

30TH
ANNIVERSARY



Decades of experience. Shaping a sustainable future.

GEFO Shipping Group Sustainability report 2023



**GEFO Shipping Group:
More than 60 years of success and
still growing.**

GEFO Shipping Group was founded in Hamburg in 1961. What began as an exclusively inland operation barging mineral oil products on the Rhine is now a thriving international network specialising in chemical liquids, liquid gases, mineral oil products and worldwide bunker trading.

Currently, the GEFO Shipping Group fleet comprises around 150 modern coastal and inland vessels. Successfully shipping about 17 million metric tons per year and building on our commitment to rigorous HSSEQ, we continue to register safe and sustainable growth.

To sum it up:
Decades of experience. Shaping a sustainable future.

Investments in a sustainable future.

The year 2023 marks another milestone for the GEFO Shipping Group on the road to a sustainable future.

When it comes to the current rejuvenation of our inland fleet, sustainability has top priority: all newbuildings will be equipped with low-emission engines or even hybrid-electric propulsion systems.

This investment program ends in summer 2024, but a new program is on its way. GEFO is investing in ten of the latest generation of seagoing tankers with lower fuel consumption and fewer emissions.

With such investments, but also for instance with our commitment to the Baltic Sea Action Group (see page 33), GEFO is underlining its dedication to greater sustainability and less environmental impact in shipping. More than 90 Green Awards and the Ecovadis Silver Medal prove the success of our activities.

Safety on board is also a top priority for GEFO. With safety trainings and mental health seminars, cooperations with WMU and Stella Maris, our Ship Visits program, numerous internal audits and much more, we achieve our main goals: zero accidents and zero spills.

In our Sustainability report 2023 you will find more about our enduring commitment to a safe and sustainable future. Enjoy reading!

Best regards,
GEFO Shipping Group
General Management


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5 Key facts

1,600+
employees ashore
and on board

150+
vessels

92
Green Award
certified vessels

13
years average age of
the Inland fleet

7
years average age of
the Deep sea fleet

Our vision and values.

Our vision is to be the first choice shipping partner for the chemical, gas and oil industry in Northwest Europe. At GEFO Shipping Group, we know that our people are the heart of our success. We're a team – committed to providing our customers with the best possible service and sustain success – and to improving it every day. Today ... and for generations to come.

5 points we stand for:

1. Safety

We value the safety and well-being of our coworkers, communities, and the environment. Everything we do includes the goal of sustaining them for the future. We believe in a zero-incident-industry. We watch out for each other and set plans and take actions to continually improve our shipping services through robust integrated (HSSEQ) management systems.

2. Customer focus

Our actions are driven by customer insights to exceed their expectations in terms of quality and service. They inspire us to create solutions that add value. We believe their success is our success.

3. Honesty & integrity

We believe in honesty and integrity in all relationships with our clients. Our actions match our words. We do the right thing at all times, make realistic promises and keep them.

4. Performance

We perform best as a team with an approach for action and a can-do attitude. We contribute our best to the team and accept personal responsibility for our performance and development.

5. Sustainability

Sustainability and social responsibility have been at the heart of GEFO Shipping Group's corporate culture for more than 60 years. This includes the responsibility for our world's eco-systems, especially the soundness of the marine environment. We strive to go beyond today's industrial standards. We reduce our environmental footprint by saving energy and resources, and we invest in new technologies – ensuring success today and for future generations.



Successful in six major market segments.

GEFO Gas

Headquartered at the heart of the ARA region in Antwerp, our gas specialists are ideally placed to ship liquid gases throughout the Northwest European inland waterway network.

Safely, efficiently and reliably – for all our clients.

The GEFO liquid gas fleet is a shining example of our commitment to the highest safety standards and the very best technology. Literally. It is the youngest fleet in the gas shipping industry. In 2023, we shipped more than 1,100,000 metric tons in 24 triple-hull gas tankers.

Our gas experts in Antwerp have the experience and motivation of more than 20 successful years. As our client, you benefit from consistent, efficient and dynamic performance. Should you face a challenge, Antwerp has the know-how and agility to react.

1,138,970

Metric tons shipped in 2023

UNITAS

From our offices at the heart of the ARA region in Antwerp, UNITAS has been barging bulk chemicals to and from all the majors and chemical producers for more than 40 years.

UNITAS strengthen its position in the chemicals sector and became Europe's "Number One" benzene carrier. With a total capacity of up to 130,000 cbm, our fleet of 39 double-hull tank barges has the versatility and specifications required to satisfy both the needs of our clients and the highest safety and quality standards.

5,848,329

Metric tons shipped in 2023

New fleet, experienced hands

Inland Chemicals barging: reliably yours

Our Deep sea fleet: tankers you can trust

A promising start for our most modern fleet

100% pollution-free shipping

Our safety efforts are paying off: In 2023, our Deep sea fleet once again reported zero incidents involving spilled cargo or pollution.

GEFO Chemicals

GEFO is one of Europe's leading providers of chemical shipping. To ensure our clients the best possible service, we operate two distinct corporate divisions in this segment: GEFO Deep sea and GEFO Stainless Steel.

As our client, you rely on robust supply chains to make the most of your business potential. This is precisely what GEFO is best in providing necessary resources and expertise to elevate your business potential.

As one of Europe's leading chemical tanker operators, we ensure reliability through continuous investments in our employees, in our fleet and in new technologies. We do everything we can to understand and serve you as our customer in the best possible, safe and sustainable way.

Our modern and highly specialized fleet consists of 23 stainless steel and coated tankers for commodity and specialty chemicals. We operate from the Baltic through the North Sea and the English Channel and the Bay of Biscay to the western Mediterranean.

3,700,164

Metric tons shipped in 2023

GEFO Stainless Steel

2023 was the first full year for GEFO's new stainless steel division. The segment has already made a major contribution to our success.

The fleet currently consists of 19 specialized double-hull stainless steel tankers. These include a number of low-water optimized newbuilds, which were put into service in the course of 2023. New tanker concepts such as the low-water carrier Canaletto with its low-emission hybrid drive prove that GEFO gives top priority to innovations for greater sustainability. When it comes to the highest safety and quality standards, maximum reliability and customer focus, you can rely on our experienced team in Duisburg and Antwerp. In 2024, we will put another tanker in the stainless steel fleet into operation.

1,456,028

Metric tons shipped in 2023

Successful in six major market segments.

