



ESG FRAMEWORK 2021



Reduction of
Carbon Emission



Maritime
Decarbonisation



Harmony in
International Society



ESG Goals for
2030/2050



COVER RATIONALE

For all of us here at “K” Line, true industry-leading customer experience isn’t a vision. It’s a passion. A passion for our customers whose business is dependent on moving the right products to the right market at the right time. We leverage on technology to help us deliver affordable and reliable energy that fuels human progress and economic growth around the world.

Further, our commitment to sustainability is integrated throughout our business as we strive to protect the environment, empower people, and get results the right way—today and

tomorrow. Working to deliver the energy the world needs while protecting the environment. We strive to empower people around the world to improve their lives and meet their full potential. This effort includes promoting diversity & inclusion, creating prosperity, respecting human rights and contributing to the SDGs in the communities where we operate.

Lastly, the principles of responsibility, trust and integrity guide our actions and shape our operations. We prioritise culture, pursue operational excellence and advance corporate governance. We are “K” Line, ensuring trust from all over the world.



Please scan this QR code to view the report online.

What’s Inside



HIGHLIGHTS

KLPL uses an energy management system, overseen by the Cost & Performance Monitoring Team (CPMT), launched in April 2021, to monitor and improve the operational efficiency of our fleet.

In March 2021, the first car carrier, Century Highway Green for “K” Line Group to use liquefied natural gas (LNG) as fuel was delivered.



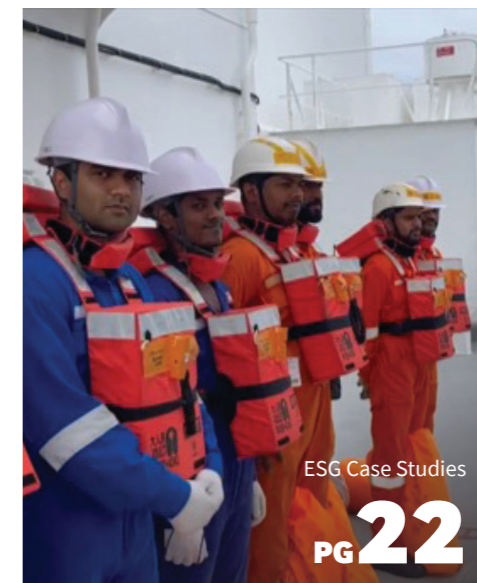
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KLPL Corporate Profile



Our Vision

To enrich the lives of people around the world through maritime shipping

Our Mission

As a Global Leader in the Maritime Transport Industry strive to continue to deliver reliable and sustainable marine transportation and logistics solutions

“K” Line Pte Ltd (KLPL) is an established marine transport solutions company incorporated in Singapore, offering a diverse portfolio of shipping services, fulfilled by a modern fleet of bulk carriers, tankers and container vessel. KLPL operates as part of the Kawasaki Kisen Kaisha, Ltd. (“K” Line) Group, founded in Japan in 1919.

K : Trust From All Over The World



As an integrated logistics company grown from shipping business, the “K” LINE Group contributes to society so that people live well and prosperously. We always recognize this principle in our operations.

A BRIEF HISTORY

“K” Line commenced operations in Singapore in 1973, under Kawasaki Singapore (Pte) Limited (subsequently known as “K” Line (Singapore) Pte Ltd) and became a fully-fledged shipping agency in 1981.

In 2001, “K” Line Pte Ltd (KLPL) was established and took over the business to manage the global operations and trade management marketing of the containership business, and to support quality control for the car carrier services from “K” Line (Singapore) Pte Ltd.

There were many factors which attracted “K” Line to commence its operations here in Singapore, such as Singapore’s strategic location, reputation as a key regional and global hub for many multinational companies, friendly business environment and also the thriving maritime ecosystem. Singapore’s well-educated and highly skilled workforce and the immerse support to the Maritime Industry by the Singapore Government and the Maritime and Port Authority of Singapore, were also persuasive in this decision to establish KLPL in Singapore.

Spurred by the increasing demand for raw materials by emerging economies such as China and India, KLPL recognised the growing shipping requirement in the dry bulk sector. Developing on the wealth of experience amassed by of our parent company as an owner-operator, the commencement of the dry bulk division in Singapore in 2002 positions KLPL at the exciting forefront of growth in Asia. Equipped with a modern dry bulk fleet and a passionate team managing the technical and commercial function, KLPL is ever ready to service the needs of our customers and forge new partnerships in the shipping community.

