

# The NYK Group ESG Story 2022

March 24, 2022



Bringing Value To Life.



# Sustainably Creating Corporate and Social Value

Maximization of earnings

Sustainability of society and the environment

## ESG Management

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

Creating new value

Sustainable Solution Provider

Using ESG yardsticks

Investing management resources  
(talent, assets, investments, and data)

Governance

Materiality  
(safety, the environment, and human resources)

# Toward Further Growth

through Proactive ESG Management

Basic philosophy

*Bringing value to life.*

Advancing ESG management  
that steadily initiates  
transformation



Developing  
sustainable growth strategies  
by backcasting

# ESG Management Organizational Structure Reinforcement



Chapter 1.

## Acceleration of ESG Management

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A review of the first fiscal year

Chapter 2.

## Toward Realization of Sustainable Growth Strategies

---

A progress on the drafting medium-term management plan based on a long-term perspective



Chapter 1.

# Acceleration of ESG Management

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Investing  
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Using ESG  
yardsticks



## Encouraging Each Employee to Use ESG Yardsticks

### ESG Navigators

Leading discussions that connect the organization vertically, horizontally, and diagonally

### Platform that advances ESG management

Gathering opinions from a wide range of age groups and encouraging vigorous exchanges of opinions

Through discussions with division leaders, informing management about the target profile of the Group proposed by frontline employees



**More than 70 ESG Navigators are stimulating discussions in all 46 head office departments.**



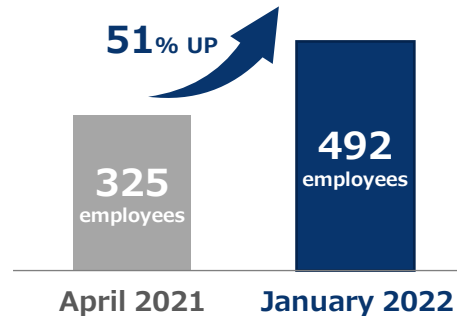
## Encouraging Each Employee to Use ESG Yardsticks

### Survey of awareness of ESG management\*

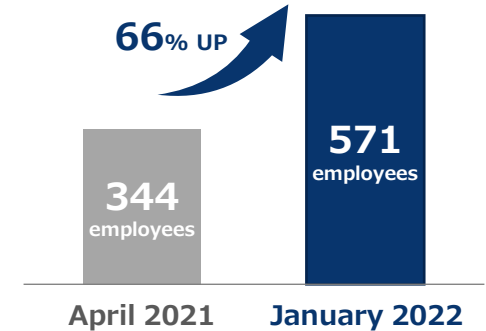
(Online questionnaire targeting approximately 1,900 employees)



To what extent are you aware of ESG in your daily work?



Are you able to use the ESG yardsticks when working?



\* Conducted by the ESG Management Promotion Group

**The ESG yardstick mindset is steadily increasing. However, implementing individual ESG targets in job descriptions is an ongoing challenge.**

# ESG Management Beginning to Spread throughout the NYK Group

## The NYK Group ESG Story



### Our Values

**CONNECTED**

**COMMITTED**

**CREATIVE**

### Brand Promise

**Create  
Better  
Connections**

### Clients' strategic partner

Using insight to identify the true nature of clients' issues and helping solve these issues by becoming a hub that creates connections among stakeholders

**Yusen Logistics, an NYK Group company, will soon launch its own ESG Story.**

# Making ESG Management a Major Driver of the Entire NYK Group by Utilizing Each Employee's Aspirations

**ESG Management Committee**

Sharing the concept of ESG management through study sessions, interviews, and discussions

**Respective headquarters**

Sharing the details of discussions and examining proposed KPIs of respective headquarters

Encouraging open discussions that connect the organization vertically, horizontally, and diagonally



# Future Tasks in the Further Advancement of ESG Management

- **Reinforcing human resources and organizations**
- **Stepping up human rights initiatives**  
Plan to establish a subcommittee in the ESG Management Committee in April 2022
- **Strengthening the KPI management structures of ESG management**
- **Reflecting ESG factors in executive compensation**  
Plan to seek approval at the June 2022 General Shareholders' Meeting

# Reinforcing Human Resources and Organizations to Advance New Value Creation and Frontline Capabilities

Encouraging our 35,000 employees to  
mutually recognize and utilize their diversity.  
As a group, we can readily adapt to major changes  
amid highly uncertain conditions.



# Conducting a Global Engagement Survey in FY2022

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Understanding the actual situation of each organization,  
verifying the effectiveness of measures,  
and examining improvement measures



# Building Organizations with Diversity and Inclusion as Foundations

## Launching the New Workstyle Project

Considering how best to create an organization in which the directors and employees work in unison and **all 35,000 employees demonstrate their abilities.**

Personnel who can provide powerful leadership for transformation

Personnel who have the frontline capabilities to support transformation

## Maximizing individual performance and Group outcomes

Taking on challenges that enhance each person's particular attributes

Inspiring all generations to work with enthusiasm and making this an organizational strength

Having thorough discussions about engagement, workstyles, and employee-friendly conditions

# Conducting Thorough Cross-Generational Discussions on Human Resource Themes and Measures

## Launching the New Workstyle Project



### Improving engagement

by having employees rethink their relationships with the Company and work

- Enhancing personal attributes and experience and investing in human resources
- Pursuing careers that allow each person to put their abilities to the best use (realizing careers based on high levels of self-selection)



### Aiming to realize flexible workstyles

in terms of place and time

- Enabling diverse personnel to work with enthusiasm
- Collaborating with Group employees worldwide



### Pursuing employee-friendly conditions

while reorganizing current workflows and moving forward with digitalization

- Increasing the efficiency of routine work and freeing up time
- Seeking rules and processes that enable frontline employees to work without undue stress
- Enhancing "My Contribution" program

**"Contributions to society begin with frontline employees."  
Seeking workstyles that are compatible with frontline operations  
and which create a sense of unity**



**Creating new value**

**Sustainable  
Solution  
Provider**

**Using ESG  
yardsticks**

**Investing  
management  
resources**  
<talent, assets, investments, and data>



# Value the NYK Group Will Create Going Forward

Maximization of earnings



Sustainability of society  
and the environment



## Creating new value that will transform the NYK Group

### Priority goals

— 1 —

Ensuring Safe Ship  
Operations

— 2 —

Reducing GHG  
Emissions

— 3 —

Taking On Ambitious  
Initiatives in  
the Energy Field

— 4 —

Addressing  
Social Issues

Existing fields



New fields

# Carrying Out Initiatives for the Social Implementation of Autonomous Ships

2019 ————— 2020 — 2021 — 2022 ————— 2025 ..... 2040

## R&D on maritime autonomous surface ships

- > Demonstration of remote operation of maritime autonomous surface ships
- > Acquisition of certification for autonomous ship framework

Use of open innovation for ambitious, technology-driven initiatives that address social issues



The DFFAS consortium consists of **30** companies, all of which help create innovations for the social implementation of autonomous ships.

