Nippon Yusen Kabushiki Kaisha

NYK GROUP

More Than Shipping 2018

Stage 2, leveraged by Creative Solutions

Index

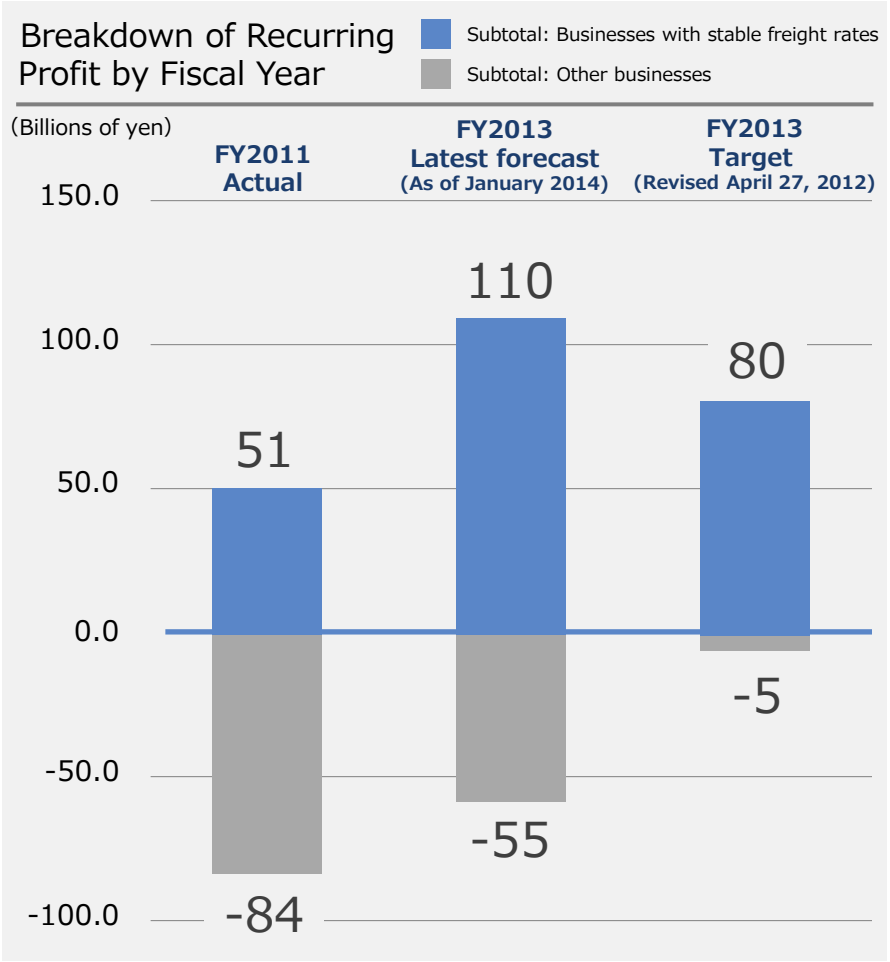
Appendix

1. Review: More Than Shipping 2013 (“MTS2013”)

Financial Highlights

(Billions of yen)	FY2011 Actual	FY2013 Latest forecast (As of January 2014)	FY2013 Target
Revenues	1,808	2,214	2,130
Operating income (loss)	-24	45	85
Recurring profit (loss)	-33	55	75
Net income (loss)	-73	30	65
ROE	–	4.5%	10%
Payout ratio	–	23%	25%
Foreign exchange rate (US$)	¥79	¥99	¥80
Bunker oil price (per ton)	$666	$630	$730

Growth of Stable-Freight-Rate Business



1. Review More Than Shipping 2013 (“MTS2013”)

Key Strategies: Expand Beyond Traditional Shipping

	More Than Shipping: Combining Traditional Shipping Business with Value-Added Strategies
Global Logistics	Strategy 1 Leverage logistics capabilities: Effectively capture Asia's growing transportation business
Automobiles	Strategy 2 Utilize auto logistics capabilities: Actively respond to all automobile transport supply-chain needs in Asia
Natural Resources & Energy	Strategy 3 Employ technological capabilities: Secure highly advanced energy-transportation business
	Strategy 4 Leverage NYK’s global network: Proactively expand overseas energy-resources-transportation business

General Review

Fell far short of earnings goal, owing to:
- yen appreciation
- persistently high bunker oil prices
- slow transport market

Traditional shipping has become increasingly commoditized (volatile market conditions)

Reconfirming that MTS2013 strategies were the best for improving corporate value

2. Business Environment

Vessel order book remains high

Demand for LNG transport is expanding in line with removal of the export ban on shale gas in North America

