Status of
2015 Medium-Term Business Plan

October 31, 2016
Mitsubishi Heavy Industries, Ltd.
Shunichi Miyanaga, President and CEO
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   (First-half results and issues)

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(Appendix)

- Concentration into Core Competencies
- Radical Reform of Commercial Ship Business
- Strengthening of Business Risk Management
I. FY2016 Forecast
## I. FY2016 Forecast - Overview

Forecast has been revised downward, based on projected profit/loss deterioration attributable to strong yen, weaker sales in all domains (except Integrated Defense & Space Systems), and factors relating to commercial aircraft and commercial ships.

Short- and medium-term earnings to improve through “Implementation Plan for Second Half of 2015 Medium-Term Business Plan” described below (page 10ff)

<table>
<thead>
<tr>
<th></th>
<th>FY2015 Actual</th>
<th>FY2016 Forecast</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Original</td>
<td>Previous*</td>
<td></td>
</tr>
<tr>
<td>Orders received</td>
<td>4,485.5</td>
<td>5,000.0</td>
<td>4,800.0</td>
</tr>
<tr>
<td>Net sales</td>
<td>4,046.8</td>
<td>4,400.0</td>
<td>4,000.0</td>
</tr>
<tr>
<td>Operating income (Margin)</td>
<td>309.5 (7.6%)</td>
<td>350.0 (7.9%)</td>
<td>240.0 (6.0%)</td>
</tr>
<tr>
<td>Net income</td>
<td>63.8</td>
<td>130.0</td>
<td>100.0</td>
</tr>
<tr>
<td>FCF</td>
<td>7.5</td>
<td>130.0</td>
<td>100.0</td>
</tr>
<tr>
<td>ROE</td>
<td>3.7%</td>
<td>7.5%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

* Upon release of FY2016 1Q results (July 2016)

Foreign exchange rates: 119.7 yen/$, 132.6 yen/€

FCF: Free cash flow
ROE: Return on equity

Reflecting asset management enhancements (Extraordinary profit 60.0 billion yen, FCF 100.0 billion yen)
## I. FY2016 Forecast - Net sales and operating income, by domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>FY2015</th>
<th>FY2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Net sales</td>
<td>Operating income</td>
</tr>
<tr>
<td>Energy &amp; Environment</td>
<td>1,542.7</td>
<td>154.6</td>
</tr>
<tr>
<td>Commercial Aviation &amp; Transportation Systems</td>
<td>548.5</td>
<td>54.5</td>
</tr>
<tr>
<td>Integrated Defense &amp; Space Systems</td>
<td>485.0</td>
<td>25.7</td>
</tr>
<tr>
<td>Machinery, Equipment &amp; Infrastructure</td>
<td>1,432.3</td>
<td>80.0</td>
</tr>
<tr>
<td>Others</td>
<td>177.3</td>
<td>12.6</td>
</tr>
<tr>
<td>Eliminations or Corporate</td>
<td>-139.2</td>
<td>-18.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4,046.8</td>
<td>309.5</td>
</tr>
</tbody>
</table>
I. FY2016 Forecast – Commercial Aviation & Transportation Systems

Factors behind earnings deterioration

Tier1: decreased production + forex impact + unachieved cost reductions in response to gradual contract price decreases

For Bombardier and Boeing (777)

Commercial ships: unachieved cost reduction targets, and other issues

*MRJ: increased development costs to address issues after maiden flight

*MRJ: Mitsubishi Regional Jet

(in billion yen)

<table>
<thead>
<tr>
<th></th>
<th>FY2015 actual</th>
<th>FY2016 forecast at start of term</th>
<th>FY2016 previous forecast</th>
<th>FY2016 forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>54.5</td>
<td>30.0</td>
<td>20.0</td>
<td>110 → 105 yen/$</td>
<td>105 → 100 yen/$</td>
</tr>
<tr>
<td>Change from FY2015</td>
<td>approx. -80.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change from previous</td>
<td>approx. -45.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Including approx. -55.0 for Tier 1

Decreasing production
Unachieved cost reductions

Forex

Commercial ships
MRJ
II. Interim Evaluation of 2015 Medium-Term Business Plan
(First-half results and issues)
II. Interim Evaluation of 2015 Medium-Term Business Plan
– Earnings results and issues

