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 10 dynamic 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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Our reputation and success depend on having sustainable and transparent operations.

We continually strive to ensure *cruising* is the most enjoyable vacation experience possible for our guests. We sustain this *commitment* by keeping our guests and crewmembers safe, protecting the environment, developing our workforce, strengthening our stakeholder relations, enhancing the port *communities* that our ships visit and maintaining our fiscal strength.
The more people cruise the world the more the world becomes a better place. The more people discover what they share in common, the more they learn to appreciate, respect and even celebrate their differences, rather than fear them.

As we travel the world, we want our ships and crew to always be welcomed, bringing hope, prosperity and goodwill wherever they sail. We at Carnival Corporation & plc recognize that to be a responsible global organization, we need to incorporate sustainability in all aspects of our operation. In 2015, we announced our 2020 sustainability goals focused on our environmental, safety, labor & social performance.

I’m pleased to share with you that through the commitment of our dedicated and diverse workforce, we reached our carbon reduction goal ahead of schedule and are on track with all our other goals. We are currently defining our sustainability strategy beyond 2020 and are using the United Nations’ 2030 sustainable development goals as framework.

We aim to be the model for sustainable tourism partnerships throughout the world. As a highly visible, global company we are held to a high standard by the public, however, we hold ourselves to an even higher standard.

We work with our partners in manufacturing and shipbuilding to constantly improve our technology and systems to lessen our impact on the environment.

We work with our supply-chain partners to source responsibly and have created our Business Partner Code of Conduct and Ethics which covers human rights, anti-corruption, safe working conditions, and environmental protection. We work with our tour operator partners to ensure high safety standards for our guests and crew, and to conserve the environment. We promote an appreciation of marine conservation and biodiversity by connecting our guests and crew to the marine environment while at sea, but also on local beaches or while diving or snorkeling underwater in amazing locations around the world and through our series of media programs for our future guests onshore.

We partner with organizations that are doing a phenomenal job in conserving the marine environment. We have been partnering with the Nature Conservancy since 2014, sponsoring their Mapping Ocean Wealth initiative, which was awarded the World Travel and Tourism Council’s 2017 Innovation Award in the Tourism for Tomorrow program. The most recent CLIA (Cruise Line Industry Association) reports for 2016 show that cruise industry expenditures generated
more than $126 billion in total output worldwide, employing more than one million people in some aspect of the global cruise industry, either with a cruise line, as a travel agent, or in the industries directly affiliated, such as shipbuilding or suppliers that generated $41 billion in wages.

Cruising helps create small and large businesses around the world, and brings jobs and hope in many isolated places where opportunities may be scarce. Cruise tourism contributes to the economic vitality of ports, neighboring communities and their citizens.

We also provide direct employment onboard our ships to the crew members that may have limited opportunities due to socio-political situations in their home countries. Crew members enjoy safe and stable employment onboard our ships which enables them to support themselves as well as their families back home, and gain experience and skills.

The following are some of the key sustainability events, trends and actions within our cruising, commitment and community efforts in 2017:

**Cruising**

- Carnival Cruise Line and Holland America Line both received approval to sail to Cuba directly from the U.S. and to combine Cuban stops with other Caribbean ports on the same cruise resulting in more variety in itineraries and lengths of cruises.
- In 2017 our 103 ships visited more than 700 different ports around the world on all seven continents.
- More than 12 million guests sailed on a Carnival Corporation brand ship in 2017 with a daily average of close to 250,000 guests on our ships all over the world.
- Ocean Medallion was introduced in January at CES, the world’s largest consumer show in Las Vegas. Ocean Medallion delivers a more personalized and immersive guest experience for the cruise industry.
- Two new ships debuted in 2017, *AIDAperla* for AIDA Cruises and *Majestic Princess* for Princess Cruises. *AIDAperla* is our second ship that can be operated while in port with liquefied natural gas, the world’s cleanest fossil fuel for the cruise industry. *Majestic Princess* is our first ship designed specifically for Chinese guests. It combines new features tailored for the Chinese market with many of the classic Princess Cruises elements.
- Carnival Corporation and its brands were recognized with a number of sustainability and diversity awards including: Lloyd’s List Americas 2017 Cleaner Safer Seas Solutions award; Port of Seattle’s Green Gateway Award and Program Innovator Award; and Corporate Responsibility Magazine’s Top 100 Best Corporate Citizens. Carnival Corporation was named as a top 50 best company for diversity by Black Enterprise Magazine and earned a perfect score on the Human Rights Campaign (HRC) Corporate Equality Index, and was included on the FTSE4Good Index that measures the performance of companies demonstrating strong environmental, social and governance practices.
- Our original content television programs generated more than 100 hours of cumulative airtime and reached over 200 million viewers on major TV networks. Each of these unique programs seeks to inspire viewers to travel the world while educating them about the cruise experience. They also showcase ways we are working to protect the world’s oceans and seas, and educate and inform viewers about how they too can reduce their footprint as they travel the globe.
- Our new digital streaming network, OceanView™ features our television programs and other original content. It can be found at Ocean.com/ocean/oceanview and on major digital platforms including Roku, AppleTV and Amazon Fire TV, via the OceanView™ mobile app as well as onboard our ships.
COMMITMENT

• We are working to reduce and improve the quality of our air emissions by pursuing new technologies and innovations through our partnerships with shipyards, manufacturers, and fuel companies. These new technologies will benefit the entire maritime industry. For example, we are pioneering the use of liquefied natural gas (LNG) for the cruise industry. LNG is the world’s cleanest fossil fuel. With the delivery of AIDAperla in 2017, we now have two ships that can be operated with LNG while in port. The second step in our LNG strategy is a new generation of ships that will receive 100% of their power entirely from LNG – both in port and at sea. Our first fully LNG-powered ship, AIDAnova, is expected to join the fleet in late 2018. We currently have nine of these next-generation cruise ships on order. We are also continuing to install and retrofit our existing ships with exhaust gas cleaning systems that reduce sulfur and particulate matter from our engine exhaust resulting in emissions cleaner than marine gas oil.

• In 2017, we established a long-term partnership with Wärtsilä, one of our main engine manufacturers. Core to this partnership is improving our engine performance and efficiency. We expect this work to deliver significant additional fuel savings.

• At Carnival Corporation, we aspire to make every place we go even better than it was before we went there. As a responsible corporate citizen, we recognize that our reputation and success depend on being transparent and responsible. In December 2016, Princess Cruises, one of our brands, entered into a plea agreement with the U.S. Department of Justice as a result of irresponsible actions by some employees who violated company policies and environmental law. Since April 2017 and for the following five years, we are following an Environmental Compliance Plan that ensures we continually adopt best practice measures that help prevent, control and mitigate the risk of environmental pollution. As a result of these events, we are stronger and better than ever. We have heightened our sense of responsibility and are moving beyond compliance. We have made a commitment to foster a culture that ensures we always do the right thing every day, and to empower our employees to speak up and to help us do the right thing every time all the time.

COMMUNITY

• In response to the severe 2017 hurricane season that affected the U.S. and parts of the Caribbean, Carnival Foundation (the philanthropic arm of Carnival Corporation & plc), the Micky and Madeleine Arison Family Foundation, and all the Carnival brands have pledged together up to $12 million dollars to support the relief and rebuilding efforts. In addition, our ships delivered critical supplies and provided temporary shelter and transportation for the affected areas.

• Our Fathom brand experience has expanded to all our brands by offering customizable group experiences, called Travel Deep Groups, to deeply connect and inspire like-minded guests. Fathom also developed immersive “get local” shore excursions across the Caribbean in partnership with our destination communities to enable our guests to make a real sustainable impact on the people and communities they visit.

Our vision at Carnival Corporation is to deliver unmatched joyful vacation experiences and breakthrough shareholder returns by exceeding guest expectations and leveraging our scale.

That simple sentence sums up everything we do. But in order to bring that vision to life, we need to ensure our freedom to operate by maintaining a safe and environmentally responsible reputation and in cooperation with the communities we touch. Our sustainability efforts, from Ship to Shore, are an essential part of that vision.

I’m proud of the positive influence we can have in the world and for the role we are playing in bringing that world closer together today and in the future.

ARNOLD W. DONALD – President & CEO, Carnival Corporation & plc
"The more people cruise the world the more the world becomes a better place. The more people discover what they share in common, the more they learn to appreciate, respect and even celebrate their differences, rather than fear them."
We are at the midway point towards our 2020 sustainability goal date and are very pleased with the progress we have made. By the end of 2017 we had reduced our carbon intensity by 26.3% from our 2005 baseline, and surpassed our 2020 target ahead of schedule. As our brands continue to work on achieving the remaining goals, the sustainability team is actively defining our strategy and setting new goals for beyond 2020.

In 2017, we identified the initial components of our 2030 strategy in alignment with the United Nations Sustainable Development Goals (SDG). The SDGs consist of 17 specific goals that constitute the 2030 agenda for global sustainable development. 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 tackle climate change, while ensuring that no one is left behind.

In our 2017 report we have identified the SDGs that correspond with our current 2020 sustainability goals. You will see these referenced throughout this report. In 2018, we will look further ahead and continue to define our sustainability strategy and the programs that will help us meet our 2030 goals.

To learn more about the SDGs visit [www.un.org/sustainabledevelopment](http://www.un.org/sustainabledevelopment) and [https://www.youtube.com/watch?v=RpqVmvMCmp0](https://www.youtube.com/watch?v=RpqVmvMCmp0)
We recognize and embrace the importance of incorporating sustainability into all aspects of our operation. Doing so specifically contributes to long-term value creation for our shareholders by delivering societal benefit in a number of far reaching ways, protecting the health of our oceans, maintaining our freedom to operate and supporting the communities we impact around the globe.

Being a responsible corporate organization demands transparency. In addition to our sustainability reports we also use recognized global platforms to disclose our carbon performance, water efficiency and overall environmental and social governance. As part of our sustainability strategy we also partner with key organizations that support our efforts and constantly improve our practices and results.

Our people have been the driving force behind the success and growth of our organization. We understand how important human capital is to our sustainable performance as a company and the communities we serve. Attracting and recognizing talent are essential components of our sustainability strategy.

We share common hopes and dreams for our families and communities with our friends and partners around the world. We continue to seek to increase the number of partnerships we have around the world to create even more opportunities for our guests to positively experience the places they visit, and also participate in various community and social impact experiences. In 2017, we opened the Fathom experience to all our Carnival brands.

We are proud to be pioneers in the use of liquefied natural gas (LNG), not only for the cruise industry, but also for the entire maritime sector. LNG is the most environmentally friendly and low-emission fuel currently available to reduce our carbon footprint.

Part of the appeal of a cruise vacation is seeing the world firsthand and experiencing the marine environment up close. Therefore, protecting its health and vitality is an essential component of our sustainability strategy. As we define our 2030 goals, programs that support biodiversity are key to our success.
2020 Sustainability Goals

Environmental • Safety • Labor & Social

Carbon Footprint
Reduce the intensity of CO₂e (equivalent carbon dioxide) emissions from our operations by 25% by 2020 relative to our 2005 baseline, measured in grams of CO₂e per ALB-km.

Exhaust Gas Cleaning Technology
Continue to improve the quality of our emissions into the air by developing, deploying and operating Exhaust Gas Cleaning 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 fleet wide capacity by 10 percentage points by 2020 relative to our 2014 baseline.

Cold Ironing Capacity
Increase Cold Ironing coverage of our fleet wide 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.

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.

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.

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, in particular Fathom.

*Based on new waste management accounting practices, the baseline has been revised to 2016.
2017 GOALS UPDATE
ENVIRONMENTAL • SAFETY • LABOR & SOCIAL

CARBON FOOTPRINT
- 26.3% reduction achieved relative to our 2005 baseline.
- Delivered the second cruise ship in the world to be powered by liquefied natural gas (LNG) while in port.
- Expanded partnership with Shell to fuel North America’s first LNG-Powered Cruise Ships.
- Continued partnership with Wärtsilä to drive further gains in engine efficiency.

EXHAUST GAS CLEANING TECHNOLOGY
- 62% of fleet equipped with Exhaust Gas Cleaning Systems.
- Named winner of Lloyd’s List Americas 2017 Cleaner Safer Seas Solutions Award for Clean-Air Commitment.

AWWPS TECHNOLOGY
- Increased fleet wide capacity coverage by 6.2 percentage points.

COLD IRONING CAPACITY
- 43% of fleet equipped with cold ironing capabilities.

WATER EFFICIENCY
- 4.0% increase in water efficiency.

WASTE REDUCTION
- 3.7% reduction in waste rate.

GUEST AND CREWMEMBER HEALTH, SAFETY & SECURITY
- Implemented a Psychometric Evaluation Program.
- Continued to support research to test the efficiency of disinfection products against norovirus.

DIVERSITY & ETHICS
- Continued to build a diverse and inclusive workforce.
- Together with Catalyst (the leading US 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.

BUSINESS PARTNER CODE OF CONDUCT AND ETHICS
- Continue to deploy a Supplier Evaluation Questionnaire within our supply chain.
- Announced commitment to support responsible chicken sourcing practices.

OUR COMMUNITY
- Pledged up to $12 million for hurricane relief and rebuilding efforts.
- Started a partnership with Mercy Ships.
- Continued partnership with The Nature Conservancy.

NOTE: In 2017 we included the United Nations Sustainable Development goals that best aligned with our 2020 goals.
With a portfolio of 10 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 103 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.¹

**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, the *Mardi Gras*, a converted ocean liner. The success of the *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.”
SERVICES AND OPERATING STRUCTURE

With operations in North America, Europe, Australia 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, as well as Fathom, the corporation’s immersion and enrichment experience brand. 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 2017, 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, P&O Cruises (UK) and shares responsibilities for Fathom’s ship Adonia.
- Costa Group, which operates AIDA Cruises and Costa Cruises.
- Holland America Group, which operates Holland America Line, P&O Cruises (Australia), Princess Cruises, Seabourn and shares responsibilities for Fathom’s operation.

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 2017 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

SCALE OF ORGANIZATION

We employ approximately 120,000 employees worldwide. As of November 30, 2017, we operated 103 cruise ships, with a total passenger capacity (based on double occupancy) of 231,570 guests.

2017 marked another very strong year for us as we delivered record cash from operations of over $5.3 billion and record revenues of $17.5 billion.

Key information for 2017 compared to the prior year (Additional financial data and details can be found in the 2017 Annual Report on Form 10-K):

- Revenues increased $1.1 billion to $17.5 billion from $16.4 billion in 2016.
- Gross revenue yields (revenue per available lower berth day or ALBD) increased 3.9%.
- Gross cruise costs including fuel per ALBD increased 7.2%.

We continue to grow our presence in established markets and increase our penetration in developing markets. 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 on our Fathom brand. In 2017, two additional brands obtained approval and are now operating cruises to Cuba, our contemporary Carnival Cruise Line sailing from Tampa, Florida and our premium Holland America Line brand sailing from Fort Lauderdale, Florida.

We believe that our most significant long-term growth opportunity in Asia is in China, due to its large and growing middle-class population, expansion of its international tourism and the government’s plan to support the cruise industry.
FLEET INVESTMENTS

We are building new, innovative, purpose-built ships that are more fuel efficient, have a greater number of balconies 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 FY2017, we added two new ships, removed one ship from the fleet and reassigned one ship within our brands:

- AIDAperla was added to AIDA Cruises.
- Majestic Princess was added to Princess Cruises.
- Dawn Princess was reassigned to P&O Cruises (Australia) and renamed Pacific Explorer.
- Pacific Pearl was sold.

As of February 2018, we have a total of 20 cruise ships scheduled to be delivered between 2018 and 2023.

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 have nine next-generation cruise ships on order that will be the first in the industry to be powered at sea by LNG. Pioneering a new era in the use of low carbon fuels, these new ships will use LNG to generate 100 percent of their power both in port and on the open sea - an innovation that will reduce carbon emissions to help protect the environment. We took delivery of AIDAperla in 2017, our second cruise ship to be powered in port by environmentally friendly LNG, along with the keel laying of AIDAnova, the first of nine all-LNG ships on order.
Introducing AIDAperla

AIDAperla is the world’s second cruise ship (sister ship of AIDAprima the world’s first) that can be operated while in port with liquefied natural gas (LNG), which has a lower carbon profile and cleaner emissions compared to conventional marine fuels. Click here to learn more.
Majestic Princess is Princess Cruises' first international luxury ship tailored for the China market. The Majestic carries the Chinese name “Sheng Shi Gong Zhu Hao” on the hull, a name chosen by our Chinese employees. Click here to learn more.
STEIN KRUSE, GROUP CHIEF EXECUTIVE OFFICER (CEO) OF HOLLAND AMERICA GROUP

In July 2017, Stein Kruse was promoted to Group Chief Executive Officer (CEO) of Holland America Group and Carnival UK. Kruse works closely with Michael Thamm, Group CEO Costa Group and Carnival Asia, to build on the collaborations with Carnival Europe and Asia Technology and Carnival Maritime Nautical to support the ships of AIDA Cruises, Costa Cruises, Costa Asia, Cunard and P&O Cruises and to identify other collaborative opportunities. Kruse became CEO of the Holland America Group in December 2013. In that capacity, he had full operating responsibility of Holland America Line, Princess Cruises, Seabourn and Holland America Princess Alaska Tours. He was president and chief executive officer of Holland America Line from 2004 to November 2013.

JOSH WEINSTEIN, PRESIDENT OF CARNIVAL UK

In July, 2017 Josh Weinstein was promoted to President of Carnival UK. Weinstein is responsible for overseeing both P&O Cruises and Cunard, and reports to Stein Kruse. The Southampton-based Carnival UK executive team reports to Weinstein. Weinstein served as treasurer for Carnival Corporation from 2007 to 2017 following five years as an attorney in the corporate legal department.

DARRELL CAMPBELL, CARNIVAL CORPORATION & PLC, TREASURER

In April 2017, Darrell Campbell joined Carnival Corporation & plc as treasurer. Campbell's responsibilities include overseeing global treasury operations, risk management, tax compliance and tax strategy. During his career he has supervised multinational teams, provided regulatory reporting advice for capital market transactions and periodic filings, and co-authored guidance on industry topics including compliance, accounting and financial reporting. He is a licensed CPA in Florida and New Hampshire.

MARIO ZANETTI, PRESIDENT OF COSTA GROUP ASIA

In August, 2017 Mario Zanetti was promoted to president of Costa Group Asia. He is responsible for expanding Carnival Corporation’s leading presence in Asia, covering China, Hong Kong, Taiwan, Japan and Korea. A veteran in the cruise sector with over 20 years of industry experience, Zanetti began his career in the late 1990s when he joined Costa Cruises. Over the last two decades, he has held various key positions, most recently President of Carnival China.