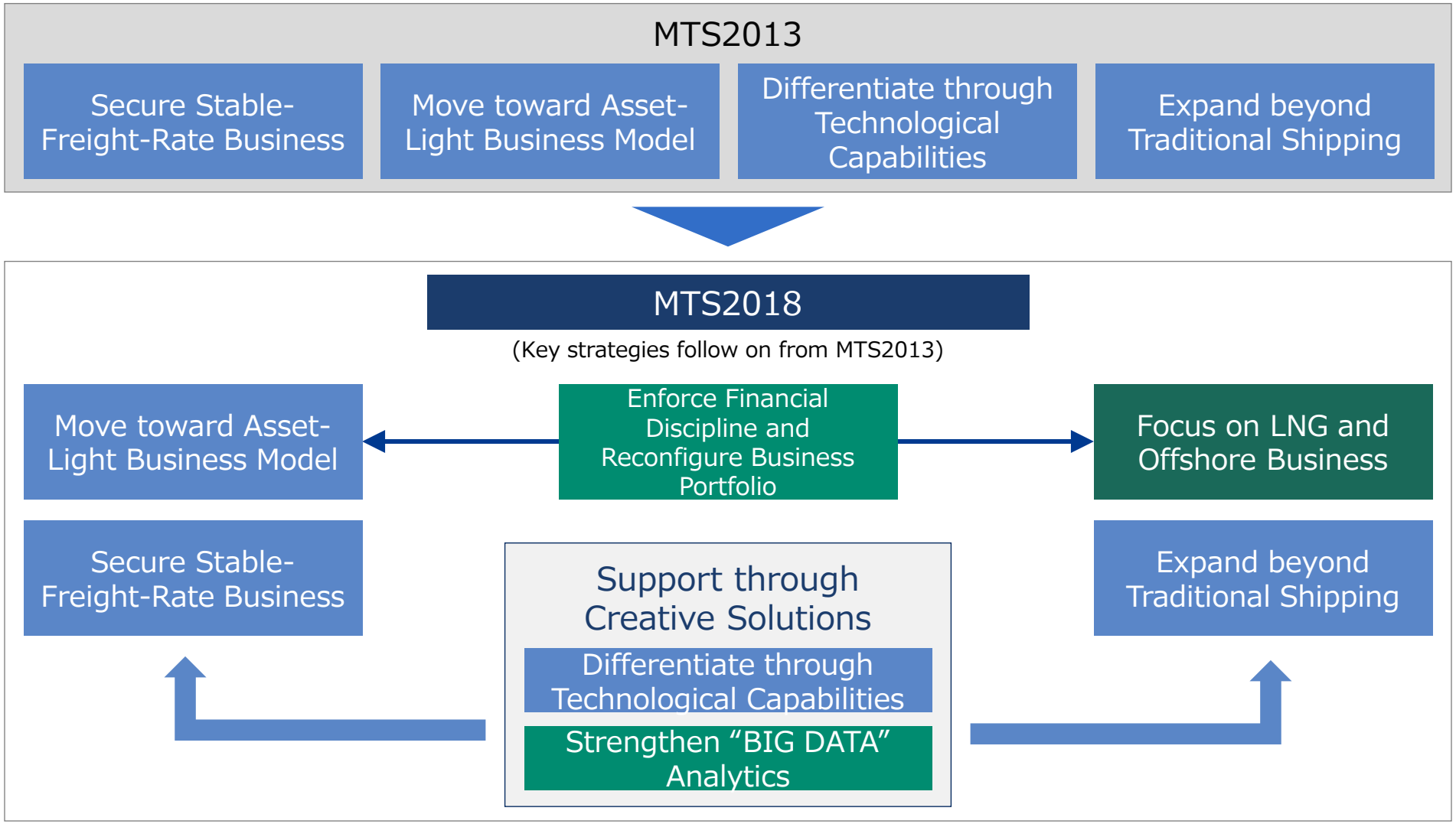
Offshore activities are expanding,
due to the persistently high oil price

Changes in trade pattern:
- near-source consumption of consumer goods
- increase in cost of production in China
- shifting back of manufacturing capacity to the U.S.

Increasingly tough environmental regulations

More Than Shipping 2018

3. More Than Shipping 2018 (“MTS2018”)



3. More Than Shipping 2018 (“MTS2018”)

Promote NYK Group’s Creative Solutions*

MTS2013

- Enter shuttle-tanker** business
- Apply DPS** and bow-loading system**

- Enter drillship business and operating FPSO**
- Expand shuttle-tanker business
- Train and promote Filipino seafarers to Captain and Chief Engineer for an LNG carrier
- Acquire LNG-fueled vessels
- Enhance navigation information technology
- Send key personnel to EPC** front line
- Improve fuel efficiency by 10% (over FY2010 level)

MTS2018

- Participate in EPC project management
- Further expand FPSO projects
- Enter FSRU** and FLNG** projects
- Explore offshore business opportunities in Japan’s EEZ
- Make practical use of “Big Data”
- Improve fuel efficiency by 15% (over FY2010 level)

**See the Glossary on page 29

*In a broad sense, Creative Solutions cover not only marine technologies, engineering, logistics technology and information technology but also elimination of 3 M’s —*muda* (non-value-adding activities), *mura* (unevenness in production or work activities), and *muri* (excessive burdens)— and development of *kaizen* (improvement) and other aspects underpinned by originality and ingenuity in all business pursuits, from frontline to head office management.

