capacity coverage of Advanced Waste Water Purification Systems (AWWPS) by 8.6 percentage points compared to our 2014 baseline.



## FY2018 WASTE MANAGEMENT PERFORMANCE



### REMOVING SINGLE USE PLASTICS

In 2018, we started an initiative to evaluate our collective use of single-use plastic items and alternative options available in the market. As part of this initiative, we have identified items we can replace with reusable non-plastic alternatives or biodegradable options available for straws, take away cups and other items. Our goal is to remove single-use plastics within our operations whenever feasible.

# FY2018 WASTE MANAGEMENT PERFORMANCE CONTINUED...



## FOOD DISCHARGE AT SEA

We continually evaluate technologies and operations to minimize the volumes of food discharges at sea.

- In 2018, one of our brands continued to optimize a pilot program that uses equipment to digest food waste prior to discharge at sea. Based on the positive results of the pilot program the equipment will be installed in additional ships starting in 2019.
- In 2017, one of our brands completed an assessment to promote a more sustainable shipboard food procurement, preparation, consumption and disposal method. In 2018, the food surplus component of the program was expanded and eight ports received food donations. This program reduces the volume of food waste generated.



## REUSING

We continually seek new opportunities by reusing materials and equipment onboard. If we do no longer have a use for items that are still in good conditions we are passing them on to others in the communities we visit.



## RECYCLING

We strive to recycle as many items as possible. Recycling containers are placed throughout the ships to allow items to be segregated for recycling at the source. In addition, designated crew sorts trash to ensure recyclable items are not commingled with other waste streams. After sorting, recyclable materials are crushed, baled and readied for offload ashore. We strive to maximize the offload of recyclable items in ports of call where facilities exist with the infrastructure. However, there are locations where the infrastructure is not in place, which means that some recyclable items may not be recycled.



## DISPOSAL ASHORE

We manage the amount of waste material generated onboard and work with disposal companies to promote a circular economy.



## INCINERATION ONBOARD

Shipboard incineration reduces the volume of waste onboard and waste landed ashore.

## OUR COMMITMENT

Waste generated by our operations and activities of our guests and crew mirrors the waste generated by hotels and resort complexes worldwide. Our shipboard waste is disposed of in strict accordance with our environmental procedures that are designed to meet or exceed internal, international, national, regional and local environmental regulatory requirements and industry standards. We are committed to minimizing our waste generation and are continuously looking for ways to reduce our waste footprint.

## OUR STRATEGY

All of our ships operate under a waste management plan that specifies how we manage each type of waste onboard. Our waste management strategy consists of a multi-level approach that includes eliminating and minimizing waste, disposing waste ashore, incinerating waste onboard and discharging liquid waste and food waste. All of these activities are performed in accordance with regulatory requirements and in many instances exceeding regulations. As part of our strategy, we also seek for new opportunities to reuse materials and equipment onboard or find others who can use items that are in good condition that we no longer need. We also work to reduce the volume of non-eco friendly waste.

Our strategy to minimize our waste streams consists of working with our supply chain to minimize packaging as well as increasing the volume and types of recycled materials landed ashore. A challenge that limits the volume of recycling material is the lack of recycling infrastructure available at certain ports we visit worldwide. Our approach is to hold the recycling materials onboard when possible until a port that offers recycling services is reached within the itinerary. As part of our strategy, we also encourage our guests to assist us in our waste management efforts by making them aware of options available onboard to segregate waste for recycling ashore. Our crew is trained on waste management practices as part of their environmental training program. In addition, comprehensive training is provided to all personnel directly involved in waste management operations.

We are committed to increase our fleetwide capacity coverage of Advanced Waste Water Purification Systems (AWWPS) for the treatment of black and gray water. These systems utilize technologies designed to produce a higher treated sewage quality that can meet or surpass standards for secondary and tertiary effluent and reclaimed water. In addition, all the ports we own and operate (i.e. Puerta Maya, Cozumel, Mexico; Grand Turk Cruise Center, Turks & Caicos Islands; Amber Cove Cruise Center, Puerto Plata, Dominican Republic and Mahogany Bay Cruise Center, Roatán, Honduras) are equipped with AWWPS to treat the sewage generated at each of the port facilities.

We also continually monitor new regulations that are being proposed at a national and international level and engage with regulators and interested stakeholders either directly or through industry trade organizations like the Cruise Lines International Association (CLIA) to address their concerns and to discuss feasible solutions whenever such regulatory issues arise.

Each ship in our fleet has a full-time Environmental Officer (EO), who oversees environmental compliance and implementation of environmental procedures. For more details see the EO section in the Appendix.







# BIODIVERSITY

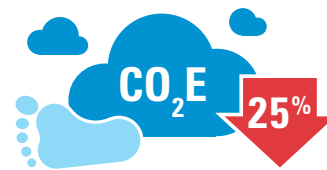
Our lives depend on the Earth's biodiversity. We are honored to take you onboard our ships to see and explore the biodiversity of the oceans and the communities we travel to.

## 2020 GOAL & UPDATE

### Carbon Footprint

Reduce the intensity of CO<sub>2</sub>e (equivalent carbon dioxide) emissions from our operations by 25% by 2020 relative to our 2005 baseline, measured in grams of CO<sub>2</sub>e per ALB-km.

Reducing Emissions: we made more progress on our goal and achieved a 27.6% reduction relative to our 2005 baseline.



### AWWPS Technology

Increase Advanced Waste Water Purification System (AWWPS) coverage of our fleetwide capacity by 10 percentage points by 2020 relative to our 2014 baseline.

We increased fleetwide capacity coverage of Advanced Waste Water Purification Systems (AWWPS) by 8.6 percentage points compared to our 2014 baseline.



## FY2018 BIODIVERSITY PERFORMANCE



### OPERATION OCEANS ALIVE

In 2018, Carnival Corporation launched Operation Oceans Alive. The goal of this initiative is to instill in all employees a sense of personal commitment to protect and care for the marine environment as our business is dependent on healthy oceans.

# FY 2018 BIODIVERSITY PERFORMANCE CONTINUED..



## CARNIVAL CORPORATION ENVIRONMENTAL EXCELLENCE AWARD

In 2018 Carnival established the Environmental Excellence Award to honor the ships within the Carnival fleet with the best environmental performance. One ship from each cruise brand is selected and from those one ship is recognized as the best from the fleet.



## WORLD OCEANS DAY

In 2018, Carnival's cruise brands celebrated World Oceans Day both onboard and shoreside with events, activities and communications to promote ocean education and conservation.



## ANIMAL WELFARE

- Farm Animals:
  - We continue to expand our sourcing of cage free eggs. Our goal is to be 100% cage free by 2025.
  - We continue to align welfare standards for broiler chicken, ensuring that 100% of chicken sourced will be certified by the Global Animal Partnership by 2024.
- Tour Operators:
  - We continue our partnership with the Association of British Travel Agents (ABTA) to help us ensure we are responsibly managing excursions involving interactions with animals. We started to audit the dolphin in captivity tour encounters used by our cruise brands in 2018 and our goal is to complete the process in 2019.



## CORAL REEFS

In 2018, we sponsored the Coral Restoration Foundation by donating a 7-day cruise.

The Coral Restoration Foundation supports coral reef restoration.

For details visit: <https://www.coralrestoration.org/about>.



## REMOVING SINGLE-USE PLASTICS

In 2018, we started an initiative to evaluate our collective use of single-use plastic items and alternative options available in the market. As part of this initiative, we have identified items we can replace with reusable non-plastic alternatives or biodegradable options available for straws, take away cups and other items. Our goal is to remove single-use plastics within our operations whenever feasible.



## 2018 EUROPEAN UNION OUR OCEANS CONFERENCE - BALI

Carnival Corporation provided progress on our efforts to pioneer Liquefied Natural Gas in the cruise industry. This is part of Carnival's approach to reduce greenhouse gas emissions. The Our Oceans conference seeks public commitments to actions that will reduce marine pollution, manage aquatic resources sustainably, mitigate climate change and establish marine sanctuaries.



## PORT BIODIVERSITY

We continue to support conservation programs at the ports we own and operate. These ports include Puerta Maya, Cozumel, Mexico; Grand Turk Cruise Center, Turks & Caicos Islands; Amber Cove Cruise Center, Puerto Plata, Dominican Republic; and Mahogany Bay Cruise Center, Roatán, Honduras.

The following is a summary of our main port conservation accomplishments in 2018:

- **Mangrove Reforestation Project:** Mahogany Bay Cruise Center planted 65 mangrove trees (25 within the port facilities and 40 in a school area close to the port).
- **Reforestation Project:** Mahogany Bay Cruise Center planted a total of 45 mahogany trees within the port facilities.



## FY2018 BIODIVERSITY PERFORMANCE CONTINUED...

- **Coastal Clean-up Project:** Mahogany Bay Cruise Center, local NGOs and volunteer crew members from some of our cruise ships have collected approximately 1,491 bags containing waste and debris. Amber Cove Cruise Center and community volunteers collected approximately 800 bags of waste during a beach clean-up. Grand Turk Cruise Center tenants and staff collected approximately 167 bags of waste during a coastal clean-up.
- **Composting Project:** Mahogany Bay Cruise terminal continues to use waste generated from gardening maintenance to create compost heaps. The compost material is then reused as fertilizer and soil in the different gardens found in the port facility. In 2018, approximately eight metric tonnes of compost material was generated.
- **Rainwater Collection Program:** Continued program as part of the port's water efficiency initiative. This program incorporates collected and treated rainwater into the port's water system to minimize the demand on the local water supply. This program is fully implemented in Amber Cove Cruise Center, Puerta Maya and Mahogany Bay Cruise Center. Amber Cove and Puerta Maya use the treated rainwater for toilet flushing. Mahogany Bay uses the treated rainwater to supplement their potable water needs. All rainwater is collected and treated on the port premises using port water treatment systems.
- **Animal Welfare:** Mahogany Bay Cruise Terminal continued to support a spaying and neutering program for community stray cats and dogs.

## OUR COMMITMENT

The health of our oceans is paramount to the sustainability of our business. As such, we have a deep commitment to ensuring the oceans remain healthy. To minimize our impact on biodiversity, we work diligently to manage our waste responsibly, protect marine life and collaborate with our supply chain to ensure ethical and environmentally safe practices. We also implement systems and new technologies to minimize waste water discharges and improve the quality of our air emissions. Furthermore, we partner with conservation and protection organizations in order to support programs and initiatives related to our operation.

## OUR STRATEGY

Our strategy includes a number of elements that collectively help to manage and lessen our impact on biodiversity. Within our supply chain, we work with suppliers on sustainable food sourcing and with our tour operators on sustainable animal welfare practices. We have included a sustainability section within our Business Partner Code of Conduct and Ethics and Tour Operator manual that focuses on environmental protection. In addition, every year we organize coastal clean-ups with some of the communities at various ports of call we visit. These clean-ups remove waste and debris from marine ecosystems.

Because of our direct dependency on the health of the oceans, we have developed and implemented marine mammal protection programs and training. In particular, we have developed a comprehensive whale strike prevention training program and follow reporting requirements prior to entering the Right whale sensitive and protected areas for North Atlantic and North Pacific Right whales. These species are listed in the IUCN's Red List, which is the Global Reporting Initiative's designated list for threatened species.

In 2018, Carnival Corporation launched Operation Oceans Alive. The goal of this initiative is to instill in all employees a sense of personal commitment to protect and care for the marine environment as our business is dependent on healthy oceans. We comply with or exceed international, national and local environmental laws and regulations everywhere our ships sail. As part of our strategy, we partner with organizations that are critical for marine conservation and research.





# COMMUNITY

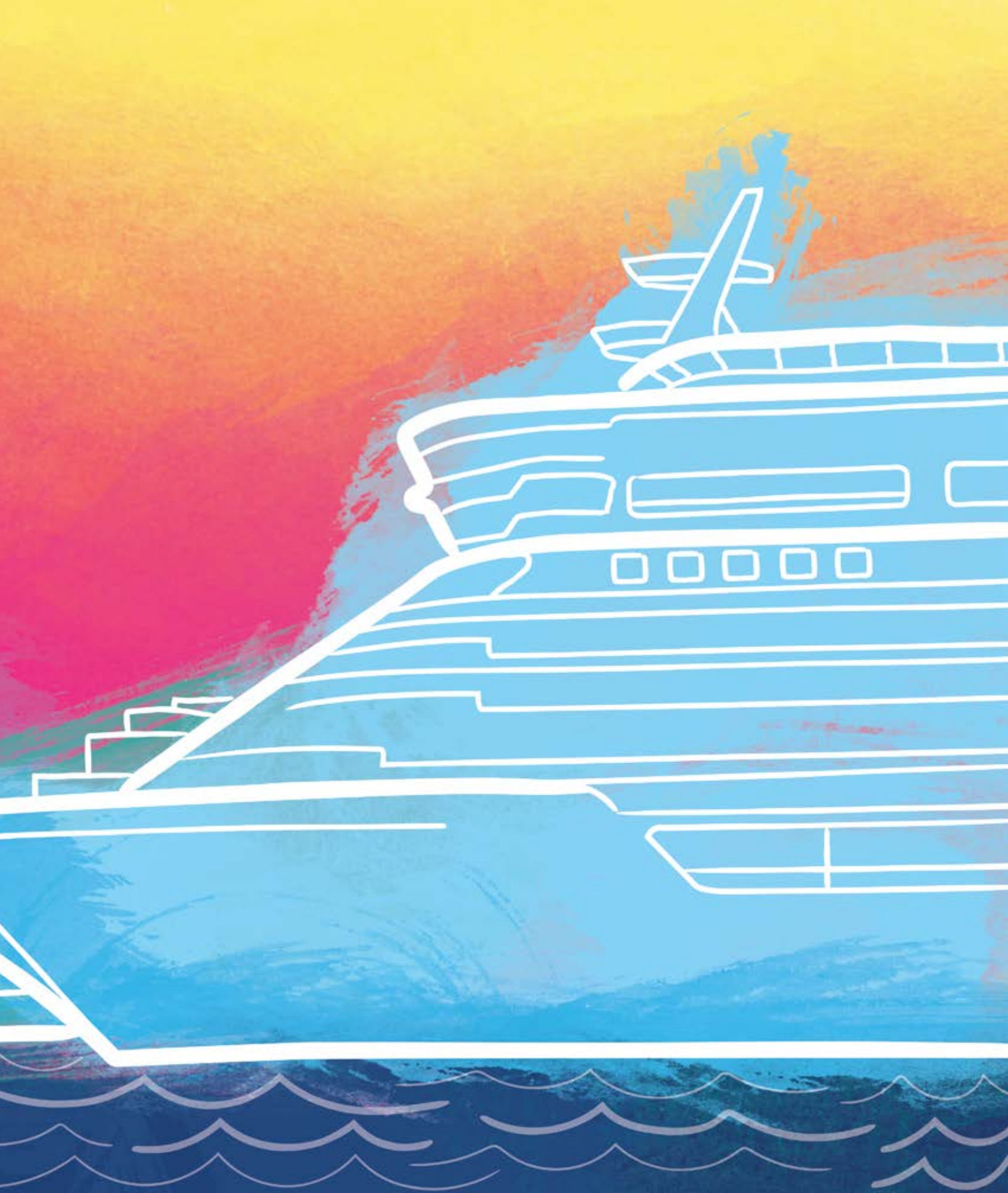
- Community Engagement • Human Capital
- Learning Culture • Guest Experience



**CARNIVAL**  
CORPORATION & PLC  
— Sustainability —







  
Holland America Line®

  
P&O AUSTRALIA

  
P&O CRUISES

  
PRINCESS CRUISES

  
SEABOURN®

# COMMUNITY ENGAGEMENT

We recognize the inextricable link between the health of our business and the vitality and sustainability of our communities, both in our home ports and in the destinations that our ships regularly visit throughout the world.

## 2020 GOAL & UPDATE

### Our Community

Continue to work on initiatives and partnerships that support and sponsor a broad range of organizations for the benefit of our local and global communities visited by our brands.



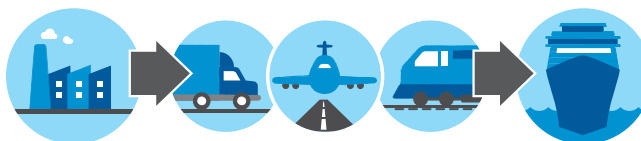
We continue to engage on initiatives and partnerships that support and sponsor a broad range of organizations for the benefit of our local and global communities:

- Committed to support Caribbean Community projects with a \$10 million pledge.
- Supported global disaster relief efforts with a \$5 million pledge.
- Continued partnership with Mercy Ships.
- Continued to support the Smithsonian National Museum of African American History & Culture with a \$2 million gift over a five-year period.
- Continued our partnership with the Big Brothers Big Sisters program with a \$5 million gift over a five-year period.

## 2020 GOAL & UPDATE

### Business Partner Code of Conduct and Ethics

Further develop and implement vendor assurance procedure ensuring compliance with Carnival Corporation & plc's Business Partner Code of Conduct and Ethics.



- Started the audit process for the tour operators that offer encounters with dolphins in captivity.

# FY2018 COMMUNITY ENGAGEMENT PERFORMANCE



## GLOBAL DISASTER RELIEF EFFORTS

In response to the communities affected by Hurricane Florence in North and South Carolina, Super Typhoon Mangkhut in the Philippines and Indonesia's earthquake and resulting tsunami in 2018, Carnival Corporation & plc, Carnival Corporation's Chairman and his wife (Micky and Madeleine Arison), Carnival Foundation, and the Carnival brands have collectively pledged \$5 million dollars to support the relief and rebuilding efforts. These contributions also benefit our employees and their families who live in the affected areas.



## SUPPORTING OUR COMMUNITIES

Our cruise brands, shipboard and shoreside employees as well as 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 2018, we supported the following initiatives:

- Onboard luncheons: 25+
- Shoreside employees who volunteered: 1,450+
- Shoreside volunteered hours: 9,500+
- Cruises donated/provide at reduced rate/value: 850+ / 4.3+ Million



## MERCY SHIPS PARTNERSHIP

Costa Group (Costa Cruises, Costa Asia and AIDA Cruises) continued their partnership with Mercy Ships to support its humanitarian work. Mercy Ships is an international non-governmental organization that works to promote access to essential healthcare in developing nations.



## ECONOMIC IMPACT

As per Cruise Lines International Association (CLIA), the cruise industry generated \$134 billion in global economic impact in 2017. This economic activity generated over 1 million jobs around the world, paying \$45.6 billion in global wages in 2017. For additional details please refer to [CLIA, 2017 Cruise Industry Outlook](#).



## UNESCO PARTNERSHIP - WORLD HERITAGE PROTECTION AND SUSTAINABLE TOURISM

Through our Seabourn brand we continue to partner with The United Nations Educational, Scientific and Cultural Organization (UNESCO) to foster wider support and understanding in the travel industry and among travelers for UNESCO's mission of identifying, safeguarding and promoting World Heritage sites. The partnership consists of a \$1 million financial commitment over a five-year period, which started in 2014.



## WORLD TRAVEL & TOURISM COUNCIL (WTTC)

We are members of this organization, which promotes partnerships between the public and private sectors. Carnival's President and CEO, Arnold W. Donald, is a board member and in 2018 was a keynote speaker at the Buenos Aires Conference. WTTC delivers results that match the needs of economies, local and regional authorities, and local communities, with those of business, based on governments recognizing travel & tourism as a top priority, business balancing economics with people, culture and environment, and a shared pursuit of long-term growth and prosperity.



## YUMI PROJECT

Our Carnival Australia brand works in economically-challenged South Pacific Islands on YuMi projects, which translates literally to "you and me". Working with the Australian government, Carnival Australia finds and develops locally-owned shore tour companies in Vanuatu and helps these small local companies overcome the significant hurdles to becoming part of our global supply chain.



## 4GOOD FOOD PROJECT

Our Costa brand has a unique partnership with the Food Bank Foundation, one of the biggest charitable organizations in Europe with a well-established distribution network. With this project, our onboard galley crew packages safe and ready-to-eat food and donates it to the food bank in the local port. This unique project has now been replicated in nine ports in Italy, France (including their Caribbean provinces of Martinique and Guadelupe) and in Spain. The project has become a source of pride for our crew and created a bond between our ships and the local community by giving a second life to healthy food and to the beneficiaries who receive it.



# FY2018 COMMUNITY ENGAGEMENT PERFORMANCE CONTINUED...



## PORT COMMUNITIES

We continue to develop and implement comprehensive Community projects at the ports we own and operate. These ports include Puerto Maya, Cozumel, Mexico; Grand Turk Cruise Center, Turks & Caicos Islands; Amber Cove Cruise Center, Puerto Plata, Dominican Republic; and Mahogany Bay Cruise Center, Roatán, Honduras. The following is a summary of our main port community accomplishments in 2018:

- **Children Program:** Our Amber Cove port donated 80 different toys to primary schools in the community and supported the commemoration of Children's day. Mahogany Bay supported the "Book Mobile Program" by donating fuel for the bus that visits public schools to provide reading material and donated roof top materials to one public school.
- **Mangrove Reforestation Project:** Mahogany Bay Cruise Center planted 65 mangrove trees (25 within the port facilities and 40 in a school area close to the port).
- **Reforestation Project:** Mahogany Bay Cruise Center planted a total of 45 mahogany trees within the port facilities.
- **Coastal Clean-up Project:** Mahogany Bay Cruise Center and volunteer crew members from Brick Bay have collected approximately 1,491 bags containing waste and debris. Amber Cove Cruise Center and community volunteers collected approximately 800 bags of waste during a beach clean-up.
- **Composting Project:** Mahogany Bay Cruise terminal continues to use waste generated from gardening maintenance to create compost heaps. The compost material is then reused as fertilizer and soil in the different gardens found in the port facility.
- **Animal Welfare:** Mahogany Bay Cruise Terminal continued to support a spaying and neutering program for community stray cats and dogs.
- **Rainwater Collection Program:** Continued program as part of the port's water efficiency initiative. This program incorporates collected and treated rainwater into the port's water system to minimize the demand on the local water supply. This program is fully implemented in Amber Cove Cruise Center, Puerto Maya and Mahogany Bay Cruise Center. Amber Cove and Puerto Maya use the treated rainwater for toilet flushing. Mahogany Bay uses the treated rainwater to supplement their potable water needs. All rain water is collected and treated on the port premises using port water treatment systems.

