

# Results for the Fiscal Year Ended March 31, 2012 Management Overview

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IHI Corporation

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- Priority Issues for the Fiscal Year Ending March 31, 2013

## **Progress of Group Management Policies 2010**

- Action for Restoration and Reconstruction Following Great East Japan Earthquake
- Energy & Resources Operations
- Ships & Offshore Facilities Operations
- Social Infrastructure Operations
- Logistics Systems & Industrial Machinery Operations
- Rotating Equipment & Mass-Production Machinery Operations
- Aero Engine & Space Operations
- Other Operations
- New Business Development

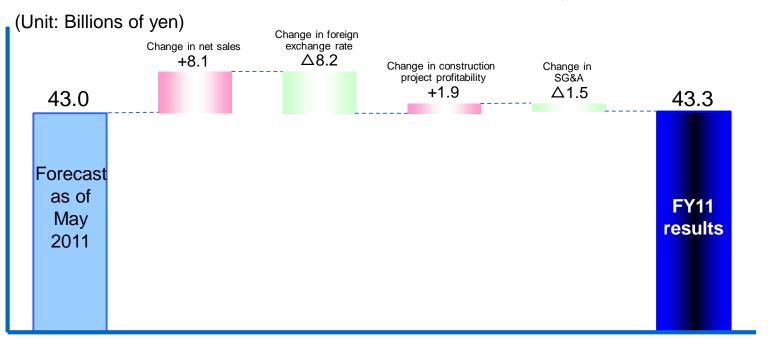


# **Management Overview**

# Review of Fiscal Year Ended March 31, 2012



- Analysis of change in operating income in the fiscal year ended March 31, 2012 (compared to forecast as of May 2011)
  - Change in net sales (Including change in composition)
    - Energy & Resources Operations
    - Aero Engine & Space Operations
    - Logistics Systems & Industrial Machinery Operations
- Change in construction project profitability (Including early restoration following earthquake)
  - Aero Engine & Space Operations
  - Logistics Systems & Industrial Machinery Operations



<sup>\*</sup> Forecast as of May 2011: Announced May 6, 2011 (assumed foreign exchange rate: ¥85/US\$)

<sup>\*</sup> FY11 average foreign exchange rate for net sales: ¥79.3/US\$

# Review of Fiscal Year Ended March 31, 2012



Analysis of change in operating income (by segment, compared to forecast as of May 2011) \* Forecast as of May 2011: Announced May 6, 2011 (assumed foreign exchange rate: ¥85/US\$)

	(+)	(-)			
Energy & Resources Operations	+ Increase in construction related to the earthquake	<ul><li>Appreciation of yen</li></ul>			
Ships & Offshore Facilities Operations	+ Improvement in profitability of ongoing construction projects	<ul><li>Appreciation of yen,</li><li>Provision for losses related to new shipbuilding orders</li></ul>			
Social Infrastructure Operations		<ul><li>Decrease in sales</li></ul>			
Logistics Systems & Industrial Machinery Operations	<ul> <li>Increase in construction related to the earthquake,</li> <li>Improvement in profitability of ongoing construction projects</li> </ul>				
Rotating Equipment & Mass- Production Machinery Operations	<ul><li>+ Early restoration following the earthquake</li><li>+ Improvement in compressor profitability</li></ul>	<ul> <li>Increase in expenses related to increase in turbocharger production</li> </ul>			
Aero Engine & Space Operations	<ul> <li>Improvement in civil aero engine profitability,</li> <li>Early restoration following the earthquake</li> </ul>	<ul> <li>Appreciation of yen</li> </ul>			
Other Operations		<ul><li>Appreciation of yen,</li><li>Increase in SG&amp;A</li></ul>			

