



Nippon Yusen Kabushiki Kaisha NYK Report 2022



Real Leadership Real Progress

Nippon Yusen Kabushiki Kaisha NYK Report

Financial, Social and Environmental Performance

2022

Sakigake, delivered in 2015



Sea Turtle Research,
supported since 2016



NYK flag (*nibiki*),
hoisted in 1885



Welcome to Our Value Creation Story

PROLOGUE

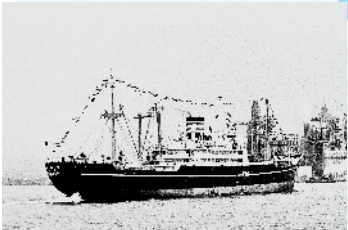
Ensuring That We Can Continue to Support Society

Since its founding in 1885, the NYK Group has walked together with Japan on the same path. Over our more than 135-year history, we have continued to expand our operations through our dedication to safe and reliable “delivery,” building a comprehensive global logistics network that includes one of the largest fleets in the world. Ensuring safety and security is our greatest mission, and we are also committed to supporting ESG management, which is one of our growth strategies.

The NYK Group will continue to further entrench its ESG management so that it can continuously provide social value to more people. We invite you to read about our initiatives for instilling our ESG management.



Sakura Leader,
delivered in 2020



Akagi Maru II,
arrived at NY in 1951



Tosa Maru (left),
the first ship for Europe route in 1896



MarCoPay Inc.,
established in 2019





Integrating Offshore and Onshore
Operations to Ensure Safety



Safety

With its social mission of “keeping the logistics lifeline open,” the NYK Group has honed technological capabilities unparalleled anywhere in the world through unstinting efforts. We will continue to meet the expectations of society, as we have always done.



Bringing Value Globally through Differentiated Sea, Land, and Air Transport

The Environment

The NYK Group supports worldwide “delivery” with a network covering the sea, land, and air. By pursuing the latest technologies and combining the strengths of our human resources and digitalization, we ensure that our shipping operations are considerate of the global environment and take responsible action to leave a beautiful planet for future generations.

The Environment





Human Resources

The NYK Group is supported by a global workforce numbering over 35,000 employees. Each employee works with pride to play a role in supporting society, which promotes better quality work. Since we operate our business globally, we have a corporate culture that recognizes and accepts different values and responds flexibly to changes in the times.

Promoting Diversity,
Mutual Respect, and a Sense of
Social Mission among Our Employees





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Cover Explanation



The cover image expresses the ripple effect of the NYK Group's commitment to its current ESG management measures as it spreads out to inspire its employees and all stakeholders.

Editorial Policy for the NYK Report

NYK Report 2022 is the 10th iteration of the NYK Group's integrated report, which first launched in 2013. Targeting a wide range of the Group's stakeholders, the report is designed to present the Company's various initiatives to solve environmental, social, and governance (ESG) issues, as well as its management strategies, which are strongly oriented toward contributing to the sustainable growth of society and industry as well as of the NYK Group. NYK Report 2022 advances a step further from the 2021 version, which was positioned as the first official year for the Group's ESG management. In this year's report, we tell our value creation story, showing how we have further promoted ESG in-house as a growth strategy while continuing to provide value to society.

Website

General business activities <https://www.nyk.com/english/>

Financial information
Website section: Investor Relations
<https://www.nyk.com/english/ir/>

Non-financial information
Website section: ESG Management
<https://www.nyk.com/english/esg/>

NYK Report (booklet, PDF (full version))

Fiscal statements

Business reports

Fact Book I, II

Corporate Governance
Code-related documents

Cautionary Statement with Regard to Forward-Looking Statements

Some statements made in this report are forward-looking statements that are based on information currently available and involve certain risks and uncertainties that could cause actual results to differ materially from those projected. Please be advised against undue reliance on such forward-looking statements. NYK undertakes no obligation to publish revised forward-looking statements to reflect events, circumstances, or unanticipated events after the present juncture.

Scope of Report

- Reporting period: Fiscal 2021 (April 2021 to March 2022)
However, certain information from April 2022 and after is included.
- Coverage: The activities of NYK and its consolidated Group companies in Japan and overseas are included.
The scope of coverage is indicated when there are differences in the major companies involved in specific business operations.
- Date of issue: October 2022 (previous: September 2021; next: September 2023)
Edited based on the Japanese version of NYK Report 2022 issued in August 2022.

Target Reader

This report has been prepared for all parties who have an interest in the activities of the NYK Group, including customers, shareholders, investors, business partners, employees, local communities, NPOs/NGOs, students, certification bodies, researchers, and those responsible for CSR/ESG activities at other companies.

Guidelines for Disclosure about the Environment, Social, and Governance factors –

- International Integrated Reporting Framework by the International Integrated Reporting Council (IIRC)
- GRI Standards, global standards for sustainability reporting produced by the Global Reporting Initiative (GRI)
- ISO 26000
- Guidance for Integrated Corporate Disclosure and Company–Investor Dialogues for Collaborative Value Creation by the Ministry of Economy, Trade and Industry
- Japan Business Federation Society 5.0—Co-Creating the Future

External Evaluations

ESG Indexes



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EMPOWERING WOMEN INDEX (WIN)

2021 CONSTITUENT MSCI JAPAN
ESG SELECT LEADERS INDEX



Other Awards and Certifications



Please visit the website below for more information about each evaluation, award, and certification.

<https://www.nyk.com/english/esg/evaluate/>



Message from the President

Steadily Developing ESG Management as a Business Strategy

Throughout the NYK Group, frontline businesses are developing and entrenching ESG management, which is already producing economic advantages.

In formulating our next medium-term management plan in 2022, we have begun to concretely map out a way forward that takes into account all stakeholders.

Hitoshi Nagasawa

President, Representative Director, President and Chief Executive Officer



Working Hard as a Pioneer in the Expectation of Significant Returns

In mid-April 2022, I visited North America for the first time in almost two and a half years. Over the previous two years, the COVID-19 pandemic had forced us to hold meetings with employees of overseas subsidiaries online. It really had been a while since I could meet face-to-face with national staff members. We convened a town hall meeting that also served as a simple get-together and invited Group employees in Central and South America to participate online. In this way, I was able to talk with many participants through a hybrid format that integrated offline and online discussion. In addition, I gave a presentation on the Group's growth strategies, focusing on the NYK Group ESG Story 2022—issued in March 2022—and then answered questions. I stressed that, by tackling environmental, social, and governance (ESG) tasks ahead of others, the NYK Group can establish itself an extremely advantageous position. The seriousness of participants and their questions about the contents of growth strategies made it clear to me that an awareness of ESG principles is steadily being instilled in personnel. For individual employees, creating their own ESG stories is challenging. That is why Group employees should think about their ESG stories together. In these efforts, the NYK Group ESG Story will serve as a way-mark. Without ESG awareness, we will not survive. If we are soon to be in an era when only companies with ESG-driven business strategies earn praise, then the companies leading the way in this regard are sure to garner the best reputations. While trailblazing inevitably entails hard work and costs, the returns are commensurately large. For example, as the equipment and capabilities of ships become more sophisticated to meet ESG-related specifications, we will

need crew members who can operate such advanced equipment. Beginning this process now will enable us to foster crew members with said experience and expertise ahead of others. We have no choice but to stay ahead of the curve. With this in mind, I have repeatedly emphasized that the NYK Group ESG Story is our growth strategy. The discussions in North America have given me a firsthand appreciation of the significant progress we are making toward the development of full-fledged ESG management.

Envisioning New Advantages Based on ESG Management

The NYK Group has made achieving net-zero emissions by 2050 a long-term goal of efforts to reduce the GHG (greenhouse gas) emissions of oceangoing businesses. As the trend toward decarbonization gathers momentum, carbon taxes, emissions trading, and other schemes whereby CO₂ emissions are viewed as a cost are likely to emerge. The steep rise in cargo movements and freight rates over the past two years has significantly boosted our business performance, giving us the financial strength to make aggressive investments that previously would have been unthinkable. With our sights set on introducing zero-emission ships, we plan to invest ¥550.0 billion by 2030 and ¥2.1 trillion by 2050.

We have been receiving a steady stream of requests from customers who want to decarbonize. Taking full advantage of being one of the first companies to compile and disseminate an ESG Story, we will forge ahead with the changeover to LNG-fueled ships, thereby making our future competitiveness even more unshakable. As part of this strategy, all our future orders for new car carriers will be for those

powered by LNG and other next-generation fuels. Since LNG fuel is handled completely differently from heavy oil, our head start in acquiring the expertise needed for the safe and stable operation of ships with LNG on board will give us a major advantage over our competitors. Although working with LNG-fueled ships requires a great deal of expertise, the Company owns and operates numerous LNG carriers. Therefore, we can secure and train crew members who are well versed in the handling of LNG. In March 2022, we announced an order for the building of 35 new LNG-fueled ships, and we are steadily training crew members for such ships. The switch to LNG-fueled ships is, however, not the end of the story. We have already announced orders for two ammonia-fueled ships, four LPG-fueled ships, and four methanol-fueled ships. Also, NYK is accelerating preparations for the introduction of zero-emission fuels such as ammonia and hydrogen, which do not emit CO₂ when combusted.

Next-generation fuel ships are more expensive to build than conventional ships, leading to the belief among some that such ships will be less cost-competitive. However, the NYK Group confidently decided on these major investments for two reasons. First, the investments will enable it to contribute to the reduction of CO₂ emissions in the transportation of customers' cargo. In other words, the Group will be able to help in lowering Scope 3 CO₂ emissions. Second, when charges are introduced for CO₂ emissions, we will enjoy a first-mover advantage thanks to higher proficiency in working with next-generation fuel ships. We have already gained the understanding of certain customers with respect to LNG-fueled ships and been able to conclude contracts including freight rates that reflect the higher costs. We are not just investing in ships. Our most important investments are in personnel. In preparation

for the introduction of zero-emission fuels such as ammonia and hydrogen, we are focusing on the hiring of technical personnel so that we have enough technicians with competence in relation to such fuels. Over the next five years, we plan to double our pool of technicians. Also, NYK will acquire new expertise and expand its network of contacts by sending technical personnel to venture companies and partners in Japan and overseas, such as Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping.

Having Each Site Prepare an ESG Story

So far, I have perhaps given the impression that the development of ESG management has been easy, but this would be misleading. Our history as a provider of logistics infrastructure that supports society and industry has given rise to a corporate culture focused on not only earnings growth but also a social mission. Consequently, the NYK Group's basic culture lends itself to the adoption of an ESG-driven mindset. Even so, frontline personnel were unsure about how to incorporate ESG yardsticks into specific operations.

I want each employee to create their own ESG vision and story. Accordingly, to instill ownership of ESG priorities in every employee, the ESG Management Promotion Group led a concerted Groupwide effort, which gradually made inroads through uninhibited discussions with frontline personnel. The ESG Management Promotion Group is still working hard in this respect. Gradually responding to these efforts, frontline personnel have steadily begun to develop their own ESG Stories. As well as initiatives to switch over to next-generation fuels, the NYK Group is beginning to see the

emergence of joint projects aimed at reducing CO₂ emissions. For example, "Sail GREEN" is an ambitious project that involves customers in efforts to reduce CO₂ emissions throughout entire supply chains. Further, we are honing technologies for optimal ship operations, which take advantage of digital technologies to reduce energy waste. As I mentioned in last year's NYK Report, ESG management cannot be just window-dressing. It calls for up-front investments and the passing on of costs to customers. The role of senior management team members is to keep ESG principles at the center of business management and ensure that frontline-generated ESG stories translate into concrete operations. While I realize that incorporating ESG yardsticks into the near-term operations of corporate divisions is not easy, I am encouraging all employees to be creative and gradually introduce these yardsticks. Mobilizing the creativity and ingenuity of the entire NYK Group is sure to make a big difference in five or 10 years' time.

Encouraging Co-Creation with Stakeholders through Our Commitment to ESG

As the NYK Group ESG Story begins to produce concrete results, we are growing in confidence, and the circle of co-creation is widening. One of the most distinctive attributes of our ESG strategy is that external stakeholders are also participating in it with expectations not just of good publicity but also of profitability, competitiveness, and other business returns.

An example of ESG-related co-creation is MarCoPay. Launched with Transnational Diversified Group (TDG) in the Philippines in 2019, MarCoPay is an electronic money platform for crew members, who underpin the maritime shipping industry. Being an

excellent service that helps stabilize the livelihoods of crew members and which enables them to make long-term financial plans, the platform is continuing to expand rapidly. As MarCoPay advances into new phases, more external stakeholders are participating, with stakes in the platform acquired by the general trading company Marubeni Corporation in 2021 and MUFG Bank, Ltd., in March 2022.

Another ESG-related co-creation initiative is the offshore wind power business, one of the Group's green businesses. The business opened a branch office in Akita Prefecture in April 2022 and concluded a comprehensive partnership agreement with the prefectural government. As well as strengthening its ability to promote the renewable energy business, develop personnel, contribute to regional development, and preserve the environment, the NYK Group will seek approaches to regional revitalization that it is uniquely qualified to realize. For example, we will begin port calls by NYK-related ships and the Asuka II cruise ship.

Another issue has long been on my mind. As a pacesetter in ESG management, the NYK Group will certainly be able to survive in the comprehensive logistics industry, which forms an essential part of international society's infrastructure. When looking at the maritime industry as a whole, however, I am struck by the importance of surviving in tandem with domestic shipyards, which face fierce competition from China and South Korea. Given the rise in geopolitical risks, the Group's ESG management cannot fully develop without the help of domestic shipyards. With this in mind, I issued an internal directive to the effect that we must work with domestic shipyards to promote the introduction of LNG-fueled car carriers, LNG-fueled dry bulkers, and other LNG-fueled ships. Of course, overseas shipyards will be



increasingly important partners. However, given that we transport food, energy, and raw materials and consequently play a role in the economic security of Japan as well as the sustainable development of its society, I asked Japanese shipyards if they would partner with us in business co-creation. In the end, we were able to submit timely proposals to domestic shipyards and place orders for the new ships. Perhaps sensing our seriousness, the shipyards in question have actually been coming forward with a variety of their own ideas. So, we are hopeful of being able to build a mutually advantageous position through next-generation fuel ships.

Realizing True ESG Management by Taking the Initiative

Between roughly 2000 and 2010, the NYK Group faced a number of problems that called into question its corporate conduct. These problems included the ordering of large numbers of ships for the dry bulk business without the guarantee of corresponding future demand, violations of the Antimonopoly Act by the automotive transportation business, and the issuance of a Business Improvement Order by authorities to Nippon Cargo Airlines Co., Ltd. Since becoming president, one of my highest priorities has been to thoroughly instill a spirit of legal compliance by identifying why such problems occurred and sharing the

reasons in-house without glossing over anything. In the process of conducting an overall review of the aforementioned problems, I came to realize that nobody made decisions with the intention of failing. Rather, in decision-making processes certain factors were overlooked, and this led to failures. Therefore, we have reformed decision-making processes, as evidenced by our thoroughly discussing the pros and cons of proposals at management meetings and taking detailed minutes of the discussions. Moreover, these minutes are made available to relevant parties within the Group and reviewed later on. The aforementioned reforms will further ensure the transparency of decision-making processes while heightening the quality of decision-making itself. Further, the grounding of Crimson Polaris off the coast of Hachinohe in Aomori Prefecture in August 2021 has reconfirmed the importance of remaining unwaveringly committed to the elimination of major accidents and taking all possible measures to ensure that the operations of NYK-related ships are safe, regardless of whether they are NYK-owned or chartered ships. In ESG management, ensuring safety always takes precedence over all other initiatives. Moreover, the NYK Group's more than 130-year history demonstrates that high levels of safety awareness produce enhanced operational and transportation technologies and differentiated competitiveness. Going forward, we will continue to devote ourselves to safety initiatives.

In the coming age, true ESG management will entail identifying management issues in relation to sustainable growth and thinking and acting independently to solve them. More companies are sure to want to incorporate into their logistics supply chains corporate groups that continue tackling management issues proactively and autonomously. My goal in pursuing ESG management is to not just lead the NYK Group toward a position of superiority but also develop a corporate group that can evolve continuously. For precisely this reason, the NYK Group ESG Story 2022 also mentions the establishment of ESG stories by Group companies. I believe the beginning of ESG management at Group companies is a major step forward. While the foundations of ESG management are undoubtedly continuing to be reinforced, we are finding that some employees are too preoccupied with their duties to think deeply about the NYK Group ESG Story. When people are preoccupied, their creativity tends to become circumscribed. Although a corporate group with 50,000 crew members and other employees, the NYK Group has relatively few head office employees. Currently, it is concentrating on augmenting its workforce by stepping up mid-career recruitment, particularly of technicians. Also, considering that approximately 70.0% of our employees are non-Japanese, I regret not being able to provide them with more opportunities to play active roles in operations. To become

a corporate group that is based on mutual respect for diversity in terms of nationality and gender and where all employees can fully realize their talents and contribute significantly to operations, we will strengthen our workforce and organization with a sense of urgency.

Dispelling Doubts by Making Real Progress

Can we really grow through ESG management? Two years ago, when I began advocating ESG management, COVID-19 was just beginning to spread, and the earnings environment was different from that of today. In light of these conditions, I had some concerns about the ESG management that I was advocating. However, if we had hesitated to embark upon ESG management at that time, we might have fallen behind our competitors to such an extent that catching up would have become impossible by now. Although I felt conflicted at the outset, I realized that ESG management is a social mission. If we do not continue utilizing this management approach now, we will be unable to do so later. Not long after I began advocating for ESG management, I became determined to forge ahead with it in ways that suited our operations, even if our business performance was not stellar. As it transpired, while I continued moving forward with ESG management based on this strong

but unspoken resolve, the NYK Group's business environment began to change rapidly. These changes became a tailwind for ESG management, and certainty replaced doubts. Until now, our main focus has been on developing the NYK Group ESG Story along a business axis. Looking ahead, however, the creation of region-based ESG Stories seems probable. As a step in this direction, the Group has recently announced the deployment of personnel to serve as the representatives of 10 Asian countries. We used to have a network of such representatives that was based on the containership business. However, we have had to reestablish this type of network because the containership business is now part of Ocean Network Express Pte. Ltd. (ONE). We plan to try developing an ESG Story for Asia first. In light of the results, we will then consider extending our efforts to include Europe, the Americas, and other regions. Fiscal 2022, the year ending March 31, 2023, will see the acceleration of discussions in preparation for the announcement of our next medium-term management plan. To their credit, executive officers have already led intensive discussions under the auspices of the ESG Management Committee and the Sustainable Growth Task Force. Our various ESG management projects will take about five years to produce results. Accordingly, the new medium-term management plan will also highlight the current progress of ESG

management. At the moment, we are still predominantly talking about ESG management. During the period of the next plan, however, the aforementioned projects should begin producing concrete results. In accordance with our basic philosophy of "Bringing value to life.," we are advancing a strategy that will greatly raise our corporate value. I want to thank stakeholders for endorsing this strategy and to ask for their continued, strong support. Over the current fiscal year, please look forward to seeing even greater progress in the evolution of the NYK Group's ESG management.

Hitoshi Nagasawa
President, Representative Director,
President and Chief Executive Officer

Toward the Implementation Phase of ESG Management

In its medium-term management plan “Staying Ahead 2022 with Digitalization and Green,” announced in 2018, the NYK Group specified that it is pursuing the integration of ESG principles with the Company’s management strategies. Further, based on our conviction that ESG principles must be at the center of management and growth strategies, we released the NYK Group ESG Story in February 2021. Since designating fiscal 2021 the first official year of ESG management, we have been expanding and enhancing our governance system and advancing other ESG management initiatives Groupwide. These initiatives are producing a groundswell in ESG-related business activities throughout the Group. To provide an update on the progress and results of our efforts, we issued the NYK Group ESG Story 2022 in March 2022.

TOPIC 01

Governance System for ESG Management

The ESG Management Committee deliberates and discusses ESG management agenda items from a Groupwide perspective and reports the details to the Management Meeting and the Board of Directors. Further, ESG factors are considered in the deliberations of the Nomination Advisory Committee and the Compensation Advisory Committee. Moreover, the executive officer in charge of ESG management promotion or the general manager of the ESG Management Promotion Group participate in the Management Meeting, the Investment and Credit Council,*1 the R&D Committee,*2 and other important meetings. Also, we have established a system for reflecting ESG factors in decisions on individual projects.

*1 Analyzes and evaluates the profitability, risks, and other matters related to specific investments, loans, and credit provision conducted by the Company and its Group companies
*2 Deliberates on R&D projects related to technology development and verification tests in light of social trends and technical opinions

➔ ESG Management Committee

To determine Groupwide policies on ESG management, we have established the ESG Management Committee, which is chaired by the president. In addition to the representative executive officers of each headquarters, the committee’s members include an external expert: Daigo Shimizu of Goldman Sachs Japan Co., Ltd. In fiscal 2021, the committee convened four times and discussed and analyzed matters related to ESG management.

Under the ESG Management Committee, we have established the Sustainability Initiatives Subcommittee and the UN Global Compact Promotion Subcommittee, both of which conduct preliminary discussions and then submit proposals to the committee.

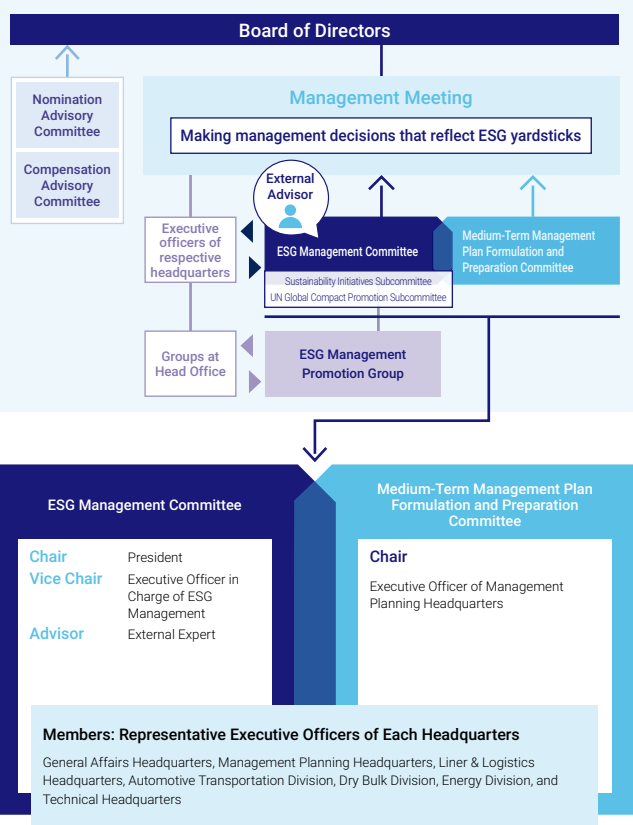
Sustainability Initiatives Subcommittee

Tasked with incorporating into the Group’s social contribution activities an emphasis on the development of new businesses that address social issues, this subcommittee holds preliminary discussions on specific new initiatives that contribute to the sustainability of society through investments and loans.

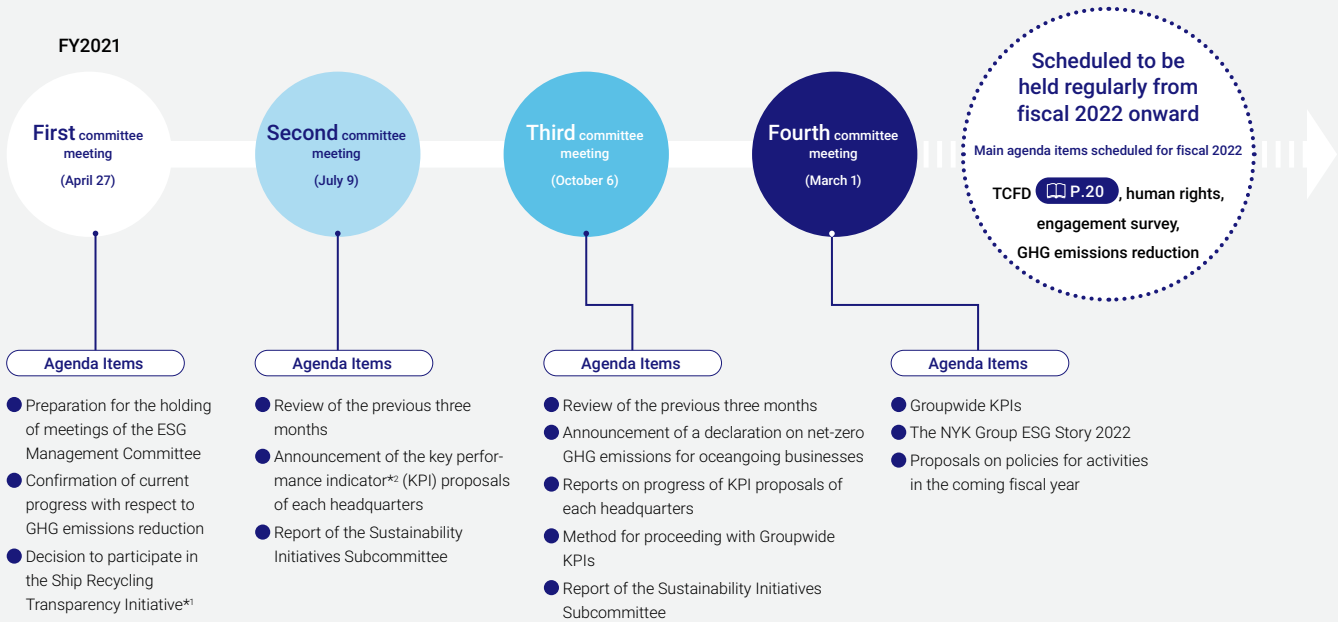
UN Global Compact Promotion Subcommittee

The UN Global Compact Promotion Subcommittee was created by reorganizing the former Global Compact Promotion Committee in fiscal 2022. The purpose of the subcommittee is to promote the United Nations Global Compact and to establish systems based on it in the Company and its Group companies. Through global human resource surveys as well as processes for human rights due diligence, the subcommittee investigates business execution and matters that may violate the United Nations Global Compact, confirms the facts, and then discusses and determines any corrective measures as required.

System for Deepening Discussions (as of April 1, 2022)



Main Agenda Items of the ESG Management Committee



*1 A platform for enhancing the transparency of disclosure on ship recycling

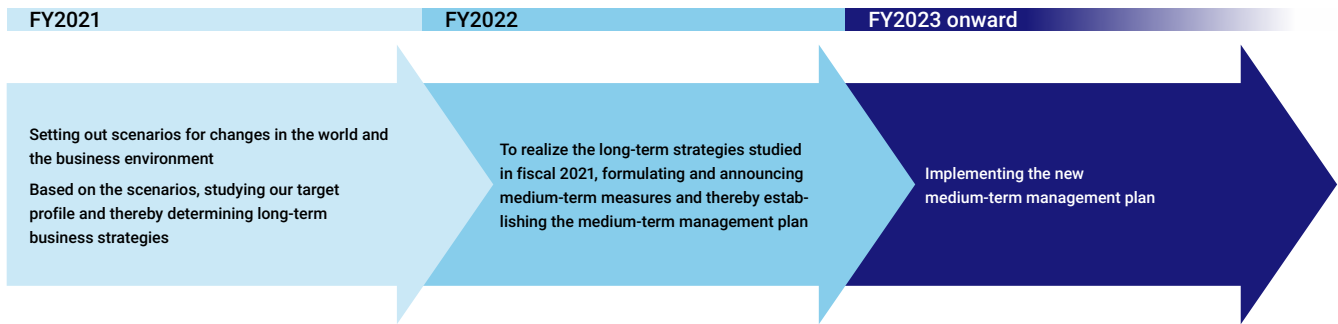
*2 When evaluating the performance of an organization, key performance indicators enable quantitative measurement of its degree of attainment of strategic goals. The ESG Management Committee sets Groupwide numerical targets for ESG management and measures progress.

TOPIC 02

Formulating a New Medium-Term Management Plan

➔ Medium-Term Management Plan Formulation and Preparation Committee

In April 2021, we launched the Sustainable Growth Task Force, which was chaired by the executive officer in charge of the Management Planning Headquarters and had the Planning Group as a secretariat. One year later, we reorganized the task force and renamed it the Medium-Term Management Plan Formulation and Preparation Committee with the aim of promoting collaboration with each in-house headquarters and business division even further. The committee comprises the executive officers of respective headquarters who are also members of the ESG Management Committee. As well as taking concrete measures to promote ESG management, the committee will continue deliberations with a view to the announcement of a new medium-term management plan around spring 2023. These deliberations will be based on the growth strategies that the former task force analyzed and formulated by backcasting from an ultra-long-term perspective and a target profile.



Topics Discussed in Fiscal 2021

- (1) Five strategies for sustainable growth, (2) Advancement of strategic investment, (3) Roadmap for achieving net-zero emissions by 2050

TOPIC
03

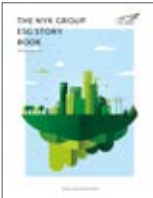
The NYK Group ESG Story

In February 2021, the NYK Group announced the NYK Group ESG Story. With a view to integrating ESG principles into management strategies, this story envisions a target profile and sets out the direction that the Group must take. Having established ensuring safe ship operations, reducing GHG emissions, taking on ambitious initiatives in the energy field, and addressing social issues as four priority goals, we declared fiscal 2021 to be the first official year of ESG management and steadily moved forward with our new approach to business management. Thanks to the results and progress of numerous initiatives, we have achieved the goals of the current medium-term management plan ahead of schedule. Further, during the remaining period of the current plan, we are adopting an ultra-long-term perspective and

thoroughly discussing the next medium-term management plan, which is scheduled to be announced around spring 2023. Also, in March 2022 we issued the NYK Group ESG Story 2022. In addition to outlining the specific initiatives implemented in fiscal 2021 and initiatives going forward, this edition of the story also partially explains the sustainable growth strategies that are based on an ultra-long-term perspective and which are currently under discussion with a view to the next medium-term management plan.

We are moving forward with an array of initiatives under the auspices of our governance system for ESG management. Moreover, we will implement new measures to advance ESG management even further.