Specialists for black gold

GEFO Mineral Oil + Light Chemicals

GEFO was built on excellence in oil barging. With more than 60 years of experience and 44 double-hull tankers, we remain a top 3 inland barging operator for light liquid chemicals and mineral oil products.

The black gold in our barges may not shine but our track record does. For our clients that's a resource as valuable as any precious metal. With more than 60 years of experience shipping mineral oil products and liquid chemicals, GEFO ensures reliable, high-quality, cost-efficient supply.

Versatility is another key strength of our high-spec barging assets. For example, a variety of vessel lengths from 85 to 135 meters gives us access to the full Northwest European inland waterway network – from the Belgian and Dutch seaports up to the Rhine tributaries and key German canals.

4,949,151

Metric tons shipped in 2023

GEFO Bunker Trading

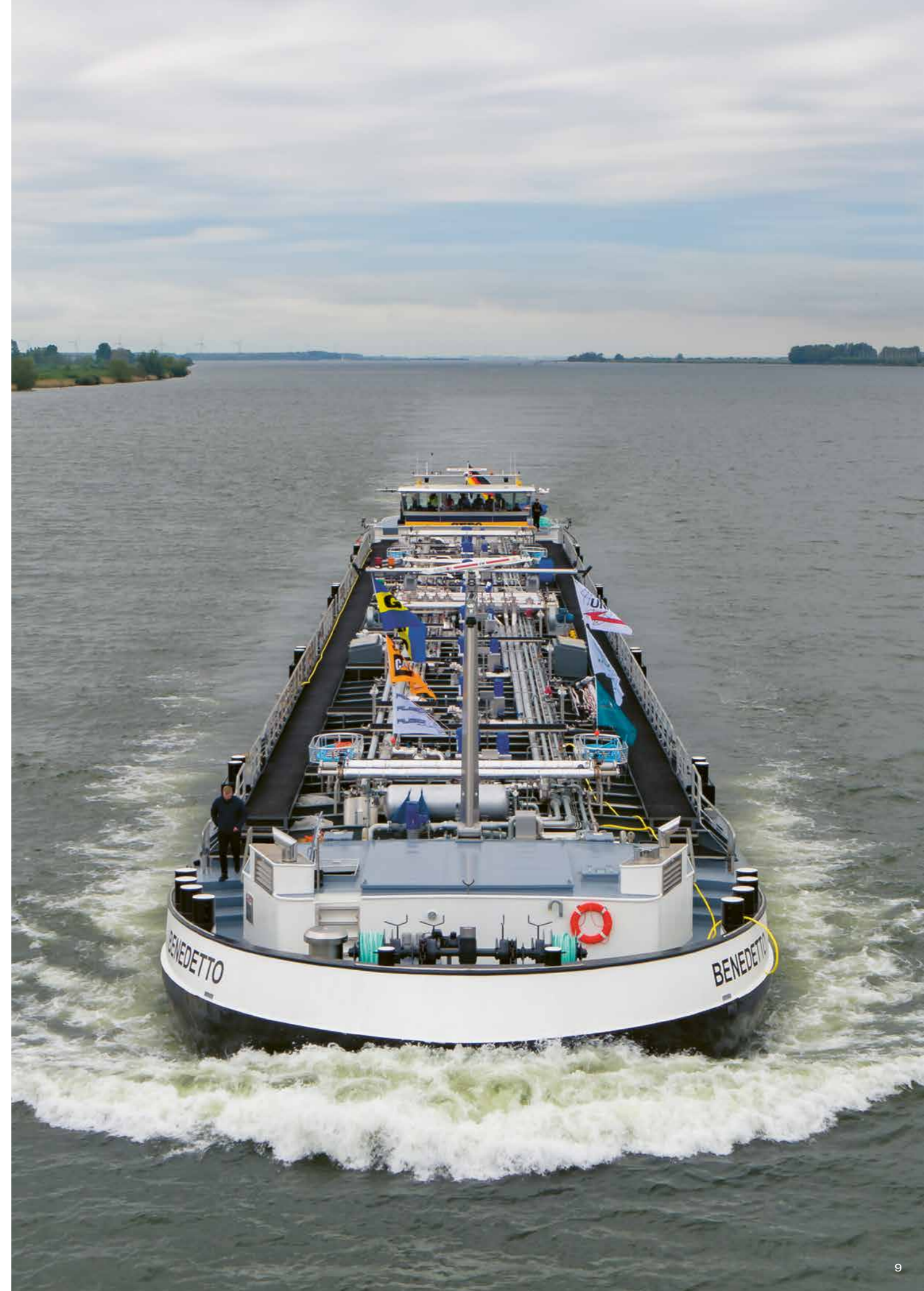
Since 1971, GEFO Bunker Trading is a global player. Substantiated by our own shipping fleets, which in Europe serve all the chemical and oil majors, our reputation for first-class bunkering solutions has long since spread worldwide.

GEFO is one of the world's oldest bunker trading operations, with an excellent reputation for quality products and service among clients and suppliers all over the world. To maintain that reputation, we go the extra mile.

Whatever your bunker challenge is, our team has what it takes to find the ideal solution: expertise, dedication and connections. With the backing of our shipping operations in Europe, our credit credentials are rock solid and we have the payment principles to match.

275,000

Tons traded in 2023





Safety first: HSSEQ Management.

At GEFO, safety is our top priority. We do everything we can to protect the health of our employees and to identify and eliminate risks to people, the environment and our ships. The main objective of our safety and environmental protection policy can be summarised quite simply: zero accidents and zero spills on board our vessels. Safety and sustainability go hand in hand at GEFO.

Our safety performance is superior. We will improve it even further.

The wellbeing of our coworkers, communities and environment is our highest priority. That is why we are proud to report that the safety performance of GEFO Shipping Group is at such a superior level. Our high safety standard is clearly demonstrated by the vessel inspection reports of the various vetting schemes. It is also evident in our awards from the Green Award Foundation and in the EcoVadis CSR scheme.

In 2023, we successfully continued and even expanded our proven safety programmes to further improve safety performance on board our vessels.

Trainings and exercise for more safety

To promote safety on board our ships, we support our crews with a wide range of trainings and development programs.

Our popular training events **Crew Days (Inland fleet)** were held virtually and personally in 2023 and reached numerous crew members. The **Crew Seminars (Deep sea fleet)** also attracted a lot of interest. See following pages.

