



THE FUTURE OF CRUISING

Sustainability Report 2022

2022 SUSTAINABILITY REPORT



“ As I look ahead, I feel excited and optimistic about the future of cruising, and the key role that MSC Cruises will play in making it as sustainable as possible. ”

PIERFRANCESCO VAGO
EXECUTIVE CHAIRMAN

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WELCOME FROM OUR EXECUTIVE CHAIRMAN



I am proud that MSC Cruises is the fastest growing major cruise brand. Since 2019, we have accounted for 50% of the industry's capacity growth and we expect to continue growing for years to come. Even as COVID-19 presented us with the biggest challenge our industry has ever faced, we continued to build new ships and plan.

2022 was not without challenges – it was not until May that our entire fleet was back in service after the pandemic – yet by the end of the year, we had launched two new ships and were carrying 80,000 guests each week.

As we look to the future, our goal is clear: for MSC Cruises to be a net zero emissions company by 2050. This is a bold ambition, but we recognise that decarbonising our industry is essential: the future of cruising depends on it.

› Decarbonising our industry is essential: the future of cruising depends on it.

Already, the carbon emissions intensity of our ship operations has decreased by 33.5% since 2008, and we will achieve a 40% reduction ahead of our 2030 target. However, as we grow our fleet, our absolute carbon emissions continue to rise. Achieving net zero emissions will require more than finding further operational efficiencies: we are embracing new technologies and making the switch to renewable fuels.

Our twentieth ship, *MSC World Europa*, welcomed its first guests in December as the most innovative and environmentally advanced cruise ship in our fleet. Powered by LNG with demonstration fuel cell technology onboard, it is the result of more than four years of



Drawing of our new mega cruise terminal in Miami, opening in late 2023

collaboration with our shipbuilders, Chantiers de l'Atlantique, and numerous providers of next-generation environmental and maritime technologies. *MSC World Europa*, and two additional LNG vessels that are planned for delivery in 2023 and 2025, are helping to advance our journey to net zero greenhouse gas emissions by 2050.

The use of renewable fuels and innovative technologies can benefit all of society – not just the cruise industry or the shipping sector – and we hope governments will play their full part in ensuring that the energy transition can happen quickly and fully. Now – more than ever – we need close cooperation between governments, fuel producers, suppliers, and others to complement our continued investments and embrace the net zero emissions future that we all desire.

Another major milestone this year was in March when we broke ground for our new \$350 million mega cruise terminal in Miami which, when it opens in late 2023, will be able to accommodate our largest and most environmentally advanced cruise ships.

Our investments in the development of new cruise terminals are creating jobs and bringing new visitors to these places.

This past year has also seen our plans for a new luxury brand, *Explora Journeys*, come to fruition and we look forward to welcoming our first guests on board *Explora I* in summer 2023. Sustainable procurement was a key consideration from the moment we conceived the brand: we have taken all the best ideas from our contemporary fleet, then sought to forge ahead.

As we grow, we are welcoming more and more talented people into MSC Cruises and helping them to build rewarding careers with us. We have made crew wellbeing a focus this past year and continue to invest in training and development for all our people.

As a business with global reach, it is appropriate that we have a truly multinational workforce. Our previous crew recruitment strategy was to source crew from just a few labour markets, but we wanted to improve resilience, so we adopted a new strategy in 2022. We now choose to recruit crew from as many countries and

regions as possible, including several regions where the cruise industry has not historically been a significant employer.

This has increased the geographical spread of our workforce, while contributing to the diversification of local economies by offering a new or additional source of employment.

I want to thank all our people, and our partners, for their resilience and fortitude as we navigated the difficult waters of these past few years. As I look ahead, I feel excited and optimistic about the future of cruising, and the key role that our Cruise Division and its brands will play in making it as sustainable as possible.

PIERFRANCESCO VAGO
EXECUTIVE CHAIRMAN, THE CRUISE DIVISION OF MSC GROUP

2022 AT A GLANCE

Our Fleet



Our Operations



Our Itineraries



Our Employees



Explora Journeys



We are preparing to launch the first of four confirmed vessels under our new luxury cruise brand, Explora Journeys. *Explora I* will enter service in summer 2023. *Explora III* and *IV* will be LNG powered.

Award-Winning

-  *MSC World Europa* received the Bureau Veritas '12 GOLDEN PEARLS', one of highest awards for cruise vessels, in recognition of the specific voluntary attention paid to Quality, Health, Safety, and Environment (QHSE) from design and building to operation.
-  *MSC Seascape* was awarded the RINA 'Sustainable Ship' class notation, recognising numerous onboard initiatives addressing environmental protection and welfare onboard.
-  *MSC Seascape* also received the RINA "Biosafe Ship" award in recognition of systems, components and operative procedures to control and prevent onboard infection outbreaks.
-  We won five Porthole Cruise and Travel 2022 Reader's Choice Awards, including 'Most Eco-Friendly Cruise Line'.

OUR SUSTAINABILITY STRATEGY 2022 HIGHLIGHTS

PEOPLE

Our Belief

Our people are our greatest asset and the key to our success

Our Approach

We provide good training and career opportunities in a safe and supportive environment

Highlights from 2022

- **12,229** new crew hired
- **3,364** promoted
- **644,730** hours of training completed – average of 26 hours per person

PLANET

Our Belief

We must protect our precious planet and strive for a net zero future

Our Approach

We are actively engaged in developing and testing next generation environmental technology

Highlights from 2022

- **Carbon intensity down 33.5%** since 2008
- **Launch** of *MSC World Europa*, world's largest LNG-powered cruise ship
- **First** solid oxide fuel cell technology system onboard a large cruise vessel
- **11 ships** now fitted with shore power capability

PLACE

Our Belief

We are a force for good in communities around the world

Our Approach

We benefit economies in the destinations we visit, and collaborate with local communities to ensure that tourism has a positive impact

Highlights from 2022

- **Broke ground for \$350 million** mega cruise terminal in Miami, opening 2023
- **57 destinations** offer 'Protectours' – shore excursions that minimise our environmental impact and support nature-positive activities
- The MSC Group and MSC Foundation provided humanitarian aid across the globe, including over **€7 million to deliver sustained** global relief and assistance to refugees from Ukraine

PROCUREMENT

Our Belief

Our purchasing choices can have a positive impact on environmental, social, and ethical issues in our supply chain

Our Approach

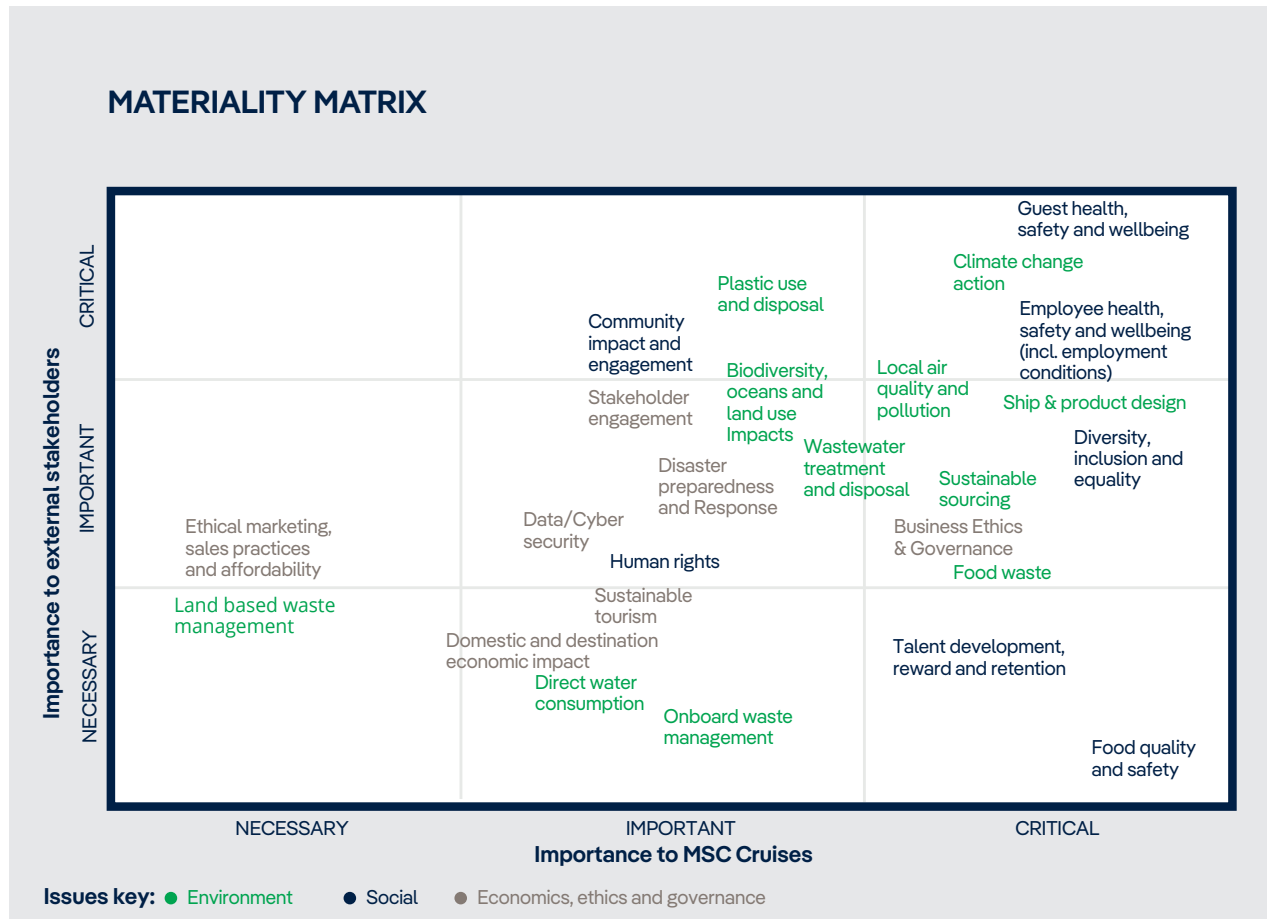
We choose to work with suppliers who share our high ethical standards and concern for the welfare of workers, the environment, and local communities

Highlights from 2022

- **New** Business Partners' Code of Conduct
- **Renewed focus** on removing or replacing non-essential single-use plastics onboard by 2024
- **Sustainable procurement** a key focus of new Explora Journeys brand
- Significant progress in improving the **sustainability credentials** of onboard retail products

OUR PRIORITIES

Our sustainability strategy was devised in response to the comprehensive materiality assessment that we carried out in 2019 and revisited in 2021. This process has ensured that our attention is focused on those issues which are of greatest importance to our external and internal stakeholders, and where our impact on the world means we have a responsibility to act.



Sustainability action plan

Six key workstreams comprise our Sustainability Action Plan. We have devised stretching goals for each of these six areas, with corresponding targets which, where appropriate, are aligned with industry-approved metrics. Each year, we publish a progress report on these metrics in our Sustainability Report, to ensure that we are held to account for delivering them. The six areas of our Sustainability Action Plan align with the aims of the UN Sustainable Development Goals (SDGs) – a common vision for the role that individuals, businesses and governments must play in transitioning to a sustainable world.

PLANET

WORKSTREAM	FOCUS AREAS	KEY GOALS	KEY ACTIONS IN 2022
Transitioning to net zero emissions	Fleet decarbonisation	<ul style="list-style-type: none"> - 40% reduction in carbon emissions intensity by 2030 (baseline: 2008) - Net zero emissions 2050 	<ul style="list-style-type: none"> - 33.5% reduction in carbon emissions intensity since 2008 - First LNG ship introduced - First solid oxide fuel cell system onboard large cruise vessel - Developing itinerary optimisation software (Project CHEK) - Start of GREEN RAY project on reducing methane slip on LNG dual fuel engines - Start of HELENUS project investigating fuel cell technologies on cruise vessels
Local air quality	Reduction in local air emissions	<ul style="list-style-type: none"> - All new ships to have shore power capability - Retrofit existing ships 	<ul style="list-style-type: none"> - <i>MSC World Europa</i> and <i>MSC Seascope</i> delivered with shore power capability - Two existing ships retrofitted - Commissioning for shore power use underway at several ports
Scrutinising resource use and waste	<ul style="list-style-type: none"> - Onboard freshwater consumption - Onboard wastewater discharge - Onboard waste management 	<ul style="list-style-type: none"> - Reduce freshwater consumption 3% per guest day - Wastewater from all new ships will meet the most stringent IMO standard of treatment - NEW GOAL: increase recycling annually by 2% per guest day - NEW GOAL: reduce waste by 5% per guest day by 2024 	<ul style="list-style-type: none"> - 9% reduction in water consumption per guest day compared to 2021 - <i>MSC World Europa</i> and <i>MSC Seascope</i> fully compliant with the most stringent wastewater treatment and discharge standards under MARPOL - ISO 21070 Marine environmental protection received fleetwide - Waste segregated for recycling up 6.5% since 2021 to 25.7%

PEOPLE

WORKSTREAM	FOCUS AREAS	KEY GOALS	KEY ACTIONS IN 2022
Supporting our people	<ul style="list-style-type: none"> - Building a healthy and diverse work culture - Attract, retain and develop talent - Build future capabilities and skills 	<ul style="list-style-type: none"> - Increase the share of women working on board by 30% by 2025 (from 18% to 24%) - Strengthen leadership succession planning with launch of 'high-potential' management system 	<ul style="list-style-type: none"> - Percentage of women onboard remained unchanged between 2021 and 2022 - New recruitment strategy expanding diversity of workforce - Average of 26 hours training per person, helping to grow skills

PLACE

WORKSTREAM	FOCUS AREAS	KEY GOALS	KEY ACTIONS IN 2022
Supporting sustainable destinations	<ul style="list-style-type: none"> - Terminals development - Destination management - Socio-economic support 	<ul style="list-style-type: none"> - All new MSC Cruises' port terminals certified to LEED silver or higher - Provide sustainable tourism training to our tour operators in 2022 - Increase sustainability credentials of shore excursions 	<ul style="list-style-type: none"> - Barcelona terminal on track to meet LEED Gold and Miami terminal on track to meet LEED Silver - Two workshops focused on sustainable operations provided to tour operators - Began using a new third-party tool to assess the biodiversity impacts of our operational activities, including shore excursions

PROCUREMENT

WORKSTREAM	FOCUS AREAS	KEY GOALS	KEY ACTIONS IN 2022
Procuring sustainably	<ul style="list-style-type: none"> - Sustainable sourcing - Responsible supply chain 	<ul style="list-style-type: none"> - Remove or replace non-essential single-use plastic items onboard by 2024 - Increase products with sustainability credentials 	<ul style="list-style-type: none"> - Post-pandemic, renewed focus on removal of single-use plastic by 2024 - Substantial increase in positive environmental credentials for onboard retail products - New Business Partners' Code of Conduct - New luxury brand, Explora Journeys, has strong focus on sustainable procurement

Stakeholder engagement

To ensure the appropriateness and continued relevance of our Sustainability Strategy and our Sustainability Action Plan, we are in ongoing dialogue with our employees, guests, and key external stakeholders. Through this listening exercise, we check that our current areas of focus are appropriate and can identify any new areas as they arise.

› We continue to engage extensively, both internally and externally.

During 2022, we continued to engage extensively, internally through the sustainability committees and other forums, and externally with our many membership organisations and other partnerships.

Our presence at numerous conferences and other events ensures we keep up to date on technologies and other sustainability solutions as well as allowing us to share our ambitions on sustainability, inspiring others in the industry to do likewise.

We have also increased our engagement with the media in all markets, with a focus on explaining our actions to reach net zero emissions by 2050.