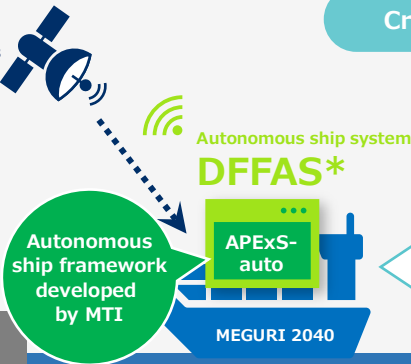
Representative:  株式会社 日本海洋科学 (NYK Group)  
Japan Marine Science Inc.

- Complying with laws and regulations
- Gaining society's understanding
- Creating implementation benefits (Freight rates, insurance, etc.)
- Creating markets



Onshore support center

Communications satellite system



## Technological innovation

February 2022  
Conducted unmanned autonomous navigation using a domestic coastal ship in the congested waters of a regular shipping route

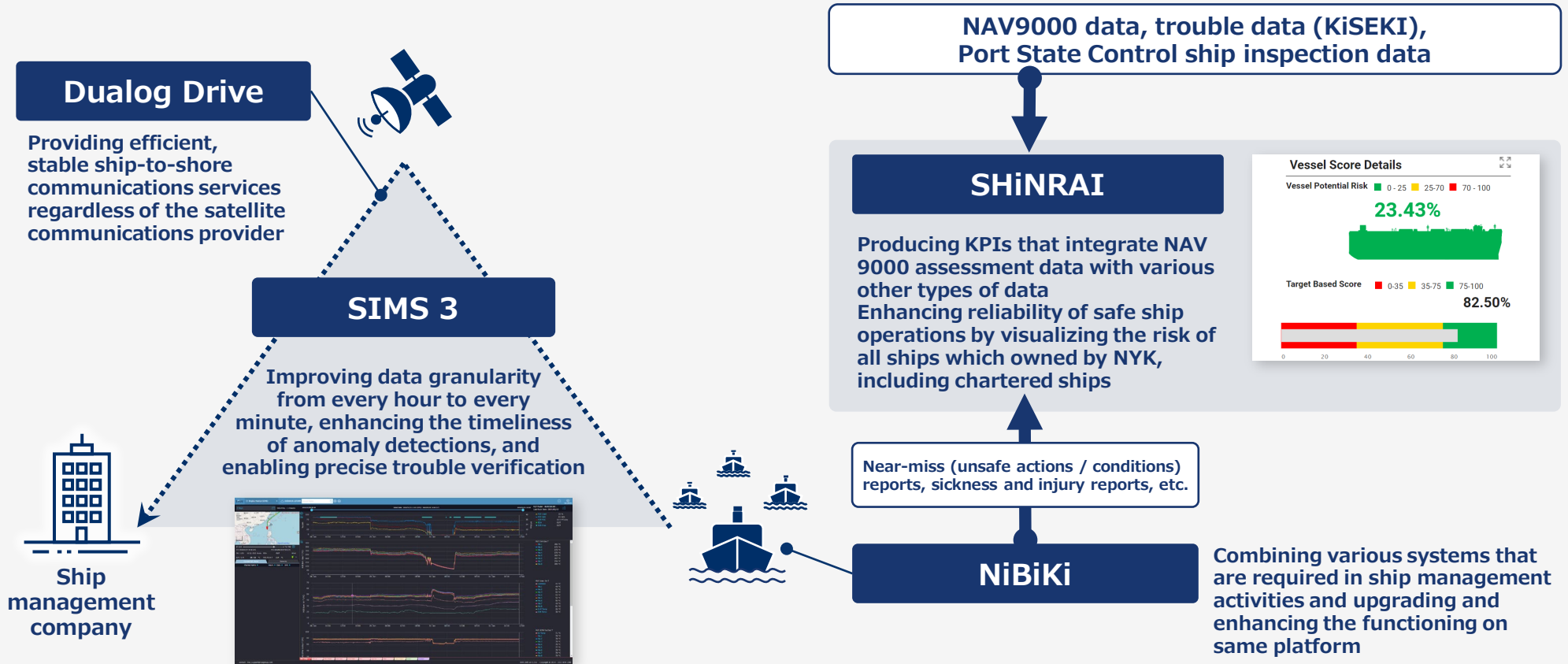


Aiming for the realization of autonomous ship technology that improves safety and reduces workloads



## Aiming to realize new safe ship operations that protect people and the environment

# Expanding and Enhancing Systems for Safe Ship Operations



Advancing digital transformation that enhances both safe ship operations and work efficiency

## Actively Investing to Achieve Net Zero GHG Emissions

Number of ships  
as of the March 2022  
announcement  
(Including planned builds)

Total **45**

LNG-fueled ships

**35**

- In compliance with the IGF Code, conducting the prior training of crew members

Ammonia-fueled ships

**2**

- In 2024, ammonia-fueled tugboat scheduled to enter into service
- In 2026, ocean-going ship equipped with ammonia-fueled engine developed by Japan marine sector scheduled to enter into service

LPG-fueled ships

**4**

Methanol-fueled ships, etc.

**4**

Leading the way in the fuel conversion of the maritime shipping industry

# Strengthening Service Provision Capabilities for Offshore Wind Power

Investigation and feasibility studies    Transportation and logistics    Installation    Operation and maintenance

## Marine consulting



## Offshore geotechnical investigation vessel

Conclusion of a memorandum of understanding with OYO and Fugro on an offshore geotechnical investigation partnership for the domestic offshore wind power industry



➤ Aiming to begin service in FY2022

## Self-elevated platform (SEP) vessel

➤ Proceeding with preparations aimed at beginning ship operations in the second half of the 2020s

## Crew transfer vessels (CTVs) for offshore wind power generation

Conclusion of a bareboat charter contract with Northern Offshore Services

Conclusion of a memorandum of understanding with Akita Eisen

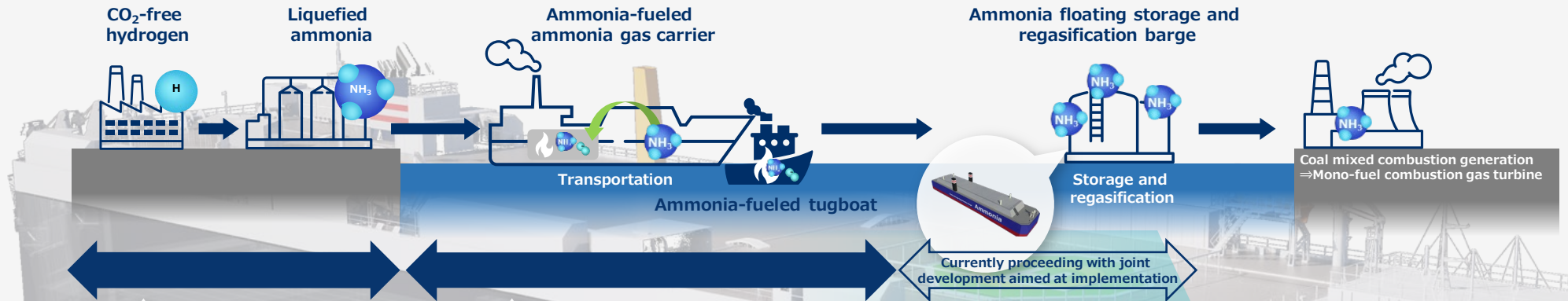
➤ Steadily launching new services in step with the domestic public solicitation schedule