We offer our crews a comprehensive range of **on-board training activities**, which are delivered as CBT (Computer Based Training-modules). Since 2023, a rapid e-learning module for mooring operations has been made mandatory for ratings. BWTS training has been added for many vessels. Furthermore, a training app providing an offline training mode has been introduced. Following industrial recommendations, we have started a liquid cargo simulator training for all officers.

An important topic is **cyber security** risks and how to handle them. The number of reported cases grew significantly in 2023. Thanks to our well-trained crews, no incidents were reported.

From theory to practice: In 2023, two elaborate **emergency drills** were held in co-operation with different emergency and support teams. Both exercises were successful and led to important insights.

The health poster campaign

In reaction to a crew member's hand injury, who fortunately recovered, GEFO launched a health poster campaign to raise awareness of the dangers of hand and finger injuries and fatigue. Preventative measures were discussed during inspections and at the officers' seminar. No GEFO employee should come to harm while working on board our vessels.

As a co-founder, strong supporter and long-time steering committee member of the **Platform Zero Incidents (PZI)**, we will never give up on our goal of zero accidents. We contribute our expertise in various working groups within PZI.



Senior Management Visits

To strengthen the bond between our crews on board with the management staff, we have launched the ship visits campaigns.

The **Senior Management Visits** are carried out by the General Management and Management Team. **SMV Light Visits** are carried out by individual members of the commercial and operational departments. Further ship visits are made by **Technical department and HSSEQ**.

Topics discussed include near misses, safety awareness, wellbeing, training on board and more. Just as important, is the appreciation of the hard work on board: ONE team, on board and ashore, working together towards safety and operational excellence. Our motto: **#weareGEFO!**

Ship visits in 2023	115 SMV	86 SMV light
Inland fleet	Deep sea	
342 HSSEQ	102 Tech dpt	106 HSSEQ

Crew Days, trainings and seminars – together for more safety on board.

Crew Days for the Inland fleet staff

To promote safety on board our ships, we support our employees of the **Inland fleet** with regular training events, the popular Crew Days. Captains and ratings of the **Deep sea fleet** vessels took part in training courses and seminars.

After several virtual events, we have opted for a new, hybrid form of **Crew Days** in 2023 because we purposely want to address all crew members on board in achieving our goal of safety and operational excellence.

Four Crew Days were organised out of the Van der Valk Hotels in Nijmegen and Dordrecht, each with a joint dinner. The sessions were streamed by ProMedia Studios, allowing people all across Europe to follow and participate. Interactivity was warranted by a chat box, where the participants could lay down all questions related to the topics on hand, which were then asked to the panel of GEFO Specialists and discussed in plenum. All employees who were unable to attend due to time constraints can watch recordings of the events at a later date. In total, we were able to welcome 279 boat masters, helmsmen, ABs and students, including more than 100 participants on site.

» 4 Crew Days – lots of people, ideas, opinions, interesting content and above all: lots of fun! It's fascinating to see how our crews contribute their expertise and professionalism. We thank everyone who took part and are already looking forward to the next dates.

Jörg Küpper, MD Pegasus and Pontos Shipping S.à r.l. (on LinkedIn)

Topics of the 2023 Crew Days:

- Cargotanks cleaning
- Legislation: ADN 2023, ES-TRIN, CDNI
- Protect yourself: the correct use of PPE
- IT on board, digitalization, cyber security
- A changing industry: climate change and sustainability as a commercial advantage
- Boatmasters of the future
- Crew on board: current status and future challenges
- PZI: Who we are and what we do



Training course and seminars for Deep sea crews

In April 2023 in **Manila**, GEFO and the WMU jointly delivered a training course for the ratings. This customized course was designed to provide seafarers with insights into personal and organizational factors influencing mental health, physical health, PPE and wellbeing. The course was very well received by our crew members. For 2024 GEFO plans again a seminar in Manila for our ratings.

In May in **Hamburg** and in November in **Malmö**, we invited the officers of our seagoing fleet to two-day executive professional development courses (EPDC) on seafarer health, PPE and wellbeing. The seminars provided valuable insights to 62 participants.

More about our collaboration with the WMU from page 35.

#weareGEFO

We see team spirit as an important foundation for the success of GEFO. Therefore, we are very pleased that the response to these shared activities is exceptionally good. **#weareGEFO!**



The Near Miss Report – step by step towards the “zero accidents” goal.

The health of all GEFO employees as well as their safety is the utmost goal; strive for zero is not just a slogan. In 2023, the KPI for LTIF (Lost Time Injury Frequency) was 0.44 compared to 0.84 in 2022. The target remains unchanged: 0 accidents, thus a total of 0 per 1,000,000 working hours shall be achieved.

In 2023, the GEFO Deep sea fleet once again reported 0 incidents involving spilled cargo or pollution.

Our Deep sea vessels reported 932 hazardous occurrences and good spots. Compared to 2022 it is an overall improvement of 44 reports (888). This is again a very good result. The conclusion is that reporting is widely accepted on our vessels.

A culture of safety

By incorporating effective near miss reporting procedures into the SMS (Safety Management System), GEFO can proactively identify and address potential safety issues, preventing accidents and improving overall safety performance. This proactive approach aligns with our overarching goal with regard to accident and pollution prevention.

GEFO requires a master’s review of the SMS twice a year. SMS reviews and updates are critical elements in maintaining a safe operation of our fleet. It contributes to a culture of safety and helps to protect crew and the environment.