Results:
- Expanded business scale and operating income, improved EBITDA, etc. with structural reforms and M&A

Issues:
- Significant deterioration in earnings from commercial ship and commercial aircraft businesses
- Manifestation of wide-ranging profit-squeezing factors (entrenched yen strength, market slowdown, intensified competition)

Radical measures will be taken in Second Half of 2015 Medium-Term Business Plan (page 10ff)

Net income issues:
- Need to promptly recover from unachieved income due to ship construction business losses and structural reform costs

M&A: Mergers & acquisitions  EBITDA: Earning before interest, taxes, depreciation and amortization
II. Interim Evaluation of 2015 Medium-Term Business Plan
– Progress of measures and current issues

[2015 Medium-Term Business Plan
original and additional measures]

<table>
<thead>
<tr>
<th>Measure</th>
<th>Profitability</th>
<th>Financial</th>
<th>Risk resilience</th>
<th>Technology foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promote domain-based targets with clear targets and strategies</td>
<td>P</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accelerate independent management and PMI*</td>
<td>P</td>
<td>F</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Reduce operating capital</td>
<td>P</td>
<td>F</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Strategically reconfigure product mix</td>
<td>P</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pursue optimum efficiency</td>
<td>P</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop more advanced business processes and strengthen human resources</td>
<td>P</td>
<td>F</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Asset management</td>
<td>P</td>
<td>F</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Reform the corporate governance system</td>
<td>F</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radically reconsider risk management structure</td>
<td>P</td>
<td>F</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Strengthen relatively superior products and technologies</td>
<td>P</td>
<td>F</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Reform and create new businesses and business models for the next generation</td>
<td>P</td>
<td></td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Strengthen technology foundation and innovate</td>
<td>P</td>
<td>F</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Establish shared technology framework</td>
<td>P</td>
<td>R</td>
<td>T</td>
<td></td>
</tr>
</tbody>
</table>

[Implementation status and issues]

Issues:
- Deterioration in commercial ship and commercial aircraft business environments
- Partial delay of PMI* at major JV businesses especially regarding effective use of facilities, human resources, and SCM*
- Manifestation of profit-squeezing factors in overseas markets (entrenched yen strength, market slowdown, intensified competition)

Results:
Measures controllable by the MHI Group, including the following, are progressing smoothly:
- Reconsidering risk management structure (as announced on October 18)
- Concentration into core competencies (as reporting today)
- Asset management progress status (as reporting today)

*PMI: Post merger integration  *SCM: Supply chain management
III. Implementation Plan for Second Half of 2015 Medium-Term Business Plan

1. Implementation Plan Overview
2. Domain Configuration Reorganization
3. Commercial Aircraft Business Reforms
4. Strengthening of Core Businesses
5. Enhanced Asset Management
6. Modification of Global Management Base
7. Summary

* Radical reform of commercial ship business and reinforcement of business risk management are also included but are omitted here (already explained on October 18).
**III.1. Implementation Plan Overview**

**External environment**
- Manifestation of profit-squeezing factors*
  * entrenched yen strength, slowing trend and intensified competition in overseas markets
- Deterioration in Tier 1 customers’ business environment (reduced sales for MHI), continuing slump in steel/oil & gas industries

**Internal situation (implementation of measures)**
- Measures, including reinforcement measures taken since end of FY2014, insufficient for achieving 2015 Business Plan targets
- Need for swift, additional measures

**Second-half implementation plan**
1) Focus on measures conducive to significant improvements in short- and medium-term earnings
2) Prevent risks and minimize losses from actual risks
3) Accelerate active use of organizations, facilities, assets and human resources
4) Undertake significant organizational restructuring to achieve items 1) through 3)

**Key measures of second-half implementation plan**
Besides the following, other key measures include radical reform of the commercial ship business and reinforcement of business risk management (as announced on October 18)

**III.2. Review of organizational structures**... P.12
- Restore strength to the commercial ship and commercial aircraft businesses, and reorganize the domains and redistribute businesses in order to expedite key measures

**III.3. Commercial aircraft business reforms**... P.13
- Current status of Tier 1 businesses, and reinforcement measures
- Current status of the MRJ, and near-term response measures

