



**A brighter future, delivered.**

## About the Publication of NYK Report 2019

Since fiscal 2013, we have published an annual NYK Report that integrates information traditionally found in an annual report and a CSR report. We greatly appreciate the comments submitted every year by various stakeholders, and the 2019 version of this report was drafted with that feedback in mind.

“Greater explanations should be provided about the aim of the NYK Group’s revised corporate philosophy”

“I’d like to know about the links between the external environment, NYK’s strategy, and the SDGs”

“I’d like to know how ESG initiatives enhance corporate value”

“I’d like to see connectivity among NYK’s strategy, materiality, and financial performance”

“I’d like to know more about the strengths of and challenges faced by each NYK business segment”

“I’d like to see a more in-depth explanation about the important measures NYK is implementing to increase the effectiveness of governance”

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## Message to Stakeholders

# Stepping up efforts to boost earnings and promote innovation under the direction of a newly appointed leader

In March 2018, we launched our medium-term management plan, *Staying Ahead 2022 with Digitalization and Green*. During the plan's first year, however, we experienced delays during the startup of Ocean Network Express Pte. Ltd. (ONE), which was jointly established through the integration of NYK's liner trade business with those of MOL and "K" Line. Furthermore, Nippon Cargo Airlines Co. Ltd. (NCA), which operates the Air Cargo Transportation segment, decided to temporarily ground its aircraft after errors were discovered in maintenance records, which subsequently resulted in an order by the Japanese government to remedy the situation. As a result of these and other factors, the Group posted a recurring loss and a loss attributable to owners of the parent. On behalf of management, I would like to express my sincerest apologies for failing to meet the expectations of shareholders, investors, and other stakeholders. In response to those setbacks, we have taken all necessary measures to restore the operations of both ONE and NCA, and improved the supervision and monitoring capabilities of the Group's management. Accordingly, we expect ONE to be profitable in fiscal 2019.

Unfortunately, however, conditions in the maritime shipping market continue to be volatile. Over the past decade, we saw huge fluctuations in foreign exchange rates and the bunker oil price, as well as a growing oversupply of total shipping capacity, as continual investment in new vessels was driven by speculative capital amid excess liquidity in financial markets. The

outlook ahead also remains difficult to predict. Under these circumstances, the NYK Group is moving ahead with the main strategies of the medium-term management plan—to develop a well-balanced revenue structure and promote innovation through digitalization and green initiatives. As we strive to achieve the plan's targets, we are aiming to enhance corporate value while creating value for people around the world.

United in pursuing those objectives, our management team of directors was elected at the ordinary general meeting of shareholders held in June 2019, and Hitoshi Nagasawa was subsequently appointed as president, representative director, and president corporate officer by the Board of Directors. We believed that it was the right time to appoint a new leader to firmly steer management going forward now that ONE and NCA are both back on track.

President Nagasawa was formerly in charge of restructuring the dry bulk business and ensuring stable earnings in the offshore and LNG tanker business. Under his leadership, the entire NYK Group will work to establish a new shipping business model ahead of our competitors. As we continue moving forward, we ask the Group's stakeholders for their ongoing support and understanding.

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**Tadaaki Naito**

Chairman of the Board of Directors

# Origin



Yataro Iwasaki  
Mitsubishi Group Founder  
Photo copyright of  
Mitsubishi Archives

“If we launch a ship, the benefits will be widespread, and the resulting prosperity will be felt by many.”

These words of Yataro Iwasaki, who founded the company that later became Nippon Yusen Kaisha (NYK), have been at the heart of our operations since the beginning and continue to resonate in everything we do. Our mission as a commercial enterprise must be more than the pursuit of profits; we desire to contribute to society for the benefit of all.

## Lasting Words from Past Company Presidents

1895-1921

**Renpei Kondo,**  
3rd President

The world’s shipping routes are not each ruled by one country alone. They should be seen as being shared and belonging to every country. Shipping companies must have customers around the world and must have regular clients worldwide.

1971-1978

**Shojiro Kikuchi,**  
13th President

Nobody should be working just for the company’s sake. Work for yourself; work to earn a rich and full life. Happiness comes from improving your skills and being a trustworthy human being.

### Prior to NYK (Kaientai established in 1867)

1875~ Efforts begin to strengthen Japan’s shipping industry as a key element to rebuilding the country

An organization named Kaientai was created by Ryoma Sakamoto and others to support shipping on the seven seas. Yataro Iwasaki supported the organization’s activities and laid the foundation for what became NYK by embarking on ocean routes that had traditionally been dominated by European and American shipping companies.



Kaientai’s flag served as the basis for the current NYK flag  
Photo courtesy of Kochi Prefecture Sakamoto Ryoma Memorial Museum

### History of the NYK Group (NYK established in 1885)

1900~

**Growth into world-class shipping companies with routes to Europe, North America, and Australia**

NYK aggressively sent ships out on the world’s sea lanes. The services on its luxury liners were highly regarded, and travelers on its cargo and passenger ships hosted some of the most important people of the time, including Charlie Chaplin, Albert Einstein, and Helen Keller.



Albert Einstein and his wife on the *Kitano Maru* passenger ship

# Today

## Bringing value to life.

While providing the diverse range of services our customers need, we are also changing the role of cargo transportation. The constant behind this is our mission to provide the goods, services, and information people need around the world and to contribute to creating a flourishing society.

### 1978-1984 Susumu Ono, 14th President

Always maintaining a democratic atmosphere where people can speak freely without holding back is a source of cheerfulness and vitality, and is a way of showing respect to people and employees.

### 1989-1995 Jiro Nemoto, 16th President

In our company's democratic and liberal corporate culture, it's absolutely essential that employees carry out their work with imagination and independence, especially in times of great change. I want to protect this corporate culture and use it to support our future business growth.

### 1950~

#### Shipping played a key role in Japan's reconstruction and economic growth after World War II

Japan's shipping industry was utterly destroyed during World War II. NYK returned to the world's shipping lanes eight years after the War ended. The company played a key role in Japan's reconstruction and revival in the post-war era, and during that time introduced a growing fleet of specialized ships while expanding its business domains.



Akagi Maru II with the Japanese flag flying as the ship enters New York Harbor

### 2010~

#### Adding new value in times of rapid social change

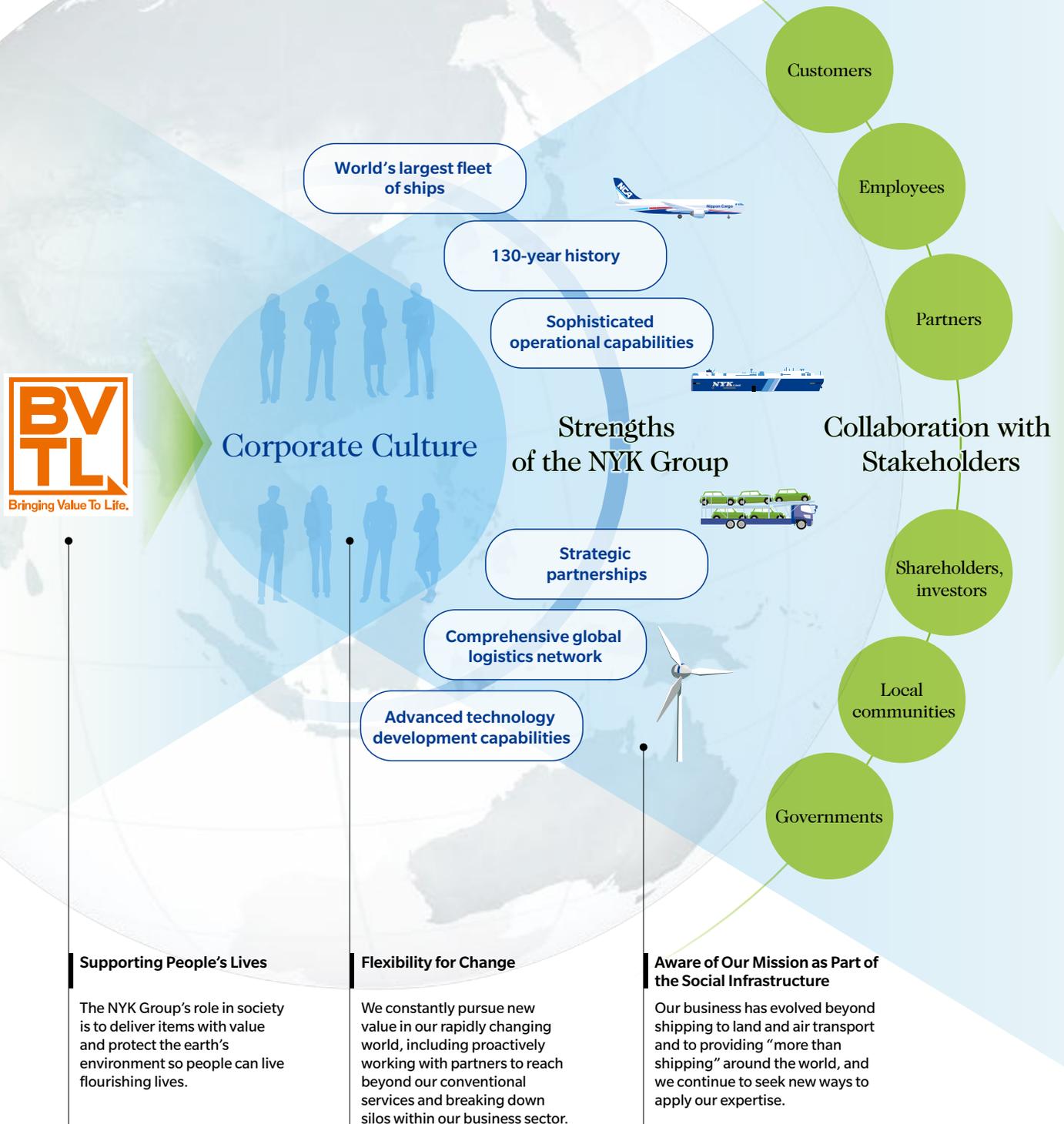
The NYK Group is a comprehensive global logistics enterprise using leading-edge technology to provide shipping operations that are safe and have a low environmental impact. The Group constantly creates and offers new value in and beyond the cargo transportation arena.



The ship navigation support tool J-Marine NeCST

# The NYK Group is working to provide sustaining value creation for society and the Group by transporting items and providing services to people around the world.

Guided by our corporate philosophy of “Bringing value to life,” the Group uses its broad network of logistics business including marine, land, and air and works with customers and stakeholders to pursue innovation to provide new value for future generations.



Achievement of prosperity for people

Creation of global logistics network, especially in emerging and developing countries

Reduction of CO<sub>2</sub> emissions during transport

Innovation for next-generation energy

Prevention of ocean/air pollution, preservation of biodiversity

## Sustained Creation of Social and Economic Value

Creation of employment around the world

Provision of a stable supply chain structure

Delivery of goods vital to daily living

Provision of a stable supply of energy

Revitalization of the global economy through transportation



Flourishing earth environment

Value for the Next Generation

Prosperous lives for all





Installed Original NAV9000 Unified Safety Standard

20 Years



Bulk Carrier Fleet

World's No.2

179 Vessels

(as of January 1, 2019)

Main cargo:

iron ore, coal, lumber / wood chips, grains



World's No.1

Share of Total LNG Capacity

6.3%

Main cargo: LNG

World's No.1



Car Transport Fleet

103 Vessels

(as of December 31, 2018)

Main cargo:

passenger cars, trucks, construction machinery



Philippine Maritime Academy  
Number of Graduates from the  
NYK-TDG Maritime Academy

999 Graduates

Automobile Logistics Business

37 Sites

(as of April 30, 2019)



Air Cargo Transportation  
Network Connecting

15 Cities  
Worldwide

Main cargo:

semiconductors, precision equipment, automotive components

Number of Warehouses  
357 Locations

Main goods:  
food products, daily consumer goods,  
electronic equipment

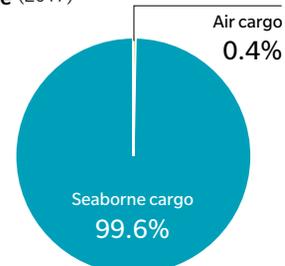
Note: Figures are as of March 31, 2019, unless otherwise indicated.

### Seaborne Cargo Volume and Tonnage



The global volume of seaborne cargo has been growing rapidly since 1985 with the economic growth of developing countries and global population growth. Ship tonnage has also been increasing each year.

### Percentage of Seaborne Transport of Japan Cargo Volume (2017)



As an island nation, Japan imports the vast majority of materials needed for food, clothing, and shelter and mainly exports industrial goods. Marine transport is essential to the Japanese lifestyle and the country's industries, providing over 99% of the shipments to and from the country.

Source: Japan Maritime Center, *Shipping Now 2018-2019*

## Changes in the External Environment

### Opportunities

- Growing population in emerging and developing countries
- Changes in the structure of energy demand

- Changes in international and regional economic conditions
- Sound supply chain structure
- Increasing requests for high-quality and safe transport services
- Stricter evaluations of vessel quality and ship-management services
- Actions to counter climate change
- Preservation of ocean biodiversity
- Stricter environmental regulations
- Advances in digital technologies

- Oversupply of shipping tonnage
- Volatile markets
- Crew shortages and mobility of human resources
- Geopolitical risks
- Trend for local production, local consumption
- Protectionist trade policies and bloc economies

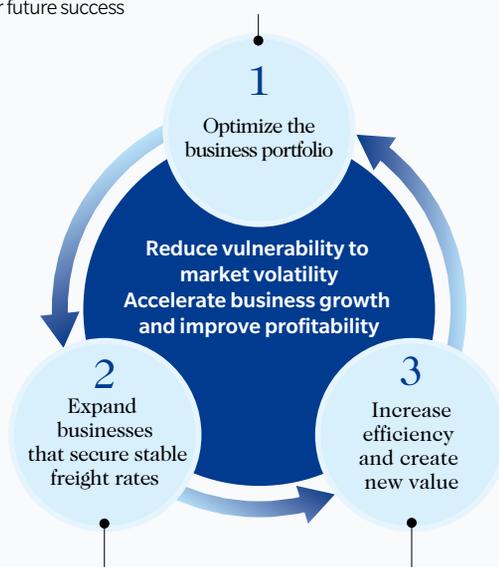
### Risks

## Medium-Term Management Plan



### Reconfigure the business portfolio to withstand volatile market conditions

- Completely overhaul **the dry bulk business**
- Prepare ONE, the new joint-venture in **the liner trade business**, for future success



#### Develop a well-balanced revenue structure

- Enhance **the logistics business** with wholly owned subsidiary YLK
- Strengthen **the car carrier and automobile logistics businesses**
- Reinforce **the LNG and offshore businesses**

#### Pave the way for future growth by constantly improving technological, informational, and network-related capabilities

- Implement **Digitalization and Green initiatives**

## Material Issues



# Part I Growth Strategies

The NYK Group has been constantly growing and recreating itself by continually evolving with society and the economy since the company's founding in 1885. We have overcome innumerable challenges during that time as we persevered to fulfill our mission to provide high-quality cargo transport. Through challenging and prosperous times, we remained forward-looking and in 1986 established NYK21, the Group's first long-term management plan for business growth. That plan steered a course through increasing diversification and globalization of operations to grow beyond shipping and cargo transport. We are determined to stay ahead as we endeavor to create and provide new social and economic value.

## Medium-Term Management Plans

NYK21

New Horizon

FY1986

**NYK21**

Become a diverse, integrated logistics company

FY2000

**NYK21 New Millennium Declaration**

Strengthen business management through strategies of synergy and scale

FY2003

**NYK21 Forward 120**

Mobilize to become a truly global company

Becoming even more global, seeking even more on-site activity

FY2005

**New Horizon 2007**

Seek dynamic growth and the enhancement of corporate fundamentals

FY2008

**New Horizon 2010**

Pursue growth, stability, and protection of the environment

### Worldwide Developments

- Plaza Accord (1985): Yen value skyrockets
- Black Monday (1987)
- Birth of the European Union (1993)
- Terrorist strikes in the US (2001)

- Shipping bubble (2003–2008)
- Once-in-a-century economic boom
- Global financial crisis (2008)

### FPSO Units

FPSO (floating production, storage and offloading) units are vessels that separate crude oil from solid matter, water, and gas lifted from offshore oil fields, store the oil, and load it onto tanker ships for transport. The NYK Group is engaged with an FPSO working oil fields over 2,000 meters deep in the Santos Basin of Brazil.



## More Than Shipping

## Staying Ahead 2022 with Digitalization and Green

### FY2011

#### More Than Shipping 2013

Expand beyond traditional shipping

### FY2014

#### More Than Shipping 2018

— Leveraged by Creative Solutions

Differentiate through technological capabilities

### FY2018

#### Staying Ahead 2022 with Digitalization and Green

Develop a well-balanced, stable profit structure  
Pave the way for future growth

- Japan adopts standard tonnage tax system for oceangoing shipping companies (2009)
- Great East Japan Earthquake (2011)
- Suez Canal expanded (2015)
- Baltic Dry Index reaches historical low of 290 points (2016)
- Panama Canal expansion enables passage of LNG carriers and larger vessels (2016)



## Message from the President

The Group will continue bringing value to stakeholders while laying a stable business foundation during challenging and uncertain times.

### Hitoshi Nagasawa

President, Representative Director  
President Corporate Officer

#### Career at NYK

After joining the Company in 1980, Mr. Nagasawa was assigned as 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 the Dry Bulk Division 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.



## The NYK Group's Mission and Commitment

**Q** Please tell us about how you view the Group's mission statement, "Bringing value to life."

**A** **The statement expresses our deep commitment to bringing new value to people around the world.**

The NYK Group's basic philosophy has been to support people's livelihoods by safely and dependably transporting goods as a comprehensive global logistics enterprise offering maritime, land, and air transport services. At the same time, we are also differentiating and expanding our businesses beyond conventional cargo transport services to meet the diversifying needs of society as globalization advances. Accordingly, in addition to shipping and logistics services, the Group has become active in offshore oil and gas development projects as well as renewable energy projects. Aiming to change with the times and broaden our business portfolio in that way, we redefined our mission statement in conjunction with the launch of our medium-term management plan in 2018.

Over the course of re-examining our corporate philosophy, I was struck by the words of the Company's founder, Yataro Iwasaki: "If we launch a ship, the benefits will be widespread, and the resulting prosperity will be felt by many." That sentence encapsulates the purpose and social mission of the NYK Group, and its essential meaning is simply expressed in our mission statement of bringing value to life.

"Life" not only refers to the livelihoods of people, but also the vitality of our communities and the natural environment. We are committed to bringing value to life through the NYK Group's wide-spanning business activities.

As a matter of course, the NYK Group pursues profit as a private-sector enterprise. At the same time, however, it has a duty to provide the social infrastructure that underpins people's livelihoods and industrial activities. While our mission of adding value to people's lives by transporting goods has never wavered, we also have a commitment to keep creating new value in step with the changing times. I believe that bringing value to life captures this approach.

Our mission statement provides a guiding light for discerning how our activities are beneficial for society and why we can take pride in our work. In this sense, our purpose becomes very clear through this phrase. By expressing it as a simple English slogan, I believe we redefined our foundational principle in a way that all members of the NYK Group can identify with, including employees and seafarers of group companies in every corner of the world.

## The NYK Group's Corporate Culture

**Q** What do you think is necessary to actually create new value?

**A** **It is essential to respect people, listen to their ideas, and continue having sincere dialogues. With that kind of corporate culture, we can foster a sense of solidarity and work towards creating value.**

Over its long history, the NYK Group has confronted crisis situations on numerous occasions. I think the Group surmounted those challenges because its corporate culture of respecting people always persevered.

Personally speaking, I was able to pursue my career very much in my own way. Immediately after joining NYK, I observed dynamic discussions all over my workplace, and came to appreciate that frankly exchanging opinions with

others, whether they are supervisors or co-workers, is deeply ingrained in our corporate culture. Because everyone is respected, we can have sincere dialogue and initiate constructive discussions, which tend to stimulate ideas for making the Company even better. Some of those ideas fail, of course, but when they succeed, we gain a sense of accomplishment and solidarity. If that spreads from within the Company to the Group as a whole, we will be able to

## Message from the President

accomplish practically anything.

Mutually respecting one another also applies to our relationships with customers and business partners. While engaging in constructive dialogue with them, we can discover ways to work more effectively, explore innovations, and create better services. The new value created through that process can be a major factor in differentiating us from

our competitors. Having engaged in dialogue with countless employees, customers, and other stakeholders, I have directly experienced the possibilities that can arise. Although I have served as president and representative director only from June 2019, I recognize that one of my duties is to proactively create opportunities for such dialogues and facilitate the formation of networks.

### Operating Environment and Medium-Term Management Plan

**Q** How do you view the operating environment at present, and what are your business strategies going forward?

**A** Amid a volatile operating environment, we are working to establish a stable revenue base and promote innovations through “digitalization and green” initiatives.

On the whole, the maritime shipping market has been steadily recovering from a slump, but market conditions remain volatile. Driven by excess liquidity in capital markets, speculative investment in vessels has led to overcapacity in the shipping industry. Outside the industry, social structures are diversifying and changing, protectionist policies have gained ground, the concept of local production for local consumption has become the mainstream, and geopolitical risks continue to raise concerns. In addition, digital technologies are advancing and spreading throughout society, and environmental regulations are quickly becoming more stringent. Meanwhile, the global population continues to rise rapidly towards the 10 billion mark. Taking that into consideration, I believe there will be many opportunities for our businesses to thrive.

Undoubtedly, the world will continue to grow more complex and the future will remain uncertain. Because of that uncertainty, we will need to assess risks on the assumption that the future cannot be accurately predicted, but without having a biased outlook. That makes it essential to carry out the best plans and strategies. To ensure that the NYK Group can be passed on to the next generation, we must create an organization that can continually move forward regardless of the headwinds that come our way. Applying this approach, I led our efforts to bolster the revenue base of the Energy Division and restructure the Dry Bulk Division in past years. In the same way, I intend to take all necessary steps to create an organization that can dependably generate profits from a solid operational foundation.

Under our medium-term management plan, Staying

Ahead 2022 with Digitalization and Green, the Group is carrying out three main strategies: optimize the business portfolio, expand businesses that secure stable freight rates, and increase efficiency and create new value (see pages 16 to 23 for details).

First, to optimize the business portfolio, we are completely overhauling the dry bulk business and working to create synergies from Ocean Network Express (ONE), our joint venture in the liner trade business. Through these measures, we intend to establish a business portfolio that can fully withstand fluctuating market conditions. With respect to the second strategy of expanding businesses that secure stable freight rates, we are continuously bolstering businesses that have good growth potential, specifically the logistics, car carrier, and automotive logistics businesses, as well as priority investment businesses, namely the LNG and offshore businesses. Instead of aiming to be at the top of the global industry, we will strive to accumulate favorable contracts to boost earnings as the first choice of customers. Finally, to implement our third strategy of increasing efficiency and creating new value, we have put in place a number of digitalization and green initiatives.

At the forefront of our digitalization initiatives are the Group’s four specialized R&D companies,\* one of them being the Monohakobi Technology Institute. Pursuing projects with a mid- to long-term outlook, these companies form a highly capable R&D network that is completely unique in the shipping industry (see page 22 for details). With a vision of the Group’s future and a solid understanding of customers’ needs, they are equipping the Group with high-added-value

shipping technologies. By making the most of our technological resources, we are aiming to become an unrivaled shipping conglomerate. Various initiatives have already been launched under my predecessor, former President Tadaaki Naito, and we can anticipate a new wave of growth by successfully accomplishing them.

For example, we have developed and adopted a ship information management system, or SIMS, that utilizes the Internet of Things (IoT). This system allows us to optimize the assignment of vessels and operate them safely and efficiently. We have also created a shared platform for managing duties on board ships. Named NiBiKi, the platform digitalizes workflows, allows all companies operating ships to share information, and helps them reduce workloads and ensure safety by utilizing data. In addition, we are shifting to a cashless system for remunerating seafarers with e-money on board ships. Many of the Group's seafarers from the Philippines have difficulty obtaining loans because of restrictions set by banks. We plan to contribute to assist them in the future.

We must embrace digitalization without delay, as it can be expected to bring major changes going forward. In this regard, the Group is currently ahead of its rivals, but it will need demonstrate its capabilities even more in the future by further integrating the technologies of its four specialized R&D companies. With the ongoing advancements in digital technologies, which are of great interest to our younger employees, we can look forward to new possibilities

in our businesses.

Turning to our green initiatives, the Group has been developing and commissioning ships that are powered by LNG, and operating vessels and businesses that supply LNG as fuel. We have also been working to launch environmental businesses with a focus on renewable energy, including the startup of offshore wind and biomass power generation facilities, and the development of hydrogen supply chains. We are very open to exploring all kinds of possibilities for utilizing renewable energy sources in our businesses and making positive contributions through their usage.

\* The four R&D companies are Monohakobi Technology Institute Co. Ltd., Japan Marine Science Inc., Symphony Creative Solutions Pte. Ltd., and NYK Business Systems Co. Ltd.



### Material Issues Concerning Business Strategies

**Q** Could you explain how the NYK Group places importance on the environment, safety, and human resources?

**A** We regard them as material issues that impact the sustainability of the Group. At the same time, they create business opportunities and enable us to gain a competitive advantage.

While launching green businesses can open up new possibilities for growth, we must seriously deal with the environment as a material issue in consideration of the Group's sustainability as a corporate enterprise (see pages 34 to 35 for details).

Recently, our most pressing task has been to ensure compliance with tightened regulations for vessel emissions of sulfur oxides (SOx) that are set to go into effect from January 2020. Enacted by the International Maritime Organization

(IMO), the regulations limit the concentration of sulfur in vessel fuel oil to 0.5%. Accordingly, we have three options: switch to low-sulfur fuel oil that complies with the regulations, install SOx scrubbers if conventional fuel is used, or switch to alternative fuels like LNG or LPG. The options we choose will be on a ship by ship basis, with full consideration given to the structure of the vessels, shipping routes, and other factors. Recognizing that the supply of compliant fuel may be insufficient when the regulations go into effect, we have taken

## Message from the President



steps to arrange for and secure sources of compliant fuel through an in-house project called IMO 2020. Indeed, we are putting a comprehensive system in place and sharing information with all group companies to make absolutely sure that our shipping services continue without interruption so our customers are not inconvenienced. Because a high concentration of SO<sub>x</sub> in the atmosphere is a major cause of acid rain, which seriously damages forests, reducing SO<sub>x</sub> emissions is a global-scale challenge. The total cost of the shipping industry's compliance with the IMO's stricter SO<sub>x</sub> regulations is estimated at about 3.4 trillion yen. We are explaining to our customers that a fuel surcharge will be necessary in order to evenly share the burden of this cost throughout society as a whole.

In 2018, we announced the NYK Super Eco Ship, a concept vessel used for research aimed at realizing a carbon-free vessel by 2050 (see pages 22 to 23 for details). In addition to reducing our carbon footprint, we must also deal with various environmental problems, including climate change and ocean plastic pollution. All members of the NYK Group are highly conscious of protecting the global environment and committed to taking actions. We especially look forward to new ideas and innovations from our younger employees going forward.

Safety is a perennial issue for the maritime shipping and logistics industry, and safety requirements can be expected to grow more and more stringent in the future (see

pages 32 to 33 for details). With a long history of safety initiatives passed down from the Company's founders, the NYK Group has forged a firm commitment to safety and established comprehensive systems for ensuring the safe operations of its shipping fleet. In fact, the Group has established a college to recruit and educate seafarers, a company to manage training and staffing on board ships, and a training center for seafarers. We also make sure to continually refine the essential skills of members of divisions in charge of technology and operations at sea. In addition, we make use of big data to navigate ships safely and determine the risks of ship collisions, conduct research on autonomous navigation systems, and undertake preventive maintenance to minimize equipment breakdowns. Through comprehensive and wide-ranging activities like these, the Group is maintaining safety across all its operations.

Many techniques and innovations have been applied to ensure maritime shipping safety, and we intend to extend them to the Group's air transportation and logistics businesses while working together with all group companies to promote a culture of safety as a comprehensive logistics enterprise.

Along with the environment and safety, human resources are assets that underpin all the Group's business activities (see pages 36 to 37 for details). It goes without saying that human resources are involved in every aspect of the Group, whether realizing its potential or taking on challenges. I believe we are approaching a time in which the Company's personnel systems should be reviewed in light of recent trends in Japan, such as measures by companies to raise the retirement age past 60, calls for changing the simultaneous recruiting of college graduates, and issues surrounding the social security system.

Every person has potential. Machines can only produce specified items, but people can make practically anything. A person might demonstrate only 10% of his or her abilities, but is capable of realizing 200% or 300% of those abilities. To ensure that our personnel have opportunities to do that, we are rapidly making changes to the Company and its employee supervision, organizations, and systems. Within the Company, we are providing opportunities for rotating jobs and gaining experience in various departments, and grooming personnel with untapped potential. Since most of our customers are professional, however, we also understand the need for optimally balancing job assignment terms and training programs to refine our overall organizational expertise.

As the Group's operations continue to expand globally,

it is also essential to consider diversity and inclusion when hiring and assigning personnel. That means assigning the right people in the right place from a diverse group of human resources, regardless of their gender, nationality, or other characteristics. I would like NYK to be a company that enables the personnel it has trained and developed to find success, and allow all employees to thrive in their own ways according to their individual abilities and motivation.

Everyone has strong points and weak points. I want to support the development of all employees and work together

with them to make the Group even more successful in the future. To do that, it will be important to create a positive atmosphere within the Group and promote constructive communication. A company can always stay ahead if talented, motivated and diverse employees interact positively and enthusiastically with each other. Such a healthy organization will undoubtedly offer good products and services. Personally, I enjoy talking with people, so I hope to discuss a wide range of views as we pursue human resources initiatives going forward.

## Future Outlook

**Q** | In closing, what message would you like to give to the Group's stakeholders?

**A** | **We intend to help solve issues with a view to bring benefits to stakeholders.**

For the NYK Group, fiscal 2018 was a year of confronting various challenges. Nevertheless, we have charted a clear course going forward. Guided by our mission of bringing value to life, we intend to steadily execute the key strategies of our medium-term management plan, Staying Ahead 2022 with Digitalization and Green. Our operating environment remains tough, giving us no grounds for optimism. Nevertheless, the Group's stakeholders can rest assured that management will do its utmost to solidify the Group's business foundations while giving priority to maintaining a profit-generating enterprise.

Moreover, to ensure that the NYK Group grows sustainably, we are incorporating environmental, social, and governance (ESG) criteria in our business strategies, recognizing that it is essential to continuously create value for

both the Group and the communities it serves through our business activities. At the same time, the Group will strive to help achieve the United Nations' Sustainable Development Goals (SDGs) as it sincerely addresses the concerns and expectations of its many customers and stakeholders while responding to needs of society.

As president, my task is to establish the means of bringing benefits to the Group's stakeholders. To accomplish that, I will have even more attention paid to the environment, safety, and human rights in our mainstay businesses of maritime shipping and logistics, while promoting creative solutions and technical innovations that create new value. I am confident that stakeholders can look forward to the Group's progress in the future.



**Hitoshi Nagasawa**

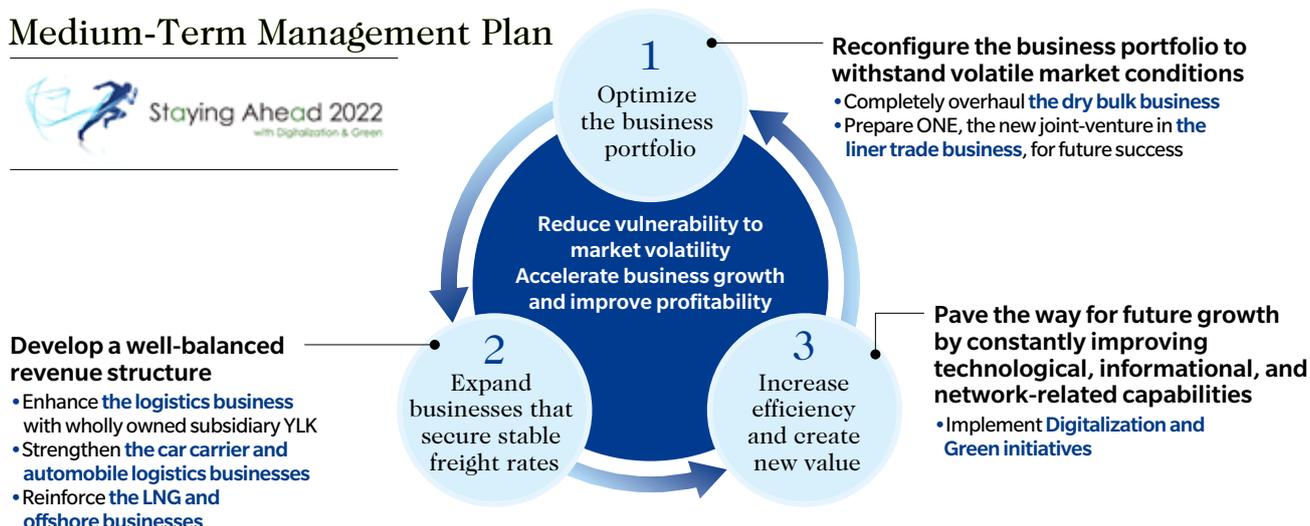
President, Representative Director,  
President Corporate Officer

# Medium-Term Management Plan Progress

We launched the five-year medium-term management plan called “Staying Ahead 2022 with Digitalization and Green” in fiscal 2018.

Each business division is now implementing measures following the three basic strategies and achieving steady results. Here, we will look back on the main initiatives and progress in the first fiscal year of the medium-term management plan.

## Medium-Term Management Plan



## Progress in Fiscal 2018

		Plan	Fiscal 2018 results
<b>Step 1</b> Optimize the business portfolio (→ p.17)	<b>Dry Bulk</b>	Strictly control market risk exposure Reform our fleet portfolio Strengthen medium-/long-term relationships with customers	Decided to return seven high-cost chartered vessels early Increased medium-/long-term contracts by 13% Reduced market exposure
	<b>Container</b>	Merge our liner business together with those of MOL and “K” Line (ONE) Pursue efficiencies and economies of scale and generate 110 billion yen of synergy	Recorded loss due to a service disruption that occurred immediately after the start of the business 82% of the synergistic effects have emerged Overcoming teething problems; moving toward profit improvement
	<b>Others</b>	—	NCA: All aircraft operated were temporarily grounded due to improper maintenance (successively returned to service in January 2019). Implemented response to business improvement order Cruise: Transferred 50% shares of NYK Cruises Co. Ltd. Terminal: Transferred our group company that provides stevedoring operations in North America
<b>Step 2</b> Expand businesses that secure stable freight rates (→ p.19)	<b>Promote Growth</b>	Leverage group business infrastructure for sales	Cooperation with YLK results in securing project cargo
	<b>Enhance Investment</b>	LNG fleet plan: around 100 vessels (end of FY2022) Developing business at every stage of the energy value chain, from upstream to downstream	Five new LNG vessels delivered Signed medium-/long-term agreements for six LNG vessels and two shuttle tankers
<b>Step 3</b> Increase efficiency and create new value (→ p.20)	<b>Digitalization</b>	Make the entire supply chain more sustainable with the application of the latest digital technology	Onboard tests have been conducted to realize cashless systems Launched shipmanagement platform named “NiBiKi” Provided ship data for use in the IoT open platform
	<b>Green Initiatives</b>	Create new value for the next generation under the themes of carbon-free, clean energy, and renewable energy	Advanced LNG fuel supply/sales business Contributed to 150% increase in renewable energy generation vs. previous year (biomass transport) Implemented green financing Announced NYK SUPER ECO SHIP 2050

## Step 1 Optimize the Business Portfolio

Aimed at establishing a business portfolio highly resilient to market conditions, we are completely overhauling our dry bulk business, reducing the long-term chartered vessel ratio and strictly controlling market risk exposure. At the same time, we are promoting increased efficiency of vessel assignment and operations utilizing ICT in an effort to increase profitability.

Moreover, we are working to improve our profit structure through management integration of four terminal operation domestic group companies and the divestment of cargo handling overseas group companies, among other measures.

### Improving the Dry Bulk Business with the Early Redelivery of High Cost Chartered Ships and Other Measures

We are promoting the early redelivery of high cost chartered vessels procured while the shipping market was soaring. In fiscal 2018, we decided to return seven vessels, and we plan to return around 20 vessels over the next three years up to fiscal 2020.

At the same time, we have put into place a system for centralized management of market exposure\* and flexible freight space procurement based on the timing and length of a contract.

\* Market exposure refers to vessels not engaged in long-term contracts.

#### Early Redelivery (Result)

**7** vessels / around **20** vessels

#### Securing Medium- to Long-Term Contracts (Result)

Contract **13% increase** ↗

Vessel **11% increase** ↗

Volume **5% increase** ↗

\* Fiscal 2017 vs fiscal 2018 on a consolidated basis

\* Figures refer to the number of CVC and COA contracts of more than two years signed in FY2018. Some vessels under these contracts will be deployed in FY2019 or afterward.