KPI	2021	2022	2023
Near Miss Reports	673	888	932

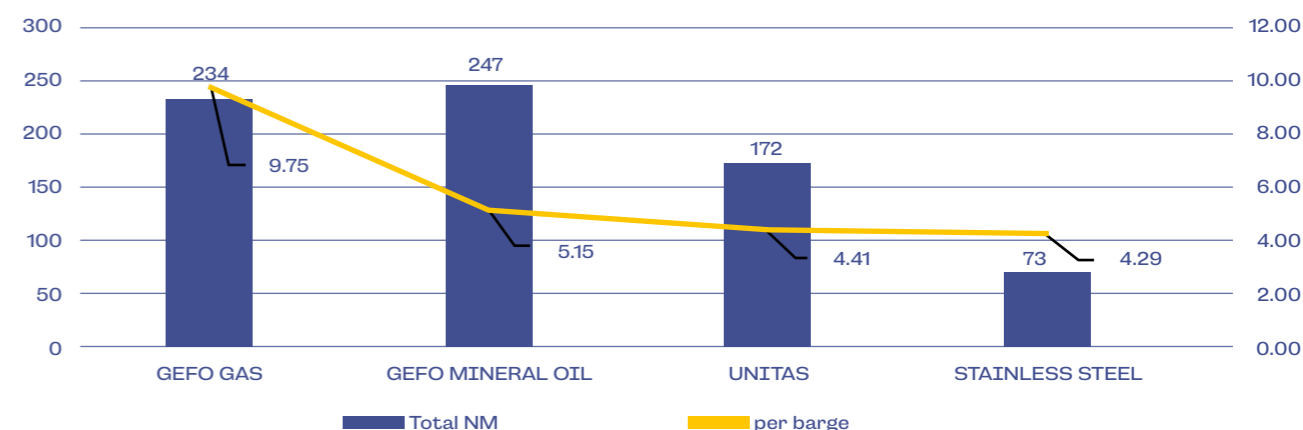


In total, 726 NM (near misses) have been reported by our crews on board the **Inland fleets**, on about 126 barges throughout the year. The numbers of NM reported are declining. We do see a continued strong achievement by the GAS crew, where on average each vessel has reported almost 10 NM across 2023. This is a parameter in the Barge Risk Assessment as well and based on the outcome also addressed to the owners and boatmasters. The numbers from the Stainless Steel division need to be digested with a nuance, since the entire fleet, which is taken into the calculation, has not been online since the beginning of 2023.

Both within the Inland fleets and the Deep sea fleet, assessments of the navigational performance are conducted. Data collected are circulated to all crew members by means of circular letters. More importantly, these assessments are initiated based on incidents and near misses in the past. This is a strong and effective tool to measure the navigational standard as well as training our crew members on the job.

KPI	2021	2022	2023
Near Miss Reports	1,034	979	726

Inland fleets: Near Miss Reports in total and per barge



Inspections and Audits – excellent results in all parts of the fleet.

Safety inspections

GEFO Shipping Group always strives to improve the safety of its vessels. Therefore, GEFO Shipping Group regularly participates in various safety initiatives and internal and external inspection programs. With our inspection reports, we also contribute to the continuous improvement of safety and quality in the maritime industry all over the world.

- On average 2.73 observations were noted during **SIRE inspections** (2.69 in 2022)
- On average 3.45 observations were noted during **CDI inspections** (4.46 in 2022).

These excellent results were achieved by solid teams in our very well managed fleet. Several inspectors made a point that GEFO is one of the best chemical tanker operators in Europe!

External observations on average (OCIMF and CDI combined)

	2020	2021	2022	2023
Average observations	3.11	4.04	3.33	2.85

Internal audits

The International Safety Management Code (ISM Code) requires shipping companies to have procedures for internal audits to ensure compliance with the Safety Management System. GEFO is conducting combined **ISM/ISPS and MLC 2006 audits**. Access control (safety or ISPS related) and certificate/document observations were again the main areas during internal audits. It was noted that the use of visitor badges was improved after distribution of a unique badge type for the whole fleet.

The **Internal Navigational audits** were carried out by our training master in accordance with frameworks of Tanker Management and Self-Assessment (TMSA). The aim is to confirm all aspects related to navigational safety. The specifics are laid down in GEFO's navigational audit checklist and the applicable industrial best practices. The navigational audits included cargo operational and mooring reviews.

Inland fleet inspections

172
BIRE

162
GEFO Check

4.05
Avg. observations per inspection



External inspections

In 2023, five **external navigation audits** were carried out by SureNav. In almost all categories, GEFO performs better than the industry benchmark. Our Fleet Average Risk Rating is also significantly better than the benchmark (6.5 vs of 8.5).

In September 2023, a two-day **TMSA and management review** was conducted with one of our major customers in the oil industry, which had a very positive result.

The **ISM renewal DoC audit** for Cyprus was carried out by DNV GL and passed without non-conformity. One observation (related to job descriptions) was noted, which has been corrected in the meantime.

Great results in the PSC inspections

The development of **Port State Control (PSC) inspections** was again encouraging. We can still see a strong positive trend internally, but also in comparison to our competitors.

In 2023, an average of 2.01 deficiencies were recorded for chemical tankers calling at the Paris MOU area. GEFO is considered by Paris MOU as a **high-performance company** and all our vessels are considered **low risk**. 0.4 deficiencies were recorded on average.

This reduced the number of PSC inspections vastly. We are pleased to see that, contrary to the general trend, the GEFO fleet is steadily improving, or keeping the good level in its PSC performance over the time.

CAP Rating 1

GEFO attaches great importance to ensuring that our ships are kept in the best possible condition throughout their service lives and that inspections and maintenance are carried out regularly and properly. For this reason, our tankers always achieve the **highest CAP Rating 1** (Condition Assessment Programme).

Contentment guarantees continuity.

Our more than 1,600 employees on board and ashore work as ONE team (#weareGEFO) and thus ensure that our vessels are operated safely and efficiently. That is why it is important to us that officers and crews find optimal working conditions and feel comfortable. Contentment in the team guarantees continuity in ship operations and thus a safe, qualitative and fast delivery.



» There's nothing better than waking up in a different place every day. I work where others go on holiday.
Crew member of the Allegretto

Retention rates

While the officer retention rate increased in 2023, we noted a drop in the ratings retention rate (Deep sea fleet). This can be seen as a post-Covid19 effect. We are convinced that the crew seminars, the increased wages and the ongoing modernisation with many newbuildings will have a positive impact on the loyalty of our crews. The same applies to our inland fleet.

GEFO continues to enjoy a good reputation as an excellent and reliable employer. In future, we will also be focussing on gender diversity within the company. Two of our five chartering departments heads are already female. We would also like to increase the proportion of female employees in other areas.

