Medium-Term Business Plan (FY2010-2012)

—For Achieving Kawasaki Business Vision 2020—

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Rolling Stock

Aerospace

Gas Turbines & Machinery

Plant & Infrastructure Engineering

Motorcycle & Engine

Precision Machinery

Attachment: By-Segment Quantitative Plan

I. Company Section

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1. Summary of Global K (FY2006-FY2010), the Previous Medium-Term Business Plan



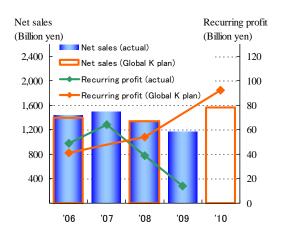
First half

- •Structural reform of individual businesses and withdrawal from unprofitable businesses
- Steady improvement of overall Group profitability

FY2008 second half onward

Sudden change in the business environment and deterioration of business performance, especially from mass-production businesses

Review of the Business Plan



Results

- Overseas business expansion
- Rolling Stock: Winning of many orders from North America and other overseas markets
- Motorcycle: Establishment of a structure for low-cost production in Asia and sales in developed countries
- Business expansion in China: Shipbuilding, Plant & Infrastructure Engineering, Precision Machinery
- Development of new products and new technologies
 - Transportation Systems: XP-1/XC-2(patrol aircraft/cargo aircraft), aircraft manufacturing using composite materials, new LRV models, etc.
 - Energy & Environmental Engineering: Gigacells, gas engines, new energy (biomass, small-scale hydropower), etc.

Issues

- Management reflecting consciousness of the breakeven point
- Fixed-cost increases that exceed appropriate levels in some mass-production businesses
- Delays in coping with changes in the market environment
- Commercialization of new products and new businesses

Immediate Issues

- Deterioration of business performance in massproduction businesses due to market contraction
- Decrease in new orders in businesses that produce custom-built products based on individual orders

Business Environment Paradigm Shift

- Advancing multipolarity in the global economy due to growth in emerging countries
- Worldwide increase in concern about the global environment

Formulate new products and new business concepts **Medium-Term Business Plan** Kawasaki Business Anticipate societal needs (FY2010-2012) Vision 2020 until around 2030 Action plan FY2010 FY2012 FY2020 FY2030 Return to a growth path Sustain a growth path Strengthen business foundations in Achieve the Group mission preparation for future growth

- Establishment of the long-term vision "Kawasaki Business Vision 2020—Strategic Moves toward the Future" to achieve the Group mission "Kawasaki, working as one for the good of the planet"
- Shortening of the period of the Medium-Term Business Plan from five years to three years to rapidly and flexibly respond to changes in the business environment

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3. Kawasaki Business Vision 2020 (1)Business Vision



"Kawasaki, working as one for the good of the planet"

A company that provides products and services suited to the diverse needs of people around the world through advanced technological capabilities in three principal business sectors: Land, Sea, and Air Transportation Systems, Energy & Environmental Engineering, and Industrial Equipment

Transportation Systems

Shipbuilding, rolling stock, aircraft, aircraft engine, ship machinery, motorcycle, etc.

Energy & Environmental Engineering

Gigacells, industrial gas turbines, gas engines, steam turbines, compressors, energy and environmental plant engineering, etc.

Industrial Equipment

Industrial plants, tunneling equipment, hydraulic equipment, robots, construction machinery, crushers, etc.

Improvement of the global environment

A company that creates products that incorporate the ultimate in low environmental impact technologies in each business sector

Reinforcement of the earnings structure

A company that establishes an earnings structure that makes possible sustainable growth investment and provides stable shareholder returns

Global business development and emphasis on monozukuri

(manufacturing)

A company that upgrades plants in Japan and actively pursues business development overseas

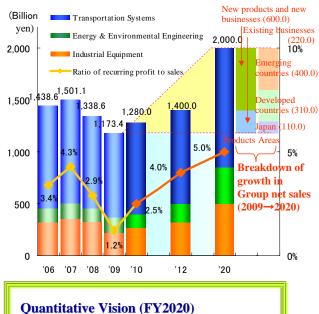
Emphasis on CSR

A company trusted wherever it does business around the world

Workplace environment development

A company whose employees have hopes and dreams and work with vigor and enthusiasm

Net Sales by Business Sectors



Pursue greater competitiveness in existing businesses, nurture new products and new businesses, and enter new markets.

Transportation Systems

- Pursuit of safety, comfort, and convenience
- Establishment of a business structure that can compete against the world's leading companies

Energy & Environmental Engineering

- Greater efficiency from existing products, market entry in emerging countries
- Active nurturing of new products and new businesses

Industrial Equipment

- Reinforcement of competitiveness in core technologies and core components, expansion of solutions businesses
- Expansion of KHI technologies and products into new markets and business fields

Further boost competitiveness with low environmental impact technologies

Energy conservation, resource conservation, environmental load mitigation

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3. Kawasaki Business Vision 2020

■Consolidated net sales: ¥2 trillion

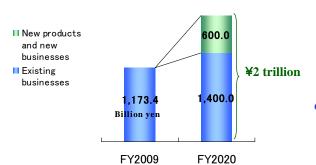
■Ratio of recurring profit to sales: 5.0% or higher

(3) Basic Strategy 1) Advancement of new products and new businesses - 1

■ Kawasaki

Nurturing of new products and new businesses for future growth

Net Sales of New Products and New Businesses



Nurturing and reinforcement of new products and new businesses in anticipation of societal needs until around 2030

Transportation systems growth, advancement of a modal shift

Expansion of energy demand

CO₂ reduction, environmental load mitigation

 Utilize the Group's overall intellectual assets to create products and services.