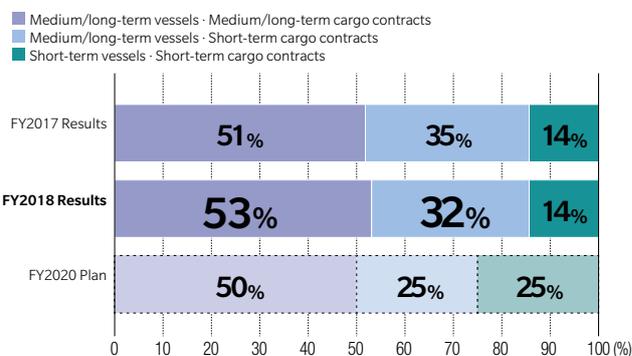
#### Reforming out Fleet Portfolio to Withstand Volatile Market Conditions (Capesize and Panamax)

Early redelivery contributes to the decrease in exposure

fleet rate to **32%**

Securing medium- to long-term contracts contributes to

the increase in non-exposure fleet rate up to **53%**



\* Medium/long-term: More than 2 years Short-term: Less than 2 years

\* All figures are approximates.

\* The total percentage does not always add up to 100.

### Strengthening the Competitiveness of the Terminal Business through the Management Integration of Four Group Companies in Japan

In December 2018, NYK together with Mitsubishi Logistics Corporation established a holding company called MY Terminals Holdings Limited. UNI-X Corporation, Nippon Container Terminals Co. Ltd., Asahi Unyu Kaisya Ltd., and Yusen Koun Co. Ltd. became the wholly owned subsidiaries of this holding company. In addition, UNI-X Corporation and Nippon Container Terminals Co. Ltd. merged in April 2019.

Through this integration of management, we will increase the quality of our port and harbor transportation business in Japan and deliver stable services into the future. Furthermore, we will aim to increase competitiveness by harnessing the terminal operation know-how of Mitsubishi Logistics Corporation.

### Joint Operation of Cruise Business through Divestment of a 50% Share in NYK Cruises Co. Ltd.

NYK sold a 50% share in NYK Cruises Co. Ltd., which engages in the cruise business, to Anchor Ship Partners Co. Ltd. (Anchor ship), which is a Japanese principal investment firm focused on the shipping industry. The cruise business is now being jointly operated with Anchor Ship, as of April 2019.

We believe the domestic cruise market has a bright future once the cruise culture becomes a greater fixture in Japan. In 2020, we will complete renovation of the cruise ship *Asuka II* and work to further strengthen the *Asuka* brand we have built up to date.

#### Conceptual image after renovating the *Asuka II* cruise ship

\* Plan as of May 2019; the details and conceptual image are subject to change or cancellation.



Entrance hall



Open-air hot spring bath

## Response to the Business Improvement Order Issued to NCA

Nippon Cargo Airlines Co. Ltd. (NCA), an NYK Group company that engages in the air transport business, received a business improvement order from the Minister of Land, Infrastructure, Transport and Tourism in July 2018 for improper maintenance practices spanning multiple years. Following this order, NCA submitted a report in August 2018 covering its analysis of the causes and improvement measures. In this report, NCA presented a total of 69 items for improvement that focused on the three main areas of operations, the functions of the safety management system discussed both in the business improvement order and in the operation improvement order, and main individual issues. As of the end of June 2019, NCA had completed or implemented all 69 items. Going forward, we will continue to check the progress of NCA's improvement measures.

In addition, the NCA Investigative Committee, chaired by the president of NCA and including outside experts as members, released a report in January 2019 on the committee's investigation concerning recurrence prevention measures. This report contained a total of 43 items focused on three areas: elimination of direct causes of

improper practices following the business improvement order, strengthening of control and supervision functions, and improved decision-making progress in future business administration. Of these, 25 items overlap with the improvement measures above, and as a result efforts are already underway as part of the improvement measures. In addition, the remaining 18 items are being reviewed and addressed using an action plan and other means.

#### Safety Talks (Direct Dialogue with the President)

NCA has established Safety Talks as an opportunity for direct dialogue between the president, safety managers, and employees at all 43 of the company's departments in Japan. These talks are held to discuss employees' thoughts about safety and to address any requests the president may have of employees in terms of safety. The goal of these talks is to find out what employees are really thinking, including differences in commitment between departments and true voices in the field, for use in the rebuilding of NCA's internal systems.

## Step 2 Expand Businesses That Secure Stable Freight Rates

NYK considers businesses with a potential for growth (logistics, car carriers, and automobile logistics) as well as priority investment businesses (LNG and offshore) to be businesses that secure stable freight rates.

In businesses with a potential for growth, we pursue synergies within the Group and strive to enhance the added value nature of services using digital technologies. As for priority investment businesses, we engage in a broad range of businesses in the energy value chain, from upstream to downstream.

### Realizing Medium- to Long-term LNG Projects

As a major carrier of LNG, the Group takes part in various LNG transport businesses throughout the world. While we are constantly exploring new challenges and opportunities, our focus remains on medium- and long-term contracts, with a fleet expansion plan of about 100 vessels by fiscal 2022. Furthermore, the Cameron Project (U.S.), in which we have

successfully gained access to a considerable portion of the LNG value chain, has reached a remarkable milestone with the production of LNG commencing from May 2019. By taking part in this project, we are now involved in a broad range of the LNG value chain. In the offshore business, we are participating in the 3D geophysical survey business.

#### LNG Fleet

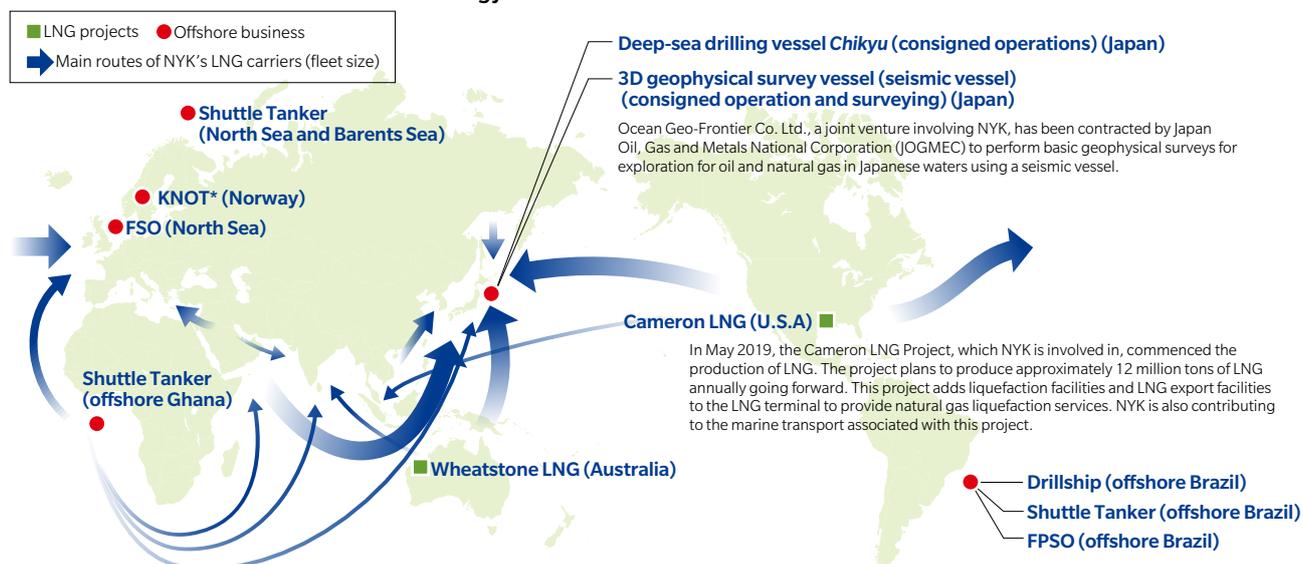
FY2019 or afterward On Order **12** vessels As of end of FY2018 Fleet in Operation **75** vessels → about **100** vessels (planned in FY2022)

Charterer	Vessel Name / Shipyard	Project	FY2019	FY2020	FY2021	FY2022
1 Tokyo Gas	<i>Energy Glory</i>	U.S.				
2 Mitsubishi Corporation	<i>Diamond Gas Sakura</i>	U.S.				
3 JERA	<i>Bushu Maru</i>	U.S.				
4 Iberdrola	HHI	U.S.				
5 EDF	HHI	U.S.				
6 Mitsubishi Corporation	HHI	U.S.				
7 TOTAL	SHI	Worldwide				
8 Mitsubishi Corporation	HHI	Canada				
9 Mitsubishi Corporation	HHI	Canada				
10 TOTAL	SHI	Worldwide				
11 TOTAL	SHI	Worldwide				
12 EDISON	HHI	Worldwide				

#### Natural Gas Liquefaction Business

Project	Area	Production	FY2019	FY2020	FY2021	FY2022
1 Cameron LNG	Louisiana, U.S.	12mil ton (LNG)				

#### Presence in LNG and Offshore Business — Energy Value Chain



\* KNOT stands for Knutsen NYK Offshore Tankers AS, a joint venture company involving NYK headquartered in Haugesund, Norway that engages in the shuttle tanker business globally. NYK acquired a 50% stake in Knutsen Offshore Tankers in December 2010 with the goal of expanding offshore oil field development. The company later changed its name to KNOT.

## Step 3 Increase Efficiency and Create New Value

We are developing various technologies for raising the efficiencies of ship operations and maintenance work, improving safety and reducing environmental impacts. In addition, we are tackling the challenge of new value creation by engaging in businesses related to next-generation energy, such as carbon-free, clean technologies, and renewable energy.

### New Initiatives Using Digitalization

NYK launches shipmanagement platform called “NiBiKi” for sharing data between vessels and land operators

The NYK Group developed the shipmanagement platform for data sharing called “NiBiKi” and launched services in December 2018.

In accordance with the Safety Management System (SMS) manual, onboard crew are required to file reports about safety management to the shipmanagement company. However, the conventional operation flow had some inefficiencies. Crews would have to draft various reports and applications, and then send emails with attachments to the shipmanagement company to obtain approval. Afterward, crews would need to file printouts of the reports to retain on board. Moreover, the information reported by the ship was not being used efficiently to analyze this data, etc., because each vessel and shipmanagement company would file the

data independently.

Given this issue, the NYK Group developed the NiBiKi system, which digitalizes SMS manual documents and the application and approval workflow, thereby making it possible for crews to report and request approval accurately in a short period of time by simply completing the prescribed forms following the instructions. Furthermore, the data accumulated in the NiBiKi system will be shared with ship operators and shipmanagement companies for high-quality big data analyses, enabling linkages with conventional safety and crew health activities.

Going forward, we plan to build a more comprehensive system and further utilize data for crew training and drills.

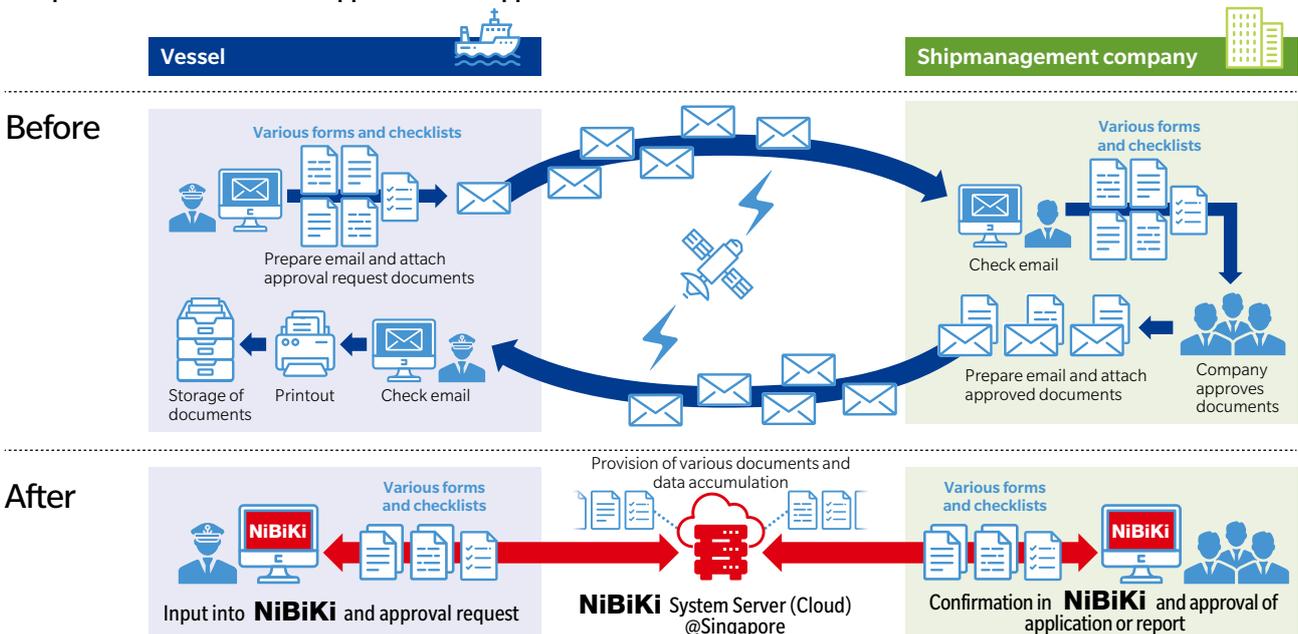
#### Issues in Shipmanagement Operations

- Crew workload from daily reporting and approval requests and the storage and filing of documents
- Difficult to effectively utilize data because it is managed independently

#### Benefits of NiBiKi

- Reduces the workloads of crews, freeing them up to focus on ship operations
- Allows the sharing of data among NYK, its five shipmanagement companies, and around 260 vessels
- Can be effectively used for safe operations using big data analyses

### Comparison with Conventional Application and Approval Workflows



## Actively Expand Green Business

### LNG Fuel Supply/Sales Business in Japan and Internationally

In 2015, NYK together with Engie SA of France and Mitsubishi Corporation established Marine LNG Zeebrugge NV/SA (MLZ), a joint venture company engaged in the supply and sale of LNG fuel. In 2016, these companies launched the worldwide Gas4Sea brand. In addition, MLZ-owned *Engie Zeebrugge*, the world's first newly built LNG bunkering vessel, has been establishing a track record in ship-to-ship LNG bunkering services in the port of Zeebrugge in Belgium ever since the vessel began operations in 2017. In Japan, we plan to launch a bunkering business starting in 2020 using Japan's first LNG bunkering vessel through a partnership with Kawasaki Kisen Kaisha Ltd., JERA Co. Inc. and Toyota Tsusho Corporation.



#### Advancements in the LNG Fuel Supply/Sales Business

May 2018	NYK, Kawasaki Kisen Kaisha, Ltd., JERA Co. Inc. (JERA)* and Toyota Tsusho Corporation established two joint venture companies called Central LNG Shipping Japan Corporation (CLS) and Central LNG Marine Fuel Japan Corporation (CLMF) to engage in the LNG fuel sales business in the Chubu region.
July 2018	CLS ordered an LNG bunkering vessel from Kawasaki Heavy Industries Ltd. As the first LNG fuel supply ship in Japan, this vessel will begin operations in 2020 in the Chubu area, where it will be used as part of CLMF's LNG fuel supply/sales business.
August 2018	NYK, Kyushu Electric Power Co. Inc., Seibu Gas Co. Ltd., and The Chugoku Electric Power Co. Inc. concluded a memorandum for the joint review of commercializing the LNG fuel supply/sales business in the Setouchi and Kyushu areas.
February 2019	MLZ concluded an LNG bunkering agreement with Equinor ASA, a multinational energy company headquartered in Norway. MLZ plans to begin supplying fuel to four shuttle tankers in the port of Rotterdam and other locations beginning in 2020.
May 2019	NYK, Kyushu Electric Power Co. Inc., Seibu Gas Co. Ltd., and The Chugoku Electric Power Co. Inc. begin the first LNG bunkering in the Setouchi and Kyushu areas of Western Japan.

\* When CLS and CLMF were established in May 2018, the shareholder was Chubu Electric Power Co. Inc.

### Participation in Global Hydrogen Supply Chain Demonstration Project

In 2017, NYK along with Chiyoda Corporation, Mitsubishi Corporation, and Mitsui & Co. Ltd. established the Advanced Hydrogen Energy Chain Association for Technology Development (AHEAD) and became the first in the world to launch a global hydrogen supply chain demonstration project.

This demonstration project involves the construction of a hydrogen plant in Brunei Darussalam and a dehydrogenation plant in the Kawasaki waterfront district. Starting from 2020, hydrogen procured in Brunei will be transported by ship to Japan in a liquid state at ambient temperature and ambient pressure, where it will be returned to gas form in Kawasaki and supplied to customers in Japan. With the world looking to reduce greenhouse gas emissions,

this project is working to establish technology for the transport and supply of hydrogen from overseas in huge quantities aimed at the field of large-scale power generation using hydrogen because it does not produce CO<sub>2</sub> during incineration.

## Green Finance

NYK is promoting green finance initiatives for funding businesses that effectively reduce environmental impacts. The goal is to expand financing sources and increase domestic and international recognition among stakeholders of the NYK Group's initiatives toward environmental investing.

NYK also participates in the working group of the Climate Bonds Initiative, an international NGO that aims to resolve climate change issues through the bond markets. We are now increasing our presence as a world leader in green finance within the marine shipping industry, including helping to formulate international evaluation standards for green bonds.

### Green Bonds

In May 2018, NYK issued 10 billion yen in green bonds. This marked the first ever green bond issuance in the international marine shipping industry, drawing a great deal of interest from investors both inside and outside Japan.

In addition, NYK has received three awards in Japan and abroad for its green bond issuance, including the Ministry of Environment Award at the Japan Green Bond Awards sponsored by Japan's Ministry of the Environment.

#### NYK Green Bond Investors (as of May 18, 2018; in no particular order)

The Toa Reinsurance Company, Limited	Hiratsuka Shinkin Bank
Sumitomo Mitsui Trust Bank, Limited	Kanagawa Prefectural Credit Federation of Agricultural Cooperatives
Mitsubishi UFJ Trust and Banking Corporation	Azuma Shinyoukumiai
Hokkaido Roudoukinko	Kansai University
Sugamo Shinkin Bank	Nagoya Broadcasting Network Co. Ltd.
Moka Shinyoukumiai	Japan Cargo Tally Corporation
Iwate Prefectural Credit Federation of Agricultural Cooperatives	Fukuchi Town
Shinonome Shinkin Bank	Matsuoka Jisho Co. Ltd.

[Page 85 of the full report](#)  
[PDF \(Cash Allocation and Environmental Improvement Effects\)](#)

### Green Loans

In December 2018, we concluded a 2 billion yen green loan agreement with Taiyo Life Insurance Company. The proceeds from this loan have already been allocated to the construction of a newly built methanol fuel ship. Using methanol as a main fuel source makes it possible to lower emissions of SOx by about 75%, CO<sub>2</sub> by about 8%, and NOx by about 45%.

### Green Syndicated Loan

In March 2019, we concluded a 9 billion yen syndicated loan agreement to be used for environmental investment. This was the first syndicated loan in Japan to obtain the highest rating of conformity with green loan principles from the Japan Credit Rating Agency, Ltd. (JCR).

[WEB CSR \(Corporate Social Responsibility\) > Environment > Green Finance](#)

### Announcement of Carbon-free NYK SUPER ECO SHIP 2050 (NYK SES 2050)

In November 2018, NYK together with MTI Co. Ltd. and Elomatic, a ship engineering and consulting firm based in Finland, developed a new concept ship called NYK SES 2050, a carbon-free vessel of the future aimed at achieving NYK’s medium- to long-term environmental targets (see table at bottom right). NYK SES 2050 is a concept ship for 2050 modeled after a pure car and truck carrier. Minimal resistance is achieved with a low weight hull and optimized shape, while the use of electricity capitalizing on fuel cells and the adoption of high efficiency systems achieve a 67% reduction in energy derived from fossil fuels (compared to ships built in 2014).

Several of the technologies depicted in the concept ship NYK SUPER ECO SHIP 2030 (NYK SES 2030) announced by the NYK Group in 2009 have already been commercialized for use on vessels. In addition, we have made changes to our road map on the elemental technologies of ships to reflect the stricter environmental regulations and rapid technological advancements of recent years in new research domains. Going forward, we will promote collaboration with a broad range of global partners in the marine industry aimed at the R&D, verification, and introduction of elemental technologies proposed for NYK SES 2050.

The NYK Group operates one of the largest fleets in the world, numbering more than 750 vessels. Our advanced operation

know-how and laboratories not found in any other marine shipping company are key in supporting the frontlines of our operations. These laboratories are found at MTI Co. Ltd., which engages in research and technical development; Japan Marine Science Inc., which provides marine consulting services; Symphony Creative Solutions Pte. Ltd., a start-up in Singapore; and NYK Business Systems Co. Ltd., which possesses system development technologies. A team of around 100 engineers working at these four laboratories form the heart of our development. They will be the driving force behind our efforts to achieve our long-term vision for 2050.

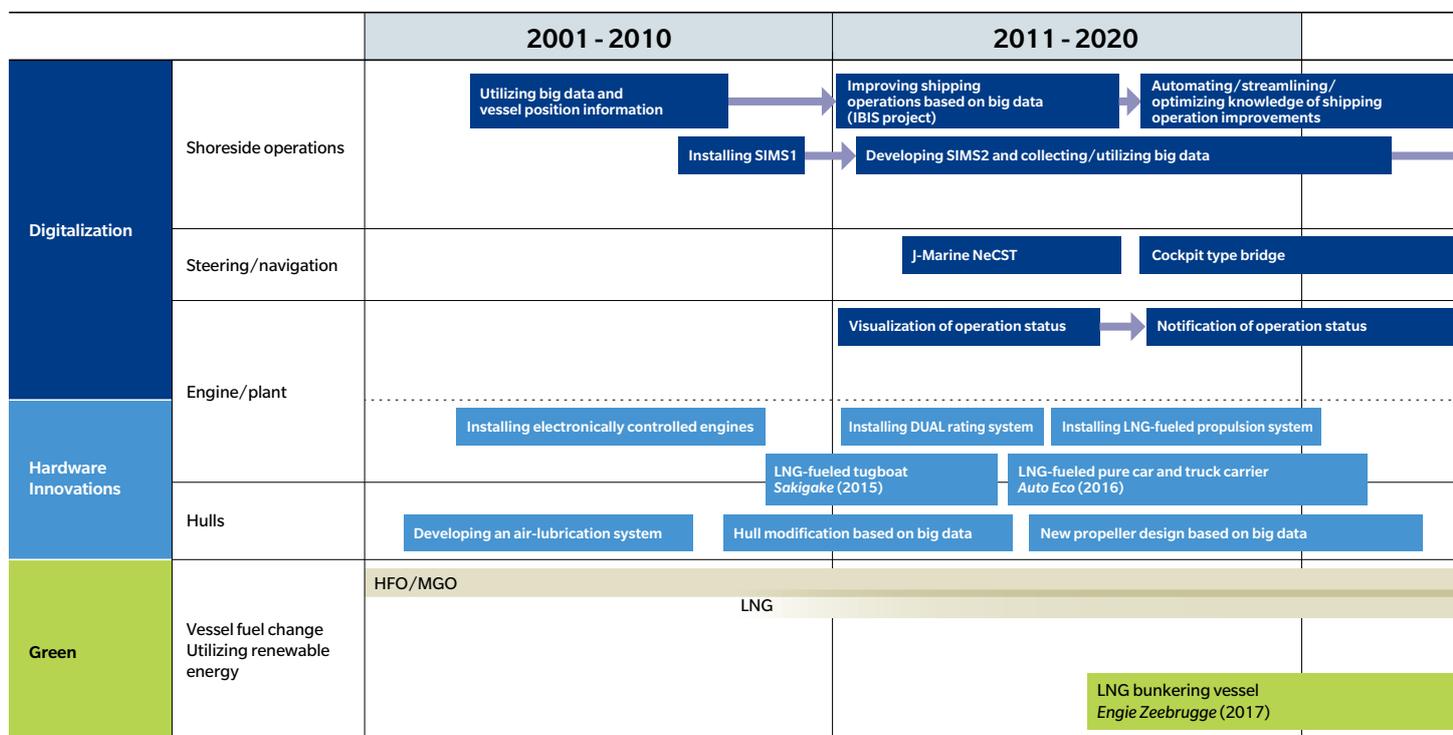
#### Group Medium to Long-Term Environmental Targets (CO<sub>2</sub> Reduction Targets)

Our medium-term management plan defines medium- to long-term environmental targets. We plan to reduce CO<sub>2</sub> emissions from our vessels and produce a ripple effect down the supply chain.

	2016	2017	2018	2030 (target)	2050 (target)
Vessels and ocean transportation	-0.5%	-1.6%	-2.4%	-30%	-50%

\* CO<sub>2</sub> emissions per ton-kilometer of transport (base year is fiscal 2015)

### Vessel Technology/Innovation Road Map (Abridged Version\*)



\* Full version available on pages 24 and 25 of NYK Report 2018

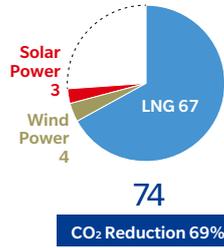


**Comparison:  
Required Energy  
and  
CO<sub>2</sub> Emissions  
of NYK SES**

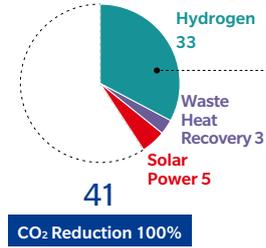
2006/2014 Built Vessel  
(Base to compare)



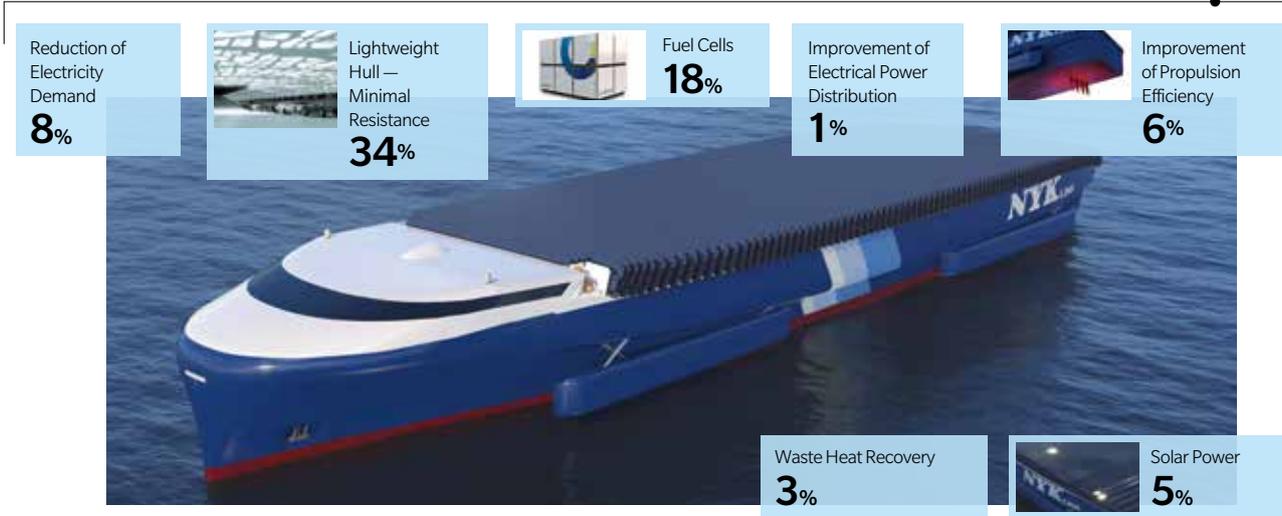
NYK Super Eco Ship 2030



NYK Super Eco Ship 2050



**67%**  
reduction in  
energy derived  
from fossil fuels  
(compared to ships built  
in 2014)



[CSR \(Corporate Social Responsibility\) > Environment > NYK SUPER ECO SHIP](#)

	2021 - 2030	2031 - 2040	2041 - 2050
	Automating/streamlining/optimizing use of AI, etc.		
	Next-generation vessel ICT platform	Utilizing high-speed communication with low-orbit satellites	
	Assisting onboard work through remote monitoring		
	Lookout assistance utilizing image processing technology	Automatic collision avoidance program	
	Predictive maintenance efforts	Developing advanced automated vessels by utilizing big data	
	Adopting condition-based maintenance		Installing hydrogen fuel cells Adopting innovative propulsion units
		Installing electric propulsion system	
	Developing advanced environmentally-friendly vessels by utilizing big data		
	Weight savings by adopting composite materials	Weight savings by optimal shape design	
		Biomass/solar energy	H <sub>2</sub>

# Actively contribute to solving social issues through our business activities

The NYK Group is actively contributing to achieving the United Nation’s 17 Sustainable Development Goals (SDGs). The Group’s medium-term management plan launched in fiscal 2018 identified six specific areas relevant to the Group’s business activities through which it can make a meaningful contribution to achieving the SDGs.

We are working with each relevant department to set specific targets and KPIs and verifying progress using the PDCA cycle to help achieve the SDG objectives. This page introduces some examples of activities related to the SDGs that the Group implemented in fiscal 2018.

## NYK Group contributions to achieving the UN SDGs



## Activities to Increase Awareness of the SDGs

NYK promotes understanding and seeks to inform all employees about the SDGs at the headquarters and domestic group companies by providing CSR training programs, particularly for new employees, and through its e-Learning programs for all group employees. The Company also surveys employees to measure the extent of employee awareness of the SDGs.

### Sustainable Development Goals Awareness Survey



Main Themes	Main Activities	Sustainable Development Goals
Education for ship crew candidates	<ul style="list-style-type: none"> <li>•NTMA</li> <li>•In-house training</li> </ul>	
Training the next generation and workstyle reform	<ul style="list-style-type: none"> <li>•Fostering generalists</li> <li>•NYK Business College</li> <li>•NYK Maritime College</li> <li>•OLIVE (Outdate Long-standing work practice and Increase Vitality of Employees) and M-OLIVE (OLIVE Project for Mariners) workstyle reform projects*</li> <li>•POPEYE (Promotion of Physical &amp; Mental Enrichment of Yusen Group Employees) and POPEYES (Promotion of Physical &amp; Mental Enrichment of Yusen Group Employees and Seafarers) health management projects*</li> </ul>	
Improve onboard cash settlement	<ul style="list-style-type: none"> <li>•Onboard Cashless Systems Project</li> </ul>	
Green business	<ul style="list-style-type: none"> <li>•Offshore wind power and tidal power</li> <li>•Biomass transport</li> </ul>	
Innovation	<ul style="list-style-type: none"> <li>•The concept ship NYK SUPER ECO SHIP 2050 (NYK SES 2050)</li> </ul>	
Safe operation and reducing environmental impact	<ul style="list-style-type: none"> <li>•Employing IoT, big data, AI, and other digital technologies</li> <li>•Forming a base for industrial and technological transformation</li> <li>•Meeting environmental regulations, reducing CO<sub>2</sub> emissions</li> </ul>	
Conversion to next-generation fuels	<ul style="list-style-type: none"> <li>•Low carbonization of marine fuels</li> </ul>	

\*OLIVE and POPEYE projects

[WEB](#) CSR (Corporate Social Responsibility) > Human Resources, NYK Report 2018 (pages 40–43)

## Helping Resolve Social Issues at Every Level

The Company launched a program in 2015 to raise employee awareness of global social issues by selling fair-trade coffee, chocolate, ice cream, and other items. The in-house coffee shop at the Company headquarters offers Fairtrade certified coffee and is aiming to reach one million cups served.



The FAIRTRADE Mark

[WEB](#) CSR (Corporate Social Responsibility) > Social Contribution > Employee Engagement: Fairtrade

## NYK-TDG Maritime Academy

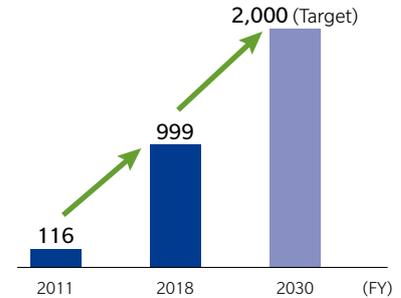
### NTMA in the Philippines educates future seafarers in safe operation

We established the NYK-TDG Maritime Academy (NTMA) in the Philippines in 2007 to provide education and training in one of the leading countries for seafarers. NTMA serves as a primary source for the Group for future seafarers by producing outstanding students, instilling a deep sense of safety consciousness, and cultivating loyalty to the Group.

NTMA graduates obtain seafarer licenses after undergoing training aboard NYK cadet training ships, commercial vessels specially equipped with educational facilities and classrooms along with cabins for 20 cadets and private quarters for instructors. The hands-on experience prepares students for careers as navigation officers and engineers. The Academy has graduated about 1,000 seafarers, and several current senior officers in the Group fleet are NTMA graduates.



Total Graduates of the NYK-TDG Maritime Academy



## Onboard Cashless Systems Project

### Adopting a cashless onboard payment system helps ship seafarers manage money and support their families.

Dealing with money matters while on board a vessel presents various challenges. Seafarers have traditionally received their salaries in cash and use the cash to buy daily goods. But cash requires careful management by all seafarers and brings with it the risks of being lost or stolen. In addition, seafarers wiring funds to family when in port must pay remittance charges.

We are using financial technology (fintech) to create a convenient cashless system on board our vessels using a proprietary network for e-money settlements and money transfers. After exhaustive demonstration tests, this summer we established MarCoPay Inc. (Maritime Community Pay) in the Philippines to provide financial services supporting cashless systems on our vessels.

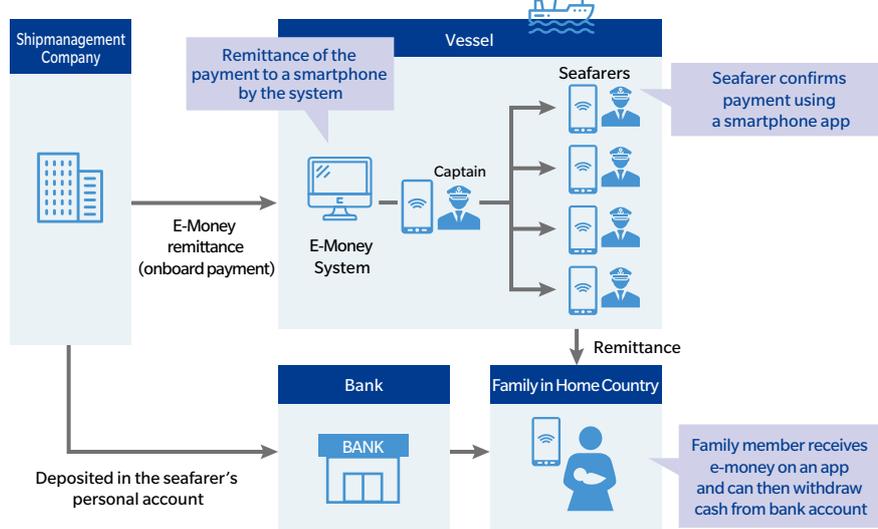
Seafarers from the Philippines and other locations often face

difficulty when they need to take out loans because, regardless of their contracted salary, financial institutions are wary about lending to seafarers with contracted working periods that may be less than a year, which is common in the shipping industry. Our project has attracted the attention of Philippine governmental agencies and various financial firms because using the data we have accumulated about the financial services seafarers use while aboard ship promises to reconnect financial institutions with seafarers and enable them to offer services for their substantial assets. With some 1.5 million professional seafarers worldwide, our onboard cashless system could vastly improve the financial conditions for seafarers and contribute significantly to improving the lives of seafarers and their families.

#### Present Difficulties

- Onboard Cash**  
US\$1 billion in cash on board ships worldwide
- Overseas Remittance Costs**  
Company → Captain  
Seafarers → Family  
Remittance fee
- Risks, Time Used Managing Cash**  
Captain's effort and time for managing cash  
Risk of cash being lost or stolen

#### Cashless Onboard Payment System

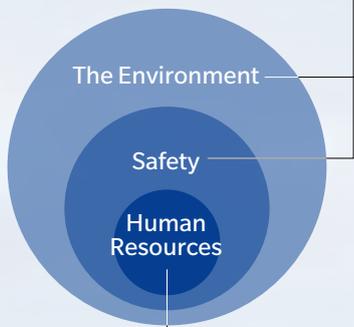


# Part II Material Issues

Our medium-term management plan *Staying Ahead 2022 with Digitalization and Green* launched in fiscal 2018 sets strategies for establishing a stable revenue structure and fully integrating ESG into our management strategies. We have redefined the Group's material issues in terms of safety, the environment, and human resources. The Group actively applies its business activities to address social and environmental issues as we seek to maximize corporate and social value. This section introduces examples of how each of our business segments is addressing three important issues.

## Integration of ESG and Management Strategies





### Safety > Page 32

Since the Group transports cargo by ships, aircraft, and trucks, safety initiatives aimed at achieving accident-free operations are of utmost priority.

#### Core Initiatives

NAV9000 Safety Standard, Near Miss 3000 activities, accident-response drills



### The Environment > Page 34

As a global corporation, it is essential for us to address the environmental issues. Responding to stakeholders' environmental concerns is an important part of raising our corporate value and also creates opportunities for business growth.

#### Core Initiatives

Prevent global warming and air pollution, preserve biodiversity, prevent marine pollution, introduce renewable energy



### Human Resources > Page 36

Human resources are at the heart of our safety and environmental efforts and are essential to enhancing our corporate competitiveness. The Group is dedicated to securing and cultivating the highest quality employees and providing training opportunities to boost productivity.