## OUR COMMITMENT

Having a positive impact on the communities we visit begins with trust and unity on the inside; a strong company culture, a sense of responsibility, a focus on transparency and a commitment to help make the communities we visit better. We embrace the culture of the communities in which we operate, including our headquarters locations, homeports, private islands and ports of call. We want our ships and crew to always be welcomed, bringing hope, prosperity and goodwill wherever they sail. We understand that there may be an impact on the sustainability of a community when we engage with, operate in, or cease operating there. 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.

## OUR STRATEGY

It is important for us to invest in the communities we visit and support their sustainable development, which is also essential for our operations. Within our supply chain, we work with our tour operators to support and ensure responsible excursions. Our port development group works with port communities for developing leading destinations and ports as well as securing preferred ports. This enables us to grow demand and deliver unique experiences that benefit both our destinations and our organization.

The Carnival Foundation, our cruise brand foundations, our cruise brands and our employees support a wide and far-reaching variety of local and global organizations through monetary and in-kind donations, innovative philanthropic programs, employee fundraisers and hands-on volunteer initiatives. We also provide our guests with the opportunity to



contribute to the causes we support. Many of our cruise brands have donation programs where reusable goods from our ships are provided to people in need throughout the communities we visit. Local non-profit groups, government agencies and various stakeholder groups work with our cruise brands to collect toiletries, dishes, cookware, mattresses, tableware, furniture and other items from the ships and distribute them to shelters, hospitals, orphanages and homeless programs. We also collaborate with many organizations that focus on the areas of the arts, human rights, education, health and environmental conservation.

As part of our commitment to supporting our communities, during times of crisis, we provide emergency aid and relief through financial donations which we coordinate with various national and international relief organizations. We also use our ships to deliver emergency supplies to the affected areas. Through our cruise brands and corporate foundation as well as through the extraordinary efforts of our employees worldwide, we support a variety of relief programs providing aid, donations and services to an array of charitable organizations that touch many thousands of lives globally.

We also continue to increase the number of partnerships we have around the world to create even more opportunities for our guests and crew to positively experience the places they visit, and also participate in various community and social impact experiences. These experiences make a real sustainable impact not only on the people in the communities we journey to but also on our guests and crew.

*TO PROVIDE FURTHER SUPPORT TO OUR COMMUNITIES, CARNIVAL CORPORATION AND SOME OF OUR BRANDS HAVE CREATED THEIR OWN FOUNDATIONS. WE ARE PROUD TO HIGHLIGHT SOME OF THEM HERE:*

# MAKING WAVES THAT MATTER.

CARNIVAL  
FOUNDATION



<http://www.carnivalfoundation.com/>



COSTA CROCIERE  
FOUNDATION



<http://www.costa-crociere-foundation.com/en/>

# COMMITTED TO SUPPORTING THE CARIBBEAN REGION

Carnival Corporation, its cruise brands and charitable foundations are partnering with Caribbean officials on sustainable, long-term projects to support community needs with a focus on youth, education and emergency preparedness. The Caribbean is one of the world's most popular regions for cruise vacations and supporting its health and vitality after the devastating effects from recent hurricanes and storms is very important to their long-term success and ours.

We have been working with local and international non-governmental organizations (NGOs), including UNICEF and United Way of Miami-Dade and of Puerto Rico, to partner with several islands on community projects specifically tailored to their needs and designed to have a lasting impact. The islands include the Caribbean destinations of Anguilla, Antigua and Barbuda, the British Virgin Islands, Dominica, Puerto Rico, St. Maarten, Turks and Caicos Islands, and the U.S. Virgin Islands.

The community improvement projects have been part of a significant donation from Carnival Foundation, the philanthropic arm of Carnival Corporation, along with the company's brands, the Miami HEAT Charitable Fund, and the Micky and Madeleine Arison Family to provide up to \$10 million in funding and in-kind support. Working closely with affected islands and local and international NGOs, we designed projects tailored to address the identified community needs with a sustainable, long-term impact. These community projects include:



AIDA Cruises is working with UNICEF and the United Nations Office for Project Services (UNOPS) to rebuild Dominica's main primary school, Mahaut Primary School.



Carnival Cruise Line, in partnership with UNICEF, is helping fund the CHANCES orphanage, which provides a nurturing home environment for kids in need of care and protection in Dominica.



Carnival Cruise Line is working in partnership with United Way of Puerto Rico to rebuild a school that was damaged during last year's storm season, and is also working to bring back playgrounds across San Juan, which is a homeport for the brand's ship, the *Carnival Fascination*.





Carnival Cruise Line is the founding partner and sponsor in the creation of K1 Britannia Foundation's Disaster Relief Program to help ensure St. Maarten is fully equipped and prepared for future storms, including adequate emergency supplies, education programs and training for volunteer-response teams, and partnerships with strategic organizations to provide logistical assistance such as transportation, expertise in specialized fields, security and distribution.



Carnival Corporation is working in partnership with United Way of Miami-Dade and the government to build a recreation center for children on the capital island of Grand Turk where the Grand Turk Cruise Center is located. The recreation center will also double as an emergency shelter designed to withstand a Category 5 hurricane.



Carnival Cruise Line is working to bring back a primary community playground and has partnered with the Virgin Islands' Ministry of Education to support its entertainment programs, which lost millions of dollars in musical equipment. The brand's entertainment team is working closely with a local high school through the Ministry of Education to donate musical equipment and develop an ongoing program to assist kids in understanding entertainment opportunities aboard Carnival Cruise Line ships.



Holland America Line is working with the K1 Britannia Foundation to support its Maritime Training and Boat Building Program for Youth – created in partnership with St. Maarten Sailing School, Kidz at Sea and the International Boatbuilding Training College – to provide young people with maritime training and certification, courses in boat building and the opportunity for jobs in the maritime industry after completing the program.

Holland America Line has also partnered with K1's Disaster Relief & Crisis Team, K1 DIRECT. As a key sponsor, Holland America Line has adopted the search and rescue and shelter management aspects of K1 DIRECT enabling them to train volunteers and secure the necessary equipment for CPR, AED usage, First Aid, Basic Fire Safety, and more. Volunteers will also undergo training in search and rescue, psychological first aid, and various humanitarian courses regionally and internationally.



Princess Cruises, through its Princess Cruises Community Foundation, is working in partnership with the Community Foundation of the Virgin Islands (CFVI) to help rebuild the Virgin Islands Children's Museum in St. Thomas and is sponsoring a key water table exhibit. Princess Cruises is also sponsoring lending libraries in different areas around the islands to support literacy and a love of reading. And, this summer the partnership started a program that will enable low-income families to visit the museum for a minimal fee.

In addition to the above efforts, we are directing funding toward general UNICEF social programs in Anguilla, Antigua and Barbuda, and the British Virgin Islands that support education in the region.

In the aftermath of the hurricane season, the Carnival team provided critical guidance on immediate relief efforts as well as what was required for the return of cruise visits. Several executives have visited the various islands since partnering with the Department of Tourism other agencies and international organizations to support recovery. In addition to the community projects, we continue to visit these islands as part of our Caribbean presence, delivering great vacations to millions of guests while also providing sustained tourism activity with a significant impact on the region's economic growth and prosperity.

# HUMAN CAPITAL

Our success depends on the talent, passion and dedication of our employees, both onboard our ships and ashore, who consistently deliver joyful and memorable vacation experiences for our guests. We strive to reflect the diverse and global marketplace and communities we serve.

## 2020 GOAL & UPDATE

### Diversity & Ethics

Continue to build a diverse and inclusive workforce and provide all employees with a positive work environment and opportunities to build a rewarding career to further drive employee engagement.



We continued our multicultural, diversity and inclusion campaign in 2018:

- Together with Catalyst (the leading U.S. nonprofit with a mission to expand opportunities for women) we made a pledge to support the advancement of women's leadership and diversity in the workplace.
- Together with Executive Leadership Council (ELC) - the leading US organization working to empower black corporate leaders - we made a pledge to support and encourage diversity in the workplace.

## FY2018 HUMAN CAPITAL PERFORMANCE



### WORKFORCE

We employed an average of 88,000 crew members onboard our 104 ships at any given time, (which excludes employees on leave) and 14,000 shoreside employees (full and part time/seasonal). This includes seasonal employees of Holland America Princess Alaska Tours, which significantly increases its work force during the late spring and summer months in connection with the Alaskan cruise season.

# FY2018 HUMAN CAPITAL PERFORMANCE CONTINUED..



## GLOBAL DISASTER RELIEF EFFORTS

In response to the communities affected by Hurricane Florence in North and South Carolina, Super Typhoon Mangkhut in the Philippines and Indonesia's earthquake and resulting tsunami in 2018, Carnival Corporation & plc, Carnival Corporation's Chairman and his wife (Micky and Madeleine Arison), Carnival Foundation, and the Carnival brands have collectively pledged \$5 million dollars to support the relief and rebuilding efforts. These contributions also benefit our employees and their families who live in the affected areas. For additional details please view our community support highlight.



## PSYCHOMETRIC EVALUATION PROGRAM

Carnival Corporation implemented a Psychometric Evaluation Program for its Deck and Technical Officers in January 2017. The program is utilized across all brands for the selection and promotion of Deck and Technical Officers through the evaluation of specific psychological attributes at certain career stages. To ensure that all officers possess the attributes required for each of their roles, a variety of psychometric evaluations, both online and in person with psychologists are used. The program includes a series of online and proctored evaluations as part of the new hire process, a comprehensive day-long, in-person evaluation as part of the senior officer promotion process and ongoing "check in" evaluations of our senior officers. In 2018, a new program designed to evaluate new hire Environmental Officer candidates was implemented.



## TRAVELSEACURE

We continued our global travel risk management program, named travelSEACURE. This program aims to support all employees, both shoreside and onboard, with security, health and unforeseen event assistance while on business travel. In 2018, travelSEACURE captured travel data over 60,000 employees traveling on nearly 200,000 flights around the globe. This data was used to analyze travel risk patterns in order to keep our employees safe and secure.



## LABOR UNION RELATIONSHIPS

We consider our employee and union relationships to be strong. The percentages of our shipboard and shoreside employees that are represented by collective bargaining agreements are 58.0% and 21%, respectively.



## ARISON MARITIME CENTER

We continue training our officers in our world-class facility equipped with the latest technology and equipment. The Center provides rigorous safety training for bridge, engineering and environmental officers responsible for the navigation, operation and environmental compliance of the world's largest fleet of cruise ships. Participants receive a maritime training experience that fosters critical thinking, problem solving, ethical decision making and skill development. For more information please visit [www.csmartalmere.com](http://www.csmartalmere.com).



## DIVERSITY AND INCLUSION

We continued our multicultural, diversity and inclusion campaign in 2018:

- Together with Catalyst (the leading U.S. nonprofit with a mission to expand opportunities for women) we made a pledge to support the advancement of women's leadership and diversity in the workplace.
- Together with Executive Leadership Council (ELC) - the leading US organization working to empower black corporate leaders - we made a pledge to support and encourage diversity in the workplace.



## FLEET CAPTAIN AND FLEET ENGINEER PROGRAM

We continue our Fleet Captain and Fleet Chief Engineer program, which provides regular training and mentoring for our shipboard staff, provided by our top shipboard officer performers who rotate through the program.



# FY2018 HUMAN CAPITAL PERFORMANCE CONTINUED..



## GLOBAL LEARNING AND DEVELOPMENT INFORMATION SYSTEM

The Global Learning & Development Information System (GLADIS) was fully launched in 2018. This shipboard learning management system allows our crew members to complete learning programs and review content relevant to their respective roles both onboard the ship and while ashore. The implementation and use of a single learning management system for crew members across the corporation delivers a more consistent learning experience, real-time tracking of training requirement completion, and greater efficiency in records management and reporting. It also allows for greater focus to be placed on individual performance, competency mapping, career development and advancement programs through targeted training across the corporation.



## GUEST AND CREW CARE TEAM

Our CareTeam continues to provide compassionate care in the event of an emergency while onboard. CareTeam employees have received specialized training on how to sensitively and appropriately support guests, crew and their families during an emergency. They are available 24 hours a day, seven days a week and respond to a variety of guest and crew emergencies, primarily medical related situations, and are dispatched to locations throughout our cruising regions to provide personalized support and assistance as needed to all of our brands.

## OUR COMMITMENT

We are a diverse organization and we value and support our talented and diverse employee base. We are committed to being an equal opportunity employer, employing people from around the world and hiring people based on the quality of their experience, skills, education, and character, without regard for their identification with any group or classification of people.

We use various staffing agencies in many countries and regions to source our shipboard employees. We hire both men and women for every department onboard our ships and in our shoreside offices. We have female captains and officers at various ranks; however, the majority of our shipboard employees are men, which reflect a gender imbalance in the applicant pool for officer and crew positions.



## OUR STRATEGY

We recognize that maintaining a diverse workforce promotes an open, tolerant and positive work environment where everyone's talents and strengths can be utilized. We work to recruit, motivate, develop and retain the best talent. We are committed to offering opportunities for career development, rewarding performance, and providing a safe and healthy work environment. We provide ongoing in-person and computer-based professional and leadership development programs for our employees. Our ships have onboard trainers and computer training centers for our employees to use for career development purposes. We conduct performance reviews of all employees using both informal and formal processes. Performance reviews help us to determine how effectively we monitor, maintain and improve employee competencies. We have entered into agreements with unions covering certain employees on our ships and in certain of our shoreside operations. We monitor and measure employee turnover rates to assess the levels of job satisfaction among our employees. One of our strategies to raise satisfaction rates among our employees is by promoting from within.

Reorganizations are carried out with low displacement rates. It is our practice to ensure timely discussion of such changes and to engage with our employees to implement these changes. This engagement helps to minimize any adverse impacts of the changes on employees and helps to maintain employee satisfaction and motivation during the change process.

Minimum notice periods regarding operational changes are set according to local rules and regulations and according to standard Collective Bargaining Agreements (CBA) for seafarers, where applicable. To support the integrity of our work

environment, we have established ethics and compliance policies and systems to facilitate conduct that conforms with our expectations that apply equally to all employees, irrespective of geographic locations and boundaries. Our Code of Business Conduct and Ethics provides us with the tools to navigate challenging situations and respond with integrity when dealing with fellow employees, guests, global communities, government agencies, consultants, vendors, distributors and other business partners.

To help our business partners within our supply chain more fully understand and comply with our expectations for legal compliance and ethical behavior, we developed our Business Partner Code of Conduct and Ethics, which goes a step above and beyond our Business Code of Conduct and Ethics, by formally integrating ethics into our supply chain. As described in our Business Partner Code of Conduct and Ethics, our suppliers are required to know and comply with applicable employment laws and support human rights for all people. They must comply with the legal employment age in each country where they operate and abstain from using any form of forced, bonded, indentured or prison labor.

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 ethics policy program, we established an infrastructure for employees to feel comfortable and safe to report any non-compliance matters to their direct supervisor or upper management without fear or concern of retaliation for making a report in good faith. We investigate these reports and take appropriate corrective actions. We are active members of the Maritime Anti-Corruption Network (MACN). MACN is a global business network working towards the vision of a maritime industry free of corruption that enables fair trade to the benefit of society at large. Established in 2011, MACN has become one of the pre-eminent examples of collective action to tackle corruption. MACN continues to develop its strong platform to better understand the challenges and has executed on its strategy, which focuses on capacity building in the maritime industry, driving global collective initiatives against corruption, and building partnerships to improve integrity. Further, MACN has actively engaged with stakeholders, including governments, on shared solutions to improve integrity standards in port operations. We abide by the Cruise Lines International Association's (CLIA) anti-corruption principles. The principles cover for example bribery and corruption, facilitation payments and hospitality. For more details, please refer to the CLIA website at <https://cruising.org/about-the-industry/regulatory/industry-policies/other/anti-corruption>.



# LEARNING CULTURE

Our employees are the heart of our operation. A key element to our success is that as an organization we strive to create opportunities for our employees to expand their knowledge and excel in their performance. We do this by providing avenues in which they can learn and grow in their career path.

## FY2018 LEARNING CULTURE PERFORMANCE



### GLOBAL LEARNING AND DEVELOPMENT INFORMATION SYSTEM

The Global Learning & Development Information System (GLADIS) was fully launched in 2018. This shipboard learning management system allows our crewmembers to complete learning programs and review content relevant to their respective roles both onboard the ship and while ashore. The implementation and use of a single learning management system for crew members across the corporation delivers a more consistent learning experience, real-time tracking of training requirement completion, and greater efficiency in records management and reporting. It also allows for greater focus to be placed on individual performance, competency mapping, career development and advancement programs through targeted training across the corporation.



### ENVIRONMENTAL OFFICER TRAINING

In 2018, the Environmental Officer (EO) training program was expanded to include a second course for continuous professional development.



### SEAS APPLICATIONS

Seas is an assessment application designed to be used on smart devices. It measures individual and team performance based on competencies set by the corporation or by legislation. The application analyzes and provides individual performance reports based on the competency being assessed during weekly and monthly drills. Individual and team performance reports can be used to identify training needs and inform training development going forward. This app was piloted in 2018 and is expected to launch by mid-2019.



# FY2018 LEARNING CULTURE PERFORMANCE CONTINUED..



## CREWTUBE

Designed in 2017 and launched through the fleet in 2018, this self-contained app was designed to enhance the crew member training experience. Crewtube offers users a “YouTube-like” experience, covering a variety of tutorials and content including health, environment, safety and security (HESS) topics.



## ARISON MARITIME CENTER

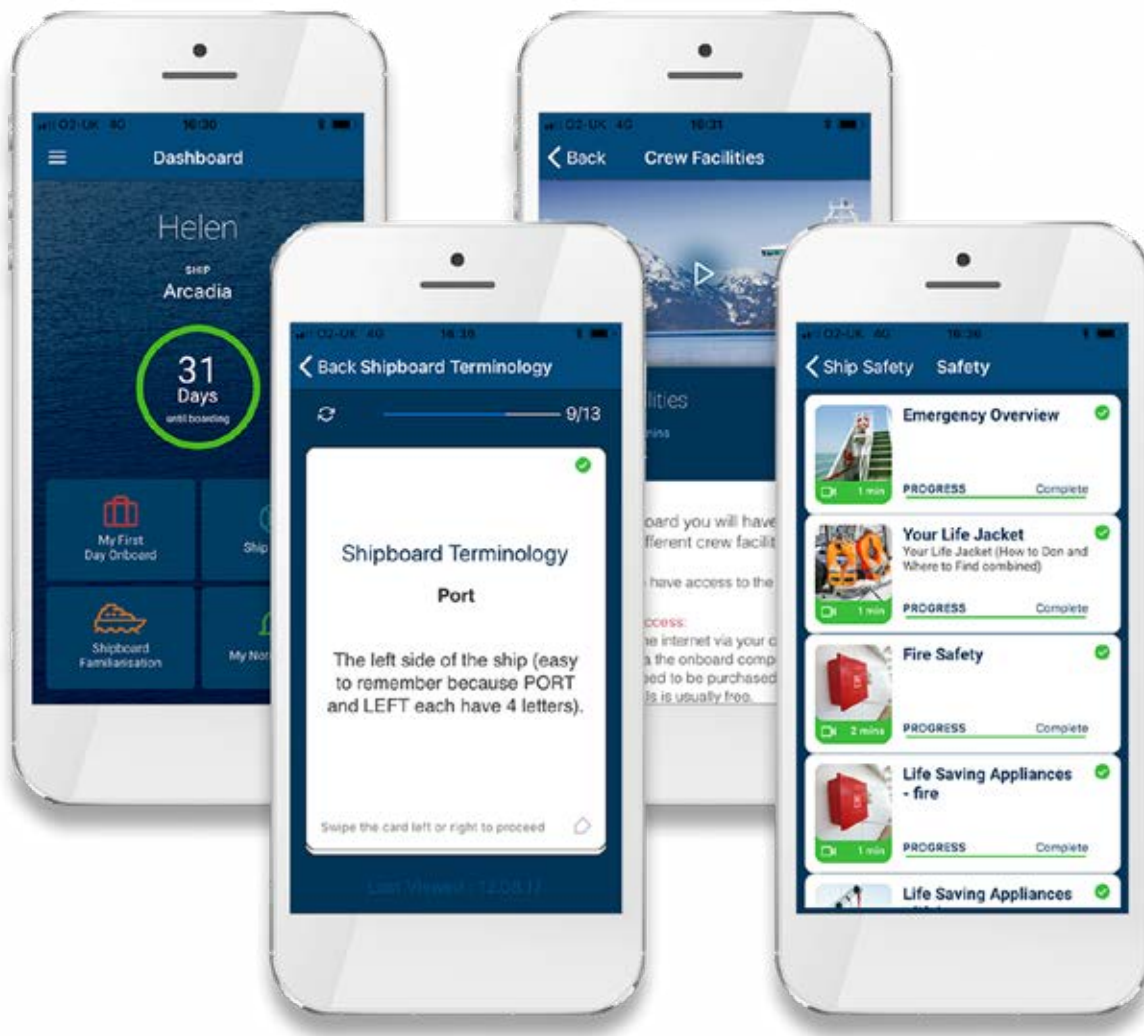
We continue to train our officers in our world-class facility equipped with the latest maritime simulation technology and equipment. The Center provides rigorous safety training for bridge, engineering, and environmental officers responsible for the navigation, operations, and environmental compliance of the world’s largest fleet of cruise ships. Participants receive a maritime training experience that fosters critical thinking, problem solving, ethical decision making and skill development. For more information please visit [www.csmartalmere.com](http://www.csmartalmere.com).



