

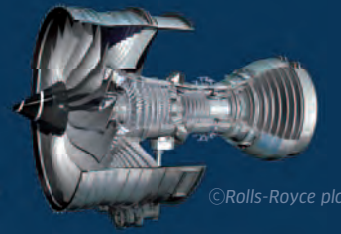
# Leveraging Our Capabilities

## Aerospace Systems

### Approach to Social Issues

- Provide air transportation systems delivering excellent environmental performance, high safety and reliability
- Contribute to advances in aerospace industry, including human resources development and transfer of skills to the next generation

Net Sales  
¥469.5 billion



©Rolls-Royce plc

## Ship & Offshore Structure

### Approach to Social Issues

- Provide marine transport solutions that support comfortable lifestyles around the world
- Help mitigate issues of global scale, such as saving energy and reducing environmental load

Net Sales  
¥95.6 billion



29.8%  
Aerospace Systems

16.0%  
Energy System & Plant Engineering

12.6%  
Precision Machinery & Robot

6.1%  
Ship & Offshore Structure

9.0%  
Rolling Stock

21.1%  
Motorcycle & Engine

5.4%  
Other  
Net Sales  
¥85.0 billion

Net Sales  
¥251.6 billion

## Energy System & Plant Engineering

### Approach to Social Issues

- Pursue product development that contributes to global environmental conservation and CO<sub>2</sub> reduction
- Contribute to stable supply of clean energy
- Deliver solutions to meet diversifying energy/transportation needs
- Contribute to creation of social energy/industrial infrastructure in emerging nations



Net Sales  
¥198.9 billion

## Precision Machinery & Robot

### Approach to Social Issues

- Develop products emphasizing energy-saving and eco-friendly features
- Contribute to infrastructure formation around the world
- Help offset issues of an aged society with a shrinking workforce



Net Sales  
¥141.7 billion

## Rolling Stock

### Approach to Social Issues

- Provide safe and environment-friendly rolling stock systems
- Contribute to construction of transport infrastructure that supports economic development in emerging nations



Net Sales  
¥331.6 billion

## Motorcycle & Engine

### Approach to Social Issues

- Fulfill requirements of "Fun to Ride" and "Ease of Riding" and contribute to low-carbon society
- Develop products matched to the needs of emerging markets and branch out production bases

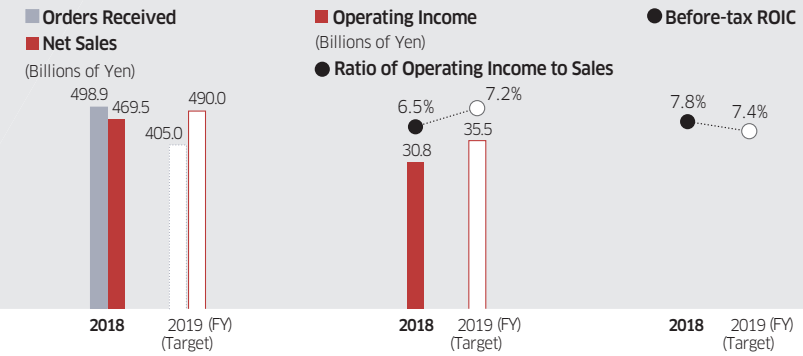
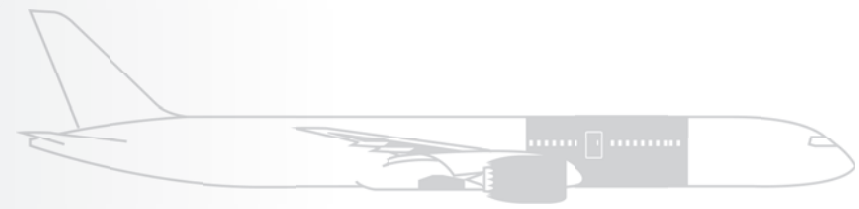




C-2 transport aircraft



Sukeyuki Namiki  
President,  
Aerospace Systems Company



\*Due to internal company reorganization, effective April 2018, only figures for fiscal 2018 (restated actual results) and fiscal 2019 (targets) are shown.

# Aerospace Systems

**Main Products**

- Aircraft for the Japan Ministry of Defense
- Component parts for commercial aircraft
- Commercial helicopters
- Missiles/Space equipment
- Jet engines
- Aerospace gearboxes

**Business Vision**

A leading company that consistently creates new value for the world through excellent aerospace technologies and *monozukuri* manufacturing quality

**Opportunities**

- Defense Aircraft**
  - Sustained domestic defense equipment development and production
  - Prospects of defense equipment exports
- Commercial Aircraft**
  - Medium- to long-term growth in air passenger and air freight volume, in line with economic growth in emerging countries
- Jet Engines**
  - More demand in line with expansion of commercial aircraft market

**Risks**

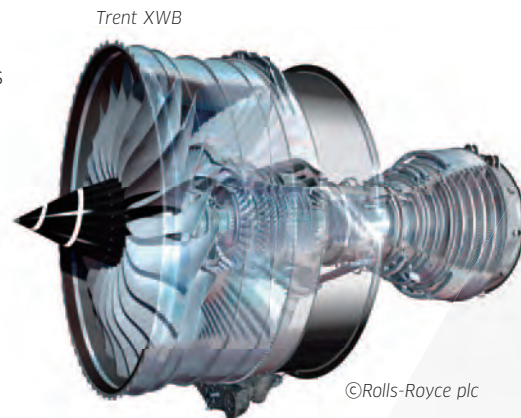
- Commercial Aircraft**
  - Fiercely competitive environment, accelerated mainly by competition for market share between Boeing and Airbus
  - Uncertainty regarding future of wide-body aircraft, due to the increased presence of LCCs\*<sup>1</sup>
  - Rise of manufacturers in emerging countries
- Jet Engines**
  - Decreasing demand due to recession

\*1 LCCs: Low-cost carriers

**Core Competence**

- Aircraft**
  - Technological capabilities as manufacturer of finished aircraft with experience in defense business (system integration capabilities)
  - Technological capabilities based on international joint development with Boeing, and sophisticated, large-scale production facilities
  - High quality and productivity through Kawasaki Production System (KPS)
- Jet Engines**
  - Sophisticated technological capabilities built through international joint development projects and engines for defense aircraft
  - High quality and productivity through leading-edge production technology

- Business Direction in MTBP 2016**
- Defense Aircraft**
    - Steady progress on existing development projects and production contracts
    - Expand orders for new projects
  - Commercial Aircraft**
    - Respond to increased production of Boeing 787-10 Aircraft
    - Smooth production start of Boeing 777X
  - Jet Engines**
    - Enhance presence in jet engine sector by improving development capabilities



## Business Summary

Despite a reduced development expenses burden on commercial aircraft components, business results are likely to remain flat for the next few years. This is mainly due to a decrease in the number of aircraft produced, in line with a shift from the Boeing 777 to the Boeing 777X, as well as an increased development expenses burden due to an increase in components of new aircraft jet engines.

