Progress of Medium-Term Business Plan “MTBP2016”

[Bar chart showing Orders Received and Net Sales in billion yen for FY2015 to FY2018.]

- Orders Received (in billion yen):
  - FY2015: 1,693.6
  - FY2016: 1,608.0
  - FY2017: 1,541.0
  - FY2018: 1,574.2
  - Forecast: 1,590.0

- Net Sales (in billion yen):
  - FY2015: 1,650.0
  - FY2016: 1,608.0
  - FY2017: 1,541.0
  - FY2018: 1,590.0

[Bar chart showing Operating Income in billion yen for FY2015 to FY2018.]

- Operating Income (in billion yen):
  - FY2015: 95.9 (9.4%)
  - FY2016: 45.9 (5.0%)
  - FY2017: 55.9 (3.9%)
  - FY2018: 75.0 (8.0%)

Assumed exchange rates (USD):
- FY2015: 118.99
- FY2016: 108.98
- FY2017: 110.62
- FY2018: 107

Forecast for Net Sales:
- FY2018: 107
### Business Portfolio Strategy

#### Four business sectors
- **Aerospace Systems**
  - Commercial aircraft
  - Commercial jet engines
- **Energy System & Plant Engineering**
  - Distributed power generation
  - Oil & Gas
- **Precision Machinery & Robot**
  - Industrial robots
  - Medical robots
- **Transportation**
  - Rolling stock for overseas markets

#### Key products & services that drive growth
- **Aerospace Systems**
- **Energy System & Plant Engineering**
- **Precision Machinery & Robot**
- **Transportation**

#### Net Sales development by business sector
- FY2018
- FY2020
- FY2025

#### Operating Income development by business sector
- **FY2018**
  - Operating Margin: 4.5%
  - For the time being, Precision Machinery & Robot will be a core profit center.
- **FY2020**
  - Operating Margin: 5.3%
  - From FY2021, Aerospace System will significantly expand.
- **FY2025**
  - Operating Margin: 9% or higher
  - 44% of total sales

※Ship & Offshore Structure, Rolling Stock, Motorcycle & Engine
Organizational Restructuring (Structure・Rename)

【 Former structure 】

- Ship & Offshore Structure
- Rolling Stock
- Aerospace
- Gas Turbine & Machinery
- Plant & Infrastructure
- Motorcycle & Engine
- Precision Machinery

【 New structure (as of 1st April, 2018) 】

- Ship & Offshore Structure: No Change
- Rolling Stock: No Change
- Aerospace Systems
- Energy System & Plant Engineering: No Change
- Motorcycle & Engine: No Change
- Precision Machinery & Robot: Rename

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## Business Direction and Synergies

### Aerospace Systems Company

<table>
<thead>
<tr>
<th>Strengthen global cost competitiveness</th>
<th>Business Expansion/ Enhancement through Cooperation</th>
<th>Creation of New Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing of production bases and supply chain</td>
<td>Cooperative Business between Aircraft and Engine/Transmission</td>
<td>Linkage between Aircraft related Technologies and Engine related Technologies</td>
</tr>
<tr>
<td>Sharing of outcome of KPS improvement activity and advanced manufacturing technology</td>
<td>MRO Business (Maintenance, Repair and Overhaul)</td>
<td></td>
</tr>
</tbody>
</table>

- **Past efforts in collaboration between Aircraft and Engine/Transmission**

  ### Organizational Restructuring
  (Aerospace Systems Company 1/2)

  **P-1 / C-2**  
  Aircraft Co-Development

  **Generator**

  **BK117**  
  Helicopter Co-Development

  **Transmission**
Organizational Restructuring (Aerospace Systems Company 2/2)

- Aerospace systems Company’s sales target in 2025 is ¥700bil.
  - Fusing fundamental tech as Aircraft System integration tech to create new business.
  - Aiming business expansion through cooperation.

