



IHI Report Six months ended
September 30, 2011

IHI

The IHI Group seeks to solve the various environmental, industrial, social, and energy related problems of the 21st century, through using engineering expertise to focus on “Monozukuri” technology. In striving towards these goals, IHI is becoming a global enterprise offering the safety and security for the benefit of both the environment and humanity. “Monozukuri” technology means the technology used to improve the competitiveness of products and services offered, by strengthening the capabilities required in development, design, supply, manufacture and construction.



Kazuaki Kama

President and Chief Executive Officer

Q. Domestic demand slumped temporarily after the Great East Japan Earthquake and conditions in overseas markets were extremely challenging due to factors such as the historically strong yen and the financial crisis in Europe. Against this backdrop, what steps is the IHI Group taking to secure orders?

A. We are focusing on three key areas: overseas markets, especially growth markets in emerging economies; the energy field, in which we are responding to changes in the operating environment; and the shipbuilding field, which faces weak prices for new ships and the impact of the strong yen.

In overseas markets, our subsidiary IHI Infrastructure Systems Co., Ltd. secured an order in September 2011 to build the Izmit Bay Bridge in Turkey. Supported by the Ministry of Economy, Trade and Industry, our consortium fended off competition from Chinese and Korean companies to win the order. We think this approach of teaming up with partner companies and government-affiliated agencies will become increasingly important in the future. We plan to enhance the capabilities of our overseas regional headquarters and subsidiaries and put in place systems and frameworks that will help us secure more orders in overseas markets.

In the energy field, we are well aware that the infrastructure we provide plays a crucial role in society. We are therefore working hard to restore infrastructure damaged in the disaster caused by the earthquake and help Japan's recovery effort. Overseas, we aim to secure new orders in Southeast Asia through a subsidiary based in Singapore.

In the shipbuilding field, we face deteriorating demand for ships due to the slowdown in the global economy. However, we have identified strong needs among customers for vessels with a low environmental impact. Recently, our shipbuilding subsidiary IHI Marine United Inc. secured an order for three coal bulk carriers incorporating low environmental impact technology, and this was the decisive factor in winning the order. Our aim is to use technology to stand apart from our Chinese and Korean competitors in the market and offer ships that help customers reduce costs during the useful life of the ships. We believe this will translate into new orders.

Q. You assume an exchange rate of ¥80 to the US dollar, but the yen has been trading at a higher level. What steps are you taking to counter the strong yen?

A. We are actively shifting costs into dollars. Specifically, we are making more of our products and sourcing more of our parts and materials overseas.

Under our medium-term management plan, Group Management Policies 2010, we are aiming to boost sales at overseas manufacturing affiliates to 1.5 times the level in the fiscal year ended March 31, 2010. We are making steady progress toward this goal. To give one example, we intend to invest more than ¥10 billion to increase production capacity at turbocharger plants in Europe and China during the three years of our medium-term management plan.

We are also stepping up global procurement activities. Instead of simply buying up parts and materials from non-Japanese sources, we are upgrading procurement capabilities in Singapore and other business bases overseas to build closer links with local suppliers and markets.

In addition, we are implementing a number of financial initiatives to counter the strong yen, including a global cash management system (CMS)*1 that includes our regional headquarters in the Americas, and foreign currency loans.

*1: This system links the parent company's controlling bank account with the individual bank accounts of Group companies, allowing excess funds to be returned to the controlling account and funds to be supplied to Group companies from the controlling account as needed. This enables us to effectively utilize Groupwide funds and reduce the Group's interest-bearing debt.

Earnings Highlights

	(Billions of yen)	
	Six months ended September 30, 2011	Year ending March 31, 2012 forecast
Orders received	624.2	1,350.0
Net sales	525.9	1,200.0
Operating income	19.0	43.0
Ordinary income	13.5	33.0
Net income	5.0	28.0

Interim Dividend

Unfortunately, due to considerable uncertainty in our operating environment, including a lack of visibility in the forex market, we have decided to suspend the interim dividend this year.

Q. Nuclear power has faced considerable criticism since the Great East Japan Earthquake. What steps are you taking in the nuclear power business?

A. We see no prospects of new nuclear power plant construction in Japan for the foreseeable future. However, overseas demand for nuclear power remains strong, especially in emerging economies, although some projects are likely to be delayed. We plan to take the necessary steps to tap this demand.

In Japan in the near-term, we will do all we can to help resolve the situation at the Fukushima No. 1 nuclear power plant caused by the earthquake disaster. We will also respond to demand for enhanced safety measures, such as greater earthquake and tsunami protection, at other nuclear plants.

