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# **Our History of Value Creation**

- History and Development of Materiality -

Since its foundation in 1885, the NYK Group has walked together with Japan on its journey, taking the safe and reliable delivery of cargo as its most important mission. We will combine our three material issues of safety, the environment, and human resources together with digital transformation (DX) to create new value.



#### ▶ The History of the NYK Group

 $\bigoplus \text{https://www.nyk.com/english/profile/history/}$ 



The Environment

Safety











Created Safety and Environmental Management Committee



Introduced NAV9000 original unified safety standard



College (NMC)







#### 2002

Obtained ISO 14001 certification

Acquired world's first certification to include chartered vessels



#### 2004

Established NYK Business College



#### 2006

Started in-house seafarer training program for Japanese graduates of non-maritime colleges and universities, a first for a Japanese shipping company





#### 2008

Started operation of the Ship Information Management System (SIMS)



#### 2009

Launched in-house vessel operator certification system

Aimed to enhance abilities of onshore vessel operators





#### 2007

Opened NYK-TDG Maritime Academy (NTMA)

Established maritime academy in the Philippines to bolster training of seafarers

#### Highlights of the NYK Group's History

1885-

Born of the merger of Mitsubishi Mail Steamship Company and Kyodo Unyu Kaisha, NYK resultantly expanded its business from the seas of Asia to the oceans of the world under a "nibiki" flag featuring two thick red lines on a white background to symbolize the union of the two companies from which NYK arose.





Tosa Maru (left), the first NYK vessel to begin trade in Europe

1945-

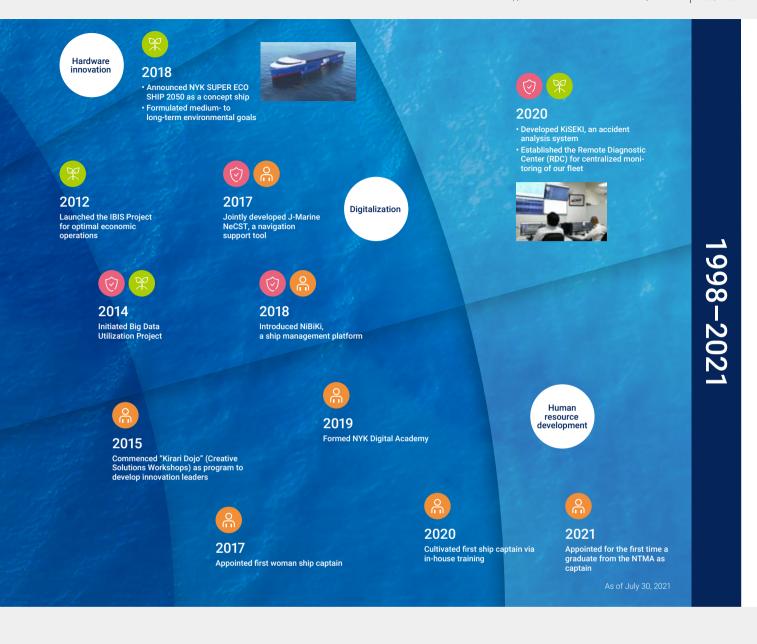
During World War II, NYK tragically lost its two key assets—ships and crew members. Following the war and throughout a period of high economic growth, the Company embarked on the development and leveraging of the specialized carrier business to support Japan's economic growth.







Japan's first container ship, Hakone Maru



### 1985-

The yen appreciation stemming from the Plaza Accord in 1985 had a major impact on the cost structure of shipping companies. We responded by shifting to a multinational mix of our seafaring workforce and beginning a structural transformation, to become a comprehensive global logistics enterprise centered on the maritime shipping industry.





Establishment of the first Japanese railway transport company in the United States

# 2010-

In addition to expanding into new business fields, such as the shuttle tanker and offshore businesses, we continue to take on the challenge of new fields that go beyond the conventional framework of a comprehensive global logistics enterprise, such as introducing ships powered by LNG fuel to decouple the Company's environmental impact and entering the green business field.



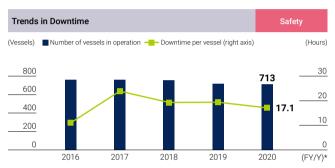


# **Sustainability Highlights**

#### - Commitment to Sustainable Growth -

The NYK Group has been providing solutions for a range of social issues related to its material issues—safety, the environment, and human resources. In this section, we set out the Group's key initiatives in ESG management, pursuing profit maximization in tandem with social and environmental sustainability, illustrated with data and historical developments.

#### **Materiality in Figures**



The NYK Group uses the downtime of vessels, during which operations are halted due to accidents and trouble, as a measure of the achievement of safe operations.

\* From fiscal 2020, the data collection method was changed from fiscal year to annual totals.

The data for 2020 contains a partial overlap with fiscal 2019 (covering January to March 2020).



The GHG emission volumes of vessels and aircraft are monitored and measured to reduce emissions.

Note 1: From fiscal 2018, figures do not include container ships due to the integration of the liner trade businesses of NYK, MOL, and "K" Line to form new joint venture ONE.

Note 2: To comply with UN IMO global sulfur cap regulations, from January 1, 2020 we changed our vessel fuel from HSPO, which has a maximum sulfur content of 3.5%, to LSFO, which contains a maximum of 0.5%, thereby reducing our sulfur oxide (SOx) emissions.

PDF Further details are provided on page 80 of the full version

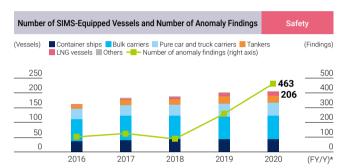


Group employees receive training to improve their understanding of corporate governance.

Note 1: Compliance training was expanded to overseas Group companies in fiscal 2020

The training method at domestic Group companies changed from group to individual training, tailored to the needs of each company.

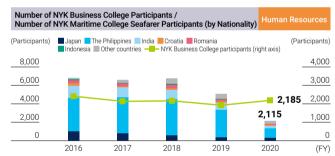
Note 2: The number of participants decreased from fiscal 2018 due to the integration of the liner trade businesses of NYK, MOL, and "K" Line.



NYK is promoting analysis of engine plant data collected by SIMS with the aim of quickly detecting anomalies that may lead to serious engine trouble.

\* From fiscal 2020, the data collection method was changed from fiscal year to annual totals.

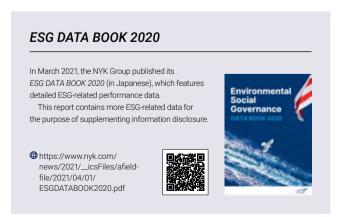
The data for 2020 contains a partial overlap with fiscal 2019 (covering January to March 2020)



The NYK Business College for office workers and the NYK Maritime College for seafarers have extensive training systems to enhance the overall abilities of Group employees.

Note 1: The number of NYK Business College participants includes Group employees.

Note 2: The number of NYK Maritime College (NMC) participants reflects a decrease in the number of lectures held at training centers since the end of fiscal 2019 as a result of the COVID-19 pandemic.



#### Accumulated Technological Development (Optimization of Vessel Design and Operations)

#### The NYK Group's Technological Capabilities Supporting New Value Creation through Safe Operations and Carbon Neutrality

2000s 2010s 2020s Step 1 Step 2 Step 3 Operational Knowledge Big Data and the IoT System Integration

#### Marine, Engineering, and **Basic IT Infrastructure Technologies**

- Energy-saving technology
- · Energy-saving operations (Saving Bunker)
- · Ship Information Management System (SIMS)

#### **Data Analysis and** Visualization

- · Energy-saving vessel development (Aries Leader)
- · Optimal economic operations (IBIS Project)
- · Condition-based maintenance (CMB) (see page 58 for details)

#### Advanced **Automation and Integration**

- Fuel change (LNG, hydrogen, and ammonia)
- · Electrification and hybrid propulsion
- · Manned autonomous ships



The NYK Group has continuously worked to solve issues through front line vessel operations in its comprehensive global logistics business, using the marine and engineering technologies it has acquired as the operator of one of the world's largest fleets. We have gradually progressed toward data analysis, visualization, and advanced automation, working with a range of partners to create new value aiming for social implementation of the coming zero-emission vessels and manned autonomous ships.

#### Vessel Fuel Change

#### Implementation of Advanced LNG-Fueled Vessels and Introduction of Next-Generation Fuels

#### 2015

Janan's first LNG-fueled tugboat, Sakigake, delivered

#### 2016

World's first LNG-fueled pure car and truck carrier, Auto Eco,



#### 2017

World's first purpose-built LNG bunkering vessel, Green Zeebrugge (current vessel name), delivered



#### 2019

Methanol-fueled vessel Takaroa Sun delivered



#### 2020

- . Japan's first I NG-fueled nure car and truck carrier (PCTC), Sakura Leader, delivered
- Japan's first LNG bunkering vessel, Kaguya, delivered



Supplied by Central LNG Marine Fuel Japan Corporation

#### **Reductions in GHG Emissions in** International Shipping

The International Maritime Organization (IMO) has come up with a scenario for achieving zero GHG emissions from international shipping during this century. The IMO expects that the 2030 target will be achieved mainly by operational and technical energyefficient measures, and beyond 2030, the introduction of zero-carbon fuels will be the main method for reducing GHG emissions.

Source: MTI Co., Ltd. based on data from the Japan Ship Technology

#### Pathway toward Zero GHG Emission Alternative fuels Onboard CO2 capturing Batteries Wind propulsion Operational improvements Energy-saving technology 3,000 2050 target of total reduction of more than 50% 2.500 GHG Mt-CO<sub>2</sub>e Business-as-usual (BAU) pathway 2.000 1.500 1,000 500 2005 2010 2015 2020 2025 2030 2035 2050 2100 (CY)

# The NYK Group's Value Creation Model

The NYK Group places its material issues at the heart of its management strategies, formulating growth strategies with a long-term perspective.



#### ■ The NYK Group's ESG Management

management as practiced by the NYK Group.

To strengthen corporate governance and support the foundation of our business, we have introduced new ESG yardsticks for management—a focus on the sustainability of society and the environment—in addition to the existing yardsticks of the maximization of earnings.

This approach of contributing to the creation of a sustainable society while aiming to increase corporate value is the essence of ESG



Materiality (safety, the environment, and human resources)

The Group's value creation model, which places ESG management at the center, emphasizes autonomous initiatives, including various discussions and measures that emerge spontaneously in all divisions, levels, and regions.

By carefully nurturing each of these initiatives and having our stakeholders share in them, we believe that ESG management will become the Group's growth strategy itself.



#### ■ Materiality as the Basis of Management

In the comprehensive global logistics industry, we face enormous impacts from accidents, tough regulations, and competition for securing human resources. We consider safety, the environment, and human resources to be the three material issues for management to address in order to realize the sustainable growth of the NYK Group, and we have taken various initiatives accordingly.

#### Major Themes in the Three Material Issues

- Safety: Accidents (collisions, engine trouble, human) Natural disasters
  - War, terrorism, and cyberattacks
     Piracy
     Maintenance of vessel condition
- The environment: Climate change Decarbonization Ocean conservation
  - Optimal operations Biodiversity
- **Human resources:** Diversity and inclusion Human resource development
  - Workstyle reforms
     Health and productivity management

#### ▶ The NYK Group's Material Issues

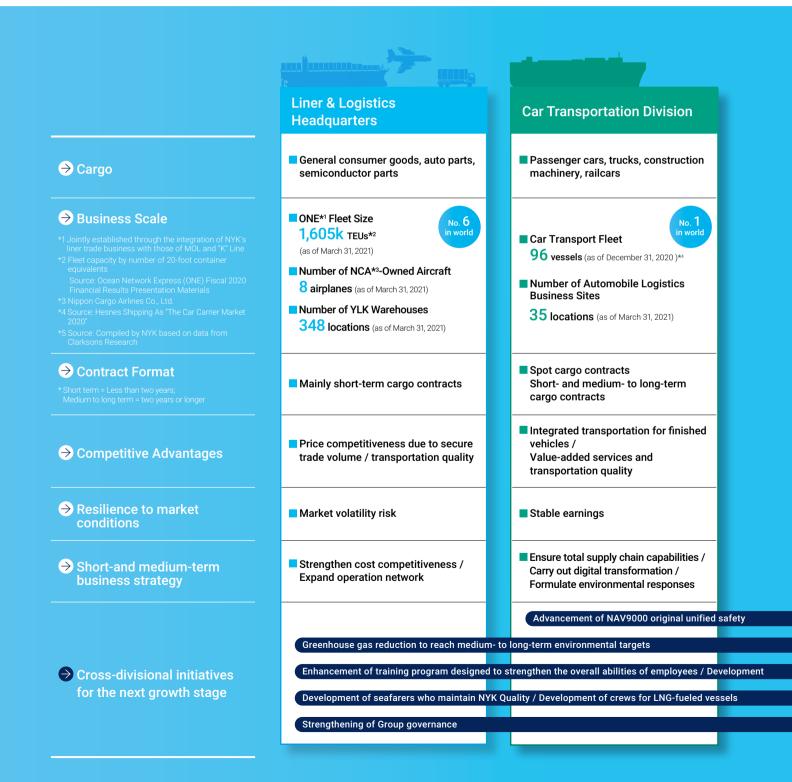
https://www.nyk.com/english/esg/concept/materialissue.html



# The NYK Group's Business Foundation

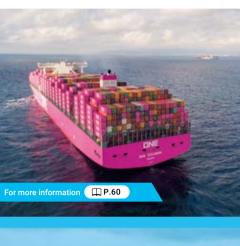
(Business Model)

- Businesses Supporting Society and Industry at Sea, on Land, and in the Air -



The NYK Group supports society and industry in a myriad of ways. The Group boasts one of the world's largest fleets of ships and an extensive marine transportation network, in addition to a land and air transportation service network, terminal operations, and a broad range of marine businesses derived from the maritime shipping industry. Bringing together the competitive advantages and strengths of its four business divisions, the Group is implementing numerous cross-divisional initiatives for its next growth stage.