**III.4. Strengthening of core businesses**... P.17
- Accelerate PMI of major JV businesses
- Further promote concentration into core competencies

**III.5. Enhanced asset management**... P.19
- Create cash flows and improve efficient use of assets

**III.6. Modification of global management base**... P.22
- Boost efficiency, etc. through focused concentration of functions into new base
III.2. Domain Configuration Reorganization

Current → April 2017 onward (planned)

Energy & Environment
- Power Systems
  - Large-scale B2B business
  - Develop business mainly in electric power and resource areas

Commercial Aviation & Transportation Systems
- Industry, Environment & Infrastructure Systems
  - Consolidate diverse business entities handling medium-scale products
  - Portfolio management

Integrated Defense & Space Systems
- Aircraft, Defense & Space Systems
  - Reinforce management as businesses undergoing long-term development

Machinery, Equipment & Infrastructure
- Thermal power plants (MHPS)
  - (2) Aero engines (MHI-AEL)
  - (5) Compressors (MCO)
  - Aero-derivative gas turbines (PWPS)

Renewable Energy (MVOW)
- Nuclear power
  - (Long-term vision of the business will be discussed)

FHMI: Mitsubishi Hitachi Power Systems, Ltd.
MHPS: Mitsubishi Heavy Industries Environmental & Chemical Engineering Co., Ltd.
MHI-AEL: Mitsubishi Heavy Industries Aero Engines, Ltd.
PWPS: PW Power Systems International
MVOW: MHI Vestas Offshore Wind A/S
M-FET: Mitsubishi Heavy Industries Forklift, Engine & Turbocharger Holdings, Ltd.

- Forklift trucks/Engines/Turbochargers (M-FET)

- Metals Machinery (PT)

- Machinery and instruments (MAT/MIHMT/MHI-MS/PPM)

- Thermal systems (MTH)
  - (3) Ship engineering
  - (1) Chemical plants/Oil & gas

- Environmental systems (MHIEC)

- Transportation & urban systems
  - (3) MRJ (MITAC)
  - (4) Tier 1

- Defense systems
- Space systems

- Radical reform of commercial ship business
- Group synergies in engineering business*
  * Collaboration with MHPS to be maintained

CEO: Chief executive officer

- CEO direct management / Groupwide support
- Radical productivity improvement, etc.
Impact from entrenched strong yen

Una achieved cost reductions to offset gradually decreasing average contract prices, decreasing production, etc.

III.3. Commercial Aircraft Business Reforms (1) (Tier 1 current status)

Status and operating income of commercial aircraft Tier 1 business

- Impact of weak yen
  - 110 yen/$
  - 120 yen/$

- Forex rate
  - 110 → 100 yen/$

- Average contract price (gradual decrease)

- Decreasing production, etc.

- Unachieved cost reductions

- Forex impact

Need to improve earnings swiftly through radical productivity enhancements

Swift implementation of the following measures

1) Accelerated improvement of production lines
2) Supply chain reforms (including reduction in fixed costs and reorganization of production bases)

Assuming the strong yen and reduced production will continue, strive to realize high earnings at ¥100/US$1
III.3. Commercial Aircraft Business Reforms (2) (Tier 1 measures)

Measures and their anticipated impact on operating income

- Accelerate measures to address age deterioration at Oye parts factory
  → Develop integrated production lines at Hiroshima and Kobe

- Boost efficiency* through IoT and use of production data
  (* Streamline production, reduce inspection items, Conversion to digital factories, etc)

- Optimize internal/external production costs through equipment upgrades
- Modernize procurement segment (shift to shared technology framework)

- Reconfigure supply chain in line with change of bases
- Create ICT network inclusive of supply chain

FY2016 forecast

Target level

cost reduction*

*Cost reduction breakdown for illustration purposes only

IoT: Internet of things
ICT: Information & communication technology

Hiroshima Machinery Works
Eba Plant
777X automated assembly line

Matsusaka Cluster Factory
III.3. Commercial Aircraft Business Reforms (3) (Current status of MRJ)

Current status

1) Development

-1 Full-scale flight testing under way in Japan and U.S. (see schedule below)

-2 Further time and manpower needed to perform verification tasks and prepare technical materials to acquire type certification (TC)