# Review of Second Year of Group Management Policies 2010



	FY12 Target	FY11 Results	Assessment
Net Sales	Approx. ¥1,400.0 billion	¥1,221.8 billion	Improved internal control system and made investments to establish path to growth
Ordinary Income (Operating Income)	¥60.0 billion (Approx. ¥70.0 billion)	¥41.7 billion (¥43.3 billion)	<ul> <li>Mostly completed internal control system</li> <li>✓ Achieved profit in all business segments for 3 consecutive years</li> <li>✓ Decided annual dividend increase policy (¥3/share for FY10 ⇒ ¥4/share for FY11)</li> </ul>
Balance of interest-bearing debt	Below ¥400.0 billion DER: 1.5 or less	¥345.2 billion DER: 1.34	<ul> <li>✓ Operational Structure Improvement Monitoring Committee closed as planned after accomplishment of its role</li> <li>■ Continuously attained target level of interest- bearing debt balance</li> </ul>
Capital and R&D investment	Approx. ¥200.0 billion during the term	¥83.5 billion (FY10 ¥115.5 billion)	businesses, and new businesses  ✓ Participation in development of engine for Airbus' A320neo
Dividends	Early return to ¥6 per share	¥4 per share (planned)	<ul> <li>✓ Made further investment in turbochargers on a global basis</li> <li>✓ Started sales of lithium-ion battery products</li> <li>✓ Started construction of plant for commercial production of biopharmaceuticals</li> </ul>

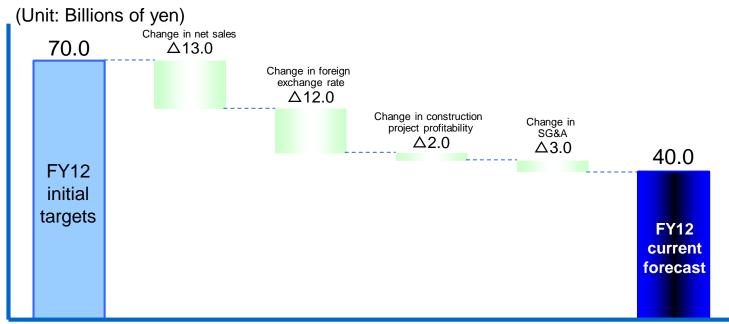
# Review of Second Year of Group Management Policies 2010



Paradigm Shifts	Assessment
Business model Focus on product lifecycles	<ul> <li>Steadily received after-sales service orders including emergency projects relating to Japanese earthquake and Thai floods</li> <li>Established Thai subsidiary that provides heat treatment furnace maintenance</li> <li>Opened a ship service base in Istanbul</li> </ul>
illecycles	- Opened a ship service base in istanbar
Product strategy	Making proposals to customers relating to post-earthquake reconstruction
Focus on market requirements	Testing Twin IHI Gasifier, which can effectively use low-grade coal such as lignite coal
	Started joint development of wireless charging system for electric vehicles used at detached houses
	Completed construction of new factory to establish production technology for safe, reliable and internationally competitive steam generators for PWRs
	Worked to develop jet engine parts using composite for next- generation aircrafts
<u>Business</u>	Established supervising company for China (Shanghai) and supervising company for Asia and Oceania (Singapore)
management	Started upgrading procurement capability in Singapore to strengthen global procurement
Global	Steadily expanded overseas production
management	•
approach	Received order for construction of Izmit Bay Bridge in Turkey through public-private partnership



- Objective of the fiscal year ending March 31, 2013 Focus on establishing business group that grows based on stable business foundations
- Analysis of change in operating income forecasts (compared to initial targets)
  - Change from initial targets
    - Appreciation of yen
    - Shortfall in sales (including sales excluded from consolidation due to shipbuilding business integration)

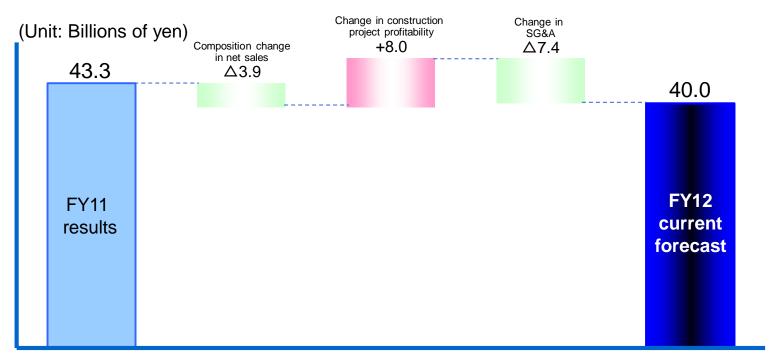


\* FY12 initial targets: Announced May 7, 2010 (assumed foreign exchange rate: ¥90/US\$)

\* The assumed exchange rate for FY12 in the current forecast is ¥80/US\$.