GOVERNANCE

To reflect the increasingly central role of sustainability, not only in our own business but also in wider society, our governance structure is evolving.

Ultimate accountability for the delivery of our sustainability strategy sits with our Executive Chairman, Pierfrancesco Vago. He chairs our Sustainability Advisory Board which sets the direction of our strategy, ensures its continued relevance, agrees goals and metrics, reviews progress, and offers guidance and support to the Sustainability Team and the committees responsible for delivering specific actions to support our strategy.

We have decided to reorganise and expand the committees that report into our Sustainability Advisory Board to ensure that we have appropriate governance and oversight of all the various areas of our operations, and are able to address emerging issues in a coordinated manner while also driving progress toward our ambitious environmental and social commitments. Seven committees are now dedicated to different aspects of sustainability, comprised of senior business leaders from relevant functions. These committees meet at least quarterly to review progress against our goals, and initiate new projects, as required.

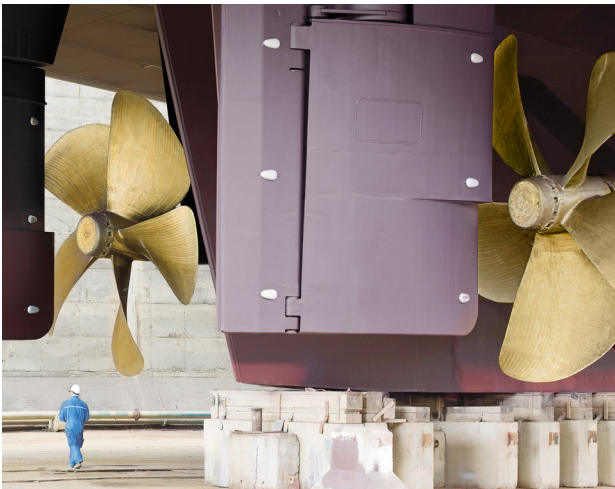
Senior level champions are assigned to lead each of these committees as the persons with oversight of the relevant area of the business. For instance, the champion for 'Procuring Sustainably' is our Chief Procurement Officer.

The responsibility for day-to-day oversight of the sustainability strategy sits with the sustainability team.

In coming years, new mandatory non-financial disclosure requirements will require us to be increasingly transparent about all areas of our performance and the new governance structure will ensure that we are ready to satisfy all new requirements and the growing expectations of our stakeholders.

“ Good governance is central to running a good business – it is the framework we use to drive progress towards our sustainability goals. We now have seven dedicated committees, each working on a different area of sustainability, mitigating risks, seizing opportunities, and leading our business forwards. ”

PIERFRANCESCO VAGO
EXECUTIVE CHAIRMAN





PEOPLE, DIVERSITY AND INCLUSION COMMITTEE

Responsible for our people processes, making sure that we take care of our colleagues, from employee wellbeing to labour rights and promoting gender equality.



SUSTAINABLE COMMUNICATIONS & MARKETING COMMITTEE

Ensures that we communicate responsibly and accurately about our achievements to guests, industry partners, and general public.



SUSTAINABLE PROCUREMENT COMMITTEE

Responsible for improving the sustainability performance of our supply chain and the products and materials we bring on board.



HEALTH, ENVIRONMENT, SAFETY AND SECURITY COMMITTEE

Responsible for the safe and secure operation of our ships and ensuring a healthy environment on board for our colleagues and guests.



SUSTAINABILITY ADVISORY BOARD

Chair: Executive Chairman, MSC Cruises



SUSTAINABLE PORT AND DESTINATION COMMITTEE

Oversees the sustainability of all shoreside activities from excursions to ground transport to new terminal developments.



SUSTAINABLE FLEET COMMITTEE

Responsible for emissions, waste, water and all other environmental aspects of our ship operations.



GOVERNANCE, RISK AND COMPLIANCE COMMITTEE

Ensures that we conduct business ethically, responsibly and in compliance with all applicable regulations and our own voluntary commitments.



SUSTAINABILITY TEAM

Responsible for the day-to-day oversight of the sustainability strategy, managing the agenda of the Sustainability Advisory Board and supporting the work of the seven committees.

RISK MANAGEMENT

Managing risk is an essential component of running any business. In 2021 we undertook an environmental, social and governance (ESG) risk assessment and this was further developed with the completion of our latest materiality assessment (see page 8). This allowed us to better understand and prioritise ESG risks and opportunities across the business.

Climate change stands out as a particular risk of importance to our business, presenting physical, reputational, and regulatory risks. The climate change related transitional risks are becoming increasingly apparent, with stricter regulatory regimes to control emissions coming into force to reflect the emergence of increasingly stringent national and regional greenhouse gas reduction targets.

Our sustainability governance structure provided the mechanisms to help in the management of these risks.

As acknowledged in the materiality assessment, beyond climate

change are a range of further social and environmental risks. We are managing these through our comprehensive Sustainability Action Plan (see page 9) by establishing actions, setting goals, and assigning responsibilities to manage risk and make positive progress.

We are aware of growing concerns around biodiversity loss and recognise our role in helping to protect the oceans that our business is so reliant upon. In 2022, MSC Cruises began using a new third-party tool to evaluate and assess our performance on biodiversity and animal welfare, with an immediate focus on our shore-based operations and excursions.

The environmental priority of the MSC Foundation is ocean conservation with a focus on coral restoration.

Reporting and disclosure

We recognise the importance of robust, comprehensive, and transparent disclosures to drive our sustainability agenda and provide the necessary assurance to our stakeholders, partners, and broader society that our business is continually progressing toward its sustainability commitments.

We closely monitor emerging regulatory requirements and evolving stakeholder expectations to ensure that we continue to disclose robust and complete information about our performance over time.

In 2022, we began implementing a new platform to streamline and automate how we manage non-financial data across the business.

This supports current non-financial reporting requirements, including the Streamlined Energy and Carbon Reporting (SECR) regulations in the UK, as well as ensuring we are ready for future non-financial reporting obligations such as the EU Corporate Sustainability Reporting Directive (CSRD).

- › We closely monitor emerging regulatory requirements and evolving stakeholder expectations



BUSINESS CONDUCT AND ETHICS

Our company-wide procedures ensure that MSC Cruises complies with all legal and regulatory statutes as well as our own internal standards, set out in our Code of Conduct.

Our approach to oversight encompasses training and communication activities designed to provide our business organisations and individual employees with the information and resources necessary to fulfil their responsibilities and understand their roles in ensuring ethical compliance and behaviour.

The framework of our Compliance Programme has three pillars:

- 1. Prevention:** policies, directives, training, the Code of Conduct, risk assessment (when required), compliance committees, internal controls, and metrics.
- 2. Early detection:** 24/7 reporting hotline; continuous compliance reviews, controls and internal audits, allegation management process.
- 3. Response:** disciplinary action on compliance breaches, process adaptation, resolution plans, remediation of internal control systems, fine-tuning of policies.



Our Code of Business Conduct

Our Code of Business Conduct helps to guide our people to make responsible decisions in line with our standards of ethics, our culture and values, and our commitment to compliance in all our business practices.

Our executive team actively promotes company-wide understanding and appreciation of the Code. Indeed, our intention is for our people not just to comply with it, but to take pride in it. It is the strong foundation on which our ethical business is built. Since 2018, we have required our people to complete electronic compliance training each year, covering not just the Code but also our Conflict of Interest and Anti-Bribery policies. For onboard crew members, we organise both in person and digital training.

Furthermore, we have broadened the scope of our governance framework by integrating ethics within its leadership development initiatives, with a focus on reinforcing awareness of our commitment to sustainable practices.

information on aspects like global sanctions, modern slavery, and anti-money laundering as part of our initial engagement and due diligence processes.

Business Partners' Code of Conduct

Our rigorous approach extends to our supply chain too. During 2022, we communicated our new Business Partners' Code of Conduct to both internal and external stakeholders. Based on our existing internal Code of Business Conduct, it requires our suppliers, partners, and others with whom we engage to provide

› Our Code of Business Conduct is the strong foundation on which our ethical business is built.



HUMAN RIGHTS AND LABOUR STANDARDS



ANTI-BRIBERY



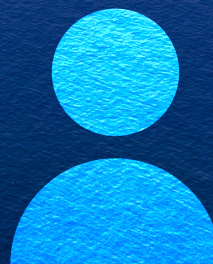
BUSINESS AND FINANCIAL RECORDS



CONFLICT OF INTEREST



RESPECT FOR THE ENVIRONMENT



CONFIDENTIALITY



ANTI-MONEY LAUNDERING



FAIR COMPETITION



SANCTIONS AND REGULATIONS



PERSONAL DATA PROTECTION

Regulatory compliance

We respect and comply with all applicable local, national, and international regulations, which are extensive for our industry. These include regulations set by the IMO, EU, Flag States, and ILO, as well as international sanctions regulations. We also comply with our fiscal obligations with respect to national tax authorities, and numerous applicable national legislations related to data privacy, anti-bribery and corruption, anti-money laundering and anti-tax evasion.

In some areas, we choose to go beyond regulatory requirements. For example, our latest ships are certified to several additional environmental and health and safety standards.

In addition, we voluntarily adopt several ISO management systems as well as numerous voluntary standards and best practices. See table to the right.



› In some areas, we choose to go beyond regulatory requirements. Our latest ships are certified to several additional environmental and health and safety standards

<p>ISO 14001 Environmental Management</p>	<p>Our fleet-wide environmental management system is certified to ISO 14001:2015, meaning we comply with all applicable laws, regulations, and other requirements, and that we are continually improving our environmental performance.</p>	<p>ISO 22000 Food Safety Management</p>	<p>We cater for millions of guests each year, many with special dietary requirements. Maintaining our ISO 22000:2018 certification across the fleet ensures we do so safely.</p>
<p>ISO 50001 Energy Management</p>	<p>Our fleet-wide energy management system is certified to ISO 50001:2018, a useful framework from which to continually improve our energy efficiency and performance.</p>	<p>ISO 21070 Marine Environmental Protection</p>	<p>Helps us to continually improve the performance of our waste management practices and ensure all waste streams are handled, collected, separated, marked, treated, and stored appropriately.</p>
<p>ISO 45001 Safety Management</p>	<p>Safety is our top priority. With ISO 45001:2018 certification, we are confident that our occupational health and safety management systems are effective in preventing work-related injury and ill health across our full fleet.</p>	<p>ISO 9001 Quality Management</p>	<p>Helps to reinforce a consistent high-quality approach to the way our business is managed.</p>

Whistleblowing

To ensure best practices as an ethical organisation, we have a whistleblowing hotline, Speak-Up, which is aligned with the EU Whistleblower Protection Directive. The platform is available for both our own people and external stakeholders.

Managed by a third-party, to ensure objectivity, all reports initiate an alert to the internal compliance department with all reports reviewed at the Operative Compliance Committee, chaired by the company Compliance Officer. Cases deemed serious are elevated to the senior level Compliance Committee, which is overseen by the Executive Chairman. When individuals fail to live up to the Company's values, the hotline enables us to act swiftly to prevent wrongdoing or to deal with it promptly. There were 22 reported cases in 2022.

Where allegations have been substantiated, we have taken appropriate action. Of the 22 cases reported, 12 were HR related, one was a case of harassment, one a conflict of interest, and eight were alleged breaches of our Code of Conduct.

Cyber security

To ensure ongoing vigilance when it comes to information protection and security, we maintain regular communication and awareness raising to protect company assets and the data of guests from information leaks and cyberattacks. Our compulsory employee training programme covers all our cyber security-related policies and ensures a minimum level of awareness to lower risk across the business.

Data privacy

We maintain compliance with the EU General Data Protection Regulation and local data privacy requirements and have set up a Data Protection Governance Framework to manage data protection and privacy risks.

A specialised team is responsible for continuously monitoring compliance and reviewing systems and processes where personal data collection is involved, with specific processes for new

information systems and projects that may involve personal data. The team takes a 'privacy by design' approach, meaning that data protection and privacy is incorporated in the initial phases of any project or process. In assessing potential partnerships with third parties in areas that may involve personal data, an assessment of data protection and data security risk is undertaken, and the results are a key consideration of partner selection.

In 2022, we rolled out a mandatory online course for all employees who handle any personal data. Subsequent modules and refresher courses are planned for 2023.

› We take a 'privacy by design' approach – data protection and privacy is incorporated in the initial phases of any project or process





Child labour

MSC Cruises does not participate in and does not accept child labour, and we support all international conventions pertaining to the non-use of child labour. This position is made clear in our own Code of Business Conduct and in the Business Partners' Code of Conduct but managed locally and by suppliers themselves.

We strongly urge the reporting of any incident of child labour. Employees or representatives are encouraged to report complaints to their immediate supervisor, their department head, any senior manager of their business organisation, their local human resources representative, their local procurement representative, or over the MSC Cruises 24/7 Compliance Whistleblowing Hotline.

Any reported allegations of child labour will be promptly investigated. If the use of child labour is found in our supply chain, we will take all appropriate measures to develop a responsible solution, which may include working in partnership with our supplier and/or terminating our contract.

Forced or compulsory labour & human rights assessment

We prohibit human trafficking and slavery in both our global organisation and our supply chain. Every year, we produce a Modern Slavery statement which is endorsed by our Executive Director and published as per the requirements of the UK Modern Slavery Act.

We are committed to providing a safe working environment that is free from and provides protection against human trafficking and slavery, including forced labour and unlawful child labour. Employees, contractors, subcontractors, vendors, suppliers, partners, and others through whom the Company conducts its business must not engage, be involved in, or participate in any practice that constitutes human trafficking or slavery.

As with the process defined above for child labour, we strongly urge the reporting of any incident of human trafficking. Any reported allegations of human trafficking will be promptly investigated and appropriate disciplinary action will be taken for any violation of the Code of Business Conduct, which may include the discharge of employees, subcontractors, and agents.

› We are committed to providing a safe working environment that is free from and provides protection against human trafficking and slavery



COLLABORATIONS AND PARTNERSHIP

Many of the challenges we face are shared by the whole cruising industry. We recognise the value of working collaboratively to tackle challenges and develop technological solution for complex problems – chief among them the decarbonisation of marine fuels.

COLLABORATING FOR ACTION



MEMBERSHIP ORGANIZATIONS



TRADE ASSOCIATIONS



SUPPORTING SUSTAINABLE TOURISM



PEOPLE



Our number one priority is keeping our passengers and crew safe and well. We are proud of the excellent healthcare we offer on our ships and, even though COVID-19 is no longer the threat it was, we continue to maintain exemplary hygiene practices. We also have a comprehensive safety management system in place and aim to identify risks so we can act before incidents occur.

Our crew play a very important role in making our guest experience a success, and we know how important it is to support their well-being. We provide all the training our people need to do a good job, and support those with high potential who want to grow their careers with us.



Public health

The COVID-19 pandemic increased awareness about ways to prevent and control infectious diseases on our ships. Although the threat has largely passed and we are able to lift restrictions, we have chosen to make permanent adjustments to housekeeping and general hygiene as set out in our Health & Safety Protocol. Another permanent change is to our medical facilities: the requirement for testing and treatment onboard during the pandemic means we now have much more comprehensive onboard facilities.

Lifting COVID-19 restrictions

When the COVID-19 pandemic struck in early 2020, we swiftly developed and implemented a comprehensive Health & Safety Protocol. As we began to restart our operations, and due to the progressive lifting of the COVID-19 restrictions, the Protocol was subject to continual review and modification to align with the controls in place in areas we operated in and visited.