-3 Currently responding to various changes that have arisen during TC procedure

These steps have revealed inexperience in certain areas

Currently boosting U.S. (and other) manpower experienced in TC procedures

Schedule as of now

<table>
<thead>
<tr>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>▼ First flight</td>
<td>▼ Resumption of flight testing</td>
<td>▼ Ferry flight to U.S.</td>
<td>Final audit</td>
</tr>
</tbody>
</table>

Basic performance verification

Preparation for ferry flight | U.S. flight testing | TC flight testing | Delivery to ANA

2) Preparations for production

- Basic planning has been completed for factory production allocation and initial plant installations.
- Detailed study of customer support system, etc. is underway in preparation for commercialization.
- Currently in the process of negotiating and confirming major system/purchased parts suppliers’ delivery schedules, costs, etc.
MRJ Future Measures

1) Establish “MRJ Business Promotion Committee” under direct management of CEO (to be launched in November 2016)

2) Background on MRJ Business Promotion Committee
   It is now acknowledged that the MRJ is a large-scale, complex business development project, requiring strong response capacity from its business segment. Going forward, companywide management resources* will be utilized and a shift will be made to a long-term development system  * Inclusion of more young employees

3) Action points
   1. Manage issues related to final stage of development, steadily implement response measures (includes re-assessment of schedule/costs of TC acquisition and delivery of first aircraft)
   2. Assess schedule and framework of shift into production phase
      (includes assessment of capital investment and other costs for plants and systems from production launch to regular operations)

The committee will facilitate swift decision-making on urgent matters.
(Measures now in progress will be continued.)

CEO: Chief executive officer  TC: Type certificate
III.4. Strengthening of Core Businesses (1) - Accelerate PMI at Key JV Businesses

<table>
<thead>
<tr>
<th>Acceleration measures</th>
<th>Mitsubishi Hitachi Power Systems (MHPS)</th>
<th>Primetals Technologies (PT)</th>
<th>Mitsubishi Heavy Industries Forklift, Engine &amp; Turbocharger Holdings (M-FET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of organization and systems</td>
<td>● Human resource exchanges, wage system unification, etc. proceeding smoothly</td>
<td>● Reduction of personnel after JV launch proceeding on schedule</td>
<td>● Forklift truck business integration making smooth progress</td>
</tr>
<tr>
<td></td>
<td>● Delayed progress in reducing SG&amp;A and other shared expenses, and in consolidating bases</td>
<td>● Further organizational streamlining necessary due to protracted steel industry slump</td>
<td>PMI planning is moving ahead at accelerated pace</td>
</tr>
<tr>
<td><strong>Enhancing efficiency</strong></td>
<td><strong>Consolidation of overseas bases has started. → Accelerate</strong></td>
<td><strong>Acceleration underway in behind-schedule restructuring of overseas plants</strong></td>
<td><strong>Additional efficiency enhancement measures: active use of MHI Group’s shared services, etc.</strong></td>
</tr>
<tr>
<td></td>
<td>● Domestic facilities also undergoing reorganization/consolidation of functions and product portfolios in order to compete globally</td>
<td>● Commence reorganization/consolidation of overseas engineering segment</td>
<td></td>
</tr>
<tr>
<td><strong>Increasing added value</strong></td>
<td>● Accelerate remote monitoring services and reinforcement of overseas service bases</td>
<td>● Expand control systems and solutions business targets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Accelerate SCM* reform leveraging reorganization/consolidation of product portfolios (actively use shared services)</td>
<td>Pursue synergies with other MHI Group product businesses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Pursue overall synergies in all turbo machinery businesses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*SCM: Supply chain management

PMI Status

- Mitsubishi Hitachi Power Systems (MHPS)
- Primetals Technologies (PT)
- Mitsubishi Heavy Industries Forklift, Engine & Turbocharger Holdings (M-FET)
III.4. Strengthening of Core Businesses (2)

6) Further concentration into core competencies

<table>
<thead>
<tr>
<th>Acquisitions</th>
<th>Mergers (consolidated)</th>
<th>Divestitures</th>
<th>Withdrawals</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2012 - FY2015*</td>
<td>6</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

- Sales increase by ¥290bn
- Sales increase by ¥590bn

<table>
<thead>
<tr>
<th>Acquisitions</th>
<th>Mergers (consolidated)</th>
<th>Divestitures</th>
<th>Withdrawals</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2016</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Promote M&A to strengthen core businesses and develop mid-tier businesses
- Accelerate mergers (equity-method) and divestitures in businesses that are difficult for MHI Group to grow independently

[ Achievements until FY2015 *]
- Unicarriers HD (Forklift trucks)
- PWPS* (Gas turbines)
- Turboden (Gas turbines) etc.
- Nippon Yusoki (Forklift trucks)
- Hitachi (Thermal power)
- Siemens (Metals machinery) etc.

