



THIS IS THE MODIFIED VERSION

2023  
**SUSTAINABILITY  
REPORT**

**2023**  
**SUSTAINABILITY**  
**REPORT**

# CONTENTS

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- 04** A WORD FROM  
OUR GROUP PRESIDENT
- 06** CEO STATEMENT
- 08** MSC CARGO DIVISION
- 14** SUSTAINABILITY  
AT THE HEART OF OUR BUSINESS
- 40** ENABLING  
LOGISTICS DECARBONIZATION
- 66** PROTECTING  
OUR BLUE PLANET
- 86** FOSTERING  
INCLUSIVE TRADE
- 102** ADDRESSING  
SOCIAL CHALLENGES
- 124** OUR PERFORMANCE
- 140** ASSURANCE STATEMENT



# A WORD FROM OUR GROUP PRESIDENT

## Diego Aponte

MSC Group President

Our Group, along with the rest of the world, has faced a huge and varied set of challenges in the recent years that have been complex and dynamic. The human factor has never been as vital and essential as it is now in finding solutions that can help change happen in a positive way.

Being a family company proves to be particularly important in moments when cohesion and determination make a real difference and our people are one of the main sources of our strength. Relying on a unique DNA like ours, represents an additional value and a lever for bringing to life our purpose and delivering on our commitments.

The recent acquisitions we made in the last two years, have brought new colleagues from all over the world into our organization, adding skills, experiences and new energies. This will help us to tackle the challenges that our business will encounter, always keeping sustainability in mind.

The achievements we have made on our journey to net zero in terms of decarbonization, especially in our fleet, not only

show our dedication but also demonstrate our concrete and proactive way of involving all strategic stakeholders in finding and applying scalable solutions as we improve connections globally. We are aware that the choices and investments we make have wider implications, including the development of new technologies that can have a positive impact within and beyond our sector. Please see more about what and how we are doing things in the chapter 'Enabling logistics decarbonization'.

Among the tangible investments we have made are the 15 dual-fuel vessels we have on the water today and those to be delivered in the coming years, ready to adopt net-zero fuels as they become available. Across the Cargo Division, we continue our decarbonization efforts such as through the electrification of our terminals as well as the expansion of our landside operations in sustainable modes of transport such as rail. Our goal is to reduce the carbon footprint of global supply chains, and to build partnerships that help societies

grow. Our sector is essential for the global trade system. We have throughout our 54 years evolved with our times, adapted to new challenges and along with others in the industry learnt to better preserve our activities from supply chain risks, make smart decisions and support communities around the world. At MSC, we constantly strive to uphold ethical standards across all our operations and supply chains including advancing the international Business and Human Rights agenda.

An integral part of our approach to making a positive difference also involves choosing to support organizations that have always been committed to helping the most vulnerable groups, who often do not have access to basic healthcare. Since 2011 MSC has been partnering with Mercy Ships, providing logistical support through MSC, MEDLOG and TiL for the lifesaving surgeries performed and medical training delivered on their fleet of hospital ships. I am immensely proud that we are supporting Mercy Ships in the construction of a

new custom-built vessel, with hospital facilities comprising six operating rooms, a fully equipped laboratory and state-of-the-art training areas that will bring hope and healing to the people of sub-Saharan Africa.

In September at the Trieste Marine Terminal, I was thrilled to pay tribute to one of our esteemed MSC colleagues and my dear friend, Captain Nicola Mastro, by naming one of the world's most state-of-the-art vessels in his honour. Over his long MSC career, Captain Mastro stood as a pillar within our company, a leader and role model for fellow colleagues. His embodiment of our purpose and values served as an inspiration to me personally.

MSC Group continues to be driven by its responsibility to act as agents of change. We support sustainable supply chains, deal with disruptions and are planning a path to net zero. Together, guided by our legacy and a common vision of cooperation and resilience, we are prepared to meet the challenges that await us.



# CEO STATEMENT

## Soren Toft

MSC Chief Executive Officer



In 2023 the world faced continued uncertainty, navigating new challenges and seizing opportunities as they emerged. MSC joined forces with business leaders, members of the global community and key stakeholders to progress on our collective journey towards the achievement of the 2030 Agenda for Sustainable Development. We remain fully committed to conducting our business responsibly, and continue to support the Ten Principles of the United Nations Global Compact in the areas of human rights, labour, environment and anti-corruption, and integrating these into our business strategy, decision-making, culture and operations.

Reflecting on the past year there has been significant progress in our industry's energy transition, with the growing momentum encouraging the emergence of new business models and innovative partnerships. We are seeing increasing convergence across the maritime ecosystem,

with governments and companies stepping up to the climate challenge regarding deep and rapid emission reductions to try to address our planet needs.

2023 marked the adoption of the IMO Strategy on Reduction of GHG Emissions from Ships, an important milestone in global strategy for the decarbonization of our industry. Also encouraging were the overall positive outcomes of the UN Climate Change Conference in Dubai, where MSC was pleased to join other leading shipping companies to call for a regulatory end date for the building of fossil fuel-only ships. There is much we have learned over the past year through pilots and trials, as well as through close collaboration with energy suppliers, about the future fuels that will enable the achievement of MSC's climate ambitions. While we do not yet have all the answers, we do have a clearer picture helping us project in a real-world scenario where we can make critical investment decisions. These learnings are



also helping define the timelines and availability of fuels – particularly those based on green hydrogen.

As we decarbonize global supply chains, MSC's focus is also on creating connections that help societies. With the growth of the global network, MSC people around the world are contributing to greater trade and connectivity for those remote and landlocked communities who depend on us and others in our industry for access to the global marketplace.

Following the first wave of Red Sea attacks threatening maritime safety and disrupting supply chains, MSC immediately adjusted its services and ships to sail around the Cape of Good Hope. In the aftermath of the February 2023 earthquake affecting Türkiye and Syria, the MSC family worked swiftly to restore vital services and impacted infrastructure, delivering emergency relief and providing temporary shelter on the MSC Aurelia, while the MSC

Foundation raised several million USD to assist affected communities.

The safety of our people is paramount, including protecting our people at sea and on land. We stand in solidarity with the families of seafarers whose lives have been affected due to the Red Sea attacks on vessels transiting the area. We must and we will do more to safeguard our employees across our global operations.

At MSC we are the people's carrier, with a unique people-centric approach to connecting the world, and local teams firmly rooted in the communities and countries where we operate. We seek to harness the potential of our business to make a positive impact on the ground and are leveraging our worldwide presence, supporting customers and contributing to economic growth. I'm confident we will know how to broach these uncertain times, turning challenges into opportunities today and in the future.

# MSC CARGO DIVISION

Headquartered in Geneva, Switzerland, and part of the privately owned MSC Group, MSC's Cargo Division is a world leader in shipping and logistics.

Guided by a unique, innovative and long-term approach reflecting the values of our family company, MSC's visionary leadership transformed a single-vessel operation in 1970 into a successful global business through exponential and organic growth.

More than fifty years after the start of our great human story, we became an industry leader in shipping and have played an important role in contributing to the world as we know it. Our growth prepares us for the way forward, with the MSC family expanding and our recently acquired companies and new entities further enhancing our global transport and logistics network. 2023 saw the successful completion of takeovers already underway, with new acquisitions and investments creating value as we connect customers of all industries and sizes by sea, road, rail and now also by air. It is our responsibility and purpose – our North Star – to contribute to the future that we want, enabling global economic growth by driving trade, and unlocking the potential of communities while playing our part in ensuring a just and equitable transition. We are fully committed to navigating the path to sustainable development and tackling the global challenges connecting us all.

## OUR PURPOSE

WE CONNECT THE WORLD, FOSTERING INCLUSIVE SOCIAL PROSPERITY AND ECONOMIC GROWTH, WHILST RESPECTING AND NURTURING THE HOME WE ALL SHARE, OUR BLUE PLANET.



# CONNECTING THE WORLD

with a direct presence in over 155 countries

## WE

ARE **91,967** PEOPLE FROM **150+** NATIONALITIES AND **6** CONTINENTS<sup>1</sup>



### NAVIGATING

**300** routes with **809** vessels<sup>2</sup>



### MOVING

**24.5** million<sup>2</sup> TEUs by sea, of which **20%** will be transported aboard dual-fuel vessels by 2027



### REACHING

**520** ports of call with **100** terminals, moving **38** million containers per year



### TRANSPORTING

**6.3** million<sup>2</sup> TEUs on land by road, rail and barge



### OPERATING

an inland network of logistics hubs, with **300+** operating yards, depots and warehouses



### CARRYING

**40,000+** tonnes of cargo by air with **4** aircraft connecting **33** airports in Asia, Europe and North America



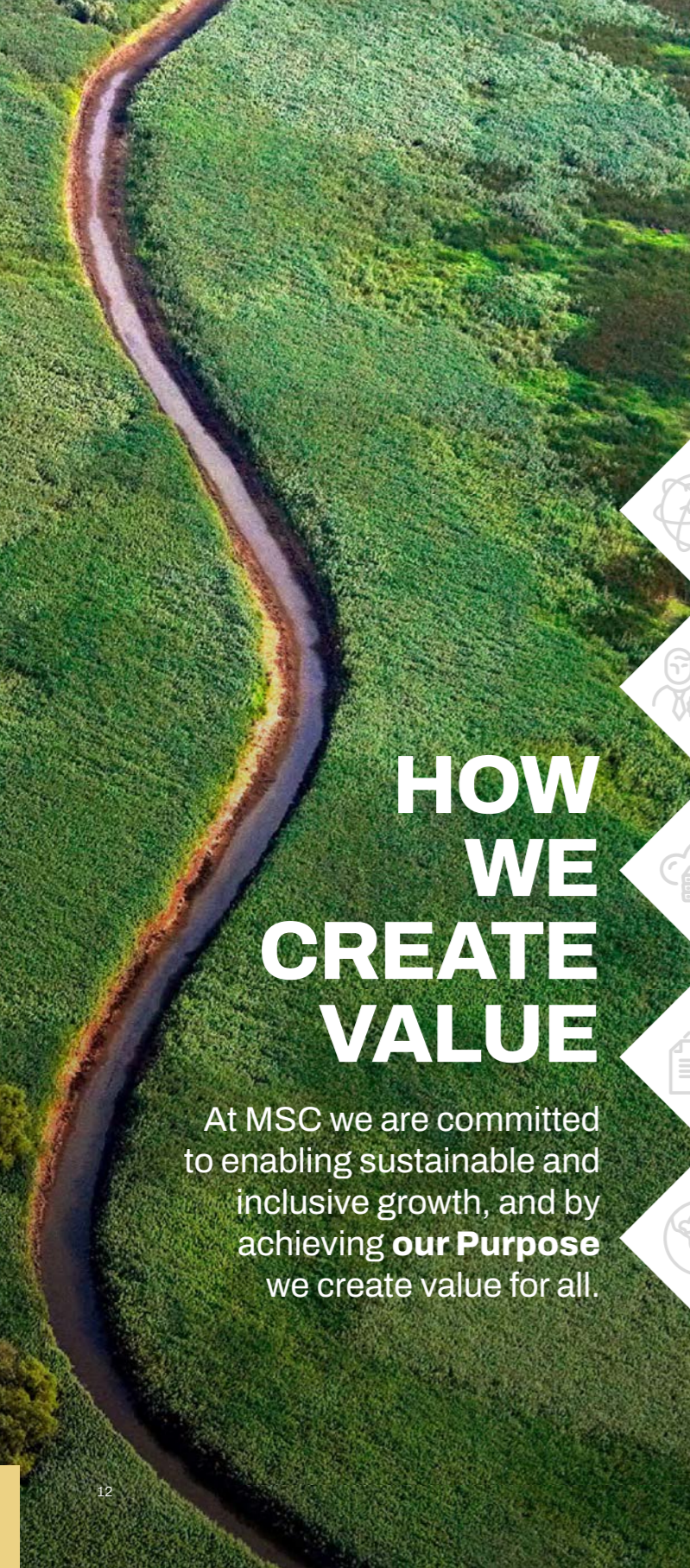
logIn.

MEDLOG



[1] Full list of countries available at [www.msc.com](http://www.msc.com) and [www.aglgroup.com/transport-logistique-afrique](http://www.aglgroup.com/transport-logistique-afrique)

[2] Updated as at 31 March 2024. Please see [page 126](#) for data for the reporting period 1 January - 31 December 2023



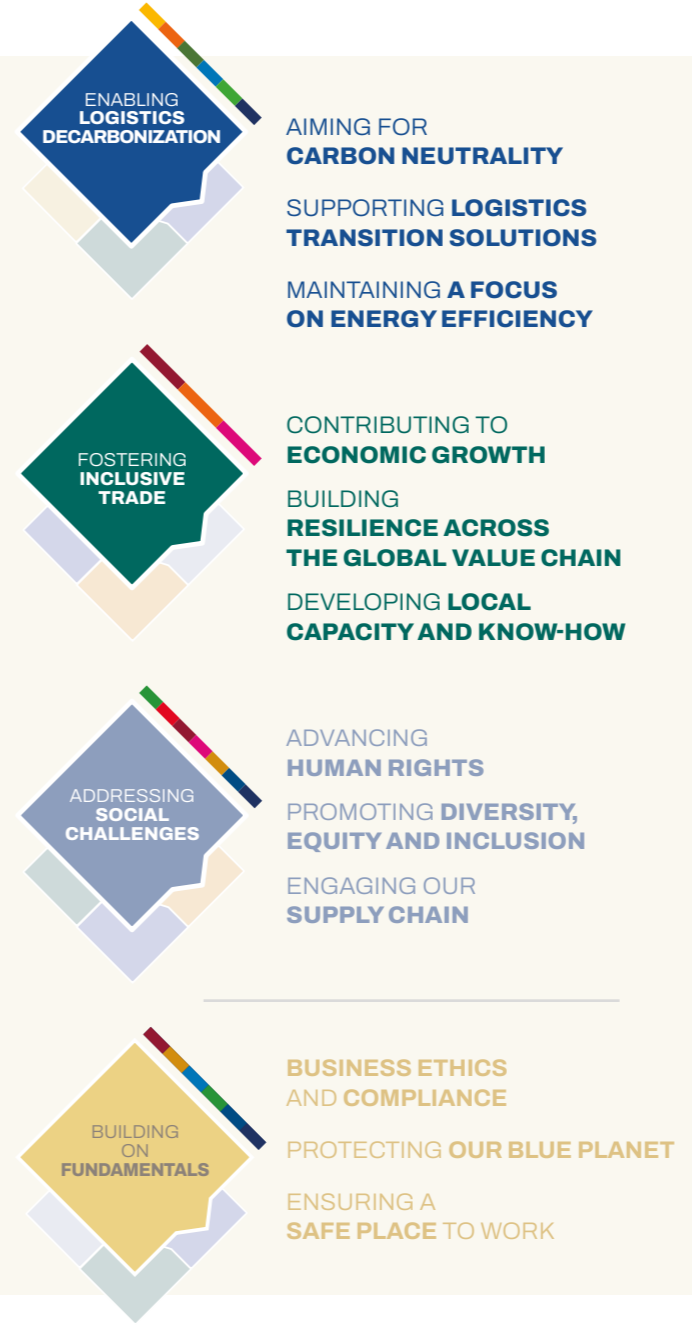
# HOW WE CREATE VALUE

At MSC we are committed to enabling sustainable and inclusive growth, and by achieving **our Purpose** we create value for all.

## VALUE CREATION STARTS WITH SOLID FOUNDATIONS

-  Global logistics **assets, infrastructure** and **worldwide network**
-  Commitment and expertise of **our people** across the global MSC family
-  **Digital infrastructure,** data and technology assets
-  Authentic relationships and close **cooperation with our stakeholders**
-  Our **blue planet**, rich in the resources we depend on and which we must respect

## OUR PRIORITIES



## OUR FUNDAMENTALS

## OUR IMPACT

- PEOPLE**  
By promoting a safe, healthy and inclusive workplace and investing in our people, we foster a culture of continuous learning, improvement and innovation and support our growing workforce in the development of new skills and a unique set of competencies.
- CUSTOMERS**  
By creating connections and collaborating across the value chain, we enable resilient and sustainable supply chains, accompanying our customers in their climate ambitions and their business performance and growth.
- COMMUNITIES**  
By providing trade access and investing in local industry – maritime, ports, road and rail infrastructures, shipbuilding and related supply chains – we are part of economic growth, social prosperity and the transformation of logistics ecosystems.
- PLANET**  
By investing in innovative projects and partnering with other key sectors to find scalable solutions, we are improving our efficiency and accelerating the energy transition. We have a role in protecting marine and land-based ecosystems while ensuring the sustainable use of natural resources.





SUSTAINABILITY

**AT THE HEART  
OF OUR BUSINESS**



## A COLLECTIVE RESPONSIBILITY FOR OUR SHARED FUTURE

The world is facing a set of interconnected crises with widespread socio-economic consequences directly impacting communities and the livelihoods of people around the world. According to the United Nations (UN) Global Compact-Accenture Global Private Sector SDG Stocktake<sup>3</sup>, as we stand at the midpoint between 2015 and 2030 – 2030 being the target year for achieving the **Sustainable Development Goals** (SDGs) – we are confronted with the stark reality that none of the SDGs are on track for achievement by 2030. Today, the business community must come together to renew its commitment and accelerate progress on the sustainable development agenda. The private sector is

already making a positive contribution as a driver of global growth, innovating, investing, creating employment and building capacity. The business community has a collective responsibility to unite across and beyond industries to address global challenges, finding solutions for the benefit of all and building our shared future.

As a purpose-driven company with a growing global transportation and logistics network across six continents, MSC plays a key role in enabling sustainable supply chains. We contribute to the transformation of economic systems, addressing inequality and contributing to a nature-positive and net-zero world.

## MSC'S FAST-TRACK COMMITMENT TO A SUSTAINABLE WORLD

In this report MSC's Cargo Division comprises MSC Mediterranean Shipping Company (MSC), MSC Air Cargo, MEDLOG, Terminal Investment Limited (TiL) and WEC Lines as well as Africa Global Logistics (AGL) and Log-In Logistica. It includes acquisitions and the creation of new entities in sectors and parts of the world where sustainable development topics are relevant. For this reason, in 2023 we started an assessment process across the new entities to understand business specifics of each and ensure our approach is aligned and fully integrates all relevant sustainable development material topics. Identifying the global challenges and key trends that are currently impacting our business and those that will shape our future is paramount. We draw on internal expertise to understand their implications, assessing our direct

and indirect impacts and adjusting our response to the fast-evolving landscape as well as our key stakeholders' expectations.

Engagement is a critical element of MSC's sustainability approach, and we are in constant dialogue with our key internal and external stakeholders (see [page 24](#)). By understanding and mapping what is important to them, we leverage the interconnections between material topics as well as identifying areas of convergence on shared ambitions and common challenges. This structured approach forms the basis for the delivery of our sustainability roadmap, against which we monitor progress on our commitments, ensuring targets are met while focusing on continuous improvement in our performance.

[3] [info.unglobalcompact.org/sdg-stocktake](https://info.unglobalcompact.org/sdg-stocktake)

# A COMPLEX AND CHANGING WORLD

With today's fast-evolving world comes significant implications for MSC's business strategy and operations that in turn impact the delivery of the global sustainable development agenda. Mega- and sector-specific trends and new regulatory requirements present a range of risks and opportunities for our company, with new and existing global challenges intersecting and interlinking. MSC operates on a global scale in a fast-paced world and we are impacted by this dynamic external operating environment.

To better prepare ourselves to anticipate and respond to challenges shaping our reality today and in the future, we are constantly monitoring how trends correlate with

our strategy and initiatives. Our growing presence in ever more countries and regions – including through our acquisition of AGL (with operations across the African continent, Haiti and Timor-Leste) and Log-In Logística (Brazil) – brings additional layers of complexity as well as global, regional and national regulatory requirements with which we must comply.

Today's environmental and social challenges are inextricably linked, with climate action and addressing the triple planetary crisis having implications for tackling inequality, ensuring sustainable supply chains and a just energy transition.

## CLIMATE ACTION AND THE NET-ZERO TRANSITION

2023 was the hottest year on record, with temperature records being broken in countries ranging from Belarus, China, Latvia, Myanmar, Portugal, Thailand, the UK and several others. According to the World Meteorological Organization, global temperatures are likely reach 1.5°C above pre-industrial levels in the next five years<sup>4</sup>, exacerbated by the anticipated return of the El Niño and La Niña weather phenomena. Climate change is threatening human wellbeing and planetary health, and according to the

UN Intergovernmental Panel on Climate Change (IPCC), is already affecting many weather and climate extremes in every region of the world<sup>5</sup>. Two-thirds of respondents to the World Economic Forum Global Risks Perception Survey 2023-2024<sup>6</sup> ranked extreme weather as the top risk most likely to present a material crisis on a global scale in 2024. While climate action continues to gather momentum, rapid transformation is needed across all sectors and systems to accelerate the energy transition, achieve net-zero CO<sub>2</sub>

emissions and limit global warming. In parallel, investment and action on climate adaptation need to be stepped up to catch up with climate change impacts and close the adaptation finance gap, which the UN Environment Programme estimates to be USD 194-366 billion per year, to avoid leaving the world exposed<sup>7</sup>.

Reducing the emissions of transportation and logistics is a top priority for our industry. International shipping emits 2-3% of global greenhouse gas emissions (GHG)<sup>8</sup>, and we have a contribution to make in the transition to a net-zero economy. The **2023 IMO Strategy on Reduction of GHG Emissions from Ships** sets out new levels of

## THE TRIPLE PLANETARY CRISIS

Climate change, biodiversity loss and pollution are posing unprecedented challenges to people and nature, representing a crisis and threatening access to the universal human right to a healthy and sustainable environment. Our planet's precious natural resources are critical elements of these systems, and their health and productivity are essential to sustaining life on earth.

There is increasing recognition that oceans boost our resilience to the impacts of our changing climate, limiting temperature rise, helping communities adapt and providing

ambition for shipping, including a 40% reduction in its carbon intensity by 2030; 5-10% of energy coming from zero or near-zero GHG emission technologies, fuels and/or energy sources; and the goal of reaching net-zero GHG emissions by or around 2050. In 2023 the industry also prepared for the introduction of the **European Union Emissions Trading System (EU ETS)** in January 2024, setting an emissions cap for companies while facilitating the trading of emission allowances.

Climate action presents our industry with the opportunity to create a more collaborative logistics ecosystem, working together towards our collective target of net zero.

climate solutions through their rich biodiversity including serving as a carbon sink. Marine, coastal and land-based ecosystems also present opportunities to accelerate climate action and adaptation, with benefits for the environment as well as for the resilience and prosperity of communities around the world.

With transportation and logistics infrastructure and business activities at sea, on land and in the air, our industry has a responsibility to proactively manage its impacts and contribute to a nature-positive future.

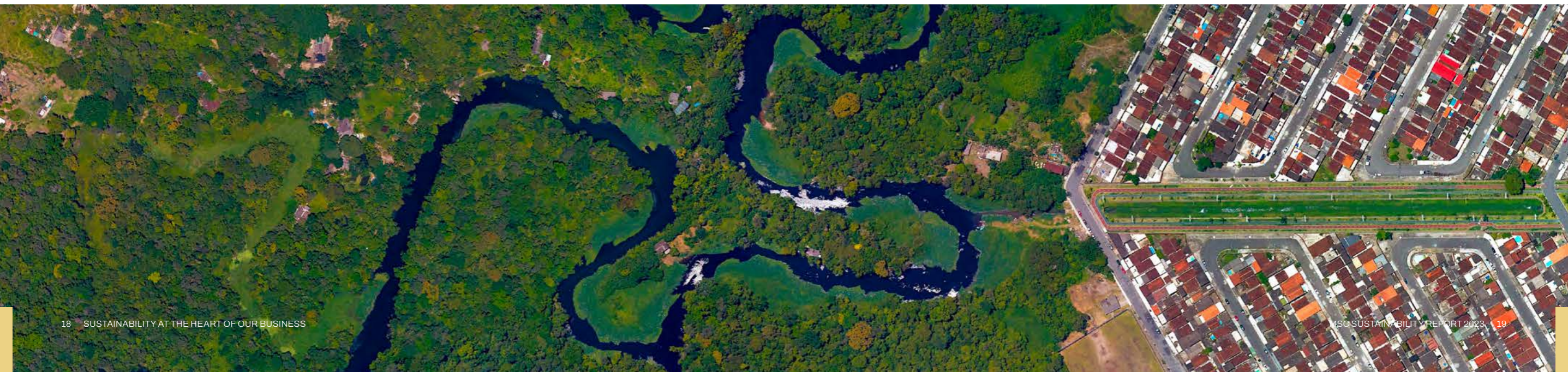
[4] [wmo.int/news/media-centre/global-temperatures-set-reach-new-records-next-five-years](https://www.wmo.int/news/media-centre/global-temperatures-set-reach-new-records-next-five-years)

[5] [www.ipcc.ch/report/ar6/syr](https://www.ipcc.ch/report/ar6/syr)

[6] [www.weforum.org/publications/global-risks-report-2024](https://www.weforum.org/publications/global-risks-report-2024)

[7] [www.unep.org/resources/adaptation-gap-report-2023](https://www.unep.org/resources/adaptation-gap-report-2023)

[8] [www.imo.org/en/OurWork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx](https://www.imo.org/en/OurWork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx)





## RETHINKING GLOBAL SUPPLY CHAINS

Following the disruptions triggered by the global pandemic and geopolitical tensions including new and ongoing conflicts in Ukraine and the Middle East and China—US relations, companies have been exploring and adopting new approaches, processes and multi-dimensional networks aimed at balancing risk, increasing flexibility and building resilience across their supply chains. Deglobalization and fragmentation – triggered by higher costs, increased risks and government incentives, among other factors – have resulted in some companies shifting to regionalization, nearshoring, friendshoring and reshoring to withstand and overcome disruptions as well as insulating them from future impacts. As the backbone of the global

trade system, the transportation and logistics industry has evolved and adapted, supporting local economic ecosystems by facilitating the flow of goods across borders. With the rapid integration of technology and accelerated digitalization, cyber-security is ranked as one of the highest risks impacting shipping in 2022-2023<sup>11</sup>, with potentially significant implications for the safety of our people, assets and infrastructure as well as the cargo we transport. The energy transition is also prompting a shift to more efficient and circular operating models where sustainability is embedded across the production process and impacting the supply chains which transport products around the world.

## INEQUALITY AS A GROWING SOURCE OF RISK

While the past century has seen tremendous gains in the world's overall development, the benefits and access to opportunities have not been equally shared. According to the UN, we are witnessing the sharpest increase in global inequality in more than three decades<sup>9</sup>, with the number of people living in extreme poverty in 2023 higher than in 2019<sup>10</sup>. This is threatening the prosperity of people, businesses and societies, causing social friction and undermining our collective capacity to tackle global challenges. Business has a key role to play in creating value and new opportunities, catalysing inclusive and sustainable growth and helping reduce socio-economic gaps. The private sector also serves as a critical provider of essential goods,

with remote and vulnerable communities reliant on global supply chains to deliver goods to meet their basic needs, particularly in times of crisis. As the backbone of the global trade system, transportation and logistics play a pivotal role in connecting and unlocking the potential of local economies, while addressing inequality. We contribute to the transformation of communities, countries and continents through business and trade, connecting small businesses to global markets and building the resilience of local economies. Our industry drives growth through employment opportunities and building local capacity as well as through innovation and investment in infrastructure and technology.

## PREPARING FOR THE FUTURE WORLD OF WORK

The world of work continues to evolve, with the ever-changing expectations of today's workforce towards their jobs and the companies where they are employed. The battle for talent continues, with companies competing with peers and other industries to fill new or changing job profiles with the skillsets they need to address rapid technological advancements and the transition to a net-zero economy. Work plays an important role in people's lives, impacting their income, wealth and wellbeing. Workers seek meaning in what they do, expecting employers to provide a safe, diverse and inclusive workplace that empowers and proactively supports people. They are increasingly charting non-linear career paths and employers are adapting their focus on skills over credentials and prior experience as part of the

shift to more diversified talent pipelines. Digitalization, artificial intelligence (AI) and automation are challenging all industries, impacting, displacing and creating jobs at unprecedented rates. Technology has become a core part of transportation and logistics, shaping relationships and transactions with stakeholders across and beyond the industry as well as accelerating our decarbonization efforts. As a creator of jobs, builder of capacity and developer of talent, we contribute by investing in our people at sea and ashore, addressing skills gaps for a just and equitable net-zero transition and ensuring our workforce is equipped with the critical competencies needed for the future world of work.

[9] [sdgs.un.org/sites/default/files/2023-07/The-Sustainable-Development-Goals-Report-2023\\_0.pdf](https://sdgs.un.org/sites/default/files/2023-07/The-Sustainable-Development-Goals-Report-2023_0.pdf)

[10] [press.un.org/en/2023/sgsm21776.doc.htm](https://press.un.org/en/2023/sgsm21776.doc.htm)

[11] [www.ics-shipping.org/publication/ics-maritime-barometer-report-2022-2023](https://www.ics-shipping.org/publication/ics-maritime-barometer-report-2022-2023)

## DRIVING PROGRESS ON OUR AGENDA

Advancing the sustainability agenda calls for active engagement and an open dialogue with stakeholders across the entire value chain based on mutual trust, transparency, inclusiveness, consistency and accountability. During the past five decades we have steadily built relationships with our employees, customers, suppliers, the financial community, regulators, communities and civil society, all of whom are key partners along our sustainability journey. This continuous engagement has been instrumental in advancing the SDGs and is critical for the delivery of our sustainability roadmap. We recognize we are not alone on our sustainability journey and consider our stakeholders key to delivering on our commitments. The approach builds

on a shared understanding of what matters, proactively responding to issues of mutual concern and collectively identifying solutions and developing projects to address challenges.

MSC's recent growth has meant that our community of stakeholders has expanded further, and their input will be essential to inform our material topics directly. In 2023 we focused on familiarizing ourselves with the perspectives, priorities and expectations of both current and new stakeholders, as well as understanding how they are responding to the evolving landscape. This activity is ongoing and its implementation will continue in 2024 as part of the double materiality assessment review

for MSC's entire Cargo Division, including our recent acquisitions and new entities.

Regulatory and societal developments are impacting our stakeholders in different ways, and our approach builds on a shared understanding of what matters. In our engagement we seek their insights to identify shared ambitions, proactively responding to topics of mutual concern and collectively acting through solutions with which we can make a positive impact together. MSC also commissions research studies and draws on technical expertise across and beyond our industry, which provide a deeper understanding of our stakeholders' expectations and inform the continuous review of our roadmap.

ESG (environmental, social and governance) ratings and benchmarks have become increasingly important to companies, customers, the financial community and other stakeholders in their financial and procurement decision-making processes. However, the criteria and metrics used for ESG ratings vary, and in some cases, we have observed the same topics being assessed in different ways which can pose challenges for companies and their stakeholders. The proposed regulation<sup>12</sup> of ESG ratings is expected to further enhance the consistency and quality of data, transparency of governance and methodologies as well as facilitate improved disclosure around which companies can engage their stakeholders.

[12] [finance.ec.europa.eu/sustainable-finance/tools-and-standards/esg-rating-activities\\_en](https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/esg-rating-activities_en)



# ENGAGING WITH OUR STAKEHOLDERS



## EMPLOYEES



## CUSTOMERS



## SUPPLIERS



## FINANCIAL COMMUNITY



## REGULATORS



## COMMUNITIES AND CIVIL SOCIETY

### HOW WE ENGAGE

We draw on multiple formal and informal touchpoints, including employee surveys and town halls, incorporating our colleagues' insights and sharing our collective challenges of the future. We engage with dedicated teams to work on our sustainability priorities and we constantly work on building awareness of our sustainability roadmap across the company.

We interact and communicate regularly with customers by soliciting their feedback and proposals. Our ongoing engagement, satisfaction surveys, business meetings and review enable us to gather insights, identify trends and understand the sustainable development topics of relevance to them.

We foster constructive dialogue with our wide range of suppliers to hear from them directly on the practices and topics which matter most. We also capitalize on suppliers' insights on how they are approaching and addressing environmental and social material topics also of relevance to us.

We engage directly with members of the financial community including lenders and insurers, and for some Cargo Division entities, we also engage with investors through business meetings, briefings and partnerships.

We interact with policymakers, intergovernmental organizations and government authorities and institutions at international, regional and national levels, engaging in policy debates and consultations through trade associations and partnerships as well as responding to government enquiries and contributing feedback on specific topics related to our industry.

We engage with communities in more than 155 countries, actively collaborating with local stakeholders. Our partnerships and alliances are based on active dialogue with civil society, offering our perspective and contributing expertise to implement joint activities to address specific issues of mutual interest.

### CONCERNS AND EXPECTATIONS

- Leadership commitment to sustainable development
- Equitable employment in a diverse and inclusive workplace
- Finding meaning through their work via engagement and empowerment
- A working environment that prioritizes employee health, safety and wellbeing

- Shared ambitions for sustainable supply chains
- Logistics solutions enabling achievement of decarbonization targets
- Proactive approach to respecting and promoting human rights across the value chain
- Disclosure on progress of MSC commitments and impacts

- Direct dialogue to address common challenges and material topics
- Collaboration based on principles for responsible business conduct

- Future-proofing business model, incorporating sustainability priorities
- Quality of ESG reporting and level of disclosure

- Compliance with international, national and local regulatory frameworks and standards
- Contribution of industry perspective to debates related to policy and standards
- Leadership and public-private collaboration to promote responsible business

- Transparency and accountability on MSC's sustainability commitments and impacts
- Engagement and collaboration on specific social and environmental topics

### HOW WE ARE RESPONDING

- Consistently embedding our purpose in our company culture
- Aligning colleagues of our recent acquisitions and new entities with our sustainability commitments
- Raising awareness and engaging our people on progress on our sustainability roadmap
- Building solidarity among our crisis-affected colleagues
- Fostering an inclusive environment that unlocks the potential of the diversity of our workforce
- Promoting equal access to development opportunities
- Engaging and investing in learning programmes that promote reskilling and upskilling
- Upholding workplace health and safety and supporting the wellbeing of our people

- Interacting with our customers to understand their evolving expectations through 1:1 business meetings, events and forums
- Exploring partnership opportunities to collaborate on material topics of mutual interest
- Co-designing bespoke offerings to decarbonize supply chains
- Developing a portfolio of innovative solutions (e.g. alternative fuels)
- Boosting awareness among customers on seafarers' rights and wellbeing
- Reporting on progress and performance through customer questionnaires and ESG ratings

- Improving interactions through business meetings and vendor questionnaires
- Assessing, monitoring and helping improve our major suppliers' sustainability performance
- Co-creating transformative solutions for maritime decarbonization
- Aligning and vetting our suppliers with the MSC Supplier Code of Conduct

- Updating on progress on the implementation of our sustainability plan
- Ensuring the progressive integration of recent acquisitions and new entities in our sustainability strategy
- Further enhancing our ESG risk management approach
- Expanding the granularity of data and improving the standardization of our ESG reporting, including for recent acquisitions and new entities

- Actively engaging with regulatory bodies and policy representatives to ensure compliance
- Contributing industry experience and identifying challenges opportunities in the development of upcoming regulatory frameworks
- Engaging in direct dialogue with government authorities and institutions on specific topics, including infrastructure development, customs and energy transition planning

- Maintaining an open dialogue with civil society and regularly engaging with non-governmental organizations and local community actors
- Collaborating with non-governmental organizations, scientists and academics on social and environmental topics
- Participating in leading multi-stakeholder initiatives and sustainability partnerships
- Cooperating with the MSC Foundation on projects directly impacting local communities

## EMBRACING CHALLENGES THROUGH COLLABORATION

No single actor can address global challenges alone. The scale and complexity of the evolving landscape in which our business operates are a reminder of the interdependence of companies and industries, and we must cooperate and collaborate with others both across and beyond the transportation and logistics ecosystem.

At MSC we believe that partnerships present an opportunity to discuss common interests on sustainability issues around a common direction and towards a shared vision across the value chain, innovating to find solutions, pooling technical expertise and resources. Collaborative platforms also help us prepare for and adapt to the landscape, driving sustainability action internally as well as catalysing change externally. MSC works through a range of partnerships to address our

material topics and deliver our sustainability roadmap in line with **SDG 17: Partnerships for the Goals**. We participate in multi-stakeholder initiatives and partnerships, working with other private sector actors – including our customers and suppliers – and public stakeholders such as international and regional organizations and governments, as well as with members of civil society and NGOs.

Active engagement is core to delivering our sustainability roadmap and is an integral part of our strategic approach. In line with this, in 2023 we joined the Board of the **Global Compact Network for Switzerland and Lichtenstein** and continued serving as Chair of the **IMO's Global Industry Alliance to Support Low Carbon Shipping** and as a Commissioner of the **World Business Council**

**for Sustainable Development's Business Commission to Tackle Inequality**. We also value our membership of trade associations – serving on the Boards of **BIMCO**, the **World Shipping Council** and the **International Chamber of Shipping** (through the Swiss Shipowners Association) – as a means of uniting with our peers and speaking through a collective voice, engaging in policy debates on safety and security, fair competition and environmental topics. These associations also play an important role in collective learning, sharing understanding and disseminating best practice across our industry. On the regulatory side we have been actively engaged in the ongoing IMO and EU discussions on decarbonizing shipping. Our active participation in cross-sectoral decarbonization

forums includes fuel-specific partnerships – through which we engage with energy suppliers and other actors – to scale the production and distribution of the zero-carbon fuels needed to decarbonize supply chains. We also collaborate with customers through a range of initiatives to facilitate trade and address inequality, protect oceans and biodiversity and promote the business and human rights agenda, as well as an array of other topics.