▶ The NYK Group ESG Story



Booklet

https://www.nyk.com/english/esg/pdf/esgstory_booklet.pdf



Presentation Materials

https://www.nyk.com/english/esg/pdf/esgstory_ppt.pdf



▶ The NYK Group ESG Story 2022



Presentation Materials

https://www.nyk.com/english/esg/pdf/esgstory_ppt_2022.pdf



Appendix

https://www.nyk.com/english/esg/pdf/esgstory_appendix_2022.pdf



TOPIC

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



Q Why Will the ESG Management Set Out in the NYK Group ESG Story Enhance Corporate Value?

A In pursuing our goal of becoming a Sustainable Solution Provider that is essential to both society and industry, we will begin by having every Group employee use ESG yardsticks in addition to existing economic yardsticks. If rigorous analysis based on ESG yardsticks reveals that a business will help the NYK Group to remain essential to society, we will focus management resources—namely, talent, assets, investments, and data—on these businesses over the long term. We are confident that this approach will enable growth in the Group's corporate value by differentiating our existing businesses, creating new business fields, enhancing our brand, and heightening employees' job satisfaction and pride.

NYK Group's ESG Management

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



TOPIC
04

The ESG Management Approach Spreading Groupwide

ESG management has begun to steadily spread not only in the Company but also throughout the entire NYK Group. This change has inspired multiple Group companies in Japan and overseas to take the initiative in advancing ESG management initiatives.

NYK is strengthening coordination with Group companies. In addition to in-person discussions through regular meetings of domestic Group company presidents, the Company maintains good communication channels between the head office and overseas Group companies as well as among overseas Group companies, mainly through utilization of the Regional Management Offices established at business sites in the Americas, Europe, East Asia, and South Asia. In fact, one Group company, Yusen Logistics Co., Ltd. (YLK), announced the Yusen Logistics Group ESG Story in April 2022. This story shows how YLK will place ESG at the center of business management and implement initiatives going forward.

"Brand Promise" encapsulates YLK's management philosophy. With the addition of the motto "Create Better Connections," the Group company has further defined this philosophy. The motto expresses the company's desire to help enrich the future by progressively building better relationships with all stakeholders worldwide.

Conducting business globally, the NYK Group comprises Group companies with a variety of different business lines and scales in Japan and overseas. Going forward, regardless of business lines and scales, departments in charge at the head office and Group companies will continue collaborating closely to spread ESG management throughout the entire Group.

▶ The Yusen Logistics Group ESG Story



ESG Initiatives of Yusen Logistics

https://www.yusen-logistics.com/jp_en/about-us/sustainability



C O L U M N



Profile

Marloes Seesing

Global Head of Healthcare Industry Vertical
Supply Chain Solutions Group 2
Yusen Logistics (Europe) B.V.

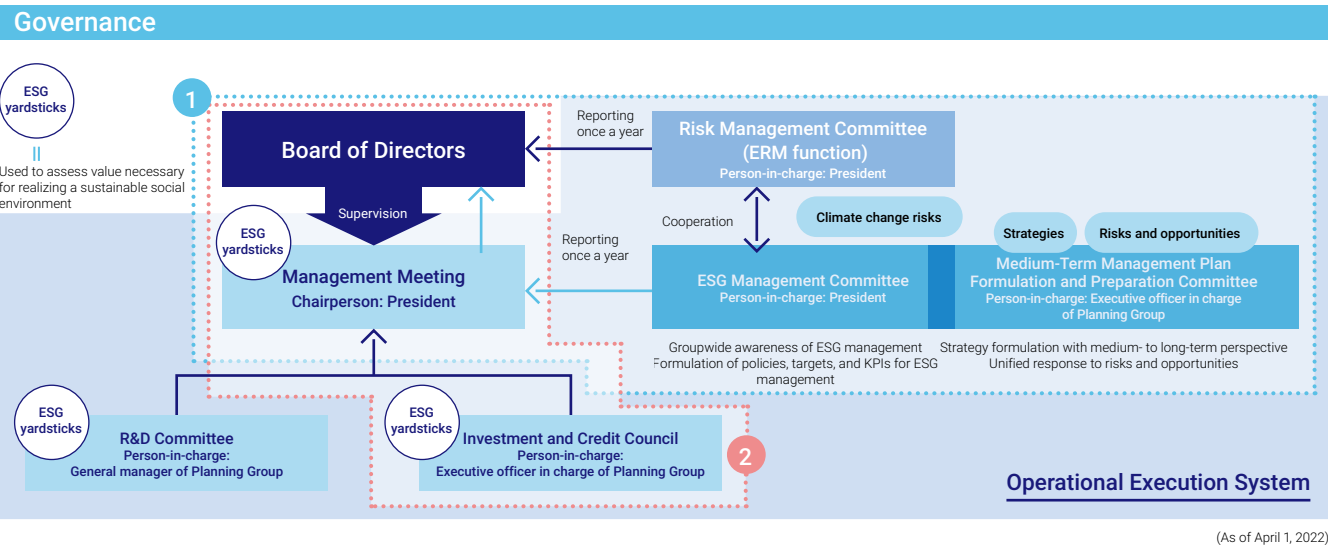
Utilizing the Yusen Logistics ESG Story to Strengthen Our Standing as the Preferred Choice of Customers

As the global head of the healthcare industry vertical, I ensure together with my team the development and implementation of highly specialized industry-specific logistics services to pharmaceutical companies and other customers in the healthcare industry in cooperation with other departments. During my meetings with our healthcare customers, I have experienced the growing pressure to reach net-zero greenhouse gas emissions day-to-day. This should be based on avoiding, reducing, substituting, and compensating for the use of carbon. Yusen Logistics will not be able to set, and more important, to reach these targets if this is managed per individual country, hence I am thrilled that the Yusen Logistics Group has finally published their own global ESG Story. The key to the success of this story should not only be focused on how to reach our targets but also on how to efficiently report all our efforts to our customers.

This ESG Story was created based on our input and President Toru Kamiyama's vision. To reach all our ESG targets, we will create better connections with all stakeholders internally and externally. Let's do it together!

Action to Mitigate Climate Change

The NYK Group recognizes that appropriate responses to climate change are one of the most important management issues. In terms of both risk and opportunity, we figure out how climate change affects the Group's business and finances, take measures for them, and increase the transparency of their progress. We will strive to disclose appropriate information in the four thematic areas of governance, risk management, strategy, and metrics and targets in accordance with the final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).



Special Feature 1

Changing Our Corporate Culture through ESG Management

Over one year after the release of the NYK Group ESG Story, we are moving from a phase of laying the foundations of ESG management to one of establishing commercial operations. Across the Group, integrated thinking that combines economic viability and ESG priorities is taking root. Consequently, we are beginning to establish businesses that realize profitability while satisfying ESG yardsticks. What kind of changes have been occurring in the NYK Group? President Hitoshi Nagasawa—who is strongly committed to putting ESG at the core of business management—held a discussion with Daigo Shimizu—head of the Business Development Department of Goldman Sachs Japan Co., Ltd., and advisor to the Group's ESG Management Committee—to review the Group's ESG management to date and consider the road ahead.

Location: Nippon Yusen Kabushiki Kaisha Yokohama Branch Office



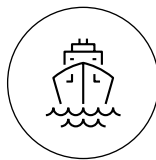
Profile

Daigo Shimizu

Head, Business Development Department,
Equity Sales Group, Global Markets Division
Goldman Sachs Japan Co., Ltd.

Profile

After graduating with a master's degree from Kyoto University in 2001, Daigo Shimizu joined Nikko Salomon Smith Barney Limited (currently Citigroup Global Markets Japan Inc.) and then started working at Goldman Sachs Japan in 2007, in charge of SDGs and ESG as head of the Business Development Department. His motto is, "Live as if you were to die tomorrow. Learn as if you were to live forever."



Profile

Hitoshi Nagasawa

President, Representative Director,
President and Chief Executive Officer

Profile

After joining the Company in 1980, Hitoshi Nagasawa became the general manager of the LNG Group in 2004, a corporate officer in 2007, and a managing corporate officer in 2009. He has been in charge of the Energy Division since becoming a director in 2011 and has chaired a committee overseeing the strategies of bulk shipping since being appointed as an executive vice-president corporate officer in 2018. Mr. Nagasawa was involved in the Company's acquisition of upstream interests in the LNG business and development of the offshore business. His motto is, "Be a nail that sticks out, even if you get hammered."



Looking Back on the First Year of ESG Management

Nagasawa To remain the preferred choice of customers and society, in February 2021 we clearly set out a strategy that places ESG principles at the heart of business management and formulated the NYK Group ESG Story. I felt a strong sense of crisis after attending a talk in which you stressed that companies that are either unconcerned about large CO₂ emissions or prone to scandals due to weak governance will lose credibility and eventually be left behind.

From the point of view of investors, who invest in companies with the expectation of future growth, such companies are unsuitable for investment and likely to see their market capitalization shrink. As market capitalization is one of the indicators for measuring corporate value, I felt that without ESG management we would be heading exactly in the opposite direction from the path that leads toward increased corporate value.

Shimizu Investors are keen to predict the future based on various standpoints and calculate corporate value. Investors foresee an era in which businesses and services will be selected not only based on the

price of products but also on high added value in terms of environmental and social priorities. Companies who deal with consumers directly foresaw such changes at an early stage. On the other hand, given that ensuring supply stability is critical, the NYK Group and other corporate groups in industries supporting energy and social infrastructure tend to view the future of their businesses by projecting forward from the present rather than by backcasting from a target profile.

Pushing ESG management forward requires solutions from employees in frontline operations, each of whom must re-evaluate things from an ESG perspective and discuss them with their coworkers.

Through a process of trial and error, personnel should try to evolve operations with ESG at the forefront of their minds. Also, as the pursuit of ESG management is not a cost but an investment in the future, we must not hesitate to incur near-term costs. Moreover, the ability to explain future returns in the context of ESG principles is important. Corporate ESG Stories will be sophisticated as stories created based on these priorities are communicated by frontline personnel to managers and then filter up to the senior management team. A corporate culture in which stories are repeatedly refined and evolved is the ideal scenario, and I believe this is the type of corporate culture that the NYK Group

should strive to establish. In addition, the NYK Group should evaluate not only profits but also whether the process of making profits accords with the Group's basic philosophy: "Bringing value to life." Companies more capable of evaluating such intangibles are those that will continue growing.

Nagasawa I really wanted to avoid giving employees and Group companies the impression that ESG management was just another slogan or a call to action. Depending on the division, the levels of awareness and ownership in this regard vary significantly. Nonetheless, I feel that ESG management is making steady progress. When I visited North America recently, local Group employees asked many questions about the details of how ESG management is to be advanced.

Clearly, the more we help address climate change through our expertise and actions, the more our corporate value will increase. Perhaps there is a perception gap between capital markets and companies regarding corporate value, but investors and business managers are two sides of the same coin. By making better use of capital markets, we should be able to have an even greater impact on society and industry.

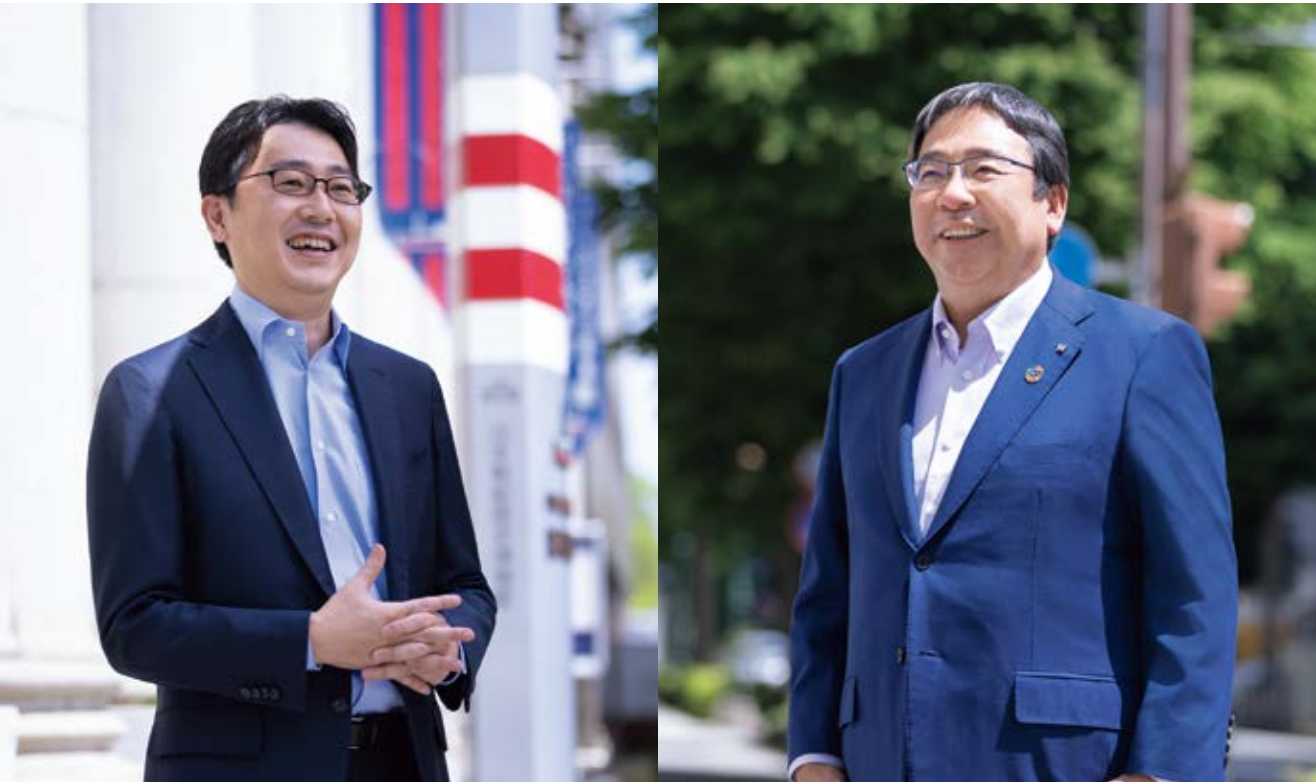
Including stakeholders who understand and back our vision, we truly want to remain a corporate group that is the preferred choice of society. Therefore, we must ensure investors understand that investing in NYK is an attractive proposition. In other words, the NYK Group has to present itself as a corporate group worthy of investment going forward—in the period through 2050 and beyond. While showing the progress we have hitherto made through ESG management, we will continue engaging in sincere dialogues that cover both the potential upsides and downsides of our initiatives. Moreover, if our market capitalization increases, we are unlikely to become subject to hostile takeover bids. Also, if we earn the esteem of both customers and capital markets, I am sure employees will take even greater pride in the NYK Group.

Setting Out Challenges and Ways Forward in the NYK Group ESG Story 2022

Nagasawa In March 2022, we announced the NYK Group ESG Story 2022, an updated version of the NYK Group ESG Story. Points of interest in the updated story include a road map, prepared by backcasting from the NYK Group's 2050 vision, and the next medium-term management plan, which represents a step in the right direction. With respect to our next stage of growth, I believe that investors and shareholders are watching closely to see how the Company utilizes its financial base, which has improved dramatically over the past two years. We have just announced plans to invest ¥4.8 trillion between 2022 and 2050. The Company's current in-house discussions on the next medium-term management plan, scheduled to be announced around spring 2023, will determine the allocation of these funds in more detail. Also, we intend to invest aggressively in safety—the NYK Group's first priority—and in human resources, which will be a growth driver.

Shimizu The NYK Group ESG Story 2022 introduces ESG Navigators as leaders of efforts to strengthen foundations for the advancement of ESG management. In 2021, the first year of ESG management, about 70 ESG Navigators moved around freely throughout the Group, contributing greatly to the widespread adoption and entrenchment of ESG

yardsticks. Group companies are also actively working on their ESG stories. Without the direct involvement of the parent company, Group companies are thinking deeply about and preparing their stories, thereby providing a very good, collective example of how an effectively managed corporate group should operate. In 2022, the second year of ESG management, we are beginning to see the institution of best practices of ESG management at divisions and



Group companies. Through the continued introduction of effective evaluation systems, I believe ESG management will spread more rapidly and widely than previously.

Nagasawa The Company's examination of evaluation systems is underway. Already,

we have revised the executive compensation system by introducing performance-linked stock compensation that reflects ESG principles, thereby incorporating them into long-term incentives. We hope that the revised compensation system will change the attitudes and behavior of executives in a way that positively influences their subordinates. Further, the Company has decided to introduce a special examination for promoting personnel to management positions. In line

with ESG principles, there is a tendency to focus on environmental issues. By also giving attention to social priorities, however, we want to enhance and further evolve our corporate culture. More specifically, our goal is to determine whether management candidates have the attributes and interpersonal skills required to communicate

effectively with subordinates, work closely with them, and, when necessary, reprimand them, fairly and without any loss of mutual respect. In addition to these efforts, we will strengthen our human rights initiatives.

Shimizu This is exactly what Saigo Takamori, one of the leaders of the Meiji Restoration, meant when he said, "Give stipends to the meritorious and positions to the virtuous." The quality of corporate management varies greatly depending on the kinds of evaluations used and the types of personnel selected for management positions. Furthermore, using employee engagement scores together with the aforementioned examination will provide insight into the day-to-day interpersonal skills of management candidates, which cannot be measured solely through interviews.

One issue I want to bring up is the incompleteness of the story in relation to the empowerment of women. The NYK Group has taken a positive step in this regard by setting numerical targets; however, it needs to complete the story that gives convincing reasons why the achievement of these numerical targets will raise corporate value. To this end, we must first identify how best to empower women in the workplace. Is it by increasing the ratio of women to men among new-graduate hires? Or, should we increase female representation among middle-ranking employees and managers? Perhaps the answer lies externally not internally. I hope we can avoid merely pursuing numbers for numbers' sake. Also, I feel that ESG management

has permeated more deeply into the NYK Group's frontline operations than those of other companies advocating ESG management. Contrastingly, external communication by the Group of its ESG management initiatives still seems insufficient. Given that some companies may appear impressive from the outside only, I strongly urge the Group to proactively inform the outside world about its ESG management initiatives.

My goal is for the NYK Group to become an organization that can pursue ESG management independently without my presence. In other words, ultimately I would like to eliminate the need for an advisor such as myself. In 2022, I want to contribute to the development of a truly positive and powerful corporate culture that is capable of delivering to the senior management team a range of even more inspiring ESG stories that act as catalysts among divisions and employees and which encourage lively discussions with those in frontline operations.

Nagasawa I hope many things will become apparent through the analysis and utilization of the results of a worldwide engagement survey of all Group employees, scheduled to be conducted during 2022. Regarding furthering the empowerment of women in the workplace, I would also like to explore the means of doing so again and rework the NYK Group ESG Story accordingly.

I want to ask you to continue making uncompromising checks from the perspective of capital markets to ensure that we are not heading in the wrong direction. If there are any areas where we are lacking, I would be grateful to hear your frank opinions in this regard so that we can consider ways of making improvements together. Thank you very much for your time today.

Establishing ESG Management Domestically and Overseas

The NYK Group will create a virtuous cycle in which employees adopt a long-term perspective and—with help of ESG yardsticks—address social issues through the differentiation of existing businesses, the expansion of new business fields, and investments. To provide foundations for initiatives, we have assigned ESG Navigators to each head office department. ESG Navigators act as catalysts and communicate the policies of the senior management team to these departments. In fiscal 2022, we are further extending the scope of ESG Navigators’ activities to encompass the entire Group in Japan and overseas.

➔ ESG Navigator System

ESG Navigators are responsible for advancing ESG management by supporting both top-down and bottom-up ESG initiatives in each department. Currently, 67 ESG Navigators, appointed by the general managers of departments, offices, and branches, are active in all 48 head office departments. We have borrowed the term “navigator” from world of shipping, and we use the term in the sense of a second officer who is the chief navigator. An important task of the chief navigator (second officer) is to formulate voyage plans. In consultation with the captain, the chief navigator determines the route that the ship should take. Further, the chief navigator plays a central role in gathering and summarizing feedback from all crew members. We have chosen the title “ESG Navigator” because we want these personnel to advance ESG management at our offices by playing a role comparable with that of a chief navigator on board a ship. Specifically, ESG Navigators perform three key roles: discussing with the general managers of departments and offices how to establish routes that will take the departments to their target profiles; sharing the management team’s ideas with all department members; and leading uninhibited exchanges of opinions among junior employees and vertically and laterally providing feedback from department members to other departments.



➔ ESG Navigator Dialogues

In fiscal 2021, approximately 900 employees participated in 10 ESG Navigator dialogues, which facilitate in-house information sharing and provide opportunities for study sessions. The goals of these dialogues are to share examples of departments that have made good use of the ESG approach and to provide sustainability-related updates on social trends in general as well as on specialized knowledge.

➔ Examples of Activities to Disseminate ESG Management

With the aim of disseminating ESG management, we are implementing numerous initiatives targeting Group employees in Japan and overseas.

Examples of Activities in Fiscal 2021 Onward

	Details	Target	Time	Number of participants
Japan	Townhall meetings with the president	For employees of Group companies in Japan and overseas	2022/2	1,101 (online) + 176 (archive)
	In-house briefings on <i>NYK Report 2021 (integrated report)</i>	For employees of Group companies in Japan and overseas	2021/10–11	387 in total
	Two keynote lectures by Daigo Shimizu, Goldman Sachs Japan Co., Ltd.	For employees of Group companies in Japan and overseas	2021/7, 12	601 in total
Overseas	Townhall meetings with the president in North America	For employees of Group companies in the Americas	2022/4	Approx. 250
	Meetings at an assembly of Filipino crew members	For crew members (mainly those in quarantine before boarding ships), their families, and related NYK Group personnel	2021/7	Approx. 1,000

MESSAGE

Enhancing In-House Engagement through ESG Management

Over the last several years, NYK has evolved significantly by advancing ESG management. Most days, we see new announcements related to the Company’s target of achieving net-zero emissions from oceangoing shipping by 2050 through the transition from heavy fuel oil to LNG and other fuels. However, to truly integrate ESG principles, we need to not only transition the fuels of our fleet but also strive to find how we can incorporate these principles into our daily work.

One small step that we took in the Americas region was to start questioning various aspects of our business and whether they meet these principles. In the United States, the question was raised whether our corporate holiday schedule was reflective of the people in NYK Group Americas, as some federal holidays were not observed but were instead substituted with personal days. With the help of our human resource team, a survey was initiated, and we found that there was a strong interest in changing our observed holidays.

So, starting in 2023, we will include Martin Luther King Jr. Day and Good Friday in our holiday schedule. Both holidays hold special significance. On Martin Luther King Jr. Day, we celebrate a man of

peace and social change. On Good Friday, Christians celebrate the lead-up to Easter, which is also considered a day of peace and joy.

Our employees’ selection of these two days reflects those values that are most important to them. Encouraging everyone to think about whether there is anything that can be done to heighten engagement and then taking Companywide measures in such ways is very important for NYK. Social priorities, or the “S” part of “ESG,” should always be reflected.

As I commented before, this is only one small step, but if we are to truly succeed then our approach should not only be at the global and regional levels but also at the personal level. When we reach this goal, then we will have fully integrated the ESG principles into the Company.

Profile

Patrick Brennan Jr.

Executive Officer,
CEO, NYK Group Americas Inc.



Leveraging the ESG Navigator System to Advance ESG Management

ESG management—which is both a differentiation strategy and a growth strategy that aims to improve corporate value from a long-term perspective—will not move forward if employees feel that they are being coerced by managers. Comprising personnel selected from all in-house departments, the system is tasked with resolving this potential problem. While they proved very effective in promoting cross-departmental collaboration and furthering understanding, the activities of ESG Navigators in 2021 also brought to light a feeling of uncertainty among junior employees with respect to a range of issues. To provide a platform for sharing and addressing these issues, we will continue expanding the activities of ESG Navigators in various ways. As the product of a bottom-up approach unique among Japanese companies, the ESG Navigator system will play a major role in helping everyone gain a practical understanding of the Company’s strategy. By appealing to and motivating each Group employee, the ESG Management Promotion Group and ESG Navigators will continue working together to advance ESG management.

Profile

Yoichiro Tatsumi

General Manager,
ESG Management Promotion Group



Working in Tandem with Group Companies as an ESG Navigator

Since April 2021, as an ESG Navigator, I have been supporting the ESG management of more than 10 domestic Group companies that are under the management of the headquarters to which I belong. Unfortunately, we made an inauspicious start. While still not being able to clearly envision the connection between my own work and ESG priorities, I had to field questions from the personnel of Group companies, some of whom asked if ESG principles were not in fact more appropriate for a listed company to pursue rather than for unlisted Group companies to pursue. First of all, we organized lectures for the personnel of Group companies in Japan to deepen understanding of ESG. Since then, I have had many discussions with the ESG managers of each company, and I feel that we are gradually developing a sense of ownership about ESG priorities.

The NYK Group encompasses many different businesses of all sizes operating in various trade areas. To realize the ESG Story of each business, I will work in tandem with the persons in charge of ESG of respective companies.

Profile

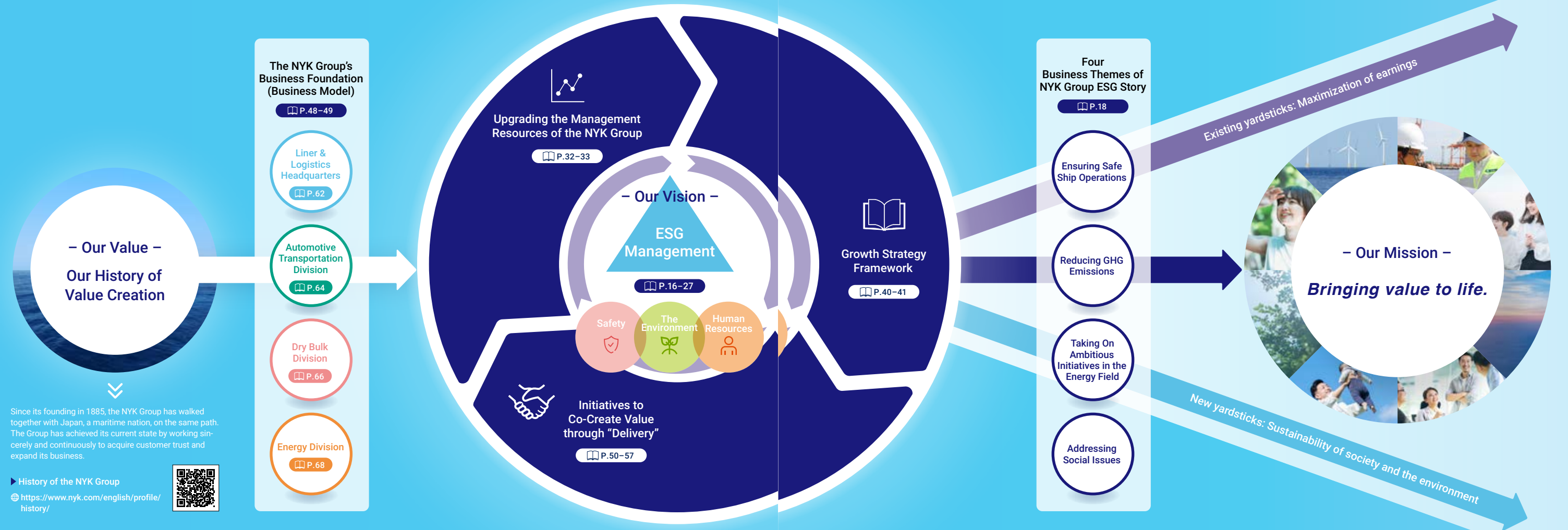
Shohei Morimoto

Harbour Group,
Liner & Logistics Headquarters



The NYK Group's Value Creation Model

The NYK Group's value creation model, which places ESG management at the center, emphasizes autonomous initiatives that emerge spontaneously in all divisions and regions. By carefully nurturing each of these initiatives, we believe that, through the provision of high-value-added transportation services and the promotion of new business development, ESG management will become the Group's growth strategy itself.



The NYK Group's ESG Management

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 management as practiced by the NYK Group.



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 error)
 - War, terrorism, and cyberattacks
 - Natural disasters
 - Piracy
 - Maintenance of vessel condition
- The environment**
- Climate change
 - Optimal operations
 - Decarbonization
 - Biodiversity
 - Ocean conservation
- Human resources**
- Diversity and inclusion
 - Workstyle reforms
 - Health and productivity management
 - Human resource development
 - Human rights

► The NYK Group's Material Issues

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

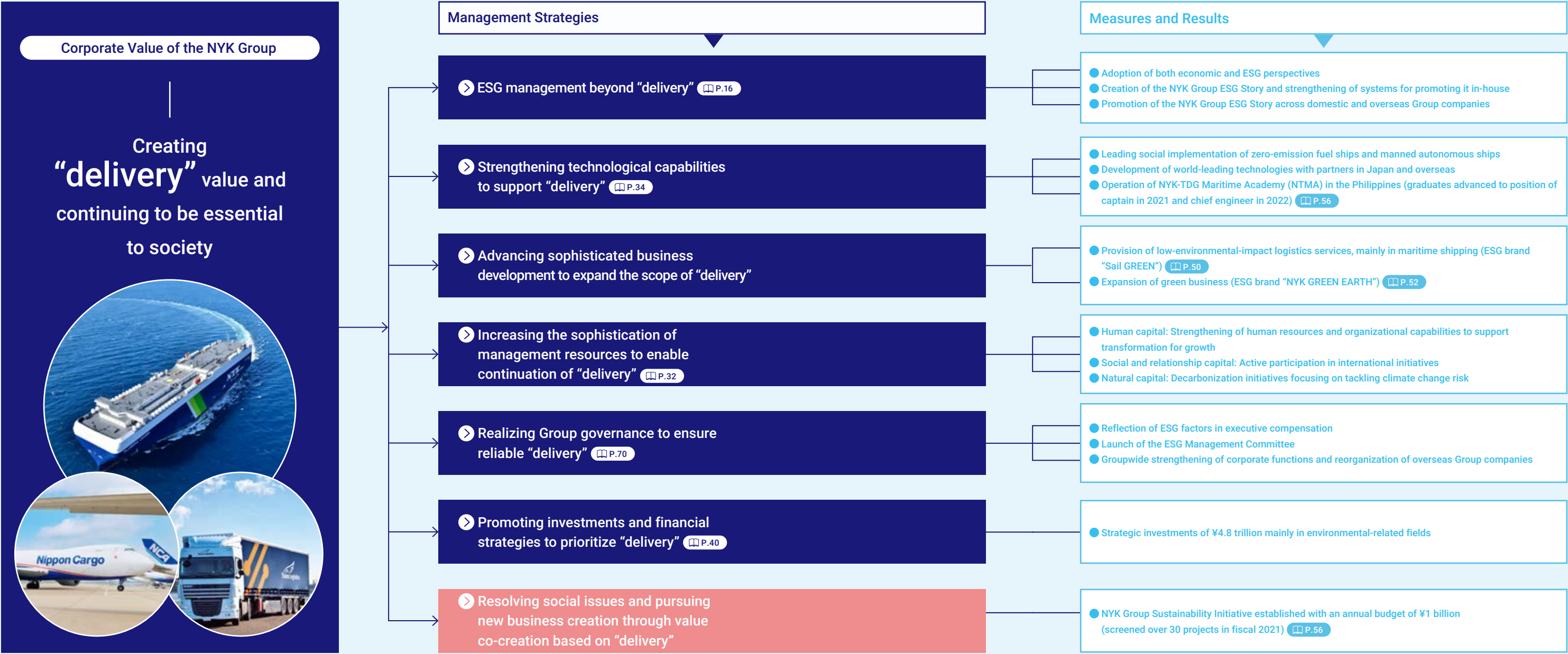


Logic Tree for Corporate Value Improvement

The NYK Group’s most important mission is the safe and reliable delivery of cargo, ensuring the necessary goods and services are provided when and where they are needed as well as to people who need them. The Group’s corporate value derives from not only the delivery of cargo but also its continuously supporting and being essential to society through the ongoing provision of high-quality transportation services and new value in a wide range of fields. We believe that these efforts will lead to the realization of our basic philosophy, “Bringing value to life.”