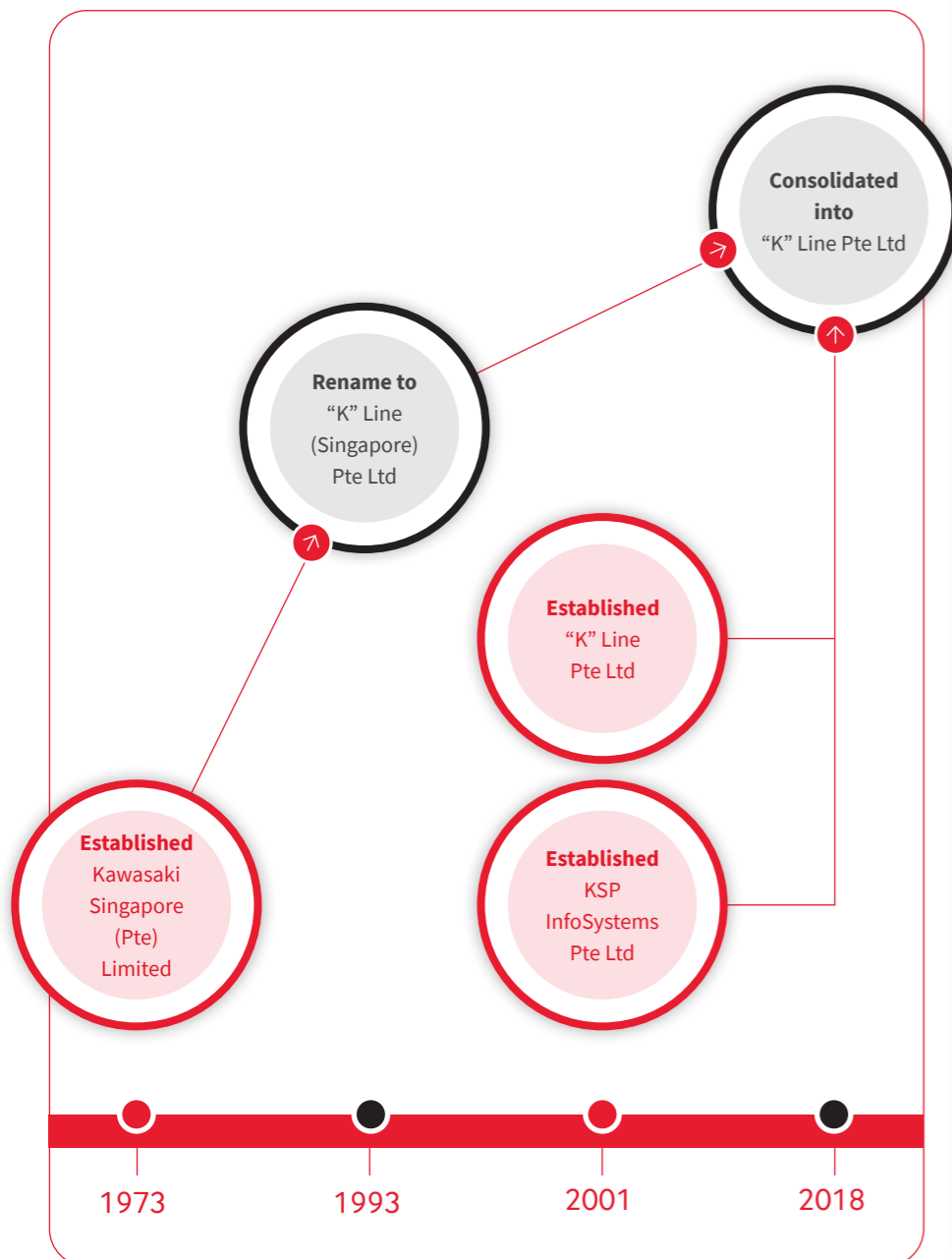
Inaugurated in 2003, our tanker department specialises in the operation of a fleet of quality Aframax tankers in the crude oil transportation market. We have been safely transporting these petroleum resources that support our lives to countries around the world through our oil tanker services.

We took delivery of our first Chemical Tanker in March 2012.

KLPL Corporate Profile

In 2018, we successfully integrated our containership business into the global container shipping group, Ocean Network Express Pte Ltd, and streamlined our operations in Singapore, grouping "K" Line (Singapore) Pte Ltd and KSP Infosystems Pte Ltd under KLPL.

By introducing a new agency arm of the business in 2018, we are able to support a range of automobile carriage, and high and heavy cargoes, for example, trains, yachts, fabricated machines, agricultural equipment, construction machinery and helicopters. The Agency Division also handles dry docking, bunkering operations, crew changes and other husbandry related services.



OUR FLEET AND TRADING ROUTES

KLPL operates approximately 20 vessels of various ship sizes. It includes 7 Panamax vessels and 4 Supramax vessels, giving us the flexibility to tailor our shipping service to different capacity and cargo-handling requirements. Our typical dry bulk cargo includes alumina, coal, grain, manganese ore, iron ore and industry raw materials. We also own 2 Aframax tankers, and 3 stainless steel chemical tankers.

VESSEL	TOTAL	OWNED	CHARTERED
HANDYMAX	4	0	4
PANAMAX	11	7	4
CAPE	1	0	1
AFRAMAX	3	2	1
CHEMICAL	3	3	0
CONTAINER	1	1	0



Australia to the Middle East



Middle East to the India



Middle East to the South East Asia



East Coast South America to China

Our main trading routes for dry bulk include Australia to the Middle East, the Middle East to India/South East Asia, East Coast South America to China, and Australia to the Far East. Our Aframax tankers mainly serve customers in the Asia Pacific region, and our chemical tankers trade worldwide.

CEO's Statement



Makoto Hashizume

Director,
President &
CEO

Maritime shipping forms the backbone of global trade and plays a vital role in how we all live our lives. Food, medicines, technology, raw materials and fuel are just some of the essential commodities transported to all corners of the world via maritime transport.

United Nations acknowledges the vital role shipping has played in raising global living standards over the years. In Singapore, where KLPL is based, the Maritime Industry has played a crucial role in driving economic growth. Shipping currently contributes to approximately 7% of the nation's GDP, and employs more than 160,000 people.

Highlights



A track record in safety in navigation and cargo operations



Two Tankers certified under the Green Ship Program of the Maritime Singapore Green Initiative



Appointment as Manager for Singapore's first LNG bunkering vessel FUELNGBELLINA



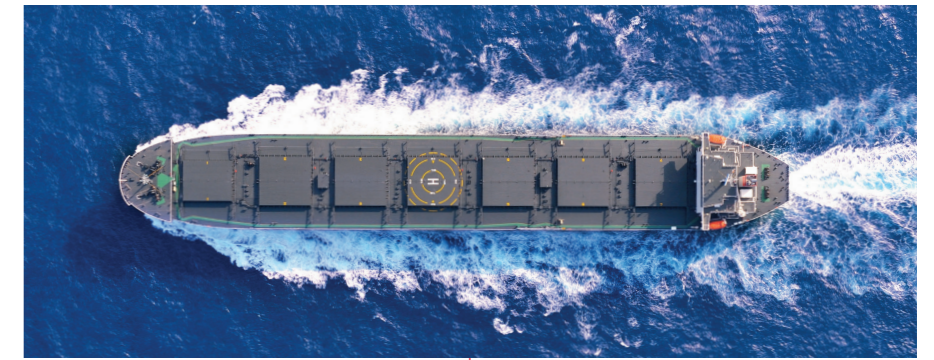
MaritimeOne Scholarship to develop young talent for the maritime sector in Singapore



Supporting MPA Global Internship Programme



56% local talent in management team, of which 44% are women



KLPL is committed to working closely with the Maritime and Port Authority of Singapore (MPA), Singapore Shipping Association (SSA) and Singapore Maritime Foundation (SMF) to advance the Maritime Sector and the local economy. We also continue to play a part in grooming local talent through KLPL's participation in a number of schemes such as the MPA Global Internship Award (GIA), and our sponsorship of MaritimeOne Scholar, since it was first launched in 2007 by MPA, SSA, SMF and the Association of Singapore Marine Industries (ASMI).