## FLEET CAPTAIN AND FLEET ENGINEER PROGRAM

We continue our Fleet Captain and Fleet Chief Engineer mentoring program, which provides regular training and mentoring for our shipboard staff, provided by our top shipboard officer performers who rotate through the program.

## CREWTUBE APPLICATIONS



## OUR COMMITMENT

As a global company, we employ more than 120,000 employees who come from very diverse backgrounds. We have a wide variety of career options and positions in place both shipboard and shoreside. These positions range from the ship captain, marine operations, engineer, hotel services, security, medical, entertainment and food service domains to our CEO and various shoreside functions that support shipboard operations. We recognize that a key to our success is providing our employees with the learning tools to perform their jobs well and grow their career within our company.

## OUR STRATEGY

We know that each of our employees has a unique education (formal and informal), set of skills, and a lifetime of personal experiences that they apply to their job. We also recognize that it is our responsibility to provide the appropriate tools and opportunities for continuous learning and development of all employees. We are committed to providing hotel and marine-related training to ensure that our shipboard crew, including officers, have the knowledge and skills to properly perform their jobs. We provide a wide range of shoreside and shipboard training for our hotel staff before and after they join our ships to further enhance their skills. Specifically, we provide bar, entertainment, guest service, housekeeping, leadership, management and restaurant training. Depending on the brand, we will also provide our hotel staff with in-depth English, German and Italian language training. All our hotel staff also undergo extensive safety and environmental training, and depending on their position, will advanced certifications. We partner closely with manning agencies to help provide portions of this training in Manila, Philippines; Jakarta, Indonesia; and Mumbai, India.

Using technology, we are changing the way we deliver training to our crew and are addressing how our crew experience learning in the workplace. By leveraging next generation learning whereby content is accessible through various means of communication platforms and employees are involved in creating the overall learning experience, we are able to improve the learning experience and results of our training programs. The accessibility of information and flexibility of delivery empowers each crew member to drive his/her own success story through knowledge and skills development.

We have reevaluated our training strategy and are implementing a new approach for our crew members that will focus on corporate-wide targeted training based on both individual performance and performance within team settings. This training strategy will focus on “assessment-based competence” methodologies.

An element that will allow us to implement this strategy is ensuring a consistent approach to training across our cruise brands. The consistency of training programs provides a greater level of familiarity among learners, establishes a knowledge baseline for all crew, sets a standard level of performance and allows for more efficient production of future training programs. Moving forward, all training programs will include:

- Knowledge learning – targeted to the appropriate function/demographic;
- Scenarios – applied knowledge;
- Knowledge check – formative assessments;
- Assessments – summative assessments;
- Aide Memoirs – job aids to support workplace performance.

In order to implement this strategy, a mixture of training delivery methods including computer-based training, instructor led training sessions, videos and job aids will assist crew members to not only prepare for their role onboard, but it will also assist them with maintaining their competencies and planning for career development and advancement.

Another component of this strategy is the implementation of performance-based assessments. These assessments provide the opportunity for employees to demonstrate their knowledge and skills relevant to topics within various work-related activities, while allowing trainers and supervisors to validate overall performance and provide support to employees where needed. For example, this will be included in emergency and operational drills. This approach provides the ability to measure the functional effectiveness of both teams and individuals. Transparency and awareness of such information will ensure that the proper support (mentoring, coaching and training) is

implemented, which will assist the team in reaching and maintaining their required performance level if it is not met during an initial drill. Within the re-evaluation process, our core training programs for all employees regarding ethics, the environment, safety and security remain a top priority.

As part of our ethics training program, every employee is responsible for adhering to business practices that are in accordance with the letter and spirit of the law and with ethical principles that reflect the highest standards of Corporate and individual behavior. This training includes topics related to human rights, labor relations, customer and customer data privacy, and social issues such as fraud and corruption, among others.

Our environmental training programs emphasize that all employees at every level of our organization will take responsibility for ensuring that environmental concerns are a key part of our planning and decision-making process and for ensuring that environmentally conscious practices are executed fleetwide. Training programs in this area are customized based on the level of each individual's environmental responsibilities.

Our training centers located in a number of geographical locations worldwide are an essential component of our training strategy. These training centers offer various learning opportunities to shoreside and shipboard personnel. Our training centers are located in Brazil, China, India, Indonesia, Italy, Germany, and the Philippines. We also run the Center for Simulator Maritime Training (CSMART), a maritime training facility located in Almere, Netherlands with advanced safety and environmental training for our Deck, Technical and Environmental Officers.





# GUEST EXPERIENCE

We deliver exceptional experiences to our guests on all seven continents and in more than 700 ports. Our world's leading cruise lines have a cruise that is right for almost everyone, all at an outstanding value unrivaled from ship to shore.

## FY2018 GUEST EXPERIENCE PERFORMANCE



### OCEAN MEDALLION™ / REGAL PRINCESS AND CARIBBEAN PRINCESS

MedallionClass Vacations deliver personalized and immersive guest experiences thanks to an innovative experience platform. In 2018, Caribbean Princess became the second Princess Cruises ship to provide guests with a MedallionClass ship experience. These are some of the features of the MedallionClass:

- **Keyless Stateroom Access:** Stateroom entry is a seamless experience where each guest is securely validated and the door automatically unlocks, with personalized greetings and loyalty level recognition on the welcome portal.
- **OceanNow:** Using smart devices, guests have the ability to place a food or drink order and have it delivered directly to them in locations throughout the ship.
- **MedallionPay:** An easy and hassle-free payment experience enabling crew members to focus on guest service interactions.
- **OceanCasino:** On smart devices and select portals, guests can wager real money on a portfolio of games, including slots, poker, bingo, roulette, keno and lottery from anywhere onboard.
- **OceanCompass:** Leverages the OceanMedallion to enable point-to-point wayfinding throughout the ship. OceanCompass guides guests throughout their journey, providing directional information so they can seamlessly navigate to their next point of interest.
- **JourneyView:** On portals throughout the ship, guests can access a real-time look at their itinerary, along with events and activities taking place during their cruise.
- **OceanView:** Guests can stream more than 100 hours of award-winning Ocean Original travel content – which airs nationally on weekends on ABC and NBC – to their smart device anywhere on the ship at no cost.
- **PlayOcean:** On portals located shipwide, guests are able to play family games, including trivia, word jumble, a matching game and Ocean Treks Adventure – an interactive, shipwide digital scavenger hunt.

# FY2018 GUEST EXPERIENCE PERFORMANCE CONTINUED..



## SPECIAL EVENTS

- AIDA Cruises, Carnival Corporation's German-based line, chose a family to be the naming ambassadors of their new ship *AIDAnova* and is the first ship in the Carnival Corporation fleet able to run entirely on liquefied natural gas.
- Holland America Line announced that Oprah Winfrey would be the Godmother of their new ship, *Nieuw Statendam*, christening the ship in Fort Lauderdale in January 2019.
- Carnival Cruise Line's new ship *Carnival Horizon* was christened by singer-actress Queen Latifah in New York City.
- Costa Cruises celebrated its birthday with the citizens of Genoa, Italy where it was born 70 years ago. People from the community attended the Costa Zena Festival, an all-day event in the city center which included free entertainment and activities such as the world's longest inflatable waterslide.



## PROMOTING ECONOMIC SUSTAINABILITY

Costa Cruises has established a partnership with the association "I Borghi piu belli d'Italia" (Italy's finest historic small towns) with the objective of favoring ecotourism and supporting the local economy in Italy's so-called borghi, or historic small towns - rethinking tourism according to the guiding principles of sustainability, innovation and accessibility. The initiative, called "Historic villages, a heritage to be discovered and fostered" takes cruise guests to these unique places with local guides who help them enjoy an authentic experience featuring the history, traditions and artistic heritage of each small town. Ten of these heritage-listed towns have been added to Costa Cruises' program of shore tours.



## HIGH-TECH ADVANCEMENTS

Many of the Carnival Corporation brands now feature phone-based apps for their onboard guests which are quickly replacing the need for paper-based daily newsletters. The apps feature daily activities, enable booking of specialty dining, shore excursions, and spa appointments. The apps also can have onboard chat room that enable communication between onboard guests. Internet connectivity at close to land-like speed is now available on many of the ships in the Carnival Corporation fleet.



## MORE IN-DEPTH EXPLORATION

- Holland America Line's Explorations Central (EXC) is an immersive program designed to make the guest experience in the local destinations more engaging, vivid and meaningful. Specially-trained EXC Guides on each ship give insightful talks on local customs and insider tips that ensure each guest gets the most from each destination. Local artists and musicians are also brought onboard for EXC Encounters. Off the ship, more than 400 ports feature EXC tours, special in-depth experiences focusing on culture, places and people in ways that are comfortable, authentic and transformative.
- The new "Adagio Tours", available for Mediterranean cruises on the flagship *Costa Diadema* allow guests with impaired mobility to take part in group shore excursions. The programs have been planned with the help of 15 women with multiple sclerosis, thanks to the initiative WAT! - Women Accessibility Tourism, promoted by the Costa Crociere Foundation and AISM (Italian Association of Multiple Sclerosis).



## CRUISE AT SEA AND BIKE ON LAND

AIDA Cruises offers guests their choice of bicycles for on shore biking excursions in destinations around the world. From touring bikes to more active mountain bikes, and even bikes with electric assist are stored onboard and personally fitted to guests for use on land. For more serious biking enthusiasts, the AIDA Bike Camp arranges longer tours, racing events and transportation for personal bicycles.



## LOOKING UP

Cunard's *Queen Mary 2* features an onboard planetarium called Illuminations. Shows are free of charge and offered numerous times throughout each cruise. Complementing the planetarium is a series of enrichment programs run by the Royal Astronomical Society with speakers and on deck star-gazing when weather permits.



### DEEPER UNDERSTANDING

Seabourn is partnering with UNESCO World Heritage to offer exclusive and enhanced shore excursions at World Heritage sites. A small donation to UNESCO's World Heritage Fund will be added to the prices of these optional tours.



### SEABOURN QUEST'S EXPLORATION

Seabourn has embarked on a new partnership with Swarovski Optik®, making the high-quality optical instruments the official optical equipment for Seabourn's Antarctica and Patagonia cruises. Under the partnership, Swarovski Optik® will outfit Seabourn Quest's Expedition Team and bridge staff with their high-precision, long-range binoculars for spotting diverse wildlife and viewing the remarkable landscapes from onboard the ship and during landings ashore.



### OPRAH MAGAZINE PARTNERSHIP

Holland America Line and O, The Oprah Magazine, have partnered on a series of cruises and activities. In 2018 Oprah Winfrey participated in her first cruise to Alaska onboard *ms Eurodam*. Many of the Holland America ships are featuring O-inspired programming such as meditation programs, O's Reading Room, and select retail items from "Oprah's Favorite Things" in the onboard stores. To learn more visit [www.hollandamerica.com](http://www.hollandamerica.com).



### TRAVEL TO CUBA

The opening of Cuba plays an important role in giving travelers another popular option for enjoying a vacation in the Caribbean, the world's most popular region for cruise vacations. 2018 saw two Carnival Corporation brands, Carnival Cruise Line and Holland America, with regular sailings to Cuba on their itineraries from Tampa and Fort Lauderdale respectively. The Holland America experiences are enhanced through the line's Exploration Central (EXC) program, featuring EXC Guides who bring the destination to life through presentations and EXC Talks that enable guests to deepen their understanding of the Caribbean's largest island. Carnival Cruise Line will be adding Cuba to some of their cruise itineraries out of Charleston and Miami in 2019 and has announced more than 60 sailings from the U.S. to Cuba in 2019 and 2020.

Seabourn, Carnival Corporation's ultra-luxury brand, has received approval to include Cuba in their 2019 itineraries.

## OUR COMMITMENT

This year, we had the privilege of taking 12.4 million guests on vacation across our 104 ships. Cruising appeals to a broad range of ages and income levels. Cruising provides something for every generation, from kid clubs to an array of onboard entertainment provided for teens and adults. Cruising also offers transportation to a variety of destinations and a diverse range of ship types and sizes, as well as price points, to attract guests with varying tastes and from most income levels.

## OUR STRATEGY

No matter what type of cruise our guests choose, providing excellent service and guest satisfaction is at the heart of our guest service strategy. Guest feedback also provides insight into how we approach our relationships with this key stakeholder group. We consider their feedback to be of vital importance.

Whether they are first-time cruisers or long-time cruise enthusiasts within our brands, we invite them to return and inspire them to recommend our brands, thereby sustaining our business. Our brands also have multiple pricing levels that vary by cruise brand, category of cabin, ship, season, duration and itinerary. We continue to upgrade and enhance the vacation experiences we offer with new features as part of our effort to attract first-time cruisers and keep our product exciting for repeat guests.

We are proud to offer a wide array of gaming opportunities for the enjoyment of our guests. We also support a Responsible Gaming program designed to assist our guests in making responsible choices through knowledge and



empowerment. Our approach to Responsible Gaming forms an integral part of this commitment. Responsible Gaming occurs in an environment where management and staff have been suitably educated to assist guests so that the potential for harm associated with gambling is kept to a minimum and our guests are able to make informed decisions. Responsible Gaming information is posted in all our onboard casinos and guests can choose to self-exclude from participating in casino gaming activities by registering with the Casino management.

Although the vast majority of our guests are highly satisfied with their vacation experience, there are occasional complaints. Resolving issues in an expedient manner during the cruise, rather than having guests wait until they return home to make contact, enables guests to more fully enjoy their vacations. This approach also provides us with a valuable on-the-spot learning tool that supports improvement of policies, procedures and the overall cruise product. Guests also have different means available to convey their opinions and their level of satisfaction to the company. A common tool is a survey provided to guests after their cruise, through which guests may express their opinions about the various aspects of the service and assign a performance score to each aspect.

Taking care of our guests during a crisis is also part of our duty. We have a dedicated group of CareTeam members who are trained to respond to a variety of emergencies, primarily medical-related situations, and are dispatched to locations throughout our cruising regions to provide personalized support and assistance as needed to all of our brands. The CareTeam members are committed to assist our guests, as well as their families, friends and loved ones and provide them with compassionate assistance and support during challenging situations.

To further care for guests, we support the passenger Bill of Rights, which details our commitment to the safety, comfort and care of our guests. It specifically addresses delays, cancellations and other unplanned events. The Passenger Bill of Rights codifies many long-standing practices of our organization and Cruise Lines International Association (CLIA) member lines and it also goes beyond some practices to further inform cruise guests of our commitment to their comfort and care.

Protecting our guests' privacy is also extremely important to our guests and business. We have dedicated privacy teams that oversee our data privacy programs. We have also implemented privacy standards, which require the conduct of reviews of the adequacy of the privacy program.



# PERFORMANCE SUMMARY – ENVIRONMENTAL DATA

	Units	2016	2017	2018
Total Ships	Number	102	103	104

## GREENHOUSE GAS EMISSIONS (GHGs)<sup>1</sup>

Total GHG Emissions - Location Based	Metric Tonnes CO <sub>2</sub> e	10,539,036	10,687,646	10,697,602
Total GHG Emissions - Market Based	Metric Tonnes CO <sub>2</sub> e	10,538,413	10,685,798	10,695,342
Direct GHG Emissions	Metric Tonnes CO <sub>2</sub> e	10,491,277	10,642,209	10,647,189
> Ship Direct GHG Emissions	Metric Tonnes CO <sub>2</sub> e	10,462,851	10,616,662	10,618,166
>> Ship Fuel GHG Emissions	Metric Tonnes CO <sub>2</sub> e	10,226,588	10,395,499	10,423,242
>> Ship Refrigerant GHG Emissions <sup>2</sup>	Metric Tonnes CO <sub>2</sub> e	236,263	221,164	194,924
> Shore Direct GHG Emissions	Metric Tonnes CO <sub>2</sub> e	28,425	25,547	29,023
Indirect GHG Emissions - Location Based	Metric Tonnes CO <sub>2</sub> e	47,759	45,437	50,413
> Shore Indirect GHG Emissions - Location Based	Metric Tonnes CO <sub>2</sub> e	41,019	35,649	39,385
> Ship Indirect GHG Emissions - Location Based	Metric Tonnes CO <sub>2</sub> e	6,740	9,789	11,028
Indirect GHG Emissions - Market Based	Metric Tonnes CO <sub>2</sub> e	47,136	43,589	48,153
> Shore Indirect GHG Emissions - Market Based	Metric Tonnes CO <sub>2</sub> e	37,851	32,331	35,505
> Ship Indirect GHG Emissions - Market Based	Metric Tonnes CO <sub>2</sub> e	9,285	11,258	12,648
Ship Fuel Greenhouse Gas Emission Rate	Grams CO <sub>2</sub> e/ ALB-Km	261	256	251

## AIR EMISSIONS

Ship Fugitive Refrigerant Releases <sup>1</sup>	Kilograms	117,936	107,153	97,628
Ship Ozone Depleting Substances (ODS) Emissions <sup>1,3</sup>	Kg CFC-11e	10,292	318	1,331
Total Sulfur Oxides (SOx) Emissions <sup>4</sup>	Metric Tonnes	98,089	99,622	98,543
Sulfur Oxides (SOx) Emissions Rate	Kg SOx/NM	10.4	10.3	10.2
Total Nitrogen Oxides (NOx) Emissions <sup>5</sup>	Metric Tonnes	253,532	257,665	258,410
Nitrogen Oxides (NOx) Emissions Rate	Kg NOx/NM	27.0	26.8	26.8
Total Particulate Matter (PM <sub>2.5</sub> ) Emissions <sup>6</sup>	Metric Tonnes	2,092	2,099	2,086
Particulate Matter (PM <sub>2.5</sub> ) Emission Rate	Kg PM/NM	0.22	0.22	0.22

## ENERGY & ELECTRICITY

Total Direct Energy Consumption <sup>7</sup>	Gigajoules	134,237,025	136,462,998	136,877,903
> Ship Direct Energy Consumption	Gigajoules	133,946,419	136,128,687	136,486,695
> Shore Direct Energy Consumption	Gigajoules	290,606	334,311	391,208
Total Direct Energy Consumption Rate	Kilojoules/ ALB-Km	3,427	3,361	3,303
Total Ship Fuel Consumption <sup>7</sup>	Metric Tonnes	3,233,138	3,287,125	3,295,821
Ship Fuel Consumption Rate <sup>7</sup>	Grams Fuel/ ALB-Km	83	81	80
Total Purchased Electricity	MWh	102,723	106,446	116,129
> Shore Purchased Electricity	MWh	78,827	77,404	83,305
> Ship Purchased Electricity	MWh	23,896	29,042	32,823

## SHIP FUEL<sup>1</sup>

High Sulfur Fuel Oil (HSFO)	Percent	75.8	74.0	73.3
Low Sulfur Fuel Oil (LSFO)	Percent	3.0	5.4	6.1
Marine Diesel Oil/Marine Gas Oil (MDO/MGO)	Percent	21.2	20.5	20.6
Liquefied Natural Gas (LNG)	Percent	0.01	0.03	0.01

## POTABLE WATER

Total Water Consumption <sup>7</sup>	Metric Tonnes	26,566,505	26,816,008	27,315,010
> Water Purchased (From Shore)	Metric Tonnes	6,079,254	5,591,610	5,639,972
> Water Produced (From Sea)	Metric Tonnes	20,487,252	21,224,398	21,675,038
Water Consumption Rate	Liters/Person-Day	232	227	226

# PERFORMANCE SUMMARY – ENVIRONMENTAL DATA

	Units	2016	2017	2018
Total Ships	Number	102	103	104

## WASTEWATER

Bilge Water Discharged to Sea <sup>7</sup>	Metric Tonnes	205,846	178,152	165,133
Bilge Water Sea Discharge Rate <sup>7</sup>	Liters/NM	21.9	18.5	17.1
Gray Water Discharged to Sea	Metric Tonnes	17,862,704	17,048,797	17,742,316
Gray Water Sea Discharge Rate	Liters/Person-Day	155.9	144.6	146.6
Black Water Discharged to Sea	Metric Tonnes	7,915,258	7,775,545	7,873,151
Black Water Sea Discharge Rate	Liters/Person-Day	69.1	65.9	65.0

## WASTE DISPOSAL

Total Waste	Metric Tonnes	354,156	357,767	378,142
> Hazardous Waste <sup>8</sup>	Metric Tonnes	127,105	137,957	144,236
> Non-Hazardous Waste	Metric Tonnes	227,051	219,810	233,906
Waste Rate (Excluding Recycling)	Kilograms/Person-Day	2.3	2.2	2.2
Waste Recycled	Percent	26.5	28.0	30.1

**1)** Independently verified by Lloyd's Register Quality Assurance (LRQA) in accordance with ISO 14064-3:2006, "Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertion." **2)** Revised FY2018 emission factors are in accordance with The Climate Registry Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4). **3)** The conversion factors to obtain the amount of CFC-equivalent from the various types of refrigerant gases are those given in the Montreal Technical Papers. FY2016 high value was due to accidental releases of a gas with a high ODS value into the environment. **4)** The SOx emission calculations take into account the weighted-average sulfur content of the fuel consumed and default emission factors. The default emission factor used for calculating SOx value is %S x 20 x 0.96, where S is the fuel sulfur content. This calculation has been adjusted to account for the usage of Advanced Air Quality Systems (AAQS). This adjustment was made based on the near-zero sulfur emissions resulting from planned HSFO fuel consumption during AAQS operations. **5)** The NOx emission calculations are based on default emission factors. The default emission factor used for calculating NOx value for HSFO/LSFO is 78 kg, MGO is 80 kg, and LNG is 7 kg of NOx per tonne of fuel consumed. **6)** PM2.5 refers to particles with diameters between 2.5 and 10 micrometers. The PM2.5 weight is calculated based on default emission factors. The default emission factor used for calculating PM2.5 value for HSFO is 0.82 kg, LSFO is 0.75 kg, MGO is 0.15 kg, and LNG negligible kilograms of PM2.5 per tonne of fuel consumed. This calculation has been adjusted to account for AAQS. This adjustment was made based on PM2.5 emission reductions resulting from planned HSFO fuel consumption during AAQS operations. **7)** Independently verified by LRQA. **8)** Carnival Corporation & plc's definition of hazardous waste is in accordance with most recognized waste management practices worldwide, though some countries may have somewhat different definitions. For regulatory purposes, Carnival Corporation & plc complies with the requirements of the particular country where waste is landed. Carnival Corporation & plc uses the most inclusive definition of hazardous waste for sustainability reporting purposes, which standardizes waste reporting quantities independent of how the wastes are classified when landed ashore, thus potentially resulting in higher reported aggregate quantities of hazardous waste but allowing for more consistent trend analysis.