[ Achievements in FY2016]
- West Japan Railway Company (Real estate division)
- Ube Machinery Corp.
- Sato Tekko Co.
- Hitachi (Healthcare Business Unit)

Real estate Business
- Injection molding machines
- Sluice gates
- X-ray medical equipment

New businesses
- MHI Group
- Acquisitions: 6
- Mergers (consolidated): 4
- Mergers (equity-method etc.): 7
- Divestitures / Withdrawals: 6

Reallocate resources into growth areas and new businesses

Losses from cruise ship business
- SONGS* risk
- Large scale PMIs

- Current PMI peaking off

FY2016

- West Japan Railway Company

- Ube Machinery Corp.

*PWPS: PW Power Systems international
*SONGS: San Onofre Nuclear Generating Station
*See appendix for details
Policies of 2015 Business Plan

**a) Limit asset holdings, in principle, to the following:**
- Assets necessary for strengthening businesses and corporate competitiveness
- Assets held in preparation against possible risks arising from global competition

**b) Eliminate risks of holding non-core assets, maximize their value, and improve their liquidity**

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**[Purpose/Benefit]**

- **Core assets**
  - Higher asset values and greater earning capacity
    - Strategic consolidation and active use of asset holdings
    - Stronger links with local communities
    - Enhanced efficiency from alliances with other companies

- **Non-core assets**
  - Creation of cash flows by selling*
    * Sell over half share or establish JV (equity-based consolidation) in the case where synergies can be expected
**Redevelopment of Dai-Ichi Tamachi Building**

- MHI and its partners will redevelop the Dai-Ichi Tamachi Building (owned by MHI), creating a new building with functions that bring public benefits
  - Substantially improve the property’s profitability by enhancing convenience and increasing total floor area.
  - Make the new building a strategic base (offices for MHI’s own base and rental property) for MHI Group

**Characteristics**

- Provides venue for international business exchanges and dissemination of cutting-edge technology information
- Incorporates low-carbon and energy-saving technologies, and disaster-prevention functions

**Basic concept (proposal)**

- Land area: Approx. 8,600m²
- Scale: 150m height
- Completion: 2023 (subject to change)
III.5. Enhanced Asset Management (3) - Example 2

- Combine MHI’s idle small-to-medium real estate assets with the operations of Ryoju F&P, establish a new company ("Ryoju P") dedicated to real estate operations, sell 70% stake to JR-West
  → Seek enhanced corporate value for “Ryoju P” through partnership with JR-West
  → Generate cash flow through (70%) share transfer

Ryoju F&P

1. Construction (civil engineering, building construction)
2. Factory and facility management
3. Real estate (real estate rental and sales, property management, welfare facilities, hotels)

MHI

Idle small-to-medium assets

West Japan Railway Company

Views real estate operations as core to non-transport businesses; targets enhanced business value and expanded business scale

70% stake
Transfer price 97.0 billion yen

Company spin-off

Ryoju Properties

Support generation of synergies with JR-West

30% stake

Equity-method income
III.6. Modification of Global Management Base

- Consolidate global head office functions into Tokyo’s Marunouchi business district, accelerate strengthening of global management through streamlining and enhancement of business processes  
  → Target: 2nd half of FY2018
- Taking consolidation and asset management into consideration, pursue consolidation/reorganization of offices/facilities in Tokyo metropolitan area (Shinagawa, Yokohama, Tamachi) based on functionality (including possible sale of assets)

Reinforcement of global management
Separation and efficiency enhancement of local management
→ Simultaneous promotion

Functional consolidation and reorganization in Tokyo metropolitan area

Marunouchi district
### III.7. Summary (1) – Conceptual Structure of Short-term Improvement to Earnings

#### Operating Income

<table>
<thead>
<tr>
<th>Period</th>
<th>Forecast</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>-90.0 billion yen</td>
<td>-330.0 billion yen</td>
</tr>
<tr>
<td>2017</td>
<td>240.0 billion yen</td>
<td></td>
</tr>
</tbody>
</table>

- **Operating Income**
  - **Previous forecast**: 330.0 billion yen (early recovery of unachieved Tier 1 earnings)
  - **Current forecast**: 240.0 billion yen

- **Non-operating loss**: -60.0 billion yen
  - **Forex impact**: 105 → 100 yen/$
  - **Decreasing sales**
    - Thermal power, chemical plants, metals machinery, compressors, etc.