4. The Next Five Years

1 Asset Strategy	■ Reconfigure business portfolio ▶ Focus on LNG and offshore business ▶ Reinforce asset-light strategy for containerships and dry-bulk carriers ■ Maximize asset efficiency
2 Differentiation Strategy	■ Achieve differentiation through technological capabilities in such segments as LNG and offshore business ■ Further eliminate 3 M's** (*muda*, *mura* and *muri*) at "Gemba" (front line)
3 Debt and Equity Strategy	■ Review asset-intensive business model ■ Control financial leverage (DER target of 1.0 / BBB or higher rating)
4 Dividend Policy	■ Balance growth opportunity and stable dividend (payout ratio of more than 25%)
5 Thorough Compliance	■ Legal compliance (Anti-Monopoly Law, etc.) ■ Establish global compliance structure

**See the Glossary on page 29

4. The Next Five Years (Fleet in operation)

(vessels)

		March 31, 2014 Estimate	March 31, 2015 Plan	March 31, 2017 Plan	March 31, 2019 Plan	Variance (FY2013 vs FY2018)
Container ships		99	95	85	85	-14
Owned and long-term chartered vessels		(74)	(70)	(65)	(65)	(-9)
Car carriers		119	120	125	125	+6
Dry-bulk carriers	Cape-size	126	120	110	100	-26
	Post-Panamax, Panamax bulkers	97	95	90	85	-12
	Handysize bulkers (includes box shape)	164	165	165	165	+1
	Wood chip carriers	48	45	45	45	-3
Liquid	Tankers	77	75	70	70	-7
	LNG carriers (includes co-owned)	67	70	70	100+	+33 or over
Others		79	70	65	60	-19
Total		876	855	825	835+	-41 or over

Vessels operated by KNOT**

Shuttle tankers	27	28	30	34	+7

Containership capacity

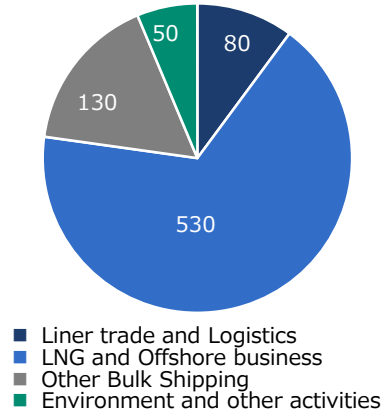
Space Provision (million TEU)	3.68	3.85	4.00	4.25	+0.57 mil.

<Asset Strategy> Reconfigure business portfolio

Reinforce asset-light strategy for containerships and dry-bulk carriers

Focus on LNG and offshore business

FY2014-FY2018
Total investment: ¥790 billion



**See the Glossary on page 30

4. The Next Five Years (Financials and Investment Plan)

NYK GROUP

Earnings and Financial Targets

(Billions of yen)	FY2014 Plan	FY2016 Plan	FY2018 Plan
Revenues	2,300	2,500	2,500
Operating income	70	100	120
Recurring profit	70	120	160
Net income	35	80	120
Cash flow from operating activities	120	170	220
Cash flow from investing activities	-160	-160	-130
Interest-bearing debt	1,300	1,200	1,000
Shareholders' equity	750	860	1,000
DER	1.7	1.4	1.0
Shareholders' equity ratio	29%	33%	38%
ROE	5%	9%	12%
Payout ratio	25%		
Foreign exchange rate (US$)	¥100	¥100	¥100
Bunker oil price (per ton)	$640	$640	$640

Investment Plan (Capital Expenditure)

(Billions of yen)	FY2014-FY2018 Total
Liner trade, logistics	80
LNG, offshore	530
Other bulk shipping	130
Environment and other	50
Total	790

<Debt and Equity Strategy>

- Review asset-intensive business model
- Control financial leverage

<Dividend Policy>

- Balance growth opportunity and stable dividend

5. Business Strategies (Energy Transport: LNG Transport)

Business Environment

- Growing demand for LNG, particularly in Japan and emerging nations
- Removal of the export ban on shale gas in North America
- Shortage of highly skilled seafarers for LNG carriers

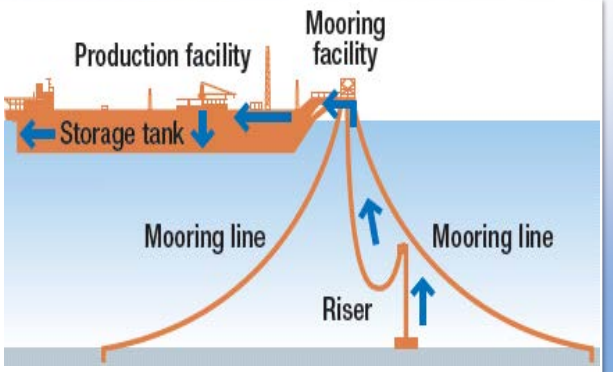
Actions

- Expand fleet size to 100 vessels
- Train and develop highly skilled seafarers at in-house maritime academy in the Philippines and other institutes
- Provide higher-quality navigation, ship management and construction supervision capabilities
- Develop new business related to LNG fuel
- Pursue LNG exploration and production opportunities in mid-/up-stream LNG business supported by credibility and proven track record in safe transportation
- Strive to be more involved in all stages of the LNG value chain and seek synergies with LNG transport business

5. Business Strategies (Energy Transport: Offshore Business)

Business Environment

- Offshore business development accelerating, due to persistently high price of oil and LNG
- Greater need for FSRU and FLNG; growing demand for energy in emerging countries and progressive development of small and medium-sized gas fields



