



Corporate *Responsibility* 2018

www.j-lauritzen.com



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About this report

This report has been prepared in accordance with the Danish Financial Statements Act (Sec. 99a) and the UN Global Compact's annual requirements for communication on progress. The scope of our reporting is determined by our commitment to the UN Global Compact and an assessment of materiality. The main aim of this report is to give our internal and external stakeholders an overview of our corporate responsibility policies, actions and performance.



This is our Communication on Progress
in implementing the principles of the
United Nations Global Compact.

We welcome feedback on its contents.



CEO *statement*

This corporate responsibility (CR) report covers social, ethical and environmental topics related to our business for the financial year ending 31 December 2018. It provides our stakeholders with an overview of our performance and our initiatives in these areas, complementing the review of our financial performance included in our Annual Report 2018.

This report also serves as our annual communication on progress in relation to the UN Global Compact.

Shipping markets in general further improved in 2018. However, stock market volatility, global trade policy disputes and geopolitical tensions all pose significant challenges not only for us but for the shipping industry at large.

Our CR commitment remains unchanged, and we continue to be committed to the United Nations Global Compact as the foundation for our corporate responsibility. We became a signatory to the Global Compact in 2011, and since then, the ten principles of the Global Compact have guided our corporate responsibility efforts and helped us identify any impact our business creates that we must be aware of.

During the past couple of years, we have also increasingly been guided by the UN Sustainable Development Goals (SDGs).

We believe that responsible business conduct is an essential part of delivering quality maritime transportation services. Accordingly, corporate responsibility is strategically important to us.

Humanitarian issues, corruption and transparency are key challenges facing our industry and they cannot be solved by

companies individually. Global initiatives and strong coordination are what is needed to achieve sustainable results.

We support global initiatives and are proactive in seeking and joining new partnerships that we believe will make a positive contribution to the impact shipping may have on people or the environment.

We apply this philosophy to new and more experimental initiatives, as well as those that are well established. With this approach, we also participate in industry partnerships such as the Maritime Anti-Corruption Network, the Trident Alliance and IMPA ACT.

The Blue INNOship development project, in which we have been an active participant, was successfully finalised in 2018 with significant achievements.

J. Lauritzen is now also involved with ECOPRODIGI, founded by the Interreg Baltic Sea Region Programme, which continues where Blue INNOship ended. The project contains initiatives to further improve eco-efficiency by developing and integrating various digital solutions.

J. Lauritzen also participates in the final scoping of two work packages under the ShippingLab initiative, scheduled to start in 2019. Again, the target is to improve efficiency through the utilisation of digital solutions.

In order to comply with the IMO's global 0.5% sulphur content cap regulation on fuel, which will be enforced from 1 January 2020, risk management and management of change procedures are thoroughly conducted to ensure smooth transition and full compliance.

Reducing emissions in the maritime transport industry is a multifaceted task, as it can be affected not only by the technology on board our ships, but also by changing trade patterns, speed requirements and cargo cooling requirements in the spot and COA markets in which we operate. This can make year-to-year comparisons difficult.

We consider ourselves accountable for our performance and believe it is important to be transparent on emissions – and therefore continue our endeavours to reduce them.

We look forward to continuing our efforts towards even more responsible business practices within J. Lauritzen and the shipping industry in general, and we are confident that the ten principles of the UN Global Compact and the Sustainable Development Goals will continue to guide us in the right direction.

I hope that you find this report interesting.

Mads P. Zachø
CEO, J. Lauritzen A/S



Highlights 2018

Our corporate responsibility efforts build on our core values and are aligned with our commitment to the ten principles of the UN Global Compact and the UN Guiding Principles on Business and Human Rights.

We continuously work for increased integration of our corporate responsibility efforts into our business strategy and day-to-day business operations.

HIGHLIGHTS 2018

In 2018, we continued our energy-efficiency efforts and our efforts to eliminate corrupt practices as a founding member of the Maritime Anti-Corruption Network (MANC). Furthermore, we continued our work with the UN Sustainable Development Goals.

Environmental policy

During 2018, we reviewed our environmental policy, confirming our commitment and responsibility towards contributing to a greener environment, while creating value for our owners, customers and other stakeholders.

Energy-efficiency initiatives

The Blue INNOship development project, in which we have been an active participant, was successfully finalised in 2018 with significant achievements. Several improvements have been implemented in our decision support and processes around efficient ship operation with respect to energy efficiency and environmental performance.

J. Lauritzen is now also involved with ECOPRODIGI, founded by the Interreg Baltic Sea Region Programme, which continues where Blue INNOship ended. The project contains initiatives to further improve eco-efficiency by developing and integrating various digital solutions.