Key concepts: High efficiency, low carbon, comfort, convenience

Contribution of KHI Group Products to Customers' CO₂ Emissions Reduction

CO2 reduction due to new products and already-developed low-

CO ₂ products (estimate for 2020)	(Million tons
Modal shift to low-CO2 rolling stock	9
Low fuel-consumption, high-efficiency commercial aircraft and engines	3
High-efficiency gas turbine cogeneration	18
Power plant efficiency improvement, waste heat power generation	19
Other	16
Total	65

- **Approx. 5%** of Japan's emissions (2006)
- **Approx. 200 times** the KHI Group's emissions of 0.3 million tons (2007):

In addition, CO₂-free new products and new businesses

Hydrogen, ocean energy, etc.



Involvement with CO₂-free new products and new businesses

Long-term social trends

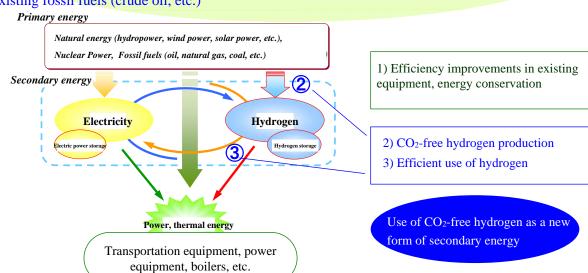
OFurther advancement toward low-carbon societies

Reinforcement of ${\rm CO_2}$ reduction measures (carbon taxes, emissions trading, power purchase obligation, etc.)

OSupply and demand crunch and sharp price increases for existing fossil fuels (crude oil, etc.)

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Fossil fuel costs increase, creating an advantageous situation for CO₂-free fuels.



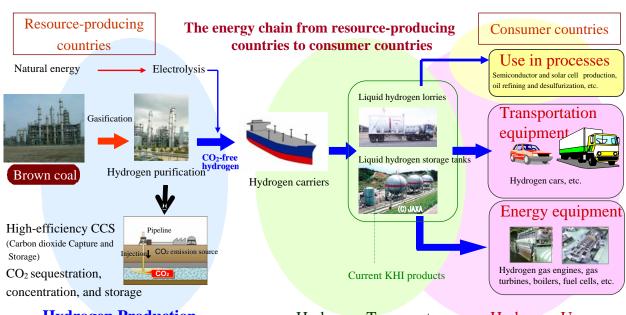


(3) Basic Strategy 1) Advancement of new products and new businesses - 3



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KHI's CO₂-free hydrogen concept



Hydrogen Production

Low-cost production of hydrogen from unused resources (brown coal) in resource-producing countries

High-efficiency CO₂ sequestration, transition to CO₂-free hydrogen

Hydrogen Transport and Storage

Optimized transportation and storage of hydrogen

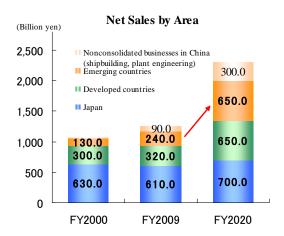
Hydrogen Use

Efficient use of hydrogen that does not generate CO₂

Note: Visuals are for illustration purposes only.



Global business development for future growth



70% 65%
50% 41% 48%
FY2000 FY2009 FY2020

Emerging countries

- Expansion of local production, including at joint ventures
 Response to expansion in energy demand, transportation demand, and other demands
- **■** Developed countries
- Response to increasing demand for aircraft and for rolling stock, for which increased demand is expected due to a modal shift
- Development and provision of products adapted to regional needs and market development
- Optimal business development in line with expansion of overseas businesses, including the upgrading of overseas production and engineering sites and pursuit of international alliances
 - * Increase preparedness for foreign exchange fluctuations due to expansion of local production and overseas procurement

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3. Kawasaki Business Vision 2020

(3) Basic Strategy 2) Global business development - 2







Concentrate management resources on developing businesses and implement a business structure shift.

- Identify businesses to nurture for the future from an overall Group perspective and concentrate management resources on those businesses
- Identify problem businesses with respect to competitiveness or market growth potential and implement radical structural reform, downsize, or withdraw from those businesses

Rank businesses using the following categories.

Category	Definition / Business operation
Developing business	■ Businesses from which future growth can be expected ■ Actively inject management resources and aim to nurture and expand businesses.
Core profit- making business	■ Profitable, competitive businesses from which stable returns can be expected ■ Reinforce profitability through sustained investment, bearing cash flow in mind.
Business requiring review	■ Businesses with poor profitability prospects as they now stand and from which future growth cannot be expected ■ Implement radical structural reform, downsize, or withdraw

Developing Businesses

Business sector	Business					
Transportation Systems	New products and new businesses connected with multiple businesses	Merchant vessels (business in China) Overseas high-speed trains, LRVs Commercial aircraft (including conversion of the next-generation cargo aircraft to commercial use) Civil Aero engines Motorcycle for emerging countries				
Energy & Environmental Engineering	Hydrogen-related businesses Ocean energy Low environmental impact marine propulsion systems	Gigacells Industrial gas turbines Compressors Aerodynamics New energy-related businesses				
Industrial Equipment	Others	Factory automation and mechatronics (Automated cell culture system, etc.) Electro-hydraulic hybrid systems Robots for semiconductor production and new business fields				

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4. Medium-Term Business Plan (FY2010-2012)

(1) Basic Objectives



Rebuild the earnings structure and return to a growth path.

