



2017  
**SUSTAINABILITY  
REPORT**

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# SUSTAINABILITY REPORT

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**A WORD FROM OUR PRESIDENT & CEO**

**WHEREVER WE OPERATE,  
ON LAND OR AT SEA,  
OUR PEOPLE REMAIN  
OUR GREATEST ASSET.**

In 2017, MSC successfully maintained its leadership position in the global economy, despite slow trade growth and high operating costs that have created uncertainty within the international container shipping sector. Achieving such economic performance did not come without challenges at all levels. Yet, we pursued our goals by remaining true to our roots and our core family values, promoting a sustainable business model that goes far beyond a “business as usual” approach. Regardless of the challenges and transformation we might face in today’s business world, our approach does not and will not change: we have a genuine passion for the sea, an unparalleled nautical heritage and a strong commitment to our employees and communities.

Wherever we operate, in both developed and developing countries, both on land or at sea, our people remain our greatest asset. Our strategies focus on building and maintaining strong and reliable relationships with our stakeholders, communities and business partners as well as securing continuity and long-term employment opportunities for our employees. We do this while making significant investments in low-carbon technologies and promoting integrity and ethical practices through capacity-building efforts and training.

In our 2017 Sustainability Report, we further illustrate how all these elements are an integral part of our decision-making process and therefore embedded in MSC’s four fundamental sustainability pillars: the promotion of social inclusion and a shared value approach, our respect and care for the environment, our continuous focus on occupational health and safety and our strong commitment to promoting respect for internationally recognised human rights principles and standards.

In addition, we have demonstrated how these pillars are strictly linked to our support towards the Ten Principles of the United Nations Global Compact and our contribution in joining global efforts for the progressive realisation of the United Nations Sustainable Development Goals (SDGs). Yet, above all, we have acknowledged the engagement and dedication of our 70,000 employees who bring to life our sustainability approach and our Group family values. This is what makes us so successful today and what, at the same time, creates not only countless opportunities but also great responsibilities.

We are running our activities and operations at a time of increasing environmental policies and regulations, such as the 2020 global cap on sulphur content in marine fuel oil, which our technical teams started to prepare for in 2013. We should not forget that reaching these ambitious environmental goals and targets represents a financial commitment of billions of dollars. In this respect, we continue to invest in retrofitting, the optimisation of bulbous bow and propellers, ballast water management, new build programs and latest available technologies to reduce greenhouse gas (GHG) and sulphur oxide emissions. By doing this, in 2017, we proudly achieved an 11% reduction in CO<sub>2</sub> per tons of cargo moved on a per mile basis, compared to 2015.

However, it is important to acknowledge that our tremendous progress in energy and operational efficiency is also achieved thanks to the daily efforts and outstanding expertise of our dedicated teams working at the Headquarters, in our technical offices and MSC’s Agencies worldwide.

So, we continue to rely on governments to provide clarity with practical and meaningful legislation, regulation



**Capt. Gianluigi Aponte**  
Group Executive Chairman



**Mr. Diego Aponte**  
Group President & CEO



**Mrs. Alexa Aponte Vago**  
Group Chief Financial Officer

and standards that take into account real economy imperatives, financial implications and operational challenges. This can certainly contribute to reducing barriers and promoting the respect for human dignity and decent long-term working conditions for all employees as well as the next generations of employees, in line with the 2030 Agenda for Sustainable Development. Similarly, we continue to rely on our stakeholders to further engage in promoting safety at sea and support our ongoing efforts to prevent potential risks to the health and safety of crew members as well as environmental accidents. We are very active in industry associations and forums to highlight our concerns to our customers. We believe that more accuracy and transparency is needed. It is imperative that shipping companies are well informed on what is being transported in containers in order to safely manage dangerous or potentially dangerous cargoes. The public may assume the shipping line is at fault – it is our logo on the ship – but many of the tragedies that occur in our sector are down to incorrectly declared cargo. And where there have been accidents at sea, we have always taken all necessary actions and moved promptly to rectify the

situation to limit environmental damage and protect lives. No amount of technological progress or digitalisation, it seems, can help fix this relatively simple problem in our industry.

I sincerely hope that sharing more about these topics and challenges with our customers, employees, suppliers and our wide range of stakeholders will deepen our strategic partnerships and strengthen our concerted actions to advance social and environmental performance.

We look forward to continuing to join forces to foster a sustainable and responsible approach to doing business throughout our sector and beyond.

**Diego Aponte**  
President and CEO



## CONTRIBUTING TO THE SUSTAINABLE OCEAN ECONOMY

### THE MSC GROUP

Headquartered in Geneva, Switzerland, and privately-owned, the MSC Group is a recognised world leader in the maritime sector, serving millions of customers around the globe. Our innovative, flexible and unique approach to shipping has led to impressive growth in terms of volume and fleet capacity. This has enabled us to diversify our portfolio of activities, from a one-vessel operation in 1970 to a successful and sustainable global business today.

Today, the MSC Group encompasses a Cargo Division with MSC Mediterranean Shipping Company (MSC), Terminal Investment Limited (TiL), MEDLOG, and a Passenger Division with MSC Cruises and Mediterranean passenger ferries, Grandi Navi Veloci (GNV) and SNAV (Società Navigazione Alta Velocità).

Through our wide range of companies, we contribute to connecting people and countries by offering a global integrated and holistic network of transportation and logistics solutions by land and sea. We are engaged in the promotion and development of key ocean industries, such as maritime transport and tourism, which are essential for fostering economic growth and social welfare. We have built our long-standing reputation with our customers and stakeholders by providing sustainable and resilient transportation services and infrastructure, while promoting inclusive and lasting social benefits wherever we operate.

We significantly contribute, in a responsible way, to the growth of shipping-related services, operations and business activities, in both developed and developing countries. Additionally, we facilitate the development of international trade and contribute to fostering countries' competitiveness by providing access to our global network. Being a family-owned business, the companies of the MSC Group are guided by common Group values and a long-term vision promoting fair business practices and

respect for human rights and environmental standards at an international level.

The Cargo and Passenger Divisions have different materiality and due diligence assessments, mainly due to the diversity of their respective activities, missions and business strategies. For instance, the relevance of internal and external factors and their prioritisation in decision-making, risk management and risk assessment processes vary.

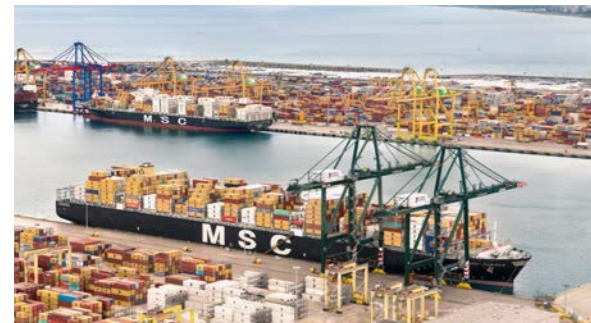
These factors include the international standards and regulations that each division is assumed to comply with, specific stakeholders' interests and concerns, broader social expectations and the capacity to exercise influence on upstream (such as the supply chain) and downstream (such as customers) entities.

In this respect, this report intends to cover the MSC Group Cargo Division, highlighting progress made towards the implementation of the United Nations (UN) principles-based approach and the promotion of the UN Sustainable Development Goals (SDGs), in line with the company's commitment to the United Nations Global Compact and the Global Report Initiative (GRI) standards.

Some initiatives are described as Group initiatives when core topics have relevance for both Divisions and promote a strategic common approach to protecting and supporting human rights and our strong commitment to environmental stewardship.

\*Source: "Ocean Economy in 2030", OECD, 2016

## CARGO DIVISION



## PASSENGER DIVISION



## ORGANISATIONAL STRUCTURE

### CARGO DIVISION

MSC is a transportation service provider carrying physical commodities from one point in the world to another. The company operates a fleet of 510 vessels, calling at 500 ports. Headquartered in Geneva, Switzerland, MSC has 480 offices in 155 countries and employs 47,000 people for its shipboard and ashore activities.

Shipboard operations are largely monitored by third parties due to certification requirements and routine inspections set out by local port authorities and other entities. MSC local agencies are responsible for ashore activities.

MSC, through its Terminal Investment Limited (TiL) subsidiary, has interests in 54 terminals within 29 countries across five continents. TiL invests in, develops and manages container terminals in strategic global locations, providing essential infrastructure for international trade.

MSC's logistics arm, MEDLOG, offers a variety of services to customers in over 50 locations around the world. These services include transportation by road, rail and barge, off-dock storage, container maintenance & repairs (M&R), warehousing & distribution, project cargo and reefer container services. MEDLOG directly employs more than 6,000 employees and generates approximately 2,000 indirect jobs around the world.

The technical management of MSC vessels and crews is handled by MSC Shipmanagement Technical offices, located in Limassol, Cyprus and Sorrento, Italy respectively.

### PASSENGER DIVISION

The MSC Group's Passenger Division is comprised of cruise and ferry businesses.

MSC Cruises is the world's largest privately owned cruise company and the number one cruise line in Europe, South America, South Africa and the Gulf Region. A game-changer in the world of cruising, the company has achieved 800% growth in its first ten years by building one of the youngest cruise sea fleets and a global reputation in the industry. The MSC Cruises fleet is currently made up of 15 ultra-modern, highly innovative and elegantly designed ships that welcome around two million guests per year.

With an ambitious investment plan of EUR€1.6 billion, the MSC Cruises fleet is set to expand to 25 mega-cruise ships by 2026. It has recently designed six new ship class prototypes that will push the boundaries of naval architecture and design. MSC Cruises' services are sold across the globe through a distribution network in 70 countries. The company employs over 23,500 people worldwide, both ashore and on board its ships.

In addition to ocean cruises, the MSC Group's Passenger Division includes GNV and SNAV, two leading ferry companies that connect a large number of ports in the Mediterranean Sea all year round.

# MATERIALITY ASSESSMENT & STAKEHOLDERS

## PROMOTING SDGs AND SUSTAINABILITY CULTURE

MSC is strongly committed to achieving economic performance while promoting ethical business throughout its value and supply chains. For this reason, environmental and social considerations are equally important to us and embedded in our decision-making process and business models. We work responsibly, implementing sustainable practices, procedures and policies based on good corporate governance, integrity and care for the environment. These are reflected in the way we take decisions, interact with one another and behave with our customers and stakeholders. Since the signing of the UN Global Compact in 2016, we have increased efforts at Group level to further promote our responsible approach to business throughout our organisation and in our day-to-day operations, in line with the Ten Principles of the United Nations. In addition, we have reinforced the way we mainstream our Group values and sustainability into our internal and external communications by ensuring a cross-departmental collaboration at HQ level between the Marketing and Communications Departments of both MSC and MSC Cruises.

## A COMMUNICATION TOOL

Our Sustainability Report aims to describe our best practices as well as challenges related to the implementation of the United Nations' Ten Principles approach and the SDGs. We also wish to raise awareness of the SDGs among our employees and stakeholders, and facilitate the understanding of our approach to sustainability. Significant case studies highlighted in our reports will be regularly updated by our local agencies via the MSC official website to show that continuity is an integral part of our business model, and to enable our employees and stakeholders to follow our progress with regards to our activities and broader sustainability-related initiatives.

## SUSTAINABILITY GOVERNANCE

### Sustainability Steering Committee

In 2017, MSC enhanced the role and structure of its Sustainability Steering Committee.

Led by the Aponte family and executives from the Headquarters in Geneva, the Committee is responsible for providing strategic guidance on matters such as environmental protection, occupational health & safety, sustainable development, human rights and social welfare.

One of the key strategic decisions taken by the Committee is to strengthen the ongoing harmonisation efforts in order to better monitor compliance with our ethical and good governance practices throughout our value and supply chains. To do so, we have planned to further improve internal processes and cross-transversal cooperation among relevant departments and local agencies. This will contribute to enhance an organisation-wide coordination process led by the Headquarters, while maintaining local specificities and further refining business activities and operational strategic actions to advance specific goals. The newly established Global Human Resources Department will also play a crucial role in this respect.

### Sustainability Working Groups

To effectively mobilise all departments in implementing approved strategies, in 2018 we plan to create ad hoc Sustainability Supporting HQ Working Groups composed of in-house subject matter experts who will be responsible for supporting the integration of sustainability into the daily work of the MSC value chain. They will also underpin the ongoing efforts at HQ level to monitor progress and track sustainability performance in strategic priority areas.

### Our values

Our values shape our culture and define the character of our company. They guide how we behave and make decisions, they influence recruitment of employees, and they are fundamental to our operations.



WE ARE A FAMILY COMPANY

The commitment of the founding Family inspires us with dedication and trust, increasing our sense of belonging. Sharing the family's entrepreneurial spirit leads us to act proactively, courageously and responsibly in the best interest of our customers and our Company.



WE HAVE PASSION

We are passionate about what we do, we challenge ourselves to achieve excellence and we are tenacious in overcoming obstacles. Working together with passion and enthusiasm, we provide a unique experience for our customers.



WE ARE IN CONTINUOUS EVOLUTION

Our tradition, expertise, professionalism and ambition drive the Company's fast and sustainable growth. We strive for the most innovative solutions to embrace change, always respecting safety and the environment.