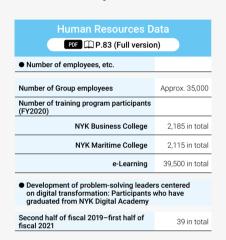




# Securing and Strengthening Management Resources of the NYK Group

Explaining the Group's Sustainable Growth Foundation from the Perspective of the Five Capitals

#### **Human Capital**



1 Peak and middle

2 Base

We will develop human resources among our approximately 35,000 Group employees who demonstrate leadership, tolerance and flexibility, and management skills.

#### **Specific Measures**

- Promotion of diversity and inclusion (see page 36 for details)
- Formulation of an objective tree for the transition to ESG management (see page 36 for details)
- Training programs designed to strengthen the overall capabilities of Group employees
- Enhancement of the NYK Business College and NYK Maritime College programs
- Promotion of human resource development to drive innovation: NYK Digital Academy, in-house training for Japanese seafarers, NYK-TDG Maritime Academy, etc.

<TOPIC> Developing Next-Generation Personnel through Project Mt. Fuji

#### Objective

Representing the distribution of the Company's employees as Mt. Fuji, the peak represents the leadership layer, the middle the supporter layer, and the base the follower layer. Education, training, and information are provided for each layer, aiming to ensure a smooth response to social changes and a deeply rooted culture of embracing innovation throughout the organization.

- The peak targets the 20% of the population who are said to play an important role in promoting and firmly establishing new values and products in the market. By putting innovation into practice for themselves, they play the role of internal influencers.
- 2 Based on the concept of "Leaving no one behind," the employees belonging to the base layer must have a transformative attitude and a necessary understanding of major trends to jointly promote activities led by the leadership and supporter layers.

### **Financial Capital**



As a basic principle, we will lay the financial foundation for implementing ESG management from a medium-to long-term perspective.

#### **Specific Measures**

- Securement of commitment credit lines and long-term funding
- Making of investment decisions and procurement of funds from an ESG perspective
- Prioritization of maintaining a positive free cash flow and allocation of the generated cash to reduce interest-bearing debt
- Improvements in the efficiency of assets and capital
- Realization of stable returns to shareholders

#### **Intellectual Capital**

# Amount of Investments in Digital Transformation (DX) and R&D\* (Millions of yen) R&D DX 2,500 1,500 1,000 500 2019 (Actual) 2020 (Actual) 2021 (Forecast) (FY)

\* NYK non-consolidated

We aim to resolve frontline issues while simultaneously providing new value to customers through user-inspired digital transformation and R&D.

#### Specific Measures

- Technology development in line with vessel technology and innovation road map
- Co-creation with various partners centered on the maritime cluster: Nippon Foundation program for crewless maritime autonomous surface trial ships, etc.



- Use of AI and simulation technologies (see "Pure Car and Truck Carrier Sailing Schedule Creation Assistance System" on page 57)
- Continued upgrading of infrastructure for accurate data and its utilization: Participation in Internet of Ships Open Platform operated by Ship Data Center Co., Ltd.

#### Social and Relationship Capital



Speaking at an international symposium held by the International Maritime Organization

Under our basic philosophy of "Bringing value to life," we will proactively take part in international initiatives for contributing to the realization of a sustainable society.

#### Major Initiatives in Which the Group Participates

- Getting to Zero Coalition
- TCFD Consortium
- Japan Climate Initiative
- Ship-recycling information disclosure platform, Ship Recycling Transparency Initiative
- International Maritime Organization (IMO)
- United Nations Global Compact

Note: Social and relationship capital refers to the total value of activities that have an influence on society and which secure a competitive advantage through relationships with society and various stakeholders.

#### **Natural Capital**



#### GHG Emissions and Ratio (FY2020)

Scope 1	Vessels and aircraft, etc., in operation	11,650,054.83	87.4%
Scope 2	Offices	49,444.52	0.4%
Scope 3	Shipbuilding, commuting, business trips	1,623,678.31	12.2%
Total		13,323,177.66	100.0%

\*1 Emission units: ton-CO2e CO2e = CO2 equivalent

We will reduce greenhouse gas emissions that affect the climate by reducing our use of fossil fuels and through the implementation of decarbonization technologies.

#### **Specific Measures**

- Initiatives for achieving our medium- to long-term environmental targets (see page 18 for details)
- Decarbonization of vessel fuel and implementation of zero-emission vessels
- Examination of the use of new technologies to reduce greenhouse gas emissions: CCS,\*2 CCUS,\*3 etc.
- Promotion of the IBIS TWO Plus project for pursuing optimal vessel operations

\*2 CCS: Carbon dioxide capture and storage; \*3 CCUS: Carbon dioxide capture, utilization, and storage

Note: Natural capital refers to capital formed from nature, such as forests, soil, water, air, and bio-organisms. It is considered an important capital that is indiscensable for human life and corporate activities.

We will promote diversity and inclusion as well as organizational and human resource system reforms, aiming to foster human resources who can create new value.

#### Building an Organization That Fully Leverages the Diversity among Its Approximately 35,000 Employees

The NYK Group has around 35,000 employees involved in its global business operations, 70% of whom work overseas, and the percentage of female employees stands at 37%, while the percentage of female managers (manager or higher) is 25%. We aim to be a highly diverse organization where all talented human resources of any gender can fully demonstrate their potential. Moreover, the Group's fleets are crewed by multinational seafarers, with onshore and offshore teams working together as one to create new value.



# Highly Diverse Organization (Diversity and Inclusion

▶ Initiatives in Line with the Act on the Promotion of Female Participation and Career Advancement in the Workplace and the Act on Advancement of Measures to Support Raising Next-Generation Children (NYK Head Office)

The Company has already formulated action plans for responding to each of these acts. Launched in April 2021, our new action plans promote the establishment of an environment and workplace culture that enable our diverse and talented human resources to meaningfully participate with a view to realizing diversity and inclusion.

#### ■ Secondary Action Plan for the Act on the Promotion of Female Participation and Career Advancement in the Workplace

We aim to balance life events that can affect anyone and career development planning in order to promote participation by all employees.

Action plan period: April 1, 2021 to March 31, 2026 (Five years)

#### Action plan (1)

- Increase participation by female employees in external dispatch training aimed at cross-industry exchange and skills acquisition to 30%
- Ensure that one-half of all employees dispatched are female, including providing training for female employees only

#### Action plan (2)

 Achieve 100% use of childcare leave by male employees (including onshore employees (navigation officers and engineers))

# Human Resource System That Clarify the Connection between the Organization and Individuals

#### Objective Tree (NYK Head Office)

We will ensure that each employee works based on an understanding of the Company's ambitious goals, thereby leveraging the combined capabilities of the entire organization and accelerating our transformation into a Sustainable Solution Provider.





## Building an organization that meets the needs of the times by developing human resources who can lead the way in a period of change

Profile

#### Yutaka Higurashi

Director, Managing Executive Officer Chief Compliance Officer (CCO) Chief Executive of General Affairs Headquarters

he NYK Group operates multiple modes of transportation, including ships, aircraft, and trucks, but it is ships that play the central role in our business. Furthermore, ships produce the lowest GHG emissions per ton-mile of any mode of transportation. The total amount of emissions is significant; thus, we are accelerating efforts to reduce our environmental impact across all aspects of the Company, including technology, operations, and production systems. The maritime shipping and logistics industries are about to experience a once-in-decades period of change driven by key trends including environmental, social, and governance (ESG) factors, IT, big data, and environmental regulations. To transform our organization into one that can deliver solutions to social issues from a new perspective in a way that harnesses the NYK Group's distinctive capabilities, it is essential to have human resources who are able to drive innovation from multiple viewpoints. Drawing from its approximately 35,000 employees, the Group aims to develop human resources who possess the three essential skills and attributes of leadership, tolerance and flexibility, and management skills to lead our innovation, together with staff with frontline capabilities to support such a transformation.

As part of this endeavor, we have set an organizational goal of becoming a Sustainable Solution

Provider that can answer the needs of the times. To this end, in a bid to align the operations of each individual employee with the Group's ambitious goal of promoting ESG management, we introduced an objective tree framework. This framework uses the company goal as a starting point, then cascades it down to Group, team, and personal objectives. Doing

so creates an autonomous human resource system in which individuals take responsibility for achieving their own objectives while remaining aware of the organizational goal with regard to ESG management. NYK has always had a relatively small number of personnel, and one of its unique strengths has been the relatively flat structure within personnel started working in the same year, where all members equally strive to achieve their tasks till the retirement age. However, during this time of transformation, we recognize that strong leadership is imperative for realizing such an innovative change. Therefore, we have begun to implement the human resource system that allows much more distinction length of service, and awards significantly different compensation, even among people working in the same position, based on the degree of performance achievements in terms of the objective tree. These human resource system reforms have already been implemented in certain parts of the Company. We will carefully analyze and evaluate the results as we continue with our planned Companywide implementation from April 2022 onward. Furthermore, in addition to our programs such as the NYK Digital Academy and NYK-TDG Maritime Academy for developing the nextgeneration of human resources, for specialists who work in rapidly evolving areas, such as technicians and digital specialists, we are promoting measures including increasing the proportion of mid-career hires.

Introducing the criterion of contribution to the organizational goal to our evaluation scheme, aiming our transformation to the ESG management, is inseparable from our efforts to promote diversity and inclusion. In our corporate culture

to date, employee evaluations tended to be influenced by the amount of time spent together at the Company premises. The change to the above evaluation criterion will remove various restrictions arising from life events, such as limitation on working time and location, or gaps created from language and distance barriers. This should be an important means to overcome various challenges brought some from our old culture and, at the same time, I believe that the incorporation of broad insight gained from the promotion of diversity and inclusion should also be vital for the NYK Group's true transition and acceleration toward ESG



#### **MESSAGE**

# Financial Strategies for Realizing Our ESG Story and Achieving Sustainable Growth in Corporate Value

Capitalizing on the strong earnings achieved by the efforts of all Group employees, including those who work in our day-to-day operations, to carry out our mission of offering logistics services without disruption, we will continue to promote our policy of keeping the Company in sound financial condition and maintaining disciplined capital expenditures.

#### Summary of Results for Fiscal 2020 and Forecast for Fiscal 2021

At the start of fiscal 2020, the impact of the COVID-19 pandemic on our business in the future was uncertain, and both the preparation and announcement of our financial results for fiscal 2019 were delayed. In addition, this uncertainty forced us to revise our budget so that our financial forecast for fiscal 2020 was to break even. The revised budget was made with management's will and determination that, even under such difficult circumstances, we would manage to achieve a profit in fiscal 2020. As fiscal 2020 progressed, the recovery of demand in the container transportation business far exceeded our expectations, mainly due to stay-at-home demand, while supply chain disruption due to the COVID-19 pandemic also brought about a tight supplydemand situation. As a result, in each guarter our financial forecast was upwardly revised.

In the car transportation business and the dry bulk business of the Bulk Shipping segment, the recovery in market conditions was basically in line with our initial forecast; however, in the liner trade, logistics, and air cargo transportation businesses, market conditions remained at a higher level than we had expected. As a result, in our results for fiscal 2020, recurring profit was up ¥170.8 billion year on year, to ¥215.3 billion, and net income was up ¥108.0 billion, to ¥139.2 billion. These were the highest results in the NYK Group's history, and I would like to thank all our employees and pay tribute to their efforts to fulfill our mission of offering logistics services without disruption, which has produced these strong earnings.

NYK's financial performance in fiscal 2021 will be strong, as it was in fiscal 2020, due to continued tight supply and demand in the liner trade, air cargo transportation, and logistics businesses, as well as favorable market conditions surrounding the dry bulk businesss.