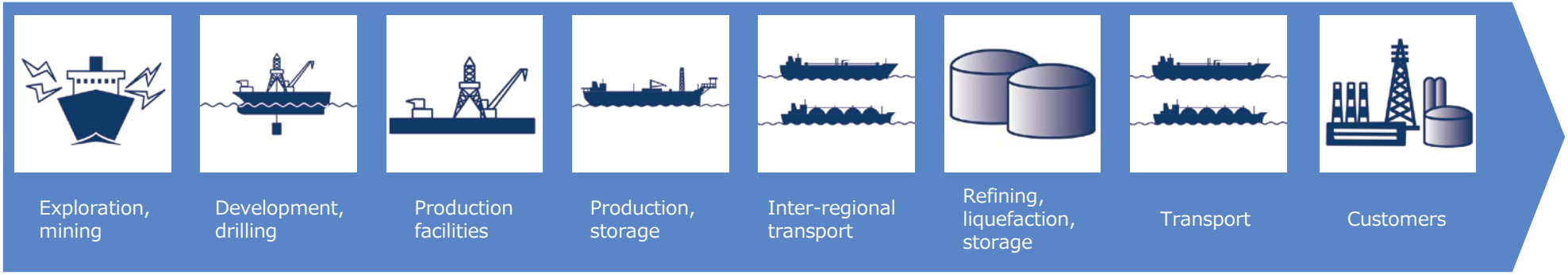
FPSO

Actions

- Expand shuttle-tanker business by establishing access to equity market (MLP**)
- Strive to be "solution provider" by capitalizing on dynamic-positioning technology (in DPS-equipped FSO** and other offshore operations)
- Expand long-term stable revenues through FPSO, FSRU and FLNG
- Send key personnel to EPC front line, accumulate technologies, experience and know-how, and pave the way for further growth
- Prepare for offshore business opportunities in Japan's EEZ

**See the Glossary on page 29, 30

5. Business Strategies (Energy Transport: Value Chain Strategy)



Deep-sea research vessels (Send key personnel)

Scientific deep-sea drillship (Chikyu) (E. Takatsugu J)

Wheatstone Project

FPSO

FSO

Shuttle Tanker

Cameron Project

LNG carriers

Tanker

FSRU (Under consideration)

LNG-fuelled vessels

Already active

Considering involvement

Involvement in entire value chain

⇒Accumulate expertise

⇒Create new business opportunities

5. Business Strategies (Automobile Transport)

Business Environment

- Gradual reduction in export of automobiles from Japan;
  shift of production to other areas
- Trade patterns becoming more complex
  (such as more exports from Thailand and Mexico)
- Increasing demand for intra-regional and domestic automobile transport within consumer markets;
  China, India, Indonesia, Russia, Brazil and Central Asia

Actions

Car Carriers	▶ Maintain position as No.1 carrier ▶ Deploy vessels with greater fuel efficiency and deck arrangement accepting more high and heavy cargoes ▶ Reinforce marketing reach to construction machinery cargoes
Auto Logistics	▶ Establish more business bases, especially in newly emerging countries, and enhance service network ▶ Consider strategic M&A opportunities ▶ Provide clients with solutions built on technologies such as RFID
Goal	▶ Become a distinguished car-carrier player with global auto-logistics capability

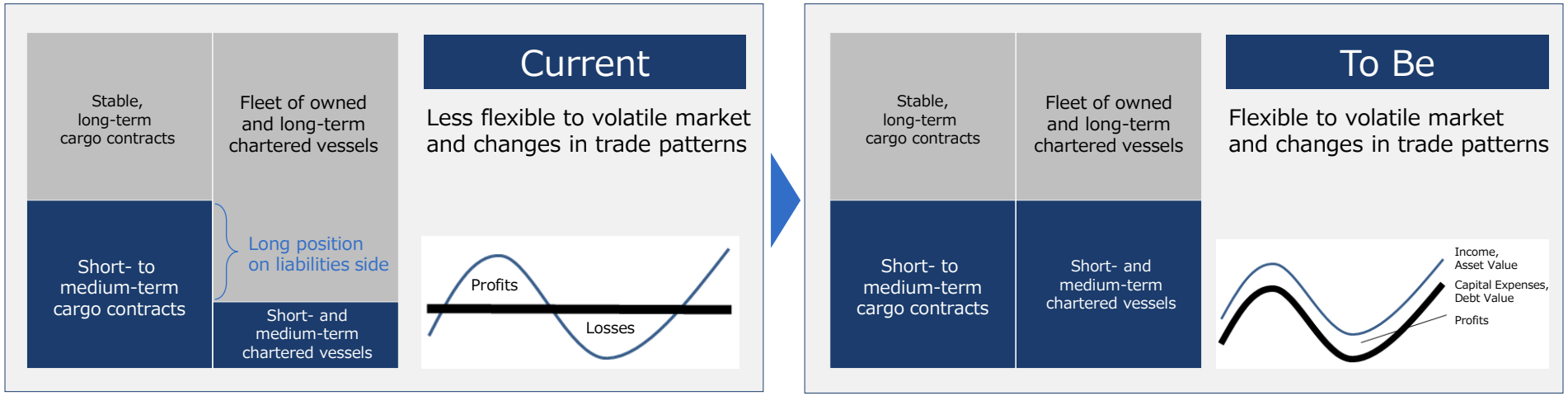
5. Business Strategies (Dry-Bulk Transport)

Business Environment

- Anticipate gradual increase in cargo movements
- Speculative orders remain high
- Reconfirm high market volatility

Actions

- Rebalance cargo and charter contracts in cash-flow and duration
- Strengthen tolerance to fluctuating market conditions



5. Business Strategies (Container Transport)

Business Environment

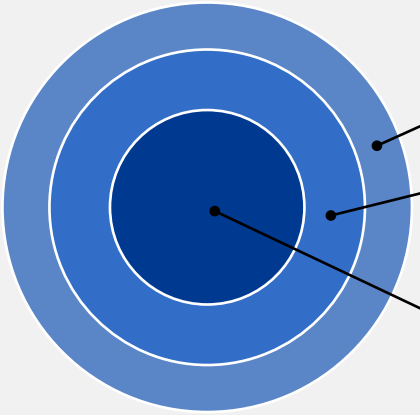
- Supply-and-demand situation remains challenging; massive order book for ultra-large containerships
- Alliances subject to realignment and possible structural change