# PERFORMANCE SUMMARY – SOCIAL DATA (SHIPBOARD)

	Units	2016	2017	2018
<b>WORKFORCE<sup>7</sup></b>				
Average Crew	Number	84,600	86,000	88,000
<b>DIVERSITY</b>				
Labor Sourcing Region:				
> Africa	Percent	1.0	1.6	1.6
> Asia	Percent	69.4	72.2	72.0
> Australia	Percent	0.7	0.5	0.5
> Europe	Percent	16.6	17.8	18.2
> North & Central America	Percent	9.2	4.6	4.4
> South America	Percent	3.1	3.3	3.2
Gender Distribution - Female	Percent	17.0	17.0	17.4
Gender Distribution - Male	Percent	83.0	83.0	82.6
<b>INJURIES &amp; FATALITIES</b>				
Total Injuries	Number	2,357	2,911	3,365
> Minor Injuries	Number	1,304	1,719	2,223
> Serious Injuries	Number	544	637	583
> Major Injuries	Number	509	555	559
Accidental Deaths	Number	1	1	1
<b>HEALTH &amp; SAFETY<sup>1</sup></b>				
Total CDC VSP Inspections	Number	109	120	94
> CDC VSP Inspections - Ships scoring 100%	Number	13	18	14
> CDC VSP Inspections - Ships scoring 86 - 99%	Number	94	97	77
> CDC VSP Inspections - Ships scoring < 86%	Number	2	5	3
<b>OTHER STATISTICS</b>				
Employee Turnover	Percent	19.4	16.9	18.9
Employees Covered by Collective Bargaining Agreements (CBA)	Percent	58.1	58.0	58.0
Employees Represented by Health and Safety (H&S) Committees	Percent	100.0	100.0	100.0



# PERFORMANCE SUMMARY – SOCIAL DATA (SHORESIDE)

	Units	2016	2017	2018
<b>WORKFORCE</b>				
Average Number of Full Time Employees	Number	10,500	11,000	12,000
Average Number of Part Time/ Seasonal Employees	Number	2,100	2,200	2,000
Shoreside Employee Status - Full Time	Percent	83.2	83.0	85.7
Shoreside Employee Status - Part Time	Percent	16.8	17.0	14.3
<b>DIVERSITY</b>				
Gender Distribution - Female	Percent	58.8	58.9	57.5
Gender Distribution - Male	Percent	41.2	41.1	42.5
<b>EMPLOYEES BY BRAND HEADQUARTER REGION<sup>2</sup></b>				
Australia	Percent	3.1	2.9	2.9
Europe	Percent	31.3	31.5	31.6
North America	Percent	65.6	65.6	65.5
<b>OTHER STATISTICS</b>				
Employee Turnover <sup>3</sup>	Percent	13.3	14.0	15.1
Employees Covered by Collective Bargaining Agreements (CBA)	Percent	21.1	20.6	21.0
Employees Represented by Health & Safety (H&S) Committees	Percent	73.5	72.8	70.2

**1)** Independently verified by Lloyd's Register Quality Assurance (LRQA).

**2)** In addition to our headquarters locations, other offices are located worldwide. Due to varying legal requirements worldwide, further detail on employee base is limited.

**3)** This number does not include shoreside employees on unpaid leave.

# OUR APPROACH TO SUSTAINABILITY

We are committed to sustainability and this commitment is embedded in our business - from ship to shore. In this report we describe our approach to sustainability. We outline our positions, strategies and programs around key sustainability topics of relevance to our company, the cruise industry and our stakeholders.

Our Sustainability Report provides another platform to expand our level of communication regarding additional material indicators related to our performance beyond those disclosed in our Annual Financial Reports, Proxy Statement, other regulatory disclosures and our brand specific Sustainability Reports. We produce this report for the benefit of our stakeholders.

## STAKEHOLDER ENGAGEMENT

We hope that the information and perspectives in this report are useful and you see them as an invitation for further dialogue with us. We regularly and pro-actively 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.

In general, 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, town halls, email communication and social media interaction, among others. These engagement processes help to ensure that all stakeholders have an equal opportunity to ask questions and voice their concerns.



### GUESTS

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



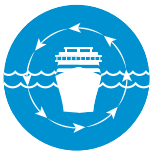
### TRAVEL PROFESSIONALS

We work with responsible business partners who share our values. We host travel professionals on our ships to provide them with opportunities to better experience our products and services.



### SUPPLIERS

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



### NON-GOVERNMENT ORGANIZATIONS

We collaborate with and belong to organizations that work to address issues of concern to our industry and stakeholder groups.



### INVESTORS

We engage on our environment, social and governance (ESG) 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 & POLICY MAKERS

We strive to positively impact public policy and regulation by contributing cruise industry expertise.



### MEDIA

We work on a variety of subjects related to our business and impact.



### BUSINESS ORGANIZATIONS/ 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.



## SCOPE OF REPORT

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This Sustainability Report provides information related to our company's 2018 Fiscal Year (FY) performance - December 1, 2017 to November 30, 2018. However, due to the timing of the release of this report, certain significant events from FY2019 are also presented. This is our ninth annual Sustainability Report. This report was developed in line with the Global Reporting Initiative (GRI) Standard - Core "In Acceptance" level. Sustainability performance data included in this Sustainability Report is based on information supplied to Carnival Corporation & plc by our brands, the fleet of cruise ships operated by each brand and corporate departments.

These include:

- Quantitative data collected, aggregated and analyzed, utilizing our sustainability data collection and reporting systems;
- Quantitative data for specific indicators assured to limited level of assurance by a third party; and
- Qualitative data collected from each of Carnival Corporation & plc's brands and from other in-house and industry sources.

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. As greenhouse gas (GHG) emissions represent one of our main operational direct impacts, we include purchases of shipboard and shoreside energy (fuel and electricity). We consider our shoreside water consumption and waste generation immaterial relative to our ship operations. We have continued to expand our report boundary, as we have continued to include some of our indirect impacts. As we continue our sustainability journey, we expect to incorporate more indirect impacts of our operations related to our diverse supply chain.

We adjust data if data collection methods change or data errors are identified. Any significant changes in the measurement methods and/or data values applied to key metrics from previous years are documented within this report. Significant changes are defined as changes within major categories greater than 5% of the original reported data. We made adjustments to the data collection process to improve consistency of data across our brands. See the performance summary for details. We normalize the majority of our indicators to account for changes in the size of our fleet, as well as changes in itineraries and guest capacity.

The information in this Sustainability Report includes significant actions or events in the reporting period. This report does not intentionally exclude relevant information that would influence or inform stakeholder assessments or decisions, or that would reflect significant economic, environmental or social impacts.

## MATERIALITY

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Every two years we perform a materiality analysis and a benchmarking review to make sure we continue to address our stakeholder needs, operational impacts, the regulatory landscape and technological developments. Last year we reevaluated the significant economic, environmental and social aspects of our operations to further assess the relative impacts of these aspects. Known as a "materiality assessment", this analysis enables us to determine which aspects substantively influence the assessments and decisions of our stakeholders; recognize and act effectively in relation to sustainability-related opportunities and risks; and, determine how these aspects affect our stakeholders, society and the environment. This year we made a minor update to the materiality analysis to reflect changes in business strategy.

During this evaluation process, we simultaneously conducted a benchmarking review of major hospitality, travel and marine industry companies.

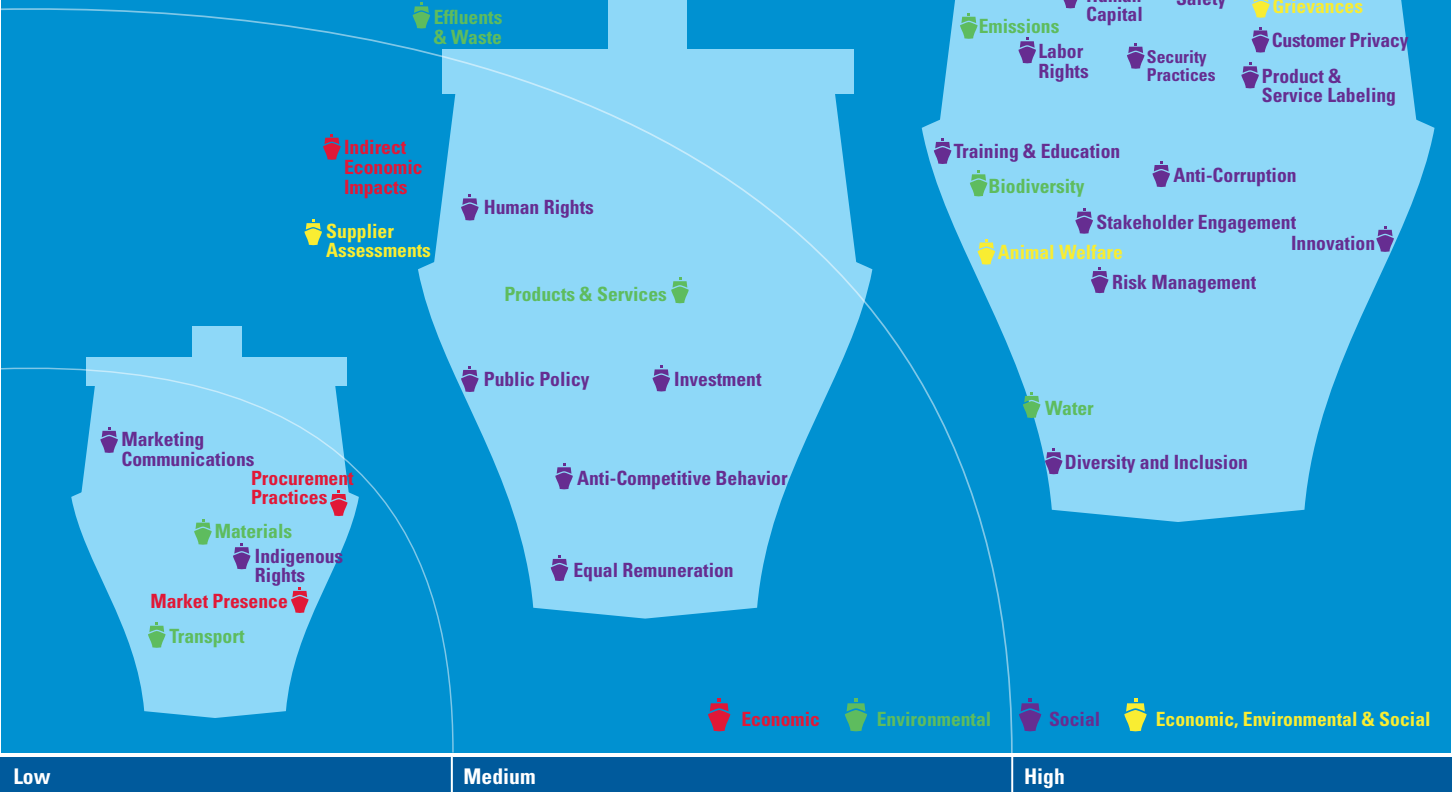
# MATERIALITY MATRIX

RELATIVE CONCERN TO OUR STAKEHOLDERS

High

Medium

Low



CURRENT OR POTENTIAL IMPACT ON THE COMPANY

As part of our materiality assessment process we:

- Reevaluated the significant issues presented in our prior sustainability materiality assessments.
- Reviewed the environmental, social, governance and economic aspects and indicators, as they apply to our business.
- Analyzed the results of stakeholder sustainability engagements, including investor and customer inquiries, questionnaires and surveys from rating organizations, industry reports and analyses, policies and regulatory guidance, among others.
- Benchmarked our sustainability strategy using publicly available information.
- Held internal meetings to discuss company perspectives on sustainability aspects and impacts.
- Evaluated 2020 sustainability goals progress.
- Mapped the universe of stakeholder and company aspects on a materiality matrix, identifying the mid and high-scoring issues as priorities for our operations. This mapping enabled us to:
  - o Prioritize information on the basis of materiality, analysis of environmental aspects and impacts (ISO 14001), sustainability context, and stakeholder inclusiveness;
  - o Agree on the desired content for each metric and the approach to reporting (qualitative vs. quantitative detailed performance tracking, etc.)



## EVALUATION PROCESS

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The materiality matrix summarizes the results of our materiality assessment and shows, for each aspect, its relative concern to our stakeholders and its current or potential impact on the company. Materiality is about identifying the issues that matter most to our business and to our stakeholders. “High” and “Medium” issues help us to set the agenda for our sustainability strategy and for what we included in our current and future sustainability reports. “Low” issues, while important and managed by the company, are not currently covered in detail in our sustainability reporting as they are of lesser concern to our stakeholders.

We plan to perform this materiality analysis and a benchmarking overview every two years, to make sure we continue to address our stakeholder needs, operational impacts, regulatory landscape and technological developments.

## DISCLAIMER IN RESPECT TO FORWARD-LOOKING STATEMENTS

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The data included in this report has been collected and processed with the utmost care. Nevertheless, errors in transmission cannot be ruled out entirely. 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, outlooks, plans, goals and other events which have not yet occurred. All statements other than statements of historical facts are statements that could be deemed forward-looking statements. Forward-looking statements should not be relied upon as a prediction of actual results. 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.

We have tried, whenever possible, to identify these statements by using words like will, may, could, should, would, believe, depends, expect, goal, anticipate, forecast, project, future, intend, plan, estimate, target, indicate and similar expressions of future intent or the negative of such terms.

We go to great lengths to check and update the information we publish. However, we expressly disclaim any obligation to disseminate, after the date of this report, any updates or revisions to any such forward-looking statements to reflect any change in expectations or events, conditions or circumstances on which any such statements are based.



# ENVIRONMENTAL OFFICER RESPONSIBILITIES

Our brands offer distinct cruising options along with a truly unique and memorable experience for our guests. As different as our brands are, they all share a commitment to preserving the beautiful and often pristine environments in which we cruise. Because of this shared sense of responsibility, the company carefully manages environmental activities and addresses environmental stewardship at every level of our organization.

In collaboration with our brand environmental teams, our Maritime Policy & Analysis Department evaluates environmental risks, develops policies and procedures, and raises the bar on our environmental leadership and performance through regulatory requirements and identifying best-practices

Our management teams identify and manage environmental aspects and impacts, supervise the environmental performance of the ships, and ensure implementation of environmental statutory requirements, best management practices and company environmental procedures. Most importantly, the dedicated ships' Officers and crew carry out company policies and procedures onboard every day.

Each ship in our fleet has a full-time Environmental Officer (EO), who oversees environmental compliance and correct implementation of procedures. Each EO reports directly to the ship's Captain, and has a direct line of communication with the brand's shoreside Environmental Compliance Manager.

Our brands also encourage our guests to be aware of their own impact on the environment. We provide, for example, environmental awareness information to passengers across a range of media. Our EOs are glad to answer any environmental questions our guests may have and to provide in-depth insight into maritime environmental management. for interested guests.

## SCOPE OF EO RESPONSIBILITIES

- Monitoring the ship's environmental compliance activities, including waste operations.
- Performing environmental rounds and inspections to assess the ship's environmental performance.
- Assisting the crew in addressing environmental concerns and questions related to Carnival's Environmental Management System and applicable environmental requirements.
- Responding to inquiries or complaints of any crew members, guests or government officials regarding environmental practices and operations.
- Managing environmental shipboard training of crew and contractors who have environmental responsibilities.
- Assessing the environmental proficiency of the ship's crew, identifying gaps and providing additional training if necessary.
- Aiding the Captain, Engine Department and government officials, in the event of accidental releases or spills.
- Participating in shipboard management meetings and ensuring that environmental matters are addressed.
- Evaluating new methods to minimize the ship's environmental impact (waste minimization, water and energy conservation, and other measures).
- Providing relevant environmental regulatory information in support of voyage planning.
- Providing assistance to internal and external auditors during environmental audits.
- Monitoring crew members and shoreside contractor environmental activities.
- Testing the Carnival Compliance and Ethics Hotline and ensuring that Carnival Compliance and Ethics Hotline information is posted in highly visible crew areas.
- Ensuring proper notification of all environmental incidents, as required.

# BOARDS OF DIRECTORS AND COMMITTEES

The Boards have five committees, each of which has a specific charter (except for the Executive Committee), defined responsibilities and composition. The charter for each of these committees can be found on the Corporate Governance section on our corporate website. Further discussion of the HESS Committees can be found in the Risk Management section of this report. The committees include the following:

COMMITTEES	PURPOSE
Health, Environmental, Safety & Security (HESS) Committees	The purpose of the Health, Environmental, Safety & Security ("HESS") Committee is to assist the Boards in fulfilling their responsibility to supervise and monitor health, environmental, safety and security policies, programs, initiatives at sea and onshore, and compliance with health, environmental, safety and security legal and regulatory requirements.
Compensation Committees	The purpose of the Compensation Committee is to have overall responsibility for approving and evaluating the director and officer compensation plans, policies and programs of the Companies, including annual base salary, annual incentive opportunity, long-term incentive opportunity, stock option or other equity participation plans, terms of employment agreements, severance arrangements, and change in control agreements (in each case as, when and if appropriate), any special or supplemental benefits, or any other perquisites, privileges or payments that are deemed to be "compensation" or "remuneration" under the rules and regulations of the U.S. Securities and Exchange Commission or United Kingdom company law or other regulations.
Audit Committees	The purpose of the Audit Committee shall be to (1) assist the Boards' oversight of (a) the integrity of the Companies' financial statements, (b) the Companies' compliance with legal and regulatory requirements (other than health, environmental, safety and security matters), (c) the independent auditor's qualifications and independence, (d) the performance of the Companies' internal audit functions and independent auditors, and (e) relevant elements of the Companies' risk management programs; and (2) prepare the report that the U.S. Securities and Exchange Commission ("SEC") rules require be included in the Companies' annual proxy statement.
Nominating & Governance Committees	The purpose of the Nominating & Governance Committees is: (1) to develop and recommend to the Boards a set of Corporate Governance Guidelines applicable to the Companies; (2) to assist the Boards by identifying individuals qualified to become Board members, and to recommend to the Boards the director nominees to serve on the Boards; (3) to recommend to the Boards director nominees for each committee; and (4) to assist the Boards with such other matters as may be set forth in this Charter from time to time.
Executive Committees	The purpose of the Executive Committees is to exercise the authority of the full Boards between Board meetings, except to the extent that the Boards have delegated authority to another committee or to other persons, and except as limited by applicable law.

More information on linkages between compensation for members of the Boards of Directors, Executives and Senior Management, and the company's financial, environmental, social and governance performance can be found in the Compensation Discussion and Analysis section of our annual Proxy Statement at [www.CarnivalCorp.com](http://www.CarnivalCorp.com)



# MODERN SLAVERY ACT

## Statement Pursuant to Modern Slavery Act 2015

Carnival Corporation & plc is the world's largest leisure travel company and provides travelers around the globe with extraordinary vacations at an exceptional value. The company's portfolio of global cruise line brands includes brands in the United States, Europe, Asia and Australia, and our ships visit more than 700 ports around the world. The United Kingdom's Modern Slavery Act 2015 requires companies like ours to disclose information regarding their efforts to combat slavery and human trafficking in their supply chain and within their business. We take this responsibility very seriously and are proud of the measures we have taken in this regard. This statement has been approved by our Boards of Directors and sets out the steps that we have taken during the previous fiscal year to combat slavery and human trafficking within the internal operations of our company or the suppliers, vendors and other companies we partner with around the world.

### **Our policies**

Our employees are subject to and are expected to follow our Code of Business Conduct and Ethics, which requires employees to act "with the utmost integrity when dealing with fellow employees, guests, global communities, government agencies, vendors, contractors, service providers, agents and other business partners." Our Code explicitly condemns all forms of child exploitation and forced labor and states our intent to comply with and support laws and regulations relevant to slavery and human trafficking. All of our employees are required to complete ethics training courses to help them understand the company's expectations and the importance of conducting business in an ethical and responsible manner. We plan to include education on modern slavery issues in the next revision of our Code of Conduct Training.