At the release of the Company's first quarter financial results for fiscal 2021, full-year recurring profit and net income are both forecasted to be ¥500.0 billion, respectively. These figures will set new profit records for us. Although our performance continues to be strong, we do not expect the current level of cargo movements and freight market rates to continue indefinitely, and we need to be prepared for changes in the business environment in the future. There is still uncertainty regarding when we might see an end to the COVID-19 pandemic and what changes we may have in our business environment in the post-COVID-19 era. Moreover, while our earnings structure is now more stable than before, the maritime shipping business, which is in the core of our business portfolio, is still subject to volatility in market conditions. Capitalizing on our favorable results for fiscal 2020 and the strong forecast for fiscal 2021, we will work to strengthen our stability and achieve sustainable growth in corporate value.

#### Overview of Progress under the Medium-Term Management Plan

	Medium-Term Management Plan Targets (by FY2022)	FY2020 (Results)
Recurring profit	¥70.0 billion-¥100.0 billion	¥215.3 billion
ROE	Min. 8.0%	25.6%
Equity ratio	Min. 30.0%	29.4%
DER	1.5 times or lower	1.52 times

# Progress under the Medium-Term Management Plan

The current medium-term management plan ("the current plan") is a five year plan covering the period from fiscal 2018 to fiscal 2022, with a medium-term target for recurring profit ranging between ¥70.0 billion and ¥100.0 billion. We have now passed the midway point of the current plan, and two years remain. In the current plan's first year, we had an extremely hard start, in which we ended up recording a recurring loss of ¥2.0 billion and net loss of ¥44.5 billion. Although it was a disappointing result for our first year, the Company managed to achieve recurring profit of ¥44.4 billion in the second year. In fiscal 2019 Ocean Network Express Pte. Ltd. (ONE), our joint venture in the container transportation business, achieved profitability in the second year of its operations. Also, in fiscal 2019, our car transportation and energy transportation businesses delivered solid performances. In fiscal 2020, the third year of the current plan, we achieved a record-high profit, as I stated in the above, even amid the unprecedented crisis caused by the COVID-19 pandemic.

The financial results for fiscal 2020 have already exceeded the profit targets set in the current plan. As we had achieved our targets, internal discussions were held



regarding whether we should renew the current plan and revise our target figures. In conclusion, the Company decided to continue with the current plan, because the direction of the basic strategies provided in the current plan remains unchanged and effective. We consider that we should

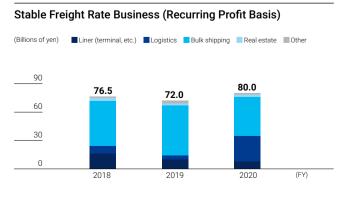
continue in this direction for the remaining period, while intensively discussing our new medium-term management plan. In formulating the new medium-term management plan, we will analyze the business environment with a view toward 2050, consider climate change risks and decarbonization

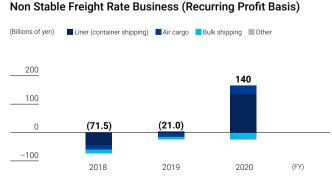
efforts, and put these factors and possible impacts in our long-term strategy for realizing our ESG Story.

At this point, I would like to show our progress concerning the basic strategies of the current plan. The first part, or Step 1, of the current plan is "Optimize the business

#### Medium-Term Management Plan Progress

		Plan	Fiscal 2020 Progress and Initiatives				
STEP Dry Bulk		Strictly control market risk exposure Reform our fleet portfolio Strengthen medium- to long-term relationships with customers	Reduce market exposure to withstand volatile market conditions Implement structural reforms primarily of medium-sized and large-sized vessels  • Early redelivery of 10 high-cost chartered vessels since FY2018  • Extraordinary loss of approx. ¥54.7 billion was recorded in FY2020				
Optimize business portfolio	Container (ONE)	Integrate our liner trade business together with those of MOL and "K" Line (ONE) Pursue efficiencies and economies of scale and generate ¥110 billion through synergies	Achieve integration effect through synergies by adopting best practices Work hard to stabilize issues such as schedule delays and a shortage of containers do to congestion at ports and inland areas for the time being Continue to work on medium to long term fleet development planning to further improcompetitiveness				
STEP 2 Expand businesses that secure	Logistics (YLK)	Leavage Cours having infrastructure for	Pursue synergies through effective use of global network and management resources				
	Car Transportation	Leverage Group business infrastructure for strengthening sales	Promote more business by LNG-fueled vessels and accelerate more renewable energy use in Roll-on/Roll-off terminal for finished vehicles Contribute to GHG reductions in customer supply chains				
stable-freight-rates	LNG and Offshore Business	LNG fleet plan: around 97 vessels (end of FY2022) Develop business at every stage of the energy value chain, from upstream to downstream	Secure stable-freight-rate business by acquiring medium- to long-term contracts (Number of LNG vessels: FY2022 forecast: 89 vessels)				
STEP	Digitalization	Optimize supply chain using digital technology	Run NYK Digital Academy to nurture talents who can promote innovation Support frontline business activities with DX				
Increase efficiency and create new value	Green	Create new value for the next generation under themes including renewable energy	Accelerate initiatives such as LNG fuel supply, offshore wind power, zero emissions (hydrogen and ammonia), etc.  Several billions of yen in recurring profit per year by around fiscal 2030				





portfolio." In line with this strategy, we carried out structural reforms of the dry bulk business and, through these reforms, recorded extraordinary losses of ¥54.7 billion in fiscal 2020. With this, we have mostly completed structural reforms of both the medium-sized and large-sized vessels in this business segment. Despite recording considerable extraordinary losses, the Company managed to deliver relatively strong earnings for fiscal 2020 and to complete structural reforms without substantially damaging its financial strength. Business portfolio optimization is one of the most important elements of our basic strategy under the current plan, having said that we assume these structural reforms had been made in a timely and appropriate manner. There was also a major improvement in the profitability of ONE, and we have made a certain level of progress on the business portfolio optimization targeted in the current plan. The second part, or Step 2, is "Expand businesses that secure stable-freight-rates." Here, we managed to build up stable business contracts in our LNG and offshore businesses. The car transportation business remains our focus as a source of stable revenues, and the earnings capacity of the logistics business has also improved. In the area of digital transformation (DX). we have accelerated efforts to enhance operational efficiency and create new value, while in our green business we have started concrete initiatives toward commercial breakthroughs in several areas in the future. In these ways, we are rapidly expanding the scope of our third basic strategy, or Step 3, "Increase efficiency and create new value." These initiatives are also presented in the NYK Group ESG Story, which was published in February 2021. They will support the NYK Group's efforts to create new value for the NYK Group.

The current plan sets recurring profit of ¥100.0 billion as our target. We have already achieved this target in fiscal 2020, and we expect to achieve much higher figures in

fiscal 2021. We will use this strong performance as an opportunity to make our business foundation more solid and profitable and consider how to allocate both financial and non-financial resources to the areas of growth with our ESG Story.

#### Approach to Financial Strategy for Business Development Going Forward

As the NYK Group's business portfolio continues to change and evolve, we review and discuss how we will renew and implement the management KPIs that we have used so far. We need to consider which management KPIs, both financial and non-financial, should be adopted for the next medium-term management plan. Return on equity (ROE), the shareholders' equity ratio, and the debt-to-equity ratio (DER) used in the current plan are still as important as ever for measuring capital efficiency, financial discipline, and capacity for investment for our sustainable growth. We will continue to focus on these management KPIs, paying attention to the balance between increasing capital efficiency and maintaining financial discipline, including the improvement of our credit ratings.

On our balance sheet, funds procured through debt and equity have previously been utilized mainly for tangible assets such as vessels, property, plant and equipment. However, the proportion of funds allocated to investments and other assets has been increasing as more business development progress is made by equitymethod affiliates in Japan and overseas. Furthermore, with the continuous development of overseas business activities. business assets denominated in foreign currencies have also increased. In these circumstances, our fund raising methods and currency portfolio should be reviewed in line with our business development. Although we continue to procure funds primarily in the form of bank loans and

corporate bonds, we will make further effective use of our existing commitment credit lines to maintain our flexibility and prepare for fluctuations in earnings. We also intend to work to diversify our fund procurement methods and proactively engage in green finance, such as transition finance and sustainability-linked loans. In addition to the cash flows generated from the business operations of the Company and its subsidiaries, cash flows associated with the amounts and timing of dividends received from equity-method affiliates will also become more important elements in our fund procurement. This is because we have seen an increase in gains and losses from investments in equity-method affiliates. Under these circumstances, we need to ensure proper monitoring of the investment plans and capital policies of our investee companies as we manage the overall cash flows of the NYK Group. Our intention and goal are to promote financial strategies and capital policies that achieve a good balance of stable returns to shareholders, sound financial discipline, and proper investments in growth areas.

# My Role as CFO and How I Make Decisions

I have seen a change in the nature of our investments and capital expenditures. Although the Company's investments and capital expenditures used to be mainly for tangible assets such as vessels, as I stated above, the ratio of investments in other areas has been increasing. The business development of ONE and investments in equity-method affiliates, primarily in the energy sector, digitalization, and green business, can be clearly seen in our business portfolio. In addition, accelerating ESG management also requires investments in the areas of human resources and R&D. My responsibility is to map out the expected investments in each business division over the coming years and periodically review

the timing, scale, feasibility, and the risks of those investments. Taking a bird's-eve view of operating cash flows based on NYK's projected income statement, investing cash flows based on the Company's investment plan, and financing cash flows based on NYK's financial strategies, I periodically examine and scrutinize these cash flows in order to maintain our financial condition with a certain degree of discipline. At the same time, I try to keep financial flexibility for allocating funds for growth areas. While each business project will continue to be scrutinized with predetermined internal rules, including targeted investment returns, I will monitor the changes in our overall assets and the projections for them. If our investments and capital expenditures are made beyond a certain tolerable range resulting in a change in our risk portfolio, we may end up in taking excessive risks. As the Group's business portfolio continues to

evolve, I will pay appropriate attention to ensure that its overall investments do not exceed the bounds of financial discipline.

In terms of shareholder returns, our current dividend policy is to aim for a consolidated payout ratio of 25% with a minimum annual dividend of ¥20 per share. The Company's goal of realizing stable shareholder returns has not changed. We have now made a certain amount of progress with improving our financial foundation and achieving the targets shown in the current plan for profitability and financial position. Accordingly, we will continue to review our basic policy on shareholder returns. To enable shareholders and investors to correctly understand our policies on shareholder returns, it is important that we correctly understand the policies and ourselves. It is also important for NYK to properly ascertain how stakeholders evaluate its various published materials, such as this

NYK Report, timely disclosures, and press releases. To continue to be a company that remains essential to society and is chosen by its customers, we must be sensitive to the requirements shown in our ESG Story. Introducing an internal carbon-pricing system and factoring the carbon costs into each business division's investment plan and decision-making process are good examples of this. As CFO, I need to be mindful and vigilant in ensuring that our sense and awareness do not diverge from the generally accepted views of society. At the same time, I will work diligently to strengthen our management foundation for realizing our ESG Story. I am fully committed to sustainably improving the corporate value of the Group by utilizing our track record, knowledge, and expertise, even if changes in our business circumstances and trade structure bring about changes to our business structure.



I am committed to realizing sustainable growth in corporate value by utilizing the NYK Group's expertise even if the times and trade structure change.

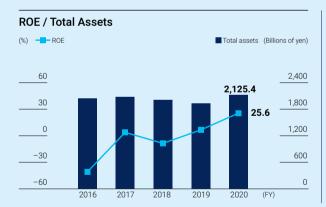
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#### The CFO's Financial Analysis of the NYK Group

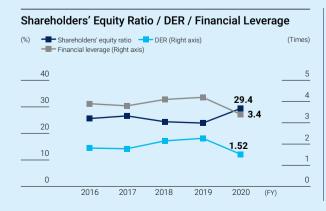
I will explain the NYK Group's profitability, efficiency, and financial leverage with the aid of graphs showing management KPIs.



In the Liner & Logistics segment, the profitability of the liner trade, air cargo transportation, and logistics businesses improved significantly. In the dry bulk transportation business, we promoted structural reforms to establish a profitable business structure. There is some uncertainty regarding market conditions and when the COVID-19 pandemic will subside; however, our earnings quality has certainly become stronger.



Partly because of foreign exchange rate effects, total assets exceeded the ¥2 trillion level for the first time in two fiscal years. ROE rose above 25% due to a dramatic improvement in profitability and is expected to remain at a high level in fiscal 2021. Going forward, we will reduce cross shareholdings and review our real estate holdings, aiming to increase management efficiency in line with the improved earnings quality of our businesses.