#### Core Initiatives

Workstyle reform, Health Management Promotion Project, NYK Business College, NYK Maritime College



### LNG Vessels

Natural gas is emerging as a viable eco-friendly source of energy. Liquefied natural gas (LNG) is natural gas that has been cooled to -162 degrees Celsius, at which the gas becomes a liquid having 1/600th the volume of gas. LNG vessels must be equipped with highly sophisticated advanced control technology to stably maintain LNG's extremely low temperature and pressure to prevent leaks and fire outbreaks during loading, unloading, and transport.

## NYK Group green initiatives are generating new value and sustained growth



### Hidetoshi Maruyama

Senior Managing Corporate Officer  
Chief Information Officer (CIO)  
Chief Executive of Technical Headquarters  
(Executive Chief of Environmental Management,  
Chairman of the Technology Strategy Committee)  
(Joined the Company in 1981)

### Keiko Wada

Manager  
No. 1 Green Business Team  
Green Business Group  
(Joined the Company in 2000)

### Tomoki Matsuo

Environmental Management and  
Promotion Team  
Environment Group  
(Joined the Company in 2011)

### Yuichi Shirane

Deputy Manager  
Corporate Finance Team  
Finance Group  
(Joined the Company in 2005)

The NYK Group's maritime, land, and air transport network provides the goods and services that people use in their everyday lives and that stimulate economic activity. However, providing these benefits has the downside of an environmental impact, such as from the use of fossil fuels that emit greenhouse gas. Recognizing the impact that our operations can have on the environment, our medium-term management plan outlines data digitalization and innovation initiatives to increase shipping safety and efficiency and environmental "green" initiatives to reduce the Group's environmental footprint and expand into new business fields. NYK Chief Executive of Technical Headquarters Hidetoshi Maruyama sat down with three leaders of green initiatives to discuss how the initiatives are providing value to society and our stakeholders.

### Why "Green" Initiatives?

The environment is a field where everyone can share the same philosophy, which creates opportunities to collaborate with wide diversity of stakeholders.

What are the initiatives in the medium-term management plan and how are each of you involved?

**Maruyama** Last year, the NYK Group announced its medium-term management plan, "Staying Ahead 2022 with Digitalization and Green." Today we are discussing mainly the

green side of the strategy, but the digital and green are actually inextricable. “Staying Ahead” represents our determination to stay a “half-step ahead” with our green initiatives. In the environmental field, we believe trying to jump 10 steps ahead all at once would only likely end in failure. We think it’s more effective, indeed critical for the environment, to make sure-and-steady progress. We think our customers will appreciate the steady advances we achieve and choose us for their shipping needs.

**Wada** The Green Business Group I’m working in is mainly focusing on renewable energy. My team is developing the new offshore wind business by bringing together the various departments, group companies, and partner companies.

Until March 2018, I took part in creating the strategies for the medium-term plan as a member of the Corporate Planning Group. We worked out a new growth strategy for digitalization and green (D&G) to match it to the current external environment and social needs. Now that I am working on the front lines of the green initiatives, I see significant opportunities for our Group and at the same time understand how critical it is for the Company to have a clear direction and strategy.

**Shirane** I worked in the Company’s Sales Department for 12 years before my present position in the Finance Group. In May 2018, NYK became the first shipping company in the world to issue green bonds, funds from which may only be



*The green initiatives are the foundation of our corporate activities and for all of us to put into action.*

— Maruyama

used for operations related to environmental improvement.

The idea to issue the green bonds came out of the D&G initiatives of our medium-term management plan. I love putting new ideas into action and am always thinking about what the Finance Group can do under the D&G initiatives. I saw green bonds as a new source for funds and when it became clear that they offered numerous benefits for the group company, I strongly advocated for the issue.

**Matsuo** I was also in the Sales Department until I joined the Environmental Management and Promotion Team in the autumn of 2017. I consider myself as the Group’s public relations ambassador for the environment, and my mission is to make our green achievements more widely known in Japan and overseas.

For example, the Group’s greenhouse gas emission goals were approved by the Science-Based Targets initiative, and the examination of our emission information disclosure for the CDP 2018 Climate Change analysis earned us the honor of inclusion in the CDP Climate A List. We also recently announced our support of the recommendations of the Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD).

**Maruyama** We’re all involved in different activities, but we shouldn’t forget that the D&G initiatives aren’t just for some departments; they’re the foundation for all our corporate activities.

In a way, they’re like a computer operating system. The environment is the OS that boots and runs the applications, which are our businesses and organizations. The applications need the latest OS to work, and the whole company has to run on it or else it won’t work. It’s the backbone for how we perceive all the products and services our company thrives on. A company can’t function without the latest OS, and the applications wouldn’t work.

From another point of view, I think that the theme of the “environment” is the field with the smallest gap in its philosophy, even if it is extended from the individual to a company, a country or the world. For example, I’m sure everyone wants to leave a flourishing planet for our children and future generations. Environmental themes all point in the same direction no matter where you start from, so it’s easy for everyone to agree to initiatives to progress in that direction. Certainly, everyone cares for the environment and if each of us were to act on that feeling I believe we could accomplish some good for humanity.

**Shirane** I agree and truly believe we all share the same philosophy about the environment. The same was true for the green bonds. The issuance required cooperation not just internally with our technical, environmental, sales, and IR departments, but also externally with securities

companies, the Ministry of the Environment, and the media. We had a shared an objective, and everyone came together to make it happen.

**Wada** I feel the same. The social mission to contribute to Japan's new offshore wind industry is shared by many, and the collaboration crossing industrial and organizational boundaries includes electric power companies, manufacturers, contractors, and certification agencies.

### What Do We Need to Do?

**We need to approach the green initiatives as personal goals and use the strengths we have now to build value.**

Has the Company had to face any new issues while advancing the initiatives?

**Wada** As soon as we announced our green business initiatives, we started receiving requests from customers for services we had not provided before. When I started looking to see if we were able to provide those services, I realized the



**“ My goal is to contribute to the development of the offshore wind industry in Asia and enhance NYK's presence in this field. ”**

— Wada



**“ I want to make our idea of taking half steps forward to be more widely known because I think it will motivate our employees and be commended outside the company too. ”**

— Matsuo

Group has many unused capabilities. Our Group members spent many years working hard to improve our services and businesses, but they themselves had not realized the full value of our strengths. The Group has vast untapped value, and I believe discovering it and sharing that information with others would boost both our value as well as our strength.

**Matsuo** I have the same impression. Even though the Group has numerous initiatives to be a half step ahead, not everyone understands how useful the initiatives are because information is not adequately communicated and not being shared enough inside the Company or throughout the Group. It's really a shame that the information is not being disseminated and that the efforts are not being properly evaluated.

**Maruyama** Stressing to employees how important that information is and building employee awareness certainly are important, and I think corporate culture plays a key role in that. Without establishing a foundation for assimilating information and creating a culture of doing that, employees will not have the tools to understand the information even if it is available.

First, each person needs to be personally motivated to support the green initiatives. What motivates them doesn't matter. For example, I would like to see employees not just reading what the 17 SDGs are, but selecting a goal that they

can aim for in their work and then thinking of what they can do to address that social problem.

It doesn't matter how or why they choose a goal, it just matters that they choose one to work toward.

### What Is the Path for the Half Steps Forward?

## Enjoy taking on challenges and inspiring enthusiasm in others.

What value are you seeking to create in the future?

**Matsuo** The group company is reducing its carbon emissions and has set high targets to reduce greenhouse gas emissions per ton-kilometer versus the fiscal 2015 level by 30% by fiscal 2030 and by 50% by fiscal 2050. We're doing everything we can to reduce fuel consumption, and we also know that these targets are very ambitious. The whole group is mobilizing to meet these goals and every front office department is looking for ways to further reduce emissions.

We also have to increase awareness of our green initiatives among everyone from our newest employees to upper-level executives. We also must implement more effective measures to maintain our evaluations from international environmental ratings agencies, such as the CDP mentioned earlier, and to continue disclosing data in accordance with the recommendations of the TCFD. I really would like the NYK Group to take the lead and begin a wider movement in this area.

**Shirane** After NYK issued the green bonds, several of our competitors did as well, and bond issuances are becoming more common. To keep investors focused on our company, I think we now need to show them how we are using the funds we raised and that their investments are helping to improve the environment.

We're looking at various ways to show how we are using the funds raised from the green bonds. One way is, during the tours we give of our ship funded by the bond, to talk about our fundraising using green bonds and the environmental improvements that the funds helped realize. We're taking steps to deepen the feeling of a connection between investors and our company and keep them as long-term partners in our efforts.

**Wada** My main focus now is on developing the NYK Group's offshore wind business in time for the industrial launch in Japan. Once an offshore wind farm is in operation, it can generate power for as many as 30 years, which may allow its operators to establish a strong business platform with long-term revenue stability. We will try our best to contribute



“  
“  
**Our green initiatives are the key to maintaining long-term relationships of trust with all investors.**  
”  
”

— Shirane

to society, create new value for the Group, and hopefully cultivate employee interest in the green initiatives.

**Maruyama** Just like in the digital field, the NYK Group is raising the international standard for environmental activities. I think it's important for the Company to be a leader in setting global standards rather than being a follower, which can entail a great amount of cost and time. To be a corporate group favored by customers, as was said earlier, rather than trying to take a giant leap forward, I think we should continue to steadily make progress and advance a half step at a time in the environment field.

I'd also like to see everyone really enjoying their work so that when others see that they think, "Wow, you really enjoy what you're doing. I want to do that too. Can I help?" In other words, I'd like to see our work grow into a movement. Our digitalization and green initiatives really are a new approach to business that management may find difficult to understand. Nevertheless, I hope they will support and encourage the enthusiasm of our younger employees. I'm open to new ideas from anyone and will be the first to champion a new idea that leads to a better future.

# Safe operation management fulfilling the high standards of oil majors

## Safety at the NYK Group

### Pursuing Safety from Multiple Angles as a Top Priority

Since our early days, the NYK Group has dedicated a great deal of attention and efforts to safe operations, while working alongside shipowners and shipmanagement companies, under the belief that safety is a prerequisite of trust and without trust there is no business. The NYK Group approaches safe operations from multiple angles, including establishing a system aimed at zero accidents, performing activities based on the Group's original and unique NAV9000 safety standard, developing human resources, and using advanced technologies to prevent accidents and risks. In addition, in May 2019, we appointed a corporate officer to the post of chief safety officer (marine) to reinforce monitoring of compliance with international treaties on safe operations. We are now working to further elevate our safety activities, which includes comprehensive audits of our entire fleet.



## Approach of the Energy Division

### Working Together to Comply with Strict Rules

The IMO has imposed strict rules for tankers and LNG carriers spanning multiple angles to address the risks of transporting hazardous substances and to prevent spills. Oil majors also require a high level of operation management. As a result, the Group is constantly working to enhance safety and quality through a concerted effort involving the Energy Division, Marine Group, and shipmanagement companies.

### 1. Promoting Safe Operation Using Audits that Follow Proprietary Standards

NAV9000, formulated for safe operation and environmental protection, is an original, unique safety standard based on the ISO 9001/14001 international standards. NAV9000 includes approximately 1,500 items covering knowledge accumulated by the Group, requirements from our customers, and lessons from past accidents, among others. Since being introduced in 1998, the content has been reviewed in response to revisions made to treaties and rules, as well as to reflect requirements from oil majors.

Audits based on NAV9000 are performed on all the approximately 750 vessels in operation, including chartered vessels and the vessels we own. Every year we conduct audits of approximately 250 vessels and more than 30 shipowners and shipmanagement companies, during which we encourage safety awareness and promote an understanding of the standard with emphasis placed on two-way dialogs with partners.

### 2. Complying with the High Safety Standards of Oil Majors

The Oil Companies International Marine Forum (OCIMF), which comprises more than 100 oil companies from around the world including oil majors, examines marine pollution and maritime safety from shippers' perspectives and makes recommendations to the IMO and governments. The OCIMF administers the Ship Inspection Report Programme (SIRE) that assesses ships according to strict standards to determine whether a ship can operate safely. SIRE checks for 630 items, with each ship inspection requiring eight hours. Although inspections are not legally binding, customers require that ships be inspected once every six months. In turn, the results of these inspections are posted on the OCIMF's website.

We check and share various information, including OCIMF's requirements, while working closely with our shipmanagement companies, in pursuit of intrinsic safety\*. As a result, the number of findings from SIRE inspections on ships in the Group's fleet are consistently below the industry average.

\* Intrinsic safety: Not only complying with international regulations and industry standards but also detecting risk (dangers) using past experiences and knowledge, based on which additional measures are implemented to ensure complete safety.



CSO (Marine) Koyama (left) attending a ship inspection along with a NAV9000 auditor (center)

### 3. Global Tanker Quality Assurance

We established Global Tanker Quality (GTQ) as an organization for sharing information between the Energy Division and Marine Group along with four of the NYK Group's shipmanagement companies to promptly comply with OCIMF requirements and maintain the quality level of safe operations. From the standpoint of complying with requirements from the same customer for tankers and LNG carriers, we integrated the activities of both fleets (tanker and LNG) in 2013 and expanded the organization globally in 2018. Currently, GTQ has offices in five countries around the world.

#### ■ Relationship Building with Industry Groups

Since 2014, GTQ has hosted an annual panel discussion involving all shipmanagement companies for the Group's tanker and LNG fleet. In 2018, nine companies took part, engaging in active discussions on the themes of the latest industry standards for mooring and the mental health of crew.

GTQ also engages in activities outside the Group. For example, GTQ members visit oil majors and other customers twice a year to receive their evaluation of the Group's ships, with findings reflected in safety initiatives. In addition, through our participation in the International Association of Independent Tanker Owners (Intertanko), along with relationship building with energy

associations around the world, we strive to keep abreast of industry group developments and collect the latest information.



Participation in Intertanko Gas Tanker Committee (GTC)

#### ■ Publication of GTQ Flash

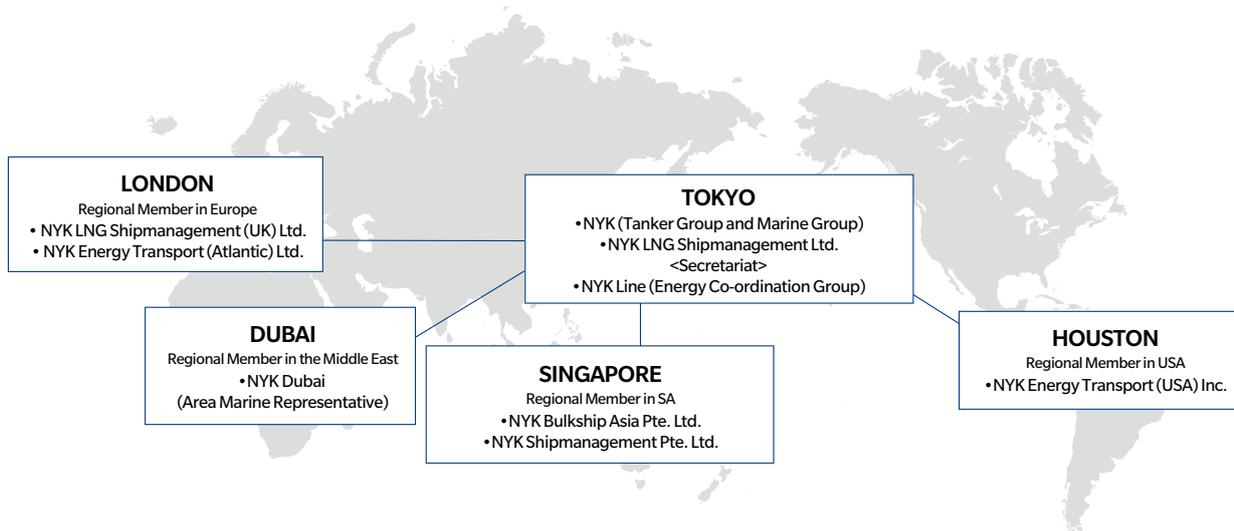
Since 2017, we have published a magazine called GTQ Flash twice monthly to share information with shipmanagement companies and raise awareness about safety. We distribute this magazine to ships or post it on board, since it contains information on recent accidents and overlooked events that could lead to accidents aboard a ship.

In 2018, Vessel Inspection Questionnaires containing OCIMF requirements underwent significant revisions. We prepared a comparison table for crew of our ships to promptly comply with the new requirements and also introduced the main changes in an edition of GTQ Flash.



GTQ Flash

#### GTQ's Global Network



# Working to solve global environmental issues by shifting to fuels with lower environmental impact and conserving fuel

## The Environment at the NYK Group

### Complying with the New SOx Regulations to Take Effect in 2020 with the Slogan “Keep Ships Operating”

Environmental regulations for ships are becoming stricter with each passing year (see bottom right of page 35). In particular, complying with the new SOx (sulfur oxide) regulation (IMO 2020) slated to take effect in 2020 is an urgent task. Based on the characteristics of each vessel, the Group is moving ahead with preparations to comply with this new regulation using a two-pronged approach of shifting to fuels that are SOx regulation compliant and installing SOx scrubbers (exhaust gas purifiers) on vessels. Furthermore, we are also considering shifting to alternative fuels such as LNG.



## Approach of the Car Transportation Division

### Working with Customers to Prevent Global Warming and Air Pollution

Automakers, who are the division’s main customers, have established high level targets for environmental conservation and they are working day and night to mitigate environmental impacts. Occupying a presence as part of their supply chain, the Car Transportation Division is carefully addressing such initiatives. The division is taking action with an eye on the environment in various aspects of our business activities, including thoroughly conserving fuel use, switching to next generation fuels such as LNG, and expanding our green terminal concept.

## 1. Active Introduction of Next Generation Fuel – LNG

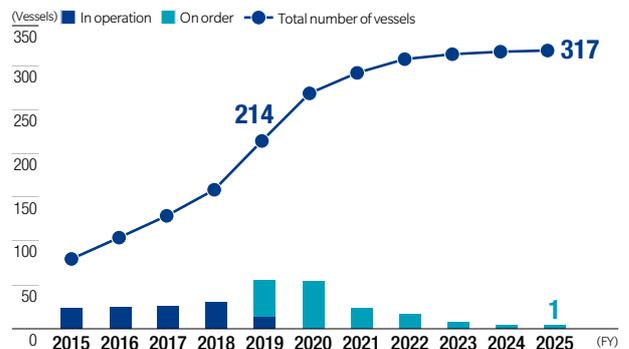
There is growing interest in switching vessels to LNG fuel given stricter environmental regulations. The number of vessels powered by LNG that operate on the world’s oceans will continue to rise in the future. The NYK Group was among the first in the industry to focus on LNG as a fuel because of its excellent environmental performance compared to heavy oil, the conventional fuel used to power vessels. In fact, United European Car Carriers, a member of the Group, has been operating two LNG-fueled pure car and truck carriers, *Auto Eco* and *Auto Energy*, in European waters since 2016, the first such vessels to operate anywhere in the world. Furthermore, the NYK Group is pursuing research into new pure car and truck carrier, with an eye on fuel cell batteries.

Meanwhile, to efficiently load massive amounts of LNG fuel aboard a large vessel, supplying fuel from a vessel, rather than land, represents the best option. In 2017, the NYK Group became the first in the world to operate a new LNG bunkering vessel. This vessel, named *Engie Zeebrugge*, supplies LNG fuel to *Auto Eco* and *Auto Energy* through ship-to-ship transfer. We are now moving ahead with commercializing this business in Japan by using our expertise in LNG fuel supply/sales in Europe (see page 21 for details).

### Environmental Impact Reductions of LNG Fuel Compared to Heavy Oil



### Operations of LNG-fueled vessels Around the World (Including Vessels on Orders)



Source: Prepared by NYK based on documents compiled by Japan Marine Science Inc. (as of March 31, 2019).

\* Includes converted vessels; excludes LNG carriers. Excludes certain vessels operating inside China.



LNG-fueled pure car and truck carrier Auto Eco

## 2. Systematically Preparing to Switch to Compliant Fuel

Compliant fuel required to comply with the new SOx regulations has different qualities than conventional fuel oil. The NYK Group launched an in-house project to safely and reliably switch fuels without adversely affecting operations. Having formulated a plan to switch completely to compliant fuel by January 1, 2020, we are now moving ahead with preparations to keep ships operating, which includes onboard trial by two pure car and truck carriers to check for issues in compliant fuel in terms of combustibility and compatibility.

 [Page 83 of the full report](#)

## 3. Establishing a Model for Mitigating Environmental Impacts

At the port of Zeebrugge in Belgium, International Car Operators N.V. operates the world's largest dedicated car terminal (ICO terminal), which handles new vehicles for export. The NYK Group considers the ICO terminal as a green terminal and operates it in an environmentally conscious manner. Solar panels have been installed, LED lighting has been introduced, and 100% recycled water is used for washing cars. Furthermore, from 2020 we plan to begin a wind power business using 11 wind turbines. After the start of this business, we will sell generated electricity to a utility and accumulate expertise in the wind power business. The expertise gained from this green terminal will be used to mitigate environmental impacts across the entire supply chain. This will include examining the potential to roll this green terminal concept to other dedicated automobile terminals in the future.



ICO's dedicated automobile terminal

We were among the first in the world to install 300 EV charging stations, with the aim of charging 100,000 EVs per year.



## 4. Stepping up Fuel Conservation Across the Division

In 2018, junior workers at the Car Transportation Division took the lead in launching a cross-functional project for fuel conservation called the Green RORO Innovating Project (GRIP). This project is achieving results using approaches from multiple angles, including improving operations of vessels at port or during inclement weather, actively cleaning propellers, and promoting fuel conservation through vessel visit briefings. We are now utilizing the know-how of fuel conservation activities accumulated at the NYK Group over the years, including holding study sessions not only inside the Car Transportation Division but also jointly with other relevant departments. This is being implemented as an all-hands-on deck project that involves sharing excellent initiatives with all division workers weekly.



An underwater camera developed by an employee, the camera's arm length can be extended to check a vessel's bottom from onshore. These inspections can be carried out more frequently than diver inspections, so we are able to identify the right time for required bottom cleaning, thus improving fuel efficiency.

### History of Companywide Fuel Conservation Activities

- 1977: Established Save Bunker Committee
- 2005: Launched Save Bunker Campaign, aiming to reduce the fuel consumption and CO<sub>2</sub> emissions of ships
- 2012: Launched IBIS Project (for container ships), aiming for the most optimal economic operations using big data
- 2013: Launched IBIS-TWO pursuing optimal economic operations of all vessel types other than container ships
- 2019: Renewed name of IBIS-TWO to IBIS TWO Plus, to promote fuel-saving initiatives in a broader manner

#### Main Environmental Regulations and Programs:

- 2019: Start of reporting fuel consumption to IMO (DCS: Data Collection System)
- 2020: Launching of stricter SOx regulations (use of fuel with 0.5% or less sulfur in open waters)
- 2021: Expansion of geographic regions with NOx regulations (North Sea and Baltic Sea to be added)

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# Honing our operation and maritime expertise strengths to become the world's leading dry bulk fleet

## Human Resources at the NYK Group

### Developing a Workplace Where Diverse HR Talent Can Fully Contribute Its Skills

The NYK Group employs a workforce of about 35,000 people worldwide; of which, more than 70% work outside of Japan. For the Group to grow in a sustainable manner, it is vital that we maintain and secure talented human resources and engage in human resources development. For this reason, we provide decent workplaces that motivate our people and offer skills development through unique training programs, such as NYK Business College and NYK Maritime College (see page 39 for details). We have also introduced a vessel operations meister program that provides an in-house certification to promote the further development of skills while verifying knowledge already gained through training.



## Approach of the Dry Bulk Division

### Promoting HR Development and the Use of Digital Technology to Distinguish Ourselves in Operation Quality

The barrier to entry for the dry bulk carrier business is relatively low and many players have emerged, which has raised concerns about declining operation quality. As a result, many customers demand an even higher level of operation quality than before. The Group is setting itself apart from competitors in terms of high operation quality by further reinforcing its operation and maritime expertise through human resources development programs and optimizing operations with digitalization.

## 1. Improving Skills with Unique Training and Programs

Land operators responsible for onshore operations play the important role of maximizing operation efficiency aimed at improving profitability and reducing costs. Each operator is assigned five to 10 vessels, for which they arrange fuel and examine operation plans based on weather conditions and customer needs. Operators need to look at the big picture encompassing various elements, despite the differing conditions of vessel, route, and time. Their work is becoming more sophisticated and complex with each passing year; thus, it is more important than ever to continually hone the latest operation skills. The Dry Bulk Division is working to develop the “best operators” to sustain its world leading operation quality.

### Required Elements to Become the “Best Operator”



### ■ Training for New Appointees

The Dry Bulk Division is divided by groups based on cargo. Joint training sessions are held to ensure that new appointees have the same skill level. This training is led by either captain or chief engineer class employees or highly experienced operators. Participants eventually serve as instructors. The training takes place for five weeks in April and October, comprising classroom learning and field visits with a focus on knowledge acquisition.



Touring another company during training



The vessels *Shinchi Maru*, *Noshiro Maru*, and *Sage Sagittarius* berthed at the port of Newcastle

### In-house Certification: Vessel Operations Meister Program

The vessel operations meister program established in fiscal 2009 provides in-house certification to develop operators with an even stronger commitment to safe operations and greater operation efficiency. To participate, employees must have experience in vessel operations at NYK. Employees of overseas subsidiaries can also participate as long as they have experience in vessel operations. To obtain certification, participants must complete the training course and pass a written exam. The number of employees at the Group with this certification totals 423, consisting of 15 at the platinum level, 152 at the gold, and 256 at the silver (as of March 31, 2019).

#### Number of Certified Onshore Vessel Operators



## 2. Dispatching Crew to Master Cargo Handling Techniques

Ships carry seawater as ballast water for stabilization during voyages. At the loading port, this ballast water is discharged and cargo is loaded. In the case of dry bulk carriers, crew require skills to discharge ballast water, calculate load weight by accurately measuring draft,\* and negotiate with cargo loader operators and terminal managers onshore. Furthermore, they also need to establish a cargo handling plan where cargo is loaded within the designated time while discharging ballast water. Cargo loading work must be completed within a short period of time. However, this makes it difficult to master the know-how because there are only a few opportunities to gain this experience during the boarding period.

With this in mind, since 2017 we have held a loading academy in Australia at the port of Newcastle, considered to be one of the most challenging places in the world to load coal. Two crew members were dispatched to the port for three weeks to

build experience in the field. Such training enables us to provide high value-added proposals combining operations and handling to customers. We appoint a Japanese supervisor locally who builds relationships with the local port authority and coal terminal operator in various fields, including not only hosting this training, but also supporting the cargo handling of other vessels.

\*Draft: The vertical distance from the bottom of a ship to the surface of the water



Training on cargo handling procedures



Training on cargo handling calculations

### Comment from a Participant

(Chief Officer Katsumi Masuyama; First Trainee)

Through this training, I was able to experience cargo handling aboard 14 vessels. Having the chance to observe and actually take part in this work opened my eyes to the differing characteristics of each vessel. I confirmed the benefits and weaknesses of each in the field. I was also able to witness specific ways of further enhancing customer satisfaction, such as personnel allocation and preliminary preparations, from cargo handling supervisors and the ship's crew.

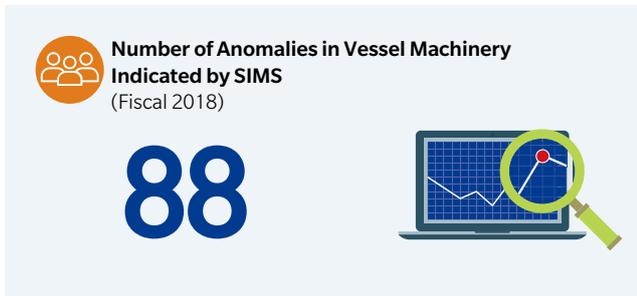
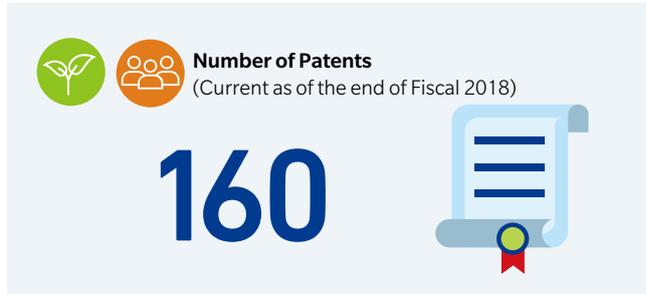
## 3. Optimizing Operations Together with Shipowners

The Dry Bulk Division utilizes a web application called LiVE for Shipmanager together with shipowners and shipmanagement companies to visualize vessel operation data. Through the Ship Information Management System (SIMS), which regularly collects information on a ship's voyage and mechanical data, we can confirm the condition of a vessel from land and identify any abnormal readings that signal the potential for trouble, helping prevent mechanical failures (see page 38 for details). This initiative requires the teamwork of everyone involved; therefore, we strive for safe operations while holding two-way dialogue with people in charge from shipowners and shipmanagement companies.

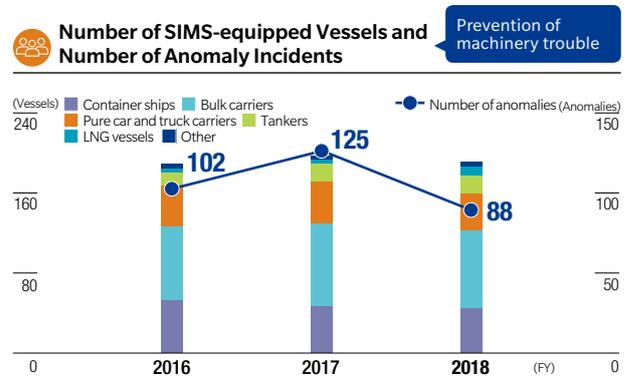
# Environmental, Social, and Governance Data

This section covers important areas where we are strengthening our ESG efforts and explains data the NYK Group is particularly focused on in each category.

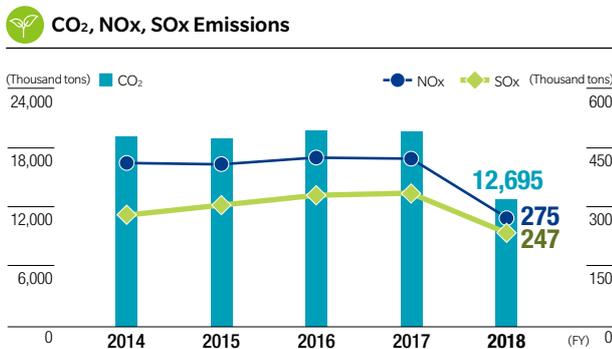
- Environment  
Mainly GHG emission volume from our fleet
- Social  
Mainly safety management and women in managerial positions
- Governance  
Mainly compliance



The amount of time that operation of our vessels stops due to accidents or other trouble (downtime) is used as an indicator to gauge the degree of safe operations. All onshore and offshore employees work together toward the target of eliminating downtime.

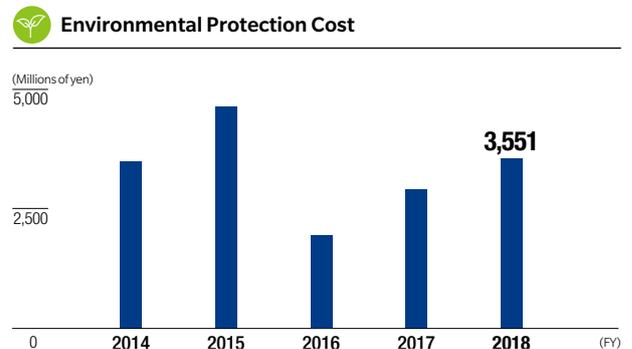


SIMS data for vessel machinery is analyzed to improve our ability to quickly detect signs of a potential ship mechanical accident, electrical leakage, fire, or other trouble.



GHG emission volumes are monitored and measures taken to reduce emissions by vessel type.  
\* Figures for Fiscal 2018 do not include container vessels due to the liner trade businesses of NYK, MOL and "K" Line being transferred to the new joint venture ONE.

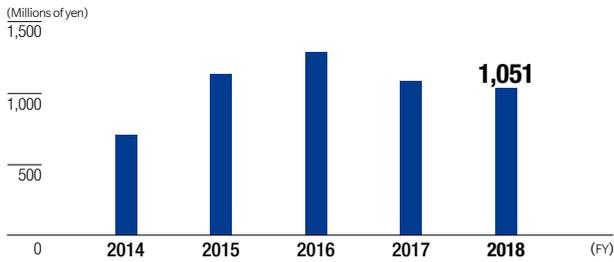
Further details are provided on page 84 of the full report.



The NYK Group seeks to recognize the costs associated with its efforts to protect the environment. Group efforts to prevent global warming and air pollution include equipping its ships with environmental technology, such as electronically controlled engines.

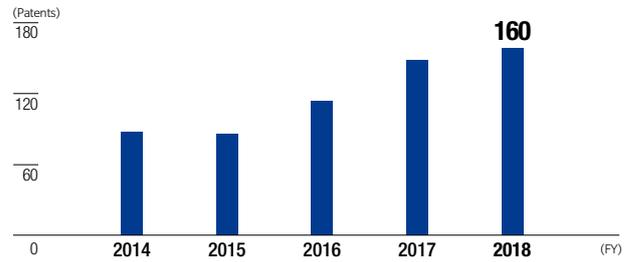
Further details are provided on page 85 of the full report.

**R&D Expenses**



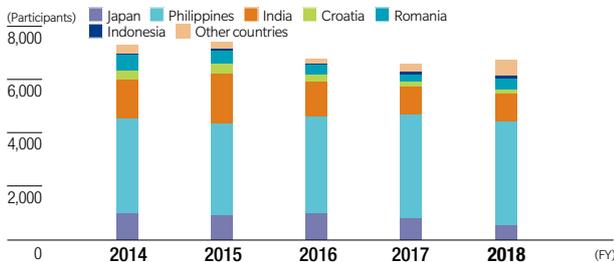
The NYK Group actively develops technology to improve safety and protect the environment and is currently researching cutting-edge technologies in ship-to-shore cyber security and autonomous shiphandling systems.

**Number of Patents**



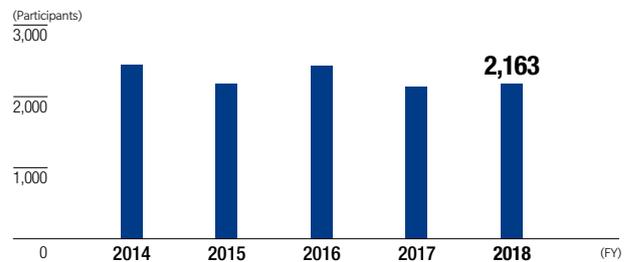
We are developing cutting-edge safety and environmental protection technology, including optimal efficiency operation utilizing big data such as the navigation/machinery information of fleets in operation (IBIS-TWO) and the MT-FAST energy-saving hull device that greatly improves fuel efficiency.  
\* Numbers of patents indicate the current number at the end of each fiscal year

**Number of NYK Maritime College Seafarers Participants (By nationality)** Improvement of seafarer skills



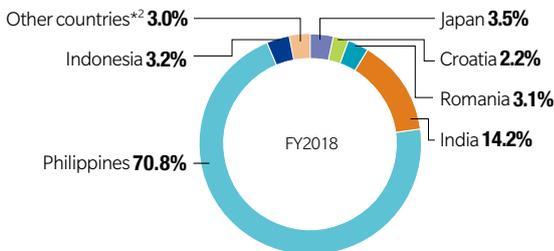
The NYK Maritime College is a system that provides a globally uniform training program regardless of the nationality and training location of seafarers to effectively improve the skills of our seafarers.

**Number of NYK Business College Participants (Including group employees)** Enhancement of overall employee capabilities



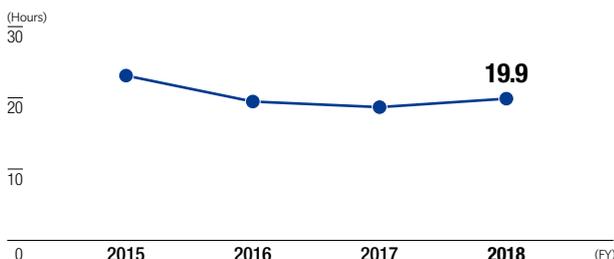
The NYK Business College training system has over 60 training programs to enhance the overall abilities of group employees.

**Percentage of Seafarers by Nationality\*1**



\*1 Percentage of seafarers at NYK Shipmanagement Pte. Ltd. (officers and crew members)  
\*2 China, Vietnam, Russia, Myanmar, Nigeria, Angola, Panama, Singapore

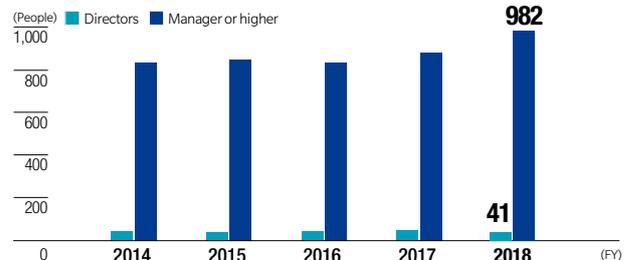
**Trends in Monthly Overtime Exceeding Legal Working Hours**



To manage the progress of the OLIVE project for workstyle reforms, we monitor and internally share data on the trends in monthly overtime exceeding legal working hours.