- Analysis of change in operating income forecasts (compared to FY11 results)
  - Change from FY11 results
    - Improvement in construction project profitability
    - Increase in SG&A
    - Composition change in net sales (including net sales excluded from consolidation due to shipbuilding business integration)



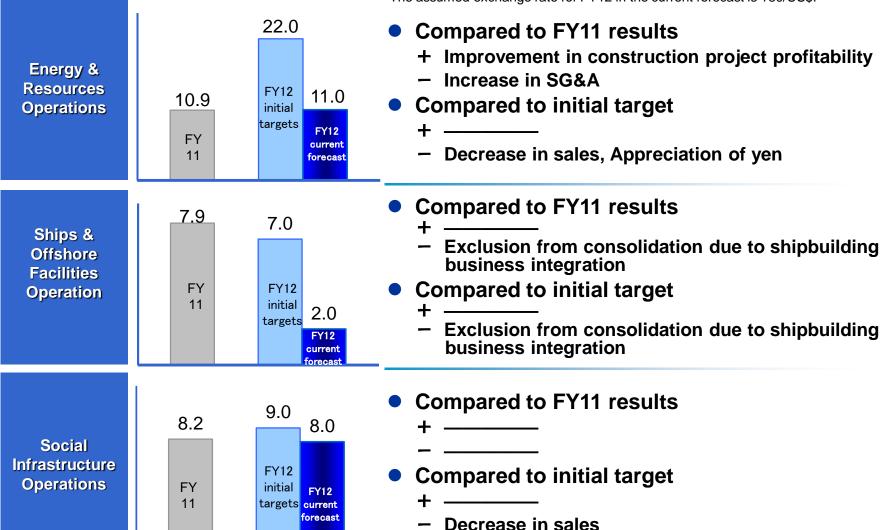
<sup>\*</sup> FY11 average foreign exchange rate for net sales: ¥79.3/US\$

<sup>\*</sup> The assumed exchange rate for FY12 in the current forecast is ¥80/US\$.



#### Analysis of change in operating income by segment (Unit: Billions of yen)

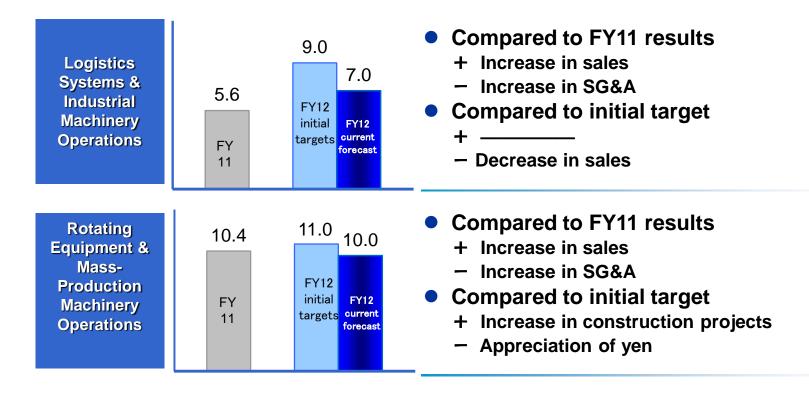
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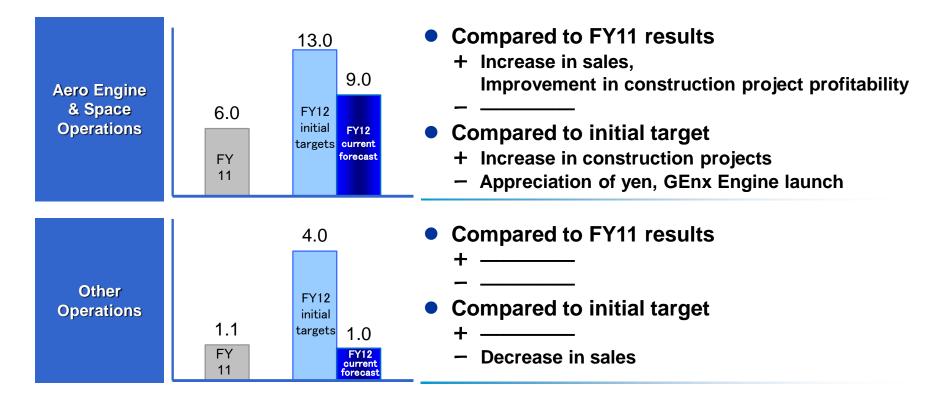
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- \* FY12 initial targets: Announced May 7, 2010 (assumed foreign exchange rate: ¥90/US\$)
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# Numerical Targets for Group Management Policies 2010 (Net Sales, Operating Income)