■Reinforcement of overall Group profitability

Mass-production businesses → Consciousness of the breakeven point

- ➤ Implementation of fixed cost reductions, lowering of the breakeven point in response to changes in the business environment
- ➤ Maintenance of appropriate inventory levels rapidly optimized to market fluctuations
- *Putting the motorcycle business in the black is an especially important priority.

Produce-to-order businesses → Focus on risk management

- **≻**Emphasis on profitability
- >Implementation of rigorous risk management in project management
- Incorporate the design-to-cost principle from the development and estimate stage and increase the accuracy of estimated costs.
- ●Implement radical cost reduction and productivity improvement in *monozukuri* (from development to manufacturing)
- Cash flow improvement, reduction of interest-bearing debt

Strengthen business foundation for future growth

- ●Active R&D to nurture new products and new businesses and upgrade existing products
- \bullet Acceleration of overseas business development in emerging countries in addition to developed countries

	_	
	Produce to order	Mass production
Shipbuilding	0	
Rolling Stock	0	
Aerospace	0	
Gas Turbines & Machinery	0	
Motorcycle & Engine		0
Plant & Infrastructure Engineering	0	
Precision Machinery		0
Other (Construction Machinery)		0

4. Medium-Term Business Plan (FY2010-2012)

(2) Priority Issues (Structural Reform of Motorcycle & Engine business)



	rket environment P&L situation		ontraction terioration	Bottoming out Return to profit	Gradual recovery Profit stabilization	
	Fiscal year	FY2008	FY2009	FY2010	FY2012	
Ma envir	U.S. motorcycle	748	461	467	485	(Thousand units)
Market environment	European motorcycle	588	480	468	488	
Net	sales	303.7	203.0	260.0	290.0	(Billion yen)
Ope	rating income	-10.4	-27.0	0.0	8.û	
Brea	akeven point	345.0	298.0	260.0	265.0	

- •FY2009: Production adjustments (reduced unit shipments) to reduce channel inventories
- →FY2010 and beyond: Increase in unit production and wholesale unit sales attendant on progress with inventory adjustment •Increase in sales to emerging countries

Breakdown of structural reform (lowering of the breakeven point)

Fixed cost reduction

- Rigorous fixed cost reduction on a global basis
- Workforce reduction
- Reductions in selling expenses, advertising expenses, and racing costs (suspension of MotoGP, etc.)
- ■Lower development expenses due to development efficiency improvements
- Construction of a production system in line with unit shipments

Improvement of the marginal profit ratio

- Design for cost and quality from the initial stage of development
- Cost improvement through optimized procurement on a global basis and establishment of an optimized production system (Including expansion of production in Thailand of models for developed countries)
- Implementation of marketing policies and measures that emphasize profitability and efficiency

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4. Medium-Term Business Plan (FY2010-2012)

(3) Quantitative Plan - 1

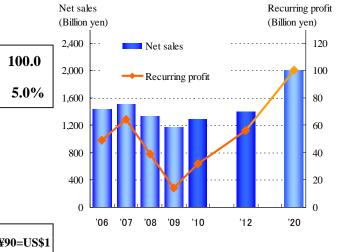


Consolidated Quantitative Targets

(D	ши	yen)	Reference

		,		Kerer ence
	FY2009 (actual)	FY2010 (forecast)	FY2012 (target)	FY2020 (vision)
Net sales	1,173.4	1,280.0	1,400.0	2,000.0
Operating income	-1.3	32.0	52.0	
(Ratio to sales)	-0.1%	2.5%	3.7%	
Recurring profit	14.2	32.0	56.0	100.0
(Ratio to sales)	1.2%	2.5%	4.0%	5.0%
Before-tax ROIC	0.2%	5.6%	8.5%	
Debt-to- equity ratio	1.55	1.55	1.30	
Equity ratio	20.4%	20.8%	24.0%	
Exchange rate assumption	_	¥90=US \$1	¥90=US \$1	¥90=US\$1

Steadily implement measures to reinforce profitability and return to the sustained growth path envisioned in Global K during the term of the new medium-term business plan.

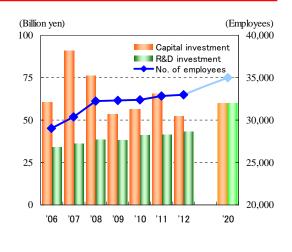


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Management Resource Allocation Plan

		(Billion yen)	Reference
	FY2006- FY2009 FY2012 average (actual) (plan)		FY2010- FY2020 (vision)
Capital investment (purchase order basis)	70.3/year	58.0/year	60.0/year
R&D investment	36.6/year	42.0/year	60.0/year
	FY2009 year-end (actual)	FY2012 year-end (plan)	FY2020 year-end (vision)
No. of employees	32,297	33,000	35,000



Management Resource Allocation Policy

- Capital investment: Although investment will not reach the level of the aggressive investment in capacity expansion
 of the past few years, steadily implement new project-related investments, updating of aging facilities, etc.
- R&D investment: Expand investment at both headquarters and business units in preparation for future growth.
- Number of employees: Control hiring to below the level of the sales increase by means of productivity improvements. Maintain stable employment and secure and utilize human resources overseas.