## Operating Environment and Strategies

We expect global air passenger and air freight volume to expand over the medium to long term due to economic growth in emerging countries, and this should spur considerable growth in our commercial aircraft and jet engine businesses. We will seek continuous productivity improvement and steady cost reduction.

In the defense aircraft sector, we will move steadily toward mass production of the P-1 patrol aircraft and C-2 transport aircraft while seeking to capture orders for modernized and derivative types of aircraft. We will also pursue exports of defense equipment in line with government policy.

In the commercial aircraft sector, we will strive to maintain a level of competitiveness that companies in emerging countries simply cannot match by providing high quality and production capabilities underpinned by world-class technological capabilities and leading-edge facilities. At the same time, we will strive to promote aggressive capital investment, boost productivity and create a structure primed for business expansion.

In the jet engine sector, we provide core components not as individual parts but as assembled modules, such as intermediate pressure compressors, to global engine manufacturers, and we enjoy a solid presence as an indispensable supplier. We are currently involved in several new-type engine projects, and we expect the scale of our business to expand rapidly as these projects shift into the substantial mass-production phase.

In April 2018, Kawasaki integrated the former Aerospace Company and the jet engine business of the former Gas Turbine & Machinery Company, creating the Aerospace Systems Company. The objectives behind this integration of aerospace-related businesses are to reinforce cost competitiveness, collaborate to expand business and develop new businesses.

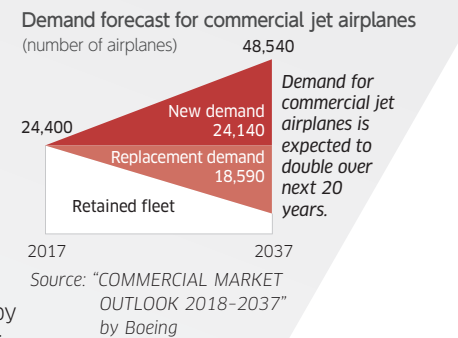
## Key Driver

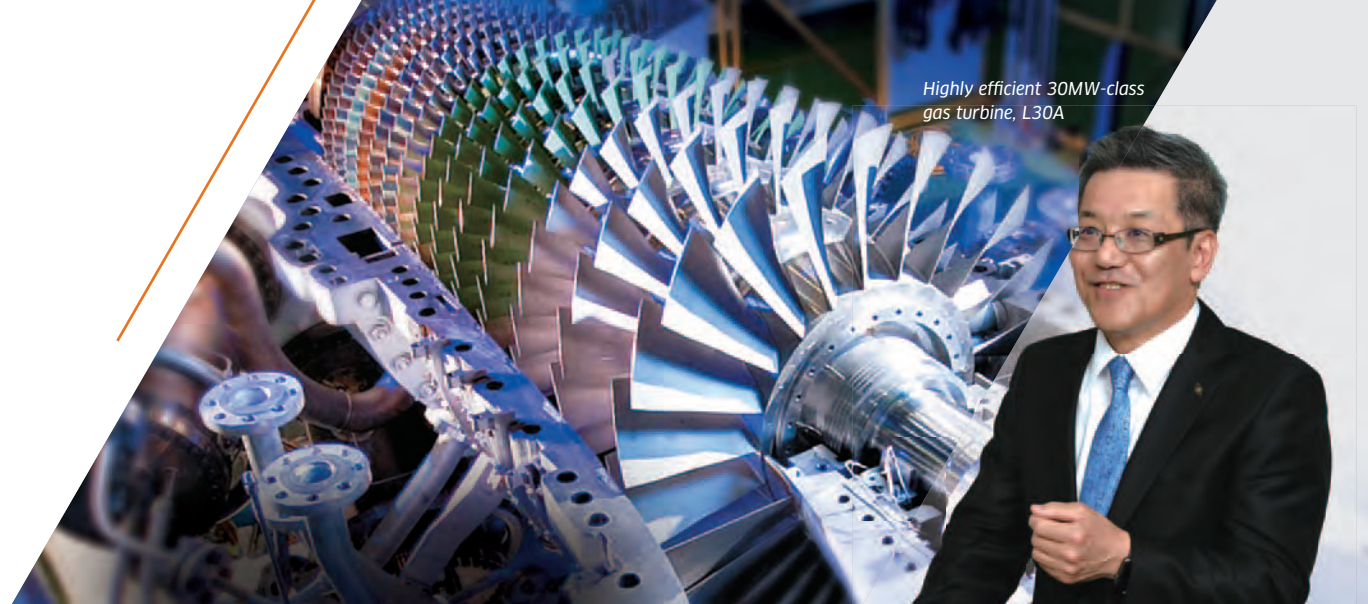
### Expanding Commercial Aircraft Business

The commercial aircraft market is expected to more or less double over the next 20 years. Of this, demand for mid- and large-sized wide-body aircraft, such as the Boeing 777 and 787—models for which Kawasaki manufactures components—is estimated at about 8,200 deliveries over this same period. At the Paris Air Show in June 2017, Kawasaki announced an agreement to enhance its collaboration with Boeing, including joint exploration of advanced manufacturing techniques and potential future business activities. We are also concurrently involved in several projects to develop new-type engines, including the Trent 1000 for the Boeing 787, the Trent XWB for the Airbus A350 XWB, the PW1100G-JM for the Airbus A320neo and the Trent

7000 for the Airbus A330neo. Currently, efforts are directed toward boosting production capacity, with a significant contribution to profits anticipated from 2020 onward.

