

“K” LINE will continue to fulfill its social mission as a shipping company while providing new value to achieve ongoing improvements in corporate value.



Yukikazu Myochin
President & CEO

Commitment Represented by the Fiscal 2021 Management Plan Theme

The COVID-19 pandemic triggered a temporary period of stagnancy in economic activity, while drawing attention to a number of issues that had not previously been apparent. Concurrently, the pandemic stimulated changes in people’s behavioral patterns, such as teleworking, while sparking an increase in concern about reducing our environmental impact. These trends have created a drive for industries to transform themselves in order to achieve decarbonized operations.

“K” LINE’s mission is to fulfill its role as a shipping company—that is, ensuring that logistics channels remain fluid—and to continue providing an indispensable piece of social infrastructure that supports people’s lives. The COVID-19 pandemic clearly showed the importance of safe and economically sound operation of vessels and of the need to achieve our targets for reductions in our environmental impact. At the same time, the pandemic presented a need to further build upon our expertise in providing safe, high-quality, and eco-friendly services and the engineering and digital technologies that underpin this insight. “K” LINE must also continue to achieve sustainable growth with stable earnings by supplying reliable services while utilizing its expertise and experience to grow together with society and the global environment. This is the commitment represented in the fiscal 2021 management plan’s theme of “Connecting the World via Oceans and Technology.”

The “K” LINE Spirit Shows True Potential in the Face of Adversity

“K” LINE boasts a long history spanning more than 100 years. Our ability to survive for this long period is a result of our continuous efforts to adapt to the volatile market environment by capitalizing on our strength in sales, acting with a sincere attitude, and offering sales proposals that meet customers’ needs. The “K” LINE spirit has been our guiding principle throughout this process. To further reinforce our strength in sales, it will be important for all employees to remain receptive to changes in customer trends in order to respond flexibly on an organizational level.

If we turn to the automotive industry, for example, we will see the acceleration of initiatives for adopting alternative energy sources and contributing to the realization of a decarbonized society. These initiatives take forms such as the transition to electric vehicles and other so-called connected, autonomous, shared, and electric (CASE) technologies.*1 In addition, customers are increasingly expected to reduce greenhouse gas emissions in ways that extend to the direct and indirect emissions from business activities while pursuing reductions in greenhouse gas emissions across supply chains and the lifecycles of their products. For this reason, it is vitally important for “K” LINE to provide safe and reliable transportation, which is at the core of our services, as well as to offer solutions to address customers’ decarbonization needs. If we do not, customers might not recognize us as a reliable business partner.

One step forward in this regard was building *CENTURY HIGHWAY GREEN*, “K” LINE’s first LNG-fueled vessel. Completed in March 2021, this car carrier represents a completely new undertaking for “K” LINE and is an amalgamation of the latest technological advancements. In addition to contributing to reductions in greenhouse gas emissions and other environmental impacts, *CENTURY HIGHWAY GREEN* employs the latest digital technologies and onboard internet infrastructure. Moreover, its construction was funded using climate transition loans*2 designed for financing initiatives for decarbonizing operations (see pages 24–27).

We are already in the process of pursuing new innovations after *CENTURY HIGHWAY GREEN*. Specifically, we are currently planning to build an LNG-fueled Cape-size bulk carrier. Our first LNG-fueled bulk carrier, this will be equipped with the Seawing automated kite system for utilizing wind power, a unique and innovative provision for decarbonization.

These initiatives are all prime examples of the “K” LINE spirit (independence and autonomy, broad-mindedness, and enterprising spirit). In the current highly uncertain business environment, we aim to become a company that transforms adversity into opportunities and perceptively senses changes in order to contribute to the future.

*1 This term refers to technologies expected to transform the automotive industry going forward.

*2 This is a financing program designed to contribute to the transition to a carbon-neutral society by providing efficient funding to the initiatives of companies that are working toward decarbonization.

Management Policies for Achieving Ongoing Improvements in Corporate Value

"K" LINE is pursuing improvements in its ability to flexibly evolve to adapt to future uncertainty, while striving to become more unique by continuously promoting innovation in advance of change. With these objectives in mind, we have defined the following five business strategies in our management plan for fiscal 2021. Through these strategies, we aim to identify the best-possible course of action based on the outlook for social and business environment changes and to achieve ongoing improvements in corporate value through this course.

Refining Our Four-Pillar Business

The four pillars of "K" LINE's operations are its Dry Bulk, Energy Resource Transport, Car Carrier, and Logistics and Coastal and Short Sea businesses. We aim to improve the profitability of these businesses.

One measure for refining these businesses will be to continue and accelerate efforts to optimize our fleet scale, for which we achieved a certain degree of results in fiscal 2020. The optimization of our fleet scale is crucial, as strengthening our resilience to changes in a volatile market will be absolutely essential to improving corporate value in the future. Accordingly, we will move forward with fleet scale optimization ahead of schedule to prepare for unforeseen circumstances and facilitate flexible responses to any future temporary market downturns. Our focus in

optimizing our fleet scale will not be limited to cutting down on high-cost vessels. Rather, we intend to improve overall asset value by assembling a fleet of highly competitive, and therefore profitable, vessels with exceptional levels of safety and superior environmental performance.

Another measure for refining our business pillars will be fortifying our ability to provide clients with new ideas. This measure is a reflection of my desire to continue to propose new ideas to customers in the future. Up until fiscal 2019, we were forced to focus on liquidating the unprofitable assets with which we had been saddled as a result of prior excessive investments. However, we are now nearing the end of this process. By tackling new challenges suited to this new phase, we hope to propose new value to customers. Setting forth the measure of fortifying our ability to provide clients with new ideas is symbolic of our commitment.



If we cannot continue to propose new ideas to customers, we will not be able to become a reliable partner for customers.



Through our history, we have proceeded to produce unique new services based on our identity as exemplified by the "K" LINE spirit. Our development and proposal capabilities have always been the Company's strength. These capabilities can be seen in the "Corona Series" of dedicated thermal coal carriers that became the standard in the shipping industry for supplying coal for thermal power plants in Japan due to their proprietarily developed wide-beam, shallow-draft structure. However, if we cannot continue to propose new ideas to customers, we will not be able to become a reliable partner for customers. As the leader of "K" LINE, I am committed to building an organization where all employees work diligently to create new value based on unrestrained ideas and a flexible approach.

Venturing into New Business Areas

"K" LINE will venture into new business areas to create value. In particular, we will focus on fields related to safety and the environment, which we are exploring actively under the leadership of four dedicated groups: the GHG Reduction Strategy Group, the Carbon-Neutral Promotion

Group, the Fuel Strategy & Procurement Group, and the Advanced Technology Group. Pooling our technologies and expertise through these groups, we will seek to develop growth businesses by concentrating the allocation of management resources on fields in which we can utilize "K" LINE's accumulated expertise and engage in co-creation with trustworthy partners.

In fields related to the realization of a low-carbon and ultimately carbon-free society, we have already begun developing LNG bunkering businesses at Mikawa Bay in Japan as well as in Singapore. As another example, we established "K" Line Wind Service, Ltd., as a joint venture with Group company Kawasaki Kinkai Kisen Kaisha, Ltd., in June 2021. "K" Line Wind Service was created to offer support services to offshore wind power generation businesses with the aim of facilitating our entry into this area. This company has started operations, and it is receiving numerous inquiries from potential customers in Japan and overseas.

Furthermore, "K" LINE is taking part in verification tests as part of its efforts to develop technologies related to next-generation fuels, such as ammonia, hydrogen, and biofuels, with an eye to the decarbonization trends anticipated after the 2030s. To accurately identify the business opportunities brought by technological innovation, members of "K" LINE, myself included, are learning from a range of experts with regard to next-generation fuels in order to continually update our knowledge regarding the technological hurdles to ensuring safety and commercializing these technologies and the challenges in developing supply chains.

Accelerating Business Development Abroad, Particularly in Asia

Asia is a growing market where we expect significant growth in shipping demand. In this region, "K" LINE is currently developing business portfolios for its four-pillar businesses on a country-by-country basis. In addition, we are utilizing the networks with local business partners established through the containership business that was integrated into Ocean Network Express Pte. Ltd. (ONE) as well as the "K" LINE brand, which is backed by years of experience.

We expect increased transport demand for energy resources. The Asian market is projected to see growth in energy demand, but countries in this region are still relatively dependent on other countries for their energy needs. In LNG transportation, for example, we are

offering small-scale transportation services for countries where port infrastructure has not yet been developed for large-scale vessels. "K" LINE will also cater to various types of energy demand, such as that for renewable energy.

In business fields other than energy, we are developing portfolios to grow our businesses by fully utilizing the business resources in each country. Accordingly, we are advancing established businesses in China and India and incorporating demand in the Middle East, South Africa, and other emerging countries through trilateral transportation in the dry bulk vessel business; we will be expanding our service network to meet new demand arising from advancements in electric vehicle and other automotive technologies in the car carrier business; and we will be addressing local needs flexibly through collaboration with partners in the logistics and short sea businesses.

Achieving Further Competitiveness in Containership Business

The company just mentioned, ONE, is a company created by integrating the containership operations of Mitsui O.S. K. Lines, Ltd., Nippon Yusen Kabushiki Kaisha, and "K" LINE in 2018. This company is positioned as an equity-method affiliate of "K" LINE. Although ONE faced difficulties in its first year, it succeeded in generating synergies of ¥110.0 billion in fiscal 2019, the initial target set at the time of the integration. This feat was accomplished by incorporating the best practices of the three companies.

ONE has been achieving increases in earnings due to the strong growth in demand that has continued since the third quarter of fiscal 2020 as well as the favorable trends in freight rates. We expect that supply and demand will gradually return to normal levels as a result of COVID-19 vaccine rollouts and the subsequent easing of activity restrictions. It is when supply and demand return to normal that the true strength of ONE will be tested. "K" LINE is committed to providing ONE with ongoing support in the form of human and other resources.

Improving Corporate Value

"K" LINE had put forth a target of achieving equity capital of ¥300 billion or more by the mid-2020s. However, we managed to accomplish this target in the first quarter of fiscal 2021, substantially earlier than expected. This was a result of an increase in retained earnings stemming from the sale of businesses in conjunction with portfolio restructuring and improvements in the performance of ONE.



With this sooner-than-expected improvement in our financial base, we are now poised to move on to the next stage. We are in the process of drafting new management plans that incorporate growth strategies and disciplined investments in preparation for our move to this next stage. Looking ahead, we intend to redefine our core values and develop growth strategies in accordance with these redefined values. At the same time, we will continue to enhance our financial base and secure stable earnings while examining potential growth investments with a focus on balancing risks and returns.

