Hitachi Metals, Ltd.
Progress of Fiscal Year 2018 Medium-term Management Plan

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1. Basic Policies of the FY2018 Medium-term Management Plan,
   Overview of FY2016 Initiatives
2. Environment and Priority Issues with Business, Performance Targets
3. Action Plan
4. Summary

April 28, 2017
1-1. FY2018 Medium-term Management Plan: Basic Policies

Change to be a competitive business; Challenge ourselves to meet new targets

Achieving our goal of becoming the world’s leading high-performance materials company

Key Policies of the FY2018 Medium-term Management Plan

1. Accelerate the creation and execution of growth strategies.
2. Achieve a robust business structure and highly efficient business management.
3. Strive to establish a business base that is sustainable over the long-term.
Our vision

Expand the business globally while improving profitability

Management driven by both the growth strategy and a stronger business base

Continuous portfolio remodeling

Organic growth (from capital investment & R&D)

Growth through M&A

Strengthen the business base
1-3. Overview of FY2016 Initiatives

Get off to a good start building a base for growth

<table>
<thead>
<tr>
<th>Organic growth (from capital investment &amp; R&amp;D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Established Corporate Research Lab. (Constructed new building. Total investment: approx. ¥10 billion) (Opened in April 2017)</td>
</tr>
<tr>
<td>• Began mass production of SLD-i™, a new type of cold-rolled tool steel, with a new melting facility. (April 2016)</td>
</tr>
<tr>
<td>• Enhanced the solution sales system for tool steel in Asia and Japan. (June 2016, February 2017)</td>
</tr>
<tr>
<td>• Capital expenditure to reinforce R&amp;D for the Soft Magnetic Components Business. (March 2017)</td>
</tr>
<tr>
<td>• Introduced innovative production lines for magnetic materials. Total investment: approx. ¥18 billion (Scheduled for operation in 1H FY2018)</td>
</tr>
<tr>
<td>• Established Hitachi Metals San Huan Magnetic Materials (Nantong) Co., Ltd. (September 2016)</td>
</tr>
<tr>
<td>• Increased production capacity of heat-resistant casting components for turbos. Total investment: approx. ¥7 billion (Began operation in October 2016)</td>
</tr>
<tr>
<td>• Established Hitachi Metals Advanced Machining, Ltd. (April 2017)</td>
</tr>
<tr>
<td>• Enhanced capacity at overseas plants for growth areas for the cable materials (rolling stocks, medical devices, automotive electronic components). (Began operation in 1H FY2016)</td>
</tr>
</tbody>
</table>
## Get off to a good start building a base for growth

### Continuous portfolio remodeling
- Consolidated and fortified roll production in Japan. Terminated production at China location. (September 2016)
- Sold North American subsidiary. (December 2016)
- Transferred the Information Systems Business. (December 2016)
- Accelerated restructuring by selling the Lead Frame Business and making the Copper Product Business a wholly-owned subsidiary. (January 2017)

### Growth through M&A
- Completed merger of Waupaca Foundry, Inc. and Hitachi Metals Automotive Components USA, LLC. (April 2016)
- Dedicated a plant to ductile cast iron and a plant to gray iron at Waupaca Foundry. (October 2016)
- Established new mass production plan at HTP-Meds, LLC. (September 2016)

### Strengthen the business base
- Improved inventory turnover rate and defect rate through the *Monozukuri* Innovation Project.
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2-1. Environment Surrounding the Company

**Market/technology trends**
- Stricter environmental regulations and increase in needs for technology to respond
- New services and technologies using IoT
- Accelerated evolution of materials technologies

**Characteristics and strengths of Hitachi Metals**
- A history-proven diverse business portfolio
- High technological skills primarily in specialty items and environment-friendly products

Capture growth opportunities with the Strength based on Group-wide networks
Changes in technological needs resulting from xEVs

Improved efficiency
- LiB materials (electrodes, power collectors)
- Thermoelectric exchange modules (clads)
- Automotive electronic components (soft magnetic components)
- New magnets for high efficiency motors

Weight reduction
- For car bodies and wheels
  - Aluminum composites
  - Multi-materials (CFRP)

Resource-saving
- Weight-saving rare earth magnets for motors

*xEV: General term for electric vehicles (EVs), hybrid electric vehicles (HEVs), and plug-in hybrid electric vehicles (PHEVs).
A diverse product range that addresses xEVs

- Aluminum wheels
- Harnesses for brakes
- Finemet Amorphous cut cores
- Magnets
- Enameled wires
- Casting components for suspension
- Thermoelectric exchange modules
- Metal foil for LiB
- 2-3. xEVs and Hitachi Metals’ Business (2)
2-4. Priority Issues of Business

