

# Results for the Fiscal Year Ended March 31, 2018

## Management Review

**IHI**

May 9, 2018

**IHI Corporation**

Tsugio Mitsuoka, President and Chief Executive Officer

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# Management Overview



	Targets	Results
Net Sales	¥1,550.0 billion	¥1,590.3 billion
Operating Income (Operating Margin)	¥65.0 billion 4.2%	¥72.2 billion 4.5%
Ordinary income	¥57.0 billion	¥21.4 billion
Profit Attributable to Owners of the Parent	¥23.0 billion	¥8.2 billion
ROIC	6.5%	7.7%
D/E Ratio	—	0.92
Dividends	¥6 per share (¥3 interim, ¥3 year-end)	Interim: ¥3 per share Year-end: ¥30 per share <small>(Year-end figure after reverse stock split)</small>
Exchange Rate	¥105/\$1.00	¥111.00/\$1.00

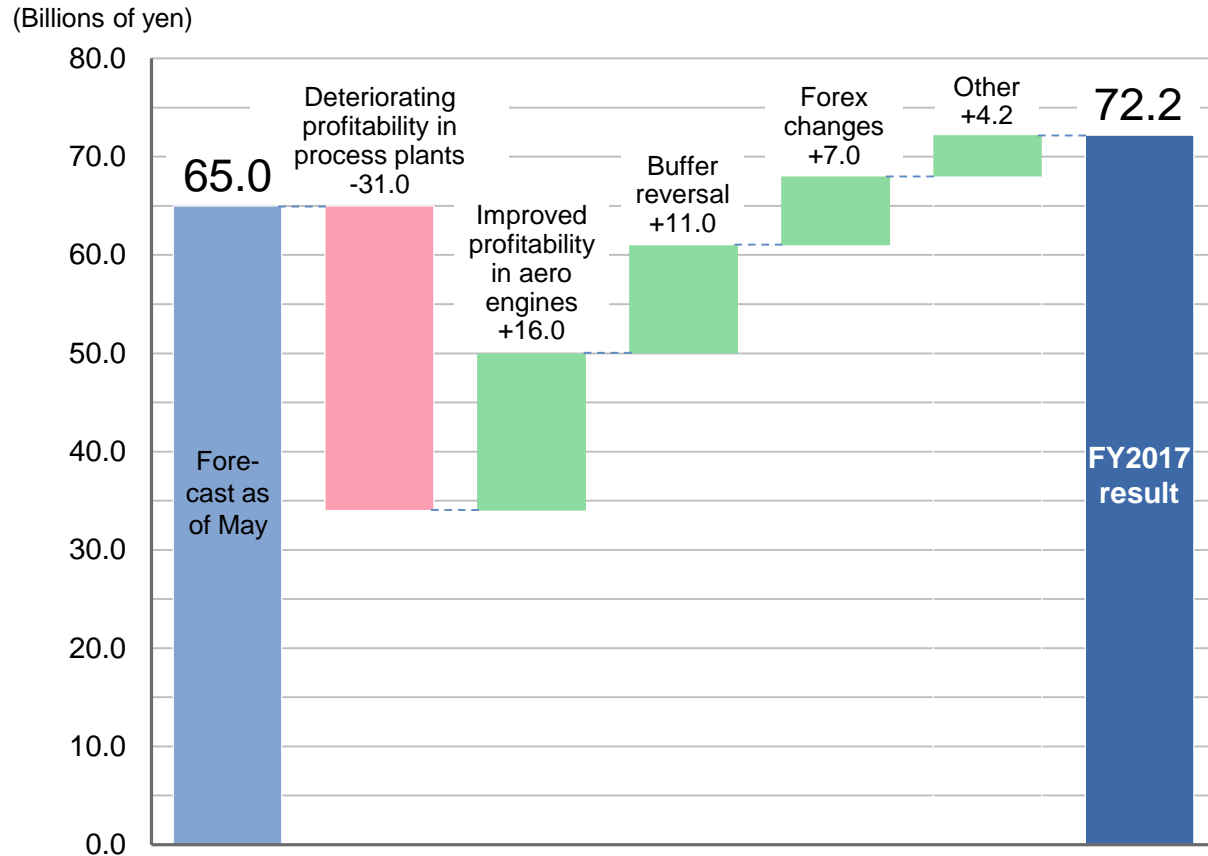
\* ROIC (Return On Invested Capital) = (Operating income + Interest and dividend income) after tax / (Owners' equity + Interest-bearing debt)