At our facilities, we are emphasizing automation of manufacturing processes, mainly through the installation of Kawasaki-built robots. In addition, by integrating automation and KPS experience accumulated to date, we will achieve high-quality, efficient production and prepare an infrastructure for ICT and IoT to create smart factories of the future. We will strive to improve profitability and pursue businesses presenting significant growth potential over the medium to long term.





Highly efficient 30MW-class gas turbine, L30A

Tatsuya Watanabe  
President,  
Energy System & Plant  
Engineering Company

# Energy System & Plant Engineering

- Main Products**
- Energy/Marine**
- Industrial-use gas turbines/cogeneration systems
    - Gas engines
    - Diesel engines
  - Steam turbines for marine and land
  - Aerodynamic machineries/Marine propulsion systems
- Plant**
- Industrial plants (cement, fertilizer and others)
    - Power plants
    - LNG tanks
  - Municipal waste incineration plants
  - Tunnel boring machines
  - Crushing machines

**Business Vision**

Emphasizing energy and the environment, be an equipment, system and plant manufacturer with distinctive capabilities to provide products and services globally that help protect the global environment and also earn high customer satisfaction through technologies and quality underpinned by high product development expertise and engineering know-how.

**Opportunities**

- Wider demand for energy and infrastructure in emerging countries and resource-rich countries
- Wider demand for distributed gas fuel power generation facilities prompted by lower price for LNG fuel
- Tougher environmental regulations
- Demand to build new or replace various power generation facilities following the Great East Japan Earthquake
- Demand for infrastructure replacement in Japan, prompted by upcoming Olympics in Tokyo in 2020

**Risks**

- Delayed projects due to prolonged slump in price of oil
- Weakening investment incentive paralleling economic slowdowns in emerging countries and resource-rich countries
- Prolonged slump in the shipping market

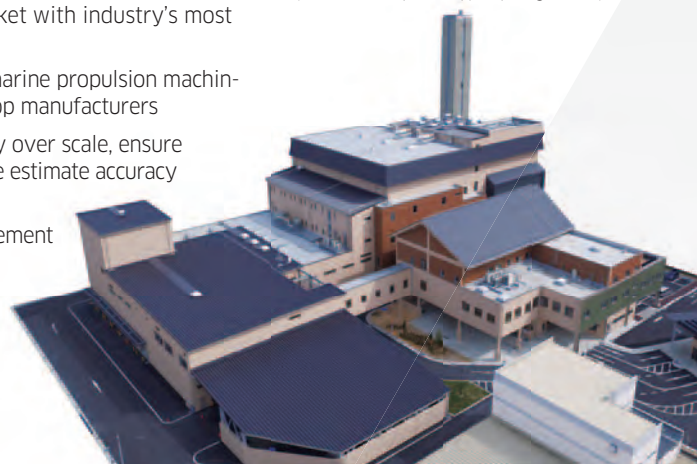
**Core Competence**

- Energy/Marine**
- Diverse product lineup and ability to provide solutions, including world-class gas turbines in terms of efficiency and environmental performance and gas engines with the world's best performance
  - Environment-friendly technologies and development capabilities in core products and systems
- Plant**
- Comprehensive engineering capabilities and product development expertise built on various types of projects
  - Monozukuri* manufacturing capabilities at our own production bases

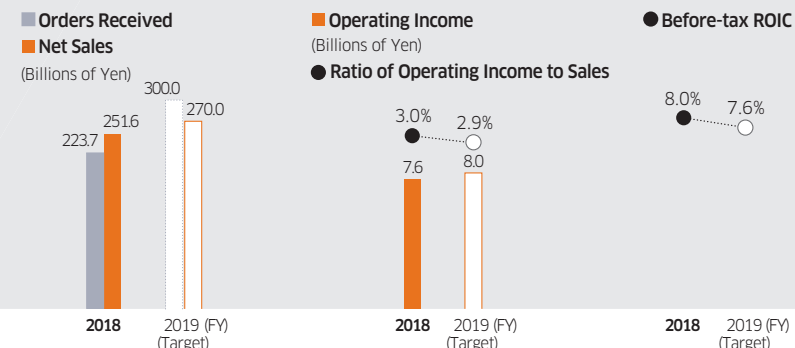
**Business Direction in MTBP 2016**

- Energy/Marine**
- Expand share in distributed power generation market with industry's most efficient, environment-friendly model
    - Strive to expand share by developing next-generation marine propulsion machinery and systems, and take a position among the world's top manufacturers
- Plant**
- Promote careful selection of orders emphasizing profitability over scale, ensure thorough risk management in upstream processes, and improve estimate accuracy
  - Execute business mindful of human resources, assign engineers flexibly in response to market trends, and emphasize QCD\* management
  - Develop a market for next-generation products by improving upon existing products, and facilitate hydrogen projects

\*QCD: Quality, cost, delivery



Waste treatment facility (Heat-recovery facility/recycling center)



\*Due to internal company reorganization, effective April 2018, only figures for fiscal 2018 (restated actual results) and fiscal 2019 (targets) are shown.

**Business Summary**

In fiscal 2018, segment earnings remained at a low level, mainly because progress on construction of a chemical plant for a customer in Turkmenistan passed its peak. But for fiscal 2019, we expect earnings to rise with an increase in energy projects, particularly industrial-use gas turbines as well as gas engines for power generation facilities.

**Operating Environment and Strategies**

In energy and marine sectors, demand for gas-fired power generation is expanding, and distributed power generation needs are also increasing, especially in Asia. In April 2018, Kawasaki integrated the former Plant & Infrastructure Company with the energy and marine-related businesses of the former Gas Turbine & Machinery Company to create the Energy System & Plant Engineering Company. The integration of energy-related businesses will accelerate business development through a stronger lineup of core products and system solutions combining these key products, and it will promote business growth, especially on the sales front in Southeast Asia.

In the plant sector, we anticipate a stable trend in domestic and overseas demand, reflecting infra-

structure development and heightened interest in environmental protection, especially in emerging countries including those in Southeast Asia. But price wars will be fierce, and finding ways to sharpen cost-competitiveness is an issue that requires our attention.