WE CARE FOR PEOPLE

We believe that each person brings unique value. We develop authentic relationships built on ethics, respect and team spirit. We truly care about the satisfaction and loyalty of our customers and employees.



WE BELIEVE IN EQUAL OPPORTUNITIES

Our mission is to provide our people with personal fulfillment and enrichment. We are committed to sharing our knowledge, delivering training and support enabling our people's professional growth. We ensure fair opportunities providing long-term career development, embracing diversity and valuing all cultures.

### We support the UN Sustainable Development Goals

We believe our approach to the business and our values will help us contribute to a more sustainable supply chain.



## SHARED VALUE APPROACH

MSC's decision-making process and shared value approach are both based on a strategic framework consisting of four main pillars: social inclusion, protection of the environment, occupational health & safety, business ethics and protection of human rights. Within this framework, in 2017 we began to assess existing practices, policies and gaps relating to each of those pillars against a number of criteria to better identify our material topics and enhance our sustainability strategy on key strategic areas.

MSC's business model promotes social inclusiveness in line with SDGs 1, 2, 3, 8 and 10. We aim to contribute to long-term socio-economic growth in the countries where we operate through community involvement and local recruitment, especially in developing countries. Our massive investments also focus on the latest environmentally friendly cooling technology such as refrigerated containers, depots and warehouses. This helps to reducing food losses, ensuring quality food, encouraging responsible consumption in line with SDG 12 and enabling small farmers to enter global food markets. We seek to improve inland connectivity, including in landlocked countries, by investing in cross-border transport solutions, logistics services, storage facilities and transport infrastructure, in partnership with public and private stakeholders. In line with our people-centred approach, our training programmes are an essential element of our investment strategy, as illustrated by the recently approved MSC Academy project to be launched in 2018. This will promote the alignment between business goals and people-related objectives by focusing on key areas such as people development, learning programmes and internal mobility. The departments of MSC HQ have also enhanced their collaboration to improve and harmonise existing practices and procedures throughout the organisation. The global harmonisation process is intended to assist our subsidiaries and branch offices worldwide to further align their ongoing strategies and country-specific or region-specific corporate social initiatives with the company's overall sustainability strategy promoted at the HQ level.

## ENVIRONMENTAL PROTECTION

One of our main material topics is and will remain our strong commitment to preserving the environment and biodiversity, in accordance with SDGs 7, 12, 13, 14 and 15. Our extensive investments in the latest available low-carbon technologies, energy efficiency practices and operational efficiency systems are regularly assessed to ensure that they meet current and future international regulations. In line with SDG 17, we are actively involved in the Clean Cargo Working Group (CCWG) and we are a founding member of the Global Industry Alliance (GIA), which is supported by the International Maritime Organization (IMO) and promotes energy efficiency and low-carbon maritime transport systems. In addition, MSC is part of the board of the World Shipping Council (WSC), whose goal is to provide a coordinated voice for the liner shipping industry on matters such as these.

## PARTNERING FOR WILDLIFE CONSERVATION AND MARINE BIODIVERSITY

Our constant efforts to minimise our environmental impact and carbon footprint include our participation in several local and international initiatives and partnerships to promote the protection of wildlife and marine biodiversity. In 2017, MSC reiterated its strong commitment to the United for Wildlife Buckingham Palace Declaration, which aims to combat the illegal trade in endangered animals by breaking the transportation link between suppliers and buyers.



## Marevivo

We have also further strengthened our long-term partnership with Marevivo, an Italian marine conservation association founded in 1985 that works worldwide, supported by a scientific commission, legal commission, territorial delegations, a diving division and an extensive network of volunteers and members. Recently, Marevivo's advocacy efforts led to the Italian government's decision to pass legislation banning microplastics from cosmetics by 2020 and removing plastics from cotton swabs by 2019. Since 2015, MSC Cruises and Marevivo have joined forces to increase environmental awareness among young people. Educational programmes include topics such as marine biodiversity, sustainable development and restoration of marine protected areas, as well as combatting pollution and illegal fishing.

In 2017 Marevivo and MSC worked on three projects:

- The 'Guardian Dolphins' youth programme is an initiative implemented in primary schools on ten Italian islands, which aims at fostering greater awareness about the conservation of marine resources. Key impact: 700 students; 60 teachers, operators and experts; 19 schools; 1,400 adults in ten minor Italian islands (Eolie, Egadi, La Maddalena, Palau)
- Nauticinblu, an educational programme targeting future seafarers focused on the incorporation of environmental conservation and marine sustainability in Italian naval academies' curricula. Key impact: three maritime academies: San Giorgio in Genoa, Volterra-Elia in Ancona and Nino Bixio in Sorrento; 210 students (70 per institute), 30 teachers.
- #Mybluewave Experience on sustainable development. This project includes on-board activities during cruises, ranging from "edutainment" games to learning moments and species-sighting activities to educate children about the environment in which cruise ships sail. Key impact: in 2017, 200,000 children participated in the activities dedicated to the sea on board MSC Cruises' ships.







## HEALTH AND SAFETY

MSC considers occupational health and safety a fundamental material topic. In this respect, we promote personal, environmental and navigational safety in line with SDGs 3, 8 and 14, applicable international quality shipping regulations and other relevant international instruments. One more area of concern relates to proper cargo-handling and management.

In the last ten years, we have increased our offer of training programmes in soft and technical skills to further promote a culture of safety among our crew members and ensure rapid response capabilities in case of emergencies and unexpected events, especially natural disasters.

Our ship recycling practice is another important area of emphasis for MSC, as it is strictly related to labour standards, environmental protection and human rights, in accordance with SDGs 8 and 12. We strive to ensure that the recycling of materials and other ship components is performed at yards without any unnecessary risk to human health, safety or the environment. Our responsible practices are fully supported by MSC top management and only recycling yards with IMO HKC standards, ISO 14001 (environment), ISO 30001 (ship recycling management) and OSHAS 18001 (Health & Safety) standards are selected for recycling at the end of the useful life of a ship.

## BUSINESS ETHICS AND PROTECTION OF HUMAN RIGHTS

Finally, it is MSC's objective to conduct its business activities in a responsible and ethical manner. We support the UN Global Compact's principles-based approach in the areas of human rights, labour, environment and anti-corruption, promoting a culture of integrity throughout the organisation and within our sphere of influence.

Furthermore, in accordance with SDG 16, we actively engage with other companies and international stakeholders to advance collective actions aimed at fighting bribery and corruption. We also participate in the discussions of the International Chamber of Commerce Business Action to Stop Counterfeiting and Piracy (BASCAP).

As part of our commitment to the protection of human rights, MSC strives to provide its employees with a safe working environment, offering stable financial revenues through long-term career paths. In line with SDGs 1, 5 and 10, MSC also focuses on women's empowerment by promoting the elimination of gender disparities in employment, both on board and offshore, and by investing in technical and managerial training for women.

We promote local recruitment wherever we operate, yet our commitment to bringing value to local communities goes far beyond compliance. Following SDGs 1, 2, 3 and 16, we seek to contribute to peace-building efforts deployed by international actors on the ground, by contributing to humanitarian relief actions, including for victims of natural disasters. Whenever possible, we transport emergency humanitarian aid cargoes to areas of conflict, within the framework of international regulations and international humanitarian laws.



CREATING SUSTAINABLE VALUE

# SOCIAL INCLUSIVE APPROACH

## ADAPTING BUSINESS STRATEGIES TO GLOBAL SOCIAL TRENDS

Being a global player in the international shipping sector with 70,000 employees and operations all over the world, we are committed to ensuring a positive social impact wherever we operate, while promoting the sustainable use of oceans, seas and marine resources.

In all our strategies and business models, we strive to create conditions for increased prosperity and wealth both on land and at sea, despite the challenges of a highly competitive market. Yet, new developments currently affecting transport and trade are influencing sustainability considerations in our sector, and freight transport systems and patterns in general. Therefore, for us, understanding ongoing as well as future global and local challenges is a must in today's changing world. We are proud to continuously seek to transform those challenges into opportunities through our inclusive, sustainable and long-term investment strategies. In this respect, we continue to promote local recruitment, multi-cultural working opportunities and the development of ocean-based and shipping-related industries all over the world. As a global service provider, we care about our customers and their cargo. This means that we do not forget that our customers and business partners also have responsibilities towards their own customers and consumers.

Our transportation solutions are commercially viable, environmentally friendly and comply with the highest health and safety standards. We work in partnership with governments, business partners and other relevant stakeholders to increase local trade competitiveness and countries' ability to

effectively integrate and benefit from global supply chains. We are therefore promoting the realisation of the 2030 Agenda for Sustainable Development, and its wide range of interrelated SDGs, by building solid, enduring partnerships with all of our customers and stakeholders. For MSC, loyalty and continuity, together with our long-term financial investments and investment in people, are essential elements to achieve sustainable development.

## CREATING JOBS FOR A FAST-GROWING POPULATION

The United Nations Department of Economic and Social Affairs (UN DESA) 2017 Revision of World Population Prospects foresees a dramatic increase of world population from today's 7.6 billion to 8.6 billion in 2030. This trend is expected to bring new challenges with regards to domestic labour markets, levels of inequality and supply chains, on both a local and global scale. Those challenges might be exacerbated in developing and least developed countries, if economic growth will not create sufficient jobs to match the demand of a young population and a growing labour force. In this respect, our approach will continue to focus on supporting governments to address poverty and unemployment rates through the promotion of decent work opportunities for all segment of the population, without discrimination. We will also further invest in programmes and training aimed at improving the soft and technical skills of our employees all around the world, to enhance our contribution to inclusive capacity-building efforts.



MEDLOG  
employee,  
San Pedro,  
Côte d'Ivoire

## A GLOBAL BUSINESS WITH A LOCAL APPROACH

We pride ourselves on our ability to adapt business solutions to the local needs of communities, national authorities and other stakeholders. With 480 offices across 155 countries, our customers can rely on our in-depth understanding of the local markets, the dynamics of specific trades and any factors affecting the transit of cargoes. Our approach supports our focus on investing responsibly in each country of operation, including in least developing countries and emerging markets, promoting business models, services and operational activities tailored to ongoing and future local and global challenges. These include today's digital and technological developments and their impact on transforming jobs and trade patterns.

We must acknowledge that globalisation and digitalisation have played a role in modifying the social

expectations of workers as well as the way we benefit from the use of new technologies. In this respect, in line with our social inclusive approach, our investment in innovation promotes the safety and expertise of our employees, not their replacement. We continuously encourage e-learning, especially among women, and support employee mobility and the diversification of career paths. While digital connectivity can provide new opportunities for countries to increase domestic growth and enter the global economy, traditional trade costs related to physical connectivity can still represent a significant barrier for the delivering of goods. This is why our strategic focus will also remain on increasing our global logistics network and promoting connectivity among populations and countries in line with national strategies and country-specific needs.