We celebrated KLPL's 20th anniversary in 2021. Throughout the 20 years, we have seen our workforce grow from strength to strength and as of 2021, we are heartened to share that close to 90% of our employees and more than half of our senior management are Singaporeans. It is our firm commitment to continuing promoting Singaporean talent as our core and to offer a safe and inclusive work environment to our people. Being brave and open to changes, and the tireless promotion of opportunities for Singaporeans as core are the key values that shape KLPL. We hope to continue growing our business and generate more job opportunities for Singaporeans.

Environmental, social and governance (ESG) issues have long been part of KLPL's business strategy. As the environmental impacts of the shipping industry come into sharper focus, we remain fully committed to developing and maintaining a sustainable business environment across our operations.

We support MPA's Maritime Singapore Green Initiative that aims to reduce the environmental impact of shipping and to promote clean and green shipping in Singapore. In 2019, KLPL successfully participated in MPA's Green Ship Programme and 2 of KLPL's tankers, Oceana River and Crescent River (fuel oil), were recognised by MPA to have met the requirements of the Green Ship Programme. We are also leveraging our "K" Line Group's technological abilities to introduce eco-friendly ships to Singapore, which includes the "K" Line Group's car carrier, Drive Green Highway (fuel oil) and Century Highway Green (LNG Fuel). More recently, our parent company,

"K" Line, and Shin Kurushima Dock have obtained joint Approval in Principle for the new concept design of ammonia fuelled car carrier from a class society (ClassNK).

KLPL is aligned with "K" Line Group's Environmental Vision 2050. We are working tirelessly towards achieving the updated 2050 target of "The Challenge of Achieving Net-Zero GHG Emissions", in line with the aim to limit global temperature increase to 1.5 degrees Celsius, compared to pre-industrial levels, as proposed in the Paris Climate Agreement, and also confirmed at the COP26 of UNFCCC held in Glasgow in November 2021. On a broader scale, we also recognise how the achievement of the above targets will help to reach the 2030 UN Sustainable Development Goals. In fact, the innovative and pioneering spirit at KLPL, recently demonstrated by our successful navigation of the COVID-19 pandemic, is being applied across our sustainability endeavours.

KLPL is proud to operate as a respected and trusted organisation within this vital industry, drawing on our extensive knowledge and expertise to provide specialised services in transporting raw materials, fuel and other cargo, and supplying maritime logistics.

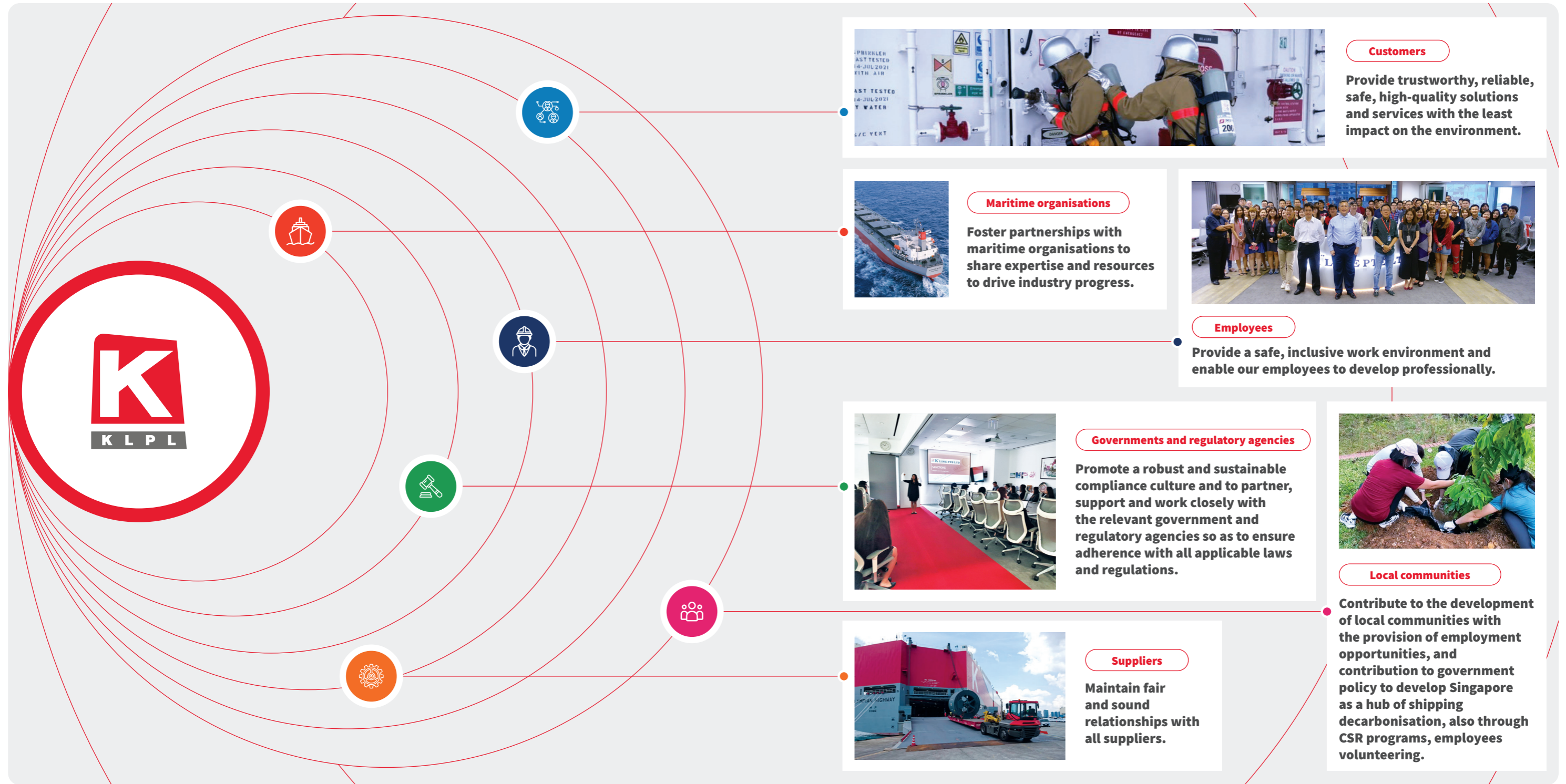
We operate guided by our corporate principle of earning customers' trust by providing safe, reliable marine transportation and logistics services, and helping enrich people's lives around the world. Good governance continues to be the cornerstone of our business practices. The KLPL Charter of Conduct guide our policies and actions setting high ethical standards.