\* D/E ratio = Interest-bearing debt / Total net assets

## Assessment

- Progresses in a range of initiatives in the second year of Group Management Policies 2016, and reached initial earnings targets in areas other than Resources, Energy and Environment
- For a second straight year, however, experienced results downturns in current large projects
- Reinforcing the project implementation and risk management structures remain top-priority challenges

## ■ Analysis of fluctuations in operating income (compared with forecast as of May 2017)

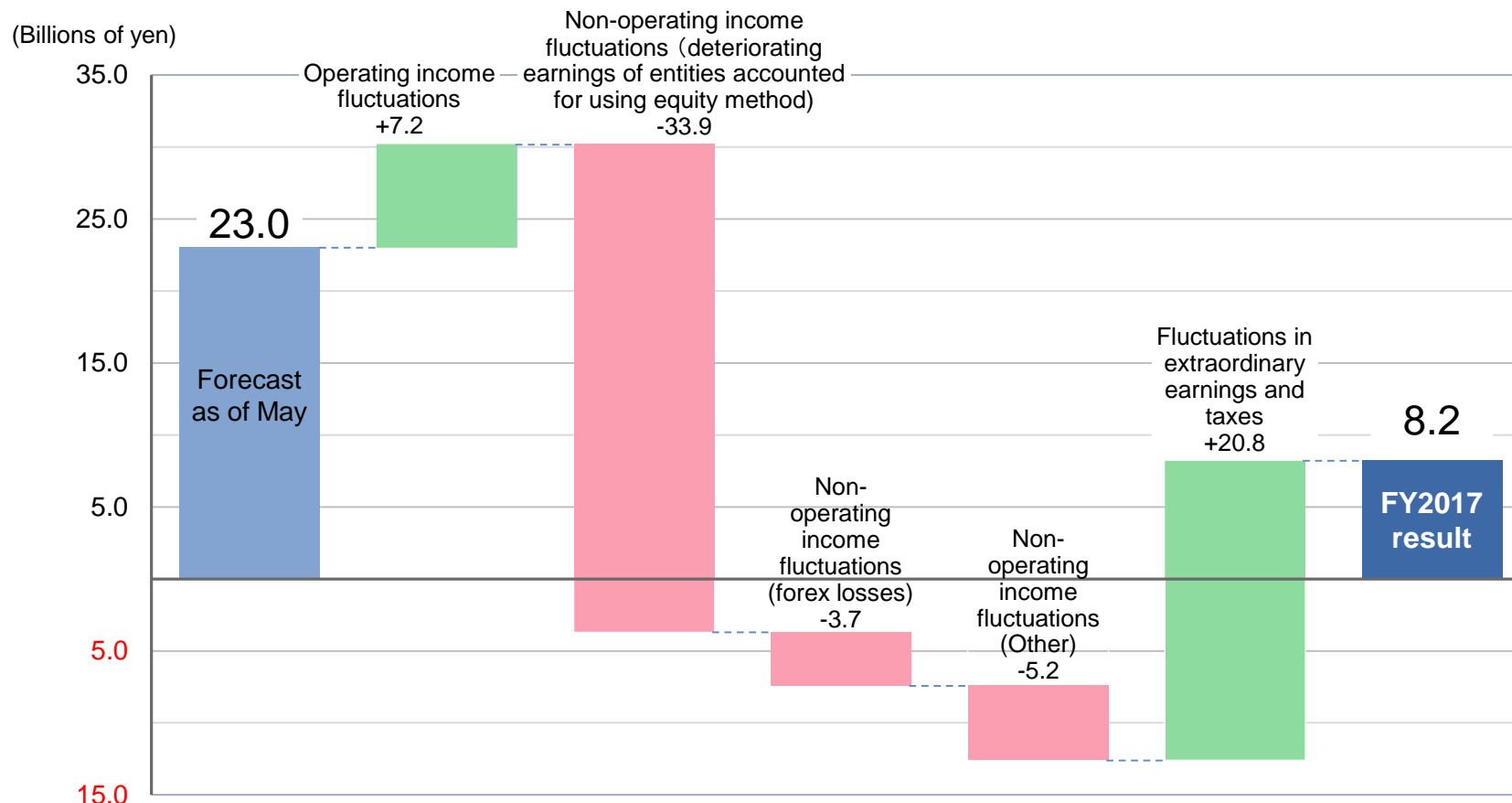


- Forecast as of May 2017: Using official announcement of May 9, 2017 (assumed exchange rate of ¥105/US\$)
- Average foreign exchange rate net sales in FY2017: ¥111.00/US\$