During the reporting year, we continued assessing relevant partnerships and collaborations to understand potential synergies, capitalizing on the opportunities presented by our recently acquired companies as well as further aligning on addressing the global agenda. Key partnerships<sup>13</sup> in which we engaged during 2023 are listed below.



[13] MSC Cargo Division entities engage in a range of global and local partnerships, listed at [www.msc.com/en/sustainability/partnerships](http://www.msc.com/en/sustainability/partnerships) as well as on entities' websites



## INTERCONNECTING MATERIAL TOPICS

MSC's approach for determining our material topics is based on an assessment and prioritization process informed by a range of insights and inputs. Our assessment has evolved to become dynamic and forward-looking, considering the topics that are shaping our world today as well as those with implications for tomorrow. This process is aligned with MSC's enterprise risk management (ERM) framework and is reviewed and validated by the highest governance body on an annual basis, ensuring its ongoing relevance to inform strategic decision-making as well as for integration in our operations. It is also reflected in our sustainability roadmap which is continually being reviewed and adjusted to reflect the landscape. Identifying and prioritizing our material topics starts with understanding the external

environment in which our business operates. We draw on our stakeholder engagement process and sustainability activities of the wider transportation and logistics industry, as well as benchmarking with other industry leading companies on sustainable development topics. In 2022 MSC applied the principle of double materiality for the first time, guided by the **Ten Principles of the UN Global Compact** and the **UN Guiding Principles on Business and Human Rights** and taking into consideration the business specifics and geographical differences across MSC's Cargo Division. As part of this process, we identified those material topics to both address and mitigate our potential adverse impacts, while also taking steps to increase our positive impacts in parallel. Using

the same approach, we evaluated those material topics that may create short- or long-term financial or strategic risks and opportunities to our business. Key inputs and expectations deriving from our ongoing engagement with key stakeholders directly informed the identification and prioritization of our double materiality assessment process that identified interconnected material topics of relevance to environmental challenges, social challenges and business resilience. 2023 represented a year of transition as we entered a review and evaluation phase, identifying areas of convergence and alignment on materiality with our recent acquisitions and new entities. Among the activities conducted during this phase were outreach and engagement with our expanding group of internal stakeholders – including our new sustainability

colleagues – with the initial outcomes indicating that most of the previously identified material topics are also relevant for the new entities. In light of its complexity and scale, this assessment process is ongoing and we continue engaging with the entities of MSC's Cargo Division to consider non-financial and financial impacts and evaluate the level of priority. In some cases, our growing presence in specific geographic areas and new areas of business, such as air freight, may impact material topics and their prioritization. As part of the preparatory activities undertaken during the reporting year, we adapted our material topics to our new reporting boundary to ensure consistency. This process will lead to an integrated double materiality assessment going forward, taking into account all Cargo Division entities.



## NON-FINANCIAL MATERIAL IMPACTS

## FINANCIAL MATERIAL IMPACTS

### FACTORS TO DEFINE PRIORITY

- Consistency with our purpose and roadmap
- Voluntary commitments
- Stakeholder expectations
- Magnitude and likelihood of impacts
- Regulations and international standards

- Consistency with our business strategy
- Potential influence on strategic decision-making
- Magnitude of potential financial impacts
- Likelihood of potential financial impacts



### ENVIRONMENTAL CHALLENGES

#### Climate change

Meeting mandatory and voluntary requirements and integrating climate change and related risks in the business strategy

#### Decarbonizing logistics

Targeting the decarbonization of operations

#### Healthy ecosystems and biodiversity

Contributing to productive marine, coastal and land-based ecosystems and biodiversity, while managing impacts (air, water and on land)

#### Responsible resource management

Managing natural resources efficiently while integrating circularity principles

#### Climate change

Adapting the business model to manage the potential physical impacts of the changing climate on assets, infrastructure and operations

#### Decarbonizing logistics

Allocating resources to accelerate the energy transition and accompany customers in their climate ambitions



### SOCIAL CHALLENGES

#### Human rights

Respecting and promoting human rights across the value chain

#### Inclusive global trade

Creating opportunities for trade by connecting local economies to a global marketplace

#### Adaptation to climate change

Managing and preparing for the social impacts generated by climate change

#### Equitable and just transition

Creating opportunities for workers, suppliers and communities

#### Human rights

Respecting and promoting human rights across the value chain

#### Talent and critical competencies

Securing talent and the availability of key skillsets for the future world of work



### BUSINESS RESILIENCE

#### Economic growth

Contributing to economic growth through strategic connections across the supply chain

#### Connectivity and disruption-free supply chains

Providing resilient supply chains through a robust and agile global network

#### Transformative solutions

Exploring innovative business solutions in response to evolving environmental and social challenges

#### Healthy and safe workplace

Providing a working environment that prioritizes employee health, safety and wellbeing

#### Connectivity and disruption-free supply chains

Providing ongoing connectivity throughout the network

#### Digital empowerment

Progressing the digitalization process at global level including integration of recent acquisitions and new entities

#### Responsible business

Managing compliance across operations

# DELIVERING OUR SUSTAINABILITY ROADMAP

At MSC we see sustainability as an opportunity for innovation, growth and long-term value creation. The outcomes of our materiality assessment continue to guide our approach and the allocation of resources to innovate and find solutions to help address the most significant global challenges.

As an active participant of the UN Global Compact (UNGC) since 2016, MSC is committed to advancing the 2030 Agenda for Sustainable Development and delivering on our commitments. We support the SDGs and by delivering our roadmap in line with the **Ten Principles of the UNGC** and the **UN Guiding Principles on Business and Human Rights** (UNGPs), we seek to make a transformative impact on 13 SDGs.

As a fast-growing global company in transportation and logistics, we seek to build resilient, inclusive and sustainable supply and value chains. We are committed to advancing our industry's decarbonization journey; catalysing economic growth by supporting local players in their participation in global trade activities; while ensuring the respect for human rights in the value chain, and these remain central to our sustainability approach and decision-making at all levels. With our structured approach, we strive for the consistent alignment of our **sustainability roadmap** – our sustainability strategy – across entities of the Cargo Division, building on our **fundamentals** while addressing each of our **sustainability priorities**. Our roadmap directly reflects our purpose,

setting out a pathway to address our material topics and promoting the progressive embedding of sustainability in our strategy and operations. A comprehensive and time-bound **sustainability plan** sets milestones for the short-, medium- and long-term, for which business segments and key functions collaborate on the definition, development and execution of projects and programmes.

As our company continues to grow, we draw on the diverse contributions, perspectives and expertise of different functions to review, improve and make adjustments to our roadmap, while taking into account the specificities of our different business segments as well as applicable regulatory frameworks. We track progress and monitor our performance against our commitments and targets (described within each chapter).

During the reporting year we engaged with sustainability colleagues of our recent acquisitions and newly created entities, working together as we commenced the process of aligning them and the new areas of business into the Cargo Division's sustainability roadmap. An analysis of their respective strategies was undertaken, with the aim of identifying the way forward. This activity revealed commonalities across the different entities, which we expect will facilitate a smooth transition for their progressive alignment with our roadmap with robust reporting processes<sup>14</sup>.

## OUR GOVERNANCE AND MANAGEMENT FRAMEWORK

MSC's purpose is aligned with our core values and our corporate culture, reflecting our **Leadership Team's** commitment to sustainable development and to ensuring the delivery of our roadmap by Cargo Division entities. Our corporate governance structure reflects MSC's commitment to embedding sustainability in the long-term business strategy and relies on a structure with accountabilities at different levels of the organization.

➤ MSC is a privately held, family-owned company and our Leadership Team is our highest governance body. Led by the Group Chairman, it includes family and non-family

members<sup>15</sup>, selected on the basis of their competencies, bringing a balance of knowledge, skills and expertise relevant to managing our impacts and for the delivery of our sustainability commitments.

The MSC Cargo Division's **Executive Sustainability Steering Committee** is our governance body with oversight of managing our social and environmental impacts, including decision-making, strategy implementation and the promotion of a culture of sustainability across our company. The MSC Group President and MSC Chief Executive Officer lead the Steering Committee,

➤ Sections on which Ernst & Young Ltd provided limited assurance are marked with the symbols '<' >'. The independent assurance report is available on [page 140](#).

[14] See Methodology Note for detail on the MSC Cargo Division's 2023 reporting boundary, including the inclusion of ESG data and reporting on new acquisitions and entities.

[15] Members of the Leadership Team (and other positions held) include: MSC Group Chairman (also TIL Board Director and MSC Foundation Board Chair); MSC Group President (also TIL Board Chairman and MSC Foundation Board Member); Chief Executive Officer (also TIL Board Director and Log-in Logistica Board of Directors Vice-Chairman); and Group Chief Financial Officer (also MSC Foundation Board Vice Chair)



which is composed of senior executives representing entities and key functions<sup>16</sup> across the Cargo Division. Our Leadership Team is represented at the Executive Sustainability Steering Committee by our Group President, Chief Executive Officer and Group Chief Financial Officer. Steering Committee members are selected based on their role within the company, in-depth technical knowledge and competencies relevant to our material topics and business impacts, providing leadership, diverse viewpoints, critical insights and strategic guidance related to the review and

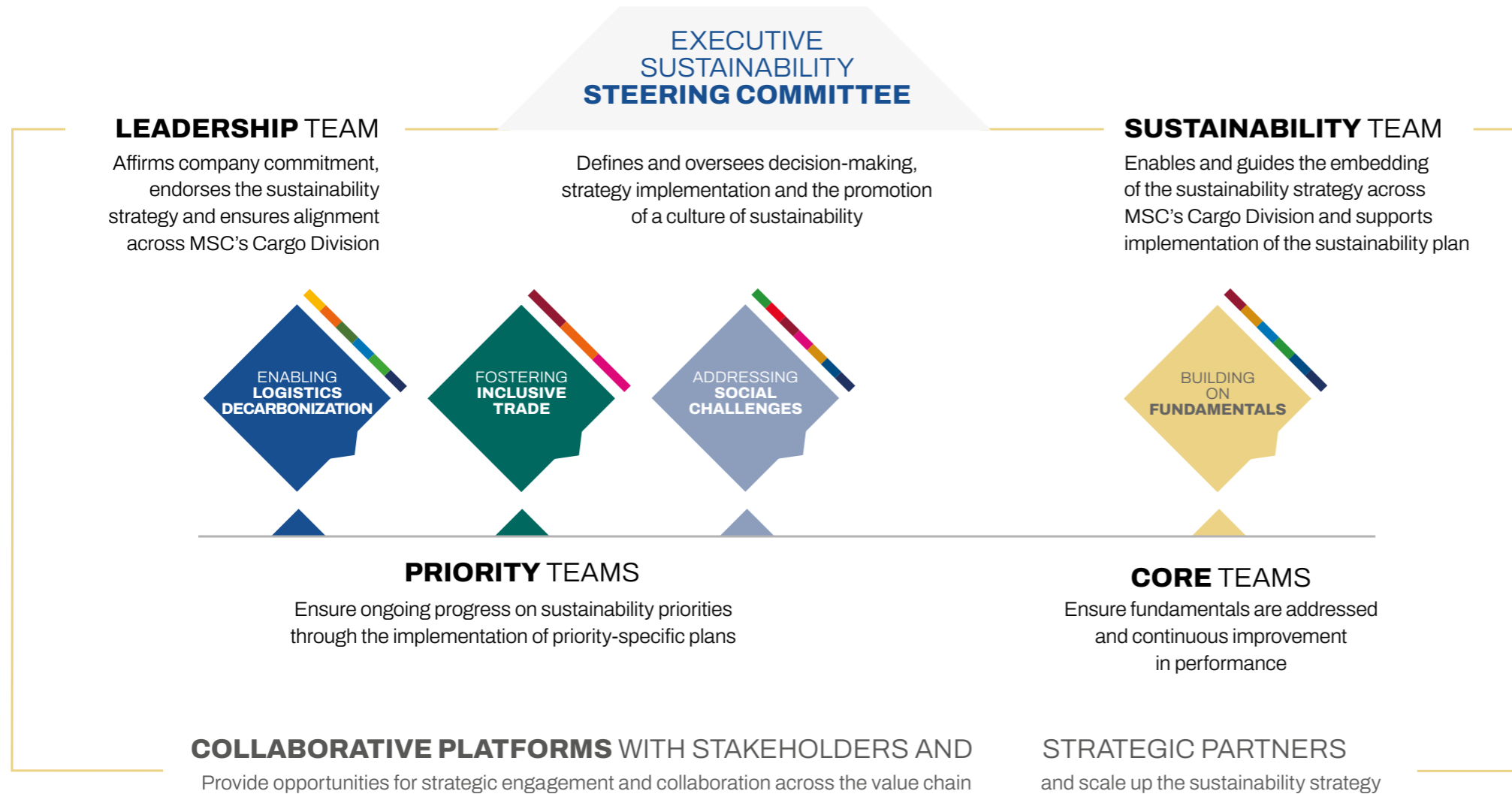
approval of our purpose, strategy and commitments to ensure alignment in the delivery of our roadmap. Steering Committee members also bring stakeholder insights from external and internal stakeholder groups with whom they engage in their respective roles. Executives are invited to contribute to the Steering Committee by sharing specific perspectives on emerging trends and external developments, as well as considerations related to our company's broader impacts. Addressing Human Rights Due Diligence-related topics is the **Human Rights**

**Steering Committee** (more information available on [page 107](#)). Our Steering Committee convenes biannually and in 2023 members reviewed progress on our sustainability plan, discussing emerging challenges and identifying improvement actions to address the evolving landscape. The Sustainability Team provides regular updates as required, including progress on the priority areas and an overview of key initiatives. Discussions focused primarily on the topics of non-financial reporting, decarbonization across the value chain, Human Rights Due Diligence,

supply chain management and the further integration of emerging sustainability risks in our ERM framework. Also on the Steering Committee's 2023 agenda was the progressive alignment of MSC Cargo Division entities with our roadmap, while ensuring consistency in our data management and reporting processes to meet our stakeholders' requirements and in preparation for upcoming regulations on non-financial reporting.

The **MSC Sustainability Team**, led by the Cargo Division Sustainability Vice President, defines the strategy and acts as an enabler for embedding sustainability across our global operations, engaging with Priority Teams and colleagues across the Cargo Division. The team leads materiality analysis, manages reporting on performance and is also responsible for monitoring external developments of relevance to our roadmap, supporting the implementation of the sustainability plan and keeping the Steering Committee updated and informed on emerging sustainability risks and opportunities. The Sustainability Team coordinates the production of our annual sustainability report, which is reviewed and formally approved by our Leadership Team. In 2023 the Sustainability Team expanded further with the addition of colleagues in our recent acquisitions, whose business-specific expertise and networks are complementing the existing team, building on our achievements to date and further strengthening our impacts across key geographic areas and business segments. ▶

Our sustainability plan is implemented through **Priority Teams** who bring together subject matter experts from across the Cargo Division to focus on each of our three priorities. Each Priority Team is led by a member of the Steering Committee, with team members collaborating on projects and programmes, fostering division-wide cooperation through regular internal meetings as well as engaging and collaborating with key external stakeholders and partnerships. This structure ensures the ability to drive progress and deliver on our commitments. In 2023 Priority Teams enhanced the ongoing integration of material topics into relevant procedures, processes and management systems and strengthened engagement with our colleagues at both country and local levels. Material topics falling under our fundamentals – business ethics, regulatory compliance, health and safety as well as environmental protection – continue to be addressed through **Core Teams** within the business.



[16] Key functions represented in the Steering Committee include: sustainability, finance, human resources, shipmanagement, operations, procurement, communication, legal, government affairs

# ENSURING RESPONSIBLE BUSINESS

In our daily work, we are committed to supporting our employees worldwide to ensure our activities are performed in accordance with our ethical standards for responsible business. In 2023, acquisitions have been a key part of MSC's business strategy. As we add capacity and expertise to our logistics portfolio with global reach, our efforts have been directed towards the ongoing alignment of our recent acquisitions and new entities with our business conduct processes, procedures, policies and commitments. By capitalizing on best practices, our focus lies on working together to build an ethical and transparent business culture. As a global cargo solutions provider, MSC and

its entities are committed to ensuring our global activities and operations are in line with the applicable regulations, in compliance with sanctions and rules when conducting business.

Guided by our core values, MSC's corporate culture is reflected within our programmes and work on anti-corruption, compliance with competition laws, data management, and social and human rights. The **MSC Code of Business Conduct**<sup>17</sup> reflects MSC's commitment to conduct business in a fair and responsible manner and sets a common standard for our global operations. MSC expects its suppliers to comply with applicable laws,

sector-specific regulations and the **MSC Supplier Code of Conduct**<sup>18</sup>. Building on our efforts over the previous years, in 2023 we continued cultivating a culture of compliance and conducted over 100 training sessions on our Code of Business Conduct worldwide. A network of over 200 local compliance champions plays a critical role in monitoring compliance in accordance with global and local requirements and we remain focused on our goal of creating an open and accountable working environment where everyone feels safe and supported in speaking up. MSC Cargo Division employees and third parties have at their disposal the **Whistleblower Policy** and the

**MSC Speak-Up Line**<sup>19</sup> (operated by an independent provider), where they can raise concerns and report any incident or suspected misconduct linked to MSC's business at any time. AGL and Log-In Logistica have similar reporting hotlines. At MSC, we take all reports seriously, assess these and investigate as appropriate. During the reporting year, the internal communication campaign to raise awareness and training on the use of grievance mechanisms continued. Awareness was raised on reporting any cases of bullying, harassment, misconduct or other non-compliance with the MSC Code of Business Conduct without fear of retaliation.

[17] [www.msc.com/en/sustainability/msc-code-of-conduct](http://www.msc.com/en/sustainability/msc-code-of-conduct)

## OUR MEASURES TO PREVENT AND CURB CORRUPTION

Prevention and detection, and investigation and response to allegations or incidents relating to corruption are paramount and are addressed through our comprehensive anti-corruption programme comprising policies, procedures and adequate measures in the areas of anti-bribery, gifts and corporate hospitality, and conflicts of interest, among others. MSC's anti-corruption programme includes mandatory anti-bribery e-learning courses. We focus on providing guidelines for MSC employees, with a specific focus on 'functions at risk' dealing with external third parties, such as customers, government officials and business partners. Engaging with external

partners is key to driving change and addressing the issues inherent in anti-bribery and corruption, and we work with both **Trace International** and the **Maritime Anti-Corruption Network** (MACN) on these topics. We are engaging with over 190 companies through the MACN – spanning Flag State registries, port agents, shipping companies, cargo owners and shipmanagement companies – with whom we collaborate on raising awareness and promoting public-private actions to tackle the root causes of corruption. In addition, MSC engaged in coordination and discussion within the MACN Container Working Group regarding specific challenges affecting this industry segment.

### THE FIGHT AGAINST CORRUPTION

Given the highly sensitive areas in which it operates, AGL has deployed a compliance programme in the fight against corruption in accordance with the 'Sapin II' law and the recommendations of the French Anti-Corruption Agency. Among the instruments employed to prevent, detect and remediate corruption, AGL implements **Anti-corruption Code of Conduct**; awareness-raising and training; third-party integrity assessment; a whistleblowing procedure; internal control including anti-corruption accounting controls; and an internal mechanism for control and evaluation of the system.

[18] [www.msc.com/en/sustainability/msc-supplier-code-of-conduct](http://www.msc.com/en/sustainability/msc-supplier-code-of-conduct)

[19] [www.msc.com/en/speak-up](http://www.msc.com/en/speak-up)



## MANAGING RISKS AN INTEGRATED APPROACH

With new entities operating in geographic areas with varied and complex economic and social environments, we are increasingly exposed to multiple risks. We therefore work constantly to adopt an integrated approach for the governance and management of near-term and long-term sustainability-related risks. Seeking alignment with all functional experts, we aim for consistency and progressive harmonization while analysing in-depth business-specific risk areas, building on best practices and potential commonalities.

Our **Enterprise Risk Management (ERM)** framework and methodology allows us to address different functions, identifying the main business priorities and risks for the company, including sustainability risks, which are ultimately validated by the Leadership Team. Our approach provides for the design and progressive implementation of the appropriate levels of control for mitigation.

Given the ever-evolving scenarios, we constantly challenge the parameters of our approach, especially in gauging

progress across our value chain, while at the same time advancing MSC's sustainability priorities. Our annual review process of sustainability risks includes consideration of our material topics and informs our sustainability roadmap, guiding the identification, assessment, prioritization and mitigation of risks assessed according to their likelihood and potential impact.

Our sustainability risk landscape includes the environmental, social and economic factors related to MSC's global operations. Notably, the risks identified which relate to decarbonization and human rights remain pertinent in 2023, ranking among the top risks for the company. Throughout the year, we concentrated our efforts specifically on structuring our approach for social impact risks. MSC has focused on strengthening the risk assessment approach as part of our Human Rights Due Diligence programme to address business-specific risks. Progress towards decarbonization targets is of primary concern for us and the entire industry, along with the

mitigation of physical risks affecting our personnel and operations, encompassing costs linked to disruptions and damage. Adaptation to climate change is also of major importance. More frequent and intense weather events – such as sea level rise, extreme precipitation,

cyclones, heat and water stress – are impacting and will continue to impact our infrastructure and operations, and our risk approach plans to anticipate the direct and indirect implications for our business.

## TACKLING THE CHALLENGES POSED BY CYBER-SECURITY

As the world's connectivity grows, so too does our exposure to cyber-security risks. The emergence of technologies such as AI and machine learning are also likely to impact cyber and data security strategies, with direct implications for MSC's activities and those of our customers, vendors and employees over the coming years.

At MSC we take cyber and data security seriously, and are committed to the protection and privacy rights of the data we process, reflected by International Standards Organization (ISO) certifications including ISO 22301:2019 Business Continuity Management Systems and ISO/IEC 27001:2013 Information Security, Cybersecurity and

Privacy Protection. In 2023 MSC's information security risk and incident management approaches were assessed and subsequently awarded **Trusted Information Security Assessment Exchange (TISAX)** certification required by the German automotive sector. Also during the reporting year, MSC Technology further enhanced our protocols to monitor cyber-security in our operations and sites – with a particular focus on high-risk countries – while key processes and training related to cyberattack prevention, information security and the detection of threats and system vulnerabilities were strengthened. In 2023 almost 23,000 hours of cyber-security-related training was completed by MSC employees.





ENABLING

# LOGISTICS DECARBONIZATION



## TAKING ACTION ON CLIMATE CHANGE

The climate challenge is a challenge for all. The transformation required for the net-zero transition will require significant focus and investments in energy and land-use systems involving assets, infrastructures, technology and people. Business models are adapting as conditions evolve, challenges emerge and opportunities arise, with climate considerations embedded in corporate decision-making processes in terms of regulatory compliance, risk management, strategies, investment planning and partnerships.

Climate action requires a collective effort across all sectors and industries. Companies must join forces with governments, regulators and institutions to decarbonize supply chains, planning and coordinating actions and investments beyond the immediate term. Enhanced policies and regulations are expected to drive progress through

concrete measures to incentivize and accelerate the transition from fossil-based to sustainable energy sources. At the global level, the International Maritime Organization (IMO) followed its initial strategy with the adoption of the **2023 IMO Strategy on Reduction of GHG Emissions from Ships**<sup>20</sup>, setting updated levels of ambition, indicative checkpoints and measures to reduce GHG emissions (see box).

2023 also saw ambitions raised to address emissions from international aviation, reflected by the adoption of the **ICAO Global Framework for Aviation Cleaner Energies**<sup>21</sup> with the vision of reducing emissions by 5% by 2030 through use of lower emission energies, such as sustainable aviation fuels (SAF) and lower carbon aviation fuels (LCAF).

[20] [www.imo.org/en/OurWork/Environment/Pages/2023-IMO-Strategy-on-Reduction-of-GHG-Emissions-from-Ships.aspx](http://www.imo.org/en/OurWork/Environment/Pages/2023-IMO-Strategy-on-Reduction-of-GHG-Emissions-from-Ships.aspx)

[21] [www.icao.int/Newsroom/Pages/ICAO-Conference-delivers-strong-global-framework-to-implement-a-clean-energy-transition-for-international-aviation.aspx](http://www.icao.int/Newsroom/Pages/ICAO-Conference-delivers-strong-global-framework-to-implement-a-clean-energy-transition-for-international-aviation.aspx)

### IMO: CREATING A REGULATORY ENVIRONMENT TO ACCELERATE THE DECARBONIZATION OF SHIPPING

Building on the IMO Initial Strategy adopted in 2018 – including the introduction of IMO 2023 short-term measures such as the Energy Efficiency for eXisting ship Index (EEXI) and the Carbon Intensity Indicator (CII) – IMO adopted the 2023 IMO Strategy on Reduction of GHG Emissions from Ships at the 80th meeting of its Marine Environment Protection Committee in July 2023. It presents a global framework and future vision for shipping incorporating net-zero GHG emissions to be achieved by around 2050.

The 2023 IMO Strategy sets out new levels of ambition for shipping, including a decline of carbon intensity through further improvements in energy efficiency:

- a reduction in CO<sub>2</sub> emissions per transport work, as an average across international shipping, by at least 40% by 2030, compared with 2008;
- uptake of zero or near-zero GHG emission technologies, fuels and/or energy sources to represent at least 5%, striving for 10%, of the energy used by international shipping by 2030;
- and the goal of reaching net-zero GHG emissions by or around 2050.

Indicative checkpoints include:

- a 20% reduction (striving for 30%) in the total annual GHG emissions by 2030, compared with 2008;
- a 70% reduction (striving for 80%) by 2040, compared with 2008.

It also identifies barriers and supportive measures including capacity building, technical cooperation and research and development.

MSC welcomes the adoption of the 2023 IMO GHG Strategy, and we are committed to pursuing our ongoing collaboration with governments and trade associations on the development and implementation of concrete measures to support our industry's energy transition. We continue to advocate for policy frameworks which accelerate decarbonization such as an end date for fossil-only fuelled newbuildings, promoting the uptake of zero-emission fuels through the introduction of a GHG pricing mechanism and a GHG fuel standard, amongst other measures.

At the regional level, the European Union's **EU Fit for 55** policy package includes measures to reduce its total emissions by 55% by 2030 towards net decarbonization by 2050 – impacting maritime transport, inland logistics and terminal operations – with the adoption and finalization in 2023 of regulations to extend the **EU Emissions Trading System** (ETS) to include shipping as of 1 January 2024, setting an emissions cap for companies while facilitating the trading of emission allowances. While regional in scope, this regulation is expected to have global impacts, as it will affect all intra-EU trade as well as inbound or outbound trade calling at European ports, with the higher costs (related to the need to purchase EU allowances for each tonne of CO<sub>2</sub> emitted) passed on to the end consumer. Additionally, the complementary FuelEU Maritime Regulation creates ambitious new GHG intensity standards for fuels that are allowed to be used in the maritime industry.

Adding complexity to the landscape is the growing demand and competition among industries and sectors for the same sustainable energy sources. In the case of shipping and logistics, feedstocks used for the production of biofuel are in demand from shipping, aviation and inland logistics. In addition to having potential for short-sea shipping,

electric batteries and fuel cells may also be deployed for road transport. There is further competition for the various feedstocks required for production of alternative fuels. While the rapid deployment of non-fossil energy technologies in recent years has made a positive contribution to the climate outlook, the world needs to triple its renewable power capacity to meet the growing demands for sustainable energy<sup>22</sup>, requiring actions to further improve energy efficiency and scale up the availability of net-zero fuels. Such actions present additional challenges, such as the construction of capital-intensive facilities with sufficient capacity to produce synthetic ammonia, methane and methanol (derived from green hydrogen) to meet the future fuel needs of shipping, as well as those needed to produce bio-feedstock forms of methanol and methane. Furthermore, because the freight volumes shipped by MSC are envisaged to grow in the coming years, even the most innovative energy efficiency measures will target incremental improvements compared with the current baseline. Finally – and with significant implications for shipowners and our industry as a whole – additional shipyard capacity will be required to convert existing ships to low- and zero-carbon fuel capability in time to meet future demand.

[22] [www.iea.org/reports/world-energy-outlook-2023](http://www.iea.org/reports/world-energy-outlook-2023)

## COP28 HERALDS TRANSITION AWAY FROM FOSSIL SOURCES

The 28th UN Climate Change Conference of the Parties (COP 28) held in Dubai marked the 'beginning of the end' of the fossil fuel era, while laying the ground for a swift, just and equitable transition, boosted by scaled-up financing. For example, the Green Climate Fund (GCF) received contribution pledges totalling a record USD 12.8 billion from 31 countries with more expected to join, while the World Bank Group announced a USD 40 billion financing package to help developing countries cope with the havoc caused by climate change. COP 28 also hosted the largest ever worldwide gathering of maritime shipping representatives who convened to set out a pathway to net zero hinging on infrastructure advancement, net-zero fuel availability and financing. This International Chamber of Shipping (ICS)-facilitated flagship event named **Shaping the Future of Shipping: Delivering a Net Zero World**, in which MSC engaged both as a lead sponsor, speaker and participant, brought together a diverse range of stakeholders from the maritime sector and beyond to deliver on the IMO 2023 GHG Strategy. COP28 also saw ICS continue its work in advocating for a just transition for seafarers, through specific initiatives including a training framework in a net-zero world as well as its co-leadership of the **Maritime Just Transition Task Force (MJTTF)** – where MSC serves as a member of its Global Industry Peer Learning Group. Also key to the transition is the role regulators can play. At COP 28, the Chief Executive Officers of leading global shipping lines, including MSC, issued a joint declaration advocating for regulatory measures accelerating the energy transition, related to the Green Shipping Challenge. Many of these elements are also reflected within a World Shipping Council submission to the 81st session of IMO's Marine Environment Protection Committee (MEPC 81)<sup>23</sup>. This declaration set out **Four Cornerstones to Effective IMO Climate Regulations**: (i) set GHG fuel intensity standards upfront to provide investment confidence and a clear pathway to 2050; (ii) establish an effective economic measure or GHG price to incentivize investment; (iii) enable the transition with vessel pooling; and (iv) build in full life cycle transparency to deliver climate results. However, the most important element of that declaration was the call for a regulatory end date for the delivery of any new ships that could only operate on fossil fuels, which integrated very well with the most positive overall outcomes of COP 28.

[23] [www.worldshipping.org/net-zero-2050](http://www.worldshipping.org/net-zero-2050)





MSC is committed to decarbonizing our logistics activities at sea, on land and in the air, innovating and investing across all segments of the business. Recognizing that mitigation actions alone will not address the challenges of our changing climate, we are equally focused on adaptation and building resilient value chains that can reduce risk, overcome disruptions and support our customers' business continuity.

As a part of our customers' supply chains, we see ourselves as partners in decarbonization, leveraging our global network to ensure the most energy efficient combination of transport modes to meet their needs. We have a role to play in deploying the assets, fuels and technologies that reduce the carbon footprint of our customers' supply chain – while at the same time reducing our own carbon footprint.

In 2023 we continued to invest in reducing the carbon footprint of our ocean operations, which generate the majority of our emissions. MSC has been engaging in a renovation and expansion of our assets including ensuring their readiness for new zero-emission fuels and technologies. During the reporting year, new dual-fuel and more carbon-efficient vessels, inland vehicles and onshore equipment were added to our global network, while existing assets were retrofitted with energy-saving technologies, systems and alternative fuel capabilities.

## TEAMING UP TO DECARBONIZE

Addressing climate change requires collaborative efforts across and beyond the transportation and logistics ecosystem. While MSC is a major global player, also by engaging and joining forces with others we can scale up the solutions for a sustainable and equitable energy transition. In 2023, we continued our active engagement in decarbonization discussions through our membership in trade associations, including **BIMCO**, the **International Chamber of Shipping** (ICS) and the **World Shipping Council** (WSC), where we united with industry peers to collaboratively contribute to regulatory debates and identify concrete actions including drafting various proposals aimed towards decarbonizing shipping and safety of navigation at IMO meetings as well as at COP28.

The reporting year saw our ongoing participation in multi-stakeholder initiatives, through which we collaborated with customers, governments, civil society and NGOs and other

We continue to invest in upgrading our existing vessels to retrofit them with available technologies for optimum performance suited to their current operational profile. These measures stimulate innovation, create new markets and catalyse investments and job opportunities throughout the global energy transition.

Inland logistics are a vital part of decarbonizing global supply chains and, by adopting an end-to-end perspective, we are stepping up our intermodal solutions to promote a shift from road to rail and last-mile optimization. 2023 saw the ongoing expansion of our inland network and operations, prioritizing solutions that leverage intermodality and creating synergies across the logistics ecosystem to further improve our energy efficiency and reduce emissions. We have continued our efforts to improve the operational efficiency of our terminal operations, ensuring the readiness of equipment according to the vessel class and number of moves required to minimize vessel time in port. Furthermore, we have continued implementing just-in-time projects which reduce vessels' waiting time at anchorage and allow them to manoeuvre at reduced speed in port, abating fuel consumption along with related emissions. For our recently launched air operations, we are constantly exploring opportunities to further enhance their efficiency, reduce fuel consumption and transition to lower carbon fuel.

businesses within the maritime, energy, infrastructure and finance sectors.

As Chair<sup>24</sup> of the IMO's **Global Industry Alliance to Support Low Carbon Shipping** (Low Carbon GIA), MSC works with companies spanning the industry – shipowners, technology providers, data providers, classification societies and ports – through workstreams focused on energy efficiency technologies and operational best practices; addressing emissions in the ship-port interface; alternative low- and zero-carbon fuels. In 2023, the Low Carbon GIA published a glossary<sup>25</sup> of decarbonization-related terminology used in life cycle assessments (LCA) and sustainability criteria to support the industry in assessing the GHG profiles of alternative fuels.

We continued our SFC engagement, welcoming the interaction with liner shipping peers as well as customers through this partnership which serves to create

interconnections across various modes of transport through its decarbonization initiatives **Clean Cargo** (for the maritime community), the **Global Logistics Emissions Council** (focusing on inland decarbonization) and the recently launched **Clean Air Transport** (air freight). During 2023, we also became an Impact Partner of the **Global Centre for Maritime Decarbonisation** (GCMD) whereby we are contributing to GCMD's pooled resources for pilots and trials as well as through our participation in projects, including access to vessels, operational equipment and other assets, as well as vessel operating data and evaluation reports so their learnings can help inform GCMD's future trials. We are also a Mission Ambassador partner with the **Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping**, where we are also involved in collaborative projects with a range of stakeholders working towards the common goal of maritime decarbonization.

The **Getting to Zero Coalition** continued its policy engagement towards the Coalition's collective ambition of zero-emission vessels operating along deep-sea trade routes by 2030, supported by the necessary infrastructure for scalable net zero-carbon energy sources including their production, distribution, storage and bunkering. Since the initiation of the **Clydebank Declaration** in 2021, more than 30<sup>26</sup> green shipping corridor initiatives have been established, bringing together different players to identify

specific routes where the feasibility of zero-emission shipping is catalysed by a combination of public and private actions. At MSC, we are directly involved in multiple green corridor projects and are committed to doing our part, including continuing to advocate for the policy incentives and volumes of low- and zero-emission fuels needed to make these corridors possible, while ensuring the benefits are shared inclusively across communities and countries. We are also engaging with others to explore synergies between green corridors and other decarbonization-related initiatives such as Clean Energy Marine hubs in collaboration with the International Renewable Energy Agency (IRENA), International Association of Ports and Harbors (IAPH) and ICS.

Among the various green corridors in which MSC is participating is the **Silk Alliance**, a cross-supply chain corridor initiative established by Lloyds Register Maritime Decarbonisation Hub which, since its inception, has expanded to include other ship types, fuel producers and governments. This has enabled further refinement and the generation of data on which to base decisions, including the scope and timing of green corridors. We also continue engaging in the development of the **Rotterdam-Singapore Green and Digital Shipping Corridor**, through the uptake of zero and near-zero emission fuels and supported by a combination of operational and digital efficiencies.

## INVESTING AND INNOVATING WITH OUR PARTNERS

2023 saw MSC continue our investment in research, trials and pilots through a diverse range of partnerships focused on accelerating innovation and scaling up production of specific fuels and technologies. Partnerships such as the **Hydrogen Council** and **European Clean Hydrogen Alliance** are key to ramping up the availability of renewable (green) hydrogen-derived marine fuels such as ammonia, synthetic LNG and methanol. In October 2023 MSC participated in the first **Clean Transition Dialogue on Hydrogen**<sup>27</sup> convened by European Commission President Ursula von der Leyen, with a focus on accelerating the production and availability of green hydrogen. We welcome the Commission's proactive leadership in promoting the long-term viability of hydrogen used directly as a supplemental fuel as well as a critical feedstock for e-ammonia, e-LNG and e-methanol.

We are a member of the **Society for Gas as a Marine Fuel**, **SEA-LNG** and the **Sustainable Biomethane Alliance** to support the transition from fossil-based LNG towards bio and renewable synthetic LNG, and we also participate in the **Methane Abatement in Maritime Innovation Initiative** to address methane emissions in the supply chain.

As one of the potential alternative fuels, we continued our membership and engagement with the **Methanol Institute**, the **Renewable and Low-Carbon Fuels Value Chain Industrial Alliance** (RLCF) as well as with the **Roundtable on Sustainable Biomaterials** (RSB) in the context of biofuel as a transitional fuel along our decarbonization journey.