This ESG Framework reaffirms our commitment to providing safe, responsible and sustainable services. The framework also lays the foundation for our more detailed sustainability report.

Makoto Hashizume
Director, President & CEO

Stakeholders

We are committed to forging trusted relationships through dialogue and cooperation. Stakeholder infographic highlighting commitments to each key stakeholder group:



ESG Strategy

To facilitate our goal of enriching the lives of people around the world through maritime shipping.

Our ESG strategy comprises the following components:

ENVIRONMENT

- Utilise innovative, cutting-edge technologies to minimise our environmental impact
- Maintain high marine safety standards to ensure no major shipping incidents occur
- Support the decarbonisation of society through the supply and transportation of clean energy
- Educate employees on environmental practices on an individual level



To enrich the lives of people around the world through maritime shipping

ECONOMY

- Business Expansion
- Aiming for Stable Profitability
- Minimise Market Risks
- Establish Strong Financial Structure



SOCIETY

- Provide reliable, trusted services to our customers and communities
- Foster an inclusive corporate culture that respects diversity
- Adhere to strict health and safety policies to ensure the wellbeing of employees
- Contribute to local communities through offering equal chances of employment, and also diverse community engagement programmes



GOVERNANCE

- Conduct fair and just business activities
- Ensure diversity among Board members
- Embrace corporate transparency through regular reporting
- Implement measures to mitigate risks



Values the "K" LINE Group prizes

PROVIDING RELIABLE AND EXCELLENT SERVICES

Contributing to society

A FAIR WAY OF BUSINESS

Fostering trust from society

RELENTLESS EFFORTS TO ACHIEVE INNOVATION

Generating new values

RESPECTING HUMANITY

Corporate culture that respects individuality and diversity

ESG Priorities and Goals

Protecting The Environment



PERFORMANCE HIGHLIGHTS



KLPL'S KEY ENVIRONMENTAL GOALS ARE TO IMPROVE ENERGY EFFICIENCY, REDUCE GREENHOUSE GAS (GHG) EMISSIONS, AND MAINTAIN HIGH SAFETY STANDARDS TO ENSURE OUR BUSINESS OPERATIONS DO NOT NEGATIVELY IMPACT THE ENVIRONMENT AND GLOBAL BIODIVERSITY (LAND, AIR OR OCEAN).

We aim to be the industry leader in ecosystem protection and support the decarbonisation of the society by facilitating the supply and transportation of clean energy fuels. Here we outline some of the steps we have taken to implement our ESG strategy, and the achievements we have made in specific areas.

ADHERING TO ENVIRONMENTAL POLICIES AND TARGETS

KLPL is fully aligned with “K” Line Group’s environmental policy and Environmental Vision 2050.

Strengthening global climate change countermeasures has become an urgent issue, and the movement to achieve virtually zero GHG emissions in 2050 is accelerating in various governments and in each industry. Under such circumstances, “K” Line Group will also take on the challenge of the higher goal of “2050 GHG emission net zero”.

https://www.kline.co.jp/en/news/ir/auto_20211102423677/pdfFile.pdf

In 2019, KLPL officially joined "K" Line Group's centralised environmental management system, known as the Drive Green Network (DGN), which establishes environmental policies, targets and internal and external audits to monitor progress across the “K” Line Group.

We have also formed a Digitalisation & Green Initiatives division to oversee our environmental activities, led by our President & CEO.



Environmental targets that were met in 2020 included:

- Applying low friction anti-fouling paint to all KLPL fleet of vessels;
- Achieving no major incidents for the fleet; Further to implement and continuous upgrading in our Safety Management System on boards, using an Optimum Routing Service to avoid severe weather on long voyages (and therefore reduce the risk of marine accidents and also fuel consumption).
- Creating awareness among employees of environmentally friendly practices, such as the creation of a “Green Initiative Month” which includes a number of online activities to keep the green momentum going.