We also recognize that shareholder returns are an important management priority. We are thus assessing the ideal level of capital and reviewing our capital policies, including shareholder returns, for the next stage.

“We intend to redefine our core values and develop growth strategies in accordance with these redefined values. At the same time, we will continue to enhance our financial base and secure stable earnings while examining potential growth investments with a focus on balancing risks and returns . . . We are . . . assessing the ideal level of capital and reviewing our capital policies, including shareholder returns . . . ”

The COVID-19 Pandemic and Onboard Workstyle Reforms

The “K” LINE Group’s corporate principle is to earn “trust from all over the world” and thereby “contribute to society so that people live well and prosperously.” In addition, our vision is for “K” LINE to be trusted as an “important infrastructure for global society,” indicating our commitment to fulfilling our responsibility to society. COVID-19 tested the depth of our resolve toward this commitment.

Our top priority in responding to the COVID-19 pandemic was ensuring the safety of seafarers. The staff of seafarers who operate “K” LINE Group vessels is comprised of around 4,000 employees from approximately 20 countries. Of these, more than 3,000 are from the Philippines. As COVID-19 prompted many countries to close their borders, the opportunities for seafarers to embark and disembark were limited. As a result, in July 2020, the peak of such border closures, 1,100



of our seafarers had been on board for more than 10 months, a period that would have been unthinkable in normal circumstances.

Coordinating with the relevant authorities, the “K” LINE Group sought to encourage the global society to join us in pursuing a swift resolution to the issues regarding the inability to change crew members. We also took our own steps to address these issues. Actions by the Group included, of course, exhaustive measures for preventing the infection of ship crew members by COVID-19. In addition, we expanded the range of onboard recreation options available to seafarers, to help them relieve the additional stress accumulated during their extended stays on board while providing mental and physical care to their families. Furthermore, additional allowances were provided to employees who had been scheduled to board but were forced to remain on standby due to travel restrictions.

The improvement of working environments for maritime employees is important, not just to address the current challenges but also for securing employees over the long term and for transmitting our safety culture and techniques. For this reason, we launched the “K-Smart” Project with the aim of installing digital technologies into vessels for the purpose of accelerating workstyle reforms. This project has involved installing onboard communication equipment, upgrading onboard networks through Wi-Fi and other methods, and taking steps to boost signal transmission between land and seafaring vessels. Through the project, we intend to increase safety and transportation quality by digitizing and streamlining certain onboard processes to reduce the burden placed on maritime

employees. As we move forward with these advancements, enhancing cybersecurity will also be an important task for fully capitalizing on the introduction of digital technologies into vessels and ensuring safe navigation.

Forward-Looking Sustainability Management

The “K” LINE Implementation Guideline for the Charter of Conduct states that “‘K’ LINE will eliminate any discrimination in employment or compensation based on nationality, gender, religion, social class, or other social status, and ensure equal opportunity in the implementation of the human resources management.” Based on this principle, we are committed to positioning our employees where they can make the greatest possible contributions to our global business model, regardless of their gender or nationality. Most of all, we realize that if we do not offer an environment in which every employee can heighten and exercise their skills, with no division between maritime and onshore employees, then we will not be able to continue our business in the future.

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Sustainability management, I believe, is something that should not be practiced based on a short-term perspective, but rather should employ a longer-term perspective. Moreover, the perspective of sustainability management is incredibly potent for projecting social changes and the resulting changes in customer needs and thereby ensuring that we can provide valuable services in this projected future. I hope to fulfill our mission as a shipping company and achieve ongoing improvements in corporate value. Organization and human resource development to help employees exercise their skills, as well as business activities that contribute to the realization of a low-carbon and ultimately carbon-free society, are undertakings aimed at achieving these goals.



THANK YOU SEAFARERS

“K” LINE movie “Thank You Seafarers: Unsung Heroes”

In June 2020, employee volunteers released a video tribute to the seafarers who were facing challenging conditions due to our inability to undertake crew changeovers. This video deeply moved me. The messages were filled with respect and support for our colleagues, who were working around the clock in the face of this unforeseen adversity. I feel that these messages embody the concept of respecting humanity that is included among our values, as well as the broad-minded perspective which is part of the “K” LINE spirit. When Group employees recognize our corporate principle and vision as something that relates to themselves and reflect it in their actions, I believe it is incredibly meaningful when it comes to envisioning the future and providing new value. I will continue to carry out management based on our corporate principle and vision going forward, to further improve corporate value.

I look forward to the continued understanding and support of all of our stakeholders.

President & CEO

► Megatrends and the “K” LINE Group’s Response

The “K” LINE Group has developed management plans based on a medium- to long-term outlook for the trends in the global society and changes in the business environment for the shipping industry. The rapidly changing social and market environment presents opportunities for the Group. To capitalize

on these opportunities and achieve sustainable growth, we have judged that it is imperative to continue to reinforce our operating foundation, implement cutting-edge initiatives, and bolster our unique competitive edge in order to flexibly evolve and adapt in the face of an uncertain future.

■ Megatrends



■ Progress and Results of the Fiscal 2020 Management Plan

Firmly protecting our business in the short term ▶ Progress as planned

- Fleet scale optimization: Reduced 25 vessels in fiscal 2020 and made our fleet leaner and stronger

Long-term fixed core fleet scale	Beginning of fiscal 2020	End of fiscal 2020	Fiscal 2025 target
Total	352 vessels	327 vessels	300 vessels

▶ P20-23 Message from the CFO

- Refocus of investments: Continued to refocus investments as planned

Initiatives for safety / environment / quality and growth strategy ▶ Progress as planned

- Reduction of greenhouse gas emissions
▶ P19 Financial and ESG Highlights
- Expanded introduction of LNG-fueled vessels
▶ P24-27 Special Feature: Providing New Value Roundtable Discussion with Employees
- Expansion of LNG bunkering business
▶ P60-61 Business Overview, Fuel Strategy & Procurement Business, Energy Resource Transport
- Expanded introduction of K-IMS
▶ P30-31 Special Feature: Providing New Value Improvement of Safety, Environmental Performance, and Quality with Digital Technologies
- R&D for the Seawing automated kite system
▶ P38 Strategies for the “K” LINE Environmental Vision 2050
- Carbon capture and storage (CCS) demonstration trials
▶ P62-63 Business Overview, Electricity Business, Energy Resource Transport
- Formulated the revised edition of “K” LINE Environmental Vision 2050
▶ P38 Strategies for the “K” LINE Environmental Vision 2050
- Continuation of safe vessel operation and navigation
▶ P34-35 Safety in Navigation and Cargo Operations

Secure liquidity on hand ▶ Progress as planned

- Stably secured cash equal to more than three months’ turnover to prepare for unforeseen business circumstances after the COVID-19 pandemic

Expand shareholders’ equity ▶ Progress well above expectations

- Significant improvement in earnings of Ocean Network Express (ONE) and completion of the sale of shares of a consolidated subsidiary operating container terminals on the North American West Coast to accelerate progress toward a shareholders’ equity target of ¥150 billion by the mid-2020s
▶ P20-23 Message from the CFO

► Fiscal 2021 Management Plan

■ Overview of the 2021 Management Plan

The fiscal 2021 management plan, which is based on the theme of "Connecting the World via Oceans and Technology," has been designed as a rolling plan that will guide us in implementing business strategies aimed at realizing ongoing improvements in corporate value. The plan is centered around the four business strategies of refining our four-pillar business; venturing into new business areas; accelerating business development abroad, particularly in Asia; and achieving further competitiveness in the containership business. In conjunction with these four business strategies, we will advance organization-wide function strategies based on eight core themes. By continuously reinforcing our financial position in this manner, we aim to improve corporate value. The "K" LINE Group looks to accelerate

investments in strategic growth fields in line with the reinforcement of its financial position. Specifically, we are projecting total investments of around ¥250.0 billion over the five-year period beginning with fiscal 2021, and we have earmarked approximately ¥100.0 billion of this amount for environment-related investments, such as those for contributing to a decarbonized society. These investments will be used to reshape our business portfolio in response to market changes over the medium to long term. Meanwhile, we will support equity-method affiliate Ocean Network Express Pte. Ltd. (ONE) in formulating business and investment plans as well as dividend policies and other capital measures, to facilitate the improvement of its competitiveness and corporate value.

■ Outline of Management Plan

		Growth Areas	
Refining our four-pillar business <ul style="list-style-type: none"> Fortifying our ability to provide clients with new ideas Continuing our fleet optimization in line with plans Expanding our base of stable-income businesses Refocus of investments Better use of data Rigorous pursuit of efficiency in vessel allocation 	Dry Bulk	Accelerating business development abroad <ul style="list-style-type: none"> Expand overseas sites Deploying our global network and collaboration with local partners 	Studying the incorporation of growth areas <ul style="list-style-type: none"> Utilizing environmental technologies Utilizing AI and DX technologies
	Energy Resource Transport	<ul style="list-style-type: none"> Further strengthening transport in both emerging markets and between third countries 	<ul style="list-style-type: none"> Installation of the Seawing automated kite system on dry bulk carriers (from fiscal 2022 onward) LNG-fueled Cape-size bulkers
	Car Carrier	<ul style="list-style-type: none"> Responding to diversifying energy demand 	<ul style="list-style-type: none"> Offshore support vessels for offshore wind power generation Support for offshore wind power generation projects in Japan Transport utilizing new energy Transportation by small-scale LNG carriers LNG-related business such as LNG bunkering vessels On-ship CO₂ capture and storage verification test LPG-fueled LPG and ammonia carriers
	Logistics / Short Sea and Coastal	<ul style="list-style-type: none"> Responding to growth in electric vehicles (EVs), particularly in China 	<ul style="list-style-type: none"> Expansion of the fleet of LNG-fueled car carriers (an additional eight vessels) Increasing high & heavy cargo volume
		<ul style="list-style-type: none"> Business development rooted in each area 	

Containership

• "K" LINE, as a shareholder, continues to support ONE as the containership business is one of our key businesses.

Core themes

- Continuing to strengthen the financial base
- Providing safe, reliable, high-quality services
- R&D of environmental technologies
- Strengthening governance
- Sharing knowledge throughout the Group
- Deploying in-house talent and outside knowledge
- Promoting DX
- Improving operational efficiency

■ Investment Plan

Refocusing investments in the short term

- Overall investment in the five years beginning in fiscal 2021 will be about ¥250.0 billion, within the scope of operating cash flow.
- Looking ahead after strengthening our financial base, we will consider investing in new growth areas.