In October 2022, we took the decision to incorporate the remaining requirements of the Health & Safety Protocol into our Standard Operating Procedures. These form the basis of all fleet management and remain subject to continual review.

With COVID-19 presenting far less risk, local requirements allowed us to adjust our approach to testing and vaccinations. In some cases, these programmes were suspended altogether.

We were also able to reduce the number of dedicated isolation rooms across the fleet. Whilst the specially established Blue Ribbon COVID Expert Group no longer meets regularly, our internal Public Health and Medical Public Affairs team continue to consult with individual members of the group for specific advice when adjusting procedures to meet local requirements.

In 2022, 10,040 crew and 3,936 guests tested positive for COVID-19 whilst onboard our vessels with all cases managed in strict



compliance with protocol, and all guests and crew receiving all the support they needed.

› With COVID-19 presenting far less risk, we have adjusted our approach to testing and vaccinations – in some cases, suspending them altogether

Public health and communicable disease control

Most ships in our fleet have a dedicated Public Health Officer (PHO), with others receiving support from travelling PHOs. Their role is to ensure compliance with all MSC public health procedures

and the health authority requirements in the jurisdictions in which their ship operates. Day to day tasks including regular ship inspections, including visual inspections of all areas that have public health requirements (e.g., food preparation & service, potable water, recreational water), public health meetings with ship management, as well as the random sampling of drinking water, which can be taken from anywhere onboard.

The PHOs are also responsible for extensive ongoing classroom and on-the-job training of crew to ensure that public health protocols are being followed throughout their vessel. In 2022, crew members received online and in person basic public health training and many crew and managers received additional job-specific training.

 CASE STUDY

FLEET PUBLIC HEALTH INSPECTIONS

At any time, our ships may be subject to external public health inspection. Due to limited operations in North America in 2022, just one ship was inspected under the US Vessel Sanitation Program, whilst six ships were inspected under the EU ShipSan protocol. One ship was audited in Brazil against the AVISA requirements. All ships passed the inspections.

DATE	PORT	VESSEL	INSPECTION PROTOCOL	RESULT
July 2022	Limassol	MSC Lirica	EU ShipSan	A
September 2022	Tallin	MSC Poesia	EU ShipSan	A
September 2022	Piraeus	MSC Armonia	EU ShipSan	A
October 2022	Palermo	MSC Opera	EU ShipSan	A
November 2022	Rotterdam	MSC Preziosa	EU ShipSan	A
November 2022	Koper	MSC Sinfonia	EU ShipSan	A
November 2022	Miami	MSC Seashore	US Vessel Sanitation	95
November 2022	Santos	MSC Fantasia	ANVISA	Pass

Any nonconformities identified during external inspections are assessed according to the corrective action requirements contained within our related public health procedures. This requires root cause analysis and identifying immediate corrective actions as well as future preventive actions.



Onboard medical facilities

Each of our cruise ships is host to a state-of-the-art medical centre able to assist both crew and guests, in line with CLIA policies. We employ on-board and shore-side doctors and nurses from many different nationalities, all of whom are certified professionals, available around the clock to treat many ailments directly on board. We are aligned with the American College of Emergency Physicians (ACEP) Health Care Guidelines for Cruise Ship Medical Facilities throughout our fleet.

Our onboard teams can manage a spectrum of medical situations ranging from routine general practice cases and medical emergencies to those requiring intensive care. Our medical resources include the ability to perform X-rays, cardiac monitoring, pulmonary ventilation, and medical laboratory devices to assist with the prompt diagnosis and treatment of patients.



› Doctors and nurses, all of whom are certified professionals, are available around the clock to treat many ailments directly on board

In 2022, as we emerged from the COVID-19 pandemic and resumed service of our entire fleet, we reaffirmed our commitment to provide high quality care for our guests and crew. We created a Medical Operations Division to focus on supporting our ships' leadership and medical teams as 'normal operations' resumed, and the medical operations team assumed responsibility for all aspects of medical service delivery onboard our vessels.

To ensure that our onboard medical teams have the support they always need, we implemented a 24/7 dedicated phone line connecting them with our Medical Operations duty doctor. This doctor works closely with the Maritime Support Centre to assist our vessels whenever needed which may include coordination of medical evacuations and responses to major medical incidents.

 CASE STUDY
CUSTOMER FEEDBACK

“ I would be amazed if any organisation anywhere in the world could have presented a customer care programme to match, or even come close to, what my wife and myself have experienced in our dealings with MSC. [When she fell seriously ill in Sardinia] your phone calls, texts and emails were a constant reassurance. I was always apprised of who was there to help me on a 24/7 basis. I want to complement you on how proficient you were in all your dealings with us. The MSC customer care business have every reason to feel very pleased and proud that their mission is being delivered in an exemplary fashion.

For the remainder of our lives we will, on every occasion possible, tell people of what we experienced from yourselves when we truly needed it. ”

“ I'd like to show my gratitude to the medical team and I can't hide my surprise that you took this much care. Your quick and professional help saved my life, I don't doubt that one bit. In one moment I really thought that it would be my last. You turned the entire ship around to save one life. Also big thank you for taking care of my wife in this situation. If we get the chance, we would be happy to come back onboard one of the MSC ships. ”

Onboard safety & security

The safety and security of our guests and crew is paramount. We have comprehensive systems and checks in place to identify and mitigate hazards and reduce the risk of security breaches

Safety governance

Keeping our crew and guests safe is our top priority and our approach is to identify safety risks so we can act before incidents occur. We have a comprehensive safety management system, compliant with the International Safety Management (ISM) Code and the ISO 45001 Occupational Health and Safety Standard, which ensures that we meet the safety regulations required under the International Maritime Organisation and the Maritime Labour Convention.

› We view safety as everyone's responsibility and all team members are expected to proactively investigate any hazardous situation, and to report near misses, incidents, and accidents.



Our rigorous approach to safety is enforced throughout the fleet and managed by both the onshore and onboard safety teams. Onboard, ultimate accountability sits with the ship's Captain, the Master, who is supported by a Safety Officer who is responsible for the safety of the ship.

We expect the heads of each department to model good safety practices and to actively encourage their management team and employees to follow their example.

Although they are responsible for all health and safety issues in their department, and for making sure necessary corrective actions are taken, we view safety as everyone's responsibility and all team members are expected to proactively investigate any hazardous situation in their working areas, and to report near misses, incidents, and accidents. We have a safety committee on each ship which

includes representatives from our deck, engine, and hotel teams.

In 2022, we launched a new digital platform on four of our vessels to allow crew to report work-related hazards and hazardous situations. We are now rolling this out across all ships to replace the existing paper-based system.

Each month, our senior management team – which includes representation from our Board – meets for a Health, Environment, Safety and Security meeting in which all incidents, including near misses, are reviewed.

Our Safety Management System is audited annually by an external auditor, onboard and ashore, to ensure that it is compliant with the International Safety Management (ISM) Code and the Maritime Labour Convention requirements.



Safety training and behaviours

Before any member of our crew is allowed to begin work on a ship, they must complete mandatory safety training. Some of the training is general to all roles, and other modules are role specific.

Anyone with responsibility for conducting formal risk assessments is appropriately certified and receives ongoing training.

Every task onboard our ships has work permit requirements – in other words safety measures that must be in place before a task is begun. Crew are expected to stop work if these requirements are not met and report it.

During 2022, we introduced new health and safety training activities and aimed to reduce workplace incidents by focusing on developing a health and safety culture. We also updated two of our reference guides to ensure they were relevant to our new LNG ships: Personal Safety Guide (about personal protective equipment), and Enclosed Space Procedures.

Ninety percent of the 144 safety courses completed in 2022 were carried out onboard ship by travelling instructors.



 CASE STUDY

CREW CARE TEAM

When our crew are dealing with medical issues, we recognise that they may need additional support from MSC. In the past, our Care Team was comprised of volunteers who offered support as a side role to their full-time job.

Applying lessons learned during the COVID-19 pandemic, we chose to formalise the team and have replaced volunteers with ten full time members of staff. Between them, this new team speaks eight different languages allowing them to communicate clearly in times of need.

The team is fully dedicated and available 24/7 to provide a range of shoreside professional support (both emotional and logistical) to crew members involved in medical or personal emergencies events. In the six months ending February 2023, the team helped 106 crew and a follow up survey indicated that 97% were satisfied with the support they received.

Incidents and injuries in 2022

In 2022, there were 4,402 medical issues as a direct result of incidents and injuries on board our vessels, with 49 requiring disembarkation for treatment ashore. Sadly, there was also one incident/injury that resulted in the death of a crew member. This incident is still under investigation by external authorities.

Crew



Passengers



Onboard security

We have a comprehensive system of security on all our ships which helps to protect our guests and crew. This includes our Access Control Protocol which requires proof of identity to access our vessels, plus security screening using x-ray, metal detectors, and explosives trace detection technology.

Any items of luggage coming aboard our ships goes through strict checkpoints, and cabins are protected by auditable locks and individually equipped with safe boxes. Public areas are monitored by an advanced CCTV system certified to a recognised technology qualification. Our ship security guards receive enhanced training, in addition to the regulatory standard, to improve their performance in monitoring the security of the ship and ensure they would know how to react to an emergency at any time of day or night.

Mitigating against cybercrime is another important part of our onboard security efforts; it is vital to have the right cyber security in place to ensure we are protected against any breach, attack, or incident that may occur. We provide all crew with specific training and familiarisation via a dedicated online platform. During 2022, we carried out a risk assessment of our networks and connected equipment and reviewed our emergency procedures for each ship.

- › State-of-the-art information platforms and established intelligence processes provide reliably sourced and accurate intelligence products

Food safety

We prioritise food safety as a key strategic objective, ensuring that every aspect of our food and beverage procurement and service onboard meets sustainable and professional standards.

Our commitment to continuous improvement is reflected in our adherence to the highest and most effective standards. In 2022, we extended ISO 22000 certification for two new ships and updated our food safety guidelines to align with new requirements. This revised standard is fully integrated into our overall business processes.

- › All MSC Cruises ships are certified to the ISO 22000 Food Safety Management Systems standard

To maintain our ISO 22000 certification on board every MSC vessel, we conducted over 1,000 internal audits and did external audits with certification bodies for every ship, examining over 135,000 documented pieces of information, including procedures, logbooks, photos, and videos of our food and beverage processes onboard.

In 2022, we conducted 3,300 microbiological analyses of our ready-to-eat food prepared on board and provided over 10,000 hours of food safety training for our crew.

All MSC Cruises sites (including offices in London and Genoa and the warehouse in Genoa) and our entire fleet are certified by Bureau Veritas as compliant with ISO 22000 until January 2025 (this is when the certificate expires, although we must still pass the audit every year).



Our people in numbers

In 2022, we employed over 28,000 people, around 43% of whom were new recruits to MSC Cruises.

Crew

25,091

45%
New Recruits



Shoreside

2,937

29%
New Recruits



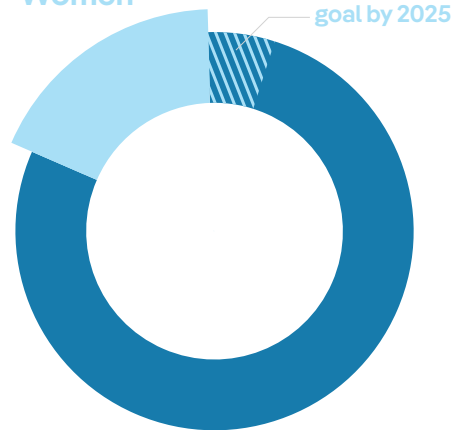
Gender

At present, 18% of our onboard team are women and we aim to grow that by 30%, to 24% of onboard workforce by 2025.

Shoreside, over half of our workforce are women.

Crew

18%
Women



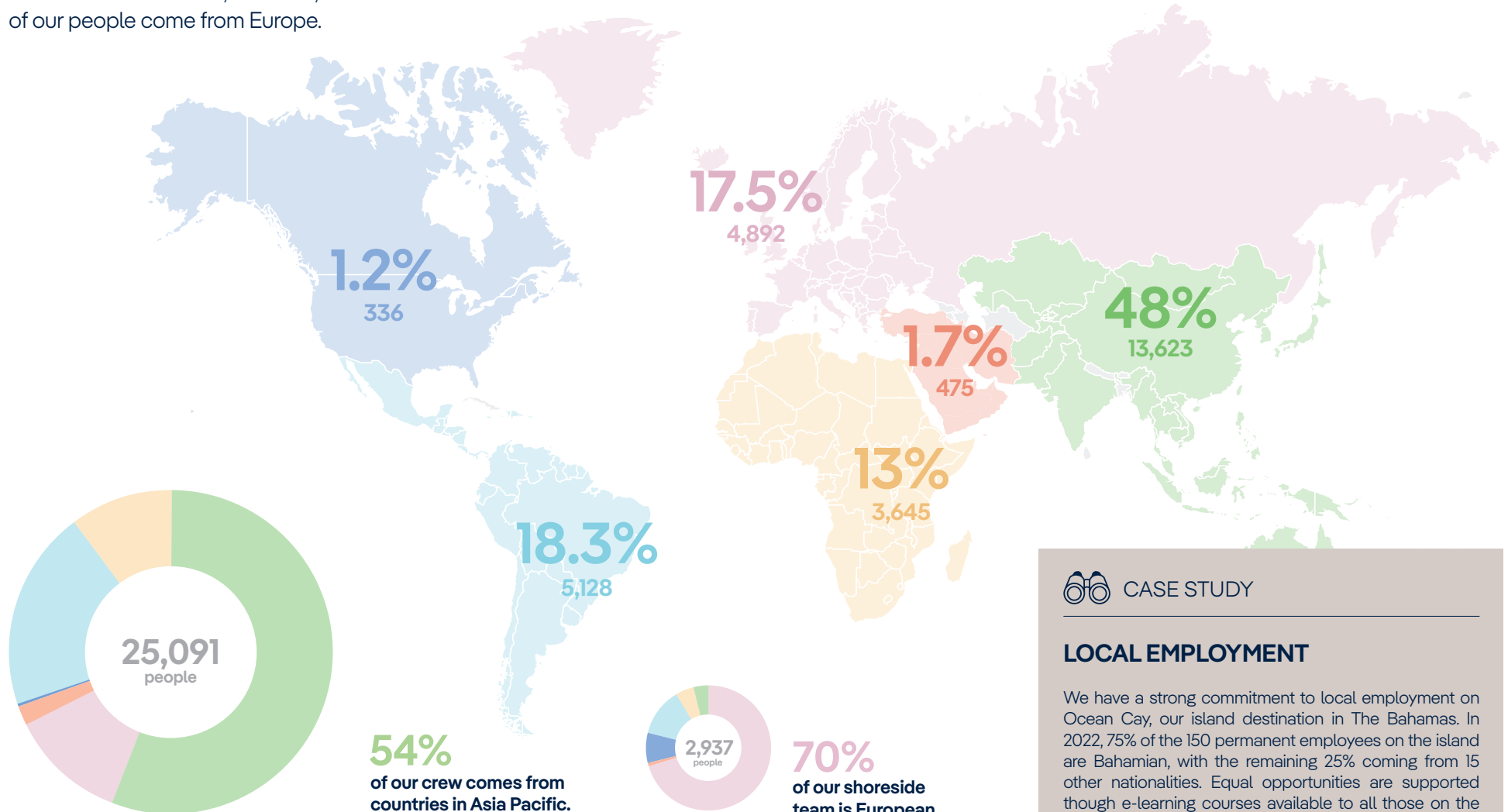
Shoreside

55%
Women



Nationality

We recruit from all over the world. 54% of our crew comes from countries in Asia Pacific whereas, on shore, 70% of our people come from Europe.