ENVIRONMENTAL VISION 2050

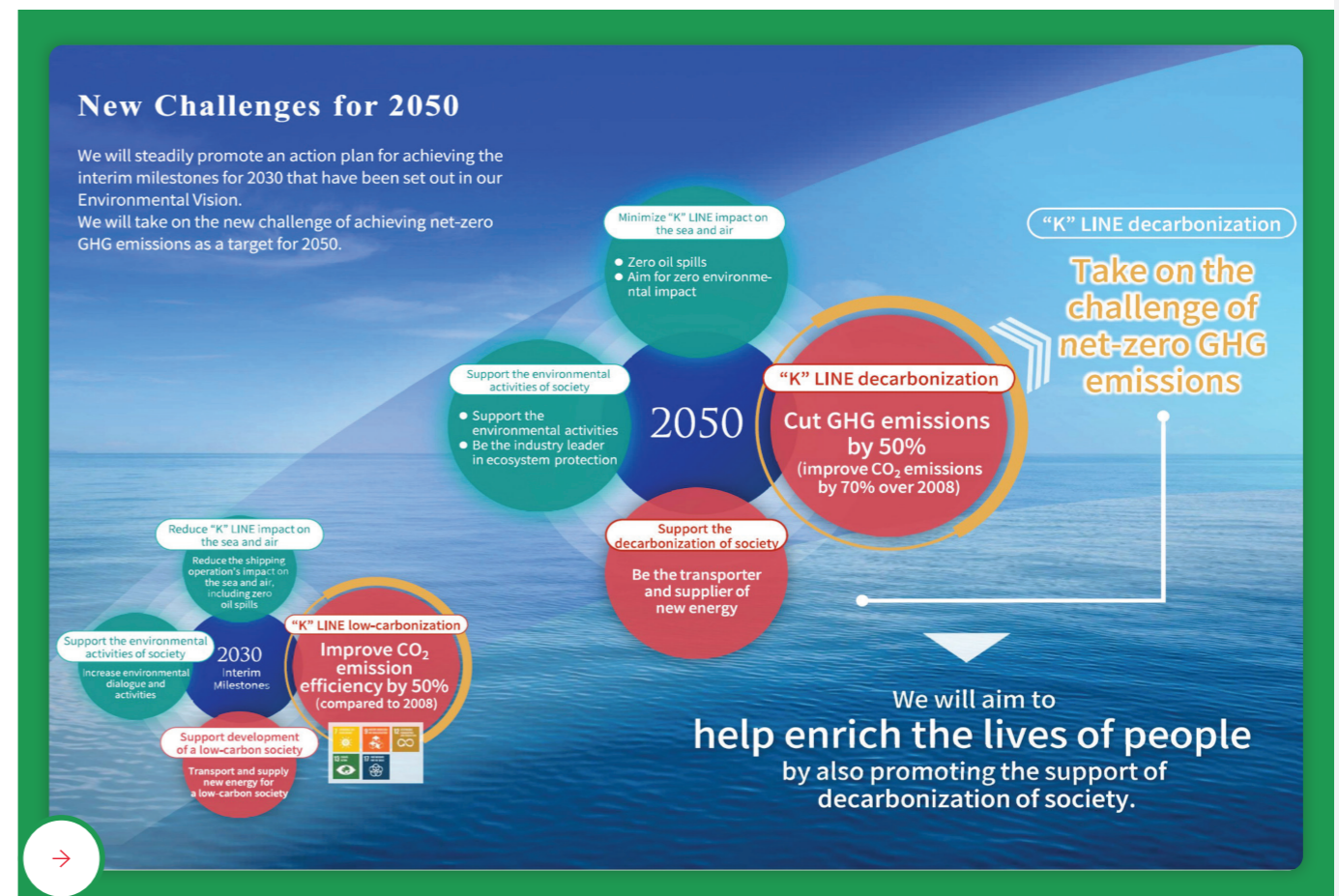
KLPL will play a key role in helping to achieve “K” Line Group’s Environmental Vision targets by 2050, which include:

Zero oil spills and zero environmental impact on sea and air

Become an industry leader in ecosystem protection

To take on “The Challenge of Achieving Net-Zero GHG Emissions”

Be the transporter and supplier of new energy



ESG Priorities and Goals

Protecting The Environment



PERFORMANCE HIGHLIGHTS



>> We created a Green Pledge Wall for office employees to voluntarily display their pledges towards adopting more environmentally friendly practices in their daily lives.

Other targets that were met in 2020 included:



A **57%** reduction in the print count to reduce our paper use



Consuming less electricity than the building average

We started trialling the use of LED lights on certain vessels in 2021.

GREEN SHIP PROGRAMME

KLPL participates in the Green Ship Program, MPA's Maritime Singapore Green Initiative to reduce the environmental impact of shipping and related activities while promoting clean and green shipping.

Under this programme, shipowners are encouraged to use energy efficient ship designs, type-approved scrubber technology, the use of LNG, all of which reduce fuel consumption and carbon dioxide and sulphur dioxide emissions. Two of our vessels, Oceana River and Crescent River were recognised under the MPA Green Ship Program in 2019.

IMPROVING OPERATIONAL EFFICIENCY

KLPL uses an energy management system, overseen by the Cost & Performance Monitoring Team (CPMT), launched in April 2021, to monitor and improve the operational efficiency of our fleet.

We utilise Kawasaki Integrated Maritime Solutions (K-IMS) to check achievement levels against set targets for issues such as main engine output power and volume of CO₂ emissions per ton-mile. Furthermore, we have introduced a system for visualising the degree of performance degradation of each individual vessel so that we can implement improvement measures when we observe performance degradation.

K-IMS is a system installed on KLPL-owned vessels which helps to maintain and improve safety in navigation and cargo operations, economic operations, and environmental preservation.

This comprehensive system, developed in collaboration with the Kawasaki Heavy Industries Group, integrates a ship performance analysis system that evaluates the performance degradation of individual and series vessels, and an optimum navigation system that calculates safe and fuel-efficient recommended routes based on the latest meteorological data and actual ocean performance analysis models. By sharing the navigation data collected through a common platform in the cloud with the vessel owner and management companies, in addition to the related divisions in KLPL, we can grasp the operating conditions in real-time and from multiple directions, advancing the operational management of the vessel. Additionally, we are introducing AI-based data analysis technology to enable a highly accurate evaluation of operating performance to maintain further and improve the vessel's performance.

ACCELERATING THE TRANSITION TO MORE SUSTAINABLE SHIPPING FUELS

In recent years, our KLPL Energy division has made inroads into the use of liquid natural gas (LNG) as an alternative shipping fuel to help decarbonise the shipping industry.

Singapore acts as a marine bunker fuel hub for the region. With LNG being an immediately available fuel that emits 25% - 30% less CO₂ than traditional shipping fuels, we aim to support both the supply and transportation of this alternative fuel in the region. The "K" Line Group already provides a ship management service to Singapore's first LNG Bunkering vessel, "FuelNG Bellina", and the KLPL Energy division is actively looking to expand the LNG bunkering business in Singapore. Additionally, we are considering introducing zero-emission fuels, such as ammonia and hydrogen, and services to provide safe transportation of these fuels.

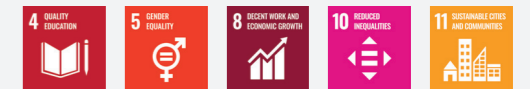
"K" Line Group has conducted a trial use of marine biofuel which was supplied by global integrated energy company bp on car carrier on 6 November 2021.