Retention rate Deep sea

KPI	2020	2021	2022	2023
Retention rate officers	98.8 %	96.6 %	95.4 %	96.5 %
Retention rate crew	98.4 %	98.1 %	99.5 %	93.0 %

Retention rate Inland fleet

KPI	2020	2021	2022	2023
Retention rate captains	96.1 %	96.0 %	93.3 %	94.7 %*/77.5 %**
Retention rate crew	92.1 %	91.4 %	89.6 %	88.7 %*/76.5 %**

*Chemicals/Mineral Oil/Stainless Steel **Gas Fleet

Retention rate office staff

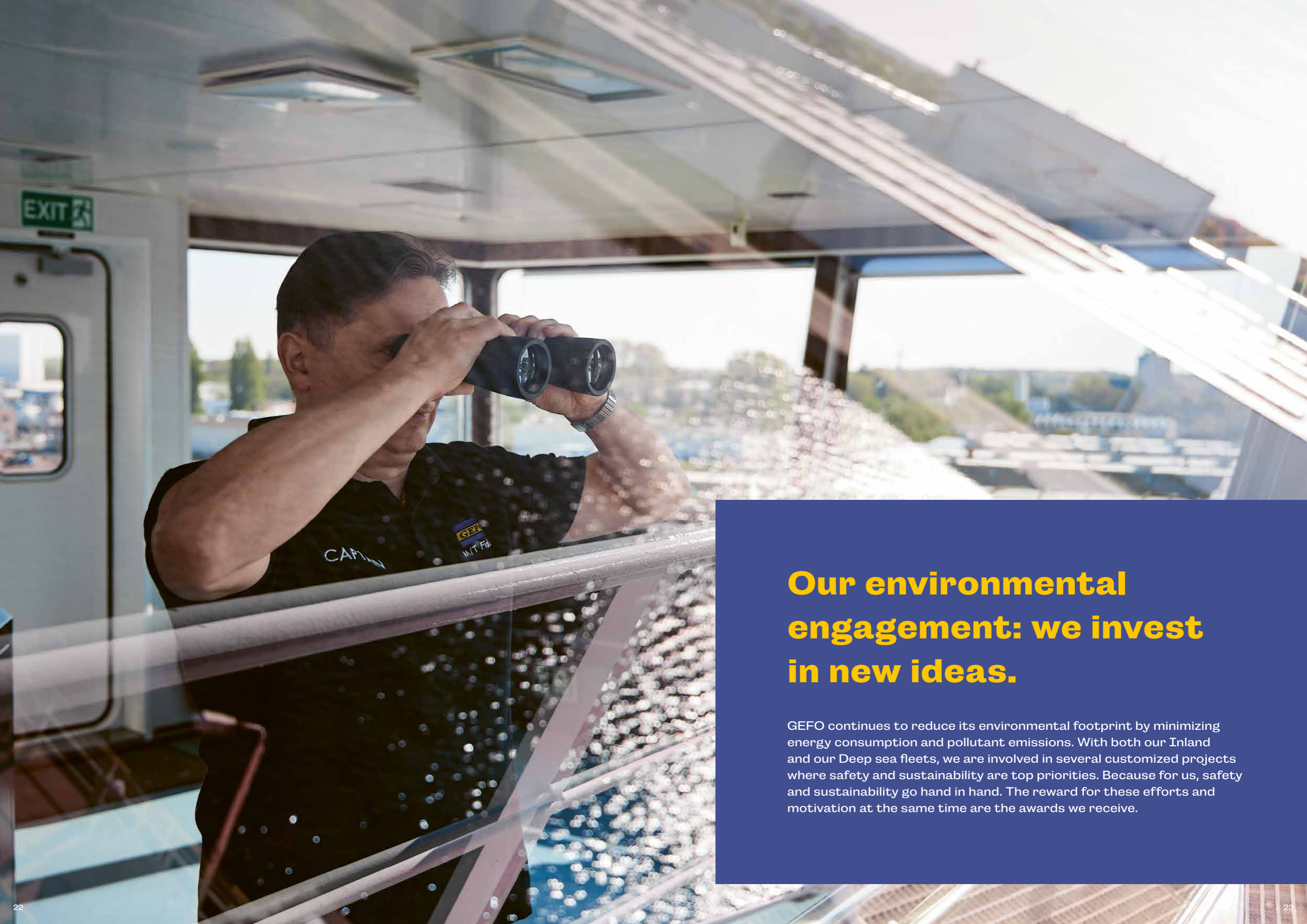
KPI	2020	2021	2022	2023
Retention rate office staff	97.0 %	99.0 %	99.0 %	99.0 %

Promotion of young talents

We offer young staff excellent opportunities in the shipping industry. GEFO provides on-board training and enables students to spend practical semesters on our vessels. We welcome the next generation of seafarers!

Deep sea

Inland fleet



Our environmental engagement: we invest in new ideas.

GEFO continues to reduce its environmental footprint by minimizing energy consumption and pollutant emissions. With both our Inland and our Deep sea fleets, we are involved in several customized projects where safety and sustainability are top priorities. Because for us, safety and sustainability go hand in hand. The reward for these efforts and motivation at the same time are the awards we receive.



Our sustainability awards: recognition and inspiration.

GEFO Shipping Group has sustainability and future viability at the heart of its corporate culture. The success of this long-standing commitment is repeatedly confirmed by certifications and awards. These honors are both gratification and inspiration for us. We will not slow down in our efforts. Therefore, we are convinced that we will continue to play a leading role not only in safe but also in sustainable, environmentally friendly and high quality shipping in the years to come.



Top-rating from EcoVadis

As in previous years, GEFO Shipping Group opted for an assessment by EcoVadis. The internationally recognised rating agency evaluates key elements such as environment, labour and human rights, ethics and sustainable procurement. We are very proud to have been awarded an **EcoVadis Silver certificate** again in 2023. GEFO received an excellent score of 64/100. This is equivalent to a strong positioning among the top 12 % in our business area.

Certified with the Green Award

To further improve in terms of its environmental standards, GEFO has successfully embedded the Green Award programme into its core activities. Our HSSEQ/Technical Department has been certified, as well as a steadily growing number of our vessels. An office renewal audit took place in October 2023. GEFO is in the middle of the process of becoming a **Green Award Incentive Provider**, the process was initiated in December 2023.

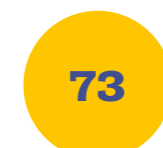
As the Green Award foundation states, certificate holders are the frontrunners of the maritime industry that strive for business and safety excellence. The Green Award can only be obtained by vessels that go above and beyond the industry standards in terms of safety, quality, and environmental performance.

This year, the Green Award celebrates its 30th anniversary. It is one of the most important quality marks in the shipping industry. We are pleased that more GEFO ships have been honoured in this anniversary year than ever before.

92 GEFO vessels were certified in 2023



Deep sea



Inland fleet

GEFO Shipping Group's contribution to low-emission shipping.

The maritime industry is vital to the global economy. Thus, the demands on shipping to reduce global greenhouse gas emissions in line with the goals of the Paris Agreement are intensifying.