The NYK Group’s Path to Increasing Corporate Value

To increase our corporate value, we will place ESG at the center of management and continue to prepare and entrench systems that will make the NYK Group essential to society and the preferred choice of customers going forward. Moreover, NYK will secure human resources with industry-leading technical capabilities, aiming to increase the sophistication of its business development and management resources through the latest technologies while taking steps to realize highly effective Group governance. In addition, we aim to create new businesses via the advancement of financial strategies and the resolution of social issues toward achieving net-zero emissions by 2050.



Upgrading the Management Resources of the NYK Group

Six Key Types of Capital Underpinning the Group's Sustainable Growth

Capital particularly important to the Group

Human Capital

Financial Capital

Intellectual Capital

Social and Relationship Capital

Natural Capital

Human Capital

Human Resources Data

PDF P.83 (Full version)

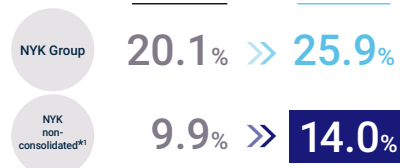
● Number of employees, etc.	
Number of Group employees	Over 35,000
Number of training program participants (FY2021)	
NYK Business College	2,228 in total
NYK Maritime College	8,350 in total
e-Learning	44,700 in total
● Development of problem-solving leaders centered on digital transformation: Participants who have graduated from NYK Digital Academy	
Second half of fiscal 2019–first half of fiscal 2022	61 in total

Aiming for Women to Account for 30% of Managers by 2030

Percentages of Female Managers

March 2013

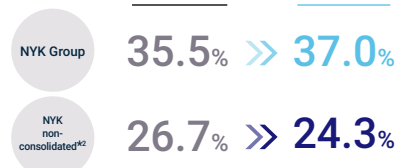
March 2022



Percentages of Female Employees

March 2013

March 2022



*1 The NYK non-consolidated percentage of female managers refers to the number of female managers as a percentage of the number of employees in onshore management positions or equivalent positions, excluding the positions of navigation officer and engineer.

*2 The NYK non-consolidated percentage of female employees refers to the number of female employees as a percentage of the number of onshore employees, excluding navigation officers and engineers.

Diversity & Inclusion

<https://www.nyk.com/english/esg/social/diversity/>



Strengthening of Human Resources and Organizations Even in a Highly Uncertain World Growing into a Group That Can Adapt to Major Changes

Specific Measures

- Promotion of diversity and inclusion
- Formulation of an objective tree for the transition to ESG management
- 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.

<TOPICS> Building an Organization That Fully Utilizes Diversity

1. Gender Diversity

Reasons for Setting Goals

- To address the core task of creating a strong organization that leverages diversity
- To establish numerical targets that enable analysis of disincentives and quantification of the effectiveness of measures

Measure 1 Supporting career development and improving employee engagement
Helping in the balancing of life events and career development so that all employees remain highly motivated in their work

Measure 2 Fostering an organizational culture that promotes the success of diverse personnel
Implementing measures that cultivate awareness of unconscious bias and encourage mutual understanding, with the aim of creating an organization that embraces different values and leverages diversity

Measure 3 Hiring more female employees
Adopting measures to boost the percentage of female applicants for both new-graduate and mid-career positions and aiming to increase the number of female applicants hired without lowering the criteria

2. Global Inclusion

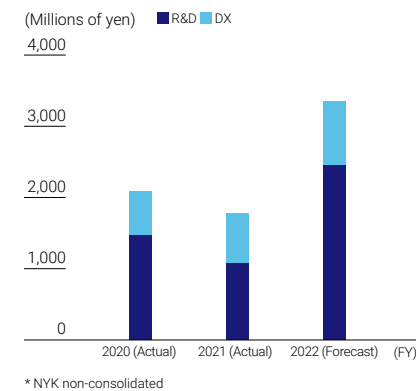
Further empowering the local employees who we work with overseas and accurately reflecting their diverse viewpoints and values in the Group's execution of operations and management decision-making will become increasingly important. To this end, we will seek a more-active involvement in management decisions from senior managers hired overseas, and we will evaluate them as candidates for the head office management team.

Moreover, our efforts will not be limited to management personnel. We are also considering the diversification and revitalization of human resources at multiple levels of our organization.

Further, with the aim of improving the engagement of each Group employee, we will conduct an engagement survey globally beginning from fiscal 2022. We will utilize analysis of the results to improve our organization and to develop human resource measures.

Intellectual Capital

Amount of Investment in Digital Transformation (DX) and R&D*



Social and Relationship Capital



Opening ceremony of Maersk Mc-Kinney Moller Center for Zero Carbon Shipping
©Jeppe Boje Nielsen

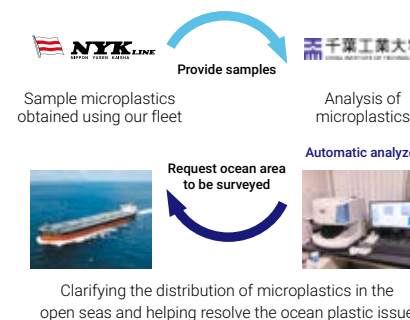
Other Initiatives

<https://www.nyk.com/english/esg/concept/initiatives/>



Natural Capital

Process for Open Sea Surveys of Microplastic Distribution (Surveys began in partnership with the Chiba Institute of Technology in 2020)



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 project for crewless maritime autonomous surface trial ships, etc. (see page 34 for details)
- Utilization of ship IoT data; introduction of SIMS3, and improvement of anomaly detection technology (see page 35 for details)
- Utilization of AI (see "Model for the Optimization of Ship Deployment Plans for Pure Car and Truck Carriers" on page 51 for details)
- Full launch of MarCoPay, a financial platform for seafarers



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

Major Initiatives in Which the Group Participates

- Getting to Zero Coalition
- Ship-recycling information disclosure platform, Ship Recycling Transparency Initiative
- Maersk Mc-Kinney Moller Center for Zero Carbon Shipping
- United Nations Global Compact
- Japan Climate Initiative
- GX League Basic Concept

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.

We will contribute to the conservation and restoration of the marine environment through initiatives to decarbonize businesses and activities to help conserve biodiversity.

Specific Measures

- Initiatives to achieve net-zero emissions (see page 42 for details)
- World's first large-scale open sea survey of microplastic distribution (see page 45 for details)
- Contribution to the world's first research on environmental DNA,* aimed at clarifying open sea ecosystems (see page 45 for details)
- Donation of US\$1.5 million to a Philippine river restoration project (see page 57 for details)

* Environmental DNA is derived from living organisms present in soil and water. An ecosystem can be understood simply by analyzing the environmental DNA of water samples.

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 indispensable for human life and corporate activities.

Financial Capital

For details, please see "Message from the CFO" on [P.36](#).

Establishing a Competitive Advantage through Digitalization

—R&D Aimed at Keeping NYK Half a Step Ahead with Digital Transformation Technologies—

In today's world, companies are expected to respond to new technologies for decarbonization, autonomous ship operations, and environmental performance. The NYK Group is leading the industry in initiatives to differentiate its transportation services ahead of other companies. In this section, we focus on technological capability—one of the management capitals driving the Group's growth—and introduce the Group's R&D aimed at keeping NYK half a step ahead with digital transformation (DX) technologies.

➔ From Data Collection to Simulation Technologies

In recent years, the NYK Group has been working to collect and utilize vessel Internet of Things (IoT) data. Meanwhile, around the world simulation technologies such as digital twin have become the mainstream of DX, centered on the manufacturing industry. Such technologies are expected to resolve issues in various scenarios in the Group's business. We will work to strengthen our simulation technologies to enable further use of our unique management capitals: people, the front lines, and data.

Development of Autonomous Ships —Challenges of System Integration—

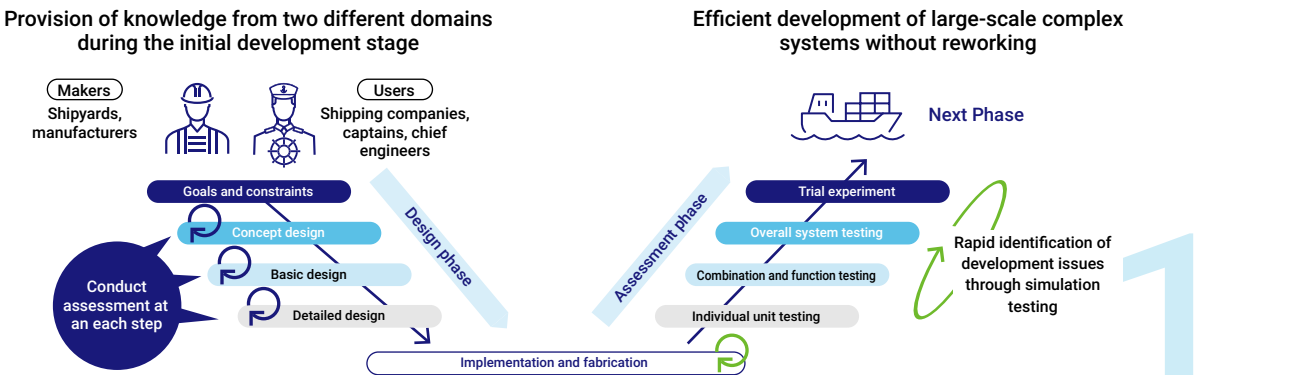


The NYK Group has organized the Designing the Future of Full Autonomous Ship (DFFAS) consortium, with over 30 companies and organizations, and since March 2020 it has participated in the Nippon Foundation's project for crewless maritime autonomous surface ships, MEGURI 2040. In February 2022, the consortium successfully conducted a trial of the autonomous operation of a container ship on a long-distance coastal voyage, including through a highly congested sea area, a world first in merchant shipping.

The development of autonomous ships requires knowledge from two domains: the makers and the users. In this joint development effort, the knowledge from the makers' side was supplied by shipbuilding companies and navigational equipment manufacturers, while knowledge from the users was supplied by the NYK Group's captains and chief engineers. The joint development process followed a method known as model-based development. This involved defining the concepts of ship operations, defining functional requirements through risk evaluation, and then utilizing simulation for system development. Such a process aims to identify various issues to be addressed during development and to carry out corrections via the most efficient process possible. Although this method is already well used in automobile development, it is possibly the first trial case in the world to be used for the development of merchant vessels. Because of this trial, the consortium succeeded in efficiently developing a large-scale container ship with complex systems well beyond the scope of a conventional ship, without any reworking.

The DFFAS consortium will continue to not only improve autonomous operation technologies for ships but also address challenges for social implementation, such as by preparing a legal and regulatory framework, acquiring understanding from the public, and creating a brand new market. The NYK Group will continue to take the lead in tackling such challenges and strive to acquire new technological expertise.

Autonomous Ship Development Process Using Model-Based Development (V Model Process)



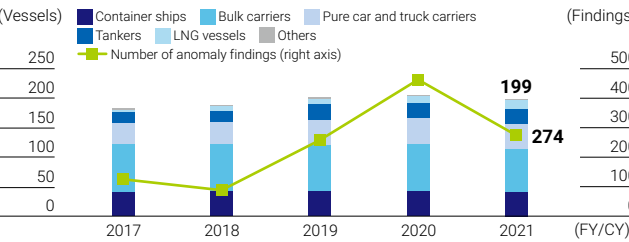
Early Identification of Engine Trouble through High Granularity Data Collection —Improvement of Abnormality Detection Technologies—

The NYK Group introduced the Ship Information Management System (SIMS) in 2008 and has continued to lead the world in R&D for using ship IoT data. Currently in its second version, SIMS2 is installed on around 200 ships among the fleet, and by sharing operational data between ships and onshore bases in a timely way, the system contributes to safe, efficient ship operations.

As the importance of ship IoT data increases, one of the issues that has emerged in promoting its further utilization is data granularity. Since the summer of 2021, the NYK Group has been testing SIMS3, which shortens the intervals of data transmission by a factor of 60 times, from every hour to every minute, with trial installation of the system on 15 ships so far. We plan to install SIMS3 on newly built vessels as well as phasing it in to upgrade vessels currently using SIMS2.

To enable the use of SIMS data for early detection of engine trouble, in August 2020, we established the Remote Diagnostic Center in Manila. At the center, in addition to human monitoring of engine operational status data, we are working to merge the knowledge of chief engineers with AI technology under a concept called "expert-in-the-loop." The high granularity data acquired through SIMS3 will also help accelerate this R&D. We are conducting a variety of other R&D to improve our abnormality detection technology even further, including the introduction of data quality management systems, the introduction of a new AI algorithm, and the estimation of the cause and effect relationships of various issues using simulation technologies.

Number of SIMS-Equipped Vessels and Number of Anomaly Findings



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 Remote Diagnostic Center in Manila (the Philippines)

Building a Base for Collaboration between Industry and Academia toward DX in the Maritime Industry —Establishment of Maritime and Ocean Digital Engineering Cooperation Program, a Joint Research Laboratory with the University of Tokyo—

Simulation technology is applying digital transformation (DX) to various operations beyond development, such as the establishment of optimal operation methods for next-generation, low-environmental-impact ships and offshore wind farms, crew training, and life cycle maintenance.

To promote this technology, the NYK Group with seven companies made a consortium, and established the Maritime & Ocean Digital Engineering laboratory (MODE laboratory) under social cooperation program of the University of Tokyo in October 2022. MODE laboratory will develop a common simulation platform for the maritime industry, formulate research-model-based development methods, and conduct human resource development. The NYK Group will lead this consortium challenge with its various intellectual capital in all areas from upstream to downstream of the maritime industry, and tackle for this technology of half a step future.

Social Cooperation Program: Maritime & Ocean Digital Engineering Laboratory, Graduate School of Frontier Sciences, The University of Tokyo

Period: October 2022 to September 2027 (five years)

*1 Participating companies: MTI Co. Ltd. (NYK Group company), Japan Marine United Corporation, Mitsubishi Shipbuilding Co. Ltd. (Mitsubishi Heavy Industries Group company), Furuno Electric Co. Ltd., Japan Radio Co. Ltd., BEMAC Corporation, Nippon Kaiji Kyokai, and its subsidiary NAPA Ltd.

Financial Strategies for Sustained Corporate Value Enhancement



“ We value two-way communication with all stakeholders and aim to be the company of choice. ”

Fiscal 2021 Performance Summary and Fiscal 2022 Performance Forecast

In fiscal 2021, ended March 31, 2022, the NYK Group posted year-on-year increases of ¥672.3 billion in revenues, to ¥2,280.7 billion; ¥197.4 billion in operating profit, to ¥268.9 billion; ¥787.8 billion in recurring profit, to ¥1,003.1 billion; and ¥869.8 billion in net income (profit attributable to owners of parent), to ¥1,009.1 billion.

By business segment, recurring profit was up year on year ¥593.4 billion in the liner trade business, to ¥734.2 billion; ¥40.7 billion in the air cargo transportation business, to ¥74.0 billion; ¥31.6 billion in the logistics business, to ¥58.7 billion; and ¥120.4 billion in the bulk shipping business, to ¥139.1 billion. All four of the main business segments grew revenues and profit. In addition to the robust performance of the liner trade business, which benefited significantly from the favorable performance of equity-method affiliate Ocean Network Express Pte. Ltd. (ONE), the other main business segments performed extremely well.

One of the factors attributable to the aforementioned business results was the favorability of the shipping market. Logistics disruptions caused by the COVID-19 pandemic upset the ship supply–demand balance worldwide, resulting in higher freight rates. As well as contributing ¥678.7 billion—approximately 80.0% of the year-on-year increase in recurring profit—these freight rate

hikes resulted in additions to recurring profit of ¥40.7 billion in the air cargo transportation business and ¥31.6 billion in the logistics business. Another factor supporting the Group's favorable business results was yen depreciation, which contributed ¥31.0 billion to recurring profit.

In extraordinary income and loss, extraordinary income of approximately ¥23.0 billion was recognized due to gain on sales of shares of subsidiaries and associates, which accompanied the disposal of 51.0% of the shares of Yusen Real Estate Corporation by the real estate business. On the other hand, an extraordinary loss of ¥8.0 billion was recorded as a result of lease cancellation fees incurred due to the purchase of aircraft of Nippon Cargo Airlines Co., Ltd. (NCA).

The initial performance forecast (announced on May 9) for fiscal 2022, ending March 31, 2023, is revenues of ¥2,300.0 billion, operating profit of ¥187.0 billion, recurring profit of ¥760.0 billion, and net income (profit attributable to owners of parent) of ¥720.0 billion. Recurring profit and net income (profit attributable to owners of parent) are expected to be around 25.0% lower than they were in fiscal 2021. The aforementioned forecast assumes that the supply chain disruptions caused by the COVID-19 pandemic will be resolved and that restoration of the ship supply–demand balance will normalize freight rates in the period of Chinese New Year between January and March 2023.

Due to factors including the effect of increased lockdowns in China and the emergence of geopolitical risks such as the situation in Russia and Ukraine, uncertainty has increased since fiscal 2021. At this juncture, however, we expect the impact on our performance to be negligible.

Progress under the Current Medium-Term Management Plan and Formulation of the Next Medium-Term Management Plan

The NYK Group has achieved all of the financial indicators set forth in the current medium-term management plan, and the Group's efforts to advance the plan's three basic strategies were progressing well at the end of fiscal 2021.

With respect to the first basic strategy, which calls on us to “optimize the business portfolio,” we have established a stable profit structure by increasing the market resilience of the dry bulk business through rigorous management of market exposure. Further, the profit margin of ONE—established by integrating the liner trade businesses of NYK, Mitsui O.S.K. Lines, Ltd., and Kawasaki Kisen Kaisha, Ltd.—is higher than those of global competitors. ONE has greatly improved its profit structure by strengthening competitiveness, reducing costs, and improving service quality.

As for efforts to “expand businesses that secure stable-freight-rates” pursuant with the second basic strategy, although the Automotive Transportation Division struggled in the first half of fiscal 2020 amid a decrease in transport volume caused by the COVID-19 pandemic, the division turned the lessons learned into opportunities to enhance the flexibility of shipping route management. Consequently, when shipments halted due to a shortage of semiconductors in fiscal 2021, the division was able to respond flexibly and increase its earnings. Moreover, by entering into service

LNG-fueled ships in accordance with the plans of “Sail GREEN,” the Automotive Transportation Division is realizing quality improvements that are differentiating it from competitors. In the logistics business, Yusen Logistics Co., Ltd. (YLK), is leading the pursuit of synergies within the Group, and the logistics business has already established successful collaborations in China with other business divisions. In LNG transport, which has been identified as a priority investment business, we are steadily accumulating new medium- to long-term transport contracts.

In realizing the third basic strategy, the Group is advancing a wide variety of initiatives to “increase efficiency and create new value.” These include the verification of autonomous ships, the development of LNG-fueled ships, the establishment of the MarCoPay financial platform business for crew members, and participation in businesses related to offshore wind power. Regarding the digitalization of ship operational data to enable predictive management, we are responding to the recent spike in extreme weather events by introducing artificial intelligence to further improve operational efficiency, strengthen safety measures, and reduce risk.

Without changing the numerical targets for fiscal 2022, which is the final year of the current medium-term management plan, we will continue discussing and finalizing the next medium-term management plan, scheduled to begin from fiscal 2023, with respect to the types of targets to be set and the methods to be incorporated for the resolution of issues.

Profile

Takaya Soga

Director, Senior Managing Executive Officer
Chief Financial Officer
Chief Executive of Management Planning Headquarters

Interviewed on May 12, 2022

➔ Overview of Progress under the Current Medium-Term Management Plan

	Medium-Term Management Plan Targets (by FY2022)	FY2021 (Results)
Recurring profit and loss	¥70.0 billion–¥100.0 billion	¥1,003.1 billion
ROE	Min. 8.0%	86.0%
Shareholders' equity ratio	Min. 30.0%	55.6%
DER	1.5 times or lower	0.47 times

Basic Capital Policy

The main role of the chief financial officer (CFO) is to manage the cash flows of the entire NYK Group and to advance financial strategies and capital policy based on comprehensive consideration of shareholder returns, maintenance of financial discipline, and allocation of resources for growth investments. Cash flows generated by the favorable performance described above realized a ¥142.8 billion reduction in interest-bearing debt at the end of fiscal 2021, compared with the level at the end of fiscal 2020, thereby improving the balance sheet. Reduction in the cost of debt and accumulation of shareholders' equity have increased the weighted average cost of capital (WACC). In optimizing the capital structure, however, I will remain mindful of the balance between the cost of debt and the cost of shareholders' equity.

In formulating the next medium-term management plan, NYK will determine

capital policy in light of an overall analysis of shareholders' equity accumulated as a result of its favorable performance, the details and scale of ultra-long-term investments associated with the vision for 2050 and of specific near-term investments, and the approach to shareholder returns.

As the improvement of our credit rating is very important for stable financing, we will continue efforts to maintain and improve it.

During the current medium-term management plan, we realized a cumulative free cash flow of ¥476.6 billion over the four-year period from fiscal 2018 through fiscal 2021, and adding the fiscal 2022 budget gives a cumulative free cash flow of ¥815.6 billion over a five-year period. With respect to the amount of ¥476.6 billion, ¥396.9 billion was attributable to cash flows generated through asset reductions over the aforementioned four-year period. In particular, cash inflows from the disposal of fixed assets totaled ¥267.6 billion. Of this amount, the disposal of ships accounted for ¥142.4 billion, an increase in the

percentage of such cash inflows accounted for by the disposal of ships. During the four-year period, investments totaled ¥620.4 billion. Breaking down the principal components of this amount by segment, the bulk shipping business accounted for ¥435.6 billion, and the air cargo transportation business received investments of ¥103.6 billion.

A concern raised through the Companywide application of the recently increased WACC is missing investment opportunities that we would normally exploit. Given differences in the nature of investments, risks, and financing methods of each business division, we have been using discrete earnings management for each business division since commencing preparation of the budget for fiscal 2022. In other words, on a trial basis, the Company has adopted return on invested capital (ROIC), which shows net income after tax in relation to capital invested, as an indicator that allows precise analysis of investment returns. We believe that improvement in the ROIC of each business



“ We will pursue a capital policy that takes into consideration the maintenance of financial discipline, shareholder returns, and the allocation of resources for investment in growth. ”

➔ Medium-Term Management Plan Progress

Basic strategies	Major initiatives and progress in FY2021
STEP 1 Optimize the business portfolio	<ul style="list-style-type: none">• Dry Bulk Division: Implemented structural reforms to enhance resilience to market conditions and conducted thorough market risk exposure control• Liner trade business: Substantially improved the bottom line of the integrated container shipping company ONE and continued to work on stabilizing profits
STEP 2 Expand businesses that secure stable-freight-rates	<ul style="list-style-type: none">• Logistics Division and Automotive Transportation Division: Enhance its network and strengthen high-quality and competitive services, and strengthen sales capabilities by fully utilizing the Group's management resources supported by the pillars of people, assets, IT, and capital• Energy Division (LNG division and offshore business division): Continue investments in carefully selected projects and accumulate new medium- to long-term contracts
STEP 3 Increase efficiency and create new value	<ul style="list-style-type: none">• Conduct verification testing that simulates practical operation of the autonomous vessel• Decided commercialization of LNG fuel supply in Kyushu and Setouchi, following the Chubu region• Received investment from MUFG Bank, Ltd., for MarCoPay Inc., which operates the financial platform for seafarers, MarCoPay, and agreed to aim for business creation through strategic partnerships with TDG and Marubeni Corporation• Accelerate initiatives to participate in businesses related to offshore wind power generation (see pages 43 and 54 for details)• Establish joint venture company with the aim of developing technology for transporting liquefied CO₂ (see page 43 for details)• Completed concept design of ammonia-fuel-ready LNG-fueled vessels (see page 42 for details)• Started joint research and development into practical realization of an ammonia-fueled tugboat and ammonia carriers, utilizing NEDO's* Green Innovation Funding Program (see pages 43 and 52 for details) <p><small>* NEDO: New Energy and Industrial Technology Development Organization</small></p>

division will raise Companywide ROE, and we will carefully assess whether the indicator is suitable as a guide for taking our next step forward.

Because society expects companies to sustain the creation of corporate value, simply posting profits that exceed funding costs is insufficient. Being needed by society and exhibiting the potential to be of even greater benefit to it are essential elements that lie at the very core of ESG management. I believe that the formulation of quantitative rather than qualitative indicators for these elements is an urgent task. Accordingly, we will examine our options in relation to non-financial indicators and meaningful key performance indicators and, through a process of trial and error, formulate appropriate indicators and conduct management of objectives.

NYK is also considering new ways of returning profits to shareholders. We will carefully consider the adoption and combination of measures to increase and stabilize shareholder returns, such as share buybacks and the adoption of dividend on equity (DOE).

Regarding the risks and opportunities of initiatives aimed at achieving carbon neutrality, the risk of environmental measures incurring higher costs cannot be ignored. As determining how to offset the expected additional costs becomes increasingly important, the Company must seek the understanding of stakeholders while pursuing the creation of systems that ensure entire supply chains bear the cost of protecting the global environment. Further, recognizing the importance of climate-related financial disclosure, we have

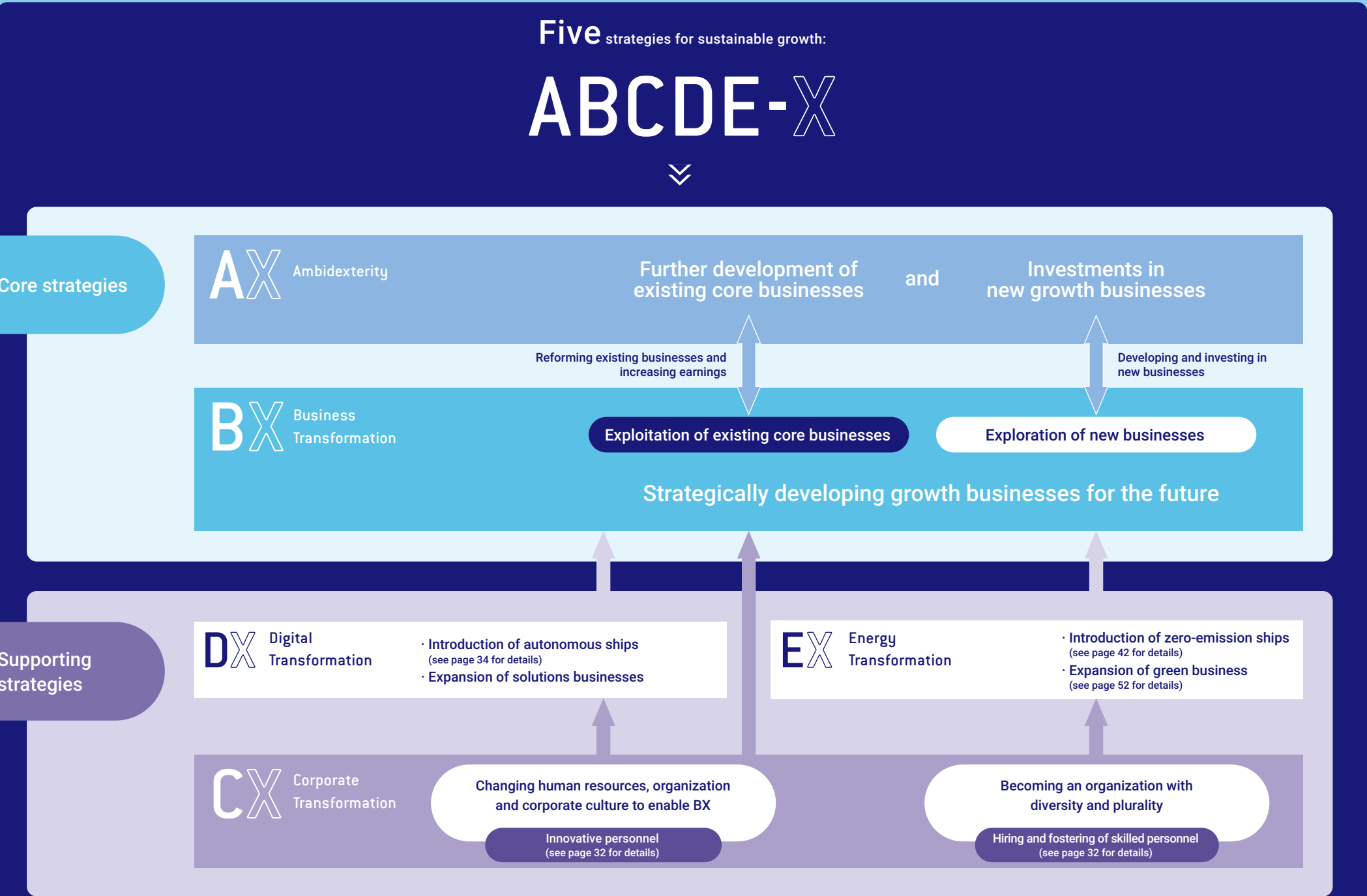
become a signatory to the Task Force on Climate-related Financial Disclosures and endorsed its recommendations, and we are increasing and enhancing disclosure in line with these recommendations. NYK plans to not only improve disclosure but also periodically revise disclosure content, in order to make better use of disclosure for optimizing the Group's business portfolio.