ESG Priorities and Goals

Protecting The Environment



Advancing Societies

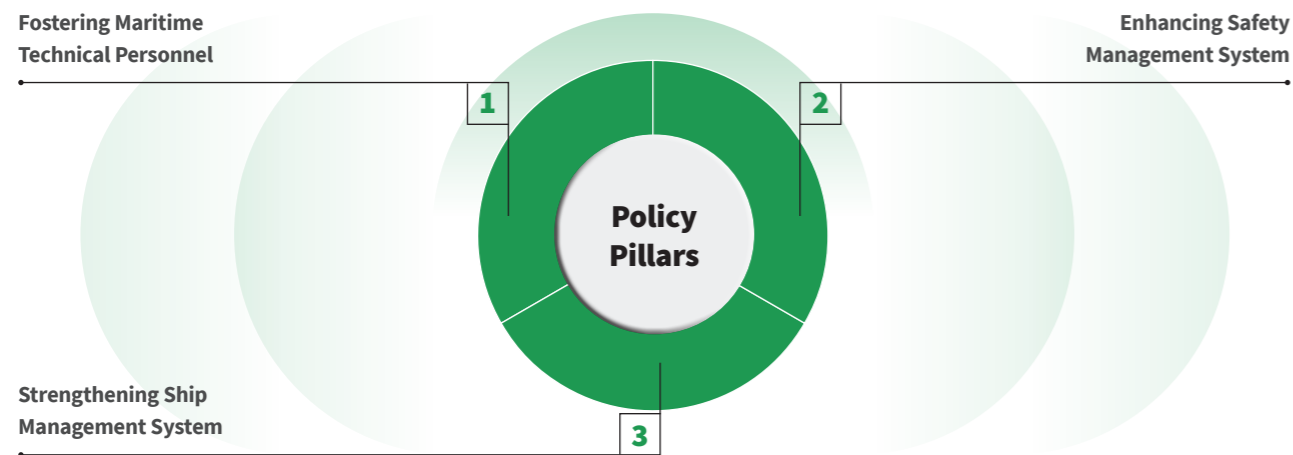


PERFORMANCE HIGHLIGHTS



SAFETY

Operational safety is a number one priority for KLPL and we follow “K” Line Group’s three established policy pillars for safety in navigation and cargo operations:



We conduct yearly due diligence on our safety policies to ensure we comply with safety rules and regulations in all countries in which we operate.

Further safety measures include formulating an Emergency Response Manual based on hypothetical scenarios of major accidents occurring on our vessels, and conducting an emergency response drill several times a year. We also conduct practical training, and media response training, to ensure that all employees and seafarers are able to respond immediately and appropriately if an accident is to occur.



OUR SOCIAL GOALS ARE TO ENSURE WE PROVIDE A SAFE, INCLUSIVE AND CULTURALLY DIVERSE WORKING ENVIRONMENT WHERE ALL EMPLOYEES ARE RESPECTED AND ARE REWARDED FAIRLY AND ACCORDING TO MERIT.

In addition to offer such working place in Singapore, we aim to make a positive contribution to local communities, through philanthropic activities and offering our time and expertise to local community-based projects. We aim to uphold the same ethical standards throughout our supply chain both upstream (our suppliers) and downstream (our customers).

PERFORMANCE HIGHLIGHTS

AN INCLUSIVE AND DIVERSE WORKPLACE

KLPL is committed to building an inclusive workplace where all employees are treated fairly and given equal opportunities for advancement, awarded to them according to merit.

In 2016 we officially pledged our commitment to the 5 key principles of fair employment practices as laid out by the Tripartite Alliance for Fair & Progressive Employment Practices (TAFEP). We are proud to report that our longest serving employee has been with the Group since 1981, and almost 10% of the workforce has been with “K” Line Group for more than 30 years. The average tenure of our employee is 12.5 years.



ESG Priorities and Goals

Advancing Societies



Practising Responsible Governance



PERFORMANCE HIGHLIGHTS

COMMUNITY INVOLVEMENT

An important component of our Corporate Principle is to contribute towards the improvement of society.



We have employed about 80 local talents and the number and also the ratio are increasing year by year. We have always given open and equal opportunities of employment, further education, and also promotion to senior management. While KLPL is 100% wholly owned by “K” Line, which is a listed company in Japan, 56% of our senior management are in fact local talent. We have also been a pioneer sponsor for the Singapore Maritime ONE Scholarship since 2007, wherein we provide scholarships for young talents who wish to embark on a career in the Maritime Industry. We have also arranged for 3 university interns to gain practical experience in our overseas offices and we offered numerous internships and 2 traineeships to local students in Singapore. We continue to adhere to the principle of responsible re-employment and offer re-employment to our eligible retiring employees. Currently, we have 3 employees on re-employment.

KLPL also participates in a mentorship programme that aims to build a close-knit community of support in the Maritime Industry. This programme aims to connect young talents with a pool of experienced mentors who will guide them in their maritime journey.

Prior to the COVID-19 pandemic, we organised a charity carnivals to support local cause, and in the latter part of 2021, we participated in the Plant-A-Tree program organised by the Singapore National Parks Board to support the One Million Tree movement, which aims to transform Singapore into a “City in Nature”. We committed to plant 20 trees to commemorate KLPL’s 20th anniversary.



WE SEEK TO MAINTAIN AN ENVIRONMENT OF TRUST, TRANSPARENCY AND ACCOUNTABILITY WITHIN KLPL’S OPERATIONS.

To this end, we apply rigorous standards regarding legal compliance relevant to all regions in which we operate, and all employees and Board members adhere to a rigorous Charter of Conduct, including a strict anti-corruption and data protection policy and principles of corporate ethics. We also implemented risk management system and business continuity plan.

PERFORMANCE HIGHLIGHTS

RISK MANAGEMENT ASSESSMENT

KLPL has established a Risk Management & Business Continuity Plan Committee in order to recognise and prepare for various risks across KLPL’s business. In 2020, the Risk Management & Business Continuity Plan Committee identified the potential risks that arise with COVID-19 across the various functions within KLPL, specifically, with respect to ship operations, legal and regulatory concerns, employees’ welfare and health and information systems, security disaster management.

On an ongoing basis, KLPL conducts risk assessment and implements measures to mitigate risks arising from KLPL’s operation and financial instruments. Such risks include but are not limited market volatility risk, environmental risk, investment risk, interest rate risk, liquidity risk, credit risk, foreign currency risk and market price risk. Additionally, each year, audits are performed to ensure our compliance with Japan’s Financial Instruments and Exchange Law.

Emergency response drills for marine accidents and media trainings are also conducted several times a year to prepare the employees and relevant personnels to react quickly and swiftly without delay during such a crisis.