J. Lauritzen also participates in the final scoping of two work packages under the ShippingLab initiative, scheduled to start in 2019. Again, the target is to improve efficiency through the utilisation of digital solutions.

We have been an active partner in the Green Ship of the Future programme for several years, and we continue to support and participate in its work on promoting the use of existing energy-efficient technology and exploring the use of new technologies. In 2018, JL finalised a pilot project investigating the possibilities for 3D printing of spare parts on board our vessels.

Sulphur cap

In order to comply with the IMO's global 0.5% sulphur content cap regulation on fuel, which will be enforced from 1 January 2020, risk management and management of change procedures are thoroughly conducted to ensure smooth transition and full compliance.

As a founding member of the Trident Alliance, we continued the efforts for robust enforcement of sulphur regulations.

Responsible ship recycling

Our policy on responsible ship recycling, latest reviewed by the Board of Directors in November 2018, acknowledges the severe impact of some recycling practices and commits J. Lauritzen to ensuring the recycling of our owned vessels is in compliance with the requirements of both the 2009 Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships and the EU regulation on ship recycling as well as being carried out with respect for human rights.

Recognising a responsibility that often goes beyond owned vessels, the policy further commits us to take action to prevent and mitigate severe impacts when selling vessels for further trade.

We did not recycle any ships in 2018.

Security policy

Due to the instability in many countries and regions and the risk of piracy-related activities against ships, our security policy for owned and operated vessels in high-risk areas is paramount for us. The policy was reviewed in 2018.

Global Compact Network Denmark

In early 2018, we became a signatory to the Global Compact Network Denmark, which was founded in late 2017.

OUTLOOK 2019

In 2019, we will continue our corporate responsibility efforts and commitments with a constant focus on integration with our business strategy and thus our overall value creation.

ADDITIONAL INFORMATION

This report serves as our Communication on Progress to the UN Global Compact.



J. Lauritzen *overview*



Lauritzen has served the maritime trade worldwide for more than 130 years and has been engaged in a wide range of segments of the shipping industry. Today, we provide marine transportation of dry bulk cargoes as well as petrochemical and liquefied petroleum gases on a global scale.

Lauritzen Bulkcarriers is an owner and operator of bulk carriers engaged in ocean transportation of dry bulk cargoes worldwide. Our main presence is in the handysize segment, where we maintain a leading position.

Lauritzen Kosan is a global provider of safe and reliable ocean transport solutions for liquefied gases comprising petrochem-

ical and energy gases. Our main presence is in the 3-12,000 cbm gas carrier segment where we continue to be one of the leading market players.

J. Lauritzen's purpose is to enable global trade through intelligent seaborne solutions - creating growth for local communities around the world. We are committed to our clients and live by our four J. Lauritzen values: resoluteness, accountability, empathy and adaptability.

Together, we use our in-depth experience with the latest technology to provide efficient, reliable and safe sea-borne transport solutions.

J. LAURITZEN FACTS 2018

Owned by the Lauritzen Foundation

100%

167
employees
ashore
year-end



538 seafarers onboard
owned and bareboat
chartered vessels
year-end



Average controlled
fleet of **109** vessels

Invested capital
year-end

USD **404m**

Revenue

USD **565m**



Our *business*

J. Lauritzen operates around 100-125 bulk and gas carriers, which undertake worldwide ocean transportation of dry bulk cargoes and liquefied gases.

Our purpose is to enable global trade through intelligent seaborne solutions - creating growth for local communities around the world. We are committed to our clients and live by our four J. Lauritzen values: resoluteness, accountability, empathy and adaptability.

Business model – bulk carriers

The core element of our bulk carrier strategy is a strong presence in the handysize bulk carrier segment with the objective of delivering competitive and reliable transportation services to our clients.

The dry bulk market is generally characterised by solid demand, fragmentation among carriers, strong price competition and fluctuating capacity utilisation. This allows ample possibilities to provide dry bulk shipping services by means of a large homogeneous fleet that consists of a core of owned as well as long-, medium- and short-term time-chartered vessels.

Our business model in handysize is rooted in our ability to transform a significant number of shipping transactions into knowledge and market insight.

Business model – gas carriers

Lauritzen Kosan specialises in safe and efficient carriage of liquefied gases, comprising petrochemical and energy gases, on a global basis.

The strategy is based on our brand and rooted in years of solid operational performance. We strive to remain a leading, reliable, high-quality provider of safe and flexible transportation

to our clients and in this way generate value for our owner.

We control and operate smaller semi-refrigerated, ethylene and fully-pressurised gas carriers in the 3-12,000 cbm size segment, serving petrochemical companies, oil majors and traders.

The underlying long-term drivers of demand for smaller gas carriers are the global consumption of plastics and liquefied petroleum gases (for fuel and heating purposes as well as petrochemical feedstock).