**Engine related Technologies**
- Engine module tech (Compressor, Combustor, Gear)
- Small Engine tech
- Engine related equipment tech (such as electrical power system)
- Transmission tech

**Aerospace Technologies**
- Aircraft system integration tech
- Composite material application tech
- Aerodynamic design tech
- Advanced manufacturing tech (such as IoT)
Organizational Restructuring
(Energy System & Plant Engineering Company 1/2)

Business Direction and Synergies

Energy System & Plant Engineering Company

Enhance core hardware and develop business by proposal of system combined core hardware

- Enhancement of core hardware and construction of optimal system by combination of core hardware
- Proposal of distributed energy supply system
- Formation of system contributing to CO₂-free society

Develop CCPP standard package
(Combined Cycle Power Plant ™)
- Manage projects more efficiently by standardization, increase the accuracy of the estimate and promote cost reduction
- Provide optimum plants which meet customer needs by combination of KHI’s high-efficiency hardware and optimal control
- Roll out 100MW class power generation equipment across the Southeast Asia, and further, global market

※ Combined Cycle Power Plant consists of two-stage power generation system that a gas turbine and a steam turbine are used in combination. Gas turbine CCPP recovers high temperature and high pressure exhaust emissions’ energy generated by gas turbine power generation as steam by using heat recovery steam generator and generates power through steam turbine. It is a power generation system of low energy loss.

Use of cryogenic energy (LNG・Hydrogen)

LNG terminal
Hydrogen terminal
Fertilizer plant
Waste treatment facility

EPC

Steam turbine

Gas turbine
Boiler
Gas engine

Bird’s-eye view of CCPP standard package
Organizational Restructuring  
(Energy System & Plant Engineering Company 2/2)

- Aim to achieve annual sales of 300 billion yen in 2025
  - Sales growth through expansion overseas and promotion of EPC orders
  - Expanded sales in Southeast Asia market

- Global trend in demand for electricity
  - Demand for electricity (Twh)
      - Africa: 43%
      - Middle East: 39%
      - Southeast Asia: 39%
      - China: 39%
      - Far East: 7%
      - Europe: 10%
      - Russia, Eastern Europe: 12%
      - Latin American: 23%
      - North America: 8%
  - Source: 2016 IEA energy outlook

- Customer needs
  - Want to implement a high-efficiency system
  - Want to switch energy source from heavy oil to utility gas to reduce CO₂ emissions
  - Want to cope with fluctuating the amount of electricity and steam required

- Effect of reorganization
  - Tap into further overseas demand through reinforcement of competence as contractor of EPC

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Companywide Quality Control System related defects during manufacturing process of the bogie frame

Composition of Companywide Quality Control Committee

Companywide Quality Control Committee

- Consist of authorities on quality control engineering, external lawyers, directors, and others
- Receive findings from Survey Team, clarify the problems, and discuss and decide on measures to correct them

Survey Team

- Consist of external consultants, internal experts in quality control, and others
- First, Investigate the cause of the production defect occurred at Rolling Stock Company
- Going forward, investigate the state of other internal companies’ quality control system in detail, and report findings to the committee

Report
## Change of ROIC Rating

<table>
<thead>
<tr>
<th>ROIC rating</th>
<th>As of April 2017</th>
<th>As of April 2018※</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Market leader</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>B Stable contributor</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>C Reduced variation in performance required</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>D Improved investment efficiency required</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>E Restructuring required</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

※ROIC rating of each BU as of April, 2018 is complied with reclassification of some BUs after April, 2017.

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<tbody>
<tr>
<td></td>
<td>FY2016-2019 : 105.00円</td>
<td>FY2018-2020 : 111.00円</td>
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</tr>
</tbody>
</table>
Figures recorded in the business forecasts are forecasts that reflect the judgment of the Company based on the information available at the time of release and include risks and uncertainties. Accordingly, the Company cautions investors not to make investment decisions solely on the basis of these forecasts.

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