Product development progressing steadily and service capabilities currently being established

Branch office to open in Akita on April 1

Contributing to the development of offshore wind power in Japan by leveraging the NYK Group's strengths (technological capabilities, expertise in the offshore business, and a network, etc.) and collaborating with European partners

# Collaborating with Partners to Drive the Building of an Ammonia Supply Chain



Investment in Tsubame BHB, a venture company originating from the Tokyo Institute of Technology



Tsubame BHB

2024 Ammonia-fueled tugboat scheduled to enter into service



2026 Ocean-going ship equipped with ammonia-fueled engine developed by Japan's marine sector scheduled to enter into service



Development of a concept design for ammonia-fuel-ready LNG-fueled vessels

Engaging in initiatives with a view to participating in the entire supply chain

Not only developing technology for ammonia-fueled ships but also intending to lead in its implementation, including legal compliance and safety guidelines

# Demonstrating the International Transportation of Hydrogen in the Form of MCH\*

## Supplying

World's first proving test of an international supply chain for hydrogen

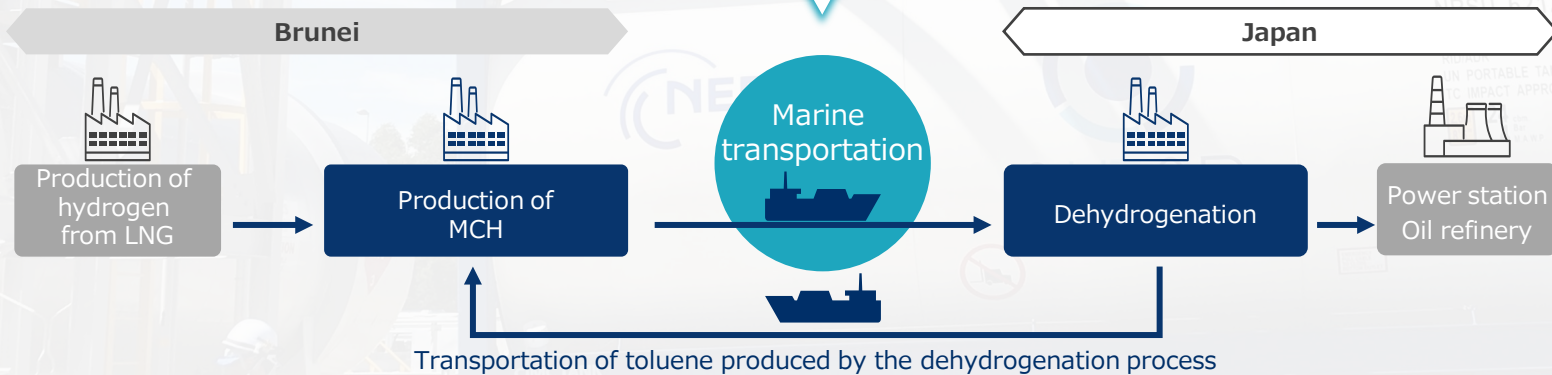


Phase 1

Completed demonstration of MCH transportation using containers (ISO tanks)

Phase 2

Transporting MCH in tanker tanks  
⇒ Proving test underway

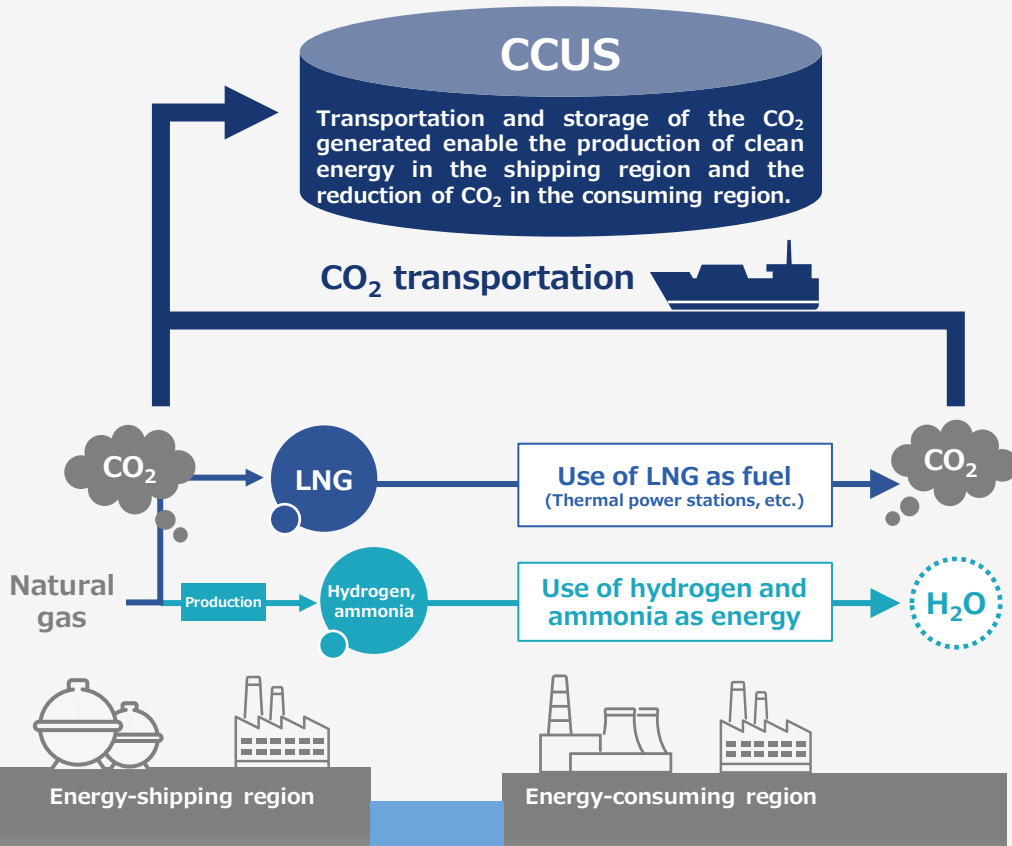


## Progressing toward the establishment of a hydrogen supply chain

\* MCH: Methyl cyclohexane



# Beginning the CO<sub>2</sub> Transportation Business, a Future Growth Field



Establishment of liquefied CO<sub>2</sub> transportation and storage joint venture with the Knutsen Group