Actions

- Pursue “3C5M” as optimum business portfolio for container transport
- Seek opportunities in low-volatility container terminal business

3C5M

Container Common Carrier
Lifting target: 5 million TEU



Asset-light Model

NVOCC (Non-Vessel-Operating Common Carrier)
Handling Target: 1 million TEU

- Enhance expansion of lifting volume

FVOCC (Flexible-Vessel-Operating Common Carrier)
Lifting Target: 1 million TEU

- Increase short- or mid-term charter

Core Assets

SVOCC (Stable-Vessel-Operating Common Carrier)
Lifting Target: 3 million TEU

- Maintain the optimum fleet of fuel-efficient vessels to provide quality service network

5. Business Strategies (Logistics)

Business Environment

- Client needs becoming more complex;
  sophisticated supply-chain management required
- Demand for outsourcing and one-stop services is expanding
- More business opportunities in Asia and emerging nations

Actions

- Target ocean freight forwarding volume: 1 million TEU
- Target air freight forwarding volume: 400,000 tons
- Focus on growth industries and emerging markets
- Promote global business process management
- Seek strategic investment opportunities
- Emphasize investment in human resources
- Expand business opportunities by leveraging Group's network

5. Business Strategies (Air Cargo Transportation)

Business Environment

- Air cargo market now on a recovery path should maintain gradual growth
- Supply and demand situation remains tough; in-flow of passenger aircraft to the market
- Excess capacity in NCA's current fleet

Actions

- Optimize fleet capacity with fuel-efficient equipment
- Stabilize earnings;
  - Diversify business model that currently focuses on regular service (expand charter business such as airline charters)
  - Enhance service menu through such efforts as alliances
  - Pursue further cost-cutting