Q. What role is the IHI Group playing, or intending to play, in other areas of the recovery effort?

A. Immediately after the earthquake, power companies called on us to restore or restart operations at their thermal power plants to compensate for the drop in nuclear power generation. Now we are focusing on providing solutions for the cleanup effort that incorporate several of our products and technologies, such as incinerators to process the debris, biomass power plants*2 that can run on the wood waste created by the disaster, and construction machinery and other equipment to help clear away the sludge brought inland by the tsunami. We plan to draw on the combined strengths of the IHI Group to help the Tohoku region get back on its feet.

*2: Biomass power generation uses organic matter from materials such as wood to produce power through a thermal process. It is attracting growing attention as an environmentally friendly way of generating power, as its CO₂ emissions are close to zero.

Q. Finally, please bring us up to date on progress with Group Management Policies 2010. Can the IHI Group achieve the plan's consolidated targets of ¥1,400 billion in net sales and ¥60 billion in ordinary income?

A. When we formulated the plan, we assumed an exchange rate of ¥90 to the US dollar. Since then, the operating environment



has undergone some drastic changes, so achieving the targets will not be easy.

However, in Rotating Equipment & Mass-Production Machinery Operations, we expect sales of turbochargers to expand over the medium and long term. Demand for our turbochargers is growing in our key markets of Europe and China because the ratio of vehicles equipped with turbochargers is sharply rising. We expect this growth to continue on the back of tighter environmental regulations for exhaust gas emissions.

In Aero Engine & Space Operations, aerospace customers increasingly need more efficient jet engines and airframes, and demand remains high for the jet engines we help develop and produce.

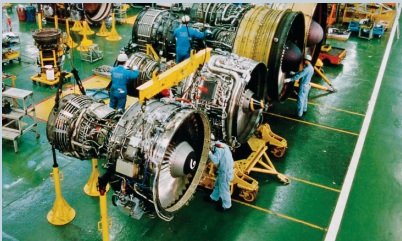


We will work hard to ensure that these businesses continue to steadily grow and that our forecasts for the current fiscal year and, ultimately, the initial targets of our medium-term management plan are achieved.

We look forward to your continued support in these efforts.

Group Management Policies 2010 are underpinned by a shift to three new paradigms: focusing on product lifecycles, developing product strategies that focus on market requirements, and adopting a global management approach.

	“Paradigm” to date		New “Paradigm”
Business model	Focus on equipment sales	➔	Focus on product lifecycles Enhancing our capabilities across the entire equipment lifecycle by integrating manufacturing, sales and services
Product strategy	Focus on new technologies		Focus on market requirements Leveraging our unique strengths to develop products that are tailored to market needs
Business management	Domestic business focus		Global management approach Targeting growth in overseas orders by reinforcing business bases overseas and increasing cooperation with bases in Japan

Below are some examples of how we are focusing on product lifecycles, developing product strategies that focus on market requirements, and adopting a global management approach.

Focus on product lifecycles	Focus on market requirements	Global management approach
<p>Examples</p> <ul style="list-style-type: none"> Improved after-sales services for ships by strengthening links between overseas business bases and partner shipyards Established a local subsidiary that provides heat treat furnace maintenance in Thailand Strengthened the jet engine maintenance business in the US 	<p>Examples</p> <ul style="list-style-type: none"> Participated in the consortium developing the next-generation engine for Airbus P. 7 Stepped up efforts to commercialize biofuel made from algae P. 8 Built one of the world’s largest coal combustion test facilities at our Aioi Works to step up development of environmentally friendly technology 	<p>Examples</p> <ul style="list-style-type: none"> Secured the order for the construction of the Izmit Bay Bridge in Turkey through public-private partnership P. 6 Increased investment in turbocharger manufacturing facilities to boost production capacity P. 7 Enhanced procurement capabilities in Singapore Implemented global recruiting 



Energy & Resources

One of the largest LNG receiving terminals in the US handed over

In September 2011, we completed a new liquefied natural gas (LNG) receiving terminal and handed it over to Gulf LNG Energy LLC. Construction of the facility was undertaken in partnership with Kvaener, a leading engineering company operating in the US. Possessing two tanks each capable of holding 160,000 kl of LNG, the Gulf LNG receiving terminal, located in Mississippi, is one of the largest in the US. The facility will supply LNG to users in the US. We intend to expand our LNG business further by building on the success of this project.



LNG receiving terminal handed over to Gulf LNG Energy LLC



Ships & Offshore Facilities

Order secured for environmentally friendly new coal bulk carriers

IHI Marine United Inc. (IHIMU) has secured an order for three 97,000 MTDW coal bulk carriers from Daiichi Chuo Kisen Kaisha. Fulfilling the customer's need for maximum transport efficiency and minimum energy consumption, these high-value added ships will be the first IHI vessels to incorporate key technologies from our eFuture environmentally friendly container carrier concept design. This in-house technology boosts fuel efficiency by more than 15% compared with conventional ship designs. The three ships will be constructed at IHIMU's Kure shipyard, with a planned completion and delivery date of 2013. IHIMU intends to focus on developing similar high-value added vessels going forward.