➤ Aiming to begin operations in the mid-2020s

**KNCC**  
KNUTSEN NYK CARBON CARRIERS



Conclusion of an agreement with Mitsubishi Shipbuilding on the joint development of technologies for transporting CO<sub>2</sub>



**Taking advantage of knowledge gained in Europe to lead the world in social implementation**

# Increasing Participation in International Decarbonization Initiatives

## Participating in international assessment projects aimed at the decarbonization of marine fuels

 **Mærsk Mc-Kinney Møller Center** \*1  
for Zero Carbon Shipping

- Keeping abreast of information on the latest developments by building networks with leading companies in Europe and in other industries
- Dispatching NYK technicians and working with other companies to advance decarbonization feasibility studies

## Communicating with the international community and other industries and thereafter cultivating cross-industry partnerships

- Became the only Japanese shipping company to participate in COP26 and highlighted our initiatives for decarbonization of the maritime shipping industry



- Endorsement of Green Corridors\*2



## Contributing to decarbonization of the world through co-creation with various industries and companies

\*1 An international research center tasked with promoting decarbonization of the maritime and shipping industries through conversion to alternative fuels

\*2 An international cross-industry initiative that was announced at COP26 and which is aimed at promoting decarbonization of maritime and shipping industries worldwide by realizing the operation of ships powered by zero-emission fuels on certain shipping routes of the global core trade.

# Steady Growth in the Use of Electronic Money for Crews' Salaries Launch of Loans, Insurance Products, and Other Financial Services



## > Number of users\*

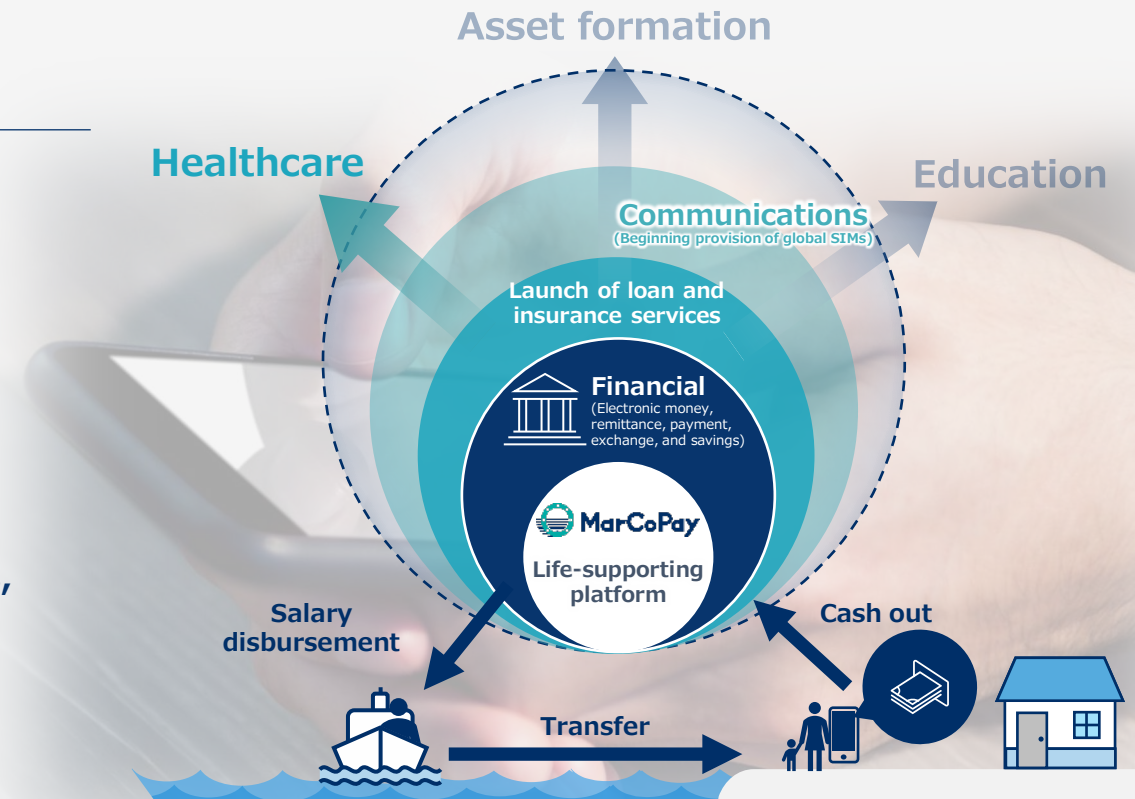
As of March 2022

# More than 6,500

\* Total number of members using the service to receive salaries, transfer eMoney, or take out loans (including non-NYK crew members)

## > Launch of MCP eMarket, offering and brokering loans and insurance for homes, automobiles, etc.

Prepaid Visa cards—to be offered very soon!  
Financial literacy seminars will also be offered.

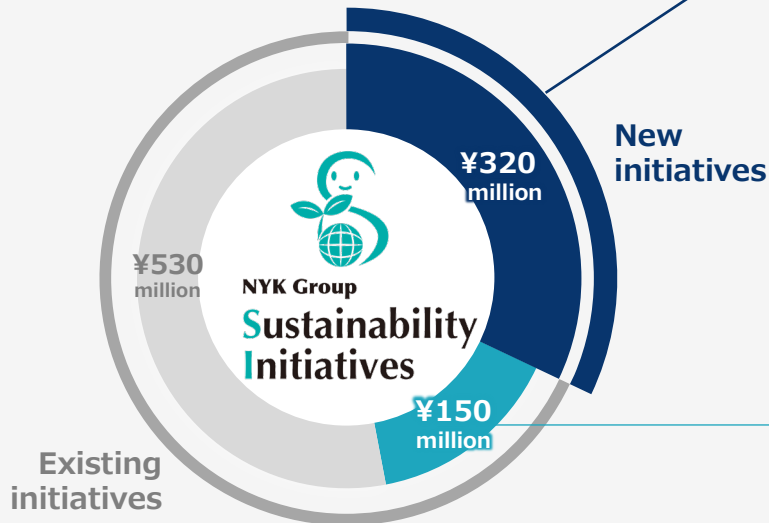


Will continue to focus on increasing functionalities and the user base, and providing opportunities to support maritime industry stakeholder

# Creating and Developing Solutions Businesses Aimed at Enhancing Corporate Value

## Return on Earth

— Giving back to the oceans, earth, and people —



Taking on the challenge of establishing solutions businesses that create the norms of the future

Ideas submitted voluntarily by

**76** employees



Participants in FY2021

As of March 2022

**851**

Alliances with external partners

Participation in the activities by

**775** employees

In FY2021, more than 30 new proposals have been discussed and analyzed.