CASE STUDY  
**AFRICA**

**OUR COMMITMENT  
TO AFRICA'S SOCIAL  
INCLUSIVE DEVELOPMENT**



Lomé Container Terminal, Togo

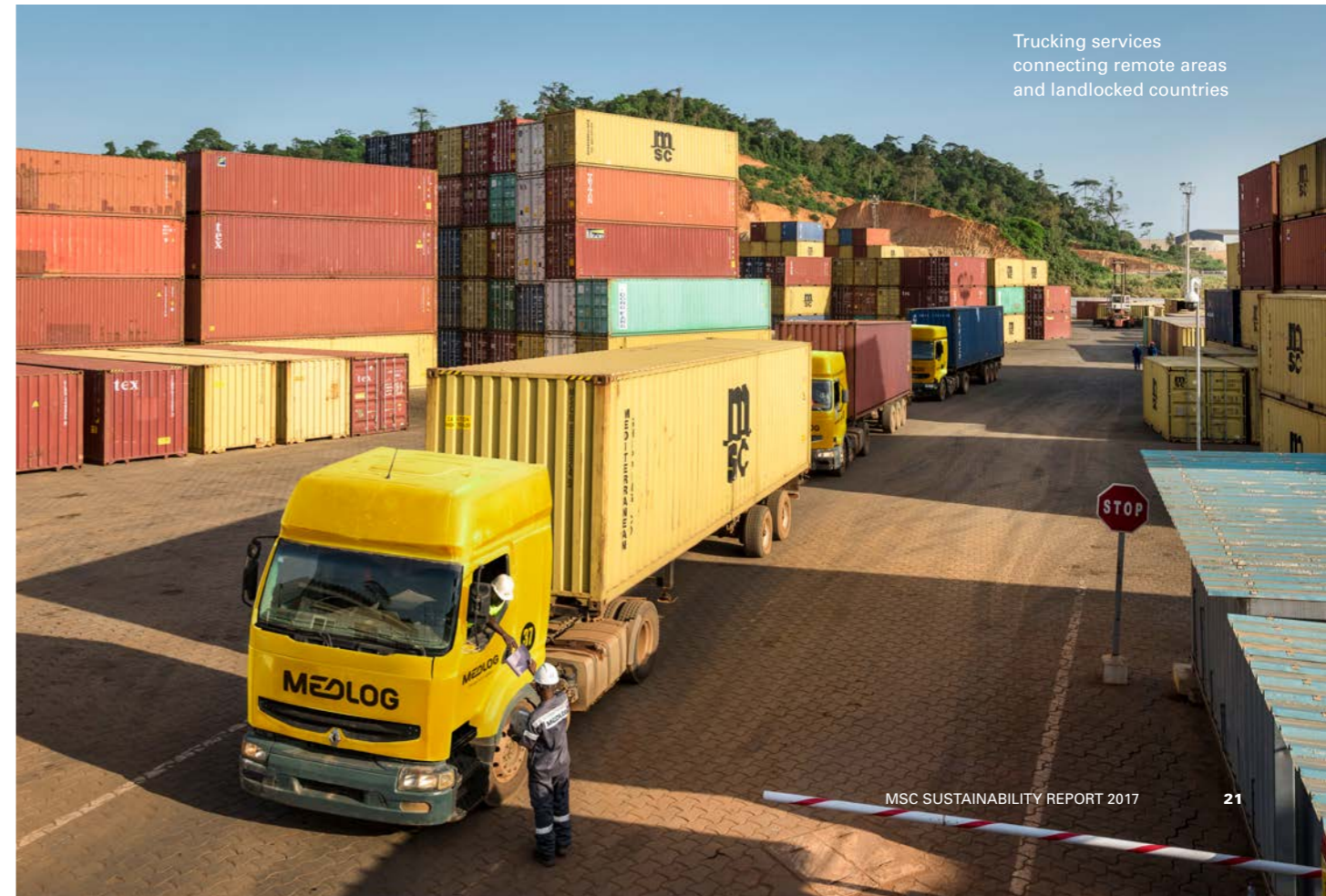
MSC continues to support a holistic and long-term social inclusive approach within the African continent. Since the launch of our first route between the Mediterranean and East Africa in 1971, we have invested extensively in local recruitment, transport services and infrastructure to bring inclusive economic and social development and global trade opportunities to local players. Today, our local MSC agencies serve 40 African countries, helping to enhance their role and potential in the global economy. Our liner services, calling at 60 ports every week and at port terminals in Togo, Côte d'Ivoire, Nigeria and Morocco, ensure connections between Africa and the rest of the world. We also invest and manage state-of-the-art terminals, which, working in collaboration with our logistics teams, can take any cargo to any location. Our overall market share, currently at around 21%, continues to grow significantly year on year, showing our full support for the development of the continent's future.

**Facilitating maritime trade  
to tackle food insecurity**

The MSC's strategic choice to invest in Africa's development aligns with the increasing commitment of most African countries to foster trade exchanges within the continent and beyond, also through the promotion of the maritime economy. In particular, we appreciate the recent efforts put forward of several African countries that led to the adoption in 2016 of the Charte de Lomé and the expected implementation of a Continental Free Trade Area (CFTA).

The benefits of a free and efficient flow of goods and trade extend far beyond the ships and ports themselves. An effective interface between them can improve the lives of people everywhere, especially in the context

of sustainable development. Positive trends, such as the development of local industries and the agriculture sector, can certainly support Africa's growth in the long term. In this respect, there is no doubt that the private sector, and especially the shipping sector and its supply chain, has an important role to play in addressing some of the obstacles that prevent local African products from reaching more lucrative global markets or meeting food insecurity challenges. MSC will therefore enhance its network of storage facilities, further increase its offer of an integrated network of inland and cross-border transportation solutions and support cold chain development throughout the continent, in line with its commitment to the promotion of the SDGs.



Trucking services connecting remote areas and landlocked countries

MSC Daniela (built 2008),  
14,000 TEU. Terminal of  
Valencia, Spain



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### **Investing in infrastructure to improve connections**

West African ports are currently enjoying an ongoing positive trend of expansion, modernisation and intermodal transportation linkages. We observe a continuing rise in infrastructure investment from both the private and public sectors to link all capitals by road, high-speed rail and air. This constitutes a positive outlook for growth, as infrastructural development is essential for enhancing African countries' competitiveness, facilitating trade and achieving sustainable development.

Our investments will continue to focus on terminals and related infrastructure, as well as on developing a sustainable and integrated transport network, including in landlocked countries (LLCs). This will further facilitate the transport of goods and services across and between African countries, including between urban and rural/remote areas, as well as from the African continent to the global market. As an illustration, in 2018 we plan to launch in Le Havre ro-ro operations from Europe to West Africa, which will complement our existing dedicated container services.

### **Engaging stakeholders to overcome common challenges**

The African Union launched a depth transformation across the continent to further promote local productivity and long-term economic growth. We observe a new paradigm shift that encourages the participation of the private sector in strategic plans to foster sustainable development in Africa. To this end, structural changes have been considered as necessary and the dialogue between the public and private sectors has been enhanced and revitalised to ensure that local needs, as well as ongoing and future global challenges and broad development issues facing African countries, are taken into account in business models. In this respect,

in recent years we have reinforced our commitment to Africa through dialogue and partnerships with key stakeholders at a national and international level. Nevertheless, challenges for the business community remain, as structural projects, such as infrastructure projects, and private investments need to be supported by key reforms on good governance and innovative financial guarantees to become sustainable in the long term. Yet, we are confident that ongoing global efforts and initiatives will continue to address current barriers to further investments from the private sector. These initiatives include the G20 Compact with Africa, which is supported by African governments, the international community and Multilateral Development Banks (MDBs).

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**We have reinforced  
our commitment  
to Africa's  
development  
through enhanced  
partnerships with  
key stakeholders  
at a national and  
international level.**

CASE STUDY  
**LANDLOCKED COUNTRIES**

**UNLOCKING THE GROWTH POTENTIAL**



In the past 45 years, MSC's logistics arm, MEDLOG, through its subsidiaries, has invested heavily in the development of inland infrastructures and the creation of corridors by using and improving existing logistics resources all around the globe.

As an illustration, thanks to more than 550 dedicated trucks, about 50 lifting equipment units, 15 warehouses and a presence in 23 African countries, MEDLOG has built up an integrated network of road and rail solutions to connect landlocked countries (LLCs) and remote areas to ports. The services provided have helped to support the development of logistics-related services, enhancing employment opportunities and local economic growth. We have also improved food supply and socio-political stability in collaboration with the International Committee of the Red Cross (ICRC). Furthermore, we have contributed to local operations and programmes promoted by the United Nations in a number of countries, such as South Sudan, Mali, Cameroon, Togo and Central African Republic.

In East Africa, the MEDLOG network ensures that coffee exports from landlocked Burundi, Rwanda and Uganda reach the rest of the continent and the world. In addition,

MSC and MEDLOG have jointly provided door-to-door logistics solutions to local branches of international automotive companies for the delivery of knocked down vehicles from South Africa to assembly plants in Rwanda.

Moreover, MEDLOG has supported the improvement of Rwanda's overall infrastructure by transporting bitumen containers to Kigali for building a new international airport, which will foster incoming tourism and air freight flows.

In West Africa, MEDLOG is also offering crucial logistics solutions for the refurbishment of Gao Airport in Mali by ensuring that specific bitumen containers reach Gao after being discharged in the port of Cotonou (Benin). Similarly, in Niger we participated in projects relating to the construction of a new national road connecting Tchadoua and Mayahi.

MEDLOG's assets in Côte d'Ivoire and Senegal (trucks, trailers, advanced methods for storage, conditioning and containers' preparation) guarantee that agricultural products are stored in the best possible conditions before their intermodal shipment to or from landlocked Burkina Faso and Mali. MEDLOG dry port in Mali offers a flexible option to local importers.

Terminal of San Pedro, Côte d'Ivoire



CASE STUDY

## REDUCING POVERTY THROUGH FOOD LOGISTICS



As stressed by the former UN Secretary-General Ban Ki Moon<sup>1</sup>, “everybody in the world benefits from shipping, yet few people realize it. We ship food, technology, medicines and memories. As the world’s population continues to grow, particularly in developing countries, low-cost and efficient maritime transport has an essential role to play in growth and sustainable development.” The shipping sector, and in particular the container shipping industry, develops and sustains worldwide trade. Thanks to a specialised labour force that works tirelessly day and night both at land and at sea, the whole sector helps to alleviate poverty by decreasing the price of commodities while enhancing economic and social growth as well as standards of living in both developed and developing countries. In the last decades, the transportation of goods in containers has changed our lives dramatically. Flexible and quick to move, the container opened new avenues and continues to help meet the world’s growing demand for goods and food. Almost everything we buy, eat, use and consume every day is transported by sea, so all countries and populations in the world rely on maritime trade.

<sup>1</sup> UN Secretary-General Ban Ki moon’s message on World Maritime Day, 29 September 2016

Yet, we should not forget that it is only at the end of the 1960 that the shipment of “cold” food was made possible thanks to self-refrigerated containers (“reefers”). This made possible more trade opportunities, flexibility and profitability for many, compared to the limitation of the refrigerated ships which were mainly used to transport meat, dairy products and fruits. Today, new technologies such as the Controlled Atmosphere system and Cold Treatment allow the reefer container to meet the highest safety and quality standards when transporting all types of “cold” commodities all over the world. The shelf life of exotic and fresh products is increased, which enables shipping companies to enter new markets and reach consumers in every country. This is instrumental in facilitating the transport of every type of food everywhere, including remote areas, and in unlocking opportunities for small players, such as farmers and growers. In this respect, MSC has contributed tremendously to the development of the world’s maritime network and to inclusive growth around the globe, for example by increasing its investments in self-refrigerated containers along with cold storage warehouses, related

logistics equipment and services, through its subsidiary MEDLOG. MSC also operates one of the youngest, largest and most environmentally friendly reefer fleets in the world and complies with all relevant international rules related to freight containers, road and rail transportation.

### Creating new opportunities for small farmers

Through our wide-scale operations, our worldwide local agencies network provides our customers and business partners with specialised reefer services tailored to their needs, whenever and wherever required. Backed by deep knowledge of post-harvest treatments, we have been targeting, in coordination with farmers and growers, the expansion of their business through new opportunities. The reefer container can quickly adapt to different capacity demands without requiring high levels of minimum inducement to start and stay in business. This factor enabled its usage by small players, while in the past this

specific trade was accessible mainly by big players with high volumes to trade. Additionally, the reefers support economies of scale, as fresh commodities can reach different trade areas, securing food supply availability regardless of the season. This means that, in the event of low local market demand, it helps to prevent food waste and the destruction of excess production as commodities can be traded in other regions of the world.

As an illustration, in Spain, our investments and strategic collaborations with small farmers helped to boost export rates of dairy products, fruit and vegetables to alternative markets. Additionally, through our “Reefer Mediterranean Project”, as well as in Asia and the Middle East, we offer local actors broader trade options through our global network, providing them with better return on revenue. At the same time, we offer accessible, sustainable forms of protection, such as ad hoc insurance policies, to minimise risks and to encourage small farmers to invest in more ambitious and inclusive business models.



MSC Reefer Services in Ecuador

**Fostering responsible consumption and food safety**

Sustainable development also relies upon sustainable consumption. According to the United Nations Food and Agriculture Organization (FAO) “hunger is still one of the most urgent development challenges<sup>1</sup>”, yet “roughly one third of the food produced in the world for human consumption – approximately 1.3 billion tons – is lost or wasted before reaching consumers<sup>2</sup>”. Food waste and poor food conservation practices are strictly interrelated to poverty, as they have an impact on food prices in local markets and on the incomes of small farmers, while also creating barriers for people to access quality food. Additionally, they might contribute to the increase of malnutrition cases around the world, as they bring further challenges to the poorest households and vulnerable groups in affording adequate food and in implementing healthy habits and nutrition practices.

At MSC we believe that cold chains and cooling technology can make a dramatic difference in enhancing the supply of quality food and reducing post-harvest food loss, including losses related to water, energy, land and labour. By increasing the supply and affordability of quality food, reliable cold chains can play a key role in reducing poverty, fostering responsible consumption and promoting the right to health as set out by the SDGs. In this respect, we continue investing extensively in the latest available technologies, systems and processes for sustainable cold chains, in line with international standards and regulations as well as our care for the environment. This also ensures that our customers are offered the best transportation and cold storage conditions for their perishable cargoes, and provides the highest level of food safety and quality to final consumers.

**Caring for the environment with sustainable cold chain technology**

Regulations limiting ozone-depleting substances (ODS), notably the Montreal Protocol of 1987, led to the widespread use of fluorinated gases (F-gases) in many industrial sectors. These man-made gases have a high Global Warming Potential (GWP), ranging from about 12 to 14,800 times greater than carbon dioxide (CO<sub>2</sub>). As

<sup>1</sup> Source: <http://www.fao.org>

<sup>2</sup> Source: <http://www.fao.org/save-food/resources/keyfindings/en/>

emissions of F-gases are rising fast, the European Union passed an updated F-Gas Regulation in 2014 limiting their sale and banning their use in refrigeration systems if more environmentally friendly alternatives are available. The ban will apply to commercial refrigeration systems, such as reefer containers, from 2020. At an international level, the Kigali Amendment to the Montreal Protocol will enter into force on 1 January 2019 with the aim of reducing worldwide production and consumption of hydrofluorocarbons (HFCs), the main type of F-gas used in refrigeration technology. Partly caused by the stricter regulations, significant increases in the prices of refrigerants are raising additional challenges. Nevertheless, we have started to make necessary investments in order to comply with the new regulations. Additionally, we have purchased thousands of new Carrier Transicold NaturaLINE® reefer containers with natural-refrigerant R-744 (CO<sub>2</sub>) which is now the best available technology compared to other refrigerants.