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4. Medium-Term Business Plan (FY2010-2012)

(4) Key Policies and Measures - 1



1) Reinforcement and nurturing of businesses that will constitute the future earnings structure

- The business units and headquarters collaborate in nurturing and reinforcement of new products and businesses, taking a perspective that extends to 2030.
- Put in place mechanisms to create linkage from R&D to commercialization.
- Engage in M&A to acquire new businesses and strengthen existing businesses.

2) Acceleration of global business development

- Engage in product development and market development that take into account the individual market characteristics of China, India, Brazil, and other emerging countries in addition to developed countries.
- In response to overseas business expansion, develop an optimal business structure at the global level through means including the upgrading and expansion of overseas production.

3) Group-wide sharing and utilization of intellectual assets

- Put in place mechanisms to promote group-wide sharing and utilization of intellectual assets such as technology and marketing information.
- 🔵 Efficiently and rapidly merge intellectual assets held by individual companies through the reintegration of four Group companies.

4) Strengthen technological capabilities

- Expand R&D investment at business units and headquarters and reinforce the upgrading existing products and development of new products.
- At the Corporate Technology Division, engage in anticipatory research into core technologies for future businesses and reinforce R&D of basic technologies shared throughout the Group.
- The Corporate Technology Division supports technology development at the business units and cross-implements technologies within the Group.

5) Strengthen *monozukuri* capabilities

- Pursue optimization of all development, design, procurement, and manufacturing processes and implement radical cost reduction and productivity improvement.
- Headquarters provides priority support for model businesses, focusing on procurement, manufacturing, and logistics, and cross-implements
 results within the Group.

4. Medium-Term Business Plan (FY2010-2012)

(4) Key Policies and Measures - 2



6) Effective utilization of plants and business sites

Responding to changes in the business environment, restructure the plants and business sites, focusing on plant complexes where multiple business units are located.

7) Development of human resources and the workplace environment

- Implement policies and measures to reinforce management capabilities, business execution capabilities, and autonomy and develop global human resources.
- Develop a balanced performance-based compensation system and personnel systems that increase employee motivation and the desire to develop skills.
- Create a workplace culture of putting safety first and implement policies that place importance on work-life balance and diversity.

8) The practice of environmental management

• Establish the seventh Environmental Management Activities Plan and reduce green house gas and waste emissions in business activities.

9) IT strategy and systems development

Strengthen the capability at headquarters to formulate and implement a Group information strategy and develop and reinforce systems at information departments throughout the Group.

10) Implementation of group-wide risk management

• In addition to risk management implemented at the business units, strengthen systematic management of critical risks from a group-wide perspective.

11) Qualitative improvement of headquarters departments

Enhance specialized skills and implement initiatives to increase the corporate value from the medium-term and long-term perspective of total optimization.

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Notes





II. Business Segment Section

- **■ Growth Opportunities**
- Shipbuilding
- **Rolling Stock**
- Aerospace
- Gas Turbines & Machinery
- Plant & Infrastructure Engineering
- **■** Motorcycle & Engine
- **Precision Machinery**

Note: Segment net sales and operating

income figures are calculated on the basis of new accounting standards implemented in FY2010.

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Growth Opportunities

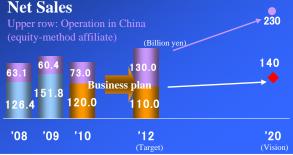
■ Kawasaki



2020 Vision

One of the world's leading shipbuilding groups and an enterprise that plays a key role in marine transport, a critical part of the world's economic infrastructure, and contributes to solving global environmental issues through energy conservation, low environmental

impact products, and other measures



Business Vision for 2020

- Steady increase in seaborne cargo movement volume due to sustained global economic growth
- Seek further growth of the business operation in China while maintaining the quality of the operation in Japan



Key Points in the Medium-Term Business Plan

- Profits until FY2011 are assured owing to an order backlog of almost two years.
- Securing orders from 2012 onward is a key task. KHI will await market recovery while implementing an operating slowdown and fixed cost reductions.
- Maintain stable operations in FY2012 benefiting from our Chinese business.

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Shipbuilding



Medium- to Long-Term Market Outlook

New shipbuilding markets will grow in the medium- to long-term, and the supply and demand conditions will improve.

Principal Initiatives Toward 2020

Operation in Japan

Profitability assurance through maintenance of optimal scale of production

Reinforcement of the role of the Engineering and Leading-Edge Technology
Development Center

Sakaide Shipyar

- Build high value-added ships through the application of the results of technical development, with a focus on LNG carriers and LPG carriers.
- Take the lead in horizontal deployment and technical guidance to the operation in China.

Kobe Shipyar

- Place the naval industry in core business following the future owing to its contribution to the nation and advanced technologies.
- Pursue maintenance and improvement of building and repair infrastructure for submarines and improve profitability.

Technical development for energy conservation and environmental impact mitigation that takes advantage of the KHI Group's collective strength Low environmental impact barges, new propulsion systems, marine resource

Operation in China

Business scale expansion and profitability maintenance and improvement based on a relationship of trust with China Ocean Shipping (Group) Company

Reinforcement of Building Capacity

- Capital investment to supplement the second expansionary phase
- Creation of a framework that takes advantage of two large docks
- Accumulation of monozukuri expertise
- Reinforcement of detailed designing capabilities

Active construction of the ships for China's national projects

Further reinforcement of profitability through the sustainment and rigorous implementation of the Kawasaki Method

Pursuit of operational integration of the business operations in Japan and China

> Pursuit of cooperation in marketing, engineering, procurement, and building and enjoyment of mutual benefits

Shipbuilding (Operation in China)



Nantong COSCO KHI Ship Engineering Co., Ltd.