# ■ Revision of FY12 numerical targets (net sales, operating income) to forecasts below (Unit: Billions of yen)

	Net Sales				Operating Income			
	FY10	FY11	FY12e		FY10	EV44	FY12e	
			Initial	Current	FIIU	FY11	Initial	Current
Energy & Resources	306.4	312.3	380.0	330.0	22.4	10.9	22.0	11.0
Ships & Offshore Facilities	189.9	176.2	150.0	80.0	10.9	7.9	7.0	2.0
Social Infrastructure	122.4	114.7	130.0	120.0	11.9	8.2	9.0	8.0
Logistics Systems & Industrial Machinery	141.9	152.9	210.0	190.0	2.9	5.6	9.0	7.0
Rotating Equipment & Mass-Production Machinery	140.3	165.8	170.0	170.0	9.4	10.4	11.0	10.0
Aero Engine & Space	273.7	299.4	320.0	310.0	5.8	6.0	13.0	9.0
Others	114.3	107.3	140.0	100.0	2.1	1.1	4.0	1.0
Adjustment	-101.9	-107.0	-100.0	-80.0	-4.3	-7.1	-5.0	-8.0
Total	1,187.2 (Initial: 1,180.0)	1,221.8 (Initial: 1,300.0)	1,400.0	1,220.0	61.3 (Initial: 35.0)	43.3 (Initial: 54.0)	70.0	40.0

<sup>\*</sup> FY12 initial targets: Announced May 7, 2010 (assumed foreign exchange rate: ¥90/US\$)

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<sup>\*</sup> The assumed exchange rate for FY12 in the current forecast is ¥80/US\$.

<sup>\*</sup> Ships & Offshore Facilities Operations are outside the scope of consolidation from FY12 second half

<sup>\*</sup> The total of the figures by segment for FY10 and FY11 is different to the figure in the row for the total due to rounding.

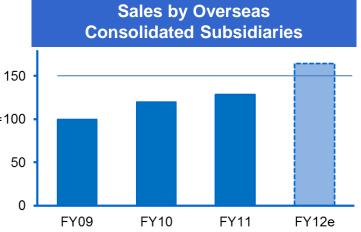


## Further acceleration of global business management

Establish a supervising company for Asia and Oceania (Singapore) on May 1, 2012 and focus on business expansion centering on Southeast

Asia

Invest necessary resources in order to ensure to attain Group Management Policies 2010 target "50% increase in net sales of overseas consolidated subsidiaries (compared to FY09)"



#### Increase orders received

- > Strengthen general operating activities across business sections, including action on projects for reconstruction from the earthquake
- Secure steady receipt of orders in after-sales services as a business base
- Continue to focus on receipt of orders for large projects such as powergenerating boilers, motors, and LNG tanks by restructuring EPC-related organizations to enhance project-handling capabilities

# Priority Issues for the Fiscal Year Ending March 31, 2013



#### Improvement of competitiveness

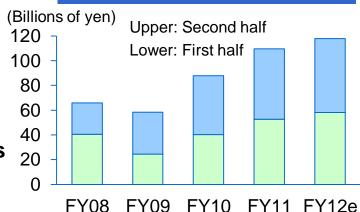
Accelerate upstream activities including an increase in global procurement using Singapore business base and making plan to realize this

Increase productivity through improvement and development of manufacturing process by boosting precision of process control and sharing risk examples across segments, etc.

Sales of Turbochargers

## Establishment of growth strategies

- Further expand sales and profits of turbochargers and jet engines
  - Continue investment to increase turbocharger production
  - Participate in development of new types of jet engines
- Formulate growth strategies for energy & resources operations based on trends in policies, marketability, and our strong points regarding energy
  - Push ahead with activities in the field of renewable energy (biofuel from algae, lithium-ion batteries, biomass power generation, offshore wind farm power generation, and ocean current power generation)





Manufacture of biofuel through mass cultivation of algae



Floating offshore wind farm



Floating ocean current power generation system



## Integration of shipbuilding

- ▶ Plan to merge with Universal Shipbuilding Corporation to form "Japan Marine United Corporation" in Oct 2012. Sales to be ¥400.0 billion.
- Seek to be a world leading company by collective strengths of technologies, quality and low costs
- Examine improvement of synergies between the new company after integration and other IHI group companies

# **New company "Japan Marine United Corporation"**





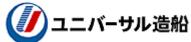








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# **Progress of Group Management Policies 2010**