I became CFO in fiscal 2022. Mindful of the importance of communicating our approach in readily understandable ways to shareholders, investors, and Group employees, I will provide numerous opportunities for two-way communication with all stakeholders as I endeavor to make NYK their preferred choice.

Growth Strategy Framework

—The NYK Group’s Ambidextrous Management—

To put the NYK Group’s sustainable growth strategy into concrete form, we are currently discussing our target profile for the Group while discerning the potential risks and opportunities over the ultra-long term. In the NYK Group ESG Story 2022, announced in March 2022, we formulated five strategies for sustainable growth: ABCDE-X. These strategies are configured with two core strategies (AX and BX) and two supporting strategies (DX and EX) underpinned by a further strategy (CX). Individual specific initiatives will be considered over the course of a year as part of formulating the next medium-term management plan.



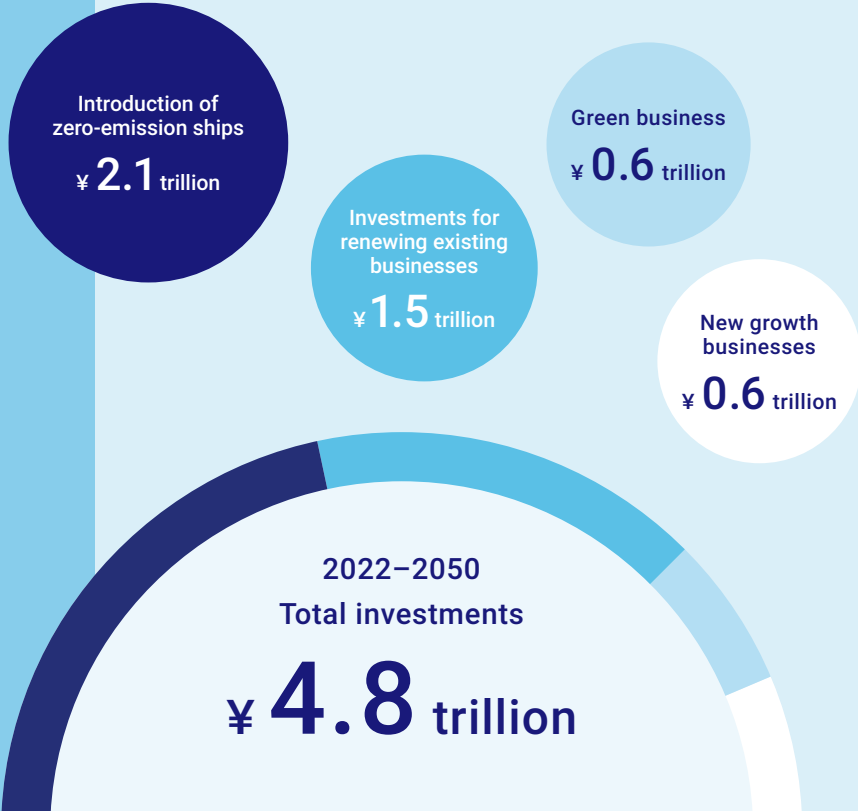
→ Ultra-Long-Term Environmental Investments to Execute Business Transformation (BX)

From 2022 to 2050, the NYK Group will make strategic investments totaling ¥4.8 trillion, particularly in environment-related fields. Among these investments, the main investments for BX are for two main strategic themes:

- the exploitation of existing core businesses and
- the exploration of new businesses.

Under the first theme, the Group will ensure an environmental advantage and maintain a solid earnings base by promoting the introduction of zero-emission ships. Total reinforcement investments of ¥3.6 trillion will comprise ¥2.1 trillion for introducing zero-emission ships and ¥1.5 trillion for renewing existing businesses.

Under the second theme, the Group will invest actively in a wide range of new businesses based on knowledge cultivated in existing core businesses. Total growth investments of ¥1.2 trillion will comprise ¥0.6 trillion for green business and ¥0.6 trillion for new growth businesses. The businesses will be broad in scope, covering the offshore wind power value chain business, the ammonia and hydrogen value chain business, the LNG and ammonia fuel bunkering business, and the logistics supply chain and solutions business.



ACTION for NET-ZERO EMISSIONS

The NYK Group is taking action to realize net-zero emissions globally by 2050. In this regard, we are rolling out a host of initiatives aimed at leading not only the entire maritime shipping industry but the entire world. Beyond contributing to global decarbonization, these initiatives will serve as growth drivers for the Group.

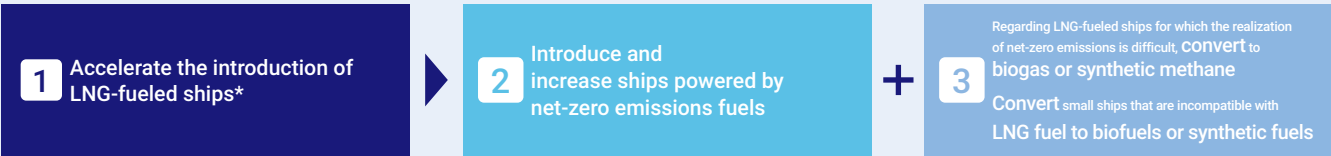
ACTION 1

Toward Net-Zero Emissions in Oceangoing Businesses

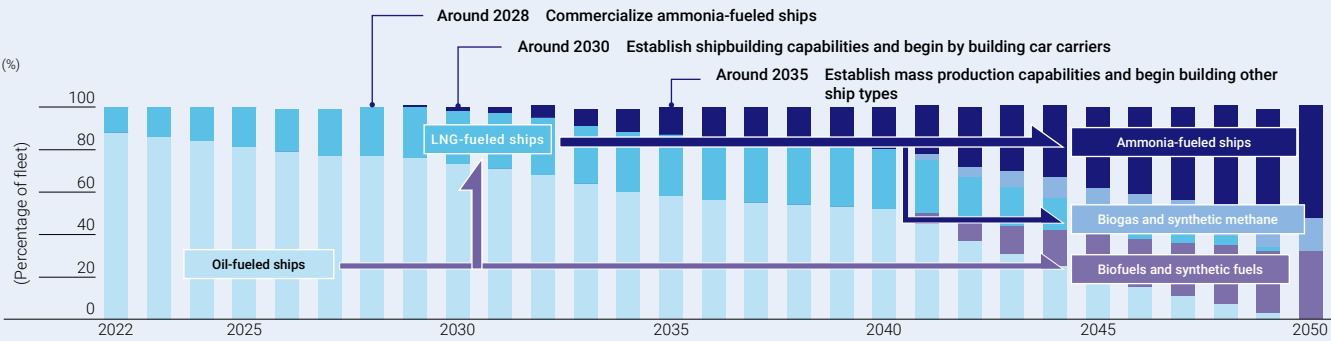
case study 1

Road Map for Fuel Conversion to Accelerate Decarbonization

The NYK Group has announced a long-term greenhouse gas (GHG) emissions reduction target: the achievement of net-zero emissions by 2050 in its oceangoing businesses. We are currently introducing ships that use LNG as their main fuel. In the future, we aim to transition to ships powered by zero-emission fuels such as ammonia and hydrogen, which have lower environmental impact, thereby achieving a zero-emission fleet.



* LNG-fueled ships include LNG carriers.

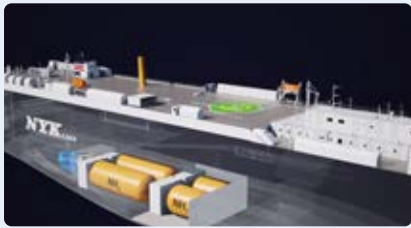


case study 2

Solutions for Practical Implementation of Ammonia

In March 2022, the NYK Group completed a concept design for an ammonia-fuel-ready LNG-fueled vessel, which will enable efficient modification and conversion of an LNG-fueled vessel into an ammonia-fueled vessel. Ammonia-fuel-ready LNG-fueled vessel (ARLFV) will serve as a bridge solution until ammonia becomes available for use as a ship fuel.

Looking ahead, by around the end of 2022, NYK plans to apply the concept into the actual designs for fuel tanks, ammonia-fuel supply devices, and hull structural strength, aiming for completion of an actual vessel in 2025.



Computer-generated rendering of an ARLFV to be used as a pure car carrier

ACTION 2

Toward a Decarbonized Society

case study 1

Increase in participation in international decarbonization initiatives

P.44



case study 2

Expansion of offshore wind power business

P.54



case study 3

Establishment of ammonia and hydrogen supply chain



The NYK Group is working with a select group of business partners in Japan to promote ammonia and hydrogen as next-generation fuels. In October 2021, our project was selected to receive funding as one of the Green Innovation Fund Projects of the New Energy and Industrial Technology Development Organization (NEDO), and we subsequently started development of a vessel with an ammonia-fueled engine made in Japan together with our joint development partners.

case study 4

CCUS* value chain



The NYK Group is making progress on establishing a value chain for the circular use and storage of CO₂, which is garnering attention as an effective means for decarbonization. We have started developing technology for the transportation of CO₂ using large vessels and established a new company to operate a business for transporting and storing liquefied CO₂, as we take steps to build a strong foundation for full-scale participation in the CO₂ transportation business.

* Carbon dioxide capture, utilization, and storage

ACTION 3

Toward Net-Zero Emissions in the Logistics Business

Establishment of net-zero emissions target for Yusen Logistics Co., Ltd.

NYK Group company Yusen Logistics Co., Ltd., has announced a target* of achieving net-zero emissions for all of its customer services by 2050. As an interim target, the company will start providing net-zero emission services in 2030.

* The target applies to GHG emissions and waste products from the company's own offices and warehousing facilities.

Achieving Net-Zero Emissions by 2050 in International Shipping—Challenges and Initiatives

— Takeaways from COP26 Participation —

In September 2021, the NYK Group announced that achieving net-zero emissions by 2050 is the long-term goal in reducing GHG emissions from its oceangoing businesses. The following is an interview with Masahiro Takahashi, an NYK executive officer, who outlined the decarbonization issues confronting the maritime shipping industry when he attended COP26 (the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change) as a representative of NYK—the only Japanese shipping company to participate in the conference.



Profile

Masahiro Takahashi

Executive Officer
In Charge of Environment Group and Technical
HQ Management Group



Executive Officer Masahiro Takahashi (center) gave a presentation at the COP26 event.

—Achieving net-zero emissions by 2050 in its oceangoing businesses is one of the NYK Group's recently announced goals. What difficulties and challenges for realizing this goal are present?

GHG emissions reductions began to be discussed globally when the Kyoto Protocol entered into force in 2005. At that time, only developed countries were required to set their own targets and take measures accordingly. However, as international shipping and aviation straddle national and regional borders, these industries were viewed as unsuited to frameworks based on individual countries. Consequently, the International Maritime Organization^{*1} (IMO) became the venue for discussions on international shipping.

The Paris Agreement, which came into effect in 2016, set the following objective: “Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit said temperature increase to 1.5°C above pre-industrial levels.” At the same time, the agreement introduced the principle of “CBDR: common but differentiated responsibilities and respective capabilities.” This principle states that, while both emerging and developed countries share the same decarbonization goals, the level of contribution from each type of country should be differentiated. Meanwhile, in the maritime shipping industry, IMO member states have reached the common understanding that equitable competitive conditions should be ensured for each company in the world as a single market based on the recognition of safety navigation as an absolute mission.

As IMO member states have diverse national circumstances, I feel that this gap between said common understanding and the CBDR principle is the biggest obstacle in discussions toward decarbonization in the maritime shipping industry at the organization.

Ammonia and hydrogen are attracting attention as zero-emission fuels for ships. However, lead times are a challenge both for the establishment of technologies and for the building of infrastructure capable of supplying sufficient fuel at major ports worldwide. In general, commercial ships are used for an average of about 30 years. However, in the less than three decades until 2050, 50,000 to 60,000 ships worldwide may need to be replaced with ships powered by zero-emission fuels. Further, the technologies needed for enabling the use of zero-emission fuels have yet to be established. In fact, some shipping operators have given up on ammonia fuel, reasoning that net-zero emissions might be challenging to achieve at an early stage if operators must wait for the commercialization of zero-emission fuels. Those operators are now focusing instead on “drop-in” fuels such as biodiesel.

With respect to its oceangoing businesses, NYK is making preparations based on the assumption that ammonia fuel will become commercially available around 2025, and the NYK Group plans to gradually switch over to ships powered by zero-emission fuels. As a whole, however, the Group includes not only ships but also trucks, aircraft, and diverse business partners in its efforts to transition to zero-emissions. Each of these business areas faces its own particular challenges in terms of technologies and funding. Therefore, the Group must be prepared to gain the understanding of all its stakeholders with a view to

enabling concerted initiatives that keep the Group in the vanguard of the world’s decarbonization efforts.

^{*1} A United Nations specialized agency headquartered in London and tasked with determining maritime regulations; member states: 175; associate members: Hong Kong and two other regions (as of October 2021)

—Why did you participate in COP26? What did you learn from the conference, and how will you make use of these lessons going forward?

In November 2021, I went to Glasgow, Scotland, at the request of the International Chamber of Shipping^{*2} (ICS). For the past several years, in my capacity as chair of the GHG Reduction Task Force of the Japanese Shipowners’ Association, I have participated in the IMO’s GHG reduction negotiations as requested by the Ministry of Land, Infrastructure, Transport and Tourism. From the standpoint of the private sector, I have been working with Japan’s government in developing a strategy for the realization of zero emissions by 2050 while analyzing such matters as the time required to transition from current technologies to possible future technologies. Members of the IMO include many states that lack maritime shipping or shipbuilding industries, as well as a number of environment-related nongovernmental organizations. The participants, all of whom shoulder the expectations of their countries and organizations, are passionate. Nonetheless, I have often seen time being wasted unnecessarily because participants refuse to budge from their respective positions. With this in mind, I wanted to increase understanding of our views

while finding out more about those of other parties by supporting and setting up booths at local events sponsored by ICS as well as by speaking as a panelist at various other local events. I sought to publicize and explain the initiatives of the maritime shipping industry and the NYK Group and to get direct feedback from individuals with a range of opinions.

At the conference, audience members asked, “Why can’t we achieve zero emissions tomorrow when we have the technologies and fuels today?” In response, I explained the limitations on global shipping, shipbuilding, and fuel production capacities. I also explained the need to verify the safety of the fuels likely to be used as zero-emission fuels, as well as presented a timetable that showed the common technical and safety standards to be established and when we can all begin building zero-emission ships in unison. Directly explaining the conscientious measures that the maritime shipping industry is advancing based on steady efforts rather than idealistic theory, I was able to gain the understanding and approval of audiences, which gave me confidence that we are heading in the right direction.

After participating in COP26, I felt that dissemination of information via the internet is giving a wider audience more opportunities to familiarize themselves with discussions and initiatives inside the maritime shipping industry. It also struck me that NYK should further develop its public relations and media strategy to give more people a better understanding of the initiatives the Company has been steadily and proactively working on and the progress they have made.

^{*2} An international organization headquartered in London with a membership comprising the shipowners’ associations of approximately 40 countries worldwide

—Please also tell us about initiatives other than decarbonization.

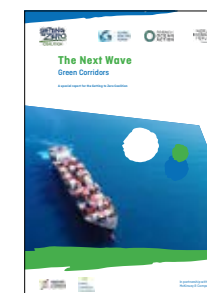
In addition to climate change, another social issue that companies must address is environmental preservation, including the preservation of biodiversity. For example, to prevent the transboundary movement of plankton and other aquatic organisms contained in ballast water, we are steadily installing ballast water treatment equipment on our operating ships, using paints that prevent shellfish from attaching to hulls, and thoroughly cleaning hull bottoms.

In accordance with the “Return on Earth,” ESG management theme being promoted by the Company, we are collaborating with the Chiba Institute of Technology to help address the problem of ocean plastics by utilizing our ships for the collection and analysis of seawater. The resulting data is used to compile a publicly available database of the types and concentrations of microplastics in the oceans. Moreover, in 2022 we began participating in the ANEMONE^{*3} consortium, hosted by Tohoku University. This is the world’s first industry–academia–government collaborative platform for the advancement of environmental DNA^{*4} research, which is being conducted by Tohoku and Hokkaido universities. Plans call for using ships operated by Group company Kinkai Yusen Kaisha Ltd. to sample seawater on the shipping routes of liner services. Going forward, we intend to develop this initiative further.

^{*3} An abbreviation of All Nippon eDNA Monitoring Network

^{*4} Environmental DNA is DNA derived from living organisms that exist in soil and water. By simply analyzing the environmental DNA in water samples, ecosystems can be understood. The results of this research promise to be useful mainly in the effective utilization of fishery resources as well as in the formulation of measures for their maintenance and management.

C O L U M N



The Only Japanese Company to Endorse the Green Shipping Corridors^{*5} Concept

NYK is the only Japanese company to support the concept of green shipping corridors, which was announced along with the Clydebank Declaration at COP26, held in Glasgow in the United Kingdom from October 31, 2021. The 24 Clydebank Declaration signatories—including Australia, Japan, the United States, Denmark, and Singapore—have set as a goal to be reached by the mid-2020s the establishment of at least six shipping routes on which zero-emission ships can be operated. The goal of the declaration is to promote the decarbonization of the maritime shipping industry by advancing initiatives that bring together the private and public sectors.

^{*5} A concept that aims to realize zero-emission ships on specific maritime routes and promote the decarbonization of shipping around the world. Advocated based on the Clydebank Declaration, a multilateral policy framework announced at COP26 for the decarbonization of the maritime shipping industry



Special Feature 2

Collaborating to Create Social Value

The NYK Group's co-creation of value through "delivery" as a comprehensive global logistics enterprise

Since its founding, the NYK Group has supported industry and society through its maritime shipping industry.

Currently, the Group has extended its services beyond maritime shipping to create networks with Group companies in land and air transportation services, contributing to the development of lifestyle infrastructure by transporting diverse cargo including living essentials, automobiles, electronic appliances, and energy-related goods. Not only do we provide "delivery" of such cargo, but we also provide high-quality transportation services that are safe, optimized for customers, and have low environmental impact.

Our basic philosophy, "Bringing value to life," expresses our purpose (see page 81 for details).

Through our strength in high-quality transportation services, we will continue to co-create value for society.

48 The NYK Group's Business Foundation (Business Model)

50 Initiatives to Co-Create Value through "Delivery"

With Customers / With Partners / With Local Communities / With the Earth

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.

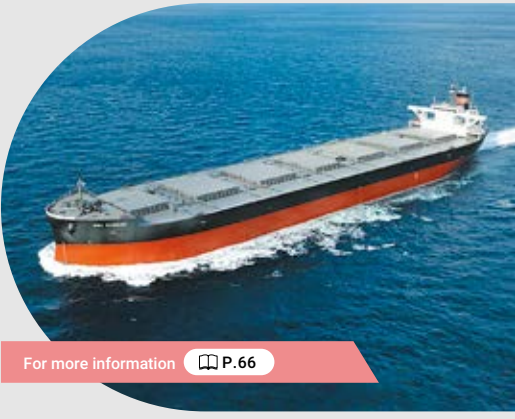
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→ Cargo	<div><div><div>General consumer goods, auto parts, semiconductor parts</div><div>No. 6 in world</div></div></div>	<div><div><div>Passenger cars, trucks, construction machinery, railcars</div><div>No. 1 in world</div></div></div>	<div><div><div>Iron ore, coal, wood chips, grain</div><div>No. 4 in world</div></div></div>	<div><div><div>Crude oil, oil products, chemicals, LNG, LPG, offshore business, green business</div></div></div>
→ Business Scale	<div><div><div>ONE*¹ Fleet Size 1,511k TEUs (as of March 31, 2022)*²</div><div>Number of NCA-Owned Aircraft 8 airplanes (as of March 31, 2022)</div><div>Number of YLK Warehouses 360 locations (as of March 31, 2022)</div></div></div>	<div><div><div>Car Transport Fleet 100 vessels (as of December 31, 2021)*³</div><div>Number of Automotive Logistics Business Sites 35 locations (as of March 31, 2022)</div></div></div>	<div><div><div>Bulk Carrier Fleet 150 vessels (as of January 1, 2022)*⁴</div></div></div>	<div><div><div>Tanker Fleet 73 vessels (as of January 1, 2022)*⁴</div><div>LNG Capacity Share 5.4 % (as of March 31, 2022)</div></div></div>
→ Contract Format	<div><div><div>Mainly short-term cargo contracts</div></div></div>	<div><div><div>Spot cargo contracts / Short- and medium- to long-term cargo contracts</div></div></div>	<div><div><div>Spot cargo contracts / Medium- to long-term cargo contracts</div></div></div>	<div><div><div>Medium- to long-term cargo contracts</div></div></div>
→ Competitive Advantages	<div><div><div>Price competitiveness due to secure trade volume / Transportation quality</div></div></div>	<div><div><div>Integrated transportation for finished vehicles / Value-added services and transportation quality</div></div></div>	<div><div><div>Diverse, high-quality fleet / Advanced operation technology</div></div></div>	<div><div><div>Track record and credibility / Transport technology / Skilled seafarers and engineers</div></div></div>
→ Resilience to Market Conditions	<div><div><div>Market volatility risk</div></div></div>	<div><div><div>Stable freight rates</div></div></div>	<div><div><div>Market volatility risk</div></div></div>	<div><div><div>Stable freight rates</div></div></div>
→ Short- and Medium-Term Business Strategy	<div><div><div>Strengthen cost competitiveness / Expand operational network / Respond to the environment</div></div></div>	<div><div><div>Ensure total supply chain capabilities / Carry out digital transformation / Formulate environmental responses</div></div></div>	<div><div><div>Establish flexible business structure resilient to market volatility / Respond to the environment</div></div></div>	<div><div><div>Create value chain strategy from upstream to downstream / Respond to the environment</div></div></div>
→ Cross-Divisional Initiatives for the Next Growth Stage	<div><div><div>Advancement of NAV9000 original unified safety standard / Expansion of systems for safe operations</div><div>GHG emissions reduction toward achieving net-zero emissions by 2050 / Promotion of carbon reduction and decarbonization in transport modes</div><div>Building of organizations with diversity and inclusion as foundations / Enhancement of training program designed to strengthen the overall abilities of employees / Development of problem-solving leaders centered on digital transformation (DX)</div><div>Development of seafarers who maintain NYK Quality / Development of crews for LNG-fueled vessels</div><div>Strengthening of Group governance</div></div></div>			



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For more information P.64



For more information P.66



For more information P.68

Initiatives to Co-Create Value through “Delivery”

WITH CUSTOMERS

As the NYK Group that conducts global business operations, responding to global environmental issues is one of our most important priorities. With growing global awareness of environmental issues such as climate change and the preservation of oceans and biodiversity, the Group has been working to comply with environmental regulations together with its customers. It was in response to this trend that we launched the ESG brand “Sail GREEN.”

Going forward, we will roll out the brand across divisions as a strategy for differentiation in the environmental value chain.

➡ Working with Customers to Meet Environmental Regulations

The NYK Group’s history of environmental vessels goes back to a car carrier in 2008. With optimized vessel designs and vessel operational capabilities to meet the needs of each era, we have provided transportation services that are second to none.

The Group is expected to respond to environmental issues throughout the entire supply chain. Accordingly, each division will accelerate a range of activities to achieve the target of net-zero emissions by 2050 for oceangoing businesses, such as through environmental vessels, as we work to create new value.

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

- 2015** Japan’s first LNG-fueled tugboat, Sakigake, delivered
- 2016** World’s first LNG-fueled pure car and truck carrier, Auto Eco, delivered
- 2017** World’s first purpose-built LNG bunkering vessel, Green Zeebrugge (current vessel name), delivered
- 2019** NYK’s first methanol-fueled vessel, Takarao Sun, delivered
- 2020** The first LNG-fueled pure car and truck carrier (PCTC) to be built in a shipyard in Japan, Sakura Leader, delivered
Japan’s first LNG bunkering vessel, Kaguya, delivered



C O L U M N

Establishment of ESG Brand “Sail GREEN”



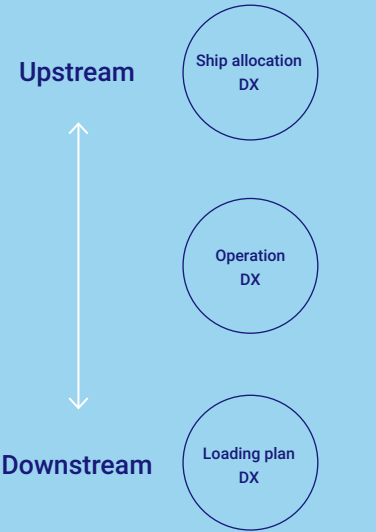
As part of efforts to comply with environmental regulations together with its customers, in 2021 the NYK Group established the ESG brand “Sail GREEN” as a project for returning GHG emissions reductions to its customers’ supply chains. The Automotive Transportation Division is working to reduce environmental impacts in every service provided in finished vehicle logistics, including maritime shipping powered by alternatively fueled vessels and the use of renewable energy at automobile terminals (see page 64 for details). With the unveiling of the “Sail GREEN” ESG brand, in fiscal 2022 we will step up cross-divisional activities in the Dry Bulk Division and Energy Division. These efforts will help transform the mindset of our employees and customers while leading to an increase in our corporate value.

Progress Made by the Automotive Transportation Division in Applying Digital Transformation to Soft Aspects of Operations

Ship allocation plans, which determine which port a vessel will sail to for commencing its next voyage once the current voyage ends, are generally formulated by a skilled person after consideration of various factors, such as cargo demand, ship scheduling, vessel type, and a ship’s loading capacity. Until now, the NYK Group has used a proprietary, in-house ship allocation planning system. However, with the diversification of the above-mentioned decision-making factors and the acceleration of decarbonization initiatives, determining how to deploy vessels efficiently to reduce GHG emissions has become an imperative issue.

To resolve these issues, the Company, MTI Co., Ltd., and GRID Inc. are collaborating to develop an optimal planning model for allocating pure car and truck carriers (PCTCs) using AI. This collaborative endeavor leverages the expertise and advanced technologies of the three companies.

We are also promoting digital transformation (DX) throughout the entire value chain, from upstream to downstream. The introduction of DX will enable the provision of even more stable services, enabling us to efficiently allocate ships tailored to customers’ transportation needs while also reducing GHG emissions. This is an initiative that integrates economic and ESG yardsticks to provide value to customers.



Expansion to Other Divisions

Dry Bulk Division

The Dry Bulk Division provides various services to customers using various ship classes. Under the “Sail GREEN” banner, we are proposing services with high environmental added value, combining the Company’s environmental vessels (hard aspect) with its vessel operational capabilities (soft aspect), and working to form even deeper partnerships with customers. At the same time, we will link this to one of the Dry Bulk Division’s four strategies: “expand and deepen the specialized carrier business” (see page 66 for details).

Initiatives

- ➊ Turn the environmental vessels of the Dry Bulk Division into a series of “Green Dry Bulk Carriers” going forward
- ➋ Hold multiple discussions from economic yardsticks perspective on the overall state of the Dry Bulk Division and set up an LNG-fueled ship sales task force
- ➌ Take steps to visualize GHG emissions reductions through DX in collaboration with Weathernews Inc.

Energy Division

The Energy Division’s main business comprises medium- to long-term contracts, and it aims to create value with its customers based on a long-term perspective.

Under the “Sail GREEN” ESG brand, we aim to reduce GHG emissions in various ways, such as by introducing ships with dual-fuel engines that run on methanol or LPG, increasing fuel efficiency and vessel operational efficiency. Through these efforts, we are contributing to reducing and eliminating carbon emissions from our customers’ supply chains (see page 68 for details).

Initiatives

- ➊ Delivered the NYK’s third methanol-fueled vessel Grouse Sun in 2022
- ➋ Concluded a contract to build an LPG dual-fuel very large LPG and liquefied ammonia gas (NH₃) carrier (VLGC) (scheduled for delivery in 2024)



Image of LNG-fueled dry bulk carrier



Image of LPG dual-fuel VLGC

Creation of value for customers

Initiatives to Co-Create Value through “Delivery”

WITH PARTNERS

In April 2022, the NYK Group launched its new “NYK GREEN EARTH” brand to consolidate its efforts to generate new value for low carbonization and decarbonization through green business.
We are working steadily with our partners to promote a value chain concept for realizing a decarbonized society.