Crew by nationality

Shoreside Employees by nationality

CASE STUDY

LOCAL EMPLOYMENT

We have a strong commitment to local employment on Ocean Cay, our island destination in The Bahamas. In 2022, 75% of the 150 permanent employees on the island are Bahamian, with the remaining 25% coming from 15 other nationalities. Equal opportunities are supported through e-learning courses available to all those on the island covering managerial, linguistics and specific skills training.

Crew well-being

Crew well-being is so important to us that we have created a new role onboard to ensure that every ship has a dedicated person supporting our crew. Recruitment of new Learning & Development Managers is now underway and will be completed by the end of 2023. Our larger ships will also have a new HR Engagement Specialist, reporting to the onboard HR Officer, to provide improved HR support to our larger crews.

The safeguarding policy and the dedicated Single Point of Contact (SPOC) continue to provide support to vulnerable crew, whether it be an incident onboard, or family issues back home. The SPOC assesses the situation and brings in the necessary personnel, onboard or ashore, to ensure the support needed is provided quickly and appropriately. In 2022, 215 crew were supported through the safeguarding process.

Taking care of our crew

When a new crew member joins a ship, they are assigned a 'buddy' who helps them to settle in, navigate the ship, and introduce them to their assigned duties. We use crew care buddy checklists to ensure that all the necessary support is provided.

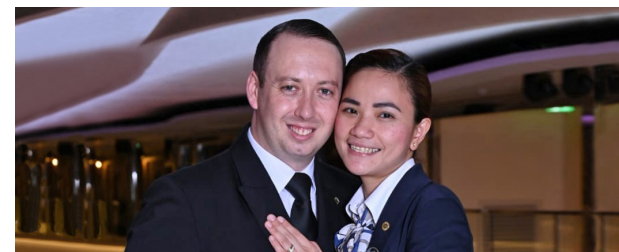
During the pandemic, we provided our crew with free Wi-Fi services, giving them access to social media and digital communications tools so they could keep in touch with friends and family more easily during this stressful time. It proved very popular, so we have chosen to keep this free benefit in place.

We have also increased the entertainment options for our crew – increasing the number of new movies available each quarter on the crew infotainment system from seven to 66 – and improved the discounts available in our crew bars, retail stores and guest areas.

New well-being committees have been created on each ship, comprised of a representative from each department. The committee organises events and initiatives and oversees the allocation of the new well-being budget. Popular events include crew bingo and raffle events – the Christmas Crew Raffle was particularly well received in 2022.

Another new initiative in 2022 was the introduction of a new Couples Policy that aims to make it easier for our people to build their careers at MSC together.

› New well-being committees have been created on each ship, to organise events and initiatives for crew



CASE STUDY

MSC CRUISES COUPLES POLICY

We recognise that many of our crew met their partner on board one of our ships, and we want to support these relationships.

In October 2022, we formally adopted a new policy: 'Accommodation of Couples Onboard'. Couples who have been together for 12 or more consecutive months can now request that they are employed on the same ship, share a cabin, and receive shore leave at the same time. The new policy sets out rules of conduct and addresses conflicts of interest. Both people in the couple now receive the higher cabin and laundry privileges.

Leabel Rivera, from the Philippines, and Stephen Mylroie, from South Africa, met on board *MSC Meraviglia* in 2017. They fell in love and Stephen asked if it would be possible for Leabel to accompany him on his next contract. Their managers were accommodating, and they did two further contracts on *MSC Meraviglia* working together in the same department.

They are currently working alongside each other on *MSC World Europa*. As Stephen says: "I joined MSC to travel the world and I have encouraged Leabel to join me on trips ashore wherever we visit. We take photos and make memories. We know we are lucky; not many people get paid to travel the world with the person that they love."

Talent acquisition

Our previous crew recruitment strategy was to source crew from as few labour markets as possible to streamline the process of recruitment. As the pandemic eased, we needed to restart operations rapidly just as companies across the industry were doing the same; this resulted in a crew shortage globally.

To improve resilience, we adopted a new strategy in 2022, and now choose to recruit crew from as many countries and regions as possible, including several places where the cruise industry has not historically been a significant employer. As a result, we have significantly increased the geographical spread of our workforce, while also contributing to the diversification of local economies by offering a new or additional source of employment.

Our first step was to undertake a socio-economic study to identify promising labour markets. This included looking at indicators such

as levels of tertiary education, language, population demographics, and visa and travel restrictions. We identified 25 promising countries which we targeted with a recruitment campaign. We had not actively recruited from 18 of these countries previously and, in the seven where we had, we expanded our campaign to new regions. We were the first cruise company to host recruitment missions in Rwanda and the Ivory Coast.

› We have significantly increased the geographical spread of our workforce

Our recruitment campaigns were successful in all 25 countries, and we hired around three-quarters of the candidates we interviewed.

The largest number of new crew came from Ghana where we recruited 322 new joiners. In Latin America, we collaborated with national governments facilitated by the Florida-Caribbean Cruise Association (FCCA) and recruited 955 crew members from Honduras, El Salvador, Mexico, Colombia, Guatemala, and Belize. In Turkey, we partnered with our sister cargo company to organise joint recruitment events, an example of the great synergies between departments across the wider MSC Group.

On shore, we recruited 823 positions across our offices in 2022. Of these 55% were newly created roles.

› In 2022, we promoted 3,364 crew from within MSC Cruises.



CASE STUDY

BUILDING THE TEAM FOR EXPLORA JOURNEYS

Explora Journeys set up an effective Crew Strategy and activated a flawless recruitment process with our worldwide partners. We completed 24 recruitment events in multiple regions across the globe, building a team of over 700 onboard colleagues in preparation for our first ship launch in July 2023.

Ashore we have assembled a truly multinational, diverse team of professionals from 46 nationalities. In 2022, we created and filled 89 new positions, forming a robust organisational structure composed of functions equipped to face challenges and opportunities of this new disruptive player within luxury cruising.

“ We are engaging with talents across the globe with experience in the hospitality industry – particularly in the luxury segments. The language, demographic, gender, and skill diversification that we have achieved is adding value to our exceptional product, and we can’t wait to see our hosts in action delivering the Ocean State of Mind. ”

STEFANO MORELLI
HEAD OF CREW STRATEGY & TALENT ATTRACTION,
EXPLORA JOURNEYS.

Training and development

Post pandemic, all our training programmes were re-launched to provide our employees with opportunities for professional growth and to support their career advancement.

For our onboard teams, once COVID-19 restrictions were lifted, we reopened the training centres for face-to-face pre-embarkation training and started virtual class trainings.

› In 2022, our crew members completed 644,730 hours of training – an average of 26 hours per person

We also ensured that all our employees were effectively trained in newly introduced tailored training, such as the eLearning LNG Awareness course educating crew and our shore-based teams about this new energy solution.

All our training is aligned with extensive regulatory requirements, and all trainers are third-party assessed.

In 2022, our crew members have completed 644,730 hours of training – an average of 26 hours per person. Around 86% of this

was delivered face-to-face either through on-the-job or classroom-based trainings, with the remaining 14% delivered through virtual classes and eLearning. Onshore, our employees received an average of 24 training hours.

LNG TRAINING - In preparation for the delivery of our first LNG-powered Vessel, *MSC World Europa*, we provided extensive and comprehensive training, including simulation training for those directly involved in the fuel delivery and use, and a web-based awareness course for all other employees.

CYBER SECURITY - In our increasingly digital world, it is important that our people understand and mitigate against cyber threats and crimes. In 2022, we launched additional cyber security modules for all our crew members and ashore employees. The new e-learning was focused on avoiding security risks and cyber threats in social media and sought to raise awareness on how to protect computer systems and networks.

TECHNICAL TRAINING - With 2022 seeing the return to full operations, there was an increase in onboard technical training for deck and engine crew. The travelling training team, comprising safety, nautical engine and security teams, completed 1,306 days onboard the fleet, with over 6,000 hours of training and assessment work. Additionally, we provided 224 courses to support the development of deck and engine officers.

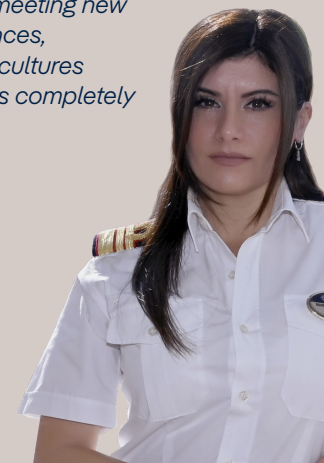


SPOTLIGHT

Manuela was just 20 years old when she joined MSC in 2003 as an international hostess on MSC Lirica. Today, she is one of the five women in our rotating team of 32 Hotel Directors, and the youngest of them all.

“ I feel like MSC is my company – I grew up here and this is my home. At the start, we only had three ships and other companies viewed us as a tiny start-up, but we grew very quickly and I feel like I was a part of that success. Over the years, I’ve had many other companies try to poach me, but I would never change; I really feel like I am part of the family and being where I am today makes me very proud.

“ When I started, I only saw two or three other women at work, but now you can see women everywhere: in the engine room, on the bridge, everywhere. We need to continue to remove this idea that ship life is only for men – some women may fear being so far away from home on a ship, but the experience of meeting new people, seeing new places, and experiencing new cultures means that the reality is completely different. ”



MANUELA CARUSIO
HOTEL DIRECTOR,
MSC ORCHESTRA

Crew development and promotion

We aim to recruit from within wherever possible and promoted 3,364 crew members in 2022.

Our talent management programme aims to provide high potential people with diverse experiences so, when they become managers or directors, they can provide our guests with the best experience and manage our crew in the most effective way.

We regularly review the abilities of our onboard managers (whether technical skills, languages, soft skills or newly acquired skills) and, based on business demands, provide a career that can lead to them being capable of managing the entire onboard hotel operation.

In 2022, we moved 426 crew members into a new department. Of these, 25 were managers, nine of whom were promoted to Hotel Director, the most senior role on the hotel side of our ship operations.

Ensuring gender equality and equal opportunities is a core part of our strategy.

› We promoted
3,364 crew members in 2022

In 2022, in full compliance with the Swiss Gender Equality Act, we conducted a gender pay analysis for our operations in Switzerland. The analysis aimed at determining how relevant factors, such as qualifications or roles, influence our employee’s pay based on gender.

We are very proud to report that the results of the analysis, which were verified and approved by an independent external body, have certified that there is no gender effect on the salaries received by our Swiss employees. This means that they are entitled to equal pay for equal work, irrespective of gender.



SPOTLIGHT

Nagababu, from India, joined MSC in 2004 as a dishwasher and is now an onboard Food and Beverage Director.

“Hyderabad has a strong family culture – people tend to do what their forefathers did – and it is miles from the ocean, so the city doesn’t produce many seamen. I wanted to do something new, something different, so I studied to become a seaman. It was difficult to join a cruise line – there weren’t any hiring agencies where I lived – but I found MSC, researched it, discovered it was a family company, and decided that this was where I wanted to be.

“I started out as kitchen utility – a dishwasher – then worked in costs and accounting, then as a Sanitation Purser before becoming Services Purser. I have been a Food & Beverage Director since 2012. Today, I have around 750 people working under me, and am responsible for all the food and beverage on board.

“What I especially like about MSC Cruises is how quickly we can make improvements: if something is wrong, it can be changed overnight. When we discuss potential changes with shore side leadership teams, they only ask two questions: what is the impact on our guests, and what is the impact on our crew? If it will make the guests happy, and if it can be done without significant additional burden to the crew, then we will get the go ahead.”

NAGABABU DASARI
F&B DIRECTOR,
MSC SEASIDE



Skills development of onshore employees

In 2022, we re-started our leadership development programmes for both shore based and onboard employees, which were put on hold during the pandemic. Previously delivered face-to-face, we have now completely re-shaped the programme into a fully virtual event to foster equality and inclusivity in the way we develop our leaders across our global organisation.

In addition to group leadership training, we piloted virtual coaching based on individual needs. We have also re-introduced specific skills programmes, such as Project Management, and functional eLearning Paths in collaboration with LinkedIn Learning.

“ Use of our extensive library of eLearning materials rose 34 per cent compared with 2021 ”

In 2022, usage of our extensive library of eLearning materials rose 34 per cent compared with 2021, with 1,202 people actively making use of the eLibrary. Resources include e-books, audio learning and recorded classroom sessions: more than 4,300 learning materials were downloaded from the platform in 2022. These help to encourage productivity and support personal development and project management. They also provide specific skills training in areas such as marketing, sales, and finance.

We continued training on various aspects of our compliance management system. This included training on our Code of Business Conduct, anti-bribery requirements, Conflict of Interest Policy, and the General Data Protection Regulation (GDPR).

We successfully transitioned into a new eLearning platform, providing easy access to all online learning resources to 27 offices globally, increasing our reach to 93% of our ashore population.

Insights Discovery

We invested in enhancing our teams’ effectiveness and collaboration skills using the Insights Discovery methodology – this included individual assessments and global workshops gathering employees from offices based in different locations.

To help improve our people succession planning ashore, we will roll-out a comprehensive programme to identify the skills and potential of our shore-based employees during 2023/24.

“ Mapping talents allowed us to better understand the capabilities of our people – our ‘human capital’ – and ensure that we have an appropriate management strategy in place to develop people for specific roles in the future. ”

LANY HAWKE,
HEAD OF HR MANAGEMENT



PLANET



We are fully committed to playing our part in addressing climate change and promoting ocean biodiversity.

We are determined to accelerate our transition toward net zero emissions by 2050.

We work closely with leading technology companies, shipyards, and fuel providers to push the boundaries of what is possible.

In 2022, we launched our first LNG powered ship – a significant milestone on this important journey.



Pathway to decarbonisation

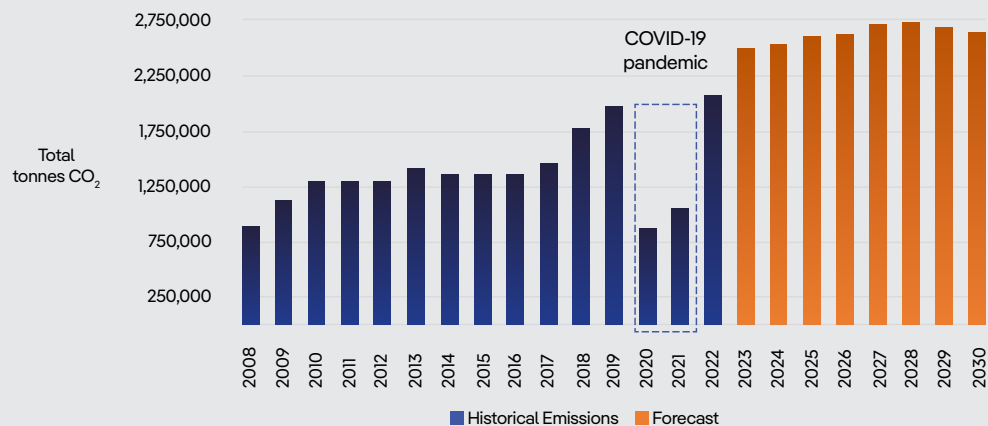
We are leading the cruise industry on the path to decarbonisation. In 2021, we committed to achieve net zero greenhouse gas emissions by 2050 and are now actively investing in research and development that will enable the deployment of renewable fuels and related ship technologies.

We are assessing various pathways to decarbonisation, spanning ship design, energy efficiency, new technology, and fuels. A single solution has not yet emerged, and we anticipate that achieving net zero will require a combination of different technologies and fuels.