■ Strategic investment (R&D / DX)

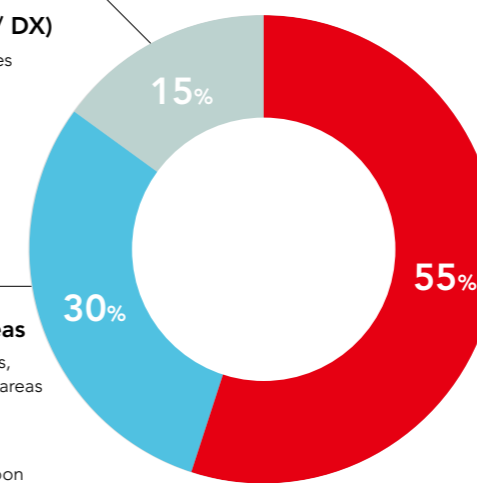
R&D for new environmental technologies
Investment for promoting digital transformation (DX)

- Investment for R&D for environmental technologies
- R&D for zero carbon
- Strengthen AI / digitalization

■ Environment for growth areas

Prioritize investment in energy resources, environment-related areas, and growth areas

- Vessels using alternative fuels
- Environmental response equipment
- New business contributing to low carbon



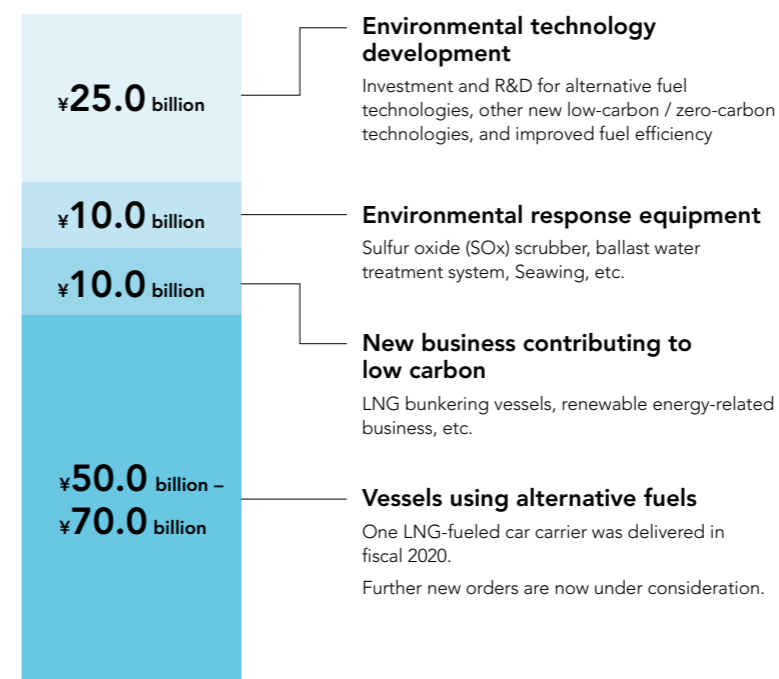
■ Replacement

Replacement investment focused mainly on stable-income business

- Investment based on long-term contracts
- Expansion of stable-income business
- Strengthening of profitability

■ Environment-Related Investment

Environment investment budget ¥100.0 billion (from fiscal 2021 for five years in total)



Other initiatives

- Promoting investment in low carbon by setting ICP* on investment
 - Looking ahead after strengthening our financial base, we will consider investing in new growing areas.

- Promoting investments that incorporate transition finance

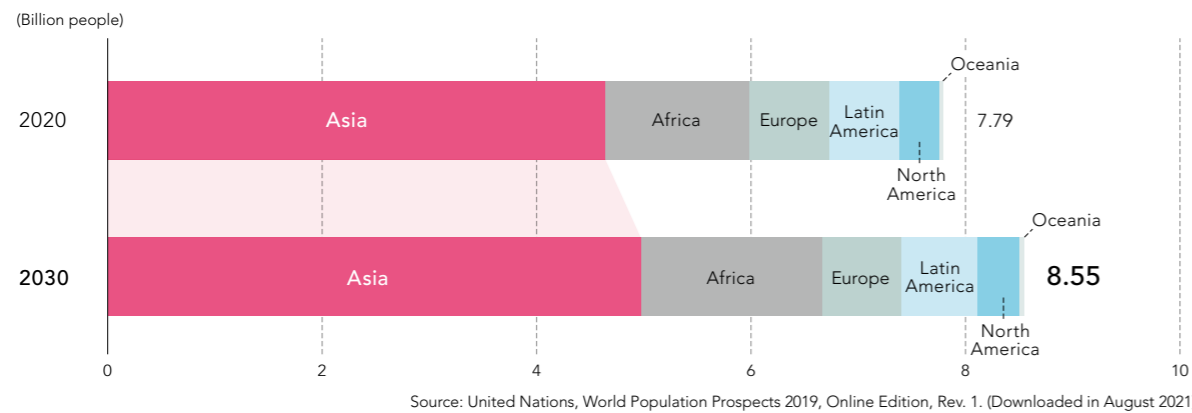
* Internal carbon pricing (ICP): Carbon pricing that is set and used inside the Company

► Growth Potential of the Asian Market

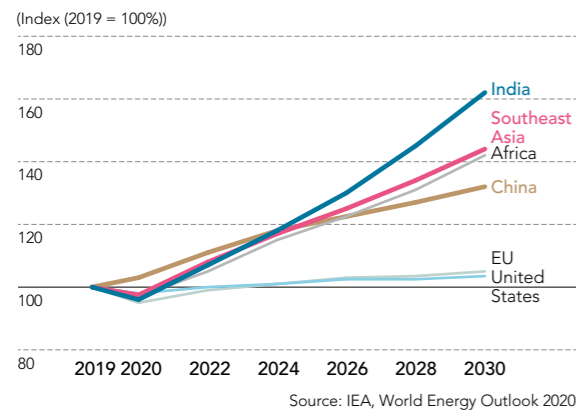
"K" LINE's business strategies for accelerating the global development of its business include expanding its overseas network, collaborating with local partners, generating synergies between "K" LINE Group companies, and training management personnel. A particular target of these strategies will be Asia, which is expected to account for nearly 5.0 billion of the projected global population of more than 8.5 billion people in 2030. In this market, we

anticipate increases in logistics demand driven by population growth and rises in purchasing power. We also forecast increases in demand for electricity and other forms of energy as a result of population growth. At the same time, there will be efforts to support the decarbonization policies of national governments, giving rise to demand for transporting energy resources as needed to accommodate government energy and environmental policies.

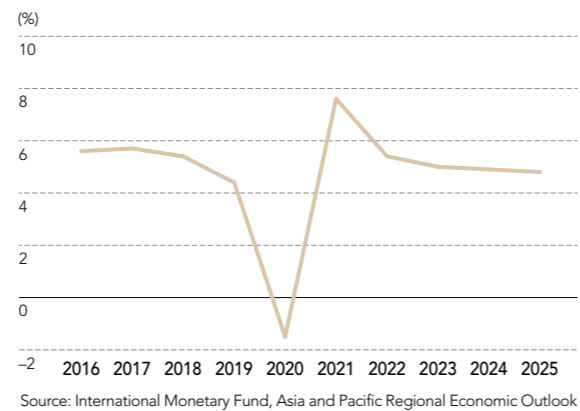
World Population Prospects



Electricity Demand Outlook in Selected Regions/Countries in the Stated Policies Scenario



Average for Asia, Gross Domestic Product, Constant Prices



Key Points

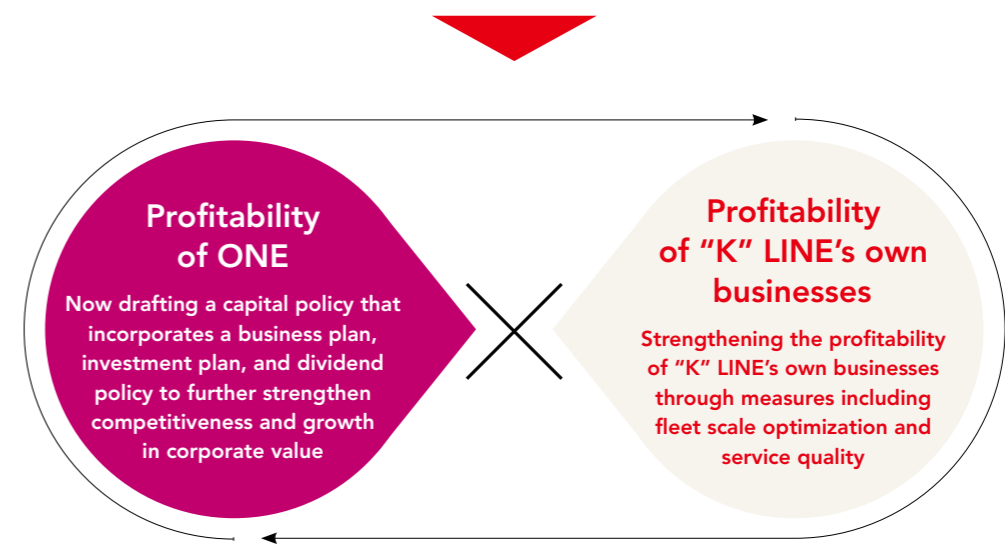
- Population of Asia, including world population leaders China and India, to reach nearly **5.0 billion** in 2030
- Electricity demand in India, Southeast Asia, and other emerging markets to be **40% to 60%** higher in 2030, compared with 2019
- Annual GDP growth rates of approximately **5%** driven by population growth projected for Asian countries over the medium term

► Initiatives for Improving Corporate Value

The "K" LINE Group is focused on boosting the profitability of its four-pillar business by optimizing fleet scale and enhancing services. In addition, we will support ONE in increasing its earnings power to stabilize our growth foundations and financial position from a medium- to long-term perspective. A new management plan has been formulated that incorporates growth strategies based on the faster-than-anticipated progress of efforts to improve our

financial position observed at the time of the announcement of financial results for the three months ended June 30, 2021. In addition, the "K" LINE Group revised its core values to facilitate growth strategy formulation and disciplined investment. We are also examining shareholder return policies based on our ideal level of capital in our pursuit of improved corporate value.