Although total assets ballooned slightly, the shareholders' equity ratio reach 29.4% due to the improvement in our earnings, and in fiscal 2021 we expect it to clear the 30% target of the current medium-term management plan. Meanwhile, DER improved to 1.52 times and the financial leverage ratio to 3.4 times. We will continue to strengthen our financial foundation toward improving our credit ratings, while pursuing a capital policy that balances our allocation of management resources between stable shareholder returns, maintenance of financial discipline, and growth investments to support ESG management.

# Strategy Story

- Changing Awareness on the Front Lines and Implementing ESG Management -

#### The NYK Group's Vision for ESG Management

#### Integration of ESG into Management Strategies

The NYK Group stated its intention to integrate ESG principles into its management strategies in the medium-term management plan announced in March 2018.

By making judgments from a long-term perspective using ESG yardsticks, we will invest management resources—namely, talent, assets, investments, and data—in order to contribute to the differentiation of existing businesses, expansion of business domains, and solutions to social and environmental issues. In doing so, we aim to continue being the preferred choice of stakeholders, strengthening our brand, and increasing employees' job satisfaction and pride.

▶ The NYK Group's ESG Management



https://www.nyk.com/english/esg/concept/

Becoming the preferred choice of clients and partners / Enhancing employee satisfaction



#### The NYK Group ESG Story

The NYK Group's concept of ESG management and specific initiatives are presented in the NYK Group ESG Story, which was released in February 2021.

The story outlines how the Group will realize new value creation by merging the maximization of earnings with the pursuit of social and environmental sustainability.











#### Strategy Story on the Front Lines

ESG management is concerned with promoting both the maximization of earnings and social and environmental sustainability. The NYK Group aims to improve its corporate value by promoting safe operations in existing areas and furthering the efforts it has made in new areas, such as reducing GHG emissions.

Example: Value the NYK Group will create going forward

—Four business themes reevaluated using new yardsticks—



#### The NYK Group's ESG Management and SDG Correspondence Table

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Fields	Ensuring Safe Ship Operations	□ P.46			•	•	+			•		*	neuu			•	_		w
Existing Fields	Reducing GHG Emissions	□ P.18													•				•
Fields	New Businesses*1	<b>□</b> P.48							•	•	•				•	•			•
New F	Social Issues*2	<b>□</b> P.50								•	•	•							•
	Fostering of skills and attributes	<b>□</b> P.34								•									
	Diversity and inclusion	<b>□</b> P.36					•			•									
tructure	Human resource system	<b>□</b> P.36								•									
Business Infrastructure	ESG management	<b>Ⅲ</b> P.14																•	
Busines	Sound governance Groupwide	<b>□</b> P.68								•									
	Human rights*3	□ P.58										•		•				•	
	Medium-term manage plan and related goals					•			•	•	•				•				•

<sup>\*1</sup> Businesses related to the energy field \*2 MarCoPay (electronic money platform for seafarers) \*3 Ship recycling

# **Ensuring Safe Ship Operations**

With its social mission of "keeping the logistics lifeline open," the NYK Group makes every effort to ensure not only the safety of seafarers working at sea and on its ships but also ship operations that are considerate of the global environment.

#### Safe Ship Operations Are the Group's Mission

## Protect Crew Members' Lives and the Environment through Safe Ship Operations



#### Problems with Crew Changes and the Triple "C" Task Force

#### **Crew Changes**

The Group's fleet is manned by around 5,000 seafarers (around 9,000 including those on leave). Our seafarers are from various nations, including the Philippines, India, Japan, and Romania. Crews are usually changed after three to nine months working on board vessels.

#### Crew Change Issues Due to COVID-19 and Current Status

During the state of emergency declared globally between February and March 2020, restrictions on movement around the world created situations in which crews were obliged to extend their time at sea and continue performing their duties. Although around 800 seafarers are changed each month usually, crew change rate for April 2020 was dropped only to 5%, and we improved it to as much as 113%. Subsequently, with the emergence of variant strains of COVID-19, the change rate fell to the 70% level, but it recovered now to 90% level. This situation is expected to continue for the time being (as of July 2021).

#### Our mission: Keep the logistics lifeline open! (2)

https://www.nyk.com/english/news/2021/covidinfo\_20210625\_01.html

#### Formation of the COVID-19 Crew Change Task Force

The COVID-19 Crew Change Task Force (Triple "C" TF) was established in September 2020, aiming to organically link various internal organizations to resolve crew change issues. We have surveyed the possibility of having crews embark and disembark from vessels in areas around the world and established transportation means and quarantine systems, as well as coordinating with government agencies, industries, and relevant people inside and outside the Company. We have also strengthened the onboard telecommunications environment to enable better communication between crew members and their families in view of their long periods of separation. We recognized expenses of roughly ¥2.2 billion related to these crew changes (between the start of the COVID-19 pandemic and March 31, 2021). In May 2021, we started offering optional vaccinations in the United States to crew members. Our policy is to continue working to maintain and secure the flow of logistics while striving to ensure crew safety in cooperation with vaccination programs in their own countries.

#### Comment from the Front Lines

Ship management companies NYK Shipmanagement Pte. Ltd., NYK-Fil Ship Management, Inc., and NYK LNG Shipmanagement Ltd. are responsible for overseeing the manning of seafarers on the NYK Group's vessels. Regulations and so forth at said vessels' ports of call can change from day to day, so the embarkation and disembarkation arrangements for seafarers vary depending on their individual status. For example, the points of embarkation and disembarkation can often be far from the seafarer's own country, necessitating the arrangement of accommodation for a quarantine period of around two weeks before embarkation and after disembarkation, in addition to multiple PCR tests. As we make manning arrangements for up to 900 people a month, we are navigating our way through this difficult time by coordinating with the COVID-19 Crew Change Task Force.

#### Signatory to the Neptune Declaration

In January 2021, the Company signed the Neptune Declaration for Seafarer Wellbeing and Crew Change, which calls for global action to end the unprecedented crew change crisis caused by COVID-19.





# We will pursue advanced, safe operations, by combining human resources and digital transformation (DX), and promote ESG management.

Profile

#### Tomoyuki Koyama

Senior Managing Executive Officer
Chief Safety Officer (Marine)
Chief Information Officer
Chairman of Group IT Strategy Committee
Chief Executive of Technical Headquarters (Executive Chief of Environmental Management, Chairman of Technology Strategy Committee)

S afe operations are the first priority of ESG management, but this is nothing new for NYK, where safety has been the top priority of management for over 130 years. The NYK Group makes constant efforts to cultivate a safety culture, and we invest management resources without reservation in maintaining and improving the safety and skills of our crew members, especially those who work on the front lines.

Amid the COVID-19 pandemic, which has been of a historic scale, we implemented rigorous infection prevention measures not only at sea but also in crew members' home countries. With passenger airline services still on hold, we used our ingenuity to conduct crew changes safely and smoothly (see page 46 for details). In addition, we maintained our previous high standard of training by actively incorporating online education and training.

In April 2021, we saw a graduate from our privately operated maritime academy in the Philippines—the NTMA\*—become a captain for the first time. The Company's high standards of safety are inculcated not only through training and drills but also through academy education.

Going forward, we will realize even higher levels of safe operations by combining human resources with digital transformation. We are proud of our industry-leading technologies for big data analysis and diagnosis using data on voyages, engines,

weather, and maritime conditions obtained via our Ship Information Management System, SIMS, as well as operation management data obtained from our safety management system, NiBiKi.

In August 2020, we opened the Remote Diagnostic Center in Manila to carry out centralized monitoring of the fleet. At the center, specialist maritime technicians search for abnormal values in vessel power plants detected by advanced AI technology and provide detailed and highly accurate information to operating vessels, helping prevent engine trouble or detect it early. Through this system, both AI and human experts are able to function efficiently within a cycle encompassing detection, diagnosis, communication, and feedback. We are also working to develop manned autonomous ships, which reduce the workload on crews while dramatically increasing the level of operating safety. With the combination of advanced AI technology and the general rules adhered to by our crews, we expect to achieve the full implementation of these systems within a few years.

In other initiatives, we are promoting the introduction of a system that readily confirms safety and shares voyage plans between ships and onshore bases, as well as introducing a new collision risk indicator display to assist crew members steering vessels. We have started combining assessment data

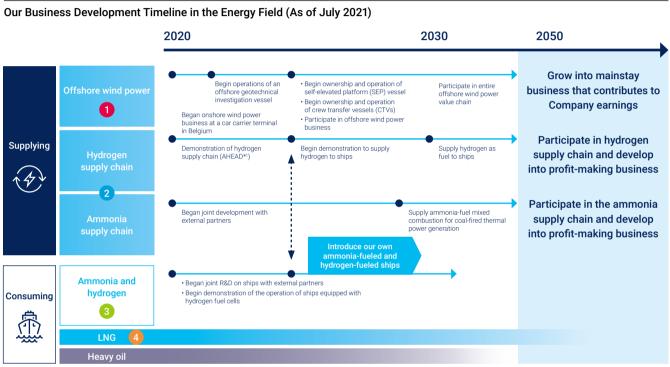
based on the NAV9000 unified safety standard—which we have adhered to for many years together with operating vessels, vessel owners, and ship management companies with data obtained from class societies, flag states, and industry bodies to quantify risk levels for use in safety management, with the aim of accelerating the development of a system for data-driven safety management.

\* NTMA: The NYK-TDG Maritime Academy. Established in 2007 with the objective of training top-class Filipino crew members, the academy has over 1,100 graduates, who are active in the NYK Groun's shipping organizations.



# Taking On Ambitious Initiatives in the Energy Field

Leveraging its expertise and technological competence accumulated over many years and its global network, the NYK Group is tackling ambitious projects in the renewable energy field with the aim of creating a new core business. We are participating in research together with start-ups focusing on new technologies for ships in the field of alternative fuels and promoting global business development.



<sup>\*1</sup> AHEAD: Advanced Hydrogen Energy Chain Association for Technology Development, established in July 2017 by four companies: NYK, Chiyoda Corporation, Mitsubishi Corporation, and Mitsui & Co., Ltd.

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Profile

#### Kazumasa Taruishi

NYK Energy Transport (USA), Inc. Vice President

#### **Budding ESG Activities Also Spreading Overseas**

The United States is one of the world's leading producers and consumers of oil and natural gas. Large-scale tankers operated by NYK are also involved in the marine transportation of energy produced in the United States (LNG, LPG, crude oil, and petroleum products) to various export destinations, including Japan. Realizing a decarbonized society requires both an essential reduction in the overall cost of supply chains, including marine transportation of low-carbon energy, and technological innovation to make this possible. The NYK Group is also required to create partnerships and connections that differ from those with its traditional customer base. We believe that fostering human relationships and networks in the United States will also promote ESG management, and we therefore participate in international seminars held locally to communicate our initiatives. After the seminars, I am encouraged by a large number of inquiries from U.S. companies, which show strong interest in us.

#### The NYK Group's Participation in Decarbonization Projects

We are steadily promoting low-carbon and decarbonized modes of transportation and the establishment of a value chain concept to realize a decarbonized society in the future.

1 Offshore wind power

#### Japan

- Agreed a memorandum of understanding on offshore geotechnical investigation partnership for the domestic offshore wind power industry
- Agreed a memorandum of understanding with Akita Eisen KK for crew transfer vessel business for offshore wind power generation systems

#### Europe

- Concluded a bareboat charter contract with Northern Offshore Group AB for crew transfer vessel in offshore wind industry
- Began wind power generation at finished vehicle logistics terminal in Belgium
- Signed a memorandum of understanding with Van Oord Offshore Wind B.V. to own and operate offshore wind turbine installation vessels

2 Creation of supply chains for hydrogen, ammonia, and decarbonized energy

#### Japan

- International demonstration project for transportation of hydrogen executed by AHEAD
- Invested in ammonia production venture company Tsubame BHB Co., Ltd.
- Changed status in Clean Fuel Ammonia Association to board member
- Participated in the Public-Private Sector Conference on Fuel Ammonia Introduction and the Public-Private Sector Conference on the Promotion of Methanation, both held by the Ministry of Economy, Trade and Industry

3 Technology development for ammonia- and hydrogen-fueled vessels

#### Japan

- Carried out joint research into an ammonia-fueled ammonia gas carrier (AFAGC) and an ammonia floating storage and regasification barge (A-FSRB)
- Started joint R&D to put ammonia-fueled tugboat into practical use
- Signed a comprehensive alliance agreement on demonstration project for a high-power hydrogen fuel cell vessel with Yokohama City

#### Europe

- Joined international assessment project for decarbonization of marine fuels,
   The Maersk Mc-Kinney Moller Center for Zero Carbon Shipping
- NYK Bulkship (Asia) Pte. Ltd. signed a contract of affreightment for renewable fuel with Neste Oyj subsidiary Neste Shipping Oy
- Signed a memorandum of understanding regarding joint study of an AFAGC with Yara International ASA

4 Promotion of LNG fuel and supply business

#### Japan

- Japan's first LNG-fueled tugboat, Sakigake, delivered in 2015; Japan's first LNG bunkering vessel, Kaguya, delivered in 2020
- Japan's first LNG-fueled pure car and truck carrier, Sakura Leader, delivered in 2020. Scheduled a total of 20 such vessels to be constructed by fiscal 2028. World's first LNG-fueled large coal carrier (scheduled delivery in 2023)
- Conducted the first LNG bunkering demonstration trial in Setouchi, Kyushu region

#### Europe

- World's first purpose-built LNG bunkering vessel, Green Zeebrugge, delivered in 2017
- Terminated Gas4Sea J/V and acquired all shares of exclusive vessel holding company



# NYK Group Innovative Story

#### Circulating Value through MarCoPay

Many non-Japanese seafarers encounter various financial problems due to their fixed-term employment for each period of work aboard a ship, which can be more than six months.