GEFO Shipping Group is well on the way to achieving this. By introducing new technologies and innovative propulsion systems, we are gradually reducing the fleet's pollutant emissions, although our vessels are heavily utilised.

Germany has set itself the goal of achieving climate neutrality by 2045. GEFO strongly supports this goal. We are involved in our own and customer-driven initiatives to realise alternative propulsion systems and contribute to climate neutrality by 2045.

CO₂-Emissions of GEFO Shipping Group's Deep sea fleet

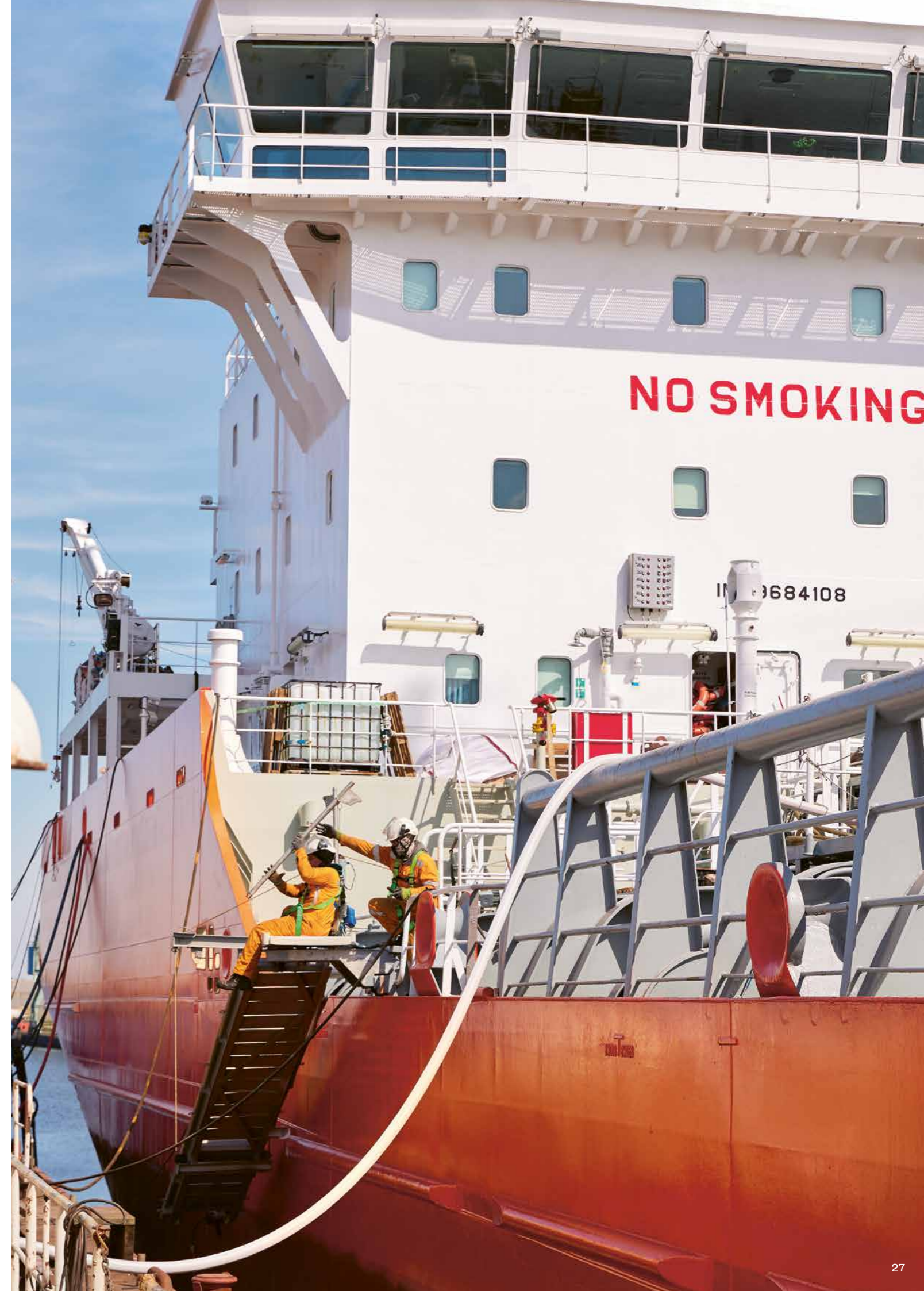
KPI	2020	2021	2022	2023
Emission CO ₂ (MT per nautical mile)	0.126	0.132	0.143	0.141
Emission CO ₂ (total MT)	69,153	96,536	108,139	102,585
Emission (tons/fleet size (DWT))	1.000	0.920	1.037	1.034

CO₂-Emissions of GEFO Shipping Group's Inland fleet

KPI	2020	2021	2022	2023
Emission CO ₂ (gCO ₂ e/tokm)	56	53	54	43.7
Emission CO ₂ (total MT)	51,277	52,591	48,222	56,293
Emission (tons/fleet size (DWT))	0.495	0.476	0.403	0.401

SEEMP mandatory for GEFO vessels

A Ship Energy Efficiency Management Plan (SEEMP) is mandatory for all GEFO Deep sea vessels. This allows us to monitor and improve performance with regard to various factors that can contribute to CO₂ emissions. These include: an improved voyage planning as far as practicable, speed management in co-operation with our charter department, hull maintenance, use of SECA compliant fuel types and other measures.



The future of shipping, developed by GEFO.

The GEFO Shipping Group is aware of its responsibility to push ahead with the reduction of CO₂ emissions as far as possible. For future newbuilding projects, we are always looking for innovative measures to reduce the carbon footprint of our fleets.

Milestone on the road to carbon-neutral shipping

A good example is GEFO's latest inland tanker, which was christened Canaletto in September 2023. The Canaletto is built for extreme low-water situations and is powered by a diesel-electric hybrid propulsion system whose generators are well below the EU Stage V emissions standard. The specially developed marine batteries enable all-electric sailing at times and complete power supply when berth without producing emissions.

The Canaletto marks a turning point for GEFO on the road to decarbonisation and climate-neutral inland shipping, helping us to contribute to Germany's goal of climate neutrality by 2045.



» The 'Canaletto' is another important component of the resilience measures that we implemented at the Ludwigshafen site following the low water levels in 2018. Innovations like this make a significant contribution to the security of supply for our customers and production sites. We are proud of the successful collaboration on this project, but also of our long-standing partnership with the GEFO Shipping Group, and wish the ship a safe journey at all times and always a hand's breadth of water under its keel.