## ■ Factors in operating income changes

- Deteriorating profitability in North American process plant projects (see page 14 for details)
- Higher earnings in aero-engines (spare parts sales higher than envisaged for commercial aero engines. Unit sales of PW1100G engine lower in initial mass production stage)

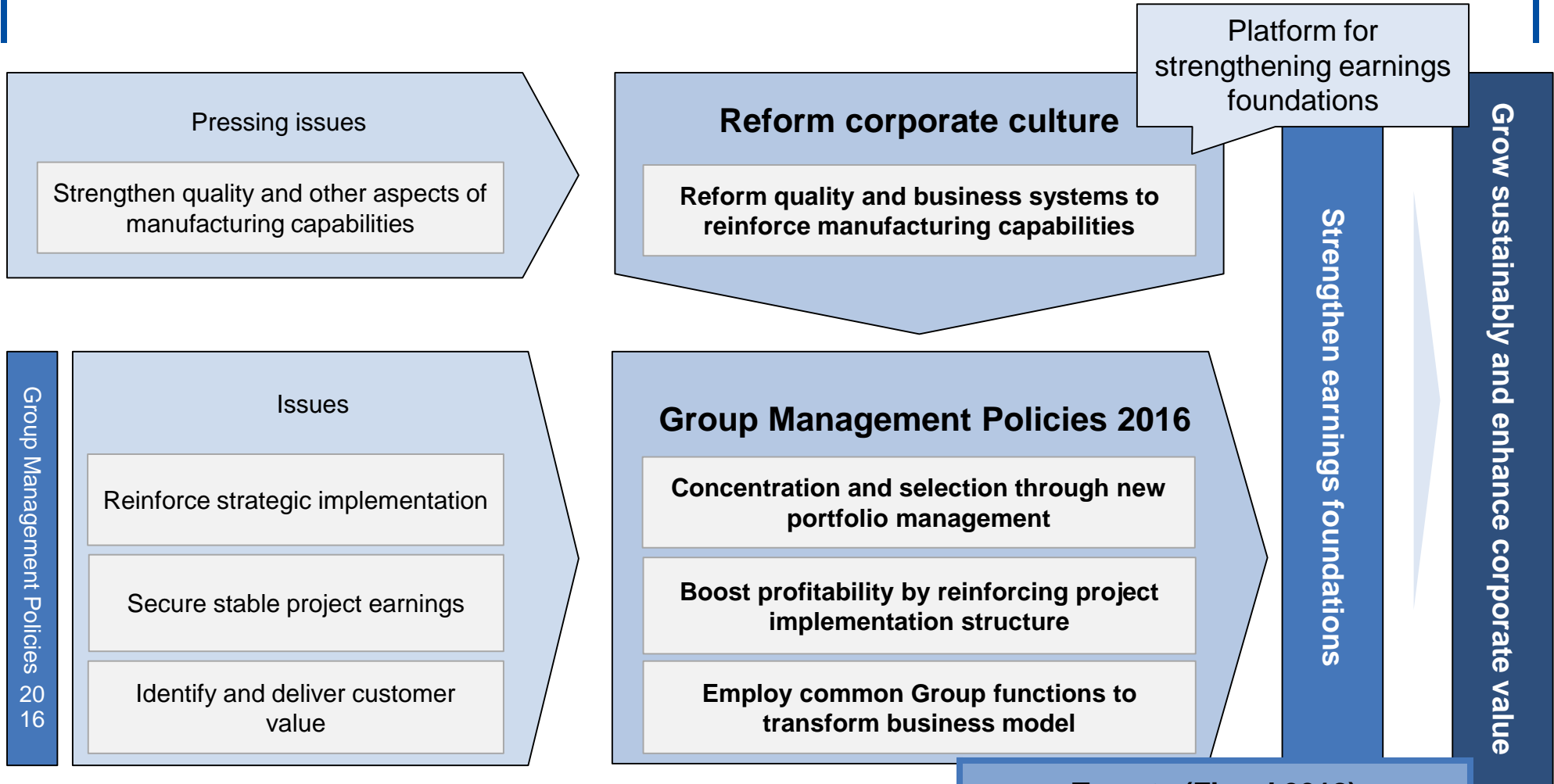
## ■ Analysis of fluctuations in profit attributable to owners of the parent (compared with forecast as of May 2017)