- Establishment of a joint venture with China Ocean Shipping (Group) Company in December 1995
- Development into one of China's largest new shipyards with two building docks by the second expansionary phase in May 2008

10,000 TEU container ship



5,000-unit Pure car carrier



Very large crude oil carrier (VLCC)



Very large ore carrier (VLOC)

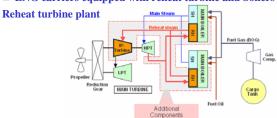
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Shipbuilding (Product Development)

■ Kawasaki

Adding Value to Existing Products

- Development of a thermal insulation system that dramatically curtails LNG vaporization
- LNG carriers equipped with reheat turbine and boilers



Clean Energy Transportation Technologies

Liquid hydrogen carrier

■ Insulation technology for liquid hydrogen, which is colder than LNG



Artist's rendering (WE-NET PJT)

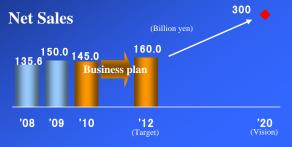
Development of Energy Saving and Environmental Load Mitigation Technologies

- Propulsive efficiency improvement by adoption of overlapping propeller system (OLP)
- **Dual Fuel Diesel (DFD) electric propulsion system**
- Hybrid power supply system (installation of Gigacells on actual ships)
- **■** Main Engine for water emulsion fuel



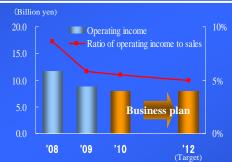
2020 Vision

To become a global rolling stock systems manufacturer that takes advantage of its worldclass technologies and quality to engage in a broad spectrum of businesses that range from high speed rail (HSR) to light rail transit (LRT)



Business Vision for 2020

- Develop businesses such as HSR, systems projects, and LRT in expanding markets worldwide
- Expand Gigacell® business in the railway and renewable energy sectors



Key Points in the Medium-Term Business Plan

- Almost all sales during the medium-term business plan have been secured
- **■** Execute major overseas projects successfully
- Establish a foundation for increasing profit

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Rolling Stock



Medium- to Long-Term Market Outlook

Economic growth and environmentally suitable* products will help global expansion

- Infrastructure investment will be accelerated by advancing urbanization in Emerging countries in Asia
- Shift towards use of mass transit is being seen in the U.S. and other countries
- → Provides opportunity for KHI, which has bases in North America and Asia, to deploy its strengths

(* Rail travel CO₂ emissions are one tenth those of automobiles.)

Principal Initiatives Aimed at Achieving 2020 Vision

■ Reinforce framework for executing overseas projects

- > Optimize engineering and R&D units to address the increase in overseas projects
- > Deepen collaboration between the Hyogo works and overseas bases in North America and elsewhere
- > Enhance framework for individual projects (Strengthen relationships with domestic and foreign companies)

Product line extension

- > Intercity Transportation
- > Urban Transportation
- ➤ Energy & Environmental Engineering
- → High-speed trains designed for use overseas (efSET®) Push-pull coaches for North America (K-Star Express)
- → LRV (SWIMO®) (LRV : low floor light rail vehicle)
- → Gigacell®
 - ♦ Railway-related sectors such as BPS and in-vehicle batteries
 - Renewable energy sector

Rolling Stock (Product Development)





efSET® (Environmentally Friendly Super Express Trains)

- Max. operating speed: 220mph (350km/h)
- The principle designs were completed by the end of March 2010

High Speed Rail projects are underway in the U.S., Vietnam, and other countries

→ efSET® meets increasing demand for high speed trains

K-Star Express



- Push-pull coaches to increase the speed of existing railways and replace aging trains in North America
- Max. operating speed: 125mph (200km/h)

SWIMO®



- Low-floor, battery-driven light rail vehicle uses Gigacell®
- Development of SWIMO® for North America is underway

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Rolling Stock (Product Development)

Gigacell® (High-Capacity, Fully Sealed Ni-MH Batteries)



Gigacell® offers high-speed charging and discharging

> Large-scale **batteries**

High capacity enables use as backup batteries in renewable energy applications

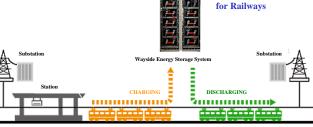


Battery Power System

- In solar power generation system storage facilities
- → Increase efficiency by smoothing of electricity peaks



- In wayside energy storage systems
- → Effectively uses regenerated energy to lower energy consumption from power company



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2020 Vision

A leader in Japan's aerospace industry and an aircraft manufacturer with solid international competitiveness in terms of quality, cost, and delivery speed



Business Vision for 2020

- Develop the commercial aircraft sector and grow it into a ¥300.0 billion business.
- Enter the global market as a systems integrator.