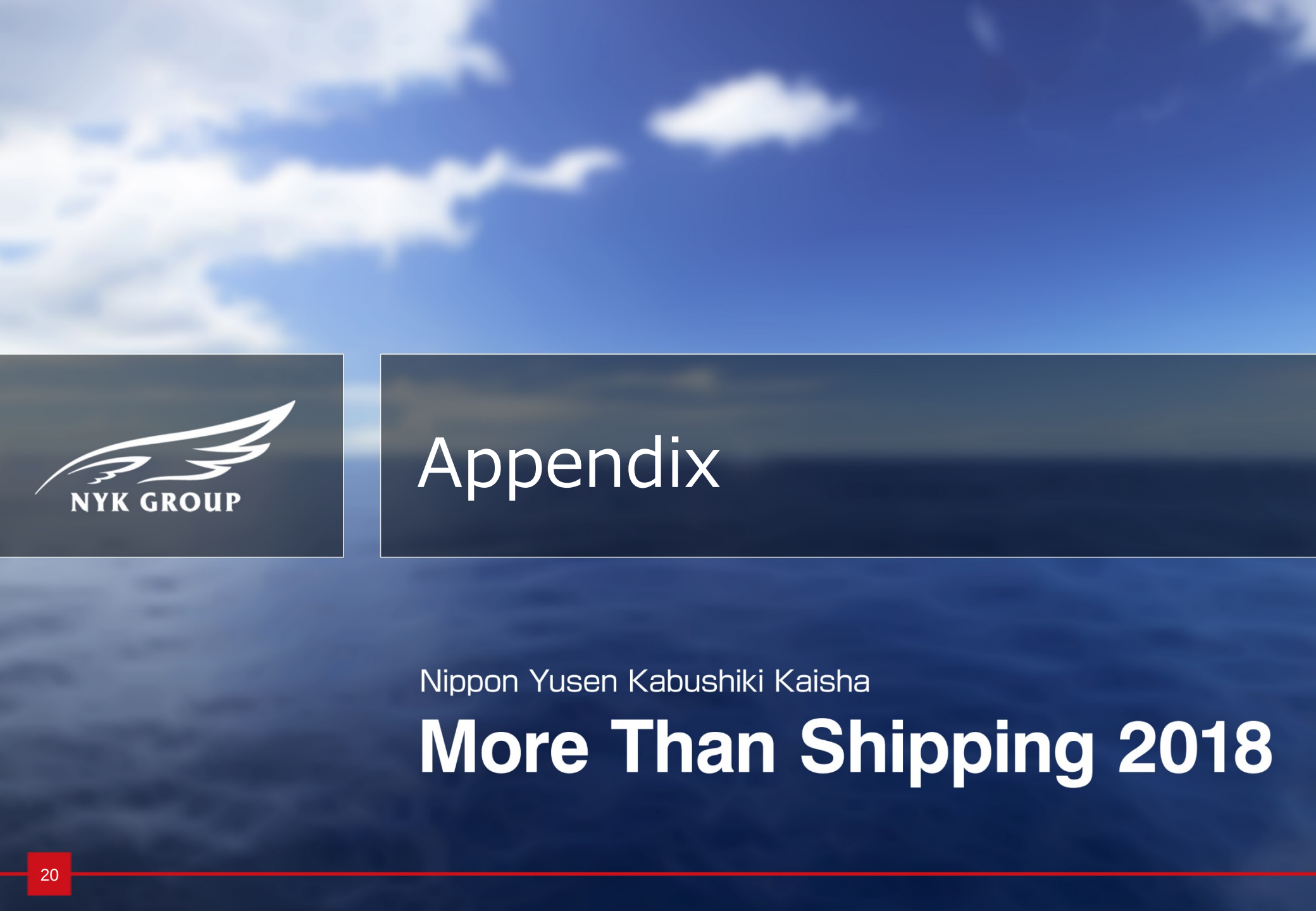
6. Future NYK

- Build up a business portfolio that can generate profit under volatile market conditions
  - Double asset allocation for LNG and offshore business
  - In the logistics business, secure top-five position worldwide and No.1 position in Asia
  - In the bulker, tanker and container transport businesses, strengthen tolerance to fluctuating market conditions and achieve long-term, stable growth

- Utilize technological capabilities to establish competitive edge
  - Provide highly competitive services through high-quality ship management and other maritime technology
  - Become a distinguished company known for safety and environmental responsibility

- Strong “Gemba” (front line) capabilities underpinned by untiring elimination of 3 M’s
  - Conscientiously strive to enhance efficiency

- Excel in business intelligence
  - Utilize “BIG DATA” analytics for further differentiation
  - Be flexible in a changing business environment



Appendix

Nippon Yusen Kabushiki Kaisha

More Than Shipping 2018

A. Results of “MTS2013”

Key Strategies 1

Global Logistics

Leverage logistics capabilities: Effectively capture Asia’s growing transportation business

- Warehouse investment in Vietnam
- Local offices set up in Cambodia and Myanmar
- Larger NVOCC volume (About 600,000 TEUs per year achieved)

Key Strategies 2

Automobiles

Utilize auto logistics capabilities: Actively respond to all auto transport and supply-chain needs in Asia

- Invested in auto logistics company in Russia
- Acquired automobile terminal in Thailand
- Established auto logistics local office in Indonesia
- Acquired all shares of local auto logistics company in Kazakhstan

Key Strategies 3

Natural Resources and Energy

Employ technological capabilities: Secure highly advanced energy-transportation business

- Drillship and FPSOs already contributing to profits
- KNOT recorded profit whilst gaining access to equity capital through its subsidiary IPO on New York Stock Exchange
- Participate in the upstream LNG business in Australia and the U.S.
- Welcomed first Filipinos to take on roles of captain and chief engineer on an LNG carrier

Key Strategies 4

Natural Resources and Energy

Leverage NYK’s global network: Proactively expand overseas natural resources and energy-transportation business

- Cultivated demand for Atlantic Ocean natural resource and energy transport and expanded business activities in this region
- Started dry bulk business in Singapore
- Built up long-term, stable profits

Environmental Initiatives

Achieved improvement of about 10% in fuel efficiency (over FY2010)

B-1. Intensify 3 M's Elimination Efforts at "Gemba"

Development of Fuel-Saving Measures and Fleet Monitoring

1 Improve operator awareness of ship's condition through monitoring

Expected achievement ▶ Reduce unevenness of ship's speed, idle time, etc.

2 Accumulate case data

Expected achievement ▶ Sharing best practices

3 Analyze ship performance

Expected achievement ▶ Optimum fleet assignment

Communication

Monitoring

Data accumulation

Operator

Collection of past navigation data

Best practices

Fleet comparison

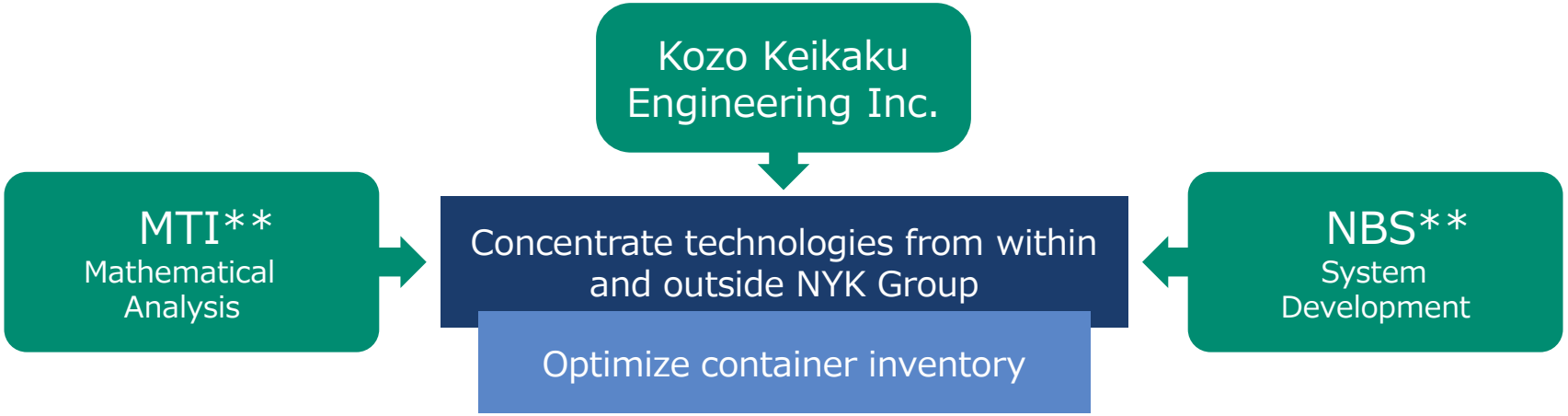
Performance data on each vessel

- Performance in calm water
- Impact of weather and sea conditions

Analysis of actual at-sea performance

B-2. Intensify 3 M's Elimination Efforts at "Gemba"