JASON GLENN CAHILLY, MEMBER OF THE BOARD OF DIRECTORS OF CARNIVAL CORPORATION & PLC

In July 2017, Jason Glenn Cahilly was appointed to the Boards of Directors of Carnival Corporation & plc. Cahilly is the Founder and Chief Executive Officer of Dragon Group LLC, a private investment firm which concurrently provides business management consulting and advisory services. Cahilly previously served as Chief Strategic and Financial Officer of the National Basketball Association from 2013 to June 2017, as well as a Director of the Board of NBA China. Prior to that, Cahilly spent 12 years at Goldman Sachs & Co., where he served as a partner and the global co-head of media and telecommunications. He is also a Non-Executive Director of Corsair Components, a leading supplier of high-performance PC systems.
## FY2017 Business Dimensions & Direct Economic Value Generated and Distributed

### BUSINESS DIMENSIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
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<tbody>
<tr>
<td>Number of Guests</td>
<td>12.1 Million</td>
</tr>
<tr>
<td>Guest Capacity</td>
<td>231,570</td>
</tr>
<tr>
<td>Number of Ships</td>
<td>103</td>
</tr>
<tr>
<td>Approximate Number of Employees Worldwide</td>
<td>120,000</td>
</tr>
</tbody>
</table>

### CONTACT US

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

Elaine Heldewier, Director Sustainability Programs or Karina Hilton Spiegel, Manager Sustainability Programs Maritime Policy & Analysis at Carnival Corporation & plc • 3655 N.W. 87th Avenue, Miami, Florida 33178-2428 U.S.A.

Email: Sustainability@Carnival.com
# Financial Data

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$17.5 billion</td>
</tr>
<tr>
<td>Payroll and related</td>
<td>$2.1 billion</td>
</tr>
<tr>
<td>Operating costs</td>
<td>$14.7 billion</td>
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<tr>
<td>Cash from operations</td>
<td>$5.3 billion</td>
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<tr>
<td>Total assets</td>
<td>$40.8 billion</td>
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<tr>
<td>Interest expense, net of capitalized interest</td>
<td>$0.2 billion</td>
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<tr>
<td>Dividends</td>
<td>$1.2 billion</td>
</tr>
<tr>
<td>Debt to capital</td>
<td>27.5%</td>
</tr>
</tbody>
</table>

1. As of November 30, 2017 Annual Report on Form 10-K
2. Capacity is based on two guests per cabin
3. Additional financial data can be found in the 2017 Annual Report on Form 10-K
Although our Cruise Brands are different in terms of product, style and amenities, they share several traits – each is one of the most successful in its respective area, has a well-known brand name, and has a responsibility to operate sustainably as part of our strategy. Leadership, visibility and shared responsibility unite our cruise brands.
Carnival Corporation’s ten brands have collectively, more than 750 years of experience. In 2017 our ships carried over 12 million people safely around the world, from the smallest islands to the largest cities, our fleet of 103 ships sails to every ocean and every continent.

FATHOM
Seattle, WA, USA
Total # of Ships: 1*
Distinct Ports Visited: 6

HOLLAND AMERICA LINE
Seattle, WA, USA
Total # of Ships: 14
Distinct Ports Visited: 440+

P&O AUSTRALIA
Sydney, Australia
Total # of Ships: 5
Distinct Ports Visited: 80+

P&O CRUISES
Southampton, UK
Total # of Ships: 8
Distinct Ports Visited: 260+

SEABOURN
Seattle, WA, USA
Total # of Ships: 4
Distinct Ports Visited: 390+

*Note: The Fathom ship Adonia was reassigned to P&O Cruises during FY2017.
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.

- We continue to deploy a Supplier Evaluation Questionnaire within our supply chain.
- We committed to aligning to welfare standards for broiler chicken by 2024.

FY2017 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, environment, 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 112-115 of this report, as well as internationally recognized sustainability platforms.
FINES AND SANCTIONS

- We did not receive any sanctions or significant fines for non-compliance with non-environmental laws and regulations.
- On December 1, 2016, Princess Cruises, one of our brands entered into a plea agreement with the U.S. Department of Justice with respect to environmental violations of federal laws by the Caribbean Princess. As part of the plea agreement, Princess paid a $40 million fine. For more details please visit: [www.princess.com/news/notices_and_advisories/cbresponse](http://www.princess.com/news/notices_and_advisories/cbresponse)

The amount of environmental fines paid and sanctions is disclosed in the Performance Summary of this report on page 113.

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 committed to aligning to welfare standards for broiler chicken by 2024.
- Tour Operators:
  - We partnered with the Association of British Travel Agents (ABTA) to help us ensure we are responsibly managing excursions involving animals. We are leveraging their global welfare guidelines for animals in tourism.
  - We identified a third party auditor to audit attractions involving animals.
  - Starting in 2018, we will commence audits on all dolphin in captivity tour encounters used by our brands.

BOARD MEMBER UPDATE

- Our Boards are comprised of 11 Directors, two with Executive functions and nine Non-Executive Directors. We currently have three female Board members, representing 27% of Board members.
- In 2017, Jason Glen Cahilly joined the Carnival Corporation & plc Boards. Cahilly sits on the Audit Committee. For details on his qualifications, please visit our website at [www.CarnivalCorp.com](http://www.CarnivalCorp.com)
- In 2017, Sir Jonathan Band became the Chair of the Health, Environmental, Safety & Security (HESS) Committees. He also sits on the Nominating & Governance Committees. For profiles of all the current Board members, please visit our website at [www.CarnivalCorp.com](http://www.CarnivalCorp.com)

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 and engineering officers responsible for the navigation and operation 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

Sir Jonathon Band - Chairman, HESS Committee

Sir Jonathon Band has served on Carnival Corporation & plc’s Boards of Directors since 2010. In 2017, he was appointed Chairman of the Health, Environment, Safety and Security (HESS) Committee and also serves on the Nominating & Governance Committee. Sir Jonathon’s qualifications to serve on the Boards include extensive experience in maritime operational and security matters gained through his 42 years of service with the British Royal Navy, and significant international experience in corporate and industry matters.

In 2006, Sir Jonathon was appointed First Sea Lord and Chief of Naval Staff, the most senior serving officer in the Royal Navy. Before serving as First Sea Lord, he served as the Royal Navy’s Commander-in-Chief Fleet. In 2002, he was appointed Knight Commander of the Order of the Bath for his exemplary military service. He is the recipient of honorary doctorates from Exeter and Portsmouth University, is a visiting professor at Reading University and was the President of the Royal Naval and Royal Albert Yacht Club in Portsmouth.

After retiring from the Royal Navy, Sir Jonathon embarked on a life of non-executive responsibilities in the commercial and charity sectors. Having initially held positions with Babcock International Group, Mood International and Lockheed Martin he is now involved with Survitec Group Ltd. and the Creative Engagement Group. His work with charitable foundations includes service as the Chairman of Trustees for the National Museum of the Royal Navy, the President of the Royal Navy and Royal Marine Charity, a Vice Patron of UK Blind Veterans and the Vice President of the White Ensign Association.

Through his years of service on Carnival’s Boards of Directors, Sir Jonathon has been a staunch advocate for key HESS risk mitigation programs including the company’s investments in engine room fire safety improvements, the global officer training facility in the Netherlands and the newly implemented global officer psychometric evaluation program.

As Carnival Corporation & plc’s new HESS Committee Chairman, we are confident Sir Jonathon will lead us to a higher level of HESS excellence which is essential for our continue success as a responsible global organization.

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 126-140 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, 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 at 2017 Board meeting
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/regulatory/industry-policies/other/anti-corruption.

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 this 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 141, as well as on our website at www.CarnivalCorp.com.
"OUR CORPORATE GOVERNANCE MODEL PROVIDES THE STRUCTURES AND PROCESSES FOR THE DIRECTION AND CONTROL OF OUR COMPANY."
COMMITMENT

RISK MANAGEMENT • SAFETY • HEALTH • SECURITY
ENVIRONMENTAL MANAGEMENT • ENERGY & EMISSIONS
WATER MANAGEMENT • WASTE MANAGEMENT • BIODIVERSITY

CARNIVAL CORPORATION & PLC
Sustainability

AIDA • Carnival • Costa • Cunard
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.

**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 committed to aligning to welfare standards for broiler chicken by 2024.

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  - We partnered with the Association of British Travel Agents (ABTA) to help us ensure we are responsibly managing excursions involving animals. We are leveraging their global welfare guidelines for animals in tourism.
  - We identified a third party auditor to audit attractions involving animals.
  - Starting in 2018, we will commence audits on all dolphin in captivity tour encounters used by our brands.
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 2017, we began construction on the third of three planned state of the art Fleet Operations Centers (FOC) in Miami, U.S. The Miami FOC is scheduled to commence operations in 2018. 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.

AUDIT AND INVESTIGATIONS
Internal regulatory compliance audits and/or Health, Environment, Safety and Security (HESS) investigations are conducted annually of each brand’s head office, 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’s 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 results. HESS audit results are used to determine compliance, improve effectiveness and efficiency, analyze trends, support new-build and retrofit decisions, and promote best management practices.
• 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.
• In 2013 an environmental crime was committed on one of our ships by individuals who violated our company values and policies. We took responsibility, signed a plea agreement, and are now on probation. Our probation is in the form of a five year Environmental Compliance Plan (ECP) that began on April 19, 2017. The ECP requires third party audits and oversight visits by a Court Appointed Monitor.

For further details please visit: www.princess.com/news/notices_and_advisories/cbresponse

DATA AGGREGATION AND ANALYSIS PLATFORM - NEPTUNE
In 2017, 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.

In 2017, the system expanded its aggregation and analysis in three areas:

• Engine performance: Engine data is monitored in real-time and shared with Wärtsilä, the engine manufacturer, to allow performance deviations to be detected and measures initiated to ensure that the engines are maintained at their optimal levels, thus reducing fuel consumption and providing significant emission reduction benefits.
• Exhaust Gas Cleaning Systems (EGCS): Operating parameters from the EGCS are checked every 3 minutes and sent ashore to teams who monitor to ensure that the systems are operating correctly and in the appropriate areas.

• Energy efficiency: Data is being collected across a broad range of energy consumption measurements. This allows us to analyze and benchmark key performance indicators for many different aspects of energy efficiency to direct and drive forward our program for efficiency improvements and help us reach our greenhouse gas reduction targets.

**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 and engineering officers responsible for the navigation and operation 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 2017, a global training program was developed and implemented for all Environmental Officers (EO) fleet-wide. The annually required weeklong training course is conducted at Carnival’s Arison Maritime Center in the Netherlands. This program is designed to further develop EO environmental and technical knowledge and skills and to provide professional development opportunities to the over 200 EOs that support our fleet around the world.

**TRAVELSEACURE**

We continued our global travel risk management program, named travelSEACURE. This program aims to support all employees, both shoreside and on board, with security, health and unforeseen event assistance while on business travel. In 2017, travelSEACURE was expanded across all brands and it covered over all employees.

**HEALTH RECORDS**

We continued to develop and implement a standard electronic health record (EHR) platform across our fleet. This program is enhancing many aspects of our medical operations and services. The implementation of this platform, known as SeaCare, is over 90% complete and is expected to be fully implemented fleet wide by mid-2018.

**BODY WORN CAMERAS**

Two of our 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.

**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 role, a variety of psychometric evaluations, both online and in person with psychologists is 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.
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, 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. We also have dedicated departments with responsibility for advising and assisting upper management and the Boards of Directors on corporate risk management issues and for providing assurance 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 prevention, implementation, detection, feedback and improvement. We plan and establish objectives and processes necessary to achieve the required and expected results. We then implement the established 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 is paramount to our business and our Fleet Operation Centers (FOC) are an essential component of our safety strategy. A first in the cruise and commercial maritime industry, our FOCs are designed to assist our captains, chief engineers, and deck and engineering officers with digital support, control and planning of all nautical and technical operations. We currently have two FOCs in operation. The first FOC was opened in Hamburg, Germany in 2015 and the second was opened in Seattle, U.S. in 2016. Both centers provide real-time support for our fleet of 103 ships. The third FOC will be added to the global network in 2018 and will be located in Miami, U.S.

The centers are staffed 24 hours a day, allowing for improved communications between the ship and shore, and providing immediate support to our ships. The FOCs are also equipped with a state of the art tracking and data-analysis platform that enables real-time information sharing between our ships and shoreside teams trained to support fleet operations. 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 ships routing, real-time navigational notifications, integrated weather data and traffic information.

The advanced system captures thousands of data points and provides real-time analytics for distinct parameters for navigational safety from each ship, and focuses on the following strategic areas to optimize safety, efficiency and overall fleet performance:

- **Nautical Operations & Safety** – including the capability to see real-time radar visuals, stability conditions, automation, the Safety Management and Command System, and webcams from each ship, along with GPS location, routing, ship conditions and weather data.
- **Procedural Optimization & Efficiency** – including speeds, navigational data and engine conditions.
- **Environmental Performance** – including fuel and energy usage, emissions levels and water and waste management.

Our teams have done a remarkable job in developing the FOCs and the data analysis and tracking platform. Together they enable us to further enhance safety and improve operational excellence using real-time data in ways that have never been done in the cruising and commercial maritime industries.
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.

In FY2017, we implemented a Psychometric Assessment Program across all Brands for the selection, promotion and assessment of Deck and Technical Officers to ensure that all Officers possess the attributes required for their roles.

FY2017 SAFETY PERFORMANCE

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.

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 2017, 75% 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 regulatory compliance audits and/or Health, Environment, Safety and Security (HESS) investigations are conducted annually of each brand’s head office, 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’s 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 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.

EMERGENCY POWER & VULNERABILITY MITIGATION

To further reduce the risks of fire on board, we completed an in-depth assessment of electricity generation under emergency conditions and committed to additional investments in this area as follows:
- An additional Emergency Diesel Generator for added redundancy and additional power generation if needed during an emergency.
- Protective, fire-resistant coating on vulnerable electric cables.
- Rerouting of some electrical cables away from potential fire sources.
- The addition of 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 and in 2017 we completed approximately 80% of phase II. Phase II includes:
- Engine control room audio & video recording.
- Machinery space hydrocarbon gas/oil leak detection technologies.
- CCTV oil mist, smoke and fire analytics equipment.
- Double wall fuel hoses for our main engines.

DATA AGGREGATION AND-ANALYSIS PLATFORM - NEPTUNE

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In 2017, the system expanded its aggregation and analysis in three areas:
- **Engine performance:** Engine data is monitored in real-time and shared with Wärtsilä, the engine manufacturer, to allow performance deviations to be detected and measures initiated to ensure that the engines are maintained at their optimal levels, thus reducing fuel consumption and providing significant emission reduction benefits.
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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 and engineering officers responsible for the navigation and operation 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

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Two of our 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.

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.

The scrapping of the Costa Concordia started in July 2014 and was completed in June 2017. It was performed by the Ship Recycling Consortium Saipem/San Giorgio del Porto. The dismantling of the ship was divided in several phases, the last of which was in Dock 8 of the Port of Genova. The overall quantity of material dismantled (including the sponsons used for the wreck refloating, but excluding liquids) totaled 63,565 tons. 88% of the material was recovered and recycled, while 12% was disposed. A recycling certification was granted by the Italian Government.
OUR COMMITMENT

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 on board our ships. We have developed and implemented Standardized Safety Policies and Procedures that go beyond compliance with the International Maritime Organization’s Safety of Life at Sea (SOLAS) requirements. All of our occupational health and safety management systems are based on and incorporate 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 CO₂ suppression 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 look into new, innovative technology and will often trial such developing ideas onboard our ships.

OUR STRATEGY

CREW

Because our crew work and live on board our ships, we maintain a 24/7 responsibility for the safety of our 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.

GUESTS

We do not underestimate the importance of ensuring the safety of our 12.1 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 on board 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, implementation of related procedures and processes, performance measurement, and continuous improvement. Our SMS establish accountability for safety throughout the organization and incorporate 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 conducting 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 technology that has the potential to positively influence the safety environment of the guests and often test such new technology on board our ships.

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.
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.

• In collaboration with the Cruise Lines International Association (CLIA) and North Carolina State University, we continued our support for the evaluation of products used to help manage norovirus. In 2017, this included completing a project to test a range of hand sanitizing products. The results suggested that the common types of hand sanitizers tested have limited efficacy against human norovirus. Thorough hand washing remains the most effective means of prevention, although hand sanitizers may still be useful as an adjunct.

• In response to an outbreak of plague in Madagascar, we developed prevention procedures to ensure potential risk to ships was effectively evaluated and managed.

FY2017 HEALTH PERFORMANCE

INSPECTIONS

18 of our ships received a score of 100 from the Center For Disease Control and Prevention (CDC) Vessel Sanitation inspections.
Our response to the worldwide Zika virus outbreak continued with the implementation of a range of prevention measures including:

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

During 2017, there were no significant health impacts reported on our ships or at the ports we own.

We continued to develop and implement a standard electronic health record (EHR) platform across our fleet. This program is enhancing many aspects of our medical operations and services. The implementation of this platform, known as SeaCare, is over 90% complete and is expected to be fully implemented fleet wide by mid-2018.

A clinic and medical wellness facility for Deck and Technical Officers has been established at the Arison Carnival Maritime Center (known as CSMART). A pilot executive health assessment program is being conducted by the clinic with one of our brands. The results of the pilot will be evaluated to determine whether this approach should be adopted as standard throughout the fleet. 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 crew over time. Additionally, the SeaCare electronic health records platform has been installed at CSMART. This will enable more effective use of personal health information by on board staff in order to help empower their long term health choices.

Costa Group (Costa Cruises, Costa Asia and AIDA Cruises) launched a partnership with Mercy Ships to support its humanitarian work, providing trained deck and engine officers to work on board the Mercy Ships. Mercy Ships is an international non-governmental organization that works to promote access to essential healthcare in developing nations. For additional details please view our community support highlight. For more information on Mercy Ships please visit www.mercyships.org.

In response to an outbreak of plague in Madagascar, we developed prevention procedures to ensure any potential risk to ships was effectively evaluated and managed. No cases of the disease were associated with travel on cruise ships and the measures taken ensured compliance with the requirements of the international health authorities.

Training to support the SeaCare global health record system continued for new and existing medical staff. The training package consists of five modules focusing on an overview and overall introduction of the system, outpatient processing, inpatient processing, master service billing and communicable diseases.

Our CareTeam continues to provide compassionate care in the event of an emergency while on board. 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. In 2017, our CareTeams across our brands collectively helped approximately 5,800 people including guests and their families, crew members and shoreside employees.
PROCEDURES
Throughout the year, we contributed to the review of a number of international health procedures and guidance developed by various organizations. Some of these include:

• The updated CDC Vessel Sanitation Program Operations Manual and Construction Guidelines which will now be issued in spring 2018.