- Forecast as of May 2017: Using official announcement of May 9, 2017 (assumed exchange rate of ¥105/US\$)
- Average foreign exchange rate net sales in FY2017: ¥111.00/US\$

## ■ Factors in change in profit attributable to owners of the parent

- Deteriorating earnings of entities accounted for using equity method owing to results downturn at Japan Marine United (see page 14 for details)



Group Management Policies 2016

Targets (Fiscal 2018)	
Operating margin	7%
ROIC	10%
Debt-to-equity ratio	0.7x or less

## Group Management Policies 2016

## Initiatives and Issues in Second Year

Concentration and selection through new portfolio management

Initiative: Progressed in reforming and rebuilding F-LNG, agricultural machinery, and rotating machinery businesses

Issue: Speedy business concentration and selection beyond divisional boundaries in deploying business area/strategic business unit system

Boost profitability by reinforcing project implementation structure

Initiative: Concentrate disparate auditing and monitoring functions to focus on eliminating risks in large projects and large investments

Issue: Downturns in current large projects (North American process plants and LNG carrier construction)

Employ common Group functions to transform business model

Initiative: Progressed in initiatives to leverage IoT and new business models (including for Soma Smart Community Construction Project and Nanatsujima biomass power generation project)

Issue: Reforming business models in line with changes in the operating climate and accelerating their global rollouts



# Outlook and Initiatives for Year Ending March 31, 2019



	Fiscal 2016	Fiscal 2017	Fiscal 2018 outlook	Fiscal 2018 targets
Net Sales	¥1,486.3 billion	¥1,590.3 billion	¥1,500.0 billion	—
Operating Margin	3.2%	4.5%	5.7%	7.0%
Operating Income	¥47.3 billion	¥72.2 billion	¥85.0 billion	(¥105.0 billion)
Ordinary income	¥22.0 billion	¥21.4 billion	¥65.0 billion	—
Profit Attributable to Owners of the Parent	¥5.2 billion	¥8.2 billion	¥32.0 billion	—
ROIC	5.0%	7.7%	9.0%	10.0%
D/E Ratio	1.10	0.92	0.89	0.7 or less
Dividends	¥0 per share	Interim: ¥3 per share Year-end: ¥30 per share (Year-end figure after reverse stock split)	¥60 per share Interim: ¥30 per share Year-end: ¥30 per share (planned)	—
Exchange Rate	¥108.27/\$1.00	¥111.00/\$1.00	¥105/\$1.00	¥115/\$1.00