\* Employees working at the NYK headquarters

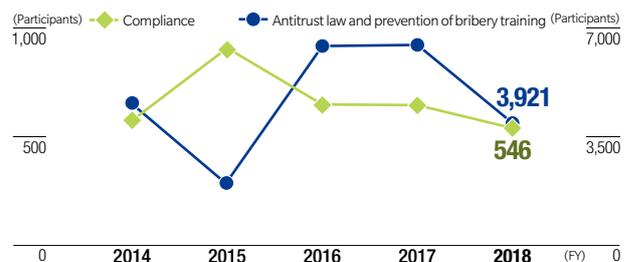
**Number of Women in Management (Including group companies)**



The number of women in management positions at the NYK Group has been steadily rising since 1983 when the Company began actively encouraging women's advancement in the workplace.

Further details are provided on pages 86-87 of the full report.

**Number of Participants in Compliance, Antitrust Law, and Prevention of Bribery Training**



\* The number of participants for compliance training comprises individuals at the headquarters and domestic group companies

\* The number of times that antitrust law training was conducted in fiscal 2015 decreased because the trainers for overseas group companies (in the Asia region) were switched from NYK legal staff to locally employed lawyers in 2016, and 2015 was used to prepare for that transition. The number of participants decreased in fiscal 2018 due to the merging of the liner trade businesses of NYK, MOL and "K" Line.

# Part III Business Overview

The NYK Group provides a broad range of transportation services spanning sea, land and air, and comprising one of the world's largest marine transport fleets together with semitrailers and cargo aircraft. We also utilize our long-standing transport technologies and global network to deliver solutions tailored to client needs, including the operation of terminals and warehouses, and pre-delivery inspections, repairs, and parts-supply services for new vehicles. At the same time, we are expanding into the clean energy field, such as LNG bunkering for ships and wind-power generation. We stand committed to continually creating new value for society while building the competitiveness of these new segments.

## Global Logistics

### Liner Trade

Delivering a full range of services globally using one of the world's largest route networks.

Foods, daily essentials, electronics, auto parts



### Air Cargo Transportation

Offering international air cargo transportation services connecting Japan with North America, Europe and Asia.

Semiconductors, precision instruments, auto parts



### Logistics

Meeting globally diversified logistics needs using our 590 bases around the world.

Foods, daily essentials, electronics, auto parts



## Bulk Shipping

### Car Transportation Division

Operating one of the world's largest car carrier fleets (110 vessels) and providing inland transport and terminal operation services.

Passenger cars, trucks, construction machinery, railcars



### Dry Bulk Division

Engaging in safe and stable transport services through long-term contracts with multinational resource companies and others.

Iron ore, coal, wood chips, grain



### Energy Division

Covering the entire energy value chain with optimized and safe transport services.

Crude oil, oil products, chemicals, LNG, LPG, offshore business, green business

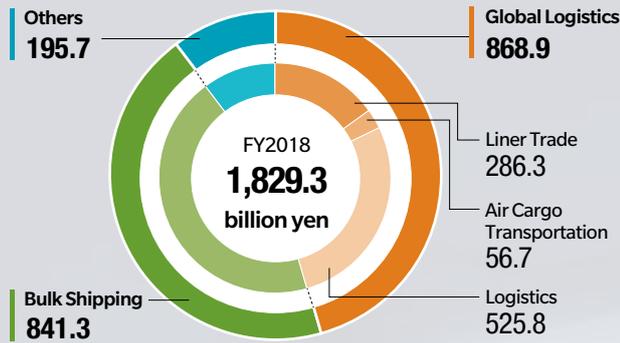


## Navigation Bridge

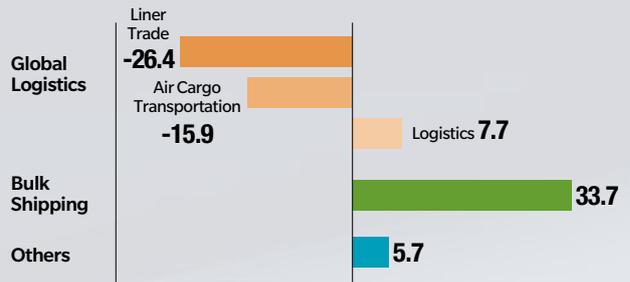
The bridge is where the captain, navigation officers and other crew operate a ship. Despite the growing prevalence of automation, people's skills are still paramount to safety at sea. The crew ensures a ship arrives at its destination safely, keeping vigilant watch of conditions and dealing with changes in a flexible manner.

# At a Glance

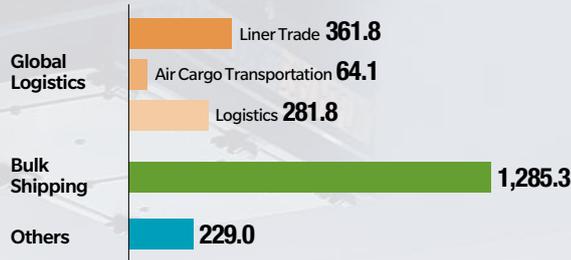
Revenues by Segment\*<sup>1</sup> (billions of yen)



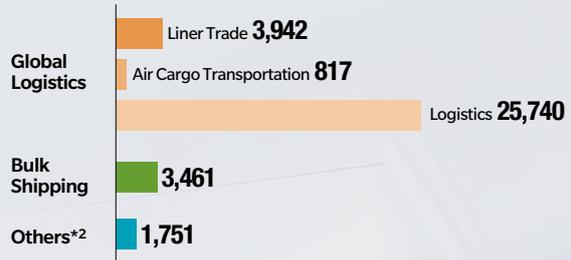
Recurring Profit and Loss by Segment\*<sup>1</sup> (billions of yen)



Total Assets by Segment\*<sup>1</sup> (billions of yen)



Employees by Segment (people)



\*1 Prior to eliminations \*2 Includes administrative divisions



We are working to increase profitability and improve capital efficiency in an effort to achieve the targets of our medium-term management plan.



### Eiichi Takahashi

Representative Director, Senior Managing Corporate Officer, Chief Financial Officer, and Chief Executive in charge of the Management Planning Headquarters

#### Overview of Financial Results in Fiscal 2018

Fiscal 2018 was a year of laying the groundwork for a recovery amid major losses resulting from temporary problems at ONE and NCA.

In fiscal 2018, the Group posted revenues of ¥1,829.3 billion, operating income of ¥11.0 billion, a recurring loss of ¥2.0 billion, and a net loss attributable to owners of the parent company of ¥44.5 billion. While revenues and income were down compared with the previous fiscal year, the decrease in revenues was primarily due to the transfer of the liner trade business to Ocean Network Express Pte. Ltd. (ONE), and was not the result of a reduction in the scale of operations or poor performance of the Group as a whole. The recurring loss was mainly the result of two factors. Firstly, profits substantially decreased in the liner trade business due to disrupted operations, specifically delays during the startup of ONE. Secondly, losses were posted in the Air Cargo Transportation segment due to the decision by Nippon Cargo Airlines Co. Ltd. (NCA) to voluntarily ground all of its aircraft in response to errors in maintenance records discovered through inspections by the Japanese government. As a result of these problems, the Group's financial performance seriously suffered, even though the Group had hit the ground running at the beginning of fiscal 2018, the first year of our medium-term management plan.

Preparing from scratch over a short period of time for the startup of ONE, which has about 8,000 employees, was very challenging, and problems after operations started dragged on longer than initially expected. Nevertheless, we recorded a provision for losses related to contracts associated with chartered container ships as an extraordinary loss, and believe that the Group will not incur further startup-related losses. With respect to NCA, while its oversight was serious, we streamlined the freighter aircraft fleet to eight Boeing 747-8F models and incurred losses from the remaining older aircraft that were removed from the fleet. We have laid a path for ONE and NCA to make a fresh start in fiscal 2019, and prospects for both companies to improve their bottom lines appear bright.

Besides ONE and NCA, we have been executing the basic strategies of our medium-term management plan largely as expected in the Group's other businesses. In the bulk shipping business and logistics business, recurring profit increased year on year following a recovery in performance, and we will work to maintain this trend going forward.

## Outlook for Fiscal 2019

### We forecast higher profits based on ONE becoming profitable, NCA improving its results, and other businesses performing solidly.

We expect ONE to become profitable in fiscal 2019, and our forecast of net profit is around \$85.0 million (approximately ¥9.0 billion). ONE is currently in the process of optimizing its cargo portfolio, services, and organization with the goal of improving profitability. As a major shareholder, NYK is closely monitoring the progress of these efforts. Meanwhile, the utilization rate of NCA's fleet and its maintenance costs remain unsatisfactory, so we do not forecast profits in fiscal 2019. We will aim, however, to increase cargo volume by increasingly utilizing the eight Boeing 747-8F aircraft that are back in service, while making use of the three aircraft removed from the fleet by leasing them to Atlas Air Inc. As a result of these initiatives, we expect the performance of the Liner Trade segment and the Air Cargo Transportation segment to improve markedly. We also anticipate further growth in the Logistics segment.

In the Bulk Shipping segment, we will continue to upgrade the dry bulker fleet portfolio, which includes returning chartered dry bulkers before their contract dates, specifically those incurring high costs. In the liquid transport market, many new opportunities are appearing for liquefied

natural gas (LNG) and offshore projects, an important area of investment for the Group. Since such projects require substantial outlays, however, we place importance on closely examining the prospects for profitability while building up investments. Meanwhile, competition with our rivals in the automobile transport market has been heating up. Nevertheless, we have comparatively advanced expertise in this business, so we expect it to continue generating steady earnings. Taking into account all these factors, we forecast profit growth for the Bulk Shipping segment in fiscal 2019.

A major topic this year in the shipping industry was the International Maritime Organization's regulations on vessel emissions of sulfur oxide (SOx), which will take effect from January 2020. The amount of compliant fuel available on the market is expected to fall short of demand. Nevertheless, we will make sure to secure enough fuel so vessels are not forced to stop operating, and deal with the related costs for meeting the new standards. The Group has been making full preparations for the regulations while explaining to customers that this is an industrywide initiative for protecting the environment.

## Progress under the Medium-Term Management Plan

### We are aiming to improve the shareholders' equity and debt-to-equity ratios to new levels now that targets for recurring profit and ROE are within reach.

Under the medium-term management plan, we are aiming for return on equity (ROE) of at least 8% and recurring profit of between ¥70.0 and ¥100.0 billion. In fiscal 2019, we forecast ROE of 5.3% and recurring profit of ¥37.0 billion. To

## FY2018 Results and FY2019 Forecast

(Billions of yen)

	FY2017	FY2018	YoY difference	FY2019 (Forecast)	YoY difference
Revenues	2,183.2	1,829.3	-353.9	1,730.0	-99.3
Operating income	27.8	11.0	-16.7	38.0	+27.0
Recurring profit (loss)	28.0	(2.0)	-30.0	37.0	+39.0
Profit (loss) attributable to owners of the parent	20.1	(44.5)	-64.6	26.0	+70.5
Average exchange rate	¥111.19/US\$	¥110.67/US\$		¥105/US\$	
Year-end exchange rate	¥106.24/US\$	¥110.99/US\$		-	
Average bunker oil price per metric ton	US\$341.41	US\$442.49		US\$430	

## Message from the CFO

drive up recurring profit, we are working to make NCA profitable by fiscal 2020. Steady profits from new LNG projects are also expected to contribute by fiscal 2019 or 2020. Given those factors, we believe the Group will be well positioned to reach the targets. Our forecast of 5.3% for ROE indicates we are already on course to achieving 8%. In fiscal 2018, as part of measures to liquidized assets, the Group posted about ¥22.0 billion in extraordinary income from gains on sales of cross-shareholdings and real estate. To raise ROE further, we will step up efforts to boost earnings, cut costs and improve capital efficiency.

The shareholders' equity ratio was slightly short of 25% in fiscal 2018, but a higher ratio is needed in the maritime shipping industry given its relatively high volatility. Therefore, while 25% is an absolute minimum, we recognize the need to ensure a ratio of at least 30%. Our debt-to-equity ratio target is 1.5 or less, but we will aim to bring it down as close as possible to 1.0.

We have been making progress toward achieving these targets by implementing the basic strategies of the medium-term management plan. Our first strategy is to improve the NYK Group's ability to deal with market fluctuations. Toward that end, we have been upgrading the Group's fleet of dry bulkers and returning previously chartered vessels before their contract dates. We decided to return seven such vessels in fiscal 2018 under difficult operating conditions, so we are well on track to reaching our goal of returning around 20 vessels over three years. Although returning previously chartered ships comes with a penalty under contract conditions, we must decisively carry out these measures for the sake of a better future.

Our second basic strategy is to strengthen businesses for which stable freight rates can be secured. Among them, we have designated LNG and offshore businesses as important investment targets, and seek to become actively involved in projects. There is no guarantee that LNG and offshore projects will be highly profitable every time, so it is

extremely important to be very selective. Certain aspects of these projects are out of the Group's control, but we can increase the accuracy of the selection process by classifying large-scale projects that should be targeted. While collaborating with international partners and applying a combination of investment methods that increase leverage, we are working to ensure that investments generate high returns without inflating the balance sheets. In these ways, we are fully considering capital efficiency while pursuing investments from the standpoints of both project selection and investment methods.

### Financial Strategies

**We are striving to raise capital efficiency while circumventing the shipping industry's need for large-scale investments.**

In the maritime shipping industry, unlike other industries, vast amounts of long-term investments are regarded as unavoidable. Consequently, shipping companies have comparatively high debt ratios, and, therefore, aim to generate stable low-risk returns on investments in order to maintain the transport infrastructure that is so vital for peoples' livelihoods. The high debt ratios in the shipping industry have also been recognized as a special case by rating agencies. Despite this conventional wisdom, however, the industry is now regarded as being overly dependent on debt.

To control risks and costs associated with debt, the Group carefully manages its loans payable while giving due consideration to revenues from assets denominated in foreign currencies, interest rate risks, loan periods, and so on. We have been keeping the total amount of interest-bearing

#### Financial Targets of the Medium-Term Management Plan (Fiscal 2018 to 2022)

	FY2017 results	Medium-term targets
Recurring profit	¥28.0 billion	¥70.0–100.0 billion
Return on equity	3.8%	Minimum 8.0%
Shareholders' equity ratio	27%	Minimum 30%
Debt-to-equity ratio	1.78	Under 1.5
Average exchange rate	¥111.19/US\$	¥105/US\$
Average bunker oil price per metric ton	US\$341.41	HSFO*1: US\$320; LSGO*2: \$620

\*1 HSFO: high sulfur fuel oil

\*2 LSGO: low sulfur gas oil

debt under control by limiting it to around ¥1.0 trillion. We have also reduced cash and cash equivalents from previous amounts of over ¥100.0 billion to about ¥80.0 billion by making effective use of capital available in the Group, based on a policy of using up surplus cash on hand. While some may argue that reducing cash and cash equivalents can lead to problems related to liquidity on hand, the Group has sufficiently established commitment lines of credit, so we foresee no problems in this respect.

To procure funds, we intend to continue acquiring a certain amount through direct financing as a matter of policy, as well as issue corporate bonds for a certain portion to meet the expectations of bond investors. Among these measures, the Company's 40th unsecured corporate bond was issued as a green bond in May 2018. As the first green bond in the global maritime shipping industry, the issuance drew attention as a pioneering initiative and attracted the interest of investors who had never purchased NYK's bonds. On the momentum of that success, we intend to make the most of such effective methods for procuring funds in the future.

## Investment Plans

### The Investment and Credit Committee makes objective decisions using our own WACC-based hurdle rates.

We forecast operating cash flow over the next few years, and having taken into account the investment plans of every business segment, we expect positive free cash flow going forward. On that basis, investment projects will be examined by the Group's Investment and Credit Committee, which is comprised of directors and corporate officers in charge of planning and finance. As the criteria for its decisions, the committee uses the Group's own hurdle rates, which are calculated from the weighted average cost of capital (WACC).

It is possible that an investment project approved by the Investment and Credit Committee might not proceed as planned from the start. In such a case, we will conduct a serious investigation to analyze the causes if necessary. Indeed, we intend to pay extremely close attention to the process of objectively assessing investment projects in the future.



## Dividend Policy

### Giving priority to stable dividends, we set a minimum dividend amount to offer assurance to long-time shareholders.

Management has been targeting a consolidated dividend payout ratio of 25% as a guideline for returning profits to shareholders. Our basic policy at present, however, is to ensure that dividends are paid in a stable manner, stemming from the importance of offering assurance to long-time shareholders. Accordingly, the Board of Directors has decided to set a minimum dividend amount with a view to uphold this commitment to paying a certain amount of dividends to shareholders regardless of the Group's performance. Although the Group posted losses in fiscal 2018, an annual dividend of ¥20 per share has been set, and represents the minimum dividend amount for the time being.

Looking ahead, while taking into account the Group's progress under our medium-term management plan, as well as investment plans and forecasts of financial results, we plan to establish an appropriate dividend policy incorporating the concept of dividends on equity. Following substantial losses in fiscal 2018, we are buckling down and giving top priority to getting the Group's performance back on track in fiscal 2019.

As we work toward this goal, we sincerely ask for the ongoing support and understanding of the Company's shareholders and investors going forward.

## Generating a rapid earnings recovery and fulfilling our responsibility as part of the social infrastructure



### Thoughts on the NYK Group's Culture and Philosophy

The Global Logistics business transports products and intermediate goods that support people's lives. Our basic philosophy of "Bringing value to life," which means being conscious of the final users who need and use the products and goods. One of my objectives is to maintain our open and vibrant corporate culture that values and appreciates the variety of nationalities and cultures of the people who make up the NYK Group and that encourages employees to embrace change and feel empowered to act of their own volition.

**Hiroki Harada** Director, Senior Managing Corporate Officer  
Chief Executive of Global Logistics Services  
Headquarters

## Liner Trade

### Business Overview

The container shipping business was transferred to the newly formed Ocean Network Express Pte. Ltd. (ONE), which was created by integrating the liner divisions of NYK, MOL and "K" Line. Operations launched in April 2018, and preparations are currently under way to transfer the overseas container terminal business to ONE. We have also created a joint holding company with Mitsubishi Logistics Corporation to boost the competitiveness of our domestic terminal business.

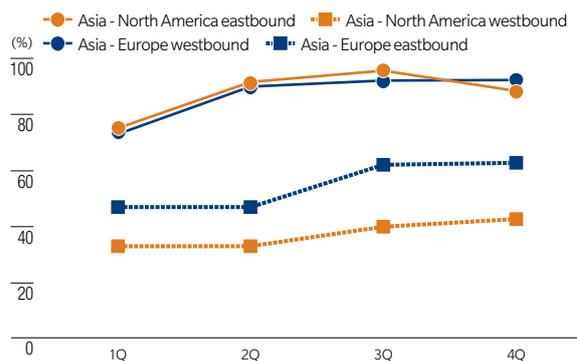


### Formulating the ONE Business Model for a V-Shaped Earnings Recovery

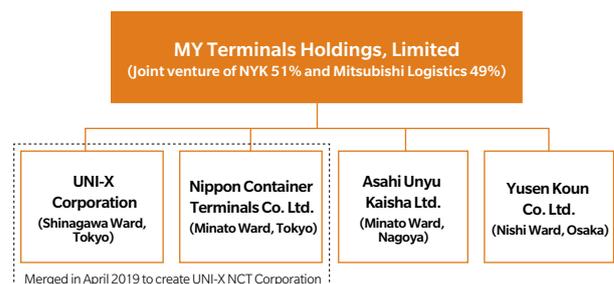
The newly combined ONE container shipping operation that launched in April had some teething problems and needed more time than anticipated to secure a full workforce and convert the various business processes, but its business operations reached an even keel in July. The teamwork ONE is creating by combining the best practices of the former three companies has resulted in the company achieving roughly 80% of its initial target for an annual synergy effect of ¥110.0 billion. The focus from this point will be on formulating a first-rate business model by eliminating the 3Ms (muda, muri, and mura; or non-value adding activities, unevenness in production or work activities, and excessive burdens) and establishing an optimal round-voyage portfolio that will maximize gross profit. We expect these efforts to generate a V-shaped recovery in earnings for the combined operations and put ONE on course to reach its medium-term target for recurring profit of \$500–600 million earlier than initially planned.

We are continuing to discuss and coordinate the merging of the three companies' overseas container terminal operations with the aim of bringing them on board at ONE during fiscal 2019. In the domestic terminal business, we established a joint-venture holding company with Mitsubishi Logistics, a highly competitive terminal operator with leading-edge expertise. The holding company will manage operations of our terminals at Tokyo, Yokohama, Nagoya, Osaka, and Kobe to enhance their competitiveness.

### Utilization by Trades (FY2018)



### The Reorganization of Domestic Terminal Operations



## Air Cargo Transportation

### Business Overview

Nippon Cargo Airlines Co. Ltd. (NCA) provides international air cargo services linking Japan, North America, Europe, and Asia. In July 2018, Japan's Ministry of Land, Infrastructure, Transportation and Tourism issued a business improvement order concerning inadequate maintenance at NCA. The company promptly responded in August by submitting a 69-point plan of improvements, and as of the end of June 2019 NCA had implemented all initiatives.



### Enhancing Operational Safety and Stability with a Streamlined Fleet

NCA followed the administrative action by reaffirming its commitment to safety and by voluntarily immediately grounding its full fleet of 11 aircraft for maintenance and thorough inspections. The company also changed its operating system from 11 aircraft of two model types to eight aircraft of a single model type to enable more efficient and thorough maintenance. NCA leased the three remaining aircraft to U.S.-based Atlas Air Inc. (Atlas), expanded airfreight volume through an agreement with Atlas, and plans to use the additional space to increase the flexibility of its air cargo transport services.

NCA does not expect to return to profitability in the coming

year. However, the company has established an effective balance between aircraft usage and maintenance, thus ensuring extremely safe and stable operations, and expects the flexibility gained from the additional space provided by Atlas-operated aircraft to improve profitability.

#### 747-8F Flight Operation Resumption Schedule

	June 2018 Suspension of Operations	End of 2Q	End of 3Q	4Q		
				End of Jan	End of Feb	End of Mar
No. of Aircraft in Operation	0	3	6	8	→	

## Logistics

### Business Overview

In February 2018, NYK made Yusen Logistics Co. Ltd. (YLK) a wholly owned subsidiary, thus strengthening group collaboration. YLK has a well-balanced portfolio by region and business, and the NYK Group now offers a full menu of logistics solutions through 590 logistics centers in 45 countries to meet needs that are increasingly global and diverse.



### Expanding Synergies and Increasing the Added Value in Our Services

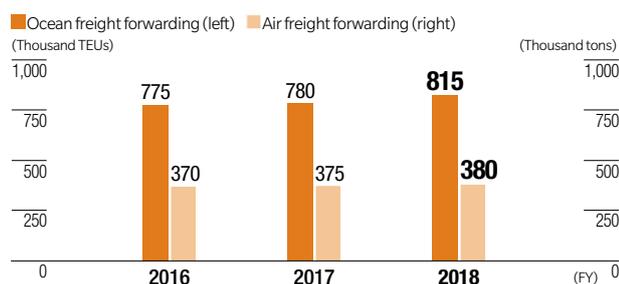
The logistics business is the NYK Group's solid and stable earnings foundation. Nevertheless, further developing the business's potential is essential to achieving the targets in YLK's medium- to long-term management plan TRANSFORM 2025. We are seeking to maximize Group synergies by linking the automotive logistics business and operations at NYK Bulk & Projects Carriers Ltd., in addition to integrating IT departments. We are also applying our experience in the container shipping business to increase operating efficiency, including outsourcing the voluminous documentation

work required in the freight-forwarding business.

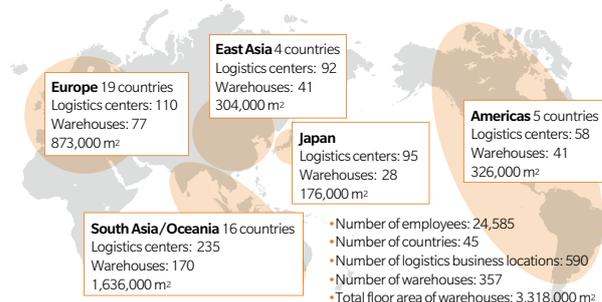
Strategies to improve profitability include continuing to enhance our sales force and space-purchasing capabilities, strengthening our origin cargo management (OCM)\* and other value-added services, and advancing innovation in our services, such as digital forwarding.

\* Origin cargo management (OCM) provides complete visibility of the logistics and supply chain from the order of the product to its status at the manufacturing site and then the domestic or international delivery to the product's final destination.

#### Cargo Volume in Ocean Forwarding and Air Forwarding



#### Logistics Center Locations (As of March 31, 2019)



## Applying our tireless ingenuity and technical abilities to meet the challenges of a transforming automobile industry



### Thoughts on the NYK Group's Culture and Philosophy

Automobiles have become an important part of our lives, and the Car Transportation Division is “Bringing value to life” and supporting the development of society by transporting automobiles all over the world. In our division, words we use to describe the outlook we desire in our employees when we conduct our business include bright, calm, nimble, and resilient. Our mission is to be skillful, flexible, and passionate, to have inherent teamwork, and to anticipate customer needs.

**Takaya Soga** Managing Corporate Officer  
Chief Executive of Automotive  
Transportation Headquarters

### Business Overview

NYK is a major transporter of finished vehicles in Japan and worldwide with the world's largest fleet of pure car and truck carriers (110 vessels). In addition to long-haul ocean transport, the Group provides high value-added services ranging from short-sea transport within Europe and Southeast Asia and inland transport via railway and semitrailers to the management of car and truck carrier terminals and facilities for pre-delivery inspection (PDI), including inspection, repair, and component attachment.



## Recognizing Market Conditions

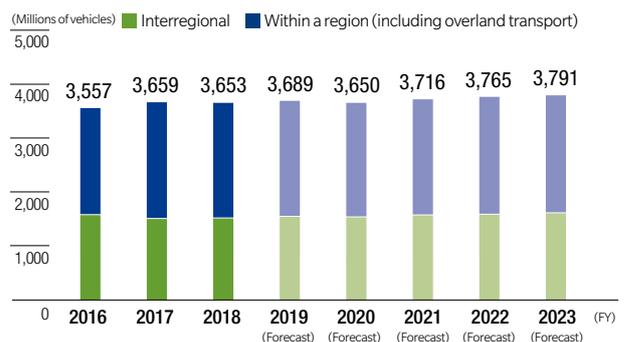
### Improving Logistics with Advances in Mobility Services

The advances in connected, autonomous, shared, and electric (CASE) automotive technologies are revolutionizing the automobile industry. And connected cars are already having an impact. Cars equipped with data communication modules (DCMs) are making it possible to collect information not just on driving conditions but also on a wide variety of social activities. Data collected from cars not only helps with prediction and early detection of trouble related to automobiles but also can be used to gather information about society. The different levels of social infrastructure maintenance and development depending on the country, local region, and city mean that it will take time for CASE to be fully achieved around the world. However, the arrival and proliferation of connected cars should speed up the technical development of autonomous cars and the social infrastructure for shared vehicles.

We expect demand for automobiles to continue growing by at least 1–2% annually, which is a little slower than the 2–3% growth in the past 10 years. While the automobile markets in some countries are already saturated, car culture is rapidly developing in others. At the same time, many countries are

considering switching to railway and sea transport because of the environmental advantages of overland infrastructure. NYK will be ideally equipped to meet the emerging needs with its unmatched ability to combine an accurate reading of demand trends and the optimal mode of transport so it is always prepared to handle the right amount of cargo volume at the right time.

### Worldwide Car Transport Volume (intercontinental, interregional)



Source: Created by NYK (including estimates)

## Fundamental Strategies and Key Initiatives

### Improving Our Environmental Performance with Supply Chain Efficiency and LNG-fueled vessels

Progress in CASE also helps us improve the efficiency of finished vehicle logistics. Autonomous driving technology has the potential to reduce stevedoring work, alleviate issues caused by labor shortages, and reduce accidents. DCMs also offer advantages, including providing detailed processing data for post-port delivery logistics for individual vehicles while they are still in ocean transport, which could shorten delivery periods and improve supply chain efficiency.

CO<sub>2</sub> emissions will almost certainly come down as we eliminate excess in transport operations and make the supply chain more efficient. But on top of that, we are working to decrease the environmental footprint of our car and truck carriers from a long-term perspective.

The International Maritime Organization's sulfur oxide emissions regulations that will come into effect in January 2020 are just the start of an incremental tightening of global environmental

regulations followed by reducing nitrogen oxide and CO<sub>2</sub> greenhouse gas emissions. Since car and truck carriers generally have working lifespans of 30 years, new ships must be built to conform to future environmental regulations. The Car Transportation Business expects LNG to be the main energy source for ships going forward, and we are already in discussions with clients and shipyards about the practical realization in 20 to 30 years of a new type of car and truck carrier that runs on hybrid LNG-battery power.

The group company International Car Operators N.V. (ICO) in Belgium is constructing 11 wind turbines at its car and truck carrier terminals with the plan to begin power generation in fiscal 2020. ICO also has water recycling facilities and EV charging stations at its PDI facilities. The NYK Group considers the ICO terminals as the standard for its development of green terminal operations.

## Strengths and Issues to Address

### Engaging Sophisticated Logistics Technology to Preserve the Freshness of New Cars for Delivery

A country's economic conditions can force our clients to suddenly change their plans for production, sales, and vehicle shipments. Our car carrier fleet, the world's largest, gives us a substantial advantage in our ability to flexibly meet and accommodate changing needs.

Another major area that sets the NYK Group clearly apart from other shipping companies is our logistics technology. Our mission is to transport a vehicle from the factory and deliver it to the final purchaser in fresh condition. We have always used leading technologies to accomplish that goal, and currently are harnessing new capabilities enabled by big data. For example, a ship's crew uses real-time data for organizational preparations while the ship is en route. That data is also monitored on shore to anticipate potential ship problems, such as engine troubles, and for accident prevention. Data about weather conditions, which change constantly, can be closely monitored both on ship and on shore allowing running discussion and decisions about sea routes for maximum fuel efficiency and the safest and most secure transport service, all of which help avoid delivery delays or cargo damage due to issues that affect the ship. The data can be used to reproduce a ship's vibrations at sea on a vibration table on shore, allowing us to find the best method and tightness for securing vehicles in place suited to the specific real-time conditions, which not only protects against cargo damage but also reduces delivery cost.

We have also created the new position of chief cargo officer (CCO) at each of our shipmanagement companies to oversee ship maintenance and the labor management and training of ship crews. The CCO is charged with maintaining and improving

ship quality and mentoring the crew with the mandate to "protect the cars on our ships from any and all damage." Another measure we have taken to prevent and deal with cargo-related issues that occur at sea is providing more opportunities for onshore operators to visit our ships to give them a better understanding of ship conditions.

All these logistics technologies are the result of the teamwork, curiosity, and passion of our personnel both onshore and aboard our ships. We will continue to improve our technology to continue improving as the world's leading provider of finished car logistics services.

Global Car Transport Fleet Ranking (As of December 31, 2018)

Rank	Operator	Vessels	Share (%)	Capacity (Cars)	Share (%)
1	NYK	103	14.7%	621,059	15.2%
2	MOL	86	12.3%	516,509	12.6%
3	"K"Line	80	11.4%	476,097	11.6%
4	EUKOR	71	10.1%	475,525	11.6%
5	GRIM	62	8.9%	280,837	6.9%
6	GLOVIS	60	8.6%	401,890	9.8%
7	WWO	54	7.7%	367,165	9.0%
8	HAL	46	6.6%	307,425	7.5%
9	NMCC	12	1.7%	67,400	1.6%
	Total	700		4,091,410	

Source: NYK based on Hesnes Shipping AS, *The Car Carrier Market 2018*

Note: Table includes only vessels with a capacity of 2,000 vehicles or more.

## Strengthening our resilience to market conditions and steadily advancing structural reform



### Thoughts on the NYK Group's Culture and Philosophy

When we turn in a strong earnings performance, we tend to think “the positive result covers up all that is bad,” and when earnings are weak we think “a negative result erases all that is good.” That is why I am adamant about actively sharing information so everyone has a clear understanding of our department’s objectives. I want us to be a company that thrives in any business conditions by correctly understanding and assessing conditions and by encouraging the efforts of young staff members to improve our operating efficiency and advance initiatives to streamline costs.

**Koichi Uragami** Managing Corporate Officer  
Chief Executive of Dry Bulk Division

### Business Overview

We have long-term contracts with customers in the steel, electric power, and paper industries for the safe and reliable transport of bulk cargo\* such as iron ore, coal, and wood chips—natural resources procured in Japan and around the world that are vital to the world economy. We are strengthening our resilience to market fluctuations by enhancing our ability to respond to market needs and implementing structural reform to establish an optimal fleet composition.

\* Bulk cargo is unpackaged cargo transported in bulk quantities.



## Recognizing Market Conditions

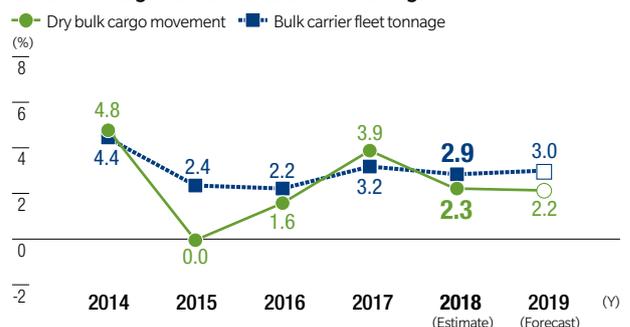
### Anticipating Recovery from Weak Market Conditions

Market conditions for dry bulk were strong in the first half of fiscal 2018 but deteriorated in the fourth quarter amid negative factors, including the U.S.-China trade friction, slowing economic expansion in China, and the dam collapse at the iron-ore mine in Brazil. However, these conditions were produced by a combination of the expected rates for the first half and the strong market reaction to these circumstances and events. The balance of shipping tonnage and demand for cargo shipments remained steady throughout the period, which we believe indicates that conditions will improve.

We think environmental movements, such as decarbonization, will have a potentially stronger impact on our business in the medium and long term. One such initiative is commonly referred to as “IMO2020,” which is the international sulfur oxide (SOx) emissions regulations scheduled to take effect in 2020. Complying with the regulations will reduce tonnage capacity as ships are taken out of service for the installation of SOx scrubbers (systems for desulfurizing exhaust gas), and older vessels are retired earlier than planned. At the same time, coal is a major cargo for the Dry Bulk Division, so the global move away

from fossil fuels will impact our business. Electric power companies will still have to provide a stable supply of electric power, however, so we would not expect a sudden drop in coal shipment tonnage. For now, we expect demand to remain firm in Southeast Asia and other regions experiencing population growth as power companies seek coal to ensure low-cost power generation. We will continue to maintain a fleet of ships that can flexibly respond to various conditions and fluctuations in demand.

### Growth in Cargo Movement and Fleet Tonnage



Source: NYK based on Clarksons Research *Dry Bulk Trade Outlook, February 2019*

## Fundamental Strategies and Key Initiatives

### Meticulously Controlling Exposure to Market Conditions and Maintaining and Expanding Long-term Contracts

The Dry Bulk Division's primary earnings source is our long-term contracts with customers who procure and export large volumes of iron ore, coal, woodchips, and other resources. Our business is to safely and securely transport cargo on specialized carriers. The ever-changing social conditions and global economy, and the evolving needs of our customers, make it inevitable that the length and number of our long-term contracts will gradually decline in the future. However, we remain dedicated to sustaining and expanding our core business as an industrial carrier company transporting resources essential to industry and our daily lives.

In April 2018, we created the Trumper Group as part of initiatives to fulfill the medium-term management plan to make the NYK Group more resilient to market conditions. The Trumper Group provides centralized management of market exposure, which in the shipping industry refers to ships not engaged in long-term contracts and therefore unable to generate stable

revenue. The group is also steadily building profits by improving vessel assignment efficiency and chartering vessels that are most suitable for the timing and length of a contract. The group's aim is to establish a structure capable of securing stable revenue even during unfavorable market conditions. One example of the benefits of this group structure is that the Group has a lower percentage of ballast voyages than other companies. In dry bulk cargo operations, keeping down the percentage of ballast voyages (voyages with no cargo) is key to raising profitability.

Creating the new Trumper Group structure enabled us to clarify and prioritize two key initiatives: maintaining and expanding our long-term contracts, and improving our ability to respond to changes in market conditions. In addition, the group is moving forward with the early termination of costly chartered vessel contracts. These have been an issue for several years, and the group is making steady progress toward establishing stable earnings.

## Strengths and Issues to Address

### Providing Added Value through Our Sales Network, Shipping Operations, and Maritime Expertise

One of the strengths of the NYK Group is its global sales network. Our offices in South Korea, China, Singapore, Belgium, the United States, India, and Brazil maintain close relations with customers and give us access to detailed freight data worldwide. Our sales network is a major strength that further enhances our ability to maintain and expand long-term contracts and improve our response to market conditions.

Our shipping operations and maritime expertise are our other strengths. Many companies with a surplus of funds are using the excess liquidity to enter the dry bulk business. This has increased the number of accidents and lowered the quality of cargo transport. As a result, customers are demanding higher-quality ships, and a movement has surfaced to set international standards for assessing ship quality. We are confident the Group is the industry leader in the quality of our shipping operations and our shipping management.