# Action for Restoration and Reconstruction Following Great East Japan Earthquake



#### IHI's proposals on restoration and reconstruction

- Debris incineration and biomass gasification generation using wood-based fuel
- Tsunami sludge disposal using construction machinery and batcher plant
- Response to customer requests for in-house power generation, emergency power, etc.
- Development and manufacture of storage containers for low-level radioactive waste
- Tsunami countermeasures through coastal levees and movable bulwarks

#### **Specific initiatives for reconstruction projects**

- Selection of Turf Stripper system for stripping away contaminated soil by Ministry of the Environment as government grant-supported experimental decontamination technology project
- Co-development of "SARRY-Aqua" transportable radiation-contaminated water treatment system with Toshiba
- Sale of radioactive waste storage containers
- Establishment of "Reconstruction Implementation Group" at Tohoku branch to complement activities of organizations devoted to post-earthquake reconstruction
- Receipt of orders for hybrid caissons for ports and harbors
- Working to secure orders for debris incineration



Turf Stripper



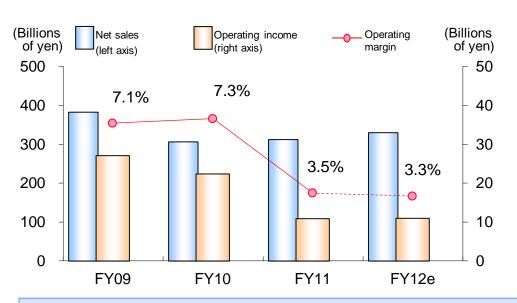
SARRY-Aqua



Radioactive waste storage container

# **Energy & Resources Operations**







LM6000 gas turbine combined power generation facility

#### Expansion of orders received in accordance with energy demand from customers

- Receipt of orders for 1 million kilowatt large supercritical coal-fired thermal power boilers for US market
- Receipt of order for gas turbine power generation facility for Niigata factory of Hokuetsu Kishu Paper Co., Ltd.

#### Action for restoration and reconstruction following Great East Japan Earthquake

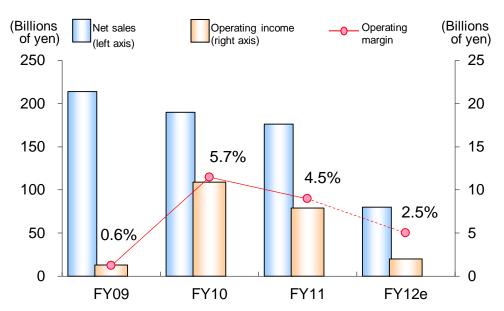
- Completion of co-development of "SARRY-Aqua" transportable radiation-contaminated water treatment system with Toshiba
- Steadfast execution of emergency construction work at Fukushima Daiichi Nuclear Power Plant. Construction for earthquake resistance and tsunami countermeasures at nuclear power plants now underway

#### **Development of life cycle business**

Provision of T3PM motor preventive maintenance service to customers in Australia. Plan to expand to customers in Thailand and other countries in future

# Ships & Offshore Facilities Operations







Large container ship capable of carrying 8,600 containers (delivered Jan 2012)



Conceptual diagram of completed floating offshore wind farm off coast of Fukushima Prefecture

# Conclusion of MOU on management integration (merger) of Universal Shipbuilding Corporation and IHI Marine United

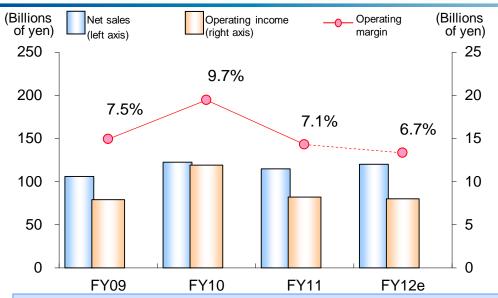
- Agreement on management integration (merger) in Jan 2012, and establishment of Japan Marine United Corporation planned for Oct 2012
- Aiming to gain top collective strength in industry and realize strategy for further growth, work for balanced strengthening of competitive edge and earning capacity of businesses including merchant ship business, naval ship business, engineering business and life cycle business

#### Initiatives in offshore wind power generation business

- Obtainment of AIP (Approval In Principle) for turbines and floatation for Japan's first floating offshore power generation facility
- Selection of consortium including IHI Marine United for floating offshore wind farm off Fukushima Prefecture coast as experimental research project