[24] MSC served as Chair of the Low Carbon GIA until July 2023

[25] [www.imo.org/en/MediaCentre/Pages/WhatsNew-2001.aspx](http://www.imo.org/en/MediaCentre/Pages/WhatsNew-2001.aspx)

[26] [www.globalmaritimeforum.org/news/national-and-regional-policy-for-green-shipping-corridors](http://www.globalmaritimeforum.org/news/national-and-regional-policy-for-green-shipping-corridors)

[27] [ec.europa.eu/commission/presscorner/detail/en/AC\\_23\\_4887](http://ec.europa.eu/commission/presscorner/detail/en/AC_23_4887)

# CHARTING A COURSE FOR NET-ZERO SHIPPING

# OUR PATHWAY

**2050**  
NET ZERO  
DECARBONIZATION

2030

First net-zero emission vessels in service

2027

2026

First multi-fuel LNG/ammonia-capable retrofit vessel in service

2025

First onboard carbon capture system retrofit vessel in service

2023

2022

First dual-fuel LNG-capable vessels in service

2019

First LNG-ready vessels in service

Introduction of biofuel as drop-in fuel

Progressive expansion of fleet with dual-fuel newbuilding vessels, of which many will be equipped with air lubrication system

Incorporation of fleet performance, network and route optimization solutions

Retrofits aimed to improve energy efficiency across the fleet

Partnerships for R&D, pilots and trials and policy frameworks to advance decarbonization

Training of our global workforce on new technology and future fuels

The growing climate crisis calls for a steady and swift path towards a net-zero shipping industry. MSC keeps up its commitment to a rapid energy transition towards the target of achieving net-zero decarbonization by 2050. At MSC, we believe the long-term scenario will see shipping draw on a combination of net-zero carbon fuels. While recognizing the uncertainty around their availability – due to a wide range of factors, many of which are beyond our control – we expect net zero-carbon fuels will become increasingly available from the early 2030s, following which our industry will see a sharp acceleration in major emissions reductions. Our focus is on ensuring the readiness of our fleet to run on low- and zero-carbon fuels as they become available. We are doing this in a number of ways, including a far-reaching newbuilding programme, a retrofit plan and replacing less efficient vessels.

Massive investments are required for research and development on future zero carbon energy sources that are currently not available at scale across logistics value chains, largely due to a lack of green hydrogen production capacity and bio-sourced fuel infrastructure. Furthermore, distribution networks and landside storage of alternative fuels may also pose challenges. In particular, while portside fuel storage infrastructure is currently available at a significant number of ports for LNG and methanol in their current forms, this is not the case for ammonia. MSC is exploring potential partnerships with technology licensors and developers of green hydrogen-based marine fuels, including generation of renewable electricity from solar and wind energy and hydrogen electrolysis, as well as the subsequent possible production of synthetic fuels such as e-methane and e-ammonia.

Bio- and synthetic LNG, synthetic and bio-methanol and synthetic ammonia are expected to serve as future fuels for larger ocean-going vessels. We see fossil-based LNG being progressively phased out and replaced by LNG produced from biomass and renewable electricity, and anticipate that in the early to mid-2030s there will be sufficient availability of bio- and synthetic LNG (which may be seen as a net-zero or even GHG positive fuel) to meet a considerable portion of the demands of our industry, increasing to almost 100% availability by the early to mid-2040s.

As for short-sea shipping applications, green hydrogen as a drop-in fuel might be used for some smaller vessels

in addition to being a critical feedstock for synthetic fuels. Batteries and hydrogen fuel cells may also be deployed to supplement existing power storage and generation. While there remains a great deal of ongoing regulatory work at the IMO level governing the measurement of the carbon intensity for the above fuels, upcoming IMO MEPC meetings are expected to address this by recognizing well-to-wake (WTW) emission factors for non-conventional fuels. We remain optimistic that this ongoing IMO work will result in regulations to facilitate the transition. Lastly, we continue to monitor the development of a range of other alternative future propulsion options such as nuclear molten salt reactors which may be safe for shipboard application in the distant future or as an electricity source for e-fuel production, and in this context we have been exploring the design of nuclear-powered container vessels for potential deployment.

MSC is intent on managing the uncertainty in the availability of current and future fuels. Our approach aims to maintain a vessel's lifetime competitiveness, ensuring flexibility in accommodating future fuel and technology options. Those MSC vessels considered 'fuel-ready' refer to a class notation which indicates that while they can burn conventional or alternative fuel options today, the vessels may be prepared for later conversion to ensure a smooth transition to zero-carbon fuel options. Once retrofitted to run on low- or zero-carbon fuel, the vessel is considered 'fuel-capable'.

In parallel, we have partnered with energy providers that will help MSC secure the future provision of net-zero fuels. Our ongoing Strategic Partnership with Shell is an example of such a collaboration between MSC and a major energy provider.

MSC has been investing in a range of technologies and engaging with partners such as shipbuilders and technology providers on retrofitting projects for existing vessels – including the development and trial of onboard carbon capture and storage systems, with the first onboard carbon capture system retrofit vessel expected to be in service in 2025 subject to commitment and readiness of ports to receive the sequestered carbon dioxide – as well as collaboration on designing the ships of the future. Although still not cost-efficient, onboard carbon capture and storage (CCS) has considerable scope for reducing emissions. MSC continues engaging with leading

technology providers on carbon capture projects, evaluating their feasibility for either future newbuildings or retrofits depending on design and share-based development for collection of the captured carbon. The captured carbon may also provide a reliable source of feedstock for e-fuels like e-methane and e-methanol, among others, contributing to accelerating the reduction of our industry's emissions. At MSC we are committed to pursuing as many technology avenues as available with a view to achieving our net-zero

target by 2050 and we have been evaluating the possible timelines associated with the actual availability of net-zero fuels in coming years and decades. We seek to adopt near- and mid-term targets in alignment with the 2023 IMO Strategy. We are conscious that decarbonizing shipping requires a long-term, holistic yet pragmatic approach, taking into consideration the steps that can be taken today in addition to the actions that can be progressively implemented in the short, medium and longer terms.

### PILOTING CARBON CAPTURE AND STORAGE

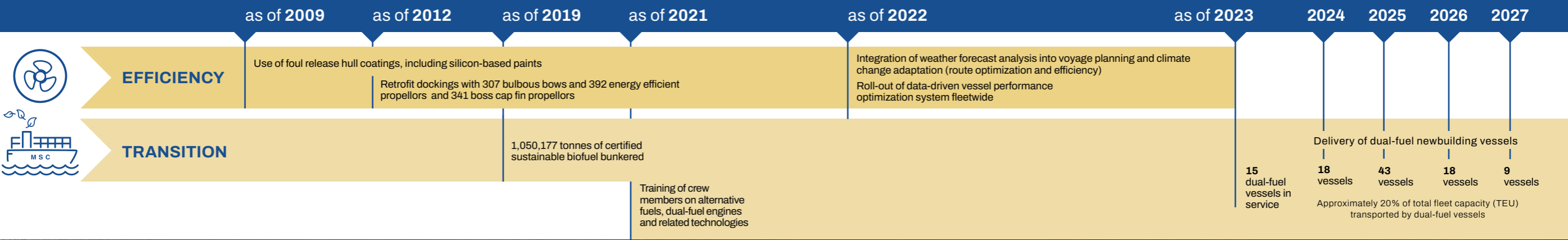
As part of MSC's approach to carbon capture and storage (CCS), in 2023 the carbon capture technology feasibility study was completed on an 8,000 TEU, 12,000 and 24,000 TEU vessel, with carbon sequestration rates ranging between 10% and 40%. Three projects are now in the pipeline and due to be launched in 2024: two on 24,000 TEU vessels and a third on a 16,000 TEU vessel (with carbon sequestration rates ranging between 25% and 40%) subject to a port's readiness for receiving the sequestered carbon dioxide from these vessels. The envisaged onboard carbon storage capacity is large enough to ensure autonomy for the voyage. The potential scale-up in future years may involve many more vessels, with a view to qualify for MRV/EU-ETS eligibility. In terms of storage solutions, a possible application we are looking at is the injection of the captured carbon dioxide into oil wells.

### DEPLOYING TRANSITION SOLUTIONS

To expedite our decarbonization pathway, MSC is pursuing transition solutions holding scale-up potential, including the adoption of low-carbon marine fuels. At present, second-generation biofuels can provide immediate emission reductions from any vessel in the fleet because they do not require any significant adjustments to existing onboard propulsion technologies. Deploying LNG-capable vessels will offer opportunities to transition to bio- and synthetic LNG as these fuels become available at scale. We anticipate that some of our vessels will first use bio-LNG from 2024 and synthetic LNG from 2026, subject to availability. Newbuildings as well as the retrofitting of existing vessels with flexible fuel burning capability are key to the transition to sustainable energy sources. Unlike other alternative fuels such as methanol and ammonia, LNG is currently believed to be an alternative fuel with a sure and reliable supply chain. While bio-LNG and synthetic or e-LNG are not widely available yet, they could still become available for use by our newbuildings and retrofitted vessels within their life span. By the end of 2023, MSC saw 15 newbuilding dual-fuel LNG-capable vessels in operation. A large share of the newbuilding orderbook is composed of LNG vessels, a portion of which are equipped with ammonia-compatible tanks. Our other newbuilding vessels delivered over the past five years are LNG-/ammonia-ready and could be converted to accommodate either of these technologies. In the coming years, MSC will also be retrofitting vessels to accommodate LNG and ammonia in addition to conventional fuel, as part of a series of trials conducted in collaboration with California's Air Quality Management District (AQMD) and a leading technology provider. This innovative multi-fuel conversion of two-stroke main engines involves the retrofitting of an MSC vessel with

a multiple fuel-flexible injection platform and gas supply system by 2026. We estimate a 25% reduction in carbon emissions, with the first phase of conversion to operate on LNG expected to reduce NOx emissions by approximately 70% with negligible methane slip. Throughout 2023, we also collaborated with the European Commission as part of the **Horizon Europe Ammonia 2-4** project focused on demonstrating two types of dual-fuel marine engines – four-stroke and two-stroke – operating on ammonia as the main fuel. With an anticipated completion in 2025, in 2023 the project provided good results for both engine types. In particular, two-stroke high-pressure fuel injection engines proved they can feature minimal ammonia slips and are feasible based on improved safety standards being developed with various stakeholders, with four-stroke medium-pressure engines also achieving satisfactory performance levels. As for the current orderbook, MSC's new LNG-capable vessels feature mostly high-pressure gas injection engines designed to minimize methane slip during combustion. In addition to the **Methane Abatement in Maritime Innovation Initiative** (MAMII), we joined a range of companies and associations intent on supporting the scaling-up of sustainable bio-LNG in Europe by signing the **Biomethane Declaration** which was presented to the European Commissioner for Energy. To meet rising customer demands for a reduced carbon footprint in their supply chain, as of 2022 we have been running our Journey to Net Zero programme that leverages both current and future alternative fuels through a carbon insetting system. Under this programme customers may opt for MSC Biofuel Solution through which we bunker certified sustainable second-generation biofuel (predominantly used cooking oil methyl ester, or UCOME).

## PROGRESS ALONG OUR PATHWAY



# MAINTAINING OUR FOCUS ON ENERGY EFFICIENCY

In conjunction with the deployment of new fuels and technologies, we have continued improving the energy efficiency of our vessels as a key pillar of MSC's decarbonization initiative.

We are committed to reducing our carbon intensity (using the IMO's Energy Efficiency Operational Indicator, EEOI). Since 2008, we have seen a progressive decrease as a result of implementing an array of efficiency measures, the addition of new, larger and more efficient vessels to our fleet. In 2023, our EEOI was class-verified as 13.46 (-8.6% from 2022), resuming a downward trend after rising slightly in the previous two years. With the

## FLEET RENEWAL PLAN

The introduction in 2023 of the **IMO Strategy on Reduction of GHG Emissions from Ships** (IMO 2023) prompted the need to address capacity challenges, as a portion of MSC's fleet steams at lower speeds to meet the requirements relevant to the CII. To that effect, we have been adding vessels as well as extra services and routes within our global network, ensuring sufficient capacity. As part of the 2023 rollout of a far-reaching efficiency-related investment plan, our retrofit programme continued to progress, largely targeting our vessels currently in service – of which nearly 300 have been retrofitted in the past two and a half years – thus boosting their efficiency. Retrofit dockings during 2023 included 55 boss cap fin propellers, 55 energy efficient propellers and 46 bulbous

delivery of efficient newbuildings and our ongoing retrofit programme, we anticipate the continued downward trend in our EEOI over the coming years. The introduction of the IMO Carbon Intensity Indicator (CII) and the entry into force of the EU Emissions Trading System (EU-ETS) as it applies to the maritime sector have prompted the implementation of slow steaming which further contributes to lowering our EEOI, in line with our decarbonization pathway. Efficiency measures regarding our maritime operations revolve around three axes: our fleet renewal and retrofitting activities; optimizing vessel performance; and route optimization.

bow. In 2023, we continued the installation of energy saving propeller cap fin-equipped propellers (launched in 2012 at MSC), achieving an average 2% fuel saving. These propellers were installed on three Log-In Logistica vessels in 2023, with a fourth to be installed by the end of 2024. Additional measures to be implemented at Log-In Logistica include the EcoTorque cylinder optimizer stabilizing fuel consumption rate that can generate a fuel saving of approximately 1g/kWh and the adaptive cylinder control (ACC) patented algorithm optimizing cylinder pressure that ensures the lowest possible fuel consumption.

In 2023, we proceeded with the progressive installation of air lubrication systems across over 20 newbuilding

vessels. We also successfully launched a pilot on a new technology named 'Windshield Project', which consists of the installation of a windshield on the bow above the water line, reducing the wind drag and dynamically optimizing the airflow around the bow by up to 25% under most weather conditions, prompting an energy efficiency gain of up to 2.8%. This technology will be considered on a large number of vessels undergoing scheduled dry-dockings and newbuildings in the future.

During the reporting year we carried out two projects which were shortlisted for an innovation award at the 2023 Motorship Propulsion & Future Fuels Conference, concerning the radical de-rating of the main engine through a reduction of the cylinder diameter and entailing a double-digit abatement of the baseline fuel consumption. An additional benefit was making the engines ready for immediate retrofit to alternative fuels. We have 10 more of such projects planned for 2024.

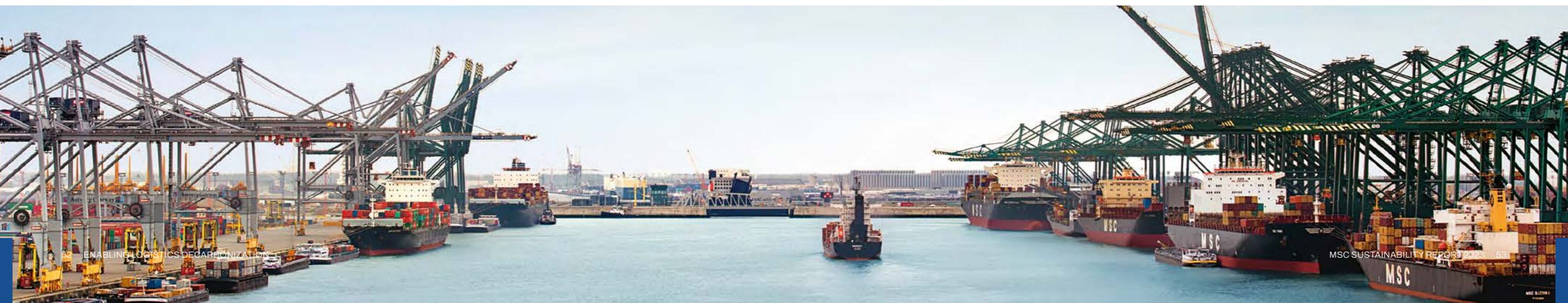
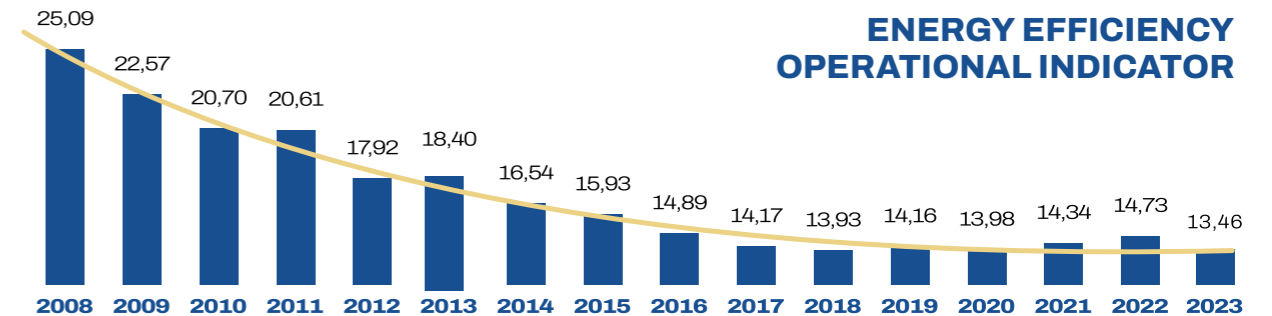
Additional energy-saving measures have been implemented such as the deployment of engine tuning equipment as

well as the installation of economisers on the auxiliary engines, shaft generators and autopilot systems.

In the coming years MSC's fleet will continue to expand with the delivery of 88 dual-fuel newbuilding vessels, of which many will potentially also feature the air lubrication system for further improving fuel efficiency. By the end of 2023, approximately 4% of MSC's fleet capacity (TEU) consisted of dual-fuel vessels, and the addition of these newbuildings will see this progressively increase to approximately 20% by 2027. With the delivery of energy-efficient newbuildings, we will progressively replace less efficient vessels, thus ensuring that we maintain a modern fleet which will drive progress towards our net-zero goal by 2050.

In the near term, conventional fuel vessels will be replaced by dual-fuel vessels as alternative fuels become increasingly available as part of the energy transition. As we approach the end of this decade, the design of new vessels may be adapted and optimized to accommodate alternative technologies and fuels.

## ENERGY EFFICIENCY OPERATIONAL INDICATOR





## DECARBONIZING THE GATEWAY BETWEEN LAND AND SEA

### VESSEL PERFORMANCE AND ROUTE OPTIMIZATION

Our focus on optimizing the performance of our vessels remained unchanged, including enhancing the set-up of energy-saving devices connected to the vessel engines – installing shaft generators, variable frequency drive on various pumps to reduce power consumption, waste heat recovery units, cut-outs on turbochargers as well as the continuous adjustment of autopilot systems, among others – the use of foul release hull coatings including silicon-based paints, as well as the roll-out of robotic proactive hull-cleaning systems. As part of our digitalization vision, in 2023 we continued the implementation of an innovative data-driven vessel management system (based on an onboard high-frequency data collection system operating on all energy-saving devices). This system is being rolled out to MSC's owned fleet, enhancing analytics through the use of machine learning and artificial intelligence (AI). In the meantime, we already gained valuable feedback from the high-frequency data-driven system, which validated the decision of retrofits on vessels in service to achieve 18-25% savings. We are also working on building digital twins of container vessels to further optimize vessel operation. Additional measures included the pursuit of a project focused on measuring the

fleet's fuel consumption performance as well as engaging in a number of activities to curb fuel consumption and ensure optimum performance, including optimal drydocking planning for hull treatment. Recognizing the important role of our crew in efficiency, we have also developed training programmes to raise awareness and upskill our seafarers, in alignment with our decarbonization goals.

As part of its ongoing practices, MSC determines the passage plans and the speed of vessels in consultation with vessels' Masters along our service routes to ensure the safe and timely transport of cargo, facilitate optimal energy efficiency and contain fuel consumption. We employ voyage planning, weather forecasts and analysis, and optimization tools to ensure that weather conditions at sea do not negatively impact voyage performance.

Together with the data-driven vessel management system, we are further enhancing the tool with real-time weather forecasts specific to vessel location and the requested time of arrival (RTA) to identify or potentially evaluate reviewing the optimum route and speed and, in the event of port congestion, also take into account the expected out-of-port waiting time.

Ports play a pivotal role in the decarbonization of the logistics chain. By optimizing operational efficiency, championing renewable energy solutions, providing lower carbon connections for inland logistics, and facilitating the uptake of low- and zero-carbon fuels and access to shore power for vessels at berth, strategic decisions within these hubs can reverberate across the entire supply chain.

Container terminals are also an important part of the GHG emissions reduction commitment for our operational activities. Across our terminal operations, levers being activated to decarbonize terminals centre around two categories: reducing energy consumption through improvements in energy efficiency and reducing energy carbon content by reducing fossil fuel dependency. Efficiency gains can be made through improved technical and operational improvements, as well as through end-use measures (better energy monitoring, insulation, efficient lighting system, and use of heating, venting and air conditioning systems). For the reduction of carbon content, key levers include direct electrification of equipment, switching to low- or zero-carbon fuels and, crucially, procurement or on-site production of electricity from renewable energy sources. In addressing terminals' GHG emissions, the particular

infrastructure, mode of operations, availability of technology, and regulatory and concession framework of each terminal location must be taken into account to determine appropriate investments to be made. Across our business, we consistently monitor technological advancements and opportunities for implementation at the terminal level. We take a proactive approach in collaborating with essential external partners, such as port authorities, industry groups, and key original equipment manufacturers (OEM), to be fully apprised of the most recent developments as they happen.

2023 has been particularly significant for the Cargo Division in terms of expanding our presence into new port locations around the world. This expansion is not only aimed at enhancing the connections these terminals provide but also at creating opportunities in the development of intermodal solutions. In line with this, and with the goal of promoting an integrated approach to our decarbonization journey for the entire Cargo Division, we are focusing on analysing operational convergences and evaluating potential synergies among different entities. The intention is to capitalize on best practices, enhance ongoing innovation projects and, most importantly, share sector-specific expertise.

## PURSuing ENERGY EFFICIENCY AND TRANSITIONING TO LOWER CARBON TECHNOLOGIES

Given its expansive geographical footprint, TiL is taking a techno-economic approach to designing an energy transition plan at portfolio and terminal level by modelling the impact of equipment replacement plans, electricity procurement, on-site electricity production from renewables, energy efficiency measures and productivity improvements in its long-term business plans. In 2023, TiL continued its proactive engagement with terminals through its energy transition programme to assess the challenges and opportunities faced by terminals on decarbonization, while already activating emissions reduction levers. Based on the decarbonization potential of each terminal, TiL is modelling emission reduction scenarios to inform its decarbonization pathway and investment decisions in a way that aligns the economics of its investments with its sustainability objectives. In parallel, our terminals are already implementing decarbonization levers. As noted above, electrification of container handling equipment is one of the main levers for reducing fossil fuel dependency and is being activated across TiL terminals, both on the yard and quay. While quay cranes at the majority of our terminals are already electrified by default, as of 2023, of our terminals 14 electrified vertical yard equipment, including four terminals which are using

automated stacking cranes (ASCs) as mode of operations. Horizontal equipment, including straddle carriers which are relied on as a mode of operations in certain terminals, remains a significant challenge for decarbonization in terminals. For this equipment, electric and hybrid as well as low- and zero-carbon solutions are being trialled. At MSC PSA European Terminal (MPET – Belgium), where straddle carrier emissions account for approximately 70% of total Scope 1 emissions, a Green Straddle Carrier Programme was launched in December 2022, and over the course of 2023, the local team evaluated five different energy source technical solutions (hydrogen dual-fuel, full electric, hybrid and biofuel (HVO), methanol dual-fuel and ammonia). MSC Terminal Valencia also pursued its ongoing project to trial a hydrogen fuel cell reach stacker (see box) and preparation to trial an electric reach stacker in 2024. In addition, AICT in Mundra (India) completed the phasing-out of its diesel TT fleet by mid-2023. Where necessary, transitional solutions are being explored as well, including in Newark, Port Everglades and Termont where LPG tractors are being purchased for trial, with the objective of reducing Scope 1 emissions by around 18%. LNG is also being used as a transitional solution for terminal tractors in Asyaport (Tekirdağ – Türkiye).

## H2PORTS: INNOVATIVE HYDROGEN TECHNOLOGIES IN PORT HANDLING EQUIPMENT

As part of its ongoing efforts to accelerate the transition of the European port sector towards low and zero-carbon operations, the EU is investing EUR 4 million over four years through the Clean Hydrogen Partnership H2Ports<sup>28</sup> project on hydrogen-based port solutions. As the first European port to use hydrogen in its operations, the Port of Valencia (Spain) is collaborating with partners, including MSC Terminal Valencia (MSCTV), to conduct a series of pilot projects to test and validate the use of hydrogen technologies in real port operations. H2Ports partners analyse equipment performance in port handling scenarios based on daily basis results, taking into account, among others, human factors (operator acceptance, technical knowledge and necessary qualifications) and expected availability of green hydrogen and affordability.

As part of the H2Ports project, MSCTV is piloting the world's first hydrogen fuel cell reach stacker, as well as a first-of-its-kind mobile hydrogen refuelling station. A public demonstration of the pilot was carried out in November 2023, with testing of the reach stacker taking place at MSCTV. The testing is scheduled to run until December 2024, subjecting the machines to real operating conditions in a port terminal. Green hydrogen is a clean energy carrier and has the advantage of easy storage and when used in a fuel cell, it produces no direct emissions other than heat and water.

Projects to abate Scope 2 emissions are also underway and will become more prominent in the coming years. Continuing the previous years' trends, as of 2023, nine terminals have photovoltaic systems on-site, producing a total of 6361 MWh of energy (see Methodology Note for information on electricity consumption by TiL terminals). Notable new projects include those at Navegantes, Valencia, as well as the 3 MW on-terminal photovoltaic

system installed in 2023 at Port Newark Container Terminal (PNCT – New Jersey, USA) with plans to add 4.2 MW in 2024. Other key levers that are being increasingly deployed by our terminals include entering power purchase agreements (PPAs) with renewables producers, and switching to green utility tariffs with purchase of renewable energy certificates (including, as of 2023, at our terminal in BTP Santos, Brazil).

[28] h2ports.eu

## REDUCING THE DIRECT EMISSIONS OF YARD EQUIPMENT

Terminals where electrified, hybrid or alternative zero-emissions yard equipment have already or are being introduced to the yard



Terminals with  
**AUTOMATED STACKING CRANES (ASCs)**

4



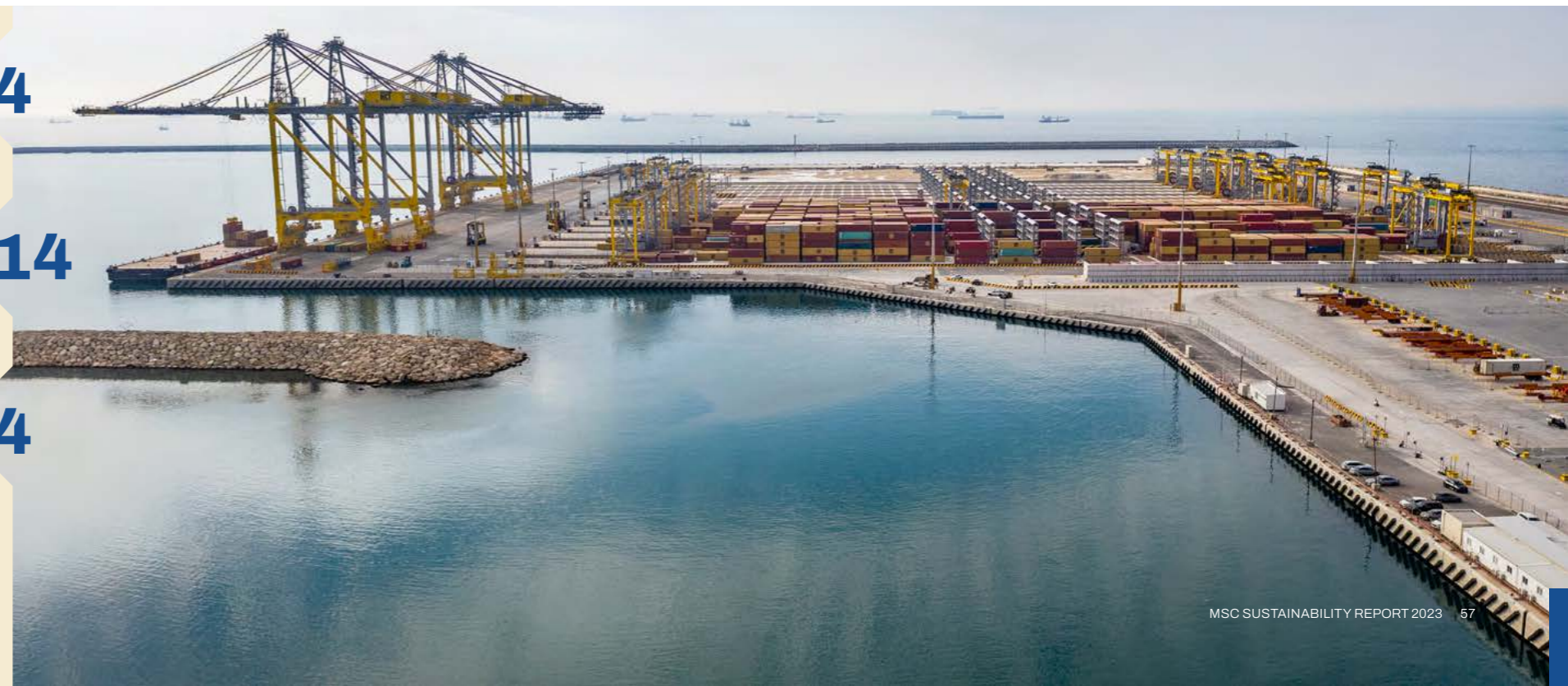
Terminals with  
**ELECTRIFIED OR HYBRID RUBBER-TYRED GANTRY CRANES (RTGS)**

14



Terminals with  
**ZERO EMISSIONS HORIZONTAL CARGO HANDLING EQUIPMENT**  
(including straddle carriers, reach stackers, terminal tractors)

4



The focus on energy efficiency also applied to our newly-acquired entities operating in the terminal business such as AGL mainly on the African continent and Log-In Logística in Brazil. A key part of AGL's mid- and long-term development plan is to step up investments in the construction and modernization of port infrastructures with low environmental impact through innovative, more efficient, low-carbon solutions. This includes the implementation of the 'Green Terminal' labelling scheme (developed by AGL and verified by a third party<sup>29</sup>) aimed at guiding efforts to reduce the carbon footprint across the entire value chain as well as supporting the design of infrastructures in compliance with international standards. The programme also includes the training of employees on environmental good practices.

### PREPARING TERMINALS IN ANTICIPATION OF CLIMATE CHANGE IMPACTS

Several climate and natural risks can affect coastal areas, in addition to the rise in sea level posing a significant threat to ports. As described in the Oxford University Study Multi-Hazard Risk Analysis<sup>30</sup> released in 2023, 86% of ports at global level are exposed to more than three types of hazards, including storms, earthquakes and flooding. The study highlights physical, human and financial risks that should be taken into account when assessing possible future impacts on existing and future terminals. In 2023, TiL incorporated into its multi-hazard risk inventory, the insights from the Oxford study, regarding possible top risks for terminals that could be impacted. A further assessment will be carried out on these possible

With the addition of the Freetown Terminal, Côte d'Ivoire Terminal, Timor Port SA and Congo Terminals in 2023, twelve AGL terminals have achieved the Green Terminal label to date.

As part of Log-In Logística's decarbonization efforts at terminals while at the same time contributing to developing seamless maritime logistic value chains, efficient and innovative solutions are being planned and rolled out across Vila Velha (TVV), Itajaí and Guarujá terminals. In 2023, two new cranes (MHCs) with hybrid energy (electricity or diesel) were installed at TVV. In addition, a decision was made to purchase only certified electricity from renewable sources. These initiatives are part of a sustainable project at TVV that is expected to be completed by the end of 2024.

risks and impacts.

A structured approach to addressing the adaptation of infrastructures to climate change is also adopted by AGL and Log-In Logística. An initial assessment was undertaken in 2023 and will be pursued further in 2024 to identify and analyse potential best practices to be leveraged across the value chain. Cooperation with different stakeholders is also fundamental in order to develop adequate management plans and ensure preparedness to address potential events. Port authorities are particularly important partners in this regard, as they are also taking measures to improve disaster resilience, prevent coastal erosion and tackle rising sea levels.

## OUR ROLE IN THE DECARBONIZATION OF INLAND LOGISTICS

As our worldwide logistics enterprise expands, encompassing both the organic growth of MEDLOG's network and the recent acquisitions of AGL and Log-In Logística, we acknowledge that our responsibility extends well beyond mitigating the impacts generated by our assets.

With the extension of our road and rail network and multimodal terminals in Europe, Africa and Brazil, we will benefit from the best practices and expertise in those regions, focusing on energy efficiency projects and advancing towards carbon neutrality. Leveraging all possible synergies across our inland operations as well as technological developments that will be available in the short, medium and long-term, including low-carbon fuels, we will also facilitate the decarbonization of both our supply chain and that of our customers. The dynamics of global trade are undergoing unprecedented changes, marked by trends such as nearshoring and reshoring which are restructuring deeply interdependent supply chains. Inland logistics networks are swiftly adjusting to this fast-evolving external environment and, in reaction to unforeseeable shocks and disruptions, engaging in a collaborative logistics ecosystem.

Adopting a holistic approach, we view collaboration and alignment with a diverse array of industry stakeholders as an opportunity to expedite the energy transition.

MSC's inland logistics business, linking the hinterland to the sea, is keen to make a substantial contribution

to enhancing flexibility and efficiency in our customers' Scope 3 emissions throughout their supply chains. While achieving an optimal balance in the carbon footprint of supply chain participants remains a challenge, it is a journey we are committed to pursuing alongside our operational partners. Through the development of logistics hubs and rapid corridors, MSC has been progressively optimizing intermodal logistics, leveraging the unique strengths of different transportation modes to decarbonize the entire logistics value chain.

Rising to the decarbonization challenge and with a view to lessening direct emissions, multiple goals are being pursued: enhancing intermodality and last-mile optimization by increasing recourse to coastal shipping and rail as opposed to road service whenever viable; stepping up the phase-in of electric or hybrid light- and heavy-duty trucks; evaluating increasing the uptake of biodiesel for heavy-duty trucking, as it does not require modifications to the assets, although its high market price is still a barrier to full-scale deployment. In addition, we aim to continue partnering with technology providers to advance R&D on new technologies such as new-generation fuel cells and batteries, which we believe may form part of the long-term net-zero scenario. In view of our growing presence in the inland transportation market, we see ourselves as catalysts of the energy transition.

[29] 'Green Terminal' certification verified by Bureau Veritas

[30] Verschuur, J., Koks, E.E., Li, S. et al. Multi-hazard risk to global port infrastructure and resulting trade and logistics losses. *Commun Earth Environ* 4, 5 (2023). <https://doi.org/10.1038/s43247-022-00656-7>



# INTERMODALITY: THE SUSTAINABLE FUTURE OF FREIGHT TRANSPORT

As per the European Commission's Sustainable and Smart Mobility Strategy<sup>31</sup>, rail freight traffic is forecast to double, and nearly all newly introduced heavy-duty vehicles are anticipated to be zero-emission by the year 2050. At MSC, we pursue our endeavours to facilitate the modal shift from road to rail whenever feasible, aligning with the European objectives delineated in this strategy. In 2023, through MEDLOG and MEDWAY, we transported over one million container units by rail globally, encompassing slot trains and block trains, thereby sustaining the rail trade volumes achieved in 2022. In recent years, MEDWAY has witnessed our rail business playing a pivotal role in fostering the development of interconnected regional hubs across Europe, spanning regions such as Spain and Portugal, Italy and Austria, Germany, the Netherlands and Belgium. The regionalization of our operations further enhances our connectivity, offering customers the flexibility they need and ensuring we respond swiftly to market requirements. Connecting landlocked countries to maritime trade via rail also shortens door-to-door delivery and avoids additional transshipments. The economies of scale from an expanded rail freight set-up ultimately support the transport mode shift, reducing emissions while building resilience during the energy crisis in Europe.

In 2023, MEDWAY expanded its rail fleet in Belgium and Italy with the order of 27 new electric locomotives manufactured by key mobility players. Our commitment to sustainability is demonstrated by our investment criteria, which prioritize innovative technologies with low environmental impact. These new locomotives stand out for their energy-efficient operation, thanks to the Eco Cruise driver assistance system. They also feature a regenerative braking system that can save up to 25% energy, depending on the route topology, and are over 95% recyclable. With this latest order, MEDWAY will have a global fleet of 115 locomotives and 4,800+ railcars by 2027. The increased MEDWAY capability will enhance cross-border freight transport for moving cargo across Europe as well as supplementing our ocean services in the eastern hinterland of Antwerp. Growing our rail network forms part of the interchangeability of our services, ensuring business continuity and rapid action in the face of unforeseen conditions including increasingly frequent weather-related extreme events that could potentially impact our assets and infrastructure. With this perspective, in 2023 MSC signed agreements in Italy and Spain that accelerate integrated intermodal logistics in Europe.

In November 2023, MSC entered a memorandum of understanding (MoU) with Italy's state railway, **Ferrovie**

**dello Stato Italiane**, to explore the construction of new terminals specifically dedicated to intermodal/maritime trade. This could lead to the formation of a new company solely committed to managing the freight transport logistics network linking Italian ports and the rest of Europe, which could be expected to result in more cargo being transported by rail and will result in lower emissions.

In Africa, MSC operates two rail concessions through AGL – SITARAIL, the network connecting Côte d'Ivoire and Burkina Faso and CAMRAIL, Cameroon's rail network. SITARAIL and CAMRAIL are leading the way in decarbonizing transport in Western and Central Africa thanks to the modernization

plan of their rail equipment and infrastructure and with the associated emissions reductions of rail compared with road transport. In 2023, AGL traction locomotives emitted approximately 66,700 tCO<sub>2</sub>e. The total weight of goods transported on both networks amounts to approximately 2.25 million tonnes for a total distance of almost 4.9 million km. By comparison, for the same tonnage transported, the emissions associated with the transportation of goods by truck would amount to approximately 224,000 tCO<sub>2</sub>e.<sup>32</sup> Thus, for an equal distance and with a greater load capacity, rail freight transportation emits approximately 3.4 times fewer greenhouse gas emissions than road freight transportation.