Completed containership business structural reform by establishing Ocean Network Express (ONE)



Management issues for growth in corporate value

Growth strategy

Planning a growth strategy by redefining core value and strengthening disciplined investment

Further enhancing financial strength

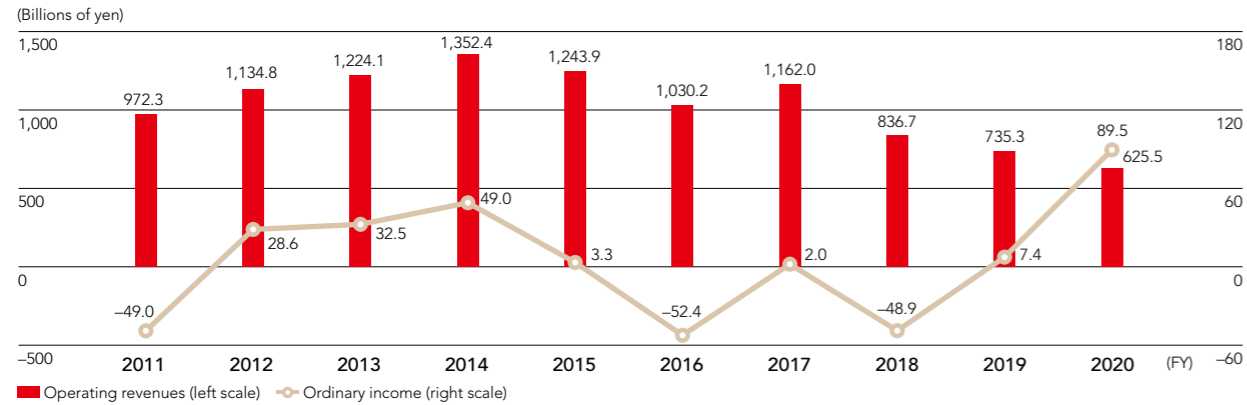
Return to shareholders

- Now drafting a new management plan that incorporates growth strategies based on the financial base being strengthened earlier than expected
- Considering shareholder dividends while maintaining an appropriate capital level

Financial and ESG Highlights

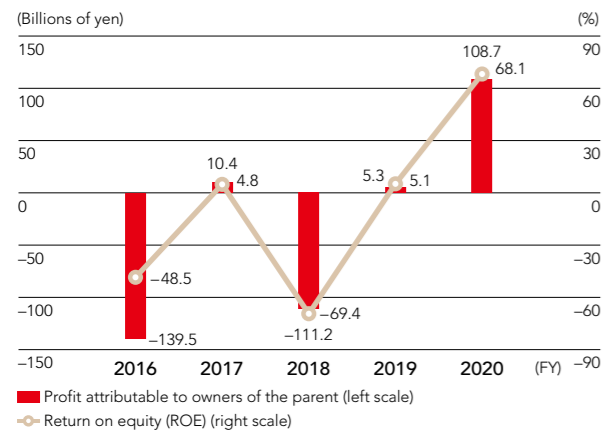
Kawasaki Kisen Kaisha, Ltd. and consolidated subsidiaries

Operating Revenues, Ordinary Income



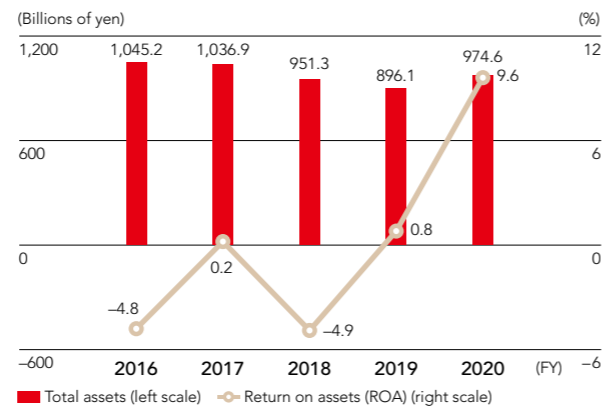
In fiscal 2020, the COVID-19 pandemic caused a temporary dip in transportation demand, which mainly affected the Company's dry bulk and car carrier businesses. As a result, operating revenues decreased 14.9% year on year. Nonetheless, ordinary income rose steeply to ¥89.5 billion, primarily thanks to a solid performance by our containership business operated by equity-method affiliate ONE. The affiliate performed well due to increased cargo demand and stable short-term freight rates—particularly from the second half of the fiscal year onward—which stemmed from stay-at-home demand, etc.

Profit Attributable to Owners of the Parent, Return on Equity (ROE)



A significant increase in profit attributable to owners of the parent and a sharp rise in return on equity, to 68.1%, were attributable to the solid performance of ONE and the recognition of extraordinary income, which resulted from the sale of Company's shares in International Transportation Service, Inc., which operates the overseas terminal business.

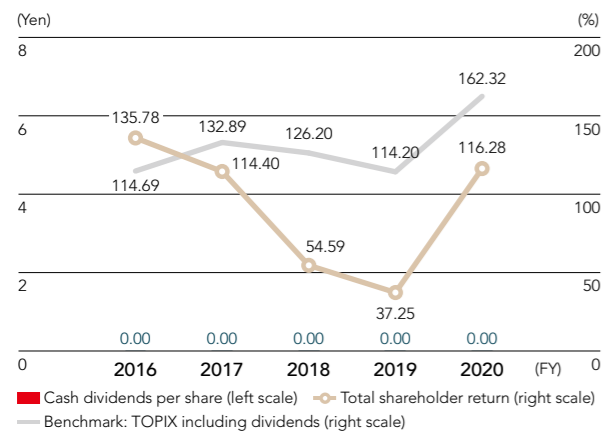
Total Assets, Return on Assets (ROA)*



In fiscal 2020, return on assets increased significantly year on year, to 9.6%, due to the marked growth in ordinary income.

* "Partial Amendments to the Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28, issued on February 16, 2018), etc., has been applied from the beginning of fiscal 2018, and applied retroactively to the total assets and return on assets for fiscal 2017 for recalculation.

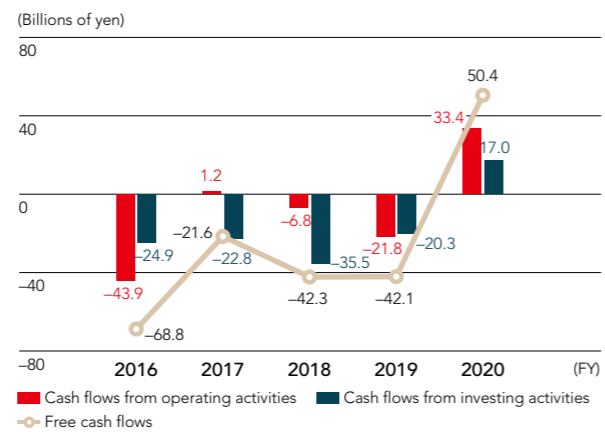
Cash Dividends per Share, Total Shareholder Return (TSR)



In fiscal 2020, we gave first priority to continued efforts to improve and strengthen our financial position, and it was with sincere regret that we decided not to pay a dividend for the fiscal year. Further, TSR increased significantly year on year.

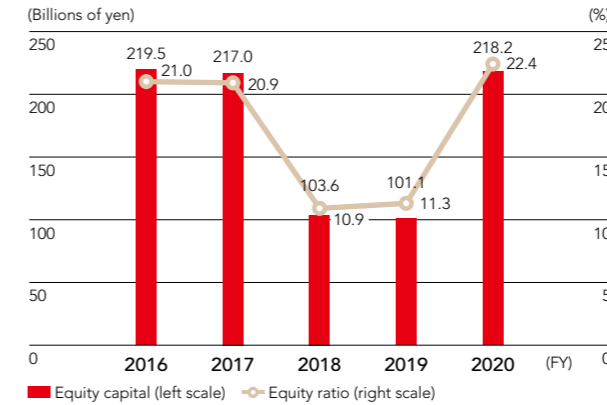
Note: Rounded to the nearest ¥0.1 billion (except for cash dividends per share and TSR)

Cash Flows



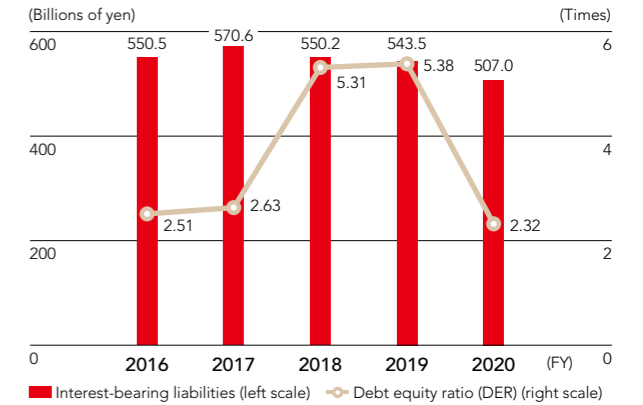
In fiscal 2020, net cash provided by operating activities was recorded due to profit before income taxes, and net cash provided by investing activities was booked as a result of income from the sale of shares of a subsidiary, which accompanied a change in the scope of consolidation. Consequently, positive free cash flow of ¥50.4 billion was recorded.

Equity Capital, Equity Ratio



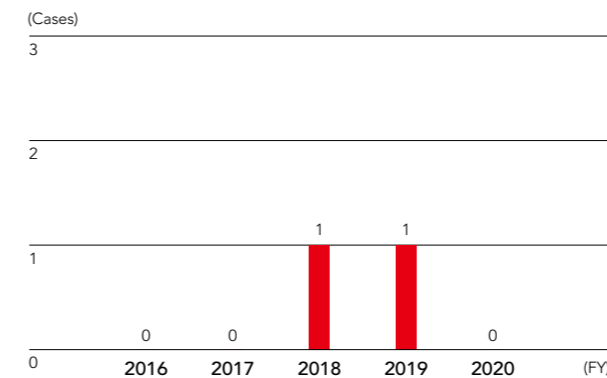
In fiscal 2020, equity capital grew steeply thanks to the increase in profit attributable to owners of the parent, etc. Consequently, at the end of the fiscal year equity capital had approximately doubled compared with its level at the previous fiscal year-end to reach ¥218.2 billion, while the equity ratio had improved significantly to 22.4%.

Interest-Bearing Liabilities, Debt Equity Ratio (DER)



At the end of fiscal 2020, interest-bearing liabilities totaled ¥507.0 billion, down from those of the previous fiscal year-end. Also, the significant growth in equity capital resulted in a marked improvement in the DER, to 2.32 times.