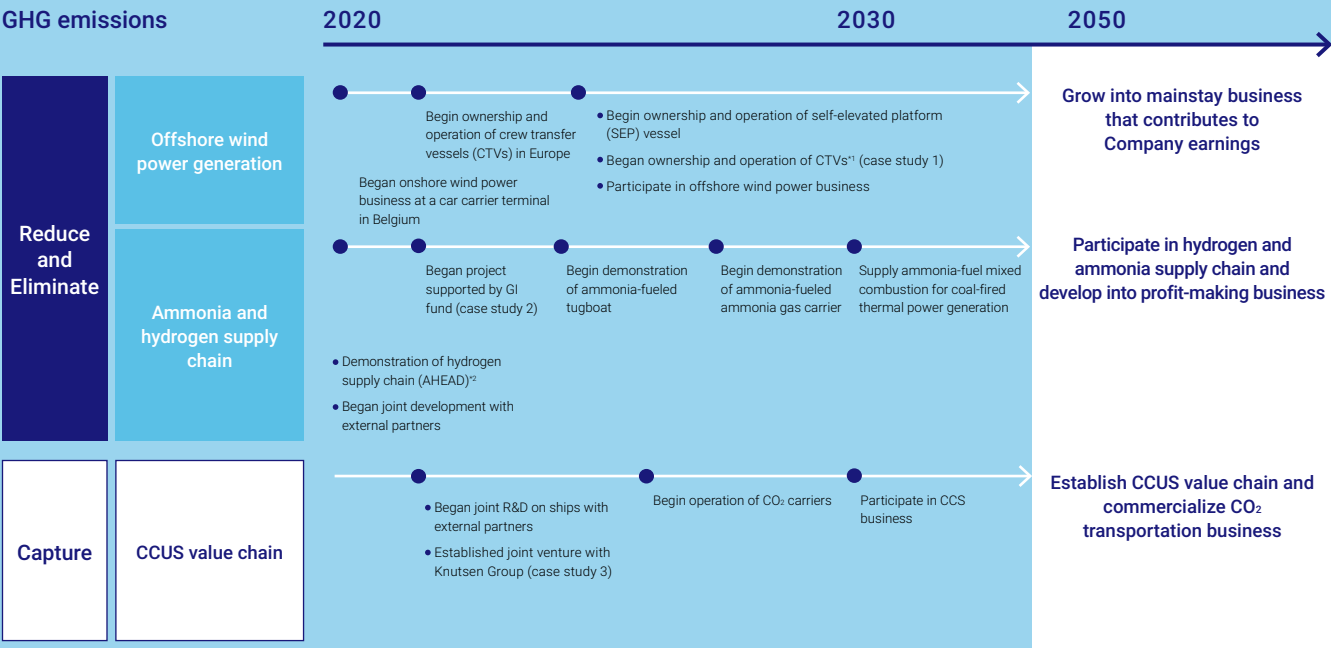


➔ Launch of the “NYK GREEN EARTH” ESG Brand



“NYK GREEN EARTH” is a new brand that targets efforts for new value generation toward low carbonization and decarbonization through NYK’s green business. To achieve this goal, 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. Our initiatives include the provision of environmentally friendly, total logistics services; participation in renewable-energy businesses such as offshore wind power generation; technology development for ammonia- and hydrogen-fueled vessels; creation of supply chains for hydrogen, ammonia, and decarbonized energy; and other initiatives (see page 68 for details).

Our Business Development Timeline in the Energy Field (as of August 2022)



*1 CTV: crew transfer vessel
*2 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.

Case Study 1

NYK Has Begun to Bareboat Charter Crew Transfer Vessel in Offshore Wind Industry

NYK has begun to a bareboat charter*1 a CTV*2 to service offshore wind farms with Northern Offshore Services AS (NOS), a subsidiary of the Sweden-based Northern Offshore Group AB (NOG).
NOG is the largest operator of CTVs in Europe, which is a leader in utilizing offshore wind power.
The Company concluded a memorandum of understanding on business collaboration with NOG in 2019, and this CTV charter is part of that collaboration.
Moreover, in 2022 NYK intends to dispatch its marine engineers to NOS to engage in operation and ship management so that they can acquire knowledge of such operations conducted in Europe, which the Company plans to use to develop a CTV business in Japan. In parallel, we are collaborating with partners in each region of Japan, such as Akita Eisen KK, which is the only towing company in Akita Prefecture, in our efforts to create a CTV operating structure with close regional ties.

*1 A contract in which the owner of a vessel leases the vessel together with the equipment and furnishings on board.
*2 A vessel for transporting crews for offshore wind power installation construction and maintenance after power generation commences

Case Study 2

Selection as a Green Innovation Fund Project

NYK, Japan Engine Corporation, IHI Power Systems Co., Ltd., and Nihon Shipyard Co., Ltd., applied for and were selected to participate in a project subsidized by NEDO*3 as part of the Green Innovation Fund project started by the Ministry of Economy, Trade and Industry to help achieve carbon neutrality by 2050. The four companies, together with cooperating organization Nippon Kaiji Kyokai (ClassNK), have started development of vessels equipped with a domestically produced ammonia-fueled engine.



Computer-generated rendering of ammonia-fueled tugboat

The project’s goals are to realize the development of an ammonia-fueled vessel that is internationally competitive and pioneering on the world stage as well as to spur the formulation of safety guidelines and laws and regulations related to ammonia-fueled vessels. In order to achieve these goals, marine engine manufacturers, shipyards, class societies, and shipping companies in Japan will work together to consistently cooperate from the research and development stage to engine development, shipbuilding, and commercialization.

*3 New Energy and Industrial Technology Development Organization

Case Study 3

NYK and Knutsen Group Establish New Company for Liquefied CO₂ Transportation and Storage Business

NYK and the Knutsen Group of Norway have established Knutsen NYK Carbon Carriers AS (KNCC) as a joint venture company for the commercial development and marketing of a liquefied CO₂ marine transportation and storage business worldwide.



KNCC will develop a liquefied CO₂ carrier using the Knutsen Group’s proprietary technology that enables the transportation and storage of liquefied CO₂ at ambient temperatures. Furthermore, the company will also examine development of a low- to medium-pressure liquefied CO₂ carrier using other technologies. We will continue cooperating with the Knutsen Group to employ innovative approaches toward using and further developing new technology for a carbon-neutral future.

Initiatives to Co-Create Value through “Delivery”

WITH LOCAL COMMUNITIES

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 other endeavors. Through our connections with local governments, communities, and people tasked with preserving Japanese traditional culture, we will “deliver” new value and contribute to regional revitalization.

Traditional Japanese Crafts × Asuka II

➔ Contributing to the Passing Down of Traditional Crafts with Asuka II

Collaboration with Japan *Kōgei* Association

NYK Cruises Co., Ltd., (NYK Cruises) of the Group company that owns and operates the passenger ship Asuka II, is also implementing ESG management. As part of its SDGs-related activities, in June 2022, NYK Cruises started its first collaboration with the Japan *Kōgei* Association (“*Kōgei*” is Japanese for “handicraft”) through Anchor Ship Partners Co., Ltd. Around 140 works (ceramics, textiles, lacquerware, metalwork, woodwork, and various works) made by 56 artists who have been designated as living national treasures and Japan *Kōgei* Association members are on permanent display (as of July 2022).

Passenger ships have a history of actively incorporating traditional Japanese crafts into the onboard decorations, so that have a high affinity with art. Through this collaboration, we will continue to value our mutually prosperous relationship, both increasing the value of NYK Cruises and contributing to the passing on and development of traditional crafts.



Traditional crafts on permanent display on board Asuka II

Kundo Koyama Appointed as the First Ambassador for Asuka Cruises

Asuka Cruises has welcomed as its first ambassador Kundo Koyama, who is active in a wide range of fields, not only as a scriptwriter for television but also as a playwright, lyricist, producer, and radio personality. Mr. Koyama has been devoting his efforts to regional revitalization, spending time with local people from all parts of Japan and emphasizing the importance of the connections among people.

Our vision is to create opportunities for people to encounter the ships, people, and culture of Japan, which has developed together with its seas and ports, and to communicate the appeal of Japan to people domestically and overseas. With cooperation from Mr. Koyama, we will produce initiatives that gain the understanding of passengers who board the ship. Asuka Cruises will continue to enhance the appeal of regions across Japan together with local communities.



Kundo Koyama is in the center

Akita Prefecture × NYK Group

➔ Relationship between Akita Prefecture and the NYK Group

Akita Prefecture has three ports that are used by Asuka II, and Noshiro is the port of registry of the dry bulk carrier Noshiro Maru, which is assigned to Tohoku Electric Power Co., Inc. The NYK Group also transport raw materials and fuel for paper manufacturing to the Akita plant of Nippon Paper Industries Co., Ltd.

➔ Conclusion of Comprehensive Partnership Agreement with Akita Prefecture and Contribution to Regional Revitalization with the Establishment of a Local Branch

Opening of the Akita Branch in April 2022

NYK concluded a comprehensive partnership agreement with Akita Prefecture on February 8, 2022, and opened its Akita Branch the following April. It is the fifth branch currently operated by the Company in Japan, with the other branches located in Yokohama, Nagoya, Kansai, and Kyushu, and the first branch to open in the Tohoku region.

Going forward, we will work in cooperation with Akita Prefecture through the Akita Branch on several projects, including the promotion and nurture of human resources for the renewable-energy business, cultivation of ship-related human resources, utilization of ports, promotion of tourism, environmental preservation, and regional revitalization.



Signing ceremony for the comprehensive partnership agreement



Corporate matching seminar

Working with Local Communities on Offshore Wind Power Generation-Related Businesses

NYK is engaged in offshore wind power-related businesses such as CTVs, SEP vessels, and geotechnical investigation vessels. The offshore areas around Akita Prefecture and neighboring prefectures are designated as project target areas, under Japan’s Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities,*1 and as promising sea areas. They have been positioned as leading areas for the introduction of offshore wind power generation in Japan. We have opened the Akita Branch and are promoting business in close collaboration with local governments and firms, while also working to develop human resources, aiming to prepare the sustainable and stable business environment necessary for supporting offshore wind power generation as a long-term business. Our activities are also expected to contribute to the creation of local employment opportunities, helping address the issue of depopulation facing Akita Prefecture.



Minehama Wind Power Plant, in Happono Town, Akita Prefecture
(Currently supplying 100% of electric power to Daikoku C-3 Terminal, Port of Yokohama)
Photograph supplied by Venti-Pal Happono LLC

*1 A law under which the government has designated promotion zones for offshore wind power generation businesses, and electric power companies designated through public invitation have exclusive rights to use the sea areas within the zones for up to 30 years

Initiatives to Co-Create Value through “Delivery”

WITH THE EARTH

Through its operations, the NYK Group is giving back to the regions and areas with which it has formed bonds in the maritime shipping business. We are co-creating value that benefits both local communities as well as the Group.

➔ Value Co-Creation around the World

As a corporate group that conducts business activities in a natural environment comprising the oceans, land, and air, our natural mission is to tackle environmental preservation, including biodiversity, and develop our global businesses in ways that address social issues. By co-creating mutually beneficial value in regions and countries around the world where it operates, the Group has forged a competitive advantage realized precisely because of its carefully nurtured long-term relationships. When examining new proposals, we strive to make management decisions that balance both economic and ESG yardsticks.

India



Free provision of oxygen cylinders as emergency medical support during the COVID-19 pandemic

The Philippines



MarCoPay, a financial platform for seafarers
<https://www.marcopayinc.com/>

Japan



Support for the Kishu Minabe loggerhead sea turtle ecological survey

➔ The NYK Group’s Relationship with the Philippines—Our Largest Partner Supporting Oceangoing Shipping

The NYK Group has a longstanding relationship with the Philippines. One of the factors that deepened this relationship was an increase in the hiring of non-Japanese crew members, particularly Filipino crew members, caused by high personnel expenses for Japanese seafarers accompanying the yen’s appreciation after the Plaza Accord of 1985.

In 1989, we jointly established NYK-Fil Ship Management, Inc. (NYK-Fil) with our local partner in the Philippines, Transnational Diversified Group (TDG), and soon thereafter began crew deployment operations. Today, Filipinos make up 70% of the NYK Group’s crew members. Currently, they are a supporting pillar of the safe operations that make up the Group’s core business, and our Filipino crews will also play an essential and greater role in our initiatives for realizing zero emissions going forward. The Philippines is important as a base for continuing the NYK Group’s business operations, and it is also an important base supporting global logistics. Our social contribution activities are a way to give back to the country for its relationship with us to date and for the contribution of Filipino crew members. At the same time, they will lead to the sustainable growth of the NYK Group’s business by building cordial long-term relationships that will contribute to resolutions for social issues in the Philippines and deepen our partnership with this country.

Main Business Activities and Achievements in the Philippines

- Operating company NYK-Fil Ship Management, Inc.: Established in 1989 to manage crew manning
- Maritime academy NYK-TDG Maritime Academy (NTMA): Opened in 2007, cumulative graduates approximately 1,200 persons
- Operating company MarCoPay Inc.: Established in 2019 to provide an electronic money settlement service via a life-supporting platform to seafarers

Participation in River Cleanup Project in the Philippines

The NYK Group has decided to donate a total of US\$1.5 million (approximately ¥170 million) over five years in support of a river rehabilitation project being implemented by San Miguel Corporation (San Miguel), a major conglomerate in the Philippines. More than 360,000 tons of plastic waste is dumped into Philippine rivers every year. Of these, the Pasig River and Tullahan River, which cross the metropolitan Manila area and flow into Manila Bay, are the most seriously polluted. The donation will be used to pay for dredging of the rivers to alleviate environmental damage and for the purchase of dredging equipment to further the rehabilitation work.

River Cleanup Process

- The riverbed rises due to the influx of waste from the drainage basin, causing flooding.
- Trash and sludge are removed using heavy machinery and the water depth is secured.
- Flood damage is reduced, and the flow of waste into the ocean is stopped.



Photograph provided by San Miguel Corporation



Sludge removal operation

Future of the River Cleanup Project

River dredging and rehabilitation are continuing, and in June 2022, we delivered excavators. Looking ahead, we are considering volunteer activities by the NYK Group, involving the participation of NYK-Fil and NTMA students, as we continue striving to create value that goes beyond donations.



Profile
Ces Calenn F. Cabading

NTMA Class of 2011
Chief Officer

My Response to the River Cleanup Project as a Filipino Seafarer

As seafarers, we consider the oceans as our second home. We are therefore more engaged in activities to protect and take care of them. In the past, there were continual efforts by both private and public organizations to keep the oceans clean, but such efforts were limited to temporary solutions that were not sustainable in the long run. When considering what we as seafarers could do, we thought of our connection with Japan, and its impressively clean waterways and rivers naturally came to mind.

By promoting the river rehabilitation project with San Miguel Corporation, we have put forth a sustainable solution that will have a positive impact on the environment. I also believe that this is one of the greatest investments we can make for giving future generations the opportunity to enjoy the life and beauty of the oceans. However, these activities can only be sustainable by continually educating and equipping people to take action, instituting community involvement, and transforming the rivers.

➔ The NYK Group Sustainability Initiatives—a Project for Encouraging Value Creation Initiatives

Action Theme: Return on Earth—“Giving back to the oceans, earth, and people”

As a corporate group that operates globally, we believe that our initiatives for preserving the earth’s environment and resolving social issues lead to the inception of new businesses for the NYK Group. In fiscal 2021, we launched a new framework for “giving back” with a stronger emphasis on economic and ESG yardsticks.



Overview of the NYK Group Sustainability Initiatives

The initiative is a new framework that places ESG at the center of management and actively promotes it as an important strategic management policy for the NYK Group, aiming to increase corporate value by working to resolve various social issues.

Example

- River rehabilitation project in the Philippines (above), marine plastic (see page 45 for details), environmental DNA (see page 45 for details), and forest project

Directors, Audit and Supervisory Board Members, and Executive Officers

(Current as of June 22, 2022; number of shares held as of April 30, 2022)

Internal

Directors



Tadaaki Naito

Chairman, Director

Number of shares held: 46,014
Attendance at Board of Directors' meetings: 18/18

1978	Joined the Company
2004	General Manager of Petroleum Group
2005	Corporate Officer
2007	Managing Corporate Officer
2008	Director, Managing Corporate Officer
2009	Representative Director, Senior Managing Corporate Officer
2013	Representative Director, Executive Vice-President Corporate Officer
2015	President, Representative Director, President Corporate Officer
2019	Chairman, Director, Chairman Corporate Officer
2020	Chairman, Director, Chairman and Executive Officer
2022	Chairman, Director



Takaya Soga

Director, Senior Managing Executive Officer
Chief Financial Officer
Chief Executive of Management Planning
Headquarters

Number of shares held: 5,895
Attendance at Board of Directors' meetings: N/A

1984	Joined the Company
2010	General Manager of Automobile Logistics Group
2015	Corporate Officer
2018	Managing Corporate Officer
2020	Managing Executive Officer
2021	Senior Managing Executive Officer
2022	Director, Senior Managing Executive Officer

Audit and Supervisory Board Members



Noriko Miyamoto

Number of shares held: 13,405
Attendance at Board of Directors' meetings: 18/18
Attendance at Audit and Supervisory Board meetings: 18/18

1983	Joined the Company
2012	General Manager of IR Group
2014	Corporate Officer
2018	Managing Corporate Officer
2019	Audit and Supervisory Board Member



Hitoshi Nagasawa

President, Representative Director,
President and Chief Executive Officer
Chairperson of the ESG Management Committee

Number of shares held: 28,651
Attendance at Board of Directors' meetings: 18/18

1980	Joined the Company
2004	General Manager of LNG Group
2007	Corporate Officer
2009	Managing Corporate Officer
2011	Director, Managing Corporate Officer
2013	Representative Director, Senior Managing Corporate Officer
2018	Representative Director, Executive Vice-President Corporate Officer
2019	President, Representative Director, President Corporate Officer
2020	President, Representative Director, President and Chief Executive Officer



Yutaka Higurashi

Director, Senior Managing Executive Officer
Chief Compliance Officer
Chief Executive of General Affairs
Headquarters

Number of shares held: 7,114
Attendance at Board of Directors' meetings: 18/18

1985	Joined the Company
2014	General Manager of Legal Affairs Group
2016	Corporate Officer
2020	Managing Corporate Officer
2020	Director, Managing Executive Officer
2022	Director, Senior Managing Executive Officer



Eiichi Takahashi

Number of shares held: 40,580
Attendance at Board of Directors' meetings: 18/18
Attendance at Audit and Supervisory Board meetings: 11/11

1982	Joined the Company
2010	General Manager of Accounting Group
2012	Corporate Officer
2016	Director, Managing Corporate Officer
2018	Director, Senior Managing Corporate Officer
2019	Representative Director, Senior Managing Corporate Officer
2020	Representative Director, Senior Managing Executive Officer
2021	Audit and Supervisory Board Member

Note: Attendance by Eiichi Takahashi at meetings of the
Audit and Supervisory Board is indicated from June 18,
2021, the date he assumed his current position.



Hiroki Harada

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

Number of shares held: 7,649
Attendance at Board of Directors' meetings: 18/18

1983	Joined the Company
2011	General Manager of Tramp Co-ordination Group
2014	Corporate Officer
2018	Managing Corporate Officer
2019	Director, Senior Managing Corporate Officer
2020	Director, Senior Managing Executive Officer
2021	Representative Director, Senior Managing Executive Officer

Executive Officers

Senior Managing Executive Officers

Tomoyuki Koyama

Akira Kono

Managing Executive Officers

Svein Steimler

Nobuhiro Kashima

Toru Kamiyama

Hiroshi Kubota

Yutaka Ikeda

Executive Officers

Hideki Suzuki

Yuko Tsutsui

Toru Maruyama

Hiroaki Nishiyama

Hisaya Higuchi

Hironobu Watanabe

Patrick Brennan Jr.

Kenichiro Sutoh

Yasunobu Suzuki

Yuji Nishijima

Takuji Banno

Toshi Nakamura

Keita Sataka

Masahiro Takahashi

Hiroaki Ohashi

Shinichi Yanagisawa

Shogo Terajima

Mie Sugano

Outside

Independent Outside Directors



Yoshihiro Katayama

Chief Independent Outside Director

Number of shares held: 19,080
Attendance at Board of Directors' meetings: 18/18

1974	Joined Japan's Ministry of Home Affairs
1998	Resigned from the ministry
1999	Governor of Tottori Prefecture
2007	Completed term as governor; Professor at Keio University
2010	Minister of Internal Affairs and Communications
2011	Resigned from the ministry
2016	Outside Director of NYK
2017	Retired from position as professor at Keio University
2017	Professor at Graduate School of Public Management, Waseda University
2019	Chief Independent Outside Director of NYK
2022	Retired as the Professor at Graduate School of Public Management, Waseda University
2022	Project Professor of Taisho University (current position)



Hiroko Kuniya

Number of shares held: 7,307
Attendance at Board of Directors' meetings: 18/18

1981	Announcer and Writer for English-language broadcasts of NHK General TV's "Seven O'clock News," Researcher for "NHK Special" (NHK = Nippon Hoso Kyokai (Japan Broadcasting Corporation))
1987	Newscaster on NHK satellite broadcasting's "World News"
1993	Newscaster on NHK General TV's "Today's Close-Up"
2016	Trustee of Tokyo University of the Arts (part-time, current position)
2017	Independent Outside Director of NYK



Eiichi Tanabe

Number of shares held: 2,388
Attendance at Board of Directors' meetings: 18/18

1978	Joined Mitsubishi Corporation
2008	Senior Vice President
2012	Executive Vice President
2016	Senior Executive Vice President, Corporate Functional Officer
2016	Representative Director, Senior Executive Vice President
2018	Retired from Mitsubishi Corporation, Advisor of Mitsubishi Corporation
2019	Independent Outside Director of NYK
2020	Retired as Advisor of Mitsubishi Corporation

Independent Outside Audit and
Supervisory Board Members



Hiroshi Nakaso

Number of shares held: 308
Attendance at Board of Directors' meetings: 18/18
Attendance at Audit and Supervisory Board meetings: 18/18

1978	Joined the Bank of Japan
2003	Director-General of Financial Markets Department of the Bank of Japan
2008	Executive Director of the Bank of Japan
2013	Deputy Governor of the Bank of Japan
2018	Retired as Deputy Governor of the Bank of Japan
2018	Chairman of Daiwa Institute of Research Ltd. (current position)
2020	Independent Outside Audit and Supervisory Board Member of NYK
2021	Member of ABAC (Japan)



Satoko Kuwabara

Number of shares held: 899
Attendance at Board of Directors' meetings: 18/18
Attendance at Audit and Supervisory Board meetings: 18/18

1990	Registered as Attorney-at-Law (Daini Tokyo Bar Association)
1990	Joined Mori Sogo (currently Mori Hamada & Matsumoto)
1998	Partner of Mori Hamada & Matsumoto
2020	Resigned as Partner of Mori Hamada & Matsumoto
2020	Partner of Gaien Partners (current position)
2020	Independent Outside Audit and Supervisory Board Member of NYK

Interview with an Outside Director: What Are the Keys to Entrenching ESG Management in the NYK Group?

We asked Yoshihiro Katayama, who has been actively involved in changing the mindsets of organizations in his former capacities as Minister for Internal Affairs and Communications and the leader of a municipal authority, about his assessment of the NYK Group's ESG management and how he hopes it will develop going forward.



INTERVIEW

—What is your assessment of the effectiveness of ESG management in the NYK Group?

I have been very impressed by the real commitment with which the president and the senior management team are pursuing ESG management. In the period leading up to the formulation of the first iteration of the NYK Group ESG Story in 2021, I and all the outside directors occasionally made recommendations on ESG issues. They took it seriously and gave much thought to our recommendations. The period immediately after the issuance of the ESG Story saw the establishment of a system for driving ESG management forward, which includes the ESG Management Committee and ESG Navigators. These achievements are entirely attributable to the fact that, as a leader, President Hitoshi Nagasawa has a clearer vision than anyone of the form ESG management should take in the NYK Group.

Rather than simply summarizing initiatives that help address social issues, the

ESG Story reflects a series of rigorous in-house discussions on the nature of ESG yardsticks and the kind of value creation the Group should seek. The story is not a mere rallying cry for the integration of ESG principles into business management. It also places great emphasis on gaining the endorsement of each Group employee. In other words, the story is focused on creating a sense of ownership of ESG principles among employees.

The issuance of updated versions of the ESG Story in line with ESG management's progress in the Group shows the level of commitment to ESG management. In the latest version, the NYK Group ESG Story 2022, I am particularly interested in the NYK Group's unique approach to achieving net-zero emissions. I look forward to seeing how the Group progresses toward its goals of reducing GHG emissions by 30.0% by 2030, compared with fiscal 2015 levels, and achieving net-zero emissions from oceangoing shipping by 2050.

—The executive compensation system was revised in June 2022. What is the philosophy behind the revised system and what are its key features?

In 2016, the Company introduced a performance-based stock remuneration program with the aim of motivating management team members to contribute to sustained growth over the medium to long term by enabling them to share in profits with shareholders. With the Compensation Advisory Committee as the main forum for discussions, we have reformed the entire compensation system for directors, including the performance-based stock compensation program. In addition to conventional performance-linked indicators such as ROE and recurring profit, the new system incorporates "level of achievement of ESG indicators" as original components with a weighting of 20.0% among the portion related to stock remuneration. In today's world, corporate groups that generate large profits but

remain backward-looking on global issues such as climate change struggle to earn public trust. The introduction of ESG indicators in addition to short-term performance indicators has aligned the compensation system with the NYK Group's management strategies. Furthermore, we have incorporated the clawback provision into the compensation system to demonstrate both inside and outside the Group that misconduct will be dealt with severely and to further strengthen directors' sense of responsibility.

—What changes do you hope to see in the Group to strengthen its management foundations?

To continue meeting the expectations of shareholders and investors and keeping their trust, the NYK Group must hold the reins in terms of rigorously ensuring compliance and governance. The Group's violations of the Antimonopoly Act were one of the reasons I was appointed as an outside director. When approached about the position, I was informed that an individual was sought who would endeavor to prevent the recurrence of such incidents and who would conduct uncompromising checks from an outside viewpoint to identify any factors that could damage social credibility. Since becoming an outside director, I have repeatedly told employees through training sessions about the various accidents and violations that have occurred in the past. Given the extremely wide range of Group companies, business partners, and other

stakeholders involved in the Group's business activities, the need for further efforts to ensure rigorous compliance going forward must not be forgotten. For example, I believe that the NYK Group's in-house auditing functions is still need to be stronger. Although well developed, the Group's auditing system and structure are not very visible. When working for a ministry and a municipal authority in the past, I shone spotlights on these types of behind-the-scenes organizations to generate wider interest in them. By doing so, motivation was greatly heightened. Making auditing activities and all other corporate divisional

activities more widely recognized, which should turn employees much more engaged. If the quality of management improves as a result, I believe that trust in the NYK Group will become even stronger. As an outside director, I have long been cautious to view business management objectively. Though the discussion at the Board is always hot, it may turn inward-thinking easily. For precisely this reason, I intend to be cool and objective to offer dispassionate recommendations and opinions.

“ I intend to be cool and objective to offer dispassionate recommendations and opinions. ”

Profile

Yoshihiro Katayama

Independent Outside Director
Chief Outside Director



INTERVIEW

Liner & Logistics Headquarters

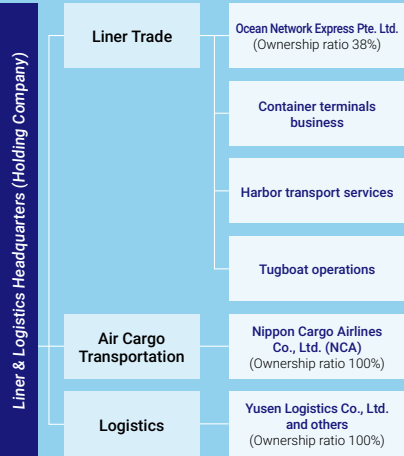
We will maximize corporate value by continuing to strengthen the advantages of our business companies so that they are fully prepared when conditions normalize.

Hiroki Harada

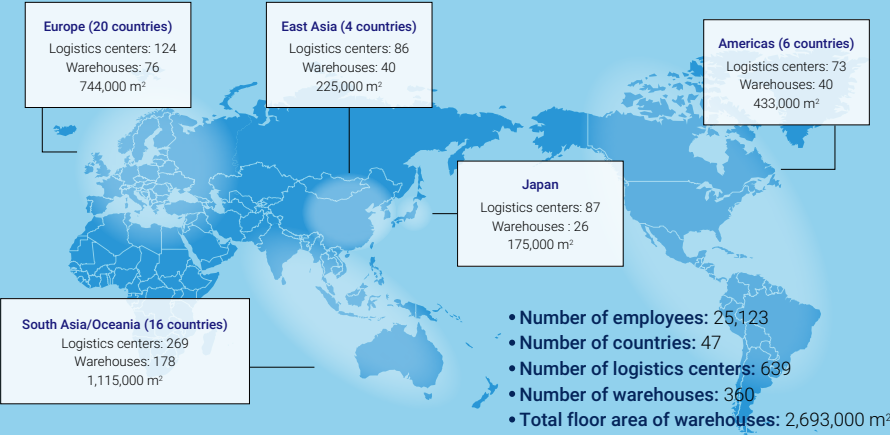
Representative Director,
Senior Managing Executive Officer
Chief Executive of Liner & Logistics
Headquarters



Business Model of the Liner & Logistics Business



Logistics Center Locations (as of March 31, 2022)



BUSINESS STRATEGY

Fiscal 2021 Review

Functioning like a holding company, this division integrates and supports business companies, including Ocean Network Express Pte. Ltd. (ONE), Nippon Cargo Airlines Co., Ltd. (NCA), and Yusen Logistics Co., Ltd. (YLK). These three companies achieved record profits due to a hike in freight rates reflected from tight supply and demand, which resulted from the global disruption of supply chains. On its own, ONE accounted for more than 70.0% of the NYK Group's recurring profit of the overall division. Combined, the three companies generated over 85.0% of consolidated recurring profit. The Liner & Logistics Headquarters is working with respective companies to determine how to use this cash. Further, disclosed information testifies that the corporate value of ONE has increased relative to that of industry peers.

Disruptions at port terminals and land transformation hubs around the world are continuing, and the loss of schedule integrity has been causing a great deal of inconvenience to customers. Ideas will be tested going forward concerning how we can stabilize our business after the normalization of services is realized. For example, we are planning to increase long-term contracts.

Worldwide, the industry saw a trend toward shipping companies that specialize in container ships purchasing aircraft and acquiring logistics businesses. I believe that this trend was the result of attempts by container businesses to enlarge their operational spheres. While maximizing our overall performance by growing individual business companies, we will encourage in-house collaborations by increasing the areas of intersection among companies.

Fiscal 2022 Business Strategies and Forecast

While focusing on continued investment in required operating assets and on preparing for the normalization of business conditions, the liner trade business must be braced for a range of possible medium- to long-term scenarios. Therefore, as well as actively catering to transportation demand, we will carefully monitor the global economic impact of the situation in Russia and Ukraine and other causes of uncertainty in the global situation and pay close attention to supply and demand trends.

In the air cargo transportation business, the recovery of international passenger flights has been slower than initially expected, and a different approach to air cargo transportation may be required. Fiscal 2022 will also be a year of preparation for normalization for the logistics business.