## Ship recycling



At scrapping yards, supporting the establishment of supervisory systems for occupational health and safety improvements as well as environmental measures, such as the prevention of pollutant discharges into the ocean

## Ocean plastic waste



Photo : San Miguel Corporation

Participating in projects in the Philippines to restore rivers that cause environmental pollution and floods

## Forest projects



Efforts by NYK group to revive biodiversity of ruined forests; initiatives that contribute to local communities and raise Group employees' awareness of environmental conservation and GHG emissions reduction activities

**Actively encouraging Group employees to take on ambitious initiatives that address social and environmental issues and lead to innovation and the seeds of new businesses**

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Chapter 2.

# Toward Realization of Sustainable Growth Strategies

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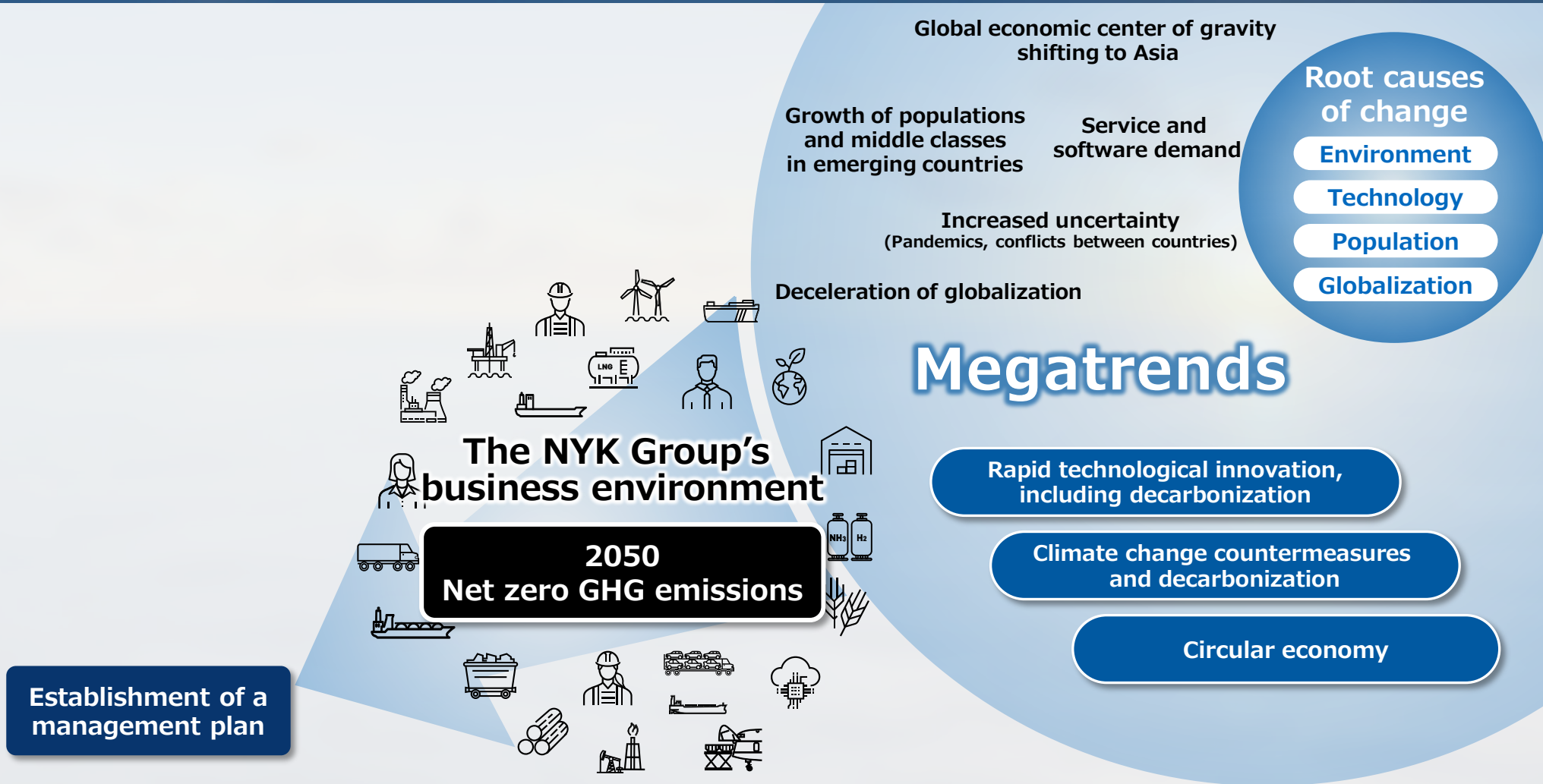
A progress on the drafting medium-term management plan based on a long-term perspective

# Formulation of Long-Term Scenarios That Will Serve as a Management “Compass”





# Discussing the NYK Group's 2050 Vision with Consideration Paid to the External Environment and Analysis of Risks and Opportunities



# Five Strategies for Sustainable Growth: ABCDE-X

Core strategies

**AX**  
Ambidexterity

Further development of existing core businesses and investments in new growth businesses