Three innovations under corporate initiatives

- Monozukuri innovation
- Sales innovation
- R&D innovation

Aggressive investment in human resources and goods
(FY2017 capital expenditure: ¥90 billion)

- Mass production of quality products
- Harvesting gains from increased production
- Creation of new businesses

Achieve adjusted operating income of ¥100 billion through organic growth (FY2018)
2-5. Target Portfolio

Expand business scale and domains while improving profitability

Operating margin

Sphere size = Scale of Net sales

Adjusted operating income (¥100 million)

Specialty Steel Products

Strengthen the portfolio further as the core business. (Establish materials for industrial equipment as a cash cow, expand aircraft and energy, strengthen battery materials.)

Magnetic Materials and Applications

Enhance and expand business as the core business of the xEV era.

Functional Components and Equipment

Reinforce casting components for the automobiles business and develop new materials that address weight reduction.

Wires, Cables, and Related Products

Expand the reinforcement of the three focus areas (rolling stocks, medical devices, automotive electronic components). Create new business value through synergies with other Companies.
### 2-6. FY2018 Medium-term Management Plan: Main Managerial Indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>910.5</td>
<td>950.0</td>
<td>1,000.0</td>
</tr>
<tr>
<td>Adjusted operating income</td>
<td>[7.2%] 66.0</td>
<td>[8.4%] 80.0</td>
<td>[10.0%] 100.0</td>
</tr>
<tr>
<td>EBIT</td>
<td>68.5</td>
<td>66.0</td>
<td>91.0</td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>66.0</td>
<td>63.0</td>
<td>87.0</td>
</tr>
<tr>
<td>Net income*</td>
<td>50.6</td>
<td>45.0</td>
<td>61.0</td>
</tr>
<tr>
<td>ROA</td>
<td>4.9%</td>
<td>4.3%</td>
<td>More than 5%</td>
</tr>
<tr>
<td>ROE</td>
<td>9.4%</td>
<td>8.1%</td>
<td>More than 10%</td>
</tr>
</tbody>
</table>

- Revised the exchange rate assumption (US$1 = ¥115 → US$1 = ¥110)
- Revised raw material prices and demand trends in view of the latest situation.
- Conservatively revised the discounting of M&A transactions that contain many uncertainties into performance targets.

*Net income attributable to owners of parent
## 2-7. Revenues & Adjusted Operating Income by Segment

<table>
<thead>
<tr>
<th></th>
<th>FY2016 Business Performance (US$1=¥108)</th>
<th>FY2018 Forecast (US$1=¥110)</th>
<th>vs. FY2016 (VBillions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty Steel Products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>234.7</td>
<td>280.0</td>
<td>+19%</td>
</tr>
<tr>
<td>Adjusted operating income</td>
<td>23.5</td>
<td>38.0</td>
<td>+14.5</td>
</tr>
<tr>
<td>Profit margin</td>
<td>10.0%</td>
<td>13.6%</td>
<td>+3.6%</td>
</tr>
<tr>
<td>Magnetic Materials and Applications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>99.8</td>
<td>120.0</td>
<td>+20%</td>
</tr>
<tr>
<td>Adjusted operating income</td>
<td>9.3</td>
<td>13.0</td>
<td>+3.7</td>
</tr>
<tr>
<td>Profit margin</td>
<td>9.3%</td>
<td>10.8%</td>
<td>+1.5%</td>
</tr>
<tr>
<td>Functional Components and Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>333.5</td>
<td>370.0</td>
<td>+11%</td>
</tr>
<tr>
<td>Adjusted operating income</td>
<td>17.5</td>
<td>30.5</td>
<td>+13.0</td>
</tr>
<tr>
<td>Profit margin</td>
<td>5.2%</td>
<td>8.2%</td>
<td>+3.0%</td>
</tr>
<tr>
<td>Wires, Cables, and Related Products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>241.4</td>
<td>250.0</td>
<td>+4%</td>
</tr>
<tr>
<td>Adjusted operating income</td>
<td>14.7</td>
<td>20.0</td>
<td>+5.3</td>
</tr>
<tr>
<td>Profit margin</td>
<td>6.1%</td>
<td>8.0%</td>
<td>+1.9%</td>
</tr>
<tr>
<td>Other &amp; Adjustments</td>
<td></td>
<td>-20.0</td>
<td>-</td>
</tr>
<tr>
<td>Revenues</td>
<td>1.1</td>
<td>-</td>
<td>-2.5</td>
</tr>
<tr>
<td>Adjusted operating income</td>
<td>1.0</td>
<td>-1.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,000.0</td>
<td>+10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100.0</td>
<td>+34.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10.0%</td>
<td>+2.8%</td>
</tr>
</tbody>
</table>

Total

| Revenues             | 910.5                                  | 1,000.0                    | +10%                    |
| Adjusted operating income | 66.0                                  | 100.0                      | +34.0                   |
| Profit margin         | 7.2%                                   | 10.0%                      | +2.8%                   |
### Make strategic investments aimed at expanding global business domains and strengthening the business base.