Our ESG Story and Medium- to Long-Term Business Strategies

In fiscal 2021, the Sustainable Growth Task Force, comprising young executive officers, conducted discussions and analysis based on backcasting from the likely external environment in 2050 and the profile we want to have by then. As a core business, the Liner & Logistics segment must continue to grow. Our goal of providing safe, high-quality transportation services at sustainable rates by securing stable, long-term contracts will remain unchanged. We will continue to support global society's infrastructure while embodying the NYK Group's basic philosophy of "Bringing value to life."

As part of its initiatives to reduce GHG emissions, ONE announced a green strategy in March 2022. The company will maximize its effort in improving the efficiency of ship operations and in utilizing LNG dual-fuel ships and ships powered by zero-emission fuels, in addition to using SOx scrubbers and other ship devices. Meanwhile, NCA is considering the introduction of sustainable aviation fuel (SAF). Further, YLK has issued the Yusen Logistics Group ESG Story. Aiming to achieve net-zero emissions in all services by 2050, we have started purchasing carbon offset credits for small-lot maritime shipping services. As for new businesses, we have begun examining the establishment of tugboat businesses related to the offshore wind power field and port terminal businesses. We are confident that these exploratory efforts will produce concrete benefits going forward.

The Yusen Logistics Group: Examples of Initiatives to Reduce GHG Emissions

Sustainable Aviation Fuel

Promoting the use of sustainable aviation fuel (SAF)

Carbon Offset

Carbon offsetting for ocean freight forwarding services

Environment-Friendly Vehicles

Switching to environment-friendly vehicles

Warehouses and Offices

Actively promoting the use of LEDs and the installation of solar panels

Liner Trade:

Business Summary, Risks
and Opportunities, and Challenges

- ✓ NYK's founding business and now part of Ocean Network Express Pte. Ltd. (ONE), which was established by integrating the liner trade businesses of NYK and two other Japanese shipping companies
- ✓ World's sixth-largest fleet, with a series of new ships scheduled to be delivered from mid-fiscal 2022 onward
- ✓ Although not stable, the business model has good growth potential going forward

Air Cargo Transportation:

Business Summary, Risks
and Opportunities, and Challenges

- ✓ Engaged in transportation of international air cargo conducted by wholly owned subsidiary NCA
- ✓ In light of the business improvement order received in 2018, reshaped its systems and regenerated profits
- ✓ Value reaffirmation of dedicated cargo aircraft recognized since the COVID-19 pandemic

Logistics Business:

Business Summary, Risks
and Opportunities, and Challenges

- ✓ Wide range of forwarding services catered to customers' various value chains by wholly owned subsidiary YLK
- ✓ New competitive environment due to the participation by major European container shipping companies
- ✓ Pursuit of M&As with the aims of expanding scale of business and filling gaps for growth by region, business, or customer demand

Automotive Transportation Division

We will continue advancing the differentiation strategy of “Sail GREEN” while developing high-quality transportation services that integrate maritime shipping, terminal operations, and inland logistics.

Yutaka Ikeda
Managing Executive Officer
Chief Executive of Automotive Transportation Headquarters



“Sail GREEN” Environment Value Chain Model

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

1 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

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



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.



Business Summary

- ✓ Utilization of one of the world's largest fleets to transport approximately 3 million vehicles per year
- ✓ Wide-ranging involvement in entire value chain through car carrier shipping, terminal operations, and inland logistics

Risks and Opportunities

- ✓ Proactive compliance with environmental regulations
- ✓ Proactive prevention of misconduct
- ✓ Transformation of automotive value chain with the emergence of connected, autonomous, shared & service, and electric (CASE) vehicles
- ✓ Trend transition from global to glocal

Challenges

- ✓ Improvement of working environments and tight governance control in automotive logistics systems and terminals
- ✓ Acceleration of technological measures catering to automobile electrification
- ✓ Strengthening of collaborations with other businesses and divisions
- ✓ Innovation through digital transformation

BUSINESS STRATEGY

Fiscal 2021 Review

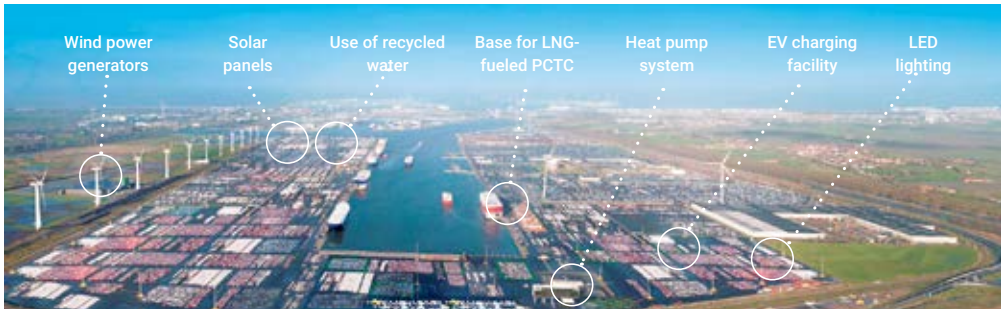
Just when the effect of the COVID-19 pandemic seemed likely to gradually subside, a worldwide shortage of semiconductors had a huge impact on automotive production and shipments. While seeking the understanding of customers and aiming to secure profitability, we responded to these uncertainties by focusing efforts on optimized space management to ensure that all the ships leave last ports full. The number of vehicles that we handled increased last year, particularly vehicles bound for North America and the Middle East. We are also extending our business areas while adapting flexibly to changes. For example, we are capturing the uptick in cargo outbound from China by launching new services and by devising optimal cargo mixes. I was again impressed by the technological strength and adaptability that Automotive Transportation Division personnel exhibited in difficult circumstances.

Fiscal 2022 Business Strategies and Forecast

Even from the perspective of ESG management, we made our first priority ensuring the safety of ship operations and cargo handling. Further, we will actively incorporate digital technologies to optimize ship assignment, operations, and stowage. The reduced man-hours and workloads will enable us to allocate personnel and capabilities to other value-adding work. Moreover, digital technologies will help lower fixed and general administrative costs as well as improve working environments. With respect to environmental initiatives, we will move further forward with “Sail GREEN,” a strategy that has been differentiating our operations in environmental value chains since 2020. We will innovate both logistics practices and hardware to provide customers with added value in the form of lower GHG emissions throughout value chains. As we were one of the first to introduce an LNG-fueled pure car and truck carrier, we have a definite sense of having earned kudos as a frontrunner in environmental measures. Without resting on our laurels, we will continue our efforts to offer numerous customers environment-friendly maritime shipping services.

Our ESG Story and Medium- to Long-Term Business Strategies

Our mission is to deliver vehicles safely and reliably to every corner of the world. In other words, we must provide safe operations and continuous services. We aim to elevate our service quality even further for optimizing the delivery of vehicles to customers globally. To this end, we will collaborate with Group companies and closely coordinate maritime shipping and inland automotive logistics. In this way, we will realize the NYK Group's basic philosophy of “Bringing value to life.” As part of efforts to reduce GHG emissions under “Sail GREEN,” by fiscal 2028 we plan to introduce 20 LNG-fueled car carriers, which have superior environmental performance. March 2022 saw the completion of Plumeria Leader, our second LNG-fueled pure car and truck carrier. Also, in various countries we will establish green terminals modeled on the Port of Zeebrugge ICO Terminal, which utilizes wind power and clean energy. Through continued deepening of our understanding of ESG principles and their proactive implementation, we will continue adding value to our logistics business, thereby realizing sustainable services that are the preferred choice of customers.



ICO Terminal at Port of Zeebrugge

Dry Bulk Division

We will secure stable profits by concentrating on four business strategies, advancing structural reform, and further bolstering safety initiatives.

Nobuhiro Kashima

Managing Executive Officer
Chief Executive of Dry Bulk Division



Dry Bulk Division Main Overseas Offices (as of March 31, 2022)



Dry Bulk Division Operating Fleet (as of March 31, 2022)

	Standard dead-weight tonnage	Operating ships	Main cargo
Capesize bulk carriers	180,000	111	Iron ore and coal
Panamax bulk carriers	82,000	91	Iron ore, coal, grain, etc.
Handysize bulk carriers	58,000	152	Coal, grain, salt, cement, etc.
Wood-chip carriers	50,000	37	Wood chips
Multipurpose carriers and coastal ships	9,000–30,000	45	Steel, construction machinery, bio-mass, heavy plant machinery, cement, etc.

Business Summary

- ✓ Fleet that comprises various ship types and meets the needs of diverse customers
- ✓ Operation of more than 400 ships worldwide at any given time
- ✓ Operation of one of the world's largest bulk carrier fleets, even while many shipping companies specialize in dry bulk shipping
- ✓ Significantly affected by market fluctuations and geopolitical risks

Risks and Opportunities

- ✓ Compliance with environmental regulations with the aim of achieving net-zero emissions by 2050
- ✓ Collaboration with other business divisions to demonstrate strength as a comprehensive global logistics company
- ✓ Easing of ship oversupply caused by new ships

Challenges

- ✓ Establishment of a business model that can pass on costs arising from compliance with environmental regulations
- ✓ Optimization of a percentage of NYK-owned ships to establish a balance of an asset-light business model and a strong resilience to market fluctuations
- ✓ Systematic development of human resources to enhance capabilities as a group of professionals



BUSINESS STRATEGY

Fiscal 2021 Review

The most significant event for the business division in fiscal 2021 was an accident in August involving Crimson Polaris, a wood-chip carrier chartered by NYK. All crew members were safe, however, oil was spilled. I would like to take this opportunity to sincerely apologize for the inconvenience and concern the accident caused. Despite being the charterer, the business division has endeavored to fulfill its social responsibility by setting up an in-house safety and quality team and working with shipowners, ship-management companies, and other related parties to prevent recurrence.

We have steadily carried out the structural reform of the bulk carrier fleet—a task set out in the medium-term management plan—and the prospect of resolving the issue of previously procured high-cost ships has come into view. Furthermore, after this structural reform, we established new rules for fleet development and governance, strictly implemented exposure management methods, and utilized futures trading to minimize the impact of market volatility. The leaner organization resulting from the aforementioned measures together with market firmness enabled the business division to return to profitability.

In human resource development, we reaffirmed that the reduced opportunities for ship visits and other forms of in-person communication is an issue that needs to be overcome.

Fiscal 2022 Business Strategies and Forecast

Working in concert with Group companies as *Team Dry!*, the business division will continue advancing four business strategies to ensure that it remains profitable as well as to ensure that the strategies are reflected in short- and medium-term measures and in long-term policies. Specifically, based on the four strategies, we will enhance the sophistication of exposure management and market forecasting, evolve into a non-asset dry bulk business, strengthen the specialized carrier business to build up long-term stable profits, and participate in supply chains beyond the maritime shipping industry to develop new businesses.

Through steady improvement in our business structure, we have secured stable earnings and returned to profitability. Building on these foundations, we will consistently cater to the needs of customers, including their preference for proactive compliance with environmental regulations. Also, we are moving forward with the introduction of LNG-fueled ships, focusing on capesize bulk carriers. Accordingly, we have concluded prior order contracts for five ships.

Our ESG Story and Medium- to Long-Term Business Strategies

Based on a commitment to value delivery that even reaches our customers' customers, we view our mission as the provision of logistics that support society's lifelines. The Dry Bulk Division tends to become a target in discussions on ESG principles and the Sustainable Development Goals, given the role it plays in delivering to materials and energy industries and trading companies iron ore, coal, and grains—three major types of bulk cargo that account for about three-quarters of the world's cargo and which are essential for economic activities. With continued safety, quality, and reliability and conversion to LNG fuel and other measures for proactive compliance with environmental regulations as premises, we will move away from a business model based solely on low-cost bulk shipping to providing new value in a wide range of business fields. Thus, we will maximize earnings while benefiting stakeholders.

As well as establishing a safety and quality team, we have begun objective evaluations of shipowners' performance by introducing key performance indicators. We will accelerate the reduction of GHG emissions by beginning the transition to LNG-fueled ships and by installing ship devices fleet-wide while increasing such practices as efficient ship assignment and ultra-slow-steaming operations.

Two of our digital transformation initiatives are particularly noteworthy. The first initiative is improving the efficiency of ship operations through the full-scale introduction of a new onshore core system that includes NYK Group companies. In the second initiative, we are increasing the percentage of ships equipped with Ship Information Management System ver.3 (SIMS3) on board to acquire more data on the operations of each ship and thereby help prevent accidents (see page 34 for details).

Energy Division

As a supporter of energy supply chains, we will analyze complex social trends and continue providing value throughout value chains.

Akira Kono
Senior Managing Executive Officer
Chief Executive of Energy Division

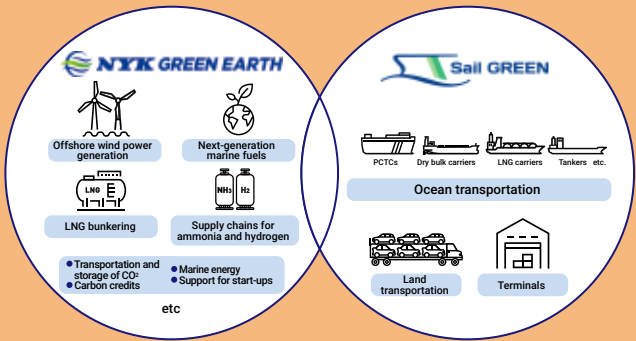


Business Division Slogan

Bringing energy safely and more cleanly to all

Contributing to the reduction and elimination of carbon and stable supply of energy throughout the energy supply chain through the “NYK GREEN EARTH” and “Sail GREEN” initiatives

Conceptual Diagram of the Two Brands



Key image of the “NYK GREEN EARTH” brand



BUSINESS STRATEGY

Fiscal 2021 Review

In fiscal 2021, crude oil and natural gas prices were extremely volatile due to combined factors, including the impact of the COVID-19 pandemic, hurricane damage in the United States, a shortage of renewable electricity due to deterioration in wind conditions in Europe, and concerns over a tightening of energy supply and demand as the situation between Russia and Ukraine worsened toward the end of the fiscal year.

In terms of business earnings, although tanker freight rates in particular remained at historic lows, the impact was limited because most of the energy transportation provided by the business division is based on medium- to long-term contracts. Consequently, the business division was able to secure a certain level of earnings.

As for new business development, the business division made steady progress in realizing the NYK Group’s ESG Story. For example, we advanced the commercialization of offshore wind power-related projects, utilized the Green Innovation Fund for a project tasked with developing service ships equipped with domestically developed ammonia-fueled engines, and launched an LNG bunkering project focused on the Kyushu and Setouchi regions. In addition, the establishment with Norway’s Knutsen Group of a new joint venture that will develop technology for liquefied CO₂ carriers was a major milestone for NYK’s green business.

Fiscal 2022 Business Strategies and Forecast

We are striving to minimize the effect of market fluctuations by steadily accumulating medium- to long-term contracts, and we expect to secure stable profits in fiscal 2022 in much the same way as we did in fiscal 2021. While continuing efforts to realize the NYK Group’s ESG Story, the business division will strengthen its capabilities and organization further by focusing on the two priority initiatives below.

- (1) Society’s expectations with respect to decarbonization together with the recent deterioration of the situation between Russia and Ukraine have brought the importance of energy security into sharp relief. To increase its agility in such rapidly changing times, the business division must enhance the knowledge and skills of all its personnel. For this reason, as part of our ESG activities, we will create a platform that supports knowledge acquisition and promotes communication among division personnel.
- (2) As forecasting is becoming increasingly challenging, we must extend the scope of our information gathering and explore a wider range of possibilities. Also, we have to maximize results by utilizing an extensive range of internal and external resources. Continuing our strategy of fiscal 2021, we will actively pursue co-creation with outside partners.

Our ESG Story and Medium- to Long-Term Business Strategies

The business division has set *Bringing energy safely and more cleanly to all* as an ESG management goal. Safety is always the paramount task for this business division because it handles hazardous materials. Moreover, our pursuit of safety directly impacts the provision of stable energy supplies and environmental preservation. In this context, we will simultaneously advance initiatives on two fronts: the development of green businesses and the conversion of existing businesses into low-carbon or decarbonized businesses. In April 2022, we launched a new brand, “NYK GREEN EARTH,” to consolidate initiatives aimed at creating new value through low-carbon or decarbonized green businesses. In combination with the “Sail GREEN” brand, which focuses on initiatives for reducing the GHG emissions of transportation businesses, we will also make a powerful effort to promote the business division’s ESG activities.

The business division makes fixed-point observations of the business environment and business risks with reference to the *World Energy Outlook*, published annually by the International Energy Agency. The formulation of future projections is not easy given the establishment in recent years of different scenarios that vary according to degrees of long-term progress in decarbonization. Recently, the rapid actualization of geopolitical risks has further complicated the business environment. While gaining multifaceted insight through active information gathering that emphasizes medium- to long-term viewpoints, we will appropriately manage risk exposure while maximizing business and profit opportunities.

Business Summary

- ✓ Extensive energy transportation network for crude oil, petroleum products, and LNG
- ✓ Business portfolio centered on stable medium- to long-term contracts
- ✓ Involvement in upstream energy development and provision of value throughout value chains
- ✓ Aggressive development of businesses related to zero-emission energy and renewable energy

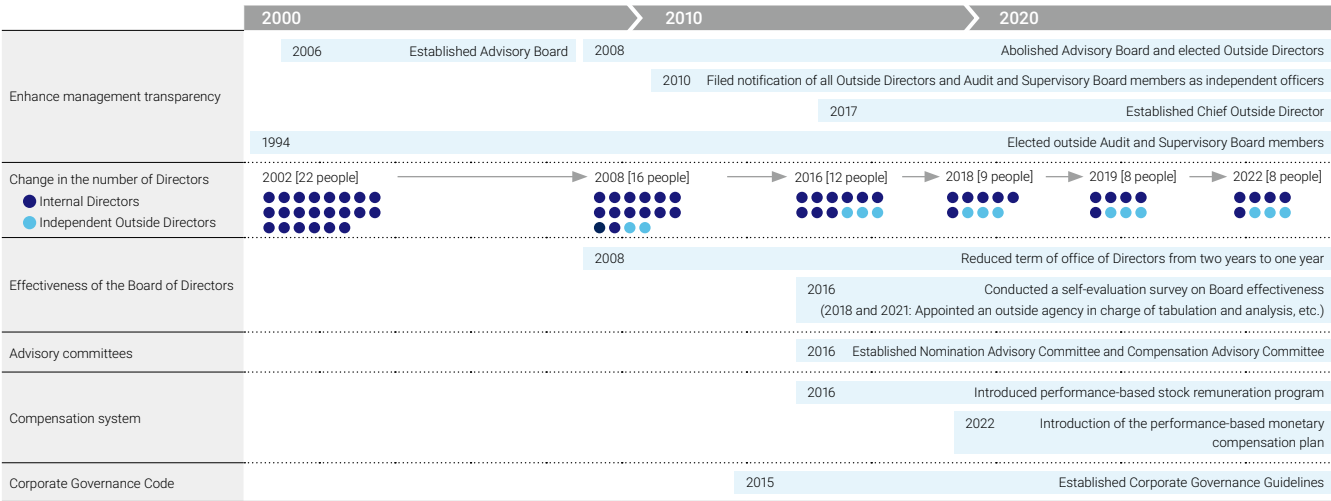
Risks and Opportunities

- ✓ Uncertainty of energy prices and transportation market conditions
- ✓ Decrease in conventional energy transportation demand due to the trend toward decarbonization
- ✓ Growing demand related to zero-emission energy and renewable energy
- ✓ Increased importance of energy security due to rising geopolitical risks

Challenges

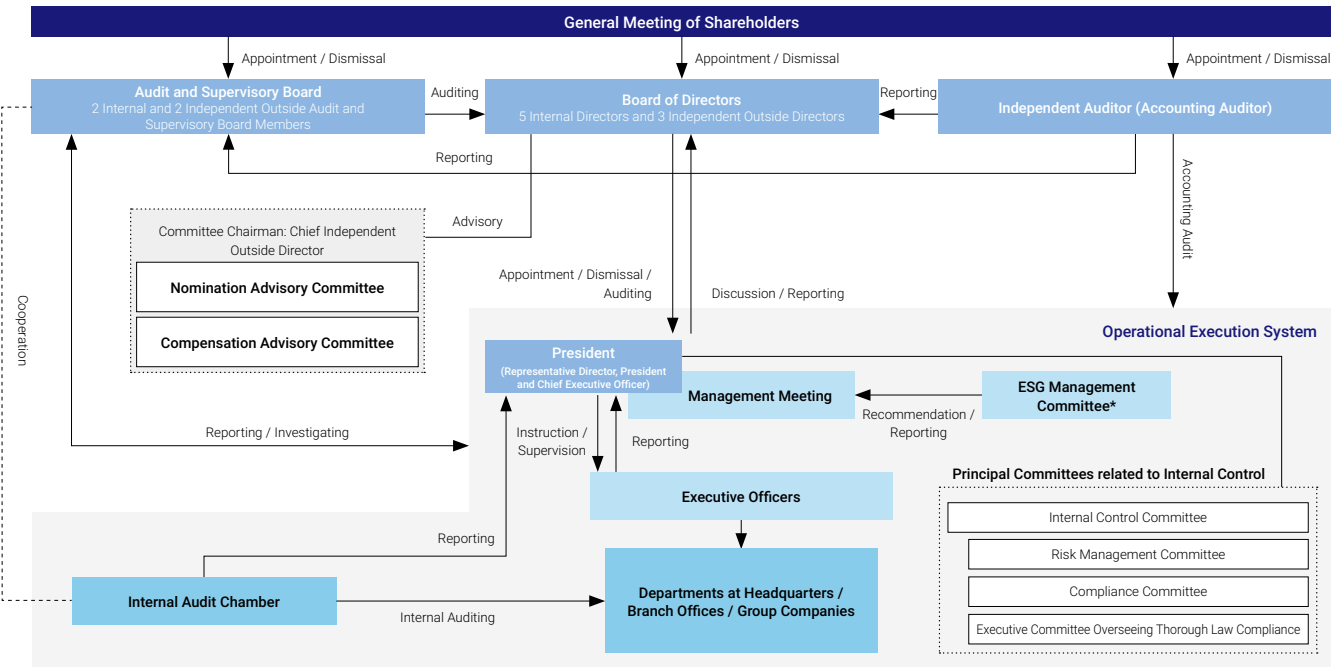
- ✓ Maximization of profit-earning opportunities in conventional energy transportation based on appropriate business risk management
- ✓ Promotion of the early commercialization and profit realization of businesses related to zero-emission energy and renewable energy
- ✓ Simultaneous achievement of the aforementioned challenges through optimal allocation of resources and support for the development of the knowledge and skills of division personnel, who underpin all activities

History of Enhancing Corporate Governance



Corporate Governance Guidelines https://www.nyk.com/english/profile/pdf/gvn_report_01.pdf

NYK's Corporate Governance Organizational Structure (as of June 22, 2022)



Initiatives Starting from Fiscal 2021

- Maintained a ratio of independent outside directors and outside Audit and Supervisory Board members of one-third or higher (37.5% for directors and 41.7% for directors and Audit and Supervisory Board members)
- Changed policy regarding the determination of executive compensation following revision of the performance-based stock remuneration plan (see page 72 for details)

* The composition and initiatives related to the ESG Management Committee are presented on page 16.

Expertise and Experience of Directors (as of June 22, 2022)

The Board of Directors possesses a sufficient number of internal directors who are well versed in the business of the NYK Group, which is mainly maritime shipping and logistics operations, and a certain number of independent outside directors with high levels of specialized knowledge who will contribute to corporate management and further enhance the supervisory function of the Board. Internal directors are nominated with a view to balancing personnel who are able to demonstrate strengths in the management of each business to promote ESG management, and who are suited to Companywide management and administration.

	Current position in the Company	Age	Number of Years as Director	Expertise and Experience															
				Academia / Education	Business Ethics	Business Head / Administration	Corporate Governance	Environment / Safety	Investment	Financial Expertise / Literacy	Government / Public Policy	Foreign Affairs / Geopolitics	Business Assignment Overseas*	Marketing / Sales	Risk Management	Legal / Marine Insurance	Media / Corporate Social Responsibility	Talent Management	Technology / Systems
Tadaaki Naito	Chairman, Director	66	14	●	●	●	●	●	●			Germany	●	●		●	●		
Hitoshi Nagasawa	President, Representative Director, President and Chief Executive Officer	64	11	●	●	●	●	●				U.K.	●	●		●			
Hiroki Harada	Representative Director, Senior Managing Executive Officer	61	3	●	●	●		●				U.K./ Belgium	●				●		
Takaya Soga	Director, Senior Managing Executive Officer	62	0	●	●	●	●	●	●			Singapore/ U.K./ Thailand	●						
Yutaka Higurashi	Director, Senior Managing Executive Officer	59	2	●	●	●						U.K.		●	●	●			
Yoshihiro Katayama	Independent Outside Director, Chief Outside Director	70	6	●	●		●				●			●		●	●		
Hiroko Kuniya	Independent Outside Director	65	5	●	●		●	●				U.S.		●		●			
Eiichi Tanabe	Independent Outside Director	68	3	●	●	●		●	●		●	U.K.		●					

* Includes overseas experience at other companies

Board of Directors and Operational Execution System

NYK seeks to construct a highly effective governance system that supports transparent and efficient management capable of swiftly and accurately responding to sudden changes in the business environment and which supports fully informed decision-making and oversight of business execution by the Board of Directors. The Board of Directors comprises eight directors, including three outside directors who have met the criteria for independence. The directors are selected to bring diversity and expertise to the Board to stimulate substantive and deep discussions. To ensure substantive discussion and deliberation at Board of Directors' meetings, the independent outside directors and independent outside audit and supervisory board members are provided with full explanations of discussion topics prior to the meetings and participate in discussion meetings* among directors and audit and supervisory board members, at which they discuss important themes to ensure effectiveness.

The Company delegates business execution, excluding matters to be resolved by the Board of Directors, to 29 executive officers (as of June 30, 2022), including those who concurrently serve as directors of the Company, and directors and officers of domestic and overseas Group companies. The executive officers execute business by resolution and under the supervision of the Board of Directors. Furthermore, the Management Meeting, which comprises executive directors as well as chief executives of various headquarters and

divisions, conducts thorough deliberations on important matters related to business execution, including matters to be discussed during Board of Directors' meetings as well as other important matters related to business execution.

* Held after regular meetings of the Board of Directors to discuss and exchange opinions on medium- to long-term management issues. The meeting comprises directors, members of the Audit and Supervisory Board, and chief executives of various headquarters and divisions.

Nomination Advisory Committee and Compensation Advisory Committee

To further enhance corporate governance and ensure the transparency of the Board of Directors, the Company has established the Nomination Advisory Committee and the Compensation Advisory Committee, both of which are chaired by the chief outside director and have a majority of independent outside directors. In response to requests for advice received from the Board of Directors, these committees discuss important items and provide advice regarding the appointment, dismissal, and compensation of directors and then report or refer the related agenda items to the Board of Directors based on the discussion and proposals.

Moreover, in order to improve the functioning of the committees, the president consults with the chairman and each independent outside director individually and ensures adequate exchanges of opinions when the Nomination Advisory Committee and the Compensation Advisory Committee are convened.

Nomination Advisory Committee and Compensation Advisory Committee—Members and Attendance in Fiscal 2021

		Nomination Advisory Committee	Compensation Advisory Committee
Chairman, Director	Tadaaki Naito	4/4	4/4
President, Representative Director (President and Chief Executive Officer)	Hitoshi Nagasawa	4/4	4/4
Director (Independent Outside Director and Chief Outside Director)	Yoshihiro Katayama (Committee Chairman)	4/4	4/4
Director (Independent Outside Director)	Hiroko Kuniya	4/4	4/4
Director (Independent Outside Director)	Eiichi Tanabe	4/4	4/4

Executive Compensation (Performance-Based Stock Remuneration Plan)

The Company introduced a performance-based stock remuneration plan in fiscal 2016 to provide a highly transparent and objective executive compensation system.

In fiscal 2022, the Company partially revised the details of said plan, with a view to further accelerating ESG management and establishing shared interests between executives and shareholders over the medium to long term.

Overview of the Performance-Based Stock Remuneration Plan

i) Persons eligible for the performance-based stock remuneration plan	● Directors who concurrently serve as executive officers, the Board of Directors' chairman not serving concurrently as chairman and executive officer, and executive officers excluding certain concurrent executive officers, who reside in Japan	
ii) Applicable period for the performance-based stock remuneration plan	● Three fiscal years from April 1, 2022 to March 31, 2025 ● In the event that the trust term is extended, each three-fiscal-year period afterward	
iii) Upper limit to the amount of trust money contributed by the Company	● A total of ¥1.6 billion over three fiscal years (including trust expenses, etc.)	
iv) Upper limit to the number of Company shares, etc., to be acquired by directors and method for acquiring the Company's shares	● The upper limit for the total number of shares shall be one million shares per three-year period, and the ratio of the number of shares issued (as of March 31, 2022, after excluding treasury stock) shall be approximately 0.6%. ● The Company's shares shall be acquired from the stock market to avoid dilution.	
v) Method for calculating the number of Company shares, etc., to be acquired by directors	● The calculation shall be divided into a role-fixed portion and a performance-based portion. ● Indices for calculating the number of shares in the performance-based portion: the Company's total shareholder return (TSR) including dividends, and the Company's own ESG indices based on its ESG policy, which is outlined in the NYK Group ESG Story announced in February 2021. The Company's TSR shall be measured by comparing it with the growth rate of the Tokyo Stock Exchange's Stock Price Index (TOPIX) as well as with the TSR of competitors during the applicable period. ● The performance-based coefficient shall vary between 0.0 and 2.0 depending on the degree of achievement of each index.	
vi) Timing of the delivery, etc., of Company shares, etc., to directors	Role-fixed portion	After the conclusion of each fiscal year but with a three-year transfer restriction after delivery
	Performance-based portion	After the conclusion of three fiscal years

Executive Compensation (Performance-Based Monetary Compensation Plan)

In fiscal 2022, the Company introduced a performance-based monetary compensation plan for directors concurrently serving as executive officers and for certain executive officers, with a separate budget for basic compensation. The purpose of the plan is to further increase the short-term incentives for directors and executive officers to contribute to earnings and provide a mechanism for helping increase corporate value. With the introduction of the plan, bonuses have been abolished from fiscal 2022 onward.