In the shorter term, the demand for transportation is fluctuating with production cycles in the refinery and petrochemical industry.

Managing business risks

Our operations are exposed to a wide range of risk factors, including commercial risk, strategic risk, financial risk, bunker risk, operational risk (safety at sea), risk related to corporate governance and corporate responsibility, insurance and IT. For a detailed review of the different risk factors, please see our Annual Report 2018, pages 16-18.

Our business and corporate responsibility

As a signatory to the UN Global Compact since 2011, we have been guided by the framework and core principles addressing human and labour rights, the environment, and anti-corruption, as you will see in the following pages.

During the past couple of years, we have increasingly been guided also by the UN Sustainable Development Goals (SDGs) (see Table 1).

Table 1: Our CR efforts' relations to the UN SDGs

Our CR efforts	SDGs
Mitigating risk of accidents	3
Enforcement of environmental regulation	3, 17
Commitment to personal safety	8
Responsible ship recycling	8
Security policy onboard ships	8
Respect for human rights	8
Enabling global trade	8,9
Responsible procurement	13, 17
Energy efficiency initiatives	13, 17
Ballast water treatment	14
Fight against corruption	16, 17



Human *and* labour rights

We consider respect for human and labour rights as a part of our heritage and our commitment to the UN Global Compact.

As a shipowner and operator, we face human rights challenges ashore as well as at sea, and we use the UN Guiding Principles on Business and Human Rights as a blueprint for our endeavour to respect human rights.

Managing human rights risks

We perform human rights due diligence in alignment with the UN Guiding Principles to help us identify how our business may have impact on human rights and how any actual and potential impact could pose a risk to our business.

In addition to human rights due diligence ashore and at sea, we manage our human rights risks as part of our health-and-safety and risk-management systems. These are anchored in our two business units along with the Group's anti-corruption compliance programme and responsible supply chain management programme.

Human rights due diligence ashore

We have conducted human rights assessments in order to understand our potential risks and impacts at our offices in Copenhagen and Singapore. This work included assessments of our corporate policies and procedures.

All human rights outlined in the International Bill of Human Rights, including the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work, were assessed to decide which ones are salient to our company given our geographical and business context.

Our human rights due diligence has been quality assured by external experts on business and human rights.

Human rights at sea

At sea, our human rights efforts are closely linked to our health, safety and security policies and procedures, which are managed within each business unit in accordance with legislation, regulations and the nature of the operations. We apply the Maritime Labour Convention 2006 (MLC) when assessing our impacts on board our vessels.

Initiatives in 2018

We continued our efforts in the IMPA ACT partnership on responsible procurement in the maritime industry, where one of the core elements is the protection of human rights. We did not directly enroll new suppliers to the initiative, but IMPA succeeded to attract additional suppliers as so-called "perferred suppliers" in the marine industry to the IMPA ACT programme. For details on our value chain responsibility, see page 11.

During the year, we examined the barriers for equal opportunities for male and females though research conducted by two master thesis students. Their work and recommendation will help identify further actions.

In 2018, we began benchmarking the perception of equal opportunities and fairness irrespectively of background in our ongoing engagement survey. This was identified as an action needed to make further progress on diversity. As a result we employed 24 different nationalities across our offices at year-end 2018 compared to 20 at year-end 2017.

During 2018, we also joined the UN Free and Equal Initiative, see also page 9.

Human rights *due diligence*

Our human rights due diligence is an ongoing process designed to help us address actual and potential adverse human rights risks and impact that are linked to our business activities.



Aligned with the UN Guiding Principles, our due diligence process covers human rights assessment, including **identification** and assessment of our adverse human rights impact, **actions** to prevent and mitigate identified impact and to address relevant policies and procedures, a system for **tracking** milestones and following up on action plans, and a mechanism for **communicating** how we address identified adverse impact to relevant stakeholders.



Environment *and climate*

We acknowledge the environmental impact of our operations and the related risks to the environment, which mainly relate to emissions to air and spills to sea. We take responsibility for minimising our environmental footprint and are always working on this.

Managing environmental and climate risks

We constantly seek to minimise the environmental and climate impact of our operations. We do this through our policies and procedures as well as day-to-day collection, analysis and monitoring of relevant data.

Our environmental policy is annually reviewed by the Board of Directors, most recently in August 2018, and updated when required to confirm our commitment to reducing emissions and protecting the seas, while at the same time creating value for our owners, clients and other stakeholders.

Focus on reducing emissions

During the year, we continued our energy-efficiency efforts to reduce fuel consumption and emissions through technical and operational initiatives. In addition, we ensured collection of all relevant data to fulfil the requirement of the EU-MRV (Monitoring, Reporting and Verification) scheme and to prepare for the similar IMO-DCS (Data Collection System).