- › Achieving net zero will require a combination of different technologies and fuels
- › Our carbon intensity decreased by 33.5% between 2008 and 2022

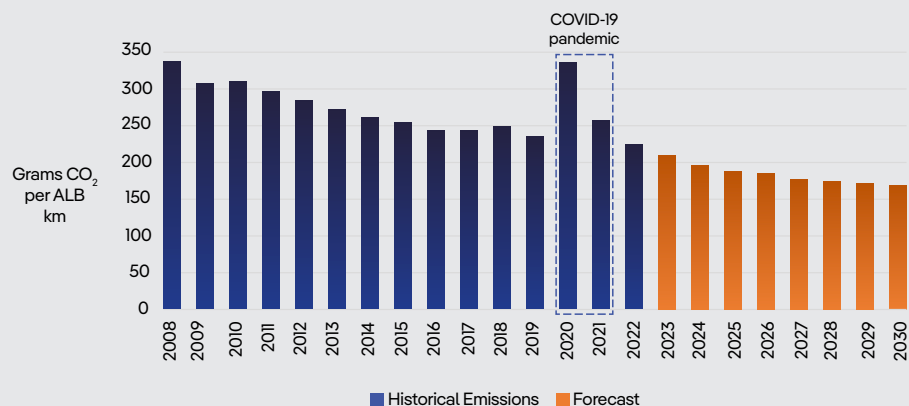
ABSOLUTE EMISSIONS

In 2008, MSC Cruises had just eight ships. By the end of 2022, we had 21 ships and our absolute emissions have risen accordingly.



CARBON INTENSITY

Although our carbon footprint has increased over time, our operations have become significantly less carbon intensive. We emitted one third less CO₂ per ALB kilometre in 2022 than we did in 2008, demonstrating our continued ability to decouple our emissions from our growth. We are on track to achieve the International Maritime Organization’s 40% carbon intensity reduction for the maritime industry well ahead of the 2030 target.



The challenge

Cruising is a technically complex and energy intensive sector. To achieve net zero will require a complete transition away from fossil fuels, meaning we must replace heavy fuel oil and marine diesel with fuels that are derived from renewable sources.

At present, the production of renewable fuels has not reached the scale required and most remain prohibitively expensive. We need the full engagement of energy providers, governments, and other public and private entities to ensure that the right infrastructure exists on land, and that renewable fuels become available at scale all around the world.

Our current approach: Liquefied Natural Gas (LNG)

LNG is the cleanest marine fuel currently available at scale, virtually eliminating local air pollutants and reducing greenhouse gas emissions significantly when compared with conventional marine fuels. This is why we have invested €3 billion in three LNG-powered cruise ships: the first, *MSC World Europa*, set sail in December 2022; the second, *MSC Euribia*, will join the fleet in June 2023; the third – *MSC World America* – is currently being built by Chantiers de l'Atlantique and will be launched in 2025.

› LNG is the cleanest marine fuel currently available at scale.

Our approach in the mid-term (2025-2035)

LNG offers compatibility with future renewable fuel solutions. If bio-LNG were available at scale today, our three new ships could immediately operate with more than 80% less lifecycle emissions, and potentially even less in the future with synthetic variants.

Bio-LNG is a drop-in fuel that does not require any new infrastructure so, as production increases, we will begin blending it into fossil LNG from 2023 onwards. We anticipate that availability will improve as the regulatory incentives and other policy mechanisms intended to support increased production enter force and begin to take effect, making bio-LNG more competitive for use at scale.

An additional challenge to overcome is methane slip. Fossil LNG delivers a 25% reduction in carbon emissions compared with heavy fuel oil and marine diesel, but only up to a 20% reduction in overall greenhouse gas emissions due to fugitive methane emissions that are not fully burned during the combustion process. Through the GREEN RAY Project (see box), we are working closely with both engine manufacturers and other parties to assess various post-combustion capture and treatment solutions, as well as opportunities for new engines, to address this issue.

› As it becomes more widely available, we will transition towards bio-LNG



COLLABORATING FOR ACTION



New generation marine engines and retrofit solutions to achieve methane abatement flexibility

existing and new vessels.

MSC and our shipbuilder Chantiers de l'Atlantique are two members of the consortium. We are working with others to develop on-engine technologies suitable for both cruise ships and ferries as well as tankers and container ships. We are also working on an after-treatment technology – a sulphur resistant catalyst system – that we anticipate could reduce methane slip emissions by as much as 95%.

Once developed, these technologies will be demonstrated onboard two new ships and retrofitted to one existing vessel, all of them targeting the technology readiness level 7.

Other consortium members are CMA Ships, Wärtsilä, Shell, DNV, the Finnish Meteorological Institute, and REVOLVE communications agency. The project is coordinated by VTT Technical Research Centre of Finland.

The GREEN RAY Project was created in response to the EU Commission's request (through its Horizon programme) for projects that assess and prevent methane slip from LNG engines – in all conditions – within both

 CASE STUDY

TESTING SOLID OXIDE FUEL CELL TECHNOLOGY

Fuel cell technology uses fuel to produce electricity and useable heat. While it can be powered with green hydrogen or its derivative fuels, until these are available at scale, we are able to use LNG. Fuel cells are up to 25% more efficient than a medium speed four-stroke internal combustion engine and can achieve corresponding reductions in fuel consumption and emissions.

We collaborated with our shipbuilder, Chantiers de l'Atlantique, to include a 150-kilowatt solid oxide fuel cell demonstrator on *MSC World Europa*, to generate auxiliary power and to assess the technology in a marine environment, using LNG. If the onboard results meet our expectations, then we will use fuel cells to support the energy needs of our future ships. Ultimately, we hope to be able to use fuel cells to provide enough energy to cover the entire hotel load of future new builds.

MSC Cruise Management UK has been part of the Clean Maritime Demonstration Competition (CMDC) launched in March 2021, funded by the UK Department for Transport and delivered in partnership with Innovate UK. The CMDC is

supporting the research, design, and development of zero emission vessels and infrastructure solutions to accelerate the decarbonisation of the maritime sector.

MSC Cruises contributed to a multidisciplinary team consisting of technical experts and policy specialists, alongside strategic leads, who worked to assess the feasibility of integrating a Solid Oxide Fuel Cell (SOFC) into the infrastructure of a future LNG powered vessel.

We expect that solid oxide fuel cells may significantly contribute to the decarbonisation of the shipping industry and are eager to share our findings beyond our company.

Not only do we need to use fuels with lower life-cycle emissions, but we also need to increase efficiency so that we require less fuel overall. We believe a partial transition away from internal combustion engines towards electrochemical energy generation will occur due to the efficiency gains it enables. We expect that both proton exchange membrane fuel cells and solid oxide fuel cells will be able to fill this role.

In 2022, we installed the first fully integrated solid oxide fuel cell technology system onboard a large cruise vessel. Our ultimate mid-term objective is to remove any need for internal combustion to power the hotel load of our ships (cabins, galleys, lighting, heating, ventilation, cooling, etc.), which can represent up to half

the overall power demand on an average ship itinerary. As we commission new ships and become more familiar with the technology, we expect the size of fuel cells installed onboard our ships to increase.

› We expect that solid oxide fuel cells will revolutionise the entire shipping industry and are eager to share our findings beyond our company



COLLABORATING FOR ACTION



High efficiency low emission nautical solid oxide fuel cell

The HELENUS Project is funded by the EU Commission and is a response to their call for solutions to enable the full integration of very

high-power fuel cells in ship design using co-generation and combined cycle solutions for increased efficiency with multiple fuels.

The project's aim is to develop a high-efficiency low-emission nautical solid oxide fuel cell (SOFC) which will be demonstrated on an MSC Cruises vessel.

This 500-kilowatt technology readiness level 7 solution will be fully integrated within a ship's machinery area, creating a blueprint for scaling-up SOFCs to as high as 20-megawatts in future ship builds. It will be demonstrated in cogeneration mode, unlocking efficiency gains of as high as 23% in a scaled-up system.

HELENUS will also exploit the key advantage of fuel-flexibility of SOFCs by demonstrating the developed solution with alternative renewable fuels over various maritime duty cycles.

Other consortium members are: German Aerospace Center (DLR, which is coordinating the project), Alma Clean Power, Delft University of Technology, IHC MTI B.V., BALance Technology Consulting, Chantiers de l'Atlantique, IFEU, Wärtsilä Norway AS and Bureau Veritas Marine & Offshore.

In the longer-term (2035-2050)

We expect hydrogen-derived synthetic fuels will play a major role in industries like shipping that cannot be decarbonised by electrification. Green hydrogen, or liquid hydrogen from renewable resources like solar and wind, are suitable replacements for current marine fuels but, again, availability is a key issue, as is the need to build the infrastructure to move liquid hydrogen at -253°C from production sites to end users.

Hydrogen-derived fuels like green methanol and synthetic natural gas are also promising solutions but may be limited by the availability of biogenic carbon. The evolution of technologies like carbon capture will be essential to unlocking their potential.

We are participating in Project CHEK to produce a vessel design for a hydrogen powered Meraviglia class cruise ship (see box) and, in 2023, are commencing feasibility studies on a hydrogen supply chain.

COLLABORATING FOR ACTION



Decarbonising shipping by enabling key technology symbiosis on real vessel concept designs

Coordinated by University of Vaasa, Project CHEK is funded by the European Union's Horizon 2020 research and innovation programme.

The project is focused on developing two bespoke vessel designs: a hydrogen powered Meraviglia class cruise ship, and a wind energy optimised Kamsarmax bulk carrier. These vessels will be equipped with a combination of innovative technologies supplied by the consortium partners, who are working together towards a shared target of halving energy use and reducing GHG emissions by 99%.

In addition to MSC, consortium members include World Maritime University, Wärtsilä, Lloyds Register, Silverstream Technologies, Cargill, Yara, Hasytec, Deltamarin, Climeon, and BAR Technologies.

› In the longer-term, we expect hydrogen-derived synthetic fuels will play a major role



 CASE STUDY

MSC WORLD EUROPA: THE WORLD'S BIGGEST LNG-POWERED CRUISE SHIP

MSC World Europa was launched in 2022 as the first LNG-powered vessel in our fleet, and as our most environmentally advanced ship to date. Liquefied natural gas (LNG) is one of the cleanest marine fuels available at scale today and is set to play a key role in the medium-term decarbonisation of cruising. LNG emits up to 20% less greenhouse gases (on a CO₂-equivalent basis) than marine gas oil when including consideration of fugitive methane emissions ('methane slip') which we hope to address with new engine and post-combustion technologies. LNG engine technology also enables the future uptake of renewable bio and synthetic methane variants which can achieve significant lifecycle emissions reductions.

Using LNG also means that we virtually eliminate local air pollutant emissions such as sulphur oxides (SOx) emissions and particulate matter in the exhaust, and reduce nitrogen

oxides (NOx) emissions by up to 85%. In addition, the ship is equipped with shore-to-ship power connectivity meaning that, when available at ports, it can switch off its engines and connect to local power grids.

We are using LNG to power new solid oxide fuel cell technology – the world's first contemporary cruise ship to feature it. The demonstrator project uses LNG to produce electricity and heat on board through a highly efficient electrochemical reaction. It will be a testbed to accelerate the development of fuel cell technology for contemporary cruise ships and offers a potential to enable hybrid energy solutions in the future.

MSC World Europa uses a range of energy efficient equipment and systems to optimise engine use and has an innovative hull shape to minimise resistance through the water. It also has an

enhanced automatic data collection system for remote energy monitoring and advanced analysis, allowing real-time shoreside support to optimise operational efficiency onboard.

MSC World Europa generates 47% less CO₂e per guest per day than our Fantasia class (launched in 2008), 30% less than our Seaside class (2017), and 24% less than the Meraviglia class (also 2017).

These efficiency advances, plus the use of LNG, means that the performance of *MSC World Europa* is far better than the IMO-required energy design criteria for new ships. Indeed, it attained a rating 54% better than the Energy Efficiency Design Index (EEDI) required.

“ *MSC World Europa* is a game changer – for MSC Cruises, and for the entire industry. ”

PIERFRANCESCO VAGO, EXECUTIVE CHAIRMAN, MSC CRUISES



ENVIRONMENTAL INNOVATIONS ON *MSC WORLD EUROPA*

Powered by LNG, *MSC World Europa* is the most innovative and environmentally advanced cruise ship in our fleet, emitting 47% less CO₂e per guest per day than the ships we were building ten years ago.

REDUCING EMISSIONS



LNG FUEL

Uses cleanest marine fuel currently available at scale



SELECTIVE CATALYTIC REDUCTION SYSTEM

Reduces air pollution from marine gas oil when LNG is not available



FUEL CELL

150kw fuel cell demonstrator - more efficient than internal combustion engine



SHORE-TO-SHIP POWER

Enables engines to be switched off in port, at locations where shorepower is available

PROTECTING THE OCEAN



ADVANCED WASTEWATER TREATMENT

Treats water to stringent international standards - including the Baltic Standard



UNDERWATER RADIATED NOISE CONTROL

Minimise noise or vibration that might impact aquatic mammals



BALLAST WATER TREATMENT SYSTEM

UV treatment and filtration prevents transport of potentially invasive species between regions, in compliance with IMO's Ballast Water Management Convention

USING RESOURCES EFFICIENTLY



ANTI FOULING PAINTS

Hi-tech paints slow growth of marine organisms, reducing drag and improving energy efficiency



LED LIGHTING

Energy-saving lighting controlled by smart management systems



SMART HVAC

Automated energy recovery loops allow effective distribution of heat and cold around the ship



TRIM OPTIMISATION

Reduces fuel consumption



DESALINATION PLANT

Provides all onboard freshwater from seawater - up to 3 million litres daily



WASTE RECYCLING

Waste is separated into different categories and compacted to maximise recycling



Improving operational efficiency

We are on track to achieve the International Maritime Organization's 40% carbon intensity reduction for the maritime industry well ahead of the 2030 target.

Many sustainability measures are, in fact, simply good business sense because they reduce costs in addition to our environmental footprint.

Energy efficiency is an obvious example of that, with LED lighting and heat recovery systems having that dual impact. Anti-fouling paint reduces drag, and lower speeds and trim optimisation make the voyage more comfortable and reduce fuel consumption.

We continue to scrutinise every mile of our itineraries resulting in an average speed of 15.75 knots across our fleet in 2022, down from 17.55 in 2018 – a 10% reduction.

› We continue to scrutinise every mile of our itineraries resulting in 10% reduction in average speeds since 2018

We continue to advance the digitalisation of our energy efficiency programme. In 2022, we completed the installation of Oceanly Performance on all ships in our fleet. This platform enables the continuous monitoring of thousands of raw data points on the position, speed, weather, engine load, flow meters, fuel consumption, torque meters, and all other on-board equipment which can be connected to a central data collector.

This allows our crews and shoreside teams to monitor a variety of different KPIs to optimise trim, route, speed, propulsion efficiency, energy-use, emissions, and a long list of different areas on each ship that can impact efficiency, even down to the speed of the hundreds of individual fans installed onboard for air conditioning.

Our belief in the potential of the platform to achieve further significant energy efficiency gains and emissions reductions led

our senior management to invest in a controlling share of the developer of the software in late 2022.

To complement the roll-out of the Oceanly software, dedicated training was provided to crews to understand the machine learning capabilities of the platform and become accustomed with its interface. In parallel, our shoreside Energy Efficiency team provided eLearning developed by the IMO for officers in the engine and deck departments on the key principles underlying the energy efficient operation of ship machinery and equipment. An in-person two-day masterclass on the Energy Efficient Operation of Ships, delivered by our partners at DNV, was also provided to our senior management overseeing energy efficiency.