Kawasaki has the advantage of technology and quality underpinned by high product development expertise and engineering capabilities as well as *monozukuri* manufacturing capabilities made possible by its own production bases. We will draw on these strengths to provide unique, high-value-added products and realize customer satisfaction. Also, on the order front, we will be more selective in our bids and emphasize profitability over scale, and we will take a very careful approach to risk management. Our objective is, naturally, to achieve an improvement in profitability. In addition, we aim to enhance the accuracy of estimates and reduce failure costs, that is, the cost of defective work and guarantees on construction, to strengthen our cost-competitiveness.

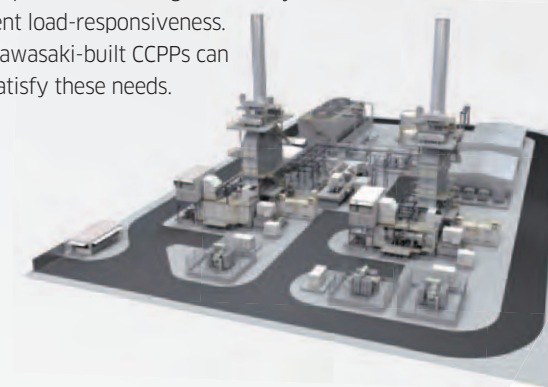
Seeking future business growth, we will aggressively pursue development of new products, including those used in hydrogen-related projects.

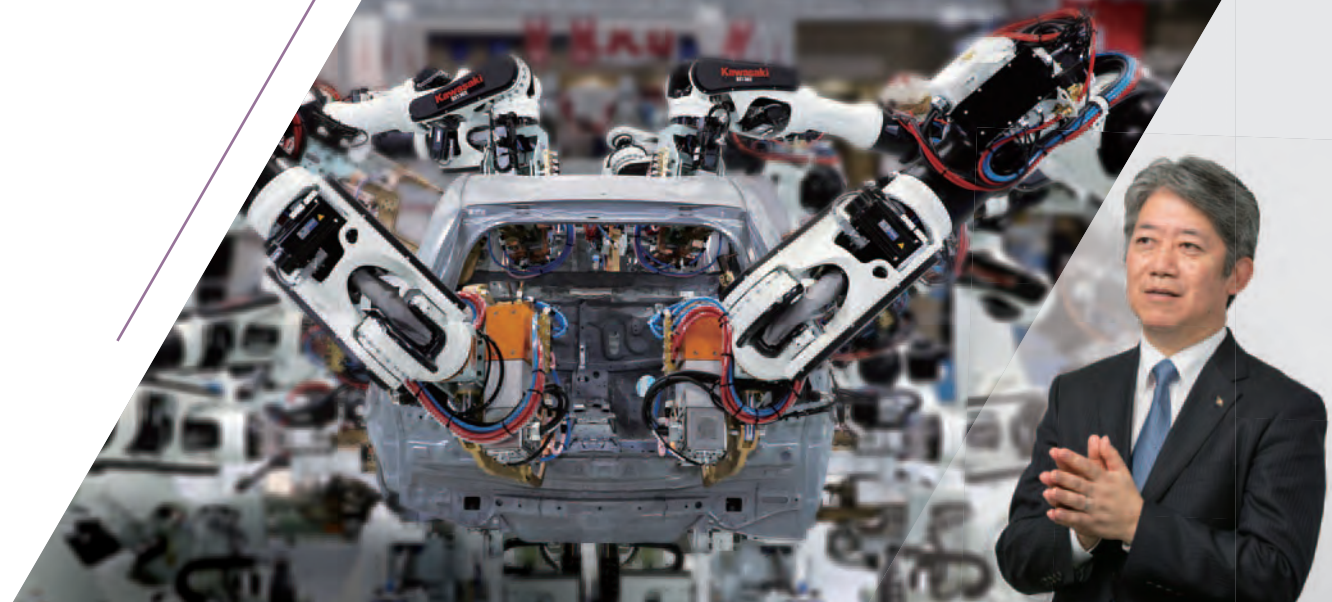
**Key Driver**

**Expanding Sales of CCPP Standard Package**

In March 2018, we began marketing a combined cycle power plant (CCPP) using the L30A, a highly efficient 30MW-class gas turbine produced entirely in Japan, boasting the world's highest power generating efficiency. The L30A offers the largest output of any gas turbine built by Kawasaki. With a basic configuration of two L30A gas turbines, two waste heat recovery boilers and one steam turbine, the CCPP is a Kawasaki Group original power plant featuring all Kawasaki-built components. The CCPP market is primed for expansion, given that the world's power consumption is predicted to increase, especially in Southeast Asia where

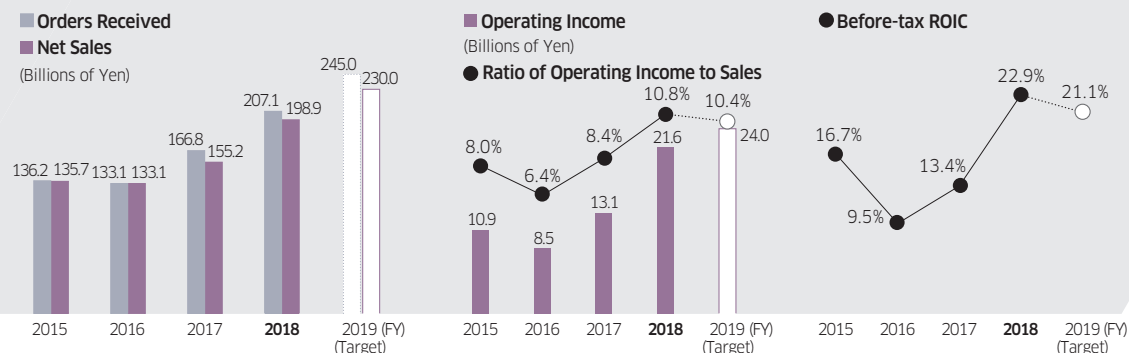
economic progress is very evident. The greatest interest, however, still come from the distributed power generation market to meet particularly salient requirements for high-efficiency facilities and excellent load-responsiveness. Kawasaki-built CCPPs can satisfy these needs.