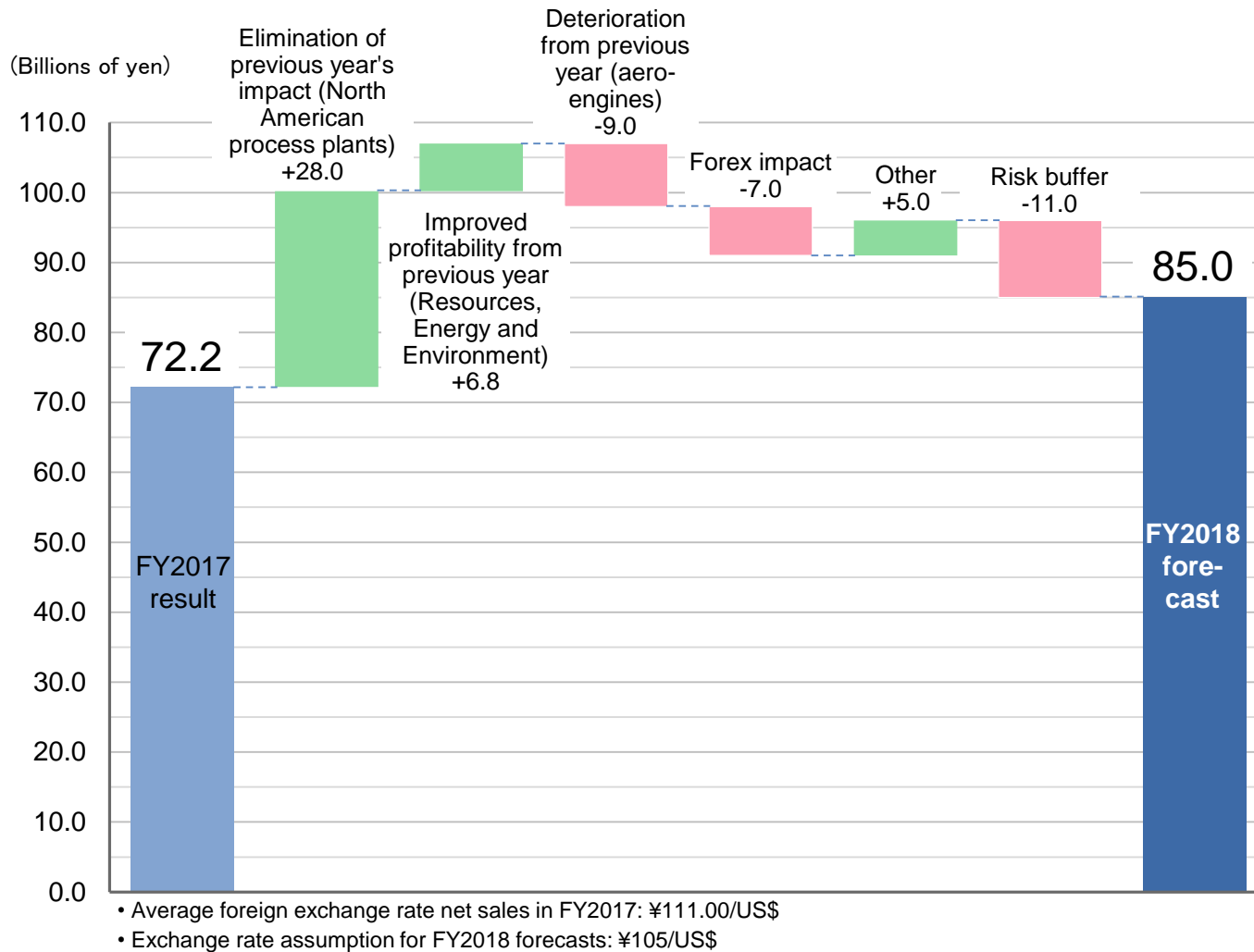
\* ROIC (Return On Invested Capital) = (Operating income + Interest and dividend income) after tax / (Owners' equity + Interest-bearing debt)

\* D/E ratio = Interest-bearing debt / Total net assets

## Overview of forecasts for fiscal 2018

- To increase earnings by taking all business areas into the black and eliminating the impact of unprofitable Resources, Energy and Environment projects.
- The operating profit forecast factors in the impact of foreign exchange rates and includes a risk buffer and should reach the level of Group Management Policies 2016.

■ Analysis of fluctuations in operating income (compared with fiscal 2017 results)



■ Changes from fiscal 2017 result

- Elimination of impacts of previous year's unprofitable process plant projects
- Deteriorating profitability of aero-engines owing to major increase in shipments of PW1100G engine in initial mass production stage

# Forecasts (3)

(Billions of yen)

	Operating Income/Operating Margin			ROIC*			Reference: Net Sales		
	FY2016	FY2017	FY2018 outlook	FY2016	FY2017	FY2018 outlook	FY2016	FY2017	FY2018 outlook
Resources, Energy and Environment	-10.6 -2.5%	-14.8 -3.0%	20.0 5.1%	-15.2%	-29.0%	17.0%	427.3	490.4	390.0
Social Infrastructure and Offshore Facilities	-12.0 -7.6%	13.9 9.0%	12.0 8.0%	-7.3%	8.1%	6.8%	157.7	154.5	150.0
Industrial Systems and General-Purpose Machinery	17.5 4.3%	18.9 4.1%	22.0 5.0%	9.7%	10.5%	11.6%	411.6	459.0	440.0
Aero Engine, Space and Defense	53.0 11.2%	60.1 13.0%	44.0 8.8%	15.2%	16.3%	12.2%	471.9	463.7	500.0
Others	2.5	2.7	3.0	-	-	-	75.1	73.5	70.0
Adjustment	-3.0	-8.6	-16.0	-	-	-	-57.5	-50.9	-50.0
<b>Total</b>	47.3 3.2%	72.2 4.5%	85.0 5.7%	5.0%	7.7%	9.0%	1,486.3	1,590.3	1,500.0