Key Points in the Medium-Term Business Plan

- Defense: Securing of stable orders for XP-1/XC-2 projects etc.
- Commercial: Supporting mass production of the Boeing 787 and improving productivity

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Aerospace



Medium- to Long-Term Market Outlook

- Medium- to long-term expansion of the commercial aircraft market
- Under a defense budget cut trend, further contributions to Japan's defense based on a wealth of experience

Principal Initiatives Toward 2020

Reliable execution of two major projects

Defense	Commercial				
XP-1/XC-2 projects ■Next-generation patrol aircraft (XP-1) > Completion of development > Execution of the mass production contract	Boeing 787 project Development of a production system for the rampup production Participation in the development of a derivative aircraft (The 787-9)				
■Next-generation cargo aircraft (XC-2) > Completion of development > Achievement of the mass production Conversion of the next-generation cargo aircraft (XC-2) to commercial use ■Promotion of various study for commercialization					
Production system reinforcement through operational integration with NIPPI Corporation (a consolidated subsidiary)					

XP-1/XC-2 Projects





Next-generation patrol aircraft (XP-1)

- Sept. 2007: First flight
- Aug. 2008: Delivery to the Ministry of Defense
- **Execution** of the mass production contract

Next-generation cargo aircraft (XC-2)

- Jan. 2010: First flight
- March 2010: Delivery to the Ministry of Defense
- Achievement of the mass production
- Consideration of conversion to a commercial cargo aircraft

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Aerospace (Product Development)



Environment-Friendly Commercial Aircraft



Boeing 787

- Dec. 2009: First flight
- 20% improvement in fuel efficiency through the massive use of composite materials
- KHI's responsible work packages: forward fuselage, landing gear compartment, mid-wing fixed trailing edge

Commercial Helicopter



Helicopter for Emergency Medical Service

■ BK117 helicopter

Gas Turbines & Machinery



2020 Vision

An equipment and system manufacturer that doing business globally in the transport equipment and energy & environmental engineering sectors



Business Vision for 2020

Business scale expansion primarily on civil aero engines and energy & environmental engineering sectors



Key Points in the Medium-Term Business Plan

- Net sales stable
- Despite an increase of R&D investment for civil aero engines, financial stability to be maintained through productivity improvement

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Gas Turbines & Machinery



Medium- to Long-Term Market Outlook

- **■** Expansion of the transportation system sector, mainly led by air fright market
- Increase in energy demand, mainly in Emerging countries
- Increased needs for higher efficiency and natural gas usage for CO₂ emissions reduction

Principal Initiatives Toward 2020

Energy & Environmental Marine Civil Aero Engines Engineering Development and expansion Improvement of efficiency Development of a nextof KHI's position as an and environmental generation propulsion system international joint performance and aggressive development partner business expansion to overseas Improving efficiency and reducing environmental load **■** Smooth transition to mass **■** Enhancing capabilities to production of the Trent 1000 provide solutions **Defense** and Trent XWB **■** Cooperation with overseas **Upgrading technical ■** Reinforcement of basic engineering companies, etc. capability as an engine and technologies and product system manufacturer development capabilities Promotion of engine and auxiliary equipment development

Trent 1000/XWB New Aircraft **Engine**

Development of the Trent 1000/XWB

- To be installed on B787 and A350
- **■** Developer: Rolls-Royce
- CO, reduction, low noise and NOx emissions
- **■** KHI responsibility: Intermediate pressure compressor module



Environmental Response in Marine Propulsion System

Development of a next-generation propulsion

- ■High-efficiency propulsion system, such as a superconducting motor
- ■Involvement in environmental performance improvement using research engine

Superconducting motor propulsion system





Two-stroke diesel research engine

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Gas Turbines & Machinery (Product Development)

High Efficiency, Low Emissions

Power Generation Gas Turbine

■Cogeneration

Overall thermal efficiency of 80% or higher **■**Development of low-

emissions technology (NOx 9ppm or less)



■Increase the efficiency of existing models and sequentially develop new high-efficiency equipment.

Power Generation Gas Engines

- **■** Power generation efficiency: Improvement on existing 48.5%
- **■** Low emissions: NOx 200ppm or less
- **■** Business expansion in Japan and overseas

Development of a Binary Cycle Power Generation System

- Effective use of low-temperature exhaust heat
- Application to geothermal power generation

Sharp Reduction in Greenhouse Gas Emissions

- Utilize KHI high combustion technology of gas turbine for power generation
- (burn diluted methane being released into atmosphere from coal pits and landfills)
- The global warming potential of methane is 21 times than that of CO₂. The reduction effect is extremely high.
- → Acquisition of CO₂ emissions

Worldwide Greenhouse Gas Emissions Carbon Dioxide (Land Use

Change and Forestry) 19% Methane 16%

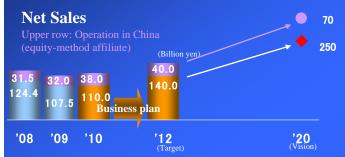
> Carbon Dioxide (Fuel and Cement) 55% Coal Pit Electricity Ventilation air metl

Plant & Infrastructure Engineering



2020 Vision

A distinctive plant engineering enterprise that provides products and technologies that can contribute to global environment protection and CO₂ reduction, with a focus on energy conservation, resource conservation, and resource recycling



Business Vision for 2020

Initiatives for growth in Asia and reinforcement of competitiveness by means of new products, with a focus on energy and environmental engineering



Key Points in the Medium-Term Business Plan

- Reliable execution of large overseas projects
- Orders for new municipal waste treatment facility business
- Steady efforts to win orders for small projects

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Plant & Infrastructure Engineering



Medium- to Long-Term Market Outlook

- An increase in environmental and recycling demand due to environmental and energy problems
- Expansion of demand for fertilizer plants and other industrial plants, due to increases in population, foodstuffs demand, etc.