DEVELOPING AND STRENGTHENING CORPORATE GOVERNANCE

The “K” Line Group Global Compliance Policy was established in January 2017 to strengthen the Group’s compliance system on a global level.

All employees at KLPL must comply with the Global Policy and its individual policies on competition law, anti-corruption, sanctions, anti-money laundering and data protection laws.

We adopt the “K” Line Group Charter of Conduct, a set of eight principles that guide our contributions towards the sustainable development of society. The eight principles of the Charter of Conduct are summarised on page pages 26 and 27 of this ESG Framework.

In addition to the Charter of Conduct, KLPL has also established various policies and guidelines to strengthen corporate governance and facilitate compliance with relevant laws and regulations. We revise the policies and guidelines regularly to ensure we continuously comply with all applicable laws and regulations. Employees are expected to adhere to these policies and guidelines, which include but are not limited to the following:-

- a) “K” Line Pte Ltd - Singapore Competition Law Compliance Manual;
- b) “K” Line Pte Ltd - Singapore Personal Data Protection Compliance Manual;
- c) “K” Line Pte Ltd - Singapore Workplace Harassment Prevention Compliance Manual;
- d) “K” Line Group - Global Compliance Policy.

To maintain the highest ethical and compliance standard, staff are able to report any potential or genuine problem on compliance through KLPL’s hotline system and/or the “K” Line Group’s Global Hotline System.

Awards and Recognitions

Over the years, KLPL has received numerous awards and recognitions that demonstrate its commitment to ESG topics.

These include:

TWO VESSELS AWARDED UNDER THE MPA GREEN SHIP PROGRAMME



INTERNATIONAL MARITIME CENTRE (CORPORATE) AWARD



ACAP PREMIUM STATUS AWARD



"K" LINE GROUP EXCELLENCE AWARD



The Maritime and Port Authority of Singapore (MPA) established the Green Ship Programme under its Maritime Singapore Green Initiative in 2011 to help reduce the environmental impact of shipping and related activities in Singapore.

Under this programme, shipowners are encouraged to use energy-efficient ship designs and other methods to reduce fuel consumption and emissions. Two of our vessels, Oceana River and Crescent River, were recognised under the MPA Green Ship Program in 2019.

KLPL received the Singapore International Maritime Award 2017 for emphasising the country's vibrant maritime enterprise ecosystem.

Core strengths highlighted by this award include KLPL's compliance with laws and regulations, customised IT solutions and high focus on marine safety.

KLPL was awarded a five-year GST Assisted Compliance Assurance Programme (ACAP) Premium status from the Inland Revenue Authority of Singapore (IRAS) from 2013 to 2018.

In 2019 the Premium status was renewed for a further 6 years. This is a recognition of KLPL's continuous efforts in establishing a good tax infrastructure to ensure GST compliance on an ongoing basis.

As part of the "K" Line Group's Drive Green Network, an environmental awards evaluation committee evaluates and selects one Grand Award and six Excellence Awards each year.

KLPL was honoured to be awarded the Excellence Award for creating environmental awareness among employees in 2020.

ESG Case Studies

Here we share a few examples of “K” Line Group programs and initiatives.

Further environmental initiatives from the “K” Line Group which KLPL is supporting include:



Century Highway Green:
the newest car carrier in “K”Line Group.

In March 2021, the first car carrier for “K”Line Group to use liquefied natural gas (LNG) as fuel was delivered.

This vessel, named Century Highway Green, sees a reduction of 25% to 30% in CO₂ and SO_x by almost 100% compared with conventional vessels, and furthermore, NO_x emissions by 80% to 90% by using exhaust gas recirculation (EGR) together with LNG fuel.

Drive Green Highway completed the construction in February 2016, the 3rd vessel in a 10-vessel fleet series of car carriers of “K”Line Group, each with a 7,500-unit capacity. The ship incorporates state-of-the-art technologies and energy-saving and environmental features at that time, and its broad design can accommodate around 20% more vehicles than its predecessor car carriers. As a result, compared with existing large ships, it can achieve a 25% or more reduction in carbon dioxide (CO₂) emissions, a 50% or more reduction in nitrogen oxides (NO_x), and a 90% or more reduction in sulphur oxides (SO_x) per vehicle carried.

For guidance, while KLPL does not own/operate the vessels mentioned above, we are supporting the “K” Line Group car carriers business.

As a Group, we continue to advance our ambition to decarbonise our operations. In December 2021, “K” Line and Shin Kurushima Dock have obtained joint Approval in Principle for the concept design of ammonia fueled car carrier from Nippon Kaiji Kyokai (ClassNK). Ammonia has the potential to become the next-generation marine fuel as it does not emit carbon dioxide (CO₂) during combustion.

“K” Line Group has conducted a trial use of marine biofuel which was supplied by a global integrated energy company bp on car carrier “POLARIS HIGHWAY”. The marine biofuel was delivered to the vessel at the Dutch port of Flushing on 6 Nov 2021. After leaving Europe Emission Control Area, the vessel conducted the trial use of the marine biofuel. Marine biofuel has the potential to become an environmentally friendly alternative fuel, as it will be able to reduce CO₂ by about 80-90% in the well-to-wake (from fuel generation to consumption) process without changing current engine specifications.



Collaboration to support decarbonisation efforts across the Maritime Industry

“K” Line is listed as an original member of the Global Centre for Maritime Decarbonisation (GCMD), established by the MPA in August 2021. KLPL, on behalf of “K” Line has been supporting its activities.

The GCMD aims to support the maritime sector in reducing GHG emissions, implement identified decarbonisation pathways, and create new business opportunities through collaboration initiatives. Through its GCMD activities, KLPL aims to contribute to the “K” Line Group’s goal of achieving environmental-friendly shipping in line with its Environmental Vision 2050.



Converting to cleaner fuels

Along with the introduction of LNG and LPG fuels, KLPL and the “K” Line Group are also considering the use of ammonia and marine biofuel, as a maritime fuel.

In 2021, the “K” Line Group obtained Approval in Principle for the concept design of ammonia fueled vessel with Shin Kurushima Dock and made trial use of bio fuel supplied by bp, the British multinational oil and gas company. “K” Line Group will take the delivery of a very large gas carrier (VLGC) mainly fuelled by LPG and is capable of transporting LPG or ammonia in 2023. “K” Line Group has also joined the HySTRA, a hydrogen transport project between Australia and Japan. KLPL is also exploring such new type of cleaner fuels for our own fleet together with good business partner who are keen on sustainability in environment.