Exchange rate

¥108.27/US\$

¥111.00/US\$

¥105/US\$

¥108.27/  
US\$

¥111.00/  
US\$

¥105/US\$

¥108.27/  
US\$

¥111.00/  
US\$

¥105/  
US\$

\* ROICs (return on invested capital) by business domain are pretax amounts for portfolio management (weighted average values by SBU)  
 Pretax ROIC = Pretax operating income / invested capital (operating capital + fixed assets)

Companywide ROIC is after tax

ROIC after tax = (Operating income + interest and dividend income) after tax / (Owners' equity + interest-bearing debt)

Reform corporate culture

**Reinforce value chain through process reforms**

Strengthen earnings foundations  
(in Group Management Policies 2016)

**Concentration and selection through new portfolio management**

**Boost profitability by reinforcing project implementation structure**

**Employ common Group functions to transform business model**

Reform work practices

**Improve worker productivity**  
**Eliminate long working hours**

**Priority companywide policies for fiscal 2018**  
**“First year for Change”**

**Drive change through teamwork beyond divisional boundaries and effective communication**

**Switch to robust project implementation and risk management structures**

**Reform quality and operational systems to bolster manufacturing capabilities**

**Increase profitability by changing business structure in line with operational strategies**

**Transform business model to create customer value**

**Create new workplaces by reforming work practices and cultivate human resources**

- Projects in which profitability has deteriorated

## North American process plant project

- Scheduled to hand over No. 1 train and balance of plant (ancillary facilities) in summer this year. Accurately calculated and posted total costs, including for deploying experts and reviewing construction plans.
- Overall plant handover scheduled for spring next year.
- Continuing to assess position of IHI E&C International Corp based on business downsizing

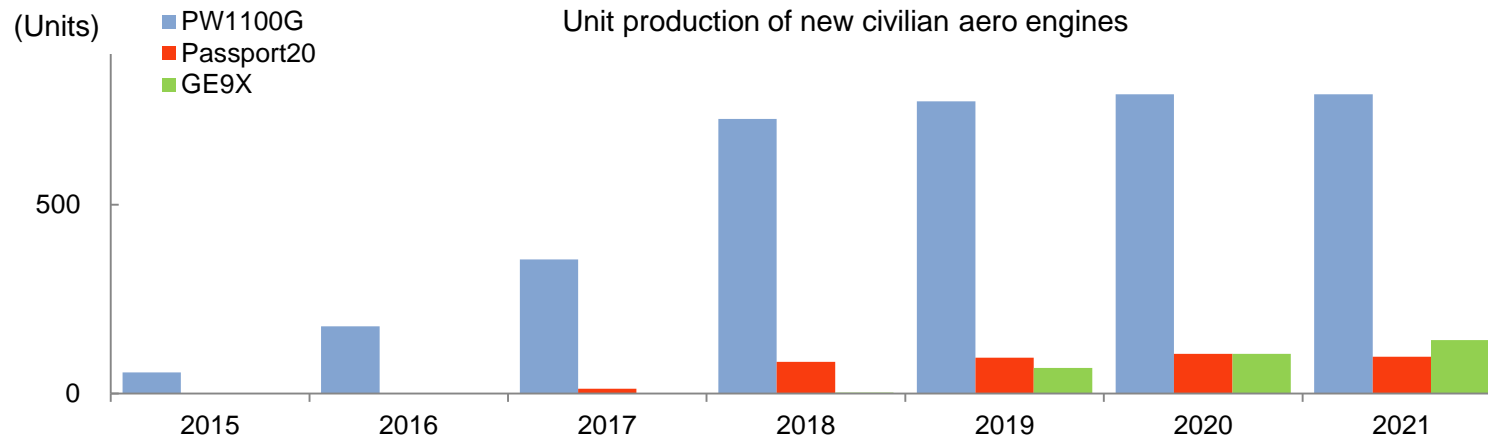
## Japan Marine United

- LNG carriers under construction
  - Reviewing costs and setting aside allowances through fourth carrier, based on construction data from first carrier.
  - Commissioning is under way for first carrier, largely completed its tank thermal insulation work that has caused delays.
- Rebuilding robust earnings foundations through business structure reforms
  - We are cutting fixed costs and stepping up proper order acceptance and are discussing specific measures, notably for reviewing our business site operations structure to improve our organization and reinforce our cost competitiveness.