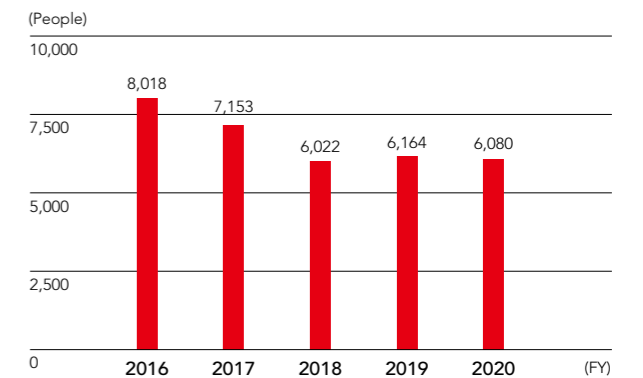
Number of Major Accidents*



In conducting shipping business, establishing and maintaining safety in navigation is an unending mission. Over the past five years, two oil spills have resulted from one grounding and one collision. In both cases, we took appropriate measures to minimize damage.

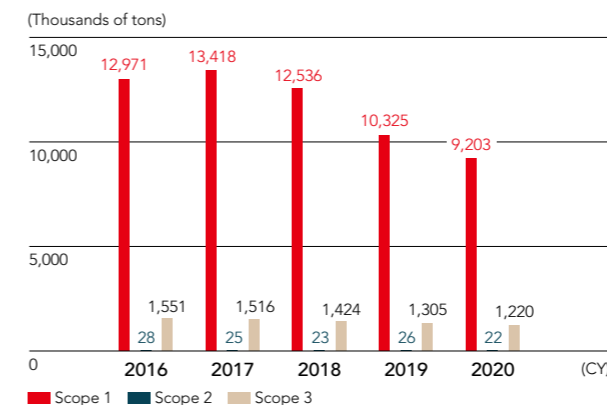
* The target range is our consolidated range, which corresponds to 100% of sales.

Number of Employees (Consolidated)



We seek to secure and train outstanding employees to maintain our world-class level of safety in navigation and cargo operations.

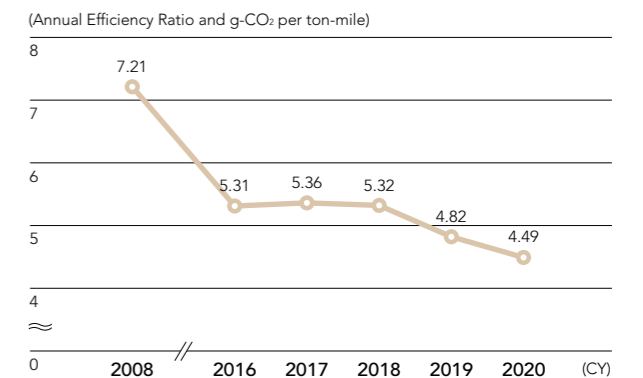
Greenhouse Gas Emissions* (Scope 1, 2, 3)



CO₂ emissions are calculated based on the "K" LINE Group's fuel consumption and electricity consumption, and third-party certification is obtained for these calculations. Scope 1 emissions, which are mainly from vessels, account for approximately 90% of "K" LINE's total emissions. Continuing their downward trend of 2019, our Scope 1 emissions again decreased year on year in 2020.

* The scope of calculation is "K" LINE's scope of consolidation, which corresponds to almost 100% of sales.

Greenhouse Gas Emissions per Deadweight Ton-Mile



We are reducing CO₂ emissions by introducing environment-friendly vessels and increasing the efficiency of vessel operations. In 2020, we formulated a revised version of the "K" LINE Environmental Vision 2050. We have aligned our CO₂ emission efficiency indicators with the targets of the International Maritime Organization (IMO) by setting 2008 as a base year and calculating AER.* In 2020, our GHG emissions per deadweight ton-mile were 37.7% lower than those of 2008.

* The average CO₂ emissions from a vessel per deadweight ton-mile (1,852 meters)

Message from the CFO

Yukio Toriyama

Representative Director
Senior Managing
Executive Officer



“K” LINE will pursue ongoing improvements in corporate value by building a new portfolio along with a strong financial base, while forecasting changes in a business environment characterized by both opportunities and risks.

Business Environment and Performance in Fiscal 2020

As a company that supports global logistics infrastructure with its operations centered on shipping, “K” LINE’s business has a high level of susceptibility to changes in the business environment, particularly with regard to global economic trends. One such change was the global COVID-19 pandemic, which struck the world in early 2020. The pandemic and the ensuing infection prevention measures implemented in countries around the world had a massive impact on individual lifestyles, economic activities, and political trends across the globe. At “K” LINE, we saw relatively favorable performance when it came to energy-related businesses, such as LNG carriers and oil tankers. However, dry bulk carriers, car carriers, and other businesses were negatively affected by emergency production adjustments by cargo owners during the first half of the fiscal year.

Meanwhile, market conditions for containerships underwent a massive change in a manner that differed

from our expectations. In the first quarter of fiscal 2020, cargo movement suffered a sudden, temporary decline as a result of the COVID-19 pandemic. This changed in the third quarter, when lockdowns were implemented by governments in countries such as the United States and in Europe; demand for consumer goods related to people staying at home increased sharply, causing a rapid recovery in cargo demand on Asia–North America trade routes. This strong demand resulted in serious shortages in cargo space and container boxes while measures for preventing COVID-19 infections caused labor shortages at ports, which slowed terminal operations. The slowdown in terminal operations, coupled with the congestions in in-land transportation of containers, led to supply chain disruptions and consequently a rise in freight rates in the containership market that soared past historic highs.

As a result of these factors, operating revenues in fiscal 2020 decreased ¥109.8 billion year on year, to ¥625.5 billion; ordinary income rose ¥82.1 billion, to ¥89.5 billion; and profit attributable to owners of the parent increased ¥103.4 billion, to ¥108.7 billion.

Operating Results by Segment

(Billions of yen)

Business Segment Upper row: Operating Revenues Lower row: Ordinary Income	Fiscal 2020			Vs. fiscal 2019	
	1H	2H	Full year	Full year	Change
Dry Bulk	88.0	93.9	182.0	233.8	-51.8
	-9.3	0.1	-9.1	4.1	-13.2
Energy Resource Transport	37.8	39.9	77.6	84.7	-7.0
	3.4	-2.3	1.1	9.9	-8.8
Product Logistics	161.7	177.9	339.7	384.5	-44.8
	18.7	85.8	104.5	-2.9	107.5
	Containership	21.3	20.9	42.2	102.0
	21.5	82.3	103.8	-10.4	114.2
Others	12.5	13.6	26.2	32.3	-6.1
	0.6	0.4	1.1	1.7	-0.6
Adjustment	—	—	—	—	—
	-3.5	-4.5	-8.1	-5.4	-2.7
Total	300.1	325.4	625.5	735.3	-109.8
	10.0	79.5	89.5	7.4	82.1



Additional information about the business forecasts and management plan is available at the following webpage.

[Home > Investor Relations > IR Library > Financial Report](#)

Review of the Fiscal 2020 Management Plan

In light of the exceptionally unpredictable environment seen in April 2020, the start of fiscal 2020, “K” LINE announced a single-year rolling management plan, as opposed to the three-to-five-year medium-term management plans it usually presents. The purpose of the single-year plan was to allow the Company to respond more flexibly to changes in the short term amid the uncertain conditions. The main focus of the plan formulated for fiscal 2020 was to facilitate a measured response to the current market changes and to define medium- to long-term directives to be pursued based on an outlook for the post-COVID-19 business environment. Next, we will discuss some of the concrete business policies that were implemented based on this focus.

Strengthening of Business Resilience in the Short Term

All product logistics businesses, including the dry bulk business and the car carrier business, suffered from large decreases in demand in the first half of fiscal 2020 as a result of the COVID-19 pandemic. Strengthening our resilience toward these conditions is thus a top priority. One specific measure for accomplishing this goal was fleet scale optimization. In this regard, we set a target of downsizing our fleet by 52 vessels leading up to fiscal

2025, and in fiscal 2020 we were able to reduce our fleet by 25 vessels, centered on aged and low-margin vessels. In other words, we were able to achieve roughly half of our five-year reduction target in the single year of fiscal 2020. This accomplishment was a result of our quick response to favorable market conditions pertaining to secondhand vessels. By maintaining a flexible stance going forward, we aim to optimize our fleet scale ahead of schedule whenever possible.

Acceleration of Initiatives for Safety, the Environment, and Quality

Ensuring safety in navigation is a top management priority. With this focus, we took steps to protect maritime employees from the threat of COVID-19. Specifically, we prioritized improving employee welfare benefits for maritime employees with long stays on ships, providing mental and physical care to their families, and subsidizing the income of standby crews. The benefits of these measures manifested in our recording zero major accidents during fiscal 2020, despite the difficulty in switching out crew members.

Meanwhile, reducing environment impacts is also a top management priority, as is safety in navigation. In this regard, we completed construction of *CENTURY HIGHWAY GREEN*, our first LNG-fueled car carrier, based on the “K” LINE Environmental Vision 2050 (see pages 24–27). *CENTURY HIGHWAY GREEN* represented the first

Message from the CFO

time that climate transition loans in Japan were used to fund shipbuilding. This new undertaking thus expanded the potential for procuring funds for initiatives related to the transition to decarbonized operations.

Medium- and Long-Term Targets and the Fiscal 2021 Management Plan

Traditionally, our shipping business has been prefaced on the idea that vessels continue producing profit over at least 20 years of operation. However, the recent tightening of environmental regulations and accelerating technological innovation have made it increasingly unclear whether a newly built vessel will be able to maintain its competitiveness over such a long term. At the same time, it is clear that the global society will continue to implement stricter environmental regulations and come to expect greater reductions in greenhouse gas emissions, in order to address climate change issues through means such as achieving a state of carbon neutrality. In response to these trends, companies have begun assessing all processes throughout their global supply chains with the goal of cutting greenhouse gas emissions across the entire lifecycles of their products, whether these products are automobiles or some other offering. Meanwhile, the shipping industry is undergoing a massive paradigm shift, the likes of which only come around once in a century. This shift can be seen in trends including the use of new fuel sources such as hydrogen and ammonia as replacements for conventional fossil fuels and companies pursuing the development of next-generation automated ship navigation systems. If we are unable to adapt to these changes, our business will fail to survive.

These changes to the shipping industry present both opportunities and risks. The "K" LINE Group was among the earliest companies in Japan to endorse recommendations of the Task Force on Climate-related Financial Disclosures in 2018. This move was symbolic of our acknowledgment of these opportunities and risks and of our strong commitment to addressing them through aggressive action.