In terms of environmental performance, we actively promote a performance-oriented culture both at sea and ashore.

Due to the nature of our business, many of the environmental challenges we face are industry-related. We build partnerships with innovative and relevant stakeholders who can help us to identify the most effective solutions for environmental issues.

In 2018, we completed our participation in the Blue INNOship project, which focused on creating growth and employment in Denmark through the development of green and energy-efficient solutions. The benefits have been significant, with several improvements implemented around efficient ship operation in terms of energy-efficiency and environmental performance. This benefited both our own vessels and our time-chartered fleet.

The ECOPRODIGI project, founded by the Interreg Baltic Sea Region Programme, ensures continuation of the partnerships established in Blue INNOship. The tools and methodologies are being further improved, and new technologies are being adapted to automate and optimise the daily work of operating our fleet with respect to eco-efficiency. A general focus point of the ECOPRODIGI project is digitalisation and we work with our partners to gain further benefits from AIS (automatic identification system) and autolog data from our fleet.

ShippingLab is a new initiative in which we became active during 2018 by scoping, planning, budgeting and submitting an application to the Danish Innovation Fund. The project is scheduled to start in early 2019, and as part of it we plan to be involved in two projects that will continue the work begun as part of ECOPRODIGI.

We have been an active partner in Green Ship of the Future for several years. Our owner, Lauritzen Fonden has granted donations to the project, and we have participated actively in the work on exploring the use of new energy-efficiency technologies and promoting the use of those already in existence. In 2018, we finalised a pilot project investigating and testing the possibilities for the use of 3D printing of spare parts on board our vessels. A considerable amount of knowledge on this

technology and its possible adoption in our industry was gained during the project.

As a founding member of the Trident Alliance, we continued the efforts for robust enforcement of sulphur regulations in view of the upcoming global 0.5% sulphur cap, scheduled to come into force on 1 January 2020.

You can read more about our environmental efforts and results in the environmental statements of Lauritzen Bulkera and Lauritzen Kosan respectively. See pages 12-13 and 14-16 in this report, in which emissions figures are also disclosed.

Ballast water

The implementation of the International Maritime Organisation (IMO) ballast water management convention will start in September 2019, and treatment systems will gradually have to be installed over the coming years. So far, we have installed ballast water treatment systems on two gas carriers and aim to complete installation on our remaining fleet of owned gas carriers during 2020. On our bulk carriers, installation of treatment systems will commence in 2020 with scheduled completion in 2023.

Operational and project experience, alongside continuous monitoring of technological development, will secure fleet compliance with the IMO convention and national regulations.



Social *and employee relations*

Our ongoing engagement survey gave significant feedback on the core drivers that make J. Lauritzen an attractive and challenging place to work in the eyes of our staff.

We are proud that our employees ranked us well above our benchmark. In particular, they rate highly their perception of peer relationships at J. Lauritzen and our friendly, collaborative atmosphere.

The dialogue with staff on identifying areas for improvement and creating a feedback loop will be continued.

Managing social and employee relations risks

The risk of violation of our non-discrimination and anti-harassment policy is mitigated by our whistle-blower portal, which enables both internal and external stakeholders to anonymously report non-compliance.

Diversity

In early 2018, our diversity policy was updated by the Board of Directors. The policy states that we consider diversity to be an important and natural prerequisite for innovation and for the development of the company.

We want to remain an attractive workplace that can attract, recruit and retain best-qualified employees and continuously develop them in order to realise their potential in an optimal way.

We aim to create a culture in which all employees consistently experience diversity at all levels, including managerial positions, and in which all employees have equal opportunities to build a career, be it as a manager or a specialist.

In 2018, we saw a greater proportion of additional nationalities among our new recruits compared to last year.

At year-end 2018, the number of nationalities working for us in our land-based organisation reached 24. We expect international diversity to further increase in the coming years to the benefit of our clients, innovation and our overall profile as an attractive company to work for.

We are also committed to working towards a balanced gender composition at all management levels. Our target is that the overall gender distribution of our shore-based workforce should be matched at management levels.

At year-end 2018, the gender distribution of the shore-based organisation was 34% female and 66% male compared to 33% female and 67% male at year-end 2017.

The distribution of females and males in managerial positions in our shore-based organisation was 15% and 85% (17% and 83% respectively in 2017), which was below our goal of 25% and 75%.

Non-discrimination

In May 2018, a non-discrimination and anti-harassment policy was approved by the Board of Directors, which states that we are committed to a work environment in which all individuals are treated with respect and dignity.

Everyone has the right to work without bias, prejudice or harassment in a professional atmosphere that promotes equal employment opportunities and prohibits unlawful discrimination.