<table>
<thead>
<tr>
<th></th>
<th>FY2015 Medium-term Plan Cumulative Results</th>
<th>FY2018 Medium-term Cumulative Plan</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating cash flow</td>
<td>¥323.9 billion</td>
<td>¥290.0 billion</td>
<td>-¥33.9 billion</td>
</tr>
<tr>
<td>Investment amount</td>
<td>¥313.5 billion</td>
<td>¥290.0 billion</td>
<td>-¥23.5 billion</td>
</tr>
<tr>
<td>(including M&amp;A)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation and</td>
<td>¥116.6 billion</td>
<td>¥145.0 billion</td>
<td>+28.4 billion</td>
</tr>
<tr>
<td>amortization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D (excluding</td>
<td>¥46.9 billion</td>
<td>¥55.6 billion</td>
<td>+8.7 billion</td>
</tr>
<tr>
<td>business of info systems)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Dividends

<table>
<thead>
<tr>
<th></th>
<th>Interim Dividends</th>
<th>Year-end Dividends</th>
<th>Annual Dividends</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2014</td>
<td>¥10</td>
<td>¥13</td>
<td>¥23</td>
</tr>
<tr>
<td>FY2015</td>
<td>¥13</td>
<td>¥13</td>
<td>¥26</td>
</tr>
<tr>
<td>FY2016</td>
<td>¥13</td>
<td>¥13 (Forecast)</td>
<td>¥26 (Forecast)</td>
</tr>
<tr>
<td>FY2017</td>
<td>¥13 (Forecast)</td>
<td>¥13 (Forecast)</td>
<td>¥26 (Forecast)</td>
</tr>
</tbody>
</table>

### Policy on Shareholder Return in the FY2018 Medium-term Management Plan

- **Active investment in growth strategy**
- **Business growth & expansion**
- **Further investment in growth strategy**

**Achieve shareholder return that reflects high growth**

*(Dividend payout ratio target: 25%)*
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# 3-1. Monozukuri Innovation

**Monozukuri abilities that realize the expansion of organic growth**

<table>
<thead>
<tr>
<th>Improve cash flow by rolling out company-wide activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve innovative <strong>Monozukuri</strong> through IoT</td>
</tr>
</tbody>
</table>

## Company-wide activities
- Reduce lead time and inventory assets.

## Analysis of manufacturing conditions
- Improve loss cost and defect rates.
- Launch new products quickly.

## Establishment of new production line using IoT
- Establish innovative production lines for magnets. (Scheduled for operation in 1H FY2018)
- Establish a new continuous rolling line for cables. (Scheduled for completion in FY2017)

## Visualization of manufacturing data
- Establish a high efficiency production management system.

**Impact in FY2016:** ¥3 billion → **FY2017:** ¥10 billion → **FY2018:** ¥20 billion
3-2. Sales Innovation

Recognition of current situation
- Shortage in resources due to excessive reduction of fixed costs
- Limitations in sales activities by fixed personnel
- Lack of a sales management system that spans businesses for all segments

Make innovations from medium- to long-term and cross-business perspectives

Strengthen front office sales.
- Reinforce human resources (increase number of staff, training, rotations).
- Collaboration between regions

Maximize the aggregate of marginal profit (harvest gains from increased production)

Carry out cross-business projects.
- Cooperate with GRIT and search for new businesses and products.
- Carry out multiple projects based on markets, accounts, and regions.

Create new businesses
Become a genuinely development-driven company

Realize R&D that leads the business strategy

■ Established GRIT (April 2017)
Integrate advanced materials development and process development.
(Magnetic Materials Research Laboratory and Production System Laboratory located in the same building)

Promote open innovation.

Enhance functions as a human resources development institution.

Promote new business creation theme.