# Precision Machinery & Robot

Yasuhiko Hashimoto  
President,  
Precision Machinery &  
Robot Company



- Main Products**
- Hydraulic components for construction machineries
  - Hydraulic components and systems for industrial machineries
  - Hydraulic steering gears for marine products
  - Hydraulic deck machineries for marine products
  - Industrial robots
  - Medical and pharmaceutical robots

**Business Vision**  
World's top brand in motion control, creating and providing total solutions for providers of medical and healthcare services and for various industries, including automobile, construction machinery and electronic equipment, with a focus on hydraulic components and robots boasting a level of performance and quality far surpassing that of rival companies.

- Opportunities**
- Hydraulic machinery**
    - Expanding demand through worldwide infrastructure building, hinging on emerging countries
  - Robots**
    - More fields of application through realization of collaboration with humans in working operations
    - Rising demand to eliminate labor shortage and improve quality
    - Progress in use of robots beyond industrial applications (such as medical treatment and nursing care)
- Risks**
- Hydraulic machinery**
    - Delayed recovery in marine hydraulic equipment market due to sluggish conditions in shipbuilding industry, and intensifying price wars
    - Potential for in-house production of hydraulic machinery by construction machinery manufacturers and entry of manufacturers from emerging countries into the market
  - Robots**
    - Increasingly fierce price wars with rival companies

- Core Competence**
- Hydraulic machinery**
    - Accumulated world-class, leading-edge technology, ability of systemization and brand power for excavator hydraulic machinery
    - Ability to respond to customer requests
  - Robots**
    - Ability to develop applications and make system proposals matched to diverse customer requirements
    - Global service structure
  - Both**
    - Ability to come up with unique products that utilize motion-control through fusion of hydraulic technology and robotics

**Business Direction in MTBP 2016**

- Hydraulic machinery**
  - Maintain and expand high share of excavator market, pursue bigger sales in construction and agricultural machinery sectors, and explore business potential in industrial machinery and marine machinery sectors
- Robots**
  - Increase current market share, develop and debut new technologies and new types of robots to collaborate with humans in work operations, and actively promote innovative development of robots for medical applications
- Both**
  - Pursue efficiency by creating synergistic effects as business segment

Hydraulic motor M7V (left)  
Hydraulic pump K8V (right)



"duAro," coexistence-type, dual-armed SCARA robot

**Business Summary**  
In fiscal 2018, profit was up year on year, reflecting growth in sales of robots and hydraulic machinery for construction equipment. We currently anticipate growth in both markets, which should spur sales and income from fiscal 2019 onward.

**Operating Environment and Strategies**  
Sales of hydraulic machinery for the construction equipment market is expected to grow further in the coming years, due to greater infrastructure investment, especially in emerging countries, as well as favorable market conditions supported by booming excavator demand in China.

Kawasaki is the leader of the global market for excavator-use hydraulic machinery. Going forward, the goal is to secure a larger share by showcasing world-class, leading-edge technology and the ability to turn such technology into systems, excellent brand power and responsiveness to customer needs. Also we will actively explore new businesses with huge growth potential, such as construction and agricultural machinery beyond excavators, to realize further growth and improve stability in segment performance.

In the industrial robot business, we expect expanding demand to offset labor shortages and achieve

higher quality. We also predict that robots will be used in a wider range of applications, including collaboration with humans in work operations and use in medical treatment and nursing care.

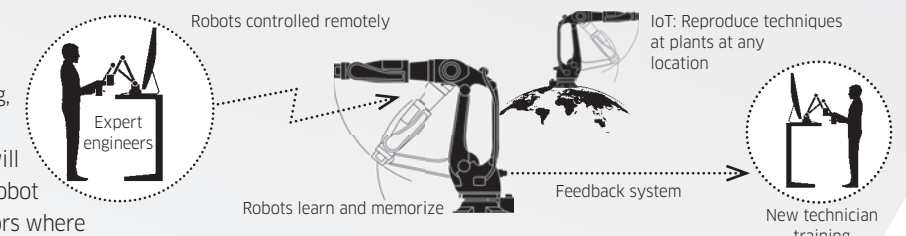
We will dramatically reinforce production capacity in Japan and China to take advantage of expanding demand for robots in existing customer sectors, such as automotive and semiconductor. In addition, we will expand sales and market share by providing solutions that draw on the Group's experience accumulated in developing robots and by enhancing the sales and service structure. We will concentrate on robots that collaborate with humans through *duAro*, a dual-armed SCARA (Selective Compliance Articulated Robot Arm) robot, and on medical-use robots through such applications as Robotically Assisted Surgical Device, which are under development at Medica-roid, a joint venture with Sysmex Corporation.

We will promote collaboration, integrating hydraulic machinery and robot businesses on the production front, and pursue synergies derived through developing new products combining the technical features of these businesses. This will underpin our goal to reinforce businesses under the business segment umbrella.

**Key Driver**

**Successor—New Robot System**  
The global robot market keeps expanding, but robotization remains a challenge in many sectors. In fiscal 2020, Kawasaki will begin general sales of *Successor*, a new robot system that offers new solutions in sectors where robotization has been difficult to achieve.

*Successor* is a robot system that learns movements made by expert engineers using remote control devices and converts these movements into automated operations. The system thus enables robots to reproduce delicate movements by expert engineers. In addition, the system can be used as a teaching tool, using a feedback