Reforming existing businesses and increasing earnings

Developing and investing in new businesses

**BX**  
Business Transformation

Exploitation of existing core businesses

Exploration of new businesses

Strategically developing growth businesses for the future

Supporting strategies

**DX**  
Digital Transformation

- Introduction of autonomous ships
- Expansion of solutions businesses

**EX**  
Energy Transformation

- Introduction of zero-emission ships
- Expansion of green business

**CX**  
Corporate Transformation

Changing human resources, organization and corporate culture to enable BX

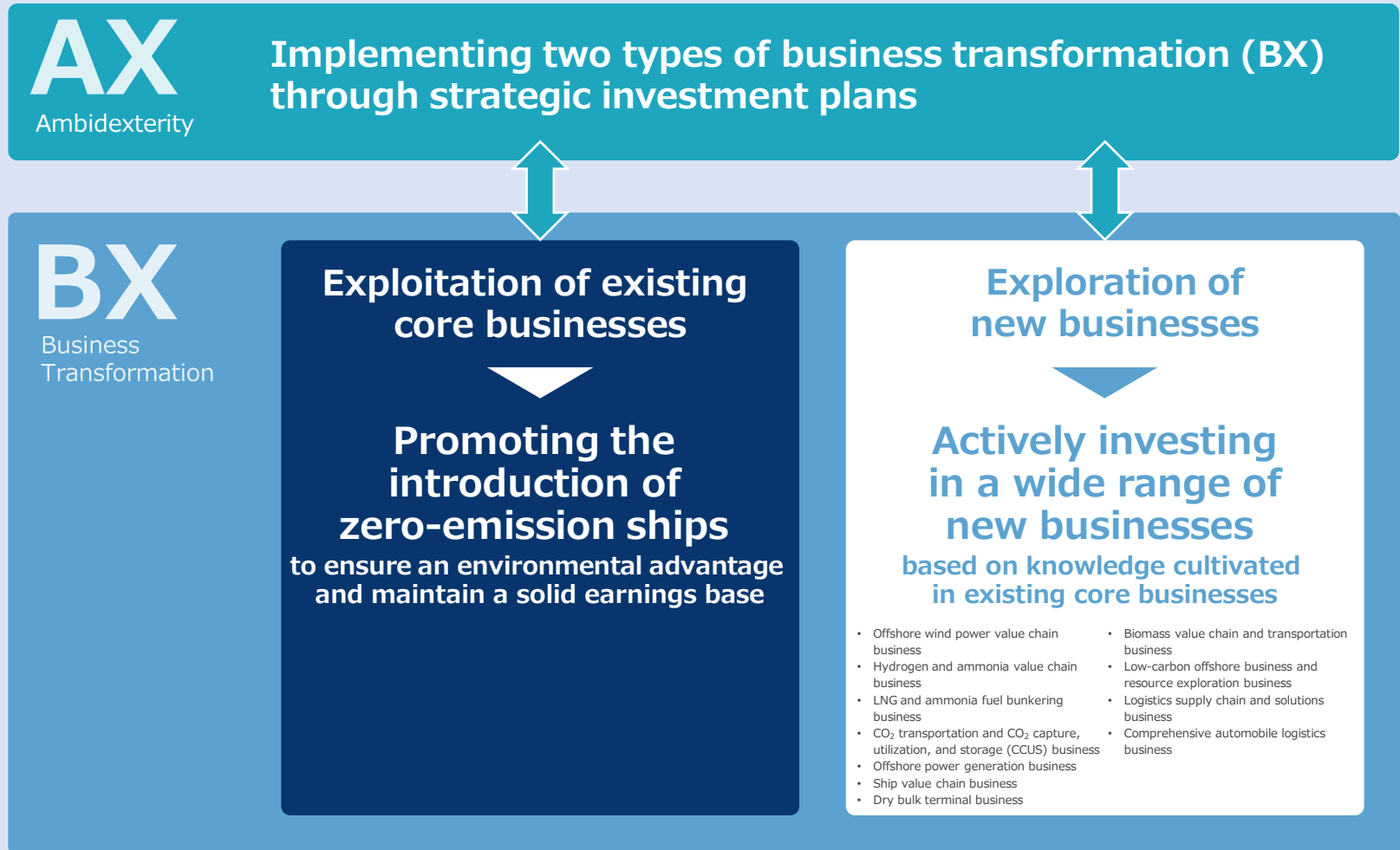
Innovative personnel

Becoming an organization with diversity and plurality

Hiring and fostering of skilled personnel

# Promoting Ambidexterity (AX) in Light of the 2050 Business Environment and Target Profile

Core strategies



# Strategic Investments, Particularly in Environment-Related Fields

Exploitation of existing core businesses

Reinforcement investments

¥3.6 trillion

Exploration of new businesses

Growth investments

¥1.2 trillion

Investments for renewing existing businesses  
¥1.5 trillion

Green business  
¥0.6 trillion