The policy ensures equal employment opportunity without discrimination or harassment on the basis of e.g. race, colour, religion, gender, sexual orientation, age or origin.

The non-discrimination and anti-harassment policy is created to ensure that all employees can work in an environment free from unlawful harassment, discrimination and retaliation.

We will make every reasonable effort to ensure that all employees are familiar with this policy and know that any reports of policy violations will be investigated and resolved appropriately.

During 2018, we joined the UN Free and Equal initiative, which aims to tackle discrimination against lesbian, gay, bi, trans and intersex people.



Anti-corruption

Corrupt practices, especially in the form of demands for facilitation payments, continue to pose a serious risk to the shipping industry and to the economic and social development in several countries.

Managing anti-corruption risks

We work against corruption in all its forms, and our Anti-Corruption Policy provides guidance for our shore-based as well as our sea-going personnel. The policy is in line with the principles of the United Nation's Convention against Corruption along with applicable national law. The policy is anchored in our compliance programme, the responsibility for which is held by our Board of Directors and Executive Management.

Since 2014, internal and external stakeholders have been able to anonymously report concerns of compliance violations through our [whistle-blower portal](#). However, no reports have been made to date despite efforts to increase awareness of the portal.

Training and awareness

As part of our compliance programme, we provide continuous training for both shore-based and sea-going personnel. This involves face-to-face seminars focusing on compliance and anti-corruption.

During 2018, both officers and shore-based employees received training on fraud prevention, anti-trust, rules for gifts and hospitality, and other related compliance topics.

In 2018, we also implemented an online training programme to ensure that employees can keep their training up to date on our anti-corruption policy and practices and on mitigating risk. In 2019, we will conduct new compliance seminars and/or

training for the organisation to ensure that everyone is aware and updated.

Working proactively to eliminate facilitation payments is still a core element of our anti-corruption policy and our compliance training.

We strongly encourage our crews to report any demands for facilitation payments. As such, we have introduced new procedures for our bulk vessels to improve communication between vessels and operations.

We will continue to work actively to encourage crews to report demands for facilitation payments as it is the only way to gain insight into whether we are successful in reducing them.

Partnering on industry challenges

In 2018, we continued our active participation in the [Maritime Anti-Corruption Network](#) (MACN), a global business network working to free the maritime industry of corruption and to enable fair trade to the benefit of the society at large. Through MACN, we discuss and share best practice with other representatives from the industry.

In 2018, we also took part in two MACN working groups, which focused on challenges in the dry cargo industry, as well as a working group focusing on commissions.

Continued focus on *trade sanctions in 2018*

Operating in a highly international business environment, we are subject to increasingly complex and changeable sanctions regulation.

Compliance with applicable trade sanctions is essential to responsible business conduct. We have intensified our efforts to increase trade sanction transparency and ensure continuous compliance with the various sanctions.

Our efforts include face-to-face training on sanctions compliance, procedures for vetting of counterparties and online country and cargo compliance checks.



Value chain responsibility

As part of our commitment to the UN Global Compact, we recognise our role in the long and sometimes complex value chains we are part of. We strive to live by the principles of the Global Compact to avoid having any negative impact, anywhere within our influence in the value chains, on human rights and labour rights; the environment; or anti-corruption measures.

Managing value chain risks

According to our corporate responsibility policy, which was reviewed by the Board of Directors in August 2018, we always strive to include a standard corporate responsibility clause when negotiating contracts and agreements on behalf of J. Lauritzen or one of our business units.

The scope of the corporate responsibility clause that we use reflects our commitment to the UN Global Compact. We use it to clarify our ethical and corporate responsibility standards to our business partners and to encourage them to follow internationally recognised standards for responsible business conduct.

Ship recycling

Our policy on responsible ship recycling, which was reviewed by the Board of Directors in November 2018, acknowledges the severe impact of some recycling practices and commits J. Lauritzen to ensuring that the recycling of our owned vessels is in compliance with the requirements of both the 2009 Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships and the EU regulation on ship recycling as well as being carried out with respect for human rights.

In accordance with the Hong Kong Convention, we have initiated a process of having our vessels' Inventory of Hazardous Materials (IHM) certified and taking actions for rectification, if needed.

Recognising a responsibility that often goes beyond owned vessels, the policy further commits us to take action to prevent and mitigate severe impacts when selling vessels for further trade.

We did not recycle any ships in 2018.

Responsible procurement

Responsible procurement is a core element of our corporate responsibility efforts. We focus on cooperating and engaging in dialogue with suppliers to ensure decent social and environmental conditions in our supply chain.