Overview of the Performance-Based Monetary Compensation Plan

i) Persons eligible for the performance-based monetary compensation plan	● Directors concurrently serving as executive officers and executive officers excluding certain concurrent executive officers
ii) Upper limit to amount of compensation under the performance-based monetary compensation plan	● ¥300.0 million per fiscal year
iii) Details of business result achievement conditions	● Performance-based indices shall be consolidated recurring profit and consolidated return on equity. ● In principle, the base values for measuring the degree of achievement of performance-based indices shall be the targets defined in the Company's medium-term management plan. ● The performance-based coefficient shall vary between 0.0 and 2.0 depending on the degree of achievement of each index.
iv) Timing of monetary payments to directors	● After the conclusion of each fiscal year

* Information regarding executive compensation <https://www.nyk.com/english/profile/gvn/action/>

Internal Control System

The NYK Group maintains the Internal Control Committee, which acts as a complementary body to the Board of Directors. This committee is chaired by the president and monitors the status of internal control in four areas: reliability of financial reporting, legal compliance, operating effectiveness and efficiency, and protection of assets. In the event an issue is found, the committee implements corrective measures to ensure the relevant department performs appropriate and effective internal control operations.

The Internal Control Committee monitors the activities of corporate departments that determine Companywide systems and internal committees and meetings responsible for cross-functional systems with the objectives of verifying their operating status and strengthening the internal control system.

In fiscal 2021, the Company responded to changes in the external environment and made efforts to ensure the effectiveness of internal controls for the NYK Group and report findings to the Board of Directors on the operational status of internal controls.

Evaluating the Effectiveness of the Board of Directors

Since fiscal 2015, the Company has had all directors and audit and supervisory board members carry out self-evaluation surveys with the aim of further improving the effectiveness of the Board of Directors.

1) Overview of the Fiscal 2021 Evaluation

- In fiscal 2021, a survey consisting of 15 questions under four topics was

conducted, taking into consideration the guidance and advice of a third party. The four topics were (1) composition and operations of the Board of Directors, (2) management strategies and business strategies, (3) corporate ethics and risk management, and (4) performance monitoring and evaluation and compensation of management members.

- The results indicated that the Board of Directors was functioning appropriately and its effectiveness was ensured.

2) Issues Recognized in Fiscal 2020 and Initiatives Taken

- The Company took the following measures to improve the quality of operations and discussions, which led to enhanced discussions. Going forward, the Company will work to achieve further improvements.
- (1) Utilizing discussion meetings among directors and audit and supervisory board members, the Company selected important themes and facilitated free and open discussions.
 - (2) By effectively holding pre-briefing sessions, the Company simplified briefings at meetings of the Board of Directors and strived to secure time for deliberation and discussion.
 - (3) Meanwhile, it has been pointed out that there is still room for improvement regarding the quality of meeting materials. The Company recognizes this as an ongoing issue and will strive to make further improvements.
- While some improvements were made in strengthening supervisory functions, diversity and human resource strategies, the Company recognizes the need for further improvements to the above going forward.
- (1) Timely and appropriate reports were made on financial indicators, as well as on the operational status of each business division. The Company will continue to strengthen supervisory functions.
 - (2) The Company will continue to engage in deeper discussions on human resource strategies, including increasing diversity.

Internal Audits

The Internal Audit Chamber (33 members as of the end of fiscal 2021) conducts internal audits of the Company and domestic Group companies based on internal audit rules. Further, internal audits of overseas Group companies are performed in accordance with the policies and guidance of the Internal Audit Chamber by internal auditors who belong to four regional management offices in the Americas, Europe, South Asia, and East Asia.

In fiscal 2021, the Company conducted 30 internal audits in Japan and 51 audits at business sites overseas. In addition, as part of a project to strengthen internal auditing, the Company continues to reform internal auditing processes. Having verified data analysis methods that check all expenses-related data and flag abnormalities, the Company is introducing new data-based auditing methods.

Given that increasing the project's capabilities requires personnel with specialist knowledge, seven Internal Audit Chamber personnel have been seconded to the Company from Group companies Yusen Logistics Co., Ltd., and Nippon Cargo Airlines Co., Ltd., since fiscal 2020. To enhance the quality of auditing, the Company is promoting understanding of new auditing duties and providing opportunities to attend seminars hosted by audit firms.

Group Management Structure

With the overarching objective of enhancing its corporate value, the NYK Group is promoting further improvements in Groupwide governance. At Group companies in Japan, the Company continues to maintain a system for dispatching auditors from a dedicated department to each Group company to oversee directors' business execution and to ensure consistency in the judgment criteria during audits. Furthermore, the Company will provide expert support to Group companies and so forth as it promotes Groupwide strengthening of corporate governance functions. In addition, the Group will increase the effectiveness of management appointments and the compensation determination process at Group companies. Based on the Groupwide governance built through these initiatives, the Group will make maximum use of its capabilities and promote unified, efficient management.

At Group companies overseas, regional management offices (RMOs)* have been established at four hubs, one each in the United States, Europe, South Asia, and East Asia. These offices maintain contact with the Company's administrative divisions while supporting, strengthening, and streamlining governance at Group companies in each hub. Moreover, we will promote the reorganization of overseas Group companies, aiming to make efficient use of the Group's management resources and strengthen governance.

* The four RMOs are NYK Group Americas Inc., NYK Group Europe Ltd., NYK Group South Asia Pte. Ltd., and NYK Line (China) Co. Ltd.

Deepening Overseas Regional Management

In April 2022, the Company appointed new region heads in South Asia and the Middle East to deepen regional strategies and achieve more agile business development. The Company also appointed heads for each of the countries in these two regions. The region heads and country heads will propose regional strategies to head-office senior management who oversee the NYK Group. Furthermore, these offices will strengthen not only the Group's business activities in their respective regions but also information disclosure and public relations activities in the social contribution field.

Executive Committee Overseeing Thorough Law Compliance

The NYK Group previously maintained the Executive Committee Overseeing Thorough Antitrust and Anti-Bribery Law Compliance dedicated for ensuring complete Group compliance with the Antimonopoly Act, laws related to bribery, and economic sanctions. In March 2019, the committee was renamed the Executive Committee Overseeing Thorough Law Compliance, and its scope was broadened beyond compliance to specific laws to cover compliance of all laws, regulations, and licenses.

Complying with Antitrust Laws

In the global shipping industry, which is subject to the principle of the freedom of shipping (free navigation in international waters and innocent passage in territorial waters), anyone is free to enter or leave the market, which means that it is easy for competition to intensify. To reduce the potential negative impacts therefrom, such as interruptions to the stable shipping network and reduced shipping

and industry competitiveness in emerging countries, the industry has historically been exempted from the scope of antitrust laws under certain conditions.

With these legal protections diminishing in recent times, it has become common for shipping companies to cooperate through vessel-sharing agreements and slot exchanges in order to fulfill infrastructure responsibilities, maintain and improve diverse navigation networks, and manage the frequencies of port calls. As such, companies in the industry encounter many opportunities to make contact with competitors.

Since September 2012, the NYK Group has been subject to investigation by overseas authorities for allegedly violating antitrust laws regarding the shipping of automobiles and other cargo. The Company and certain overseas Group companies are also subject to class action damage compensation suits in multiple regions.

We offer all our stakeholders a sincere apology for the concerns that we have caused.

We implemented various measures including the president’s declaring thorough compliance with antitrust laws, building and operating a control network spanning the entire Group in Japan and overseas, and educating and raising employee awareness through training and manuals on antitrust laws and rules concerning contact with other companies in the same industry. Nevertheless, we solemnly accept the fact that this situation occurred and are constructing and initiating a system to ensure absolute compliance with antitrust laws while continuing to raise the awareness of all Group employees* and executive officers.

* Includes Company employees, personnel seconded from other companies, and temporary staff

Measures to Prevent Recurrence of Misconduct, Implemented Continuously Since 2013

- Annual holding of the Executive Committee Overseeing Thorough Legal Compliance

Chaired by the president and attended by directors, executive officers, audit and supervisory board members, the regional governance officers^{*1} of overseas regional management companies, NYK head office general managers, and respective Groups’ compliance managers.

Conducted in October 2021 (191 attendees)

As of October 2021, the committee convened 16 times, if meetings of the former Executive Committee Overseeing Thorough Antitrust and Anti-bribery Law Compliance are included.

- Formulation of guidelines and implementation of risk assessments of all operating divisions, including domestic and overseas Group companies
- Obtaining written oaths regarding compliance with antitrust and competition laws
- Adoption of an application system^{*2} for officers and employees at headquarters and domestic and overseas subsidiaries who want to participate in industry gatherings

^{*1} As part of governance-strengthening measures, the committee’s membership was extended to include the regional governance officers of the four overseas regional management companies beginning from fiscal 2020.
^{*2} The system limits the opportunities of employees for interaction with competitors’ employees. If any participation for a meeting with them is required, employees must obtain approval in advance and report content of the meeting.

Absolute Prohibition of Bribery

In January 2014, the Company updated its basic policy and guidelines related to prohibiting bribery to reflect the Japan Unfair Competition Prevention Act (prohibiting the bribing of overseas public officials), the U.S. Foreign Corrupt Practices Act, and the U.K. Bribery Act 2010.

Since fiscal 2015, the Company has conducted anti-bribery training for employees in Japan and overseas. In addition, the Company has been a member of the Maritime Anti-Corruption Network (MACN) since fiscal 2015. The MACN is a global network engaged in activities to prevent and eliminate corruption in order to realize fair trade across the entire maritime shipping industry while investigating the root causes of corruption. To reduce the incidence of corruption, the MACN has established cooperative relationships with major stakeholders, such as government officials, government authorities, and international organizations.

In April 2016, the Company established a system to prevent the bribery of overseas public officials. When considering new businesses in high-risk countries, our legal department screens candidate partners and agents for bribery issues and provides advice and checks, including establishing anti-bribery clauses when creating agreements.

Fortifying Compliance

Companies around the world are being required to comply with increasingly strict regulations in all regions. The Group’s Compliance Committee has been established to maintain and promote awareness of compliance, and it deliberates and makes resolutions regarding the Group’s annual compliance plan, policies for compliance-related activities, and other important compliance-related matters. The Group’s Compliance Committee convenes twice yearly and reports its agenda items to outside directors and audit and supervisory board members by way of the Board of Directors.

The NYK Code of Conduct, which sets forth norms that officers and employees must follow in the course of their duties, is reviewed periodically to reflect changes in the business environment and social conditions. September has been designated a compliance-strengthening month in which comprehensive compliance checkups are conducted that allow employees to take the initiative in reviewing their conduct and work processes. As part of comprehensive compliance checkup activities, the Company raises employee awareness of compliance issues by conducting a compliance awareness survey and then providing feedback on the survey results via its internal bulletin board.

Compliance Training Programs

Training Programs in FY2021	Number of Programs	Number of Participants
Compliance training ^{*1}	42	920
Antitrust law and bribery prohibition training, etc. ^{*2}	106	2,668
e-Learning	1	6,866

^{*1} Cumulative totals since fiscal 2002: 501 compliance training sessions and 13,747 participants
^{*2} Training was conducted at 109 domestic and overseas Group companies in 30 countries. Training was conducted 11 times in Japan (training for individual companies). Overseas, training is conducted once every one to three years in each region. A cumulative total of 46,442 employees have participated in this training since fiscal 2009.

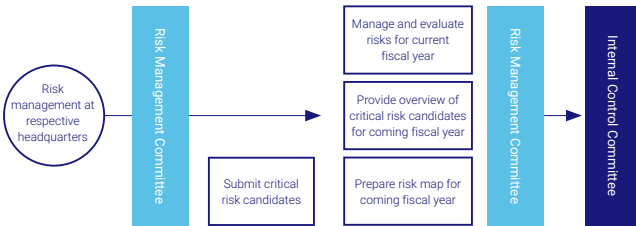
Risk Management

Based on its risk management policy, the NYK Group has established an appropriate risk management system, which helps prevent the materialization of risks by identifying and assessing risks and formulating counterstrategies accordingly. If risks materialize, NYK gives first priority to dealing with matters that may endanger human lives. At the same time, the Company avoids or mitigates risks by obtaining appropriate information on all materialized risks in a timely manner so that the proliferation of damages can be prevented and operations can be promptly restored.

Risk Evaluation and Monitoring

The businesses and performance of the Group could be affected by technological innovations, natural disasters, and social factors such as the economic and political climate, environmental regulations, and safety and security in countries worldwide. As they best understand the nature of operations, the personnel of operating divisions conduct quantitative and qualitative evaluations of risks in accordance with the Company’s risk management policy and rules.

Risk Management System

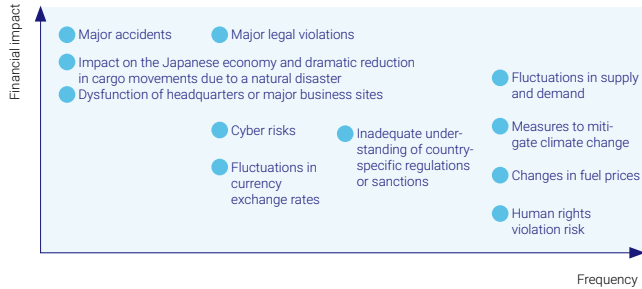


Enterprise Risk Management (ERM)

In accordance with its risk management policy and rules, the Group convenes twice yearly the Risk Management Committee, which assesses and receives reports regarding progress in managing critical risks that could have a significant impact on the Group’s business management and reports findings to the Board of Directors. The Group defines risks as uncertainties that could adversely affect its achievement of continuous growth. Chaired by the president and comprising chief executives and the executive officer in charge of promoting ESG management, the Risk Management Committee identifies critical risks based on reports from each headquarters, determines the headquarters responsible for advancing countermeasures for each critical risk, and promotes risk reduction activities for the entire Group. The most critical risks, namely, risks that could have a significant impact on the continuity of the Group’s businesses, include compliance risks, major accidents and other operational risks, risks related to damages caused by natural disasters, measures to mitigate climate change, risks related to infectious diseases such as novel coronaviruses, and cyber risks. In addition, critical risks that could significantly affect the Group’s business management include strategic risks, market fluctuation risks, operational risks, and financial and accounting risks. Each year, the Risk Management Committee selects the most critical risks that

business managers view as having the potential to significantly affect the Company’s business management.

Risk Map



Information Security

The NYK Group continuously reinforces multilayered defenses in readiness for cyberattacks, which are evolving and diversifying on an almost daily basis. However, given that the perfect defense is infeasible, the Group is also developing countermeasures focused on cyber resilience, thereby enabling rapid recovery from damages. Moreover, the Group is putting in place “zero trust” countermeasures, which are not reliant upon the boundary defenses of the networks used when introducing cloud computing or telecommuting.

Specifically, the Group is introducing a multi-factor authentication (MFA) system and an endpoint detection and response (EDR) system while introducing cloud systems to reduce risks caused by malfunctions or disasters as well as a global security operation center (GSOC) to monitor IT equipment worldwide around the clock 365 days of the year. These systems are designed to minimize damage by rapidly detecting and countering hacks. In parallel with these measures at onshore bases, as a maritime shipping company, we are also working to improve cybersecurity between ships and onshore bases by strengthening our maritime telecommunications systems. Further, in regions worldwide the Group has established computer security incident response teams (CSIRTs) that coordinate with each other globally. By promptly sharing and managing information not only with IT departments but also with other departments when an incident occurs, the teams underpin a system that enables the members of senior management to make decisions appropriately.

All of these initiatives rest upon the foundation of the Group employees’ security literacy. To increase this literacy generally, for Group companies in Japan and overseas, we have introduced an education platform, conducted regular cyberattack countermeasure drills, and carried out security assessments. Through these initiatives, we will regularly monitor the degree to which our measures are becoming permanently entrenched.

Accounting period (Fiscal year)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Results of Operations:						
Revenues	¥ 1,897,101	¥ 2,237,239	¥ 2,401,820	¥ 2,272,315	¥ 1,923,881	¥ 2,183,201
Operating profit (loss)	17,434	44,995	66,192	48,964	(18,078)	27,824
Recurring profit (loss)	17,736	58,424	84,010	60,058	1,039	28,016
Profit (loss) attributable to owners of parent	18,896	33,049	47,591	18,238	(265,744)	20,167
Capital expenditures	302,326	248,230	199,343	115,791	155,993	200,443
Depreciation and amortization	97,522	105,956	101,045	103,347	92,004	87,839
Financial Position at Year-End:						
Total assets	2,430,138	2,551,236	2,569,828	2,244,772	2,044,183	2,071,636
Interest-bearing debt	1,292,191	1,241,963	1,098,357	940,576	945,391	983,432
Shareholders' equity	650,490	720,270	810,311	773,678	522,471	551,887
Cash Flows:						
Operating activities	93,951	136,522	136,448	142,857	27,924	89,090
Investing activities	(135,566)	6,409	26,755	(46,895)	(144,612)	(137,994)
Financing activities	177,966	(95,485)	(199,007)	(160,260)	1,952	17,587
Per Share Data:						
Basic net income (loss)	111.40	194.85	280.60	107.54	(1,572.35)	119.57
Equity	3,834.95	4,246.65	4,777.86	4,562.10	3,097.96	3,272.21
Cash dividends applicable to the year	40.0	50.0	70.0	60.0	–	30.0
Dividend payout ratio	35.9%	25.7%	24.9%	55.8%	–	25.1%
Management Indicators:						
Return on equity (ROE)	3.1%	4.8%	6.2%	2.3%	(41.0%)	3.8%
Debt-to-equity ratio (DER) (times)	1.99	1.72	1.36	1.22	1.81	1.78
Shareholders' equity ratio	26.8%	28.2%	31.5%	34.5%	25.6%	26.6%
Non-Financial Information:						
GHG emissions (ton-CO ₂ e)	20,181,796.11	20,863,984.29	21,290,823.98	21,112,158.47	21,828,013.14	20,918,985.10
Downtime (hours)	13.8	18.7	14.2	18.4	11.0	23.9
Number of Group employees (persons)	30,083	32,342	33,520	34,276	35,935	37,820

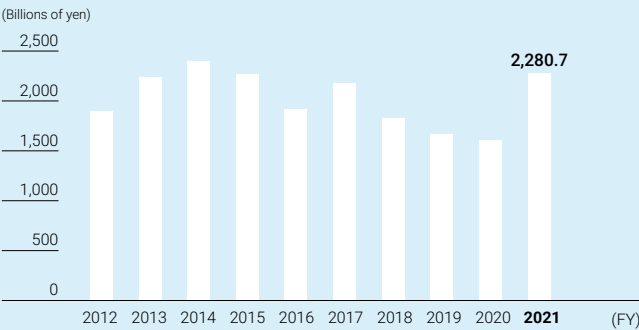
Note 1: The dividend payout ratio has not been stated when loss attributable to owners of parent has been recorded.

Note 2: On October 1, 2017, the Company conducted a 1-for-10 reverse stock split. The dividends per share in this 10-year summary take into consideration the effect of this reverse stock split.

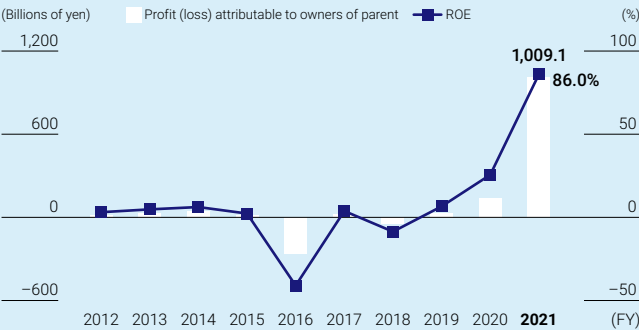
Note 3: GHG emissions are total values for Scope 1. From fiscal 2018 onward, the three major Japanese shipping companies integrated their container shipping businesses, and the resulting business was excluded from the scope of consolidation. Therefore, the figures do not include emissions from container ships. The various environmental data is presented on page 80 of the full report.

Note 4: The Company uses operational downtime due to accidents or trouble to measure the achievement of safe ship operations and is working to achieve zero downtime (<https://www.nyk.com/english/esg/social/sea/>).
The standard for aggregating downtime changed from fiscal years to calendar years from 2020. Data for 2020 has a partial overlap with 2019 (January to March 2020).

Revenues

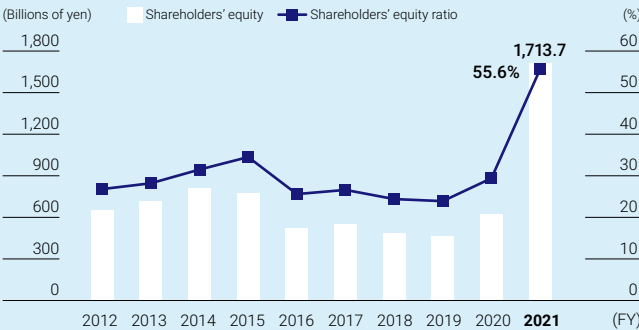


Profit (Loss) Attributable to Owners of Parent / ROE

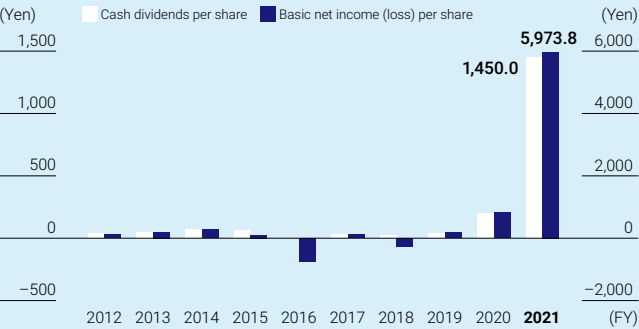


FY2018	FY2019	FY2020	FY2021
(Millions of yen)			
¥ 1,829,300	¥ 1,668,355	¥ 1,608,414	¥ 2,280,775
11,085	38,696	71,537	268,939
(2,052)	44,486	215,336	1,003,154
(44,501)	31,129	139,228	1,009,105
170,776	139,232	101,778	205,140
89,713	104,057	98,803	101,596
(Millions of yen)			
2,001,704	1,933,264	2,125,480	3,080,023
1,046,182	1,049,853	951,143	808,299
487,432	462,664	625,332	1,713,713
(Millions of yen)			
45,260	116,931	159,336	507,762
(132,292)	(54,867)	(16,871)	(148,571)
62,715	(61,733)	(125,483)	(237,535)
(Yen)			
(263.80)	184.39	824.55	5,973.76
2,889.26	2,740.41	3,703.27	10,144.29
20.0	40.0	200.0	1,450.0
–	21.7%	24.3%	24.3%
(Yen)			
(8.6%)	6.6%	25.6%	86.0%
2.15	2.27	1.52	0.47
24.4%	23.9%	29.4%	55.6%
(Yen)			
14,090,784.50	13,360,688.51	11,650,054.83	13,685,201.04
19.3	19.4	17.1	20.0
35,711	34,857	35,057	35,165

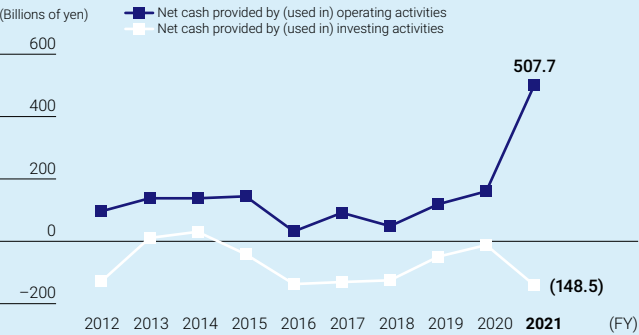
Shareholders' Equity / Shareholders' Equity Ratio



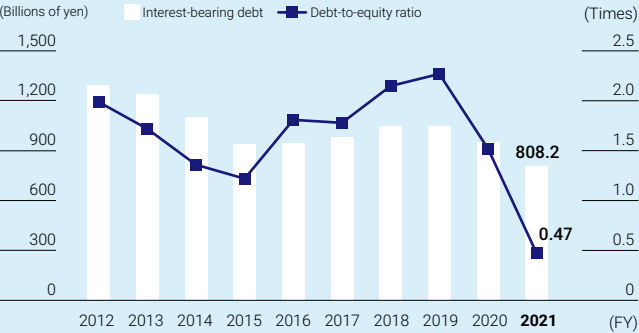
Cash Dividends per Share / Basic Net Income (Loss) per Share



Cash Flows



Interest-Bearing Debt and Debt-to-Equity Ratio (Gross)



Ratings

(As of June 30, 2022)

Rating Company	Type of Rating	Rating
Japan Credit Rating Agency, Ltd. (JCR)	Long-term Issuer Rating (Outlook)	A (Positive)
	Bond Rating	A
Rating and Investment Information, Inc. (R&I)	Issuer Rating (Outlook)	A– (Positive)
	Long-term	A–
	Short-term	a–1
Moody's	Issuer Rating (Outlook)	Ba1 (Stable)

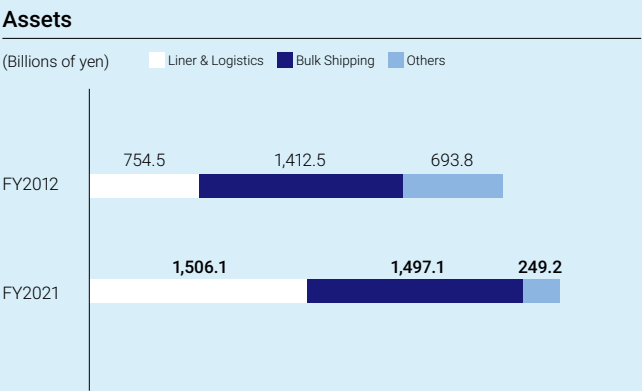
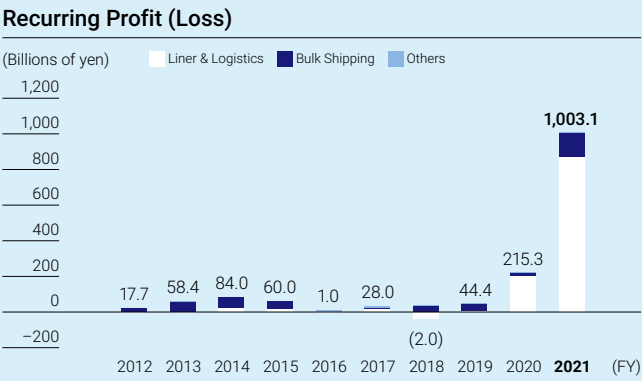
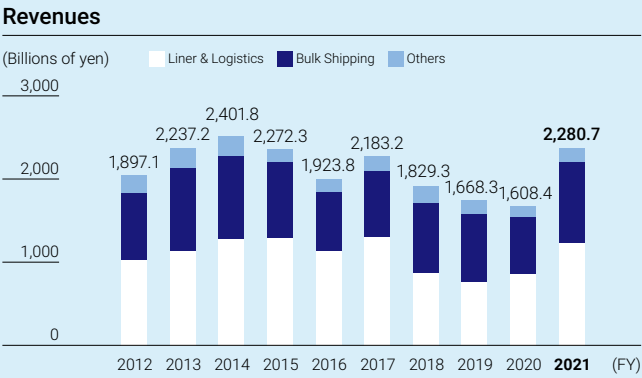
	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017
Revenues:						
Liner Trade	¥ 441,863	¥ 617,494	¥ 696,352	¥ 706,366	¥ 585,904	¥ 691,433
Terminal and Harbor Transport	140,804	–	–	–	–	–
Air Cargo Transportation	77,864	88,854	99,110	91,101	81,919	97,826
Logistics	366,829	431,567	486,919	496,509	461,361	512,332
Bulk Shipping	795,587	988,489	995,851	902,291	717,729	795,606
Real Estate	10,423	9,946	9,504	9,781	9,439	7,941
Cruises	35,042	45,270	49,802	–	–	–
Other Business Services	173,635	192,767	170,607	147,015	146,614	172,300
Elimination and Corporate	(144,950)	(137,150)	(106,327)	(80,751)	(79,087)	(94,238)
Consolidated Total	1,897,101	2,237,239	2,401,820	2,272,315	1,923,881	2,183,201
Recurring Profit (Loss):						
Liner Trade	(9,433)	(782)	9,807	(321)	(12,716)	10,874
Terminal and Harbor Transport	6,952	–	–	–	–	–
Air Cargo Transportation	(4,862)	(7,371)	699	1,585	2,631	1,811
Logistics	4,773	6,534	10,794	11,869	7,650	2,382
Bulk Shipping	18,623	54,884	60,082	46,595	(4,168)	9,643
Real Estate	3,940	3,824	3,257	3,379	12,079	2,659
Cruises	(3,744)	717	2,117	–	–	–
Other Business Services	1,475	672	(596)	(53)	(1,496)	3,167
Elimination and Corporate	11	(55)	(2,153)	(2,997)	(2,940)	(2,522)
Consolidated Total	17,736	58,424	84,010	60,058	1,039	28,016
Assets:						
Liner Trade	280,701	452,479	499,804	419,247	401,983	405,307
Terminal and Harbor Transport	166,070	–	–	–	–	–
Air Cargo Transportation	90,311	78,845	56,221	47,597	53,004	77,362
Logistics	217,455	237,998	274,382	250,303	255,189	277,919
Bulk Shipping	1,412,501	1,502,207	1,501,200	1,338,549	1,269,346	1,256,094
Real Estate	57,372	53,841	56,835	63,542	56,266	58,854
Cruises	28,659	33,786	44,273	–	–	–
Other Business Services	607,828	552,979	414,123	251,326	209,981	195,238
Elimination and Corporate	(430,536)	(360,902)	(277,012)	(125,795)	(201,587)	(199,141)
Consolidated Total	2,430,364	2,551,236	2,569,828	2,244,772	2,044,183	2,071,636
Depreciation and Amortization:						
Liner Trade	12,607	16,858	17,660	20,173	17,646	13,770
Terminal and Harbor Transport	4,789	–	–	–	–	–
Air Cargo Transportation	2,320	2,247	2,595	2,160	2,360	2,825
Logistics	6,376	7,327	8,043	8,202	7,175	8,355
Bulk Shipping	67,388	75,469	68,688	68,942	61,223	59,404
Real Estate	909	917	1,090	1,118	1,056	1,259
Cruises	2,044	2,114	1,800	–	–	–
Other Business Services	1,094	1,030	1,387	2,916	2,543	2,244
Elimination and Corporate	(8)	(9)	(220)	(166)	(1)	(19)
Consolidated Total	97,522	105,956	101,045	103,347	92,004	87,839

Note 1: Since fiscal 2013, "Terminal and Harbor Transport" has been included in "Liner Trade." In addition, some consolidated subsidiaries have been moved from "Liner Trade" to "Bulk Shipping."