New growth businesses  
¥0.6 trillion

Introduction of zero-emission ships  
¥2.1 trillion

2022-2050  
Total investments

¥4.8 trillion



# Strategic Investments, Particularly in Environment-Related Fields

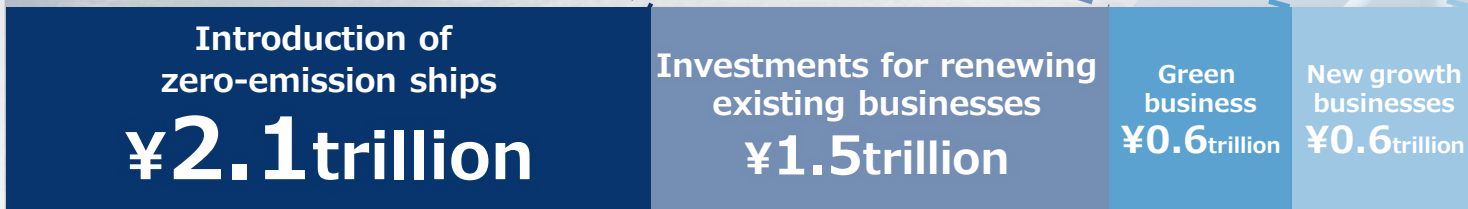
2022

2030



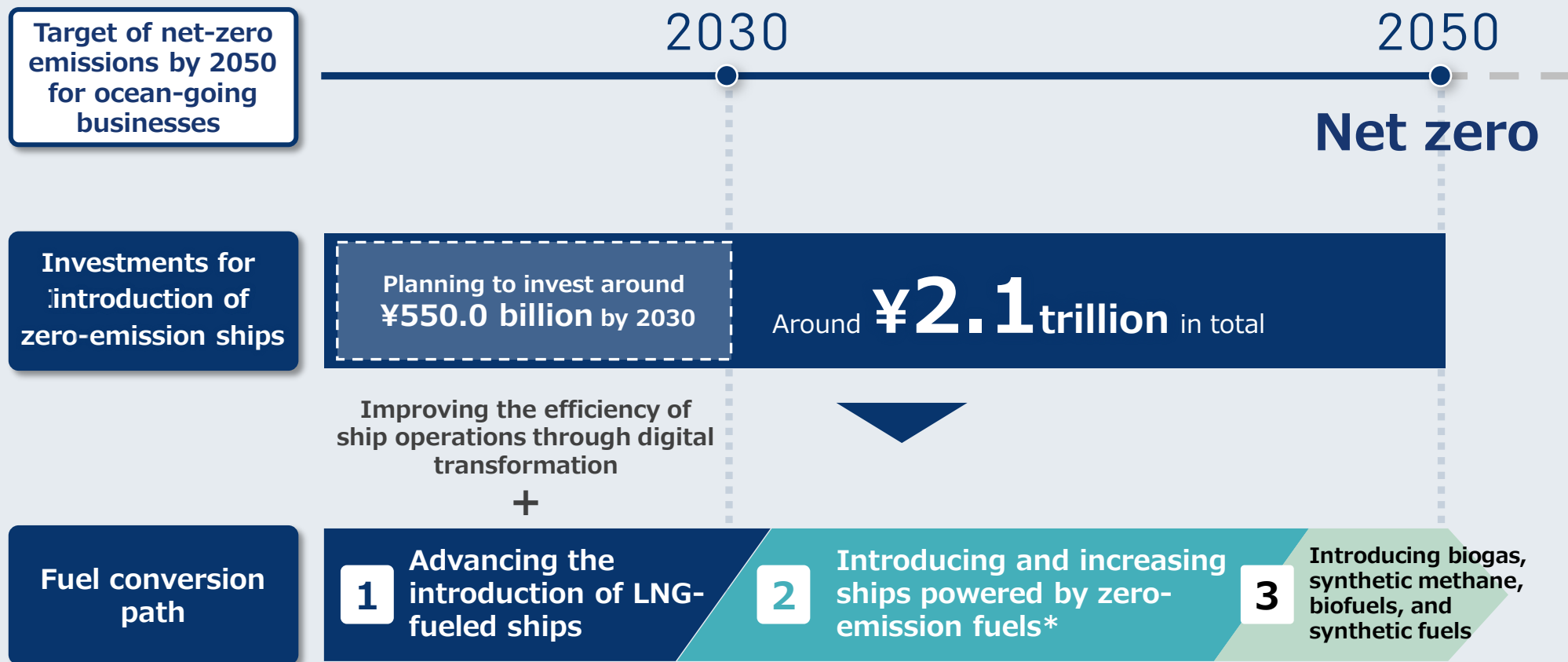
**¥1.7 trillion**

2050



**¥4.8 trillion**

# Roadmap for Achieving Net-Zero Emissions by 2050 for Ocean-going Businesses

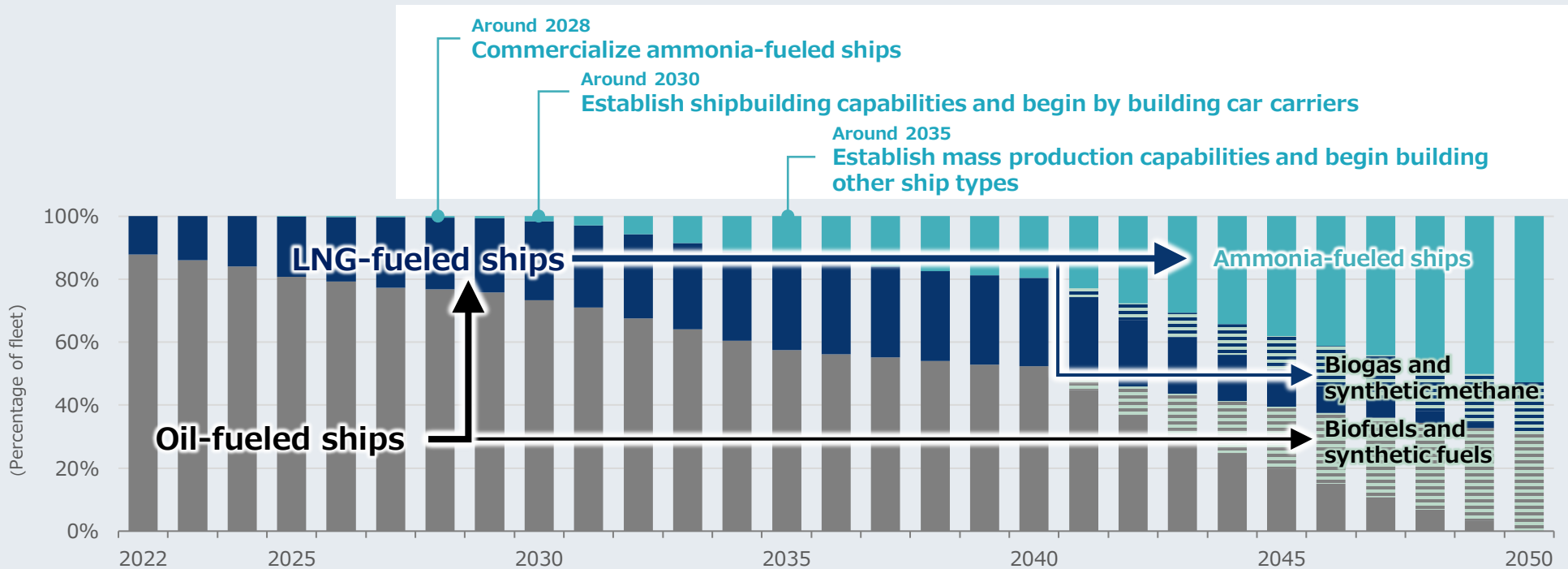


- This roadmap has been prepared based on the Company's current projections with respect to technological innovation, economic efficiency, laws, regulations, and policies. The roadmap will be revised in step with changes in these projections.
- GHG emissions reduction targets are for the Company's operating ships.

\* The amount of investment in ships powered by zero-emission fuels is premised on the introduction of ammonia-fueled ships.

## Fuel conversion path

# Promoting the Best Conversion Mix through Collaboration with Domestic and Overseas Partners Leading the Way in Innovation for the Social Implementation of Decarbonized Ships

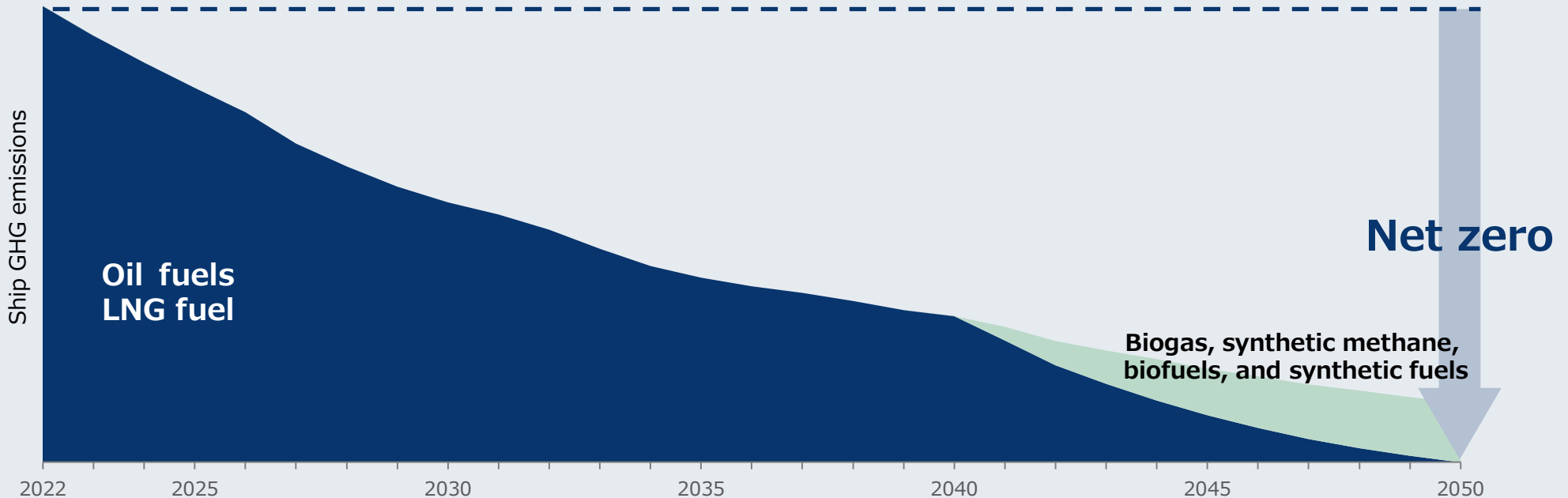
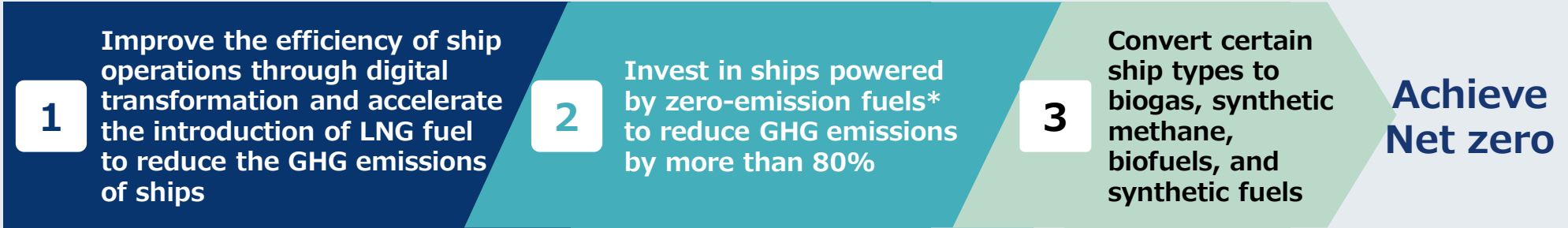