As a founding member, we continue to support the IMPA ACT responsible supply chain management programme developed by the International Marine Purchasing Association, which seeks to improve the economic, social and environmental compliance of its purchaser and supplier members. When working with suppliers, we aim to contribute to uniformity in the industry to avoid suppliers having to comply with different expectations from different owners.

We maintain close dialogues with selected suppliers to align expectations on human and labour rights, environmental performance, and anti-corruption.

The centre of the dialogue between J. Lauritzen and our suppliers is a Supplier Code of Conduct, which outlines our minimum expectations of their policies and procedures to identify, prevent and mitigate potential impacts on human rights, labour rights, protection of the environment and anti-corruption.

Through closer dialogue and stronger relations with suppliers, we aim to increase transparency throughout our supply chain. We have in recent years prioritised dialogue with some of our largest suppliers based on spend, dependency and frequency.

As a member of the advisory committee for IMPA ACT, we continue working for solutions to engage more IMPA members to join the programme and encourage them to have their sub-suppliers join the initiative.

During 2018, we contributed to the simplification of the IMPA ACT and RSCM (Responsible Supply Chain Management) programme, which was redesigned for easier understanding and accessibility for both existing and new members. The website <https://www.impa-act.org> was updated to improve the members' areas to encompass both suppliers and purchasers equally.

The enrolment of suppliers to the programme, whether existing or new ones, is ongoing, and we will, together with other members, also promote this agenda in 2019.



Lauritzen *Bulkers*

Lauritzen Bulkers is positioned in the handysize and supramax segments of dry bulk shipping and serves clients worldwide.

Our key market is the handysize segment, where we maintain a leading position, with a focus on the transportation of logs, grains, fertilisers, salt, biofuels and other bulk commodities.

Our operations are based on a large, homogeneous fleet of owned and part-owned vessels as well as vessels on short-, medium- and long-term time charter.

Fleet management

Technical management, including crewing for our owned fleet, is performed by New Century Overseas Management Inc., Manila and Synergy Maritime Pte., Chennai who provide safe, reliable and cost-effective operations in close collaboration with our in-house technical department.

With ship management outsourced to external service providers, our in-house technical department specifies requirements, aligns expectations and monitors performance in terms of achieving safe, reliable and efficient operations

Health and safety

Operational transparency is essential to the safety of our people, our vessels and clients' cargoes. Building and maintaining open and strong relations with our external managers and crews combined with continuous development and training are the essential elements in our health and safety strategy.

We measure our safety performance through various parameters, including the Lost Time Injury Frequency (LTIF) rate, which for the owned fleet amounted to 0.6 in 2018.

An average of 2.6 deficiencies were reported during Port State Controls in 2018, compared to 1.0 deficiency on average in 2017. In 2018, we had two detentions (none in 2017).

During the year, we carried out 11 routine inspections of our own fleet, two of which were dry dockings.

The average RightShip rating for our own fleet was 3.8 star on the RightShip five-star scale, which was unchanged from 2017.

Security

When entering high-risk areas, we follow the shipping industry's Best Management Practices (BMP) guidelines for protection against piracy as well as our internal security guidelines. The guidelines state that before scheduling a voyage into a high-risk area, a risk assessment must be conducted, and necessary precautions must be taken.

Our security policy was reviewed in late 2018 and remained unchanged from 2017.

Lauritzen Bulkers' owned fleet had three transits in high-risk areas in 2018, compared to nine in 2017. No incidents were reported in relation to the high-risk-area transits.

Our seafarers

Lauritzen Bulkers, considerable efforts are put into strengthening communication between our office staff, seagoing personnel and technical managers to ensure crew development and satisfaction and thereby maintain a high retention rate among our seafarers.

HIGHLIGHTS IN 2018

Average age of vessels



Operated fleet

4.4 years



Industry average

9.6 years

On average **206**
seafarers onboard
our owned fleet



17% cut in CO₂
emissions since 2012

3 transits in high-risk areas with **NO**
incidents



In 2018, these efforts again included our annual officer seminar, which was attended by 150 officers, as well as bimonthly newsletters distributed to both our owned and our time-chartered fleet, through which topics related to health and safety, energy efficiency, and the day-to-day work with technical and operational challenges were addressed.

In 2018, the installation of VSAT (Very Small Aperture Terminal) satellite communication systems were completed on our owned vessels, providing internet access for seafarers. Our crews greatly appreciate the opportunity to be electronically connected with family and friends.

We also consider Lauritzen Bulkers' Major Disaster Assistance Fund important to our seafarers' job satisfaction and commitment to J. Lauritzen. The fund was set up in the wake of Typhoon Yolanda which hit the Philippines in 2013. The fund provides Filipino seafarers with financial assistance to repair any property damage caused by natural disasters.