"K" LINE has set targets for increasing equity capital and return on equity. We had originally intended to work toward these targets over a period of five to 10 years, but we now expect to achieve these targets in fiscal 2021. This outcome will be due to the improvement of performance at Ocean Network Express Pte. Ltd., recovery of earnings in "K" LINE's own businesses, and sales of the stock of our North American logistics subsidiaries.

Given the aforementioned business environment changes, as well as the improvements to our financial base, all of "K" LINE's business divisions will review their portfolio strategies from a medium- to long-term

perspective. Considering the potential impacts of low-carbon and decarbonization trends on the shipping business after the conclusion of the COVID-19 pandemic, we seek to reassess the fundamental strengths of "K" LINE while discussing with both internal and external stakeholders our vision as a company that supplies a piece of global logistics infrastructure. Through this process, we look to develop new business portfolios that are more in line with our vision.

In the management plan for fiscal 2021, investment plans have been positioned as an important element of business strategies. There are currently three basic guidelines for investment plans that have been defined. First of all, we aim to invest a total of ¥250.0 billion, within the amount of operating cash flows, over the five-year period beginning with fiscal 2021. Secondly, we will budget ¥100.0 billion out of this amount for environmental investments. Lastly, we plan to invest in new growth fields while carefully assessing the inherent risks based on our progress in improving our financial position. "K" LINE has no intention of abandoning its basic stance toward discipline in its finances and investments. However, we recognize that it is important to revise our investment plans in line with business plans for fiscal 2022 and beyond based on the aforementioned efforts to develop new business portfolios and the need to accelerate environmental investments.

Enhancement of Risk-Return Management

When making investment decisions, we will also focus on enhancing risk-return management, which we have been enhancing over the past several years, and of improving the accuracy of said management. We have already installed business division-level frameworks for quantifying the risk of the maximum-possible business losses that can be projected based on measured statistics. We use "K" LINE Value after Cost of Shareholders' equity ("K" VaCS), a unique earnings indicator that shows economic value with an emphasis on the cost of shareholders' equity and business risks, to guarantee returns matched to risks and to determine the Group's optimal business portfolio. Another unique indicator is "K" LINE Return on Invested Capital ("K" RIC), an efficiency indicator that factors in the cost of capital. This indicator is used to set Groupwide and business division-specific hurdle rates to ensure that returns match amounts of invested capital.

"K" LINE has also recently introduced a framework in which internal carbon pricing standards are set to evaluate investments. Specifically, we have defined a unique economic indicator based on the benchmark of ¥4,000 per ton of CO₂ emissions. LNG-fueled vessels are more expensive to build than conventional fossil fuel-using vessels. Accordingly, it was impossible for investments

"K" VaCS –"K" LINE Value after Cost of Shareholders' equity–	"K" RIC –"K" LINE Return on Invested Capital–
<ul style="list-style-type: none"> • A profit indicator that represents economic value corresponding to the cost of shareholders' equity • Aims to optimize the Group's business portfolio based on quantified business department-basis risk values 	<ul style="list-style-type: none"> • An efficiency indicator promoting corporate value enhancement that factors in the cost of capital • Accelerates return on invested capital by establishing a profitability baseline • Sets hurdle rates for each business and the Group overall by using business risk
<p>Formula "K" VaCS = Net income after tax – (Business risk based on the Group's business attributes x Cost of shareholders' equity)</p> <p>Note: If "K" VaCS is greater than zero, then corporate value is enhanced</p>	<p>Formula "K" RIC = Earnings before interest after taxes ÷ invested capital</p> <p>Note: As a general rule, "K" RIC should be above the hurdle rate; among viable hurdle rate candidates is the weighted-average cost of capital (WACC)</p>

in these vessels to clear hurdle rates based on prior investment standards. Setting internal carbon pricing standards, however, allows for decisions to be based on the trend toward a carbon-free society, making these standards a valuable indicator.

Improvement of Corporate Value and Shareholder Returns

As I have mentioned, we project that the earnings and equity capital improvements targeted by the fiscal 2021 management plan will be accomplished significantly earlier than initially forecast. Accordingly, we intend to pursue ongoing increases in total shareholder return by achieving stable improvements in return on equity through growth in ordinary income and equity capital.

Resuming dividends as quickly as possible is a top management priority. The spin-off of our containership business to form an equity-method affiliate means that the earnings of this business will only be recorded on our consolidated financial statements, and will therefore not have a direct impact on non-consolidated earnings. At the same time, it is a rule that dividend payments must be limited to the amount of retained earnings on the balance sheet, which represents non-consolidated earnings as defined by the Companies Act of Japan. In other words, it is difficult to determine the level of dividends it is possible for the Company to pay just by looking at disclosed figures for consolidating earnings. For this reason, we aim to increase non-consolidated dividend income, which is not reflected in consolidated earnings, by growing earnings from business other than the containership business. We will make the utmost effort in this regard with the objective of resuming dividend payments.

Future Vision for Maritime Businesses

The COVID-19 pandemic proved to be an opportunity for us to reconfirm the importance of the role of marine

transportation as a piece of global economic infrastructure. It was also an opportunity to demonstrate this role to society as a whole. Ensuring safe navigation is an absolute must if we are to continue to fulfill this infrastructure role. We also must strengthen our countermeasures against new risks, such as the ever more destructive threat of cyberattacks. Specific risk factors we are being mindful of include those with the potential to boost market volatility, such as the move to decouple the U.S. and Chinese economies and the resumption of rises in COVID-19. We also recognize the importance of developing a fleet that allows for flexible adjustments in fleet scale to enable us to respond to sudden changes in the supply and demand balance without increasing the overall scale of our fleet.

The trend toward a carbon-free society brings with it expectations regarding eco-friendliness and other factors. Providing new services that address these expectations will require us to exercise leadership in developing business models that exceed the boundaries of conventional frameworks. Moreover, it is possible that the prior industry reorganization trend seen as centered on containership businesses will accelerate, causing increased consolidation focused on highly creditable shipping companies.

I believe that it is crucial for "K" LINE to maintain a strong corporate constitution if it is to make swift, accurate, and bold decisions based on a clear outlook for the rapidly changing business environment. This constitution should allow us to effectively select and integrate information from a wide range of sources and to stay a step ahead of the times. The strength of this corporate constitution should be supported by a robust financial platform and consistent stakeholder returns, which will be important to earning the unwavering trust of society. The business environment is currently characterized by a high level of volatility, making it incredibly difficult to predict the developments that will be seen even a year into the future. This rings true for the shipping business as well as for all other businesses. In this environment, "K" LINE is thoroughly committed to advancing its business and improving corporate value while capitalizing on opportunities, without fear of risks.

Roundtable Discussion with Employees

Pursuit of Innovation to Reduce the Environmental Impact and Improve Safety in Navigation



Naoki Yamada

Manager
North America Team
Car Carrier Business Group

Ryo Miyoshi

Manager
GHG Reduction Strategy Team
GHG Reduction Strategy Group

Yuya Kuroi

Manager
Fleet Management Team
Car Carrier Planning &
Development Group

Arisa Ebata

Manager
Finance Team
Finance Group

Yasuaki Yamaguchi

AI/Digitalization Team
AI/Digitalization Strategy Group

In March 2021, "K" LINE completed construction of the *CENTURY HIGHWAY GREEN* LNG-fueled car carrier. This vessel is the "K" LINE Group's first LNG-fueled vessel, making it a next-generation eco-friendly car carrier that also represents an important milestone toward accomplishing the goals of the "K" LINE Environmental Vision 2050. We asked five employees who were involved in this shipbuilding project, which commenced in 2017, about the type of coordination that was needed to advance the project and the insight gained from the process.

Q: To begin with, could you please explain the relation between your group and the *CENTURY HIGHWAY GREEN* project, as well as the role you played in this project?

Yamada: I belong to the North America team of the Car Carrier Business Group. In this team, I am responsible mainly for sales activities and communication with automobile manufacturers that ship automobiles from Asia to North America. My role in the *CENTURY HIGHWAY GREEN* project involved managing the financial outflows and inflows related to the project. I learned from my predecessor that the start of this project can be traced to talks between the Car Carrier Business Group and its customers about the possibilities for reducing greenhouse gas emissions from marine transportation.

Miyoshi: I am in the GHG Reduction Strategy Group, a group established in April 2021 that is tasked with guiding our next-generation eco-friendly vessel strategies from a technological standpoint. Previously I was in the Ship Technical Group, where I was responsible for advancing shipbuilding in a way that incorporated the technological elements needed to achieve the goal of an LNG-fueled car carrier at the request of the Car Carrier Business Group. As a result, I believe I was involved in the

CENTURY HIGHWAY GREEN project longer than anyone else here today.

Kuroi: I joined the *CENTURY HIGHWAY GREEN* project in 2018. I am currently a member of the Car Carrier Planning & Development Group's fleet management team, where I am responsible for arranging vessels with the capacity to meet cargo transportation needs, whether through new shipbuilding or chartering. The Car Carrier Business Group, to which Mr. Yamada belongs, was tasked with estimating the outflows and inflows associated with voyages by *CENTURY HIGHWAY GREEN*. I, meanwhile, played a role in negotiating with shipbuilding sites, managing negotiations with relevant internal divisions, and coordinating with ship management companies.

Ebata: I am a member of the Finance Group, which handles the procurement of funds for shipbuilding, and I was involved in the *CENTURY HIGHWAY GREEN* project for roughly one year prior to completion of the vessel. Negotiations with financial institutions on procuring funds to build new ships usually begin around three months before construction is completed. For *CENTURY HIGHWAY GREEN*, however, we started negotiations earlier than normal, given that this was our first LNG-fueled vessel.

Yamaguchi: Up until 2018, I was a member of the Ship Technical Group together with Mr. Miyoshi. However, I transferred to the newly established AI/Digitalization Strategy Group in 2019 and was quickly assigned to the *CENTURY HIGHWAY GREEN* project. I joined "K" LINE right around the completion of *DRIVE GREEN HIGHWAY*, a vessel that boasted world-leading levels of environmental performance at the time. So I hoped one day to be able to take part in a cutting-edge project like that one. This desire became a reality when I was able to participate in this unexpected project, which entailed the construction of a vessel incorporating the latest digital technologies.

Q: We have here today members from five divisions that were involved in this project. Could you please offer some insight into the coordination between internal and external parties that took place during the development process?