We believe our Group stands head and shoulders above other shipping firms for our ability to provide safe and secure shipping operations based on the unmatched maritime experience and technological expertise of our Marine Group and Technical Group, our collaboration with our subsidiary and strategic technology specialist firm Monohakobi Technology Institute, and our close alliances with shipmanagement companies. We have struggled in the past to take full advantage of these strengths in our business activities, but we are now starting to leverage them to provide new value-added services to our customers by working as a partner to find business solutions, such as proposing more efficient cargo handling ideas to our

major resource clients and converting to biofuels.

We are also using our status as one of the world's few shipping operators with a full fleet of dry bulk carriers to reduce costs through economies of scale.

Current initiatives include centralizing purchasing within the Group and entering contracts that include dockyards in anticipation of increasing demand for installing scrubber and ballast water management systems on ships.

**Bulk Carrier Fleet Ranking** (As of January 1, 2019)

Rank	Company	Kt (dwt)	Vessels
1	China COSCO Shipping	30,484	292
2	NYK	16,492	179
3	China Merchants	13,696	114
4	"K" Line	13,256	113
5	Fredriksen Group	12,690	105
6	Star Bulk Carriers	11,703	106
7	MOL	11,652	101
8	Berge Bulk	10,965	53
9	Angelicooussis Group	9,168	52
10	Oldendorff Carriers	8,477	83
11	Polaris Shipping Co	8,381	33
12	Pan Ocean	8,359	59
13	Imabari Shipbuilding	8,196	82

Source: Compiled by NYK based on Clarkson Database

## Developing a comprehensive energy value chain business



### Thoughts on the NYK Group's Culture and Philosophy

The specific mission of the Energy Division is "Bringing energy to life," or transporting energy resources like crude oil and LNG, and petroleum products that are essential to people's lives. In our work, safety is the most important element, and our corporate culture prioritizes safety over everything else. While continuing to provide safe and stable operations, we will continue to generate new value by being open to new ways to respond to the needs of our changing age.

**Akira Kono** Managing Corporate Officer  
Chief Executive of Energy Division

### Business Overview

The Energy Division's operations cover the entire energy value chain with a fleet of some 170 vessels, including very large crude-oil carriers (VLCCs), product tankers for transporting petroleum products (MR/LR), LPG vessels, LNG vessels, and floating production, storage, and offloading (FPSO) units, making us one of the largest energy tanker shipping companies in the world. We are also developing operations in the field of LNG fuel supply and renewable energy such as wind turbine power generation.



## Recognizing Market Conditions

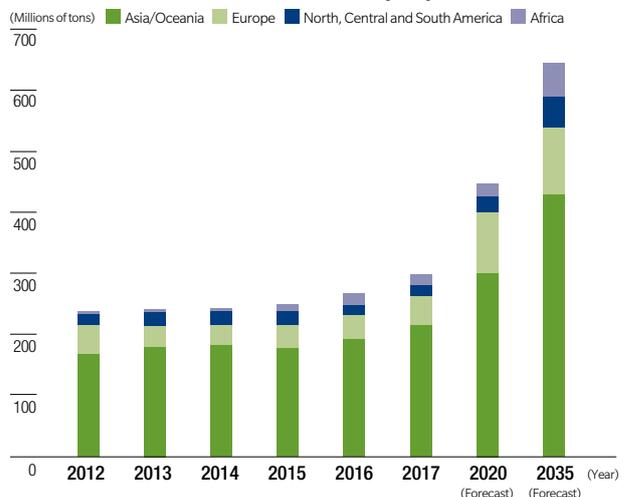
### Actively Participating in Emerging Fields of New Energy Demand

NYK uses the International Energy Agency's (IEA) annual World Energy Outlook (WEO), particularly the new policies scenario (NPS) and sustainable development scenario (SDS), as a benchmark for the Company's forecasts of energy demand trends. In its main scenario, the WEO projects demand for primary energy to increase by 27% from 2017 to 2040 as a result of economic growth in developing countries and population growth around the world. Demand for natural gas is expected to grow substantially while demand for coal and crude oil remains flat. Each year, the main scenario changes slightly as the rising demand for renewable energy and improving electric power generation efficiency in recent years have moderately reduced the growth forecast for natural gas demand.

The Energy Division has been developing a business model centered on specializing in long-haul, large-volume transport. While this has served us well in the past, we are examining a new value chain strategy in tune with emerging trends such as supporting local production for local consumption, which is common with renewable energy, and participating in national projects like Japan's exploration and development of territorial ocean resources. These

new activities will enable us to develop new business fields that extend beyond our legacy transport operations.

### LNG Transactions and Demand Forecast by Major Market



Source: Compiled by NYK based on IHS Markit LNG Supply Demand Gap 2019

## Fundamental Strategies and Key Initiatives

### Focusing on LNG and Offshore Operations While We also Develop Green Businesses

The medium-term management plan has LNG as a focus field for investment, and we plan to increase our LNG fleet from 75 vessels currently to about 100 by 2022 centering on medium- to long-term service contracts. Demand for LNG is expected to steadily grow because it burns cleaner than oil or coal, thereby producing less CO<sub>2</sub>, nitrogen oxide, and sulfur oxide emissions, and because the gas-producing regions are more evenly distributed around the world. Sales contracts tied to LNG production projects used to be mostly long-term contracts, but medium-term contracts have become common as production has increased and LNG has become more of a commodity, which has even led to the creation of an LNG spot market. A similar trend is occurring for LNG transport ships, with an increasing number of medium-term contracts and emerging spot charter demand. We plan to overhaul our entire LNG fleet operation to establish a balanced fleet composition and reduce asset risk by leveling contract termination dates and upgrading to new ships with superior fuel efficiency.

In our other focus investment field of offshore business, we expect the stabilized crude oil prices to lead to new oil

development projects off the coast of Brazil and other countries. We think the reduced environmental burden will lead to increasing use of natural gas and LNG over the long term, particularly in developing countries, and we will seek partnerships for participation in new projects, including floating LNG storage and regasification units and floating liquefied natural gas units.

NYK's green business ventures commenced in 2017 when the company launched its LNG-fueled vessel operation with the commissioning of the world's first LNG bunkering vessel in Belgium. The Company plans to launch a similar service in Japan's Ise Bay in 2020 as NYK continues transitioning to low-carbon marine fuels. We are also pursuing biomass and offshore wind power generation operations and are in a partnership with Japan's Ministry of Land, Infrastructure, Transport and Tourism in a hydrogen research project. In April 2018, NYK established the Green Business Group to examine how the company can respond and develop business opportunities related to renewable energy.

#### Offshore Business and LNG Value Chain



## Strengths and Issues to Address

### Using Our Abundant Know-How and Cultivating Personnel Skilled in Project Management

The NYK Group has a long and successful track record of safely transporting energy resources and petrochemical products that has earned it the trust of customers around the world. We have been able to do this because of our highly experienced, highly specialized staff with maritime expertise in ship management and operation management, technological capabilities in vessel design, and business and finance composition.

The Energy Division is also engaged in a value chain strategy that will enable us to apply our expertise in areas beyond the shipping industry. For example, the NYK Group is currently participating in a scientific drilling operation employing the deep-sea drilling vessel *Chikyu*. NYK is also conducting basic geophysical surveys for oil and natural gas in Japan through the Company's participation in Ocean Geo-Frontier (OGF), a three-dimensional physical exploration project that NYK is a vested partner in with Japan Oil, Gas and Metals National Corporation (JOGMEC).

Participation in this project opens the potential for the Company to join in foreign oil exploration operations in the future.

Our technical capabilities are also applicable to offshore wind power generation, which requires installation ships, offshore maintenance, and other maritime operations. In the biomass field, the Group's marine consulting company can provide support developing shipping transport technologies and constructing new harbor facilities.

To be successful in these endeavors, the Energy Division will need to be extremely sensitive to trends in the energy businesses, gather together expertise and necessary resources from throughout the Group, and formulate all new businesses. Key to all of these will be cultivating the human resources to manage these projects. I want our younger employees to take a broader view of their current positions and work to build the skills to lead the Company in the next generation.

## 10-year Summary

	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
<b>Results of Operation:</b>						
Revenues	¥1,697,342	¥1,929,169	¥1,807,819	¥1,897,101	¥2,237,239	¥2,401,820
Costs and expenses	1,520,932	1,622,045	1,661,112	1,704,591	1,991,043	2,127,207
Selling, general and administrative expenses	194,504	184,777	170,831	175,075	201,200	208,419
Operating profit (loss)	(18,094)	122,346	(24,124)	17,434	44,995	66,192
Recurring profit (loss)	(30,445)	114,165	(33,238)	17,736	58,424	84,010
Profit (loss) attributable to owners of parent	(17,447)	78,535	(72,820)	18,896	33,049	47,591
Capital expenditures	237,969	278,570	309,288	302,326	248,230	199,343
Depreciation and amortization	98,019	100,198	100,857	97,522	105,956	101,045

<b>Financial Position at Year-end:</b>						
Total assets	2,207,163	2,126,812	2,122,234	2,430,138	2,551,236	2,569,828
Interest-bearing debt	1,081,870	981,972	1,067,125	1,292,191	1,241,963	1,098,357
Shareholders' equity	661,232	684,627	579,342	650,490	720,270	810,311

<b>Cash Flows:</b>						
Operating activities	62,105	174,585	29,837	93,951	136,522	136,448
Investing activities	(43,706)	(162,781)	(139,402)	(135,566)	6,409	26,755
Financing activities	137,396	(100,161)	72,159	177,966	(95,485)	(199,007)

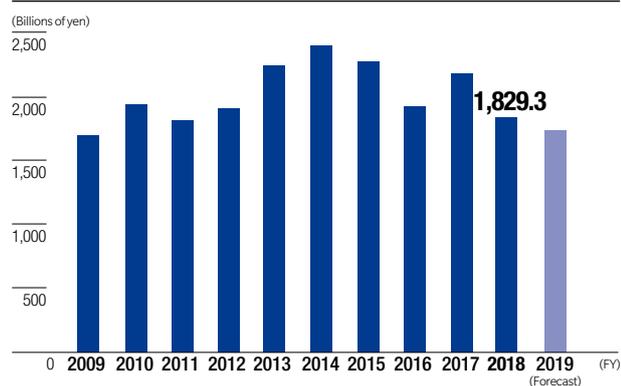
<b>Per Share Data:</b>						
Basic net income (loss)	(127.13)	462.73	(429.19)	111.40	194.85	280.60
Equity	3,894.58	4,034.60	3,415.35	3,834.95	4,246.65	4,777.86
Cash dividends applicable to the year	40.0	110.0	40.0	40.0	50.0	70.0
Dividend payout ratio	-	23.8%	-	35.9%	25.7%	24.9%

<b>Managing Indicators:</b>						
Return on equity (ROE)	(2.9%)	11.7%	(11.5%)	3.1%	4.8%	6.2%
Return on assets (ROA)	(0.8%)	3.6%	(3.4%)	0.8%	1.3%	1.9%
Return on invested capital	(0.4%)	4.6%	(0.6%)	1.1%	2.3%	3.1%
Debt-to-equity ratio (DER) (Times)	1.64	1.43	1.84	1.99	1.72	1.36
Shareholders' equity ratio	30.0%	32.2%	27.3%	26.8%	28.2%	31.5%

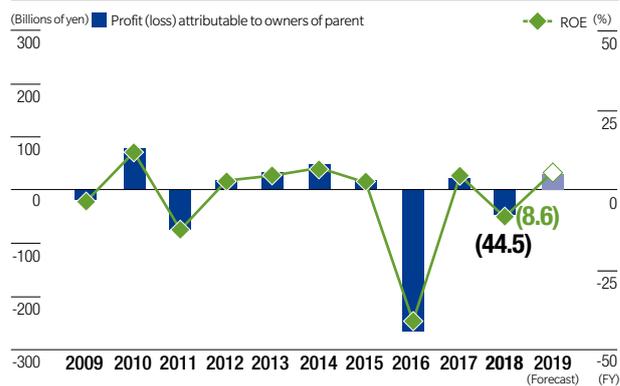
\* Dividend payout ratio has not been indicated when net income has been negative

\* On October 1, 2017, the Company conducted a 1-for-10 reverse stock split. The dividends per share on this page take into consideration the effect of this reverse stock split

### Revenues



### Profit (Loss) Attributable to Owners of Parent / ROE

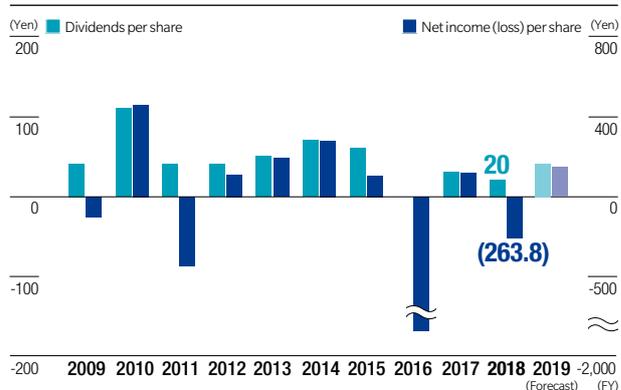


FY2015	FY2016	FY2017	FY2018	FY2019 (Forecast)
(Millions of yen)				
¥2,272,315	¥1,923,881	¥ 2,183,201	¥1,829,300	¥1,730,000
2,009,547	1,736,723	1,952,401	1,634,188	-
213,802	205,236	202,974	184,026	-
48,964	(18,078)	27,824	11,085	38,000
60,058	1,039	28,016	(2,052)	37,000
18,238	(265,744)	20,167	(44,501)	26,000
115,791	155,993	200,443	170,776	-
103,347	92,004	87,839	89,713	88,000
(Millions of yen)				
2,244,772	2,044,183	2,071,636	2,001,704	-
940,576	945,391	983,432	1,046,182	1,030,000
773,678	522,471	551,887	487,432	500,000
(Millions of yen)				
142,857	27,924	89,090	45,260	96,000
(46,895)	(144,612)	(137,994)	(132,292)	(75,000)
(160,260)	1,952	17,587	62,715	-
(yen)				
107.54	(1,572.35)	119.57	(263.80)	154.12
4,562.10	3,097.96	3,272.21	2,889.26	-
60.0	-	30.0	20.0	40.0
55.8%	-	25.1%	-	26.0%
(%)				
2.3%	(41.0%)	3.8%	(8.6%)	5.3%
0.8%	(12.4%)	1.0%	(2.2%)	-
2.6%	0.6%	1.7%	0.9%	-
1.22	1.81	1.78	2.15	2.06
34.5%	25.6%	26.6%	24.4%	25.0%

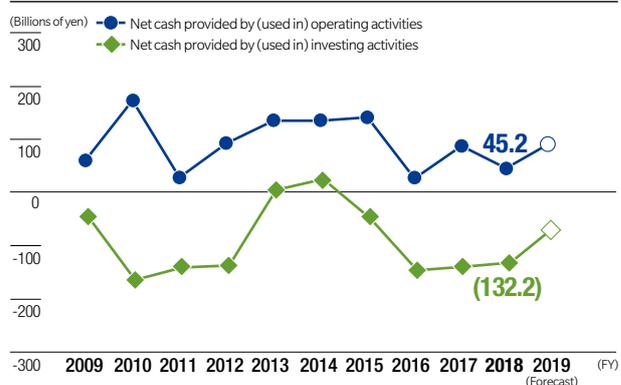
### Shareholders' Equity/Shareholders' Equity Ratio



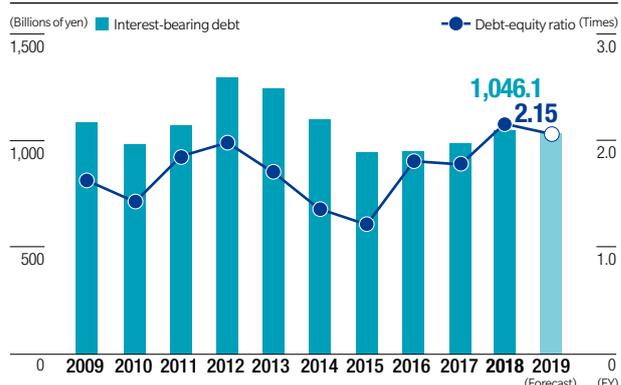
### Dividends per Share/Net Income (Loss) per Share



### Cash Flows



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



### Ratings

(As of June 30, 2019)

Rating Company	Type of Rating	Rating
Japan Credit Rating Agency Ltd. (JCR)	Long-term Issuer Rating (Outlook)	A- (Stable)
	Bond Rating	A-
Rating and Investment Information Inc. (R&I)	Issuer Rating (Outlook)	BBB+ (Negative)
	Long-term	BBB+
	Short-term	a-2
Moody's	Issuer Rating (Outlook)	Ba1 (Stable)

## 10-year Summary

### By Segment

	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
<b>Revenues:</b>						
Liner Trade	¥ 378,085	¥ 462,163	¥ 418,744	¥ 441,863	¥ 617,494	¥ 696,352
Terminal and Harbor Transport	110,279	122,419	140,089	140,804	-	-
Air Cargo Transportation	62,579	87,234	82,612	77,864	88,854	99,110
Logistics	341,782	390,929	365,191	366,829	431,567	486,919
Bulk Shipping	733,471	796,430	730,854	795,587	988,489	995,851
Real Estate	12,154	11,458	10,849	10,423	9,946	9,504
Cruises	35,155	35,877	32,471	35,042	45,270	49,802
Other Business Services	155,981	163,535	184,577	173,635	192,767	170,607
Elimination and corporate	(132,148)	(140,878)	(157,571)	(144,950)	(137,150)	(106,327)
Consolidated total	1,697,342	1,929,169	1,807,819	1,897,101	2,237,239	2,401,820
<b>Recurring Profit (Loss):</b>						
Liner Trade	(55,445)	30,248	(44,757)	(9,433)	(782)	9,807
Terminal and Harbor Transport	2,926	6,699	7,748	6,952	-	-
Air Cargo Transportation	(15,182)	7,817	3,384	(4,862)	(7,371)	699
Logistics	1,554	7,750	9,266	4,773	6,534	10,794
Bulk Shipping	36,604	60,414	(7,786)	18,623	54,884	60,082
Real Estate	4,909	4,368	3,902	3,940	3,824	3,257
Cruises	(4,093)	(2,688)	(5,823)	(3,744)	717	2,117
Other Business Services	(1,732)	(459)	811	1,475	672	(596)
Elimination and corporate	13	15	15	11	(55)	(2,153)
Consolidated total	(30,445)	114,165	(33,238)	17,736	58,424	84,010
<b>Assets:</b>						
Liner Trade	275,877	259,367	261,554	280,701	452,479	499,804
Terminal and Harbor Transport	135,983	138,134	158,466	166,070	-	-
Air Cargo Transportation	64,329	59,992	69,766	90,311	78,845	56,221
Logistics	208,477	215,219	205,224	217,455	237,998	274,382
Bulk Shipping	1,237,619	1,302,705	1,295,649	1,412,501	1,502,207	1,501,200
Real Estate	56,790	53,842	54,596	57,372	53,841	56,835
Cruises	33,214	27,397	28,117	28,659	33,786	44,273
Other Business Services	507,599	507,564	457,568	607,828	552,979	414,123
Elimination and corporate	(312,727)	(437,410)	(408,711)	(430,536)	(360,902)	(277,012)
Consolidated total	2,207,163	2,126,812	2,122,234	2,430,364	2,551,236	2,569,828
<b>Depreciation and Amortization:</b>						
Liner Trade	8,452	9,535	11,471	12,607	16,858	17,660
Terminal and Harbor Transport	4,676	4,785	4,776	4,789	-	-
Air Cargo Transportation	688	740	787	2,320	2,247	2,595
Logistics	6,563	6,139	6,214	6,376	7,327	8,043
Bulk Shipping	73,353	74,958	73,710	67,388	75,469	68,688
Real Estate	1,027	831	924	909	917	1,090
Cruises	1,796	1,843	1,860	2,044	2,114	1,800
Other Business Services	1,472	1,375	1,122	1,094	1,030	1,387
Elimination and corporate	(11)	(13)	(10)	(8)	(9)	(220)
Consolidated total	98,019	100,198	100,857	97,522	105,956	101,045

\* Since FY2013, "Terminal and Harbor Transport" has been included in "Liner Trade." In addition, some consolidated subsidiaries have been moved from "Liner Trade" to "Bulk Shipping"

\* Since FY2015, "Cruises" has been included in "Other Business Services"

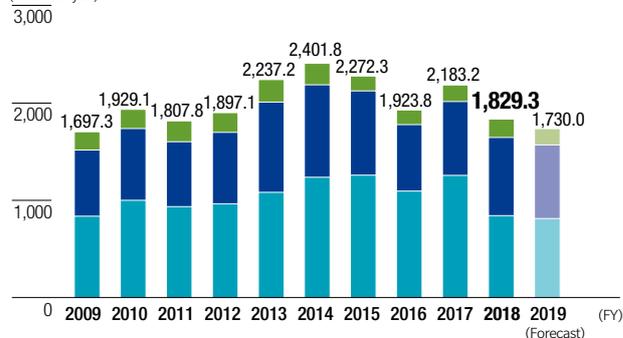
(Millions of yen)				
FY2015	FY2016	FY2017	FY2018	FY2019 (Forecast)
¥ 706,366	¥ 585,904	¥ 691,433	¥ 286,339	¥ 207,000
-	-	-	-	-
91,101	81,919	97,826	56,750	98,000
496,509	461,361	512,332	525,826	540,000
902,291	717,729	795,606	841,358	803,000
9,781	9,439	7,941	7,617	7,500
-	-	-	-	-
147,015	146,614	172,300	188,158	165,000
(80,751)	(79,087)	(94,238)	(76,751)	(90,500)
2,272,315	1,923,881	2,183,201	1,829,300	1,730,000
-	-	-	-	-
(321)	(12,716)	10,874	(26,401)	6,000
-	-	-	-	-
1,585	2,631	1,811	(15,969)	(6,000)
11,869	7,650	2,382	7,728	8,000
46,595	(4,168)	9,643	33,791	36,000
3,379	12,079	2,659	2,747	2,500
-	-	-	-	-
(53)	(1,496)	3,167	3,082	(1,000)
(2,997)	(2,940)	(2,522)	(7,031)	(8,500)
60,058	1,039	28,016	(2,052)	37,000
-	-	-	-	-
419,247	401,983	405,307	361,893	-
-	-	-	-	-
47,597	53,004	77,362	64,122	-
250,303	255,189	277,919	281,834	-
1,338,549	1,269,346	1,256,094	1,285,305	-
63,542	56,266	58,854	57,328	-
-	-	-	-	-
251,326	209,981	195,238	171,748	-
(125,795)	(201,587)	(199,141)	(220,530)	-
2,244,772	2,044,183	2,071,636	2,001,704	-
-	-	-	-	-
20,173	17,646	13,770	11,754	-
-	-	-	-	-
2,160	2,360	2,825	4,485	-
8,202	7,175	8,355	9,088	-
68,942	61,223	59,404	60,465	-
1,118	1,056	1,259	1,285	-
-	-	-	-	-
2,916	2,543	2,244	2,672	-
(166)	(1)	(19)	(37)	-
103,347	92,004	87,839	89,713	-

\* Figures before changes in business category have not been restated

## Revenues

Global Logistics Bulk Shipping Others

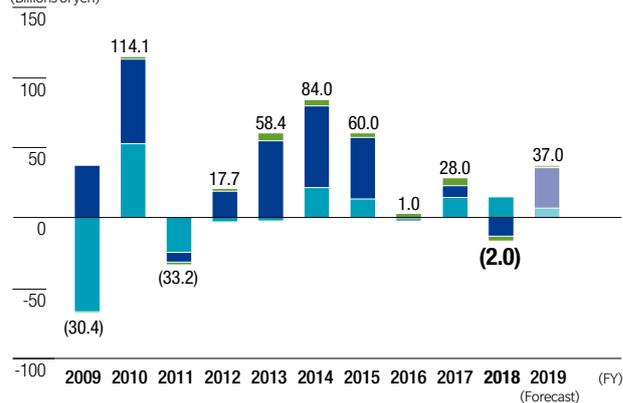
(Billions of yen)



## Recurring Profit and Loss

Global Logistics Bulk Shipping Others

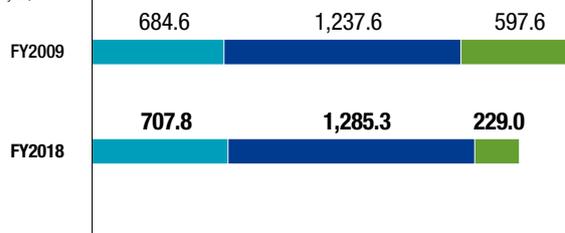
(Billions of yen)



## Assets

Global Logistics Bulk Shipping Others

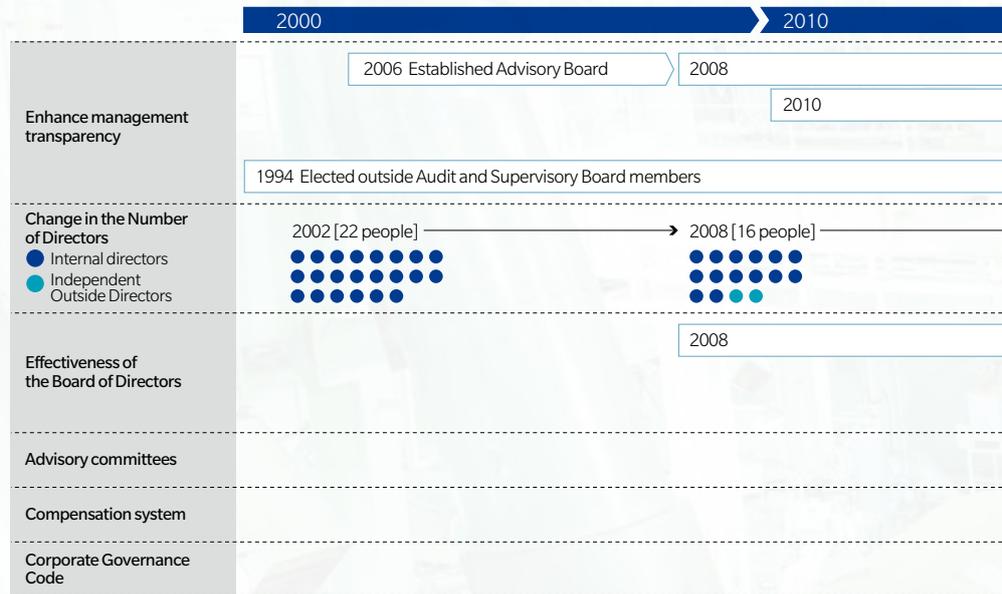
(Billions of yen)



# Part IV Corporate Governance

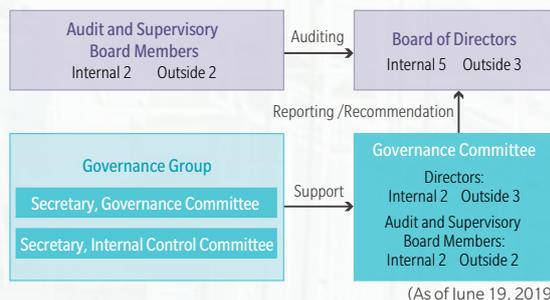
Over the years, NYK has worked consistently to enhance its corporate governance system and improve internal control. Unfortunately, however, the NYK Group's execution of business operations was found to be inadequate last year. In addition to seriously reflecting on this matter, we have renewed our commitment to learn from past mistakes, while taking this opportunity to review our management foundation and take a step forward toward a more appropriate management structure. As part of this, in January 2019 we established the Governance Committee and Governance Group. We will now work toward further strengthening governance in order to earn back the trust of all stakeholders.

## History of Enhancing Governance



## Establishment of Governance Committee

We established the Governance Committee as an organization for increasing the objectiveness and independence mainly of Outside Directors and Audit and Supervisory Board members. The committee is charged with improving the supervision and monitoring functions of management, along with identifying problems, reporting in a more agile manner, and proposing improvements. The newly established Governance Group supports the committee as the standing secretariat.



Abolished Advisory Board and elected Outside Directors

Filed notification of all Outside Directors and Audit and Supervisory Board members as independent officers

2017 Established Chief Outside Director

→ 2016 [12 people] → 2018 [9 people] → 2019 [8 people]

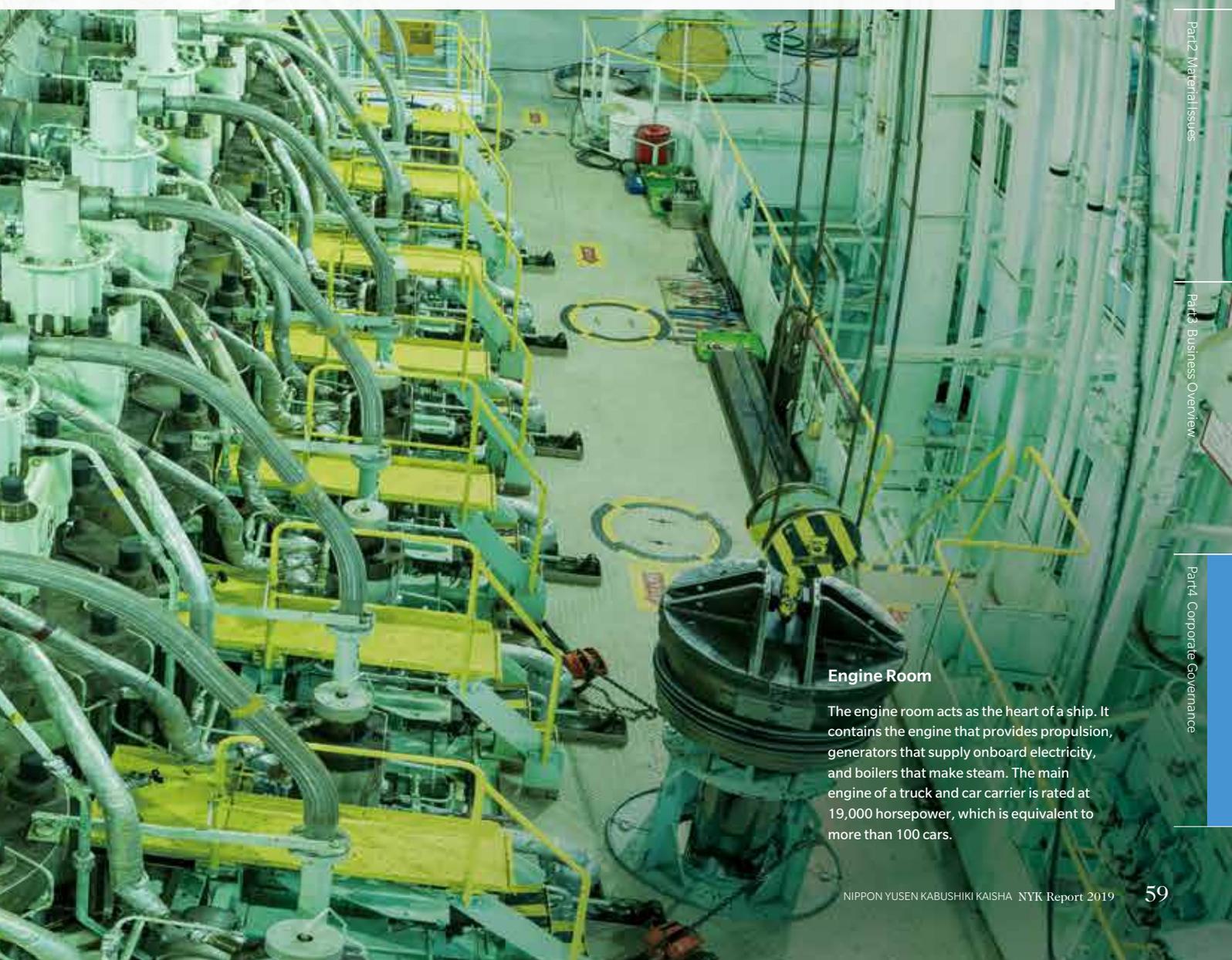
Reduced term of office of directors from two years to one year

2016 Conducted a non-anonymous self-evaluation survey on board effectiveness (2018 Appointed an outside agency in charge of tabulation and analysis, etc.)

2016 Established Nomination Advisory Committee and Compensation Advisory Committee

2016 Introduced performance-based stock remuneration program

2015 Established corporate governance guidelines



### Engine Room

The engine room acts as the heart of a ship. It contains the engine that provides propulsion, generators that supply onboard electricity, and boilers that make steam. The main engine of a truck and car carrier is rated at 19,000 horsepower, which is equivalent to more than 100 cars.

## Directors, Audit and Supervisory Board Members, and Corporate Officers

(Current as of June 19, 2019, number of shares held as of April 30, 2019)

### Internal

#### Directors



### Tadaaki Naito

**Chairman, Director**

**Chairman Corporate Officer**

Number of shares held: 12,713

Attendance at Board of Directors' meetings: 14/14

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



### Hitoshi Nagasawa

**President, Representative Director**

**President Corporate Officer**

**Chairman of Tramp Shipping Strategy Committee**

Number of shares held: 11,148

Attendance at Board of Directors' meetings: 14/14

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



### Eiichi Takahashi

**Representative Director**

**Senior Managing Corporate Officer**

**Chief Financial Officer**

**Chief Executive of Management**

**Planning Headquarters**

Number of shares held: 4,774

Attendance at Board of Directors' meetings: 14/14

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



### Yoshiyuki Yoshida

**Director, Senior Managing Corporate Officer**

**Chief Compliance Officer**

**Chief Executive of General Affairs Headquarters**

Number of shares held: 8,700

Attendance at Board of Directors' meetings: 14/14

1981 Joined the Company  
2005 General Manager of Tramp Co-ordination Group  
2011 Corporate Officer  
2015 Director, Managing Corporate Officer  
2018 Director, Senior Managing Corporate Officer



### Hiroki Harada

**Director, Senior Managing Corporate Officer**

**Deputy Chief Information Officer**

**Chief Executive of Global Logistics**

**Services Headquarters**

Number of shares held: 2,545

Attendance at Board of Directors' meetings: -

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

#### Audit and Supervisory Board Members



### Hiroshi Hiramatsu

Number of shares held: 9,306

Attendance at Board of Directors' meetings: 14/14

1978 Joined the Company  
2004 General Manager of Corporate  
Planning Group  
2006 Corporate Officer  
2008 Managing Corporate Officer  
2009 Director, Managing Corporate Officer  
2013 Resigned  
2017 Audit and Supervisory Board Member



### Noriko Miyamoto

Number of shares held: 5,452

Attendance at Board of Directors' meetings: -

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

#### Senior Managing Corporate Officer

Hidetoshi Maruyama

#### Managing Corporate Officers

Hitoshi Oshika Akira Kono Koichi Uragami  
Tomoyuki Koyama Takaya Soga Shohei Yamamoto

#### Corporate Officers

Svein Steimler Hemant Pathania Akihiro Yoshida Kazumasa Okazaki  
Yutaka Higurashi Masashi Suda Kotaro Seki Hideki Suzuki  
Nobuhiro Kashima Shinya Hitomi Lee Check Poh Hiroshi Kubota  
Toru Kamiyama Taizo Yoshida Muneaki Saitoh Shinji Umehara

## Outside

### Independent Outside Directors



#### Yoshihiro Katayama

**Chief Independent Outside Director**

Number of shares held: 7,978

Attendance at Board of Directors' meetings: 13/14

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 (current position)  
2019 Chief Independent Outside Director of NYK



#### Hiroko Kuniya

Number of shares held: 2,980

Attendance at Board of Directors' meetings: 14/14

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: 0

Attendance at Board of Directors' meetings: -

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

### Independent Outside Audit and Supervisory Board Members



#### Hirohide Yamaguchi

Number of shares held: 1,600

Attendance at Board of Directors' meetings: 14/14

1974 Joined Bank of Japan  
2006 Executive Director  
2008 Deputy Governor  
2013 Retired from the bank  
2013 Chairman of the Advisory Board of Nikko Research Center, Inc. (current position)  
2016 Independent Outside Audit and Supervisory Board Member of NYK



#### Toshinori Kanemoto

Number of shares held: 0

Attendance at Board of Directors' meetings: -

1968 Joined National Police Agency  
1995 Director General, International Affairs Department  
1996 President of ICPO-INTERPOL  
2000 President of National Police Academy  
2001 Director of Cabinet Intelligence, Cabinet Secretariat, Government of Japan  
2006 Retired from Director of Cabinet Intelligence, Cabinet Secretariat, Government of Japan  
2007 Registered as Attorney-at-Law (Dai-Ichi Tokyo Bar Association)  
2007 Of counsel at City-Yuwa Partners  
2018 Retired from City-Yuwa Partners  
2018 Head of Toshinori Kanemoto Law Office (current position)  
2019 Independent Outside Audit and Supervisory Board Member of NYK

## Basis of the Appointment of the Outside Directors and Audit and Supervisory Board Members

### Yoshihiro Katayama

Mr. Katayama has abundant experience in government, politics, and academia, including serving as minister of Internal Affairs and Communications in 2010–2011 during his career in the Ministry of Home Affairs (later renamed). His appointment as Outside Director was renewed based on his valuable recommendations to management and appropriate oversight of the Company's execution of business informed by his wide-ranging knowledge and insight, professional connections, and highly independent perspective.

### Hiroko Kuniya

Ms. Kuniya has broad familiarity with political, economic, international relations, and social issues from her career as a newscaster. Her appointment as Outside Director was renewed based on her valuable recommendations to management and appropriate oversight of the Company's execution of business informed her experience, abundant insights, and ability to provide various and highly independent perspectives.