Our certification to ISO 50001 has helped ensure procedures are in place to maximise energy efficiency.



Minimising local pollutants

We are a guest in all the ports we visit and strive to minimise our impact on local communities and their environment, particularly in the area of air emissions.

Reducing emissions to air

Connecting to shore power enables us to turn off our ships' engines and connect to the local electrical grid to run our onboard systems. With electricity travelling to the ship through a specially designed transformer at the dock, this process prevents emissions produced from diesel generators, improving local air quality as well as reducing noise and vibration levels – benefitting both the environment and the surrounding communities.

Following significant investments in our fleet capabilities, we are taking concrete steps to adopt and accelerate the use of shore power. Over half our fleet is now shore power compatible and, since early 2023, *MSC Virtuosa* is now consistently using shore power on her weekly visits to Southampton (UK).

We collaborate closely with local authorities to ensure compatibility between our ships' systems and the shore side infrastructure design. We are grateful for the forward-thinking support provided by the port authorities.

We have signed an agreement with Cruise Baltic to achieve widespread use of shore power in the Baltic Sea region by 2024, and we hope ports in other key markets will introduce shore power soon. Wherever we are involved in building and financing new terminals, we ensure the designs take account of shore power requirements – current examples being the new terminal developments in Barcelona and Miami.

Creating freshwater

Every day, the freshwater production plants on our ships use reverse osmosis and evaporation to transform millions of litres of seawater into drinking water. During 2022, we produced over 88% of the 4.8m m³ of freshwater we used on board our ships. As well as drinking it, we use it for cooking, cleaning, and laundry – and even to brew beer on *MSC World Europa*.

Freshwater production requires energy so one of the goals of our Sustainability Action Plan is to reduce onboard water demand by 3% per year for each operating ship. We are achieving this by educating our crew and guests, and by introducing new technologies such as flow restricting aerators on taps. Our monitoring systems show that we consumed an average of 226 litres per guest per day in 2022.

› During 2022, our production plants produced over 88% of the freshwater we used on board our ships

› Over half our fleet is now shore power compatible



Treating our wastewater

Once we have used the freshwater, we ensure that it is treated before discharging it into the ocean. All vessels within our fleet have wastewater treatment systems which are in full compliance with wastewater discharge rules in any part of the world's oceans that they are operating in.

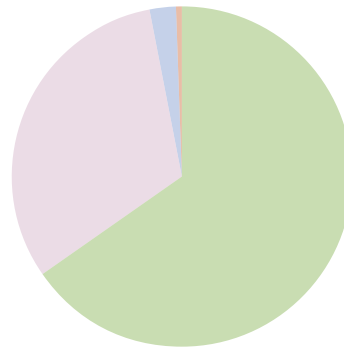
Since 2007, all new MSC Cruises ships have been equipped with Advanced Wastewater Treatment Systems (AWTS). The systems installed in our four newest ships go further still and comply fully with the requirements of IMO MEPC 227 (64), known as the 'Baltic Standard'. This is the most stringent standard for wastewater treatment and discharge in the maritime industry. Indeed, it is equivalent to – and sometimes even more stringent than – many land-based standards.

Treated effluent water is periodically analysed by an accredited testing laboratory, to ensure the expected standards are consistently maintained.

Wastewater

In 2022, we generated over 3.5 million cubic meters of wastewater, 65% of which was treated using an Advanced Wastewater Treatment System.

Total wastewater discharged to sea: 3,530,867 m³



65.3%
Treated in AWTS

31.8%
Greywater

2.6%
Treated blackwater

0.3%
Untreated blackwater



Treating ballast water

Cruise ships have tanks in the lower part of the ship which can be filled with seawater to act as ballast, keeping the weight and centre of gravity balanced and consistent throughout a voyage. By optimising the trim, we can have a significant impact on a vessel's energy demand.

We have adopted a strict treatment regime to remove any threat that bacteria, microbes, small invertebrates, larvae, and other microorganisms in the ballast water are transported from one location to another, potentially threatening local ecosystems.

Every one of our cruise ships has a ballast water treatment system, approved in accordance with Ballast Water Management Convention, which uses mechanical filtration, ultraviolet light, and chemical treatment to ensure all threats are removed before the water is discharged from our ships.

- › Every one of our cruise ships has a ballast water treatment system



Responsible waste management

Our entire cruising fleet has achieved ISO 21070:2017 certification for marine environmental protection meaning that we manage waste in an environmentally responsible manner. This certification proves that we are creating less waste than previously and have specific procedures in place to help us manage waste on our ships, including handling, collection, separation, marking, treatment, and storage. It also demonstrates that we have appropriate ship-to-shore interface for the delivery of waste from our ships to port reception facilities.

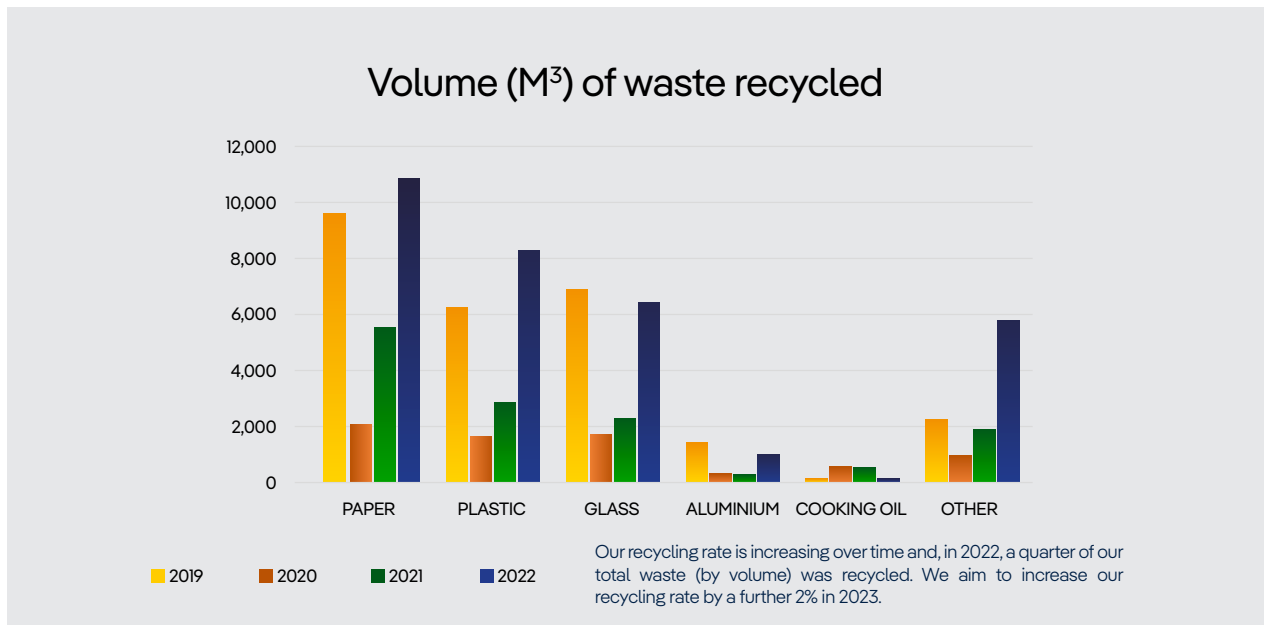
“ We are delighted that our entire fleet is now certified with ISO 21070:2017. As we work to solve the great sustainability challenges that our industry faces, we continue to deploy every tool available to accelerate this, including industry standards and certification. ”

MINAS MYRTIDIS,
VP ENVIRONMENTAL OPERATIONS & COMPLIANCE,
MSC CRUISE MANAGEMENT

All future ships built for MSC Cruises will receive this certification as they enter service.

One example is our effort to reclaim the waste generated through the photographic services provided onboard. During 2022, we collaborated with DARSA recovery plants in the ports of Genoa, Venice, Trieste, and Monfalcone, where we offloaded more than 87 tonnes of photo liquid waste. From this, DARSA was able to recover 27 kilograms of silver.

› We manage waste in an environmentally responsible manner



Environmental governance

Our Environmental Operations & Compliance Department is accountable for delivering our global environmental management plan. This is cascaded through our operations via the MSC Cruises' environmental management system, which sets out our approach to all key areas.

Environmental Compliance

MSC Cruises' works diligently to ensure awareness of and compliance with all applicable environmental laws, policies, and regulations. To achieve this, we have adopted comprehensive compliance controls that are defined and continually reviewed under our global environmental management plan (EMP).

The EMP was created in 2019 with the objective of enhancing MSC's environmental performance following a series of internal self-audits and a programme of critical self-analysis. This enhanced approach not only assures compliance but improves our ability to respond to the continuously evolving regulatory environment, a growing fleet, and expanding international operations.

In January 2022, the department introduced the Environmental Compliance Culture and Prevention (ECCP) concept, which encourages everyone to consider environmental compliance and protection, promotes engagement at all levels, and encourages

the full participation of ship management as educators for the teams under their supervision. The concept is applied continuously, with the objective of ensuring that everyone onboard our ships can live and work without harming the environment or allowing others to do so, and that environmental incidents, or near misses, are avoided or removed.

› Our objective is for everyone onboard our ships to live and work without harming the environment



Ocean Guardian

To support our compliance efforts, MSC Cruises subscribes to the Ocean Guardian platform, for global regulatory surveillance, and the IMO-Vega Database which provides instant and comprehensive access to the regulatory framework of the IMO. Our memberships in various trade associations, including CLIA, the UK Chamber of Shipping and others, alongside close collaboration with classification societies further reinforce our ability to ensure compliance with existing environmental legislation, and to prepare for anticipated legislation.



SPOTLIGHT

ENVIRONMENTAL COMPLIANCE OFFICERS

MSC Cruises assigns a dedicated Environmental Compliance Officer (ECO) to each of its vessels.

This officer is responsible for the implementation of the Company's environmental operations and compliance procedures as well as the administration and coordination of environmental training programmes on each ship. Shipboard environmental compliance reports are required to document MSC's conformance with all applicable regulatory requirements. In addition to external, independent auditors, the ECO and/or members of the Environmental Operations & Compliance Department review records and logs on a regular basis, both onboard the vessel and ashore to ensure compliance.



PASQUALE MARESCA
ENVIRONMENTAL COMPLIANCE OFFICER,
MSC CRUISES

Environmental Management

MSC Cruises' environmental management system (EMS) documents, implements, maintains, and aims to continuously improve the environmental performance of the company's operations. At its core, the EMS implements controls to mitigate significant environmental aspects, monitors, and measures performance, establishes clear targets and objectives, defines responsibilities, and implements the policies that govern our environmental programmes.

MSC Cruises is certified to ISO 14001:2015 for its full fleet. The company expanded its certification scope in 2022 and attained ISO 21070:2017, Marine Environment Protection, certification for ship and marine technology and handling of shipboard waste. The increased recycling rate from 19.2% in 2021 to 25.7% in 2022 was a direct result of this additional standard and certification-related efforts.

› Our environmental management system aims to continuously improve our environmental performance



Voluntary Commitments

In 2022, MSC Cruises signed the French Mediterranean Charter which was developed in the context of the European Marine Strategy Directive Framework and the Maritime Spatial Planning Framework Directive. The French National Marine Strategy for the Mediterranean was adopted in 2019 and an action plan was developed in 2022. Part of this action plan included the development of a strategy for sustainable cruising in the French Mediterranean. The development of a national Charter is one of the actions identified in the action plan. This work was led by the National Directorate for Maritime Affairs, the Interregional Directorate for the Mediterranean, based in Marseille.

The charter outlines thirteen commitments, the fulfilment of which aid in mitigating the effects of climate change, enhancing air quality, and improving marine environment protection within the French Mediterranean. MSC Cruises’ advanced environmental operations, policies, and compliance procedures will help ensure our compliance with these commitments.

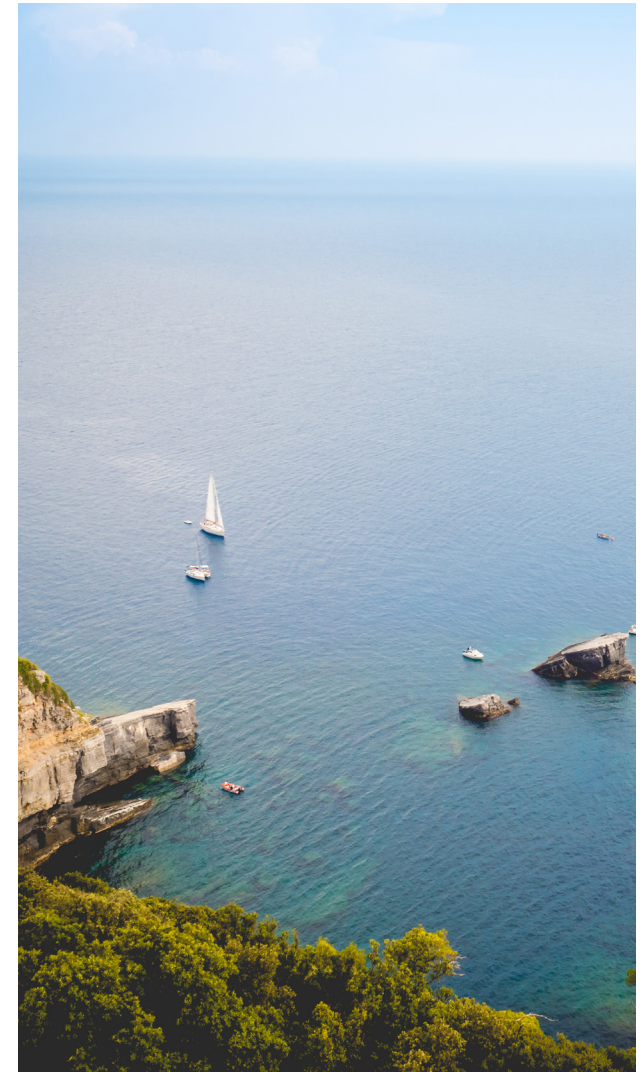
In our pursuit to protect the environment and minimise the environmental impact on the communities we visit, MSC Cruises has signed voluntary agreements with several ports in the Mediterranean Sea. With very small variations, they all recommend similar measures including speed reduction, proper management and monitoring of engine loads, use of cleaner

fuels or technology to control emissions quality and levels within and in the vicinity of the ports.

MSC Cruises has signed the following voluntary agreements:

- Cannes Charter
- Civitavecchia Blue Flag Agreement
- Genoa and Savona Blue Flag Agreement,
- Golfo dei Poeti Memorandum of Understanding (La Spezia)
- Ports of Trieste and Monfalcone Agreement
- Venice Blue Flag Agreement
- Marseille Blue Charter

› To protect the environment and minimise the environmental impact on the communities we visit, we have signed voluntary agreements with several ports in the Mediterranean Sea



Protecting the biodiversity of our oceans

Maintaining the health of our oceans is key to protecting the planet. As well as being a significant carbon sink, our oceans are home to a wealth of wildlife. MSC Cruises continues to play a proactive role in protecting the marine and coastal habitats around Ocean Cay. We also take care of our use of water for ballast, treating it to ensure it has no adverse environmental impacts.

Marine conservation on Ocean Cay

A fifth of the marine and coastal habitats surrounding the Bahamas have been designated as Marine Protected Areas – in other words, areas that are under some form of management, like Ocean Cay.