Similarly, we continue to expect our business partners to respect and follow applicable laws and regulations and to promote ethical decisions in all aspects of their business. These requirements are documented in our Business Partner Code of Conduct and Ethics, which specifically prohibits the use of slavery and human trafficking in our direct supply chain. This requirement is communicated to business partners through online supplier portals, in contracts, in our standard terms and conditions and as part of our standard due diligence procedures. Our [Code of Business Conduct and Ethics](#) and [Business Partner Code of Conduct and Ethics](#) are available online.

### **Due diligence**

We apply risk-based due diligence to our relationships with business partners. We decline to enter or continue business with any business partners who fail to complete the required due diligence requirements or who fail to meet our standards.

### **Reporting**

Employees and business partners are actively encouraged to raise and report any issues of concern to their local management team, our Compliance Department or anonymously through our hotline. All reports are reviewed, and investigations and corrective (or other) action are applied when appropriate. In accordance with this commitment to continuously monitor and improve our policies, we plan on revising the Reporting of Improprieties Policy to specifically include slavery and human trafficking as areas to report.

The above processes are reviewed and updated on a regular basis to ensure that they are appropriate to our industry and business and that they remain effective.

### **Further steps**

As a result of its review in 2017, the Company identified the initial components of its 2030 strategy in alignment with the United Nations Sustainable Development Goals. These goals were adopted by world leaders, universally apply to all countries and are designed to mobilize efforts to end all forms of poverty, fight inequalities and promote responsible production and consumption, among other important social goals. We continue to define our sustainability strategy and our policies to address the risk of modern slavery as well as other social issues.



Arnold W. Donald  
President and Chief Executive Officer



We have continued to develop and introduce comprehensive health standards that go beyond regulatory requirements to help protect the health of our guests, crew and port employees. These standards are implemented and enforced by each of our brands and the port facilities that we own and operate (i.e. Puerto Maya, Cozumel, Mexico; Grand Turk Cruise Center, Turks & Caicos Islands; Amber Cove Cruise Center, Puerto Plata, Dominican Republic and Mahogany Bay Cruise Center, Roatán, Honduras).

The following is a summary of procedures adopted to protect health onboard and ashore:

- Managing of food and water safety through comprehensive shore-based and onboard processes and systems. These include ensuring safe food sourcing and protecting food safety from delivery through storage, preparation, cooking and final service. Managing of food safety is based on the principles of the international best practice system of Hazard Analysis and Critical Control Point (HACCP). We similarly protect water safety throughout production, storage and distribution to the final consumer.
- Managing housekeeping and laundry to follow best practices for cleaning and disinfection in cabins, public areas, crew areas and within laundry operations on our ships.
- Preventing the spread of illnesses through contaminated surfaces by carefully managing all cleaning operations throughout the ship. For ship and port operations, we ensure the regular and effective cleaning and sanitizing of frequently contacted hand touch surfaces such as door handles, railings, tables and elevator buttons.
- Managing air handling systems and air conditioning to help ensure safe indoor air quality.
- Managing recreational water facilities including the quality of water and safety of swimming pools, spa pools and other leisure facilities.
- Managing onboard child activity centers and facilities to help prevent the spread of childhood illnesses.
- Managing the public health standards in onboard beauty spas, salons and gym facilities.
- Managing the prevention and control of pests using an integrated pest management (IPM) approach.
- Promoting guest, crew and port employees health by ensuring hand washing facilities and hand sanitizers are made readily available and encouraging their frequent use.
- Ensuring ready access to public health specialists and comprehensive medical and health services to deal with outbreaks and other health emergencies. This includes ensuring arrangements are in place to provide additional medical and public health personnel.
- Promoting effective isolation of anyone who may spread communicable diseases. Including requesting that ill guests and crew report relevant symptoms immediately and that they recuperate in their cabins until these subside, in an effort to reduce the spread of any illness of public health concern.
- Communicating well established good hand hygiene practices and other infection control measures to guests, crew and port employees. This includes specific public health training for crew and port staff on implementing our procedures.

# ENERGY-SAVINGS INITIATIVES

We are continuously investing in a broad range of voluntary energy reduction initiatives that meet or surpass the requirements of current laws and regulations. Reducing fuel and driving energy efficiency takes multi million-dollar investments and a multi-pronged strategy. Below is a list of some of the initiatives we are working on:

## DESIGNING SHIPS FOR GREATER EFFICIENCY

- Optimize hull design to minimize drag.
- Select fuel-efficient combustion equipment.
- Install equipment such as steam turbines to use waste heat.
- Install energy-efficient onboard equipment, including lighting.

## INCREASING EFFICIENCY THROUGH SHIP OPERATIONS AND MAINTENANCE

- Optimize diesel generator use at sea and in port.
- Manage use of evaporators and reverse osmosis plants.
- Use LED lighting.
- Utilize sophisticated control systems for heating ventilation and air-conditioning (HVAC).
- Monitor and improve chiller performance.
- Apply state-of-the-art anti-fouling marine hull coatings.
- Clean propellers and hulls regularly.
- Reduce energy consumption.
- Increase use of waste heat from engine exhaust for fresh water production and steam generation.
- Use on-demand methodology for galley ventilation control.

## MINIMIZING FUEL USE AND ENGINE EMISSIONS

- Examine ways to increase energy efficiency through fuel homogenizers, which improve combustion and reduce fuel consumption.
- Optimize the use of diesel generators onboard to improve efficiency.
- Use waste heat generated by the ships' engines to make steam instead of relying on the ships' boilers.
- Reduce the power required by engine room ventilation fans, through use of variable-frequency fan-drive motors and related pressure and temperature control systems.

## IMPLEMENTING OTHER ENERGY-SAVING INITIATIVES

- Design more fuel-efficient itineraries.
- Use voyage optimization tools.
- Increase energy use awareness through education and training of guests and crew.
- Develop our ability to use alternative fuels.
- Research and developing emissions-reduction technologies.
- Incorporate an innovative "Air Lubrication System," which creates bubbles between the ship's hull and water to reduce friction.

## MINIMIZING ENGINE EMISSIONS

- Use Cold Ironing or Plug-In while in port.
- Install Advanced Air Quality Systems.
- Use alternative fuels like Liquefied Natural Gas (LNG).

# SUMMARY OF KEY REGULATIONS GOVERNING OUR OPERATIONS

This table summarizes some of the principal 2018 international, national, state and local laws, acts, codes, directives, legislation, treaties, protocols, statutes, rules, regulations and voluntary guidelines that govern the operation of our ships as related to environmental, maritime safety and security, and labor requirements in the jurisdictions in which our ships operate. Carnival Corporation & plc complies with these various requirements and we update our practices and procedures, as well as our management systems, based on changes to these requirements, as appropriate.

## INTERNATIONAL CONVENTIONS:

### INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA ("SOLAS")

#### Regulation Description & Summary of Requirements

SOLAS contains safety requirements for design, construction, equipment, operations, safety management, and security, set forth in numerous chapters, including the following which apply to Carnival Corporation & plc's operations:

- Chapter I – General Provisions
- Chapter II-1 – Construction – Subdivision and stability, machinery and electrical installations
- Chapter II-2 – Fire protection, fire detection and fire extinction
- Chapter III – Life-saving appliances and arrangements
- Chapter IV – Radio-communications
- Chapter V – Safety of navigation
- Chapter IX – Management for the safe operation of ships
- Chapter XI-1 – Special measures to enhance maritime safety
- Chapter XI-2 – Special measures to enhance maritime security
- Chapter XIII – Verification of Compliance
- Chapter XIV – Safety Measures for Ship Operating in Polar Waters

Compliance with SOLAS is verified by inspections and surveys conducted by the Flag State, or by its delegated representative (usually a classification society), and certificates are issued that confirm compliance. Port States also verify compliance with these requirements. In addition, cruise ships are subject to surveys that examine the ship's structure (subdivision and stability), machinery and equipment, including life-saving appliances, fire protection and fire-safety systems, navigational equipment, radio installations, and other equipment to confirm compliance with the requirements of SOLAS. These surveys are conducted before the ship is put into service, annually thereafter, and as necessary. The Flag State issues a Passenger Ship Safety Certificate as evidence of compliance with SOLAS requirements.

On January 1, 2017, the International Code for Ships Operating in Polar Waters ("Polar Code"), adopted by the IMO in May 2015, entered into force and is mandatory under SOLAS and MARPOL. The Polar Code establishes a chapter of SOLAS, Chapter XIV, which provides additional safety measures for vessels in polar waters.

#### How We Meet or Exceed Regulation

Carnival complies with SOLAS.

We have also developed and implemented standardized policies and procedures **that go beyond SOLAS requirements** to further ensure the safety of our guests, ship personnel and ships, and cover a number of subjects including:

- ✓ bridge team management;
- ✓ training;
- ✓ fire protection, detection and suppression;
- ✓ ship stability;
- ✓ life-saving equipment and systems.

✓ **Carnival Corporation & plc exceeds regulations**



## INTERNATIONAL CONVENTIONS:

### INTERNATIONAL SAFETY MANAGEMENT CODE (“ISM CODE”), CONTAINED IN CHAPTER IX OF SOLAS

#### Regulation Description & Summary of Requirements

The ISM Code is an international standard for the safe management and operation of ships and for pollution prevention. It requires all ship operating companies and ships to develop, implement and obtain certification of their Safety Management System (“SMS”). The SMS covers both shipboard and shore-based activities and must include:

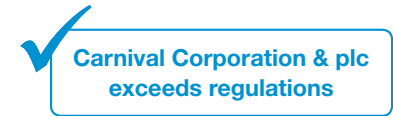
- a company safety and environmental protection policy;
- instructions and procedures to ensure the safe operation of ships and protection of the environment;
- procedures for preparing for and responding to emergencies;
- defined levels of authority and lines of communication between shore and shipboard personnel, and identification of a designated person ashore responsible for ISM Code compliance;
- procedures for reporting accidents and ISM Code non-conformities; and
- procedures for internal and external audits and management reviews.

The 2018 edition of the ISM Code included new guidance on Maritime Cyber Risk Management and vessel owners will be required to update SMSs with plans for cyber safety management by the first annual verification of the company’s Document of Compliance after January 1, 2021.

#### How We Meet or Exceed Regulation

Compliance with ISM code is verified by inspections and surveys conducted by the Flag State, or by its delegated representative (usually a classification society), and certificates are issued that confirm compliance. Carnival Corporation & plc complies with ISM Code and has also obtained additional certifications that **go beyond the requirements of the ISM Code**, including:

- ✓ ISO 14001 Environmental Management System certification Carnival Corporation (all Brands),
- ✓ ISO 9001 Quality Management System certification (some Brands), and
- ✓ HSAS 18001 Occupational Health and Safety Management System certification (some Brands).



### INTERNATIONAL SHIP AND PORT FACILITY SECURITY CODE (“ISPS” CODE), CONTAINED IN CHAPTER XI-2 OF SOLAS

#### Regulation Description & Summary of Requirements

The ISPS Code:

- defines security standards, requirements, arrangements and procedures for ships, ports, and governments; and
- prescribes responsibilities for governments, shipping companies, shipboard personnel, and port/facility personnel, among others, to develop security plans, detect security threats and take preventative measures against potential security incidents affecting ships or port facilities.

Compliance is verified by inspections and surveys conducted by the Flag State, or by its delegated representative (usually a classification society), and certificates are issued that confirm compliance.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the ISPS Code.



## INTERNATIONAL CONVENTIONS:

### INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (“MARPOL”)

#### Regulation Description & Summary of Requirements

MARPOL is the principal international convention governing marine pollution prevention and response.

Compliance with MARPOL is verified by inspections and surveys conducted by the Flag State, or by its delegated representative (usually a classification society), and certificates are issued that confirm compliance. Port States also verify compliance with these requirements.

MARPOL has six Annexes, four of which are applicable to Carnival Corporation & plc’s ships and are described in the following:

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the requirements of MARPOL. We have also developed and implemented procedures that **go beyond MARPOL and other regulations** to further ensure environmental protection. They cover a number of subjects including:

- ✓ control of refrigerants and other ozone depleting substances,
- ✓ refrigerant personnel training,
- ✓ wastewater management,
- ✓ oily waste management,
- ✓ hazardous waste management,
- ✓ hazardous materials management,
- ✓ Environmental Management Systems,
- ✓ environmental organization,
- ✓ environmental training,
- ✓ environmental performance monitoring and reporting,
- ✓ underwater paint coating,
- ✓ environmental accountability and reporting.



**Carnival Corporation & plc  
exceeds regulations**

#### Regulation Description & Summary of Requirements

Annex I, Regulations for the Prevention of Pollution by Oil, establishes requirements that minimize pollution from oil. Annex I sets forth a comprehensive list of requirements that include:

- vessel equipment and design specifications to reduce the occurrence of oil discharge;
- fitting vessels with oil discharge monitoring and control systems, oily water separating equipment, oil content meters (bilge alarms) and a filtering system, slop tanks, sludge tanks, piping and pumping arrangements;
- recordkeeping requirements for such equipment; and
- having an approved shipboard oil pollution emergency plan (SOPEP).

On January 1, 2017, IMO amended regulation 12 of MARPOL Annex I, concerning tanks for oil residues (sludge). The amendments update and revise the regulation, expanding on the requirements for discharge connections and piping to ensure oil residues are properly disposed.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc exceeds the requirements of Annex I in areas that include, but are not limited to:

- ✓ requiring that Carnival Corporation & plc’s Brands install “bilge control discharge boxes” which are redundant systems that monitor treated bilge water.
- ✓ Carnival Corporation & plc’s Brands discharge treated bilge water outside 12 NM from the nearest land, whereas Annex I has no distance restrictions provided the ship is “en route” (sailing).



**Carnival Corporation & plc  
exceeds regulations**

## INTERNATIONAL CONVENTIONS:

### INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS ("MARPOL") *continued*

#### Regulation Description & Summary of Requirements

Annex IV, Regulations for the Prevention of Pollution by Sewage from Ships:

- establishes regulations for the discharge of sewage into the sea from ships, regulations regarding the ships' equipment and systems for the control of sewage discharge, the provision of facilities at ports and terminals for the reception of sewage, and requirements for survey and certification;
- requires ships to be equipped with either an approved sewage treatment plant, or an approved sewage comminuting and disinfecting system, or a sewage holding tank;
- prohibits the discharge of sewage into the sea, except when the ship has in operation an approved sewage treatment plant, or when the ship is discharging comminuted and disinfected sewage using an approved system at a distance of more than 3-4 NM from the baseline, unless local requirements permit otherwise
- limits discharges of sewage that is not comminuted or disinfected to specific rates and at a distance of more than 12 NM from the nearest land; and
- establishes stricter discharge requirements in designated Special Areas, including the Baltic Sea.

September 1, 2017 amendments to MARPOL Annex IV create the first MARPOL Special Area for sewage in the Baltic Sea. The amendments set implementation dates for new and existing passenger vessels and outlines compliance options and treatment plant approval standards.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc exceeds the requirements of Annex IV by:

- ✓ installing Advanced Waste Water Purification Systems (AWWPS) for the treatment of sewage and gray water in some ships. AWWPS utilize technologies designed to produce a higher effluent quality that is above MARPOL sewage treatment standards, and meets or surpasses standards for secondary and tertiary effluents and reclaimed water. Annex IV does not regulate gray water management or treatment.

✓ **Carnival Corporation & plc exceeds regulations**

#### Regulation Description & Summary of Requirements

Annex V, Regulations for the Prevention of Pollution by Garbage from Ships:

- establishes rules and guidelines to eliminate the amount of garbage disposed of into the sea from ships;
- provides a general prohibition on the disposal of garbage from ships into the sea, with limited exceptions, for food wastes and operational wastes not harmful to the marine environment;
- defines garbage as all kinds of food, domestic and operational waste, including plastics and cooking oil, and excluding fresh fish, generated during the normal operation of the vessel and liable to be disposed of continuously or periodically;
- prohibits the disposal of plastics anywhere into the sea;
- restricts discharges to only food from ships into "Special Areas;" and
- requires vessels to implement a Garbage Management Plan and record all disposal and incineration operations in a Garbage Record Book.

On March 1, 2018, amendments to Annex V went into effect which created a new category of garbage for e-waste, including all electronic equipment, components and consumables when disposed of as waste, and requiring use of an updated Garbage Record Book.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with Annex V.

✓ **Carnival Corporation & plc meets regulations**



## INTERNATIONAL CONVENTIONS:

### INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (“MARPOL”) *continued*

#### Regulation Description & Summary of Requirements

Annex VI, Regulations for the Prevention of Air Pollution from Ships:

- establishes reduction requirements for sulfur oxides (“SOx”), nitrogen oxides (“NOx”) and particulate matter, ODS; and incineration
- sets limits on the sulfur content of fuel oil used by ships;
- requires that, in special Sulfur Emission Control Areas (“SECAs”), the sulfur content of fuel burned cannot exceed 0.10 percent as of January 2015;
- establishes stricter controls on emissions of SOx and NOx in the North American Emission Control Area (ECA), which encompasses most of the United States and Canada’s coastal waters out to 200 nautical miles from the coastline, and requires that vessels use fuel with a maximum 0.10 percent sulfur content as of January 1, 2015;
- similar to the North American ECA, the U.S. Caribbean ECA, which includes the waters adjacent to the Commonwealth of Puerto Rico and the U.S. Virgin Islands out to approximately 50 nautical miles from the coastline and requires that vessels use fuel with a maximum 0.10 percent sulfur content as of January 1, 2015;
- requires that, in non-SECA areas, the sulfur content of fuel burned cannot exceed 3.5 percent, though this will be decreased worldwide to 0.50 percent in 2020;
- establishes stricter controls on emissions of NOx in the North Sea and Baltic Sea ECAs starting January 1, 2021;
- requires ships to carry an International Air Pollution Prevention (“IAPP”) Certificate;
- restricts the use of Ozone Depleting Substances (“ODS”), by requiring the recording of ODS, usage of rechargeable equipment, emissions and disposal of equipment containing ODS;
- requires the Energy Efficiency Design Index (“EEDI”) Phase 1 for certain new ships, including certain cruise ship with non-conventional propulsion passenger vessels as of September 2015, and the Ship Energy Efficiency Management Plan (“SEEMP”) for all ships; and
- establishes new requirements for survey and certification for the International Energy Efficiency Certificate (“IEEC”), which is in addition to the IAPP Certificate. The IEEC is issued by the Flags States upon completion of required survey to demonstrate compliance with SEEMP and EEDI.

Pursuant to Polar Code, which entered into force on January 1, 2017, amendments to MARPOL Annexes I, II, IV and V were adopted mandating additional provisions for the protection of the polar environment for vessels operating in the polar waters.

By December 31, 2018 all vessels must have implemented SEEMP part II which provides how the ship collects and submit data on fuel consumption.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with Annex VI by using fuel oil that is at or below the Annex VI limits for sulfur content. In addition, the following programs have been implemented:

- ✓ Carnival Corporation & plc has installed Advanced Air Quality Systems (Exhaust Gas Cleaning Systems) that are capable of reducing sulfur compounds on many of our ships.
- ✓ Use of recovery units certified to meet refrigerant recycling and recovery requirements.
- ✓ Programs to reduce ODS releases.
- ✓ Carnival Corporation & plc ships are certified to SEEMP energy efficiency management for reducing GHG emissions.
- ✓ Carnival Corporation & plc actively participates in the working groups at the IMO that are developing efficiencies and standards that could affect the cruise industry.



**Carnival Corporation & plc  
meets regulations**

## INTERNATIONAL CONVENTIONS:

### INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS (IMO "BALLAST WATER CONVENTION")

#### Regulation Description & Summary of Requirements

On September 8, 2017 the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 ("Ballast Water Management Convention") entered into force. The Ballast Water Management Convention:

- aims to prevent the spread of harmful aquatic organisms from one region to another;
- establishes standards and procedures for the management and control of ships' ballast water and sediments;
- requires all ships to implement a Ballast Water and Sediments Management Plan and carry a Ballast Water Record Book;
- require ships to implement ballast water management procedures to a given standard;
- phases-out ballast water exchange as the primary control mechanism; and
- phases-in ballast water discharge standards.

Compliance with the Ballast Water Convention is verified by inspections and surveys conducted by the Flag State or by its delegated representative (usually a classification society). Port States also verify compliance.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the IMO's Ballast Water Management Convention.

In addition:

- ✓ Carnival Corporation & plc aims to minimize any discharges of ballast water by monitoring the levels of fuel, potable water, gray water and black water, and uses those tanks when possible to stabilize the vessel as opposed to taking on or discharging ballast water.
- ✓ Carnival Corporation & plc's fuel and potable water bunkering is often managed to reduce the need for ballast water.
- ✓ Some Operating Lines have worked with ballast water technology manufacturers to advance the development of treatment technologies and testing requirements.



**Carnival Corporation & plc meets regulations**

### INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS ("STCW")

#### Regulation Description & Summary of Requirements

STCW requirements include:

- standards for the training, qualification and certification of seafarers;
- specific standards of competency of crew members; and
- methods for demonstrating competency. All eight chapters of STCW apply to Carnival Corporation & plc's operations:

Chapter I: General provisions

Chapter II: Master and Deck Department

Chapter III: Engine Department

Chapter IV: Radio-communication and radio personnel

Chapter V: Special training requirements for personnel on certain types of ships

Chapter VI: Emergency, occupational safety, medical care and survival functions

Chapter VII: Alternative certification

Chapter VIII: Watchkeeping

Training requirements apply to all levels of crew members and are tailored to their specific onboard responsibilities. Compliance is verified by inspections and surveys conducted by the Flag State, or by its delegated representative (usually a classification society), and certificates are issued to crew members that confirm compliance. Port States also verify compliance with these requirements.