Principal Initiatives Toward 2020

Energy, Environment, Recycling

- Use of petroleum alternative energy, exhaust heat utilization facilities, sales increases for energy conservation equipment
- Reinforcement of natural energy products
- Commercialization of biomass utilization facilities (gasification power generation, ethanol production, etc.)
- Increased sales of micro hydropower generation facilities for small dams

Industrial Machinery, Factory Automation, Infrastructure

- Reinforcement of sales expansion efforts in Emerging countries
- Reinforcement of Harima works and Yachiyo works, as key hardware production works.
- Accelerated development of next-generation products
- Expansion of application of the automated cell culture system

Business Operation in China

- Nurturing and expansion of the joint venture with CONCH* in China
- > Expansion of industrial machinery, environmental equipment, etc. in addition to cement facilities
- Utilization as a low-cost base for exports around the world, and improvement of cost competitiveness
- *CONCH (Anhui Conch Cement)
 The Largest cement producer in China /
 The KHI Group has a 50% ownership at the
 joint venture.

Kawasaki

Promotion of Energy Conservation (CO₂ Reduction), Environmental Protection Measures, and Resource Recycling

facilities

under verification



Waste processing facilities for use at cement kilns

■Effective use of waste as fuel and raw material in cement production



Circulating fluidized bed boiler

■Conversion of waste into fuel



Woody biomass power generation

Completion of verification of a system that uses wood materials and preparation for market introduction



Micro hydropower generation facilities

- ■Compact, low-noise, maintenance-free
- ■20 to 500kW systems currently on sale



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Integrated Solar Combined Cycle power generation system

- ■Solar Heat +Gas Turbines, etc.
- ■Deployment in Middle East market



Plant & Infrastructure Engineering (Product Development)

Expansion of the Operation in China

Cement (exhaust heat recovery)

- **■**Cooperation with CONCH
- **■**Expansion to other businesses (waste recycling,





Shield tunneling machines

Increased demand for underground construction in urban areas

Advancement of New Businesses

Automated cell culture system

With a view to the future regenerative medicine market, launched in 2009



Industrial Machinery, Factory Automation, Infrastructure

Fluidized-bed advanced cement kiln

- **■**Energy conservation
- **■Low emissions**
- ■Verification of a 1000t/day system completed



Water jet cleaning equipment

■ Share expansion in the solar cell manufacturing sector

LNG Tanks

- **■** Expansion of overseas
- **Increased orders for** receiving terminal facilities



2020 Vision

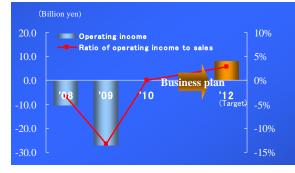
A world-class personal vehicle and engine manufacturer focused on motorcycles that leverages further penetration of Fun to ride, supported by advanced environmental technologies

Net Sales



Business Vision for 2020

- Reinforcement of the earnings structure of businesses in developed countries
- Growth of the motorcycle business for Emerging markets



Key Points in the Medium-Term Business Plan

- Improved profitability through rigorous breakeven point management
- Recovery in production and wholesale unit sales through rapid inventory level adjustment in developed countries
- Expansion of sales of products for Emerging countries

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Motorcycle & Engine



Medium- to Long-Term Market Outlook

- For motorcycles, substantial recovery in developed countries cannot be expected, and environmental regulations on CO₂ and exhaust emissions are sequentially tightened. Demand for leisure motorcycles, a KHI strength, will increase in Emerging countries due to economic growth.
- For general-purpose engines, the U.S. market for mainstay lawn-related products will gradually recover, and the market for agricultural equipment in Emerging countries will expand.

Principal Initiatives Toward 2020

Motorcycles for Developed Countries (Including Four-Wheel Vehicles)

- Profitability improvement through limitation of the number of models developed and parts commonality
- Expansion of production in overseas for selected models
- Response to CO₂ regulation
 - > Low fuel consumption technologies
 - > Electric vehicles
- Reinforcement of the earnings structure of the four-wheel vehicle business

Motorcycles for Emerging Countries

- Establishment of a premium brand differentiated from competitors, with a focus on leisure motorcycles
- Increased sales in Southeast Asia, Brazil and elsewhere, new market development (such as opening of the Indian market through an alliance with BAJAJ)
- Business expansion and profitability improvement by means including the utilization of alliances with other companies

General-Purpose Engines

- Development of markets for agriculture, forestry, construction, and industrial equipment concurrent with solidification of KHI's position in the market for lawn-related equipment
- Reinforcement of price competitiveness and sales expansion resulting from the development of low-cost engines and expansion of production in China

Motorcycle & Engine (Product Development)



Leisure Motorcycles (Including Four-Wheel Models)



Motorcycle & Engine (Product Development)

■ Kawasaki

Development of Environment-Friendly Technologies



- Exhaust cleaning
- Increased fuel efficiency (CO₂ reduction)
- **■** Electric vehicles, etc.