Ralf Busche, Senior Vice President European Site Logistics Operations at BASF.

The propeller coating project

GEFO is currently testing a new low-friction coating for the propellers on the two deep sea tankers Corelli and Cavalli.

The paint becomes very hard and creates a particularly smooth surface, which significantly reduces the friction of the propeller. This minimises the friction losses of the propeller in the water, which lowers the required engine power to propel the ship. This saves fuel on every journey. The evaluation reveals that both vessels show a significant reduction in consumption after propeller coating and hull treatment (cleaning and painting). On average, the two vessels consume around 0.5 MT bunker less per 24-hour journey regardless of speed, which corresponds to a fuel saving of almost 10 %.

The Flettner Rotor project

Unusual ways of saving fossil fuels are also conceivable. One project that has already largely been implemented into a final plan is the installation of Flettner rotors on some of our newbuildings. It will deliver additional thrust to the vessel thus reducing burning of traditional fossil fuel by as much as 15 %.

New generation of inland fleet barges

In 2022/23, we added four new gas tankers to our inland fleet: Schloss Tramontana, Slot York, Schloss Imola and Schloss Quedlinburg. Due to their newly developed hull design, they can perform in low-water situations and transport more volume.

These barges are powered by state-of-the-art, low-emission Stage V engines. Regarding fuel consumption - and the carbon footprint - we decreased the output of the main engine by installing two engines instead of one, with combined less horsepower, and installed a high performance propeller nozzle and rudders. The silencers of the main engine and generator sets are optimised to ensure that the crew can relax comfortably during their rest periods.



One of the youngest fleets among its competitors.

GEFO Shipping Group has a young and modern fleet. With a huge investment programme of over 400 Mio. Euro, we have rejuvenated the fleet in recent years. This programme will be completed in summer 2024. However, our newbuilding project team is active and the future of our fleet promising.

A further three-digit million amount will be invested in new special tankers with the latest low-emission technology.



A sustainable investment in the GEFO fleet

The new GEFO investment programme contains of ten sea-going tankers with stainless steel tanks for chemical cargoes. These vessels have been further optimised compared to the last series so that they consume less fuel and produce correspondingly lower emissions. The ships are also designed in such a way that various environmentally friendly optimisations can be carried out at a later stage and innovative fuels such as methanol can be used.

Delivery will take place from 2026. These newbuilds will serve to expand GEFO's fleet capacity while modernising its vessel portfolio. By investing in these state-of-the-art tankers, GEFO confirms its commitment to operational excellence and sustainability in maritime transport.



New inland fleet barges 2023–2024.

Name	Typ	Capacity m ³	Propulsion system	Entry into service
Tintoretto	C	3,040	Stage V	02/2023
Allegretto	C	3,040	Stage V	03/2023
Benedetto	C	3,040	Stage V	05/2023
Schloss Imola	G	2,824	Stage V	05/2023
Schloss Quedlinburg	G	2,824	Stage V	06/2023
Caravaggio	C	2,150	Stage V	06/2023
Correggio	C	2,150	Stage V	11/2023
Bellotto	C	3,040	Stage V	07/2023
Grechetto	C	3,040	Stage V	09/2023
Tiepolo	C	3,040	Stage V	12/2023
Chirico	C	3,040	Stage V	Q4/2024

Reduction in pollutant emissions

The partial renewal of our fleet is expected to achieve fuel savings of up to 30% and a reduction in pollutant emissions to the same extent, also up to 30%.

Particularly in the inland tanker segment, the use of engines and exhaust systems that comply with the new EU Stage V standard, emissions of hydrocarbons will be reduced by 81%, nitrogen oxides by 97% and particulate matter by 95%.

In accordance with the Paris Agreement, GEFO is endeavouring to make its ships carbon-neutral by 2045. The current modernization of the fleet has successfully initiated the process towards a climate-neutral fleet and will be consistently pursued over the next two decades.





We invest in new ideas.

GEFO is participating in many projects within shipping and sustainability, keeping a finger on the racing pulse of developments around us. Here is a selection of our current projects.

Cooperation with AnQore

With its expertise, GEFO has supported the Dutch chemical company AnQore in the development of its own jetty in the Port of Chemelot (Stein/Netherlands). The customised concept with corresponding infrastructure ensures fast and safe loading in accordance with environmental protection requirements and reduces the risk of incidents. AnQore is a leading supplier of high-quality chemicals, with high standards of safety and sustainability. The GEFO partner was awarded a Platinum Ecovadis rating in 2024.

GEFO's Baltic Sea Commitment

Since 2023, the GEFO Shipping Group makes a commitment to the Baltic Sea Action Group. The BSAG is a non-profit foundation that takes effective measures to protect the Baltic Sea. Its aim is to restore the good ecological balance of the Baltic Sea under changing climate conditions.

For us, supporting BSAG is a firm step in our joint work for a clean and healthy environment. Our company's goal of safety and operational excellence includes exactly that. This commitment focuses on collaboration in the Ship Waste Action Network initiated by BSAG. GEFO is the first shipping company to set public targets in line with BSAG's Ship Waste Action initiative. We work towards 100% wastewater discharge into shore reception facilities in the Baltic waters.

Reducing plastic bottles on board

On board, people mostly drink water from single-use plastic bottles. This form of water supply is costly and environmentally harmful, because PET takes up to 450 years to dissolve. Therefore, we are working on the feasibility of implementing and installing drinking water filling stations on the deep sea vessels to avoid PET bottles and reduce the environmental footprint.

Green shipping initiatives

GEFO is participating in several initiatives and projects with regulatory institutions and major clients in the oil and chemical industry regarding "green shipping". These projects involve the use of green fuels such as green methanol, ammonia or hydrogen for alternative propulsion systems of inland barges or deep sea vessels and the role of a logistics service provider to transport these new alternative energy sources within the whole European inland barging and short-sea region.



Engagement and collaboration.

For us as a tanker owner and operator it is a vital part of our safety culture to develop training scenarios with a real expert organisation like WMU, not only with regard to our demanding customers, but also with regard to the safety of our crew and environment.

GEFO has also been committed to the Stella Maris initiative for many years. This organisation is likewise dedicated to the well-being of seafarers, albeit with a very different approach. It is therefore a matter close to our hearts to support Stella Maris.

Joint efforts for the wellbeing of our seafarers.