## CAPITALIZING ON EFFICIENCIES FOR SMARTER ROUTES

Collaborating with customers and energy providers, we aim to foster synergies within and beyond our intra-regional inland network, spanning coastal and landlocked countries. The objective is to expedite progress towards a common goal of emission reduction. The interoperability of logistics networks and infrastructures, encompassing both private and public sectors, has become a crucial factor in enhancing energy efficiency and reducing emissions in today's increasingly intricate supply chains. Through strategically positioned logistics hubs and infrastructures, including MEDLOG's extensive network of depots and warehousing solutions, we facilitate the adoption of innovative and efficient intermodal solutions. This is achieved by establishing closer connections to local industries, blending economic and energy efficiency. Inland routes seamlessly integrate with sea routes to streamline processes and flows through integrated logistics systems. We are dedicated to diminishing our carbon intensity by optimizing operations through strategic triangulations, reducing route distances, and minimizing empty mileage across our combined transport modes of road, rail, and inland waterways.

In July 2023, in Spain MEDLOG launched a cutting-edge pilot project based on the application of AI to logistics management. AI, logistics trucks and intermodal solutions are a powerful combination that can help transform the transportation industry. AI can help optimize routes, reduce fuel consumption, improve safety, and automate tasks such as loading and unloading. Logistics trucks empowered by AI can also communicate with each other and with the infrastructure, creating a smart and efficient network and improve triangulation. AI and logistics trucks are not only

beneficial for the environment and the economy, but also for the supply chain engagement. AI transport dispatching pilot project results will be subject to an environmental and business impact analysis, useful for a potential extension of AI implementation.

During the reporting year we saw new acquisitions expanding our inland network across Africa and the Americas, with our road fleet growing. Approximately 90% of MEDLOG's newly acquired vehicles have the highest performing energy class (EURO 6).

With a view to enhancing inland logistics data transparency, our emissions data management is progressing on alignment with the Smart Freight Centre's globally recognized industry standard, the GLEC Framework, as well as the ISO 14083 standard on quantification and reporting of greenhouse gas emissions from transport chain operations. We thereby strive to better understand the impacts of our inland, maritime and air cargo logistics business and further develop our decarbonization strategy. Our industry's fragmented supply chain continues to present challenges for operations visibility including the collection of our own Scope 3 emissions data related to our outsourced inland services. To progress in this area, we focused on refining our mapping process to update and quantify the impacts of our logistics suppliers at a more granular level, collaborating with our supply chain partners to evaluate potential solutions for future deployment and scalability. Further opportunities for energy efficiency will come through digitalization, with the progressive adoption and integration of digital platforms and corridors. The infrastructure of the future will facilitate the collection of data to abate fuel consumption and ensure responsive

[31] [transport.ec.europa.eu/transport-themes/mobility-strategy\\_en](https://transport.ec.europa.eu/transport-themes/mobility-strategy_en)

[32] Ratio between the emission factors provided by ADEME: Trailer truck – large volume PTR A 26T/transportation by diesel locomotive train





logistics services, as well as net load factor improvements, empty or below capacity mileage reduction and higher fleet utilization. Real-time supply chain visibility has also risen in

importance for our customers, calling for the technological innovation and digital infrastructure to further strengthen internal processes and promote more efficient operations.

## EVALUATING SOLUTIONS AT SCALE FOR OUR FREIGHT AND FACILITIES

MSC continues to explore scalable solutions and market opportunities, collaborating with stakeholders across the value chain in search of low- and zero-carbon energy sources. The evolving energy landscape will see regional and local specificities, with countries responding to a complex set of related challenges as they address emissions across the full life cycle. We believe that a broader approach is needed to tackle freight decarbonization, taking into consideration emissions related to energy production, transmission and storage alike.

While the momentum around zero-emission trucks continues to grow, their widespread adoption across the diverse geographical areas of our operations remains affected by regulatory challenges, uncertainty on upstream and operational emissions, technological bottlenecks, as well as infrastructure capacity investments which have not yet reached the maturity level required to meet market demand. We continue exploring new technologies and fuels with energy providers including biofuel and internal combustion engine (ICE) trucks powered by low- and zero-carbon fuels and started the introduction of hydrogenated vegetable oil (HVO) biofuel in our fleet. Such exploration includes an initial investment in trials and pilots, with the intention to progressively deploy and scale up solutions as part of our long-term decarbonization pathway. In Hungary, MEDLOG has focused on improving efficiency while exploring alternative energy sources to reduce the carbon footprint of their rail and road inland solutions in parallel. To reduce empty container movements and related emissions, MEDLOG Hungary performed 3,051 triangulations, increasing efficiency by generating 275 tonnes CO<sub>2</sub> savings. In 2023, through Log-In Logistica we launched several decarbonization innovative initiatives relating to our trucking services. For instance, the Solar Truck Project involves the installation of solar panels on trucks to reduce fuel consumption during 'idling' (when the truck's engine is running in order to power its onboard electronics but the truck is not in motion). Other initiatives have been tested in partnership with our suppliers, like the Green Fuel Project, a device attached to the truck engine

which injects hydrogen, reducing fuel consumption and carbon emissions.

We have also been working to improve the energy efficiency of our facilities and buildings. MEDLOG enhanced its action plan and strengthened internal capabilities on integration of sustainability requirements for infrastructure design and construction projects, working towards securing sustainable building certifications (e.g. LEED, BREEAM) as well as installing renewable energy sources and using sustainable building materials. To enhance the energy management system and assess forthcoming initiatives, MEDLOG has incorporated an analysis of potential photovoltaic (PV) installations. This mapping of selected facilities aims to boost the proportion of renewable energy in use and diminish the organization's carbon footprint.

In 2023, MSC continued its efforts on a plan to reduce the hydrofluorocarbon (HFC) emissions generated by the reefer containers and facilities incorporating the adoption of lower impact refrigerants to ensure compliance with upcoming regulations related to the phase-down and phase out of HFCs, which are greenhouse gases with high global warming potential (GWP). The average age of MSC reefer containers is under seven years, and we are dedicating investments to energy-efficient units that employ refrigerant technology featuring the lowest commercially available GWP today. Approximately 50% of our reefers are equipped for R513A gas, and our 2,000 NaturaLINE® reefers already utilize R744 gas. Both gases exhibit significantly lower GWP values compared with conventional HFC refrigerants.

With our partners, MSC is exploring a reclaimed reefer refrigerant project whereby refrigerant gas from reefer containers is recovered, purified and certified for reuse, reducing our HFC emissions and delivering around 4,000 kg of CO<sub>2</sub> savings per reefer. Thanks to the enhanced technology of our reefers along with a telematics solution, we anticipate we will reduce the pre-trip inspection (PTI) power consumption as the diagnostics tests run in the background during every laden voyage in alignment with the standard PTI.

## ECO-DRIVING: AN ENABLER OF LOW CARBON SOLUTIONS

MEDLOG is committed to promoting eco-efficient driving practices. In the European Union, heavy-duty vehicles are responsible for approximately 27% of road transport CO<sub>2</sub> emissions. While technological advancements can help reduce these emissions, the adoption of eco-driving practices can also result in fuel reductions of 5-10% for trucks and buses<sup>33</sup>. In today's digital age, the performance of heavy-duty vehicles is not only determined by their mechanical and physical capabilities but also by the digital tools that enhance their performance. Many of these vehicles are now connected and equipped with advanced telematics systems that monitor various parameters such as location, speed, driving behaviours like acceleration and harsh braking, idling time and tyre pressures.

In the United Kingdom, MEDLOG UK has launched a project to improve business performance by combining the potential of three factors: a modern fleet of 135 Euro 6 heavy-duty trucks; an innovative telemetry system; and an intensive training course on eco-driving and how to make the most of available technologies for the benefit of the environment.

In fact, the innovative solutions developed for the latest generation of heavy-duty trucks combined with low-rolling tyres require a specific training course for the drivers in order to capitalize on this potential environmental benefit. The eco-driving MEDLOG programme, which starts with the onboarding of the new employees, is built in a personalized way considering not only the technologies on board, but also the performance and the variable factors such as weather, safety and traffic. During the eco-driving course, the driver being trained observes cruise control utilization, coasting usage, exhaust brake, unnecessarily idle situations and potential harsh braking, steering or accelerating. A weekly company eco-driving review offers incentives by monitoring drivers' performance and providing a personal eco-driving score to support progress. These systems are useful for fleet managers on daily operations and also serve as a coaching tool for drivers. In 2023, thanks to the eco-driving programme involving 100% of MEDLOG UK drivers, an average of 4% annual emissions reductions were achieved by maintaining service efficiency and ensuring the safety of the transports performed.

[33] [unece.org/info/publications/pub/376486](https://unece.org/info/publications/pub/376486)





## INCORPORATING AIR CARGO INTO OUR JOURNEY

With the establishment of MSC Air Cargo in December 2022, MSC's Cargo Division integrates air logistics, further complementing its global network. In its first year, MSC Air Cargo consisted of four aircraft with the aim of reaching five units by 2024. This adds new challenges to our decarbonization roadmap and necessitates acquiring new skills to address future scenarios.

In line with the objectives of the Fly Net Zero plan defined by IATA, which envisions achieving zero emissions by 2050 through the implementation of four areas of intervention (development of innovative technologies applied to the aviation sector, use of sustainable aviation fuels or SAF, continuous improvement of infrastructures, and utilization of offsetting and carbon capture and storage technologies), we commit to channelling our investments towards realizing an energy transition aligned with the medium to long-term goals set by the company.

An integral part of the decarbonization strategy is the

decision to focus on structuring a fleet characterized by efficiency in operational performance, capable of integrating innovative solutions available in the market. Comprising four Boeing 777-200F aircraft, among the most environmentally friendly models in the large freighter category, the MSC Air Cargo fleet serves as a tangible example of our commitment. While the company focuses on the efficiency of a next-generation fleet, it is also aware that the best way to reduce emissions in the aviation sector is to adopt next-generation fuels.

While, in terms of fuels and transition solutions, the use of SAF emerges as being currently the most promising for achieving net-zero by 2050, with a potential reduction of up to 80% of CO<sub>2</sub> (potential contribution of 65%), there are still several issues to address, primarily related to production capacity. In addition to this, an assessment on the actual industrialization of this type of fuel by 2030 must be considered, linked in part to economic and

competitive factors. In an evolving context that is expected to provide more details on the transition scenarios the sector will face in the coming years, the use of carbon offset mechanisms is contemplated. In this regard, MSC

Air Cargo is closely monitoring the development of new opportunities and technologies capable of accelerating the energy transition and contributing to the achievement of the goals of the entire Cargo Division.

### AN EFFICIENT FLEET TO TACKLE THE CHALLENGES OF THE YEARS AHEAD

MSC Air Cargo has chosen the Boeing 777-200F model for its fleet, currently one of the most fuel-efficient cargo aircraft per kg/km. Equipped with state-of-the-art GE90-115B engines and a high-performing lightweight structure (achieved through the use of high-strength composite materials), employing this type of aircraft enables a reduction in fuel consumption and emissions per tonne by up to 20%.

In addition to being equipped with some of the most advanced technological solutions in the aerospace industry, the Boeing<sup>34</sup> is Extended-range Twin-engine Operational Performance Standards (ETOPS) certified. This certification verifies the aircraft's capability to provide direct flights, significantly reducing fuel consumption and the amount of CO<sub>2</sub> emissions into the atmosphere. To maximize the potential of the technological solutions in our fleet, we focus on implementing possible operational procedures to reduce emissions compared with those used in standard conditions, such as during landing and inflight phases.

[34] MSC Air Cargo's Boeing aircraft operated by Atlas Air



PROTECTING  
**OUR BLUE  
PLANET**



PROTECTING  
OUR BLUE PLANET



PROTECTING AND  
PRESERVING **BIODIVERSITY  
AND ECOSYSTEMS**  
MANAGING IMPACTS  
ACROSS OUR OPERATIONS  
ENSURING EFFICIENT AND  
**CIRCULAR RESOURCE  
MANAGEMENT**

## CONTRIBUTING TO HEALTHY AND PRODUCTIVE ECOSYSTEMS

Conversations and concern for ecosystems and biodiversity continued to intensify in 2023 in the face of an ever-present triple planetary crisis of climate change, nature and biodiversity loss, and pollution and waste. Following the 2022 adoption of landmark agreements including the **Kunming-Montreal Global Biodiversity Framework** with the aim of halting and reversing nature loss and damage, as well as a UN agreement to end plastic pollution, regulatory momentum is building towards the development of international legally binding instruments and a robust approach to contributing to healthy and productive ecosystems. These regulatory and institutional changes signal a strong push towards a more comprehensive approach and accountability to ecosystems

and biodiversity, requiring companies to report especially on the approach to address climate change, pollution, water and marine resources, biodiversity and ecosystems among others. This is also highlighted in the disclosure recommendations and guidance developed by the **Taskforce on Nature-related Financial Disclosures**<sup>35</sup> (TNFD) published in September 2023, for organizations to report and act on evolving nature-related dependencies, impacts, risks and opportunities. Acknowledging that shipping is a primary user of the oceans, the IMO has been consistently working on water and waste pollution prevention, setting the ambition to zero plastic waste discharges to sea from ships by 2025, which is echoed in the way we have developed our processes.

The protection of ecosystems presents opportunities and solutions for climate mitigation and adaptation. This, in turn, contributes to the development of a thriving blue economy and supports the livelihoods of those who depend on it. At MSC, we are focused on safeguarding our blue planet and on contributing to the nature positive goal to reduce and reverse loss of nature and biodiversity, contributing to social and environmental objectives aiming to do no significant harm as emphasized in the **EU Taxonomy**<sup>36</sup>. We collaborate with a diverse range of stakeholders and work closely with our peers in the ocean sector to make a positive impact, ensuring that our ecosystems remain healthy, productive, and resilient. As our business expands, we strive to utilize

available resources responsibly, employing innovation and technology to manage, minimize and mitigate our impacts. We seek to understand the impacts of MSC's maritime and inland logistics operations as well as those of our terminal and air operations on marine and land-based ecosystems. Our goal is to protect natural resources and preserve the coastal environments where we operate. To achieve this, we are evaluating specific targets and exploring methods to measure the impact of our business on life below water and life on land. We are also in the process of integrating the activities and programmes of the various entities, in line with their business specificities, to ensure alignment with our roadmap and material topics.

[35] [tnfd.global](https://tnfd.global)

[36] [finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities\\_en](https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en)

# PRESERVING OUR BLUE PLANET

## OUR COMMITMENTS



### CONTRIBUTING TO HEALTHY AND PRODUCTIVE ECOSYSTEMS

- Restoring and protecting our oceans
- Contributing to the blue economy
- Improving ocean science and data



### PROTECTING BIODIVERSITY AND LIFE BELOW WATER AND ON LAND

- Addressing biodiversity loss
- Protecting marine life
- Fighting illegal wildlife trafficking



### MANAGING IMPACTS ACROSS OUR OPERATIONS

- Minimizing and managing waste
- Reducing air and water pollution



### ENSURING EFFICIENT AND CIRCULAR RESOURCE MANAGEMENT

- Managing and conserving water
- Extending the lifecycle of containers
- Ensuring responsible ship recycling

## SAFEGUARDING OUR OCEANS

In June 2023, the UN adopted an historic treaty on protecting life in the high seas on two-thirds of the oceans that lie beyond national jurisdiction, building on the legacy of the **UN Convention on the Law of the Sea**. The treaty will set forth the creation of marine-protected areas and the use of area-based management tools, used to manage sustainably marine resources and critical for achieving the '30 by 30' global biodiversity and ecosystem conservation target in line with commitments in the **Kunming-Montreal Global Biodiversity Framework**. The treaty also introduces for the first time a global

framework for evaluating the combined effects of activities and the repercussions of climate change, ocean acidification and associated impacts in regions outside national jurisdictions.

We are committed to implementing the **Sustainable Ocean Principles**<sup>37</sup>, which we signed in 2022, and to aligning our roadmap accordingly across our entities and operations. At the Economist Impact World Ocean Summit 2023, MSC participated in discussions on the blue economy, marine ecosystems preservation and pathways forward for climate and ocean stewardship.

## IMPROVING OCEAN SCIENCE AND DATA

The **UN Decade of Ocean Science for Sustainable Development** (2021-2030) has raised awareness and promoted action among ocean stakeholders to contribute to ocean science as part of their efforts to mitigate climate change and human activity-related impacts. MSC's commitment to enhancing ocean data is reflected by collaboration with public and private stakeholders, through initiatives such as our continued participation in the Voluntary Observing Ship Scheme of the **Global Ocean Observing System** (GOOS), co-sponsored by the **World Meteorological Organization, Intergovernmental Oceanographic Commission of UNESCO, UN Environment Programme** and the **International Council for Science**. In 2023, 50 MSC vessels participated in the programme, contributing weather observation data through Germany, New Zealand and the US. Since 2021, we have been engaging in a pilot project whereby MSC vessels utilize the services of the largest privately owned network of ocean sensors (marine sensing platforms called 'spotters') worldwide, collecting real-time ocean data. These spotters measure various parameters including ocean waves, enhancing forecasting accuracy by 50% compared to traditional models and dynamic route

optimization, leading to enhanced navigational safety and more efficient fuel consumption, in conjunction with satellite data. In 2023, 25 MSC vessels were equipped with this system located mainly in North America, Europe and South Africa. Our aim is to progressively deploy the system across our entire fleet to optimize performance and further enhance cargo stability.

Our close and long-lasting partnership with **Team Malizia**<sup>38</sup> is another testimony of our commitment to protecting our blue planet and supporting ocean science and innovation. With the message 'A Race We Must Win – Climate Action Now!', Team Malizia is advocating for ocean science, protection, and education around the world. Its educational programme, 'My Ocean Challenge', is delivered to school children around the world and seeks to inspire the next generation of ocean scientists and promote ocean protection and climate change awareness. Team Malizia sails on *Seaexplorer*, a race yacht fully equipped with a mini laboratory that measures sea surface CO<sub>2</sub>, temperature and salinity data which are retransmitted via satellite to scientists around the world, giving them an in-depth and unprecedented understanding of the health of our oceans.

[37] [unglobalcompact.org/take-action/ocean](https://unglobalcompact.org/take-action/ocean)

[38] [www.team-malizia.com](https://www.team-malizia.com)

# PRESERVING BIODIVERSITY AND LIFE BELOW WATER AND ON LAND

Biodiversity and ecosystem loss rates are reaching unprecedented levels across the globe. As a leading company with expanding activities at sea, on land and in the air, we seek to understand our impacts and also take action in protecting and restoring impacted areas. In 2023 we took initial steps in preparation for adopting the **LEAP<sup>39</sup> (Locate, Evaluate, Assess and Prepare)** integrated assessment approach – developed by the **Taskforce on Nature-related Financial Disclosures** – our nature-related impacts, risks and opportunities will be identified and further integrated into our business strategy and operations.

MSC will not explore the use of the Northern Sea Route (NSR) to transit the Arctic. We stand firm in our resolution to avoid trade routes in fragile marine ecosystems and vulnerable environments, and continue advocating for our industry peers to join MSC in its NSR position held since 2019. The Arctic poses numerous safety and operational challenges for ships and their crews due to dynamic ice movements and formations, extreme weather and incomplete nautical charts. The area's remoteness poses significant risks in the event of emergencies such as those related to crew, fuel spills or cargo discharges, requiring the timely and effective deployment of search-and-rescue teams or pollution responses. An area particularly rich in biodiversity, the Arctic is important for marine mammals such as whales which migrate through and feed in the area. There are also implications of the noise and light emissions of ships in an area that is usually quiet and dark. Noise disturbs whales which rely on sound to navigate Arctic waters, while light attracts seabirds which can result in disorientation and lead to death from exhaustion. Shipping activities in the Arctic will affect coastal communities as well as the ecosystems upon which their cultural identity, lives and livelihoods, health and wellbeing depend. Black carbon – physical particles of unburned carbon from the burning of fossil fuels, which are currently used by the majority of the merchant fleet in the Arctic today – emitted by shipping in the Arctic can speed up the melting of ice and accelerate the effects of climate change.

According to a 2023 study conducted by the Intergovernmental

Science-Policy Platform on Biodiversity and Ecosystem Services<sup>40</sup>, more than 37,000 established alien species (of which 5,256 species are considered invasive) have been introduced by human activities across the globe and the contamination rate has been increasing rapidly in recent years, with an unprecedented rate of 200 every year. It is estimated that the annual global costs of biological invasions exceed USD 420 billion. MSC is committed to reducing the spread of invasive alien species both on water and on land, in line with the targets set by the **Kunming-Montreal Global Biodiversity Framework** and aligned with the **World Health Organization's (WHO) One Health<sup>41</sup>** approach, which aims to holistically balance and protect the health of people, animals and ecosystems.

Managing ballast water and biofouling is necessary for a ship's environmental compliance and maintaining the integrity of marine ecosystems. MSC adheres to the **Ballast Water Management Convention (BWMC)** and conducts regular water sampling and continuous monitoring as per requirements. Newbuilding vessels in the MSC fleet have ballast water treatment systems (BWTS) installed and we continued retrofitting our fleet so that by the end of 2023, approximately 76% of our fleet had been equipped with ballast water treatment systems utilizing both electrolysis and UV light technologies, working towards the BWMC's 2024 deadline.

MSC is in the process of implementing a comprehensive biofouling management plan tailored to each of our vessels, with monitoring conducted by crew on board and our technical management ashore. We apply high-quality anti-fouling paints on the underwater areas of our newbuilding vessels and progressively for those in service to ensure consistent performance. We also coat propellers with silicon, reducing fouling that routine propeller cleaning creates until the next docking. This is further supplemented by the use of marine growth prevention systems (MGPS) installed on board, to address the biofouling of seawater pipework and sea chests. Finally, we monitor each vessel's fouling state based on their hydrodynamic performance, allowing us to anticipate

any dry-docking needed according to their hull condition. MSC recognizes the impact of transporting invasive alien species is also present in our land-based operations. We continued working with others along the supply chain – including shippers and packers – to prevent pest contamination of containers, such as through fumigation services, while considering safety and operational limitations. During the reporting year we collaborated with the **Container Owners Association (COA)**, **International Cargo Handling Coordination Association (ICHCA)**, **World Shipping Council (WSC)** and the **Bureau of International Containers (BIC)** to develop guidelines on the topic.

On land, we strive for continuous improvement, ensuring that progressive infrastructure design and current and future construction projects across MSC's entire Cargo Division contribute positively to the surrounding natural environment, actively supporting and safeguarding local biodiversity. We conduct environmental impact assessment studies for new projects, including mitigation and monitoring plans.

For example, AGL runs an environmental and social impact analysis at the start of any new project, which includes an analysis of the impact on local biodiversity and ecosystems. Prior to initiating any project aimed at constructing or upgrading its port infrastructure, AGL engages independent entities to conduct technical and environmental studies. The findings of these studies, encompassing aspects such as biodiversity, are subsequently submitted to the relevant national environmental authority. AGL's commitment to these studies highlights its intent to harmonize operational requirements with the

preservation of biological diversity. A mitigation plan is generated from the analysis and then implemented with the aim of limiting negative consequences as much as possible. Our terminal operations are implementing a Construction Environmental Management Plan to ensure that construction activities do not adversely impact the environment and neighbouring areas and that the identified impacts are properly managed.

One of the sustainability objectives TIL has set for its terminals is to maintain, enhance, restore and protect natural habitat in coastal locations, including by identifying areas for restoration onsite and offsite and, where possible, to explore partnerships with organizations to develop restoration programmes. Several terminals are engaging in reforestation and mangrove plantation projects to mitigate the impact on local ecosystems. In Lome Container Terminal (Togo), the terminal continued its mangrove replanting programme at Keta-Agbantokope, covering an area of 9 hectares over the course of 2023. Brasil Terminal Portuário in Santos (BTP – Brazil) is also engaging in an important reforestation project that aims to plant more than 10,500 trees belonging to approximately 19 Atlantic Forest native species in an area of 6.32 hectares within the Rio Turvo State Park (Parque Estadual do Turvo – PERT).

Finally, 15 used containers were donated in cooperation with the MSC Foundation to the **Dominican Foundation for Marine Studies (FUNDEMAR)** for the expansion of their Center for Marine Innovation in Bayahibe, Dominican Republic. The centre aims to monitor and protect the health of local reefs and for coral restoration, while pioneering the implementation of larval propagation techniques.

[39] [tnfd.global/publication/additional-guidance-on-assessment-of-nature-related-issues-the-leap-approach](https://tnfd.global/publication/additional-guidance-on-assessment-of-nature-related-issues-the-leap-approach)

[40] [www.unep.org/resources/report/invasive-alien-species-report](https://www.unep.org/resources/report/invasive-alien-species-report)

[41] [www.who.int/health-topics/one-health](https://www.who.int/health-topics/one-health)



## SUPPORTING LOCAL BIODIVERSITY INITIATIVES IN TIMOR-LESTE

Timor Port, AGL's port in Timor-Leste is engaging with Tibar Liquiçá on the implementation of the local biodiversity action plan (BAP), including a reforestation and mangrove preservation project as well as a turtle conservation initiative. The reforestation and mangrove preservation project aims to rehabilitate approximately 16.5 hectares of mangrove ecosystems, as well as planting a further 3.5 hectares. Between January and August 2023, 4,000 mangrove seedlings were planted, over 22,000 seeds cultivated between April 2022 and August 2023. Timor Port has also been collaborating with the local conservation organization **TOCART** and with the local authorities and communities on a conservation project launched in October 2022. The overarching goal of the project is to enhance conservation efforts by expanding protected areas, prohibiting offshore fishing activities that pose threats to biodiversity, and fostering awareness among local communities through communication and training initiatives. Over the course of the year, 39 nests were recorded in the Tibar Bay area, and three endangered and/or critical turtle species (green, hawksbill and loggerhead turtles) were sighted. To safeguard hatching sites, nets are strategically employed to prevent potential threats from other marine species, and the area is further secured with wooden poles to deter public access and land predators. To ensure the safety and accurate tracking, the turtle conservation area undergoes daily monitoring during both nesting and hatching seasons.

## PROTECTING MARINE LIFE

MSC is committed to protecting endangered whales from ship strikes as well as safeguarding critical areas where whales feed and breed. Our approach is twofold: (i) keeping away and (ii) slowing down. We use data and technology to detect whale activity, and create alerts for our crew as well as conducting training and advocacy activities. During the reporting year no collisions were reported. MSC was the first in our industry to reroute our ships to keep away from cetaceans. In 2023 we adjusted the course of 285 vessels off the west coast of Greece and 280 vessels off the southern coast of Sri Lanka to keep away from endangered sperm whales and blue whales. Together such collective efforts by all vessels could contribute to significantly reducing strike risk to whales in these areas. There is evidence that suggests that rerouting could reduce the risk to sperm whales off the coast of Greece by approximately 70%<sup>42</sup>, and could reduce the risk to blue whales by as much as 95%<sup>43</sup>. For the sixth consecutive year, MSC received the highest Sapphire Award (>85% compliance) for the **Protecting Blue Whales and Blue Skies** programme<sup>44</sup> for voluntarily reducing speed in the San Francisco and Monterey Bay region and the southern California region to less than 10 knots, protecting blue whales inhabiting the area. Our participation in the

2023-2024 **Quiet Sound**<sup>45</sup> voluntary vessel slowdown through Admiralty Inlet and north Puget Sound (Canada and USA) had a 96% compliance rate, lowering underwater noise and protecting the remaining 74 Southern Resident killer whale populations. We were also awarded grade A by **Whale Safe**<sup>46</sup> according to our rate of cooperation with NOAA's 2023 voluntary speed restriction season in the Santa Barbara Channel and the San Francisco region. We have been exploring the use of data and new technologies to better detect whales, including trials with high resolution thermal cameras on MSC vessels to monitor whale activity. Our crew training programme includes awareness raising as well as technical training for all deck officers – particularly during whale breeding season – and enable appropriate action in response to alerts. MSC advocates and engages with members of the maritime community and shipping forums; port authorities and the coastguard; scientific bodies, civil society and governments, calling on others to join us in protecting whales and to promote industry action to reduce the risk of collision with these giants of the sea. In November 2023, MSC hosted an International Whales Protection Workshop at our headquarters convened by the WSC, bringing together stakeholders across and beyond

[42] Frantzis A, Leaper R, Alexiadou P, Prospathopoulos A, Lekkas D (2019) Shipping routes through core habitat of endangered sperm whales along the Hellenic Trench, Greece: Can we reduce collision risks? PLoS ONE 14(2):e0212016. <https://doi.org/10.1371/journal.pone.0212016>

[43] Priyadarshana, T., Randage, S.M., Alling, A., Calderan, S., Gordon, J., Leaper, R., Porter, L. 2016. Distribution patterns of blue whale (*Balaenoptera musculus*) and shipping off southern Sri Lanka. *Regional Studies in Marine Science* 3:181-188, <http://dx.doi.org/10.1016/j.rsm.2015.08.002>

[44] [www.bluewhalesblueskies.org/press/february-27-2024-press-release](http://www.bluewhalesblueskies.org/press/february-27-2024-press-release)

[45] [quietsound.org](http://quietsound.org)

[46] [whalesafe.com](http://whalesafe.com)



our industry (see box). Underwater noise considerations are incorporated in our ship design, with almost one-third of MSC's fleet equipped with propeller boss cap fins that lower noise levels. We are actively working towards incorporating the recommendations of the draft revised **Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life**<sup>47</sup> adopted by the IMO Sub-Committee on Ship Design and Construction in January 2023. We welcomed the designation of the North-Western Mediterranean Sea as a Particularly Sensitive Sea Area<sup>48</sup> (PSSA) by the IMO in July 2023,

recognizing the importance of reducing ship strike risk for fin and sperm whales in the area. In our efforts to protect marine life, the MSC Foundation Super Coral Programme and its ongoing work in ecosystem recovery saw the Ocean Cay MSC Marine Reserve (Bahamas) designated as a 'Hope Spot' by **Mission Blue**<sup>49</sup>, recognizing Ocean Cay as critical to ocean health with the ultimate goal of achieving the status of Marine Protected Area. The MSC Foundation Super Coral Programme is also partnering with IUCN, supporting the **IUCN** Red List of Threatened Species and marine restoration research.

## GLOBAL COLLABORATION FOR WHALE PROTECTION

In November 2023 MSC hosted a major international gathering of industry, government, environmental organizations and academia to protect endangered whales at our headquarters in Geneva, Switzerland. Organized by the World Shipping Council (WSC), the **International Whales Protection Workshop** brought together stakeholders from across the world to share knowledge and drive progress on strategies, operational measures and technical solutions that can help ensure the protection of whales. Over 70 attendees from organizations across the globe came together for the workshop, including WSC members; scientists, researchers and whale experts; senior officials from the International Maritime Organization (IMO), International Whaling Commission (IWC) and the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic area (ACCOBAMS); representatives from regulators in Canada, Europe and the US; and environmental organizations including the International Union for the Conservation of Nature (IUCN) and Oceancare, among others.

The event served to share the latest research in cetacean science, review the tools and technologies available today to avoid whale strikes as well as exchange experiences and lessons learned. The workshop also saw the official launch of the **WSC Whale Chart**<sup>50</sup>, a navigational aid for seafarers mapping all mandatory and voluntary governmental measures to reduce risk of collisions between ships and whales. The WSC Whale Chart provides seafarers with critical navigational coordinates and concise graphics to identify routing measures and areas subject to static speed restrictions designed to protect whales and other cetaceans.

[47] [www.imo.org/en/MediaCentre/MeetingSummaries/Pages/SDC-9.aspx](http://www.imo.org/en/MediaCentre/MeetingSummaries/Pages/SDC-9.aspx)

[48] [www.imo.org/en/ourwork/environment/pages/pssas.aspx](http://www.imo.org/en/ourwork/environment/pages/pssas.aspx)

[49] [missionblue.org/2023/07/successful-coral-restoration-efforts-celebrated-at-newly-declared-ocean-cay-hope-spot-in-the-bahamas/](http://missionblue.org/2023/07/successful-coral-restoration-efforts-celebrated-at-newly-declared-ocean-cay-hope-spot-in-the-bahamas/)

[50] [www.worldshipping.org/whales](http://www.worldshipping.org/whales)



## AT THE FOREFRONT OF THE FIGHT AGAINST ILLEGAL WILDLIFE TRADE

In the face of increasing threats to biodiversity, illegal wildlife trade emerges as a substantial and persistent challenge within our industry. At the United for Wildlife Summit in November 2023 INTERPOL<sup>[51]</sup> warned that illegal wildlife trade has become one of the world's largest and most profitable criminal sectors and continues to expand, pushing many species close to extinction. This illicit activity, valued at around USD 20 billion annually on the black market, is progressively associated with armed violence, corruption and various other forms of organized crime. The consequences of poaching and the illegal wildlife trade extend beyond environmental harm and the endangerment of vulnerable species. They also exact a toll on the lives of wildlife enforcement officers, with as many as 100 rangers being killed by poachers each year while defending wildlife in their natural habitats. Criminals exploit vulnerabilities in supply chains, fostering the expansion of their illicit networks.

MSC's commitment involves implementing control management and policies specifically raising awareness regarding illegal and prohibited wildlife trafficking. Our three Global Targeting Centres are of high importance in

preventing cases. Leveraging AI and machine learning, our proprietary detection systems are continually updated with the latest information and technology. We partner with local authorities, who handle any flagged shipment and take appropriate action. Furthermore, we uphold a stringent policy that prohibits the transportation of shark fins, animal hunting trophies and protected timber. Local teams in countries at higher risk of illegal trade receive frequent training which became mandatory in 2023. Through these measures, MSC strives to contribute to the eradication of illegal wildlife trade and its far-reaching consequences. We continue to be a proud signatory of the **Buckingham Palace Declaration** and an active member of the **United for Wildlife Transport Taskforce**<sup>[52]</sup>. We place high emphasis on advocacy for more controls with the aim of breaking these supply chains. We welcome the global commitment to combat illegal wildlife trade demonstrated by the financial intelligence units (FIUs) of Australia, Canada, New Zealand, South Africa, Singapore, the United Kingdom and the United States, reflected in their **Statement of Principles for a Multilateral Approach to Combating Illegal Wildlife Trade**<sup>[53]</sup>.



## CAMRAIL AND WILDAID COLLABORATION: PROTECTING WILDLIFE AND FOSTERING AWARENESS ON CAMEROONIAN TRAINS

CAMRAIL, the Cameroonian railway concession operated by AGL, is supporting the international organization **WildAid** – known for its expertise in the conservation of protected species – in a project whereby short films including 'The Unsung Heroes of Nature Protection' are shown on passenger express trains connecting Douala and Yaoundé. The purpose is to raise awareness of wildlife protection among local communities and train passengers with a specific focus on the pangolin, a creature integral to Cameroon's environment, culture and traditions, and the interconnectedness of wildlife preservation with environmental health and cultural identity. CAMRAIL is actively engaged in various initiatives to protect flora and fauna, including through engagement with the Ministry of the Environment – MoU signed in 2005 – which includes a ban on transporting protected species on trains and rigorous baggage inspections throughout the network to combat poaching and trafficking. CAMRAIL's ongoing collaboration with institutions and NGOs also reflects its commitment to engage with local communities. In 2023, 168 villages along the railway route were engaged in a dedicated campaign on climate change and the vital role of protected areas in building resilience.

[51] [www.interpol.int/en/News-and-Events/News/2023/Illegal-wildlife-trade-has-become-one-of-the-world-s-largest-criminal-activities](http://www.interpol.int/en/News-and-Events/News/2023/Illegal-wildlife-trade-has-become-one-of-the-world-s-largest-criminal-activities)

[52] [unitedforwildlife.org/taskforces/transport-taskforce/](http://unitedforwildlife.org/taskforces/transport-taskforce/)

[53] [unitedforwildlife.org/news/international-statement-of-principles-announced](http://unitedforwildlife.org/news/international-statement-of-principles-announced)

## MANAGING OUR IMPACTS

MSC is dedicated to reducing and mitigating the adverse environmental and social effects of our assets and operations at sea, on land and in the air. In 2023 we dedicated efforts to understanding the expanding spectrum of impacts and updating our roadmap accordingly. This approach allows us to navigate the evolving landscape and understand of the varied effects our growth may have on our stakeholders.

Therefore, we emphasize the importance of a clear understanding and a proactive strategy to waste management and pollution reduction. The ISO 14001:2018 process aids us in monitoring and comprehending our impacts, fostering continuous improvement in our strategies and practices to meet our goals. MEDLOG actively progressed towards broadening the adoption of sustainability certifications, such as LEED and BREEAM

– leading science-based validation and certification systems for a sustainable built environment – throughout our newbuilt global facilities and structures. Our maritime operations are leveraging a management system called Ocean Guardian<sup>[54]</sup> to ensure continuous environmental compliance and efficient operations.

We monitor our footprint through the deployment of environmental management systems. As an example, at AGL the system comprises specific measures and controls in line with recognized international and national standards in compliance with strict regulations such as ICPE (installations classified as environmental protection) in the countries where they exist. We collaborate with local institutions and other partners to fulfil our commitments, including the engagement of specific recycling facilities and service providers.

[54] [oceanguardian.com](http://oceanguardian.com)



## REDUCING AIR AND WATER POLLUTION

At MSC, we seek to conduct our business and oversee our expansion in a manner that reduces pollution and mitigates our impact on oceans, coastal and land-based ecosystems. Our commitment extends to reducing greenhouse gas, sulphur and other emissions that can adversely affect air and water quality, potentially causing environmental harm. As part of our decarbonization pathway, MSC is dedicated to not only decreasing GHG emissions but also addressing our local atmospheric and water impacts.