• The American College of Emergency Physicians annual Healthcare Guidelines for Cruise Ship Medical Facilities.

• The Caribbean Public Health Agency (CARPHA) - Regional guidance for managing issues of public health significance on cruise ships (vessel-based surveillance) coming to the Caribbean. This guidance is being developed to promote standardized surveillance and response to public health events across the Caribbean.

• SHIPSAN standard operating procedures for ship inspections. SHIPSAN is a European joint action for safeguarding health and preventing the spread of disease. They are now focused on developing an integrated strategy and a sustainable public health program.

COMMUNICATION
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 2017, we participated in the following CLIA health programs and initiatives:

• Continued to support a research project to test the efficiency of hand sanitizer products against human norovirus.

• Shared our plague prevention procedures with the industry.

• Contributed to the development of SHIPSAN and CARPHA health initiatives.

COLLABORATION
We participated in a Caribbean Public Health Agency (CARPHA) workshop which addresses the vulnerability of the Caribbean region to health, safety and environmental threats. This event focused on working with various stakeholders, including the cruise industry in order to develop a harmonized approach. The workshop progressed regional agreements on CARPHA’s tourism and health program’s early warning and response systems and reviewed the standardized regional guidelines (for cruise ships and hotels) developed to mitigate against and respond to tourism based health crises.

PORT HEALTH
We continue to develop and implement comprehensive health standards and procedures 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 health accomplishments in 2017:

• Started Mahogany Bay Cruise Center in-house water quality laboratory expansion. Project to be completed in 2018.

• Continued Zika prevention guidelines at all ports.

• Completed standardization of Integrated Pest Management at all ports.
OUR COMMITMENT

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 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 procedures. Our on board 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 are developed from worldwide health and sanitation regulations, best practices and guidance. Our programs are audited both internally by public health specialists and externally by officers from health authorities worldwide. We coordinate cross brand 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 within our individual brands. 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 on board our ships and port facilities we own and operate. Our fleet wide Outbreak Prevention and Response Plan guides our actions to prevent and respond to outbreaks of illness on board our ships. The strategy detailed in the plan addresses health screening and surveillance measures, communication and provision of health advice, isolation of ill guests and crew, medical treatment, reporting to health authorities and use of proven sanitation and infection control measures.

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

WE ARE COMMITTED TO SUPPORTING THE HEALTH AND WELLBEING OF OUR GUESTS AND CREW
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, with a portfolio of 10 dynamic brands that include nine of the world’s leading cruise lines. Together, the corporation’s cruise lines operate 103 ships with cruises in all of the world’s most popular vacation destinations.

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.

In FY2017, we implemented a Psychometric Evaluation Program across all brands for the selection, promotion and evaluation of all Deck and Technical Officers to ensure that all Officers possess the attributes required for their roles. This 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.

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.

In FY2017, we implemented a Psychometric Evaluation Program across all brands for the selection, promotion and evaluation of all Deck and Technical Officers to ensure that all Officers possess the attributes required for their roles. This 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.

FY2017 SECURITY PERFORMANCE

VISIBLE BODY WORN CAMERAS

Two of our brands implemented the use of Visible 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.
In an ongoing effort to strengthen security and improve the passenger experience, our brands continue to evaluate and implement new security screening technologies, including dual-view X-ray systems. In 2017, the first such systems were installed to screen cruise line passenger belongings in one of our largest home ports. This new technology utilizes sophisticated algorithms to help detect concealed items and possible threats while equipping screeners with two different, high-resolution images to enhance the screening process while reducing the need to re-scan items. These systems enhanced the passenger experience by improving throughput, thereby helping to expedite security checks.

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 role, a variety of psychometric evaluations, both online and in person with psychologists is 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.

Carnival Corporation’s SOTP program is based in the Philippines and provides a comprehensive two-week long curriculum that prepares our crew members for duty on board any of our ships and across all brands as a security officer. In 2017, over 300 ship security personnel were trained at the facility. The curriculum is regularly reviewed and continuously updated by brand security teams so that the training reflects the company’s latest procedures and regulatory requirement.

Three of our brands 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.

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.

We continue to research, test and pilot man overboard detection systems. These systems are designed to support shipboard personnel to improve response time to an incident involving a person falling or jumping overboard. However, because these technologies are immature, we are also involved in the development of an international design and performance standard against which we will expect these systems to be certified. Of primary concern is the achievement of a high, reliable detection rate without excessive false alarms under maritime conditions, which would be a distraction to the bridge team. We continue to engage with manufacturers as we await the finalization of the international design and performance standard.

We continued our global travel risk management program, named travelSEACURE. This program aims to support all employees, both shoreside and on board, with security, health and unforeseen event assistance while on business travel. In 2017, travelSEACURE was expanded across all brands and it covered all employees.
In 2017, 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.

In 2017, the system expanded its aggregation and analysis in three areas:

- **Engine performance**: Engine data is monitored in real-time and shared with Wärtsilä, the engine manufacturer, to allow performance deviations to be detected and measures initiated to ensure that the engines are maintained at their optimal levels, thus reducing fuel consumption and providing significant emission reduction benefits.

- **Exhaust Gas Cleaning Systems (EGCS)**: Operating parameters from the EGCS are checked every 3 minutes and sent ashore to teams who monitor to ensure that the systems are operating correctly and in the appropriate areas.

- **Energy efficiency**: Data is being collected across a broad range of energy consumption measurements. This allows us to analyze and benchmark key performance indicators for many different aspects of energy efficiency to direct and drive forward our program for efficiency improvements and help us reach our greenhouse gas reduction targets.

**FLEET OPERATIONS CENTER**

In 2017, we began construction on the third of three planned state of the art Fleet Operations Centers (FOC) in Miami, U.S. The Miami FOC is scheduled to commence operations in 2018. 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.

**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 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 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 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 on various roles/capacities on the following organizations as the Chairman of the U.S. Department of State’s Overseas Security Advisory Council’s Maritime Security Working Group, as member of the FBI’s Domestic Security Alliance Council’s (DSAC) Intelligence and Threats Committee and as one of only twenty five security leaders serving on 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 risk while allowing the smooth 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.

THE SECURITY OF OUR GUESTS AND CREW IS OF PARAMOUNT IMPORTANCE.
Across our 10 brands, we host 12.1 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 – by end of FY2017, we surpassed our 25% reduction goal two years ahead of schedule by achieving a 26.3% reduction relative to our 2005 baseline.
- Installing exhaust gas cleaning systems (EGCS).
- Increasing cold ironing capacity.
- Increasing advance waste water purification system (AWWPS) capacity.
- Increasing water efficiency.
- Reducing waste.

A detailed progress for each environmental goal is found on pages 60-78.

FY2017 ENVIRONMENTAL MANAGEMENT PERFORMANCE

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

- A Liquefied Natural Gas (LNG) supply agreement with Shell Western LNG B.V. for our new LNG-powered ships. In 2017, AIDApERLIA became the second cruise ship in the world to use LNG while in port. The first one was AIDAprima in 2016.
- A unique, long-term, collaborative partnership with Wärtsilä designed to improve the energy efficiency of our fleet of over 400 Wärtsilä engines.
- A continued partnership with EcoSpray to develop and install the most advanced exhaust gas cleaning systems at sea.
ENVIRONMENTAL COMPLIANCE
In 2013, individuals on one of our ships violated company policy and values. We took responsibility, signed a plea agreement, and began a five year Environmental Compliance Plan (ECP) on April 19, 2017. The ECP requires third-party audits and court-appointed oversight. For further details, please click here.

SUSTAINABILITY PERFORMANCE DATA ASSURANCE
We continue to expand third party assurance of our sustainability data. For further details, refer to the assurance statement on pages 142-144.

ENVIRONMENTAL OFFICER TRAINING
In 2017, a global training program was developed and implemented for all Environmental Officers (EO) fleet-wide. The annually required weeklong training course is conducted at Carnival’s Arison Maritime Center in the Netherlands. This program is designed to further develop EO environmental and technical knowledge and skills and to provide professional development opportunities to the over 200 EOs that support our fleet around the world.

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 2017, IMO approved a roadmap for developing a comprehensive strategy for reducing greenhouse gas emissions (GHG) from ships in line with the COP21 (Paris Agreement). In accordance with this roadmap, an initial strategy for reducing GHG emissions from shipping is to be developed in 2018.

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 both standards.

WE ARE COMMITTED TO PROTECTING THE ENVIRONMENT.
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). We recognize that some of these factors can affect the biodiversity of the areas where we operate. In this report we discuss the following aspects of our environmental footprint:

• 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 the ten sustainability goals focus on our environmental performance.

There are multiple drivers of our strategy, including regulatory changes, stakeholder influence, our dependence on fossil fuels and economic efficiencies specifically as it relates to our dependence on fossil fuels, technology, partnerships, transparency and communication.

We evaluate environmental risks, develop standards and procedures and put high emphasis on our associated environmental leadership and performance. In addition, our enterprise risk management program includes climate change and water risks.

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

The management teams of our brands identify and manage environmental aspects and impacts, supervise the environmental performance of the ships and ensure compliance with environmental statutory requirements, best management practices and company environmental procedures. Most importantly, the dedicated ships’ Officers and crew carry out our policies and procedures on board.

In order to support our environmental strategies, our brands have implemented an Environmental Management System (EMS) in accordance with the International Organization for Standardization (ISO) Standard 14001 and some also have ISO 9001 Quality Management Systems. An independent, third-party organization audits and certifies the EMS of each of our brands 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 Lloyd’s Register Quality Assurance Inc., 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 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 the systems/technologies. Among the challenges typically encountered when adapting shore-based technologies to shipboard
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 environment. In order to expedite the process, 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. In particular, we have a marine conservation partnership with The Nature Conservancy since 2014. For information on TNC’s partnership see pages 82-83 and to learn more about our other partnerships see pages 145-147.
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$_2$e (equivalent carbon dioxide) emissions from our operations by 25% by 2020 relative to our 2005 baseline, measured in grams of CO$_2$e per ALB-km.

We have achieved a 26.3% reduction relative to our 2005 baseline and have reached our target ahead of schedule.

Continuing our efforts to reduce our carbon footprint we:
- Delivered the second cruise ship in the world to be powered by liquefied natural gas (LNG) from pier side trucks while in port (the AIDAperla).
- Started LNG operations in Mediterranean Ports.
- Expanded our partnership with Shell to fuel North America’s first LNG-Powered Cruise Ships.
- Continued our partnership with Wärtsilä to drive further gains in engine efficiency.
2020 GOAL & UPDATE

Exhaust Gas Cleaning Technology
Continue to improve the quality of our emissions into the air by developing, deploying and operating Exhaust Gas Cleaning 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 operating Exhaust Gas Cleaning Systems across the fleet. These systems significantly reduce sulfur compounds, particulate matter, including black carbon, from our ship’s engine exhaust.

- 62% of our fleet is equipped with Exhaust Gas Cleaning Systems.
- We were named the winner of Lloyd’s List Americas 2017 Cleaner Safer Seas Solutions Award for Clean Air Commitment.

2020 GOAL & UPDATE

Cold Ironing Capacity
Increase Cold Ironing coverage of our fleet wide capacity in relation to future port capabilities.

We continue to improve the quality of our emissions into the air by continuing to increase the cold ironing coverage of our fleet wide capacity.

- 43% of our fleet is equipped with cold ironing capabilities.

FY2017 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 port. In 2017 we:

- Delivered the second cruise ship in the world to be powered by LNG from pier side trucks while in port (AIDAprima).
- Began LNG operations in Mediterranean ports following the initial successful testing. AIDAprima was supplied with LNG while docked at the ports of Barcelona (Spain), Marseille (France) and Civitavecchia (Italy).
- Expanded our partnership with Shell to fuel North America’s first LNG-powered cruise ships for two next-generation cruise ships to be constructed for Carnival Cruise Line.
- Continued construction on AIDAnova, the first fully LNG-powered cruise ship both in port and on the open sea, which is expected to join the fleet in late 2018.
- Began construction on Costa Smeralda. The new Costa Cruises ship will be the brand’s first ship powered by LNG.

OPERATIONAL EFFICIENCY
We continued our 12-year strategic agreement with Wärtsilä to maintain the highest possible levels for cruise ship diesel engine safety and reliability. The scope of the agreement includes all engine maintenance and monitoring for 78 vessels within our fleet of 103 vessels. The agreement is designed to reduce overall maintenance costs while at the same time increasing engine efficiency. As part of the agreement, engine-level efficiency and fuel consumption is measured on a regular basis, providing improved transparency into engine performance resulting in further improvements to engine operations. The data provided also allows for tailored optimization of the combustion process which will also improve the quality of our air emissions. In 2017, we completed installation of fuel measuring instrumentation and related software on 78 ships powered with Wärtsilä engines. This includes mass fuel meters, specific fuel oil computers and integration with Neptune, our data collection system. For further details refer to pages 64-65.
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 2017, IMO approved a roadmap for developing a comprehensive strategy for reducing greenhouse gas emissions (GHG) from ships in line with the COP21 (Paris Agreement). In accordance with this roadmap, an initial strategy for reducing GHG emissions from shipping is to be developed in 2018.

GHG MONITORING, REPORTING AND VERIFICATION
In 2017, we prepared for the European Commission’s regulation aimed at reducing greenhouse gas (GHG) emissions from maritime shipping. The first step in this process was through the development and implementation of a Monitoring, Reporting and Verification (MRV) program, which will collect emissions data from ships over 5,000 gross tons to monitor and report their carbon emissions on all voyages to, from and between European ports. This program began on January 1, 2018 and requires any ship calling on or departing from an European Union or European Economic Area port to measure and report fuel consumption on the associated leg.

2017 EUROPEAN UNION OUR OCEANS CONFERENCE – MALTA
Carnival Corporation was invited to participate in the EU Our Oceans conference in Malta in October 2017. David Dingle, the Chairman of Carnival UK, represented Carnival as part of the climate change session. He presented on our efforts to pioneer Liquefied Natural Gas in the cruise industry as part of our 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. Mr. Dingle’s and other presenters’ speeches can be viewed at: https://ec.europa.eu/avservices/video/player.cfm?ref=l144415

DIRECT & INDIRECT EMISSIONS
We quantify, report and verify our greenhouse (GHG) emissions, including our direct (Scope 1) and indirect (Scope 2) emissions. Scope 1 emissions are direct GHG emissions that occur from sources that we own or control, such as the operation of our ships. Scope 2 emissions are electricity indirect GHG emissions from the generation of purchased electricity that we consume on our properties and ships. Our direct GHG emissions were 99.6 percent of our total emissions, and the emissions generated from our ships’ fuel consumption represented the vast majority of our GHG emissions (97.3 percent). Our indirect GHG emissions represent only 0.4 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.

THE NATURE CONSERVANCY
We continue our partnership with The Nature Conservancy (TNC) with a $2.5 million investment commitment over a five year period which started in 2014. Our commitment supports important research for marine conservation. We support TNC’s Mapping Ocean Wealth (MOW) program. This program creates maps that show the extent and distribution of benefits that habitats like coral reefs and mangroves provide, including fish production, flood mitigation, erosion control and recreation. Our partnership also helps TNC’s, coastal blue carbon research. Blue carbon is the carbon stored and sequestered in coastal ecosystems such as mangroves, seagrass meadows or salt marshes. These valuable ecosystems hold vast carbon reservoirs. They capture carbon and then store it in their sediments, which helps mitigate climate change. Refer to The Nature Conservancy Highlight on page 82-83 for further details.
DATA AGGREGATION AND ANALYSIS PLATFORM - NEPTUNE

In 2017, 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 of which support operational efficiencies and minimize risk.

In 2017, the system expanded its aggregation and analysis in three areas:

- **Engine performance:** Engine data is monitored in real-time and shared with Wärtsilä, the engine manufacturer, to allow performance deviations to be detected and measures initiated to ensure that the engines are maintained at their optimal levels, thus reducing fuel consumption and providing significant emission reduction benefits.

- **Exhaust Gas Cleaning Systems (EGCS):** Operating parameters from the EGCS are checked every 3 minutes and sent ashore to teams who monitor to ensure that the systems are operating correctly and in the appropriate areas.

- **Energy efficiency:** Data is being collected across a broad range of energy consumption measurements. This allows us to analyze and benchmark key performance indicators for many different aspects of energy efficiency to direct and drive forward our program for efficiency improvements and help us reach our greenhouse gas reduction targets.

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.

WE ACTIVELY PARTICIPATE IN AND CONTRIBUTE TO THE PROCESS OF DETERMINING OUR INDUSTRY’S ROLE IN ADDRESSING CLIMATE CHANGE.
As part of our plans to address our impact on climate change, in 2017 we enhanced our long-term partnership with Wärtsilä, one of our main engine manufacturers, by signing a long-term engine maintenance and energy efficiency agreement. Core to the partnership is a long-term plan to continuously improve our engine performance and efficiency. The agreement builds on our existing partnership and is aimed at maintaining our high levels of main engine safety and reliability. The agreement is performance-based and provides for shared financial incentives and exposure based on outcomes for both ourselves and Wärtsilä.

The comprehensive, 12-year strategic agreement, worth approximately $1 billion in total, includes all engine maintenance and monitoring for 78 vessels within our fleet of 100+ vessels. The agreement is designed to reduce overall maintenance costs while at the same time improving engine efficiency through both real-time performance monitoring and technology investment. The agreement was developed through the close collaboration of teams from Carnival Corporation & plc and Wärtsilä, who met regularly for more than one year leading up to the execution of the agreement in order to ensure that each component of the agreement adds value to both entities.

Under the agreement, Wärtsilä oversees and supports all engine maintenance and has near real-time access to performance data from each of the 402 engines. This transparency allows Wärtsilä to make informed technical decisions to optimize both regular maintenance internals and major engine overhaul activities.

Performance data from individual engines is analyzed by Wärtsilä’s technical experts enabling, real-time optimization of the equipment and prediction of operational and maintenance demands. Similarly, engine performance data is compared across the fleet to identify optimal operational parameters and maintenance regimes. Data from each engine is transmitted ashore every 30 seconds, and full data visibility is provided to both parties for all recommendations and actions taken.

As part of the agreement, engine-level efficiency and fuel consumption are also measured, tracked and trended on a regular basis, providing improved transparency into engine performance that informs opportunities to make further improvements to engine operations. The data provided also allows for tailored optimization of the combustion process, which also improves the quality of our air emissions.

With over 400 engines monitored and maintained under the agreement, even the smallest improvements in vessel fuel consumption will add up to significant reductions in emissions and annual savings.
“WE EXPECT THIS PARTNERSHIP TO DELIVER SIGNIFICANT ADDITIONAL FUEL SAVINGS. THIS IS IMPORTANT BECAUSE OUR FUEL CONSUMPTION REPRESENTS APPROXIMATELY 97% OF OUR GREENHOUSE GAS EMISSIONS.”