### Eiichi Tanabe

Mr. Tanabe had an extended career at Mitsubishi Corporation where he held positions as an executive director and representative director and senior executive vice president and gained abundant administrative experience in regional and financial management and in finance-related business. He has been newly appointed as an Outside Director to provide recommendations to management and oversight of the Company's execution of business informed by his expertise and independent perspective on general corporate management. Mr. Tanabe served as a director of Mitsubishi Corporation until June 2018 and is currently an advisor to the company. Business transactions between NYK and Mitsubishi Corporation account for less than 1% of either group's total sales.

### Hirohide Yamaguchi

Mr. Yamaguchi has specialized knowledge cultivated through abundant experience in the financial and economics fields. His appointment as Outside Audit and Supervisory Board member was renewed based on his valuable contributions to the Company's audits.

### Toshinori Kanemoto

Mr. Kanemoto had an extended career in the National Police Agency, where he held positions as president of the International Criminal Police Organization and director of Cabinet Intelligence. He has wide-ranging knowledge and insight from his abundant experience in the police administration, including in international police affairs, and in the information field. He also has professional experience as a lawyer, focused mainly on corporate law and compliance. Mr. Kanemoto has been newly appointed as Outside Audit and Supervisory Board member to provide oversight of the Company's execution of business.

## Independence Criteria for Recommendation of Candidates for Outside Directors and Audit and Supervisory Board Members (Excerpts)

A person who does not fall under any of the following criteria is deemed to be independent.

- (1) A major shareholder of the Company (a party who holds shares representing voting rights that exceed 10% of the total voting rights as at the end of the most recent fiscal year) or an executive thereof.
- (2) A major lender to the Company (a party whose name or trade name is listed among the top 10 lenders to the Company as a major lender in the Business Report for the most recent fiscal year) or an executive thereof.
- (3) A major supplier of the Company (which income from the Company accounts for more than 2% of the consolidated annual revenues of such supplier for the most recent fiscal year) or an executive thereof.
- (4) A major customer of the Company (which income from such customer accounts for more than 2% of the consolidated annual revenues of the Company for the most recent fiscal year) or an executive thereof.



Independence Criteria for Recommendation of Candidates for Outside Directors and Audit and Supervisory Board Members

[https://www.nyk.com/english/profile/pdf/gvn\\_report\\_04.pdf](https://www.nyk.com/english/profile/pdf/gvn_report_04.pdf)

### Business Relationships, Conflicts of Interest

The Outside Directors and Audit and Supervisory Board members have no business relationships or particular conflicts of interest with the Company.

## Expertise and Experience of Directors (current as of June 19, 2019)

The expertise and experience of the Directors have been disclosed and communicated to all investors since 2018.

	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
<b>Tadaaki Naito</b> Chairman, Director, Chairman Corporate Officer	63	11			●	●	●	●	●	●		Germany	●	●		●	●
<b>Hitoshi Nagasawa</b> President, Representative Director, President Corporate Officer	61	8			●	●	●	●	●			UK	●	●		●	
<b>Eiichi Takahashi</b> Representative Director, Senior Managing Corporate Officer	60	3			●	●	●		●	●		US			●		
<b>Yoshiyuki Yoshida</b> Director, Senior Managing Corporate Officer	62	4			●		●		●			Indonesia	●	●	●	●	
<b>Hiroki Harada</b> Director, Senior Managing Corporate Officer	58	1			●	●	●		●			UK/Belgium	●				●
<b>Yoshihiro Katayama</b> Independent Outside Director Chief Outside Director	67	3		●	●		●				●			●		●	●
<b>Hiroko Kuniya</b> Independent Outside Director	62	2		●	●		●	●				US		●		●	
<b>Eiichi Tanabe</b> Independent Outside Director	65	1			●	●	●		●	●	●	UK		●			

\* Includes overseas experience at other companies



**Yoshihiro Katayama**

Independent Outside Director  
Chief Outside Director

### **Fostering a mindset where we share our mission and every employee takes action**

Governance is a critical element of corporate management and is even more important for groups of companies such as the NYK Group. Governance requires that each person understand and share the Group's management policy and mission. This is because understanding ensures that the mission is realized in every corner of the Group in a grass roots-like manner that will give rise to efforts to contribute to society and enhance corporate value.

Governing from the top down involves bottom up efforts. The same holds true for all organizations. However, this alone will not necessarily result in a powerful organization. This is because simply strengthening rules and regulations eventually causes compliance to become the underlying purpose at the expense of spontaneous thinking. The key is for every member, especially those supporting workplaces, to have the mindset of thinking and taking action on their own. I believe governance has the power to foster this mindset.

### **Understanding the situation and issues of group companies aimed at strengthening governance**

NYK has a number of group companies, including subsidiaries and affiliated companies, and the management situation of these companies has a major impact on NYK's own management. If a governance deficiency occurs at a group company, this means there is a problem with NYK's governance. Given this, proposals escalated to the Board of Directors alone make it impossible to fully understand the challenges and actual situation of group companies' management, which has been a source of frustration.

With stronger governance in demand, I commented in last year's report that "For many years, I was involved in managing large organizations at central government and prefectural government, where I accumulated experience mobilizing organization members. I believe that the knowledge and know-how I learned there can be utilized in many situations, such as corporate governance." Over the past year, I have commented frequently at meetings of the Board of Directors toward this end. I have seen new initiatives at NYK addressing approaches to subsidiaries' management systems and I feel like my comments are being reflected to some extent.

### **Need to respond following the meaning of existence of each group company**

If NYK has too many group companies, it will be difficult to closely monitor all aspects of these companies. This requires that we refamiliarize ourselves with the meaning of existence of each company and sort them according to each situation. For example, internalization can be considered for companies with operations that are very similar to the headquarters, independence can be promoted for management of companies with somewhat less of a connection, or governance can be strengthened for companies that were formed as joint ventures with other companies.



**Hiroko Kuniya**  
Independent Outside Director

### **Important to promote diversity with a sense of urgency**

The business performance of subsidiaries and affiliates affects the earnings of the entire NYK Group, and governance deficiencies have had a major impact on our business performance. We need to discuss approaches to involvement in management, governance and risk management to quickly find the most effective method. I think we need to foster a free and open culture across the entire Group where employees can easily voice their opinion if they have doubts or suspicions. Furthermore, it is important to deepen discourse using diverse views that emphasize diversity.

I have noted that this year it will be important to promote diversity at a faster pace to increase the NYK Group's competitiveness and risk management capabilities. Although we have yet to make significant strides, I believe top management is now fully aware of the importance of boosting the percentage of female representation in decision making. Nevertheless, we have yet to drastically speed up the promotion of women using human resources development programs.

### **Raising awareness about initiatives for the environment and the SDGs**

As ESG investment is spreading, initiatives toward the environment and the SDGs are not visible in financial information. We need to actively work and disseminate information so that the NYK Group is evaluated and selected for these aspects as well. NYK has already obtained SBT certification and scored high marks in climate change response in the survey conducted by CDP, an international NGO, which positions us as a progressive company in the field. I will continue to raise questions in decision making so that we can further heighten this awareness going forward.

## **My ambitions as an Outside Director**

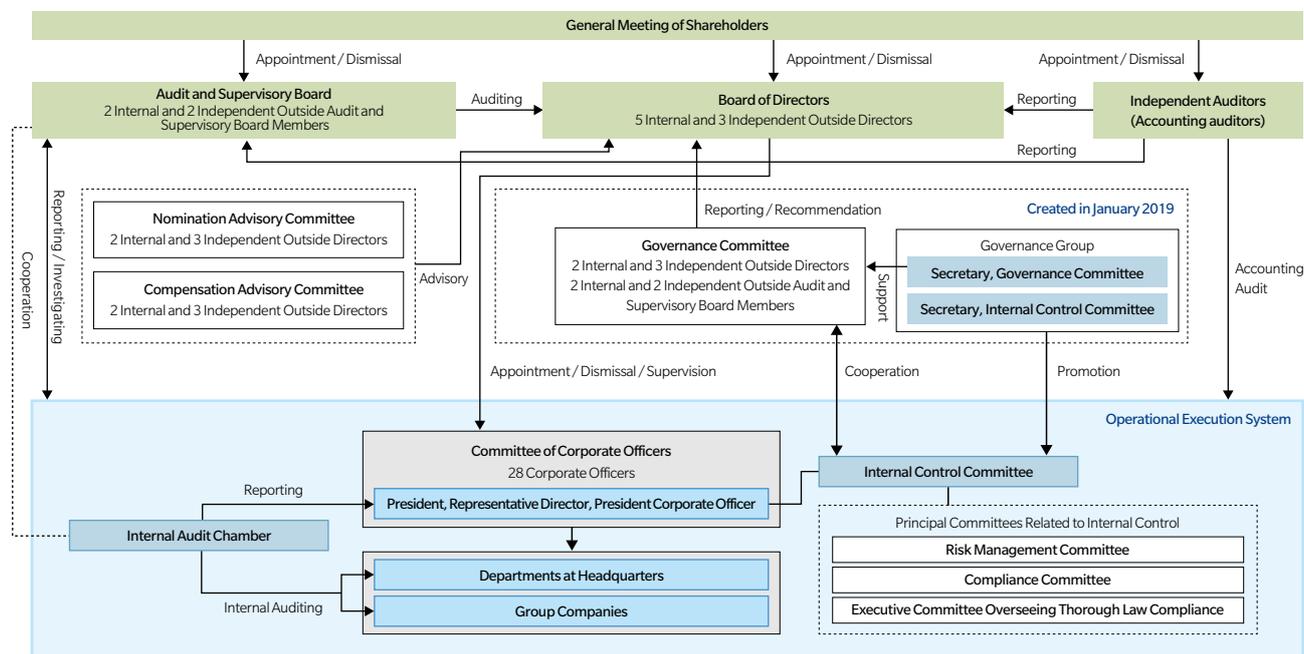


**Eiichi Tanabe**  
Independent Outside Director

I believe structural changes in society and industry will continue for the time being, driven mainly by evolving technologies. These are disruptive changes that could undermine and destroy conventional industries. There is also growing demand for companies to engage in initiatives that resolve social issues, going beyond the creation of economic value. This represents both a risk and opportunity. To adapt to these major changes, individual companies will need to transform their very essence, including ushering in new work styles for employees.

Management has grown even more difficult in such a complex environment. However, I believe we can produce results by collectively mobilizing our wisdom and passion. NYK has the powerful assets of experience, trust, technology, and a passionate workforce. Using these as a foundation, I believe we can create the NYK of the next generation by further incorporating diverse viewpoints and different cultures. I was just elected as an independent Outside Director in June 2019, but I will strive to contribute as much as possible to enhancing NYK's corporate value by harnessing my experience in similar roles in multiple industries.

NYK's Corporate Governance Organization Chart (As of June 19, 2019)



WEB Corporate Governance Guidelines [https://www.nyk.com/english/profile/pdf/gvn\\_report\\_01.pdf](https://www.nyk.com/english/profile/pdf/gvn_report_01.pdf)

## Board of Directors and Operational Execution System

NYK seeks to construct an appropriate management system that supports transparent and efficient management capable of swiftly and accurately responding to sudden changes in the business environment and that supports fully informed decision-making and oversight by the Board of Directors.

The Board of Directors comprises eight directors including three Outside Directors that have met the criteria for independence. The directors are selected to bring diversity and expertise to the Board to stimulate substantive and deep discussions. The Board is configured this way to ensure a sufficient number of internal directors who are well versed in the business of the Group, which is mainly global shipping and logistics operations, and a certain number of Independent Outside Directors with high levels of specialized knowledge that will contribute to corporate management and further enhance the supervisory function of the Board of Directors.

The Independent Outside Directors serve on the Board of Directors and various advisory committees, share opinions with the Audit and Supervisory Board members, and attend important corporate meetings, including committee meetings related to internal control issues. To ensure substantive discussion and deliberation at the Board of Directors meetings, Outside Directors 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 to share information and opinions.

The Company also maintains a Committee of Corporate

Officers comprising 28 members from domestic and overseas group companies, including individuals also serving on the Board of Directors. By resolution and under the supervision of the Board of Directors, the committee is authorized to make prompt decisions related to the execution of resolutions of the Board based on prior deliberations and within the scope of authority delegated to it.

### \* Discussion meetings (held six times in fiscal 2018)

- Communication of the topics and initiatives in each department
- Discussion and policy decisions on measures to increase the efficiency of the Board of Directors

## Evaluation of Board of Directors Effectiveness

The Company annually surveys all directors and Audit and Supervisory Board members regarding the effectiveness of the previous fiscal year's Board of Directors. The surveys, which Company began conducting in fiscal 2015, are non-anonymous self-evaluation surveys. The findings are used as a basis for discussion about the direction to take and issues facing the Board. The survey findings have led to the following measures to improve the effectiveness of the Board of Directors.

### Concrete Measures Implemented

- (1) Reviewing discussion criteria, including the provision of items for reporting
- (2) Delegating authority to the Committee of Corporate Officers
- (3) Investigating how to conduct effective discussion at the Board of Directors meetings
- (4) Providing preliminary explanations on important projects to Outside Directors
- (5) Sharing information and exchanging opinions at discussion meetings in addition to the meetings of the Board of Directors

## Nomination Advisory Committee

The Company maintains a Nomination Advisory Committee comprising a majority of Outside Directors as an advisory body to the Board of Directors to consult on important issues concerning the appointment and dismissal of directors. When the committee meets, the Company President conducts individual interviews with each Outside Director to ensure the ability to effectively exchange opinions. The meetings are also used to fully familiarize successor candidates with the management quality and functions that the Company requires.

### Composition of the Nomination Advisory Committee (FY2018)

	Name	Meetings attended/ Meetings held
Chairman, Representative Director (Committee Chairman)	Yasumi Kudo	2/2
President, Representative Director (President Corporate Officer)	Tadaaki Naito	2/2
Director (Chief Outside/Independent Director)	Yukio Okamoto	2/2
Director (Outside/Independent Director)	Yoshihiro Katayama	2/2
Director (Outside/Independent Director)	Hiroko Kuniya	2/2

In fiscal 2019, the Company adopted a policy of appointing an Outside Director to serve as chairman of the Nomination Advisory Committee.

## Cultivation of Successor Candidates

The Company has established policies and procedures for the nomination of directors and related actions and cultivates successor candidates to executive positions in consultation with the Nomination Advisory Committee. Corporate officers are apprised that they are candidates for executive positions and are delegated authority from representative directors and other directors to execute important business matters to provide the experience necessary to build their capabilities and knowledge.

## Training for Directors, Audit and Supervisory Board Members, and Corporate Officers

To achieve the medium- and long-term vision of the Group and enhance sustainable corporate value, the Company provides opportunities for corporate officers and inside and Outside Directors and Audit and Supervisory Board members to participate in in-house training and external courses to improve governance functions, deepen understanding of legal compliance, remain up to date with social trends, and maintain the effectiveness of the Board of Directors.

We provide practical training including timely lectures on the latest developments related to our business as well as training to increase knowledge on the Companies Act, internal controls, risk management, compliance, crisis management, business analysis, and financial strategy. The status of the training is reported to the Board of Directors to verify its effect.

## Compensation Advisory Committee

The Company maintains a Compensation Advisory Committee comprising a majority of Outside Directors to serve as an advisory body to the Board of Directors on important matters related to compensation for directors and corporate officers. The committee discusses compensation amounts as well as the structure of compensation. In fiscal 2018, the committee assessed and examined the structure of the Company's performance-based stock remuneration program. Upon review of the program's suitability, the committee resolved to extend the plan for three years, within the scope of the resolution of the General Meeting of Shareholders in June 2016.

### Composition of the Compensation Advisory Committee (FY2018)

	Name	Meetings attended/ Meetings held
Chairman, Representative Director (Committee Chairman)	Yasumi Kudo	2/2
President, Representative Director (President Corporate Officer)	Tadaaki Naito	2/2
Director (Chief Outside/Independent Director)	Yukio Okamoto	2/2
Director (Outside/Independent Director)	Yoshihiro Katayama	2/2
Director (Outside/Independent Director)	Hiroko Kuniya	2/2

In fiscal 2019, the Company adopted a policy of appointing an Outside Director to serve as chairman of the Compensation Advisory Committee.

## Director Remuneration (Performance-based Stock Remuneration Program)

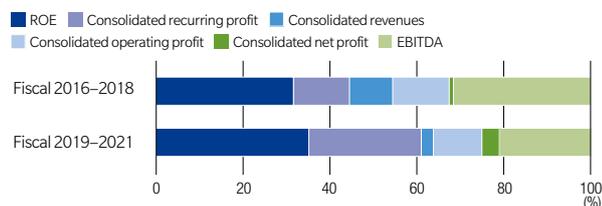
Since fiscal 2016, the Company has adopted a highly transparent and objective performance-based stock remuneration program as an incentive for executive directors and officers to share the same interest with shareholders and act the sustained medium- and long-term growth for the Company. Directors and corporate officers are eligible for the program. Certain members, such as officers residing overseas, Outside Directors and Audit and Supervisory Board members are not eligible.

In the three years since the program was adopted, remuneration surveys by external specialized institutions have verified the remuneration levels in comparison to other companies and the Compensation Advisory Committee has assessed the program's suitability. Based on these, the Board of Directors resolved to extend the program another three years beginning in fiscal 2019.

To provide incentive to contribute to achieving the objectives of the Staying Ahead 2022 Medium-term Management Plan, in fiscal 2019 the Company created a stronger link in performance assessments to increases in corporate value by raising the coefficients of financial targets for ROE and consolidated recurring profit from slightly above 40% to roughly 60%.

## Corporate Governance

### Performance Coefficients in Stock Remuneration Program



### Summary of the Performance-based Stock Remuneration Program

#### <Calculation and allotment methods>

- Company stock is allotted in the final year (third year) of the program according to the degree of attainment of performance targets
- Recipients are prohibited from transferring the shares in the market for one year after leaving their executive positions as directors and corporate officers

#### <Points>

- Points are assigned based on an assessment and evaluation conducted each fiscal year
- The number of points assigned is calculated according to a prescribed formula

### Total Amount of Remuneration (Fiscal 2018)

Position	Number of people	Total remuneration (annual; Millions of yen)	Fixed remuneration			Performance-based remuneration	
			Basic remuneration amount (Millions of yen)	Bonus (Millions of yen)	Stock remuneration (Millions of yen)		
Directors (Outside Directors)	11 (3)	567 (57)	389 (57)	-	177 (-)		
Audit and Supervisory Board Members (Outside Audit and Supervisory Board Members)	4 (2)	105 (27)	105 (27)	-	-		
Total (Outside Directors and Outside Audit and Supervisory Board Members)	15 (5)	672 (85)	495 (85)	-	177 (-)		

- The amount of remuneration paid to directors includes the amount paid to two directors who retired during fiscal 2018.
- The monthly remuneration of directors is paid according to their position within the limit of total monthly remuneration decided upon by the resolution at the General Meeting of Shareholders. Bonuses for directors are not paid every year as they are proposed at the General Meeting of Shareholders upon consideration of performance, etc., but are paid according to position within the limit of bonus remuneration decided by the resolution at the General Meeting of Shareholders.
- No bonus payments have been made to directors for the eight terms from fiscal 2011 to the current term.
- The stock remuneration amount is the provision for stock payment during this fiscal year based on the performance-based stock remuneration plan introduced by resolution in fiscal 2015 at the 129th General Meeting of Shareholders and the amount to pay to directors that have retired.

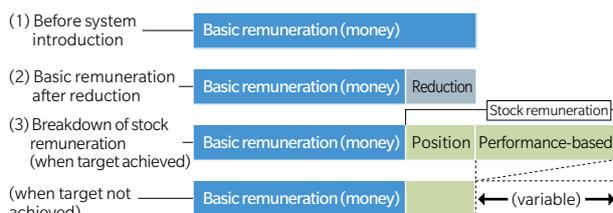
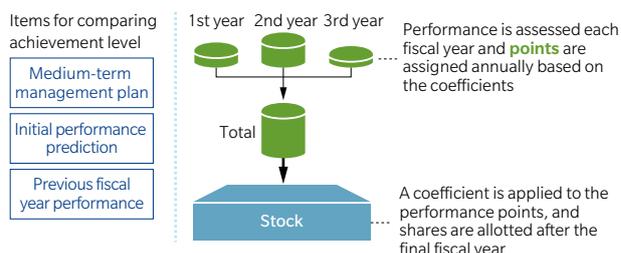
### Total Remuneration Paid to Individuals Paid an Amount Exceeding 100 Million Yen

Name	Position	Total remuneration (Millions of yen)	Fixed remuneration			Performance-based remuneration	
			Basic remuneration amount (Millions of yen)	Bonus (Millions of yen)	Stock remuneration (Millions of yen)		
Yasumi Kudo	Chairman, Representative Director	105	63	-	41		
Tadaaki Naito	President, Representative Director	105	63	-	41		

## Auditing System

### Auditing System and Auditors

NYK is a company with a Board of Directors and an Audit and Supervisory Board. The Audit and Supervisory Board comprises four members including two outside members, of which at least one has sufficient knowledge of finance and accounting. In fiscal 2018, the Company conducted an audit focused on the progress of the newly adopted Medium-Term Management Plan and the governance status of the Group.



\* The ratio of basic remuneration to stock remuneration is 5:5 for the president and chairman and approximately 6:4 for other executive directors.

\* The variation in stock remuneration is 0 to 150%.

The members perform their auditing duties from an independent and objective perspective, in accordance with the Code of Auditing Standard stipulated by the Audit and Supervisory Board, including attending important meetings, such as Board of Directors, and conducting hearings with directors and corporate officers regarding their execution of duties.

Audit and Supervisory Board members hold monthly board meetings to share auditing results and other information, regularly meet with the Internal Audit Chamber,

and meet with the independent auditors (accounting auditors), thereby strengthening communication between all three audit-related groups. The Company also maintains an Audit and Supervisory Board Office, consisting of three full-time staff members, to support the Audit and Supervisory Board members in the execution of their auditing duties.

#### Composition of the Audit and Supervisory Board (FY2018)

	Name	Meetings attended / Meetings held
Internal Auditors	Yoko Wasaki	16/16
	Hiroshi Hiramatsu	16/16
Outside Auditors	Toshio Mita	16/16
	Hirohide Yamaguchi	16/16

#### Independent Audits (Accounting Audits)

The certified public accountants who audit the Company's consolidated and non-consolidated financial statements are Yuji Takei, Kazuhiro Sota, and Tomoya Noda, all of whom are with the accounting firm Deloitte Touche Tohmatsu LLC and have been auditing the Company's accounts for less than seven consecutive years. These accountants are assisted by 17 certified public accountants, eight successful candidates of the certified public accountant examination, and 30 others. Audits are undertaken in accordance with standards generally accepted as fair and appropriate. The Company generally appoints accounting firms that belong to the same network (Deloitte Touche Tohmatsu Limited) as our certified public accountants for major overseas consolidated subsidiaries that receive a financial statement audit and internal control audit.

The Audit and Supervisory Board evaluates accounting auditors regarding their auditing systems, independence, and performance in accordance with NYK's standard evaluation sheet.

The Board also decides whether to renew or dismiss accounting auditors each year.

#### Independent Auditor Remuneration

	FY2017		FY2018	
	Remuneration paid for audit certification activities (Millions of yen)	Remuneration paid for non-audit activities (Millions of yen)	Remuneration paid for audit certification activities (Millions of yen)	Remuneration paid for non-audit activities (Millions of yen)
The Company	168	6	155	7
Consolidated Subsidiaries	132	0	124	0
Total	300	7	279	7

#### Internal Audits

The Internal Audit Chamber conducts internal audits of the Company and Japanese group companies based on internal audit rules approved by the Board of Directors. Internal audits for overseas group companies are performed by internal auditors that belong to four overseas regional management offices (Americas, Europe, Southeast Asia, and East Asia) based on the policies and guidance of the Internal Audit Chamber.

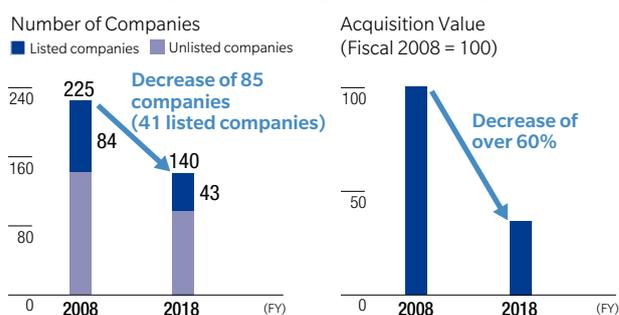
In fiscal 2018, the Company conducted internal audits of 22 group companies in Japan and 58 business sites overseas. The Company also reviewed its internal auditing activities after evaluating its existing auditing methods and verifying the effectiveness of new auditing approaches. Resulting from the review, the Company will incorporate deeper data analysis. We believe these reviews will improve the efficiency and effectiveness of our internal auditing activities.

### Policy for Holding Strategic Shareholdings

The Company has adopted a policy to reduce its holdings of strategic shareholdings and has divested more than 60% (in terms of purchase value) compared to the acquisition value since fiscal 2008. Also, as stipulated in the Corporate Governance Guidelines adopted in November 2015, the Board of Directors annually conducts a comprehensive review of the purpose and objectives of holding individual strategic shares with a focus on the return targets based on the capital cost, the revenue from dividends, trades, and other transactions, and general trading conditions. The number of listed companies in the Company's strategic shareholdings was 43 as of the end of fiscal 2018, down 10 from the number of 53 as of the end of fiscal 2017.

The Company's current strategic shareholdings are of companies considered to be important business partners with which the Company expects to maintain long-term relationships that will help maintain stable results for the Company. The Board of Directors determined that retaining these shareholdings is suitable for maintaining and strengthening relations with those companies.

#### Volume of Strategic Shareholdings (at each fiscal year end)



## Internal Control System

The NYK Group maintains an Internal Control Committee that 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 the operating status and strengthening the internal control systems.

In fiscal 2018, the Board of Directors fulfilled its resolution from the previous fiscal year to revise a proposal of the internal control system to make it simpler and easier to understand. The Board of Directors also decided to implement measures concerning the design and operation of internal control for the Groups, specifically to strengthen controls related to rules for management, reporting, and crisis response of group companies.

### Committees Dedicated to the Four Objectives

- Internal Control Committee
- Risk Management Committee

#### 1. Committees related to the reliability of financial reporting

- Internal Control Committee (JSOX)
- Information Disclosure Committee

#### 2. Committees related to law compliance

- Executive Committee Overseeing Thorough Law Compliance
- Compliance Committee
- Global Compact Promotion Committee
- Safety and Environmental Management Committee

#### 3. Committees related to operating effectiveness and efficiency

- Human Resources Planning Committee
- Investment Management Conference
- Investment and Credit Committee
- Financial Policy Conference
- Group Management Council
- Group IT Policy Meeting
- Save Bunker Committee

#### 4. Committees related to safeguarding assets

- Disaster Measures Headquarters
- Information Security Management Committee

## Governance Committee

NYK established a Governance Group in January 2019. The Company is also formulating a governance structure to facilitate active efforts to grasp and report issues and propose ways to improve, and has established a Governance Committee comprising independent Outside Directors, Audit



and Supervisory Board members, and internal directors to provide highly objective and independent viewpoints on governance issues.

The Governance Committee includes two internal directors with an extensive knowledge of the status of the Group's internal control system and Outside Directors and Audit and Supervisory Board members to provide opinions from an objective point of view. The majority of the committee is outside members to create an atmosphere conducive to decisions that reflect opinions from outside the Company. The committee monitors and evaluates the Group's governance and the business execution of management from an objective perspective and shares its assessments with the Board of Directors to enable executive board members to quickly identify internal control issues and implement effective improvement measures. The first meeting of the Governance Committee included discussion of a wide range of issues related to improving internal control and governance.

### Governance Committee Members (Fiscal 2018)

	Name
Chief Outside Director (Independent)	Yukio Okamoto
Outside Director (Independent)	Yoshihiro Katayama
Outside Director (Independent)	Hiroko Kuniya
Internal Audit and Supervisory Board Member	Yoko Wasaki
Internal Audit and Supervisory Board Member	Hiroshi Hiramatsu
Outside Audit and Supervisory Board Member (Independent)	Toshio Mita
Outside Audit and Supervisory Board Member (Independent)	Hirohide Yamaguchi
Director, Senior Managing Corporate Officer, CCO	Yoshiyuki Yoshida
Director, Senior Managing Corporate Officer, CFO	Eiichi Takahashi

## Group Management Structure

The NYK Group is structured with a Group governance framework to promote asset efficiency with the overarching objective of enhancing the corporate value of the Group. The Group is revising the management appointment and remuneration decision processes of group companies to improve transparency and unify operating procedures. In addition, the Company has a system of dispatching one auditor from a dedicated department to each group company to oversee director business execution and to ensure consistency in the judgment criteria during audits.

In fiscal 2018, the Company began procedures to integrate the businesses of the three technology subsidiaries Japan Marine Science Inc., Yusen Navtec Co. Ltd., and NYK Engineering Co. Ltd. with the aim of combining their management resources to facilitate the generation of new value. The merger was completed in July 2019. The Company is also redefining the functions of each group company to create the most effective organization to increase the overall value of the Group.

# Message from the General Manager of the Governance Group



General Manager  
Governance Group

## Yuko Tsutsui

Joined NYK in 1986. In addition to working in Sales Departments for cruise ships, car carriers, and harbor transportation, she has worked in Corporate Departments such as human resources, public relations, and CSR. She has also been seconded to the Cabinet Office and worked internationally in London. She is married with two children.

### Governance is about Strength

I believe there are two aspects of governance. One is defensive governance. NYK is now working carefully to review its governance system while incorporating the expertise of outside professionals, aimed at addressing inadequate matters that have occurred within the Group and strengthening internal control. The risks facing us will likely become even more varied and complex going forward. Therefore, it is critical for NYK to continuously and steadily evolve its defensive governance.

The other is proactive governance. The Ministry of Economy, Trade and Industry is debating corporate governance reforms for Japanese companies in order to enhance their profitability. In Japan, governance is viewed as something managed and bound by rules, but in global business, companies with effective governance are strong companies. For example, governance is an effective criterion for examining the scope of a company's risk tolerance levels. I hope to deepen the understanding of all NYK Group employees about governance so that they share this awareness and take independent action.

### Governance Committee and Stakeholder Dialogue

In fiscal 2018, we established the Governance Committee, whose members mainly include Outside Directors and Audit and Supervisory Board members, as a way to strengthen governance. The committee monitors the status of internal control and provides recommendations to the Board of Directors. At the first meeting of the committee held in February 2019, we found a major gap between the NYK Group's state perceived by outside officers and that perceived by us

internally. In particular, we received feedback that management's beliefs and vision have not been conveyed enough to the frontlines of our group companies, and that voices from the frontlines have not been escalated up to the top. Until then, I believed NYK had an open culture in this company, but I found myself thinking deeply about these findings from the standpoint of governance. In follow-up conducted after the committee meeting, I recognized the committee itself is to think of dialogue with major outside stakeholders on the theme of governance. One of our roles is to be a driving force behind strengthening governance by conveying frank views based on the broad insight of outside officers to the Group in an easy-to-understand manner.

### Strengthening Governance Requires Broad Perspective

Strengthening governance requires that each and every employee of the NYK Group actively get involved in improving the quality of systems for decision making and consensus building. Day-to-day business requires that, as our duties become more advanced and specialized in nature, we dig deeper within the scope of our jobs to find something more. However, I want us to be sensitive to global trends with a slightly broader perspective.

To fulfill our mission statement "Bringing value to life," we need a bird's eye view of governance and our business while incorporating the needs of social issue solutions. I believe that strengthening governance at each workplace globally will lead to new value creation at the NYK Group.

### Executive Committee Overseeing Thorough Law Compliance

The NYK Group maintains an Executive Committee Overseeing Thorough Antitrust and Anti-bribery Law Compliance dedicated to 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.

#### Biannual Meetings of the Executive Committee Overseeing Thorough Law Compliance

The Executive Committee Overseeing Thorough Law Compliance is chaired by the president, and meetings are attended by directors, corporate officers and Audit and Supervisory Board members, general managers of the Company, and Outside Directors, Audit and Supervisory Board members, and lawyers. The committee, including under its previous name, meets twice yearly and had met a total of 13 times as of March 2019.

### Detailed Evaluations

The Company received with great solemnity the findings of inappropriate expenditure at a group company overseas in fiscal 2017 and the administrative disposition at a group company in Japan in fiscal 2018, and conducted emergency inspections in September 2018 to verify whether any inappropriate actions existed at other group companies. The Company immediately addressed all issues found by the emergency inspections and continues to implement comprehensive compliance even in small details of group company operations.

### Complying with Antitrust Laws

In the 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 from this, 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 the responsibility as infrastructure, maintain and improve diverse navigation networks, and manage the frequencies of port stops. As such, companies in the industry encounter many opportunities to make contact with competitor companies.

Since September 2012, the 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 some overseas group companies are also subject to a class action damage compensation suit in the U.S. and other regions.

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

We implemented various measures including the president declaring thorough compliance with antitrust law, building and operating a control network spanning the entire Group in Japan and overseas, educating and raising employee awareness through training and manuals on antitrust law 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 corporate officers.

\* Employees include company employees, personnel seconded from other companies, and temporary staff

#### Measures for Preventing Reoccurrence (Continued from 2013)

- Biannual Meetings of the Executive Committee Overseeing Thorough Law Compliance (Fiscal 2018: September 2018 meeting attended by 105 members, March 2019 meeting attended by 110 members)
- Formulate prevention guidelines and conduct risk assessments of all operating departments of group companies in Japan and overseas
- Review new investment projects by in-house lawyers, etc.
- Obtain written oaths regarding antitrust laws and competition law compliance
- Adopt an application system\* for each officer and employee at the headquarters seeking to participate in industry gatherings

\* The System is designed to limit opportunities to interact with companies in the same industry and to require pre-approval to attend necessary meetings and a report on the discussion content after a 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 foreign public officials), the U.S. Foreign Corrupt Practices Act, and the U.K. Bribery Act 2010.

In fiscal 2015, the Company began an aggressive program to educate employees in Japan and overseas about anti-monopoly and anti-bribery laws. The Group has held nine position-based training sessions and training sessions for domestic group companies at its headquarters and conducts one session at least every 18 months in each region overseas.

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.

### Legal Consultation System

When considering new investment and the launch of new businesses, the legal department conducts risk management through screening and due diligence to ensure compliance with antitrust laws, anti-bribery laws, and economic sanctions.

## Taxation Compliance

The Group recognizes its social responsibility to comply with the laws of all countries and to fulfill its obligation to pay taxes, and constantly strives to improve taxation compliance. In recent years, various problems have arisen with companies seeking to evade paying taxes by taking advantage of differences between corporate activities, national tax regulations and international taxation. NYK believes international taxation frameworks, such as the OECD's Base Erosion and Profit Shifting (BEPS) project, are essential for securing taxation transparency, and we seek to comply with such international standards.

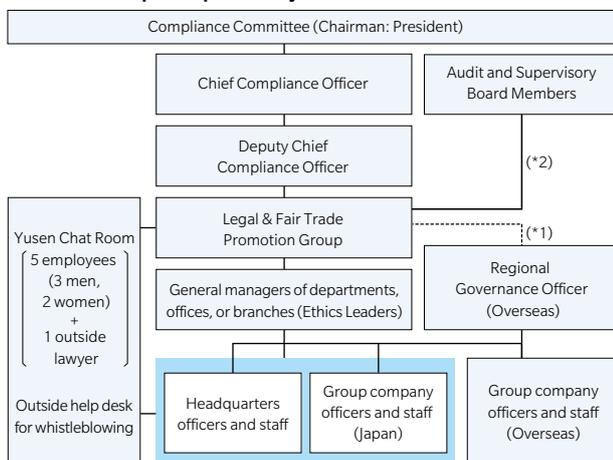
## Fortifying Compliance

Companies around the world are being required to comply with increasingly strict regulations in all regions.

The Group's Compliance Committee convenes twice yearly to discuss and decide items related to major policies and maintaining systems to promote and enhance compliance.

The NYK Group has set September as the compliance-strengthening month during which it conducts comprehensive compliance checkups and provides opportunities for staff members to review their conduct and work processes. One activity designed to raise employee awareness of compliance issues is a compliance survey that is distributed throughout the Company followed by several opportunities to provide feedback via the company's internal web bulletin board.

### The NYK Group Compliance System



\*1 For significant matters

\*2 Reports to a full-time Audit and Supervisory Board member periodically and as required

### Compliance Training Programs

Training programs in FY2018	Number of Programs	Number of participants
Training on compliance*1	17	546
Training on antitrust law and the prohibition of bribery, etc.*2	255	3,921
e-Learning	1	6,191

\*1 Since fiscal 2002, we have held 425 training sessions with 11,935 participants.

\*2 Training was conducted at 112 domestic and international group companies in 31 countries with 16 training sessions in Japan and one session at least every 18 months in each region overseas. Since the program started in 2009, the program has had some 36,240 participants.