Despite the ongoing growth of our fleet, we have progressively reduced sulphur oxide (SOx) emissions, ensuring compliance with IMO standards by limiting sulphur emissions well below 0.50%. Retrofitting vessels with a hybrid exhaust gas cleaning system (EGCS – operating in both open and closed loops) contributes to reducing our SOx emissions. We actively follow industry discussions regarding the use of EGCS and welcome the IMO's updated **Guidelines for Exhaust Gas Cleaning Systems**, along with guidance adopted in 2022 related to the discharge water risk and impact assessment and the delivery of residues.

In addition to reducing SOx emissions, newbuilding vessels fitted with Selective Catalytic Reduction systems (in accordance with applicable regulations) enable significant reduction of nitrogen oxide (NOx) emissions as per Tier III NOx requirements. MSC adheres to local emission and discharge criteria including those of IMO Emission Control Areas (ECAs), and our dynamic database draws on IMO, regional and country-specific requirements to ensure that all vessels are alerted and their EGCS operations are compliant.

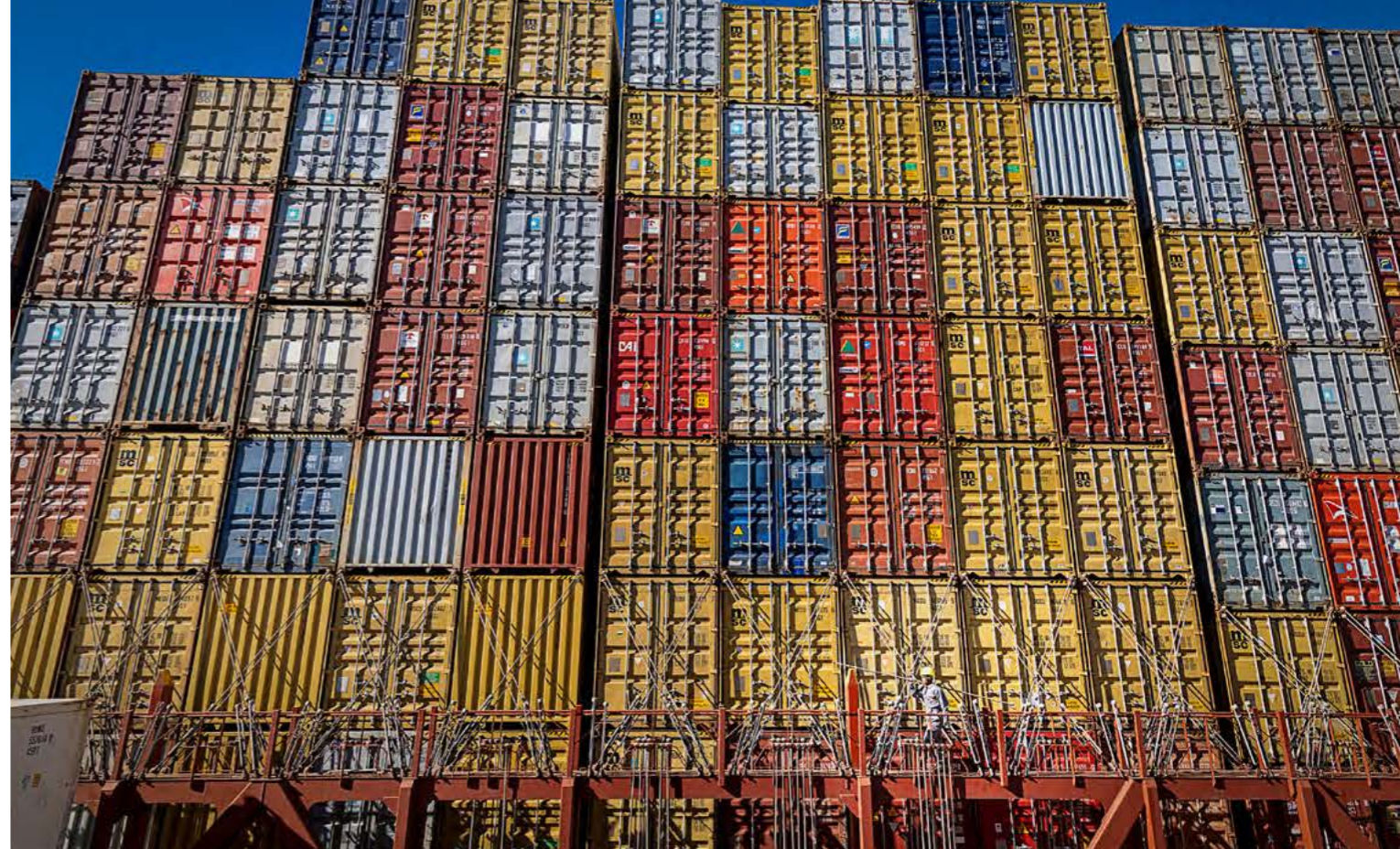
Furthermore, our TiL terminal in Mundra Port in India has been ensuring the ambient air quality emission levels remain well below the regulatory prescribed standards through a regular monitoring and installation of DG stacks (monitoring device) from the National Accredited Board of Laboratories (NABL) accredited agencies.

We are dedicated to reducing air pollution resulting from our onshore operations, including emissions like NOx, carbon monoxide (CO), non-methane volatile organic compounds (NMVOCs) and particulate matter (PM) from heavy-duty vehicles. In 2023 our emphasis remained on the inland fleet modernization, with investments directed towards acquiring new vehicles that are both energy-efficient and have lower emissions, contributing to our commitment to minimizing environmental impact. Recognizing the potential air pollution related to the establishment of our air cargo operations, we are committed to exploring potential scalable solutions to

lower the impacts generated by our fleet.

With regard to our impacts on water, more specifically the release of oily bilge water and unusable oil residue (sludge), MSC vessels employ onboard filtering systems for the discharge of clean water only. Our vessels adhere to the **International Convention for the Prevention of Pollution from Ships (MARPOL)**, which stipulate that oil content should not exceed 15 parts per million (PPM), and our newbuildings surpass MARPOL compliance with installed filtering systems maintaining a 5 PPM standard. Additionally, our vessels are fitted with an IMO-approved sewage treatment plant, and grey water is disinfected and treated before being released or held in tanks and discharged at an approved rate. In container cleaning procedures, MSC opts for biodegradable additives and natural solvents whenever feasible to prevent contamination of local waterways and ensure proper treatment of wastewater from the cleaning process. MSC is committed to preventing marine pollution incidents, emphasizing our aim of zero occurrences while continually improving our preparedness. Ongoing contingency planning ensures our readiness to respond effectively to evolving risks. In 2023 no significant incidents of pollution were recorded.

Our terminal operations are implementing monitoring systems in order to avoid any pollution of waterways. Log-In Logistica has implemented an environmental monitoring plan designed to identify and monitor potential risks and impacts arising from its operations. This comprehensive plan encompasses the management of water, effluents and waste, addressing both shipping and terminal activities. Specifically, the Vila Velha terminal has established a monitoring system that tracks water consumption and waste sources and manages related processes and activities. This system also extends to addressing associated issues and impacts, identifying risks and opportunities. The Vila Velha terminal features a common effluent treatment plant (CETP) designed to process wastewater before its transfer to collection centres. Additionally, an advanced water-oil separator system (SAO) is in place for the treatment of oily wastewater. Notably, this system underwent modernization and automation in 2022, enhancing the overall quality and efficiency of the treatment process. TiL's Terminal Bettolo has been equipped with a stormwater treatment system through passive horizontal flow filtration, integrating a spill management system. This mechanism ensures handling and segregation of hazardous products in case of accidental spillage. Its aim is to safeguard the receiving water body's integrity and ecological balance.



## LOST CONTAINERS AT SEA

According to the World Shipping Council, around 1,500 containers are lost at sea each year. The 2023 WSC Containers Lost at Sea Report<sup>[55]</sup> states that 661 containers were lost at sea in 2022, which is less than one thousandth of 1% of the 250 million containers shipped annually. The impact of lost containers remains a significant concern for marine and coastal environments, affecting ship safety and the environment, especially with the increased likelihood of extreme weather events due to climate change. Of the 97 MSC containers lost at sea in 2023, 50 (of which 46 were empty) were lost from MSC-operated vessels while 47 containers were lost from vessels operated by other carriers. MSC is dedicated to ensuring the safety of our operations by securing containers to prevent loss and avoiding negative environmental and social impacts. We were the first in our industry to apply DNV's new Anti-Roll Assist System for Containerships (ARCS) class notation,

helping captains predict and reduce the risk of resonant rolling, ensuring the safety of our crews, cargo and vessels. MSC is a founding partner of the joint industry project **TopTier**<sup>[56]</sup>, a multi-stakeholder initiative aimed at improving container transport, stowing and securing, involving various participants such as shipping companies, suppliers, insurance companies and government bodies. TopTier has identified several causes of container loss, including loading plans and container conditions, with resonant and parametric rolling being major contributors. Technical investigations, including studies, measurements, testing and model tests, are ongoing and expected to be completed by mid-2024. The goal is to validate criteria and calculations used in stow planning, vessel routing and handling procedures to address extreme rolling in transit. These investigations have already led to the development of a notice to mariners on parametric roll in following seas.

[55] [www.worldshipping.org/news/world-shipping-council-releases-containers-lost-at-sea-report-2023-update](http://www.worldshipping.org/news/world-shipping-council-releases-containers-lost-at-sea-report-2023-update)

[56] [www.marin.nl/en/jips/toptier](http://www.marin.nl/en/jips/toptier)



## CONSERVING WATER RESOURCES

At MSC, we seek to protect, conserve and restore water systems, recognizing the critical role they play in sustaining our environment, especially in high water stress areas. As part of our commitment, our crew undergoes awareness training for the judicious use and conservation of water while aboard MSC vessels. To ensure the wellbeing of our crew, seawater sourced from the ocean undergoes a rigorous process of filtration, sterilization and mineralization. This process, facilitated by advanced filters installed on the majority of our fleet, ensures that the water is not only safe for consumption but also meets stringent quality standards. Beyond ensuring safe drinking water, we work hard to optimize water usage across various operational facets. For instance, in the realm of container cleaning, we continuously explore innovative approaches to minimize water consumption. This includes the exploration of environmentally friendly cleaning products that not only uphold our commitment to sustainability but also contribute to reducing our overall water footprint. Moreover, our maintenance facilities are strategically equipped with cutting-edge filters and multiple reservoirs. By integrating these measures, we seek to minimize wastage while also

ensuring that water is treated with care, aligning with our broader environmental objectives.

In Antwerp (Belgium), our MEDREPAIR facility stands as a testament to our holistic approach to water management. Wastewater generated from container cleaning processes is transported to local partners for advanced treatment before being safely reintroduced to local waterways. Reflecting our commitment to water conservation, several of our terminals actively engage in sustainable practices and implement measures to enhance the efficiency and circular use of water resources.

Recognizing the global significance of water management, AGL monitors and optimizes water consumption while preventing the risk of water pollution through the treatment of contaminated water. AGL entities incorporate water management into their environmental management systems, with the aim of respectfully managing this precious resource in the African continent. In environmental reporting, water consumption is tracked across sites, aiming for continuous optimization of resource use. As a practice, essential facilities are required to have wastewater treatment capabilities in compliance with local regulations.

## ENSURING EFFICIENT AND CIRCULAR RESOURCE MANAGEMENT

MSC handles the resources utilized in our operations with respect and efficiency. We are reassessing our policies and procedures to align with the waste hierarchy, placing a strong emphasis on prioritizing waste avoidance and minimization. MSC is dedicated to continuous learning, seeking ways to enhance our practices and processes and developing opportunities for reuse and repurpose

where applicable. Collaborating with others, we seek to gain a deeper understanding of our impacts and pinpoint opportunities for more effective resource management. Furthermore, beyond playing a crucial role in facilitating the shift towards a circular economy (see [page 83](#)), we collaborate closely with our business partners to boost the demand for circular approaches and materials.

### MINIMIZING AND HANDLING WASTE

MSC's waste management strategy adheres to MARPOL and aligns with relevant waste management regulations in the countries where we operate. Our ongoing efforts to reduce and mitigate our waste impact resulted in the generation of 366,453 tonnes of waste in 2023. Collaborating with partners, we are delving into waste supply chains, exploring opportunities to reduce packaging and assessing alternative, more durable materials. In the reporting year, we sustained our commitment to curbing the use of single-use plastics throughout our fleet and have achieved a reduction of around 70% since 2020. Water filters reduce the need for plastic bottles for drinking water, while specific equipment fitted on 455

vessels avoids the use of individual bottles for cleaning products for vessel maintenance.

MSC is advocating with its peers to encourage IMO to impose more stringent standards for the packaging and transportation of plastic pellets. MSC crew members undergo regular training on waste handling, recycling and disposal to implement our vessel waste management plan, minimizing waste generation and promoting onboard recycling practices.

MSC liaises with ports on the proper handling, recycling and disposal of solid waste from our vessels. Across terminals, waste management systems have been implemented to decrease waste and boost recycling or repurposing of

materials. AGL focuses on monitoring waste across its entities, managing it as part of the measures implemented to minimize the risk of local pollution, especially concerning the storage of hazardous materials. AGL offices work with providers approved by the supervisory authorities of the countries in which they operate, in order to obtain the best level of treatment available in the territory concerned. Environmental audits by the supervisory authorities are conducted periodically with the issuance of a certificate, in accordance with the existing laws in each country. In particular, specific procedures have been implemented on shipyard activities and rail activities, which generate the most hazardous waste. Across MEDLOG's operations, we collaborate with approved vendors to ensure proper waste management, recycling and the safe disposal of organic waste, including composting. We actively participate in

industry discussions regarding marine litter, engaging with peers in the logistics and other sectors to glean insights into innovative solutions, technologies and partnerships for addressing this issue.

Illegally exported waste poses a threat to the environment and the health of local communities in destination countries, and in cases where repatriation is necessary this often incurs substantial associated costs. As a founding member of the **Waste Shipment Intelligence Service (WaSIS)** initiative, MSC UK is collaborating with the UK's Environment Agency to prevent known illegal waste exporters from using shipping lines to facilitate their illegal activities. The WaSIS initiative includes resource and knowledge sharing, training on the prevention of illegal waste exports and targeted interventions to reduce waste repatriation, among other activities.

### ADDRESSING THE WASTE CHALLENGE ACROSS OUR GLOBAL OPERATIONS

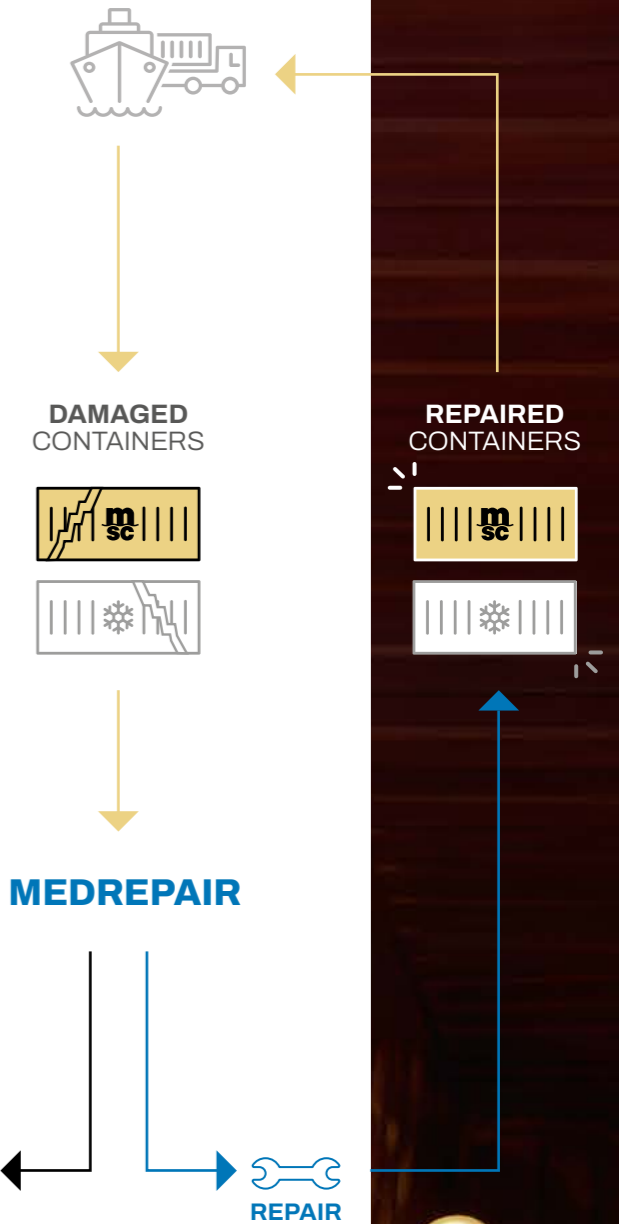
In April 2023, the MSC Shared Service Center in Latvia actively participated in a state clean-up event situated in an affected forest area. Furthermore, volunteers from MSC Romania contributed to a clean-up event in September 2023, along the banks of the Danube in Oltenița. This initiative, conducted in collaboration with Act For Tomorrow, a Romanian NGO dedicated to promoting harmony and balance between humans and nature, resulted in the collection of 70 bags of waste. Several other entities, including MEDLOG Georgia, MEDLOG Ghana, MSC Denmark, MSC Singapore, MSC Peru, MSC Benin, MSC Dubai and MSC New York, also took part in similar clean-up projects targeting various locations such as beaches, ports, seashores and community areas. MSC Bahamas consistently organizes an annual beach clean-up in the most affected areas of Nassau and Freeport.

In March 2023, MSC and MEDLOG Chile initiated a waste initiative with the primary goal of establishing 'clean points' for operational and residential waste. The initiative involves the separation and classification of both types of waste (plastics, wood, glass, etc.), followed by their dispatch to various vendors who provide them with a final destination, accompanied by a destination certificate. A detailed presentation accompanied the rollout, including numerous training sessions and discussions aimed at instilling a recycling culture among our collaborators. An old container was repurposed in Valparaiso and transformed into a waste selection point. This project aims to facilitate the organized reduction, recovery, recycling, reuse and disposal of industrial and residential waste from our operations and residences, ensuring minimal environmental impact and controlled conditions.

### EXTENDING THE LIFE CYCLE OF CONTAINERS

Embracing a circular economy approach, MSC aims to conscientiously utilize and prolong the life span of our containers through repair, reuse, repurposing, and recycling wherever feasible. Our containers are procured from top-tier suppliers that integrate sustainable solutions, such as bamboo floors and refrigerant units with lower global warming potential. We actively explore opportunities to repurpose containers that have reached the end of their operational life through donations for new initiatives. Collaborating with container repair and recycling partners, we promote the utilization of container materials as valuable resources for new products, including recycling wooden floor scrap for crafting reclaimed wood furniture and melting and re-rolling steel scrap for manufacturing concrete iron. In 2023, through a collaboration with an external company specializing in dismantling and recycling processes within the circular economy sector, the end-of-life management of approximately 4,400 tonnes (927 dry and 413 reefer containers) resulted in over 83% recycling, with 6% directed to landfill disposal. Approximately 11% of the materials were utilized for energy recovery and contributed to the heating needs of the Rotterdam city community.

In 2023, a 1.1 MW photovoltaic plant was installed at MEDREPAIR in Antwerp (Belgium), MEDLOG's largest maintenance and repair plant of MSC containers, with the aim of combining circular economy activities with the use of only renewable energy sources that covers the 100% of energy plant demand. Each year MEDLOG repairs more than 2,000,000 containers and 400,000 reefers as well as upgrading containers.



IRON  
ALUMINUM  
COPPER  
STAINLESS STEEL

Non-recyclable materials





## SOLAR ENERGY ISLAND: POWERING THE SECOND LIFE OF OUR CONTAINERS

Ensuring energy self-sufficiency of hospitals, clinics and schools is a social priority especially in areas where access to power sources is difficult or particularly impactful economically. The ERG **Social Purpose for Solar Revamping** projects were born from this premise with the ambition of reusing the solar panels removed from ERG solar plants (revamping projects) in new photovoltaic installations provided to non-governmental organizations to support local activities. The activation of an innovative circular economy path, the promotion of energy transition and the creation of multi-stakeholder partnerships allowing concrete contributions – including the provision of expertise for the design, components supply, logistics, communication and local community training phases – are key elements of the project of which MSC is a partner.

In cooperation with MSC Foundation, MSC has provided logistics services as well as the physical containers for the energization of a school complex in the rural area in Madagascar and a diagnostic and medical centre in Malawi. In collaboration with the non-governmental organization **Boky Mamiko ETS**, a 10 kWp solar photovoltaic system will be installed on a 20-foot container, adapted and equipped to serve as an energy island to help with a reliable and sustainable source of energy to the Saint Joseph School in Maherivaratra. With the support of the Italian organization **Comunità di Sant'Egidio**, an off-grid solar plant with 40 kWp capacity and 40 kWh storage system with supercapacitors will be installed in Blantyre to provide energy to power essential equipment in the diagnostic and medical centre of the city. Both projects will be fully implemented in early 2024.

## RESPONSIBLE SHIP RECYCLING

Enabling logistics decarbonization requires accommodating new low-carbon fuels and technologies, prompting our fleet renewal programme consisting of newbuilding, retrofits over the coming years, as well as responsible ship recycling. Pursuing this objective, we continue the implementation of international recycling standards by engaging closely with IMO Member States and trade associations such as the International Chamber of Shipping (ICS). We have supported the ratification of the **Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships** (Hong Kong Convention), and welcome its entry into force in June 2025. For many years, the **MSC Ship Recycling Policy**<sup>57</sup> has fostered alignment with the Hong Kong Convention and applicable ship recycling regulatory requirements, therefore, remaining in place and fit for purpose.

MSC continues to collaborate with various stakeholders including national authorities to promote responsible ship recycling through engagement with numerous MSC-vetted and approved ship recycling facilities. We retain a right to inspect the yards on a regular basis, to address and correct non-compliance with the MSC Ship Recycling Policy and remove the facility concerned from our approved list where remedial action is not taken. Our teams comprising both internal and external inspectors regularly conduct an assessment of administrative procedures and equipment, training and working conditions including accident management, which aims at encouraging compliance with

environmental, health and safety, and labour conditions. Further, MSC through external experts arranges additional safety training for workers at ship recycling facilities as part of our efforts to promote safe working conditions and responsible ship recycling industry.

At MSC, in addition to verification of the Ship Recycling Facility Plan and validation of the ship-specific Ship Recycling Plan as per Hong Kong Convention requirements, our approach includes the collection of numerous data via externally appointed surveyors on environmental, safety and workers compensation compliance. Our externally appointed surveyors also monitor safe working practices and capture photographic evidence of all recycling activities; as well as monitoring appropriate hazardous waste identification, marking, segregation, storage and safe disposal measures in line with local regulations. Integral to the process are periodic reporting and in-person visits to the ship recycling facilities to ensure compliance during various stages of the recycling process. In 2023, we commissioned a comprehensive life cycle assessment study conducted and assured by external partners to understand the emissions related to the dismantling and recycling of one of our vessels, including preparatory phases, primary and secondary cutting operations, transportation and processing of steel scrap (accounting for approximately 70% of the ship weight) at rerolling mills and arc furnace steelworks, the recovery and repurposing of other reusable materials, as well as waste management at landfill sites and the treatment of bilge water.

[57] [www.msc.com/en/sustainability/msc-ship-recycling-policy](http://www.msc.com/en/sustainability/msc-ship-recycling-policy)

FOSTERING  
**INCLUSIVE  
TRADE**





## CREATING CONNECTIONS IN THE FACE OF A COMPLEX AND EVOLVING CONTEXT

Free, fair and affordable trade is inherently linked to economic growth and improved livelihoods, which has lifted one billion people out of poverty in recent decades<sup>58</sup>, with both economic and social benefits. Without global trade, the world cannot prosper. The transportation and logistics industry plays a crucial role in generating value as well as contributing to inclusive and sustainable growth, and through agile and robust supply chains we enable trade. In today's interconnected world, we are reminded that a crisis in one part of the globe may have significant consequences for others elsewhere. Recent global events have further exacerbated supply chain disruptions and those with fewer resources are often disproportionately

impacted, with many experiencing difficulties in accessing the goods and services they need. While challenging, keeping trade moving during times of conflict and when natural disasters strike is key to overcoming shocks and ensuring the resilience of societies. As a global company, we play a role in keeping humanitarian supply chains moving and in situations of need we carry food, medical supplies and aid to communities. We are proud that MSC is one of the top maritime carriers for delivering emergency aid to crisis-affected communities.

The ongoing attacks against international shipping in the Red Sea serve as a reminder of how crises and geopolitical tensions impact global supply chains, with a range of knock-

on effects on aspects such as seafarer safety concerns, increased greenhouse gas emissions, longer delivery times and higher costs. Since the peak of the global pandemic, a significant number of companies have been exploring new approaches to diversify and shorten supply chains, including regionalization and localization, nearshoring, friendshoring and reshoring, or a combination of these approaches. The temporary rerouting of ships via the Cape of Good Hope has been a reinforcement for companies already moving in this direction, also highlighting the importance of flexibility and reacting swiftly as their longer-term strategies evolve. Industry and governments have the opportunity to create sustainable and equitable growth by uniting diverse

stakeholder interests and leveraging public-private partnerships. Regulators are important potential allies for business, and by working together we can build a global trade system that is prepared for and capable of overcoming disruptions, while contributing to prosperous societies. At MSC we remain committed to playing a key role in the ongoing transformation of logistics ecosystems, investing and collaborating across the value chain, exploring new trade opportunities and supporting access to trade. With our 2023 investments in ships, infrastructure, land and air transportation and logistics we supported value creation at local level, contributing to laying strong foundations for future growth.

[58] [www.worldbank.org/en/topic/trade/brief/trade-has-been-a-powerful-driver-of-economic-development-and-poverty-reduction](http://www.worldbank.org/en/topic/trade/brief/trade-has-been-a-powerful-driver-of-economic-development-and-poverty-reduction)

# SUPPORTING LOCAL ECONOMIC GROWTH AND BUILDING RESILIENCE

The year 2023 was characterized by uncertainty, marked by the confluence of socio-economic changes, ongoing and new conflicts and extreme weather events, generating unprecedented complexity. During the reporting year we mobilized efforts to support local economic ecosystems and supply chain continuity, making swift decisions in response to the ever-changing operating environment thus maintaining vital market connections worldwide and facilitating the flow of goods across borders.

As supply chains become increasingly intricate and fragmented with disruptions becoming the norm, our industry continues to evolve and transform to support our customers and build resilience, particularly in times of crisis. At MSC we have a long-term commitment to fostering inclusive trade that revolves around adapting, innovating and investing

in solutions while maintaining connectivity amid evolving trade patterns and potential disruptions. Our approach includes an emerging logistics ecosystem where physical and digital infrastructure are interconnected, supporting local economies through access to trade.

Our commitment is reflected in the recent expansion of our business, creating more connections, establishing new logistics hubs, building additional infrastructure and enhancing services to better serve our customers in these challenging times. We collaborate with stakeholders across the entire value chain to ensure the safe and timely delivery of goods, deploying customized solutions such as flexible warehousing, reliable cold chains for temperature-sensitive cargo and our new air freight business for perishable goods such as pharmaceuticals.

## RESILIENT SUPPLY CHAINS: THE FOUNDATION OF GLOBAL TRADE

In 2023, once again, adaptability and resilience proved to be top of the agenda. Our global economy is reliant on supply chains to ensure a robust and functioning international trade system that can both withstand and overcome disruptions that may emerge as a result of conflict, geopolitical challenges and the impacts of climate change.

MSC's focus remains on boosting resilience across our services, assets and infrastructure, supporting our customers and contributing to a sustainable and inclusive global value chain. With our operations across all continents we contribute to address inequality, by keeping markets open for trade and investment. As part of our responsible business efforts, in 2023 we continued working alongside global leaders from business, intergovernmental organizations, civil society and academia in the context of the **Business Commission to Tackle Inequality** (BCTI) to jointly catalyse action and find solutions to close social and economic gaps.

The ongoing conflict in Ukraine and the related sanctions continued to significantly impact trade. Disruptions to grain shipments led to longer distances, delayed deliveries and higher costs related to transport, impacting global food security and affecting vulnerable communities in developing countries.

During the reporting year the world was reminded of the importance of resilient supply chains, as critical trade routes came under threat. Supporting 12-15<sup>59</sup>% of world trade in 2023, the Suez Canal is a vital waterway straddling the Mediterranean Sea and the Red Sea. The unprecedented attacks on ships in the Red Sea launched in mid-November have resulted in a massive reduction in trade volumes transiting the Suez Canal. In response MSC quickly adjusted its network and diverted its ships to sail around the Cape of Good Hope, while mitigating the extended transit time and related costs as much as possible including any knock-on effects beyond the services that would typically transit through the Red Sea. This was assisted by having additional shipboard capacity available to deploy into our service networks, much of which was acquired during and subsequent to the COVID pandemic.

Severe drought in 2023 affected water levels and resulted in a 36%<sup>60</sup> reduction in Panama Canal transits, creating an additional layer of complexity, with implications for our industry and the customers we serve around the world. Prior to the Red Sea attacks, like others in our industry, we relied on the Suez Canal and Red Sea as an alternative route to avoid delays or reduced cargo loads. We continue to work alongside our industry peers and with public sector stakeholders to ensure the continuity of supply chains by constantly adapting our global shipping and logistics network, defining new corridors and finding solutions to ensure the safe and timely delivery of goods.

[59] UNCTAD data: [unctad.org/news/red-sea-black-sea-and-panama-canal-unctad-raises-alarm-global-trade-disruptions](https://unctad.org/news/red-sea-black-sea-and-panama-canal-unctad-raises-alarm-global-trade-disruptions)

[60] UNCTAD data

## ENHANCING LOGISTICS ECOSYSTEMS

In 2023 MSC adapted and grew its logistics ecosystem in response to the complexities of today's supply chains. MEDLOG, AGL and Log-In Logistica further enhanced their networks in Brazil, Haiti, Timor-Leste and across the African continent. By the year's end 809 vessels were navigating 300 routes, reaching 520 ports and transporting approximately 24.5 million TEUs at sea, while our road and rail network also expanded. Through our direct in-country presence we brought the benefits of global trade to two-

thirds of the world's least developed countries<sup>61</sup>. We seek to help build sustainable and inclusive growth for communities through long-term investments in infrastructure, while also adapting, innovating and continually improving our global logistics network. During the reporting year, MSC continued to support local industries by innovating and broadening the scope of our solutions, promoting economic activity and supporting businesses by connecting them to global markets via hubs.

## REDEVELOPING SPARROWS POINT: AN ECONOMIC AND ENVIRONMENTAL TRANSFORMATION

A decade ago, Sparrows Point in Eastern Baltimore County, Maryland saw the closure of a major steel mill, the loss of thousands of jobs, and legacy contamination from the impact of 125 years of steel making. Since then, efforts have been underway to redevelop the strategically positioned 3,300-acre site with its deep-water access, direct rail and highway connectivity into what today has become known as Tradepoint Atlantic, a global maritime, logistics and manufacturing hub.

In 2022, Tradepoint Atlantic and TiL announced a joint investment and partnership, Sparrows Point Container Terminal, to establish a 330-acre container terminal at Coke Point on the Sparrows Point peninsula with on-dock rail capability and accessory logistics facilities. The project, with an overall redevelopment investment of over USD 1 billion, will create over 1,100 jobs and support the economic growth of the Port of Baltimore and the state of Maryland. For this project, environmental remediation will be implemented, with plans for full electrification of the terminal, including onshore power capabilities that will make the new Sparrows Point Container Terminal one of most environmentally sustainable terminals in the US.

Aside from minimizing the carbon footprint of its operations through electrification, this terminal will also contribute to the reduction of emissions further down the supply chain since its location – less than 50 miles from Washington – will allow it to serve the third largest consumer market in the US with a minimum of road miles, while at the same time its rail freight offering will also provide the closest rail connection from any port to the Midwest.

As part of the plan to establish the container terminal, TPA and TiL will also establish a dredge containment facility to support the terminal's development which will become part of the overall Coke Point environmental remediation strategy.

In Africa where present, AGL is working towards improving the port and logistics ecosystem by investing in logistics hubs and developing platforms in and around ports as well as through better connections between port and logistics platforms, cities and hinterlands. Our efforts remain focused on supporting local industry and agriculture by offering storage close to production areas so that goods can be loaded into containers as soon as possible.

During the reporting year, AGL's vital road and rail networks – including SITARAIL, linking Côte d'Ivoire and Burkina Faso and CAMRAIL, Cameroon's rail network – further improved connectivity between hard-to-reach areas through our growing portfolio of intermodal solutions as well as

creating employment opportunities. In Côte d'Ivoire, since inception SITARAIL has created approximately 1,500 direct jobs and 4,000 indirect jobs and delivered more than 6,628 hours of training during the reporting year, with additional employment and engagement opportunities generated by the maintenance of railway tracks.

In addition to the import and export of important products, railways generate value to African communities by further reducing urban congestion, emissions and pollution – with a single train carrying cargo equivalent to 20 trucks. AGL intends to continue developing its railways across the continent and transferring goods to rail wherever possible that might otherwise be transported via truck.

[61] [unctad.org/topic/least-developed-countries/list](https://unctad.org/topic/least-developed-countries/list)



MSC participated in WBCSD's **Business for Inclusive Growth**<sup>62</sup> (B4IG) incubator and acceleration programme as part of our BCTI engagement, with the goal of innovating and accelerating local business solutions in line with a collaborative logistics approach and facilitating effective partnerships for inclusive growth. Strategically located in the heart of Peru's fruit industry and only 35 minutes from the port of Paita, MEDLOG Piura's fruit packing facility serves grape, blueberry, mango and avocado farmers whose produce is facing increasing demand from US and European buyers seeking responsible sourcing directly from local farmers. The project aims to build resilience by moving logistics closer to agricultural value chains, supporting farmer communities by helping them address challenges related to unpredictable seasons and climate change. Over a period of nine months, MEDLOG Piura, MSC Peru and MSC headquarters developed, in collaboration with B4IG, a framework to leverage the logistics connections provided by MSC's global ocean and inland network, connecting local fruit growers and exporters with a global marketplace. Specifically, the project will support farmers in building an inclusive business model that generates stability in terms of production, demand and revenue. In 2023 MSC introduced a new port call to Pisco Port, a key gateway for grape export farmers in Peru, to directly connect with major markets throughout the entire season, saving time and preserving the quality of the grapes during their journey from farms to their destinations in the US (via transshipment) and Northern Europe. During the

reporting period AGL continued progress on its investment plan, with port concessions – including container, roll-on roll-off and inland port terminals – across Africa as well as AGL-operated terminals in Timor-Leste and Haiti. In a context of sustained volume growth in most of the ports operated by AGL, we continue working towards the goal of constantly improving port productivity, creating value for customers of terminals, importers and exporters, while also benefitting local communities.

In its first year of operation, MSC Air Cargo expanded its fleet from one to four freighters operated by our partner Atlas Air. With a dynamic network and bespoke solutions, MSC Air Cargo connects 33 airports, supporting customers with time-sensitive cargo such as essential pharmaceuticals, perishable products and hazardous goods. In 2023 we introduced new services to support local industries and regions. In Asia, MSC continued to expand and enhance our intra-Asia network while connecting with other regions. In Africa, direct connections were created with the region's main economic partners in Asia by adding the Port of Conakry, Guinea to our West Africa network. This allows cargo to be directly shipped from Togo to Guinea instead of being shipped via Europe, reducing transit times and environmental impact, opening new business opportunities for exporters and promoting intra-African trade. As part of MSC's ongoing commitment to enhancing services between Africa, the Middle East and India – particularly for customers with reefer cargo – additional port calls were added to our India Africa and South Africa services.

## CHINA: POWERING ECONOMIC GROWTH AND TRADE

With its thriving import and export market, China is an economic powerhouse, with three of the top five best-connected ports<sup>63</sup> (Shanghai, Ningbo and Quindao). Over the past 25 years MSC has continued investing and expanding its shipping and logistics services and today we have 30 offices nationwide, offering 37 mainline services and seven intra-Asia routes, and our vessels call at 14 Chinese ports. In 2023 MSC's presence in China included the opening of a new office in Shijiazhuang, the launch of the Shijiazhuang-Tianjin Xingang sea-rail intermodal solution as well as the introduction of air freight services connecting Xiamen to Mexico and Chicago. As a landlocked area, Shijiazhuang is dependent on rail for the delivery of various essential commodities ranging from medicines to solar panels, and the intermodal solution provides customers with logistics efficiency connecting Shijiazhuang's inland location and the Tianjin Xingang ship port, service reliability through regular rail connections and dedicated customs clearance services. Enhancements in our ocean freight network to support our customers included new direct connections between China, Southeast Asian ports, Southern Italy and the US West Coast, providing comprehensive port coverage as well as improved transit times and increased capacity. China is also a partner in shipbuilding, accounting for 47% of the world's newbuilding tonnage delivered in 2022<sup>64</sup>. MSC continues its cooperation with the **China Waterborne Transport Research Institute** and the **Shanghai International Port Group** (SIPG) to accelerate the net-zero transition.