# Social Infrastructure Operations







- Integration of three subsidiaries to strengthen maintenance business in bridge and water gate fields. Provision of maintenance for structures made of either steel or concrete
- Expansion of IHI Infrastructure Systems' Sakai Works to improve production efficiency



Okozu movable dam (completed Jan 2012)



Conceptual diagram of completed Kagoshima Nanatsujima Mega Solar Power Plant (provisional name)

#### Implementation of takeover bids for listed subsidiaries

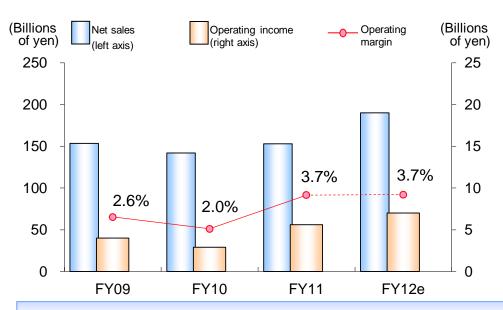
■ Implementation of tender offer for shares of Ishikawajima Construction Materials for effective use of IHI's group-wide management resources. Conversion into a wholly owned subsidiary

#### Participation in Kagoshima Mega Solar Power Plant

Participation in Japan's largest mega solar power plant for effective use of the Company's land in Kagoshima. In addition, examination of use of plant to pilot and test renewable energy

# Logistics Systems & Industrial Machinery Operations







In-line heat treatment furnace

#### Implementation of takeover bids for listed subsidiaries

Implementation of tender offer for shares of IHI Transport Machinery for further global development through effective use of IHI's group-wide management resources. Conversion into a wholly owned subsidiary

#### Development of in-line heat treatment furnace and start of sales

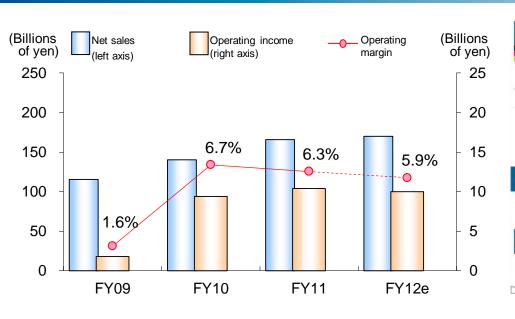
Development of in-line heat treatment furnace, a next-generation vacuum heat treatment system that can be incorporated in the processing line for heat treatment of metal parts, and start of full-scale sales

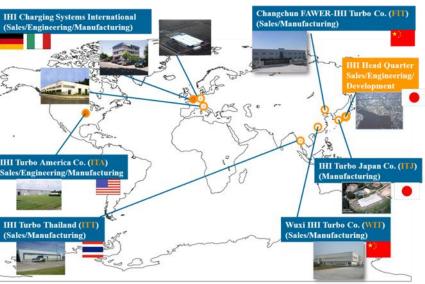
#### Development of measures to heighten competitive edge of domestic parking business

- Acquisition of shares of Fuso Engineering Co., Ltd. as well as enhancement of product lineup and strengthening of maintenance business
- Expansion of types of electric cars that can be recharged at multistory car parks and development of new ways of increasing energy efficiency and cost reductions

## Rotating Equipment & Mass-Production Machinery Operations







Overseas business bases for turbochargers

#### Further acceleration of development of global turbocharger operations

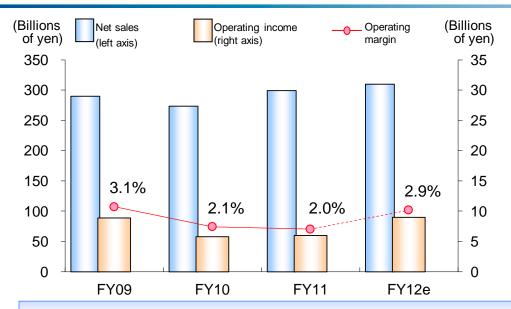
- Continuation of investment into production bases in China, Germany and Thailand
- Aim for sales of ¥130.0 billion in FY2013 and ¥150.0 billion in FY2015.