**COOLING TECHNOLOGIES AND PROTOCOLS**

By controlling oxygen and carbon dioxide levels and removing the ripening hormone ethylene, our Controlled Atmosphere systems prevent premature ripening and reduce deterioration and spoilage. In addition, they maintain the appearance, freshness and quality of perishable foods over longer distances.

In-transit Cold Treatment protocols are a chemical-free way to eliminate fruit flies and other insects that might damage the biodiversity and agricultural industries of importing countries. Our cooling and monitoring systems allow us to reliably keep the pulp of the fruit at the required temperature for the exposure period specified in the protocols, which vary depending on the fruit and importing country.

**CARRIER TRANSICOLD NATURALINE® REEFER CONTAINER**

The GWP=1, R-744 (CO<sub>2</sub>) refrigerant will enable us to avoid using intermediate refrigerant solutions that will need to be phased out in any case within the 15-year lifespan of the units.

The NaturaLINE® reefer’s outstanding energy efficiency can reduce shipboard demand for electricity, thus conserving fuel and reducing emissions related to power generation. Moreover, the zero-GWP

polyurethane foam blowing agent technology used in the NaturaLINE® unit offers high insulation properties without contributing to GWP. When the NaturaLINE® unit reaches the end of its useful service life, it is nearly entirely recyclable. Its 95% recyclability rate has been attested by the Underwriters Laboratories (UL), the largest and best-known independent, not-for-profit testing laboratory in the world.

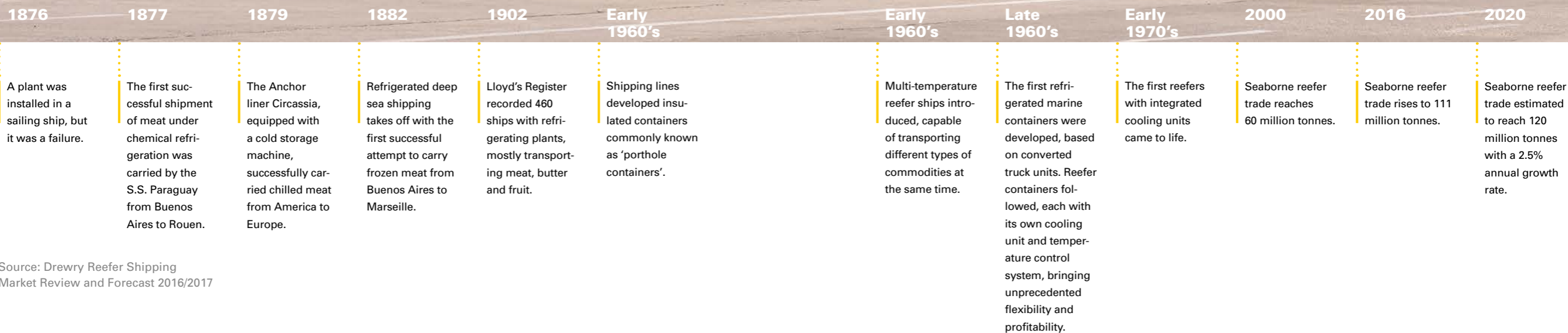






MSC reefer containers at the terminal of Valencia, Spain

## REEFER CARGO OVER TIME



Source: Drewry Reefer Shipping Market Review and Forecast 2016/2017

MSC Laurence (built 2011),  
12,400 TEU. Terminal of  
Seattle, Washington (USA)



CREATING SUSTAINABLE VALUE

# MSC'S COMMITMENT TO THE ENVIRONMENT

**PROTECTING OUR PLANET:  
A GLOBAL CHALLENGE**

The adverse impacts of climate change have become more evident in recent decades and are increasingly affecting our planet and all human beings globally. According to the Office of the High Commissioner for Human Rights (OHCHR), climate change disproportionately affects vulnerable people and communities already in disadvantaged situations due to various factors. Tackling climate change challenges is therefore at the top of the international community's agenda.

With the signing in 2015 of the Paris Agreement, countries have agreed that temperature rises should be limited to no more than 2C above pre-industrial levels and that this will urgently require a global response from all stakeholders. Although the shipping sector is recognised as the world's most cost-effective and energy efficient mass transportation method, accountable for only around 2.5% of global carbon emissions, it is subject to a challenging new set of technical and operational measures to further reduce emissions, as per international regulatory requirements.

The shipping sector has been affected by weaker global demand since 2009. In spite of this, the international community predicts greater seaborne trade due to the estimated growth of national GDPs as well as the growth of economic and population trends towards 2050. As a consequence, shipping emissions are expected to increase between 50% and 250% by 2050 if no measures are taken to mitigate climate change. At the same time, maritime transport's outlook continues to be shaped and affected by uncertainty, increasingly challenging market conditions, fluctuant oil prices and global socio-economic factors and trade policies. The whole sector is therefore under pressure to address ongoing and future challenges, including increasing financial challenges, and to secure sustainable solutions while remaining competitive in the global market. MSC is investing heavily in a number of technical solutions to meet or exceed the new regulations, finding innovative solutions and continuously improving its environmental performance.

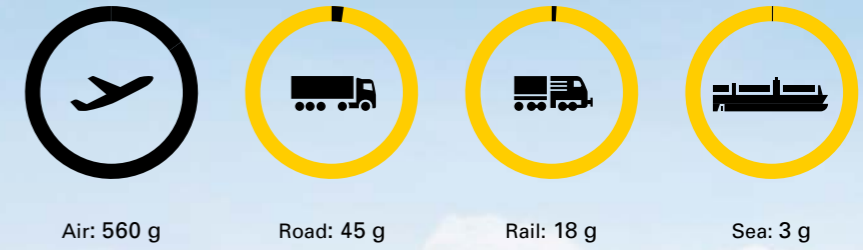
MSC vessel at the Terminal of Valencia, Spain



**HOW SHIPPING COMPARES WITH OTHER TRANSPORT METHODS**

Source: 3<sup>rd</sup> IMO GHG Study 2014

CO<sub>2</sub> emissions by mode of transportation, CO<sub>2</sub> g/km



## OUR STRATEGY FOR CLIMATE CHANGE & ENVIRONMENTAL SUSTAINABILITY

MSC's environmental strategy and approach to sustainability demonstrate a clear commitment to running a responsible business while respecting the environment and embracing precautionary efforts to mitigate broad global climate change impacts.

To achieve its vision, MSC promotes a strategic focus on cleaner seas, land and cargo through massive investments in innovative low-carbon technology, energy efficiency and operational efficiency. Additionally, MSC's modern, green fleet was greatly enhanced in recent years by a retrofitting programme. We have invested extensively in the latest generation of marine technologies, such as new energy-efficient propellers and bows to reduce

fuel consumption and therefore improve our energy efficiency.

We continuously monitor our environmental performance and have implemented a number of operational measures to further reduce our CO<sub>2</sub> emissions to meet expected new regulations, including those to be adopted by the International Maritime Organization (IMO). Our overall strategy involves an investment of approximately USD 1.5 billion. This enormous financial commitment was made possible by MSC's growing and stable economic performance as well as by the continuous support of key financial institutions.

REGULATION	AIM & ENTRY INTO FORCE	MSC'S RESPONSE
IMO 2020 enhanced global sulphur limit (MARPOL Annex VI, regulation 14)	Enhances existing limits for sulphur content in marine fuel to reduce emissions of sulphur oxides and other pollutants. Entry into force: 1 Jan 2020.	Installation of Exhaust Gas Cleaning Systems (EGCS); evolving fuel strategy including use of Low Sulphur Fuel Oil (LSFO); advocating for shore power supply.
IMO Ballast Water Management Convention	Sets standards for proper management of ballast water and sediments to prevent the spread of harmful marine species. Entry into force: 8 Sep 2017.	Installation of advanced ballast water treatment systems across entire fleet. Newbuilds designed to need minimal ballast water.
IMO Energy Efficiency Design Index (EEDI) (MARPOL Annex VI, regulation 4)	Specifies a minimum efficiency level per capacity mile according to ship type and size, for ships 400 GT or over. Entry into force: 1 Jan 2013.	All newbuildings meet or exceed EEDI standards; continuous investment in latest technologies to raise energy efficiency performance.
IMO Data Collection System (DCS)	Requires collection of fuel consumption data for ships 5,000 GT or over as part of the mandatory Ship Energy Efficiency Management Plan. Entry into force: 1 Mar 2018 for data collection from 1 Jan 2019.	Advanced data acquisition and analytical software developed in-house and installed across fleet.
EU Monitoring, Reporting & Verification (MRV)	Requires collection of CO <sub>2</sub> emissions data for ships over 5,000 GT calling at EU/EFTA ports. Entry into force: 1 Jul 2015 for data collection from 1 Jan 2018.	Advanced data acquisition and analytical software developed in-house and installed across fleet.



### SUPPORTING LOW-CARBON SHIPPING AT AN INTERNATIONAL LEVEL

Improving the maritime industry's long-term sustainability performance requires international cooperation. In line with the SDGs promoting action on climate change and global partnerships, we participate actively in international policy discussions and continuously strengthen our collaboration with other stakeholders through important initiatives such as the Clean Cargo Working Group (CCWG). Furthermore, MSC is one of the founding members of the Global Industry Alliance (GIA) to support low-carbon shipping within the framework of the GEF-UNDP-IMO GloMEEP Project. Launched in June 2017, this new partnership of maritime industry leaders focuses on overcoming barriers to innovative technologies and taking operational measures that will accelerate shipping's transition to a low-carbon future. In addition to promoting R&D, showcasing technological advances, encouraging industry dialogue and implementing capacity-building and information-sharing activities, members contribute to a GIA Fund. This fund helps to finance selected projects within the GIA's five areas of priority: energy efficiency technologies and operational best practices; alternative fuels; ports; digitalisation and the human element.



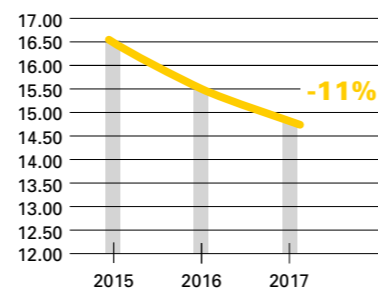
## CONTINUOUS IMPROVEMENT OF OUR ENVIRONMENTAL PERFORMANCE

We are fully committed to further reducing energy consumption and CO<sub>2</sub> emissions across all our operations. Emissions vary from vessel to vessel and voyage to voyage, for reasons including operational factors, vessel load and waiting times in ports. To monitor the performance of individual ships and our fleet over time, among other measures, we use the Energy Efficiency Operational Indicator (EEOI) tool, as set out in the IMO Guideline MEPC.1/circ.684.

Our EEOI analyses show that we have significantly reduced our carbon dioxide emissions per metric tonne of cargo moved on a per mile basis. Between 2016 and 2017, we reduced our EEOI from 15.55 to 14.80, and between 2015 and 2017 from 16.58 to 14.80 indicating an efficiency improvement of 11%.

We are evaluating and considering implementing a dynamic tool, developed by sustainability solutions provider South Pole, to calculate our EEOI more frequently and specifically. This will help us in our efforts to be transparent with our customers and stakeholders, as we will be able to better quantify the benefits of new technical and operational measures related to CO<sub>2</sub> emission per cargo transported.

### MSC FLEET CARBON EMISSIONS



#### EEOI definition

In its most simple form, the Energy Efficiency Operational Indicator is defined as the ratio of mass of CO<sub>2</sub> (M) emitted per unit of transport work:  
 Indicator =  $MCO_2 / (\text{transport work})$   
 EEOI =  $\text{gr CO}_2 / (\text{Tons cargo} / \text{Miles})$

Source: IMO

### Cross-cutting efforts to improve efficiency

To maximise the efficiency of our fleet and further reduce our ships' energy consumption we use innovative technologies and implement a number of operational measures. These include our continuous efforts towards cargo and fleet optimisation. Additionally, we have a dedicated Energy Efficiency (EE) team based at our Geneva HQ, which, in cooperation with MSC Shipmanagement technical offices, continuously monitors both the emission and fuel performance of the whole fleet, while identifying potential operational improvements during navigations. Our HQ Operations Department regularly liaises with Masters to plan the ocean routing of ships in order to ensure the most fuel-efficient route considering the weather, vessels' load and stability conditions. It also monitors the vessels' speed in adverse weather to avoid higher consumption, while maintaining the vessels' scheduled arrival time at port.