CGI representation of an eFuture 310,000 ton tanker



Social
Infra-
structure

Contract signed to build Izmit Bay Bridge in Turkey

In September 2011, IHI Infrastructure Systems Co., Ltd. (IIS) concluded a contract with the NOMAYG joint venture to construct the Izmit Bay Bridge in Turkey. The joint venture is a consortium of six companies made up of Turkish construction companies such as Nurol İnşaat ve Ticaret A.Ş., one of the country's leading general contractors, and Italian construction firm Astaldi S.p.A. The contract is worth around US\$1.1 billion and the bridge is due for completion in 2015. Building on the contract we secured two years ago for the Vietnam-Japan Friendship Bridge (Nhat Tan Bridge; continuous cable-stayed bridge with five pylons), this project will give IHI and IIS the opportunity to further demonstrate their track record and expertise in bridge construction on the global stage. Both IHI and IIS are actively working to win new bridge construction orders in Japan and overseas.



CGI representation of the completed Izmit Bay Bridge



Logistics
Systems &
Industrial
Machinery

One of Japan's largest pneumatic unloaders delivered

IHI Transport Machinery Co., Ltd. (IUK) has delivered a pneumatic unloader to Chiba Kyodo Silo Co., Ltd. The unloader is one of the biggest in Japan, with a maximum unloading capacity of 400 tons per hour (based on wheat). Leveraging its advanced technological capabilities in manufacturing, maintenance and refurbishment, IUK seeks to provide materials handling equipment ideally suited to individual customer needs.



Pneumatic unloader delivered to Chiba Kyodo Silo



Rotating
Equipment
& Mass-
Production
Machinery

Strong performance of turbocharger business, particularly overseas

We expect net sales in our mainstay turbocharger business to exceed ¥100 billion in the fiscal year ending March 2012. This would mark a new record for the business.

In Europe, where strict exhaust gas emission regulations are imposed, smaller gasoline engines are being designed to reduce environmental impact. Turbochargers are a crucial component in smaller gasoline engine design. Gasoline engines are now joining diesel engines, which were the main application for turbochargers in the past, as important drivers of demand.

In order to meet this growing demand, we are boosting production capacity, mainly at overseas plants.



IHI Charging Systems International
Germany GmbH



Aero
Engine &
Space

Participation in consortium program to develop and manufacture PW1100G-JM engine for Airbus A320neo

IHI signed a basic agreement to participate in the international consortium developing the PW1100G-JM jet engine for the A320neo, supplied to Airbus of France. IHI will participate in the development as a member of the Japanese Aero Engines Corporation (JAEC). The engine will be developed by Pratt & Whitney (a division of United Technologies Corporation of the US), JAEC, and MTU Aero Engines Holding AG of Germany. These three corporations are partners in the V2500 Program, which was established to provide A320 engines. The PW1100G-JM is a geared turbofan engine incorporating an advanced gear system and our unique advanced composite material technology. These innovations realize double-digit improvements in terms of fuel efficiency, exhaust gas emissions, and noise levels.

As was the case in the V2500 program, we will be responsible for the development of key components for the fan module, with our participation accounting for 60% or more of the work carried out in Japan.



The PW1100G-JM will be installed on the
A320neo ©AIRBUS



Others

Joint venture set up to research and develop algae biofuel

IHI and partners Gene and Gene Technology Y.K. (G>) and Neo-Morgan Laboratory Incorporated have established IHI NeoG Algae LLC to jointly develop algae biofuel technology.

The joint venture will use a type of algae called Enomoto Algae that, along with its cultivation method, was developed by G>. Among all the algae that have been discovered in the world, it has the highest yield for fuel production. The aim of the new company is to develop technology to cultivate the algae in large volumes and then isolate and recover the algal oil, with a view to starting algae fuel production.

We plan to sell this algae fuel as an alternative for jet fuel and other products.



Testing the characteristics of algae

IHI volunteers help run a memorial event for the victims of the Great East Japan Earthquake

Around 60 IHI Group volunteers (employees of our Headquarters Representative's office of Soma District and their families) helped run a memorial event for the victims of the Great East Japan Earthquake. The event was held on September 10, 2011 in Soma City, Fukushima Prefecture and featured the release of sky lanterns (airborne paper lanterns) designed by producer and designer Kansai Yamamoto. About 1,000 lanterns were released into the



IHI volunteers



Sky lanterns (Photo: Kansai Yamamoto, Inc.)

night sky in memory of the victims and to give hope for the recovery effort. The president and other senior IHI executives watched the ceremony. After the event Kansai Yamamoto thanked members of the IHI Group for their help in making the event a success. The warm glow of the sky lanterns contributed to a fantastical atmosphere at the ceremony.