Logistics is key to Africa's economic development and the resilience of value chains across the continent. The **African Continental Free Trade Area** (AfCFTA) Agreement is expected to boost intra-African freight by 28% and demand for maritime freight by 62%<sup>65</sup>, requiring substantial investments across the transportation and logistics industry and offering opportunities for energy transition. Supply chain disruptions and changes of trade flows, such as the recent rerouting from the Red Sea region to via the Cape of Good Hope, are also intensifying activity at African ports. With 73 ocean services and local feeders, making 130 calls per week at 70 ports, MSC

offers a unique network that connects Africa with the rest of the world, as well as helping cross-border trade between African nations. Our employees working in offices, terminals, trucks, trains, depots and warehouses across the continent – create value by supporting African importers and exporters and contributing to local economies. In February 2023 the Port of Pointe-Noire in Congo-Brazzaville welcomed the MSC VIRGO (a 15,000 TEU vessel). Three MSC maritime services call at this port, linking to Asian, European and Indian markets as well as serving as an important transshipment platform for cargo destined for Angola and Namibia. In 2023 AGL

[62] [www.wbcsd.org/actions/b4ig-equity-action-platform](http://www.wbcsd.org/actions/b4ig-equity-action-platform)

[63] [hbs.unctad.org/maritime-transport-indicators](https://hbs.unctad.org/maritime-transport-indicators)

[64] [unctad.org/publication/review-maritime-transport-2023](https://unctad.org/publication/review-maritime-transport-2023)

[65] [unctad.org/publication/review-maritime-transport-2023](https://unctad.org/publication/review-maritime-transport-2023)



assisted in the transportation of fibre optic cables which were installed in the territorial waters of Congo and the Democratic Republic of the Congo, supporting the '2Africa'<sup>66</sup> project through which 16 African countries will be connected thanks to the world's largest subsea fibre

optic cable system that will link Africa to Europe and the Middle East. Through our growing network we transport a range of commodities – such as coffee, cocoa, tea, cashews and cotton – from African countries to markets around the world, ensuring trade flows.

## DIGITALIZATION, UNLOCKING TRADE ACCESS

Digitalization and innovation help facilitate trade access, helping to address disruptions and supply chain bottlenecks as well as supporting our industry's energy transition. At MSC we seek to be a driving force for the ongoing digital transformation, and we embrace the synergies between sustainability and digitalization. We see these as mutually complementary and reinforcing concepts that can make a positive contribution and drive change in shipping and logistics.

For MSC, innovation and digitalization are part of our business, and the digital tools and technologies we have

adopted – including our e-business platform myMSC, Internet-of-Things (IoT), blockchain, automation and AI, among others – are an important part of our global operations to provide seamless data sharing with ports and others along the supply chain as well as improving the energy efficiency of our fleet.

Shifting from paper-based and manual processes to an electronic bill of lading (eBL) offers a fast, secure, reliable and cost-efficient digital alternative. MSC is committed to accelerating the digitalization of trade and transitioning to an 100% fully standardized eBL by 2030.

[66] [www.2africacable.net](http://www.2africacable.net)

## PUBLIC-PRIVATE COLLABORATION

The US Department of Transportation's **Freight Logistics Optimization Works**<sup>67</sup> (FLOW) initiative is an example of a public-private partnership in which MSC has been actively participating since its inception in 2022. Through this project we collaborate with various supply chain partners – including key US ports such as Los Angeles, Long Beach, New York and New Jersey, Savannah, Houston and the Northwest Seaport Alliance – to develop digital tools for sharing supply chain data. FLOW data help forecast how current capacity and throughput will meet future demand, enabling participating companies to anticipate changes in supply chain throughput and mitigate previously unforeseen delays.

The first FLOW dataset was launched in March 2023 to promote access and use of data for throughput forecasting, demand forecasting and service optimization, among other activities. The project's success is attributed to its ability to reshape how government works with industry through shared value and incentives, with both parties actively contributing and benefitting.

MSC is also collaborating with public and private partners, including the Maritime and Port Authority of Singapore and the Port of Rotterdam, on the **Green and Digital Shipping Corridor**<sup>68</sup>. Rotterdam and Singapore are the first ports adopting and sharing port and vessel information such as arrival and departure timings in accordance with **IMO** and **International Hydrographic Organization** (IHO) standards to enable systems interoperability, while also promoting the use of eBLs and digital solutions such as just-in-time planning and coordination to enhance efficiencies and reduce emissions.

Alongside ocean carrier members of the **Digital Container Shipping Association** (DCSA), MSC has been advocating for industrywide eBL adoption, and in 2023 we published a practical guide to support customers with the transition from paper to eBL<sup>69</sup>. During the reporting year we continued to engage through DCSA and other associations across and beyond our industry (including BIMCO, FIATA, ICC and Swift) under the **Future of International Trade Alliance** (FIT)<sup>70</sup>, promoting digital shipping standards and eBLs and launching the **Declaration of the electronic Bill of Lading** that to date has been signed by more than 100 organizations.

MSC's smart containers use Internet-of-Things (IoT) devices that generate cargo visibility, traceability and security. These data facilitate geo-tracking of containers, monitoring of temperature and humidity levels as well as

door openings and closings. As a sensitive commodity, coffee is an example of how smart containers can support coffee exporters and importers and help manage risk by providing traceability and integrity – key factors for the coffee trade. Smart container data also ensure the safety of our crew and communities through early smoke detection and by helping to prevent illicit activities. During the reporting year MSC continued exploring ways of further enhancing the quality and accuracy of smart container data to support our customers.

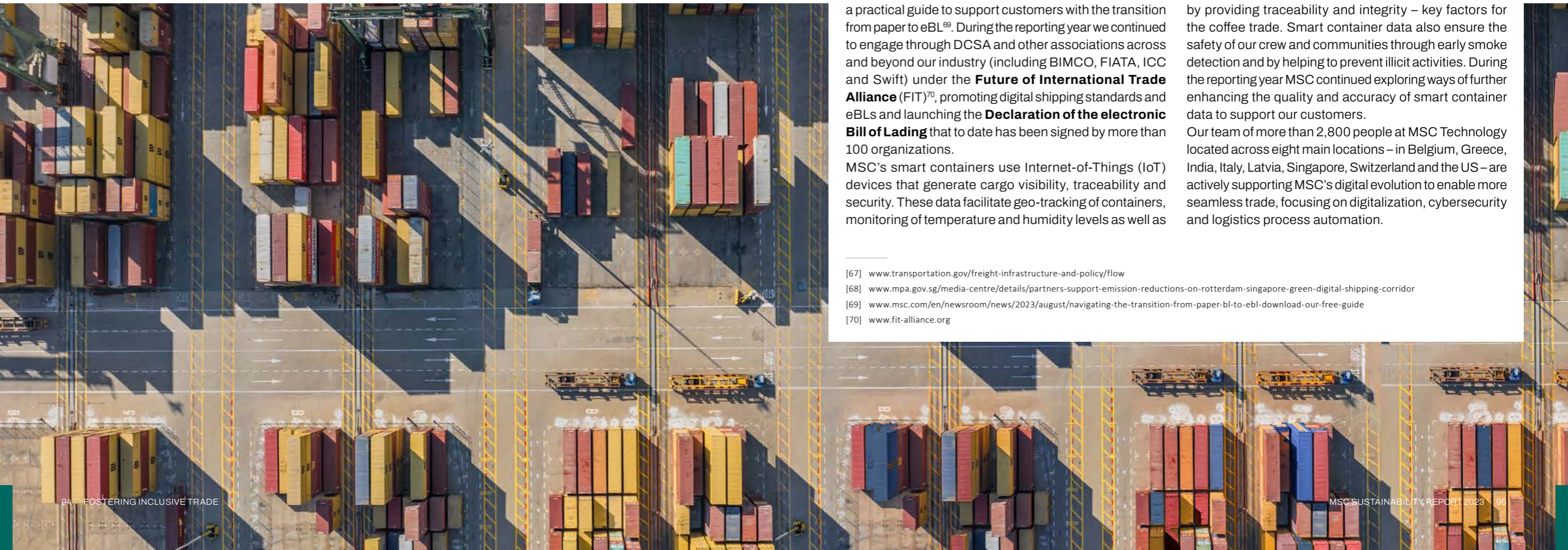
Our team of more than 2,800 people at MSC Technology located across eight main locations – in Belgium, Greece, India, Italy, Latvia, Singapore, Switzerland and the US – are actively supporting MSC's digital evolution to enable more seamless trade, focusing on digitalization, cybersecurity and logistics process automation.

[67] [www.transportation.gov/freight-infrastructure-and-policy/flow](http://www.transportation.gov/freight-infrastructure-and-policy/flow)

[68] [www.mpa.gov.sg/media-centre/details/partners-support-emission-reductions-on-rotterdam-singapore-green-digital-shipping-corridor](http://www.mpa.gov.sg/media-centre/details/partners-support-emission-reductions-on-rotterdam-singapore-green-digital-shipping-corridor)

[69] [www.msc.com/en/newsroom/news/2023/august/navigating-the-transition-from-paper-bl-to-ebl-download-our-free-guide](http://www.msc.com/en/newsroom/news/2023/august/navigating-the-transition-from-paper-bl-to-ebl-download-our-free-guide)

[70] [www.fit-alliance.org](http://www.fit-alliance.org)





## DEVELOPING LOCAL CAPACITY AND KNOW-HOW

MSC creates value by developing local capacity, transferring the technical competencies and know-how needed to participate in the global trade system and equipping our future industry workforce with skills to address logistics challenges. In today's rapidly evolving operating environment, training, upskilling and reskilling initiatives are empowering workers as our industry navigates supply chain disruptions and the energy transition. At MSC we understand the need to continually adapt and innovate in response to the changing context. By developing capacity across the logistics value chain, we are creating demand for technical expertise and competencies across the value chain. We seek to unlock human potential and drive innovation, ensuring the resilience of our business and our industry in the years and decades to come. In 2023 MSC continued collaborating with higher education institutions, contributing maritime expertise and exchanging insights as well as industry know-how

to expand the local talent pool for our industry's future workforce. MSC and MEDLOG Argentina and the MSC Foundation collaborated jointly with the **Centro de Formación Profesional Integral** (Centre for Integral Professional Training), providing young people with training including an introduction to logistics and international trade, as well as technical skills in welding and container repair. In addition to supporting school infrastructure, MSC India supported skills development and delivered vocational training programmes among youth and women in the Janauli area. MSC Shared Service Center Riga (Latvia) continued its partnership with local universities, delivering guest lectures, providing mentoring and real-life business case studies in business programmes, while MSC Lithuania contributed to training programmes at the Lithuania Maritime Academy and Mykolas Romeris University. MSC UK worked with the University of Suffolk in Ipswich, supporting its annual Business Enterprise

Awards and the 2023 Sustainability Award.

To inspire a younger audience and promote maritime careers among primary school children, MSC Shipmanagement continued its participation in the **Adopt a Ship programme**<sup>[71]</sup> with the Cyprus Shipping Chamber, connecting students with Masters and crew members on 40 MSC ships in 2023. Also during the reporting year MSC Shipmanagement supported **Cyprus Maritime Academy** as well as sponsoring the **Marine and Maritime Research Innovation and Technology Centre** of Excellence of the Cyprus Marine and Maritime Institute.

At MSC we believe in creating opportunities for the new generation of workers entering the labour market, through apprenticeships and internships as well as on-the-job mentoring and training. In 2023 MSC Mozambique offered eight traineeships as a result of two partnerships with the **UN Peace Process Support Secretariat** (aimed at supporting the reintegration of former combatants into the workforce) and the **German Agency for International**

**Cooperation** (as part of the **Employment and Skills for Development in Africa**, or E4D, project). MSC in South Africa continued collaborating with the local government to train and place disadvantaged young people in the hospitality sector as well as conducting a three-year learnership programme with qualifications in international trade, clearing and freight forwarding, and shipping as part of the South African government's initiative aimed at addressing inequalities.

Jointly conducted with the NGO **Gerando Falcões**, Log-In Logística's **Young Apprentice Program** supports the professional development of young residents aged 16-21 from communities in the vicinity of Log-In Logística headquarters (in Rio de Janeiro) and its Vila Velha Terminal, providing classroom-based and hands-on training. Log-In Logística also offers internships to recent graduates who are the first person in their family to complete a degree, through the **First Generation Program** conducted with **Instituto Primeira Geração**.

[71] [www.adoptaship.org](http://www.adoptaship.org)

## CONTRIBUTING TO LOCAL EMPLOYMENT AND SKILLS DEVELOPMENT IN AFRICA

Recognizing the challenge of attracting and maintaining a skilled workforce to meet the labour needs of our industry in Africa, AGL has made significant investment in logistics training, conducting skills transfer programmes and partnering with local educational institutions. Leveraging its partnerships with 86 schools and collaboration with more than 300 establishments across its entire network, AGL trained more than 1,400 interns and work experience students in 2023, of which more than 25% were recruited upon the conclusion of their apprenticeship period. AGL also supports student associations with a specific focus on Africa, and in 2023 entered a new partnership with the **EDHEC for African Business**<sup>72</sup> association. AGL contributes practical port sector experience and expertise to technical and vocational training programmes for young people, supporting the emergence of national talent pools. AGL in Côte d'Ivoire, through its subsidiaries, employs over more than 3,800 local employees, playing an active role in the country's development including creating jobs and building local capacity. AGL's Côte d'Ivoire Terminal (CIT at the Port of Abidjan) received the 'Prix National d'Excellence' award presented by the President in September 2023 in recognition of CIT's outstanding contribution to job creation and skills development in the country. In addition to training programmes conducted at the Centre de Formation Portuaire Panafricain (CFPP), during the reporting year AGL introduced a 'Transit School' whereby young graduates participated in a six-month training and mentoring logistics programme, also involving AGL managers and experts from the local youth employment agency. AGL Ghana is transferring industry know-how to local businesses, supporting a local company in implementing ISO certification requirements as well as supporting specific training programmes on a range of areas including the development of customs skills and knowledge, and safe driving, among other topics.

[72] [www.edhec.edu/en/student-experience/associations/edhec-african-business](http://www.edhec.edu/en/student-experience/associations/edhec-african-business)

## SUPPORTING HUMANITARIAN EMERGENCIES

MSC in collaboration with the MSC Foundation, is committed to advancing sustainable development through robust and resilient global supply chains and, in crises and disasters, helping people in need access essential goods. We aim to make a positive impact by leveraging our assets, infrastructure and expertise to support affected communities as part of their emergency preparedness and contingency planning, as well as for the delivery of aid in times of crisis. We recognize our role in supporting local business continuity and securing local economies in their post-crisis recovery and are adept at repurposing MSC containers for the benefit of affected communities. MSC's Cargo Division collaborates with the MSC Foundation to support communities affected by natural disasters and crisis, working with trusted partners to respond to humanitarian emergencies and collaborating with local authorities and non-governmental organizations around the world. The year 2023 saw an increase in

resources for the MSC Foundation, enabling us to reach more than 840,000 affected people, working with 16 partners and beneficiary organizations in eight countries. At MSC, we work with the MSC Foundation to identify opportunities to reuse and repurpose our containers to support vulnerable communities. MSC offices in Colombia, Mexico and Pakistan worked with the MSC Foundation to deliver relief items and support reconstruction efforts in local communities affected by floods and hurricanes in Africa, Asia and Latin America. In South Africa, after the grounds of Tereo Community School in Cape Town were submerged due to heavy rains in June 2023, we donated two containers that will be converted into school classrooms for 122 students by the non-profit organization **Imibala Trust**. Following the Hawaii wildfires of August 2023, we donated eight containers to the **Hui O Wa'a Kaulua** non-profit organization to build classrooms in Lahaina, Hawaii.

## MOBILIZING SUPPORT FOR TÜRKIYE AND SYRIA

In the aftermath of the February 2023 earthquake affecting Türkiye and Syria, the MSC family joined forces across 34 MSC offices to raise USD 230,000 for the Turkish Red Crescent organization and for the International Committee of the Red Cross (assisting affected population in Syria) and assist locally affected communities, with a total value of more than USD 3.8 million. While repairing critical logistics infrastructures – including terminal facilities in the Iskenderun area, which suffered severe structural damage, as well as important road and rail inland infrastructures – we worked swiftly to restore vital services, redirecting shipments to ensure the continuity of trade into and out of impacted areas until regular services could be reinstated.

On 24 February, the MSC Aurelia arrived in Iskenderun with essential relief items for 60,000 people in need, including medicines, food and beverages, clothing and blankets, hygiene items and toys for children. The ship was then converted to temporarily shelter for over 1,700 people for more than three months, with the operational costs covered by the MSC Group. MSC Türkiye also set up container housing in the port for 300 MSC employees and their families who tragically lost their homes in the disaster. Together with the MSC Foundation, we supported the **UN Refugee Agency** (UNHCR) by delivering containers with thermal blankets, solar lamps, tents and tarpaulins, sleeping bags and kitchen sets to Syria and Türkiye. MSC offices in Austria and Italy (Le Navi) also worked with local organizations to dispatch relief items such as hospital equipment, heaters and generators to earthquake survivors in both countries. They worked with **International Hilfe für Arme** in Vienna and the **Turkish Emergency Management Presidency** (AFAD) to bring aid to Türkiye, and the **Seirs Parma Yellow Cross Association** in Parma and **Syrian Arab Red Crescent** in Latakia to get assistance to Syria.





MSC El Salvador and the MSC Foundation made significant progress on the pilot project **Kitchen-in-a-Box**, which in 2023 saw the successful transformation of three containers into safe multi-purpose kitchens with adjacent 'smart' school gardens powered by renewable energy using solar panels. Coordinated with the **World Food Programme** and the **Ministry of Education**, the project provided 42,944 healthy and nutritious meals to children and teenagers in school each year while also raising awareness of good nutrition and the importance of proper food preparation and storage. MSC and MEDLOG offices in Belgium and Germany also support El Salvador communities, working with the non-governmental organization **MOHKI** to transport and repurpose 10 MSC containers into self-sufficient mobile heart clinics for children born with congenital heart disease requiring life-saving surgery. For the second year, we participated in the 2023 edition of the Swiss 'Partager Lire' initiative led by the bookstore Payot with four containers and the transportation of 160,000 books. More than 70 schools received books, and the containers were set to become community libraries in remote areas in Burkina Faso for access by 45,000 children and adults.

At Log-In Logística, our **Onboard Community (CAB)** social investment programme included partnerships with non-governmental organizations **Instituto Social Esperança** and **Instituto Artes Sem Limites**, aiming to provide

development opportunities for children aged 6 to 17 and supporting income generation for women in the communities surrounding Vila Velha Terminal in the state of Espírito Santo. Since the conflict in Sudan began in mid-April 2023, millions of people have fled their homes, seeking refuge within Sudan or in neighbouring countries. Working in partnership with the **UN Refugee Agency (UNHCR)**, **UN Children's Fund (UNICEF)** and the non-governmental organization **INTERSOS**, AGL Chad supported the transport of 240 tonnes worth of essential emergency equipment with two flights travelling from Dubai to N'Djamena in July and a flight from Liège (Belgium) to N'Djamena in September. A total of 640 pallets containing tents and tarpaulins and essential drugs to support 53,000 refugees were then transported via truck from N'Djamena airport to the mountainous Ouaddaï region in eastern Chad. In Côte d'Ivoire, as part of our ongoing support to UNICEF by MSC Foundation – including recycling 616,000 kg of plastic waste and using recycled plastic bricks to construct 112 classrooms – MSC Côte d'Ivoire contributed to the **Green YOMA Initiative**. The project aims to address youth unemployment by contributing training to vulnerable young people and empowering them to develop business-driven solutions for environmental issues. In 2023, 412 young people received training in project management, business skills, job searching, youth engagement and blue/green economy innovations. Following the earthquake that

occurred in Morocco's Al Haouz province on 8 September 2023, AGL France and AGL Morocco collaborated with the association **Bouregreg** and non-governmental organization **El Baraka Angels**, providing affected communities with essential humanitarian items including 200 tents, 200 recycled fleece blankets, 200 inflatable mattresses and 200 sleeping bags. AGL Morocco also organized a blood drive, mobilizing members of the local teams to take part in the national effort.

MSC has provided logistical support for more than a decade, while the MSC Foundation has provided direct funding to **MercyShips**. This global charity uses hospital ships staffed by volunteer crews to deliver free healthcare services to thousands without access to safe healthcare and surgery. During the reporting year, MSC provided administrative support, ocean freight, port storage, customs formalities and customs clearance to deliver 127 containers to Mercy Ships and their land-based programmes. Entering service in February 2023, the Global Mercy serves as a floating hospital with six operating theatres and beds for 200 patients and a full laboratory and simulation training areas. In 2023 the Global Mercy served patients in Senegal and Sierra Leone, working in partnership with their ministries of health to treat 2,852 patients, perform 4,311 surgical procedures onboard, and give 132,785 hours of training and mentoring to 834 African medical professionals and community leaders.

## CONTRIBUTING TO THE VACCINE PRODUCTION IN AFRICA

In 2023 AGL Rwanda contributed to the establishment of a mobile vaccine manufacturing laboratory with six mobile vaccine production units arriving in Kigali in March and marking the first shipment of its kind in Africa. In addition to transporting the units, AGL managed all local logistical aspects of the installation, from import documentation to delivery of the goods, as well as the transfer of the containers and unloading into a dedicated warehouse, operated and managed by our team in Rwanda.

With these mobile laboratories, African countries will now be able to produce vaccines on site, strengthening their ability to fight diseases such as malaria, tuberculosis and HIV and protecting their populations. The mobile units will eventually form a major production centre with the potential to produce up to 100 million mRNA vaccines each year, creating job opportunities for local scientists and logistics experts.



ADDRESSING  
**SOCIAL  
CHALLENGES**



ADVANCING HUMAN RIGHTS

PROMOTING DIVERSITY, EQUITY AND INCLUSION

ENGAGING OUR SUPPLY CHAIN

## EMBRACING THE NEW WORLD OF WORK

In recent years, we have witnessed profound changes in the world of work. Workers' attitudes and relationships with their employers have been shifting post-pandemic, with new job profiles, skills and competency needs emerging in response to the evolving global labour market landscape. Companies are adapting their people strategies to address an increasingly complex and interconnected set of social challenges in the face of rapid technological innovation and the shift to a net-zero economy. According to the World Economic Forum, almost a quarter of jobs are expected to change in the next five years, with 69 million new jobs expected to be created and 83 million eliminated<sup>[73]</sup>. Digitalization and decarbonization are driving new expertise, while also causing disruptions with significant implications

for today's workforce. Economic, social and political forces are also coming into play, with shifting trade patterns affecting labour market demand and supply. The digital revolution, automation and AI are presenting both challenges and opportunities impacting all sectors, with 1.1 billion jobs expected to be radically transformed by technology this decade<sup>[74]</sup>. Similarly, the energy transition, ESG-related regulation and standards and growing demand for sustainable supply chains are seeing the creation of jobs that did not previously exist, requiring specific technical expertise and additional training. Companies facing challenges in filling vacancies are rethinking their recruitment approaches, adopting a 'skills-first' approach<sup>[75]</sup> and looking beyond their immediate

sectors and national borders to fill vacancies to ensure that companies have the talent, training, skillsets and critical competencies needed for the workforce of tomorrow. In 2023 the transportation and logistics industry continued to experience shortages in specific labour markets, including shortages of seafarers and truck drivers. The challenging conditions faced by seafarers during the global pandemic have impacted the appeal of a career at sea, reflected by ongoing shortages that are expected to continue in the coming years. Shipping companies are responding by prioritizing seafarer wellbeing through the provision of different benefits and initiatives. Also during the reporting year, the chronic global shortage of truck drivers continued, with the number of unfilled truck driver jobs reaching more than three million and expected to double

by 2028<sup>[76]</sup>. In this evolving landscape, business plays a key role in people's lives and livelihoods by creating jobs and developing capacity, helping societies thrive through the advancement of the sustainable development agenda. MSC people are key to our company's ability to create value as we connect the world, and our long-term business success relies on them. Our people's passion, talent and dedication make up our precious human capital and we are committed to providing an inclusive workplace with robust working conditions. By promoting and respecting human rights across our value chain, supporting the health, safety and wellbeing of our employees and offering opportunities for growth, we are ensuring the readiness of our workforce to address today's challenges in the world of work – and those of tomorrow.

[73] [www.weforum.org/publications/the-future-of-jobs-report-2023](http://www.weforum.org/publications/the-future-of-jobs-report-2023)

[74] [www.weforum.org/press/2020/01/the-reskilling-revolution-better-skills-better-jobs-better-education-for-a-billion-people-by-2030](http://www.weforum.org/press/2020/01/the-reskilling-revolution-better-skills-better-jobs-better-education-for-a-billion-people-by-2030)

[75] [www.weforum.org/publications/putting-skills-first-a-framework-for-action](http://www.weforum.org/publications/putting-skills-first-a-framework-for-action)

[76] [www.iru.org/news-resources/newsroom/global-truck-driver-shortage-double-2028-says-new-iru-report](http://www.iru.org/news-resources/newsroom/global-truck-driver-shortage-double-2028-says-new-iru-report)

# OUR COMMITMENT TO ADVANCING HUMAN RIGHTS

At MSC, our commitment to protecting and supporting human rights is a fundamental part of our sustainability roadmap. Since joining the **United Nations Global Compact** in 2016, we have committed to promoting respect for human rights in accordance with the **UN Guiding Principles on Business and Human Rights** (UNGPs) and other relevant frameworks of reference developed for businesses. Our approach, based on cross-functional cooperation, ensures that our common framework of actions extends to our operational level and stakeholder relationships. Our current global scenario is marked by unprecedented challenges and geopolitical tensions, which have significant direct impacts on our activities and operations. The complexity of this scenario is mirrored in the growing expectations from our customers and the financial community, alongside an upgrade of regulatory aspects at both local, regional and international levels. To navigate this evolving landscape, we continually strive to improve. So that our efforts remain effective, relevant and impactful, we are building capacity and harmonizing processes across MSC's Cargo Division. In parallel, we focus on enhancing respect for our values, standards of responsible business conduct and a workplace environment that upholds the dignity, equality and wellbeing of all individuals.

In 2023, we ramped up efforts regarding a comprehensive and strategic approach to human rights in our operations and value chain. Our commitment to **Human Rights Due Diligence** (HRDD) is rooted in promoting a shared vision and establishing a coherent framework that fosters internal

support and builds capacity for action. The reporting year marked the completion of a number of acquisitions which are now part of MSC's Cargo Division. Consequently, our focus shifted towards aligning shared priorities with existing human rights and environmental due diligence processes and related activities. Through extensive discussions involving all relevant entities and internal and external stakeholders, we identified common areas for improvement. This collaborative effort led to a Human Rights Due Diligence roadmap. This roadmap, adopted at the highest levels, aligns with our core values and the standards outlined in our **Code of Business Conduct** and the codes of conducts of all entities, while also considering sector-specific activities and priority areas. Our governance model ensures that human rights considerations permeate decision-making processes at all organizational levels. This fosters cross-functional collaboration across MSC's Cargo Division, with the primary goal of effectively identifying, preventing and mitigating human rights risks. Simultaneously, we are continuously enhancing and harmonizing our management system to improve the tracking and reporting of our human rights performance. As part of this activity, regular updates are provided to the **Human Rights Steering Committee**, composed of relevant senior executives. Additionally, we enhanced communication channels to address human rights issues specific to our sector and broader sustainability topics, such as environmental and social impacts, both internally and externally.

## BUILDING A CULTURE OF RESPECT FOR HUMAN RIGHTS

One of our main priorities remains promoting a culture of respect for human rights throughout the organization. The main focus of this joint activity is raising awareness around sector-specific human rights issues and ensuring all employees understand their role in identifying and addressing these concerns in their daily operations across the value chain.

Throughout 2023, in addition to continuing the implementation of our targeted training plan, we focused on alignment processes for the newly acquired entities of MSC's Cargo Division. An integral part of our efforts in this regard involved evaluating existing processes and addressing relevant gaps to ensure consistency. Following this initial step, we

then initiated the development of a structured path that, starting from 2024, will aim to further enhance the level of knowledge and awareness regarding the relevance of key issues related to human rights in a complex and global context.

Our commitment to further enhance trust and transparency is also ensured through a number of reporting channels. Ensuring accessibility to these channels (see [page 37](#)) is an important step to uphold responsible operations and inform our internal assessments. We ensure all concerns raised are thoroughly and anonymously investigated. Encouraging individuals to speak up against human rights breaches or seeking advice on how to handle sensitive

**COMMITMENT AT THE TOP**  
MSC's commitment to human rights, endorsed by our CEO, is formalized in our human rights framework and our **Human Rights Due Diligence roadmap**.

**HUMAN RIGHTS STEERING COMMITTEE**  
This Committee, composed of senior executives from various departments and all entities of the Cargo Division, is responsible for overseeing our **Human Rights Due Diligence processes**. This includes strategic guidance on areas of improvement. The Committee meets regularly to review human rights risks, impacts, performance and strategy. It also ensures that human rights considerations are progressively integrated into decision-making processes at the relevant level, as appropriate.

**FUNCTIONAL LEADERSHIP TEAM**  
Under the Steering Committee, we have established a body responsible for specific priority areas. This team is tasked with implementing our **human rights framework** and reporting back to the Steering Committee on progress made and challenges encountered.

**OPERATIONAL TEAMS**  
At the local level, Operational Teams are responsible for managing **sector-specific human rights topics**. They are supported by the Functional Leadership Team and receive training on human rights issues and risks relevant to their operations and areas of activity.

# HUMAN RIGHTS DUE DILIGENCE GOVERNANCE



human-rights related issues is vital in identifying not only individual incidents but also issues (see [page 37](#)). The implementation of specific measures and effective remedies to address adverse impacts and maximize opportunities aims to drive positive change for people across our value chain. We proactively implement corrective measures

### FOCUSING ON OUR PROCESSES

As part of our responsible sourcing approach, we have prioritized the integration of sustainability and human rights considerations into both supplier qualification and periodic assessment procedures. Recognizing the critical role of our supply chain in shaping sustainable and ethical practices, our Procurement Team has implemented sustainability and human rights criteria within our Vendor Portal. This strategic initiative ensures that our suppliers align with our values and share our commitment to respecting and promoting human rights in their operations, adhering to the same international principles. During the course of 2023, we reviewed and consolidated key risk areas, including emerging human rights issues, in accordance with a **Human Rights-Based Approach** (HRBA)<sup>77</sup>.

to prevent human rights abuses, addressing their root causes whenever possible and in compliance with relevant domestic legislations. This aims to foster a culture of continuous improvement and a journey of learning, while bolstering the collaboration between our headquarters and operational teams on human rights issues.

In the year in question, a cross-functional activity involving our ocean, terminal, inland, and, for the first time, air operations, along with MSC's newly acquired entities, was undertaken to refine and enhance our framework of action. Cross-cutting considerations and emerging sector-specific issues continued to be managed by each business area both at the operational and supply chain levels. To help with continuous improvement and address emerging areas of concern, we strengthened our governance structure. Our focus remains on promoting awareness raising and capacity building activities at the headquarters and local levels. Guided by a holistic perspective, our approach aligns with our organizational reality as a global operator in constant evolution.

[77] An HRBA is a conceptual framework for human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. Source: [unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach](https://unsdg.un.org/2030-agenda/universal-values/human-rights-based-approach)

### FOSTERING COLLABORATION TO TACKLE GLOBAL CHALLENGES

The dynamic and challenging global landscape demands continuous adaptation and close multi-stakeholder cooperation. In 2023, through the **Responsible Shipping Dialogue**, MSC continued engaging with major cargo owners, non-governmental organizations, seafarers' representatives and other relevant stakeholders to raise awareness on the need to address human rights standards for seafarers in Human Rights Due Diligence processes. A focus on 'rights-holders' and a 'shared responsibility approach' is more relevant than ever. Global maritime and logistics supply chains continue to face geopolitical challenges, cyber-security threats and fragmentation in the regulatory landscape due to differences in law enforcement at the domestic and international levels. This requires enhanced joint

efforts across the whole ecosystem. More recently, in 2024, we witnessed an increase of operations in conflict-affected areas. At the time of writing this report, shipping operations in the Red Sea were significantly impacted due to attacks on commercial vessels.

These attacks disrupted one of the world's most important seaways, increasing shipping times and operational complexities. These disruptions had a dramatic impact on global trade and supply chains. As usual, we worked closely with our customers to manage these disruptions, providing regular updates and information on rotations and sailing schedules. In parallel, we enhanced collaboration with the international community and industry associations to increase dialogue and to minimize risks and adverse impacts.

### ALIGNING OUR REPORTING FRAMEWORK

Promoting transparency in our reporting approach allows us to maintain continuous, meaningful discussions with internal and external stakeholders. This helps us raise awareness of sensitive issues, identify common challenges and seize opportunities to integrate considerations around emerging human rights risks across our value chain. Our reporting strategy remains in line with the **UN Guiding Principles**

**Reporting Framework**<sup>78</sup> to deliver a dynamic and flexible approach to Human Rights Due Diligence. This serves to find innovative ways to collaborate with our wide range of internal and external stakeholders. Our human rights-related activities are then promoted both individually and as part of multi-stakeholder initiatives at local or international levels. Our approach is detailed in the Methodology Note.

[78] [www.ungpreporting.org](https://www.ungpreporting.org)







## MSC PEOPLE: OUR PRECIOUS ASSET GROWING FROM STRENGTH TO STRENGTH

The MSC family is composed of 91,967 people who together represent the source of our company's strength and our success. Our diverse workforce includes colleagues from more than 150 countries belonging to generations spanning the baby boomers to Generation Z. We seek to capitalize on the precious expertise, technical capabilities and diverse perspectives of our people, as well as fostering a culture of authenticity and inclusiveness and a workplace based on ethics, respect and team spirit. As a global company operating under varying local and national regulations, we have a responsibility to ensure that each individual is treated fairly, respectfully and with dignity, irrespective of their role, location, career stage or length of service. 2023 saw the Cargo Division grow with 14,227 new hires as well as colleagues from our recent acquisitions and new entities. Our new colleagues are enriching our company by bringing relevant and strategic new competencies, in-depth local knowledge and experience in new geographies, such as AGL, which employs more than 98% of its employees locally in the countries in which it operates. Our new colleagues

also bring critical technical expertise to new business segments, such as MSC Air Cargo. Our workforce planning is continuously adapting<sup>79</sup>, taking into consideration our growing family, the evolving external operating environment and the changing attitudes and expectations of workers, while addressing the needs and skills gaps in our company. An integral part of MSC's people strategy is the continuous monitoring of our performance as an employer and our progress, engaging our workforce and listening and learning from their feedback. Employee engagement informs an open dialogue and helps identify opportunities for feedback and follow-up conversations for our managers to support their teams. Listening to our people helps us understand what matters most to them, so we respond better to their needs. As an example of this approach, in response to feedback received from Log-In Logistica's seafarers, among other initiatives, a new work rotation was adopted, with the schedule changing from 60 days to 45 days on/off and resulting in a 36% reduction in Log-In Logistica's seafarer turnover over the previous year.

[79] Operational changes required to meet business needs are communicated and conducted in accordance with local regulatory requirements related to minimum notice periods.

### FOSTERING A SUPPORTIVE AND ENGAGING WORKPLACE

During the reporting year, MSC's workplace culture and employee experience were recognized by various awards and certifications, including Forbes' 2023 list of the **World's Best Employers**<sup>80</sup>.

MSC Shipmanagement was awarded the prestigious **Investors in People Platinum**<sup>81</sup>, the highest accolade which is currently held by only 2% of IIP accredited organizations worldwide. With a participation rate of 91% in 2023 – 3.5 times more employees participating compared with the IIP Gold recognition obtained in 2021 – the rigorous IIP methodology drew on the findings of a series of employee surveys and interviews against 27 key performance indicators of the 'We invest in people' framework. MSC Shipmanagement was ranked second in our sector and considered 'best in class' in leading and inspiring people; recognizing and rewarding high performance; building capability; and creating sustainable success.

### EMPOWERING EMPLOYEES IN THEIR PROFESSIONAL PATHS

MSC people bring our purpose to life and contribute to our success. We aspire to provide them with meaningful and equitable employment, opportunities to grow and a workplace that celebrates diversity and fosters inclusion and innovation. Investing in our people helps us attract and retain talented individuals. At MSC we seek to bring the best candidates on board by creating a working environment where people can thrive both personally and professionally. External recruitment opportunities are expanding as we tap talents coming from different industries and geographies for roles that may have reporting lines in different locations. The 10% turnover rate is an important sign and reflects our company's ability to attract and above all retain people with highly specialized profiles in particularly strategic areas of our business. While we recognize that with the ongoing transformation of the world of work comes the need to scout external talent, our focus remains on promoting internal mobility wherever possible before hiring externally. Many of our employees

have started and developed their careers with us, learning and experiencing professional growth across MSC over many years, and in some cases, decades. We believe that supporting our people in their growth and moves to new internal opportunities nurtures their career development and satisfaction. Identifying high-potential employees, expanding their competencies and offering mentoring, learning and development opportunities in preparation for future assignments is key in our people strategy. With our strong family culture, we value the unique experience and contribution of each individual at MSC and we seek to support and accompany them throughout their journey. An example of this approach is the many captains and crew members who worked on board MSC vessels who are today managers ashore in various departments, maintaining long-term relationships with the company over decades while also serving as trusted advisors and mentors for newcomers. We are proud of maintaining a crew retention rate of 98%<sup>82</sup>, one of the highest in our industry.

[80] [www.forbes.com/lists/worlds-best-employers](https://www.forbes.com/lists/worlds-best-employers)

[81] [www.investorsinpeople.com/accreditations/we-invest-in-people](https://www.investorsinpeople.com/accreditations/we-invest-in-people)

[82] Figure based on INTERTANKO formula for Officer and Crew Retention Rate <https://www.intertanko.com/benchmarking-databases/bdt/officer-and-crew-retention>

## EQUIPPING OUR WORKFORCE FOR THE FUTURE

Digitalization, technological innovation and the energy transition are impacting and shaping the global workforce. Development plans for our employees will be principally oriented towards ensuring structured support through continuous learning and equipping with the technical and leadership competencies they need to reach their full potential in the evolving landscape. Empowering our colleagues and ensuring they have the tools, knowledge and confidence to adapt to our company's evolving needs and expectations, as well as addressing the challenges and capitalizing on the opportunities of megatrends impacting our industry, is key for our company. For this reason, we are conscious this transformation will require an extension of our commitment to create the most appropriate pathways

for employee development including upskilling, reskilling and exposure to new experiences and projects that go beyond their day job.