### Enhanced data analysis & reporting

Through a series of complex geometrical models and statistical analysis, together with state-of-the-art automatic data acquisition and analytical tools developed internally for this purpose, the MSC Shipmanagement technical team and the EE team regularly:

- Monitor the hull performance of each vessel against its own baseline, facilitating the decision on any planned intervention like hull cleaning, advancing dry-docking of the vessel, etc.
- Ensure that the minimum number of generators are running for the required power demand on board. Our advanced data analytics tool automatically creates an alert if the generators run below a specified load over a defined period
- Ensure the main engine always operates within the optimum range
- Monitor and ensure that a vessel always sails at optimum trim, as per our state-of-the-art CFD (Computational Fluid Dynamics) trim optimisation module
- Ensure that the reefer cargo is always optimised as per the vessel's available electrical power
- Monitor the overall energy efficiency management of the vessel

We estimate a fuel saving of 58,000 tons over the year, with a consequent emission reduction of 180,000 tons of CO<sub>2</sub> in 2017. In addition to monitoring energy efficiency, these systems help us to provide precise answers to

increasing enquiries from our stakeholders with regards to our environmental performance, emission counts and compliance with forthcoming data reporting regulations. These include the European Union's MRV (Monitoring Reporting & Verification) and the IMO DCS (Data Collection System).

### Operational efficiency of terminals

The HQ Operations Department liaises with all terminals and ports worldwide to ensure that operations are performed in line with international standards relating to the safety of vessels, cargo and the environment. Our subsidiary, TIL, continuously invests in improving the operational efficiency of more than 50 container terminals around the world. Current efficiency strategies include measures to cut unproductive procedures, such as reshuffling containers during delivery, in order to reduce emissions as well as waiting times for our customers.

### ISO CERTIFICATIONS

MSC's excellent performance within the internationally recognised ISO framework is of great significance.

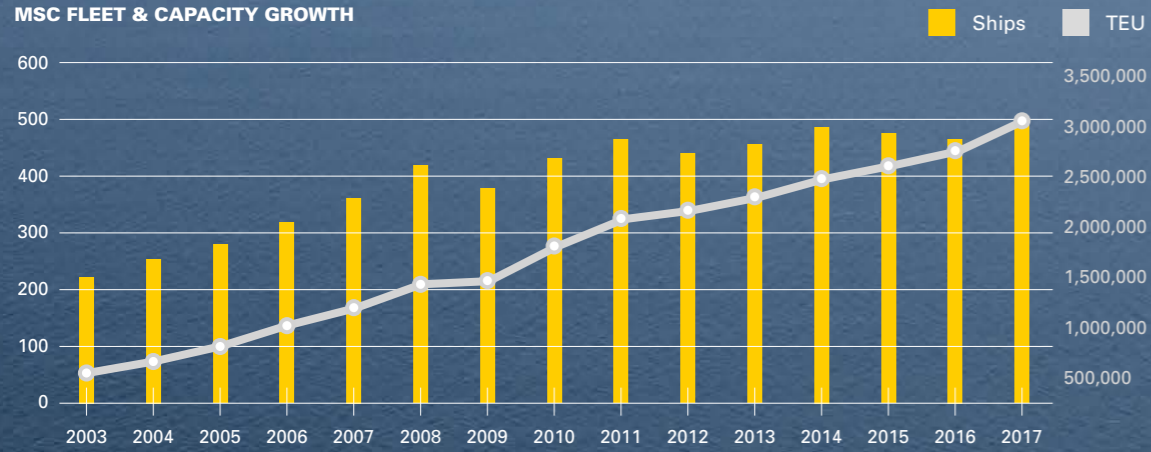
Successful audits and awarded certifications include the following:

- Cargo Container Ocean Transport
- ISO 9001: 2015 Quality Management System including Risk Management
- ISO 14001 Environmental Management
- ISO 50001: 2011 Energy Management Systems

### DNV GL EXCELLENCE 5 STARS CERTIFICATION (2017)

MSC complies with the highest standards for the operation of container carriers, car carriers and bulk carriers in the categories of fleet, management systems, safety & security, environment & efficiency.

**MSC FLEET & CAPACITY GROWTH**



**FLEET & CAPACITY GROWTH**

As our fleet grows and technology develops, we continuously engage with shipbuilders, design firms, classification societies and other stakeholders to ensure that our strategic investments are both environmentally and economically viable.

Through investments in capacity management and economies of scale, we have managed to increase our average capacity per ship from 2,500 TEU in 2003 to 6,500 TEU in 2017, significantly higher than the average of the top 10 cargo carriers.

**Pioneering new ships**

Confirmed in Q3 2017, our order of 11 x 23,000 TEU container ships underlines our leading role in driving global standards of ship design and energy efficiency. With delivery scheduled for 2019 and 2020, these mega-ships will be propelled by ultra-efficient G-type engines and will include the latest energy-saving technologies in line with the IMO's Energy Efficiency Design Index (EEDI) standards. In addition, the ground-breaking size of the new ships will significantly reduce emissions per amount of cargo carried.

**Fleet renewal programme**

Over the last six years, we have been upgrading our fleet of owned and operated ships to the latest standards of safety and fuel efficiency. Since its launch in 2011, our retrofitting programme has considerably reduced carbon dioxide emissions. In 2017, we retrofitted more than 250 ships with energy-saving technologies, including a specially designed bulbous bow, lighter and more efficient propellers, and new rudders designed to reduce drag. Hulls are treated with a silicon-based anti-fouling coating to minimise friction, the need for underwater cleaning and the risk of spread of invasive species. At the same time, our ship management centres are retrofitting our ships' main propulsion engines to make them more efficient.

The impacts of this extensive effort are reflected within the carbon reduction results detailed in the section "Continuous improvement of our environmental performance" on page 38 of this report.



**1970**

**Patricia**  
78m  
(Containers not used yet)

**1984**

**Alexandra**  
650 TEU | 150m  
First full container vessel

**1996**

**MSC Alexa**  
3,300 TEU | 244m  
First newbuilding ordered by MSC to Fincantieri  
**MSC Rafaela**

**2001**

**MSC Flaminia**  
6,800 TEU | 300m  
First post-Panamax built in Korea

**2005**

**MSC Pamela**  
9,400 TEU | 336m

**2008**

**MSC Daniela**  
14,000 TEU | 366m

**2015-2017**

**MSC Oscar**  
19,224 TEU | 395m  
20 Oscar Class vessels in service

**2019-2021**



In October 2017, MSC confirmed an order of 23,000 TEU vessels for delivery in the coming years.

## INVESTING IN INNOVATIVE TECHNOLOGIES

### Eco-containers

MSC cares for the environment, working closely and actively with manufacturers to build containers using sustainable materials. One recent eco-initiative constitutes our investment in bamboo flooring at an early stage. Our current new productions are close to 100% fitted with bamboo flooring, which improves environmental and economic efficiency.

Bamboo is kinder to the environment, due to its biodegradability and availability. It is in abundance compared to conventional wood. Bamboo is also a highly renewable resource, with price competitiveness, as bamboo plants grow to full maturity in 4-6 years, compared to over 20 years for hardwood. A bamboo plantation also releases 35% more oxygen than an equivalent area of normal trees, and bamboo has better durability and impact resistance. China has the largest output of Moso Bamboo (90% of the world's production): it is found in 27 provinces, cities and municipalities including Zhejiang, Jiangxi, Anhui, Hunan, Hubei, Fujian, Guangdong, Chongqing, Yunnan, Guangxi, Guizhou and Sichuan, which account for 66.7% of the bamboo-growing area in China.

This availability of bamboo in China is convenient, given our ongoing container production facilities in the country. Moreover, as of 1 July 2016, the Government of the People's Republic of China approved mandatory requirements regarding the use of Water-Based Paint (WBP) for containers to minimise Volatile Organic Compounds (VOC) emissions. MSC was a pioneer in this respect.

For instance, we were promoting the use of WBP on our containers long before the regulations came into effect, even though WBP technology was in the initial stage and the market was hesitant to use it. Yearly over 300,000 TEU of containers are now produced for MSC with WBP technology.

### PREPARING FOR THE 2020 SULPHUR CAP

MSC is strongly committed to contributing to global efforts to reduce emissions from ships, and fully supports uniform enforcement of the decision by the IMO relating to the 2020 global cap on fuel sulphur content. This will reduce the sulphur limit for marine fuel from the current 3.5% m/m to 0.5% m/m globally and to 0.1% m/m in designated Emission Control Areas (ECAs), as implemented in 2015.

We have invested heavily in exploring various strategies to comply with the 2020 Sulphur Cap. The MSC Shipmanagement technical team has been working on this since 2013 to research, analyse, review and propose various available options: Exhaust Gas Cleaning Systems (EGCS), Liquefied Natural Gas (LNG) and Ultra-Low Sulphur Fuel Oil (ULSFO). Our compliance strategy will continue to evolve in line with developments in technology and changes in the cost and availability of different fuels.



## COMPARISON OF MAIN OPTIONS FOR SHIPOWNERS

### Exhaust Gas Cleaning Systems (EGCS)

Based on current forecasts and considering the size of our fleet, there is a strong business and environmental case for retrofitting our ships with EGCS. These systems spray alkaline water into a vessel's exhaust either via an open-loop system, closed-loop system, or hybrid (open-and-closed loop) system, to eliminate nearly all SOx and 70-80% of particulate matter (PM) from High Sulphur Fuel Oil (HSFO). The systems are costly and complex to install, however, with drydock, manufacturing and installation capacity all being potential limiting factors.

### Liquefied Natural Gas (LNG)

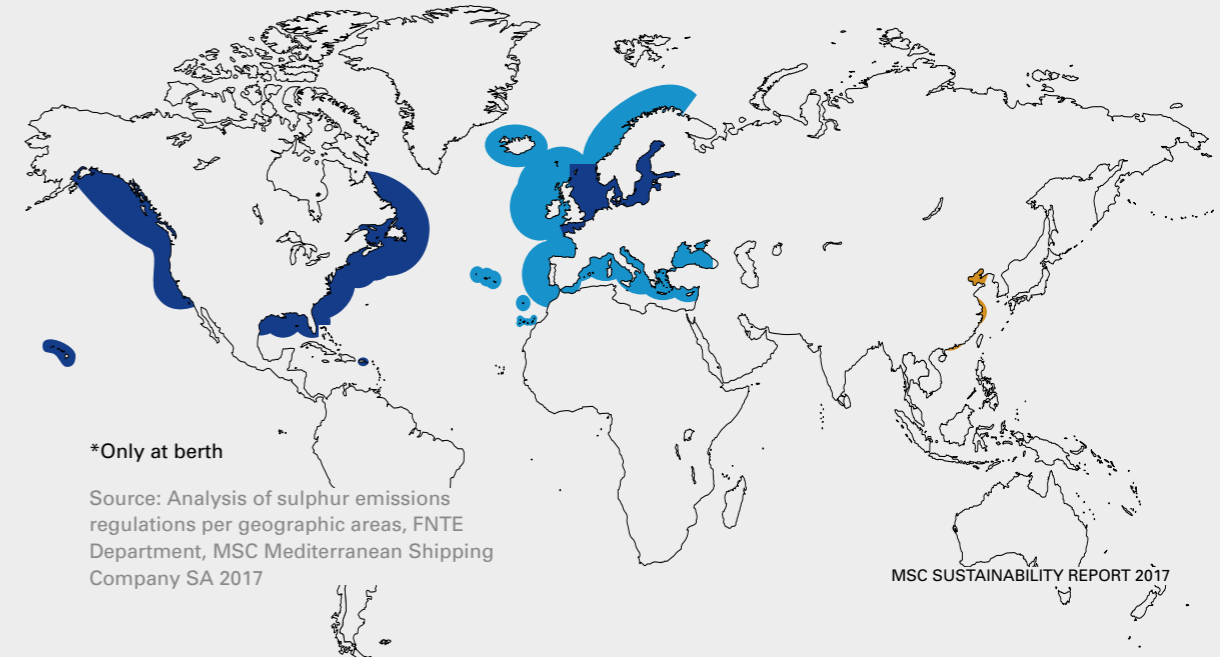
LNG produces almost zero SOx and PM emissions and reduces nitrogen oxide (NOx) emissions by up to 85-90%. However, large-scale use of LNG for cargo ships would require very substantial improvements in global bunkering infrastructure, since few major ports have developed full-scale LNG bunkering facilities.

### Low Sulphur Fuels

Low sulphur fuels, such as Marine Gas Oil (MGO) and new blends of Ultra Low Sulphur Fuel Oil (ULSFO) contain less than 0.1% sulphur and require minimal structural or operational changes. However, low-sulphur fuel costs are projected to generally remain significantly higher than for HSFO. With our large and globally active fleet, the quality, availability and reliability of new fuel blends are key issues to consider. ULSFO plays a significant role in our current fuel mix and we will continue to monitor developments.