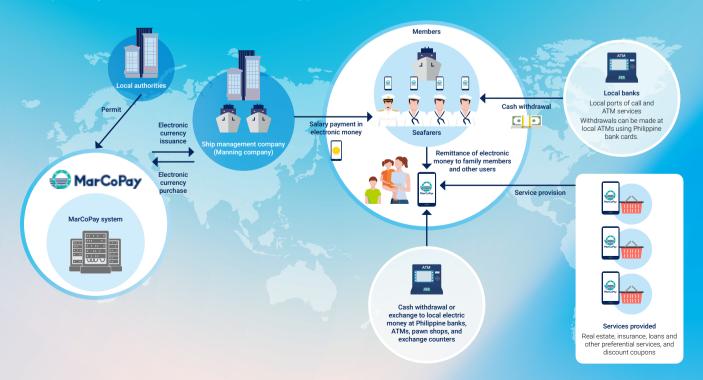
To improve the daily lives of seafarers as much as possible, we established MarCoPay Inc. and worked tirelessly to resolve social issues. This section provides a glimpse of how MarCoPay works in practice.

#### What is MarCoPay?

It is an electronic money platform for seafarers.

Many talented seafarers hail from the Philippines. With local financial infrastructure still underdeveloped in many ways, seafarers previously faced difficulties in obtaining personal loans and other services. Through MarCoPay, we can help solve these issues and contribute to improving the quality of life for seafarers.

#### Conceptual diagram of onboard use of electronic money platform





Full-Scale Operation of the MarCoPay Platform Created by a Maritime Shipping Company

arCoPay was officially launched in the Philippines in 2021. Jointly operated by NYK and its long-standing business partner in the Philippines, Transnational Diversified Group (TDG), MarCoPay is a life-supporting platform for seafarers that utilizes electronic money. The platform enables users to receive their salaries in electronic money, transfer money to family members and friends, pay bills, and convert the electronic money back into cash at bank counters, ATMs, and non-bank institutions across the Philippines, as well as apply for loans prior to embarking on ships. The system is licensed by the central bank of the Philippines and is also recognized by the Department of Labor and Employment and related government agencies. In the Philippines, ongoing restrictions on movement and other measures to prevent infection during the COVID-19 pandemic are driving growth in needs for digital settlements, and the amount of settlements made using electronic money is growing exponentially. However, the core concept of MarCoPay is much more than just an electronic money settlement service.

In addition to basic financial services such as deposit management and money transfers, MarCoPay focuses on the potential value of seafarers and their financial needs. It aims to serve seafarers as a lifesupporting platform that provides services such as loans, insurance, and communications-which are necessary at each stage of life-with better conditions. "MarCoPay reduces the burden of dealing with cash on seafarers and those around them," says Toshiaki Fujioka, the president and CEO of MarCoPay Inc. "Our mission is to provide opportunities for seafarers to harness their economic potential to enrich their lives. I believe that achieving this mission will lead to not only the success of our business but Profile Toshiaki Fujioka



MarCoPay Inc.
President and CEO

Mr. Fujioka joined NYK in 2000. After working at NYK Bulkship (Atlantic) NV and in the Nippon Yusen Secretary Group and Digitalization Group, he was appointed to his current position in October 2019.

also the sustainable growth of the maritime community, based on which MarCoPay is named."

The Philippines provides more global seafarers than any other country. While they earn higher than the average income in their home country, the immature state of the financial infrastructure in the Philippines and the fact that seafarers from there have fixed-term contracts for each period of work aboard ships mean that their economic value is not properly recognized by society and its systems. There are almost no local loan services in the country available to seafarers, and those that are available have high interest rates. Even captains, whose annual income exceeds ¥10 million, are required to provide proof of employment when using loan services. However, proof of employment is issued just before boarding. This means that they have virtually no access to unsecured personal loan services at appropriate interest rates. To address this issue, MarCoPay launched a personal loan service in the Philippines in the fall of 2020. The service provides loans with competitive conditions in cooperation with a crew manning company, and the loans do not require collateral. "In addition to electronic money, we aim to be a provider of

attractive services that closely reflect the lifestyles of seafarers and their families, including loans and insurance. We also aim to provide seafarers with ways to enrich their lives by encouraging them to not only use money but also build assets, including savings. This personal loan service is the first step toward realizing this vision," explains Mr. Fujioka.

The COVID-19 pandemic will also help to increase the use of MarCoPay. The Philippines comprises over 7,000 islands, not all of which have banks or ATMs within the areas where people live. Strict controls on people going out have made it even more difficult to access banks. Ship management companies are actually beginning to distance themselves from cash dealings. There are also signs of cross-industry efforts to improve the environment for seafarers under the influence of COVID-19. MarCoPay will surely prove to be a valuable service for many seafarers.





# The Unique Perspective of a Maritime Shipping Company



M arCoPay is based in the Philippines for several reasons. First, Filipinos make up a significant proportion of the world's seafarers, particularly on Japanese ships, where they account for 80% of crew members. Another major reason is that financial infrastructure and financial literacy in the Philippines are still developing, and there is a lack of services that match the economic potential of seafarers.

Seafarers and their families often spend long periods living apart. Therefore, they tend to face problems with various aspects of life, such as funds and healthcare. The MarCoPay concept is based on developing services to provide multifaceted support for talented seafarers, as well as making the overall maritime shipping industry more

competitive through the circulation of value. It is for this reason that MarCoPay has adopted a neutral position and offers its services broadly to all shipowners, ship management companies, and crew-manning companies. "The maritime shipping and logistics businesses involve more than just transporting goods; they are excellent at circulating value. However, measured by the yardsticks of value in industry and society overall, these businesses tend to be underappreciated. MarCoPay was established from a sense of urgency that we and the younger generations must do something ourselves," Mr. Fujioka emphasizes.

Today, MarCoPay receives many inquiries from various companies, including NYK Group-related companies. MarCoPay's initiatives are drawing strong interest from an increasing number of operators from the perspectives of ESG and the SDGs. Mr. Fujioka has also noticed the surge in interest: "As the yardsticks for measuring value evolve with the times, people are beginning to appreciate the significance and value of MarCoPay even more."





#### Potential for the Future



n the Philippines, MarCoPay has set up a system to handle certain loan and insurance agency services as well as an app, in a bid to increase the numbers of seafarers and operators participating in the electronic payment platform. In other services, the company plans to collaborate with a wide range of partners that share its mission.

The company is also promoting the launch of community-focused services. It set up group insurance services that people can join at discounted rates and introduced global SIM cards in cooperation with

telecommunications providers. In the Philippines, where there is an ongoing house-building boom, MarCoPay provides discount coupons for people purchasing condominiums. These services are able to attract ideal users such as seafarers, and Mr. Fujioka's strategy is clear: "We plan to increase the number of users of electronic currency, loans, telecommunications, and coupons to widen our platform while expanding our offerings to include insurance and deposits."

In June 2021, the Japanese trading company Marubeni Corporation decided to

invest and participate in MarCoPay. Now, Mr. Fujioka plans to develop services to enrich the lives of seafarers and their families. "Going forward, our service development will adopt three themes: securing options, health, and security. First, there are plenty of opportunities to acquire a car or a house, so we will expand the lineup of loan and insurance services to secure options for users. Second, we have also heard that people are anxious about health and medical treatment in the Philippines, where the national health insurance system is still in development,





and that anxiety has increased during the COVID-19 pandemic. Along with expanding the insurance lineup, we intend to look at ways for possibly reducing anxiety about medical care. Third, with regard to security, we want to provide systems that enable people to not only receive loans but also dispel anxiety about their futures by providing opportunities and support for asset portfolio building, including savings and investments. Specifically, we want to provide attractive services linked to savings and asset formation through the MarCoPay platform. I believe these services will promote long-term security and better

support for different life stages. We will carefully gather feedback from seafarers and other relevant people through questionnaires in order to further develop these services."

#### Taking Extra Care during Favorable Times

The platform has made a smooth start, but Mr. Fujioka and other people involved are treading carefully. "We feel a palpable response in terms of business development and employee growth, but it is because things are progressing favorably that we are

taking extra care in fully deploying the services. In particular, since we are handling loan services, we need to take every precaution to address security risks. We aim to both expand services that will realize and increase value and continue to steadily offer services that our customers expect."

We will continue to focus on innovation generated by MarCoPay.

#### Service Concept for the Future (as of July 2021)

	Service Menu									
Target	Seafarers (some services include those for families and onshore personnel in the maritime shipping industry)									
Service	Electronic money	Electronic money Loans (preferential conditions) Insurance (preferential conditions) Asset formation								
	Salary payment	Salary loans	Life insurance	Financial seminars	Real estate					
	Transfers and conversion to cash	Unsecured loans	P&C insurance	Investment trusts	Cars					
Deteile	Conversion to other electronic currencies	Car loans	Health insurance	Stock investments	Motorcycles					
Details	Bill payment	Home loans	Medical insurance		Home appliances					
	QR code payment		Note: All with preferential conditions		Travel					
	Debit card				Education					
Key theme	Contributing to fulfilling lives for seafarers, their families, and everyone involved in the maritime shipping industry									

Currently available services

#### History of MarCoPay Inc.

End of 2017	··· Several voluntary study meetings held to examine the basic concept
Feb. 2018 ·····	·· Basic concept announced internally, and with approval from the president and other members of senior management, discussions moved ahead
Nov. 2018	·· Shipboard remittance test carried out in cooperation with Japan Card Network Co., Ltd. (applied for patent for a system able to manage electronic currency in an unstable telecommunications environment)
Feb. 2019	···Concluded a memorandum of understanding with business partner TDG

July 2019	··Established MarCoPay Inc.
Dec. 2019	· Acquired license as an electronic money issuer from the central bank of the Philippines
Oct. 2020	·· Launched personal loan service in the Philippines
Apr. 2021	· Provided preferential services for home purchase transactions, etc.
May 2021	·Started salary payments in electronic money for seafarers at sea
June 2021	$\cdot \text{Investment and participation by Marubeni Corporation} \\$

# CED Message



arCoPay Inc. currently has 40 employees. As a business operating in the cutting-edge field of fintech, we continue to attract talented personnel. Our team members are strongly motivated by the sense that they can deliver significant value to society through MarCoPay. Even if the work is challenging, such as negotiating with financial authorities, developing new partnerships, and implementing security

measures, our people continue to apply themselves with dedication. Our employees are energized by the idea that they can be instrumental in solving social problems such as access to financial services and in transforming the situation of seafarers and their families, who struggle because of these issues. I feel this also contributes significantly to their own personal growth.

Although financial services are currently limited in terms of access and options in our home market, the Philippines, the potential is limitless, with a large population of young people—similar to the situation in Japan in the past. Local people, in particular the young generation, have a desire for growth that is rapidly propelling them forward. They may overtake Japan sooner than one might think in the near future. As the world's largest supplier of seafarers, the Philippines has great potential. We intend to start here, aligning ourselves with the real needs of seafarers and related parties, helping them overcome the challenges they face, and developing solutions with them moving forward.

At the same time, we are also preparing to deliver value to a large number of seafarers and related parties outside the Philippines as well.

One of the appealing features of platforms such as MarCoPay is that it enables even greater value sharing among people as the circle of supporters and participants widens. Together with many people in the maritime shipping industry and surrounding sectors, we desire to realize solutions to cash-related issues and inconveniences. nurture potential value to be realized, and then tap into that value.



(Top) CEO Toshiaki Fujioka and Vice President Areson Cuevas (Right) MarCoPay Inc. employees



#### COLUMN

#### Aiming to Impress through Service

The COVID-19 pandemic is having a tremendous global economic and social impact. One positive outcome of the pandemic for society in the Philippines, however, has been the increasing awareness and use of electronic money among Filipino citizens, as restrictions on movement helped increase their reliance on the safety and speed of online financial transactions.