Miyoshi: In terms of coordination with external parties, close sharing of information on the vessel construction was most important with shipbuilding sites. Normally, we would share information with shipbuilding sites in a face-to-face manner during visits to the sites. In 2020, however, we could not make such visits because of the COVID-19 pandemic. There is a need to change course, to make timely adjustments in response to any technical issues that emerge during the construction process. For example, in this particular project, we were forced to make a massive change in our schedule as the delivery of the tank, a core component of the vessel, was delayed due to the pandemic. Since

before the pandemic, we have had a shipbuilding supervisor stationed at shipbuilding sites in Kagawa Prefecture. This supervisor played a central role in remote communication between Kagawa and Tokyo, through which we shared information on the technical elements of the project. Overcoming the obstacles that occurred during the process of building the vessel through remote communication was a fresh and challenging experience.

Kuroi: "K" Line RoRo Bulk Ship Management Co., Ltd. (KRBS) was entrusted with management of *CENTURY HIGHWAY GREEN*. We also took a remote approach toward sharing information with this company. Ship management companies play a core role in ship operation, because they are the ones responsible for managing the maintenance of vessels and their engines, assigning crews, and undertaking other tasks that are necessary to ensure the smooth operation of vessels. KRBS had no prior experience managing LNG carriers or LNG-fueled vessels, meaning that *CENTURY HIGHWAY GREEN* was the first such vessel in their care. It was therefore absolutely essential for us to convey our accumulated technical knowledge and skills related to such vessels to KRBS.

Yamada: Coordination between all involved parties was vital to the progress of the project. For example, as we approached the completion of the vessel, we saw an unexpected increase in costs from the estimates formulated when ordering the construction of this ship. To limit this rise in costs, frequent communication was pursued with relevant parties inside and outside of the Company to request negotiations when necessary.

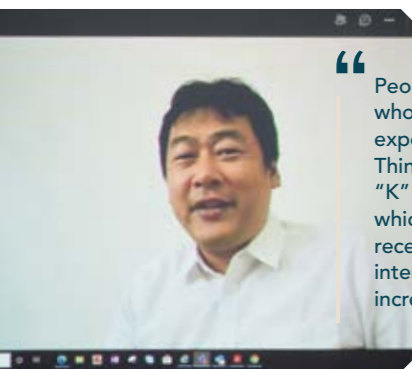


Roundtable Discussion with Employees

Ebata: The ability of the Finance Group to secure ship-building funding with competitive rates has a direct impact on the profitability of the projects. For this reason, we also sought to share information internally on a frequent basis.

Q: How did "K" LINE's corporate culture influence coordination and information sharing?

Kuroi: The *CENTURY HIGHWAY GREEN* project was a completely new undertaking, and there was thus no room for mistakes. I felt a lot of pressure, and when the uncertainty mounted I naturally felt a desire to talk to someone with experience in this area to whom I could ask questions. In times like this, I sought out people within the organization who had experience in operating LNG carriers, and these individuals spared no expense in offering me guidance. Thinking back on the process, "K" LINE's open corporate culture, which allows us to question and receive information from a range of internal parties with ease, was an incredible benefit.



“ People within the organization who had experience . . . spared no expense in offering me guidance. Thinking back on the process, "K" LINE's open corporate culture, which allows us to question and receive information from a range of internal parties with ease, was an incredible benefit. (Kuroi) ”

Yamada: I joined "K" LINE around the same time as Mr. Miyoshi and Ms. Ebata. We therefore had been exchanging information on an informal basis fairly often, even before our participation in the project began. As Mr. Kuroi said, a corporate culture that makes it easy to communicate with others within the organization, including through informal internal networks, is incredibly important.

Yamaguchi: Another vital factor is the ease of moving forward with one's endeavors. The idea of installing digital technologies to equip *CENTURY HIGHWAY GREEN* with communications infrastructure as a digital flagship was proposed while the vessel was already in the process of being built. This proposal was based on the thinking that, if we were to equip the ship with the latest maritime industry digital technologies, we could achieve higher levels of safety through both environmental performance and digital technologies. Rather than immediately

shooting down the proposal because of its late timing in the process, the Company took a flexible approach to looking at what we could actually accomplish. I think this approach is a major characteristic of the "K" LINE Group.

“ If we were to equip the ship with the latest maritime industry digital technologies, we could achieve higher levels of safety through both environmental performance and digital technologies . . . [T]he Company took a flexible approach to looking at what we could actually accomplish. I think this approach is a major characteristic of the "K" LINE Group. (Yamaguchi) ”



Yamada: I understand entirely. Personally, I believe that the "K" LINE spirit, which is characterized by an enterprising spirit, drives progress when the diligent individuals in core positions throughout the Company find solutions to the issues we face through individual efforts. For this reason, it is important for those around these individuals to support them and respect their efforts.

Ebata: Our ability to procure funds through climate transition loans could be said to be due to the indirect benefits of "K" LINE's corporate culture of encouraging employees to move forward. One of the major factors considered when screening "K" LINE for these loans was our putting forth Groupwide targets to achieve improvements in CO₂ efficiency and reduce greenhouse gas emissions to an extent that exceeded international industry targets in the "K" LINE Environmental Vision 2050. In other words, our Groupwide environmental initiatives, and the positioning of *CENTURY HIGHWAY GREEN* as an important milestone to accomplish our ambitious targets, won a high evaluation.

“ One of the major factors considered when screening "K" LINE for [climate transition] loans was . . . our Groupwide environmental initiatives, and the positioning of *CENTURY HIGHWAY GREEN* as an important milestone to accomplish our ambitious targets . . . (Ebata) ”



Q: What insight has the "K" LINE Group gained through the process of constructing CENTURY HIGHWAY GREEN?

Yamada: Amid the rapid push to achieve a decarbonized society that we have been seeing in 2021, we were able to demonstrate the "K" LINE Group's commitment to our customers and other stakeholders of reducing CO₂ emissions. This fact reaffirms the importance of making proposals that look to future market trends, even during a challenging operating environment. In 2017, when the *CENTURY HIGHWAY GREEN* project began, infrastructure for supplying LNG fuel was lacking and the shipping market was in decline, which made it difficult to engage in new undertakings. Nevertheless, the Group was quick to see the future potential of LNG-fueled vehicles, and this swift action led to our completion of *CENTURY HIGHWAY GREEN* in 2021.



“ Amid the rapid push to achieve a decarbonized society that we have been seeing in 2021, we were able to demonstrate the "K" LINE Group's commitment to our customers and other stakeholders of reducing CO₂ emissions. This fact reaffirms the importance of making proposals that look to future market trends, even during a challenging operating environment. (Yamada) ”

Yamaguchi: The installation of digital technologies on *CENTURY HIGHWAY GREEN* was announced in conjunction with the completion of the vessel's construction. This announcement spurred an influx of requests for meetings from numerous IT companies with which we had no prior dealings, a development that made it clear how highly society evaluated this undertaking and the amount of attention it was garnering.

Ebata: We also saw a rise in inquiries from ESG financing institutions. In response to such inquiries, the Finance

Group is working to communicate to financial institutions and investors that we are not merely focused on boosting numbers and project totals, but instead engaged in a Groupwide effort to accomplish the goals of the "K" LINE Environmental Vision 2050.

Miyoshi: The operation of our LNG-fueled vessels and our ship-to-ship LNG bunkering business commenced at essentially the same time, a fact that was incredibly meaningful in terms of gaining technical insight into the interface between the ships that receive LNG fuel and the ships that supply this fuel. Normalizing marine transport using alternative fuel sources requires the development of a supply chain for these alternative fuels. The "K" LINE Group is playing a leadership role in establishing this supply chain. However, I also recognize that the true value of *CENTURY HIGHWAY GREEN* and its alternative fuel approach with regard to safe navigation and the acquisition of related insight will be demonstrated when the vessel is actually at sea.

“ I also recognize that the true value of *CENTURY HIGHWAY GREEN* and its alternative fuel approach with regard to safe navigation and the acquisition of related insight will be demonstrated when the vessel is actually at sea. (Miyoshi) ”



Kuroi: The construction of *CENTURY HIGHWAY GREEN* was an undertaking that required us to navigate uncharted seas involving new technologies and frameworks. Our successful completion of this vessel will no doubt be a boon for our next innovative project. I hope to use the experience gained through this project in future ship-building plans while pushing ahead with other projects, based on a strong commitment to take the lead in accomplishing the "K" LINE Environmental Vision 2050.

This roundtable discussion took place online out of consideration for the COVID-19 pandemic.



For more information on *CENTURY HIGHWAY GREEN*, please refer to the following press release:
<https://www.kline.co.jp/en/news/car/car753727087818379669/main/0/link/210312EN1.pdf>

For more information on the climate transition loans, please refer to the following press release:
<https://www.kline.co.jp/en/news/car/car-750353519849827982/main/0/link/210312EN2.pdf>

For more information on the ship-to-ship LNG bunkering business, please refer to the following press release:
https://www.kline.co.jp/en/news/Liquefied_gas/Liquefied_gas-9164999208377012688/main/0/link/201021EN%20.pdf

Decarbonization Initiatives and Exploration of Growth Markets



We will support customers in their efforts to achieve carbon neutrality while cementing our presence in this growth market.

Satoshi Kanamori
Executive Officer
In charge of LNG,
Carbon-Neutral Promotion

► Utilization of Energy Transportation Experience and Customer Base —

“K” LINE established the Carbon-Neutral Promotion Group in April 2021 to facilitate the swift launch of businesses that contribute to carbon neutrality amid an accelerating global decarbonization movement.

We anticipate that markets which promote carbon neutrality will see continuous growth. Factors behind this growth will include increased demand for offshore support vessels for offshore wind energy generation; the establishment of supply chains for alternative fuel sources, such as LNG, hydrogen, and ammonia; the emergence of zero-emission ships

that utilize fuel cells and electric systems; and the commercialization of carbon capture, utilization, and storage (CCUS) methodologies. With its accumulated experience and insight related to energy transportation business of oil, coal, and LNG and offshore support vessels, “K” LINE has been able to earn trust from energy industry customers around the world. We will support customers in their effort to achieve carbon neutrality with this business experience while increasing our presence in this growing market.

► New Trends in Carbon Neutrality-Related Business —

In June 2021, operations commenced at “K” Line Wind Service, Ltd. (KWS), a company that provides offshore support vessels and transportation service related to the development, construction, operation, and maintenance of offshore wind power generation projects. KWS is a joint venture with Kawasaki Kinkai Kisen Kaisha Ltd. that combines both parties’ offshore support business expertise as well as the insight of the “K” LINE Group companies pertaining to tug vessel operations and logistics solutions. We plan to develop the operations of KWS to support the development of offshore wind power generation projects in Japan with a focus on recruiting and training Japanese seafarers, contributing to offshore business communities, and invigorating local communities.