Rigorously reinforce affiliate governance, including through structural reviews and reorganizations

## ■ Aero Engine, Space and Defense

- Undertake efforts to ensure profits from the aftermarket business, which is expanding amid strong passenger traffic
- Steadily reduce costs in response to surging production of PW1100G-JM and other new engine models
  - Invest and optimally allocate human resources to build efficient production lines
  - Keep bolstering supply chain management to significantly increase production



- Enhance productivity and profitability by reinforcing advanced manufacturing setup that leverages information and communication technologies and robots



Automated structural guide vane line for PW1100G-JM engine



Automated integrated bladed rotor line for PW1100G-JM engine



Accelerate reforms to create an efficient management structure even while boosting production to put IHI on track to recovery from fiscal 2019

- Optimally allocate management resources to swiftly materialize a lean and flexible structure
  - Accelerate optimization of operations by concentrating resource in the priority fields including Resources, Environment and Energy business area, in which the business climate changes considerably. Continue to accelerate reductions in sales and administrative expenses.
  - Accelerate initiatives in highly profitable after-market areas in the fields including, the Industrial Systems and General-Purpose Machinery business area, in addition to the boiler business in which we have a ample track record.

We are augmenting business area activities started last fiscal year with a new team reporting directly to the CEO to progress with activities to create a lean and flexible groupwide organization

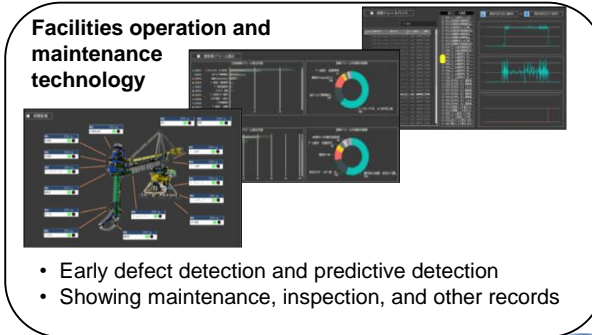
⇒ Turn risk buffer to profit



# Topic: Advanced Products, Services and Manufacturing Leveraging IoT **IHI**

## 1. Field testing advanced services for coal conveying facilities (joint development initiative of Kansai Electric Power Co., Inc., and IHI Transport Machinery Co., Ltd.)

- Started field testing at Maizuru Power Station for joint development of advanced coal conveying facilities services that would be a world first in electric power sector
- Installed ILIPS\* remote monitoring system to create failure prediction and detection service
- Offering potential to cut costs through inspection work reductions and by shifting away from maintenance dependent on experience