- William R. Burke – Carnival Corporation & plc, Chief Maritime Officer, Vice Admiral, U.S. Navy (retired)
OUR COMMITMENT

We believe in communicating transparently about climate change. We actively participate in the process of determining our 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 our 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 on board hotel power requirements. Our shipboard fuel consumption contributes to more than 97% of our direct (Scope 1) and indirect (Scope 2) carbon emissions and is therefore the most significant contributor to our carbon footprint. See the graphic on page 70 for further details.

OUR STRATEGY

In order to manage our emissions footprint, we must manage the source of our emissions. Shipboard fuel consumption is the most significant contributor to our carbon footprint. Therefore, we have implemented multiple energy-savings initiatives. See Energy-Saving Initiatives in the Appendix for further details.

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

We are actively involved in new shipbuilding research and development for new abatement technologies and new equipment to improve energy efficiency. We continue to work on practical and feasible energy reduction and conservation initiatives to help us reach our target. We are 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.

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

- Air Lubrication Systems using air bubbles to reduce friction between the ship’s hull and the water.
- Exhaust Gas Cleaning Systems (EGCS) that use proprietary technology to remove sulfur oxides and particulate matter from engine exhaust.
- Alternative Fuels - Cruise industry first use of Liquefied Natural Gas (LNG), one of the world’s cleanest burning fossil fuels.

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 on pages 142-144.

We continue to train and certify employees responsible for refrigeration and air-conditioning plants, use recovery units certified to meet refrigerant recycling and recovery requirements and implement programs to reduce Ozone Depleting Substances (ODS) releases.
In 2013, we announced our plans to install exhaust gas cleaning systems (EGCS) 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 limited availability of EGCS for marine application, we decided to lead the way by developing the technology to successfully function in the restricted spaces available on cruise ships and by making the necessary investments, which includes approximately $500 million to date, leading to a significant development in shipboard environmental technology.

As of FY2017, 62% of our ships are equipped with EGCS. These EGCS are open loop systems that use sea water for removing sulfur from engine exhaust. Before the sea water is returned to the ocean it is checked to make sure it meets International Maritime Organization (IMO) discharge standards. Furthermore, a third party has evaluated seawater parameters prior to returning it to sea and confirmed that they meet major European and North America water quality standards. To further enhance our emissions profile we have also started to install a catalytic filter on the engine exhaust before the EGCS and also a filter before the sea water is returned to the sea. Our standard EGCS removes 99% of sulfur and well over 50% of the particulate matter, including elemental and organic carbon. The EGCS, catalytic filter and other systems further reduce the particulate matter, including the very fine PM 10 and 2.5 particles, and also reduce nitrogen oxides by 10%. All EGCS comply with international regulations and are certified by a classification society. In addition, all systems are equipped with continuous monitoring equipment to automatically record all required parameters.
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, AIDAsol 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. Now we have expanded our LNG capabilities to supply LNG directly to two ships, each with a dual-fuel powered engine. These ships use LNG while in port drawing fuel directly from trucks alongside the ship.

By the end of 2018, we will be the first cruise company to use LNG on the open sea and in port with the introduction of AIDAnova. As of February 2018, we have nine next-generation cruise ships on order that will be the first in the industry to be powered by LNG at sea and at shore.

**FIRST SHIPS WITH LNG CAPABILITIES WHILE IN PORT**

In 2017, we took delivery of our AIDA brand ship, AIDAperla, the world’s second cruise ship that can be operated while in port with LNG. She is the sister ship of AIDAprima, the world’s first that regularly uses dual-fuel engines for an energy supply with LNG while in specific ports.

In 2017, we expanded beyond Northern Europe and started LNG operations in Funchal and Mediterranean ports following successful tests. AIDAperla started to be supplied with LNG while docked at the ports of Barcelona (Spain), Marseille (France) and Civitavecchia (Italy), while AIDAprima was supplied in Funchal (Maderia). We already tested the practical application of this innovative technology in Hamburg, Germany back in early 2016 with AIDAperla’s sister ship, AIDAprima. Shortly after that, operations were also possible in the ports of Southampton (UK), Le Havre (France), Zeebrugge (Belgium) and Rotterdam (Netherlands).
FIRST FULLY CAPABLE LNG CRUISE SHIP
We began construction on AIDAnova in 2017, which is expected to join the fleet in late 2018. With the commissioning of AIDAnova, we will be able to operate a new generation of cruise ships entirely with LNG – both in port and at sea. We have a further 8 sister vessels due for delivery over the next years for Costa, P&O and CCL.

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. As part of the agreement, the two ships, built with a next-generation “green cruising” ship design, will be fueled through Shell’s 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
We have nine next-generation cruise ships on order that will be the first in the industry to be powered by LNG at sea and at shore. 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. Our P&O Cruises UK and Carnival Cruise Line brands both have two LNG ships on order. The first for each brand is scheduled to be delivered in 2020 and the second in 2022. In addition to the first fully capable LNG cruise ship scheduled to be delivered in late 2018, our AIDA brand has two additional LNG ships on order due in 2021 and 2023.

SWITCHING FROM MARINE DIESEL TO LNG

- 0 Sulfur Dioxide Emissions
- 95-100% Reduction in Particulate Matter
- 85% Reduction in Nitrogen Oxides
- Up to 20% Reduction in Carbon Emissions
ENERGY & GREENHOUSE GAS EMISSIONS

99.6% DIRECT GHG EMISSIONS

2% Shore Direct GHG Emissions
2.1% Ship Refrigerant GHG Emissions
97.3% Ship Fuel GHG Emissions

.4% INDIRECT GHG EMISSIONS

.3% Location and Market-Based Shore Indirect GHG Emissions
.1% Location and Market-Based Ship Indirect GHG Emissions

SHIP FUEL DIRECT GHG EMISSIONS
Fuel to propel the ships and run the ships generators to provide electricity.

SHIP REFRIGERANT DIRECT GHG EMISSIONS
Refrigerants to cool appliances such as refrigerators and AC units on the ships.

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

SHORE DIRECT GHG EMISSIONS
Fuel for company cars and building generators.

SHIP INDIRECT GHG EMISSIONS
Electricity purchased at the port of call for power while docked. (Cold Ironing)
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, with a portfolio of 10 dynamic brands that include nine of the world’s leading cruise lines. Together, the corporation’s cruise lines operate 103 ships with cruises in all of the world’s most popular vacation destinations.

Water is essential to our operations as it is part of the guest experience. Guests enjoy using our swimming pools, spas and water park amenities during their cruise. 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% improvement in water use efficiency of shipboard operations relative to our 2010 baseline.

**FY2017 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 PROroduced**
We produce approximately 79% of the water we use on board our ships from sea water.

**WATER EFFICIENCY**
- Our water use rate is 60 gallons per person per day vs the U.S. National average of 90 gallons per person per day. This represents a one gallon per person reduction achieved from our FY2016 performance.
- We continue to implement measures to improve our water use efficiency and decrease our impacts.
OUR COMMITMENT

The oceans are our main water source. We produce approximately 79% of the water we use on board 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. 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. Over time, we have increased the percentage of water we produce on board 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 on board 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 efficient water 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 and thereby eliminating any 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 World Health Organization (WHO) guidelines. In addition, water treatment systems have been installed in all ports as well as onsite water quality laboratories.

In addition, water related risks and opportunities are identified by management using a holistic risk framework and a risk management capability model aligned with the organization’s strategy and management priorities. This framework is part of our Enterprise Risk Management program. Water risks are incorporated in to our risk universe and are regularly evaluated.

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 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.
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, with a portfolio of 10 dynamic brands that include nine of the world’s leading cruise lines. Together, the corporation’s cruise lines operate 103 ships with cruises in all of the world’s most popular vacation destinations.

As a global company serving more than 12.1 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 2010 baseline, as measured by kilograms of non-recycled waste per person per day.

- Achieved a 3.7% reduction in waste rate.
- Revised waste reduction goal baseline to 2016.

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

We increased fleet wide capacity coverage of Advanced Waste Water Purification Systems (AWWPS) by 6.2 percentage points compared to our 2014 baseline.

**FY2017 WASTE MANAGEMENT PERFORMANCE**

**WASTE MANAGEMENT ACCOUNTING PRACTICES**
Operating on a global scale presents challenges for reporting waste consistently since countries have different reporting requirements. In FY2016, we commenced a comprehensive evaluation of our waste management accounting practices and introduced a new approach for sustainability reporting purposes. With the goal of continuous operational improvement, we refocused our efforts to standardize waste definitions, units of measure and densities across our global brands. This approach allows for consistent trend analysis and reporting. This process was completed in FY2017, accordingly this report includes data for both FY2016 and FY2017 and data disclosed prior to FY2016 is not comparable. Therefore, the baseline for the waste reduction goal has been revised to FY2016. For regulatory reporting purposes, we comply with the requirements of the particular country where waste is landed.
**ENERGY GENERATED FROM WASTE**
When available and practical food waste and municipal type waste can be managed through a designated landfill or incinerator to capture energy from the waste and generate electricity or collect methane gas. In 2017, 79% of the U.S. food waste and municipal type waste went to a facility that captured the energy from the waste.

**FOOD DISCHARGE AT SEA**
We continually evaluate technologies and operations to minimize the volumes of discharges at sea.
- In 2017, two of our brands started a pilot program using equipment to digest food waste prior to discharge at sea. This technology significantly reduces food waste volumes.
- In 2017, one of our brands completed an assessment to promote a more sustainable shipboard food procurement, preparation, consumption and disposal model. See page 77 for further details.

**REUSING**
We continually seek new opportunities to reuse materials and equipment on board or find others who can use items that are in good condition that we no longer need.

**RECYCLING**
We strive to recycle as many items as possible.

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

**INCINERATION ON BOARD**
Shipboard incineration reduces the volume of waste on board and waste landed ashore.

**PORT WASTE MANAGEMENT**
We continue to develop and implement a comprehensive waste management program 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. Our main port waste management accomplishment in 2017 was our Recycling Program. Our Mahogany Bay and Puerta Maya ports improved their recycling programs and are able to recycle the majority of the recyclable materials generated at the port (i.e., cardboard, plastics, aluminum cans).

**FATHOM – TRAVELdeep™ GROUPS**
Fathom’s guests joined local community members on highly impactful sustainability projects in Puerto Plata, Dominican Republic and Cuba. Some of the projects impacting the local community waste reduction initiatives included recycled paper and crafts entrepreneurship.

For more details on these projects, please refer to pages 96-97 and for overall Fathom projects visit [www.fathom.org](http://www.fathom.org)
OUR COMMITMENT

Wastes generated by our operations and activities of our guests and crew mirror 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, national, regional and local environmental regulatory requirements and industry standards. The quantity of waste (solid and liquid) generated at our shoreside facilities is not material when compared to our ship waste generation as our shipboard waste generation represents the majority of our total waste.

OUR STRATEGY

All of our ships have a waste management plan that specifies how we manage each type of waste on board. Our waste management strategy consists of a multi-level approach that includes eliminating and minimizing waste, disposing waste ashore, incinerating waste on board and discharging liquid waste and food waste, all performed in accordance with regulatory requirements and in some instances exceeding regulations. As part of our strategy we also seek for new opportunities to reuse materials and equipment on board 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. In addition, shoreside waste facilities are evaluated prior to offloading the waste from the ships where they are reused, recycled, incinerated or landfilled. Our waste streams are detailed on pages 150-151.

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 that could be recycled is the lack of recycling infrastructure at certain ports of call we visit worldwide. Our approach is to hold the recycling materials on board 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 on board 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 the fleet wide 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 may 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 and engage with regulators and interested stakeholders either directly or through industry trade organizations like the 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 procedures (for more details see the EO section in the Appendix).
In early 2018, our Costa brand unveiled the 4GOODFOOD program, a program it has been developing since 2016. 4GOODFOOD is a far-reaching project that considers every aspect from food preparation and consumption on board to the donation of surplus food. It is an unprecedented program in global shipping. It is focused on addressing food scarcity, which is a key global issue, and is in line with the UN Agenda 2030’s Sustainable Development Goal number 12, Responsible Consumption and Production. With this program, Costa has become one of the Friends of Champions 12.3, a global network of companies and institutions that are active in halving food waste by 2030. Following its success, we are working on expanding this type of program throughout our brands.

**FOOD PREPARATION AND CONSUMPTION**
In partnership with the Università di Scienze Gastronomiche di Pollenzo (University of Gastronomic Sciences), Costa began by revamping its food & wine offerings based on sustainability principles and the rigorous selection of quality products and ingredients while prioritizing the seasonal availability and local sourcing of produce.

**OPTIMIZATION**
Together with Winnow, specialists in optimization of processes in professional kitchens, Costa placed kitchen scales in the galleys and kept a centralized record enabling the mapping, quantification and analysis of wastage at the food processing and preparation level. This system has enabled the gradual implementation of integrated improvement actions on board the ships, and it is already in use on more than half the Costa fleet.

**TASTE DON’T WASTE**
The Taste don’t Waste consciousness-raising campaign is designed to directly involve guests by encouraging responsible behaviors and proactive engagement, particularly in the buffet area. In this phase of the project Costa is working alongside the citizen and consumer rights group Cittadinanzattiva, which helped monitor the effectiveness of the “call to action” on the Costa Diadema.

**DONATING SURPLUS FOOD**
Following the introduction of the Italian Law no. 166/2016 on food waste, Costa teamed up with the food bank charity Fondazione Banco Alimentare to launch a surplus food donation program. In what is a first for global shipping, Costa can now retrieve and donate “ready to eat” meals prepared on board but not served in the ship’s restaurants. This initiative started operating on the Costa Diadema in Savona in July 2017 and was recently extended to include the Port of Civitavecchia (Rome). In just six months, approximately 16,000 portions were distributed via local associations to people in need.

**SUPPORT**
Costa Cruises is supporting the network of Food Gardens in Africa promoted by the Slow Food Foundation for Biodiversity. Costa will provide ongoing financial backing for the venture, with the annual amount of its contribution directly linked to the reduction in food waste in the buffet by guests; the intention is to guarantee the future growth of the network by giving food resources back to the community.
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, with a portfolio of 10 dynamic brands that include nine of the world’s leading cruise lines. Together, the corporation’s cruise lines operate 103 ships with cruises in all of the world’s most popular vacation destinations.

Our lives depend on the earth’s biodiversity. We are honored to take you on board 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$_2$e (equivalent carbon dioxide) emissions from our operations by 25% by 2020 relative to our 2005 baseline, measured in grams of CO$_2$e per ALB-km.

By the end of FY2017, we surpassed our goal two years ahead of schedule by achieving a 26.3% reduction relative to our 2005 baseline.

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

We increased fleet wide capacity coverage of Advanced Waste Water Purification Systems (AWWPS) by 6.2 percentage points compared to our 2014 baseline.

**FY2017 BIODIVERSITY PERFORMANCE**

**FATHOM - TRAVELdeep™ Groups**
Fathom’s guests joined local community members on highly impactful sustainability projects in Puerto Plata, Dominican Republic. Some of the projects impacting biodiversity included:

- Reforestation and Nurseries
- Cacao and Women’s Chocolate Cooperative
- Water Filter Production
- Coffee Experience

For more details on these projects please refer to pages 84-85 and for overall Fathom projects visit [www.fathom.org](http://www.fathom.org)
THE NATURE CONSERVANCY PARTNERSHIP

We continued our partnership with The Nature Conservancy (TNC) with a $2.5 million financial commitment over a five year period, which started in 2014. Our partnership is creating a sustainable future for the world’s oceans by creating the innovative tools and resources needed to engage stakeholders and balance economic development with ocean protection efforts through the Mapping Ocean Wealth (MOW) initiative.

• MOW’s accomplishments for 2017 are summarized on pages 82-83.
• Supported MOW’s nomination for the World Travel & Tourism Council – Tourism for Tomorrow award.

We congratulate TNC on winning this award in 2017. For further information please visit www.wttc.org/tourism-for-tomorrow-awards/winners-and-finalists-2018/winners-and-finalists-2017/

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 committed to aligning to welfare standards for broiler chicken by 2024.

• Tour Operators:
  • We partnered with The Association of British Travel Agents (ABTA) to help us ensure we are responsibly managing excursions involving animals. We are leveraging their global welfare guidelines for animals in tourism.
  • We identified a third party auditor to audit attractions involving animals.
  • Starting in 2018, we will commence audits on all dolphin in captivity tour encounters used by our brands.

CORAL REEFS

In 2017, we sponsored the U.S. Coral Reef Task Force’s Healthy Reefs for a Healthy Economy meeting to promote marine conservation. For details visit: www.coralreef.gov/meeting38/#presentations

2017 EUROPEAN UNION OUR OCEANS CONFERENCE – MALTA

Carnival Corporation was invited to participate in the EU Our Oceans conference in Malta in October 2017. David Dingle, the Chairman of Carnival UK, represented Carnival as part of the climate change session. He presented on our efforts to pioneer Liquefied Natural Gas in the cruise industry as part of our 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. Mr. Dingle’s and other presenters’ speeches can be viewed at: https://ec.europa.eu/avservices/video/player.cfm?ref=144415

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 2017:

• Coastal Cleanup Project: since 2014 the Mahogany Bay Cruise Center adopted the Brick Bay community and has organized annual clean-ups. In 2017, approximately 2,360 bags containing waste and debris were collected.

• Composting project: since 2014, Mahogany Bay has used all 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 2017, approximately seven metric tons of compost material was generated.
• **Ponds for local wildlife:** In 2017, seven ponds were constructed throughout the different gardens and the nature trail located within the port premises to provide water for the local wildlife such as Agoutis (endemic species), armadillos, birds and others.

• **Continued rainwater collection program as part of the port’s water efficiency initiative:** This program incorporates collected and treated rain water 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 rain water 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**

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 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 prevent, manage and lessen our impact on biodiversity. Within our supply chain, we work with suppliers on sustainable food sourcing and our tour operators on sustainable animal welfare practices. We have also 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 cleanups 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.

We comply with or exceed international, national and local environmental laws and regulations everywhere our ships sail. We also implement operational requirements that exceed compliance with regulations. As part of our strategy, we also partner with organizations that are critical for marine conservation and research. Since 2014, we partnered with The Nature Conservancy (TNC) with a $2.5 million financial commitment over a five year period. TNC is one of the world’s leading conservation organizations, working across all sectors of industry and society to help advance its mission to protect the natural world and develop relationships that best align to produce clear conservation benefits with lasting, measurable outcomes. Our partnership is supporting TNC’s Mapping Ocean Wealth (MOW) program. This program creates maps that show the extent and distribution of benefits that habitats like coral reefs and mangroves provide, including fish production, flood mitigation, erosion control and recreation. MOW’s 2017 performance highlights are listed on pages 82-83.
In 2014, we partnered with The Nature Conservancy (TNC) to support its global marine protection priorities with a $2.5 million gift over an initial five-year period. TNC is one of the world’s leading conservation organizations, working across all sectors of industry and society to help advance its mission to protect the natural world and develop relationships that best align to produce clear conservation benefits with lasting, measurable outcomes.