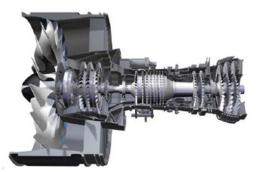
#### **Expansion of compressor business**

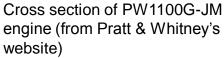
- Sales of compressors to Chinese market are strong. Planning to strengthen production capability of bases in China and strengthening maintenance structure from FY2012
- Investment in processing center for high-speed precision gears for compressors to establish global key parts supply structure

# Aero Engine & Space Operations











Epsilon rocket ©JAXA

#### Favorable progress in delivery and development of civil engines

- Total deliveries of V2500 components made by IHI reached 5000. Start of sales of GEnx
- Participation in development program for PW1100G-JM engine for Airbus' A320neo (successor of V2500)

#### Selection as procurement counterparty for next-generation fighter planes' engines

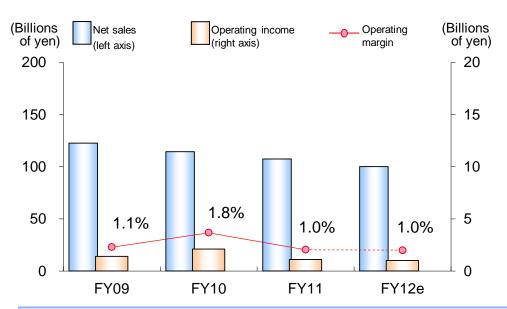
- Selected as procurement counterparty for F135 engine for next-generation F-35 fighter plane
- Working with Japan Ministry of Defense in approaching US side to improve ratio made in Japan

# Focusing efforts on rocket system development and business expansion through public-private partnership

- Development of small solid-fuel rocket (Epsilon rocket) roughly on track for planned launch in FY2013
- Export and launch of satellites and public-private partnerships to meet space needs of emerging countries (overseas infrastructure development in packaged form)

# **Other Operations**







Forwarder (forestry machinery)

# Agricultural machinery and small motors, and construction machinery

# Deployment of product strategy focused on market needs

- Start of delivery of sample Tier IV engines (small motors) for nextgeneration environmental regulations
- Launch of GPS Naviliner simple GPS guidance system for agricultural machinery
- Development of wireless-controlled debris removal machine (construction machinery)
- Delivery of ozone sterilizing lockers to Animal Quarantine Services in airports in response to revision of Act on Domestic Animal Infectious Diseases Control



**GPS Naviliner** 



Ozone sterilizing locker

## New Business Development (examples of main current initiatives)



#### Lithium-ion batteries (LiB) Expected sales in FY2015: ¥30.0 billion

- > Tie-up with A123 Systems, which has highly safe, long-lasting LiBs
- > Provision of LiB system standardized for various industry fields

#### Results and future initiatives

- Receipt of bulk order for 83 lithium-ion charger systems from Tokyo Fire Department
- ➤ Delivery of lithium-ion battery for Hino Motors' small-sized electric bus
- Start of deliveries of sample standard battery pack for industrial use, and enhancement of battery system production bases for start of mass production in FY2012

Lithium-ion charger system for Tokyo Fire Department

#### Expected sales in FY2016: ¥7.5 billion (vaccine sales)

> Tie-up with UMN Pharma, which has cell culture technology (vaccine manufacturing period is one third of previous method)

Influenza vaccine pharmaceutical ingredient

Manufacture of influenza vaccine pharmaceutical ingredient using cell culture technology

#### Results and future initiatives

- ➤ Completion of Akita Plant of UNIGEN, a joint venture company that manufactures pharmaceutical ingredients established with UMN Pharma, and start of operations as research facility for production techniques
- > Start of construction by UNIGEN of world-class biopharmaceutical manufacturing plant in Gifu Prefecture as an actual production facility for influenza vaccine pharmaceutical ingredients. Aiming for vaccine approval.



Conceptual diagram of UNIGEN Gifu plant

#### Biofuel from algae

➤ Establishment of IHI NeoG Algae with Gene & Gene Technology and Neo-Morgan Laboratory, aiming to manufacture and sell biofuel through mass cultivation of enomoto algae, the algae type with the highest fuel production capability



# IHI

Forward-looking figures shown in this material with respect to IHI's performance outlooks and other matters are based on management's assumptions and beliefs in light of the information currently available to it, and therefore contain risks and uncertainties. Consequently, you should not place undue reliance on these performance outlooks in making judgments. IHI cautions you that actual results could differ materially from those discussed in these performance outlooks due to a number of important factors. These important factors include political environments in areas in which IHI operates, general economic conditions, and the yen exchange rate including its rate against the US dollar.