## Internal Reporting System

The Company provides several consultation services for directors and employees to discuss concerns about or report workplace misconduct, harassment, and non-compliance activity, including the Yusen Chat Room providing connections to nominated employees and an outside lawyer and a telephone consultation line operated by an outside contractor. The Yusen Chat Room is available to roughly 60 group companies in Japan and provides connections to six personnel, including an outside lawyer, available specifically to listen to a wide range of compliance matters and provide consultation, reporting, and whistleblowing on the matters.

Every effort is made to ensure the person contacting the service incurs no adverse consequences and, if desired, the contact remains completely confidential with the objective that the information provided will help improve the work environment. Regional management offices in each region also contract with outside entities to provide internal reporting contact points to directors and employees of local group companies.

### Number of Reports and Consultations by the Internal Reporting Systems at the Headquarters

Fiscal year	Number of reports
2017	40
2018	56

### Risk Evaluation and Monitoring

The business and performance of the Group are subject to the influence of technological innovations, natural disasters, social factors such as safety and security, environmental regulations, and the economic and political situation in countries over the world. Following our risk management policy and risk management rules, we quantitatively and qualitatively evaluate risks by having business divisions that are the most well-versed in the nature of the business perform comprehensive self-assessments that include risk appetite and tolerance.

### Enterprise Risk Management (ERM)

Departments are in charge of risk management for business risks. Corporate departments and internal committees for each risk category monitor the status of risk management across the organization and evaluate the overall risk for the Group. An inspection of the Internal Audit Chamber is also performed to further improve risk management.

The Risk Management Committee, which convenes twice annually, is attended by the President, Chairman, directors, chief executives, and auditors. The chief executives report about critical risks that could have a major impact on Group operations and present evaluations of the management status of those risks. The committee also considers ways to improve the Group's

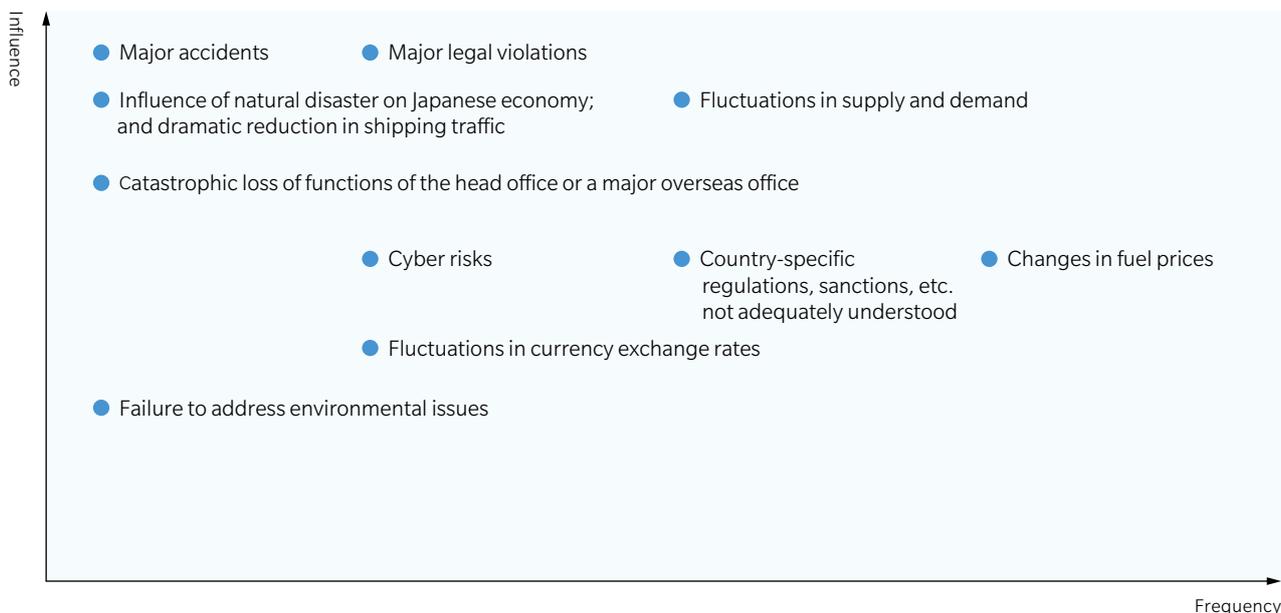
overall risk management methods and examines new countermeasures. In fiscal 2017, the Group broadened its approach from recognition of risks for each department by adding a top-down approach encompassing risks to the Group's overall business environment. In fiscal 2018, the committee identified cyber risk as a critical risk category. The committee confirmed the status of the Group's cyber risk countermeasures and at the meeting discussed possible future cyber risk and countermeasures.

### Information System Security

The NYK Group is seeking to enhance its cyber resilience by strengthening its multilayer defense measures and installing an Endpoint Detection and Response system for additional protection in the event of a security breach to minimize any damage and enable prompt recovery. The Company's preventive measures for cyberattacks include regular training drills and verification of its global systems. The Company also plans to construct a fully integrated worldwide system for centralized real-time response to a cyberattack.

In addition, in fiscal 2015 the Group began installing highly secure cloud-based groupware for all group companies in Japan and overseas to support secure information sharing, improve operating efficiency, and strengthen security.

#### Risk Map



Critical risks that can significantly affect Group business management include operational risks such as major accidents involving vessels or aircraft; country risk; natural disasters and other external factors; and compliance risk such as antitrust law violations.

## Climate Change Risk

The Company uses the World Energy Outlook of the International Energy Agency (IEA) as reference points for future energy-related trends. The IEA publishes a main New Policies Scenario (NPS) and a Sustainable Development Scenario (SDS), which assumes that the Sustainable Development Goals (SDGs) of the United Nations are fulfilled. The IEA projects that global energy demand in 2040 under NPS will increase from 2017 by 27% and under SDS will decrease by 2%. The New Policies Scenario assumes current policies will continue and new measures and technological innovations will be implemented. However, NPS projections for global energy consumption and CO<sub>2</sub> emissions have been reduced each year on growing expectations for worldwide conversion to renewable energies and an acceleration in technological developments. Therefore, projections for energy trends must be based on a careful analysis of both the NPS and SDS and factor in the influence from increasing implementation of climate change measures.

The Company uses the IEA's World Energy Outlook as a reference point for an annual analysis of the potential impact on demand for the Group's freight transport services. Because the Group operates its large seagoing cargo vessels for 15 to 20 years, framing an accurate long-term projection for the freight transport trend is critical for investment and other business planning. While we base our projections primarily on the IEA's main scenario, we also must take a long-term view on our business operations, which requires considering the potential impact on Group business from changes in overarching trends or freight volume and in the event that stepped-up climate change measures were to cause a shift in freight demand.

## Task Force on Climate-related Financial Disclosures

NYK announced its support of the final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in December 2018 and is currently examining the content of its information disclosure and its disclosure measures to ensure they meet the TCFD's stringent expectations.

We intend to deepen our analysis of freight conditions based on the IEA main scenarios and gauge the degree of potential impact on Group business through analysis of both risk and opportunity within key parameters (such as foreign exchange, fuel prices, and carbon tax) while improving information disclosure of our governance, strategy, risk management and metrics and targets.

The Group's core shipping operations are closely involved with industries ranging from energy and food to manufacturing, and through these industries climate change is already starting to impact our business operations. We fully recognize that the risks and the opportunities from this impact will increase in terms of both the certainty that they will occur and degree to which they will affect our operations.

We consider this to be an issue of an unprecedented scale for the Group and are accordingly examining the viability of creating a response preparedness taskforce which consists of each group members, such as Environment Group, Corporate Planning Group, Governance Group, Research Group, Finance Group, and Investor Relations Group.

### Potential Risks and Opportunities (example)

		Potential risks and opportunities	Impact on the Group
Transition risk	Policies, laws, regulations	<ul style="list-style-type: none"> <li>Stricter environmental regulations (EEDI, GHG reductions)</li> <li>Fuel usage regulations (heavy oil restrictions, fuel conversion, obligatory use of renewable energy)</li> <li>Adoption of emissions trading systems (MBM)</li> </ul>	<ul style="list-style-type: none"> <li>Increased capital expenditure, current ships become stranded assets</li> <li>Reduced service capabilities</li> <li>Increased costs to purchase credits</li> </ul>
	Technology	<ul style="list-style-type: none"> <li>Response to new technologies (such as new investment)</li> </ul>	<ul style="list-style-type: none"> <li>Higher R&amp;D expenses to develop new technologies</li> <li>New technology development leads to new business opportunities</li> </ul>
	Market	<ul style="list-style-type: none"> <li>Changes in the logistics market (local production and consumption, recycling)</li> <li>Installation of renewable energy and autonomous vehicle technology</li> </ul>	<ul style="list-style-type: none"> <li>Changes in freight conditions, reduced freight volume</li> <li>Increased capital expenditure</li> </ul>
	Reputation	<ul style="list-style-type: none"> <li>Avoidance of firms using fossil fuels</li> <li>Bidding criteria introduced for environmental performance</li> </ul>	<ul style="list-style-type: none"> <li>Earlier conversion to new fuels</li> <li>First-mover market capture, increased differentiation</li> </ul>
Physical risk	Acute	<ul style="list-style-type: none"> <li>Increased incidents of abnormal weather</li> </ul>	<ul style="list-style-type: none"> <li>Schedule delays, increased cargo damage (impaired quality)</li> <li>Increased risk of machinery problems and ship handling accidents</li> <li>Increased ship operating costs</li> </ul>
	Chronic	<ul style="list-style-type: none"> <li>Climate change induced shifts in populations, regional activity</li> <li>Ship investment to meet freight demand trends</li> <li>Impact on port facilities from rising sea level</li> </ul>	<ul style="list-style-type: none"> <li>Changes in transportation demand, reduced freight volume</li> <li>Revised investment plans, increased investment costs</li> </ul>
Opportunity	Market	<ul style="list-style-type: none"> <li>Development of new businesses</li> <li>Development of new technologies</li> </ul>	<ul style="list-style-type: none"> <li>Increased business related to renewable energy (such as wind power)</li> <li>Increased shipping opportunity for alternative energy sources (such as biomass and hydrogen)</li> <li>Development of new businesses using existing technologies</li> <li>Reduced fuel consumption due to use of new technologies</li> </ul>

## Summary of CSR Activities in Fiscal 2018 and Outline of Next Year's Targets 1

Initiatives	Fiscal 2018 targets	Achievement/progress of fiscal 2018	Achievement rate	Fiscal 2019 targets	
<b>Safety</b> 	Reduction of fleet accidents (Ensuring safety)	1-1) Conducted NAV9000 audits (shipmanagement companies and ships) Audited 239 vessels / 26 companies, 1,013 corrective action requests 1-2) Near Miss 3000 activities (increased companies to be covered) 46 target companies and 70,009 reports 1-3) Convened various safety promotion meetings and safety seminars → Held a Global SEMC*1 meeting (June), fleet safety promotion meetings (July, two meetings), and meetings of the president, captains, and chief engineers (August, November and February 2019) 1-4) Distributed safety information → total of 51 documents 1-5) Conducted safety campaigns → visited 286 vessels / 603 participants 1-6) Developed method for preventing engine plant accidents by utilizing big data → Shared with relevant parties and conducted external forums (Nikkei Digital Innovation Seminar, etc.) 2) Continued activities to minimize fleet downtime → (overall) 19.3 hours/vessel (of this 5.8 hours/vessel for engine trouble) 3-1) Conducted emergency response drills and reviews → eight times 3-2) Conducted media response drill and reviews → conducted drill (November) and employee e-Learning (November)		1) Eliminate major accidents 2) Reduce fleet downtime (10 hours / year / vessel) 3) Conduct emergency preparedness and response	
	Safety activities with vessel owners and customers	1) Visit vessel owners and conduct seminars for vessel owners 2) Conduct LNG conferences 3) Formulate safety guidelines with customers, shipping companies, and classification societies	1) Called for cooperation in blackout recovery tests for chartered vessels, held safety seminars, and shared information and exchanged opinions with vessel owners 2) Shared information with relevant outside parties, such as terminals, shipmanagement companies, customers, etc. (June, eight participants from NYK) 3) Formulated safety guidelines for areas not covered by IMO or other regulations with customers, shipping companies, classification societies, and other maritime industry entities (participated in eight committees during the year)		1) Visit vessel owners and conduct seminars for vessel owners 2) Improve HSE*2 through information sharing with shipmanagement firms 3) Formulate safety guidelines with customers, shipping companies, and classification societies
	Prevention of accidents, investigation of causes, and gathering information	1) Adopt and implement an internal audit system. Evaluate whether work is conducted according to safety standards (all terminals scheduled to be audited by 2020) 2) Continue to raise on-site capabilities through mutual safety cross-patrols conducted among terminals in Japan	1) Implemented the first terminal internal audit at the NYK Kobe Container Terminal (March) 2) Conducted mutual safety patrols of terminals beginning in January 2018. Participated in alternating patrols of multiple terminals.		1) Adopt and implement an internal audit system. Evaluate whether work is conducted according to safety standards (all terminals scheduled to be audited by 2020) 2) Continue mutual safety cross-patrols of terminals in Japan, develop safety standards for other group port companies and use that as a base to establish a safety standard policy to further enhance our on-site operating capabilities.
	Ensuring thorough safety management at shipyards and ship equipment manufacturers	Ensure safety management based on safety standards at each company	<ul style="list-style-type: none"> <li>Construction supervisors of each site led a discussion of the safety and quality joint patrol results at the supervisory meeting (November)</li> <li>Raised overall understanding of safety issues by sharing the positive and negative conditions at each shipbuilding site</li> </ul>		Ensure safety management based on safety standards at each company
	Preparation for disasters	1) Update the Company's business continuity plan (BCP) 2) Conduct disaster drill and BCP training to raise the effectiveness of disaster-prevention plans and business continuity plans	1) Revised the BCP to reflect changes in the Secom safety confirmation services and increased security of Company-issued devices (such as Surface computers and iPhones) (May) 2) Conducted disaster drills (twice) and BCP training (five times) Conducted emergency contact training utilizing IT tools for all employees		1) Update the Company's business continuity plan (BCP) 2) Conduct disaster drill and BCP training to raise the effectiveness of disaster-prevention plans and business continuity plans
<b>The Environment</b> 	Promotion of environmental activities	1) Maintain the Group multisite environmental certification and enhance governance at sites 2) Continually improve EMS*3 manual 3) Transition to ISO 14001:2015 4) Hold Safety & Environmental Management Committee meeting 5) Hold the Group Environmental Management Conference	1) Continued activities catered to each region and business sector and verified certification according to customer requirements (88 sites) 2) EMS was not revised in the current fiscal year 3) Completed shift to the NYK Global Multisite System in Japan and overseas 4) Held Safety & Environmental Management Committee (SEMC*1) meeting (June) 5) Held the Group Environmental Management Conference (November)		1) Maintain the Group multisite environmental certification and enhance governance at sites 2) Continually improve EMS manual 3) Maintain ISO 14001 certification 4) Hold Safety & Environmental Management Committee meeting 5) Hold the Group Environmental Management Conference
	Formulation of and adherence to shipping industry and the Company standards	Contribute to formulation of international rules for realization of sustainable societies through industrywide effort	Actively contributed to formulation of international rules → Participated in boards and committees (industry group boards and IMO MEPC)		Contribute to formulation of international rules for realization of sustainable societies through industrywide effort
	Prevention of global warming	1) Set CO <sub>2</sub> emission reduction rates using environmental management indices (EMIs) "Establish environmental management benchmark: Improve fuel efficiency by 30% from fiscal 2015 levels by fiscal 2030" 2) Determine total CO <sub>2</sub> emissions for the Group	1) Implemented fuel-saving initiatives and collected data for calculating environmental management indices (improvement rate and main engine average load rate) from vessels → Improved 2.4% compared to fiscal 2015 (including overseas group companies); main engine average load rate: 46.9% 2) Used environmental performance data tabulation system (Eco Track) at 240 offices in Japan (46 companies) and 182 offices overseas		1) Set CO <sub>2</sub> emission reduction rates using environmental management indices (EMIs) "Establish environmental management benchmark: Improve fuel efficiency by 30% from fiscal 2015 levels by fiscal 2030" 2) Determine total CO <sub>2</sub> emissions for the Group 3) Continue studies toward initiating internal carbon pricing and TCFD
	Prevention of air pollution	Reduce NOx and SOx emissions	<ul style="list-style-type: none"> <li>Use of electronically controlled engines → Installed the engine 100% of new vessels</li> <li>NOx/SOx emissions reduction equipment                → NOx: Installed the equipment on one LNG-fueled vessel, exhaust gas recirculation (EGR) systems on two vessels                → SOx: Planned to install SOx scrubber systems on roughly 70 vessels, including vessels planned for delivery (as of end July 2019)</li> </ul>		Reduce NOx and SOx emissions
	Marine environment conservation	Adoption of environmentally friendly technologies, etc. 1) Advance installation of ballast water management systems 2) Scrap ships in an environment-friendly manner 3) Advance installation of our Total Bilge System	1) Expanded installation → increased by 20 vessels to a total of 90 vessels 2) Adhered to 'NYK Standards' on ship recycling for two vessels decommissioned 3) Actively installed on new vessels to comply with standards → two vessels		1) Advance installation of ballast water management systems 2) Scrap ships in an environment-friendly manner 3) Advance installation of our Total Bilge System
	Efforts for saving resources, saving energy, reducing waste, and recycling, etc.	Reduce the water/paper consumption at the headquarters and CO <sub>2</sub> (electricity/steam) emissions by 0.5% compared to fiscal 2017	Performed periodic measurements and internal information-sharing to ensure thorough office energy savings All targets were reached. Reduction amounts: water -2.1%, paper -5.0%, electricity -1.1%, steam -11.8%		Reduce the water/paper consumption at the headquarters and CO <sub>2</sub> (electricity/steam) emissions by 0.5% compared to fiscal 2018

\*1 SEMC: Safety & Environmental Management Committee  
 \*2 HSE: Health, Safety & Environment  
 \*3 EMS: Environmental Management System

[Self-evaluation standard] Achieved:  Almost Achieved:  Partially Achieved: 

Summary of CSR Activities in Fiscal 2018 and Outline of Next Year's Targets 2

	Initiatives	Fiscal 2018 targets	Achievement/progress of fiscal 2018	Achievement rate	Fiscal 2019 targets
 <p><b>The Environment</b></p>	Stimulation of interest in environmental conservation activities	1) Conduct environmental training 2) Conduct environmental e-Learning programs 3) Share information with group employees	1) Conducted environmental training and workshops, conducted training for new employees and CSR training 2) Created environmental e-Learning content and improved the number of participants (participation rate) → participation rate: 96.6% between November and January 2019 3) Continued to post environmental articles in internal newsletter and held environmental senryu competition in Japan, in addition to photo contests (June to September)		1) Conduct environmental training 2) Conduct environmental e-Learning programs 3) Share information with group employees
	Disclosure of environmental information	1) Issue NYK Report 2) Respond to external survey on the environment 3) Provide up-to-date environmental information through website 4) Disclose CO <sub>2</sub> emissions information	1) Reviewed, updated, and released content → Japanese version released in July and English version released in August 2) Actively participated in external surveys and presented the environmental activities of the Group → 30 surveys 3) Reviewed and updated the items (November) 4) Third-party certification received from the Japan Quality Assurance Organization (June)		1) Issue NYK Report 2) Respond to external survey on the environment 3) Provide up-to-date environmental information through website 4) Disclose CO <sub>2</sub> emissions information
 <p><b>Human Resources</b></p>	Workstyle reforms	1) Establish an environment and cultivate a workplace atmosphere that enable diverse human resources to play an active role 2) Reduce work hours, promote work-life balance, implement workstyle reform, and use IT to improve the work environment and increase efficiency and productivity 3) Promote measures to improve employee health	1) Conducted seminars for parents, pre- and post-maternity leave counseling, returnee counseling; introduced a mentor program; supported career development while managing workstyle and work hours 2) Revised workstyles by expanding work-at-home trials to managers, implementing go-home-early days for parents, promoting use of the flex-time system; raised employee awareness regarding increasing labor productivity 3) Certified as a White 500 company for excellent health and productivity management for a third year in a row → Arranged for trainers to provide personal advice, held a charity run around Tokyo's Imperial Palace, and ensured thorough implementation of health checks		1) Establish an environment and cultivate a workplace atmosphere that enable diverse human resources to play an active role 2) Reduce work hours, promote work-life balance, implement workstyle reform, and use IT to improve the work environment and increase efficiency and productivity 3) Promote measures to improve employee health
	Human resources development in Japan and overseas	Implement a variety of training and human resources exchange programs in Japan and overseas based on the HR philosophy*1 to enable group employees to fully utilize their abilities in a broad range of business areas	<ul style="list-style-type: none"> <li>Implemented NYK Business College training for enhancing the total ability of group employees (more than 60 courses)</li> <li>Started operation of the Expert 2017 seafarer cultivation scheme</li> <li>Implemented Global NYK/YLK Week 2018 (October) to promote development of leaders within the NYK Group in Japan and overseas</li> </ul>		Implement a variety of training and human resources exchange programs in Japan and overseas based on the HR philosophy*1 to enable group employees to fully utilize their abilities in a broad range of business areas
	Seafarer training	1) Conduct review of NYK Maritime College (NMC) 2) Educate seafarers and transfer knowledge in LNG projects	1) Conducted NMC reviews to improve vessel safety and raise the training quality. Beginning in the current fiscal year, added e-Learning to the classroom instruction of the NMC training and drills to further instill NYK maritime skills to our group seafarers 2) Steadily promoted education of Angolan and Nigerian seafarers through basic education at educational facilities and practical onboard experience to teach everything from the basics of vessel navigation to the operation of LNG vessels		1) Conduct review of NYK Maritime College (NMC) 2) Educate seafarers and transfer knowledge in LNG projects
 <p><b>Governance</b></p>	Human rights due diligence, Human rights awareness	1) Human rights due diligence / impact assessment Understand, identify, and check NYK efforts regarding human rights issues via the Global Compact Promotion Committee, in addition to HR surveys and e-Learning (CSR) for all group companies 2) Human rights awareness Conduct human rights training and publicity activities during Human Rights Week	1) Verified through an HR survey measures at group companies concerning human rights issues and UN Global Compact compliance status 1) Attended human rights education and due diligence meetings of Global Compact Network Japan collected human rights-related information and recognized issues for the Company 2) Conducted human rights awareness building during our new employee training and new manager training, shared information during Human Rights Week on the theme of business and human rights and eliminating harassment, and distributed to all new employees "human rights passports" that summarize the Universal Declaration of Human Rights		1) Human rights due diligence / impact assessment Understand, identify, and check NYK efforts regarding human rights issues via the Global Compact Promotion Committee, in addition to HR surveys and e-Learning (CSR) for all group companies 2) Human rights awareness Conduct training and publicity activities during Human Rights Week, introduce an LGBT policy
	Comprehensive compliance inspections	1) Transmit CCO messages, then institute surveys about compliance awareness (headquarters) 2) Conduct overall inspections (group companies in Japan)	1) Transmitted a message from the CCO stating that dialog and discussion can lead to an improved compliance awareness and help make staff better able to solve problems on their own, conducted a survey on compliance awareness (1,872 respondents, 99.9% response rate), and administered an anonymous survey to identify employee opinions and concerns 2) Conducted overall inspections according to the business field and scope of each company (Yusen Chat Room available at 58 of 59 group companies in Japan)		1) Headquarters: Transmit CCO message, conduct awareness survey and anonymous questionnaires 2) Group companies in Japan: Conduct activities based on company type and size
	Antitrust law risk assessment	1) Conduct surveys, interviews, risk evaluations, and periodic inspections after risk assessment regarding antitrust law compliance at group companies in Japan and overseas as well as the various departments at the headquarters 2) Hold meetings of the Executive Committee Overseeing Thorough Law Compliance	1) Conducted risk assessments and regular inspections at NYK headquarters departments and group companies in Japan and overseas 2) Convened the Executive Committee Overseeing Thorough Law Compliance (September and March 2019)		1) Conduct surveys, interviews, risk evaluations, and periodic inspections after risk assessment regarding antitrust law compliance at group companies in Japan and overseas as well as the various departments at the headquarters 2) Hold meetings of the Executive Committee Overseeing Thorough Law Compliance
	Information system security measures	1) Improve measures to counter viruses and hacking, etc., with the PDCA cycle and prevent internal information leaks 2) Improve the security awareness of group employees 3) Roll out ISMS-based security standards to group companies 4) Adopt new groupware	1) Continual implementation 2) Implemented e-Learning and suspicious email training, and disseminate information through bulletin boards to increase awareness 3) Addressed each group company individually 4) Provided tech support to install security functions at group companies using groupware		1) Improve measures to counter viruses and hacking, etc., with the PDCA cycle and prevent internal information leaks 2) Improve the security awareness of group employees 3) Roll out ISMS-based security standards to group companies
	Dialogue with investors	1) Actively promote communication from the president and management, such as directors, at biannual small meetings with institutional investors and financial results briefings conducted four times a year, as well as the IR Division contacting investors 2) Visit people in charge of the exercise of voting rights at institutional investors to explain our governance system, etc., and engage in dialogue	1) Financial results briefings conducted four times a year: Total 574 participants (excluding our directors, corporate officers, and employees) Small meetings with the president (twice in May and December): Total 39 companies participated 2) Visited people in charge of the exercise of voting rights at institutional investors in Japan and overseas (total 33 companies and 114 participants)		1) Actively promote communication from the president and management, such as directors, at biannual small meetings with institutional investors and financial results briefings conducted four times a year, as well as the IR Division contacting investors 2) Visit people in charge of the exercise of voting rights at institutional investors to explain our governance system, etc., and engage in dialogue
	Ensuring thorough SCM (fuel supplier evaluations)	Employees in charge evaluate all suppliers that we deal with and reflect the results in future purchasing activities (Evaluation items include quality, delivery, price, support for trouble, the provision of information, etc.)	Purchasing agreements are being made based upon multifaceted evaluations of supplier pricing, services, and performance at the time of agreement. Agreements are accompanied by compliance contracts and are updated every three or six months. We will continue to consider new evaluation methods and reflect them in systematic purchasing activities		Employees in charge evaluate all suppliers that we deal with and reflect the results in future purchasing activities (Evaluation items include quality, delivery, price, support for trouble, the provision of information, etc.)

\*1 HR philosophy: Continually develop diverse talent at all group companies across global fields

[Self-evaluation standard] Achieved:  Almost Achieved:  Partially Achieved: 

# Promotion of Group Environmental Management

## The NYK Group's Environmental Management Vision and Three Strategies (Formulated March 2005)

To contribute to the global environment and the creation of sustainable societies by managing environmental risks and arriving at an optimal balance between environment and economy

- Strategy 1 Reducing greenhouse gas emissions
- Strategy 2 Promoting social contribution through activities to conserve the global environment
- Strategy 3 Strengthening group environmental management

### Scope of the NYK Group's Environmental Management System

- 1 Worldwide transportation of goods by sea on a fleet of owned and chartered ships and feeder vessels, and on land by rail and truck and through the use of warehouse operations
- 2 Cruise ship business
- 3 Container terminal business
- 4 Shipmanagement business
- 5 Offshore business
- 6 Airfreight business
- 7 Ocean & air forwarding and contract logistics business
- 8 Tugboat business
- 9 Information technology
- 10 NYK Maritime Museum
- 11 Recycle center operation

### The NYK Group's Environmental Green Policy

- 1 We, the NYK Group, adopt responsible practices with due regard to the environmental impacts of our corporate activities. We set and continually review objectives and targets for achieving our goal to protect our entire global environment and biodiversity.
- 2 We seek not only to comply with safety and environmental regulations but also to implement in-house standards to improve our environmental performance and prevent pollution.
- 3 We commit ourselves to the safe operation of all our services via sea, land, and air, as well as operations at sea, terminals and warehouses.
- 4 We seek to reduce environmental loads by efficiently using resources, saving energy, reducing waste, encouraging material recycling, and particularly by minimizing emissions of greenhouse gases, ozone-depleting substances, and toxic matter.
- 5 We endeavor to minimize environmental loads and adopt environmentally friendly technologies when ordering and purchasing necessary resources, such as vessels and aircraft, for transportation services and cargo operations.
- 6 We endeavor to use education programs to raise environmental awareness among our employees and to ensure that they recognize the essence of this Green Policy by actively addressing environmental concerns.
- 7 We make wide-ranging social contributions in close partnership with local communities by disclosing environmental information and supporting environmental conservation initiatives.

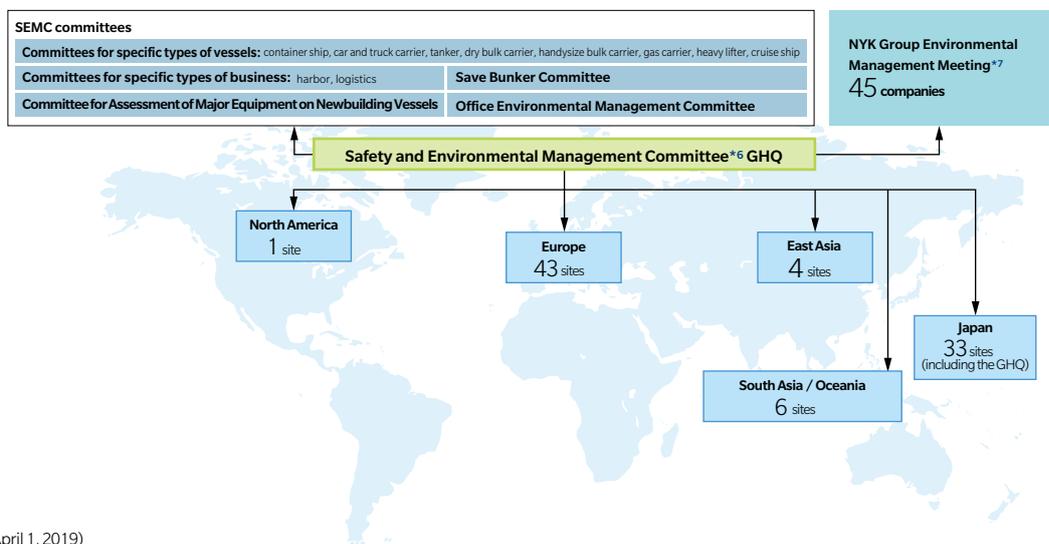
President  
Constituted on September 1, 2001  
Amended on April 1, 2017

## Global Environmental Management System

Under the Group's common environmental policy, 87 operating sites around the world and approximately 750 vessels (including chartered vessels\*1) have obtained ISO 14001 environmental certification\*2. The aggregate revenue of the 36 companies that have obtained this certification account for roughly 80% of the Group's total sales, making the Group's unique global system for certification a powerful business driver. Several group companies\*3 in Japan have also received Green Management certification\*4.

\*1 Chartered vessels are ships leased from shipowners along with their fixtures and crew in a state capable of safe operation  
 \*2 ISO 14001 environmental certification is the collective term for the international standard for environmental management systems issued by the International Organization for Standardization  
 \*3 Group companies with Green Management certification were, as of April 1, 2019, Nippon Container Yuso Co. Ltd., Yusen Koun Co. Ltd., UNI-X NCT Corporation, Asahi Unyu Kaisha Ltd., Kaiyo Kogyo Corporation, Yokohama Kyoritsu Warehouse Co. Ltd., Yusen Logitec Co. Ltd. (Narita Transport Section), and Hokuyo Kaiun Co. Ltd.  
 \*4 Green Management certification is awarded by the Foundation for Promoting Personal Mobility and Ecological Transportation to transportation operator companies that carry out initiatives above minimum standards set in its Green Management Promotion Manual, such as promoting ecologically conscious driving and using low-emission vehicles  
 \*5 Multisite system enables blanket certification for all a company's operating bases  
 \*6 The Safety and Environmental Management Committee (SEMC) formulates group-wide environmental activity guidelines and conducts annual reviews of environmental management systems, with the president serving as chairman. The committee includes subcommittees that are responsible for specific vessel types, businesses, and projects. The Group's four overseas regions also have similar committees  
 \*7 The NYK Group Environmental Management Meeting first commenced in 2006 and is held annually to provide a forum for main group companies in Japan to share information about their environmental initiatives, and to give special commendations to companies that have made outstanding efforts

### Global Promotion of Environmental Activities and Multisite System\*5



(As of April 1, 2019)

# External Recognition for the NYK Group and Group Participation and Support for Environmental Initiatives

## External recognition for the NYK Group

Received A-list score for “CDP Climate Change 2018” for environmental performance disclosure by the international not-for-profit charity CDP (January 2019)

CDP names NYK as the leading company in the shipping industry for response to climate change risks (June 2019)

## Group participation and support for environmental initiatives

NYK Group environmental targets recognized by the international Science Based Targets Initiative (June 2018)

Declaration of support for final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) (December 2018)

Participation in the TCFD Consortium (May 2015)

Participation in the Japan Climate Initiative (September 2018)

Participation in the Shipping Industry Working Group of the international not-for-profit organization Climate Bonds Initiative (April 2018)

Participation in the World Wildlife Fund (2005)

Support statement issued for the UN Global Compact (May 2006)

Signatory of the Caring for Climate of the United Nations Global Compact (January 2009)

Participation in the Japan Business Federation Biodiversity Declaration (December 2009)

Participation in the Japan Business and Biodiversity Partnership of the Japan Business Federation (October 2010)

# Environmental Regulations in the Maritime Shipping Industry

Environmental regulations in the maritime shipping industry are becoming increasingly strict amid growing worldwide concern about climate change and marine biodiversity protection. Led by the International Maritime Organization (IMO), the international shipping industry was the first to adopt global standard fuel efficiency regulations and

promotes reducing GHG emissions. The IMO has set targets for the international shipping industry to improve fuel efficiency by 40% by 2030 and by 70% by 2050 and reduce total annual GHG emissions by 50% by 2050 compared to 2008.

## Timeline of Environmental Regulations

IMO  
GHG\*1 reduction  
targets:

2030: Improve fuel efficiency by **40%**  
(compared to 2008)

2050: Improve fuel efficiency by **70%**  
(compared to 2008)

2050: Reduce total annual GHG  
emissions by **50%** (compared to 2008)

	Treaties/rules	Target area	2016	2017	2018	2019	2020	2021	
CO <sub>2</sub>	SEEMP*2	General seas	Applicable to all vessels						
	DCS*3	General seas				Effective January 1, 2019			
SO <sub>x</sub>		General seas	Fuel sulfur content of 3.5% or less				Fuel sulfur content of 0.5% or less		
		ECA*4	Fuel sulfur content of 0.1% or less (coasts of the U.S. and Canada, Caribbean Sea, North Sea, Baltic Sea)						
NO <sub>x</sub>		General seas	Tier 2 regulations						
		ECA	Tier 3 regulations (coasts of the U.S. and Canada, Caribbean Sea)						(Adding the North Sea and Baltic Sea)
Biodiversity	Ballast Water Management Convention	General seas		Effective September 8, 2017					
	Ship Recycling Convention	General seas	Adopted in 2009; will be applicable to all vessels upon entering into effect						

\*1 Greenhouse gases (GHG) including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>)

\*2 The Ship Energy Efficiency Management Plan (SEEMP) is an operational plan for improving energy efficiency on a voyage-specific basis

\*3 Shipping firms use a data collection system (DCS) to report to the International Maritime Organization (IMO) on fuel consumption, voyage distances, and voyage times for all vessels of 5,000 gross tonnage or above operating internationally. The EU previously adopted a similar system (EU-MRV) on January 1, 2018

\*4 Emission Control Areas (ECAs) are ocean areas where restrictions on air pollutants are in effect

# Global Warming Prevention and Air Pollution Measures

## Global Warming Prevention

### Using Vessel IoT for Safe and Energy-efficient Operations

The Group is improving its ability to ensure safe and energy-efficient operations by utilizing big data from vessel voyages underway, engine information, and other items. The Group gathers big data for instant analysis through SIMS (see page 38 for details) installed on 190 vessels as of March 2019.

The Group has developed a portal site to monitor the SIMS data and an analysis tool for vessel performance. The Group also uses this big data in the IBIS Project to determine optimal economic operations, to formulate detailed navigation plans based on analysis results combining vessel performance models and weather data, and to execute condition-based maintenance (CBM) by analyzing engine conditions and identify the optimal time for maintenance.



Viewer on the vessel

Viewer on land

### Reducing CO<sub>2</sub> Emissions by Modifying Hulls

We are modifying the hulls of our in-service container ships to continue improving the energy-efficiency of our container vessel operations. Actual marine data has shown that these improvements reduce CO<sub>2</sub> emissions by 23%, which exceeded our estimate, and has been certified by Nippon Kaiji Kyokai. Energy-saving vessel operations are becoming the norm and vessels are tending to travel at speeds slower than expected at the time of construction. We have been accordingly advancing initiatives since summer 2014 to reduce CO<sub>2</sub> emissions by modifying our in-service vessels to travel at slower speeds and improve propulsive performance, such as modifying vessel bulbous bows\*<sup>1</sup> and fitting MT-FAST\*<sup>2</sup> devices to hulls.

Tsuneishi Shipbuilding has installed MT-FAST on over 500 ships belonging to both NYK and other shipping firms since developing the technology in December 2008. The company received the 2018 Minister of the Environment Award for Global Warming Prevention Activity in recognition of MT-FAST reducing CO<sub>2</sub> emissions by some 1.341 million tons over the past decade.