As a global logistics player, we have a responsibility to build a workforce that is able to proactively contribute as a co-designer of future transformative solutions and to ensure it is benefitting from the unique opportunities such as the one presented by our industry's energy transition towards a net-zero carbon economy. In terms of designing training plans that meet the new needs arising from the ongoing transformation, part of our development activities will be dedicated to continuous assessment of skill gaps within the most impacted categories, such as seafarers, dock workers, stevedores, and train and truck drivers.

## PREPARING OUR PEOPLE AT SEA AND ASHORE TO ENSURE A JUST TRANSITION

As part of our decarbonization pathway and the ongoing transition, we have developed a range of new training courses to prepare our seafarers and in particular our deck and engine officers. Among the decarbonization-related, energy efficiency tools and technologies in which we are training our people are digital navigation systems and weather routing, voyage optimization tools, data management and monitoring systems, hull and propeller cleaning and the operation of specific equipment incorporating digital and AI technologies such as thermal cameras.

We have embraced technology to deliver training through an online learning platform as well as via state-of-the-art facilities. MSC Shipmanagement developed the **Ocean Learning Platform (OLP)**, an online learning system used for employees at sea and ashore, offering a one-stop-shop to meet individual training needs, including vessel- and equipment-specific trainings. To date, 661 vessels have OLP activated onboard and in 2023 42,642 hours of training were delivered via the platform.

In 2023 a new 360° bridge simulator was inaugurated in Mumbai, providing a safe environment and replicating real-life scenarios to enhance our crew members' skills in navigation, emergency situations and decision-making. Training programmes are part of a safe, equitable and human-centric transition for seafarers, their families and

communities. Preparing our industry's workforce requires a collective effort to unlock the seafarer skills needed to support shipping's decarbonization goals.

For the first time, the IMO recognized the importance of a well-trained and well-protected workforce in the **2023 IMO Strategy on Reduction of GHG Emissions from Ships**, highlighting the need for 'instruments, guidance and training standards to help ensure a just transition for seafarers and other maritime workforce that leaves no one behind'. Similarly, the UAE Consensus adopted at COP28 noted the importance of 'fast-tracking a just and orderly energy transition [...] and fostering full inclusivity in climate action'.

Many seafarers are expected to require additional training by the mid-2030s in order to operate vessels running on low- or zero-emission fuels<sup>83</sup> as part of our industry's preparation for this new shipping landscape. Training our people is part of advancing and accelerating the decarbonization of MSC's fleet as we adopt alternative fuels, use new tools and technologies and introduce new and retrofitted dual-fuel ships.

As a Project Supporter and member of the **Maritime Just Transition Task Force (MJTTF)** Global Industry Peer Learning Group, MSC has been engaging in dialogue with stakeholders across and beyond our industry to support

a just and human-centred decarbonization of shipping. In 2023 we continued our efforts to further embed just transition principles as we prepare our current and future seagoing workforce, drawing on the MJTTF's 10-Point Action Plan to Achieve a Just Transition for Seafarers<sup>84</sup> including investing in skills development and monitoring, equitable training for current and new crew members and supporting their careers by promoting transferable skills for use both at sea and in future roles ashore.

As highlighted in the **Just Transition for Transport Pledge**<sup>85</sup> launched on the eve of COP28, the future of road transport depends on labour standards and a skilled workforce. For this reason, at AGL education programmes for truck drivers have been further implemented with a

## EXPANDING LEARNING INITIATIVES

During the reporting year, we continued to implement training, offering our people across MSC's Cargo Division a range of apprenticeships and mentoring programmes, on-the-job skill building and self-directed learning. Our 2023 portfolio of training programmes – delivered in person, through live interactive webinars as well as online learning modules – continued to grow, with almost 1.5 million training hours completed.

An array of different programmes have been developed for the needs of each business segment to enhance their potential and be ready for future professional challenges across the entire organization. Our offices around the world collaborate with naval academies, technical institutes and university programmes on specialized training initiatives to promote careers in shipping and logistics, inspiring future talent and supporting young people entering our industry. To prepare for the next generation of leaders, our programmes also focus on the enhancement of specific soft skills, as well as offering customized mentoring programmes focused on transferring the essence of our company culture.

**MSC Academies** is a programme focused on developing employees at different stages of their careers across MSC offices around the world, with experienced trainers delivering interactive sessions which explore how to apply specific skills to real-life situations. **TiL's Centre of Excellence** programme provides employees with unique career opportunities to

specific focus on increasing awareness and safe driving skillsets to prevent risks.

Part of our decarbonization approach is leveraging intermodal transport and multimodal logistics, and shifting from road to rail has implications in terms of the availability of not only logistics engineers but also specialized train drivers. With this in mind, at MEDWAY Spain we draw on current train drivers already working with our company to deliver trainings as part of a certification programme for this specific category, an approach we intend to replicate as we further expand operations in other European countries. With the same ambition, throughout 2023 AGL continued to harmonize rail training programmes across SITARAIL and CAMRAIL which are operating its two railway networks.

gain international experience at other terminals through short- and medium-term deployments as part of a 'SWAT team'. Employees return to their home terminals with expanded knowledge and new competencies. **Unilog-In** is the newly created corporate university designed to shape and enhance Log-In Logistica employees' competencies through a comprehensive and innovative learning platform providing dedicated modules. 2023 saw 1,000 colleagues from administrative, terminal and offshore teams involved in the programme, representing 47,000 hours of training. Internal mobility is also part of the AGL approach, providing specific opportunities to work on cross-functional and strategic projects, taking on new assignments, increasing areas of responsibility or a change of position. Throughout 2023, 235 AGL employees benefitted from a career development with mobility to a different environment abroad, contributing to building an increasingly skilled workforce at local level. The topic of sustainable development is a component of the MSC training portfolio; for example sustainability modules are included in onboarding as well as in ongoing learning and development programmes. In 2023 a standalone internal certification course was developed by MSC Asia Regional Office (Singapore) – the **Green Enablers Programme** – designed to inspire and identify concrete actions for MSC offices across the region in line with our sustainability roadmap.

[83] [www.ics-shipping.org/representing-shipping/maritime-just-transition-task-force](http://www.ics-shipping.org/representing-shipping/maritime-just-transition-task-force)

[84] [unglobalcompact.org/take-action/think-labs/just-transition/about](http://unglobalcompact.org/take-action/think-labs/just-transition/about)

[85] [www.iru.org/resources/iru-library/just-transition-transport-pledge](http://www.iru.org/resources/iru-library/just-transition-transport-pledge)

# VALUING AN INCLUSIVE, DIVERSE AND EQUITABLE WORKFORCE

In an increasingly complex and evolving global landscape, diversity matters. With the growing representation at the highest levels of companies over recent years, diverse leadership teams are often associated with business success. Being an employer of choice requires a working environment where people feel they are valued and belong. MSC aims to create a diverse, equitable and inclusive workplace without discrimination and our people strategy is built around this. As a global company operating worldwide, we regard our diversity as one of the greatest assets which is key to performing better as a business and is a main driver of our success. We seek to cultivate an inclusive environment where our people are respected and supported across all departments and entities of the Cargo Division, and our company benefits fully from the value their diversity brings. We celebrate the different backgrounds, generations, perspectives and experience of the global MSC family. We are committed to removing barriers, ensuring equal standards and conditions, supporting families and new parents, avoiding

stereotypes and eliminating any discriminatory practices to support each individual along their journey. Our approach emphasizes attitudes and behaviours including empathy, authenticity, and acceptance to foster inclusiveness and encourage collaboration.

We promote topics such as non-discrimination and diversity and inclusion for our suppliers, which are part of the **MSC Supplier Code of Conduct**. Building on this, we are also exploring opportunities to further engage our supply chain partners to promote and embed the topics of diversity, equity and inclusion across value chains.

With our recent acquisitions and new entities, we recognize our workforce is expanding further in its diversity. In 2023 we saw areas of our businesses become more geographically diverse, with the number of colleagues from the African continent and Brazil growing following the acquisition of AGL and Log-In Logistica. We also saw the composition of our MSC crews increasing in diversity, with our seafarers coming from an expanding pool of countries including Bangladesh, China, Cyprus,

Ethiopia, Ghana, India, Indonesia, Kenya, Myanmar, Pakistan, Philippines, Poland, Romania, Russia, South Africa, Thailand and Ukraine.

MSC's workforce is composed of multiple generations, with younger Generation Z colleagues working alongside millennials as well as members of Generation X and the baby boomers. Our multi-generational teams bring valuable perspectives, mutual learning opportunities and collective benefits to our company, and we are committed to supporting each of these generations regardless of their career stage. The gender imbalance in the transportation and logistics industry continues to be a challenge, with lower representation of women in the maritime, road, rail and terminal workforces. During the reporting year, 19% of those working at Headquarters and country offices<sup>86</sup> at managerial level and above were women. In 2023 our internal mentoring programme **MSC Inspiring Women** saw 120 female middle managers connecting with senior female leaders over 17 rounds of the programme.

Over recent years, we have intensified our efforts towards more gender-balanced seafaring and driving workforces. We are pleased to see a progressive increase in the intake of female seafarers prompted by MSC initiatives such as recruitment drives bringing on board women cadets in training, as well as initiating an award recognizing the Best

Female Cadet for trainees undergoing pre-sea training at maritime universities in India.

During the reporting year, we continued efforts to advance gender equality and women's empowerment in the workplace. The **Women's Empowerment Principles**<sup>87</sup> (WEPs) are a set of seven principles for corporate delivery on gender equality dimensions of the SDGs, related to the promotion of gender equality and women's empowerment in the workplace, marketplace and community. Launched in 2010 and developed by UN Women and the UN Global Compact, the WEPs support businesses in their efforts to promote equality and empowerment and are based on international labour and human rights standards.

2023 saw the number of WEP signatories grow, with action plans in place focused on raising awareness on diversity, equity and inclusion and addressing a range of topics including equal pay for work of equal value, gender-responsive supply chain practices and zero tolerance against sexual harassment in the workplace. During the reporting year, we continued activities focusing on gender equality awareness, diversity and inclusion, and preventing gender-based violence and harassment, with real-life experience, practical examples and lessons shared among MSC signatories to facilitate the adoption and replication of best practices across MSC's Cargo Division.

[86] MSC, MSC Air Cargo, MEDLOG, TiL

[87] [www.weps.org](http://www.weps.org)

## PROMOTING WOMEN WORKING IN TERMINALS

At the Organization of American States' (OAS) 2023 **Maritime Award of the Americas**<sup>88</sup>, Portonave – Portuários de Navegantes (Navegantes, Brazil) was recognized for its positive contribution to the port sector in the Americas in the category of Empowerment and Equality, for its maternity support programme that supports new mothers as well as promoting gender balance through reintegration in the workplace initiatives which saw employee retention following childbirth increasing to 100% from 62.5% over a three-year period.

Portonave's **Port for Her** programme also promotes employment for women in ports by offering specific training opportunities on port logistics and MNR.

[88] [portalcip.org/activities/maritime-award-of-the-americas-recipients](http://portalcip.org/activities/maritime-award-of-the-americas-recipients)



# PROMOTING A SAFETY, HEALTH AND SECURITY CULTURE ACROSS OUR BUSINESS

< At MSC, protecting the safety, security and wellbeing of our people as well as the security of our assets, infrastructure and our customers' cargo is a top priority. We have embedded industry-leading policies, procedures and control protocols in an often-challenging workplace environment across our global operations at sea, on land and in the air. We are committed to creating a culture of prevention across our business, where everyone is aware of the potential risks and hazards related to their specific duties and takes steps to avoid them. Recognizing the intricate and dynamic nature of today's environment, where workplace incidents can strain public health systems and communities, our objective is to embrace a

proactive and flexible strategy to minimize any negative economic consequences. As we constantly monitor relevant regulatory developments, we routinely update our health and safety management systems that cover our workforce<sup>89</sup> based on recognized international guidelines and standards such as ISO 45001:2018 (Occupational and Health and Safety Management Systems). Updates include setting forth preventive actions leveraging and applying learning across the various areas of our business. Furthermore, we constantly provide training to our global workforce, ensuring that team members understand and align with our regulations.

MSC also adheres to international standards which are

<> Sections on which Ernst & Young Ltd provided limited assurance are marked with the symbols '<>'. The independent assurance report is available on [page 140](#).

[89] The health and safety management system is available to all employees and workers who are not employees via their management as well as MSC intranet, training and meetings

relevant to the various areas of our business and follows the recommendations of international organizations such as the World Health Organization (WHO) and International Labour Organization (ILO), as well as health and safety-

related laws of the countries in which we operate. As Chair of the Safety and Security Council of the World Shipping Council, we collaborate with our industry peers to promote a culture of prevention in the maritime sector. >

## SAFEGUARDING THE HEALTH, SAFETY AND WELLBEING OF OUR EMPLOYEES

Several factors have enhanced the logistic industry's safety standards and management systems, such as new regulations, collaborative platforms and better design and technology in our equipment for vessels, terminals, inland and air logistics networks. Within MSC's Cargo Division, each area of our business features its own management of health and safety.

We are committed to implementing the necessary preventive actions and safety protocols and we work on objectives and indicators in line with current and future risks of the work environment and the needs of each team. Our ambition is

zero fatalities across all our operations. In 2023 consistent with our ambition, while our primary focus was on averting potential harm or casualties among our workforce, we regret the loss of five lives in the course of the year. We have since taken prompt action to identify and address the root causes of these incidents and implemented the related corrective and preventive action plans to prevent potential reoccurrence. In addition to enhancing existing measures and protocols, we also implemented innovative solutions, such as digital tools and smart sensors, to monitor and improve the safety performance of our workplace.

## MARITIME OPERATIONS

Focusing on MSC's maritime operations, which represent the predominant share of our business, crew safety on board our vessels and on shore is our top priority. Decades of experience in shipping have enhanced the development of strong health and safety standards. MSC's risk assessment process shapes our approach to maritime occupational health and safety and allows us to continuously review our integrated procedures including those on safety (through our **Quality Safety, Environment & Energy Management System – QSEEMS**). The health and safety of all employees, including seafarers on board our vessels, is all covered by our management systems, which are based on recognized guidelines and standards, including ISO 45001. One of the standard's key features is the emphasis on continuous improvement, which means that MSC monitors, measures, analyses and evaluates occupational health and safety (OH&S) performance and takes action to address any gaps. We also promote proactive risk management at all levels for enhancing long-term worker health and safety performance standards.

Our health and safety training programme is an element for ensuring our standards are maintained and improved. Our training systems are robust and comply with regulations

and industry management practices. Specific and precise training requirements for each seafarer rank are identified and a tailor-made training plan is established in accordance with the MSC Training Matrix requirements and is available to them at all times whether on board or on leave. Our state-of-the-art bridge simulator is installed at MSC onshore training centres around the world, using the latest MSC ship models for simulating various navigational exercises, providing our seafarers with quality ship handling training. Furthermore, to address and prevent safety and technical challenges posed by the deployment of alternative fuels, new dual-fuel engine room simulators have been integrated into our training system to enhance the technical knowledge and expertise of our seafarers. In addition to online classes and video learning, simulators are used and on-the-job training is conducted for our seafarers. Crew members are encouraged to report instances of safety breaches through the **Look, Act, Report and Prevent system** (LARP). Operational procedures are aligned with the four pillars of the international regulatory regime for quality shipping<sup>90</sup> and are complemented by an incident reporting system whereby MSC crew can file reports through a direct communication channel. As a result of an investigation on an incident or safety alert,

[90] International Convention for the Safety of Life at Sea (SOLAS); International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW); International Convention for the Prevention of Pollution from Ships (MARPOL); and Maritime Labour Convention (MLC).





preventive actions may be designed to avoid recurrence across the fleet. Safety and technological evolutions are closely interconnected. While new technologies may lead to safety risks, they can also enhance safety by providing better tools, systems and solutions for various challenges. MSC has installed an advanced automated navigational assistant on over 150 vessels which processes multiple sources of information in real time, identifying and evaluating the most complex marine traffic situations through an automated lookout which mimics the human watch-keeping process. In 2024 this machine vision and an AI-based detection system is expected to be installed on board over 400 other vessels. Thanks to a systematic commitment to safety and wellbeing issues and investments in continuous training, while the number of ships managed by MSC Shipmanagement in the last three years has almost doubled

## TERMINAL OPERATIONS

Safety is also a critical concern in terminal operations and requires continuous improvement to procedures, equipment, systems and training programmes. TiL continues working with key stakeholders and terminal associations such as the **International Cargo Handling Coordination Association (ICHCA)**, an independent non-profit organization striving to promote safety practices in cargo handling and movement worldwide, and has been actively involved in various panel discussions on enhancing the safety of terminal and vessel staff on board.

with a similar increase in seafarers, the value of lost time incident frequency (LTIF) has decreased by approximately 45%. The role of remote medical assistance (RMA) in the safety management of our seafarers helps them to respond effectively and promptly. In 2023 successful treatment was achieved in approximately 94% of onboard cases, and 33% of medical visits to ports were prevented through early detection and appropriate onboard treatment. Also in 2023, the Log-In Logistica 'Golden Rules' were reinforced throughout training sessions, consisting of a set of 10 standard safety guidelines setting the tone for employees. Furthermore, every year, under the **Master of The Seas programme**, the ship and crew achieving the best results including in terms of safety, collaboration and responsible mindset are rewarded.

By implementing a common set of standards across terminals, TiL is working to enhance safety practices across all terminals. This includes training, communication, emergency response, policies and procedures, and the importance of an on-the-ground presence and the involvement of senior management in reinforcing a safety culture. The recent achievement of ISO 45001 certification at some TiL terminals reflects our improving safety practices. Terminals have conducted renewed risk assessments on processes, operational equipment

and systems in use. This has resulted in improvements such as the roll out of 4-point seat belts to replace the 3-point connections, placement of additional handrails, training with local firefighting teams, pre-shift safety talks, detection systems to assist operators in the placement of equipment and containers, accident investigation and training that includes contractors and value chain workers. Log-In Logistica terminals are covered by a risk management programme and the company adopted safety incident records, a tool designed to detect and prevent deviations from requirements and accidents at terminals, involving both employees and contractors. At the Vila Velha Terminal blue-collar employees take an electronic 'Readiness Test' twice a day, before and during work, evaluating their emotional state and response to different scenarios. To foster a safety culture among employees and contractors, Log-In Logistica runs a yearly programme called **The Terminal Champion**, rewarding those who

## INLAND LOGISTICS

We strive to safeguard the wellbeing of our people and business partners operating within our facilities and on the road. We continuously seek potential opportunities to collaborate with business partners on road safety issues, for instance through awareness campaigns and driving safety training at a local level. In addition, work-safety data across all entities have been improved including the increase in internal safety performance monitoring,

prevent accidents and risky behaviours while caring for their fellow workers' wellbeing. Ensuring pedestrian safety in terminals is another critical issue. To this end, AGL has implemented a **Pedestrian-Free Yard** process as part of its safety management system, which applies to all its port concessions. This process minimizes the presence of pedestrians on the yards of container terminals, to mitigate the risks relating to the interface between pedestrians and equipment, and adapts occupational health and safety measures to port activities. Furthermore, random tests are carried out to check for alcohol or drug use that may impair the judgment of equipment operators (gantry cranes, cranes, reach stackers, forklifts, truck drivers, among others). Since its introduction, the Pedestrian-Free Yard process has significantly reduced the number of accidents and incidents at ports. In 2023, three out of 17 AGL terminals following this process have obtained ISO 45001 certification.

covering new entities which joined our inland network. As a result, we were able to identify more instances of incidents, and this allowed us to introduce new protocols to prevent and reduce work-related injuries and incidents. We assessed the context and root causes of all incidents and adopted a more standardized approach to develop and implement effective preventive, corrective and improvement actions.

MEDLOG vehicles and driver safety programs are designed to protect our employees, contracted workers and others on the road from harm. Our aim is to prevent any avoidable accident of our road fleet, and we focus on specific activities to increase road safety awareness to contribute to lowering the number of severe incidents and reducing fatalities. For example, in the UK we offer a continuous training programme which teaches drivers how to drive safely with an eco-friendly approach. The program covers topics such as traffic rules, vehicle maintenance and accident prevention. By performing smoother manoeuvres and increasing anticipation, eco-driving can lower the risk of accidents by up to 15%. In 2023 MEDLOG total recordable work-related incidents are lower than the previous reporting period, notwithstanding that the scope of operations has increased with additional entities, consequently increasing exposure hours.

In Brazil, Log-In Logistica, adopts a safety programme for its trucking operations, which is aimed at detecting and preventing unsafe driving behaviours, driving long hours, or violating trucking rules, as well as preparing drivers to face situations posing an immediate risk to their safety and to protect cargo. The key focus is on reducing the likelihood of road accidents, cargo theft and hijacking, thus enhancing the efficiency of highway transportation. Log-In Logistica has conducted safety workshops, monthly safety forums, weekly alerts and awareness meetings. It also launched and implemented a **Supplier Excellence Program**, which rewards suppliers with the highest safety performance and service quality, as well as sustainability standards. In addition, during the reporting year Log-In Logistica implemented a **Conscious Partner Program** to present its sustainability

activities and expectations to suppliers.

In Africa, road transportation is considered the riskiest activity performed within AGL business. Therefore, a specific road transport safety programme has been developed and deployed across AGL's operations. An integral part of the project is the digital screening process for subcontractors, requiring full acceptance of the **Road Transport Charter for Carriers**, which outlines company expectations in terms of safety and security. This charter helps AGL prevent harm to people, cargo and equipment. Each driver is required to comply with AGL's general driving rules and with the alcohol and drug prohibition policy. Failure to comply is reflected negatively in the driver record, based on the company scoring system and may entail the driver having to undergo specific training to requalify for driving. AGL participates in multi-company joint initiatives on road safety. For example, AGL Cameroun engaged in a partnership with other international companies and co-funded the purchase of a road driving simulator which is being shared with all partners. More than 25 drivers from AGL Cameroun's subcontractors were trained in 2023. Looking at railroad service, AGL has been developing a custom railway safety management system (SMS) covering both its rail entities (SITARAIL and CAMRAIL), with the support of an independent certification body. The SMS is based on recognized international standards such as ISO 9001 and the general safety regulations (GSR) of each railway network. The SMS aims to address the specificities of rail activities in the African context across all aspects of the value chain (maintenance, operations management). In 2023 the system was rolled out across the African railroad business.

## AIR OPERATIONS

Since commencing our air freight operations in 2023 – with our fleet operated by Atlas Air – MSC Air Cargo focused on the promotion of a safety culture, prioritizing a proactive approach that goes beyond industry standards, through a comprehensive safety management system. Civil aviation

relies on well-established safety protocols and standards which are set forth by multiple sector stakeholders and institutions, such as the Federal Aviation Administration, the International Civil Aviation Organization and the International Air Transport Association.

## SUPPORTING THE HEALTH AND WELLBEING OF OUR EMPLOYEES

The wellbeing of our crew members is an important aspect of health and safety management of our people at sea. Every two years, MSC responds to **Re:refresh**<sup>91</sup>, a dynamic health risk management assessment, designed to track the health and wellbeing of seafarers through a systematic and holistic approach that covers physical, psychological, social and spiritual aspects. Based on the Re:refresh 2022 results in which MSC achieved an Employee Satisfaction Index (ESI) above the industry average, several wellbeing initiatives were launched during the reporting year to both maintain and improve health. These covered multiple areas such as nutrition, mental health and wellbeing, physical health and general wellbeing and included several activities aimed at engaging with crew members regarding their wellness. With over 50 send-outs distributed to the vessels, the highlights included the following: managing second-hand stress, anger management, emotional intelligence, resilience, understanding malaria prophylaxis, optimism, attaining ideal weight. Such a comprehensive approach to crew wellbeing ensures all aspects of care are addressed to truly benefit all our seafarers at sea.

MSC Technology launched the **WHP (Wellbeing Project)** in collaboration with **ASL (Local Health Authority)** of Turin and the **University of Turin** (Psychology Department). The initiative is aimed at promoting wellness in the working environment by informing and involving our people within a structured programme on key topics related to health and individual good practices.

**Viva Bem (Live Well)** is Log-In Logistica's specific programme on quality of life, created to promote the adoption of healthy habits within and outside the workplace. Besides creating and boosting awareness, the programme encourages staff to carry out specific actions aimed at the prevention and control of chronic diseases such as hypertension, diabetes and repetitive strain injuries as well as providing guidance to pregnant employees. These programmes include individual support (also remote) and monitoring in partnership with external multi-disciplinary consultants. Part of the Viva Bem programme dedicated campaigns and lectures on various topics including emotional health, which are shared through the Unilog-In portal. Every two years the company also conducts health and wellbeing surveys to understand employees' needs and expectations.

[91] [www.marinebenefits.no/get-the-refresh-report](http://www.marinebenefits.no/get-the-refresh-report)





### DEMONSTRATING SOLIDARITY IN TIMES OF CRISIS

The 7.8 magnitude earthquake which struck Türkiye and Syria in February 2023 caused widespread devastation and loss, including more than 50,000 casualties in both countries. In Türkiye, MSC set up temporary accommodation using empty containers for 300 MSC employees and their families who lost their homes in the disaster. In coordination with the **Ministry of Internal Affairs of Türkiye**, MSC also moved 5,000 containers to four of the worst-hit provinces to provide temporary accommodation for people affected by the earthquake and aftershocks. The passenger and vehicle ferry MSC Aurelia delivered relief items and provided additional accommodation for those in need. We are committed to supporting our colleagues who are affected by conflict, including the recent events in Israel that we continue to monitor to ensure our people's safety and wellbeing. Since 2022 the war in Ukraine has had significant impacts on our colleagues working in conflict-affected areas as well as our crew members working on board our vessels. In 2023 MSC Shipmanagement continued to support members of the MSC family by supporting employees and their families with financial aid, shelter and medical insurance. Support to those returning home was also provided in collaboration with the MSC Foundation.

### ENSURING THE SAFETY OF OUR PERSONNEL, CUSTOMERS AND ASSETS

In 2023, managing the security of our people, the goods we ship and the data flows we process every day was a key aspect of our activities. We did this in a fast-evolving critical scenario marked by geopolitical crises directly affecting all areas of our business. Emerging security risks – such as cyberattacks, data breaches, supply chain disruptions, environmental hazards and geopolitical tensions – pose challenges to logistics operations. To counter these risks, MSC has adopted a proactive approach to security management, which involves assessing the possible impact of security incidents, implementing preventive and corrective measures. In particular, the Red Sea has become a hotspot of geopolitical instability, impacting trade routes throughout the region. Several vessels were targeted by hostile forces, posing a serious risk to maritime security. In line with our values, MSC has adopted improved security standards and procedures for operations in

high-risk countries to monitor the status on the ground and to safeguard people and cargo from hazards, including those involving piracy and terrorism attacks. Logistics is not immune to the threats of these attacks and when it comes to criminal activities, we collaborate with authorities and provide support to address any issue through initiatives such as the **US C-TPAT** (Customs Trade Partnership Against Terrorism). Even though maritime piracy and armed robbery attacks continued to decrease at a global level in 2023, we pursued our focus on protecting our seafarers, cargo and ships. MSC procedures and measures are designed to detect, avoid and deter attacks against its ships.

### ENDORISING NEW REGULATIONS FOR HAZARDOUS MATERIALS

As a logistics company, we also specialize in the safe and proper transport, including warehousing, of classified dangerous goods<sup>92</sup>. Managing shipments of special, critical and hazardous cargo demands considerable care and expertise. Establishing robust processes and accurate information and training for such shipments contributes by improving transparency and standardized data sharing. MSC's Know Your Customer/Client and cargo booking screening protocol

MSC constantly liaises with international navies and coastguards, security organizations and industry bodies on all matters of maritime security, including efforts to suppress and eradicate piracy and armed robbery against ships and to promote capacity-building ashore. During a crisis, a dedicated team of experts, comprising key representatives from relevant departments, works round the clock to address any event directly impacting our people, assets and the environment. The process establishes roles, responsibilities and reporting channels – including real-time updates to the Leadership – for an effective decision-making process focused on minimizing potential harm and ensuring protection.

plays a contributing role in mitigating undisclosed or incorrectly declared cargo entering the supply chain. We are actively advocating for the establishment of new regulations for 'Critical and Dangerous Cargo', in collaboration with the **Cargo Incident Notification System** (CINS) and the **Ship Message Design Group** (SMDG), both non-profit organizations run by and for entities within our industry, ranging from carriers to container terminals.

[92] Following the International Maritime Dangerous Goods (IMDG) Code and its amendments



OUR  
**PERFORMANCE**





## GRI INDICATOR

	A*		2021	2022	2023	SCOPE	NOTES
<b>SOCIAL</b>							
<b>GRI 2-7</b>	●	Total number of employees	NA	NA	91,967	Larger Cargo Division	We report the total number of employees across all management levels and including males and females. Reported as headcount.
		Total number of employees	57,838*	60,853*	71,488	MSC, MEDLOG, MSC Air Cargo, TiL	We report the total number of employees across all management levels. Reported as headcount. We report as a separate headcount the total number of male and female employees from the above categories. * 2022 data was restated due to improvement in data quality.
		Total number of male employees (%)	45,114 (78%)	48,459* (80%)	57,539 (80%)		
		Total number of female employees (%)	12,724 (22%)	12,394 (20%)	13,949 (20%)		
<b>GRI 2-8</b>	●	Total number of workers who are not employees	5,493	9,549 *	12,241	MSC, MEDLOG, MSC Air Cargo, TiL (HQ)	We report the total number of indirect employees that are not directly hired by MSC but whose work is controlled by MSC. Reported as headcount. * 2022 data was restated due to improvement in data quality.
<b>GRI 401-1</b>	●	New employee hires	8,684	14,760	14,227	MSC, MEDLOG, MSC Air Cargo, TiL (HQ)	We report new employee hires across all management levels and including males and females. New male employee hires and new female employee hires include unknown gender employees, which were added to each category proportionally to the number of male and female hires, respectively. Reported as headcount. We report the same value separately for male and female employees. Turnover rate is determined by dividing the number of employees (total and by gender) leaving in the reporting year by the number of employees (total and by gender).
		New male employee hires	NA	NA	11,888		
		New female employee hires	NA	NA	2,339		
		Employee turnover	NA	NA	7,052		
		Male employee turnover	NA	NA	5,505		
		Female employee turnover	NA	NA	1,547		
		Turnover rate	NA	NA	10%		
		Turnover rate of female employees	NA	NA	11%		
<b>GRI 401-3</b>		Percentage of male employees that took parental leave	NA	NA	6%	MSC, MEDLOG, MSC Air Cargo, TiL (HQ)	Percentages are determined by dividing the number of employees (by gender) that took parental leave by the number of employees (by gender) entitled to parental leave.
		Percentage of female employees that took parental leave	NA	NA	6%		
		Percentage of male employees that returned to work after parental leave	NA	NA	80%		Percentages are determined by dividing the number of employees (by gender) returning to work after parental leave/having returned to work after parental leave and being still employed after 12 months by the number of employees (by gender) that took parental leave.
		Percentage of female employees that returned to work after parental leave	NA	NA	93%		
		Percentage of male employees that returned after parental leave and still employed after 12 months	NA	NA	99%		
Percentage of female employees that returned after parental leave and still employed after 12 months	NA	NA	91%				
<b>GRI 403-9</b>		Number of recordable work-related injuries (TRC)	343*	854 **	1,208	MSC, MEDLOG, MSC Air Cargo, TiL	We report the number of recordable work-related cases covering lost-time incidents of any degree of severity as well as incidents not resulting in lost work time. * Includes seafarers only. ** 2022 data was restated due to improvement in data quality
		Number of fatalities as a result of work-related injuries	3	5 **	5		
		Number of high-consequence work-related injuries (excluding fatalities)	NA	NA	1		
		Total recordable case frequency (TRCF)	NA	NA	4.190		
		Lost time injury frequency rate (LTIF)	NA	NA	2.89		
<b>GRI 403-10</b>		Number of fatalities as a result of work-related ill health (employees)	NA	NA	1	MSC, MEDLOG, MSC Air Cargo, TiL	
		Number of fatalities as a result of work-related ill health (workers who are not employees)	NA	NA	0		
		Number of cases of recordable work-related ill-health (employees)	NA	NA	126		
		Number of cases of recordable work-related ill-health (workers who are not employees)	NA	NA	17		
<b>GRI 404-1</b>	●	Average hours of training per year per employee	15	24*	23	MSC, MEDLOG, MSC Air Cargo, TiL (HQ)	* 2022 data was restated due to improvement in data quality.
		Senior management average hours of training per employee	NA	NA	55		
		Middle management average hours of training per employee	NA	NA	29		

\* Ernst & Young Ltd provided limited assurance on the information marked for 2023 (see column 'A'). The independent assurance report is available on [page 140](#).

	A*	2021	2022	2023	SCOPE	NOTES
<b>SOCIAL</b>						
<b>GRI 404-1</b>	● Non-management (white-collar) average hours of training per employee	NA	NA	26	MSC, MEDLOG, MSC Air Cargo, TIL (HQ)	
	Blue-collar average hours of training per employee	NA	NA	14		
	Male employee average hours of training per employee	NA	NA	24		
	Female employee average hours of training per employee	NA	NA	20		
<b>GRI 404-3</b>	Percentage of employees receiving regular performance and career reviews	NA	NA	35.8%	MSC, MEDLOG, MSC Air Cargo, TIL (HQ)	We report the number of direct employees receiving regular performance and career reviews expressed as a percentage of all direct employees (headcount).
		NA	80%	100%	MSC (HQ), MEDLOG (HQ), MSC Air Cargo (HQ), TIL (HQ)	We report the number of direct employees at Headquarters receiving regular performance and career reviews expressed as a percentage of all direct employees (headcount).
<b>GRI 405-1</b>	● Percentage of top management male employees	NA	NA	84%	MSC, MEDLOG, MSC Air Cargo, TIL (HQ)	We report the number of direct employees by gender as a percentage of a given level (headcount). 98% of all direct employees are covered for determining this KPI. Percentages are rounded to the integer.
	Percentage of top management female employees	NA	NA	16%		
	Percentage of senior management male employees	NA	NA	90%		
	Percentage of senior management female employees	NA	NA	10%		
	Percentage of middle management male employees	NA	NA	77%		
	Percentage of middle management female employees	NA	NA	23%		
	Percentage of white collar male employees	NA	NA	64%		
	Percentage of white collar female employees	NA	NA	36%		
	Percentage of blue collar male employees	NA	NA	98%		
	Percentage of blue collar female employees	NA	NA	2%		
	Percentage of top management employees over 50 years old	NA	NA	44%	MSC, MEDLOG, MSC Air Cargo, TIL (HQ)	We report the number of direct employees by age class as a percentage of a given level (headcount). 99% of all direct employees are covered for determining this KPI. Percentages are rounded to the integer.
	Percentage of top management employees 30 to 50 years old	NA	NA	54%		
	Percentage of top management employees under 30 years old	NA	NA	1%		
	Percentage of senior management employees over 50 years old	NA	NA	50%		
	Percentage of senior management employees 30 to 50 years old	NA	NA	49%		
	Percentage of senior management employees under 30 years old	NA	NA	1%		
	Percentage of middle management employees over 50 years old	NA	NA	22%		
	Percentage of middle management employees 30 to 50 years old	NA	NA	72%		
	Percentage of middle management employees under 30 years old	NA	NA	6%		
	Percentage of white collar employees over 50 years old	NA	NA	10%		
	Percentage of white collar employees 30 to 50 years old	NA	NA	54%		
	Percentage of white collar employees under 30 years old	NA	NA	36%		
	Percentage of blue collar employees over 50 years old	NA	NA	18%		
Percentage of blue collar employees 30 to 50 years old	NA	NA	61%			
Percentage of blue collar employees under 30 years old	NA	NA	21%			
Women in Governance bodies# (%)	25%	25%	25%	Larger Cargo Division	We report the number of women. Reported as headcount. # Refers to MSC's Leadership Team.	
Percentage of Governance body members over 50 years old	NA	NA	75%			
Percentage of Governance body members 30 to 50 years old	NA	NA	25%			
Percentage of Governance body members under 30 years old	NA	NA	0%			
Additional (non- GRI) disclosure	Female Executives## (%)	12%	16%	17%	Larger Cargo Division	## Refers to senior executives directly reporting to the Leadership Team.
	Female Managers (%)	29%	30%	29%		
	Female white collar (%)	41%	43%	44%		
	Female blue collar (%)	18%	0%	0%		

\* Ernst & Young Ltd provided limited assurance on the information marked for 2023 (see column 'A'). The independent assurance report is available on [page 140](#).