- **Ordinary income forecast**: 180.0 billion yen
  - Recovery from temporary losses
    - Recovery through MRJ measures and commercial ship reforms (Min.60%)
    - Reform of commercial aircraft business
      - Accelerate independent management and PMI
      - Further concentration into core competencies
      - Enhance asset management
      - Radical reform of commercial ship business
      - Strengthen business risk management etc.
  - Early recovery of unachieved Tier 1 earnings
  - Improvement already factored into 2015 Business Plan
  - Implementation Plan for Second Half of 2015 Medium-Term Business Plan
  - Reform of commercial aircraft business
  - Accelerate independent management and PMI
  - Further concentration into core competencies
  - Enhance asset management
  - Radical reform of commercial ship business
  - Strengthen business risk management etc.

- **Equity-method losses** (Mitsubishi Motors Corp., etc.)
- **Forex loss**
- **Ordinary loss**
Earnings Improvement Outlook
Implement quantitative analysis and evaluation, compile results by end of Q3

- **Stabilization of business scale**
  - Strengthen core businesses to maintain minimum scale of ¥5 trillion etc.

- **Reinforcement of business scope**
  - Further concentration into core competencies
  - Focus on high added value (services, solutions)
  - Supply Chain Management reforms etc.

- **Business reforms**
  - Commercial ships and commercial aircraft

**Increase gross profit**

**Decrease SG&A**

**Increase operating income**

**Improve both non-operating and extraordinary profits/losses**

**Increase net income**

- **Enhancement of organizational and system efficiency**
  - Reduce business segments’ internal costs
  - Shift to shared services (including BPO*)
  - Enhance efficiency through domain reorganization and business consolidation