\*<sup>1</sup> A bulbous bow is a bulb-shaped protrusion attached below the waterline of a vessel, reducing wave resistance when the vessel moves forward (see photos below)



Before modification

After modification

\*<sup>2</sup> MT-FAST is an energy-saving device that uses multiple wings attached to the front of the propeller to recover energy from the swirling flow created by the propeller rotation

## Air Pollution Prevention

### Developing Next Generation Fuel: LNG

Switching the fuel for our vessels from heavy oil to LNG is expected to cut emissions of CO<sub>2</sub> by about 30%, NO<sub>x</sub> 80%, and SO<sub>x</sub> by 100%. The Group sees LNG as the next-generation fuel for ships and has been advancing research and technical development for fuel conversion since 2011. We have accumulated extensive expertise for developing engines that use LNG as their fuel source from our many years operating LNG carriers and are now using our technology to build LNG-fueled vessels. In August 2015, we commissioned *Sakigake*, the first LNG-fueled tugboat in Japan, and in fiscal 2016 we commissioned the first two LNG-fueled pure car and truck carriers in the world (see pages 22–24 for details). The Group will continue to promote the construction of LNG-fueled vessels for their expected reduction in environmental impact.

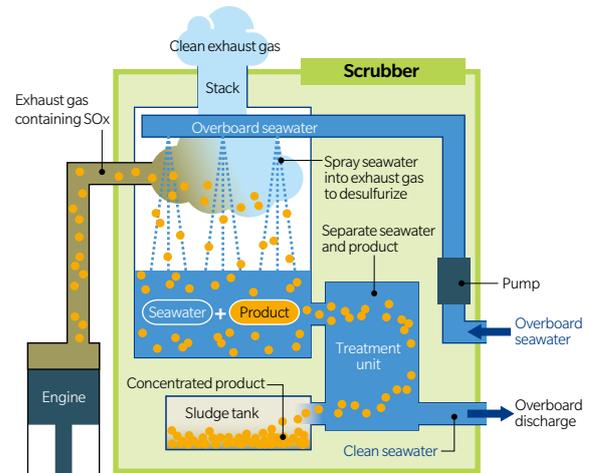
In addition to making its own vessels more energy efficient, the Group is promoting the wider use of environmentally friendly LNG fuel from the supply side. The increase in the use of LNG-fueled vessels brings with it the major challenge of supplying the LNG fuel to the vessels, and in 2017 the Group launched its LNG fuel supply operation in Europe with the introduction of the world's first purpose-built LNG bunkering vessel. We also plan to introduce Japan's first LNG bunkering vessel in 2020 when we launch an LNG fuel supply/sales business in the Chubu region and are examining commencing an LNG fuel supply/sales business in the Setouchi and Kyushu area (see pages 21 and 34 for details).

## Complying with SOx Regulations

The IMO's International Convention for the Prevention of Pollution from Ships (MARPOL) will further tighten the limit on sulphur content in fuel oil in 2020.

To comply with these regulations, the Group considers the optimal method for each vessel of three options: using oil that complies with the regulations (low-sulphur fuel oil), installing an SOx scrubber (system for desulphurizing exhaust gas), or converting to LNG or other fuels. To ensure a safe and smooth switch to low-sulphur fuel oil beginning in January 2020, the Group has launched an internal project for sharing information on the timing of and key points to note during the switch while also verifying the impact the compliant fuel oil will have on ship engines and preparation of stable oil supply. In addition, as of July 31, 2019, the Group plans to install SOx scrubbers on approximately 70 ships (see pages 34–35 for details).

## How a Scrubber Works



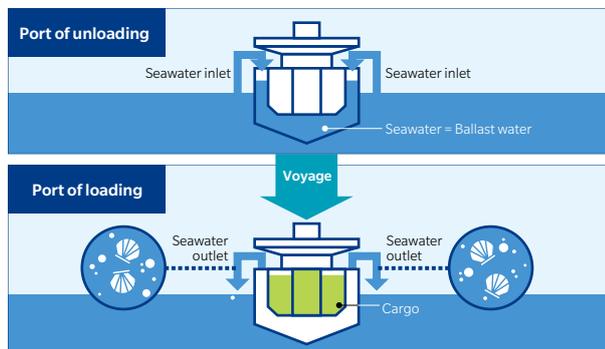
## Contributing to Marine Environment Conservation

### Installing Ballast Water Management Systems

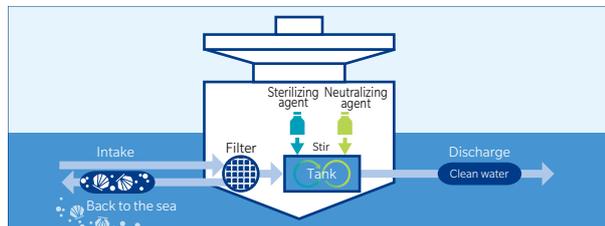
The IMO adopted the International Convention for the Control and Management of Ship's Ballast Water and Sediments in 2004 to prevent the spread of harmful aquatic organisms from one region to another.

Prior to the enforcement of the Convention in September 2017, the Group obtained type approval from the Ministry of Land, Infrastructure, Transport and Tourism for a Ballast Water Management System (BWMS) and began installing the systems on its vessels in 2010. As of the end of March 2019, the Group had installed BWMS on 100 vessels and is continuing to install these systems on vessels we own and operate.

### How Ballast Water Moves Organisms



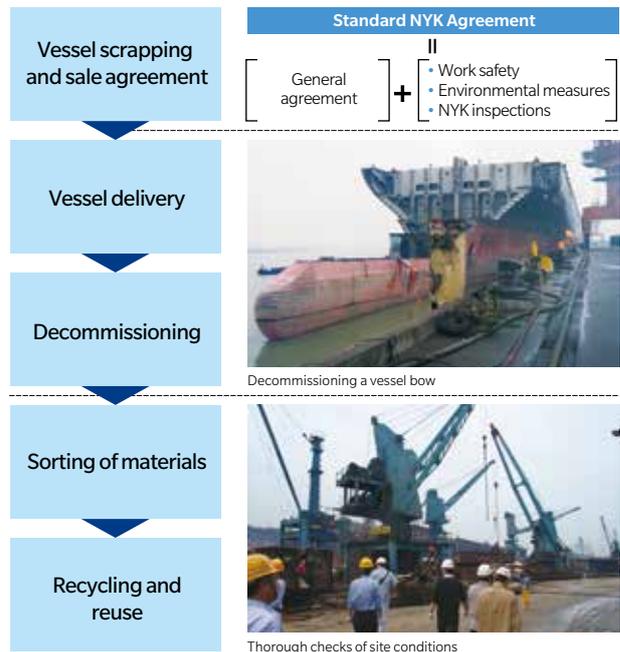
### Ballast Water Treatment



### Environmentally Friendly Ship Scrapping (Ship Recycling)

The IMO adopted a ship-recycling convention in 2009 aimed at preventing industrial accidents and environmental pollution that can occur during ship-decommissioning procedures. In consideration of the IMO guidelines, NYK has formulated a scrapping policy that emphasizes securing stable scrapping locations and conducting environmentally friendly vessel scrapping. In addition to the environmental conditions, we also consider workplace health and safety in the selection of scrapping yards.

### Ship Recycling Process



### NYK Group GHG Emission Rates for Fiscal 2018

Item	Emissions rate
Scope 1 Ships, aircraft, semitrailers, etc.	94.4%
Scope 2 Offices	0.3%
Scope 3 Vessel construction, commuting/business trips	5.3%
<b>Total</b>	<b>100.0%</b>

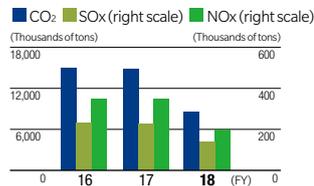
\* GHG emission data for Scope 1, 2, and 3 has been verified by a third party organization Assurance statement (<https://www.nyk.com/english/csr/envi/data/>)

### Ships/Aircraft

#### NYK

INPUT (Ships)			OUTPUT			
2016	2017	2018	2016	2017	2018	
(Thousands of tons)			(Thousands of tons)			
Heavy oil C	4,535	4,487	<b>2,574</b>			
Heavy oil A	0	0	<b>0</b>			
Diesel	251	258	<b>143</b>			
			CO <sub>2</sub> emissions	14,930	14,800	<b>8,473</b>
			SOx	227	225	<b>131</b>
			NOx	346	343	<b>196</b>

\* The number of reporting companies decreased from the previous fiscal year owing to the transfer of the liner trade business to ONE, a joint venture with MOL and "K" Line, in fiscal 2018

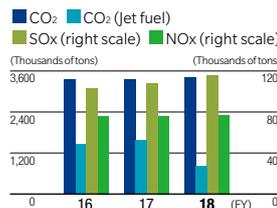


### Japan and Overseas Group Companies

INPUT (Ships)			OUTPUT			
2016	2017	2018	2016	2017	2018	
(Thousands of tons)			(Thousands of tons)			
Heavy oil C	943	974	<b>973</b>			
Heavy oil A	37	16	<b>20</b>			
Diesel	96	85	<b>100</b>			
			CO <sub>2</sub> emissions	3,361	3,356	<b>3,413</b>
			SOx	103	108	<b>116</b>
			NOx	78	78	<b>79</b>

INPUT (Aircraft)			OUTPUT			
2016	2017	2018	2016	2017	2018	
(KL)			(Thousands of tons)			
Jet fuel	583,609	625,401	<b>322,673</b>			
			CO <sub>2</sub> emissions	1,453	1,557	<b>803</b>

\* Calculated from the vessel fuel consumption of the Company and group companies for each year based on the IMO guideline coefficients

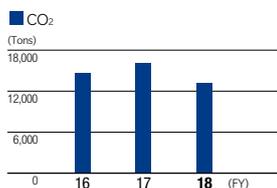


### NYK-Operated Container Terminals in Japan

INPUT			OUTPUT			
2016	2017	2018	2016	2017	2018	
(1,000 kWh)			(Tons)			
Electric power	18,434	20,475	<b>16,289</b>			
(KL)			CO <sub>2</sub> emissions	14,617	16,095	<b>13,211</b>
Fuel	2,072	2,320	<b>2,211</b>			

\* The number of reporting companies decreased from the previous fiscal year owing to the transfer of the liner trade business to ONE, a joint venture with MOL and "K" Line, in fiscal 2018

\* CO<sub>2</sub> emission volumes from electric power are calculated using the emission coefficient for the electric power supplier with which each terminal has a contract. CO<sub>2</sub> emission volumes from fuel are calculated using the coefficient stipulated in the Global Warming Act



### Offices

Input indicates resources and energies we have used.

#### NYK Headquarters

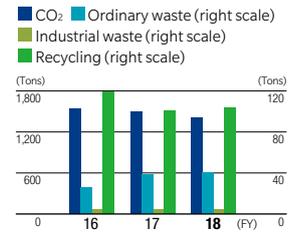
INPUT			OUTPUT			
2016	2017	2018	2016	2017	2018	
(1,000 kWh)			(Tons)			
Electricity	2,433	2,384	<b>2,353</b>			
(KL)			CO <sub>2</sub> emissions	1,527	1,479	<b>1,405</b>
Heavy oil A	0	0	<b>0</b>			
Heavy oil B C	0	0	<b>0</b>			
Diesel	0	0	<b>0</b>			
Kerosene	0	0	<b>0</b>			
Gasoline	22	18	<b>15</b>			
(1,000 m <sup>3</sup> )			Ordinary waste	26	38	<b>40</b>
LPG	0	0	<b>0</b>			
City gas	19	20	<b>21</b>			
(Tons)			Industrial waste	4	4	<b>4</b>
Steam	1,425	1,533	<b>1,352</b>			
(MJ)			Recycling	119	100	<b>103</b>
Heated water	0	0	<b>0</b>			
Cooled water	0	0	<b>0</b>			
(1,000 m <sup>3</sup> )						
Water supplied by utilities	18	18	<b>17</b>			
(Tons)						
Paper	25	22	<b>20</b>			

\* Electricity consumption includes all tenants in the headquarters building

\* CO<sub>2</sub> emissions volumes are calculated from electric power consumption. CO<sub>2</sub> emissions in fiscal 2018 have been calculated using the coefficient of 0.475 kg-CO<sub>2</sub>/kWh provided by TEPCO Energy Partner Incorporated (formerly Tokyo Electric Power Co., Inc.; fiscal 2017 result)

\* Of the CO<sub>2</sub> emissions for fiscal 2018, part of the electricity used at the headquarters (95,879.2 kWh) has been offset by using green power

\* The waste volume recycling rate was 88%

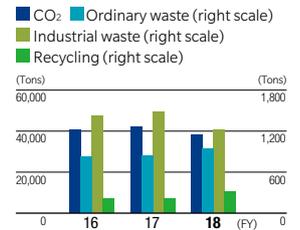


### Group Companies in Japan

INPUT			OUTPUT			
2016	2017	2018	2016	2017	2018	
(1,000 kWh)			(Tons)			
Electricity	50,436	53,470	<b>49,292</b>			
(KL)			CO <sub>2</sub> emissions	40,171	41,911	<b>37,785</b>
Heavy oil A	7	7	<b>9</b>			
Heavy oil B C	0	0	<b>0</b>			
Diesel	4,545	4,849	<b>4,624</b>			
Kerosene	53	56	<b>50</b>			
Gasoline	649	651	<b>615</b>			
(1,000 m <sup>3</sup> )			Ordinary waste	819	832	<b>939</b>
LPG	81	57	<b>51</b>			
City gas	395	456	<b>377</b>			
(Tons)			Industrial waste	1,419	1,474	<b>1,211</b>
Steam	187	216	<b>222</b>			
(MJ)			Recycling	209	208	<b>314</b>
Heated water	0	437	<b>1,519</b>			
Cooled water	140,328	149,981	<b>163,121</b>			
(1,000 m <sup>3</sup> )						
Water supplied by utilities	214	221	<b>218</b>			
(Tons)						
Paper	515	585	<b>457</b>			

\* CO<sub>2</sub> emissions volumes are calculated from electric power consumption. CO<sub>2</sub> emissions in fiscal 2018 have been calculated using the electric utility coefficients (fiscal 2017 results) published by the Ministry of the Environment

\* Figures are for consolidated subsidiaries



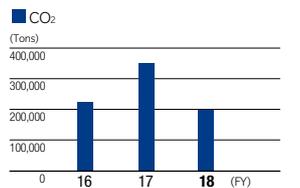
### Overseas Group Companies

INPUT			OUTPUT			
2016	2017	2018	2016	2017	2018	
(1,000 kWh)			(Tons)			
Electricity	74,144	88,517	<b>55,866</b>			
(KL)			CO <sub>2</sub> emissions	221,832	349,104	<b>199,501</b>
Gasoline	37,093	79,978	<b>42,278</b>			
Diesel	26,247	39,636	<b>21,050</b>			
(Tons)						
LPG	854	1,021	<b>616</b>			
(1,000 Nm <sup>3</sup> )						
Natural gas	16,162	10,637	<b>7,137</b>			

\* CO<sub>2</sub> emissions volumes are calculated from electric power consumption. CO<sub>2</sub> emissions have been calculated using Greenhouse Gas (GHG) Protocol coefficients

\* Figures are for consolidated subsidiaries

\* The number of reporting companies decreased from the previous fiscal year owing to the transfer of the liner trade business to ONE, a joint venture with MOL and "K" Line, in fiscal 2018



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 2018, we prioritized installing electronically controlled engines and SOx scrubbers on our vessels. In addition, from this year, the Company reports information on the use of proceeds and the environmental improvement results related to green bonds (unsecured corporate bonds) issued as of May 2018.

### Comparison of All Costs and Results Related to Environmental Activities

		(Millions of yen)	
		FY2017	FY2018
Prevention of global warming and air pollution, conservation of marine environments, conservation of resources, and deployment of environmental technologies	Environmental protection cost	2,911	3,551
	Year-on-year savings	3,400	3,765

### NYK's In-house Classifications

Environmental policies	Objectives	Items	Environmental protection cost
			(Millions of yen)
1. Continual improvement	Maintenance of environment management systems	Construction, operation, ISO certification (including personnel costs)	102
2. Complying with laws and regulations	Restorative work in response to environmental degradation	Restorative work in response to marine pollution, etc.	0
3. Ensuring safe operations	Reducing accidents and trouble	NAV9000 and other safety promotion activities (including personnel costs)	201
4. Prevention of global warming and air pollution, protecting ocean environments, saving natural resources	Preventing global warming and air pollution	Use of fuel additives to improve combustion; activities to reduce ship fuel consumption; propeller polishing, etc.	713
	Preventing marine pollution	Use of corrosion-resistant steel in VLCC cargo tanks, etc.	0
	Conservation of natural resources	Environmentally conscious purchases*	0
5. Use of environment friendly technologies	Preventing global warming and air pollution	Installation of electronically controlled engines, installation of exhaust gas economizers and other energy-saving devices, low-sulfur fuel measures, etc.	1,483
	Preventing destruction of the ozone layer	Ship air-conditioners, refrigerators / freezers, etc.	0
	Preventing marine pollution	Ballast water management systems and the NYK bilge treatment system, etc.	548
	R&D expenses	Smart fleet operations, Technology to reduce the CO <sub>2</sub> and NOx emissions of large main engines in vessels	491
6. Environment education	Raising environmental awareness and promoting our Green Policy	Environmental e-Learning, environmental protection campaigns, etc.	1
7. Community activities to promote environmental awareness	Environmental information disclosures, social contributions, etc.	Expenses for NYK Report, sponsorship of environmental organizations, etc.	12
Total			3,551

\* The Company uses FSCR-certified paper, but the price difference is not substantial and is thus recorded as zero

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

Classification	Investment	Expenses
(Millions of yen)		
(1) Cost within NYK business activities:		
a. Pollution prevention cost	1,001	183
b. Global environmental protection cost	467	1,093
c. Recycling cost	0	0
(2) Upstream and downstream cost	0	0
(3) Management activity cost:		
a. Operation and maintenance of environmental management systems	0	303
b. Environmental information disclosure, environmental advertising	0	8
c. Environmental education and training	0	1
d. Expenses for environmental improvement	0	0
(4) R&D cost:		
Environmental-burden reduction	0	491
(5) Social contribution activities cost:		
Social contribution activities	0	4
(6) Environmental damage response cost	0	0
Total	1,468	2,083

■ Calculation methodology:

- The period is from April 1, 2018, to March 31, 2019. (The calculation period for activities to reduce ship fuel consumption is from January 1, 2018, to December 31, 2018.)
- 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.)
- The Ministry of the Environment's fiscal 2005 Environmental Accounting Guidelines were used
- Investment amount refers to cost for depreciable environment-related facilities acquired during the term
- Expenses include maintenance and management of facilities for the purpose of environmental protection and associated personnel costs, but do not include depreciation
- Results are noted only to the extent that impact can be quantified

### Use of Proceeds and Environmental Improvements from the Issue of Unsecured Corporate Bonds No. 40 (NYK Green Bond)

(as of March 31, 2019)

#### Report on Use of Proceeds

- Allocated to LNG-related investments (LNG-fueled vessels, LNG bunkering vessels): ¥3.1 billion
- Allocated to regulation compliance-related investments (scrubbers, ballast water management systems): ¥100 million
- Refinancing ratio related to the above: 75%

#### Impact Report

1. LNG-fueled vessels	1 ship
• GHG emissions	35,730 mt per ship per year
• GHG reduction rate	21%
• CO <sub>2</sub> reduction rate	30%
• NOx reduction rate	30%
• SOx reduction rate	99%
2. LNG bunkering vessels	1 ship
• GHG emissions	3,647 mt per ship per year
• GHG reduction rate	15%
• CO <sub>2</sub> reduction rate	30%
• NOx reduction rate	76%
• SOx reduction rate	99%
3. BWMS	1 ship
• Volume managed	348,000 mt per ship per year

## Human Resources Data

### NYK Group (Includes NYK Headquarters)

Number of employees of consolidated companies (long-term employees, employees on contracts for over six months)

#### Employee Demographics

		FY2016	FY2017	FY2018
<b>Total number of employees (a)</b>		<b>35,935</b>	<b>37,820</b>	<b>35,711</b>
<b>By region</b>				
	Japan	8,336	8,156	7,968
	Europe	5,686	7,390	7,029
	South Asia	13,093	13,788	13,763
	North America	2,779	2,667	2,106
	East Asia	4,103	3,975	3,352
	Oceania	479	420	363
	Central and South America	1,459	1,424	1,130
<b>Number of employees promoted to director by region*1</b>				
	Japan	295	283	264
	Women	3	6	4
	Europe	62	66	55
	Women	5	7	8
	South Asia	86	92	112
	Women	7	12	17
	North America	29	30	28
	Women	2	1	1
	East Asia	38	38	27
	Women	3	4	1
	Oceania	9	6	7
	Women	2	2	0
	Central and South America	6	5	6
	Women	2	2	0

\*1 National staff hired locally. Excludes employees seconded from headquarters and other organizations

		FY2016	FY2017	FY2018
<b>Ratio of management by region and gender (%)**1</b>				
	Japan	90.6	89.9	89.4
	Women	9.4	10.1	10.6
	Europe	78.6	69.5	79.1
	Women	21.4	30.5	20.9
	South Asia	70.3	67.6	67.6
	Women	29.7	32.4	32.4
	North America	68.9	67.4	67.9
	Women	31.1	32.6	32.1
	East Asia	68.1	67.0	63.9
	Women	31.9	33.0	36.1
	Oceania	83.5	85.9	87.7
	Women	16.5	14.1	12.3
	Central and South America	78.9	79.4	72.1
	Women	21.1	20.6	27.9
<b>By gender</b>	Men	23,753	24,864	23,688
	Women	12,182	12,956	12,023
<b>By job type</b>	Office workers**2	34,708	36,630	34,692
	Seafarers**3	1,227	1,190	1,019
<b>New hires</b>	Total	6,473	6,263	6,997
	Men	4,267	4,070	4,508
	Women	2,206	2,193	2,489

\*1 National staff that are managers or higher. Includes employees seconded from headquarters and other organizations

\*2 Includes navigation officers and engineers\* at the office, and 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

#### Employee Diversity

		FY2016	FY2017	FY2018
<b>Number of non-Japanese seafarers</b>	Total (b)	<b>19,281</b>	<b>19,081</b>	<b>18,055</b>
	Vessels under group management	7,533	7,179	6,879
	Chartered vessels	11,748	11,902	11,176
<b>Ratio of women employees (%)</b>		<b>34.9</b>	<b>35.2</b>	<b>34.6</b>
<b>Ratio of women managers (%)**1</b>		<b>21.7</b>	<b>23.4</b>	<b>23.8</b>

\*1 Managers or higher

#### Number of Group Employees (Including Non-Japanese Seafarers)

	FY2016	FY2017	FY2018
<b>Total (a + b)</b>	<b>55,216</b>	<b>56,901</b>	<b>53,766</b>

### NYK Headquarters

#### Employee Demographics

		FY2016	FY2017	FY2018
<b>Total number of employees</b>		<b>1,697</b>	<b>1,710</b>	<b>1,732</b>
<b>By gender</b>				
	Men	1,374	1,388	1,410
	Women	323	322	322
<b>Long-term employees</b>	Office workers (Excludes navigation officers and engineers at the office)	756	763	758
	Women	268	268	265
	Navigation officers and engineers	559	566	566
	Women	17	18	19
<b>Fixed-term employees</b>	Office workers	51	51	74
	Women	38	36	38
	Seafarers	8	8	12
	Women	0	0	0
<b>Long-term employees and fixed term employees</b>	Office workers (Excludes navigation officers and engineers at the office)	1,113	1,118	1,135
	Navigation officers and engineers	584	592	597
<b>Average age (years old)**1</b>	Office workers (Excludes navigation officers and engineers at the office)	40.8	40.8	40.9
	Navigation officers and engineers	37.9	38.1	37.9
<b>Age range**1</b>	Office workers (Excludes navigation officers and engineers at the office)			
	Under 30	212	217	211
	30-49	555	537	516
	50 and older	257	277	296
	Navigation officers and engineers			
	Under 30	147	147	141
	30-49	363	357	364
	50 and older	66	80	80
<b>New hires**2</b>	Total	77	65	53
	Office workers (Excludes navigation officers and engineers at the office)			
	Men	38	33	22
	Women	8	5	6
	Navigation officers and engineers			
	Men	28	25	24
	Women	3	2	1
<b>Rate of turnover within 3 years after hire (%)**3</b>	Office workers (Excludes navigation officers and engineers at the office)	1.6	0.8	0.9
	Navigation officers and engineers	2.6	2.4	1.2
<b>Ratio of voluntary resignations (%)**4</b>		0.8	1.1	0.8
<b>Turnover rate at NYK (%)**5</b>		3.8	3.1	3.7

\*1 Excludes fixed-term employees

\*2 New graduates and mid-career hires

\*3 Calculation method: Number of new graduates and mid-career employees hired in the previous three years who resigned in each fiscal year / Number of new graduates and mid-career employees hired in the previous three years

\*4 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

\*5 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

		FY2016	FY2017	FY2018
<b>Ratio of women employees (%)</b>	Office workers (Includes navigation officers and engineers at the office)	21.2	21.0	21.2
	Seafarers	3.6	3.6	2.9
<b>Ratio of women managers (%)<sup>*1</sup> (a)</b>	Office workers (Includes navigation officers and engineers at the office)	15.1	16.0	18.0
	Seafarers	0.0	0.0	0.0
<b>Ratio of women managers to the total number of women employees (long-term) (%)<sup>*1</sup> (b)</b>		9.8	10.5	13.0
<b>Employment ratio of people with disabilities (%)</b>		2.5	2.4	2.4

\*1 Office workers include employees at manager or higher. Seafarers include captains and chief engineers

Calculation method: (a) Women managers / Total managers, (b) Women managers / Total number of women employees (long-term)

## Occupational Health and Safety (Includes Fixed-Term Employees)

		FY2016	FY2017	FY2018
<b>Number of occupational accidents<sup>*1</sup></b>	Total	4	7	0
	Office workers (Includes navigation officers and engineers at the office)	2	1	0
	Seafarers	2	6	0
<b>Number of work-related deaths</b>	Total	1	0	0
	Office workers (Includes navigation officers and engineers at the office)	0	0	0
	Seafarers	1	0	0
<b>Number of lost days caused by occupational accidents</b>	Total	77	42	0
	Office workers (Includes navigation officers and engineers at the office)	0	0	0
	Seafarers	77	42	0

\*1 Excludes commuting accidents

## Employee Support System

		FY2016	FY2017	FY2018
<b>Average number of days of paid leave taken<sup>*1</sup></b>		16.8	17.0	17.0
<b>Number of employees who took maternity leave<sup>*2</sup></b>		16	16	21
<b>Number of employees who used parental leave program<sup>*2</sup></b>	Total	35	40	52
	Men	15	16	15
	Women	20	24	37
<b>Ratio of employees who returned to work after taking parental leave (%)</b>		100.0	100.0	93.8 (Number of employees who left the Company: 1)
<b>Retention rate of employees who used parental leave program (%)</b>		100.0	100.0	100.0
<b>Number of employees who used shortened working hours program<sup>*2</sup></b>	Total	16	14	22
	Men	0	0	0
	Women	16	14	22
<b>Number of working mothers<sup>*3</sup></b>		52	54	56
<b>Number of employees who used family-care leave program<sup>*2</sup></b>	Total	1	0	1
	Men	1	0	0
	Women	0	0	1
<b>Ratio of employees who returned to work after taking family-care leave (%)</b>		NA	100.0	100.0
<b>Retention rate of employees who used family-care leave program (%)</b>		NA	100.0	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

## Education

		FY2016	FY2017	FY2018
<b>Average number of days participating in training programs</b>	Company average	13.5	11.7	11.1
	Office workers <sup>*1</sup> (Includes navigation officers and engineers at the office)	6.6	5.8	5.0
	Seafarers	39.5	34.6	33.9
<b>Average expenditure on education and training programs (yen)</b>	Company average	298,470	267,037	271,137
	Office workers <sup>*2</sup> (Includes navigation officers and engineers at the office)	184,962	144,940	131,334
	Seafarers	719,175	743,068	798,241

\*1 Excludes workers trained outside the Company

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

## Corporate Data (As of March 31, 2019)

### Established

September 29, 1885

### Paid-in Capital

¥144,319,833,730

### Employees

- Consolidated: 35,711 (NYK and consolidated subsidiaries)
- Nonconsolidated\*: 1,732 (1,135 office workers (excluding seafarers); 597 seafarers)

\* The nonconsolidated 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: 169,570,459 shares (excluding treasury stock: 484,639)

### Stock Exchange Listings

First Section of the Tokyo Stock Exchange and the Nagoya 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

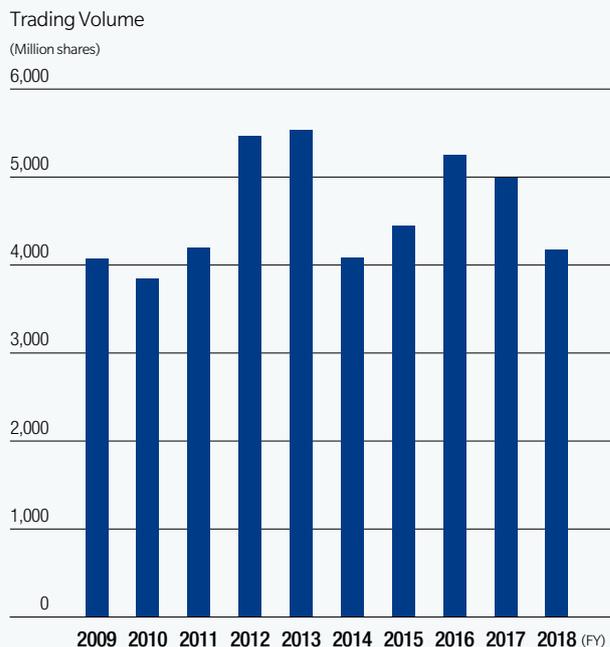
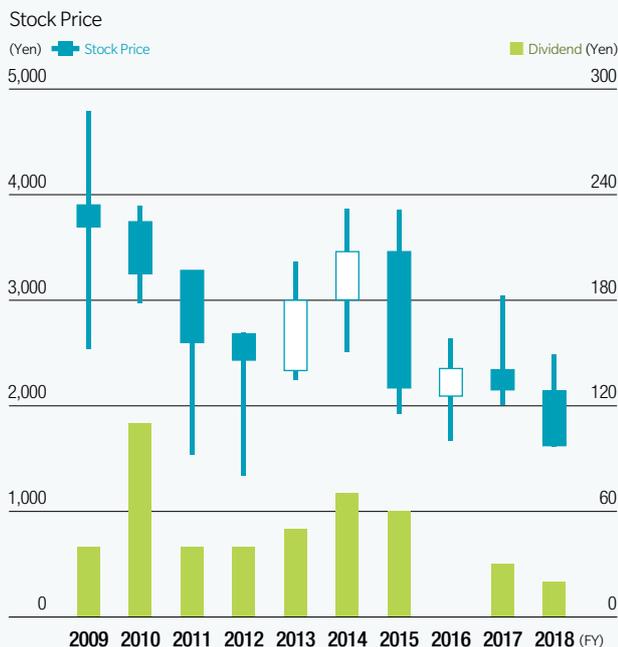
The Company's public notices are available through electronic distribution.  
Website: <https://www.nyk.com/ir/stock/koukoku/>  
However, in the event that electronic distribution is impossible, due to an accident or other unavoidable circumstances, the Company's public notices will appear in the Nihon Keizai Shimbun published in Tokyo, Japan.

### American Depositary Receipts (ADR)

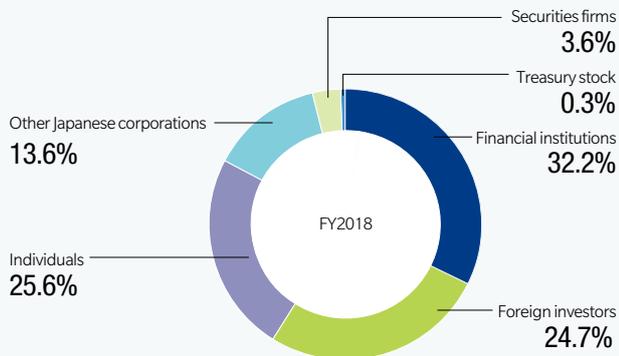
Symbol: NPNYY  
CUSIP: 654633304  
Exchange: OTC  
Ratio (ADR: shares of common stock): 5:1  
Depository:  
BNY Mellon Shareowner Services, P.O. BOX 30170  
College Station, TX 77842-3170  
Toll-free:  
(Within the U.S.) 888-BNY-ADRS (888-269-2377)  
(From overseas) 1-201-680-6825  
Website: <http://www.mybnymdr.com>

### Stock Price Range and Trading Volume

\* 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



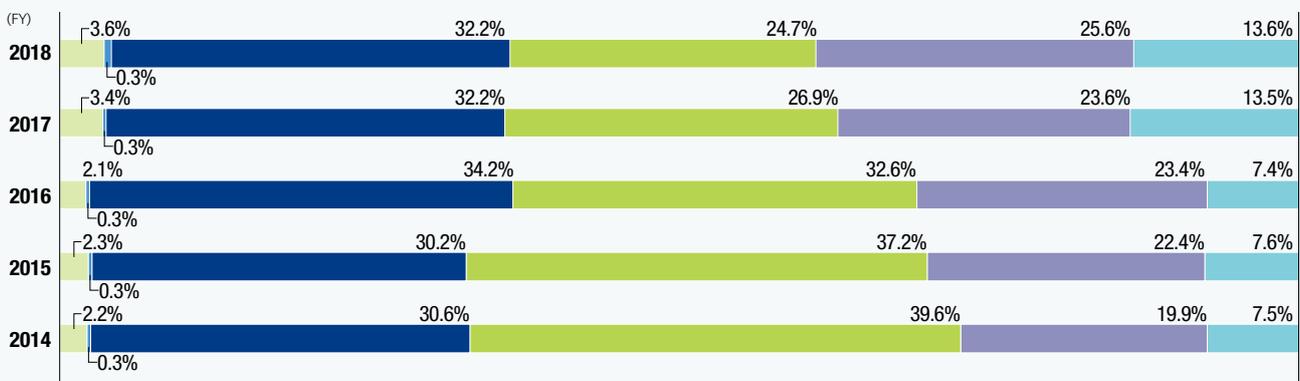
## Shareholder Composition



## Principal Shareholders (As of March 31, 2019)

Name	Number of shares held
The Master Trust Bank of Japan, Ltd. (Trust Account)	11,692,100
Japan Trustee Services Bank, Ltd. (Trust Account)	11,357,900
Minami Aoyama Real Estate Inc.	8,247,800
Mitsubishi Heavy Industries, Ltd.	4,103,831
Meiji Yasuda Life Insurance Company	3,447,326
Japan Trustee Services Bank, Ltd. (Trust Account 5)	3,105,600
Tokio Marine and Nichido Fire Insurance Co. Ltd.	2,894,578
Japan Trustee Services Bank, Ltd. (Trust Account 9)	2,801,500
JP MORGAN CHASE BANK 385151	2,478,550
STATE STREET BANK WEST CLIENT - TREATY 505234	2,372,412

## Shareholder Composition



## Editorial Policy for NYK Report

The NYK Report 2019 is an integrated report that combines financial information, such as business results, reviews of operations, and future strategies, with general nonfinancial information about corporate social responsibility (CSR) activities and other initiatives. This report aims to further understanding among as many stakeholders as possible that the NYK Group not only pursues earnings but also tackles a wide range of issues relating to the environment, social, and governance (ESG) factors to contribute to the realization of a sustainable society. Further, please use this report in conjunction with the NYK Group's website, which includes information that is more comprehensive and detailed.

### Website

<b>General business activities</b> <a href="https://www.nyk.com/english/">https://www.nyk.com/english/</a>		
<b>Financial information</b> Website section: Investor Relations <a href="https://www.nyk.com/english/ir/">https://www.nyk.com/english/ir/</a>	<b>Nonfinancial information</b> Website section: CSR <a href="https://www.nyk.com/english/csr/">https://www.nyk.com/english/csr/</a>	
<b>NYK Report (Booklet, PDF (full version), and Financial Results)</b>		
Fiscal Statements	Fact Book I, II	Corporate Governance Code related documents
Business report		

### 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: April 2018 to March 2019 (In some cases, information from April 2019 and beyond is included)
- Coverage: The activities of NYK and consolidated group companies in Japan and overseas are included. Scope is indicated when there are differences in the major companies involved in specific activity areas.
- Date of issue: August 2019 (previous: August 2018; next: August 2020)

### Audience

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 at other companies.

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

- International Integrated Reporting Framework Version 1.0 by the International Integrated Reporting Council (IIRC)
- GRI Standards, global standards for sustainability reporting produced by the Global Reporting Initiative (GRI)
- ISO 26000
- Environmental Reporting Guidelines 2018, by the Ministry of the Environment, Japan
- Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation by the Ministry of Economy, Trade and Industry

 [CSR > NYK Reports > GRI Guidelines / ISO26000](#)



3-2, Marunouchi 2-chome,  
Chiyoda-ku, Tokyo 100-0005, Japan  
Telephone: +81-3-3284-5151  
Website: <https://www.nyk.com/english/>



NYK was selected to the 2018 CDP A List of companies taking action on climate change. NYK was also ranked as the top global company in the CDP research report on shipping sector for the readiness on low-carbon transition.

### SRI and ESG Indexes



FTSE4Good



FTSE Blossom Japan



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### Other Awards and Commendations