Our Partnership is supporting TNC’s Mapping Ocean Wealth (MOW) program. This program creates maps that show the extent and distribution of benefits that habitats like coral reefs and mangroves provide, including fish production, flood mitigation, erosion control and recreation. Our partnership also supports TNC’s Caribbean efforts to protect and sustainably manage the Caribbean’s critical marine resources.

2017 PERFORMANCE HIGHLIGHTS

TOMORROW INNOVATION PRIZE
MOW was recognized by the World Travel and Tourism Council - 2017 Tourism for Tomorrow Innovation Prize for developing an innovative methodology to map the tourism value of coral reefs around the world.

TWITTER ACCOUNT
Grew the following and impact of the MOW Twitter account (@ocean_wealth) that is strategically linked to the Conservancy’s social media portfolio.

MICRONESIA
In Micronesia, MOW’s fisheries mapping is supporting protected areas planning and at the same time is being improved with higher resolution maps, covering a wider range of coral reef habitats.

BAHAMAS
In the Bahamas, MOW is supporting the design of marine protected areas in the Bahamas, helping the country to meet its Caribbean Challenge Initiative 2020 goal of protecting 20 percent of its near shore marine habitat.

AUSTRALIA
In Australia, TNC has leveraged considerable funding to support projects looking at seagrass, saltmarsh, oysters and mangroves in the southern shorelines, focusing on carbon storage and sequestration and on fisheries enhancement.

FLORIDA
In Florida, the Oyster Calculator is being used by TNC and by managers in the Florida Fish and Wildlife Commission to help set meaningful goals for oyster reef restoration in Pensacola Bay and St. Andrews Bay.
Ocean habitats provide scuba diving, fishing and other recreational opportunities that attract tourists from around the world.

Coastal communities, planners and the tourism industry should protect and restore the habitats that drive local economies.

Mapping Ocean Wealth demonstrates what the ocean does for us today so that we maximize what the ocean can do for us tomorrow.
FATHOM TRAVEL DEEP 2017 TRIPS TO PUERTO PLATA, DOMINICAN REPUBLIC

REFORESTATION AND NURSERY PROJECT

In 2017 our guest’s participation led to:

- 15,000+ seeds planted in our nurseries to begin their growth
- 10,000+ seedlings transplanted from nurseries into the Dominican soil
- 8+ acres of land reforested

Our guests were involved in local reforestation efforts designed to improve the livelihoods of Dominican families, restore degraded land, and contribute to forest and wildlife conservation throughout the region. They specifically participate in different activities at the Nursery that range from the simple potting of seedlings and/or seeds, to transporting plants, to more physically demanding efforts like mixing the potting soil, digging holes, transporting seedlings, and planting.
**Authentic Dominican Chocolate Experience**

In 2017 our guests’ participation led to:

- 1,500+ pounds of chocolate nibs cleaned which translates to 47,000+ finished chocolate bars
- 56,000+ products wrapped
- 20,000+ cacao seeds planted in the nursery that services the factory

Our guests travel into the lush Dominican countryside and explore tropical chocolate-making firsthand with the women of Chocal, a small organic chocolate cooperative. They participate in the entire chocolate-making process, from the planting of cacao seeds to making Chocal’s renowned chocolate bars. At every stage, they learn about the history and culture of cacao cultivation from the colourful, warm-hearted women of the cooperative. Guest’s direct impact helps this cooperative grow and thrive, their participation increases both sales and production.

**Water Filter Production**

In 2017 our guests’ participation led to:

- 800+ water filters produced
- 3,700+ individuals benefiting, now having access to safe drinking water

The water crisis is a reality that plagues the entire world. In the Dominican Republic alone, more than three million people have no access to piped water. One solution already being implemented is the production of clay water filters, which mean far fewer children and adults will miss school or work due to waterborne illnesses. Guests have the opportunity to work alongside established organizations and local artisans in the entire filter-making process: gathering and mixing the raw materials, working the clay, shaping and firing the filters, and testing the quality of the finished product. In this family-friendly activity, even smaller children will find ways to do their part. The recipients of these filters will experience a significant reduction in instances of waterborne illnesses, as well as cost savings from not having to purchase expensive bottled water. Indirect benefits will include better work and school attendance as well as less waste.

**Dominican Coffee Experience**

In 2017 our guests’ participation led to:

- 500+ seeds planted
- 4,600+ square meters of land reforested

This activity supports local communities to increase coffee production, therefore increasing incomes and well-being for coffee growers, while creating local employment, keeping families and communities together. This activity also creates cultural exchange opportunities and English practice for locals. Guests venture off the beaten path and into the beautiful Dominican tropical forest to meet the local farmers, hear their stories and learn the ins and outs of coffee production, from bean to brew. Enjoy a cup (or three) of the finest coffee in the world. And put all that extra energy to good use, if so inclined, by planting coffee seedlings and taking turns at roasting the beans.
COMMUNITY ENGAGEMENT • HUMAN CAPITAL
LEARNING CULTURE • GUEST EXPERIENCE
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 throughout our brands, in particular Fathom™.

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

- Supported hurricane relief and rebuild efforts in hard hit areas in the U.S. and the Caribbean.
- Started a 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 Nature Conservancy with a $2.5 million gift over a five year period.
- Continued our partnership with 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.

- We continue to deploy a Supplier Evaluation Questionnaire within our supply chain.
- We committed to aligning to welfare standards for broiler chicken by 2024.
FY 2017 COMMUNITY ENGAGEMENT PERFORMANCE

HURRICANE RELIEF & REBUILDING EFFORTS
In response to the severe 2017 hurricane season that affected the U.S. and the Caribbean region, Carnival Corporation & plc, The Micky and Madeleine Arison Family Foundation and the Carnival Corporation brands have collectively pledged up to $12 million dollars to support the relief and rebuilding efforts. In addition, our ships delivered critical supplies to the affected areas. These contributions also benefit our employees and their families from our head office and shipboard who live in the affected areas. For additional details please view our community support highlight.

MERCY SHIPS PARTNERSHIP
Costa Group (Costa Cruises, Costa Asia and AIDA Cruises) started a 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. For additional details please view our community support highlight.

OCEANVIEW™
In 2017 we launched OceanView™ our proprietary digital streaming network featuring compelling experiential content twenty-four/seven, currently available on major digital platforms as well as on board our ships. OceanView™ launched simultaneously with our two new proprietary original content digital productions, “Go” and “Local Eyes”, that complement our three award winning television shows. These television programs have generated over 100 hours of cumulative airtime and reached an audience of over 200 million viewers. These series engage all audiences while inspiring them to travel the world and allow us to continue to educate consumers about the cruise experience. To learn more please visit https://www.ocean.com/ocean/oceanview

ECONOMIC IMPACT
As per Cruise Line International Association (CLIA) the cruise industry generated $126 billion in global economic impact in 2016. This economic activity generated over 1 million jobs around the world, paying $41.1 billion in global wages in 2016. For additional details please refer to CLIA, 2018 Cruise Industry Outlook.

FATHOM - TRAVELdeep™ Groups
Fathom’s guests joined local community members on highly impactful sustainability projects in Puerto Plata, Dominican Republic and Cuba. Some of the projects impacting the local communities included:

• Cuba’s historical costumes and culture
• Artisanal soap-making
• Full coffee experience
• Reforestation and nurseries
• Cacao and Women’s Chocolate Cooperative
• Water filter production
• Recycled paper and crafts entrepreneurship
• Concrete floors in community homes
• Educational impact

For more details on these projects, please refer to pages 84-85 and 96-97 and for overall Fathom projects visit www.fathom.org
UNESCO PARTNERSHIP – WORLD HERITAGE PROTECTION AND SUSTAINABLE TOURISM
Through our Seabourn brand we partnered 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. 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.

PORT COMMUNITY
We continue to develop and implement comprehensive Community projects 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 community accomplishments in 2017:

• Coastal Cleanup: our Mahogany Bay port supports various sustainability projects. The port has adopted the Brick Bay community and has organized annual coastal cleanup projects. In 2017, approximately 2,360 bags containing plastic and waste were collected.

• Recycling Program: our Mahogany Bay and Puerta Maya ports improved their recycling programs and are able to recycle the majority of the recyclable materials generated at the port (i.e., cardboard, plastics, aluminum cans).

• Continued rainwater collection program as part of the port’s water efficiency initiative. This program incorporates collected and treated rain water 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 rain water 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 and a focus on transparency. 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, brand foundations, our brands and our employees support a 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 guest with the opportunity to contribute to the causes we support. Many of our brands have donation programs where reusable goods from our ships are provided to people in need throughout the communities we visit. In addition, local non-profit groups, government agencies and various stakeholder groups work with the 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 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 on the people in the communities we journey to and our guests and crew. In 2017, we opened the Fathom experience to all our Carnival brands by offering customizable group experiences, called Travel Deep Groups, to deeply connect and inspire like-minded guests.

For information on our community partnership and programs, visit Supporting Our Communities highlight on pages 92-95 and Our Partners section on pages 145-147.
The Carnival Foundation (the philanthropic arm of Carnival Corporation & plc), each of our cruise line brands independently, and our individual employees support a variety of local and international organizations through monetary and in-kind donations, philanthropic programs, employee fundraisers and numerous volunteer initiatives. We partner with organizations that focus on the arts, education, human rights, health and the environment.

**SUPPORTING OUR COMMUNITIES**

**OUR 2017 PERFORMANCE HIGHLIGHTS**

- **On board luncheons:** 30+
- Shoreside employees who volunteered: **1,000+**
- Shoreside volunteered hours: **3,500+**
- Cruises donated / provided at a reduced rate / value: **670+ / $2.9+ MILLION**
- Donations for disaster relief: **$12+ MILLION**

*Our brands donate various ship venues for hosting luncheons on board to support many non-profit organizations*
HURRICANE RELIEF & REBUILDING EFFORTS

The 2017 hurricane season will long be remembered as one of the most destructive with hurricanes Harvey, Irma and Maria. These hurricanes took a human, environmental and property toll in the United States and many Caribbean nations. In response to the severe hurricane season, Carnival Corporation & plc, The Micky and Madeleine Arison Family Foundation, and the Carnival Corporation brands have collectively pledged up to $12 million dollars to support the relief and rebuilding efforts. We worked with UNICEF, Direct Relief, United Way, Save the Children, Houston Food Bank and operation Home Front to address some of the most timely and urgent relief needs.

To coordinate efforts we created a support team to work with various stakeholders in the Caribbean to understand the most urgent needs. The relief efforts will continue long-term as necessary to help those affected throughout the region. Part of our support came from our ships directly as they were used to deliver critical supplies. Our ships delivered supplies to residents in Barbuda, St. Maarten and Dominica among others.

Our brands also developed specific opportunities for guests and employees to make a financial contribution to hurricane relief.

The cruise industry as a whole, through the Cruise Lines Industry Association (CLIA) supported the return of tourism to the region through a promotional campaign called “The Caribbean is Open for Business”.

Many of our brands, in particular Carnival Cruise Line, have long-standing relationships with Caribbean islands that they have visited for decades. Working with those islands impacted by the storms we agreed that the ultimate support we can provide to the communities impacted by this hurricane season is to continue to visit them with our ships and our guests to help those employed by the tourism industry and the related industries get back to normal operations.

MERCY SHIPS PARTNERSHIP

Costa Group (Costa Cruises, Costa Asia and AIDA Cruises) began a partnership with Mercy Ships in 2017. Mercy Ships is an international non-governmental organization that works to promote access to essential healthcare in developing nations. Mercy Ships operates the world’s largest civilian hospital ship; the Africa Mercy, with a crew of over 400 volunteers from 40 different nations. The partnership consists of a joint volunteer program. The Costa Group committed to continuously cover one Engineering position onboard the Africa Mercy and officers and engineers with Mercy Ships can gain experience and nautical expertise onboard Costa Group ships. The Costa Group also made an initial donation of €100,000 to the Mercy Ship organization. See more at: https://www.mercyships.org/?ga=2.182875878.1994924143.1525809876-202985582.1506019503

UNESCO PARTNERSHIP – WORLD HERITAGE PROTECTION AND SUSTAINABLE TOURISM

Our Seabourn brand has partnered since 2014 with The United Nations Educational, Scientific and Cultural Organization (UNESCO) to promote sustainable tourism at World Heritage sites and to engender a wider understanding and commitment for UNESCO’s World Heritage Convention mission “to identify, safeguard, and promote unique cultural and natural heritage around the world deemed to possess outstanding universal value for all humankind.” The partnership with UNESCO provides our Seabourn guests with deeper insight and information about these intriguing destinations while supporting their conservation through sustainable tourism.

The Seabourn/UNESCO partnership is part of a multi-year agreement. In 2017, Seabourn’s contributions totaled $300,000+. For more information visit the UNESCO website.

http://whc.unesco.org/en/list/?type=natural
PARTNERING TO FIGHT CANCER
Cancer is a disease that can affect anyone and is one of the leading causes of death in the world. In addition to impacting those diagnosed with the disease, cancer also impacts the family, friends and the community at large. We at Carnival have seen many of our employees and friends diagnosed with the disease. We are grateful for those who have won the fight and will forever remember those who have passed. Our brands have partnered with various organizations globally to provide funding that is essential to save lives and support needed research. Our partnerships include programs for our guests and employees to participate in a variety of creative initiatives. Several of our brands offer “On Deck for a Cause” for guests to enjoy the opportunity to actively participate in, an organized walk to raise awareness and funds, or to support those on the walk.

Some of the organizations we work with include:

- American Cancer Society
- Canadian Cancer Society
- Cancer Council Australia
- Susan G. Komen for the Cure
- Dutch Cancer Society
- Cancer Research UK
- St. Jude Children’s Research
- Leukemia and Lymphoma Society

4GOODFOOD PROGRAM
Our Costa brand has been working since 2016 and 2017 on the 4GOODFOOD program. This program covers all aspects of food preparation and management onboard a cruise ship. It is focused on addressing food scarcity, which is a key global issue, and is in line with the United Nations Agenda 2030’s Sustainable Development Goal number 12, Responsible Consumption and Production. The program covers food preparation, responsible consumption and donating surplus food. The donation component represents a critical community support program. Following the introduction of the Italian Law no. 166/2016 on food waste, Costa teamed up with the food bank charity Fondazione Banco Alimentare to launch a surplus food donation program.

In what is a first for global shipping, Costa can now retrieve and donate “ready to eat“ meals prepared on board but not served in the ship’s restaurants. This initiative started operating on the Costa Diadema in Savona in July 2017 and was recently extended to include the Port of Civitavecchia (Rome). In just six months approximately 16,000 portions were distributed via local associations to people in need.

As part of the program, Costa Cruises is supporting the network of Food Gardens in Africa promoted by the Slow Food Foundation for Biodiversity. Costa will provide ongoing financial backing for the venture, with the annual amount of its contribution directly linked to the reduction in food waste in the buffet by guests; the intention is to guarantee the future growth of the network by giving food resources back to the community.

We are working on expanding this type of program throughout our brands and other communities.
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.**

http://www.carnivalfoundation.com/

ARTISANAL SOAP-MAKING WITH LOCALS

In 2017 our guests’ participation led to:
• 700+ bars produced
• 5,300+ bars cut
• 1,300+ bars packaged

Guests participate at every stage of soap production (from formulating and cutting to stamping and packaging) and learn new skills under the guidance of experienced local soap-makers. They see how they use authentic ingredients to create beautiful, one-of-a-kind products. With guests’ hands-on support, both soap production and sales increase, and the organization can thrive so it can hire more local staff and also increase purchase of locally sourced ingredients for soap making, stimulating local economy, providing critical income in a region with limited employment opportunities. Guests support also made possible the preparation of soap for an important hygiene program that will provide classes in personal hygiene to kids and adults nationwide, to avoid death by infectious diseases that can be prevented by washing hands.

ART, JEWELRY AND CRAFT CREATION WITH LOCALS

In 2017 our guests’ participation led to 11,000+ sheets of paper produced, which helped all aspects of this company grow, increasing both production and sales. Guest travel into one of Puerto Plata’s bustling neighbourhoods to the home of RePapel, an inspiring community of female artists who transform repurposed materials into works of art. They learn new artistic skills and free their imagination as they produce arts and crafts with the help of RePapel’s famously warm and enthusiastic staff. Guest’s participation supports the RePapel ladies and the artisans by producing paper and jewelry as well as by enhancing their English communication skills. This is a very important skill in order to support English speaking tourism. As a result of our partnership paper recycling has been introduced to the community.
CONCRETE FLOORS IN COMMUNITY HOMES

In 2017 our guests’ participation led to:

• 200+ people in 61 homes receiving a new concrete floor
• 2,000+ square meters of concrete laid

Guests have the opportunity to help improve the lives and health of the Dominican people from the ground up. Literally. In the homes of poorer communities, the common basic dirt floors are a genuine health risk. They pick up dust during the dry season and retain dampness and puddles in the rainy season. And they’re impossible to clean, which means that anything spilled on the floor or tracked into the house, however unhygienic, tends to stay put. Every month, homes in a different small area of a community will be chosen to be upgraded with new concrete floors. Homes with concrete floors are easier to clean and less likely to cause respiratory problems. Young children are better able to develop their mobility on a smooth concrete floor. And concrete floors are a point of personal pride for the beneficiaries of this project.

EDUCATIONAL IMPACT

In 2017 our guests’ participation led to:

• 700+ Dominicans (students and community members) benefiting from effective foreign language interaction with English speakers
• 15,500+ hours of English interaction

With the increased demand for bilingual speakers in the growing tourism industry in the Dominican Republic, there’s a great future for communities that show a culture of support for English-language learning. Guests engage in activities designed to create interest and excitement in the learning process and aid in language retention. They engage in games, vocabulary lessons and small-group conversations that provide much needed confidence.

CUBA’S HISTORICAL, COSTUMES AND CULTURAL EXPERIENCE

Carnival Corporation & plc became the first North American cruise operator in over 40 years to bring U.S. cruise guests directly from the U.S. to Cuba and return to the US. During 2016 and 2017, Fathom took guests to Havana, Cienfuegos and Santiago de Cuba and developed an extensive set of onboard and onshore Cuban experiences. Guests experienced a wide variety of activities covering an array of interests, ranging from an orientation of Cuba’s history, costumes and culture, to geography-inspired entertainment, casual and fun personal enrichment activities, and even conversational Spanish lessons. In 2017, Carnival Corporation expanded the Cuba offerings by extending experiences to Carnival Cruise Line and Holland America Line who also gained approval to sail to Cuba.
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, with a portfolio of 10 dynamic brands that include nine of the world’s leading cruise lines. Together, the corporation’s cruise lines operate 103 ships with cruises in all of the world’s most popular vacation destinations.