### SULPHUR EMISSIONS REGULATIONS

Area	Sulphur limit Current situation	Sulphur limit Situation from 2020 onwards
Global	3.5 %	0.5 %
US and EU ECA	0.1 %	0.1 %
EU waters	0.1 %*	0.1 %
Hong Kong-China	0.5 %*	0.5 %





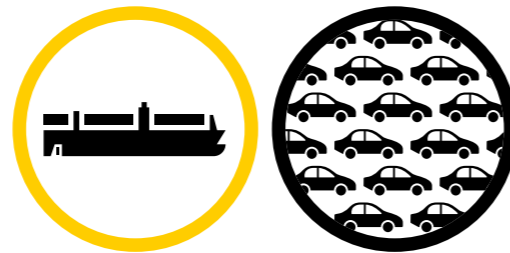
Anti-fouling coating: vessel's propeller blades coated with silicon paints

### ADVOCATING FOR SHORE POWER SUPPLY

We strongly believe that shore power supply (SPS) is one solution that terminals can adopt to improve local air quality, where the source provides a net environmental benefit. By switching from generators to the onshore electrical grid, ships can reduce their emissions in port by around 80%.

Since 2014, the California Air Resources Board (CARB) has required shipping lines to use SPS for a minimum percentage of their vessels, set at 70% for 2017. The proven benefits of SPS could be replicated in ports worldwide. However, while 143 of our vessels are able to run on shore power supply, only three terminals – all in California – are currently equipped with this technology. We are therefore actively promoting investment in SPS technology throughout our terminal network.

### MSC CO<sub>2</sub> SAVINGS IN 2017



5,336 tons/year  
14.6 tons/day

Equivalent to  
1,351 cars' CO<sub>2</sub>  
emissions/day\*

\*Source: US Department of Energy - Energy Efficiency & Renewable Energy (<https://www.afdc.energy.gov/data/>)

### BALLAST WATER TREATMENT

Ballast water helps ships maintain trim and stability, but poor ballast water management can release invasive marine species that damage local ecosystems and biodiversity. The IMO's Ballast Water Management Convention, which entered into force on 8 September 2017, requires all ships to implement a Ballast Water and Sediments Management Plan, carry a Ballast Water Record Book and perform ballast water treatment to a given standard.

We have been working with shipbuilders, classification societies and others to ensure that our new ship designs require the minimum possible amount of ballast water. During 2017, we completed our ambitious programme to instal ballast water treatment systems across our existing fleet and are now fully compliant with the requirements, well in advance of the internationally required date for almost all ships.

### COLLABORATION BETWEEN MSC GROUP'S DIVISIONS TO PROTECT THE ENVIRONMENT

The MSC Group benefits greatly in the area of Environmental Stewardship from the synergies between its two divisions. For example, development work on LNG propulsion by MSC Cruises greatly informs evaluation of this technology by the Cargo Division. Furthermore, environmental leadership in Advanced Wastewater Treatment, Solid Waste Management and EGCS systems have all been to the benefit of the entire MSC Group. Similarly, extensive work for the Cargo Division in connection with energy efficiency, marine fuels, and SPS have been extremely useful in related applications for MSC Cruises.

#### MSC Cruises' investment in LNG technology

In addition to equipping its ships with Exhaust Gas Cleaning Systems (EGCS), MSC Cruises is making significant investments in LNG technology as part of its strategy to mitigate air pollution. In particular, in 2017, MSC Cruises committed to developing and installing LNG engines on

its 'World Class' ships (two firm orders and two options). The four LNG-powered cruise ships are due to come into service between 2022 and 2027. Each of these ships represents a capital investment exceeding EUR 1 billion.

We believe that LNG is one of the key elements that will support our continuous efforts in reducing our impact on the environment. LNG is arguably the cleanest commercially available marine fuel at the moment and we believe it will be a game-changer for the cruise sector in the years to come. Along with other industry players, MSC Cruises wishes to actively contribute to this positive evolution.

LNG reduces SO<sub>x</sub> emissions by more than 99% and NO<sub>x</sub> emissions by up to 85% compared to conventional marine fuel. It also largely eliminates particulate matter from the exhaust gases and produces the same amount of energy with approximately 20% less CO<sub>2</sub> emissions during the course of the engine operation, compared to conventional cruise ships of a similar size.







CREATING SUSTAINABLE VALUE

# HEALTH AND SAFETY

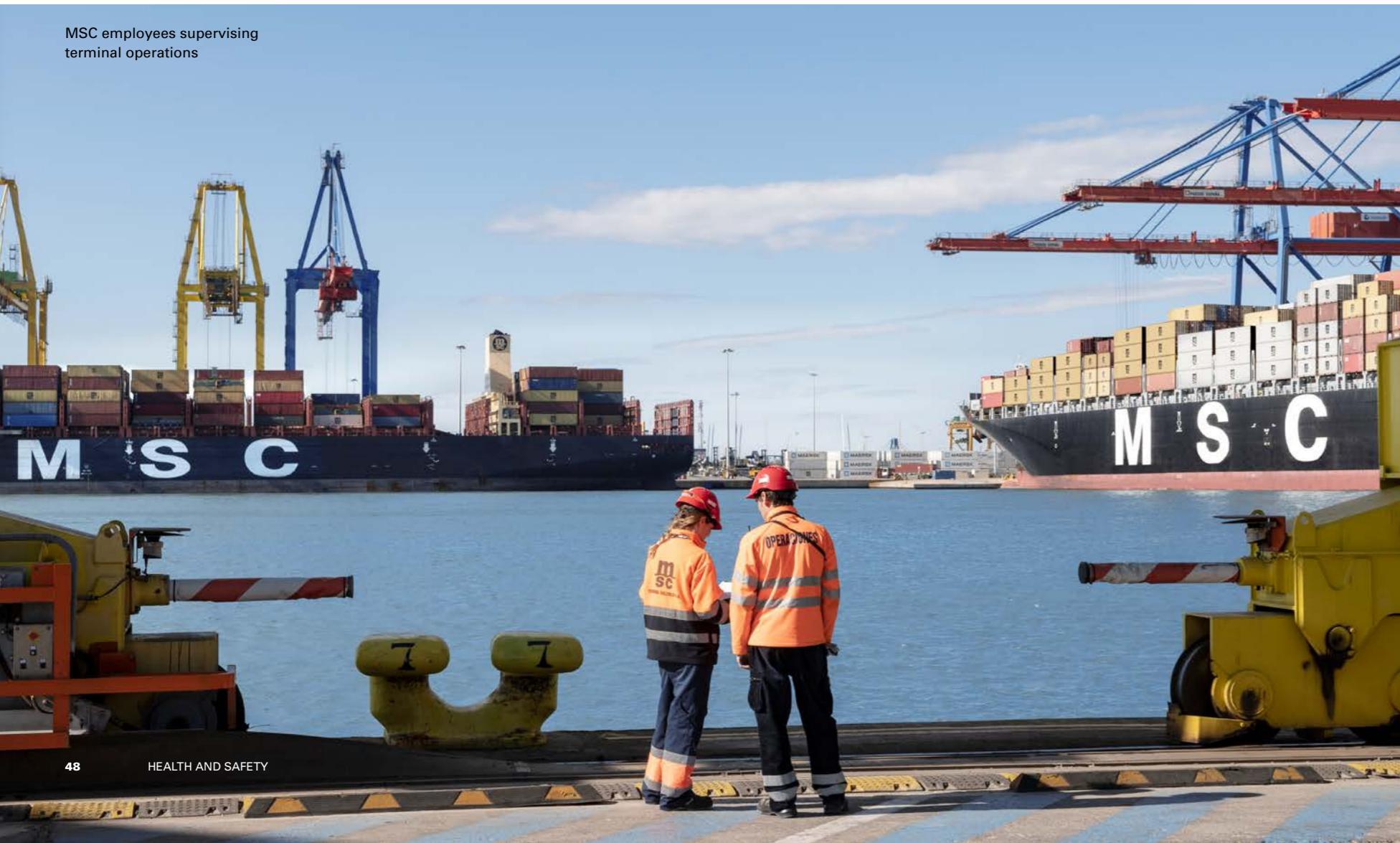
## OCCUPATIONAL HEALTH & SAFETY

MSC's commitment towards the protection of the environment and the promotion of responsible occupational health and safety practices are essential parts of its philosophy and contributing factors to its business success. MSC aims to prevent any loss of life and unnecessary risk to human health in its business operations, as well as to ensure environmental safety and proper cargo-handling and management.

To do so, MSC has its own Health, Safety, Security and Environmental (HSSE) policy, in line with applicable requirements defined for international shipping, most commonly known as the 'four pillars of the international regulatory regime for quality shipping':

- International Convention for the Safety of Life at Sea (SOLAS) – Emergencies, Fire Prevention, Life-saving Appliances, Safety of Navigation, Carriage of Cargoes, International Safety Management (ISM) and International Ship and Port Facilities Security Codes (ISPS)
- International Convention for the Prevention of Pollution from Ships (MARPOL) – Environment, Chemicals, Waste and Air
- Standards of Training, Certification and Watch-keeping (STCW) – Standards of qualification for the Master, officers and crew on seagoing merchant ships
- Maritime Labour Convention (MLC) – Working conditions on ships, including conditions of employment, health protection, medical care and social security protection

MSC employees supervising terminal operations



MSC aims to prevent any loss of life and unnecessary risk to human health in its business operations, as well as to ensure environmental safety and proper cargo-handling and management.

Additionally, our "Responsible Cargo Care Policy" focuses on safe container-handling procedures. In accordance with the 2015 guidelines for the development of the Inventory of Hazardous Materials (IHM) developed by the IMO, we ensure proper handling of hazardous materials, regulate waste management and ensure prevention of accidental exposure to our crew. In this respect, on board our vessels, we maintain an IHM and related statements of compliance issued by an independent classification society. IHMs contain details on listed dangerous material quantities and locations on board vessels, and these inventories are updated during any new installation or modification on our vessels throughout their operational life. Furthermore, during the year 2017, the MSC Shipmanagement Office based in Cyprus undertook a fleet-wide project for IHM surveys and used data from these surveys to review its procurement procedures for further mitigating the risk on board vessels in relation to a number of restricted hazardous materials.

## PROMOTING A CULTURE OF SAFETY ON BOARD

MSC Shipmanagement in Cyprus is responsible, among other duties, for the selection, recruitment, training and management of our crew, in line with MSC's vision, mission and core values. In the last ten years, MSC Shipmanagement's continuous focus on organisational development, capacity building and innovation at work has enabled it to cope with the rapid growth of MSC operated fleet and at the same time to ensure high performance at all levels of the organisation. Growing and developing crew professional competence through training in both soft and technical skills represents a key investment area for our company. To increase our rapid responsiveness to risks, these training programmes also include specific modules on emergencies and unexpected events, such as natural disasters.

Throughout 2017, over 750 people from management and operational levels attended our leadership development training programme and our junior training programme welcomes some 500 cadets and trainees every year. Due to our fleet growth, we can offer an increasing number of job opportunities. We intend to continue focusing on providing leadership development across all ranks and on empowering our people to enable them to take on increasing responsibilities. We strongly encourage and support our crew to invest in their professional development and facilitate long-term career path plans, from junior to managerial positions.

### A value-driven work culture

We believe that only a value-driven work culture can ensure the development of a truly sustainable business activity and an enduring sense of belonging to any organisation. We therefore aim to build a positive working environment both on board vessels and in shore-based offices based on open communication, accountability, continuing education, knowledge-sharing and technical training opportunities.

Our fundamental organisational principles are:

- acting fairly;
- fostering cooperation;
- building a climate of reciprocal trust and respect.

Adapting our organisational structure, investing in our people, bringing innovation and applying the MSC work culture all create added value in terms of quality of staff, process optimisation, shipping efficiency, quality standards, environmental protection and corporate reputation. The same elements have made MSC Shipmanagement one of the largest in-house ship management companies in the world, recognised as such by awards from industry associations and the Governments of Cyprus, India and Ukraine. For the same reasons, we enjoy an exceptionally high crew retention rate as well as an extraordinary reputation among qualified job candidates wishing to join us in the future.

### ISO CERTIFICATIONS AND AWARDS

- OHSAS 18001 (Occupational Health & Safety)
- ISO 26000 (Corporate Social Responsibility)
- Green Company of the Year, India
- Cyprus Shipping Industry Award
- Best Foreign Employer of the Year Award from Government of India
- Samudra Manthan award, India
- Best Cadet Training Program in Ukraine



MSC Shipmanagement  
Kolkata, India



MSC Shipmanagement  
Odessa, Ukraine

### MSC SHIPMANAGEMENT LEADERSHIP AND TEAM BUILDING

The MSC Shipmanagement leadership and team-building workshop focuses on providing a good understanding of effective leadership attributes, how to influence people, how to build a team, how to avoid mistakes and how to utilise their strengths more effectively. It also motivates participants to become more passionate about the company's vision, mission and core values. This enables participants to apply these concepts in various situations and, more specifically, to adapt in a multi-cultural and diverse environment

- To motivate and encourage juniors and ratings
- To use clear communication for critical operations
- To handle people-related issues and resolve conflicts with confidence
- To use influencing skills to get more done by the same person
- To build a better team on board
- To develop a highly engaged talent pool

## FOSTERING ENVIRONMENTAL PROTECTION AND HUMAN SAFETY AT SEA

Our care for people is demonstrated by our MSC's staff development strategy and professional training which focus, in particular, on ensuring personal, cargo and navigational safety. Additionally, the MSC Operations Department based at the Headquarters provides briefings to Masters on a regular basis to raise awareness about the latest developments in safety procedures and ensure their implementation. The Department constantly liaises with the whole fleet to report updated route plans to enable proper risk assessments related the safety of crew, vessels and the environment. This aims to effectively mitigate the risks of incidents at sea.