Amendments to STCW went into effect on July 1, 2018 to implement provisions of the Polar Code. The amendments address training requirements for personnel working on vessels that operate in polar waters.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the requirements of STCW.



**Carnival Corporation & plc meets regulations**

## INTERNATIONAL CONVENTIONS:

### POLAR CODE

#### Regulation Description & Summary of Requirements

The International Code for Ships Operating in Polar Waters (“Polar Code”) entered into force on January 1, 2017. The Polar Code applies to ships operating in Arctic and Antarctic waters and establishes mandatory construction, equipment, operational, safety, training and environmental protection standards. Pursuant to various related amendments, the Polar Code is mandatory under both SOLAS and MARPOL, and applies to new ships constructed after January 1, 2017. Ships constructed before January 1, 2017 will be required to meet relevant requirements of the Polar Code by the first intermediate or renewal survey, whichever occurs first, after January 1, 2018. Polar Code amendments to STCW were also adopted.

Relevant provisions of the Polar Code are discussed above in the SOLAS, MARPOL, and STCW sections

#### How We Meet or Exceed Regulation



Carnival Corporation & plc meets regulations

### MARITIME LABOR CONVENTION (“MLC”), 2006

#### Regulation Description & Summary of Requirements

MLC 2006 entered into force August 2013 and consolidates and updates the International Labor Organization standards into a single document. It:

- provides comprehensive rights and protection at work for seafarers on a global basis;
- aims to be globally applicable, easily understandable, readily updatable and uniformly enforced; and
- was designed to become the “fourth pillar” of the international regulatory regime for quality shipping (SOLAS, MARPOL and STCW).

The MLC establishes standards regarding the working conditions of seafarers including:

- minimum requirements for seafarers to work on a ship;
- conditions of employment;
- accommodation, recreational facilities, food and catering;
- health protection, medical care, welfare; and
- social security protection.

Compliance will be verified by inspections and surveys conducted by the Flag State, or by its delegated representative (usually a classification society), and certificates will be issued that confirm compliance. Port States will also verify and enforce compliance with these requirements.

Amendments to the MLC entered into force on January 18, 2017 that address the protection of seafarers from abandonment and mandate compensation in case of death or disability. The amendments require vessels to have a financial security and compensation system and carry documentation demonstrating financial security.

April 27, 2018 amendments will also protect seafarers in the event of being held captive on or off the ship as a result of piracy or armed robbery against the ship.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the MLC 2006 requirements.



Carnival Corporation & plc meets regulations



## SOME OF THE KEY PORT STATE REQUIREMENTS:<sup>1</sup>

### LIMITS ON SULFUR CONTENT IN FUEL IN THE EUROPEAN UNION (EU)

#### Regulation Description & Summary of Requirements

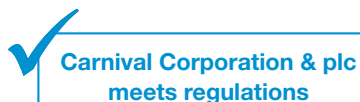
In January 2010, a 0.1 percent sulfur limit on all marine fuels used by ships at berth in EU ports, with limited exceptions, entered into force, requiring the use of distillate fuels. On May 11, 2016 the European Parliament issued a revised directive, EU Directive 2016/802, and repealed the Directive 1999/32/. The revised directive provides a consolidated requirements of the type of fuel and sulfur contain and the use of EGCS

Regulation (EU) 2015/757

On July 1, 2015, the EU Monitoring, Reporting, Verification (MRV) regulation entered into force. The EU MRV requires ship owners and operators of vessels larger than 5,000 gross tonnage (GT) calling at any EU and EFTA (Norway and Republic of Iceland) port to annually monitor, report and verify CO2 emissions, during the voyage, at berth and anchor. Data collection requirements under the EU MRV began on January 1, 2018.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with EU requirements.



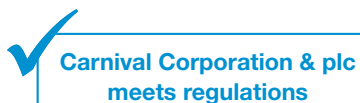
### CANADIAN BALLAST WATER CONTROL AND MANAGEMENT REGULATIONS—TRANSPORT CANADA (TP 13617 E)

#### Regulation Description & Summary of Requirements

The purpose of the Regulations is to protect waters under Canadian jurisdiction from non-indigenous aquatic organisms and pathogens that can be harmful to ecosystems and introduced by ships. The Regulations are intended to minimize the probability of future introductions of harmful aquatic organisms and pathogens from ships' ballast water, while protecting the safety of ships. In 2010, Canada ratified the International Convention for the Control and Management of Ships' Ballast Water and Sediments, which entered into force in September 2017, and Canada will implement the Convention. Canada's ballast water control requirements exceed the IMO Ballast Water Convention with regard to exchange limits: "Discharge prohibited unless it has been exchanged at least 200NM from shore and in waters at least 200m in depth for international voyages or >50NM from shore and in waters at least 500m in depth for coastal voyages, or the ballast water is treated with an IMO-approved BWTS that meets the D-2 standard. A BWTS can alternatively be used.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the Canadian ballast water requirements.



### DIRECTIVE 2000/59/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL 27 NOVEMBER 2000

#### Regulation Description & Summary of Requirements

In November 2000, EU adopted Directive 2000/59/EC1 on port reception facilities for ship-generated waste and cargo residues ("the PRF Directive"). This directive defines requirements intended to reduce the discharges of ship generated waste and cargo residues to sea, especially illegal discharges, from ships using ports in the European Union by improving the availability and use of port reception facilities. Annex II of this directive was amended on December 13, 2007 and 8 November 8, 2015.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with this directive.



(1) Port State Requirements include those rules and regulations from the countries and other geographic areas where Carnival Corporation & plc's ships operate that may differ from those already summarized in this table. Carnival Corporation & plc complies with Port State requirements of those countries in which its ships call.

# PORT STATE CONTROL REQUIREMENTS: UNITED STATES

## NATIONAL MARINE SANCTUARIES ACT (“NMSA”)

### Regulation Description & Summary of Requirements

Under the National Marine Sanctuaries Act (NMSA), certain marine environment areas are designated as national marine sanctuaries and are protected due to their national significance, recreational, ecological, historical, scientific, cultural, archaeological, educational or aesthetic values. The NMSA requires permits for certain commercial operations and includes more stringent discharge restrictions.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the NMSA.



**Carnival Corporation & plc  
meets regulations**

## THE OIL POLLUTION ACT OF 1990 (33 U.S.C. §§ 2701–2761) (“OPA 90”)

### Regulation Description & Summary of Requirements

OPA 90 amended the Clean Water Act, and created a comprehensive prevention, response, liability and compensation regime regarding oil pollution in U.S. waters caused by vessels and facilities. OPA 90 increased federal oversight of maritime oil transportation and increased environmental safeguards by:

- establishing new requirements for vessel construction and crew licensing and manning;
- mandating contingency planning;
- enhancing federal response capability;
- expanding the scope of enforcement authority;
- increasing penalties and liabilities; and
- increasing the scope of financial responsibility requirements.

OPA 90 requires owners and operators of nontank vessels to have Nontank Vessel Response Plans (“NTVRPs”) in that include oil spill response planning standards for vessels operating on the navigable waterways of the United States.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with OPA 90.



**Carnival Corporation & plc  
meets regulations**

# PORT STATE CONTROL REQUIREMENTS: UNITED STATES

## U.S. ENVIRONMENTAL PROTECTION AGENCY'S VESSEL GENERAL PERMIT ("VGP")

### Regulation Description & Summary of Requirements

The VGP, issued pursuant to the Clean Water Act, regulates discharges incidental to the normal operation of vessels.

Each vessel is required to apply for an authorization to discharge in accordance with VGP requirements. The VGP regulates 27 specific discharge streams and contains inspection, monitoring, recordkeeping and reporting requirements. The VGP requires vessel owners and operators to adhere to "best management practices" and, in some cases, technology, to manage the covered discharges, including but not limited to ballast water, grey water and bilge water.

The 2013 VGP, which replaced the 2008 VGP, went into effect in December 2013 and was intended to remain in effect until December 19, 2018. The 2013 VGP, which contains more stringent requirements than the 2008 VGP, implements numeric technology-based ballast water effluent limitations that replace the non-numeric based best management practice requirements in the 2008 VGP to reduce the number of living organisms discharged via ballast water into regulated waters. The current VGP also contains more stringent effluent limits for oil-to-sea interfaces and exhaust gas scrubber washwater, which seeks to improve environmental protection of U.S. waters.

EPA was expected to publish for review and comment a draft VGP to replace the 2013 VGP, but announced that it was administratively extending the 2013 VGP until implementation of the Vessel Incidental Discharge Act (VIDA), signed into law on December 4, 2018. VIDA will replace the 2013 VGP once implemented, which is likely several years away.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the 2013 VGP.

- ✓ Carnival Corporation & plc's procedure exceeds the VGP's 3 NM restriction on discharges of gray water by requiring that discharges of gray water be outside 4 NM from the nearest land.
- ✓ Carnival Corporation & plc's Brands exceed the VGP's 1 NM restriction on discharges of treated bilge water by requiring that treated bilge water discharges be outside 12 NM from the nearest land.
- ✓ Carnival Corporation & plc takes all reasonably available and appropriate measures to minimize the extent and effects of ballast water discharges and comply with the 2013 VGP.

✓ **Carnival Corporation & plc exceeds regulations**

## U.S. RESOURCE CONSERVATION AND RECOVERY ACT ("RCRA")

### Regulation Description & Summary of Requirements

RCRA requires hazardous waste management from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous wastes. RCRA also sets forth a framework for the management of non-hazardous solid wastes. For vessels, RCRA applies once hazardous waste is offloaded in a U.S. Port.

### How We Meet or Exceed Regulation

- ✓ Carnival Corporation & plc complies with RCRA and its implementing regulations once waste is landed ashore, including transportation requirements, such as packaging, labeling, manifesting, and recordkeeping and reporting.
- ✓ Carnival Corporation & plc voluntarily follows the intent of the RCRA as it pertains to the generation and storage of hazardous waste while the waste is onboard the vessel.

✓ **Carnival Corporation & plc meets regulations**



# PORT STATE CONTROL REQUIREMENTS: UNITED STATES

## U.S. COAST GUARD BALLAST WATER REGULATIONS

### Regulation Description & Summary of Requirements

Ballast Water Management reduces the threat to the world's oceans, and resultant environmental, economic and public health impacts from invasive aquatic species by addressing the transfer of harmful aquatic organisms and pathogens in ships' ballast water. These requirements include ballast water management, exchange, reporting and recordkeeping. The United States is not party to the IMO's Ballast Water Management Convention, so it imposes its own regulatory regime regarding ballast water management.

The U.S. Coast Guard's ballast water regulations establish a standard for the allowable concentration of living organisms in ships' ballast water discharged in U.S. waters. Vessel owners/operators are required to comply with the U.S. ballast water regulations provided in Title 33 Code of Federal Regulations (CFR) Part 151.

The U.S. Coast Guard's ballast water regulations apply to new ships constructed on or after December 2013 upon delivery of the ship, as well as to existing ships from January 1, 2014 or January 1, 2016 onwards, based on a phase-in schedule determined by the dry dock schedule and ballast water capacity of the ship as specified in 33 CFR 151.2035(b). Existing vessels with a ballast water capacity between 1500 and 5000 cubic meters, which include some of Carnival Corporation & plc's vessels, must comply by their first scheduled drydocking after January 1, 2014. Those vessels that have a ballast water capacity greater than 5000 cubic meters, must comply by their first scheduled drydocking after January 1, 2016.

Upon a vessel's compliance date, the U.S. Coast Guard's ballast water regulations require use of one of the approved ballast water management methods: 1) Install and operate a U.S. Coast Guard type-approved ballast water management system (BWMS) (since December 2016, the U.S. Coast Guard has type-approved fifteen ballast water management systems); 2) Use only water from a U.S. public water system; 3) Use an Alternate Management System (AMS) for up to five years from the vessel's compliance date; 4) Do not discharge ballast water into waters of the United States, or 5) Discharge to an onshore facility or to another vessel for purposes of treatment.

In addition, the U.S. Coast Guard may grant an extension to a respective vessel's compliance date if an owner/operator documents that, despite all efforts, compliance with one of the approved ballast water management methods is not possible. Vessels with a valid extension can continue to exchange ballast water in accordance with U.S. Coast Guard regulations. Some of Carnival Corporation & plc Brands have obtained extensions to their compliance dates from the U.S. Coast Guard.

Vessels which have not yet reached their original compliance date for installing a USCG approved BWMS can continue to exchange ballast water in accordance with U.S. Coast Guard regulations.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with international, federal, and state ballast water-management requirements and aims to minimize any discharges of ballast water.

- ✓ Carnival Corporation & plc monitors the levels of fuel, potable water, gray water and black water, and uses those tanks when possible to stabilize the vessel as opposed to taking on or discharging ballast water.
- ✓ Carnival Corporation & plc coordinates fuel and potable water bunkering in such a way as to reduce the need for ballast water.



**Carnival Corporation & plc meets regulations**

## THE MARITIME TRANSPORTATION SECURITY ACT OF 2002 ("MTSA")

### Regulation Description & Summary of Requirements

The MTSA is U.S. legislation implementing the International Ship and Port Facility Security Code ("ISPS") described above. The MTSA:

- establishes a maritime security framework including U.S. vessel and port facility security requirements and standards; and
- provides for U.S. Coast Guard enforcement of such provisions, including security assessments, security plans, training and drills. MTSA regulations provide that foreign-flag vessels with a valid ISPS certificate will normally be deemed in compliance with U.S. Coast Guard regulations.

### How We Meet or Exceed Regulation

Carnival Corporation & plc's ships, which all have valid International Ship Security Certificates confirming compliance with the ISPS Code, also comply with the requirements of MTSA.



**Carnival Corporation & plc meets regulations**

# PORT STATE CONTROL REQUIREMENTS: UNITED STATES

## INTELLIGENCE REFORM AND TERRORISM PREVENTION ACT OF 2004

### Regulation Description & Summary of Requirements

This Act, enacted in response to the terror attacks of September 11, 2001, requires cruise ship operators to provide certain passenger and crew information to the U.S. Department of Homeland Security (“DHS”) to enable DHS to compare this information to watch lists to prevent suspected or known terrorists and their associates from boarding, or to subject them to additional security scrutiny.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the requirements of this Act.



**Carnival Corporation & plc meets regulations**

## CRUISE VESSEL SECURITY AND SAFETY ACT (“CVSSA”) OF 2010

### Regulation Description & Summary of Requirements

The CVSSA applies to passenger vessels that are authorized to carry at least 250 passengers and have onboard sleeping facilities. The CVSSA:

- promotes the safety and security of cruise vessel passengers and crew;
- requires cruise vessels to adopt basic reporting, safety and security measures; and
- mandates that cruise vessels adopt several other basic security measures, including:
  - updated ship design;
  - providing public access to information regarding crime onboard cruise ships;
  - improved precautions, response and medical care and support for victims of sexual assault; and
  - preservation of evidence necessary to prosecute criminals.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the requirements of this Act.



**Carnival Corporation & plc meets regulations**

## ALASKA CRUISE SHIP LEGISLATION; TITLE XIV — “CERTAIN ALASKAN CRUISE SHIP OPERATIONS”

### Regulation Description & Summary of Requirements

Sets federal effluent standards for treated sewage and graywater and allows continuous discharge if treatment standards are met and confirmed via sampling.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the Alaska Cruise Ship Legislation.



**Carnival Corporation & plc meets regulations**

## ENDANGERED SPECIES ACT (“ESA”) AND MARINE MAMMAL PROTECTION ACT (“MMPA”)

### Regulation Description & Summary of Requirements

The purpose of the ESA is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Department of Interior’s Fish and Wildlife Service and the U.S. Department of Commerce’s National Marine Fisheries Service (“NMFS”).

The MMPA prohibits, with certain exceptions, the “take” of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.

Pursuant to the Right Whale Ship Strike Reduction Rule, vessels 65 feet or longer must travel at 10 knots or less in certain locations (“SMAs”) along the east coast of the U.S. Atlantic seaboard at certain times of the year to reduce the threat of ship collisions with critically endangered North Atlantic right whales. These SMAs were expanded in 2016.

### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the ESA and MMPA.

In 2006, Carnival Corporation & plc partnered with the U.S. National Oceanic and Atmospheric Administration (“NOAA”), and the National Park Service to train navigators to identify different whale species and predict their behaviors in order to avoid collisions with ships. This program was licensed to NOAA and is freely distributed to shipping companies around the world to help train their personnel to avoid whale strikes.



**Carnival Corporation & plc meets regulations**



## KEY U.S. STATE REQUIREMENTS:<sup>2</sup>

(2) There are numerous state requirements that apply to Carnival Corporation & plc's ships; only select State requirements are included here as examples. Certain states, including, but not limited to Washington, Oregon, Alaska and California have more extensive requirements than those under federal regulations.

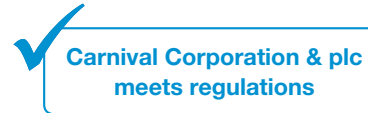
### ALASKA STATE CRUISE SHIP LEGISLATION: ALASKAN STATE LAW, AS §§ 46.03.460–46.03.490 “COMMERCIAL PASSENGER VESSEL ENVIRONMENTAL COMPLIANCE PROGRAM”

#### Regulation Description & Summary of Requirements

Establishes effluent limits for gray and black water, describes non-hazardous and hazardous waste requirements, permitting and reporting requirements for commercial passenger vessels operating in the marine waters of the state.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the Alaska State Cruise Ship Legislation.



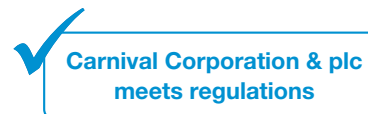
### ALASKA STATE REGULATION 18 AAC 50.070.—MARINE VESSEL VISIBLE EMISSION STANDARDS

#### Regulation Description & Summary of Requirements

Establishes state visible emissions requirements for marine vessels operating within three miles of the Alaska coastline.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with AAC 50.070. Some Operating Lines have installed opacity meters as an additional tool for monitoring air quality.



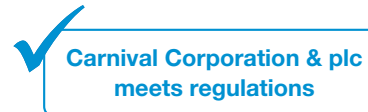
### ALASKA OCEAN RANGER PROGRAM

#### Regulation Description & Summary of Requirements

Alaskan Department of Environmental Conservation (ADEC) program, which became law in 2006, requires U.S. Coast Guard licensed marine engineers, or equivalent, onboard certain cruise vessels to act as independent observers monitoring state environmental and marine discharge requirements. Ocean Rangers also check that passengers and crew are protected from improper sanitation, health and safety practices. This program is managed by ADEC's Commercial Passenger Vessel Environmental Compliance Program.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the Alaska Ocean Ranger Program.



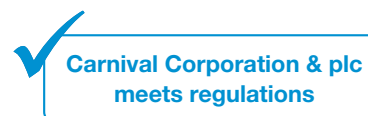
### HAWAII STATE CRUISE SHIP LEGISLATION— DISCHARGES FROM COMMERCIAL PASSENGER VESSELS 2005 HAWAII LAWS ACT 217 (H.B. 422) AND HI ST §§ 342D-101, ET SEQ.

#### Regulation Description & Summary of Requirements

The Hawaii State Cruise Ship Legislation establishes standards for the discharge of treated sewage and air emissions from cruise ships and commercial passenger vessels. It prohibits the discharge of untreated sewage from commercial passenger vessels, and it includes specific recordkeeping and monitoring requirements.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the Hawaii Cruise Ship Legislation and some of our Corporate Standards exceed these requirements.



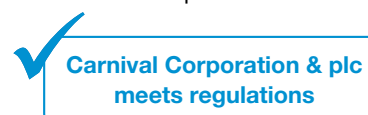
### STATE BALLAST REQUIREMENTS: CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 3, CHAPTER 1, ARTICLES 4.5–4.9

#### Regulation Description & Summary of Requirements

Ballast Water Management reduces the threat to the world's oceans and resultant environmental, economic and public health impacts from invasive aquatic species, by addressing the transfer of harmful aquatic organisms and pathogens in ships' ballast water.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with State Ballast Requirements.





## KEY U.S. STATE REQUIREMENTS:<sup>2</sup>

(2) There are numerous state requirements that apply to Carnival Corporation & plc's ships; only select State requirements are included here as examples. Certain states, including, but not limited to Washington, Oregon, Alaska and California have more extensive requirements than those under federal regulations.

### CALIFORNIA STATE LIMITS ON SULFUR CONTENT IN FUEL - 13 CCR § 2299.2 AND 17 CCR § 93118.2

#### Regulation Description & Summary of Requirements

Since August 1, 2012, California regulations required the use of marine gas oil with 1.0 percent sulfur or less or marine diesel oil with 0.5 percent sulfur or less within 24 NM of California's coast. Effective January 1, 2014, the limit for both was reduced to 0.10 percent.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the California requirements. Several of Carnival Corporation & plc's Brands have installed shore power connections, which operate in the ports of Juneau, Seattle, Long Beach, San Diego, San Francisco, Brooklyn, Halifax and Vancouver. Carnival Corporation & plc ships operating in California participate in the Port of Long Beach's Voluntary Vessel Speed Reduction Program, which is aimed at reducing vessel speed in an effort to help reduce air pollution.