Our success depends on the talent, passion and dedication of our employees, both on board 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 2017:

- 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.

- We continue to showcase the diversity of our leadership team through selected publications to promote talent attraction.

FY2017 HUMAN CAPITAL PERFORMANCE

RECOGNITION OF OUR EFFORTS
As we continue to build a diverse and inclusive workforce, we were recognized for the fourth consecutive year to be among the top companies as a best place to work for LGBTQ equality, by the Human Rights Campaign. We were also recognized by Black Enterprise Magazine as one of the 50 best companies for diversity.
FY 2017 HUMAN CAPITAL PERFORMANCE CONTINUED...

WORKFORCE
We employed an average of 86,000 crew members on board our 103 ships at any given time, (which excludes employees on leave) and 13,200 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.

HURRICANE RELIEF & REBUILDING EFFORTS
In response to the severe 2017 hurricane season that affected the U.S. and the Caribbean region, Carnival Corporation & plc, The Micky and Madeleine Arison Family Foundation and the Carnival Corporation brands have collectively pledged up to $12 million dollars to support the relief and rebuilding efforts. In addition, our ships delivered critical supplies to the affected areas. These contributions also benefit our employees and their families from our head office and shipboard 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 role, a variety of psychometric evaluations, both online and in person with psychologists is 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.

TRAVELSEACURE
We continued our global travel risk management program, named travelSEACURE. This program aims to support all employees, both shoreside and on board, with security, health and unforeseen event assistance while on business travel. In 2017, travelSEACURE was expanded across all brands and it covered all employees.

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 20.6%, 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 and engineering officers responsible for the navigation and operation 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
FY2017 HUMAN CAPITAL PERFORMANCE CONTINUED...

DIVERSITY AND INCLUSION
We continued our multicultural, diversity and inclusion campaign in 2017:

- 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.
- We continue to showcase the diversity of our leadership team through selected publications to promote talent attraction.

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.

GLOBAL LEARNING AND DEVELOPMENT INFORMATION SYSTEM
To further improve the effectiveness of and compliance with our crew training programs, Carnival Corporation is implementing a learning management system that has been specifically designed for the maritime industry. The system is called GLADIS, the Global Learning & Development Information System. GLADIS has a variety of functions that allow crew members at home or on board the ship to access their learning profile and complete courses assigned to them. GLADIS will deliver an enhanced and richer learning experience by prompting and tracking the training and learning needs of our onboard crew members, allowing for more structured career development, compliance tracking and improved ship operations. The use of a single learning management system allows electronic transfer of training requirements and records across all ships, brands, and the Carnival Arison Maritime Center (CSMART). In 2017, the system became fully operational at the CSMART and on all Carnival UK ships. The system is scheduled to be fully deployed on all remaining ships and brands by the end of 2018.

GUEST AND CREW CARE TEAM
Our CareTeam continues to provide compassionate care in the event of an emergency while on board. 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. In 2017, our CareTeams across our brands collectively helped approximately 5,800 people including guests and their families, crew members and shoreside employees.

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 on board 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 on board 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.
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.

FY2017 LEARNING CULTURE PERFORMANCE

GLOBAL LEARNING AND DEVELOPMENT INFORMATION SYSTEM
To further improve the effectiveness of and compliance with our crew training programs, Carnival Corporation is implementing a learning management system that has been specifically designed for the maritime industry. The system is called GLADIS, the Global Learning & Development Information System. GLADIS has a variety of functions that allow crew members at home or on board the ship to access their learning profile and complete courses assigned to them. GLADIS will deliver an enhanced and richer learning experience by prompting and tracking the training and learning needs of our onboard crew members, allowing for more structured career development, compliance tracking and improved ship operations. The use of a single learning management system allows electronic transfer of training requirements and records across all ships, brands, and the Carnival Arison Maritime Center (CSMART). In 2017, the system became fully operational at the CSMART and on all Carnival UK ships. The system is scheduled to be fully deployed on all remaining ships and brands by the end of 2018.

ENVIRONMENTAL OFFICER TRAINING
In 2017, a global training program was developed and implemented for all Environmental Officers (EO) fleet-wide. The annually required weeklong training course is conducted at Carnival’s Arison Maritime Center in the Netherlands. This program is designed to further develop EO environmental and technical knowledge and skills and to provide professional development opportunities to the over 200 EOs that support our fleet around the world.
**DRILL APPLICATION**
In collaboration with Marine Learning System, in 2017 Carnival Corporation developed an assessment application for use on smart devices, which is expected to be rolled out in 2018. This application can be used online or offline to assess competency during weekly and monthly drills. Using guidelines set by legislation and competencies set by the corporation, the system will record individual and team performance. The application will analyze and provide performance reports respective to those being assessed. The reports will identify the basis for training needs.

**CREWTUBE**
The CrewTube project was built and designed in 2017 and consists of a “YouTube-like” experience in which shipboard employees can browse bite sized learning chunks, aide memoirs or short video tutorials on maritime and health, environment, safety and security (HESS) topics. These videos are available on employees’ own personal mobile devices and are targeted to new joiners and experienced crew. CrewTube is expected to be available in 2018.

The new joiners will have access to the app which gives them the opportunity to familiarize themselves with topics such as general maritime HESS, ship terminology and ship life prior to boarding a ship for their first contract. While on board, new and experienced employees shall be able to browse and review learning resources in order to refresh their knowledge or learn new topics. The system will be implemented in 2018 and will recognize which ship a crew member is on board and will deliver ship specific learning materials to their device.

**HEALTH RECORD SYSTEM TRAINING**
Training to support the SeaCare global health record system continued for new and existing medical staff. The training package consists of five modules focusing on an overview and overall introduction of the system, outpatient processing, inpatient processing, master service billing and communicable diseases.

**CARNIVAL ARISON MARITIME CENTER TRAINING STATISTICS**
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 and engineering officers responsible for the navigation and operation 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

**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.

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**OUR EMPLOYEES ARE THE HEART OF OUR OPERATION**
OUR COMMITMENT

We employ more than 120,000 employees who come from very diverse backgrounds. We have many career options and various positions both shipboard and shoreside. These positions range from captain, engineers, hotel services, security and medical professionals to our CEO and various shoreside functions that support shipboard operations. We recognize that as part of our success, we must provide 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 experiences that they apply to their job. We also recognize that it is our responsibility to provide the tools and opportunities for continuous learning and development of all employees. We are committed to providing appropriate 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 diverse 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 training and, depending on their position, will pursue advanced safety certifications. We partner closely with manning agencies to help provide this training in Manila, Philippines; Jakarta, Indonesia; and Mumbai, India.

We are changing the focus on the way we deliver training to our crew and are addressing how our crew experience learning in the workplace. Putting the emphasis on the next generation of learning whereby content is accessible through various means of communication platforms and employees are involved in creating the overall learning experience is beneficial for all. 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 re-evaluated 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 brands. The consistency of the training programs provides a greater level of familiarity amongst 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 demographic;
• Scenarios – applied knowledge;
• Knowledge check – formative assessments;
• Assessments – summative assessments;
• Aide Memoirs – job aid 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 on board, 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 drills and operational functional type drills. This provides the ability to measure the functional effectiveness of the teams and individuals. Transparency and awareness of such information will ensure that the proper support (mentoring, coaching and training) is implemented to 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, environmental, safety and security remained 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 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 take responsibility for ensuring that environmental concerns are a key part of our planning and decision-making process and for guaranteeing that environmentally conscious practices are executed fleet-wide. 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.
Our mission is to take the world on vacation and deliver exceptional experiences through many of the world’s best known cruise brands that cater to a variety of different geographic regions and lifestyles, all at an outstanding value unrivaled from ship to shore.

**FY2017 GUEST EXPERIENCE PERFORMANCE**

**OCEAN MEDALLION™ / REGAL PRINCESS**
MedallionClass Vacations deliver more personalized, immersive, and simple guest experiences, thanks to an innovative experience platform. Launched in November 2017 onboard Regal Princess, MedallionClass leverages a proprietary experience “Internet of Things” to enable more personalized experiences at scale.

**OCEANVIEW™**
In 2017, we launched OceanView™ our proprietary digital streaming network featuring compelling experiential content 24/7, which is available on ocean.com; major digital platforms including Roku, AppleTV and Amazon Fire TV; via the OceanView mobile app (coming in 2018); as well as on board our ships. OceanView launched simultaneously with two new proprietary original content digital productions, “Go” and “Local Eyes”, that complement our other award-winning television shows. These television programs have generated over 100 hours of cumulative airtime and reached an audience of over 200 million viewers. These series engage all audiences while inspiring them to travel the world and allow us to continue to educate consumers about the cruise experience.

To learn more visit https://www.ocean.com/ocean/oceanview

**PLAYOCEAN - GAMING APP**
In 2017, we introduced a proprietary portfolio of original mobile games that expand gaming into new categories by providing the opportunity to play anytime, anywhere for fun, and for passengers on select ships the opportunity to enjoy enhanced game play and wager anywhere on board.

With the launch of our PlayOcean gaming portfolio, Carnival Corporation is the first travel company to produce original mobile games catering to the vacation market.
FY2017 Guest Experience Performance Continued...

Oprah Magazine Partnership
Our Holland America Line and O, The Oprah Magazine, have partnered on an exciting initiative that is uniting the soul-stirring power of travel with O’s deep commitment to wellness, connection and personal growth through a series of cruises and activities that is bringing the magazine to life for all on board. To learn more visit www.hollandamerica.com

Majestic Princess
Majestic Princess started operations in 2017 and is the first Princess Cruises ship designed specifically for Chinese guests. She features a combination of new elements tailored for the Chinese market, along with many of Princess Cruises’ premium points of distinction. Majestic Princess is homeported in Shanghai, China year-round for a series of Asia cruises to Japan and Korea. The Majestic Princess carries the Chinese name “Sheng Shi Gong Zhu Hao” on the hull, a name chosen by our Chinese employees. Yao Ming and Ye Li graciously accepted our invitation to officially name Majestic Princess and served as the Inaugural Cruise Ambassadors. Yao Ming and his wife, Ye Li, were both born in Shanghai and were both team members of China’s national basketball teams. Yao Ming is an icon, one of the world’s best-known athletes, a global ambassador of basketball, an eight-time NBA All-Star, and most recently, an inductee into the NBA Hall of Fame.

TV Programs
In 2017, our award-winning television programs generated over 100 hours of cumulative airtime and reached an audience of over 200 million viewers. Now in Season 2, these series engage all audiences while inspiring them to travel the world and allow us to continue to educate consumers about the cruise experience.

Our original content portfolio - “Vacation Creation” (ABC), “Ocean Treks with Jeff Corwin” (ABC), “The Voyager” (NBC) - attract almost 5 million viewers every week, and can also be viewed on the company’s digital streaming channel – OceanView™ - available on Roku, Apple TV and Amazon Fire TV. Content on OceanView also includes “Good Spirits” (A&E), “La Gran Sorpresa” (Univision), and two direct-to-digital series - “GO” and “Local Eyes”.

We also use our original programming as an opportunity to showcase ways we are working to protect the world’s oceans and seas, and educate and inform viewers about how they too can reduce their footprint as they travel the globe.

Fathom – Travel Deep™
During 2016 and 2017, Fathom was our first brand to take guests to Cuba, allowing us to become the first North American Cruise operator in over 40 years to bring U.S. cruise guests directly from the U.S. to Cuba and to return to Cuba. In 2017, Carnival Cruise Line and Holland America Line also received approval to sail to Cuba, extending the number of brands offering the experience. Fathom offers unique and playful purpose-driven travel experiences and gives travelers meaningful opportunities to come alongside locals and participate with community-driven initiatives. In 2017, we also expanded the Fathom experience to all our brands by offering customizable, group experiences, called Travel Deep Groups to deeply connect and inspire like-minded guests. To learn more, visit www.fathom.org
OUR COMMITMENT

This year, we had the privilege of taking 12.1 million guests on vacation across our 103 ships. Cruising appeals to a broad range of ages and income levels. The average age of a cruise guest varies by brand and ranges from approximately 40 years to 60 years across contemporary, premium and luxury cruise categories. Cruising provides something for every generation, from kid clubs to an array of on board entertainment provided to 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. To encourage more first-time cruisers, we have shortened the duration of some cruises, which has broadened the appeal for cruising. 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.
Guest and crew on board Carnival Cruise Line joined millions of individuals across the U.S. to celebrate the total eclipse of the sun on August 21, 2017.
Carnival Corporation’s strategy to leverage originally-produced travel content to increase awareness and demand for cruise vacations continues to pay dividends. In 2017, our award-winning television programs generated over 100 hours of cumulative airtime and reached an audience of over 200 million viewers. Now in Season 2, these programs aim to entertain audiences while inspiring them to travel the world and to educate consumers about the cruise experience.

The company’s original content portfolio -- “Vacation Creation” (ABC), “Ocean Treks with Jeff Corwin” (ABC), “The Voyager” (NBC) - can also be viewed on the company’s digital streaming channel – OceanView™ - available on Roku, Apple TV and Amazon Fire TV. Content on OceanView also includes “Good Spirits” (A&E), “La Gran Sorpresa” (Univision), and two direct-to-digital series – “GO” and “Local Eyes.”

Carnival Corporation also uses its original programming as an opportunity to showcase ways the company is working to protect the world’s oceans and seas, and educate and inform viewers about how they too can reduce their footprint as they travel the globe.
**PERFORMANCE SUMMARY - ENVIRONMENTAL DATA**

<table>
<thead>
<tr>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Ships</td>
<td>Number</td>
<td>99</td>
<td>102</td>
</tr>
</tbody>
</table>

**GREENHOUSE GAS EMISSIONS (GHGs)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total GHG Emissions - Location Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>10,374,922</td>
<td>10,539,036</td>
<td>10,687,646</td>
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<tr>
<td>Total GHG Emissions - Market Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>10,377,235</td>
<td>10,538,413</td>
<td>10,685,798</td>
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<tr>
<td>Direct GHG Emissions</td>
<td>Metric Tonnes CO$_2$e</td>
<td>10,320,701</td>
<td>10,491,277</td>
<td>10,642,209</td>
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<tr>
<td>&gt; Ship Direct GHG Emissions</td>
<td>Metric Tonnes CO$_2$e</td>
<td>10,301,296</td>
<td>10,462,851</td>
<td>10,616,662</td>
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<tr>
<td>&gt;&gt; Ship Fuel GHG Emissions</td>
<td>Metric Tonnes CO$_2$e</td>
<td>10,059,618</td>
<td>10,226,588</td>
<td>10,395,499</td>
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<tr>
<td>&gt;&gt; Ship Refrigerant GHG Emissions</td>
<td>Metric Tonnes CO$_2$e</td>
<td>241,678</td>
<td>236,263</td>
<td>221,164</td>
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<tr>
<td>&gt; Shore Direct GHG Emissions</td>
<td>Metric Tonnes CO$_2$e</td>
<td>19,405</td>
<td>28,425</td>
<td>25,547</td>
</tr>
<tr>
<td>Indirect GHG Emissions - Location Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>54,221</td>
<td>47,759</td>
<td>45,437</td>
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<tr>
<td>&gt; Shore Indirect GHG Emissions - Location Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>45,201</td>
<td>41,019</td>
<td>35,649</td>
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<tr>
<td>&gt; Ship Indirect GHG Emissions - Location Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>9,020</td>
<td>6,740</td>
<td>9,789</td>
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<td>Indirect GHG Emissions - Market Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>56,533</td>
<td>47,136</td>
<td>43,589</td>
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<tr>
<td>&gt; Shore Indirect GHG Emissions - Market Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>44,646</td>
<td>37,851</td>
<td>32,331</td>
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<td>&gt; Ship Indirect GHG Emissions - Market Based</td>
<td>Metric Tonnes CO$_2$e</td>
<td>11,887</td>
<td>9,285</td>
<td>11,258</td>
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**AIR EMISSIONS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship Fugitive Refrigerant Releases</td>
<td>Kilograms</td>
<td>125,603</td>
<td>117,936</td>
<td>107,153</td>
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<tr>
<td>Ship Ozone Depleting Substances (ODS) Emissions</td>
<td>Kg CFC-11e</td>
<td>2,130</td>
<td>10,292</td>
<td>318</td>
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<tr>
<td>Total Sulfur Oxides (SOx) Emissions</td>
<td>Metric Tonnes</td>
<td>113,390</td>
<td>98,089</td>
<td>99,622</td>
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<tr>
<td>Sulfur Oxides (SOx) Emissions Rate</td>
<td>Kg SOx/NM</td>
<td>12.3</td>
<td>10.4</td>
<td>10.3</td>
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<tr>
<td>Total Nitrogen Oxides (NOx) Emissions</td>
<td>Metric Tonnes</td>
<td>249,421</td>
<td>253,532</td>
<td>257,665</td>
</tr>
<tr>
<td>Nitrogen Oxides (NOx) Emissions Rate</td>
<td>Kg NOx/NM</td>
<td>27.0</td>
<td>27.0</td>
<td>26.8</td>
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<tr>
<td>Total Particulate Matter (PM$_{2.5}$) Emissions</td>
<td>Metric Tonnes</td>
<td>2,174</td>
<td>2,092</td>
<td>2,099</td>
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<tr>
<td>Particulate Matter (PM$_{2.5}$) Emission Rate</td>
<td>Kg PM/NM</td>
<td>0.24</td>
<td>0.22</td>
<td>0.22</td>
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**ENERGY & ELECTRICITY**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Direct Energy Consumption</td>
<td>Gigajoules</td>
<td>131,964,513</td>
<td>134,237,025</td>
<td>136,462,998</td>
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<tr>
<td>&gt; Ship Direct Energy Consumption</td>
<td>Gigajoules</td>
<td>131,697,157</td>
<td>133,946,419</td>
<td>136,128,687</td>
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<tr>
<td>&gt; Shore Direct Energy Consumption</td>
<td>Gigajoules</td>
<td>267,356</td>
<td>290,606</td>
<td>334,311</td>
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<tr>
<td>Total Direct Energy Consumption Rate</td>
<td>Kilojoules/ ALB-Km</td>
<td>3,492</td>
<td>3,427</td>
<td>3,361</td>
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<tr>
<td>Ship Fuel Consumption Rate</td>
<td>Grams Fuel/ ALB-Km</td>
<td>84</td>
<td>83</td>
<td>81</td>
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<td>Total Purchased Electricity</td>
<td>MWh</td>
<td>115,819</td>
<td>102,723</td>
<td>106,446</td>
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<tr>
<td>&gt; Shore Purchased Electricity</td>
<td>MWh</td>
<td>85,925</td>
<td>78,827</td>
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<tr>
<td>&gt; Ship Purchased Electricity</td>
<td>MWh</td>
<td>29,894</td>
<td>23,896</td>
<td>29,042</td>
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</tbody>
</table>