### Crisis management

MSC believes that early warning and rapid decision-making mechanisms are crucial for ensuring the safety of its crews and customers' freight in case of maritime emergencies. All crisis management operations imply the prompt involvement of dedicated experts under the supervision of the experienced MSC senior management. Capt. Gianluigi Aponte, the company's founder, and Mr. Diego Aponte, President & CEO, are personally involved in the monitoring and management of every significant emergency operation. Following their instructions, HQ Operations Department remains in constant contact with the crew members to rapidly resolve the emergency situation, including potential medical emergencies occurring either on board or at sea amid difficult conditions.

MSC Group's safety culture does not include cost-saving considerations when human lives are at stake.

As an illustration, in the autumn of 2017, our central management offices launched four emergency operations entailing the diversion of MSC ships with crew members in need of medical aid from their intended routes to Salalah (Oman), Maputo (Mozambique), Athens (Greece) and Los Angeles (USA). The purpose was to let local authorities provide the seafarers with medical assistance and hospitalisation in the fast possible way. In October 2017, a special operation was also put in place to arrange the helicopter evacuation of an injured crew member from an MSC vessel off the Dutch coast to an hospital in Amsterdam.

It is our moral duty to help people and fellow seafarers in trouble during maritime operations. For this reason, MSC crews are all well trained and keen to guarantee the safety not only of MSC ships but also of any vessel, personnel and person in distress at sea.

As an example, in 2017, our staff carried out a number of rescue operations exclusively aimed at saving human lives at sea. The most dramatic one involved the rescue of a stranded Japanese surfer from choppy waters off Kembla (Australia) to give him medical first aid and take him back to shore. An MSC ship assisted the crew of another company's vessel off the West African coast that reported fire in the engine room. The MSC vessel provided communication facilities and food to the crew of the other vessel until emergency towing arrangements for the other vessel were delivered a day later.



Employees in the MSC Headquarters' crisis room

## INTERNAL PROCESSES SUPPORTING SAFETY ON BOARD

Seafarer engagement survey	Feedback from crew on disembarkation	Crewing seminars interaction	Inspections & audits	Self-appraisal
Third-party independent company	Feedback on specific areas	Multi-city seminars	Maritime Labour Convention Inspector	MARPOL rating
Biennial	Crew notified of actions taken to encourage them to continue reporting	Leadership & team-building workshops	Superintendent & audits	Safety procedures
		Honest and open feedback	Masters feedback	Company procedures
			Training needs	Training needs

## MSC'S TECHNICAL SKILLS TRAINING MODEL

MSC continuously invests in enhancing its employees' technical skills. As an illustration, in the past ten years, MSC Shipmanagement in Cyprus has devoted 1 million hours to training and capacity-building efforts.

The MSC training model is designed to coach both on-board and shore-based staff using the most advanced technological methods. For instance, we are among the few multinational companies whose training centres are equipped with the latest generation of full mission bridge and engine simulators. In our training facilities in India, Italy, Montenegro and Ukraine, MSC trainers are

focused on improving crews' professional skills through the simulation of credible incidents and knowledge transfer on navigational safety.

In the last two years, over 2,000 navigating officers, including a number of Masters, have completed simulation courses and acquired the relevant skills to operate MSC large container vessels.

Furthermore, in accordance with IMO recommendations, we have pioneered the implementation of the Electronic Chart Display Information System (ECDIS) and trained some 7,000 navigating officers to effectively operate it.



MSC Training Centre in Sorrento, Italy



MSC vessel simulator in Ukraine

## MSC'S TECHNICAL SKILLS TRAINING MODEL

Personal safety	Cargo safety	Navigational safety
Focus on behavioural safety	Cargo care	Navigational briefings
Mindset		
Task to responsibility	Weather	
Value-added training		Pilots training
Positive atmosphere	Maintenance	

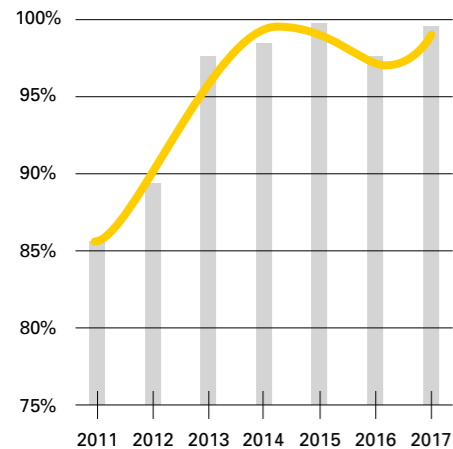
## WORKING CONDITIONS AND CREW RETENTION RATES

MSC has at present a 98% crew retention rate, as per the industry standard Intertanko formula\*.

We believe that such a high rate is a clear recognition of our efforts to provide our crew with a safe working environment and the highest standards in working conditions. In this respect, we are extremely proud to report that in the 2017 survey almost two thirds of MSC crew members (66%) stated their wish to work for MSC until the end of their career, 1% higher than in 2015. Around 77% expressed a wish to sail for us for more than 4 years. Finally, only 1% of respondents stated they plan to stay with MSC for less than one year.

\*Note: Introduced in 2008 by Intertanko, an association of independent tanker owners promoting safe transport, cleaner seas and fair competition, the Intertanko formula is considered a standard within the merchant shipping industry. (www.intertanko.com)

**CREW RETENTION RATE TREND**  
(Based on Industry standard Intertanko formula)



### Internet on board

The earlier crew engagement survey undertaken in 2015 resulted in some areas of improvement regarding on-board internet facilities. MSC Shipmanagement technical offices took practical actions in this regard, ensuring that our vessels are equipped with the latest satellite communication systems and are kept upgraded continuously, thus improving performance and offering to the crew a variety of services, much like they would experience ashore.

The key benefits for crew we have observed so far include keeping up-to-date with daily news and global events, feeling closer to their families and making use of online services such as internet banking, research and education. The 2017 Nautilus International study on crew at sea observed a correlation between on-board connectivity and staff retention rates. The same study states that this could be directly related to crew members' ability to maintain connections with family and friends back home. Social interaction could also significantly mitigate the sense of loneliness while away and have a positive impact on the mental health of crew members.

### Cyber security

Efficient on-board connectivity systems improve not only the crew's well-being but also navigational safety by enabling vessels to be in constant and reliable communication with on-shore offices. This helps significantly to mitigate either maritime or operational risks and results in better performance. A connected ship can transfer real-time data to the shore via telemetry information, remote access to systems and equipment for diagnostics, troubleshooting, updates and maintenance. In this respect, on-board connectivity contributes to better provision of real-time information on potential critical situations such as piracy attacks, chart corrections, voyage planning/routing, weather and medical assistance. It also allows onshore management offices to look after the navigational safety of vessels by sharing operational documents and data at a faster pace, keeping up-to-date records on their activity and running remote investigations.

Nevertheless, the increasing use of web-based navigation systems with interfaces to land-based networks is making systems ever more vulnerable to cyber attacks. On-board connectivity systems, including computers, for internal management and "uncontrolled" mobile devices, can be easily infected with malware and allow cyber-attackers to gain access to ships' security systems. Every operation requires a different, complex solution, which in turn requires investment to protect on-board connectivity systems against potential attacks.

For all these reasons, at MSC we take cyber security on board our connected vessels very seriously. To mitigate the risk of cyber attacks, we are investing in the latest hardware and software as well as in training to provide procedural updates and guidelines for users. Some cyber-security measures we have taken so far include the implementation of a UTMS or Unified Threat Management Service, the installation of smart devices blocking unauthorised access and misuse, and the constant monitoring of potentially suspicious activities.



MSC officers



CREATING SUSTAINABLE VALUE

# BUSINESS ETHICS AND PROTECTION OF HUMAN RIGHTS



Employees at MSC Headquarters, Geneva, Switzerland

## IMPLEMENTATION OF MSC CODE OF BUSINESS CONDUCT

MSC has its own Code of Business Conduct which is in line with internationally recognised standards as well as the Ten UN Global Compact Principles on Human Rights, Labour, Environment and Anti-Corruption.

During 2017, MSC continued to develop a culture of integrity within the organisation, setting forth and monitoring compliance with common standards of ethical behaviour as well as all applicable laws, regulations, policies and procedures. Training courses on the MSC Code of Business Conduct, for instance, are provided to all employees around the globe. Their content is regularly updated and an e-learning training tool will be launched in 2018. Furthermore, MSC monitors the implementation of the Code of Business Conduct within its agencies worldwide in collaboration with local “Code Implementers”. As part of its compliance programme, MSC has in place a reporting mechanism which also serves to promote a

dialogue with internal stakeholders. All reports made by employees are evaluated with care and, based on these, internal investigations may be initiated, as appropriate. During 2017, MSC made further efforts to strengthen transparency and build trust within the organisation, for example, by encouraging employees to report misconducts. At present, the HQ Compliance and the Corporate Audit Departments are in charge of establishing and implementing a centralised reporting tool.

During 2017, MSC also reinforced the cooperation between the Compliance Department and the Corporate Audit Department to ensure all ethical standards and relevant policies are correctly implemented throughout the organisation. In particular, the Corporate Audit Department performs on-site visits of MSC’s agencies and reports on its findings to various internal stakeholders.

## PROMOTING FAIR BUSINESS PRACTICES

MSC strongly supports the Tenth Principle of the UN Global Compact in the area of anti-corruption. MSC is committed to a zero-tolerance approach to bribery and corruption. It has policies and procedures that outline responsibilities for all employees around the globe to comply with all applicable anti-corruption laws.

Actions taken in 2017 include global communication and follow-up of the implementation as per local laws of the MSC Anti-Bribery Policy within MSC agencies worldwide. In order to embed ethics and further foster an anti-corruption culture in the most effective way around the globe, the MSC Anti-Bribery Policy is available in 11 different languages. MSC also launched a mandatory e-learning training module for all employees to enhance anti-corruption awareness and improve its anti-corruption programme.

In 2017, MSC issued the MSC Conflict of Interest Policy which provides guidelines on how to define, identify, report and manage actual and potential situations of conflict of interest. An e-learning training module was also created to improve knowledge and awareness on conflicts of interest.

In addition, MSC adopted a Gifts and Corporate Hospitality Procedure applicable to employees working in MSC’s headquarters in Switzerland. The Procedure is designed to provide employees with guidance on what can be accepted as a gift. It also provides a set of self-decision-making principles and guidelines to enable employees to tackle corruption.

MSC strives to impose on identified business partners contractual obligations of compliance with applicable anti-corruption laws. MSC also encourages such business partners to comply with similar standards to those set out in the MSC Code of Business Conduct.

MSC is committed to a zero-tolerance approach to bribery and corruption.

### Multi-stakeholder approach to advance SDGs

To further promote SDGs 16 and 17, MSC seeks collaborations with cross-industrial networks when collective actions are required to advance key social responsibility practices in line with its standards. In October 2017, MSC joined the Maritime Anti-Corruption Network (MACN), a global business network composed of maritime industry leaders working together towards the vision of a maritime industry free of corruption. The MACN allows MSC to collaborate with other shipping lines to share best practices and develop strategies to tackle corruption in the maritime sector and, more specifically, within the container shipping industry. The MACN Container Working Group represents around 65% of the container carrier market.

MSC also took the initiative to join TRACE International, a globally recognised, nonprofit anti-bribery association, to expand its knowledge and expertise in this field.





MSC employee in Singapore's office

### Women's empowerment

According to the International Transport Workers Federation (ITF), "women make up only an estimated 2% of the world's maritime workforce". Despite continuous efforts from the shipping industry and international organisations, such as the IMO, to reduce gender gaps, improve working conditions at sea and promote safety awareness, being a seafarer is still considered a challenging career for a woman.

In line with SDGs 1, 5 and 10, MSC strongly promotes access to employment opportunities for female candidates, both shipboard and ashore and encourages women's integration into maritime activities.

However, we are fully aware that increasing the female quota in our recruitment procedures and creating KPIs based merely on quantitative indicators on gender diversity do not necessarily contribute to effectively reducing gender disparities and advancing women's empowerment. We therefore strive to mainstream gender inclusive practices into our business models by providing maritime training and related vocational training to our female employees, at all levels. We also support women's participation in decision-making processes by offering equal career paths in accordance with the principles of equal opportunity, fair treatment and non-discrimination, in line with our Code of Business Conduct.

To improve current practices on women's empowerment we encourage continuous dialogue with our employees, and in particular with our female employees, to better understand their concerns and improve their working conditions. In this respect, in 2017 we carried out a human rights assessment in collaboration with the Global Human Resources Department and local Human Resources Officers based in MSC agencies. Based on the assessment's preliminary findings we will remain strongly focused on: a) respecting cultural diversity as part of our inclusive approach to promoting communities' involvement; b) providing training opportunities in soft and technical skills, especially for female employees; and c) ensuring health-related support in order to help employees increase their productivity, thus reducing absenteeism rates as well as promoting women's empowerment.