We in the MarCoPay team start each day with the mindset of "the sky's the limit." There are so many gaps in the Philippine financial industry that can be bridged through the use of financial technology. This brings MarCoPay to the forefront by having a very focused market—the Filipino seafarers—which has high growth potential but is oddly underserved by traditional financial companies

MarCoPay is attempting to address issues that seafarers themselves may not be fully aware of. For example, we often receive questions inquiring about how electronic money works, whether it is safe, and recommended amounts to send to families. Some individuals even occasionally comment that they do not see the value of MarCoPay. MarCoPay must always strive to be an exciting and innovative platform that provides an "Aha! I love it!" moment for seafarers. We aim to add value to their lives.

#### Profile

#### **Areson Cuevas**

Vice President and Chief Operating Officer



#### Seafarers' Feedback Is at the Heart of Management

Two or three times a week, Filipino seafarers tell us that they cannot get home loans, that they are lonely being separated from their families or spouses, that they are worrying about their parents' health, or that they want to give their children a good education. These statements greatly interest and motivate us, as this kind of feedback is filled with hidden keys to unlock our market. We set to work right away, carefully identifying the issues and building and examining potential solutions with colleagues and supporters both within and outside the company. Over the past two years, we have openly repeated this process again and again, and continuing it will always be MarCoPay's most important task. This, however, is not something that can be achieved by one person alone. It is only made possible by receiving a broad range of opinions from people

with completely different cultures and backgrounds, of different genders and nationalities, both seafarers and land-based employees, from inside and outside the company, and working in different industries. We will provide support for seafarers and their families so that they can enjoy enriched lives. At MarCoPay Inc., we place feedback from seafarers at the heart of our management and continue our nautical chartless voyage at full steam, remembering to be grateful to all of our supporters.

#### Profile ---

#### Ryota Takenaka

Chief Sales and Strategy Officer



#### Contributing to Business Growth with a Shared Aspiration

The maritime shipping industry handles 99% of the world's logistics and is supported by a large number of seafarers. Marubeni Corporation moved to invest and participate in MarCoPay Inc. in June 2021, having shared its aspiration to enrich the lives of seafarers and those connected to them. This is Marubeni's first foray into services for seafarers, but we are encouraged and delighted to be working in partnership with a global maritime shipping company such as NYK.

MarCoPay Inc.'s initiatives are very advanced. They not only provide solutions to problems seafarers are facing but also identify latent needs and create completely new value. We are confident that MarCoPay Inc.'s life-supporting platform will provide a foundation for seafarers to build better futures. As a sogo shosha (integrated trading and investment business

conglomerate), our business domains are diverse, and we can therefore link our operations in financial and medical services, communications, and other areas with the platform provided by MarCoPay Inc. to provide a wide range of services to seafarers. This will boost the growth of the platform and give us the means to bring greater convenience to the lives of seafarers.

#### Profile —

#### Mikio Wakabayashi

Assistant General Manager Ship Project Department, Marubeni Corporation









# Co-Creation with Stakeholders through Shared Understanding

Throughout its history of over 135 years, the NYK Group has developed countless innovations in co-creation with various stakeholders, whether by understanding customers, cooperating with suppliers, or supporting local communities, among others. The following are examples of co-creation with customers, suppliers, employees, local communities, and shareholders, who are among our most important stakeholders.

#### **Car Transportation Business**

#### The "Sail GREEN" Project for Ensuring GHG Emission Reductions in Customers' Supply Chains

The Car Transportation Division focuses on providing transportation services with ever-lower environmental impact while remaining cost competitive. In 2021, we started the "Sail GREEN" project, which aims to provide globally connected greenhouse gas (GHG) emissions reduction services for finished vehicle logistics. Through the project, we aim to reduce GHG emissions, not only in marine transport operations but also at finished vehicle logistics terminals around the world, as well as inland transport operations. The major objective of the project is to provide the emission reductions achieved to our customers' supply chains. We are working on a range of innovations targeting both hardware measures, such as the use of LNG-fueled pure car and truck carriers (PCTCs) that emit less CO<sub>2</sub> than conventional heavy-oil based engines, and intangible measures, such as using precise calculations to improve the operating

efficiency of vessels and trucks used in land transportation operations in order to minimize fuel consumption.

For example, in transport services from Japan to Europe, we can load vehicles to vessels at terminals that use 100% renewable electricity and carry them to Europe on LNG-fueled PCTCs. Along the way, the cargo can be transshipped onto LNG-fueled PCTCs sailing within the European region at terminals with wind power generators and recycled water facilities\*1 to carry the vehicles to their final destination. Using this approach, the project aims to encourage GHG reductions across every section of the value chain, from loading through to landing at the final destination, rather than confining reductions to a single section of the supply chain.

\*1 Port of Zeebrugge, Belgium: One of the world's largest terminals for finished vehicles, operated by NYK's subsidiary, International Car Operators N.V. (ICO). In February 2021, 11 wind turbines came into operation at the port, providing enough electricity to meet 100% of demand inside the terminal

#### "Sail GREEN" Project Environment Value Chain Model

Environmental value chain from Port of Yokoyama to Port of Oslo via Port of Zeebrugge

Loading point: Daikoku C-3 Terminal,
 Port of Yokohama

100% of the electricity used at this terminal is confirmed as renewable, generated by wind power generation in Happo Town, Akita Prefecture.



2 Marine transport: LNG-fueled PCTCs

Cargo is shipped from the Port of Yokohama to the Port of Zeebrugge, Belgium, using LNG-fueled PCTCs.



3 Landing: ICO Terminal, Port of Zeebrugge (photograph on page 57)

Electricity used inside the terminal is generated by its on-site wind turbines. Recycled water is used for PDI\* facilities.

\* Pre-delivery inspection. These facilities provide inspection, repair, and parts supply services for finished vehicles before delivery.



4 Second leg of marine transport: Cargo is carried by LNG-fueled PCTCs operated by Group company United European Car Carriers (UECC).

Cargo is transported from ICO Terminal, Port of Zeebrugge, to the Port of Oslo, Norway, by LNG-fueled PCTCs operated by UECC.











#### Development of System by Young Employees to Reduce Environmental Impacts and Improve Vessel **Operations**

One element of the "Sail GREEN" project is a software innovation launched in April 2021 to create PCTC sailing schedules that reduce environmental impacts and improve vessel operations. A team led by young employees from the Business Department began to develop the system in 2018. Subsequent developments proceeded as a Companywide digital transformation project, with cooperation from the Digitalization Group and Group company NYK Business Systems Co., Ltd. Digital technologies enabled to optimize schedule calculations that could not be automated from conventional manual calculation, helping schedule

coordinators to decide more efficient sailing schedules. The new system collects operational data on each vessel from other in-house systems, automatically retrieving conditions such as calling ports and the number of loading or discharging units. The system rapidly executes hundreds of thousands of simulations to present the optimal sailing schedule for each vessel, including port arrival time and navigation speed. In addition, the system allows users to formulate schedules that minimize GHG emissions from vessels, which is expected to contribute significantly to realizing services that address climate change.

#### Sakura Leader: the First Ship in the World to Acquire Digital Smart Ship Notation.\*2

Sakura Leader, operated by NYK, is Japan's first LNG-fueled PCTC. Upon delivery in October 2020, it was accredited by Nippon Kaiji Kyokai (ClassNK) as the world's first digital smart ship (DSS), a notation confirming that the vessel is equipped with advanced digital technology.

DSS notation was developed with the aim of supporting environmental conservation, safety improvements, and sustainable development at sea by promoting the expansion and development of new technologies.

We aim to further improve environmental protection and safety by making use of our technical know-how for future technological development. Through these efforts, we will strive to explore and create new needs for our customers.

#### Three Functions of the DSS Notation Acquired by Sakura Leader

- "DSS (Energy Efficiency)" for analysis of energy efficiency
- "DSS (Machinery Monitoring)"
- "DSS (Connected Ship)" for onboard data processing and transmission of data to land

The main initiatives include use of actual ocean area data by Ship Information Management System (SIMS) and onshore monitoring of the vessel's engine plant. These functions have been certified as advanced vessel functions by a third-party institution.

\*2 Notation: Codes given by each classification society to ships and systems that meet specific

#### ICO Terminal at Port of Zeebrugge









#### **Technological Innovation**

# Joint Research with a Bureau of Shipping and a Main Engine Manufacturer to Realize Advanced Condition-Based Maintenance (CBM)

In working on the vital task of eliminating major accidents, the NYK Group has created a vessel technology innovation road map that includes "Introduction of autonomous engines and advanced CBM."\*3 Group company MTI Co., Ltd. has been working with ClassNK and Japan Engine Corporation on joint research into diesel main engines since November 2019, with a view to establishing advanced CBM, a new maintenance and management method for vessel engine plants. In May 2021, the "Guidelines for Selection of Target Equipment and Methods for CBM and Maintenance" developed through this research were adopted in the "CBM Guidelines (Edition 2.0)"

published by ClassNK. We have also developed a system that collects and shares detailed information about sensors installed in the diesel engine main bearing and the engine plant so that they can be continuously monitored by classification societies, engine manufacturers, shipowners, and ship management companies. We are currently starting to install the system on NYK's vessels, and the Company plans to apply for CBM-operation certification in the future.

\*3 Condition Based Maintenance (CBM) is a preventive measure, whereby the state of equipment is monitored continuously, so that maintenance can be performed as needed, rather than after a breakdown or on a periodic basis.

#### Initiative

#### Participation in International Initiatives to Increase Transparency in Ship Recycling

Ships contain a large amount of high-quality steel, and appropriate disposal of valuable recyclable resources is important for the realization of a circular economy. Meanwhile, there are various issues to be addressed, such as the minimization of industrial accidents and environmental pollution when ships are dismantled. Prior to the adoption of the ship recycling convention\*4 in 2009 by the International Maritime Organization (IMO), NYK formulated its own recycling policy incorporating the final proposal for the convention in 2008. In May 2021, the Company became the first Japanese company to participate in the Ship Recycling Transparency Initiative

(SRTI), an information disclosure platform hosted by the Sustainable Shipping Initiative (SSI)\*5 for enhancing ship recycling transparency. Through participation in SRTI, the Group's ship-dismantling process has become more transparent, and the Group is promoting safe, responsible recycling of its ships, with consideration for the environment and human rights, aiming to build a healthier supply chain.

- \*4 The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships ensures that ships being recycled after reaching the end of their operational lives do not pose any unnecessary risk to human health and safety or to the environment.
- \*5 An international non-profit organization that operates across sectors with the aim of contributing to a sustainable maritime industry.
- https://www.nyk.com/english/esg/envi/ocean/

#### **Cruise Business**

# Initiatives to Co-Create with Local Communities and Revitalize Regions as Seen through a Newly Built Passenger Ship

In March 2021, Group company NYK Cruises Co., Ltd. concluded a contract for the construction of a ship with the German shipbuilding company MEYER WERFT GmbH & Co. KG. The new ship, scheduled for delivery in 2025, will feature an engine that can use three types of fuel, including LNG, marking the first time for a medium-sized passenger ship to be fitted with such an engine.

The ship will feature the latest infection-prevention equipment, such as a 100% outside air intake-type ventilation system and touchless operation elevators. Furthermore, the maximum passenger capacity has been reduced by 15% to provide more space per person. In addition, passengers will enjoy "Asuka Luxury," combining the Japanese-style customer service developed on the first two ships in the Asuka series with the latest technologies. Construction costs were incurred

by the shipping investment fund of Anchor Ship Partners Co., Ltd., which is one of NYK Cruise's shareholders. A large number of Japanese regional banks have also participated in the project.

Through Asuka cruises, we aim to introduce the delights of regions throughout Japan, while promoting initiatives for regional revitalization with local residents and building the future of cruise culture.



Artist's depiction of the newly built passenger ship







#### **IR Engagement**

# Improvement of Corporate Value While Incorporating Feedback from Shareholders and Investors into Management

The Company believes that timely and appropriate disclosure to shareholders and investors and frequent two-way communication are key to an accurate evaluation of its corporate value. Through constructive dialogues, valuable feedback

from shareholders and investors is reported regularly and promptly to the management team, who can use it to improve the Company's management.

#### **Engagement Activities**

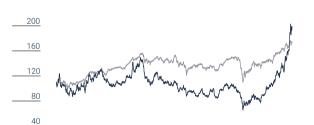
A adivitus	Numbers of Companies	/ Meetings / Participants	Description		
Activity	FY2019	FY2020			
Financial results presentations	4 times / 537 people*6 in total	4 times / 566 people*6 in total	Quarterly financial results presentations		
Small meetings	35 companies	38 companies	Dialogues between president and investors		
Shareholder relations activities	20 companies / 80 people in total	14 companies / 40 people in total	Dialogues with persons in charge of exercising voting rights for domestic		
ESG engagement	_	7 companies / 8 times in total	institutional investors		
NYK Group ESG Story presentation	_	1 time / 135 companies	Presentation on ESG management at NYK Group held in February 2021		
General Meeting of Shareholders	1 time / 111 people in total	1 time / 138 people in total	-		

<sup>\*6</sup> Excluding the Company's officers

Note: Activities in fiscal 2019 and fiscal 2020 were held remotely to prevent the spread of COVID-19 (except for the General Meeting of Shareholders).