**SHIP FUEL**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Sulfur Fuel Oil (HSFO)</td>
<td>Percent</td>
<td>78.4</td>
<td>75.8</td>
<td>74.0</td>
</tr>
<tr>
<td>Low Sulfur Fuel Oil (LSFO)</td>
<td>Percent</td>
<td>1.3</td>
<td>3.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Marine Diesel Oil/Marine Gas Oil (MDO/MGO)</td>
<td>Percent</td>
<td>20.2</td>
<td>21.2</td>
<td>20.5</td>
</tr>
<tr>
<td>Liquefied Natural Gas (LNG)</td>
<td>Percent</td>
<td>0.00</td>
<td>0.01</td>
<td>0.03</td>
</tr>
</tbody>
</table>

**POTABLE WATER**

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Water Consumption</td>
<td>Metric Tonnes</td>
<td>25,591,974</td>
<td>26,566,505</td>
<td>26,816,008</td>
</tr>
<tr>
<td>&gt; Water Purchased (From Shore)</td>
<td>Metric Tonnes</td>
<td>6,099,369</td>
<td>6,079,254</td>
<td>5,591,610</td>
</tr>
<tr>
<td>&gt; Water Produced (From Sea)</td>
<td>Metric Tonnes</td>
<td>19,492,605</td>
<td>20,487,252</td>
<td>21,224,398</td>
</tr>
<tr>
<td>Water Consumption Rate</td>
<td>Liters/Person-Day</td>
<td>232</td>
<td>232</td>
<td>227</td>
</tr>
</tbody>
</table>
## PERFORMANCE SUMMARY – ENVIRONMENTAL DATA

### WASTEWATER

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilge Water Discharge to Sea</td>
<td>Metric Tonnes</td>
<td>223,185</td>
<td>205,846</td>
<td>178,152</td>
</tr>
<tr>
<td>Bilge Water Sea Discharge Rate</td>
<td>Liters/NM</td>
<td>24.2</td>
<td>21.9</td>
<td>18.5</td>
</tr>
<tr>
<td>Total Gray Water Discharged</td>
<td>Metric Tonnes</td>
<td>17,494,817</td>
<td>18,003,643</td>
<td>17,275,057</td>
</tr>
<tr>
<td>&gt; Gray Water Discharged to Sea</td>
<td>Metric Tonnes</td>
<td>17,347,118</td>
<td>17,862,704</td>
<td>17,048,797</td>
</tr>
<tr>
<td>&gt; Gray Water Discharged to Shore</td>
<td>Metric Tonnes</td>
<td>147,698</td>
<td>140,939</td>
<td>226,260</td>
</tr>
<tr>
<td>Gray Water Discharge Rate</td>
<td>Liters/Person-Day</td>
<td>158.8</td>
<td>151.7</td>
<td>146.5</td>
</tr>
<tr>
<td>Total Black Water Discharged</td>
<td>Metric Tonnes</td>
<td>7,692,427</td>
<td>7,963,662</td>
<td>7,839,933</td>
</tr>
<tr>
<td>&gt; Treated Black Water Discharged to Sea</td>
<td>Metric Tonnes</td>
<td>7,578,235</td>
<td>7,860,077</td>
<td>7,724,044</td>
</tr>
<tr>
<td>&gt; Treated Black Water Discharged to Shore</td>
<td>Metric Tonnes</td>
<td>44,721</td>
<td>46,484</td>
<td>55,092</td>
</tr>
<tr>
<td>&gt; Untreated Black Water Discharged to Sea</td>
<td>Metric Tonnes</td>
<td>69,303</td>
<td>55,181</td>
<td>51,501</td>
</tr>
<tr>
<td>&gt; Untreated Black Water Discharged to Shore</td>
<td>Metric Tonnes</td>
<td>169</td>
<td>1,920</td>
<td>9,295</td>
</tr>
<tr>
<td>Black Water Discharge Rate</td>
<td>Liters/Person-Day</td>
<td>69.8</td>
<td>69.5</td>
<td>66.5</td>
</tr>
</tbody>
</table>

### WASTE DISPOSAL

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Waste</td>
<td>Metric Tonnes</td>
<td>-</td>
<td>354,156</td>
<td>357,767</td>
</tr>
<tr>
<td>&gt; Hazardous Waste</td>
<td>Metric Tonnes</td>
<td>-</td>
<td>127,105</td>
<td>137,957</td>
</tr>
<tr>
<td>&gt; Non-Hazardous Waste</td>
<td>Metric Tonnes</td>
<td>-</td>
<td>227,051</td>
<td>219,810</td>
</tr>
<tr>
<td>Waste Recycled</td>
<td>Percent</td>
<td>-</td>
<td>26.5</td>
<td>28.0</td>
</tr>
<tr>
<td>Waste Rate (Excluding Recycling)</td>
<td>Kilograms/Person-Day</td>
<td>-</td>
<td>2.3</td>
<td>2.2</td>
</tr>
</tbody>
</table>

### SPILLS & FINES

<table>
<thead>
<tr>
<th>Description</th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Significant Spills</td>
<td>Number</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Number of Reportable Spills</td>
<td>Number</td>
<td>49</td>
<td>39</td>
<td>60</td>
</tr>
<tr>
<td>Total Volume of Reportable Spills</td>
<td>Liters</td>
<td>8,488</td>
<td>1,577</td>
<td>643</td>
</tr>
<tr>
<td>Total # of Non-monetary Sanctions</td>
<td>Number</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Monetary Value of Fines</td>
<td>U.S. Dollars ($)</td>
<td>35,900</td>
<td>277,401</td>
<td>40,316,857</td>
</tr>
</tbody>
</table>

2. Revised FY2017 emission factors 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 increase was due to accidental releases of a gas with a high ODS value into the environment.
4. The SOx weight calculations take into account the weighted-average sulfur content of the fuel consumed and the 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 exhaust gas cleaning system (EGCS) use in FY2016 and FY2017. This adjustment was made based on the near-zero sulfur emissions resulting from planned HFO fuel consumption during EGCS operations.
5. The NOx weight is calculated based on default emission factors. The default emission factor used for calculating NOx value for HFO/LFO 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 HFO is 0.82 kg, LFO 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 EGCS use in FY2016 and FY2017. This adjustment was made based on PM2.5 emissions reduction resulting from planned HFO fuel consumption during EGCS operations.
7. Independently verified by Lloyd’s Register Quality Assurance (LRQA).
8. Treated black water discharges include treated black wastewater, treated gray wastewater and black and gray wastewater mixtures.
9. Carnival’s policy is to treat all black water prior to discharge to sea. These volumes are the result of accidental/ equipment failure discharges.
10. In FY2016, we commenced a comprehensive evaluation of our waste management accounting practices and introduced a new approach for sustainability reporting purposes. With the goal of continuous operational improvement, we refocused our efforts to standardize waste definitions, units of measure and densities across our global brands. This approach allows for consistent trend analysis and reporting. For regulatory reporting purposes, we comply with the requirements of the particular country where waste is landed. FY2016 and FY2017 reflect this new approach, therefore FY2015 has not been included as it is not comparable. It should be noted that during this transition process, some data was not available or classified appropriately and therefore certain assumptions were made to reflect performance. As of FY2016, 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.
11. A significant spill is defined as a spill for which the monetary sanctions are $100,000 or greater, and which is reportable in the Carnival Corporation & plc Annual Report on Form 10-K.
12. Carnival has defined a reportable spill for internal reporting purposes as a release of soot as well as a release of oil/grease/chemicals that is in excess of 0.5 liters (500 ml). However, in U.S. waters a spill that causes oil sheen is also reported and included in the total number of spills reported, even though the volume may be less than 0.5 liters.
13. On December 1, 2016 (FY2017), Princess Cruises, one of our brands, paid a $40M USD fine as part of a plea agreement with the U.S. Government.
## PERFORMANCE SUMMARY – SOCIAL DATA (SHIPBOARD)

<table>
<thead>
<tr>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Crew</td>
<td>Number</td>
<td>82,200</td>
<td>84,600</td>
</tr>
</tbody>
</table>

### DIVERSITY

**Labor Sourcing Region**

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>0.9</td>
<td>1.0</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td>70.6</td>
<td>69.4</td>
<td>72.2</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>2.3</td>
<td>0.7</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>17.9</td>
<td>16.6</td>
<td>17.8</td>
<td></td>
</tr>
<tr>
<td>North &amp; Central America</td>
<td>4.4</td>
<td>9.2</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td>3.7</td>
<td>3.1</td>
<td>3.3</td>
<td></td>
</tr>
</tbody>
</table>

**Gender Distribution**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percent</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>16.6</td>
<td>17.0</td>
<td>17.0</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>83.4</td>
<td>83.0</td>
<td>83.0</td>
<td></td>
</tr>
</tbody>
</table>

### INJURIES & FATALITIES

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Injuries</td>
<td>Number</td>
<td>2,265</td>
<td>2,357</td>
<td>2,911</td>
</tr>
<tr>
<td>Minor Injuries</td>
<td>Number</td>
<td>1,211</td>
<td>1,304</td>
<td>1,719</td>
</tr>
<tr>
<td>Serious Injuries</td>
<td>Number</td>
<td>603</td>
<td>544</td>
<td>637</td>
</tr>
<tr>
<td>Major Injuries</td>
<td>Number</td>
<td>451</td>
<td>509</td>
<td>555</td>
</tr>
<tr>
<td>Accidental Deaths</td>
<td>Number</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

### HEALTH & SAFETY

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total CDC VSP Inspections</td>
<td>Number</td>
<td>130</td>
<td>109</td>
<td>120</td>
</tr>
<tr>
<td>Ships scoring 100%</td>
<td>Number</td>
<td>30</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Ships scoring 86 - 99%</td>
<td>Number</td>
<td>100</td>
<td>94</td>
<td>97</td>
</tr>
<tr>
<td>Ships scoring &lt; 86%</td>
<td>Number</td>
<td>0</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

### OTHER STATISTICS

<table>
<thead>
<tr>
<th>Metric</th>
<th>Percent</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Turnover</td>
<td>Percent</td>
<td>23.2</td>
<td>19.4</td>
<td>16.9</td>
</tr>
<tr>
<td>Employees Covered by Collective Bargaining Agreements (CBA)</td>
<td>Percent</td>
<td>54.5</td>
<td>58.1</td>
<td>58.0</td>
</tr>
<tr>
<td>Employees Represented by Health and Safety (H&amp;S) Committees</td>
<td>Percent</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
## PERFORMANCE SUMMARY – SOCIAL DATA (SHORESIDE)

### WORKFORCE

<table>
<thead>
<tr>
<th></th>
<th>Units</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Number of Full Time Employees</td>
<td>Number</td>
<td>10,000</td>
<td>10,500</td>
<td>11,000</td>
</tr>
<tr>
<td>Average Number of Part Time/ Seasonal Employees</td>
<td>Number</td>
<td>2,400</td>
<td>2,100</td>
<td>2,200</td>
</tr>
<tr>
<td>Shoreside Employee Status - Full Time</td>
<td>Percent</td>
<td>80.8</td>
<td>83.2</td>
<td>83.0</td>
</tr>
<tr>
<td>Shoreside Employee Status - Part Time</td>
<td>Percent</td>
<td>19.2</td>
<td>16.8</td>
<td>17.0</td>
</tr>
</tbody>
</table>

### DIVERSITY

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Distribution - Female</td>
<td>Percent</td>
<td>58.5</td>
<td>58.8</td>
<td>58.9</td>
</tr>
<tr>
<td>Gender Distribution - Male</td>
<td>Percent</td>
<td>41.5</td>
<td>41.2</td>
<td>41.1</td>
</tr>
</tbody>
</table>

### EMPLOYEES BY BRAND HEADQUARTER REGION

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Percent</td>
<td>2.9</td>
<td>3.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Europe</td>
<td>Percent</td>
<td>30.5</td>
<td>31.3</td>
<td>31.5</td>
</tr>
<tr>
<td>North America</td>
<td>Percent</td>
<td>66.6</td>
<td>65.6</td>
<td>65.6</td>
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</tbody>
</table>

### INJURIES & FATALITIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injuries</td>
<td>Number</td>
<td>118</td>
<td>107</td>
<td>60</td>
</tr>
<tr>
<td>Accidental Deaths</td>
<td>Number</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### TRAINING AND PERFORMANCE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Training</td>
<td>Hours</td>
<td>132,613</td>
<td>125,029</td>
<td>170,543</td>
</tr>
</tbody>
</table>

### OTHER STATISTICS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Turnover</td>
<td>Percent</td>
<td>19.8</td>
<td>13.3</td>
<td>14.0</td>
</tr>
<tr>
<td>Employees Covered by Collective Bargaining Agreements (CBA)</td>
<td>Percent</td>
<td>23.5</td>
<td>21.1</td>
<td>20.6</td>
</tr>
<tr>
<td>Employees Represented by Health &amp; Safety (H&amp;S) Committees</td>
<td>Percent</td>
<td>74.2</td>
<td>73.5</td>
<td>72.8</td>
</tr>
</tbody>
</table>

---

1) For FY2017 enhanced data control processes to improve consistency.

2) In FY2017, we identified and corrected a data entry error regarding the accidental death count for FY2015. During the internal data verification process an error was detected that one previously reported death was a suicide not an accident.

3) Independently verified by Lloyd’s Register Quality Assurance (LRQA).

4) In FY2017, we identified and corrected data entry errors regarding collective bargaining agreements (CBA) and turnover for FY2016. In the internal data verification process an error was detected and thereby fixed for this reporting cycle.

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

6) For FY2017 enhanced data control processes to improve consistency.

7) This number does not include crew 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.
SCAPE OF REPORT

This Sustainability Report provides information related to our company’s FY2017 (December 1, 2016 to November 30, 2017) performance. However, due to the timing of the release of this report, certain significant events from FY2018 are also covered. This is our eighth annual Sustainability Report. This report was developed at the core “in accordance” level of the Global Reporting Initiative (GRI) G4 Guidelines, frameworks and metrics. 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 custom-made in-house 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 to our 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 data point. 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 take into account 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

Every two years we perform a materiality analysis and a benchmarking review to make sure we continue to address our stakeholder needs, operational impacts, regulatory landscape and technological developments. This 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. No major changes were made to our materiality during this assessment.

During this evaluation process, we simultaneously conducted a benchmarking review of major hospitality, travel and marine industries. These two assessments provided a framework for determining which aspects to focus on in our sixth and seventh annual Sustainability Reports.
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 in the GRI G4 sustainability reporting guidelines, 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.
- Examined over 50 aspects and issues, including areas of significant organizational impact, as well as broader sustainability trends (GRI G4 46 Aspects).
- Mapped the full 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:
  - Prioritize information on the basis of materiality, analysis of environmental aspects and impacts (ISO 14001), sustainability context, and stakeholder inclusiveness;
  - Agree on the desired content for each metric and the approach to reporting (qualitative vs. quantitative detailed performance tracking, etc.); and
  - Expand supply chain materiality.
EVALUATION PROCESS

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

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.
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 standards and procedures, and raises the bar on our environmental leadership and performance through policy and best-practice identification and implementation across the fleet.

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 on board 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 to 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 laws.
- 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, and coordinating all related communications.
- Participating in shipboard management meetings and ensuring that environmental matters are always 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 the Hotline information is posted in highly visible crew areas.
- Ensuring proper notification of all environmental incidents.
**COMMITTEES**

<table>
<thead>
<tr>
<th>COMMITTEE</th>
<th>PURPOSE</th>
</tr>
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<tbody>
<tr>
<td>Health, Environmental, Safety &amp; Security (HESS) Committees</td>
<td>The purpose of the Health, Environmental, Safety &amp; Security (&quot;HESS&quot;) 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.</td>
</tr>
<tr>
<td>Compensation Committees</td>
<td>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.</td>
</tr>
<tr>
<td>Audit Committees</td>
<td>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.</td>
</tr>
<tr>
<td>Nominating &amp; Governance Committees</td>
<td>The purpose of the Nominating &amp; 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.</td>
</tr>
<tr>
<td>Executive Committees</td>
<td>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.</td>
</tr>
</tbody>
</table>

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).
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. These ships are home to over tens of thousands of shipboard employees who come from various countries 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 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. This training is required for new employees and is refreshed at regular intervals to promote continued attention and focus on these issues. Employees who fail to meet our expectations are subject to disciplinary action up to and including termination.

Similarly, we 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.

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.

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.

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.

Arnold W. Donald
President and Chief Executive Officer
The following is a summary of procedures adopted to protect health on board and ashore:

- Managing of food and water safety through comprehensive shore based and on board 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 and coating systems to minimize drag.
- Select fuel-efficient combustion equipment.
- Install equipment to use waste heat.
- Install energy-efficient on board equipment, including lighting.

**SHIP OPERATION AND MAINTENANCE INITIATIVES**
- Optimize diesel generator use at sea and in port.
- Manage use of evaporators.
- Use fluorescent and LED lighting.
- Utilize automatic heating ventilation and air-conditioning (HVAC) control systems.
- Change chiller additives.
- Apply silicone-based anti-fouling marine hull coatings.
- Clean propellers and hulls periodically.
- Optimize plant energy consumption.
- Increase use of waste heat from engine exhaust for fresh water production and steam generation.
- Use vessel shore power installations (“cold ironing”).

**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 on board to improve efficiency.
- Use waste heat generated by the ships’ engines to heat water 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.
- Install Exhaust Gas Cleaning Systems.
- Take advantage of alternative fuels like (LNG).
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 new chapter of SOLAS, Chapter XIV, which provides additional operational safety measures for new vessels operating in polar waters.

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.
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.

In order to evaluate the effectiveness of the SMS, pursuant to amendments which entered into force on January 1, 2015, the company must also periodically verify whether personnel undertaking delegated ISM related tasks are acting in conformity with the company’s responsibilities under the ISM Code.

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

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.

Carnival Corporation & plc complies with the ISPS Code.
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 prevent pollution from oil. Annex I sets forth a comprehensive list of requirements that include:

- designing and constructing vessel equipment 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:

- often reducing the oil content of bilge water effluent from oily water separators to five parts per million (ppm) or less, lower than the MARPOL-required 15 ppm; and
- 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
Annex IV, Regulations for the Prevention of Pollution by Sewage from Ships:

- establishes regulations for the discharge of sewage into the sea from ships, including 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 NM from the nearest land;
- 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.

Amendments to MARPOL Annex IV relating to the dates for implementation of the discharge requirements for passenger ships while in a special areas entered into force on September 1, 2017.

These amendments apply to the ISPP Certificate form include two options for the MEPC.227(64) type approval standard and set the dates for when the Baltic Sea special area shall take effect.