MSC is committed to reducing barriers to women's entrepreneurship by also providing supportive workplace



MEDLOG employees, in Abidjan's office

### BASCAP-business action to stop counterfeiting and piracy

MSC is part of BASCAP (Business Action to Stop Counterfeiting and Piracy). BASCAP was created under the umbrella of the International Chamber of Commerce (ICC) to raise awareness of the economic and social harm generated by counterfeiting and piracy activities and their potential risks to the health and safety of consumers.

Members of BASCAP advocate for the adoption, enforcement and protection of brand holders' intellectual property (IP) rights before local, national and international authorities. BASCAP has also been dealing with cross-cutting issues, including the links between the production and selling of counterfeit goods and other criminal activities such as drug smuggling, terrorism, child labour and prostitution.

Since 2016, MSC has engaged in constructive discussions on carriers' activities and related challenges. We also actively participate in the establishment of the best practices that are set to become the future standard for the industry, and suggest innovative approaches due to our comprehensive understanding of the international shipping supply chain.

We therefore strive to mainstream gender inclusive practices into our business models by providing maritime training and related vocational training to our female employees, at all levels.

environments, appropriate facilities, strong management support and relevant policies in order for women to feel adequately supported and encouraged, especially when returning to work after maternity. In this respect, as an illustration, our local office in the Dominican Republic opened a dedicated breastfeeding room, in line with World Health Organization (WHO) recommendations, creating a work environment that supports new mothers and enhances their quality of life.

In Gabon, we focus on promoting healthy nutrition practices and improving stress management. Further to our employees' request, we decided to offer the possibility to participate in sports activities with a professional trainer free of charge after working hours. We also support local awareness-raising campaigns on women's health, such as the annual marathon supporting women's cancer research.



TSP has also implemented a ticket restaurant system paying 50% of the cost of every meal bought and eaten in the company's canteen, thus encouraging employees to eat at the workplace. This has significantly reduced cases of digestion-related diseases due to poor hygiene practices, as well as poor food availability and food conservation.

Furthermore, a comprehensive 5-year action plan will be launched in 2018, with the aim of improving the health and well-being of women and men at work.

The plan includes programmes on matters related to health and hygiene at work. For example, it will provide free medical assistance to employees in the case of diseases such as malaria and typhoid fever, as well as vaccination campaigns against avoidable diseases. Furthermore, to raise awareness on breast and uterine cancer, the Terminal will bear the costs of mammograms and pap tests for all women employees and the

wives of men employees. TSP is also working towards implementing a programme to support employees with disabled family members and/or those affected by chronic illness.

TSP also plans to create a nursery and offer specific training sessions on health matters such as food conservation. Awards will be granted to encourage healthy practices in the workplace.

Additional initiatives to promote access to quality education and women's empowerment are planned for the coming years. For instance, the Terminal will implement a university scholarship programme for the children of low-income employees every year, based on pre-defined criteria. Applications from young women will be strongly encouraged.

Moreover, the Terminal will continue to offer a literacy programme for its employees and an English language course for those who use English in their daily work.

## PROTECTION OF HUMAN RIGHTS BEYOND COMPLIANCE

MSC is committed to helping address poverty and inequalities. For instance, we strive to ensure that our employees are offered long-term career prospects in safe and healthy working conditions.

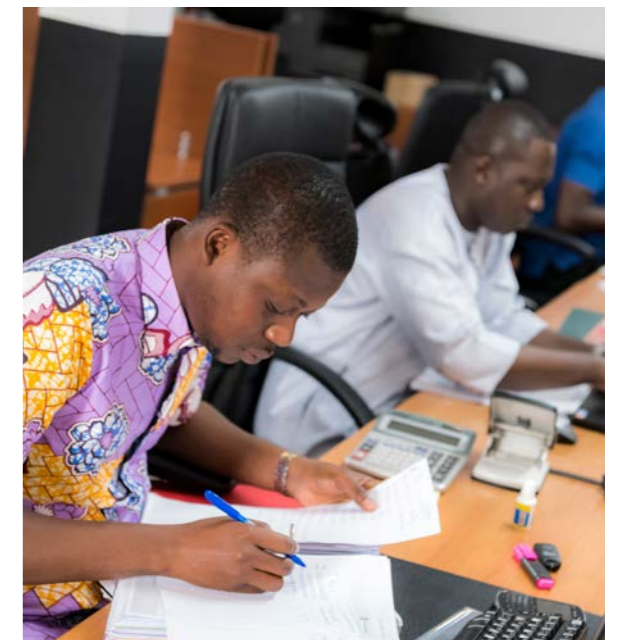
We are aware that social challenges, including the lack of quality and affordable health facilities, can have an impact not only on turnover, absenteeism rates and employees' productivity but also on employers' efforts to recruit and retain local employees, especially in developing countries.

Our business models therefore take into consideration human development indicators based on official country profiles developed by international organisations and human rights assessments undertaken at country levels by our local agencies.

### Social actions by the Terminal of San Pedro (TSP)

In 2017, MSC and San Pedro Port signed a 35-year concession agreement for the expansion of the San Pedro Container Terminal in Côte d'Ivoire. The concession agreement was signed just weeks after MSC celebrated its 15th anniversary of operations and investments in Côte d'Ivoire. Our renewed engagement will help to generate inclusive and social growth through job creation and vocational training. Since 2015, TSP has multiplied its efforts to improve employees' access to social benefits and health facilities. The Terminal now grants all its employees invalidity/death insurance, which will provide up to 36 months of salary to the family in case of death. Furthermore, TSP covers 80% of the costs of the health insurance for all its employees and members of their families.

We strive to ensure that our employees are offered long-term career prospects in safe and healthy working conditions.



## ASSISTING VULNERABLE GROUPS AND COMMUNITIES IN NEED

In addition to promoting healthy and safe working conditions for our employees, we provide support for the most vulnerable people affected by war, famine or epidemics, through our core business expertise and broader charity

efforts. In this respect, we are actively engaged in humanitarian emergency preparedness, response and recovery actions in collaboration with public authorities and the international humanitarian community.



© Mercy Ships

The immediate impact on the health of local populations is clear, with nearly 10,800 patients treated on board the ship and in land-based dental and eye clinics renovated by Mercy Ships volunteers. This included almost 2,800 surgical procedures, ranging from orthopaedic surgery to women's health. The facilities were then passed on to local authorities, helping to improve regional healthcare infrastructure. Included in the 44 containers of medical equipment shipped by MSC were ultrasound machines and biomedical equipment for donation to four hospitals in Cameroon.

Both Mercy Ships and MSC recognise the importance of continuity to ensure better long-term health outcomes for local populations. Capacity-building measures include providing courses, mentoring and observation opportunities to nearly 1,900 local healthcare professionals. These programmes, which cover essential medical skills such as primary trauma care, pain management and neonatal resuscitation, include training 115 local healthcare professionals to train others. Our commitment to Mercy Ships and to the communities it serves remains strong and we are aiming to enhance our partnership in the coming years.

### Our partnership with Mercy Ships

Our support for Mercy Ships, a non-profit organisation that uses floating hospital ships to deliver free, state-of-the-art medical care and training to African communities desperately in need of it, goes back to 2011. By providing free transportation of medical equipment, MSC helps Mercy Ships to reallocate a significant portion of its logistics budget to the life-saving medical procedures and training programmes it provides.

In 2017, Mercy Ships served in both the Port of Cotonou, Republic of Benin and the Port of Douala, Republic of Cameroon.



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### MSC AND MERCY SHIPS 2017 IMPACT REPORT BENIN & CAMEROON

<b>1,200</b> Volunteer crew's lifeline	<b>3</b> Community development projects completed	<b>10,772</b> Village patients treated with medical and dental procedures
<b>44</b> Containers shipped to Benin and Cameroon	<b>1,871</b> Healthcare professionals trained	
<b>2,792</b> Surgical procedures performed	<b>115</b> Healthcare professionals trained to train others	



© Mercy Ships



MSC for UNICEF field trip in Malawi, Mr. Vago, MSC Cruises Executive Chairman

### Humanitarian aid in the Caribbean region

In September 2017, a series of extremely powerful hurricanes caused widespread and catastrophic damage in the north-eastern Caribbean and Florida. MSC Group companies contributed significantly to a worldwide effort to support the affected communities and islands in the Caribbean that were most impacted.

Through its vast network, MSC engaged in a comprehensive effort to provide meaningful assistance to the Caribbean islands in need, including Puerto Rico, St. Maarten, Tortola and Dominica. MSC procured and shipped multiple containers of vital goods, such as water, food, building materials, personal supplies, lighting, mattresses, empty containers for shelter and medical supplies. Goods were delivered through cargo containers provided by MSC Cargo Division and through ferries provided by GNV, part of MSC's Passenger Division.

With all the schools in the British Virgin Islands destroyed in the hurricane, MSC also purchased and shipped from the US a large semi-permanent structure to be used as a school in the region. Along with other players in the cruise industry, MSC worked to support local governments in their efforts to improve the living conditions of the affected communities and rebuild basic infrastructures that were impacted by the hurricane.

### Tackling child malnutrition in Malawi

MSC Cruises and UNICEF have worked in partnership since 2009. In 2013, together they established a global project that aims to assist children affected by crisis and malnutrition in developing countries, including in Ethiopia, South Sudan, Somalia and Malawi. The initiative encourages MSC Cruises' guests across the fleet to make a donation to UNICEF. Since 2013, thanks to the generous donations of guests, more than EUR 7.7 million has been raised. This has enabled us to provide 2,262,900 sachets of Ready to Use Therapeutic Food and 30,660 sachets of therapeutic milk for the treatment of malnourished children.

In 2017, MSC Cruises and its passengers raised EUR 1,428,165 for UNICEF. This helped to treat 13,799 children with Severe Acute Malnutrition in Malawi. As part of the "MSC for Malawi" cooperation with UNICEF, six MSC Cargo Division containers carrying 22,941 items of essential goods were dispatched from Italy to Malawi. This was a contribution to the ongoing relief efforts supported by the international communities, international development actors and United Nations Specialized Agencies, including UNICEF.

The items were distributed at the Chikwawa District Hospital and to schools and care groups in Gonda Village. The hospital received mattresses and children's play

equipment, which are used in the feeding programmes. Bicycles are supporting health workers in the follow-up and management of malnutrition cases. Schools received soccer balls, writing pads and colouring books. Finally, community volunteers worked to promote good nutrition practices and identify and support children affected by malnutrition. They also received pots for the preparation of therapeutic milk and other foods, as well as farm utensils for vegetable gardens to supplement the food reserves and increase food diversity in the community. MSC Cruises is also actively engaged in raising awareness of UNICEF's global mission among children and families on board through jointly organised advocacy campaigns and related educational programmes. In 2017, more than 200,000 children aged 5 to 17 were involved in these initiatives.



### Sierra Leone mudslide

MSC staff in Sierra Leone contributed to the relief effort following the tragic flooding and mudslides in August 2017, working in collaboration with local stakeholders. The United Nations International Organization for Migration (IOM) estimated that 500 people died due to the events of 14 August, with several thousand others affected in some way. Other reports put the death toll as high as 1,000. Efforts by governments and humanitarian organisations, as well as businesses, helped to accelerate the recovery.

Amid heavy rains in the weeks that followed the disasters, MSC worked with local communities in the hillside town of Regent and parts of the capital Freetown. Donations of cooking oil, food such as rice, and clothing helped ease the suffering.



### Empowering people and communities in Haiti

In December 2017, the MSC Group launched a new partnership with the Andrea Bocelli Foundation (ABF) to support some of the most disadvantaged communities in Haiti. MSC Group will support ABF's Health and Educational Projects in Haiti, collecting funds on board MSC Seaside.

The MSC Group has worked closely with the ABF to identify, design and implement a long-term partnership that aims to improve communities' living conditions and deliver education programmes to over 2,550 children living in some of the most disadvantaged areas of the country.

MSC is also supporting the ABF's Mobile Clinic project, which focuses on free health care assistance and prevention programmes that benefit over 8,000 people per year living in the five poorest and most remote areas of Haiti. The medical staff provide a wide range of services, including medical care, vaccination for children aged 3 to 7, nutrition surveillance and monitoring, screening tests for common illnesses and health conditions, health education and family consultations.

## ABOUT THIS REPORT

### EXTERNAL ASSURANCE

This report has not been assured externally, however, it takes into consideration relevant recommendations received by external auditors as well as the revised GRI Standards.

### CONTACT

For further information about this report and MSC's approach to sustainability, please feel free to contact us: [sustainability@msc.com](mailto:sustainability@msc.com)

MSC Mediterranean Shipping Company  
12-14, Chemin Rieu  
1208 Geneva, Switzerland  
[www.msc.com](http://www.msc.com)







The mark of responsible forestry



EU Ecolabel SE/011/05