CO₂ capture plant on vessel



In 2021, the “K” Line Group successfully installed a carbon capture and storage plant on its vessel, Corona Utility.

In trials, the onboard plant separated and captured CO₂ at more than 99.99% purity from the vessel’s exhaust. If current trials lead to the commercialisation of the plant, KLPL will look at utilising it for its own vessels.



Utilising renewable energy



The “K” Line Group and Airseas developed an automated kite system that utilises wind power propulsion and reduces emissions and fuel consumption by an average of 20%.

The technology, known as Seawing, can be installed on any type of vessel, and KLPL will be looking to use the technology on its own vessels in the future.

ENVIRONMENT



ESG Case Studies

Here we share a few examples of “K” Line Group programs and initiatives.



Liquefied Hydrogen Carrier “SUISO FRONTIER” (Photo by Kawasaki Heavy Industries, Ltd.)

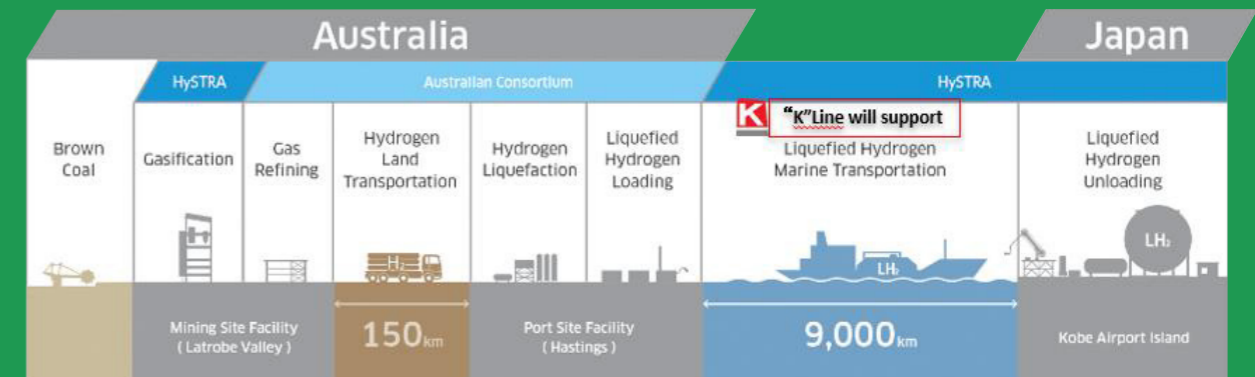


ENVIRONMENT



CO₂-free Hydrogen Energy Supply-chain Technology Research Association (HySTRA)

“K” Line Group will provide assistance for the safe long-distance transportation of liquefied hydrogen between Australia and Japan.



Offshore Support Vessel Operation

Japanese Government has announced its Green Growth Strategy for carbon neutrality by 2050. Offshore wind power is a prerequisite to the decarbonization of the electricity sector and it started to promote its supply chain development.

“K” Line Wind Service is established for the target of contributing to offshore wind power development and carbon neutrality of the society by gathering the whole “K” Line Group’s worldwide experience and expertise in the offshore vessel operations. “K” Line Wind Service will provide offshore support vessel services “AKATSUKI” and “KAIKO” owned and operated by “K” Line Group and further expand the expertise to various types of offshore wind vessels.



Joint Research on Marine Plastic Waste

“K” Line signed a joint research agreement with Tokyo University of Marine Science and Technology (TUMSAT) to start joint research on marine plastics on 4 October 2021. “K” Line’s vessels, which navigate many seas around the world, will collect samples of plastic particles during voyages. TUMSAT will evaluate how much plastic waste can be collected from seawater under common process and analyse the material, size, and other elements.



SOCIAL



Implementing remote vessel inspections

We conduct inspections of equipment and documents, reporting the results back to the vessel owner and management companies.

As a COVID-19 countermeasure, we launched remote vessel inspections through the use of IT and digital equipment. In addition to minimising COVID-19 transmission risks, the use of IT and digital equipment has the advantage of facilitating the presence of people other than the owners, management companies, and other supervisors in charge of the vessel, allowing for better information sharing. As we advance, we will consider expanding the functions of remote inspections.

KLPL Charter of Conduct

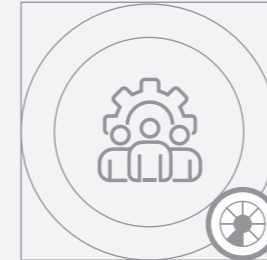


KLPL has adopted the “K” Line Group Charter of Conduct to promote corporate values. Key commitments enshrined in the KLPL Charter of Conduct are:



Human Rights

The “K” Line Group will consistently respect human rights and well consider personality, individuality and diversity of its corporate members and improve work safety and conditions to offer them comfort and affluence.



Protection, proper management and disclosure of information and communication with society

The “K” Line Group will protect personal and customer data, properly manage corporate information and disclose corporate information through timely and appropriate disclosure, widely promoting bidirectional communication with society widely including shareholders.



Compliance

The “K” Line Group promises to comply with applicable laws, ordinances, rules and other norms of behaviour both in the domestic and international community and conduct its corporate activities through fair, transparent and free competition.



Contribution to society

The “K” Line Group as a Good Corporate Citizen will make ongoing efforts to contribute to the social development and improvement and support employee’s voluntary participation in such activities.



Trustworthy company

“K” Line Group continues to pay special attention to safety in navigation, achieving customer satisfaction and garnering trust from the community by providing safe and beneficial services.



Harmony in the international society

The “K” Line Group will contribute to development of international society in pursuance of its business pertaining to international logistics and related businesses, respecting each country’s culture and customs.



Protective environmental efforts

The “K” Line Group recognises that global environmental efforts are the key issue for all of humanity and that they are essential both in business activities and existence of all the company and therefore we are committed to a voluntary and proactive approach to such issues to protect and preserve the environment.



No relations with anti-social forces

The “K” Line Group will resolutely confront and sever all relations with anti-social forces or organisations which may threaten social order and public safety.

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