Regulation Description & Summary of Requirements

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

- installing Advanced Waste Water Purification Systems (AWWPS) for the treatment of black and gray water in some ships. AWWPS utilize technologies designed to produce a higher effluent quality that is above MARPOL black water 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.

How We Meet or Exceed Regulation

Carnival Corporation & plc complies with Annex V.

Regulation Description & Summary of Requirements

Carnival Corporation & plc meets regulations
### 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;
- 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;
- 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") for certain new ships, including certain 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 will 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.

At its 71st session July 3-7, 2017, the IMO’s Marine Environmental Protection Committee adopted amendments designating the North Sea and the Baltic Sea as NOx emission control areas under the International Convention for the Prevention of Pollution from Ships, Annex VI, Regulation 13.

1 March 2018 - MARPOL Annex VI Collection and reporting of ship fuel oil consumption data; Adopted by MEPC 70 will enter into effect.

### 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 Exhaust Gas Cleaning Systems that are capable of reducing sulfur compounds.
- 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](image-url)
INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS’ BALLAST WATER AND SEDIMENTS (IMO “BALLAST WATER CONVENTION”)

Regulation Description & Summary of Requirements

• 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 Guidelines. 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.

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 on board 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.

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 which will become effective in July 2018.

Mandatory minimum requirements for the training and qualifications of masters and deck officers on ships operating in polar waters were adopted by IMO’s Maritime Safety Committee in November 2016. They will become mandatory under STCW and its related STCW Code beginning July 1, 2018.

How We Meet or Exceed Regulation

Carnival Corporation & plc meets regulations

MARITIME LABOR CONVENTION (“MLC”), 2006

Regulation Description & Summary of Requirements

MLC 2006, which was ratified in August 2012, entered into force August 2013, 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, adopted in 2014, addressing the protection of seafarers from abandonment and compensation in case of death or disability by requiring members to have a financial security and compensation system and requiring ships to carry certificates or other documents demonstrating financial security, entered into force on January 18, 2017.

How We Meet or Exceed Regulation

Carnival Corporation & plc complies with the MLC 2006 requirements.
### 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. Regulations were adopted in 2012 further reducing the sulfur limit from the current 1.5 percent to 0.5 percent in 2020 when in EU member state territorial waters, exclusive economic zone and ecological areas outside ECAs.

**How We Meet or Exceed Regulation**

Carnival Corporation & plc complies with EU requirements.

**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) conducting commercial voyages and calling at any EU and EFTA (Norway and Republic of Iceland) port to annually monitor, report and verify CO2 emissions. Data collection requirements under the EU MRV are to begin on January 1, 2018.

### 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.

**How We Meet or Exceed Regulation**

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


**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”)

<table>
<thead>
<tr>
<th>Regulation Description &amp; Summary of Requirements</th>
<th>How We Meet or Exceed Regulation</th>
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<tbody>
<tr>
<td>Under the 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.</td>
<td>Carnival Corporation &amp; plc complies with the NMSA.</td>
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<table>
<thead>
<tr>
<th>Regulation Description &amp; Summary of Requirements</th>
<th>How We Meet or Exceed Regulation</th>
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<tr>
<td>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. The U.S. Coast Guard issued a final rule, which became effective October 30, 2013, requiring owners and operators of nontank vessels to update and submit Nontank Vessel Response Plans (“NTVRPs”) by January 30, 2014. This final rule implements a 2004 statutory mandate expanding oil spill response planning standards to self-propelled nontank vessels of 400 gross tons or greater, that carry oil of any kind as fuel for main propulsion and that operate on the navigable waterways of the United States. On November 19, 2015, the US Coast Guard issued a final rule increasing limits of liability under OPA 90 for non-tank vessels. Pursuant to the final rule, the limits of liability applicable to all non-tank vessels, including cruise ships, increased by about 10% for removal costs and damages.</td>
<td>Carnival Corporation &amp; plc complies with OPA 90.</td>
</tr>
</tbody>
</table>
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 2008 VGP expired on December 19, 2013 and a new VGP went into effect thereafter, which remains effective until December 19, 2018. The current 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 is expected to publish for review and comment a draft VGP in the second quarter of 2018, which will replace the VGP that expires on December 19, 2018.

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, which went into effect in December 2013.

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.

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 on board the vessel.
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 six 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 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.

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.

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**

<table>
<thead>
<tr>
<th><strong>Regulation Description &amp; Summary of Requirements</strong></th>
<th><strong>How We Meet or Exceed Regulation</strong></th>
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<tbody>
<tr>
<td><strong>INTELLIGENCE REFORM AND TERRORISM PREVENTION ACT OF 2004</strong></td>
<td>Carnival Corporation &amp; plc complies with the requirements of this Act.</td>
</tr>
<tr>
<td>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.</td>
<td><img src="image" alt="Carnival Corporation &amp; plc meets regulations" /></td>
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<tr>
<th><strong>CRUISE VESSEL SECURITY AND SAFETY ACT (“CVSSA”) OF 2010</strong></th>
<th>Carnival Corporation &amp; plc complies with the requirements of this Act.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulation Description &amp; Summary of Requirements</strong></td>
<td><img src="image" alt="Carnival Corporation &amp; plc meets regulations" /></td>
</tr>
<tr>
<td>The CVSSA applies to passenger vessels that are authorized to carry at least 250 passengers and have on board sleeping facilities. The CVSSA:</td>
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<td>• promotes the safety and security of cruise vessel passengers and crew;</td>
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<tr>
<td>• requires cruise vessels to adopt basic reporting, safety and security measures; and</td>
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<tr>
<td>• mandates that cruise vessels adopt several other basic security measures, including:</td>
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<td>– updated ship design;</td>
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<tr>
<td>– providing public access to information regarding crime on board cruise ships;</td>
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<tr>
<td>– improved precautions, response and medical care and support for victims of sexual assault; and</td>
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<tr>
<td>– preservation of evidence necessary to prosecute criminals.</td>
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<tr>
<th><strong>ALASKA CRUISE SHIP LEGISLATION; TITLE XIV – “CERTAIN ALASKAN CRUISE SHIP OPERATIONS”</strong></th>
<th>Carnival Corporation &amp; plc complies with the Alaska Cruise Ship Legislation.</th>
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<tbody>
<tr>
<td><strong>Regulation Description &amp; Summary of Requirements</strong></td>
<td><img src="image" alt="Carnival Corporation &amp; plc meets regulations" /></td>
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<tr>
<td>Sets federal effluent standards for treated sewage and graywater and allows continuous discharge if treatment standards are met and confirmed via sampling.</td>
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<thead>
<tr>
<th><strong>ENDANGERED SPECIES ACT (“ESA”) AND MARINE MAMMAL PROTECTION ACT (“MMPA”)</strong></th>
<th>Carnival Corporation &amp; plc complies with the ESA and MMPA.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulation Description &amp; Summary of Requirements</strong></td>
<td><img src="image" alt="Carnival Corporation &amp; plc meets regulations" /></td>
</tr>
<tr>
<td>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”).</td>
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<tr>
<td>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.</td>
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<tr>
<td>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.</td>
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</table>

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. |
## 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, on board 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:**

(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.

### CALIFORNIA SEWAGE DISCHARGE REQUIREMENTS

**Regulation Description & Summary of Requirements**

Effective March 28, 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).

### 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.

### 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:

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.

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

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.

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.
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
Assurance Statement related to Greenhouse Gas Emissions Inventory and Sustainability Data for Fiscal Year 2017 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. (LRQA), 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) 2017 (December 1, 2016 to November 30, 2017).

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

In addition to the 6 Kyoto gases and NF₃, 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 (SF₆) gas from shipboard circuit breakers;
- Fugitive release of Methane (CH₄) gas or Carbon Dioxide (CO₂) 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 CO₂ based fire suppression systems on board the ships.

The Sustainability Data Assertion includes the twenty two 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. LRQA’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.

LRQA’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 LRQA’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 accordance 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 four 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 four 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 2017; and
- Verified the Sustainability Data Assertion for FY 2017, 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.

**LRQA’s Opinion**
Based on LRQA’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 2017, 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: June 13, 2018

Derek Markolf
LRQA 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

LRQA Reference: WO 5058156
Table 1. Summary of Carnival, GHG Emissions Inventory and Sustainability Data FY 2017

<table>
<thead>
<tr>
<th>Data Parameter</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct (Scope 1) GHG Emissions (Tonnes CO₂e)</td>
<td>10,642,209</td>
</tr>
<tr>
<td>Energy Indirect (Scope 2) GHG Emissions – Location-Based (Tonnes CO₂e)¹</td>
<td>45,437</td>
</tr>
<tr>
<td>Energy Indirect (Scope 2) GHG Emissions – Market-Based (Tonnes CO₂e)¹</td>
<td>43,589</td>
</tr>
<tr>
<td>Ship Fuel GHG Emissions Rate (grams CO₂e/ALB-KM)</td>
<td>256</td>
</tr>
<tr>
<td>Total Ship Fugitive Refrigerant Releases (Kg)</td>
<td>107,153</td>
</tr>
<tr>
<td>Total Ship Energy Consumption (Gigajoules)</td>
<td>136,128,687</td>
</tr>
<tr>
<td>Total Ship Fuel Consumption (Tonnes)</td>
<td>3,287,125</td>
</tr>
<tr>
<td>Ship Fuel Consumption Rate (Gms Fuel/ALB-Km)</td>
<td>81.0</td>
</tr>
<tr>
<td>High Sulfur Fuel Oil (Percent of total Ship fuel consumption)</td>
<td>74.04</td>
</tr>
<tr>
<td>Low Sulfur Fuel Oil (Percent of total Ship fuel consumption)</td>
<td>5.41</td>
</tr>
<tr>
<td>Marine Diesel Oil/Marine Gas Oil (Percent of total Ship fuel consumption)</td>
<td>20.52</td>
</tr>
<tr>
<td>Liquefied Natural Gas (Percent of total Ship fuel consumption)</td>
<td>0.03</td>
</tr>
<tr>
<td>Total Potable Water Purchased (Tonnes)</td>
<td>5,591,610</td>
</tr>
<tr>
<td>Total Potable Water Produced (Tonnes)</td>
<td>21,224,398</td>
</tr>
<tr>
<td>Bilge Water Discharged to Sea (Tonnes)</td>
<td>178,174</td>
</tr>
<tr>
<td>Bilge Water Sea Discharge Rate (Liters/NM)</td>
<td>18.5</td>
</tr>
<tr>
<td>Total Number of Significant Spills²</td>
<td>0</td>
</tr>
<tr>
<td>Total Number of Reportable Spills³</td>
<td>60</td>
</tr>
<tr>
<td>Total Volume of Reportable Spills (Liters)</td>
<td>643</td>
</tr>
<tr>
<td>Total Number of Non-monetary Sanctions</td>
<td>0</td>
</tr>
<tr>
<td>Total Monetary Value of Fines (US Dollars)</td>
<td>$40,316,857</td>
</tr>
<tr>
<td>Total Number of CDC VSP Inspections</td>
<td>120</td>
</tr>
<tr>
<td>Total Number of CDC VSP Inspections - Ships scoring 100%</td>
<td>18</td>
</tr>
<tr>
<td>Total Number of CDC VSP Inspections - Ships scoring 86-99%</td>
<td>97</td>
</tr>
<tr>
<td>Total Number of CDC VSP Inspections - Ships scoring &lt;86%</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Scope 2, Location-based and Scope 2, Market-based are defined in the GHG Protocol Scope 2 Guidance, 2015.
2. A significant spill is defined as a spill for which the monetary sanctions are greater than $100,000.
3. A reportable spill is a spill greater than 500ml. However, in US waters, any spill that causes oil sheen is to be reported.

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Carnival Corporation & plc works, collaborates and partners with a variety of organizations worldwide. The goals of these partnerships vary depending on 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.

**OUR PARTNERS**

Association of British Travel Agents (ABTA)
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.

Catalyst
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.

Create Common Good
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.

Cruise Lines International Association (CLIA)
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.

Dress for Success Worldwide
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 woman by encouraging her to empower herself and others in the workplace, in her community and in her home life.

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.

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.

Executive Leadership Council (ELC)
The Executive Leadership Council is the preeminent member organization for the development of global black leaders. It’s 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.
### OUR PARTNERS

#### 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 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.
<table>
<thead>
<tr>
<th><strong>United Way of Miami-Dade</strong></th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Nature Conservancy (TNC)</strong></td>
<td>The Nature Conservancy (TNC) is the leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. It addresses the most pressing conservation threats at the largest scale. Since its founding in 1951, TNC has protected more than 119 million acres of land and thousands of miles of rivers worldwide and operates more than 100 marine conservation projects globally. It works in more than 35 countries protecting habitats from grasslands to coral reefs. It also addresses threats to conservation involving climate change, fresh water, oceans and conservation lands.</td>
</tr>
<tr>
<td><strong>Society for Gas as a Marine Fuel (SGMF)</strong></td>
<td>SGMF is a new NGO established to promote safety and industry best practice in the use of gas as a marine fuel.</td>
</tr>
<tr>
<td><strong>SEA\LNG</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>UK Chamber of Shipping</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>United States Wildlife Trafficking Alliance</strong></td>
<td>The United States Wildlife Trafficking Alliance is a coalition of corporate and non-profit member organizations all working together to combat wildlife trafficking.</td>
</tr>
<tr>
<td><strong>World Travel &amp; Tourism Council (WTTC)</strong></td>
<td>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 &amp; Tourism as a top priority, business balancing economics with people, culture and environment, and a shared pursuit of long-term growth and prosperity.</td>
</tr>
</tbody>
</table>
BOARDS OF DIRECTORS (BOD HESS policy)

HEALTH, ENVIRONMENT, SAFETY & SECURITY (HESS) COMMITTEE

CEO/PRESIDENT
Brands

CHIEF EXECUTIVE OFFICER

CHIEF FINANCIAL OFFICER

SHORESIDE MANAGEMENT RESPONSIBLE FOR HESS
Brands

CHIEF MARITIME OFFICER

Ships’ Masters and Department Heads RESPONSIBLE FOR HESS
SUSTAINABILITY MANAGEMENT

Health, Environment, Safety, Security and Sustainability Working Groups

- MEDICAL
- PUBLIC HEALTH
- SECURITY
- ENVIRONMENTAL
- SUSTAINABILITY
- SAFETY/DESIGNATED PERSON ASHORE
- TRAINING
- TECHNICAL
- OCCUPATIONAL HEALTH & SAFETY
### Waste Stream Details

<table>
<thead>
<tr>
<th>Types of Waste</th>
<th>Treatment &amp; Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bilge Water:</strong></td>
<td>The bilge water is processed through approved oil filtering equipment so that the oil content of the 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 exceeds 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 on board 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 &amp; 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.</td>
</tr>
<tr>
<td><strong>Gray Water:</strong></td>
<td>Gray water on most ships is not typically treated unless an Advanced Wastewater Purification System (AWWPS) is used. Gray water from Carnival Corporation &amp; 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.</td>
</tr>
<tr>
<td><strong>Black Water:</strong></td>
<td>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 % 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 &amp; 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. Discharges of treated black water by AWWPS can be discharged outside 4 nautical miles from the baseline.</td>
</tr>
</tbody>
</table>
### TYPES OF WASTE

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REGULATED WASTE:</strong></td>
<td>Includes cleaning solutions generated from operations of the ship, biomedical type waste and chemical products or paints that are non-hazardous.</td>
</tr>
<tr>
<td><strong>FOOD WASTE:</strong></td>
<td>Any uneaten spoiled or unspoiled food substances, including fruits, vegetables, dairy products, poultry, meat products and food scraps generated aboard the ship.</td>
</tr>
<tr>
<td><strong>SOLID WASTE:</strong></td>
<td>Any refuse, and other discarded materials not considered hazardous.</td>
</tr>
<tr>
<td><strong>HAZARDOUS WASTE:</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>RECYCLED WASTE:</strong></td>
<td>Materials that can be diverted from landfill or incineration and are managed through recycling processes where the material can be used again.</td>
</tr>
</tbody>
</table>

### TREATMENT & REQUIREMENT

<table>
<thead>
<tr>
<th>WASTE TYPE</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REGULATED WASTE:</strong></td>
<td>Carnival Corporation &amp; plc shipboard regulated waste is generally transferred to licensed shoreside waste contractors for appropriate disposal. Some types of regulated waste can be incinerated on board.</td>
</tr>
<tr>
<td><strong>FOOD WASTE:</strong></td>
<td>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 &amp; plc ships is discharged greater than 3 nautical miles from baseline. Unground food wastes can be discharged at greater than 12 nautical miles from baseline.</td>
</tr>
<tr>
<td><strong>SOLID WASTE:</strong></td>
<td>Solid waste generated on board can be incinerated on board or landed ashore to be landfilled or incinerated. Carnival Corporation &amp; plc ships are equipped with incinerators, and compactors to manage solid waste.</td>
</tr>
<tr>
<td><strong>HAZARDOUS WASTE:</strong></td>
<td>Carnival Corporation &amp; plc shipboard hazardous waste disposal is transferred to licensed shoreside waste contractors for disposal according to applicable regulations.</td>
</tr>
<tr>
<td><strong>RECYCLED WASTE:</strong></td>
<td>Recycling containers are placed throughout the ships for guest and crew to segregate items 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 stored for shoreside recycling at designated ports of call where the infrastructure is in place for recycling. However, if the infrastructure is not in place recyclable items may be landed for landfill. 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. Where port reception facilities and infrastructure allows, the following additional items may be recycled: mattresses, carpets, and corks.</td>
</tr>
</tbody>
</table>
## 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 on board 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 on board 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.

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

**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.

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

### 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 (CO₂); methane and biomethane emissions (CH₄); nitrogen oxide (N₂O) and chlorofluorocarbons (CFC).
Greenhouse Gas (GHG) Protocol Initiative
The Greenhouse Gas Protocol initiative's vision is to harmonize greenhouse gas emission accounting and reporting standards internationally. It aims to provide a multi-stakeholder framework ensuring that different trading schemes and other climate-related initiatives adopt consistent approaches to GHG accounting.

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

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

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

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

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

Marine Sanitation Devices (MSD)
A system that employs filtration, maceration and chlorination technologies to treat black water.

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.

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

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

Ozone-Depleting Substance (ODS)
Any substance with an ozone depletion potential greater than zero that can deplete the stratospheric ozone layer. Most ozone-depleting substances are regulated under the Montreal Protocol and its amendments, and include CFCs, HCFCs, halons and methyl bromide.
**Primary Source**
The initial form of energy consumed to satisfy the reporting organization’s energy demand. This energy is used either to provide final energy services (e.g., space heating, transport) or to produce intermediate forms of energy, such as electricity and heat.

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

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

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

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

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

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

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

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

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

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

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

**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**
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