A good, motivated crew is probably the most fundamental keystone for sustainable success. Training in our ever-evolving high-tech industry is of the utmost importance. And protecting the health of our personnel on board is also a top priority for GEFO Shipping Group. We address both topics in collaboration with the World Maritime University (WMU) in Malmö/Sweden. The WMU is the global centre of excellence for postgraduate maritime education, research and capacity building, recognised by the IMO and the United Nations General Assembly.



Attending courses on seafarer health and wellbeing

The cooperation with the WMU, which had started back in 2014, has continued also in 2023.

From 24-25 April in Manila, Philippines, the WMU delivered an **Executive Professional Development Course (EPDC)** on Seafarer Health and Wellbeing for GEFO. The customised EPDC was designed to provide seafarers and the ship management team with insights into personal and organisational factors influencing mental health and wellbeing. The seminar was delivered to 39 participants, mostly crewmembers. Topics discussed included stressors at sea, social isolation, conflict prevention and resolution, and optimising wellbeing and mental health at sea.

Two further EPDC seminars were held **from 24 to 25 May in Hamburg** and **from 9 to 12 November in Malmö**. A total of 62 GEFO participants gained valuable insights. The aim of the seminars was to improve awareness and understanding of personal and organisational factors that influence mental health and wellbeing in the maritime industry.

All seminars were led by WMU Professor Michael Ekow Manuel and Assistant Professor Inga Bartuseviciene. Professor Manuel commented on GEFO: "They have made a commitment to work towards the continuous enhancement of the working environment and organisational culture of the company, a vision and corporate direction WMU is happy to support, with training, research and other corporate interventions."

Supporting Stella Maris

GEFO is a long-time corporate partner of Stella Maris, the world's largest ship visiting charity, with over 1,000 chaplains and volunteers in 353 ports in 57 countries. Every year, GEFO provides a significant financial contribution to the Stella Maris Emergency Fund. This fund is used to support seafarers from any nation who need swift financial assistance. Currently, many of these are Ukrainian seafarers.

We have also made an extra effort to support our Ukrainian crewmembers wherever possible.

» The WMU is proud to have a great relationship with GEFO. The company's commitment to employee education and development through WMU is a testament to their dedication to excellence and innovation in the maritime industry.

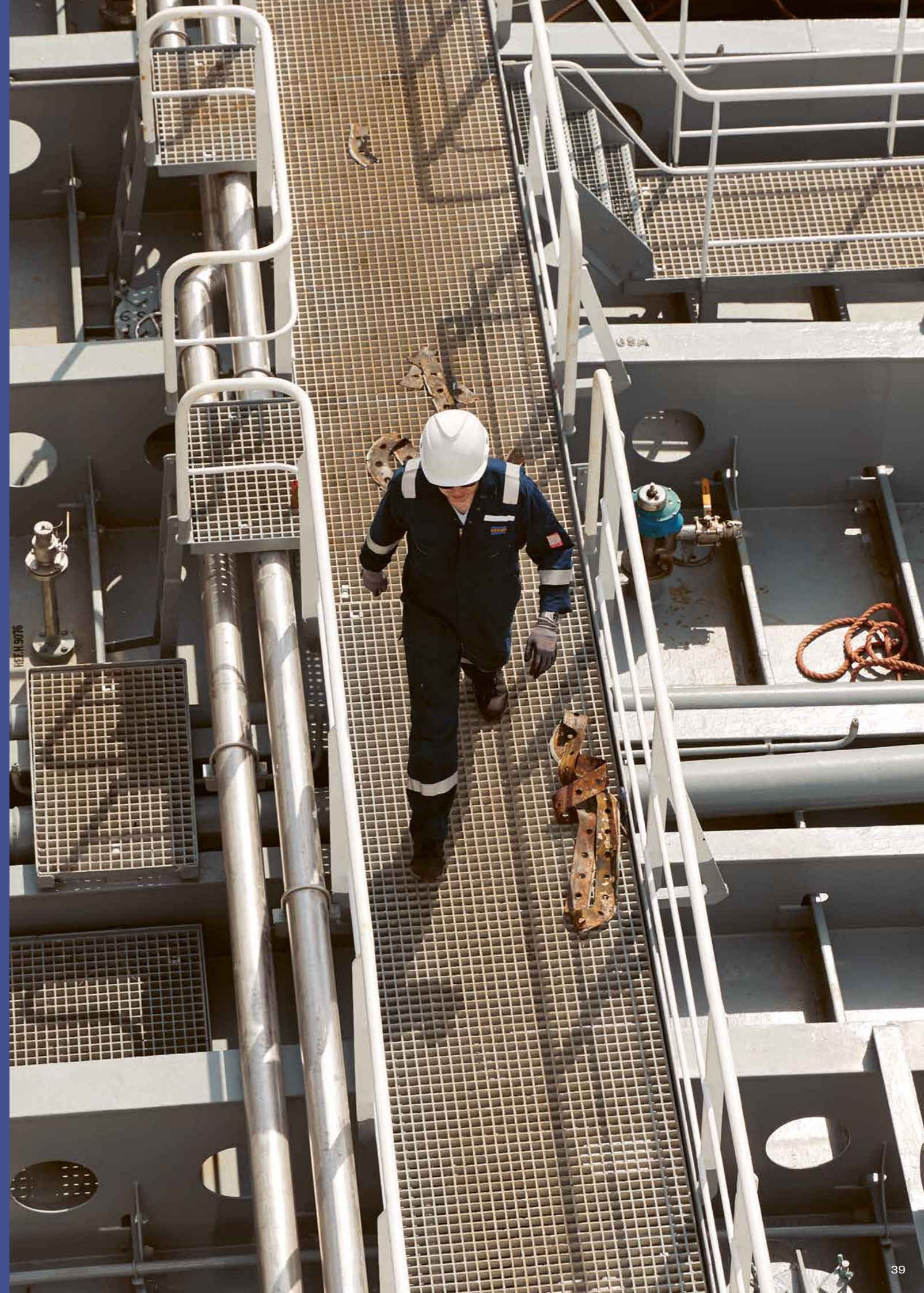
WMU President Dr. Cleopatra Doumbia-Henry



» Stella Maris places deep value on the support that it gets from the maritime corporate sector. Regular contributions such as this from GEFO allow us to continue our global programme of support for the welfare and wellbeing of all seafarers, wherever they are in the world.

Ian Stokes,
Head of Corporate Engagement, Stella Maris

More than 60 years of success: The GEFO milestones.



GEFO

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