Note 2: Since fiscal 2015, "Cruises" has been included in "Other Business Services."

Note 3: Figures before changes to business segment classifications have not been restated.

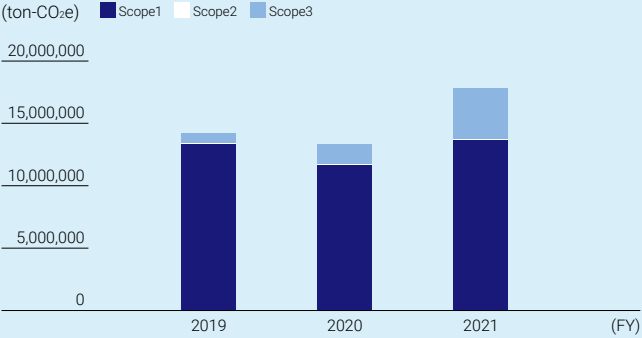
FY2018	FY2019	FY2020	FY2021
			(Millions of yen)
¥ 286,339	¥ 202,248	¥ 170,537	¥ 190,552
—	—	—	—
56,750	75,157	122,459	188,731
525,826	476,326	561,234	847,492
841,358	819,807	681,564	974,556
7,617	7,346	6,884	4,207
—	—	—	—
188,158	165,690	129,789	170,405
(76,751)	(78,220)	(64,055)	(95,169)
1,829,300	1,668,355	1,608,414	2,280,775
(26,401)	13,442	140,821	734,245
—	—	—	—
(15,969)	(15,583)	33,281	74,068
7,728	4,721	27,049	58,727
33,791	44,187	18,605	139,100
2,747	2,564	2,584	2,127
—	—	—	—
3,082	1,773	(2,251)	(1,231)
(7,031)	(6,619)	(4,754)	(3,884)
(2,052)	44,486	215,336	1,003,154
361,893	296,981	428,685	945,345
—	—	—	—
64,122	63,205	65,535	141,904
281,834	281,608	348,707	418,931
1,285,305	1,269,819	1,271,637	1,497,120
57,328	54,948	52,400	27,764
—	—	—	—
171,748	159,032	173,614	221,454
(220,530)	(192,330)	(215,099)	(172,497)
2,001,704	1,933,264	2,125,480	3,080,023
11,754	11,668	9,891	9,818
—	—	—	—
4,485	4,006	3,232	5,651
9,088	19,881	19,913	21,003
60,465	65,982	63,293	63,356
1,285	1,355	1,366	702
—	—	—	—
2,672	1,216	1,159	1,109
(37)	(53)	(53)	(46)
89,713	104,057	98,803	101,596



The NYK Group’s GHG Emissions by Scope

GHG-related Units: ton-CO ₂ e				
Overall output	FY2019	FY2020	FY2021	Ratio in FY2021 (%)
Scope1	13,360,688.51	11,650,054.83	13,685,201.04	76.89
Scope2	52,102.81	49,444.52	45,391.61	0.26
Scope1+2	13,412,791.32	11,699,499.35	13,730,592.65	—
Scope3	837,919.01	1,623,678.31	4,067,520.20	22.85
Scope1+2+3	14,250,710.33	13,323,177.66	17,798,112.85	—

Note 1: The scope of aggregation includes headquarters and consolidated subsidiaries.
Note 2: CO₂e: CO₂ equivalent
Note 3: GHG emission data for Scope 1, Scope 2, and Scope 3 has been verified by a third-party organization.
Verification Report (<https://www.nyk.com/english/esg/envi/data/>)



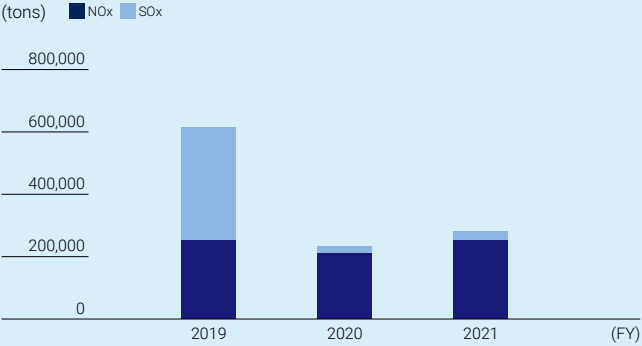
Output breakdown	Sub category	FY2019	FY2020	FY2021
Scope1	Ships	11,900,021.68	9,787,671.99	11,715,501.87
	Aircraft	1,247,191.45	1,642,233.40	1,721,397.89
	Others	213,475.38	220,149.44	248,301.28
Scope2		52,102.81	49,444.52	45,391.61
Scope3	Category 1	—	—	1,887,367.70
	Category 2	99,242.50	99,013.63	255,143.42
	Category 3	717,748.42	1,508,523.19	1,907,793.57
	Category 5	14,585.60	15,489.01	16,379.61
	Category 6	5,976.54	516.70	678.71
	Category 7	365.96	135.79	157.18

Note 1: Scope 2 emissions are calculated on a market basis inside Japan and on a location basis overseas.
Note 2: In fiscal 2021, a renewable energy certificate was used to offset the electricity used at the Yokohama Branch (384,415 kWh).

The NYK Group’s NOx and SOx Emissions

Other than GHGs			
Output (from ships)	FY2019	FY2020	FY2021
NOx	251,745.95	209,925.14	252,441.46
SOx	363,701.16	25,518.98	27,746.33

Note: To comply with UN IMO global sulfur cap regulations, from January 1, 2020 we changed our vessel fuel, thereby reducing our sulfur oxide (SOx) emissions.



The NYK Group’s Consumption Amount

GHG related					
Input breakdown	Sub category	Unit	FY2019	FY2020	FY2021
Scope1	Heavy oil A	Tons	19,606.05	26,002.38	30,415.73
	Heavy oil C	Tons	3,237,226.44	2,726,923.62	3,271,629.50
	Gas oil (ships)	Tons	228,746.59	153,324.28	193,163.61
	LNG (ships)	Tons	172,788.30	185,587.45	205,451.44
	Jet fuel	KL	506,459.29	666,877.86	699,024.96
	Gasoline	KL	26,935.60	49,187.86	71,860.66
	Kerosene	KL	49.77	51.04	52.30
	Diesel	KL	52,935.04	31,517.46	23,285.34
	LPG	Tons	71.19	449.10	511.36
	Natural gas	m³	5,280,290.70	9,757,385.30	8,624,448.96
Scope2-related	Electricity	MWh	114,917.93	117,519.69	119,880.04
Scope3-related	Waste (office)	Tons	5,072.77	5,390.89	5,679.27

Note: Electricity consumption in Japan is calculated on a market basis. CO₂ emissions volume from electric power consumption for fiscal 2021 has been calculated using the coefficients for each electricity provider (actual figures for 2020) published by Japan’s Ministry of the Environment.

Other than GHGs				
Input from offices		FY2019	FY2020	FY2021
Water	m³	622,789.46	446,656.60	292,510.87
Paper	KG	907,720.91	797,013.69	636,903.31

The NYK Group annually reviews its environmental results to promote responsible environmental protection in its business activities and to accurately track costs associated with environmental activities.

In fiscal 2021, we continued to invest for introducing low-carbon fuels, such as LNG and methanol. In other efforts, we have been implementing global warming countermeasures and striving to prevent atmospheric pollution through rigorous fuel-saving activities, including the introduction of energy-saving equipment, the use of combustion additives, the installation of SOx scrubbers, and so forth.

Comparison of All Costs and Results Related to Environmental Activities

(Millions of yen)			
		FY2020	FY2021
Prevention of global warming and air pollution, conservation of marine environments, conservation of resources, and deployment of environmental technologies	Environmental protection costs	13,744	8,243
	Year-on-year savings	1,687	(218)

NYK's In-House Classifications

(Millions of yen)			
Environmental policies	Objectives	Items	Environmental protection costs
1. Continuous improvement	Maintenance of environmental management systems	Construction, operation, ISO certification (including personnel costs)	179
2. Compliance	Restorative work in response to environmental degradation	Restorative work in response to marine pollution, etc.	0
3. Safe operations	Reduction of accidents and trouble	NAV9000 and other safety promotion activities (including personnel costs)	485
4. Prevention of global warming and air pollution, protection of marine environments, and conservation of natural resources	Prevention of global warming and air pollution	Use of fuel additives to improve combustion, activities to reduce ship fuel consumption, propeller polishing, etc.	1,033
	Prevention of marine pollution	Use of corrosion-resistant steel in VLCC cargo tanks, etc.	0
	Conservation of natural resources	Environmentally conscious purchases*1	0
	Prevention of global warming and air pollution	Installation of electronically controlled engines, installation of exhaust gas economizer and other energy-saving devices, low-sulfur fuel measures, LNG and methanol fuel combustion systems, etc.	3,582
5. Use of environment-friendly technologies	Prevention of destruction of the ozone layer	Ship air-conditioners, refrigerators and freezers, etc.	0
	Prevention of marine pollution	Ballast water management systems and the NYK bilge treatment system, etc.	2,016
	R&D expenses	Smart fleet operations, technology to reduce the GHG and NOx emissions of large main engines in vessels	924
	Greater environmental awareness and promotion of our Green Policy	Environmental e-learning, environmental protection campaigns, etc.	2
7. Community activities to promote environmental awareness	Environmental information disclosure, social contributions, etc.	Expenses for NYK Report, sponsorship of environmental organizations, etc.	23
Total			8,243

*1 The Company uses FSC®-certified paper, but the price difference is not substantial and is thus recorded as zero.
* Amount rounded to the nearest million yen.

Classification According to the Environmental Accounting Guidelines of the Ministry of the Environment

(Millions of yen)		
Environmental protection costs		
Classification	Investments	Expenses
(1) Costs within NYK business activities:		
a. Pollution prevention costs	2,811	45
b. Global environmental protection costs	2,715	1,060
c. Recycling costs	0	0
(2) Upstream and downstream costs	0	0
(3) Management activity costs:		
a. Operation and maintenance of environmental management systems	0	665
b. Environmental information disclosure, environmental advertising	0	19
c. Environmental education and training	0	2
d. Expenses for environmental improvements	0	0
(4) R&D costs:		
Environmental-burden reductions	0	924
(5) Social contribution activity costs:		
Social contribution activities	0	3
(6) Environmental damage response costs	0	0
Total	5,526	2,717

Calculation methodology:
1. The period is from April 1, 2021 to March 31, 2022. (The calculation period for activities to reduce ship fuel consumption is from January 1, 2021 to December 31, 2021.)
2. The scope is primarily business activities associated with NYK's headquarters and branch offices, NYK-operated terminals, fleet, and ancillary activities in Japan. (Expenses to maintain ISO 14001 certification are included for certified Group companies in North America, Europe, South Asia, and East Asia.)
3. The Ministry of the Environment's fiscal 2005 Environmental Accounting Guidelines were used.
4. Investment amounts refer to costs for depreciable environment-related facilities acquired during the term.
5. Expenses include maintenance and management of facilities for the purpose of environmental protection and associated personnel costs, but do not include depreciation.
6. Results are noted only to the extent that impacts can be quantified.
7. Amounts rounded to the nearest million yen.

➔ The NYK Group (Includes NYK Headquarters)As of the end of each company's fiscal year

Employee DemographicsNumber of employees of consolidated companies (long-term employees, employees on contracts for more than six months)

		FY2019	FY2020	FY2021
Total number of employees (a)		34,857	35,057	35,165
By region	Japan	7,753	7,932	7,837
	Europe	7,412	7,957	8,640
	South Asia	12,934	12,650	12,446
	North America	1,987	1,964	2,075
	East Asia	3,303	3,207	2,888
	Oceania	311	205	185
	Central and South America	1,157	1,142	1,094
	Japan	Men	230	176
		Women	4	6
	Europe	Men	68	84
Number of employees promoted to director by region*1		Women	5	18
	South Asia	Men	83	119
		Women	14	5
	North America	Men	24	23
		Women	2	4
	East Asia	Men	25	21
		Women	4	0
	Oceania	Men	5	6
		Women	0	0
	Central and South America	Men	12	5
		Women	3	1

*1 Hired locally. Excludes employees seconded from headquarters and other organizations

Employee Diversity

		FY2019	FY2020	FY2021
Number of non-Japanese seafarers*1	Total (b)	18,431	17,755	17,033
	Vessels under Group management	9,911	9,255	8,873
	Chartered vessels	8,520	8,500	8,160
Ratio of women employees (%)		37.0	37.0	37.0
Ratio of women managers*2 (%)		25.0	25.0	25.9

*1 From fiscal 2021, the aggregation standard was changed. In conjunction with this, the figures for fiscal 2019 to fiscal 2020 have been revised.
*2 Managers or higher

		FY2019	FY2020	FY2021
Ratio of management by region and gender*1 (%)	Japan	Men	89.9	91.5
		Women	10.1	8.5
	Europe	Men	72.8	73.6
		Women	27.2	26.4
	South Asia	Men	66.2	60.6
		Women	33.8	39.4
	North America	Men	64.6	66.3
		Women	35.4	33.7
	East Asia	Men	63.0	62.9
		Women	37.0	37.1
By gender	Oceania	Men	93.0	86.0
		Women	7.0	14.0
	Central and South America	Men	72.7	69.2
		Women	27.3	30.8
	Men	22,265	22,436	22,438
	Women	12,592	12,621	12,727
By job type	Office workers*2	33,976	34,185	34,224
	Seafarers*3	881	872	941
New hires	Total	5,170	3,889	6,260
	Men	3,305	2,452	3,679
	Women	1,865	1,437	2,581
Ratio of voluntary resignations (%) (Consolidated)		10.4	12.2	14.8

*1 National staff who are managers or higher. Includes employees seconded from headquarters and other organizations
2 Includes navigation officers and engineers at office locations as well as employees seconded from Group companies
*3 Excludes non-Japanese seafarers
* Navigation officers and engineers either hold a seafaring license or are in the process of acquiring one at a maritime college.

Number of Group Employees (Including Non-Japanese Seafarers)

	FY2019	FY2020	FY2021
Total (a + b)	53,288	52,812	52,198

Occupational Health and Safety

	FY2019	FY2020	FY2021
Lost time injury (LTI) rate*1 (%) (consolidated)	1.55	2.22	2.00
Number of work-related deaths*2 (consolidated)	1	1	1
Mortality rate*2 (%) (consolidated)	0.00	0.00	0.00

*1 Calculation method: (Number of work-related accidents requiring leave) / (Total working hours) x 1,000,000
Total working hours are calculated as 2,000 hours per person.
*2 From fiscal 2021, the aggregation standard was changed. In conjunction with this, the figures for fiscal 2019 to fiscal 2020 have been revised.

→ NYK Headquarters

Employee Demographics

		FY2019	FY2020	FY2021
Total number of employees		1,774	1,788	1,800
By gender	Men	1,450	1,465	1,479
	Women	324	323	321
Long-term employees	Office workers (excludes navigation officers and engineers at office locations)	Men	767	766
		Women	265	246
	Navigation officers and engineers	Men	574	577
		Women	19	19
Fixed-term employees	Office workers	Men	93	127
		Women	32	51
	Seafarers	Men	12	6
		Women	0	0
Non-fixed-term employees*1	Office workers	Men	4	3
		Women	8	5
	Seafarers	Men	0	0
		Women	0	0
Long-term employees and fixed-term employees*2	Office workers (excludes navigation officers and engineers at office locations)	1,169	1,186	1,198
	Navigation officers and engineers	605	602	602
Average age*3 (years old)	Office workers (excludes navigation officers and engineers at office locations)	41.5	41.3	41.2
	Navigation officers and engineers	38.4	38.6	38.8
Age range*3	Office workers (excludes navigation officers and engineers at office locations)	Under 30	217	195
		30–49	496	509
		50 and older	319	308
	Navigation officers and engineers	Under 30	140	139
		30–49	354	335
		50 and older	99	122
New hires*4	Total	61	54	66
New-graduate hires	Total	57	53	54
	Office workers (excludes navigation officers and engineers at office locations)	Men	25	19
		Women	7	10
	Navigation officers and engineers	Men	24	22
		Women	1	3
Mid-career hires	Total	4	1	12
		Men	4	11
		Women	0	1
Ratio of mid-career hires (%)		7.0	2.0	18.0
Rate of turnover within three years after hire*5 (%)	Office workers (excludes navigation officers and engineers at office locations)	1.0	0.0	0.9
	Navigation officers and engineers	7.8	5.6	1.4
Ratio of voluntary resignations*6 (%)		1.5	1.0	1.6
Turnover rate at NYK*7 (%)		3.8	4.2	3.9

*1 Employees who converted to employment contracts with no fixed period

*2 Long-term employees + Fixed-term employees + Non-fixed-term employees for fiscal 2019 and beyond

*3 Excludes fixed-term employees

*4 New-graduates and mid-career hires

*5 Calculation method: Number of new graduates and mid-career employees hired in the previous three fiscal years who resigned in each fiscal year / Number of new graduates and mid-career employees hired in the previous three fiscal years

*6 Calculation method: Number of employees who resigned at their own request in each fiscal year / Total number of long-term employees at the end of each fiscal year

*7 Calculation method: Number of employees who resigned in each fiscal year / Total number of long-term employees at the end of each fiscal year

Employee Diversity

		FY2019	FY2020	FY2021
Ratio of women employees*1 (%)	Office workers (excludes navigation officers and engineers)	25.7	25.4	24.3
	Navigation officers and engineers	3.2	3.2	3.2
Ratio of women managers*1 (%) (a)	Office workers (excludes navigation officers and engineers)	14.5	14.7	14.0
	Navigation officers and engineers	0.2	0.2	0.2
Ratio of women managers to the total number of women employees*1 (long-term) (%) (b)		23.6	24.2	23.8
Employment ratio of people with disabilities (%)		2.2	2.0	1.9
Employees union membership rate*2 (%)	Office workers (includes navigation officers and engineers)	84.6	85.1	83.9
	Seafarers (excludes captains)	100.0	100.0	100.0

*1 From fiscal 2021, the aggregation standard was changed. In conjunction with this, the figures for fiscal 2019 to fiscal 2020 have been revised.
Calculation method: (a) women managers / Total managers; (b) Women managers / Total number of women employees (long-term).

*2 Japanese employees (navigation officers and engineers) are members of the All Japan Seamen's Union, except for captains.
The union is the only industrial labor union in Japan formed by people working in the Japanese maritime-related industry.

Occupational Health and Safety (Includes Fixed-Term Employees)

		FY2019	FY2020	FY2021
Number of occupational accidents*1	Total	1	2	2
	Office workers (includes navigation officers and engineers at office locations)	0	0	0
	Seafarers	1	2	2
Lost time injury (LTI) rate*2 (%)		0.44	0.00	0.41
Number of work-related deaths	Total	0	0	0
	Office workers (includes navigation officers and engineers at office locations)	0	0	0
	Seafarers	0	0	0
Number of lost days caused by occupational accidents	Total	89	0	71
	Office workers (includes navigation officers and engineers at office locations)	0	0	0
	Seafarers	89	0	71

*1 Excludes commuting accidents

2 Employees working at headquarters, including navigation officers and engineers who are working at office locations, seconded employees from Group companies, and contractors for business consignment, etc.
Calculation method: (Number of work-related accidents requiring leave) / (Total working hours) × 1,000,000

* Navigation officers and engineers either hold a seafaring license or are in the process of acquiring one at a maritime college.

Employee Support Systems

		FY2019	FY2020	FY2021
Average number of days of paid leave taken*1		17.2	15.4	17.4
Average ratio of paid leave taken (%)		62.9	56.3	61.3
Number of employees who took maternity leave*2		14	8	20
Average ratio of employees who took maternity leave (%)		100	100	100
Number of employees who used parental leave program*2*4	Total	35	29	53
	Men	23	22	37
	Women	12	7	16
Ratio of employees who used parental leave program (%)	Total	51.5	43.9	68.8
	Men	41.1	37.3	60.7
	Women	100	100	100
Ratio of employees who returned to work after taking parental leave*4 (%)		100.0	100.0	91.0 (Number of employees who left the Company: 1)
Retention rate of employees who used parental leave program*4 (%)		93.8 (Number of employees who left the Company: 1)	100.0	100.0
Number of employees who used shortened working-hour program*2	Total	25	21	8
	Men	1	1	0
	Women	24	20	8
Number of working mothers*3		61	71	87
Number of employees who used family-care leave program*2	Total	0	0	1
	Men	0	0	1
	Women	0	0	0
Ratio of employees who returned to work after taking family-care leave (%)		Not applicable	Not applicable	100.0
Retention rate of employees who used family-care leave program (%)		Not applicable	Not applicable	100.0

*1 Excludes seafarers and employees currently seconded to other companies / Includes paid summer holidays

*2 Total number of users, excluding those who left the Company

*3 Mothers with children in compulsory education or younger / Excludes mothers on maternity or parental leave

*4 From fiscal 2021, the aggregation standard was changed to the standard of the Ministry of Health, Labour and Welfare. In conjunction with this, the figures for fiscal 2019 to fiscal 2020 have been revised.

Education

		FY2019	FY2020	FY2021
Average number of hours employees participated in training programs	Company average	67.4	43.0	61.5
	Office workers*1 (includes navigation officers and engineers at office locations)	30.3	17.2	16.9
	Seafarers	210.7	142.1	230.5
Average expenditure on educational and training programs (yen)	Company average	255,107	177,610	228,750
	Office workers*2 (includes navigation officers and engineers at office locations)	140,304	85,021	113,006
	Seafarers	697,821	533,995	667,968

*1 Excludes workers trained outside the Company

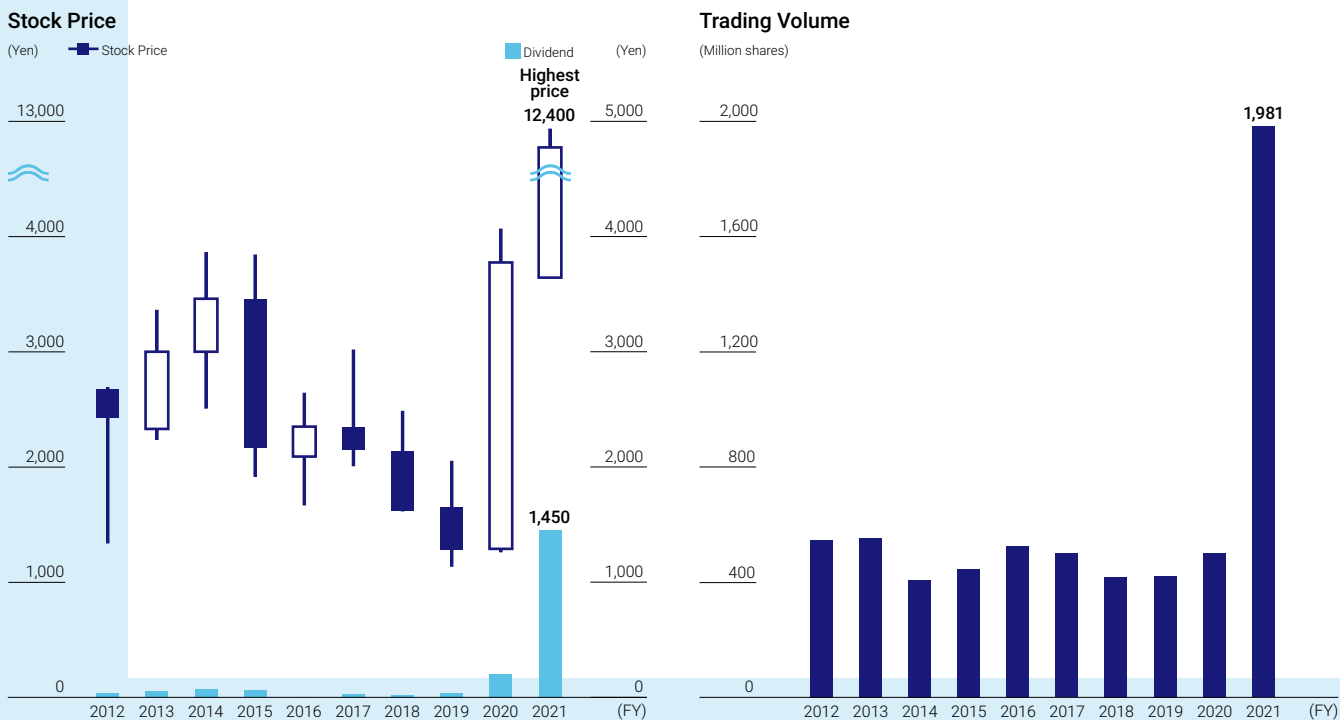
*2 Programs for office workers trained inside or outside the Company

Established
September 29, 1885
Paid-in Capital
¥144,319,833,730
Employees
Consolidated: 35,165 (NYK and consolidated subsidiaries) Non-consolidated: 1,800 (1,198 office workers (excluding seafarers); 602 seafarers)*
* The non-consolidated number of employees includes employees currently assigned to domestic and overseas Group companies.
Headquarters
3-2, Marunouchi 2-chome Chiyoda-ku, Tokyo 100-0005, Japan Telephone: +81-3-3284-5151 Website: https://www.nyk.com/english/
Common Stock
Number of authorized shares: 298,355,000 shares
Number of issued and outstanding shares: 169,548,385 shares (excluding treasury stock: 506,713)
Stock Exchange Listing
First Section of the Tokyo Stock Exchange

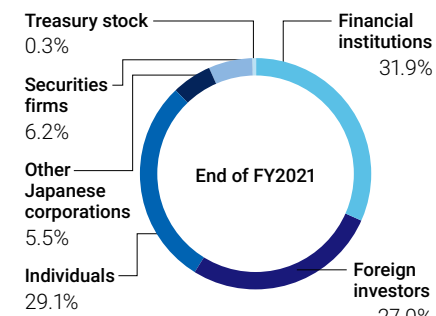
Share Registrar and Special Management of Accounts
Mitsubishi UFJ Trust and Banking Corporation Contact Information: Mitsubishi UFJ Trust and Banking Corporation Corporate Agency Division 1-1 Nikkocho, Fuchu City, Tokyo 183-0044 Toll-free: 0120-232-711
Method of Public Notice
The Company's public notices are available through electronic distribution. Website: https://www.nyk.com/ir/stock/koukoku/ However, in the event that electronic distribution is impossible, due to an accident or other unavoidable circumstances, the Company's public notices will appear in the <i>Nihon Keizai Shimbun</i> published in Tokyo, Japan.
American Depositary Receipts (ADR)
Symbol: NPNYY CUSIP: 654633304 Exchange: OTC Ratio (ADR: shares of common stock): 5:1 Depositary: BNY Mellon Shareowner Services P. O. Box 505000 Louisville, KY 40233-5000 Toll-free: (Within the U.S.) 888-BNY-ADRS (888-269-2377) (From overseas) 1-201-680-6825 Website: https://www.adrbnymellon.com/ Email: shrrelations@cpushareownerservices.com

Stock Price Range and Trading Volume

Note: On October 1, 2017, NYK conducted a 1-for-10 reverse stock split. The amounts in the below graph take into consideration the effect of this reverse stock split.



Shareholder Composition

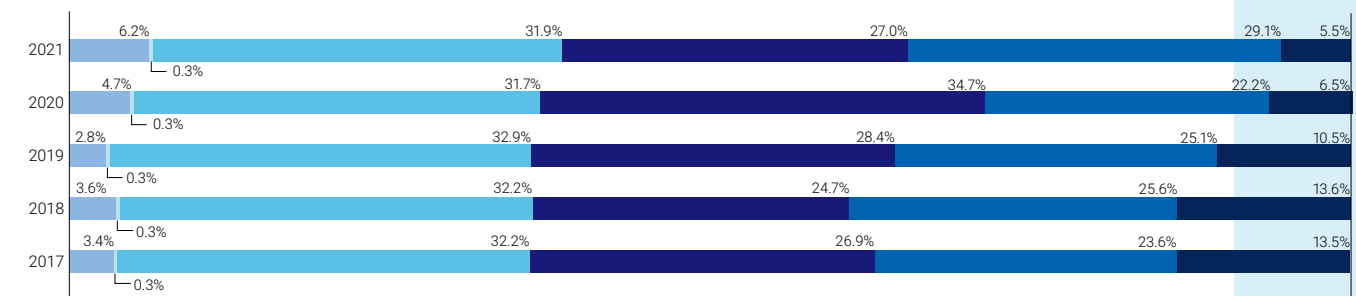


Principal Shareholders (as of March 31, 2022)

Name	Number of shares held
The Master Trust Bank of Japan, Ltd. (Trust Account)	27,930,700
Custody Bank of Japan Ltd. (Trust Account)	9,707,000
STATE STREET BANK WEST CLIENT – TREATY 505234	4,543,673
Meiji Yasuda Life Insurance Company	3,102,626
Mitsubishi Heavy Industries, Ltd.	3,077,931
Tokio Marine and Nichido Fire Insurance Co., Ltd.	2,315,678
JPMorgan Securities Japan Co., Ltd.	2,315,158
SMBC Nikko Securities Inc.	1,814,100
THE BANK OF NEW YORK MELLON 140044	1,519,371
STATE STREET BANK AND TRUST COMPANY 505103	1,417,315

Shareholder Composition

(End of fiscal year)



Bringing value to life.



The NYK Group's basic philosophy, "Bringing value to life," expresses the purpose and reason for the Group's existence—i.e., the value the Group brings to all living things and the environment while realizing prosperous lives and daily fulfillment for people around the world.