Carnival Corporation & plc meets regulations

### CALIFORNIA SEWAGE DISCHARGE REQUIREMENTS

#### Regulation Description & Summary of Requirements

In 2012, California established a no-discharge zone ("NDZ") that prohibits large passenger vessels of 300 gross tons or greater from discharging all sewage, whether treated or not, while in California marine waters. The NDZ extends along the California coast from Oregon to Mexico and applies to Carnival Corporation & plc ships.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc exceeds the California requirement by requiring that discharges of treated black water be made beyond 12 NM from the nearest land (California only restricts treated black water discharges to outside 3 NM).



Carnival Corporation & plc exceeds regulations

### CALIFORNIA AT-BERTH REQUIREMENTS - 17 CCR § 93118.3

#### Regulation Description & Summary of Requirements

On January 1, 2014, California's shore-power requirements became effective, which apply to Carnival Corporation & plc ships, and require the use of shore power or equivalent emissions reductions for vessels at all California ports with target goals of 50% reduction by 2014, 70% by 2017, and 90% by 2020. Fleets can comply through the Reduced Onboard Power Generation Option or the Alternative Equivalent Emissions Reduction Option. Beginning January 1, 2017, at least 70% of a fleet's visits to a port must limit auxiliary engine operation to no more than three hours during the entire time the vessel is at-berth and the fleet's total onboard auxiliary engine power generation must be reduced by at least 70% from the fleet's baseline power generation, or vessels must reduce NOx and PM by 70% or more through use of an approved technology, such as shore power.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the California requirements. Several of Carnival Corporation & plc's Brands have installed shore power connections, which operate in the ports of Juneau, Seattle, Long Beach, San Diego, San Francisco and Vancouver.



Carnival Corporation & plc meets regulations

### CALIFORNIA BIOFOULING MANAGEMENT REQUIREMENTS

#### Regulation Description & Summary of Requirements

On October 1, 2017, California enacted biofouling management regulations in support of California's Marine Invasive Species Program (MISP). (2 CCR § 2298.1 et seq.).

Beginning January 1, 2018, operators must implement a vessel-specific Biofouling Management Plan and Biofouling Record Book. In addition, operators must submit a Marine Invasive Species Program Annual Vessel Reporting Form must be submitted once annually, at least 24 hours in advance of the first arrival at a California port in each calendar year.

#### How We Meet or Exceed Regulation



Carnival Corporation & plc meets regulations



## FLAG STATE REQUIREMENTS:

### FLAG STATE REQUIREMENTS

#### Regulation Description & Summary of Requirements

Rules and regulations that generally implement international conventions from which Carnival Corporation & plc's ships are registered: Bahamas, Bermuda, Italy, Malta, the Netherlands, Panama and the United Kingdom.

#### How We Meet or Exceed Regulation

Carnival Corporation & plc complies with all Flag State requirements.



**Carnival Corporation & plc meets regulations**

## STATE, TRADE ASSOCIATION AND OTHER VOLUNTARY GUIDELINES:

### A) MEMORANDUM OF UNDERSTANDING – CRUISE OPERATIONS IN WASHINGTON STATE

### B) FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION MEMORANDUM OF UNDERSTANDING

### C) CRUISE LINES INTERNATIONAL ASSOCIATION WASTE MANAGEMENT BEST PRACTICES AND PROCEDURES

#### Guideline Description & Summary of Requirements

These are voluntary guidelines related to environmentally responsible handling and disposal of various waste streams, including hazardous wastes, agreed upon by specific states and cruise lines to prevent pollution.

#### How We Meet or Exceed Guideline

Carnival Corporation & plc's procedures meet or exceed the levels recommended by the Guidelines, for example, by requiring discharge of treated black water outside 12 NM.



**Carnival Corporation & plc meets and exceeds some guidelines**

### D) THE VENICE BLUE FLAG AGREEMENT

#### Guideline Description & Summary of Requirements

Adopted in 2007 and renewed annually, this encourages ships and ferries that transit from the Lido Port to the Maritime Station to voluntarily use fuel with 0.1 percent or less sulfur prior to entering the Venice lagoon.

#### How We Meet or Exceed Guideline

Carnival Corporation & plc complies with the voluntary Blue Flag agreement.



**Carnival Corporation & plc meets guidelines**



## HEALTH, ENVIRONMENTAL, SAFETY, SECURITY AND SUSTAINABILITY CORPORATE POLICY


### Carnival Corporation & plc and its Operating Lines are committed to:


- Protecting the health, safety and security of our passengers, guests, employees and all others working on our behalf, thereby promoting an organization that always strives to be free of injuries, illness and loss.
- Protecting the environment, including the marine environment in which our vessels sail and the communities in which we operate, striving to prevent adverse environmental consequences and using resources efficiently and sustainably.
- Complying with or exceeding all legal and statutory requirements related to health, environment, safety, security and sustainability throughout our business activities.
- Assigning health, environment, safety, security (HESS) and sustainability matters the same priority as other critical business matters.

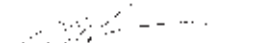
### To implement this Policy, the management of Carnival Corporation & plc and its Operating Lines will:

- Ensure compliance with this Policy within each of Carnival's Corporate and Operating Line organizations.
- Identify managers who are responsible for HESS and sustainability performance and ensure that there are clear lines of accountability.
- Develop, implement and monitor effective and verifiable management systems to realize our HESS and sustainability commitments.
- Support a proactive framework of risk mitigation in the areas of HESS aimed at preventing, monitoring and responding to threats.
- Identify the aspects of our business that could negatively affect the environment and take appropriate action to minimize any adverse effects.
- Identify, document, assess and conduct periodic reviews of the principal HESS and sustainability risks affecting our business and implement practical measures to manage the identified risks effectively.
- Provide HESS and sustainability support, training, advice, and information, as appropriate, to passengers, guests, employees, and others working on behalf of the Company.
- Perform annual HESS audits and take prompt action on identified audit findings.
- Maintain an Ethics & Compliance reporting hotline to allow for anonymous reporting of HESS and compliance concerns.
- Promptly report and properly investigate all HESS incidents and take appropriate action to prevent recurrence.
- Establish and act upon goals and objectives to improve our HESS and sustainability performance.
- Promote industry best practices and publicly report to and maintain open dialogue and cooperation with key stakeholders on HESS and sustainability matters.
- Require business partners to know and comply with applicable legal and statutory requirements related to HESS, labor and human rights.
- Require that employees who become aware of any vessel or crew's inability to comply with Company, legal or statutory requirements report same to management and specifically require that Environmental Compliance reports from shoreside employees be made in writing to their Operating Line Compliance Manager.
- Prohibit retaliation against anyone who reports a violation of Company, legal or statutory requirements and establish that an employee's failure to notify regarding any such violation is grounds for discipline or dismissal.
- Conduct a Corporate senior management review of this Policy at least annually.

Approved by:

  
William R. Burke  
Chief Maritime Officer

  
Arnold W. Donald  
President and CEO

  
Micky Arison  
Chairman of the Board

Original Issue: 10/15/07 | Revised: 10/18/17







## Certificate of Approval

This is to certify that the Management System of:

### Carnival Corporation

Carnival Place 3655 Northwest 87th Avenue, Miami, FL, 33178, United States

has been approved by LRQA to the following standards:

ISO 14001:2015

Cliff Muckleroy - Area Operations Manager Americas

Issued by: Lloyd's Register Quality Assurance, Inc.

for and on behalf of: Lloyd's Register Quality Assurance Limited

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Current issue date: 7 November 2018

Original approval(s):

Expiry date: 12 September 2021

ISO 14001 – 13 September 2018

Certificate identity number: 10132653

Approval number(s): ISO 14001 – 0078093

The scope of this approval is applicable to:

Ship Management and Operation of a Fleet of Passenger Ships Trading Worldwide, Incorporating the Safety and Pollution Prevention Requirements of IMO Resolution A.741 (18), the ISM Code.



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## **Assurance Statement related to Greenhouse Gas Emissions Inventory and Sustainability Data for Fiscal Year 2018 prepared for Carnival Corporation & plc.**

### **Terms of Engagement**

This Assurance Statement has been prepared for Carnival Corporation & plc. (Carnival).

Lloyd's Register Quality Assurance Inc. (LR), an affiliate of Lloyd's Register North America, Inc., was commissioned by Carnival to assure its Greenhouse Gas (GHG) Emissions Inventory and Sustainability Data Assertion for the fiscal year (FY) 2018 (December 1, 2017 to November 30, 2018).

The GHG Emissions Inventory includes direct GHG emissions and energy indirect GHG emissions.

In addition to the 6 Kyoto gases and NF<sub>3</sub>, the GHG Emissions Inventory includes direct emissions from the following refrigerants as used in pure form (not blends): R11, R12, R22, and Halon.

The following were excluded from the GHG Emissions Inventory on the basis of their de minimis contribution to the total direct and energy indirect GHG emissions and sense-checked during the engagement:

- Fuel combustion GHG emissions from emergency generators used in shore facilities;
- Combustion GHG emissions from burning waste in the shipboard incinerators;
- Fugitive release of Sulphur Hexafluoride (SF<sub>6</sub>) gas from shipboard circuit breakers;
- Fugitive release of Methane (CH<sub>4</sub>) gas or Carbon Dioxide (CO<sub>2</sub>) from shipboard Marine Sanitation Devices or Advanced Waste Water Treatment plants;
- Fugitive release of refrigerant gas from shore hotels and offices;
- Electricity consumption from shore offices smaller than 8,000 square feet;
- Small water craft at Carnival owned islands; and
- Releases of CO<sub>2</sub> based fire suppression systems on board the ships.

The Sustainability Data Assertion includes the nineteen sustainability parameters included in Table 1 below.

### **Management Responsibility**

The management of Carnival was responsible for preparing the GHG Emissions Inventory and Sustainability Data Assertion and for maintaining effective internal controls over the data and information disclosed. LR's responsibility was to carry out an assurance engagement on the GHG Emissions Inventory and Sustainability Data Assertion in accordance with our contract with Carnival.

Ultimately, the GHG Emissions Inventory and Sustainability Data Assertion have been approved by, and remain the responsibility of Carnival.

### **LR's Approach**

Our verification has been conducted in accordance with ISO-14064-3:2006 *Specification with guidance for validation and verification of greenhouse gas assertions* for the GHG data and LR's verification procedure for the Sustainability Data Assertion to provide limited assurance that the data as presented in the GHG Emissions Inventory and Sustainability Data Assertion for Carnival have been prepared in conformance with ISO 14064-1:2006 *Specification with guidance at the organizational level for quantification and reporting of greenhouse gas emissions and removals* and Carnival sustainability data management processes.



To form our conclusions the assurance engagement was undertaken as a sampling exercise and covered the following activities:

- Conducted a site visit to Carnival Corporate Headquarters and phone interviews with representatives from three of the Carnival brands;
- Reviewed the processes for the management of data and information related to the GHG emissions and sustainability data used at the Carnival corporate level and by the three sampled brands;
- Interviewed relevant staff responsible for managing and maintaining data and information and for preparing and reporting the GHG Emissions Inventory and the Sustainability Data Assertion for Carnival;
- Verified the direct and energy indirect GHG emissions for FY 2018; and
- Verified the Sustainability Data Assertion for FY 2018, which is a subset of Carnival's complete set of sustainability data parameters.

#### **Level of Assurance and Materiality**

The opinion expressed in this Assurance Statement has been formed on the basis of a limited level of assurance and at a materiality of the professional judgement of the Verifier.

#### **LR's Opinion**

Based on LR's approach, nothing has come to our attention that would cause us to believe that the total direct GHG emissions, energy indirect GHG emissions and sustainability data disclosed by Carnival in its GHG Emissions Inventory and Sustainability Data Assertion for FY 2018, as summarized in Table 1 below, are not materially correct and that the GHG Emissions Inventory and Sustainability Data Assertion have not been prepared in conformance with ISO 14064-1:2006 and Carnival sustainability data management processes.

Signed

Dated: May 21, 2019

Derek Markolf  
 LR Lead Verifier  
 On behalf of Lloyd's Register North America, Inc.,  
 represented by Lloyd's Register Quality Assurance, Inc.,  
 1330 Enclave Parkway, Suite 200,  
 Houston, TX 77077

LR Reference: UQA00001051





**Table 1. Summary of Carnival, GHG Emissions Inventory and Sustainability Data FY 2018**

Data Parameter	Data
Direct (Scope 1) GHG Emissions (Tonnes CO <sub>2</sub> e)	10,647,189
Energy Indirect (Scope 2) GHG Emissions – Location-Based (Tonnes CO <sub>2</sub> e) <sup>1</sup>	50,413
Energy Indirect (Scope 2) GHG Emissions – Market-Based (Tonnes CO <sub>2</sub> e) <sup>1</sup>	48,153
Ship Fuel GHG Emissions Rate (grams CO <sub>2</sub> e/Available Lower Berth-KM)	251
Total Ship Fugitive Refrigerant Releases (Kg)	97,628
Total Ship ODS Emissions (Kg CFC-11e)	1,331
Total Ship Energy Consumption (Gigajoules)	136,486,695
Total Ship Fuel Consumption (Tonnes)	3,295,821
Ship Fuel Consumption Rate (Grams Fuel/Available Lower Berth-Km)	79.5
High Sulfur Fuel Oil (Percent of total Ship fuel consumption)	73.30
Low Sulfur Fuel Oil (Percent of total Ship fuel consumption)	6.07
Marine Diesel Oil/Marine Gas Oil (Percent of total Ship fuel consumption)	20.61
Liquefied Natural Gas (Percent of total Ship fuel consumption)	0.01
Total Potable Water Purchased (Tonnes)	5,639,972
Total Potable Water Produced (Tonnes)	21,675,038
Bilge Water Discharged to Sea (Tonnes)	165,133
Bilge Water Sea Discharge Rate (Liters/Nautical Mile)	17.1
Total Number of CDC VSP Inspections	94
Total Number of CDC VSP Inspections - Ships scoring 100%	14
Total Number of CDC VSP Inspections - Ships scoring 86-99%	77
Total Number of CDC VSP Inspections - Ships scoring <86%	3

1. Scope 2, Location-based and Scope 2, Market-based are defined in the GHG Protocol Scope 2 Guidance, 2015.

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Due to inherent limitations in any internal control, it is possible that fraud, error, or non-compliance with laws and regulations may occur and not be detected. Further, the verification was not designed to detect all weakness or errors in internal controls so far as they relate to the requirements set out above as the verification has not been performed continuously throughout the period and the verification carried out on the relevant internal controls were on a test basis. Any projection of the evaluation of control to future periods is subject to the risk that the processes may become inadequate because of changes in conditions, or that the degree of compliance with them may deteriorate.

The English version of this Assurance Statement is the only valid version. Lloyd's Register assumes no responsibility for versions translated into other languages.

# OUR PARTNERS

Carnival Corporation & plc works, collaborates and partners with a variety of organizations worldwide. The goals of these partnerships vary depending of the type of organization. Our work with these organizations contributes to and broadens our thinking around our sustainability issues and opportunities. Below is a list of some of these collaborations.

	<p><b>Association of British Travel Agents (ABTA)</b></p> <p>ABTA is the UK's largest travel association, representing around 1,200 travel agents and tour operators that sell £33 billion worth of holidays and other travel arrangements each year. It has been a trusted travel brand for more than 65 years, offering advice and guidance to the travelling public, as well as leading the travel industry in supporting high service standards, working with its members on health and safety, and promoting responsible tourism at home and abroad.</p>
	<p><b>Banco Alimentare</b></p> <p>Italian Food Bank Foundation - Banco Alimentare</p> <p>Italian organization focused on minimizing food waste and recover food for people living in Italy. The food recovered and collected supports over 8,100 charitable organizations throughout Italy.</p>
	<p><b>Bellona</b></p> <p>Founded in 1986, The Bellona Foundation is an independent non-profit organization that aims to meet and fight climate challenges by identifying and implementing sustainable environmental solutions. They work toward reaching a greater ecological understanding, protection of nature, the environment and health. Bellona is engaged in a broad range of current national and international environmental questions and issues around the world.</p>
	<p><b>Catalyst</b></p> <p>Catalyst is a global nonprofit working with some of the world's most powerful CEOs and leading companies to help build workplaces that work for women. Founded in 1962, Catalyst drives change with pioneering research, practical tools, and proven solutions to accelerate and advance women into leadership—because progress for women is progress for everyone.</p>
	<p><b>Create Common Good</b></p> <p>Create Common Good is a nonprofit social enterprise that uses innovative food-related job training programs to help at-risk people find, perform and retain work to attain self-sufficiency for them and their families. The two organizations explore opportunities to introduce custom-crafted Create Common Good food products into shipboard menus.</p>
	<p><b>Cruise Lines International Association (CLIA)</b></p> <p>CLIA exists to promote all measures that foster a safe, secure and healthy cruise ship environment; educate and train its travel agent members; and promote and explain the value, desirability and affordability of the cruise vacation experience. CLIA has Environmental and Safety Committees, composed of representatives from most cruise lines, who meet regularly with stakeholder groups such as the Port State Authorities and regulators to discuss issues related to compliance and best management practices. CLIA also works with non-governmental organizations (NGOs), universities, regulators and scientists around the globe.</p>
	<p><b>Dress for Success Worldwide</b></p> <p>Carnival Foundation partnered with Dress for Success to impact the lives of women through Dress for Success' Lead-HER-Ship Program. The program inspires women to advance their careers, initiate social change, and seeks to unveil the leader that resides in the heart of every women by encouraging her to empower herself and others in the workplace, in her community and in her home life.</p>
	<p><b>Executive Leadership Council (ELC)</b></p> <p>The Executive Leadership Council is the preeminent member organization for the development of global black leaders. Its mission is to increase the number of successful black executives — both domestically and internationally — by adding value to their development, leadership, and philanthropic endeavors throughout the life-cycle of their careers thereby strengthening their companies, organizations, and communities.</p>

# OUR PARTNERS



## Florida Caribbean Cruise Association (FCCA)

The FCCA is a not-for-profit trade organization composed of 18 member cruise lines operating nearly 200 vessels in Floridian, Caribbean and Latin American waters. By fostering an understanding of the cruise industry and its operating practices, the FCCA seeks to build cooperative relationships with its partner destinations and to develop productive bilateral partnerships with every sector.



## FIU Chaplin School of Hospitality and Tourism Management

Carnival Foundation established the Carnival Gold Scholars Program at Florida International University's Chaplin School with a \$400,000 donation that awards renewable scholarships up to \$20,000 to hospitality and tourism students. The Carnival Foundation also funded renovation of the school's 2,600-square-foot multipurpose Carnival Student Center.



## Global Environmental Management Initiative (GEMI)

GEMI is an organization of leading companies dedicated to fostering global environmental, health and safety (EHS) and sustainability excellence through the sharing of tools and information to help business achieve environmental sustainability excellence. GEMI currently has 25 member companies representing more than 12 business sectors. Through the collaborative efforts of these members, GEMI promotes a worldwide business ethic for EHS management and sustainable development through example and leadership.



## HEAT Academy

The Carnival Foundation and the Miami HEAT NBA team partner to offer this after-school enrichment program to improve math and reading skills for students in third through fifth grade.



## Hispanic Association On Corporate Responsibility (HACR)

Founded in 1986, the Hispanic Association on Corporate Responsibility (HACR) is one of the most influential advocacy organizations in the nation representing 14 national Hispanic organizations in the United States and Puerto Rico. Its mission is to advance the inclusion of Hispanics in Corporate America at a level commensurate with our economic contributions. To that end, HACR focuses on four areas of corporate social responsibility and market reciprocity: Employment, Procurement, Philanthropy, and Governance.



## Human Rights Campaign (HRC)

The Human Rights Campaign and the Human Rights Campaign Foundation together serve as America's largest civil rights organization working to achieve LGBTQ equality. By inspiring and engaging individuals and communities, HRC strives to end discrimination against LGBTQ people and realize a world that achieves fundamental fairness and equality for all. The Human Rights Campaign envisions a world where lesbian, gay, bisexual, transgender and queer people are ensured equality and embraced as full members of society at home, at work and in every community.



## International Chamber of Shipping (ICS)/International Shipping Federation (ISF)

ICS is the principal international trade association for merchant ship owners and operators, representing all sectors and trades and over 80% of the world merchant fleet. It is concerned with all technical, legal and policy issues that may have an impact on international shipping. ISF is the principal international employers' organization for the shipping industry, representing all sectors and trades. It is concerned with labor affairs, manpower and training, and seafarers' health and welfare issues that may have an impact on international shipping.



## International SOS

Supports employees by keeping them safe and healthy when traveling to unfamiliar and remote locations.



## LEADERSHIP EDUCATION FOR ASIAN PACIFICS (LEAP)

Founded 34 years ago, Leadership Education for Asian Pacifics, Inc. (LEAP) is a national, nonprofit organization, with a mission to achieve full participation and equality for Asian and Pacific Islanders (APIs) through leadership, empowerment, and policy. It started with a simple yet powerful idea: that in order for API communities to realize their full potential and to foster robust participation in this increasingly globalized world, these communities would have to begin producing leaders who could advocate and speak on their behalf.





### Maritime Anti-Corruption Network (MACN)

MACN is a global business network working towards the vision of a maritime industry free of corruption that enables fair trade to the benefit of society at large. Established in 2011 by a small group of committed maritime companies, with BSR providing the secretariat function, MACN has grown to include 90 members across the global maritime value chain by end of 2017 and has become one of the pre-eminent examples of collective action to tackle corruption.