• Currently promoting 15 themes concentrated on threats and opportunities.
• 2025: Expected revenues: ¥180 billion
  Expected incomes: ¥20–25 billion
• Focus on the development of compound materials and multiple materials.
Responses to xEV demand

Try new areas by generating synergies

Increased demand for battery materials:
Clad materials for lithium-ion batteries for xEVs

- Hitachi Metals Yasugi Works
- Hitachi Metals Neomaterial
- SH Copper Products

Generate synergies toward the expansion of demand

Increased needs of high efficiency and light weight for motors

- Growth of power semiconductor market
- Expansion of xEVs

Winding products & core materials for xEVs (FINEMET®)

Take on challenge of increasing sales for car-mounted components

Sales plan for the Specialty Steel Company

¥234.7 billion (FY2016 performance) ⇒ 280.0 billion (FY2018 budget)
3-5. Magnetic Materials Company

Address demand for xEV and expand the China business

Address the increasing demand for xEV

- Make the Kumagaya Works a main plant and introduce innovative production lines  
  (Bring online in 1H FY2018)
- Move the Magnetic Materials Research Laboratory to the Kumagaya district  
  (Move in April 2018)
- Strengthen material flow through raw material recycling and in-house production  
  (Begin in FY2018)

Expand the China business

- Sales target: ¥10 billion (FY2018)
- Stable procurement of raw materials by using purchase network of Chinese partner
- Accelerate activities to acquire certification for xEV

Sales plan for the Magnetic Materials Company

¥99.8 billion (FY2016 performance) ⇒ ¥120.0 billion (FY2018)
### Fortify the *monozukuri* base and increase order intake

**HERCUNITE™ heat-resistant casting components**

<table>
<thead>
<tr>
<th></th>
<th>Market recognition</th>
<th>Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At time of formulation of medium-term plan</strong></td>
<td>Increase in demand by addressing environmental regulations</td>
<td>• 60% increase in capacity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop global machinery processing location</td>
</tr>
<tr>
<td><strong>Current situation</strong></td>
<td>Market expanded significantly beyond forecast</td>
<td>• Launch of new casting line (October 2016)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Enhance domestic capacity with new concept machine processing lines.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Improve profitability through stable operation, appropriate inventory levels, and improved quality &amp; productivity.</td>
</tr>
</tbody>
</table>

### FY2018 plan (vs FY2016)

- **Production volume**: +50%
- **Productivity**: +15%
- Formulating further plans to reinforce production capacity

**Sales plan for the Functional Components Company**

¥333.5 billion (FY2016) ⇒ ¥370.0 billion (FY2018)
3-7. Cable Materials Company

Establish a high-profit structure by strengthening growth areas and core areas

- Concentrate management resources in rolling stocks, medical devices, and automotive electronic components to accelerate growth

<table>
<thead>
<tr>
<th>Category</th>
<th>Plan Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling stocks</td>
<td>Consider business expansion including M&amp;A</td>
</tr>
<tr>
<td>Medical devices</td>
<td>Maximize synergies with HTP-Meds by strengthening production systems, etc.</td>
</tr>
<tr>
<td>Automotive electronic components</td>
<td>Accelerate global growth by enhancing production systems at overseas locations</td>
</tr>
</tbody>
</table>

- Carry out capital expenditure in core areas to strengthen monozukuri abilities

  Improve productivity by introduction of a new continuous rolling line (April 2018) and technological innovation

- Generate synergies with other internal companies

  Increase collaboration with the Specialty Steel and Magnetic Materials Companies.

Sales plan for the Cable Materials Company

¥241.4 billion (FY2016) ⇒ ¥250.0 billion (FY2018)
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Change to be a competitive business; Challenge ourselves to meet new targets

Achieving our goal of becoming the world’s leading high-performance materials company

FY2018 Plan

Revenues: ¥1 trillion
Adjusted Operating Income: ¥100 billion (Margin: 10.0%)

(Exchange rate assumption US$1 = ¥110)

Strive for sustainable growth by executing global growth strategies and strengthening the business base
Information on Risks Inherent in Future Projections

This document contains forward-looking statements, such as results forecasts, management plans and dividend forecasts, that are not historical facts. All such forward-looking statements are based upon all available information and upon assumptions and projections that were deemed reasonable at the time the Company prepared this document. Changes to the underlying assumptions or circumstances could cause the actual results to differ substantially. The factors causing such differences include, but are not limited to, the following:

- Changes in economic conditions and regulations in the main markets where the Company operates, particularly Japan, the Americas, Asia and Europe
- Sudden changes in technological trends
- Changes in competitive advantage and the capabilities of the Company and its subsidiaries and affiliates to develop and commercialize new products and technologies
- Fluctuations in the status of product markets, exchange rates and international commodity markets
- Changes in the financing environment
- The capability of the Company and its subsidiaries and affiliates to cope with fluctuations in product supply and demand, the status of product markets, exchange rates and international commodity markets
- Protection of the Company’s intellectual property, and securing of licenses to use the intellectual property of other parties
- Changes in the status of alliances with other parties for product development, etc.
- Fluctuations in Japanese stock markets