Furthermore, in August 2021, Chubu Electric Power Co., Inc., and “K” LINE entered into a joint development agreement with DP Energy, a renewable energy developer headquartered in Ireland, for a tidal energy project in Canada. This project will be the first overseas tidal energy project participated in by Japanese companies and will entail the installation of three underwater turbine generators.

At the same time, “K” LINE is advancing R&D activities with an eye to future technological progress, including participation in verification tests for the social implementation of liquefied CO₂ maritime transportation (see page 65).



Offshore support vessel

By supporting customers’ carbon neutrality initiatives, “K” LINE aims to help contribute to targets of the United Nations Sustainable Development Goals related to expanding renewable energy use (target 7.2), improving efficiency in natural resource use (targets 9.4 and 12.2), and mitigating climate change (target 13.3).



Value Creation Initiatives

- Contributions to customers’ carbon neutrality initiatives utilizing insight accumulated through offshore service and energy transportation businesses
- Leadership for the development of carbon neutrality-related markets together with partners in maritime business communities comprised of shipbuilding, ship machinery, port transportation, and warehouse and distribution industries as a shipping company that plays a central role in the maritime industry
- Support for the development of offshore wind power generation, which has been defined as a priority field in the Japanese government’s “Green Growth Strategy Through Achieving Carbon Neutrality in 2050,” through offshore support vessels and transportation solutions
- Advancement of R&D activities with an eye to future innovation

Overview of Maritime Industry and Carbon Neutrality Trends

Regulatory Environment

- The International Maritime Organization (IMO), a specialized United Nations agency that plays a leadership role in international cooperative actions relating to maritime issues, is responsible for developing environmental policies and other rules for international shipping activities. The initial IMO greenhouse gas strategy launched in April 2018 puts forth the following greenhouse gas reduction targets for international shipping activities: reduce CO₂ emissions per transport work by at least 40% by 2030 compared to 2008, reduce total annual greenhouse emissions from international shipping by at least 50% by 2050 compared to 2008, and phase out greenhouse gas emissions as soon as possible in this century.
- The IMO’s initial greenhouse gas strategy was originally planned to be revised in 2023, and the revision process is slated to begin in fall 2021.
- The European Union, which is taking the lead in environmental discussions, has introduced the EU Emissions Trading System (EU ETS) and has proposed instituting stricter international regulations by expanding the application of EU ETS to the entire world. The Japanese government encourages the acceleration of effective policy development by the IMO instead of simply expanding the application of the EU ETS.
- Meanwhile, the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) was instituted in the aviation industry in 2021, allowing for the utilization of voluntary credits.

Reduction of Greenhouse Gas Emissions from Ship Operations

- It is imperative for shipping companies to replace heavy fuel oil with low-emissions fuel to achieve carbon neutrality. In order to transition to low-emissions fuel while maintaining ongoing shipping operations, there is a need to establish supply infrastructure for providing alternative fuels with reliable quality in a timely manner across the globe.

Energy Supply Chain Development

- Shipping companies support energy resource supply chains through maritime transportation. The role played by these companies is particularly important in Japan, which depends on imports for a large amount of its energy resources. In the future, it is expected that shipping companies will be able to make continuous contributions to the safe transportation of and development of supply chains for new energy resources, such as hydrogen, ammonia, and CO₂, while also transporting traditional energy resources such as oil, coal, and LNG.
- The transition to alternative fuel sources is advancing rapidly in power, chemical, and other industries, and it will therefore be important to secure sufficient volumes of fuel over the long term. In order to facilitate this transition to alternative fuel sources, the shipping industry will need to contribute to the establishment of a sustainable and strategic energy supply chain together with the relevant industries.
- The transition to renewable energy will facilitate the local generation and local consumption of energy in Japan, and such localization will increase demand for short sea and coastal vessels. These increases in demand will create a greater need for Japanese seafarers to ensure the sustainability of operations, meaning that strategic educational programs are a must.

Improvement of Safety, Environmental Performance, and Quality with Digital Technologies



As we pursue safety in navigation, the reduction of environmental impacts, and improvements in service quality, we will use data and cutting-edge technologies to create new value.

Hiroshi Uchida
General Manager of AI/Digitalization Strategy Group

► **Data Platform Development to Support Digital Transformation**

Guided by its management plan's theme of "Connecting the World via Oceans and Technology," "K" LINE is pursuing safety in navigation, the reduction of environmental impacts, and improvements in service quality. Our accumulated technological know-how is being utilized along with digital technologies to accelerate our progress toward these goals. At the same time, constituents of the Ship Technical Group, including the Safety and Quality Management Group and the Advanced Technology Group, are teaming up with the Information System Group, business groups, and all other onshore

divisions to create new value.

Responding swiftly to digital transformation trends in the shipping industry and achieving higher levels of safety, environmental performance, and quality will require the development of data platforms for both onshore and offshore operations. "K" LINE is installing digital infrastructure for communications between onshore facilities and vessels at sea while linking data from the Kawasaki Integrated Maritime Solutions integrated vessel operation and performance management system, vessel management data, and data from various internal systems.

► **Safer Operation and More Sophisticated Operation Management Using AI Technologies**

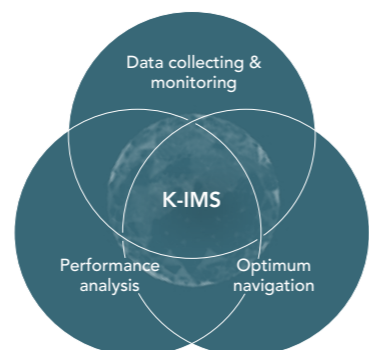
We started to use the Kawasaki Integrated Maritime Solutions system in 2016, and we have recently been augmenting this system with the latest artificial intelligence (AI) analysis technologies. Infusing the system with these technologies enables highly accurate analysis of the impacts of external factors such as wind, waves, and currents on the operating performance of vessels at sea. When combined with the navigation optimization support system that is a component of the overall Kawasaki Integrated Maritime Solutions system, these analytical capabilities contribute to more sophisticated operation management along with increased safety and reduced environmental impacts.

"K" LINE is also using AI-powered technologies to

develop autonomous ship technologies. For example, AI can be used to analyze data collected by the Kawasaki Integrated Maritime Solutions system as well as operation data pertaining to past incidents and maintenance records, which make it possible to optimize the performance of engine plants and to predict engine trouble in advance. We are also developing ship maneuvering support systems that use image recognition technologies employing high-spec cameras and AI to avoid collisions with other vessels and prevent vessels from grounding accidents, along with the latest collision risk calculation engines. By introducing such advanced technologies, we aim to reduce the burden placed on crew members while improving safety and transportation quality.

► **Reforms to Onboard Workstyles and Improvement of Service Quality through Digitalization**

Digital technologies are contributing to reforms to onboard workstyles. We are bolstering the network infrastructure of ships by installing onboard communications equipment and Wi-Fi networks to heighten the efficiency of onboard work. For example, we are utilizing mathematical optimization technologies to automate cargo loading plan preparation in order to allow the planning simulations traditionally conducted onboard to be performed onshore. By sharing information between vessels and onshore facilities in these ways, we aim to expand safety in ship management and develop new frameworks to respond swiftly to customer needs.



By using data and cutting-edge technologies to increase the safety of operations, reduce environmental impacts, and improve service quality, "K" LINE aims to help contribute to targets of the United Nations Sustainable Development Goals related to increasing energy efficiency (targets 7.3 and 12.2), mitigating climate change (target 13.3), and preventing marine pollution (target 14.1).



Value Creation Initiatives

- Development of data platforms necessary for digital transformation
- Introduction of cutting-edge technologies into the Kawasaki Integrated Maritime Solutions integrated vessel operation and performance management system to boost safety in navigation, reduce environment impacts, and improve transportation quality and thereby heighten "K" LINE's service quality
- Digitalization of onboard work to reform onboard workstyles and strengthen service quality
- Development of next-generation autonomous ship technologies using advanced digital technologies



Digital Technology Utilization in the Shipping Industry

Installation of Offshore Broadband Networks

- The installation of high-speed communications equipment on ships is significantly behind the installation of onshore infrastructure. However, the spread of satellite communication services and the growth of this market sparked an increase in the speed of communications on ships together with a reduction in costs in the mid-2010s, contributing to the digitalization of onboard work. In the near future, increases in low-orbit satellites are expected to further accelerate the speed of communications on ships.
- The spread of broadband networks on ships and the installation of onboard Wi-Fi networks is contributing to improved operational efficiency as well as to increased benefits for crew members. These networks have been especially important since 2020, as they are an invaluable method of communicating with family members and maintaining good mental health for crew members faced with extended stays on vessels due to the COVID-19 pandemic.

Maritime Business and Vessel Innovation

- The digitalization of vessel navigation systems and terminal operations is becoming more common in the shipping industry, helping to reduce greenhouse gas emissions through the overall optimization of operation management. In addition, cutting-edge blockchain technology is being used to streamline processes across the shipping value chain, ranging from fuel procurement and cargo tracking to ship recycling and waste management.
- It can be expected that we will see increased use of open platforms for sharing navigation and ship data in conjunction with the acceleration of land and sea communications, the installation of high-speed communication systems and the spread of Internet of Things (IoT) technologies. In Japan, the Internet of Ships Open Platform (IoS-SP) ship data sharing platform was implemented in 2018 for the purpose of sharing shipping industry data. In this manner, data sharing and distribution are on the rise in Japan's shipping industry.
- R&D on autonomous ship technologies is moving forward with the goals of improving safety in navigation, onboard work environments, and industry competitiveness and productivity. In Japan, safety engineering guidelines have been established by the Ministry of Land, Infrastructure, Transport and Tourism to facilitate the practical application of autonomous ship technologies, and verification tests related to these guidelines are underway.

Cybersecurity Enhancement

- Recent years have seen serious system failures resulting from large-scale cyberattacks, and there have been cases in which weeks have been required to fully recover from attacks or when the alteration of Global Positioning System (GPS) data necessary for navigation has impacted ship courses. For these reasons, enhancing cybersecurity for information systems is a matter of utmost importance for shipping companies.
- In response to such issues, the IMO released guidelines on maritime cyber risk management in 2017, and the management of cyber risks through safety management systems based on the International Safety Management (ISM) Code has been strongly encouraged since January 2021.
- "K" LINE has been taking steps to enhance cybersecurity by developing a safe and robust global network to effectively manage cyber risks. For example, we received Cyber Security Management System accreditation from ClassNK, and we are working to improve system defense measures and surveillance using the latest technologies to build a safe and strong global network (see pages 54 and 55).