Increase Sales of General-Purpose



- Development of new markets such as agriculture, forestry, and construction
- Reinforcement of price competitiveness and increased sales resulting from expansion of production in China





2020 Vision

Industrial Hydraulic Products

A manufacturer of top brands in the global motion control sector that provides customers around the world with drive and control systems, engineering, and services centered on hydraulics technologies

Industrial Robots

A robot manufacturer that has established a position as a top provider of quality and total solutions in the automotive, semiconductor, and solar panel manufacturing sectors and opens up new market sectors with latent automation needs

- Combining of these businesses into a single segment beginning in FY2010
- Pursuit of synergies in precision processing, electronic control, and other areas

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Precision Machinery





Business Vision for 2020

- Building up position as No. 1 hydraulic equipment manufacturer for construction machinery
- Business expansion due to recovery in the automotive market, increased use for manufacturing lines in other industries, and other factors

Key Points in the Medium-Term Business Plan

- Increased hydraulic equipment sales to Emerging countries
- Increased demand for robots for semiconductor production. Steady implementation of measures to develop new market sectors

Medium- to Long-Term Market Outlook

- Increased demand for hydraulic equipment from construction machinery sector backed by growing needs for infrastructure development in Asia and Emerging countries
- For robots, in the backdrop of the advancement of computerization and global economic development, automation needs such as high-quality, high-efficiency production lines increased.

Principal Initiatives Toward 2020

Hydraulic Equipment

- Acceleration of overseas business development
 - Increased cost competitiveness from the development of a geographically optimized production and sales structure involving five bases (Japan, the U.K., the U.S., China, and South Korea)
 - > Reinforcement of business development in China
 - Consideration of local bases in Emerging countries following establishment of a base in China
- **■** Development of environment-friendly products
 - > High-efficiency, low-noise pump motors
 - Electro-hydraulic hybrid systems

Robots

- Reinforcement of manufacturing line construction capabilities
- Expansion in growth sectors (semiconductors, solar panels, etc.) and new sectors (logistics, food products, etc.)
- Expansion of market entry in Emerging countries
 - > Reinforcement of the marketing structure in Asia
 - > Development of low-cost robots having limited functions
 - Consideration of production in Asia

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Precision Machinery (Product Development)



Hydraulic Equipment: Development of Eco-friendly Products

■ Kawasaki Eco Servo (electro-hydraulic hybrid system for industrial machinery)



■ High efficiency, low-noise pump and motor





Precision Machinery (Product Development)



Robots: Sales expansion for Semiconductor Production Sector and New Market Sectors

■ Robots for new market sectors



Solar panels

Foods

Pharmaceuticals

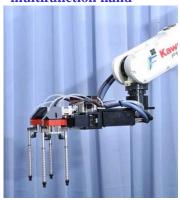
Cosmetics, etc.

■ Robots for semiconductor production



Parallel multi-joint W-hand (clean specification)

■ General-purpose multifunction hand



Automaton of tray service made possible by ability to accommodate a variety of parts shapes

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A Rawasaki

Attachment: By-Segment Quantitative Plan



(Billion yen)

	Net sales		Operating income, Ratio of operating income to sales						
	FY2009 (actual)	FY2010 (forecast)	FY2012 (target)	FY20 (actu		FY2		FY20 (targ	
Shipbuilding	151.8	120.0	110.0	1.5	1.0%	2.0	1.7%	0.0	0.0%
Rolling Stock	150.0	145.0	160.0	8.7	5.8%	8.0	5.5%	8.0	5.0%
Aerospace	188.8	215.0	240.0	3.7	2.0%	4.0	1.9%	7.0	2.9%
Gas Turbines & Machinery	191.3	210.0	230.0	8.9	4.7%	10.0	4.8%	8.0	3.5%
Plant & Infrastructure Engineering	107.5	110.0	140.0	7.9	7.3%	6.0	5.5%	9.0	6.4%
Motorcycle & Engine	203.0	260.0	290.0	-27.0	-13.3%	0	0.0%	8.0	2.8%
Precision Machinery	82.7	110.0	130.0	3.4	4.1%	8.0	7.3%	11.0	8.5%
Other	97.8	110.0	100.0	-8.8	-9.0%	-6.0	-5.5%	1.0	1.0%
Total	1,173.4	1,280.0	1,400.0	-1.3	-0.1%	32.0	2.5%	52.0	3.7%

Exchange rate assumption: ¥90=US\$1

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Attachment: By-Segment Quantitative Plan - 2



	Before-tax ROIC					
	FY2009 (actual)	FY2010 (forecast)	FY2012 (target)			
Shipbuilding	10.0%	12.0%	5.7%			
Rolling stock	13.6%	12.3%	12.9%			
Aerospace	2.3%	2.0%	4.1%			
Gas Turbines & Machinery	8.4%	10.0%	6.2%			
Plant & Infrastructure Engineering	23.3%	17.0%	17.1%			
Motorcycle & Engine	-26.9%	3.2%	7.9%			
Precision Machinery	9.6%	23.3%	30.0%			
Other	_	-	_			
Total	0.2%	5.6%	8.5%			

Kawasaki, Working as one for the good of the planet

Figures recorded in the business forecasts are forecasts that reflect the judgment of the Company based on the information available at the time of release and include risks and uncertainties. Accordingly, the Company cautions investors not to make investment decisions solely on the basis of these forecasts.

Actual business results may differ materially from these business forecasts due to various important factors resulting from changes in the external environment and internal environment. Important factors that may affect actual business results include, but are not limited to, economic conditions, the yen exchange rate against the U.S. dollar and other currencies, the tax system, and laws and regulations.