\*1 LNG-fueled ships include LNG carriers.

\*2 The amount of investment in ships powered by zero-emission fuels is premised on the introduction of ammonia-fueled ships.

**GHG emissions reduction scenario**

**With a View to Ship Decarbonization, Conducting Trials in Accordance with the Stage of Technological Development or Implementation**

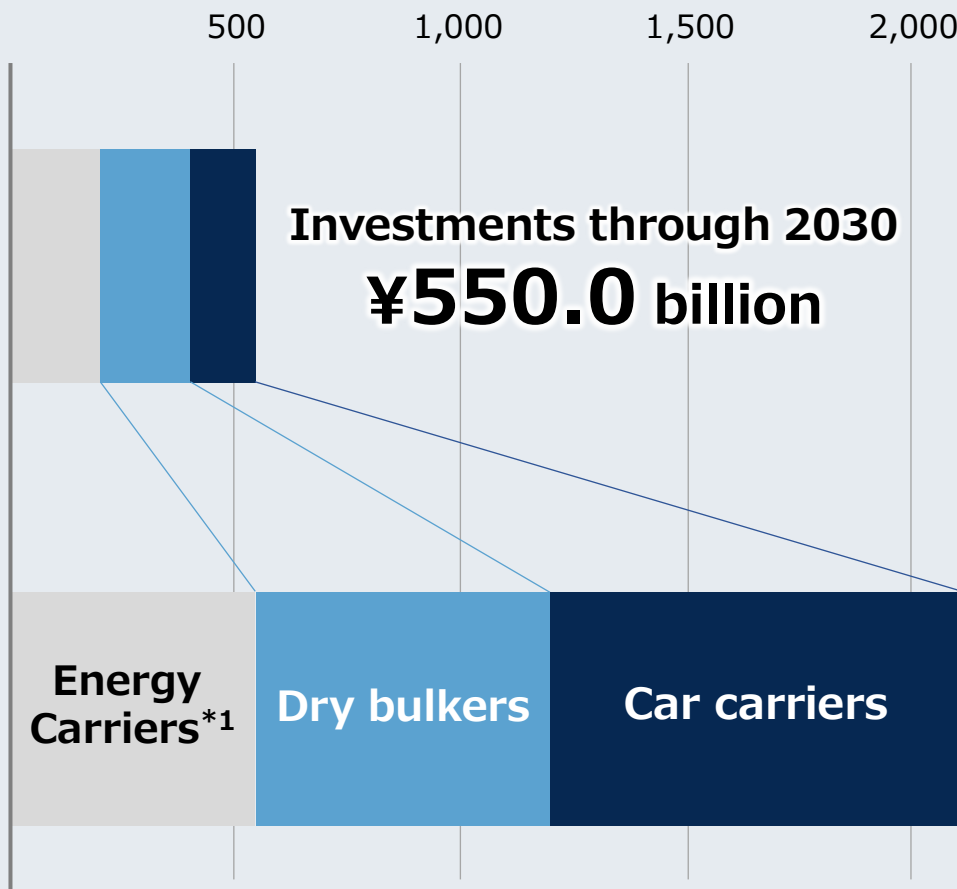


\* The amount of investment in ships powered by zero-emission fuels is premised on the introduction of ammonia-fueled ships.



**Investments for introduction of zero-emission ships**

**Planning to Invest a Total of Around ¥2.1 Trillion in Converting the Existing Fleet to Zero-Emission Ships**



**LNG-fueled ships**

Advance as a practical solution aimed at achieving low carbon levels in the interim

Beginning from 2030s, build LNG-fueled ships for which conversion to ammonia fuel is possible

**Ships powered by zero-emission fuels\*2**

Begin investments aimed at social implementation

Increase ships while closely monitoring the progress in developing fuel supply infrastructure

**2022-2050**  
**Total investment around**  
**¥2.1 trillion**

\*1 Investments in energy carriers do not include investments in LNG carriers.

\*2 The amount of investment in ships powered by zero-emission fuels is premised on the introduction of ammonia-fueled ships.

# Realizing the NYK Group ESG Story Toward Realization of Sustainable Growth Strategies

## Providing value to clients

- Evolving into a corporate entity that is the preferred logistics provider of even more clients worldwide

## Contributing to a sustainable society

- Meeting responsibility to support the stable transportation of existing energy
- Providing low-carbon and carbon-free solutions

## Earning and investing simultaneously

- Securing profitability commensurate with large environment-related investments aimed at realizing a carbon-neutral society

Classifying climate-related risks and opportunities in line with the recommendations of the Task Force on Climate-related Financial Disclosures and strategically planning in accordance with these recommendations

# Thoroughly Integrating the ESG Management Discussions and Measures Implemented to Date with Growth Strategies and Accelerating Them

Announcement of next medium-term management plan scheduled

2023

2022

2021

Announced the NYK Group ESG Story



2018

Incorporated ESG into management strategies  
*Bringing value to life.*

- ▶ Established the ESG Management Promotion Group
- ▶ Established the ESG Management Committee
- ▶ Established the Sustainable Growth Task Force



**Aiming to Enhance the Corporate Value of the  
NYK Group by Sustainably Creating  
Corporate and Social Value**



**ESG management**

that ignites Group employees with enthusiasm  
and makes us the preferred choice of clients