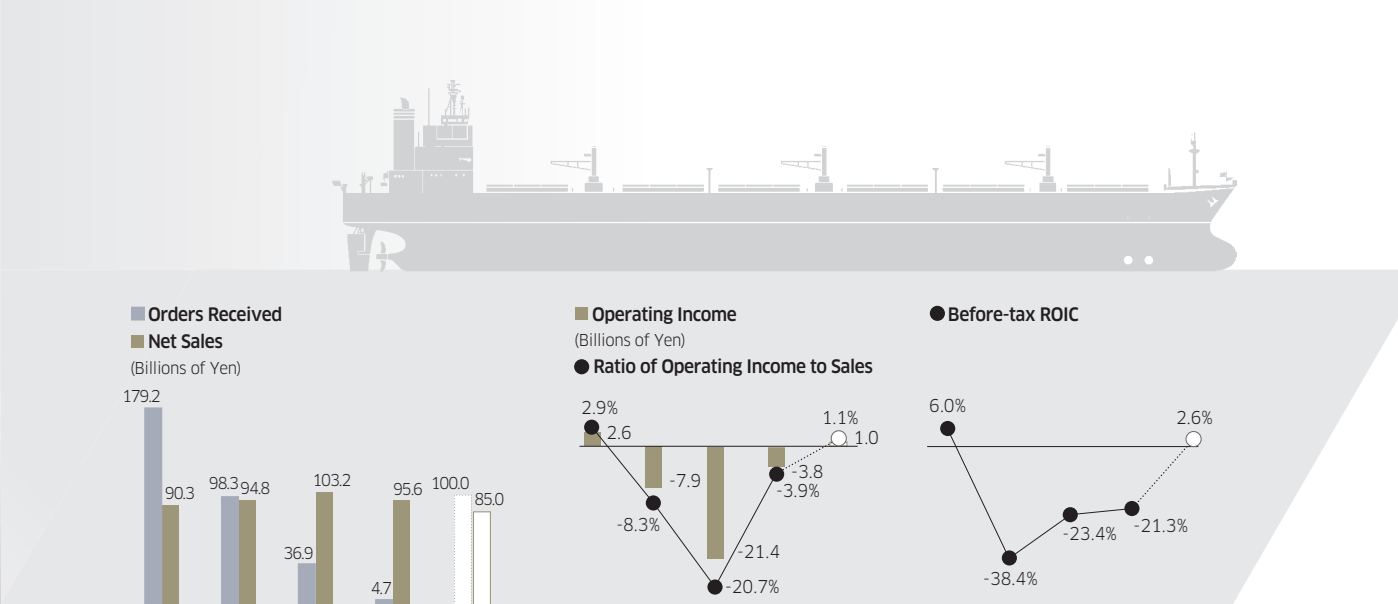
system that reproduces physical senses, such as touch, force, sight and sound, to convey to untrained personnel the movements and techniques that a *Successor* robot has learned from expert engineers.

*Successor* technology has potential far beyond robots, including application to hydraulic technology, and we expect it to contribute to production activities in our own operations.



# Ship & Offshore Structure

Yoshinori Mochida  
President,  
Ship & Offshore Structure Company



- Main Products**
- LNG carriers
  - LPG carriers
  - Bulk carriers
  - Submarines

**Business Vision**

One of the world's most prominent shipbuilding and offshore structure engineering groups pursuing business with a focus on low-temperature, high-pressure gas technology, submarine technology and overseas projects.

**Opportunities**

- Increasing demand for vessels with low environmental load due to tougher environmental regulations
- Recovery in carrier demand, owing to growing demand for LNG
- Greater automation, using IoT and AI
- Expanding operations to meet increasing fleet of submarines

**Risks**

- Increasingly fierce competition with China and South Korea
- Prolonged slump in shipping market

**Core Competence**

- Low-temperature, high-pressure gas-related technologies accumulated through development and construction of LNG and LPG carriers
- Quality and cost competitiveness of Group overall, including Chinese joint ventures (NACKS, DACKS\*)
- Energy-saving, environmental load-reducing technologies, and ability to develop new ship designs
- High-level technology required specifically for submarines

\*NACKS, DACKS: Shipbuilding joint ventures established in Nantong, Jiangsu Province and Dalian, Liaoning Province, with China COSCO Shipping Corporation Limited (China COSCO)

**Business Direction in MTBP 2016**

- Rebuild merchant ship business, with emphasis on deeper integration of operations at Sakaide Works, NACKS and DACKS
- Develop environment-friendly vessels to meet more stringent international environmental regulations
- Achieve stable operations in submarine business, create business out of autonomous underwater vehicles (AUVs) utilizing submarine technology



**Business Summary**

In fiscal 2018, the Ship & Offshore Structure Company showed an operating loss, largely due to reduced operations paralleling the termination of a contract agreement to build an offshore service vessel for a customer in Norway as well as an increase in construction costs on a new-type LNG carrier. However, this business segment should return to profitability in fiscal 2019, with improvement in the product mix for gas-related vessels.

**Operating Environment and Strategies**

The operating environment remained challenging for the Ship & Offshore Structure Company, owing to continuing global overcapacity and a prolonged slump in the shipping market.

For two years—fiscal 2016 and fiscal 2017—this business segment booked sizable losses, prompting the creation of a restructuring execution committee, headed by the president, in April 2017 to undertake a fundamental revision of the business structure. Meetings were held monthly, and after deciding to withdraw from the problematic offshore service vessels business, we have freed up resources to focus on structural reforms. We are aiming for

before-tax ROIC of 8%—assuming an exchange rate of ¥100 = US\$1—by fiscal 2021 and will implement business strategies to achieve this target.

In the merchant ship business, we will cut back on the number of orders we accept and make gas-related vessels our main priority. We will concentrate domestic construction at the Sakaide Works and reinforce base functions, such as human resources development and engineering, while promoting greater integration of operations with our Chinese joint ventures NACKS and DACKS through such approaches as joint procurement and shared construction. These efforts will help sharpen our cost competitiveness and improve profitability. In addition, we will pursue development of a Ship Operation and Performance analysis support system (SOPass), which combines ship-related knowledge accumulated by Kawasaki with big data technology.

In the submarine business, we will stabilize the business platform by completing capital investment at the Kobe Works to handle more submarines. We will also apply submarine-related technologies collected over many years to development of such products as autonomous underwater vehicles (AUVs).

**Key Driver**

**Efforts to Develop Autonomous Underwater Vehicles**

In November 2017, Kawasaki successfully completed a verification test on an autonomous underwater vehicle (AUV) at The Underwater Centre, in Scotland. Noticing an increase in demand for pipeline maintenance services for offshore oil and gas fields, we have pursued development of leading-edge component technologies for AUVs under a subsidy program sponsored by the Ministry of Land, Infrastructure, Transport and Tourism. AUVs determine positioning status autonomously while carrying out preassigned missions, and thus differ from conventional cable-tethered, unmanned, remotely operated vehicles. They do not require

dedicated operators on the mother ship or special on-board equipment, potentially reducing the burden on crews and improving safety while cutting maintenance costs. As a result, several oil and gas companies—the oil majors—and underwater equipment operators have expressed high hopes for AUVs. For our part, we intend to launch full-scale development of a seabed pipeline-inspection AUV, with a commercialization target of fiscal 2021.