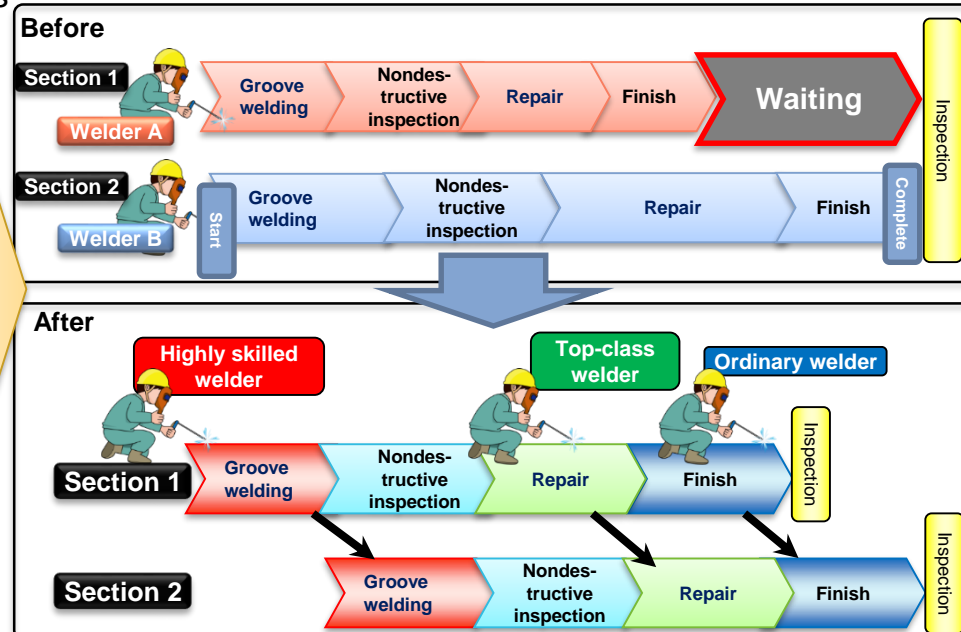


**Create customer value by collaborating with customers**

## 2. Enhancing productivity and cutting lead times for large structures and welding processes

- Using ILIPS to amass work results and process progress data to digitize skills of individual welders
- Reducing defect rates and cutting lead times by allocating personnel according to degree of task difficulty

**Slash lead times by 30%**



\* The IHI group Lifecycle Partner System (ILIPS) is a shared IHI platform to support remote maintenance services and enable data analysis.

# Reference Materials

# Concentration and Selection through New Portfolio Management (1) IHI

- Reforming business structure to bolster profitability, centered on strategic business units slated for priority investments.
- For businesses with viability concerns (strategic business units designated for rehabilitation and reorganization), made progress in formulating structural reform plans under implementation to rehabilitate and reorganize within two years (end-fiscal 2017). Will continue to implement structural reform plans in third year.

## Progress with concentration and selection and structural reform initiatives since fiscal 2016 (1)

Business	Category	Timing	Overview
Parking	Concentration	June 2016	Subsidiary IHI Transport Machinery Co., Ltd., receives a maintenance order for mechanical car parking systems from KYC Machine Industry Co., Ltd.
Shield	Concentration	October 2016	Subsidiary Japan Tunnel Systems Corporation and Mitsubishi Heavy Industries Mechatronics Systems, Ltd., integrate shield tunneling machine businesses to form JIM Technology Corporation.
Rolling mills (strip casters)	Selection	October 2016	IHI transfers ownership, patent, and other interests in strip caster company Castrup LLC, withdrawing from that business.
Logistics & industrial machinery	Structural reform	October 2016	IHI integrates sales units into IHI Logistics & Machinery Corporation to create a structure that can undertake business activities more responsively and flexibly.
Construction machinery	Selection	November 2016	IHI transfers all shares in IHI Construction Machinery Limited to Kato Works Co., Ltd.
Rotating machinery	Concentration	December 2016	Joint venture established with Dalgakiran of Turkey to manufacture and sell general-purpose turbo compressors.

# Concentration and Selection through New Portfolio Management (2) IHI

## Progress with concentration and selection and structural reform initiatives since fiscal 2016 (2)

Business	Category	Timing	Overview
Influenza vaccine API manufacturing	<b>Selection</b>	January 2017	Shares in biopharma API manufacturing business UNIGEN Inc. transferred to API Co., Ltd.
Waste treatment	<b>Structural reform</b>	March 2017	Comprehensive waste treatment facilities business alliance agreement concluded with Kobelco Eco-Solutions Co., Ltd.
Machinery for ships	<b>Selection</b>	May 2017	Marine deck cranes (deck cranes and mooring machines) business transferred to Iknow Machinery Co., Ltd., a ship machinery subsidiary of Oshima Shipbuilding Co., Ltd.
Disaster prevention	<b>Selection</b>	June 2017	Firefighting equipment business of subsidiary IHI Shibaura Machinery Corporation transferred to a company established by NH-2 (New Horizon No. 2 Investment LP), a unit of New Horizon Capital.
Agricultural machinery	<b>Structural reform</b>	October 2017	Subsidiaries IHI Shibaura Machinery Corporation and IHI Star Machinery Corporation integrated to form IHI Agri-Tech Corporation.
Rotating machinery	<b>Structural reform</b>	October 2017	Rotary machinery business (including compressors and separators) integrated with operations of subsidiary IHI Compressor and Machinery Co., Ltd., to launch IHI Rotating Machinery Engineering Co., Ltd.
Environmental response systems business	<b>Selection</b>	March 2018	Started talks to transfer waste treatment facilities and other businesses of subsidiary IHI Enviro Corporation to Kobelco Eco-Solutions Co., Ltd.
F-LNG and offshore structures	<b>Selection</b>	Shutdown after order completion	Production at Aichi Works, a key unit for the F-LNG and offshore structure business, to be terminated after orders completed.



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.