	A*	2021	2022	2023	SCOPE	NOTES
<b>ENVIRONMENTAL</b>						
<b>GRI 302-1</b>	● Total energy consumption (GJ)	NA	432,162,211*	432,393,698	MSC, MEDLOG, MSC Air Cargo, TiL	We report total energy consumption, including direct, indirect, self-generated and sold energy. (Total energy consumption = Direct energy + Indirect Energy + Self-generated energy - Sold energy). Direct energy consumption includes all directly consumed fuels reported in terms of gross energy content. Indirect energy includes consumption of electricity, district cooling and district heating, in terms of gross energy content. Self-generated energy refers to the energy content of fuels used for the production of heat and electricity for self-consumption purposes.
	Direct energy consumption (GJ)	NA	429,720,942	429,573,439		
	Indirect energy consumption (GJ)	NA	2,472,252*	2,795,902		
	Self-generated energy (GJ)	NA	13,025	25,504		
	Energy sold (GJ)	NA	992	1,147		
	Electricity (GJ)	1,582,096	2,401,319	2,781,632		
	of which green electricity (GJ)	NA	414,977	511,906		
	of which self-generated (GJ)	NA	6,800	19,769		
	Total fuels* (GJ)	NA	NA	427,139,792	MSC, MEDLOG, MSC Air Cargo, TiL	*Energy consumed by mobile sources.
		NA	423,282,707	418,661,599	MSC Cargo vessel fleet	We report the quantity of fuels consumed by our cargo vessel fleet including Heavy Fuel Oil (HFO), Ultra Low Sulphur Fuel Oil (HLSFO), Very Low Sulphur Fuel Oil, Diesel (VLSFO), Liquefied Natural Gas (LNG), expressed as gross energy content.
	Biofuels** (GJ)	1,347,942	4,135,822*	2,366,334	MSC Cargo vessel fleet	We report the quantity of biofuel consumed by our cargo vessel fleet, expressed as gross energy content based on the assumption of biofuel energy content to be 37.2 MJ/kg, as per the EC (EU RED). * In 2022, MSC introduced MSC Biofuel Solution which contributed to the increase in biofuel consumption for 2022 compared with 2021. ** Biofuels include biodiesel and marine biofuel.
<b>GRI 302-3</b>	● Energy intensity (GJ/TEU)	NA	NA	19.17	MSC, MEDLOG, MSC Air Cargo, TiL	We report total energy consumption expressed in GJ per TEU transported.
<b>GRI 303-3</b>	Water withdrawal (m3)	753,513*	991,384	1,762,699	MSC, MEDLOG, MSC Air Cargo, TiL	We report the quantity of water withdrawn from all sources. Referred to as water consumption in 2021 Sustainability Report. * 2021 data were restated due to an error in the relevant measure units by MSC Cameroon and MSC Uganda for 2021.
<b>GRI 303-4</b>	Water discharge (m3)	NA	90,238	772,323	MSC, MEDLOG, MSC Air Cargo, TiL (HQ)	We report the total quantity of water discharged from all types. Excludes cargo vessel fleet.
<b>GRI 305-1</b>	● Direct (Scope 1) GHG emissions (tCO <sub>2</sub> e)	NA	NA	33,639,698	Larger Cargo Division	We report our direct GHG emissions in accordance with the GHG Protocol, including all GHG emissions resulting from the consumption of fuels. Direct emissions deriving from biocomponent in biofuel blends were calculated using the same emission factors as those of the conventional fuel component as no official IMO-approved emission factors for biofuel are currently available.
		33,802,506	33,064,962	33,046,490	MSC, MEDLOG, MSC Air Cargo, TiL	
<b>GRI 305-2</b>	● Indirect (Scope 2) GHG emissions (tCO <sub>2</sub> e)	NA*	192,856**	238,499**	MSC, MEDLOG, MSC Air Cargo, TiL	We report our indirect GHG emissions in accordance with the GHG Protocol, including all GHG emissions. Excludes emissions related to shore power. * 2021 data not reported. In 2021 no country-specific emission factors were applied for Scope 2 emissions as granular information was not available at the time. Scope 2 emissions were calculated based on an average world-wide emission factor resulting in data that are not comparable with 2022 data. ** For 2022 and 2023 data location-based emission factors were applied. 2022 data was restated for the consumption of electricity, resulting also in changes to Scope 2 emissions.
<b>GRI 305-3</b>	Other indirect (Scope 3) GHG emissions (tCO <sub>2</sub> e)	NA	7,504,076*	10,846,520	MSC, MEDLOG, MSC Air Cargo, TiL	We report GHG emissions related to: GHG Protocol's Category 1 • Outsourced inland haulage (only for 2023) • Outsourced air haulage (only for 2023) GHG Protocol's Category 3 • Production and distribution of fuels consumed by MSC as well as related to the production and distribution of energy sources used in the local power grid to generate electricity purchased by MSC (for 2022 and 2023) * 2022 data was restated for the consumption of electricity, resulting also in changes to Scope 3 emissions.
	of which GHG Protocol Category 1	NA	NA	3,372,910		
	of which GHG Protocol Category 3	NA	NA	7,473,610		
<b>GRI 305-4</b>	● GHG emissions intensity (tCO <sub>2</sub> e/TEU)	NA	NA	1.48	MSC, MEDLOG, MSC Air Cargo, TiL	We report the sum of Scopes 1 and 2 GHG emissions expressed in tCO <sub>2</sub> per TEU transported.
	GHG emissions intensity (EEOI – g CO <sub>2</sub> /tonnes of cargo*miles)	14.34	14.73	13.46	MSC Cargo vessel fleet	We report the value of IMO's Energy Efficiency Operational Indicator (EEOI) related to our cargo maritime fleet, expressed as grams of CO <sub>2</sub> (direct emissions) per unit of transport work (tonnes of cargo times miles travelled). GHG emissions intensity (EEOI) is not in scope for assurance.
<b>GRI 305-5</b>	● Reduction of Direct (Scope 1) GHG emissions (tCO <sub>2</sub> e)	NA	NA	-18,472	MSC, MEDLOG, MSC Air Cargo, TiL	The reduction is measured for 2023 versus 2022. All GHG emissions are included. Emissions from the vessel fleet were calculated based on fuel consumption on a voyage basis and IMO-approved relevant fuel emission factors.
	Reduction of Direct (Scope 1) GHG emissions (%)	NA	NA	-0.06%	MSC, MEDLOG, MSC Air Cargo, TiL	The reduction is measured for 2023 versus 2022. Efficiency measures leading to this reduction include slow steaming, more efficient propellers and bows, air-lubrication, as well as data-driven energy-saving equipment optimization.
<b>GRI 305-7</b>	● Nitrogen oxides (NOx) (t)	801,180*	770,698	766,478	MSC, MEDLOG, MSC Air Cargo	We report NOx and SOx emissions produced by fuels consumed in our direct operations. Includes MSC, MSC Air Cargo, MEDLOG. Excludes TiL. * Includes cargo vessel fleet only.
	Sulphur oxides (SOx) (t)	60,919*	55,344	48,510	MSC, MEDLOG, MSC Air Cargo	
<b>GRI 306-3</b>	Waste generated (t)	300,494*	315,178	366,453	MSC, MEDLOG, MSC Air Cargo, TiL	We report total waste generated by our direct operations, including paper, cardboard, plastic, metals, biomass, other unspecified non-hazardous waste as well as hazardous waste. * 2021 data restated due to an entry error by the Houston Terminal.
	of which hazardous	NA	239,651	280,873	MSC, MEDLOG, MSC Air Cargo, TiL	
Additional (non-GRI) disclosure	Spills (n.)	4	5	0*	MSC Cargo vessel fleet	* In 2023 spills refer to spills greater than 7 tonnes, while in previous years we recorded spills triggering clean-up operations.
Additional (non-GRI) disclosure	Containers lost at sea - direct (n.)	0	1	50	MSC Cargo vessel fleet	
	Containers lost at sea - indirect (n.)	546	0	47	MSC Cargo vessel fleet	Container losses occurred while transported by vessels operated by other carriers.

\* Ernst & Young Ltd provided limited assurance on the information marked for 2023 (see column 'A'). The independent assurance report is available on [page 140](#).

# GRI CONTENT INDEX

## Statement of use

MSC Mediterranean Shipping Company has reported the information cited in this GRI content index for the period 1 January - 31 December 2023 with reference to the Global Reporting Initiative (GRI) Standards. The GRI content index provides the location of disclosures within MSC's 2023 Sustainability Report.

GRI 1 used	GRI 1: Foundation 2021	
GRI STANDARD	DISCLOSURE	LOCATION   NOTES
<b>GRI 2: General Disclosures 2021</b>	2-1 Organizational details	MSC Cargo Division   Connecting the world   Our approach to sustainability reporting (as described in the Methodology Note)
	2-2 Entities included in the organization's sustainability reporting	Our approach to sustainability reporting
	2-3 Reporting period, frequency and contact point	Our approach to sustainability reporting   Contacts
	2-4 Restatements of information	Our performance   Restatements of information
	2-5 External assurance	Assurance statement
	2-6 Activities, value chain and other business relationships	MSC Cargo Division   Connecting the world
	2-7 Employees	MSC People: Our precious asset growing from strength to strength   Our performance   Data
	2-8 Workers who are not employees	MSC People: Our precious asset growing from strength to strength   Our performance   Data
	2-9 Governance structure and composition	Delivering our sustainability roadmap
	2-10 Nomination and selection of the highest governance body	Delivering our sustainability roadmap
	2-11 Chair of the highest governance body	Delivering our sustainability roadmap
	2-12 Role of the highest governance body in overseeing the management of impacts	Delivering our sustainability roadmap
	2-14 Role of the highest governance body in sustainability reporting	Delivering our sustainability roadmap
	2-22 Statement on sustainable development strategy	A word from our Group President   CEO statement
	2-23 Policy commitments	Ensuring responsible business   Responsible ship recycling   More information: <a href="#">MSC Code of Business Conduct</a> , <a href="#">MSC Supplier Code of Conduct</a>   <a href="#">MSC Ship Recycling Policy</a>   <a href="#">MSC Modern Slavery Transparency Statements</a>
	2-25 Processes to remediate negative impacts	Ensuring responsible business
	2-26 Mechanisms for seeking advice and raising concerns	Ensuring responsible business   Building a culture of respect for human rights
2-28 Membership associations	Driving progress on our agenda	
2-29 Approach to stakeholder engagement	Driving progress on our agenda	
<b>GRI 3: Material Topics 2021</b>	3-1 Process to determine material topics	Interconnecting material topics
	3-2 List of material topics	Interconnecting material topics
	3-3 Management of material topics	Interconnecting material topics
<b>GRI 205: Anti-corruption 2016</b>	205-1 Operations assessed for risks related to corruption	Ensuring responsible business   More information: <a href="#">MSC Code of Business Conduct</a>
<b>GRI 206: Anti-competitive Behavior 2016</b>	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Ensuring responsible business

GRI STANDARD	DISCLOSURE	LOCATION   NOTES	
<b>GRI 302: Energy 2016</b>	302-1 Energy consumption within the organization	Charting a course for net-zero shipping   Our performance   Data	
	302-3 Energy intensity	Charting a course for net-zero shipping   Our performance   Data	
	302-4 Reduction of energy consumption	Charting a course for net-zero shipping   Our performance   Data	
<b>GRI 303: Water and Effluents 2018</b>	303-3 Water withdrawal	Conserving water resources   Our performance   Data	
	303-4 Water discharge	Conserving water resources   Our performance   Data	
	303-5 Water consumption	Conserving water resources	
<b>GRI 304: Biodiversity 2016</b>	304-2 Significant impacts of activities, products and services on biodiversity	Preserving biodiversity and life below water and on land	
	304-3 Habitats protected or restored	Preserving biodiversity and life below water and on land	
<b>GRI 305: Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	Enabling logistics decarbonization   Our performance   Data	
	305-2 Energy indirect (Scope 2) GHG emissions	Enabling logistics decarbonization   Our performance   Data	
	305-3 Other indirect (Scope 3) GHG emissions	Enabling logistics decarbonization   Our performance   Data	
	305-4 GHG emissions intensity	Enabling logistics decarbonization   Our performance   Data	
	305-5 Reduction of GHG emissions	Enabling logistics decarbonization   Our performance   Data	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Managing our impacts   Our performance   Data	
	<b>GRI 306: Waste 2020</b>	306-1 Waste generation and significant waste-related impacts	Ensuring efficient and circular resource management
	306-2 Management of significant waste-related impacts	Ensuring efficient and circular resource management	
	306-3 Waste generated	Ensuring efficient and circular resource management   Our performance   Data	
	306-4 Waste diverted from disposal	Ensuring efficient and circular resource management	
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1 New suppliers that were screened using environmental criteria	Responsible ship recycling	
<b>GRI 401: Employment 2016</b>	401-1 New employee hires and employee turnover	MSC People: Our precious asset growing from strength to strength   Our performance   Data	
	401-3 Parental leave	Our performance   Data	
<b>GRI 402: Labor/Management Relations 2016</b>	402-1 Minimum notice periods regarding operational changes	Our performance   Data	
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1 Occupational health and safety management system	Safeguarding the health, safety and well being of our employees	
	403-2 Hazard identification, risk assessment, and incident investigation	Safeguarding the health, safety and well being of our employees	
	403-5 Worker training on occupational health and safety	Safeguarding the health, safety and well being of our employees	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Safeguarding the health, safety and well being of our employees	
	403-8 Workers covered by an occupational health and safety management system	Safeguarding the health, safety and well being of our employees	
	403-9 Work-related injuries	Safeguarding the health, safety and well being of our employees   Our performance   Data	
	403-10 Work-related ill health	Safeguarding the health, safety and well being of our employees   Our performance   Data	
	<b>GRI 404: Training and Education 2016</b>	404-1 Average hours of training per year per employee	MSC People: Our precious asset growing from strength to strength   Promoting a safety, health and security culture across our business   Our performance   Data
		404-2 Programs for upgrading employee skills and transition assistance programs	MSC People: Our precious asset growing from strength to strength
		404-3 Percentage of employees receiving regular performance and career development reviews	MSC People: Our precious asset growing from strength to strength   Our performance   Data
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	405-1 Diversity of governance bodies and employees	Valuing an inclusive, diverse and equitable workforce   Our performance   Data	
<b>GRI 414: Supplier Social Assessment 2016</b>	414-1 New suppliers that were screened using social criteria	Focusing on our processes	

# METHODOLOGY NOTE

## OUR APPROACH TO SUSTAINABILITY REPORTING

MSC Mediterranean Shipping Company SA is a privately owned company located at Chemin Rieu 12-14, 1208 Geneva, Switzerland. MSC reports sustainability commitments, progress and performance through our annual Sustainability Report, prepared by the Cargo Division's Sustainability Department in consultation with relevant Departments, entities, offices and our Leadership, and published at [www.msc.com/sustainability](http://www.msc.com/sustainability).

Our sustainability reporting is in line with the materiality assessment described on [page 30](#) and includes disclosures on topics related to our sustainability-related impacts along the value chain. 2023 represented a year of transition as we continued efforts towards aligning data and reporting

processes, and we seek to continually expand and improve the quantitative and qualitative data reported across the Cargo Division.

As an active participant of the **United Nations Global Compact**, MSC's annual Sustainability Report forms part of our Communication on Progress to demonstrate progress made and detailing our activities to embed the **UN Global Compact's Ten Principles** into our strategies and operations, as well as our efforts to support societal priorities. This report also forms part of our commitment to the **Sustainable Ocean Principles** on data and transparency in relation to our ocean-related activities, impacts and dependencies.

### REPORTING PERIOD

The reporting period for the MSC 2023 Sustainability Report is aligned with MSC's financial reporting and refers to the

period 1 January – 31 December 2023<sup>91</sup>, unless otherwise indicated. This report was published on 17 July 2024.

### REPORTING BOUNDARY AND CONSOLIDATION APPROACH

The reporting boundary includes historical and new entities across MSC Cargo Division's maritime, air freight, inland and terminal operations, unless otherwise specified. The larger Cargo Division includes the following entities and their subsidiaries:

- MSC Mediterranean Shipping Company (MSC)
- MSC Air Cargo
- MEDLOG
- Terminal Investment Limited (TiL)
- WEC Lines
- Africa Global Logistics (AGL)
- Log-In Logistica

MSC sustainability reporting. Rimorchiatori Mediterranei, AlisCargo and Atlantic Forwarding are not accounted for in this report due to their immaterial impacts (<1%).

We have adopted the operational control approach for our reporting: we account for 100% of the impacts of our subsidiaries (operations of which MSC owns more than 50% of equity). In accordance with the **Greenhouse Gas (GHG) Protocol**, for the following indicators we account for 100% of the impacts related to our subsidiaries and for the percentage share of the impacts corresponding with the owned equity related to our joint ventures:

- Greenhouse gas emissions across Scopes 1, 2 and 3
- Energy consumption within the organization
- Electricity

Our approach integrates new entities in the reporting year following completion of the acquisition process. The acquisition of Renfe Mercanías was initiated in 2023, with the onboarding process ongoing for alignment with future

Regarding the MSC fleet, all data refer to vessels MSC operated during the reporting period.

[91] On [page 10](#) data on number of vessels are updated as at 31 March 2024.

## DATA

This report includes qualitative and quantitative indicators, with reference to the **Global Reporting Initiative Sustainability Reporting Standards** ('GRI Standards') and in line with their reporting principles of accuracy, balance, clarity, comparability, completeness, sustainability context, timeliness and verifiability. Qualitative data are incorporated within the body of the report and quantitative data are presented in 'Our Performance', with a GRI Content Index available at [msc.com/sustainability](http://msc.com/sustainability). In 2023 we expanded the scope of indicators that obtained limited assurance (referenced with a [●] and < >) as specified in the limited assurance statement provided by Ernst & Young on [page 140](#).

Data for MSC, MEDLOG, MSC Air Cargo and TiL ('historical entities') were collected and consolidated by MSC Headquarters through a centralized data management system and repository, while data for AGL, Log-In Logistica and WEC Lines were collected separately. Entities covered by each data point presented in 'Our Performance' are specified in the notes column, with most indicators covering historical entities that were already fully integrated in our data management system. The process of integrating new and other entities into our system is ongoing. Data were reviewed and approved by data owners across entities.

### DATA COLLECTION

The data collection process was conducted in coordination with MSC Departments, entities and offices in more than 150 countries in line with the **MSC Sustainability Reporting Guidelines** and **MSC Data Reporting Manual**, accompanied by training to ensure data consistency and accuracy. Data for MSC, MEDLOG and TiL was collected for the reporting years 2021 and

2022 and appears in 'Our Performance' to highlight year-on-year trends where available. In cases where data from previous years was not collected or was not comparable due to changes in methodology, no data has been included. Data covering all entities include quantitative indicators on direct (Scope 1) greenhouse gas emissions and total number of employees.

### RESTATEMENTS OF INFORMATION

Restatements of data made from previous reporting periods are indicated in the table 'Our Performance' and reflect changes in reporting boundary and threshold, as well as improvements in data quality and reporting. An expansion in scope of the reporting boundary occurred in conjunction with the consolidation approach related to new acquisitions, joint ventures and divestments. A new threshold of 7 tonnes was introduced for reporting spills to align with the International Tanker Owners Pollution

Federation's (ITOPF) size categorization used by IMO, while in previous years spills triggering clean-up operations (regardless of spill size) were reported. Deviations in previous years' data occurred due to incorrect use of metrics and errors in data entry, and were corrected reflecting ongoing data quality improvements and the implementation of a new data collection tool. Specific details on restatements appear alongside the related data in 'Our Performance'.

### USE OF PROXIES

For the following data points we applied proxies based on a pro-rata approach when data was not available:

- Waste produced (proxies used for 16% of data): a per-

capita (headcount) average was calculated across offices that submitted data, with the average subsequently multiplied by the number of employees of those offices

- missing data to determine the proxy value of the waste produced (listed as 'non-hazardous waste (unspecified)').
- Electricity consumed (proxies used for 5% of data): a per-capita (headcount) average was calculated across offices that submitted data, with the average subsequently multiplied by the number of employees of those offices missing data to determine the proxy value of the electricity consumed (listed as 'purchased electricity (non-green)').
- Water withdrawal at offices: a per-capita (headcount)

## ENVIRONMENTAL DATA

Calculation of Scope 1 emissions excluding those related to our vessels were determined based on the **UK Department of Environment, Food and Rural Affairs (DEFRA) Environmental reporting guidelines** and the **GaBi Databases**. Scope 1 emissions related to our vessels were calculated based on the quantity of fuels bunkered over the reporting years and company-specific emission factors approved by Clean Cargo. Scope 2 emissions were determined based on location-based International Energy Agency's Emission Factors 2023, with proxies used for electricity consumption by MSC offices and container depots as described above.

Scope 3 emissions were determined based on International Energy Agency emission factors, covering two categories of the GHG Protocol, including Category 3 Fuel- and Energy-Related Activities associated with the production and distribution of fuels consumed as well as the production and distribution of energy sources used in electricity generation purchased. In addition, Scope 3 emissions covering the GHG Protocol's Category 1 Purchased Products and Services were determined based on best estimates related to outsourced inland and air haulage services. Data on electricity consumed by TiL Terminals within the narrative is equivalent to the total annual consumption for the concerned facilities, regardless of the equity share owned. However, in the Performance Table all figures related to electricity consumption are determined according to the

## SOCIAL DATA

An employee is defined as an individual with an employment contract with an MSC Cargo Division entity, according to

- average was taken from the following source: [www.south-staffs-water.co.uk](http://www.south-staffs-water.co.uk), with the average subsequently multiplied by the number of direct office employees to determine the proxy value of the water withdrawn.
- Water discharge at offices: a per-capita (headcount) average was assumed as 99% of the value of water withdrawal according to the following source: [www.south-staffs-water.co.uk](http://www.south-staffs-water.co.uk), with the average subsequently multiplied by the number of direct office employees to determine the proxy value of the water discharged.

adopted consolidation methodology based on operational control. Carbon intensity was measured using the Energy Efficiency Operational Indicator (EEOI) in line with the **IMO guidelines on the carbon intensity of international shipping** (MEPC.1/Circ.684<sup>92</sup>) for tank-to-wake emissions. GHG emission reductions are measured against a baseline year of 2022, during which time MSC rolled out our centralized data management system and repository. Sulfur oxide (SOx) emissions were calculated using IMO methodology in line with the **2021 guidelines for exhaust gas cleaning systems** (MEPC 340(77)<sup>93</sup>) on the basis of fuel type and amount of fuel consumed by vessels MSC operated during the reporting period. Nitrogen oxide (NOx) emissions were calculated using IMO methodology in line with the **Fourth Greenhouse Gas Study 2020<sup>94</sup>** on the basis of the amount of fuel consumed and additional factors related to fuel combustion.

Reported spills refer to the number of hydrocarbon spills greater than 7 tonnes.

Energy intensity were calculated using the formula:

$$\text{Energy intensity} = \frac{\text{Total energy consumption (both direct and indirect)}}{\text{Number of TEUs<sup>95</sup> transported}}$$

the country's social and labour legislations and regulations. This includes full-time and part-time employees; permanent

contract or fixed-term contract employees; blue collar and white collar employees; and apprenticeship/training/work experience employees. Workers who are not employees (indirect, contractor or outsourced workers) include: individual contractors supplying labour to MSC Cargo Division entities (self-employed workers) and workers provided to MSC Cargo Division entities, through organizations primarily engaged in employment activities, including but not limited to registered pools of dockers, labour unions, port authorities, temporary employment agencies, labour placement agencies and other employment agencies (regardless of the entity). Number of employees and workers who are not employees are reported in headcount as at the end of the reporting period (31 December 2023). MSC training for employees ashore comprise a mix of mandatory and recommended courses including onboarding for newcomers; internal learning focusing on leadership and people management, technical, functional and soft skills; mentoring programmes; and external learning

platforms. Employees at sea use an online learning system for vessel- and equipment-specific trainings as well as a 360° bridge simulator replicating real-life scenarios to enhance navigation, emergency situations and decision-making skills. Trainings are delivered in person by way of classroom and information sessions; live and on-demand webinars; on-the-job training via secondments/placements; and online learning. Recordable work-related injuries (total recordable cases, or TRC) refer to injuries occurring to employees only. Data include those occurring as a result of commuting incidents only where the transport has been organized by the organization and are calculated using the formula:

$$\text{Recordable work-related injuries} = \frac{\text{Number of recordable injuries}}{\text{Number of hours worked} \times [1,000,000]}$$

## HUMAN RIGHTS FOCUS

In addition to the GRI Standards, MSC also adheres to the **UN Guiding Principles on Business and Human Rights** (UNGPs) Global Reporting Framework. This report addresses human rights-related issues in line with:

- The Ten Principles of the UN Global Compact and related human rights considerations, standards and principles
- Current and expected developments in applicable domestic legislations, including in applicable reporting

frameworks, for companies

- Sector-specific human rights and health and safety regulatory frameworks, defined by maritime and labour conventions adopted at the international level by the United Nations, including the International Maritime Organization (IMO) and the International Labour Organization (ILO)
- Emerging human rights risks impacting our sector and global supply chains

## CERTIFICATIONS AND ASSESSMENTS

MSC is regularly assessed and certified under the standards of ISO by recognized classification societies. Our commitment to ethical practices and international standards – as well as to continuously improve existing

environmental and social processes and practices – is demonstrated by the receipt of various awards and certifications, available at [www.msc.com/sustainability/](http://www.msc.com/sustainability/) certifications.

[92] [www.imo.org/en/OurWork/Environment/Pages/Index-of-MEPC-Resolutions-and-Guidelines-related-to-MARPOL-Annex-VI.aspx#4](http://www.imo.org/en/OurWork/Environment/Pages/Index-of-MEPC-Resolutions-and-Guidelines-related-to-MARPOL-Annex-VI.aspx#4)

[93] [wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Air%20pollution/MEPC.340\(77\).pdf](http://wwwcdn.imo.org/localresources/en/OurWork/Environment/Documents/Air%20pollution/MEPC.340(77).pdf)

[94] [www.imo.org/en/OurWork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx](http://www.imo.org/en/OurWork/Environment/Pages/Fourth-IMO-Greenhouse-Gas-Study-2020.aspx)

[95] TEU: Twenty-foot Equivalent Unit

## ACRONYMS

<b>ACC</b>	Adaptive Cylinder Control	<b>ETOPS</b>	Extended-range Twin-engine Operational Performance Standards	<b>IUCN</b>	International Union for Conservation of Nature	<b>RSB</b>	Roundtable on Sustainable Biomaterials
<b>ACCOBAMS</b>	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea, and Contiguous Atlantic Area	<b>EU</b>	European Union	<b>IWC</b>	International Whaling Commission	<b>RTA</b>	Requested Time of Arrival
<b>AfCFTA</b>	African Continental Free Trade Area	<b>EU ETS</b>	European Union Emissions Trading System	<b>LARP</b>	Look, Act, Report, and Prevent	<b>RTG</b>	Rubber Tyre Gantry crane
<b>AI</b>	Artificial Intelligence	<b>FIT</b>	Future of International Trade Alliance	<b>LCA</b>	Life Cycle Assessment	<b>SAF</b>	Sustainable Aviation Fuels
<b>AQMD</b>	Air Quality Management District	<b>FLOW</b>	Freight Logistics Optimization Works	<b>LCAF</b>	Lower Carbon Aviation Fuels	<b>SAO</b>	Water-oil separation system
<b>ARCS</b>	Anti-Roll Assist System for Containership	<b>FUNDEMAR</b>	Dominican Foundation for Marine Studies	<b>LEAP</b>	Locate, Evaluate, Assess and Prepare	<b>SDGs</b>	Sustainable Development Goals
<b>ASC</b>	Automated Stacking Crane	<b>GCF</b>	Green Climate Fund	<b>LNG</b>	Liquefied Natural Gas	<b>SECA</b>	Sulphur Emission Control Area
<b>B4IG</b>	Business for Inclusive Growth	<b>GCMD</b>	Global Center for Maritime Decarbonisation	<b>Low carbon GIA</b>	Global Industry Alliance to Support Low-Carbon Shipping	<b>SFC</b>	Smart Freight Centre
<b>BAP</b>	Biodiversity Action Plan	<b>GHG</b>	Greenhouse Gas	<b>LEED</b>	Leadership in Energy and Environmental Design	<b>SGMF</b>	Society for Gas as a Marine Fuel
<b>BCTI</b>	Business Commission to Tackle Inequality	<b>GLEC</b>	Global Logistics Emissions Council	<b>LTIF</b>	Lost Time Incident Frequency	<b>SMDG</b>	Ship Message Design Group
<b>BIC</b>	Bureau of International Containers	<b>GOOS</b>	Global Ocean Observing System	<b>MACN</b>	Maritime Anti-Corruption Network	<b>SOx</b>	Sulphur Oxides
<b>BIMCO</b>	Baltic and International Maritime Council	<b>GSR</b>	General Safety Regulations	<b>MAMII</b>	Methane Abatement in Maritime Innovation Initiative	<b>TEU</b>	Twenty-foot Equivalent Unit
<b>BREEAM</b>	Building Research Establishment Environmental Assessment Method	<b>GWP</b>	Global Warming Potential	<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships	<b>TIL</b>	Terminal Investment Limited
<b>BWMC</b>	Ballast Water Management Convention	<b>HFC</b>	Hydrofluorocarbons	<b>MGPS</b>	Marine Growth Prevention Systems	<b>TISAX</b>	Trusted Information Security Assessment Exchange
<b>BWTS</b>	Ballast Water Treatment Systems	<b>HRBA</b>	Human Rights-Based Approach	<b>MJTTF</b>	Maritime Just Transition Task Force	<b>TNFD</b>	Taskforce on Nature-related Financial Disclosures
<b>CCS</b>	Carbon Capture and Storage	<b>HRDD</b>	Human Rights Due Diligence	<b>NMVOG</b>	Non-Methane Volatile Organic Compound	<b>TTW</b>	Tank-To-Wake
<b>CETP</b>	Common Effluent Treatment Plant	<b>HVO</b>	Hydrogenated Vegetable Oil	<b>NOAA</b>	National Oceanic and Atmospheric Administration	<b>UCOME</b>	Used Cooking Oil Methyl Ester
<b>CII</b>	Carbon Intensity Indicator	<b>IAPH</b>	International Association of Ports and Harbors	<b>NOx</b>	Nitrogen Oxides	<b>UN</b>	United Nations
<b>CINS</b>	Cargo Incident Notification System	<b>IATA</b>	International Air Transport Association	<b>NSR</b>	Northern Sea Route	<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>CO</b>	Carbon monoxide	<b>ICAO</b>	International Civil Aviation Organization	<b>OAS</b>	Organization of American States	<b>UNGC</b>	United Nations Global Compact
<b>COA</b>	Container Owners Association	<b>ICE</b>	Internal Combustion Engine	<b>OECD</b>	Organization for Economic Cooperation and Development	<b>UNGPs</b>	United Nations Guiding Principles on Business and Human Rights
<b>C-TPAT</b>	Customs Trade Partnership Against Terrorism	<b>ICHCA</b>	International Cargo Handling Coordination Association	<b>OEM</b>	Original Equipment Manufacturers	<b>UNHCR</b>	United Nations Refugee Agency
<b>DAC</b>	Direct Air Carbon	<b>ICPE</b>	Installations Classified as Environmental Protection	<b>OLP</b>	Ocean Learning Platform	<b>UNICEF</b>	United Nations Children's Fund
<b>DCSA</b>	Digital Container Shipping Association	<b>ICS</b>	International Chamber of Shipping	<b>PM</b>	Particulate Matter	<b>UNODC</b>	United Nations Office on Drugs and Crimes
<b>DNV</b>	Det Norske Veritas	<b>IHO</b>	International Hydrographic Organization	<b>PPAs</b>	Power Purchase Agreements	<b>WaSIS</b>	Waste Shipment Intelligence Service
<b>eBL</b>	electronic Bill of Lading	<b>IIP</b>	Investors in People	<b>PPM</b>	Parts Per Million	<b>WBCSD</b>	World Business Council for Sustainable Development
<b>ECA</b>	Emission Control Area	<b>ILO</b>	International Labour Organization	<b>PSSA</b>	Particularly Sensitive Sea Area	<b>WCO</b>	World Customs Organization
<b>EEOI</b>	Energy Efficiency Operational Indicator	<b>IMO</b>	International Maritime Organization	<b>PTI</b>	Pre-Trip Inspection	<b>WEPs</b>	Women's Empowerment Principles
<b>EEI</b>	Energy Efficiency for existing ship Index	<b>INTERPOL</b>	International Criminal Police Organization	<b>PV</b>	Photovoltaic	<b>WHO</b>	World Health Organization
<b>EGCS</b>	Exhaust Gas Cleaning System	<b>IoT</b>	Internet-of-Things	<b>QSEEMS</b>	Quality Safety, Environment and Energy Management System	<b>WOC</b>	World Ocean Council
<b>ERM</b>	Enterprise Risk Management	<b>IRENA</b>	International Renewable Energy Agency	<b>RLCF</b>	Renewable and Low-Carbon Fuels Value Chain Industrial Alliance	<b>WSC</b>	World Shipping Council
<b>ESG</b>	Environmental, Social and Governance	<b>ISO</b>	International Organization for Standardization	<b>RMA</b>	Remote Medical Assistance	<b>WTW</b>	Well-To-wake

To the Management of

**MSC Mediterranean Shipping Company SA, Geneva**

Geneva, 8 July 2024

## **Independent Assurance Report on selected KPIs in MSC Mediterranean Shipping Company's Sustainability Report 2023**

We have been engaged to perform a limited assurance engagement (the engagement) on selected KPIs disclosed in MSC Mediterranean Shipping Company's (the Company) and its consolidated subsidiaries' (the Group) Sustainability Report 2023 (the report) for the reporting period from 1 January 2023 to 31 December 2023.

The KPIs in scope of the limited assurance (the KPIs) are listed in Appendix 1 of the Independent Assurance Report.

Other than as described in the preceding paragraph, which sets out the scope of our engagement, we did not perform assurance procedures on the remaining information included in the report, and accordingly, we do not express a conclusion on this information.

### **Applicable criteria**

The company defined as applicable criteria (applicable criteria):

- ▶ Global Reporting Initiative Sustainability Reporting Standards (GRI Standards). A summary of the standards is presented on the GRI homepage.

We believe that these criteria are a suitable basis for our limited assurance engagement.

### **Responsibility of the Management**

Management is responsible for the selection of the applicable criteria and for the preparation and presentation, in all material respects, of the disclosed KPIs in accordance with the applicable criteria. This responsibility includes the design, implementation and maintenance of internal controls relevant to the preparation of the KPIs that are free from material misstatement, whether due to fraud or error.

### **Independence and quality control**

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) of the International Ethics Standards Board for Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### **Our responsibility**

Our responsibility is to express a conclusion on the above mentioned KPIs based on the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information. This standard requires that we plan and perform this engagement to obtain limited assurance about whether the KPIs in the report are free from material misstatement, whether due to fraud or error.

### **Summary of work performed**

Based on risk and materiality considerations we have undertaken procedures to obtain sufficient evidence. The procedures selected depend on the practitioner's judgment. This includes the assessment of the risks of material misstatements in the above mentioned KPIs. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in scope than, for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

The Greenhouse Gas (GHG) quantification process is subject to scientific uncertainty, which arises because of incomplete scientific knowledge about the measurement of GHGs. Additionally, GHG procedures are subject to estimation (or measurement) uncertainty resulting from the measurement and calculation processes used to quantify emissions within the bounds of existing scientific knowledge.

Our limited assurance procedures included, amongst others, the following work:

- ▶ Assessment of the suitability of the underlying criteria and their consistent application
- ▶ Interviews with relevant personnel to understand the business and reporting process, including the sustainability strategy, principles and management
- ▶ Interviews with the Company's key personnel to understand the sustainability reporting system during the reporting period, including the process for collecting, collating and reporting the KPIs
- ▶ Checking that the calculation criteria have been correctly applied in accordance with the methodologies outlined in the applicable criteria
- ▶ Analytical review procedures to support the reasonableness of the data
- ▶ Identifying and testing assumptions supporting calculations
- ▶ Testing, on a sample basis, underlying source information to check the accuracy of the data

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.



### Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the KPIs for the reporting period from 1 January 2023 to 31 December 2023 have not been prepared, in all material respects, in accordance with the applicable criteria.

Ernst & Young Ltd

Laura Meadwell  
Executive in charge

Claude-Aline Dubi  
Manager

### Enclosure

- Appendix 1: Selected KPIs in MSC Mediterranean Shipping Company's Sustainability Report 2023 in scope of limited assurance

### Appendix 1: Selected KPIs in MSC Mediterranean Shipping Company's Sustainability Report 2023 in scope of limited assurance

KPIs in scope of limited assurance for 2023	Section in the sustainability report
GRI 2-1 Organizational details	Our approach to sustainability reporting
GRI 2-2 Entities included in the organization's sustainability reporting	Our approach to sustainability reporting
GRI 2-3 Reporting period, frequency and contact point	Our approach to sustainability reporting
GRI 2-4 Restatements of information	Our approach to sustainability reporting; restatements of information
GRI 2-7 Employees	Our performance (KPI marked with ●)
GRI 2-8 Workers who are not employees	Our performance (KPI marked with ●)
GRI 2-9 Governance structure and composition	Our governance and management framework (section marked with < >)
GRI 2-10 Nomination and selection of the highest governance body	Our governance and management framework (section marked with < >)
GRI 2-11 Chair of the highest governance body	Our governance and management framework (section marked with < >)
GRI 2-14 Role of the highest governance body in sustainability reporting	Our governance and management framework (section marked with < >)
GRI 302-1 Energy consumption within the organization	Our performance (KPI marked with ●)
GRI 302-3 Energy intensity	Our performance (KPI marked with ●)
GRI 305-1 Direct (Scope 1) GHG emissions	Our performance (KPI marked with ●)
GRI 305-2 Energy indirect (Scope 2) GHG emissions (location-based)	Our performance (KPI marked with ●)
GRI 305-4 GHG emissions intensity	Our performance (KPI marked with ●)
GRI 305-5 Reduction of GHG emissions (scope 1 only)	Our performance (KPI marked with ●)
GRI 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	Our performance (KPI marked with ●)
GRI 401-1 New employee hires and employee turnover	Our performance (KPI marked with ●)
GRI 403-1 Occupational health and safety management system	Promoting a safety, health and security culture across our business (section marked with < >)
GRI 403-5 Worker training on occupational health and safety	Promoting a safety, health and security culture across our business (section marked with < >)
GRI 404-1 Average hours of training per year per employee	Our performance (KPI marked with ●)
GRI 405-1 Diversity of governance bodies and employees	Our performance (KPI marked with ●)



## CONTACTS

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