Rolling stock for access to Taoyuan International Airport in Taiwan

Kazutoshi Honkawa  
President,  
Rolling Stock Company

# Rolling Stock

- Main Products**
- Electric train cars, including Shinkansen (bullet trains)
    - Electric and diesel locomotives
  - Passenger coaches
    - Bogies

**Business Vision**

With strong teamwork and the highest level of technology and quality we provide dreams and emotions to customers worldwide in order to become the most reliable rolling stock system supplier.

**Opportunities**

- Continuous brisk demand for subway and commuter train systems in North American market
- Brisk demand in emerging countries of Asia
- Firm replacement demand in domestic market
- Expanding stock-style demand, including components, maintenance and repair and rebuild work in existing market

**Risks**

- Manufacturers from China and other emerging countries entering North American market, sparking fierce price wars
- Country risk in new markets for Kawasaki

**Core Competence**

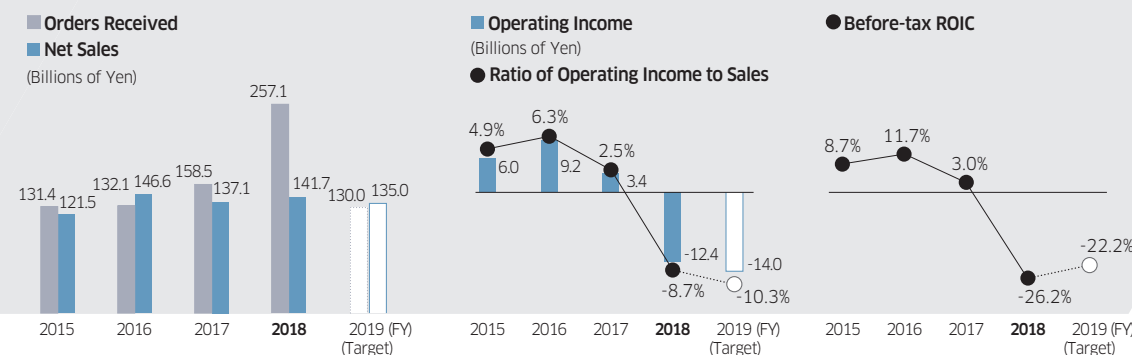
- High-tech expertise built on comprehensive heavy industry strengths
- Ability to fulfill contracts, cultivated from extensive domestic and overseas results
- Partnership capabilities with other companies in execution of overseas projects

**Business Direction in MTBP 2016**

- Domestic**
- Differentiate with high-value-added products that leverage synergies and high-tech expertise built on comprehensive heavy industry strengths as well as ability to provide value across overall product lifecycle
- North America**
- Tap into constant order activity for new cars in high-share northeastern corridor, and actively promote high-profit stock-style business underpinned by delivery record exceeding 4,500 cars
- Asia**
- Maintain revenue base in markets, particularly Taiwan and Singapore, where the Kawasaki brand is known for excellence, and develop wider presence in emerging markets with growth potential



Series 2600 limited express diesel railcar for Shikoku Railway Company



**Business Summary**

In fiscal 2018, the Rolling Stock Company posted a significant operating loss, mainly due to the booking of provision for losses on construction contracts—specifically, a rolling stock project for a North American customer—as well as an expense burden related to replacement of a series N700 Shinkansen bogie frame. This situation is likely to persist in fiscal 2019, with additional booking of provision for losses on construction contracts, specifically the rolling stock project for a North American customer, as well as the appearance of losses on domestic rolling stock projects, leading to another year of significant operating loss. Management recognizes the seriousness of continued worsening performance and established the Rolling Stock Business Restructuring Committee chaired by the president to drastically reinforce project management and achieve performance recovery as soon as possible.

**Operating Environment and Strategies**

Against a backdrop highlighted by economic development in emerging countries and repair and rebuild work on transport infrastructure in developed countries, demand for rolling stock remains strong, especially overseas. This is spurring wider demand for stock-style business, mainly components and maintenance. However, the entry of manufacturers based in emerging countries, such as China, has

intensified competition, necessitating approaches to boost profitability through enhanced non-price competitiveness and business model reform.

We seek to differentiate ourselves from other companies by providing high-value-added products that leverage synergies and high-tech expertise built on comprehensive heavy industry strengths. A great example of this is efWING, the world's first bogie incorporating carbon fiber reinforced plastic (CFRP). We also seek to expand earnings across the overall product lifecycle, including components, repair and rebuild work, and maintenance.

In the North American market, with persistently brisk demand based in the northeastern corridor, we will draw on extensive results and a solid reputation for reliability built over many years and the advantage of operating two production bases in the United States to capture demand for new railcars. And we will develop our stock-style businesses, namely, components, repair and rebuild work, and maintenance, including track monitoring using IoT.

Asia presents a market with huge growth potential. Our goal here is to expand our earnings base in Taiwan and Singapore, where we have already established a strong presence, while cultivating new markets by enhancing our system integration capabilities and maintaining and developing partnerships with local manufacturers. We are also intending to extend our business scope, mainly by capturing orders for projects financed by ODA loans.

**Key Driver**

**Expanding Business Activities in Asia**

In August 2017, a joint bid by Kawasaki and Mitsubishi Corporation won an order from state-run Dhaka Mass Transit Company Limited in Bangladesh, to supply rolling stock and maintenance depot equipment for Dhaka MRT Line-6, the country's first mass rapid transit system. Construction of this project is being financed by ODA loans extended by the Japan International Cooperation Agency, under Japan's infrastructure export strategy, to the government of Bangladesh to support infrastructure development.

Going forward, many projects financed by ODA loans for emerging countries in Asia are in the works, and we anticipate an increase in business opportunities, including high-speed railway projects throughout the region, starting with India. Kawasaki will draw on a solid presence in Taiwan and Singapore and capabilities that facilitate production of all types of rolling stock to broaden the scope of our business activities in Asia.