During 2018, an average of 206 seafarers were working on board our owned fleet, and, again, our technical managers upheld a high retention rate of 99% this year.

Environment

At year-end 2018, our core fleet consisted of 58 owned, medium- and long-term time-chartered vessels with an average age of 4.4 years, which is considerably below the global industry average of 9.6 years.

We work intensively with our day-to-day performance analysis, of both our technical and our operational activities, with the objective of reducing emissions. We continuously seek to

strengthen our performance culture and increase awareness of energy efficiency on board our vessels and among our staff ashore.

During 2018, we continued to focus on data and data quality as a means to identify and address lower-performing and less-energy-efficient vessels in our fleet of time-chartered vessels. These efforts included a dedicated approach to collecting and monitoring data from vessels, as well as increased collaboration with the owners of our fleet of chartered vessels.

Although our efforts to make technical improvements can only be directly applied to our owned vessels, we also strive to optimise the operational performance of our operated fleet of bulk carriers to improve energy efficiency. Improvements are achieved through continued focus on voyage optimisation, day-to-day operations and weather routing.

An ongoing focus on fuel-savings and energy efficiency enabled us to further reduce the environmental footprint of our dry cargo operations in 2018. During 2018, we also improved our calculation methods to be even more precise on emissions figures.

In 2018, the relative CO₂ emissions related to our transport work were reduced by 3% compared to 2017, cf. table 2.

Since 2012, CO₂ emissions have been reduced by 17% across our operated fleet of bulk carriers.

Installation of ballast water treatment systems on our bulk carriers will commence in 2020 and is scheduled to be completed in 2023.

Table 2: Emissions pr segment g/ton-miles

Segment	Emission	2018	2017	2016
Handysize				
	CO ₂	10.9	11.5	11.4
	So _x	0.2	0.2	0.2
Supramax				
	CO ₂	7.6	9.0	8.4
	So _x	0.1	0.1	0.1
Total fleet				
	CO ₂	10.2	10.6	10.1
	So _x	0.2	0.2	0.2

EMISSIONS NOTE

Emission figures are reported per segment and based on actual consumption, oil quality and engine emission factors and are calculated in accordance with IMO's guidelines, MEPC.1/Circ. 684. The Greenhouse Gas Protocol (GHGP) is used as the overall Greenhouse Gas accounting system. We have applied the operational control approach as defined in the GHGP, because we seek to create a direct link between our business, our economic bottom-line and our environmental responsibility. The reported emissions are scope 1 emissions and include all operated vessels.



Lauritzen *Kosan*

Lauritzen Kosan specialises in transportation of liquefied gases, comprising petrochemical and energy gases. This is a specialised segment of the shipping industry characterised by complex operational demands due to frequent grade changes and often relatively short and intensive trade patterns as well as strict requirements from regulators and customers. Based on a fleet of primarily owned but also commercially managed and chartered tonnage, we have earned an enduring and solid brand position and enjoy high customer retention rates.

Fleet management

Technical management of our owned fleet is primarily conducted in-house, and our top priority is the health and safety of our seafarers, and protection of the environment, our assets and our clients' cargoes. In 2018, we continued to work strategically on our value proposition "Chasing Operational Excellence" among shore and sea personnel to ensure alignment throughout the organisation. We work proactively with regulators and representatives from the tanker industry to ensure that we are always at the forefront of the regulatory framework, which is increasingly demanding in terms of safety, complexity and cost.

Health and safety

Health and safety is a top priority for us and our stakeholders, and we always work to strengthen our safety culture in an environment that often presents demanding circumstances.

As part of our ambition to always provide safe and reliable operations, we launched several campaigns during 2018 to increase safety awareness of different risk areas. This included, for example, a Port State Control campaign to improve the overall standard of our fleet and to train seafarers to look for potential dangers that could lead to hazardous situations onboard.

During 2018, we continued our focus on the "Partners in Safety Programme", which is propelled by Shell. We carried out quarterly Learning Engagement Training (LET) on selected safety topics, e.g. "Falling into the Water", "Personal Injury", "Lifeboat Operation", "Entry into Enclosed Space" and "Slips and Falls", which require active participation from staff on board our vessels.

Additionally, we further developed our resilience programme in 2018 with exercises both on board our vessels and during our crewing seminars. We believe, that helping crew to develop their resilience – during and after challenging situations – will make a difference towards safety onboard. We aim to help our seafarers to focus on the real hazards, as well as to provide support after difficult experiences.

We will continue to focus on strengthening a culture that embraces safety until we reach our goal of incident-free operations and, ultimately, operational excellence because we care for our people and we believe that safe business is good business.

Lost Time Injury Frequency (LTIF) came to 0.9 in 2018 versus 1.5 in 2017. The LTIs in 2018 were fortunately all of minor character with no permanent harm for individuals. We will of course not be satisfied until we reach 0.0 LTIF.