Following a rigorous selection process, Ocean Cay has been declared a ‘Hope Spot’ by Mission Blue, a coalition committed to

the protection of the ocean, indicating that it has been scientifically identified as critical to the health of the ocean. We hope that Ocean Cay will one day be designated as a Marine Protected Area (MPA) and, in 2022, the MSC Foundation welcomed a full-time Marine Research Programme Manager to lead restoration activities around the island, and support MSC’s wider biodiversity-related work (see overleaf).

MSC Foundation has been granted governmental research permits, allowing the establishment of coral nurseries within the coastal and nearshore environments of the island. These sites have now been identified, and building upon the success of previous relocation efforts from 2017, have included one offshore nursery at a designated transplant site, where 429 colonies were moved prior to major construction work. Here, the coral is thriving,

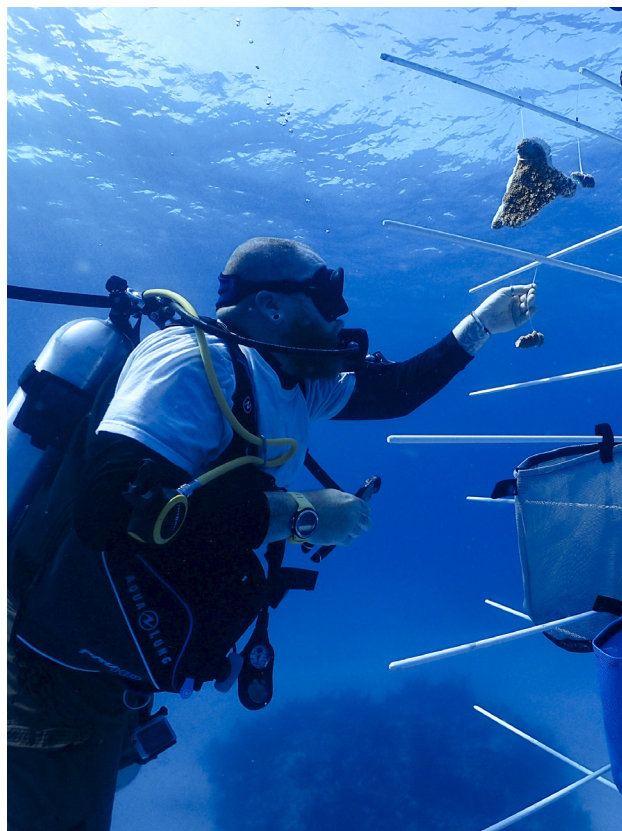


➤ To minimise the environmental impact on the communities we visit, we have signed voluntary agreements with several ports in the Mediterranean Sea

as evidenced by healthy growth, making it the perfect place to propagate critically endangered species, such as the elkhorn coral. It is the intention of the MSC Foundation to support greater genetic diversity of corals among reef systems to improve resilience to thermal shock, that is experienced as a ‘marine heatwave’. Under the MSC Foundation’s Super Coral Programme, in December 2022 we welcomed graduate students from Nova Southeastern University (in Florida), and the University of Miami. The main objective of the collaboration is to offer a technical, field-based programme and the opportunity to learn directly about applied coral research.

By the end of 2023, the Foundation and Ocean Cay Stakeholders expect to welcome the first guests and visiting scientists to a new Marine Conservation Center. Construction planning has begun on the facility which we hope will become a flagship for marine research and conservation in The Bahamas, attracting world-class scientists, and establishing Ocean Cay as a world leader in the conservation of wild blue spaces.

MSC Cruises has been working hard to add a further layer of compliance to Ocean Cay’s already cutting-edge Environmental and Social Management System. This is a demonstration of the company’s dedication to conducting business in an environmentally responsible manner. Ocean Cay received the prestigious ISO 14001:2015 certification for environmental management in November of 2022. This certification has the following scope and application field: Marine Reserve Preservation (biodiversity and ecosystem protection, ocean habitat regeneration around the island and waste management) and related tourism and catering service.



› Construction has begun on a Marine Conservation Center which we hope will become a flagship for marine research and conservation in the Bahamas



SPOTLIGHT

Owen oversees the MSC Foundation’s flagship environmental coral restoration programme on the island of Ocean Cay.

Since completing his PhD on the ecological significance of stingrays in coral reef environments, Owen has published close to 50 papers, theses, and technical reports, and supervised dozens of graduate students. He has also led international collaborative research programmes and acted as a consultant for both private industry and documentary filmmakers including the BBC and National Geographic. He also holds Adjunct Professor status at Memorial University of Newfoundland.

Prior to joining us, Owen ran his own non-profit research institute with a focus on community-based education and environmental outreach in the Bahamas. This initiative provided environmental education to Bahamians at zero cost, using applied graduate research programmes as the platform.

His experience and expertise in marine conservation science and education are invaluable to the Ocean Cay coral restoration programme. Most days, he dives the new reefs looking for endangered coral, and inspects the coral nursery, where new coral fragments have now been established. He cleans algae from the structure, makes observations, and collects video and photographic records.

When ships visit the island, he speaks to guests about the work of the MSC Foundation and the coral reef programme, sometimes embarking to deliver a lecture. He also raises the

profile of the programme by speaking to visitors from the international media and cruise industry professionals.

Owen says: *“ I have taken on an almost patriarchal role, caring for these corals – I find it incredibly rewarding to solve problems as it relates to the natural environment. As a scientist, I stay abreast of the latest contemporary research on coral reef restoration science coming from various corners of the globe and am always on the lookout for grants or other meaningful professional opportunities to further the aims of our programme. ”*

He also takes pride in building capacity among our staff on the island, giving them hands-on experience of constructing coral trees, and developing their technical skills. Owen observes: *“ Bahamians really care about the conservation of our wild blue spaces, and it is a pleasure to involve them in the Foundation’s important work here on Ocean Cay. ”*

OWEN O’SHEA
MARINE RESEARCH
PROGRAMME MANAGER,
OCEAN CAY.



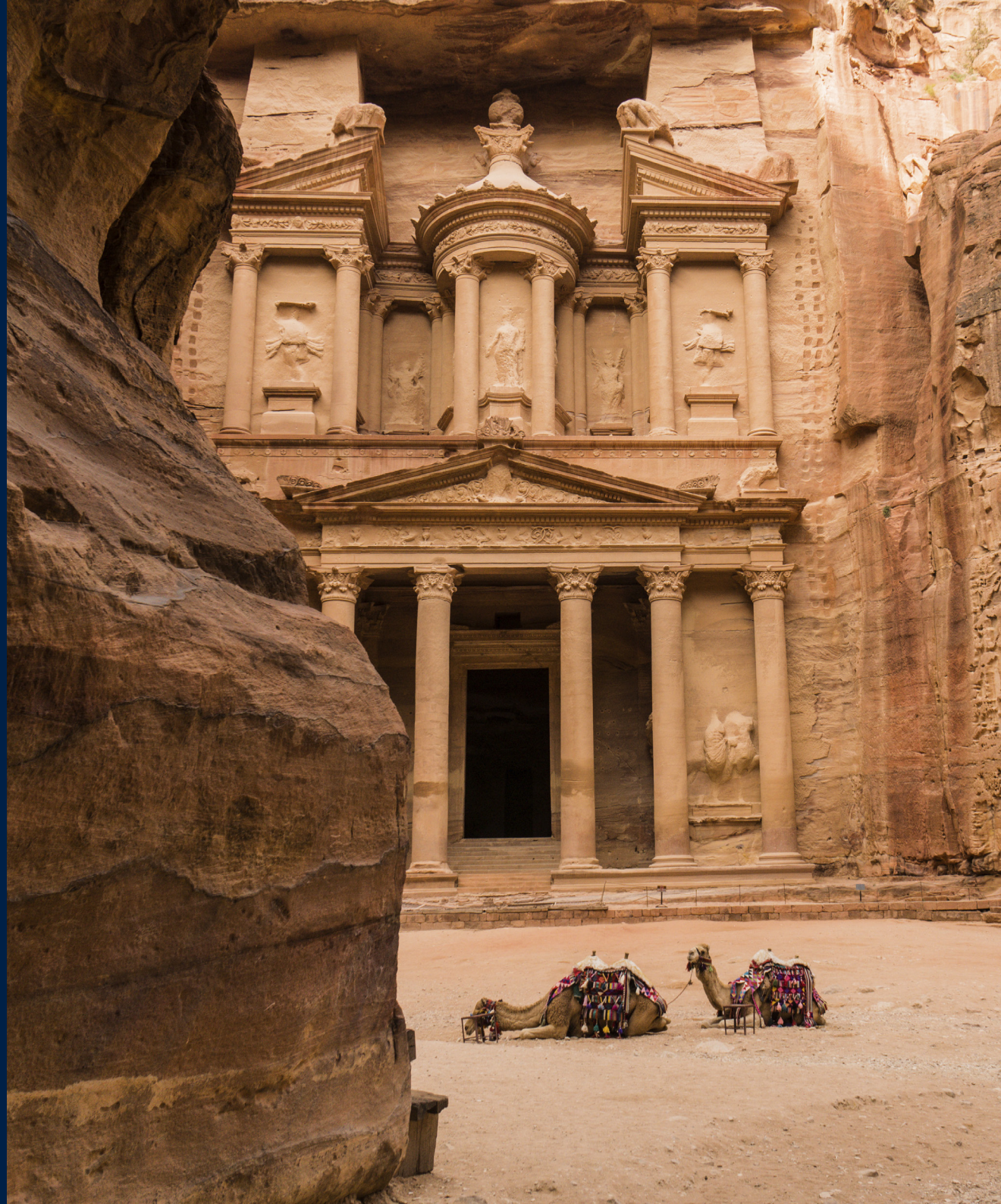
PLACE



Our cruises allow people to visit some of the most beautiful and exciting destinations that the world has to offer – and we want to help to keep them that way.

We want to deliver positive social and economic outcomes for the local communities we visit. Our investments in the development of new sustainable cruise terminals are creating jobs and bringing new visitors to these places.

We are also active supporters of destination stewardship, and continue to work collaboratively with Cruise Lines International Association (CLIA) and other cruise lines to manage visitor numbers and support the sustainable tourism aspirations of the destinations we visit. We are also a member of both the CEO-led Sustainability Committee and the Sustainability Task Force of the World Travel & Tourism Council (WTTTC), working closely with travel industry partners to develop and implement sustainable solutions for our industry.





Terminals development

We have invested in the creation of new terminal facilities in Durban, Miami, and Barcelona. These are allowing – or will allow – us to deploy our most environmentally advanced vessels in these locations.

To ensure we are building these terminals with the environment front of mind, all new MSC Cruises' port terminals are certified to LEED silver or higher. LEED – which stands for Leadership in Energy and Environmental Design – is a widely used global green building rating system. Its rigorous score-based systems ensure high levels of efficiency in both building design and operation.

Miami

In March 2022, we broke ground for our new \$350 million mega cruise terminal in Miami which, when it opens in late 2023, will be North America's largest.

The new terminal will be able to accommodate our largest and most environmentally advanced cruise ships, including our LNG-powered World Class ships. Most ships at berth at the new Miami terminal will be able to plug in to the local power grid, in line with PortMiami's plans to enable shore power connectivity.

A comprehensive environmental and social management system is in place for the construction and subsequent operation of the terminal. At a minimum, the terminal is expected to meet the LEED Silver rating, and a third-party audited system will ensure extensive data collection, reporting and incident notification practices.

Barcelona

We are investing over € 35 million in a new terminal in Barcelona, due to be operational in 2023. The terminal will have shore power connectivity and will also be ready for LNG bunkering.



Miami cruise terminal

It is on track to meet the LEED Gold rating, and we will seek LEED Zero Energy and LEED Zero Water certification within 12 months of operation. LEED Zero Energy requires the incorporation of solar panels and the use of renewable energy from the grid, as well as a low energy consumption design. To achieve LEED Zero water, we will demonstrate that the terminal has a low water demand, reuses rainwater, and directs stormwater directly to the sea.

› We are investing in new terminal facilities to allow us to deploy our most environmentally advanced vessels in these locations



Barcelona cruise terminal

Responsible tourism

Unmanaged tourism is a challenge for many of the world's most popular travel destinations, and we are committed to playing our part in addressing this. We work with our tour operators and relevant local authorities to find ways to minimise crowding on city infrastructure and traffic. This includes finding new sites to visit, expanding the area of interest beyond city centres.

We are determined to be a positive and engaged player in driving responsible and sustainable tourism. An increasing number of our passengers are engaged in sustainability matters and care deeply about protecting and enhancing the natural environment, and we have responded to that in our programme of shore excursions.

In summer 2022, our programme of shore excursions had its strongest ever focus on minimising our environmental impact and supporting nature-positive activities.

Transport

The first step in offering greener tours is to consider how we transport passengers from ports to places of interest. We are committed to expanding our utilisation of green ground transportation over time. During 2022, where possible we switched from fossil-fuelled vehicles to electric and hybrid shuttle buses in Denmark, Finland, Norway, Spain and Sweden.

Protectours

Excursions with a lower carbon footprint are growing in popularity and, in 2022, we offered more responsible shore excursions called 'Protectours' at 57 destinations. These tours, first introduced in 2020, include walking, hiking, bicycling, canoeing and kayaking excursions ashore – all low carbon activities. We aim to have at least one 'Protectour' in each destination by the end of 2024.

Many 'Protectours' also make a direct contribution to the environment by supporting the protection of habitats and species. These include planting trees to replenish lost forests in the Greek island of Rhodes, collecting plastic waste from the beaches of the Adriatic sea, making eco-friendly jewellery in Finland, urban farming and beekeeping in The Netherlands, organic rooftop farming in Denmark, and stone cleaning in Scotland.

Supporting tour operators

Our partnership continued with Travelife, a training and certification initiative specifically designed to help tourism companies that want to understand their responsibilities and become more sustainable. Travelife provides our tour operators with information and training that allows them to take action to reduce their environmental impact.

In 2022, we organised workshops for our tour operators focused on understanding the requirements for certification to a sustainability management system such as the one developed by the Global Sustainable Tourism Council (GSTC). The workshop agenda covered the specifics of certification, the benefits, and best practices, with real examples from companies that already have certified systems in place.



Nature Positive tourism

In 2022 we supported two nature tourism focused initiatives of the World Travel & Tourism Council (WTTC).

'Towards Nature Positive Travel & Tourism' is a comprehensive report to highlight the important role that the travel and tourism industry must play in reducing impacts that result in biodiversity loss and support nature conservation. MSC Cruises was highlighted in this report for several nature positive actions, including the diversion of ships away from sperm whale populations in the East Mediterranean.

Further to this, and to strengthen the commitment by the travel and tourism industry at the UN Biodiversity conference (COP 15), MSC Cruises signed the WTTC Nature Positive Vision for Travel & Tourism, to help position the travel and tourism sector as a 'guardian of nature' and to demonstrate the important role the sector can play in the implementation of global biodiversity goals.

› We recognise the importance of reducing the environmental impact of travel and tourism – we want to tread lightly on the places we visit

**SPOTLIGHT****HEAD OF SHORE EXCURSIONS**

Marialuisa is the head of shore excursions with MSC Cruises, working with her team to develop excursions for the hundreds of destinations our cruise ships visit each year.

“I am well aware of the pressure on our planet and recognise that we can play an important role in influencing the activities that our guests engage in at the destinations we visit.”

“Three years ago, we launched Protectours, a range of shore excursions that focus on environmental education and low carbon travel. Next, we wanted to ensure that, for every excursion we offer, we are effectively balancing a wonderful experience for our guests with protecting – or even enhancing – the beautiful places we visit.”

“To help us better understand our nature touchpoints, we are working with Animondial, a specialist consultancy, to investigate and assess how we can approach nature and wildlife interactions in a more comprehensive manner.”