Promote the EAGLE Project



Concept

Identify potential container surplus at each location with a high degree of accuracy
⇒ Implement scientific analysis to create container-positioning plans with even greater accuracy than before

Success in Trans-Pacific trade lanes → Expand to Asia-Europe, Intra-Asia and other trade lanes

Maximizing profit through yield management by combining projections for laden and empty containers

**See the Glossary on page 30

C-1. Differentiation through Creative Solutions

Cultivate and accumulate technology on “Gemba” (front line) to make transportation of products and movement of ships more efficient

Collect engine and navigation data under real weather and ocean conditions which cannot be determined under test conditions
(Use vital basic data to design best shape and optimize running of ships)

Big Data

- Engine and navigation data in actual conditions
- Communications technology used in ship-to-onshore operations

- Ensures economical operation
  ⇒ Fuel savings
- Reduces and prevents engine breakdowns
  ⇒ Reduces lost time, lowers repair costs
- Provides ideas for competitive ship designs utilizing harbor, cargo and navigation data
- Optimizes fleet assignment by predicting ship performance in actual sea conditions

New business opportunities

C-2. Differentiation through Creative Solutions

Purpose: Select optimum navigation route by analyzing performance changes in actual sea conditions

Case Example: Containership, encountering head sea of 5.5 m waves and wind speed of 20 m/s

Analysis:

1 Fuel Consumption

Normal Performance	14 knots	45 tons/day
At-sea Measurements	8 knots	60 tons/day

2 Reasons for Change in Performance

a. Sea conditions (waves, wind)
b. Features of each vessel
(shape, propeller, main engine, etc.)
c. Ship conditions
(trim, displacement, aged deterioration, etc.)

3 Made Progress in R&D on Technology for Predicting Actual At-Sea Performance

d. Performance changes due to waves and wind/theoretical calculations based on features of each ship, such as shape of vessel, propeller and engine
e. Performance changes due to trim and displacement
f. Performance changes due to degradation of hull and propeller

4 Select Optimum Navigation Route and Mode, responding to real-time changes in sea conditions, by utilizing Actual At-Sea Performance Model

▶ Adhere to “eco-navigation” approach by analyzing “BIG DATA”

C-3. Differentiation through Creative Solutions

Technology in Use

- LNG-fueled car carriers/tugboats
- SIMS** (Ship Information Management System)
- Innovative Air-Lubrication System
- Tank sounding scale
- Tsunami countermeasures
  (to reduce/avoid damage)
  Emergency unberthing ⇒ Navigation simulator
- Harbor research for bulk shipping vessels