Security

A significant proportion of the liquefied and petrochemical gases carried onboard our vessels is transported through some of the high-risk regions of the world. The risk to our crews and clients' cargo due to piracy or violent activity in certain parts of the world has our strictest attention.

HIGHLIGHTS IN 2018



9% cut in CO₂ emissions since 2012

Lost Time Injury Frequency (LTIF)

LTIF of
0.9

2018

LTIF of
1.5

2017

The seafarer retention rate was **98%** for officers and ratings



42 transits in high-risk areas with **NO** incidents



To mitigate exposure to this type of risk, our anti-piracy counter-measures include close internal dialogue, monitoring risk patterns and the use of external experts' risk assessments.

Our security policy was reviewed in late 2018 and remained unchanged from 2017.

Lauritzen Kosan had 42 transits in high-risk areas in 2018, compared to 60 in 2017. No incidents were reported in relation to the high-risk-area transits.

Our seafarers

Our seafarers are our most valuable assets at sea, and without skilled seagoing personnel we would not be able to deliver a safe and efficient service of the highest quality.

We recognise the challenges of working at sea over longer periods of time and therefore we have a strong focus on continuously improving welfare onboard. We undertake various initiatives to ensure well-being both on and off the job.

During 2018, our new crewing strategy for our gas carrier fleet was implemented to ensure the most up-to-date, professionalised crew management to meet ever-growing regulatory and customer demands.

During 2018, an average of 354 seafarers were working onboard our owned bareboat chartered vessels with a high retention rate of 98% for both officers and ratings.

Environment

Our commitment to minimise our environmental footprint through our performance programmes remains strong. Dur-

ing 2018, our performance management department continued to work on our projects to improve the decision support and processes around efficient ship operation with respect to energy efficiency and environmental performance.

We monitor our emissions closely and strive to keep them to a minimum in relation to the energy used for both propulsion and cargo conditioning, for example by optimising routing and the speed of each voyage as well as the associated resistance implications on the hull.

The IMO Ship Energy Efficiency Management Plan continues to be an important tool for implementing the various energy-efficiency initiatives among our on-board personnel. Among the latest initiatives is a procedure for our seafarers to capture underwater photos in order to monitor the condition of the hull and the propeller so that they can detect fouling at an early stage.

Our data platform is under continuous development and utilises as many automated sources as possible, e.g. satellite-based positions and weather. In addition, we strive to limit our seafarers' workload by sharing data reported from the vessel with relevant stakeholders, e.g. operations, weather routing services and agents.

During 2018, we installed our second ballast water treatment system on one of our gas carriers in preparation for the upcoming ballast water regulation. Installation of treatment systems on the remaining part of our gas carriers is scheduled to be completed in 2024.

Table 3: Emissions pr segment g/ton-miles

Segment	Emission	2018	2017	2016
Ethylene				
	CO ₂	96.8	107.4	88.7
	So _x	1.4	1.5	1.4
F/P				
	CO ₂	0.0	159.1	167.0
	So _x	0.0	2.1	2.2
S/R				
	CO ₂	122.3	104.8	109.0
	So _x	1.1	1.1	1.2
Total Fleet				
	CO ₂	103.2	108.7	99.1
	So _x	1.4	1.4	1.4

EMISSIONS NOTE

Emission figures are reported per segment and based on actual consumption, oil quality and engine emission factors and are calculated in accordance with IMO's guidelines, MEPC.1/Circ. 684. The Greenhouse Gas Protocol (GHGP) is used as the overall Greenhouse Gas accounting system. We have applied the operational control approach as defined in the GHGP, because we seek to create a direct link between our business, our economic bottom-line and our environmental responsibility. The reported emissions are scope 1 emissions and include all operated vessels.



In 2018, all our fully pressurised vessels were time chartered out; therefore, they were not within the operational control of Lauritzen Kosan and were reported with an emission rate of zero. Our semi-refrigerated fleet executed less transport work in terms of ton-miles, which is why the emission rate deteriorated compared to the previous year. However, the ballast/laden ratio for our ethylene carriers improved, resulting in an improved emission rate despite transporting products that required intense cooling, e.g. ethylene.

To keep motivation for energy-efficiency efforts among land-based and sea-going personnel high and to improve operational transparency, we work with an elaborate KPI structure that clearly outlines decision support and progress. These initiatives are also based on the work in the Blue INNOship project.

In 2018, relative CO₂ emissions related to our transport work were reduced by 5% compared to 2017, cf. Table 3.

Since 2012, CO₂ emissions have been reduced by 9% across our operated fleet of gas carriers.



FINANCIAL YEAR

1 January - 31 December

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