- **Asset management**

- **Strengthen business risk management**

*BPO: Business process outsourcing
Appendix

• Concentration into Core Competencies   -   P.27
• Radical Reform of Commercial Ship Business   -   P.28
• Strengthening of Business Risk Management   -   P.29
<table>
<thead>
<tr>
<th>Company</th>
<th>Product/Business</th>
<th>Agreement date</th>
<th>Net sales contribution (FY2014)</th>
<th>PMI Status and Results to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Broach (USA)</td>
<td>Machine tools</td>
<td>Apr 2012</td>
<td>Approx. JPY 5.0bn</td>
<td>Business expansion and stabilization from lineup integration</td>
</tr>
<tr>
<td>PWPS(USA), Turboden(Italy)</td>
<td>Gas turbines</td>
<td>Dec 2012</td>
<td>Approx. JPY 80bn</td>
<td>Business expansion from added lineup in small/medium GT</td>
</tr>
<tr>
<td>Daily Equipment (USA)</td>
<td>Forklift trucks</td>
<td>Jan 2012</td>
<td>Approx. JPY 1.5bn</td>
<td>Expansion of after-sale servicing business</td>
</tr>
<tr>
<td>Toyo Engineering Works</td>
<td>Refrigeration machinery</td>
<td>Jun 2012</td>
<td>Approx. JPY 2.5bn</td>
<td>Strengthening of upstream product lineup</td>
</tr>
<tr>
<td>UniCarriers Holdings</td>
<td>Forklift trucks</td>
<td>Jul 2015</td>
<td>Approx. JPY 185bn</td>
<td>Further business scale growth and expanded global market share</td>
</tr>
<tr>
<td>Nippon Yusuki</td>
<td>Forklift trucks</td>
<td>Nov 2012</td>
<td>Approx. JPY 130bn</td>
<td>Business expansion from achievement of full lineup</td>
</tr>
<tr>
<td>Hitachi</td>
<td>Thermal power generation systems</td>
<td>Nov 2012</td>
<td>Approx. JPY 300bn</td>
<td>Business expansion from full GT lineup (small to large), expansion of unique technologies (brown coal combustion, IGCC)</td>
</tr>
<tr>
<td>Siemens (Germany)</td>
<td>Metals machinery</td>
<td>May 2014</td>
<td>Approx. JPY 300bn</td>
<td>Business expansion from achievement of full lineup</td>
</tr>
<tr>
<td>IHI Metaltech</td>
<td>Metals machinery</td>
<td>Jul 2013</td>
<td>Approx. JPY 150bn</td>
<td>Strengthened lineups of aluminum rolling mills, etc.</td>
</tr>
<tr>
<td>Mahindra &amp; Mahindra (India)</td>
<td>Agricultural machinery</td>
<td>May 2015</td>
<td>(equity-based)</td>
<td>Stronger competitiveness in domestic and global markets</td>
</tr>
<tr>
<td>Vestas (Denmark)</td>
<td>Wind turbines</td>
<td>Sep 2013</td>
<td>(equity-based)</td>
<td>Early achievement of strategic model (8MW) development and order receipt targets</td>
</tr>
<tr>
<td>Ryobi</td>
<td>Commercial printing machinery</td>
<td>Jun 2013</td>
<td>(equity-based)</td>
<td>Business strengthening from product lineup and production integration</td>
</tr>
<tr>
<td>Fuji Xerox</td>
<td>Document-related</td>
<td>Oct 2013</td>
<td>-</td>
<td>Reductions in direct/indirect costs from standardization and effective document-related processes</td>
</tr>
<tr>
<td>Miyaji Engineering</td>
<td>Bridges</td>
<td>Nov 2014</td>
<td>(equity-based)</td>
<td>Scale merits, Market share increase</td>
</tr>
<tr>
<td>Japan Tunnel Systems</td>
<td>Tunneling shield machine</td>
<td>May 2015</td>
<td>(equity-based)</td>
<td>Assured capture of domestic demand and accelerate business expansion overseas</td>
</tr>
<tr>
<td>Fuji Oozx</td>
<td>Automobile engine valves</td>
<td>Jan 2016</td>
<td>(equity-based)</td>
<td>Market share expansion and enhanced market presence</td>
</tr>
<tr>
<td>Ube Machinery</td>
<td>Injection molding machines</td>
<td>Jul 2016</td>
<td>-</td>
<td>Expansion of product lineup and sales network, reductions in production costs</td>
</tr>
<tr>
<td>HIDROMEK (Turkey)</td>
<td>Motor graders</td>
<td>Nov 2013</td>
<td>-</td>
<td>Promotion of business concentration into core competence</td>
</tr>
<tr>
<td>Delta Electronics (Taiwan)</td>
<td>Lithium rechargeable batteries</td>
<td>Apr 2014</td>
<td>-</td>
<td>Promotion of business concentration into core competence</td>
</tr>
<tr>
<td>Sumitomo Heavy Industries Material Handling Systems</td>
<td>Industrial cranes</td>
<td>May 2015</td>
<td>-</td>
<td>Promotion of business concentration into core competence</td>
</tr>
<tr>
<td>Michinori Holdings</td>
<td>Shonan Monorail</td>
<td>May 2015</td>
<td>-</td>
<td>Promotion of business concentration into core competence</td>
</tr>
<tr>
<td>Tohmei Industries</td>
<td>Ship stabilizers</td>
<td>Mar 2016</td>
<td>-</td>
<td>Promotion of business concentration into core competence</td>
</tr>
<tr>
<td>Sato Tekko</td>
<td>Sluice gates</td>
<td>May 2016</td>
<td>-</td>
<td>Promotion of business concentration into core competence</td>
</tr>
<tr>
<td>Hitachi</td>
<td>X-ray medical equipment</td>
<td>Aug 2016</td>
<td>-</td>
<td>Promotion of business concentration into core competence</td>
</tr>
<tr>
<td>Ecovix (Brazil)</td>
<td>Shipbuilding</td>
<td>Jan 2016</td>
<td>(equity-based)</td>
<td>Promotion of business concentration into core competence</td>
</tr>
</tbody>
</table>
Appendix: Radical Reform of Commercial Ship Business