### SEA\LNG

SEA\LNG is a multi-sector industry coalition, created to accelerate the widespread adoption of liquefied natural gas (LNG) as a marine fuel.

The initiative brings together key players in the value chain, including shipping companies, classification societies, ports, major LNG suppliers, LNG downstream companies, infrastructure providers and OEMs (original equipment manufacturers), helping to break down the commercial obstacles to transform the localized use of LNG as a marine fuel into a global reality.



### Society for Gas as a Marine Fuel (SGMF)

SGMF is a new NGO established to promote safety and industry best practice in the use of gas as a marine fuel.



### UK Chamber of Shipping

The UK Chamber of Shipping is the trade association for the UK shipping industry, which works to promote and protect the interests of its members both nationally and internationally. With 144 members and associate members, the UK Chamber of Shipping represents more than 860 ships of about 23 million gross tons and is recognized as the voice of the UK shipping industry.



### United States Wildlife Trafficking Alliance

The United States Wildlife Trafficking Alliance is a coalition of corporate and non-profit member organizations all working together to combat wildlife trafficking.



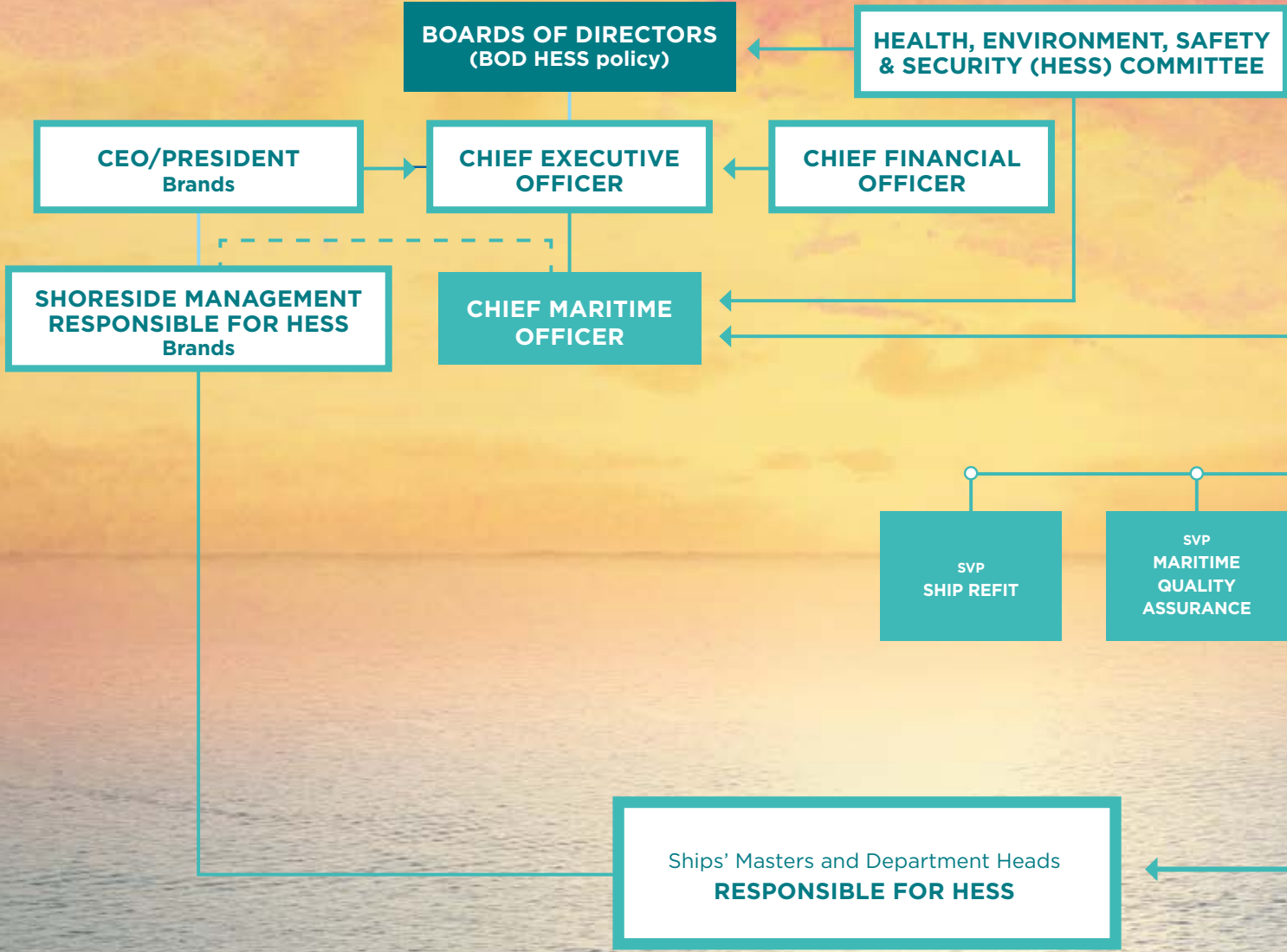
### United Way of Miami-Dade

Carnival Foundation partnered with United Way in support of their Mission United initiative. Mission United helps ease the transition to civilian life and address the unique needs of veterans. By connecting them to a coordinated network of community partners, they empower veterans and their families to lead productive lives in our community. Services include job training and opportunities, affordable housing, legal resources and more.



### World Travel & Tourism Council (WTTC)

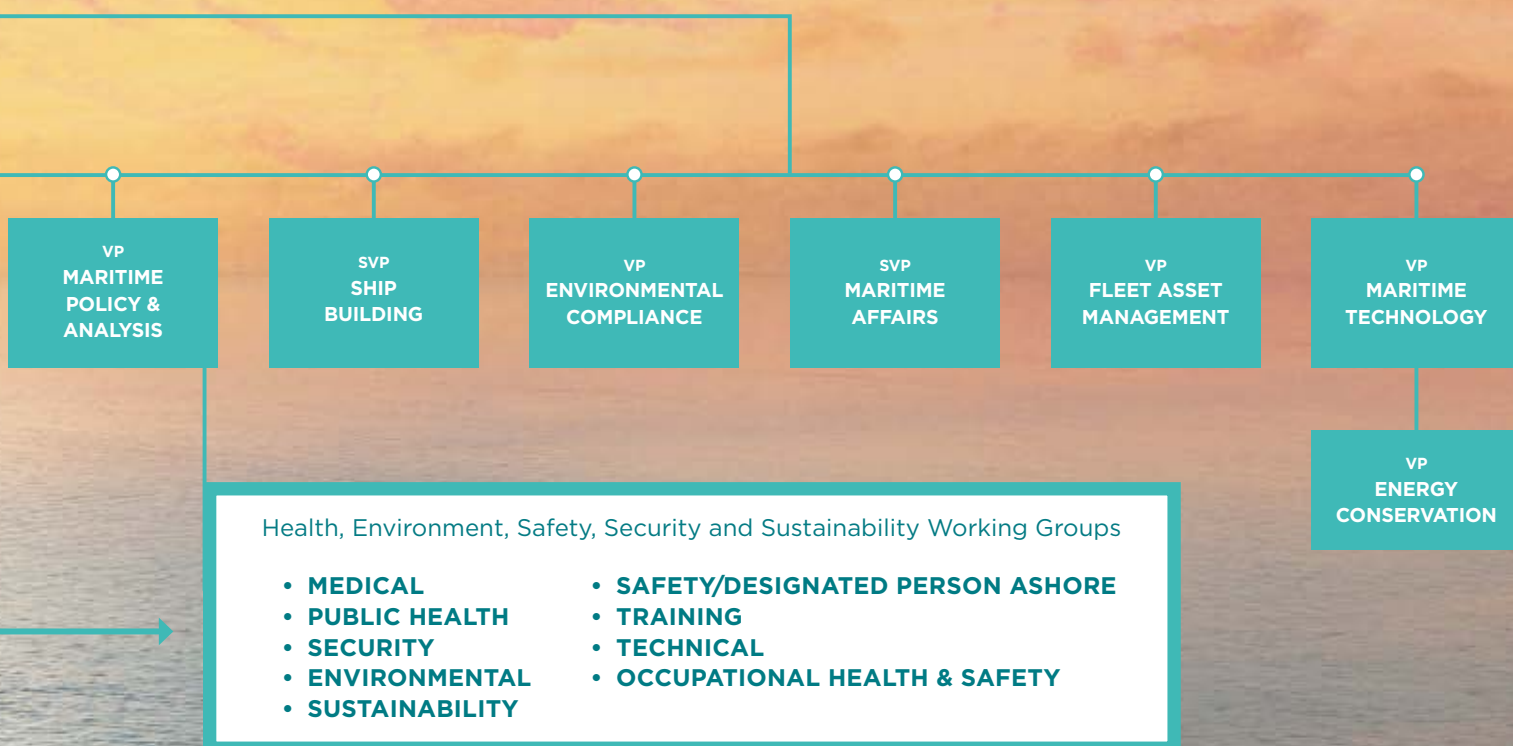
WTTC promotes partnerships between the public and private sectors, delivering results that match the needs of economies, local and regional authorities, and local communities, with those of business, based on governments recognizing Travel & Tourism as a top priority, business balancing economics with people, culture and environment, and a shared pursuit of long-term growth and prosperity.







# SUSTAINABILITY MANAGEMENT





# WASTE STREAM DETAILS

## TYPES OF WASTE

## TREATMENT & REQUIREMENT

### BILGE WATER:

Wastewater normally generated in the machinery spaces of the engine room during vessel operation.

Bilge water is processed through approved oil filtering equipment so that the oil content of treated bilge water without dilution does not exceed 15 parts per million (ppm) as per international regulations.

On all of our ships, we have installed redundant systems that monitor treated bilge water a second time prior to discharge to ensure the treated bilge water contains less than 15ppm of oil before being discharged overboard. This voluntary and proprietary system provides additional control to prevent overboard discharges of processed bilge water that is  $\geq$  15ppm of oil. If the system reading indicates 15ppm or greater of oil, it will sound an alarm and automatically stop the discharge, redirecting the flow to onboard storage tanks.

Bilge water discharges are in strict compliance with applicable international and national laws and regulations, and often contain less than five ppm of oil.

Bilge water not meeting discharge criteria and oil residues/sludge are offloaded for shoreside disposal or recycling depending on available shoreside infrastructure.

Bilge water from Carnival Corporation & plc ships is discharged only when the ships are underway at sea and proceeding at a speed greater than six knots and 12 nautical miles from shore.

### GRAY WATER:

Wastewater from sinks, showers, galleys, laundry and some cleaning activities.

Gray water on most ships is not typically treated unless an Advanced Wastewater Purification System (AWWPS) is used.

Gray water from Carnival Corporation & plc ships is discharged only while the ships are underway and proceeding at a speed greater than six knots and 4 nautical miles from shore.

### BLACK WATER:

Wastewater from toilets, urinals and liquid waste from medical facilities.

Black water from our ships is treated by a sewage treatment plant called a Marine Sanitation Device (MSD) or by an Advanced Wastewater Purification System (AWWPS).

Black water is treated by an AWWPS for a certain percentage of our fleet that uses technologies designed to produce a higher effluent quality that meets or surpasses sewage standards for secondary and tertiary effluents, and reclaimed water.

Black water discharges from Carnival Corporation & plc ships treated by an MSD take place only when the ship is at a distance of more than 12 nautical miles from baseline and when the ship is traveling at a speed greater than six knots. Treated black water by AWWPS can be discharged outside 4 nautical miles from the baseline, and at a speed greater than six knots.

## TYPES OF WASTE

## TREATMENT & REQUIREMENT

### REGULATED WASTE:

Includes cleaning solutions generated from operations of the ship, biomedical type waste and chemical products or paints that are non-hazardous.

Carnival Corporation & plc shipboard regulated waste is generally transferred to licensed shoreside waste contractors for appropriate disposal. Some types of regulated waste can be incinerated onboard.

### FOOD WASTE:

Any uneaten spoiled or unspoiled food substances, including fruits, vegetables, dairy products, poultry, meat products and food scraps generated aboard the ship.

Food waste may be processed by being comminuted/ ground so that it is able to pass through a screen with openings no greater than 25mm or left as is.

Comminuted food waste from Carnival Corporation & plc ships is discharged greater than 4 nautical miles from baseline. Non-comminuted food wastes can be discharged at greater than 12 nautical miles from baseline, and at a speed greater than six knots.

### SOLID WASTE:

Any refuse, and other discarded materials not considered hazardous.

Solid waste generated onboard can be incinerated onboard or landed ashore to be landfilled or incinerated. Carnival Corporation & plc ships are equipped with incinerators, and compactors to manage solid waste.

### HAZARDOUS WASTE:

Waste that poses a risk to human health or to the environment and typically exhibit at least one of four characteristics (ignitibility, corrosivity, reactivity, or toxicity).

Carnival Corporation & plc shipboard hazardous waste disposal is transferred to licensed shoreside waste contractors for disposal in accordance with applicable regulations.

### RECYCLED WASTE:

Materials that can be diverted from landfill or incineration and are managed through recycling processes where the material can be used again.

Recycling containers are placed throughout the ships to allow items to be segregated for recycling at the source. In addition, designated crew sorts trash to ensure recyclable items are not commingled with other waste streams.

After sorting, recyclable materials are crushed, baled and readied for offload ashore. We strive to maximize the offload of recyclable items in ports of call where facilities exist with the infrastructure. However, there are locations where the infrastructure is not in place, which means that some recyclable items may not be recycled. Our standard recycled materials include plastic, glass, paper, cardboard, oily waste, used cooking oil, refrigerants, aluminum, electronic equipment, toner cartridges, batteries, fluorescent lamps, silver (recovered from photo and X-ray processing fluids) and scrap metal.

## GLOSSARY

## A

**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.

## B

**Ballast Water**

Seawater that is taken onboard a ship and stored in tanks to control draft, list, trim and stability.

**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 onboard in tanks.

## C

**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.

**CO<sub>2</sub> (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.

**Cold Ironing**

Cold ironing is the process of providing shoreside electrical power to a ship at berth while its main and auxiliary engines are turned off. The term came into existence during the time when ships were coal fired. Once the coal fired ship was in port and attached to a shore-based power source the engines no longer needed to be stoked by coal and the fires would die down until the large iron engines grew cold. Hence, cold iron became cold ironing.

**CO<sub>2</sub>e (Equivalent Carbon Dioxide)**

A measure used to compare the emissions from various greenhouse gases based on their global warming potential (GWP). The CO<sub>2</sub> equivalent for a gas is derived by multiplying the tonnes of the gas by the associated GWP.

## D

**Direct Emissions (Scope 1 Emissions)**

Emissions from sources that are owned or controlled by the reporting organization. For example, direct emissions related to combustion would arise from burning fuel for energy within the reporting organization's boundaries.

## E

**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.

**Environmental Aspect**

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.

**Exhaust Gas Cleaning System (EGCS)**

Abatement technology used to reduce the concentration of air pollutants in engine exhaust gauges.

## F

**Footprint**

The amount of environmental impact related to a specific resource.

## G

**Global Reporting Initiative (GRI)**

A network-based organization that produces a comprehensive sustainability reporting framework that is widely used around the world. GRI is committed to the framework's continuous improvement and application worldwide. 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 traps 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.

**Governance**

The set of rules (laws and corporate regulations), organizational structures, processes and relationships that affect the way a company is directed and administered. The concept of governance also embraces the structure used to decide corporate objectives and the means to achieve and measure results.

**Gray Water**

Wastewater that is 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 33 degrees C (59 degrees F) colder than at present. The greenhouse gases thought to be major contributors to global warming are carbon dioxide (CO<sub>2</sub>); methane and biomethane emissions (CH<sub>4</sub>); nitrogen oxide (N<sub>2</sub>O) 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.

## H

### 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.

## I

### Indicator

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

### Indirect Emissions (Scope 2 Emissions)

Emissions that result from the activities of the reporting organization, but that are generated at sources owned or controlled by another organization. In the context of this indicator, indirect emissions refer to greenhouse gas emissions from the generation of electricity, heat or steam that is imported and consumed by the reporting organization.

### 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 onboard 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 onboard.
- 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."

## L

### Liquefied Natural Gas (LNG)

Liquefied natural gas or LNG is natural gas (predominantly methane, CH<sub>4</sub>) that has been converted to liquid form for ease of storage or transport.

## M

### Marine Sanitation Devices (MSD)

A system that employs filtration, maceration and chlorination technologies to treat black water.

### Maritime Labour Convention 2006 (MLC 2006)

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.

### Metric Tonne

1 metric tonne = 2,204.62 pounds (lbs.) = 1,000 kilograms.

## N

### NOx

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

## O

### 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.

## P

**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.

## R

**Refrigerants**

Gases that are used in HVAC systems onboard.

**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.

## S

**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.

**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 onboard 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.

## T

**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.

GRI	STANDARD DISCLOSURE	PAGE	ADDITIONAL DETAILS & OMISSIONS	SDG LINK
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## GRI-102 GENERAL DISCLOSURE

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102-3	Location of headquarters	150	Link: <a href="#">Form 10-K (Cover page)</a> Link: <a href="#">2018 Proxy Statement (Page 3)</a>	
102-4	Location of operations	26-27	Link: <a href="#">Form 10-K (Page 10 - 15)</a>	
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Additional details relating to the Company's information, services, operating structure, and financials are disclosed in the Carnival Annual Report to Shareholders, and Annual Report on Form 10-k at [www.CarnivalCorp.com](http://www.CarnivalCorp.com)

Additional details regarding the company's water management can be found on our water CDP at [www.CDP.net](http://www.CDP.net)



CARNIVAL  
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— Sustainability —

# OUR JOURNEY CONTINUES...

Follow Carnival Corporation & plc's continued sustainability efforts from Ship to Shore as we work to protect the oceans we sail, preserve economic growth in the lands we visit and promote quality of life for our crewmembers.

[www.CarnivalCorp.com](http://www.CarnivalCorp.com)

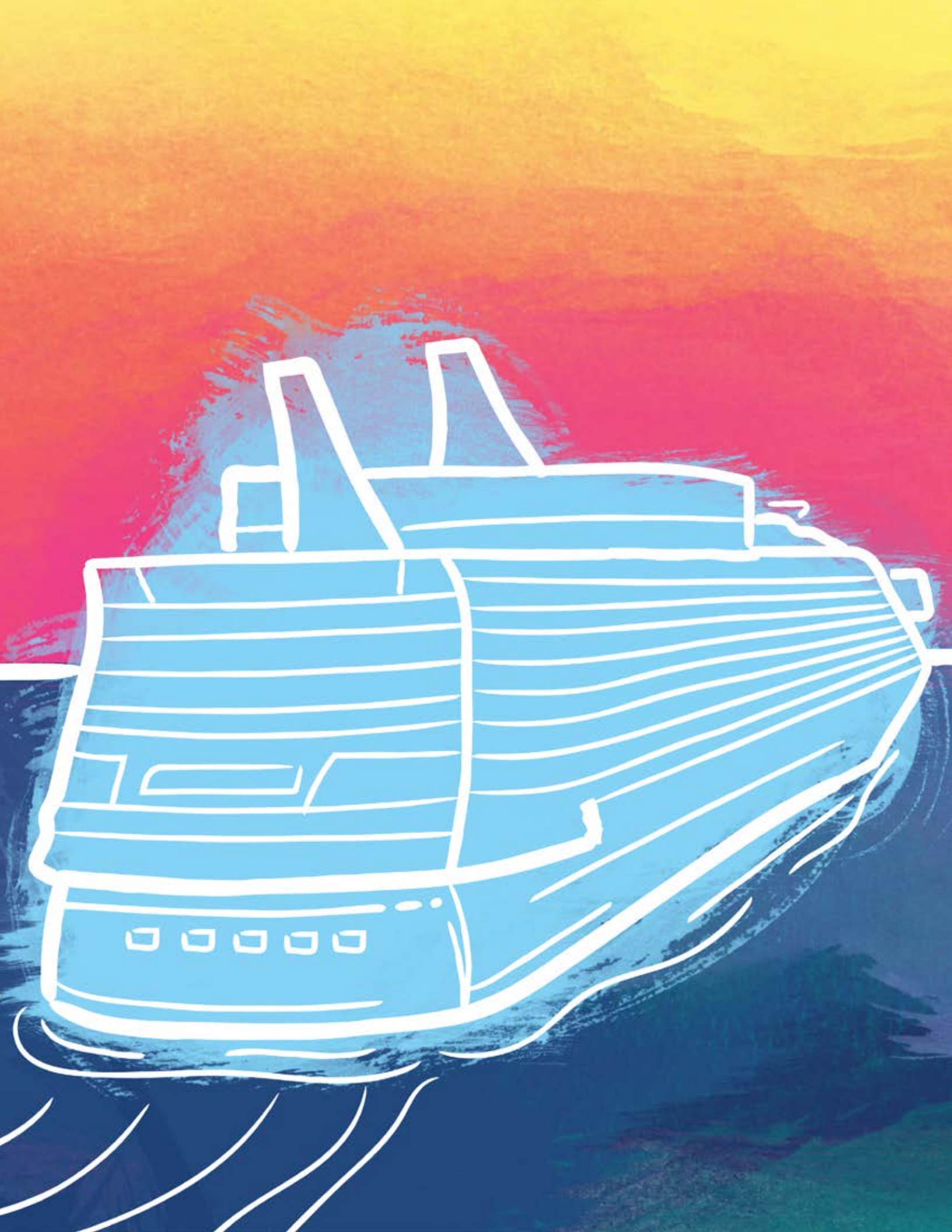


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# CARNIVAL CORPORATION & PLC

## *Sustainability*

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