# Dialogues with Ratings Agencies and Financial Institutions

The Company believes that having adequate and frequent communication with ratings agencies helps ensure an accurate evaluation of the Group's business model, profitability, and financial foundation. Furthermore, the Group holds constructive dialogues with institutional investors as well as financial institutions to flexibly procure the funds essential for stable business activities and further growth.



NYK — TOPIX

Total Shareholder Return (TSR)

Note 1: Rate of return on an investment made at the end of March 2016, taking into account dividends and stock price as of the end of March 2021

Note 2: NYK's figures and those of TOPIX (Tokyo Stock Price Index) are indexed taking the investment amount at the end of March 2016 as 100

Source: Prepared by NYK based on Bloomberg data

# **Liner & Logistics Headquarters**



Fiscal 2020 earnings represent our first step in becoming a sustainable transportation business with stable freight rates. The Liner & Logistics Headquarters will continue to strengthen its competitive advantages by working closely with each business company.



#### Hiroki Harada

Representative Director,
Senior Managing Executive Officer
Chief Executive of Liner & Logistics Headquarters

# Role of the Liner & Logistics Headquarters

he organizational structure of the Liner & Logistics Headquarters is similar to that of a holding company. It is committed to bringing together and supporting such business companies as Ocean Network Express Pte. Ltd. (ONE), Nippon Cargo Airlines Co., Ltd. (NCA), and Yusen Logistics Co., Ltd. (YLK). The newly named Liner & Logistics Headquarters (formerly the Global Logistics Services Headquarters) will work with business companies to develop sustainable growth strategies based on the liner business, which provides highly efficient container operation and transportation services, and the logistics business, which provides high-added-value forwarding services. The transportation via containers of parts and products from production areas to consumption areas will always be an essential business activity, as long as people around the world aspire to improve their lifestyles. The Liner & Logistics segment will continue to grow, but achieving sustainable earnings growth will require further enhancement to the competitiveness of each business. We will aim to become a sustainable business with stable freight rates through investments to update

assets such as vessels and containers, as well as through the acceleration of digital transformation (DX) initiatives to improve operational excellence and customer experiences.

#### Review of Fiscal 2020 and Business Direction for Fiscal 2021

#### Liner Trade

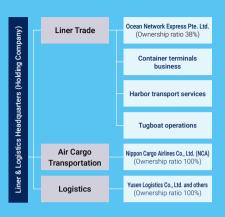
Cargo volumes dipped sharply due to the impact of the COVID-19 pandemic, but they recovered rapidly as the pandemic created stay-at-home demand and sparked a trend shifting consumer appetite away from intangible services toward physical products, mainly in the United States. Subsequently, the impact of shortages in transportation space and containers, in addition to the increasing acuteness of labor shortages in ports and on transportation front lines, ensured that the balance of demand and supply remains under pressure. This unprecedented trend led to a surge in freight rates, resulting in recordhigh earnings for ONE in fiscal 2020, with profit for the year exceeding US\$3.4 billion. Currently, ONE is taking every measure to minimize these impacts on its customers by working to remedy supply chain

confusion occurring around the world through the stabilization of schedules and elimination of shortages in transportation space and containers, among other measures. In fiscal 2021, the company will continue to promote initiatives for maintaining supply chains and supply vessels and execute operations that are finely attuned to demand trends.

#### Air Cargo Transportation

NCA continued to transport medical supplies and related goods as dedicated cargo aircraft kept flying even as international airline passenger services were halted due to the spread of COVID-19. In fiscal 2020, average freight rates and utilization remained high as a result of a sharp decrease in supply from passenger services, despite temporary depressed demand as economic activity stalled under the COVID-19 pandemic. In addition, shortages of space on container ships resulted in some maritime cargoes being transported by air. Accordingly, the Air Cargo Transportation segment recorded recurring income of ¥33.2 billion in fiscal 2020, reversing a recurring loss of ¥15.5 billion in fiscal 2019. Under its primary mission of conducting safe operations, NCA strove to maintain its transportation systems and

# Business Model of the Liner & Logistics Business



#### Logistics Center Locations (As of March 31, 2021)



meet demand as far as possible during a fiscal year that highlighted the social mission of dedicated cargo aircraft. Looking ahead to fiscal 2021, the return of international airline passenger services is expected to take some time, and the business environment of fiscal 2020 is likely to persist. We will continue working to meet demand via safe operations.

#### Logistics

As the core business company of the Logistics seament, YLK recognized that growth in logistics demand could not be expected in fiscal 2020 due to the impact of the spread of COVID-19. The company worked to prepare for the recovery in demand by strengthening its foundation through long-needed organizational reforms. Against expectations, stay-at-home demand and growth in e-commerce provided impetus for significant growth in earnings in the air freight forwarding and contract logistics businesses. In fiscal 2021, we will further strengthen our organizational foundation and provide solutions that will resolve issues by using our competence in discerning customers' essential needs and our operational know-how and technical capabilities. In these ways, we will establish a new position as a strategic partner offering new value.

#### ESG Story / Medium- to Long-Term Business Direction

NE has concluded a basic agreement regarding 15-year, long-term charter contracts for six new 24,000 TEU ultra-large containerships (ULCSs) fitted with state-ofthe-art, energy-efficient technologies. The larger size of the vessels is expected to contribute to a dramatic reduction in CO<sub>2</sub> emissions. Going forward, ONE also intends to consider ordering new vessels that run on low-environmental-impact LNG fuel and using biofuels. To further lower its volume of CO<sub>2</sub> emissions, ONE has not only taken steps to reduce wasted container journeys and overall transportation distance, by optimizing the reservation system for matching import and export containers, but also started to propose changes to empty container return sites and environmentally considerate routes through the operation of a system that handles CO2 emission information.

Meanwhile, on the safety front, there was an accident caused by heavy weather in the northern Pacific Ocean in which containers on an operating vessel were swept into the sea and container stacks on the ship collapsed. Although there was no secondary damage, the incident harmed our mission

as a provider of social infrastructure and reinforced the fact that avoiding accidents is the greatest aspect of ESG.

Furthermore, as a new business, we have started joint R&D for practical application of tugboats fueled with ammonia in our tugboat business, and we are discussing entry into the crew transfer vessel (CTV) business for serving offshore wind farms, which has been drawing attention globally, and into the tugboat business serving floating wind turbines. The NYK Group has the world's largest tugboat business, and we believe that we can leverage this strength to capture business opportunities with regard to offshore wind power generation systems. We will aim to continue being involved across a wide range of supply chains and contributing to the spread of offshore wind power.

# **Car Transportation Division**



We will promote a strategy of overwhelming differentiation, optimally managing vessels and other operations with consideration for the three aspects of the environment, safety, and economy as a whole, in order to earn even greater trust from our automotive manufacturer customers.

#### Takaya Soga

Senior Managing Executive Officer Chief Executive of Automotive Transportation Headquarters

#### Review of Fiscal 2020 and Business Direction for Fiscal 2021

n fiscal 2020, the Car Transportation Division faced an adverse business environment, with automobile shipping volumes in the first half of the year dropping to less than half that of the previous first half due to the impact of the COVID-19 pandemic. From the second half, signs of recovery gradually emerged, led by demand for automobiles in North America, Australia, and China in particular. Over the full year, the Car Transportation Division achieved profitability. However, this achievement was not due to the recovery in automobile demand alone.

During the phase when automobile demand had dropped sharply, leading to a rapid decrease in transportation volumes per vessel, the Car Transportation Division optimized its ship assignments. With the consent of customers, we reduced services and integrated routes and operated vessels at close to the maximum load factor. We saw other companies choose to retire aging vessels or redeliver charters early in order to cope with the rapid decrease in automobile transport volume. The Car Transportation Division, however, decided early on to retain its fleet portfolio in preparation for a rebound in cargo

volumes from the second half onward. In fact, going into the second half of the year, cargo volumes rebounded as expected, and we were well positioned to pick up the volumes that other shipping companies were unable to handle. As a result, despite the overall adverse business environment, we earned greater trust from our customers, which was reflected in our operating results.

With the assumption that global automobile sales volumes and transportation volumes will recover to fiscal 2019 pre-COVID-19 levels in fiscal 2023, in fiscal 2021 we will focus on responding to environmental and safety factors, emphasizing efficiency gains and profitability while promoting the following four business strategies.

The first strategy is to overwhelmingly differentiate ourselves through the "Sail GREEN" project. This initiative aims to make us the preferred automobile transportation and logistics company for the ESG era by proposing a low-environmental impact transportation network operated by the NYK Group for our customers' supply chains, including the systematic introduction of LNG-fueled vessels, which we have been promoting for some time, as well as the development of environmentally considerate green terminals that use wind power electricity generation. We will offer our customers a

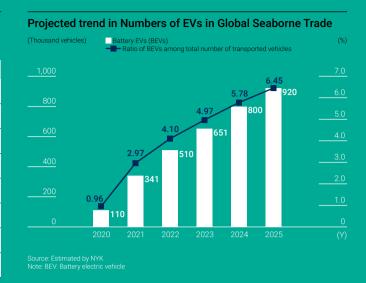
quantitative representation of the amount of greenhouse gas emissions reduced per automobile transported, working in partnership with them toward a decarbonized society. We have decided to launch 20 LNG-fueled vessels by fiscal 2028, and we are also promoting fuel conversion of vessels, with a view to introducing ammonia-fueled vessels from fiscal 2029 onward. Furthermore, we will utilize Sakura Leader, which was completed in October 2020, and other vessels, to accelerate our efforts to train and secure crews with high-level expertise in LNG-fueled vessels.

Our second strategy is to strengthen the sales capabilities of our base in China. In preparation for the rapid expansion of automobile electrification around the world, we will focus on capturing business related to finished vehicles exported from China. In addition to opening a direct China and Europe trading route with at least one regular service per month, we will strengthen sales of rail transport from China to Europe. By offering services with low environmental impact, multi-modal options, and stable transportation, we aim to seize the business opportunities emerging with the expansion of exports from China.

Our third strategy is to accelerate our technological response to the electrification

### Initiatives of the "Sail GREEN" Project Other Than LNG-Fueled Vessels

Auto Log	Business locations			
	Wind power generation business at finished vehicle logistics terminals	Belgium		
	Solar power generation equipment installed	Belgium, China (Shanghai)		
	Use of LED lighting at ports	Belgium, Thailand, Turkey		
Environment	Use of electricity generated from renewable sources	Japan (Yokohama)		
	Electric vehicle (EV)-charging equipment installed	Belgium		
	Use of LNG trucks	Russia, China (Tianjin)		
	Seamless transportation through extension of railway lines into terminals	China (Shanghai, Dalian)		
Social	Installation of rest areas where employees of cargo-handling operators can take a break	Japan (Yokohama)		



of automobiles. Electric vehicle (EV) shipment volumes are expected to increase ninefold between 2020 and 2025. EV transportation requires different technologies and knowledge from conventional vehicles, such as how to deal with battery drain or fires occurring during transportation. For example, if an EV catches fire, conventional fire-extinguishing methods will not work, and it may take time to completely control the blaze.

The Car Transportation Division plans to conduct on-site trials and formulate essential procedure manuals for fires, along with other initiatives to put thorough safety precautions in place for EVs, as the market share for these vehicles is expected to expand more rapidly going forward. In this way, we aim to set the industry standard for transportation quality.

The fourth strategy is frontline and office innovation through digital transformation (DX). We are working to develop an optimal vessel operation support system using artificial intelligence (AI), utilizing big data, reducing the number of personnel in terminal operations, and promoting non-contact remote material-handling attendance and inspections to enable safe transportation and other operations.

In addition, we will actively introduce DX not only to reform office workstyle, but also

to make further efficiency gains through operations, predictive management, and visualization of income and expenditures.

#### ESG Story / Medium- to Long-Term Business Direction

he key point for automobile transportation going forward will be realizing optimal vessel operations taking into account environmental, safety, and efficiency factors. The Car Transportation Division is accelerating the switch to LNG-fueled vessels, which can achieve low-carbon operations with existing technology. At the same time, we envisage the launch of our first next-generation fuel vessel in around 2030, which will pave the way for zero emissions. We will execute a careful fleet enhancement plan designed to reduce greenhouse gas emissions to as close to zero as possible by 2050. Our LNG-fueled vessels and the next-generation fuel vessels that follow them are expected to cost more to build than conventional pure car and truck carriers. To soften the impact of the price increase, we will work together with shipyards to reduce costs by standardizing vessel specifications, increasing their size, and sharing components. We will also devise further operational measures, such as

maximizing the number of vehicles loaded per voyage, improving fuel efficiency through route optimization, and increasing the rotation rate by concentrating ports of call. We aim to achieve sustainable growth by providing value that holistically integrates the environment, safety, and economy for customers aiming to decarbonize their logistics processes.