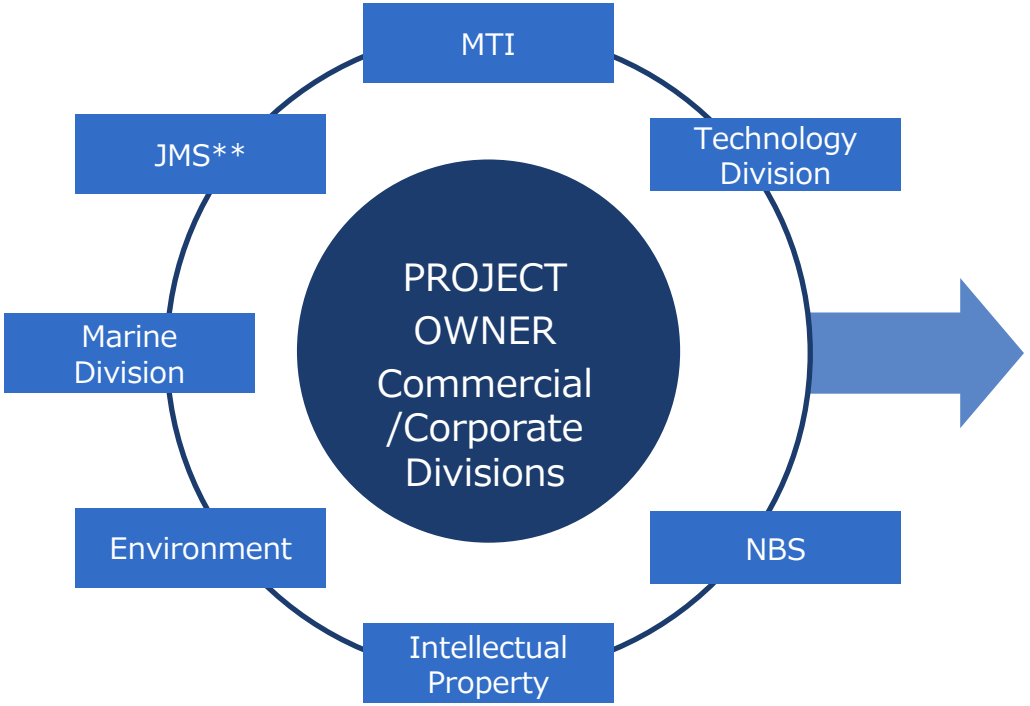
**See the Glossary on page 30

C-4. Differentiation through Creative Solutions

In-House Campaign

SPARK◇NYK—Activities Designed to Differentiate NYK through MTS2018

Consolidate, in a Broad Sense, Innovative Ideas and Pursue Differentiation



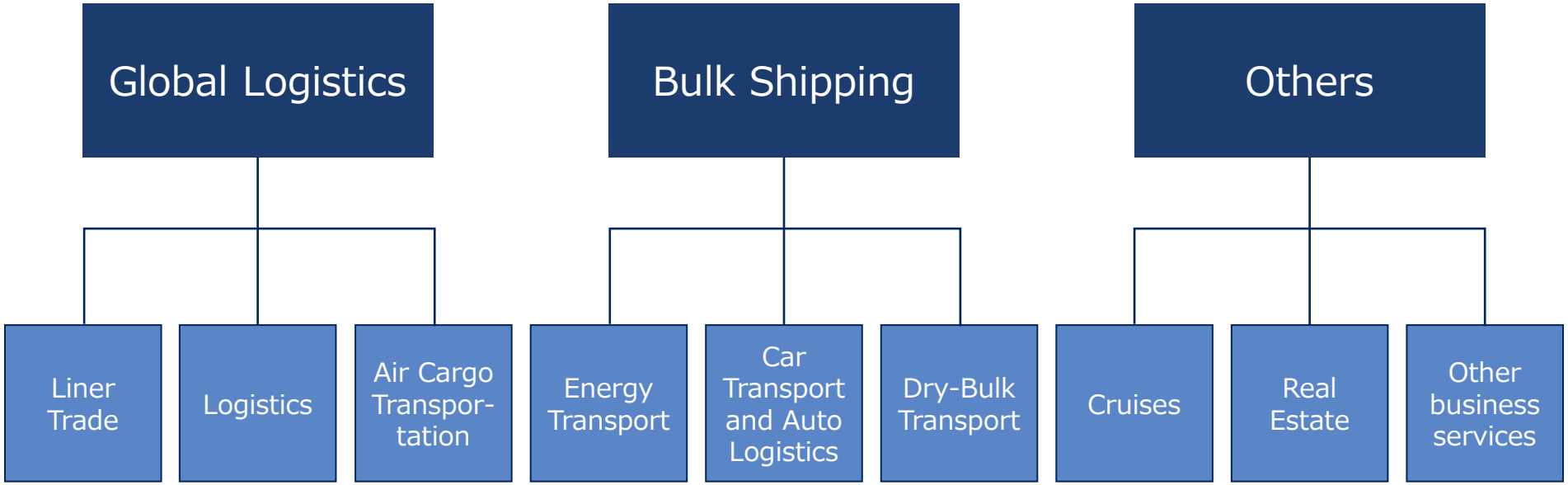
Discover opportunities for commercialization and practical use of innovative ideas

Creative Solutions for Clients and Business Partners

3 M's Elimination

**See the Glossary on page 30

D. NYK Group Structure



E. Glossary

(1) Shuttle tankers

A shuttle tanker, often called a “floating pipeline”, loads crude oil from floating production, storage, and offloading (FPSO) units in deepwater fields, and then transports the oil to crude-oil storage units or petroleum-storage stations on land.

(2) DPS — Dynamic-Positioning System

(3) Bow-Loading System

A system for loading at the bow of a shuttle tanker—rather than the typical approach alongside the ship—to facilitate safer loading in harsh sea conditions. Another noteworthy feature of this system is that cargo hoses can be connected or disconnected from offloading units more easily than with typical tanker-loading systems, thereby allowing quick release from the shuttle tanker in the event of an emergency.

(4) EPC — Engineering, Procurement, and Construction (EPC)

Under an EPC contract, the contractor designs the vessel, procures the necessary materials, and builds the unit.

(5) FPSO — Floating Production, Storage & Offloading System

An FPSO unit is a ship-shaped offshore installation that produces crude oil by separating solids, water, and gases from liquid drawn from reservoirs beneath the seabed and storing it until it is offloaded to shuttle tankers or export tankers.

(6) FSRU — Floating Storage and Regasification Unit

This is a floating facility for storing and regasification of LNG.

(7) FLNG — Floating Liquefied Natural Gas

This is an at-sea facility for LNG liquefaction and regasification.

(8) MLP — Master Limited Partnership

An entity in “Partnership” form that has chosen to be taxed as a partnership, that trades on a public exchange (NYSE, etc.) or over the counter market.

E. Glossary

(9) FSO — Floating Storage and Offloading System

A vessel designed to receive crude oil produced from nearby subsea wells and store the oil until it can be offloaded onto a shuttle tanker and transported ashore.

(10) SIMS — Ship Information Management System

Optimum ship operation support system.

(11) Tank sounding scale

Scale to facilitate effective measuring of bunker top-up oil amounts
MTI successfully developed a low-priced method for shortening the time need to measure the contents of tanks.
This method reduces instances of unmatched top-up amounts and supply amounts.

3 M's — *Muda*, *Mura* and *Muri*

Muda (non-value-adding activities), *mura* (unevenness in production or work activities), and *muri* (excessive burdens)

KNOT — Knutsen NYK Offshore Tankers AS

An NYK Group company: the world's second-largest owner and operator of crude-oil shuttle tankers

MTI — Monohakobi Technology Institute

An NYK Group company. Undertakes such activities as surveys and technology R&D related to shipping and logistics.

NBS — NYK Business Systems Co.,Ltd.

An NYK Group company.
Offers planning, development, operation and sale of information processing systems, software, and information and communication systems.

JMS — Japan Marine Science Inc.

An NYK Group company. Provides marine consulting and other services.