Once we have completed the initial self-assessment, Animondial will help to summarise our current practices, performance and key criteria. This will help us prioritise actions and regions and, going forward, enable us to set key performance indicators against which we can track and measure our efforts to support nature positive tourism.”



MARIALUISA IACCARINO
HEAD OF
SHORE EXCURSIONS,
MSC CRUISES



Supporting local communities

The MSC Foundation supports communities in need through a variety of projects and programmes, including long-term partnerships with Marevivo, UNICEF and Mercy Ships.

All guests can donate to the MSC Foundation at the end of their cruise and every donation made is matched in value by the Foundation.

Emergency relief

Responsive as always to emergencies, the MSC Foundation continues to consolidate its global role assisting those most in need by donating goods, instigating fundraising schemes, and working with the MSC Group to provide logistics support. During 2022, the Foundation supported eight emergency relief initiatives in nine countries.

Its most significant support was for people displaced by the conflict in Ukraine, Europe's largest refugee crisis since World War II. The Foundation provided more than €7 million in relief and assistance, donating thousands of kilos of food items, blankets, sleeping bags and camp beds, and providing free containers, logistics and transportation to organisations working on the ground. It also launched a global fundraising campaign, *Joining Hands for Refugees*, with every donation matched by MSC Group, doubling its impact. By March 2023, the campaign had raised over €150,000, doubled through the fund-matching to achieve a total of €300,000.

Onboard education and involvement

Five of our cruise ships now host a dedicated MSC Foundation Centre, designed to inform and inspire our guests on the MSC Foundation's aims, programmes, and initiatives to tackle the most pressing global needs.

New partnerships

MSC Foundation launched two new strategic partnerships in 2022.

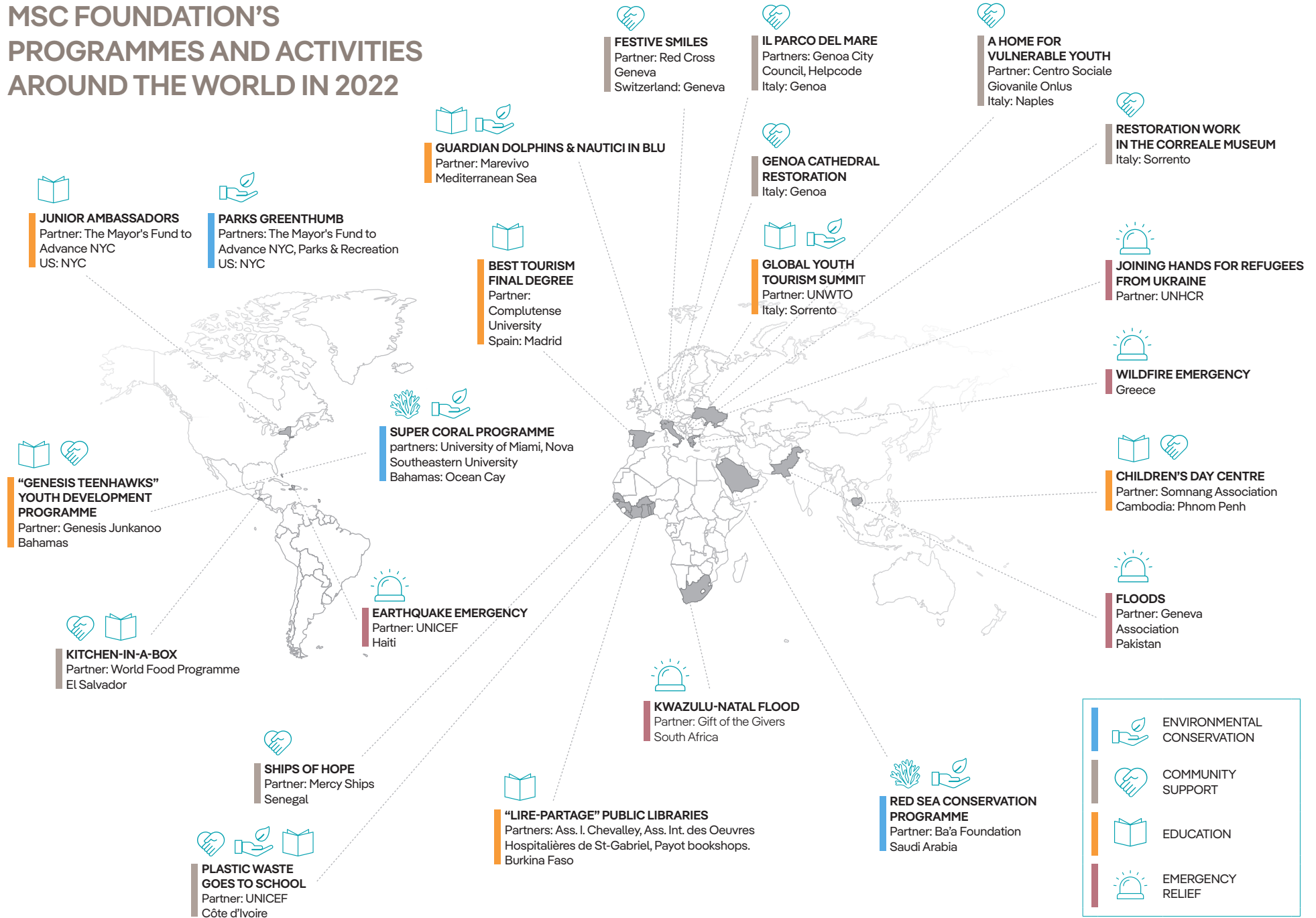
In November, at the naming ceremony of *MSC World Europa*, it committed to provide grant funding to an innovative multi-stakeholder programme to conserve and restore Qatar's coastal environment.

In December, at the naming ceremony of *MSC Seascapes*, the Foundation launched a partnership with the Mayor's Fund to support vulnerable communities in New York City. It will support two programmes: the NYC Junior Ambassadors (NYCJA) and the Department of Parks and Recreation's GreenThumb.

› Through its global fundraising campaign, *Joining Hands for Refugees*, MSC Foundation has raised over €300,000



MSC FOUNDATION'S PROGRAMMES AND ACTIVITIES AROUND THE WORLD IN 2022



	ENVIRONMENTAL CONSERVATION
	COMMUNITY SUPPORT
	EDUCATION
	EMERGENCY RELIEF

PROCUREMENT



Every year, we need to procure thousands of different items to run our operations, from engine parts to hand soap, crew uniforms to food and drink. Then we must get it on to our fleet of ships, which are constantly on the move.

Our procurement teams do a phenomenal job of building relationships with suppliers all over the world to satisfy our requirements, all the while prioritising sustainable and ethical choices.



Sustainable procurement policy

In 2022, our Sustainable Procurement Committee initiated a comprehensive review of our procurement processes and practices with the aim of identifying opportunities to improve our sustainability performance. We want to go beyond specific programmes – such as eliminating single-use plastics onboard – and shift the mindset of our buyer community so that every purchasing decision is made with the environment and worker wellbeing in mind.

Our first step was to adopt group-wide guidance in specific areas such as plastics, furniture, food & beverage. Initiated in 2022 this will be operationalised in 2023, along with initiatives to facilitate implementation, such as collecting sustainability information through our supplier portals and tendering processes.

› In 2022, we initiated guidance in key procurement areas including plastics, furniture and food and beverage.

The market is continuously evolving, and new, more innovative materials and products are always being developed, so the Sustainable Procurement Committee will continue to ensure the policy and supporting practices remain up-to-date and relevant.

Strategy in action

We aim to work with suppliers that share our ethical values and have robust processes for selecting and contracting with them. Once a trading relationship is established, we conduct audits to monitor ongoing compliance with our requirements.

Business Partners' Code of Conduct

We have a Business Partners' Code of Conduct which outlines the expectations we have of our suppliers and sets out our commitment to undertake business in a fair, ethical, and responsible manner. Our Supplier Compliance Programme then ensures that

specific clauses on ethical business conduct and sustainability are incorporated into supplier contracts and agreements.

Auditing our suppliers

Our team identifies any risks to our supplier standards by tracking and monitoring our supply chains. Our successful auditing programme has been in place for several years. If a supplier is found to have breached our Code of Conduct, depending on the severity of non-conformity, we decide to terminate the agreement or work with them to understand what went wrong and put a remediation plan in place. If we do not see quick improvement, we reserve the right to terminate the agreement.

Food safety

We adhere to the ISO 22000 Food Safety Management standard, which means that we have adopted the best possible practices to avoid accidents and contaminations. Each year, we conduct over 4,000 food safety analyses, testing dishes or the surfaces and equipment we use to prepare and serve our food. Likewise, all our food and beverage suppliers are evaluated for food safety compliance.

› Each year, we conduct over 4,000 food safety analyses



CASE STUDY

REDUCING PACKAGING FOR OUR SPARE PARTS

In November 2022, we conducted a packaging pilot with Wartsila, which supplies us with spare parts for our diesel engines. Our ambition was to see if we could find a more sustainable approach and reduce the amount of plastic used. Wartsila replaced plastic bags, bubble wrap and plastic tape with paper bags and paper tape, achieving a 30% reduction in plastic. We received three pallets of parts from them and opened all the boxes to confirm that all the parts had been delivered without damage. Following this satisfactory pilot, we now have plans in place to reduce the plastic to just one quarter of the original amount. Once implemented, this will avoid 1.5 metric tonnes of plastic waste being brought onto our ships.

More sustainable retail products

During 2022, our onboard retail team conducted a review to see if we could lower the impact of what we either create or we buy for resale in our shopping outlets.

Many products created for the MSC Cruises or Ocean Cay brands are made from natural materials – such as cotton, bamboo, and paper – and we have removed all plastic from our packaging. We are encouraging the suppliers of all other items to actively choose and promote sustainable options from their portfolio.

For our new luxury brand, Explora Journeys, we are committed to partnering with brands who reflect our own commitment to sustainable practices and environmental consciousness. It is why we are one of the first at sea retailers which actively looks for partners with relevant certifications, ensuring a positive approach to their production practices. Many of our partners are B-Corp certified, providing us with the assurance that they meet the highest standards in social and environmental performance. We also consider the Butterfly Mark certification – awarded to luxury brands, retailers and supplier that meet high ESG standards – as a credible indicator.

Additionally, we have considered the way in which our products reach the ships and have removed 90% of airfreight from our supply chain. We have done this through better planning and by using a new predictive logistics forecasting model that allows us to better anticipate onboard demand.

We now have MSC Foundation Centres on six of our ships, and we continue to partner with the Foundation to expand and grow the sustainably sourced range of products we sell here too. The net proceeds from every item sold goes directly to support good causes.



SPOTLIGHT

Sustainable procurement for EXPLORA JOURNEYS

In summer 2023, we will welcome passengers on board *Explora I*, the first cruise ship under our new luxury brand, Explora Journeys.

“Sustainable procurement was a key consideration from the moment we conceived the new brand. We have taken all the best ideas from our contemporary fleet, and then sought to forge ahead.

“One good example is single-use plastics. We have struggled to address the challenge of plastic bottles, but have eliminated them from *Explora I*. Instead, sparkling and still water will be served using refillable glass carafes and each guest will be provided with refillable aluminium bottles and invited to use refilling stations all over the ship. We have also avoided the use of single-use plastics in our guest amenities by using refillable bottles for shampoos, soap, and body lotion. This isn't just about plastic: it's about using durable solutions to replace single-use items.

“We considered sustainability when planning the fit out too. All furniture and furnishings on board *Explora I* were designed by leading European design companies and manufactured in Europe using sustainably sourced wood from either Europe or Asia. Many items were sourced in Italy, close to where the ship was being built. Our procurement experts have tested various types of wood for performance and longevity in a marine environment and, in some cases, we have favoured wood alternatives.

“We have also paid close attention to the products we use for cleaning the ship. All the products we use for

laundry, dishwashing and housekeeping are concentrated – to minimise packaging materials – and are free from NTA, perborate and phosphate and come with a certified eco label or accreditation. We use enzymatic products to clean toilets and pipes, and our laundry products enable us to wash items at a lower temperature and use less stressing washing programmes. This extends the lifecycle of the materials, all while ensuring our towels are fluffy, our whites are bright, and our sheets feel soft to the touch.

“We are now working to address the remaining residual 5-10% of products onboard where our procurement teams have not yet identified fully eco-certified substitute products – such as rust removal products.

“The *Explora* ships are allowing us to push the boundaries of what is possible in sustainable procurement. Having found these alternatives and built these new supply chains, we are now exploring which initiatives can be scaled for use across our entire contemporary fleet.”



GIORGIO ZAGAMI
VICE PRESIDENT
STRATEGIC SOURCING,
EXPLORA JOURNEYS



DATA TABLE

	2019	2020	2021	2022
Passenger days	19,501,176	4,772,286	4,472,355	14,381,661
Operational days	5704	1543	2086	5863

Emissions

		2019	2020	2021	2022
Total Fuel Consumption	tonnes	633,314	282,707	337,590	663,675
HSFO	tonnes	576,106	167,168	226,807	498,377
LSFO	tonnes	-	78,366	23,974	59,461
MGO	tonnes	57,208	37,173	86,810	104,705
LNG	tonnes	-	-	-	1,132
CO2 Emissions	tonnes	1,977,404	886,670	1,060,129	2,078,105
CO2 Intensity	gCO2/ALBKM	231	331	253	220
NOx Emissions	tonnes	-	-	-	32,454
SOx Emissions	tonnes	-	-	-	1,918

Water

		2019	2020	2021	2022
Potable water use	Liters/person/day	167	230	246	226
Potable water produced onboard	Cubic meters	3,476,049	1,207,031	1,748,136	4,274,833
Potable water bunkered	Cubic meters	839,660	319,775	241,813	571,868



Waste and Wastewater

WASTEWATER DISCHARGED TO SEA	2019	2020	2021	2022
Total Wastewater (m ³)	4,560,654	1,204,186	242,842	3,530,867
Treated Blackwater (m ³)	276,273	85,481	3,204	91,337
Untreated Blackwater (m ³)	73,243	765	8,602	9,398
Greywater (m ³)	1,326,098	386,172	44,219	1,123,768
Wastewater treated using AWTS (m ³)	2,885,040	731,768	186,817	2,306,364
Percentage of wastewater treated using AWTS	63%	61%	77%	65%
Number of ships with AWTS	9	9	11	13
SOLID WASTE/RECYCLED MATERIAL				
Total waste removed - excluding recyclables (m ³)	-	41,234	54,134	93,622
Total waste removed - including recyclables (m ³)	-	48,028	67,041	126,120
Recycling rate	-	14.1%	19.2%	25.7%
Total waste per passenger day – including recyclables (m ³)	-	0.01	0.015	0.009
Total recycled waste (m ³)	26,352	6,794	12,907	32,498
- glass	6,897	1,712	2,284	6,425
- aluminum	1,418	318	290	1,017
- plastics	6,263	1,654	2,845	8,276
- paper	9,393	2,083	5,528	10,846
- cooking oil	147	56	55	157
- other	2,234	971	1,905	5,777
Punctured aerosol cans (kg)				5,420
Hazardous Waste (kg)				850,512

Employees

	2019	2020	2021	2022
Total employees shoreside	2,608	2,142	2,460	2,937
Shoreside female employees	55.5%	53.7%	54%	54.8%
Average training hours per shoreside employee	49.7	8.2	6.3	23.7
Total employees shipboard	19,860	19,789	16,729	25,091
Shipboard % female employees	18%	19.4%	18%	18%
Average training hours per shipboard employee	36.3	-	22	26