1. Structural Reforms

- Shift away from vertically integrated businesses at each factory
  → Move towards horizontally integrated businesses, working with other companies (maximize efficiency through division of areas of expertise)

Until now (vertically integrated)

- Value chain flow
  Sales / Design / Procurement / Production design / Production / Outfitting / Delivery

Nagasaki Shipyard & Machinery Works

Shimonoseki Shipyard & Machinery Works

After reforms (horizontally integrated)

- Specialize in areas of expertise and make effective use of alliances

Shipbuilding and Ocean business integration, Engineering

Large-scale ships (Nagasaki Shipyard Koyagi Plant)

Improve earnings through collaboration with other companies

Ships involving major outfitting (Shimonoseki Shipyard)

Continuously constructed ships: form construction tie-ups with other companies

2. Reform Schedule

<table>
<thead>
<tr>
<th>FY2016</th>
<th>FY2017/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launch</td>
<td></td>
</tr>
<tr>
<td>Cruise Ship Business Evaluation Committee</td>
<td></td>
</tr>
<tr>
<td>Prepare organizational reforms</td>
<td></td>
</tr>
<tr>
<td>Implement new system</td>
<td></td>
</tr>
<tr>
<td>Nagasaki Commercial Ship Reform Committee (starting Dec. 2015)</td>
<td></td>
</tr>
<tr>
<td>Corporate culture reform activities</td>
<td></td>
</tr>
<tr>
<td>Collaborate with tie-up partners</td>
<td></td>
</tr>
<tr>
<td>Begin operations</td>
<td></td>
</tr>
</tbody>
</table>

Toward realization of anticipated results

- Collaborate with tie-up partners
- Begin operations
- Toward realization of anticipated results

"Business integration, engineering"

Shipbuilding and ocean business integration, Engineering

- Large-scale ship construction (Nagasaki Koyagi)
- Imabari Shipbuilding Co., Ltd.
- Oshima Shipbuilding Co., Ltd.
- Namura Shipbuilding Co., Ltd.

Construction of Ships involving major outfitting (Shimonoseki)

- Construction tie-up
  Imabari Shipbuilding Group
  Shin Kasado Dockyard Co., Ltd.
  etc.

<Construction>

<Construction>
By accelerating 2015 Medium-Term Plan activities, we will improve profits/losses from the next Mid-Term Plan onwards, reducing extraordinary losses by at least 50% (approx. ¥30 billion) from their average over the past 10 years.

Appendix: Strengthening Business Risk Management - Anticipated Results

Extraordinary loss (in billion yen)

<table>
<thead>
<tr>
<th>Year</th>
<th>Extraordinary Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>18.0</td>
</tr>
<tr>
<td>2007</td>
<td>30.0</td>
</tr>
<tr>
<td>2008</td>
<td>65.0</td>
</tr>
<tr>
<td>2009</td>
<td>16.0</td>
</tr>
<tr>
<td>2010</td>
<td>44.0</td>
</tr>
<tr>
<td>2011</td>
<td>45.0</td>
</tr>
<tr>
<td>2012</td>
<td>6.0</td>
</tr>
<tr>
<td>2013</td>
<td>130.0</td>
</tr>
<tr>
<td>2014</td>
<td>86.0</td>
</tr>
<tr>
<td>2015</td>
<td>155.0</td>
</tr>
</tbody>
</table>

Average losses for past 10 years: ¥60 bn/yr
Appendix: Business Risk Management - Implementation Schedule

### Implementation measures

**FY2016**
- ▼ Establish organization under direct CEO management
- ▼ Establish Cruise Ship Business Evaluation Committee
- ▼ Develop “Business Risk Management Charter”
- ▼ Establish Business Risk Management Committee

**FY2017**
- Early stable achievement of all measures (see p.10) and further upgrade

**FY2018-**
- Implement special measures for MRJ commercialization

### Current large-scale risks

- **SONGS arbitration**
- **Cruise ship business**

#### Implementation measures

- ▼ Review of commercialization implementation system
- **Shift to new system**
- **Achieve anticipated results**

### Future risk measures

- ▼ Review of commercialization implementation system
- **Implement special measures for MRJ commercialization**

---

CEO: Chief executive officer  
SONGS: San Onofre Nuclear Generating Station