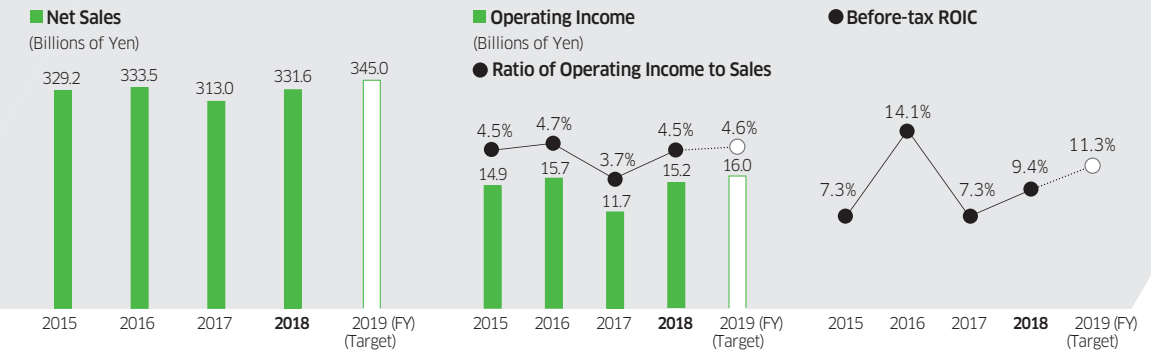
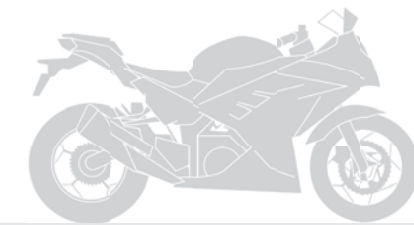




Ninja ZX-10R



Kazuo Ota  
President,  
Motorcycle & Engine Company



# Motorcycle & Engine

**Main Products**

- Motorcycles
- Utility vehicles
- All-terrain vehicles (ATVs)
- Personal watercrafts (PWCs)
- General-purpose gasoline engines

**Business Vision**

Guided by the “Kawasaki, working as one” philosophy, grow and endure as a manufacturer with primary focus on high-value-added domains in the power sports and general-purpose engine markets.

**Opportunities**

- Motorcycles
  - Medium- to long-term market expansion in emerging countries
  - Stable demand for developed countries, and progress in development of technologies, such as IoT application and advanced safety features
- Utility vehicles
  - Expanding market in North America
- General-purpose gasoline engines
  - Brisk growth, reflecting bigger U.S. housing market

**Risks**

- Motorcycles
  - Intensifying price wars in emerging markets
  - Tougher environmental regulations
- Utility vehicles
  - Intensifying price wars

**Core Competence**

- High brand image clearly different from rivals, typified by *Ninja* and *Z*
- Top-level product development expertise on world stage
- Technological capabilities to develop and produce high-performance, high-quality products
- Global production, sales and service structure

**Business Direction in MTBP 2016**

- Deepen demand-chain reforms
  - “A Class Apart”
  - Create brand that delivers high customer value a true cut above other companies
- Deepen reforms to enhance competitive edge of products
  - “Fun to Ride” and “Ease of Riding”
  - Create structure for product development geared to customer requirements
- Deepen supply chain reforms and promote change in overall management system
  - Boost capital efficiency through improvements in supply chain, from production through to sales
- Establish stronger financial platform
  - Reinforce profitability and improve free cash flow to generate investment leeway and respond to future growth markets

MULE PRO-FXT



## Business Summary

Despite a drop in sales of motorcycles to emerging countries, sales of motorcycles, utility vehicles and general-purpose gasoline engines to developed countries drove fiscal 2018 income up over the fiscal 2017 level. In fiscal 2019, higher sales of motorcycles and general-purpose gasoline engines to developed countries should neutralize the impact of yen appreciation and keep sales and operating income near fiscal 2018 levels.

## Operating Environment and Strategies

Markets in developed countries will continue to present stable demand, especially for utility vehicles, and high growth is likely over the medium to long term in emerging markets as well. We believe our business can grow steadily. However, competition is heating up in all markets, mainly due to the entry of manufacturers in emerging countries, so we need to improve our profitability.

We will anticipate the needs of customers and draw on world-class product development expertise and brand image—typified by *Ninja* and *Z* and clearly different from rivals—to quickly bring

attractive, highly competitive models to market. These efforts will define Kawasaki as a premium brand that can pull free of the price competition.

Toward this end, we will clarify the functions and roles of domestic and overseas R&D sites and reinforce collaborative efforts, and we will utilize synergistic effects generated through contact with the Corporate Technology Division and other segments. Then we will establish a development structure to continuously debut attractive new models ahead of the competition. In addition, we will strive to polish our brand power to a brighter shine, with a focus on CRM\* and a stronger after-market service structure and by efficiently and effectively showcasing a Kawasaki brand consistent worldwide.

In business operations, we will set up a global management system hinging on business processes consistent at sites worldwide. We will also look to optimize the role of each production base, including efforts to enhance the mother factory function of the Akashi Works, to achieve higher management efficiency.

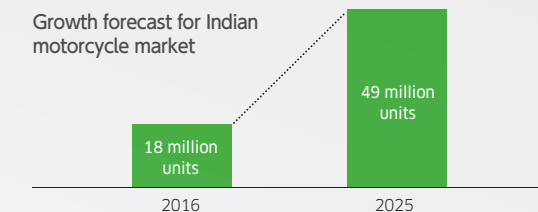
\*CRM: Customer relationship management

## Key Driver

### Motorcycle Business in India

The motorcycle market in India is rapidly expanding. It is already the largest motorcycle market in the world, with sales reaching about 20.19 million units in fiscal 2018. Of this amount, about 880,000 units were medium- and large-sized motorcycles with engine displacements of 250cc or higher.

At the end of June 2017, Kawasaki relocated the plant of India Kawasaki Motors Pvt. Ltd. (IKM), its subsidiary in India. In addition to the 250cc-650cc models previously manufactured by IKM, the new plant has started local production and sales of the *Ninja 1000*, the highest maximum engine displacement—1,043cc—of all Kawasaki-brand motorcycles manufactured in India.



As the Indian economy grows, the market for medium- and high-displacement leisure-use motorcycles—an area where Kawasaki is particularly strong—is expected to continue to expand. With the start of operations at the new plant, the Company will meet local market demand and provide Kawasaki-brand motorcycles more extensively throughout India.