The automotive industry overall will propose new ways of enjoying mobility, such as mobility as a service (MaaS): however. cars themselves will not disappear. Nevertheless, we must focus on changes in transport routes and modal shifts due to supply chain changes in the automotive industry. The Car Transportation Division aims to meet these transportation needs by securing a diversity of transportation means and proposing the best finished vehicle logistics services for its customers. Moreover, there are emerging issues that require attention in relation to managing automobile production delays caused by recent shortages of various semiconductors. We will deal with these issues sincerely while actively working to differentiate ourselves through our environmental value chain and providing services that customers will prefer, having understood the value they will derive from them

# **Dry Bulk Division**



Making bold structural reforms, we will strive to secure stable earnings and create a sustainable business entity through the enhancement of long-term contracts and expansion of the non-asset tramper business.





# Nobuhiro Kashima Managing Executive Officer Chief Executive of Dry Bulk Division

#### Review of Fiscal 2020 and Business Direction for Fiscal 2021

he Dry Bulk Division operates about 400 dry bulkers in various categories, safely and stably transporting dry bulk cargoes such as iron ore, coal, grain, and woodchips, which make up about half of global seaborne trade, to countries around the world. In the present situation, rapid changes in social trends and the global economy have made the future difficult to read, and the ratio of long-term contracts is declining. On the other hand, as mediumand short-term transport contracts increase, the Dry Bulk Division faces the issue of high-cost vessels purchased in the past, which has made our business structure more susceptible to market fluctuations. Specifically, we recorded approximately ¥54.7 billion in extraordinary losses and made steady progress on the redelivery of high-cost vessels. In April 2020, we established the Tramp Fleet Team to undertake centralized management of our exposure to market conditions. The team is promoting the use of digital tools to create a system that can retrieve information with increased frequency, enabling even more timely and precise management. In the

non-asset tramper business, where we transport freight with tonnage procured from the market, we have steadily accumulated earnings, even in the midst of a market slump, and we aim to continue securing stable earnings going forward. During fiscal 2020, in our efforts to maintain and expand long-term contracts, which are the cornerstone of stable earnings, we renewed or newly acquired nine contracts for three years or longer. As a result, our market exposure was reduced from 35% to 16% (compared with the end of fiscal 2017), improving the ratio of matches between freight contract periods and charter vessel contract periods.

Our efforts to create new value from an ESG perspective are centered on the Technical Solutions Sales Team, which was established in the Dry Bulk Division in 2019. In particular, we have been accelerating initiatives such as the dry bulk coastal transportation business, which is expected to help reduce CO<sub>2</sub> emissions. In fiscal 2020, we established the Dry Bulk Sustainable Supply Chain (DBSSC) project. Led mainly by young employees, it aims to explore new opportunities for business in areas peripheral to dry bulk. The project will bring together knowledge from inside and outside the Company and contribute widely

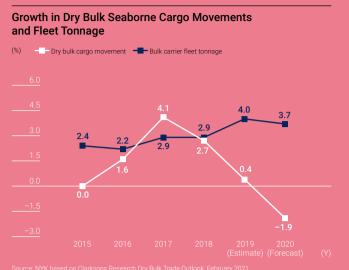
to solving customers' issues in the logistics value chain.

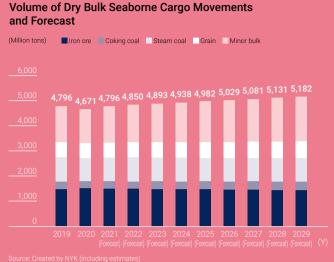
Through the structural reforms of fiscal 2020, I believe we have made solid progress in building a dry bulk business that is highly resilient to market conditions, one of the objectives in the medium-term management plan. In the near term, we face various challenges, including shorter contract periods, a plateau in domestic demand, challenges in coal transportation, expectations of high transportation quality from shippers, and fleet enhancement, including LNG-fueled vessels. In fiscal 2021, we will continue to promote our twin strategies of acquiring long-term contracts while also expanding the non-asset tramper business, with the aim of creating a more sustainable business that can constantly generate stable earnings.

#### ESG Story / Medium- to Long-Term Business Direction

S afe operations are the most important priority of the Dry Bulk Division.

Moreover, a growing awareness of safety and the environment has spurred demand for even higher vessel quality from customers including major global resource companies. While quality requirements differ by





customer and port, we will pursue the world's highest standards of vessel quality using our technological and human resource capabilities. In addition to our existing safety awareness-raising activities, we will continuously carry out various initiatives, such as promoting remote communication with vessels, strengthening relationships with major resource companies through locally stationed vessel captains, and establishing a place within the Dry Bulk Division for groups to share knowledge and challenges in order to implement best practices. In an effort to reduce greenhouse gas emissions, we have established carbon offset contracts with electric power companies and enhanced our fleet of LNGfueled dry bulkers through a process of replacement, improved the operational efficiency of existing vessels, and actively promoted the use of environmental impactreducing technologies such as paints and fuel-saving fins. The division transports coal, which has become controversial in terms of CO<sub>2</sub> emissions reduction, but our intention is to fulfill our responsibilities by safely transporting a necessary source of energy to eliminate chronic electricity shortages in Southeast Asia and other developing nations and by providing lifelines that support people and industries. We are

proud of being the operator that has taken the toughest measures to reduce  $CO_2$  emissions in the industry, and we remain committed to responding sincerely to the needs of customers with strong environmental awareness and to continuing our mission in the future.

In the area of new businesses, we launched the abovementioned DBSSC project. The Dry Bulk Division will work together with the Company's ESG Management Promotion Group, Marine Group, Technical Group, and Digitalization Group, as well as Group companies such as MTI Co., Ltd., to promote this initiative. We will take a wide view of the dry bulk transportation value chain beyond maritime shipping and actively promote the proposals of young Group employees, who tend to have a strong interest in ESG, and work to create new value through innovative ideas and technologies.

#### **Bulk Carrier Fleet Ranking**

(As of January 1, 2021)

1			
•	China COSCO Shipping	32,744	299
2	NYK	14,968	160
3	Fredriksen Group	14,901	118
4	"K" Line	13,185	109
5	China Merchants	13,183	115
6	Star Bulk Carriers	12,859	116
7	Berge Bulk	11,338	59
8	MOL	10,834	89
9	Oldendorff Carriers	10,448	101
10	Pan Ocean	10,360	72
11	ICBC	9,178	33
12	NS United KK	8,644	47
13	Imabari Shipbuilding	8,535	80

Source: Compiled by NYK based on Clarksons Research Database

# **Energy Division**



We will remain highly attuned to demand trends and strive to realize safe clean-energy transportation.



Akira Kono
Senior Managing Executive Officer
Chief Executive of Energy Division

#### Characteristics of the Energy Division

The Energy Division operates diverse businesses, including transportation of energy such as crude oil and liquefied natural gas (LNG), the offshore business and green business, and fuel supply and sales. Since 2020, the impact of the COVID-19 pandemic has caused a temporary decline in global energy demand. However, the end of the pandemic is in sight, with the spread of vaccination programs.

The International Energy Agency (IEA) and other external institutions have also forecast full normalization of global economic activity from 2022 onward, with an accompanying rebound and expansion of total global energy demand.

In addition, massive investments are expected in the field of renewable energy, including public funds, aimed at accelerating the global transition toward decarbonization and carbon neutrality. The Energy Division will capture this demand and business opportunities, appropriately balancing our needs for fossil fuels and renewable energy to further grow our business.

Since we handle fossil fuels, which are a global environmental issue, we are making fixed-point observations on important change phenomena that we have listed based on the Stated Policies Scenario (STEPS) in the International Energy Agency's (IEA) annual World Energy Outlook as an indicator of energy demand trends. As the global shift toward carbon neutrality accelerates, we are reviewing our business strategy with a long-term view of the potential impacts and risks to our business due to changes to future scenarios.

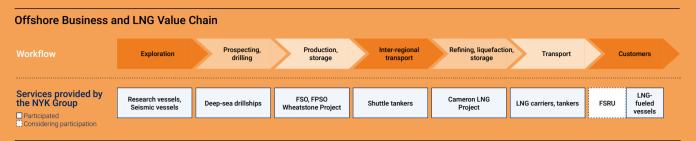
The Green Business Group is developing the renewable energy business while working with internal and external partners who have expertise in the offshore wind power business or LNG fuel supply business. In particular, in the offshore wind power business in Japan, we have leveraged the existing expertise of our Group companies and established a structure covering the major part of the value chain, including offshore geotechnical surveys, marine consulting, wind turbine installation, crew transfer vessel, and marine coordination. As of 2021, the first round of public invitations for Japanese offshore wind power generation operators has been conducted, and the Group will steadily continue to accumulate individual projects with a view to expanding the offshore wind power business as a core business for the next era.

#### Review of Fiscal 2020 and Business Direction for Fiscal 2021

n fiscal 2020, there was a marked decline in energy demand due to the spread of COVID-19, while geopolitical risks also became starkly prominent. Although oil prices experienced a sharp temporary drop, stockpiling activity increased among countries taking advantage of the lower prices. This drove an increase in demand for vessels, which led to a significant rise in freight market rates. Subsequently, the market settled, but as oil-producing nations continue to cooperatively reduce output, from January 2021 onward there have been movements to withdraw offshore stockpiles and the supply and demand balance has deteriorated.

Under these conditions, the impact of declining energy demand has been limited as the majority of our energy transportation business is based on medium- and long-term contracts.

In addition, we made conservative use of the freight forward agreement market to mitigate the impact of the slump in freight market rates, and the financial results exceeded the initial forecast. I am pleased to say that this was as a result of all of the



#### **Examples of Initiatives Related to Environmental Consideration**

#### Specific Initiatives for Reducing GHG Emissions

- In fiscal 2020, the Company ordered new LPG carriers that will also be fueled by LPG. Compared with marine fuel oil-fired engines, using LPG as the fuel can reduce emissions of sulfur oxide (SOx) in exhaust gas by more than 85%, and reduce carbon dioxide (CO<sub>2</sub>) by more than 15%. The new vessels will be compliant with the EEDI\* Phase 3 CO<sub>2</sub> emission regulations that will be in force when they are delivered
- The Company has also decided to build small-scale tankers equipped with dual-fuel engines that can use both marine fuel oil and low-environmental-impact methanol as fuel.
- In LNG carriers, the Company aims to further reduce GHG emissions with the addition of vessels fitted with the latest propulsion engines (X-DF, ME-GI) to its fleet.
- \* EEDI: Energy Efficiency Design Index

Group's employees and crew members, both inside and outside the Energy Division, fully recognizing the importance of our social mission of "Bringing value (energy) to life" and committing themselves to it, even in the face of the unprecedented crisis posed by the COVID-19 pandemic.

In fiscal 2021, we expect to continue acquiring new contracts in LNG and the offshore business, and thereby to secure stable earnings.

#### ESG Story / Medium- to Long-Term Business Direction

The Energy Division will engage in businesses across the energy value chain from upstream to downstream, based on its core Value Chain Strategy.

As a low-environmental-impact energy source that can play an important supporting role in the period of energy transition, LNG is expected to see firm demand continue to expand going forward. In emerging countries, ensuring stable electric power is essential for supporting population growth, society, and industry, and we will also work with customers and business partners to prepare gas infrastructure, including floating storage and regasification units (FSRUs). In addition, in our LNG projects in

Nigeria and Angola, we are proudly working to develop local crew members and transfer technology, an important initiative that contributes to local economic development.

The energy transportation business requires sophisticated cargo management, and ensuring safe operations and material handling will continue to be our supreme priority going forward. The division will build support systems that include not only crew members but also onshore maritime technicians and engineers. In order to prevent increasingly sophisticated equipment from developing faults during voyages, we are working with ship management companies to enhance safety at the vessel construction stage, by including mechanisms to provide feedback on technological problems on newly built or converted vessels.

In an effort to reduce carbon and green-house gas emissions, we are introducing more efficient propulsion engines and making use of fuels that have low environmental impact. In addition to using existing technologies, such as LNG-fueled vessels, we will focus on developing technologies for vessels that use carbon-neutral fuels such as ammonia and hydrogen, while pursuing efficient, safe, and low-environmental-impact transport services and maximizing the latent growth

potential of our existing businesses.

At the same time, we will actively participate in establishing supply chains that address both demand for and supply of carbon-neutral fuels. We will carefully consider R&D investments, including the use of the Green Innovation Fund, since technology-based differentiation and ensuring a competitive advantage are key to promoting the commercialization of green businesses and achieving zero emissions. The Energy Division will remain highly sensitive to its environment as it continues to provide services that meet customers' needs.