Business Strategy of the Cable Materials Company

Hitachi Metals IR Day 2018

May 25, 2018
Hitachi Metals, Ltd.
Kazuya Murakami
Executive Officer
President of the Cable Materials Company
Business Strategy of the Cable Materials Company

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1. Basic Policy of the Company
2. Action Plan for the 5 Growth Areas
3. Summary
1-1. Overview of Initiatives in FY2017

**Measures to accelerate growth areas**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling stock</td>
<td>Increased capacity of Chinese base and expanded the European customer base</td>
</tr>
<tr>
<td>Medical Devices</td>
<td>Developed integrated catheter/cable products</td>
</tr>
<tr>
<td></td>
<td>Enhanced probe cable production capacity</td>
</tr>
<tr>
<td>Automotive Electronic Components</td>
<td>Enhanced capacity of global bases, developed new products</td>
</tr>
</tbody>
</table>

**Measures to strengthen core products**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wires/cables for electronics</td>
<td>Increased production for the rapidly growing FA/Robot segment</td>
</tr>
<tr>
<td>Magnet wires</td>
<td>Introduced innovative production line for EV* magnet wires, of which growth is expected; developed HiFC® rectangular wire</td>
</tr>
</tbody>
</table>
| New continuous casting and rolling line | Completed in April 2018  
⇒Strengthens competitiveness of core products, addresses HiFC® mass production |

*Including term for hybrid electric vehicles (HEV) and plug-in hybrid electric vehicles (PHEV)*
1-2. Cable Materials Company: Business Overview

Core Products

Main product groups
- Wires / cables for construction
- Wires/cables for electronics
- Brake hoses

Wires, Cables, and Related Products
FY2018 Revenues: ¥240.0 bn

Growth Areas

Main product groups
- Wires / cables for rolling stock
- Wires/cables for Medical devices
- Automotive Electronic components

New Growth Areas

Main product groups
- Wires and cables for FA/RoBoTs
- Magnet wires
1-3. Basic Policy of the Company

Basic policy of the Cable Materials Company

Change to a high-profit structure by expanding growth areas

FY2018 goals

<table>
<thead>
<tr>
<th></th>
<th>FY2016 Actual (¥108=US$1)</th>
<th>FY2017 Actual (¥111=US$1)</th>
<th>FY2018 Goal (¥105=US$1)</th>
<th>Change vs. FY2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>¥241.4 bn</td>
<td>¥230.5 bn</td>
<td>¥240.0 bn</td>
<td>+4%</td>
</tr>
<tr>
<td>Adjusted operating income</td>
<td>¥14.7 bn</td>
<td>¥14.9 bn</td>
<td>¥17.0 bn</td>
<td>+¥2.1 bn</td>
</tr>
<tr>
<td>Adjusted operating margin</td>
<td>6.1%</td>
<td>6.5%</td>
<td>7.1%</td>
<td>+0.6%</td>
</tr>
<tr>
<td>Overseas sales ratio</td>
<td>34%</td>
<td>38%</td>
<td>38%</td>
<td>—</td>
</tr>
</tbody>
</table>
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2-1. Wires/cables for FA/Robots

Capital expenditure of ¥3 bn in the rapidly growing FA/Robot market

Market environment

20% annual growth until 2020
Source: Hitachi Metals’ estimate based on various materials

Hitachi Metals’ characteristics

- Flex-resistant cable technology developed for automotive sensor cables
- Cable production near place of demand
- Continuous production at each base including cable assembly

Carry out capital expenditure in Japan, China and Vietnam (to be launched through FY2020)

FY2020 wires/cables for FA/Robots sales target: ¥10.0 bn
(3x vs FY2016)
### Expand EV business with HiFC® and innovative production lines

#### Expand application of HiFC® in high-performance motors

<table>
<thead>
<tr>
<th></th>
<th>HiFC®</th>
<th>Tough pitch copper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductivity</td>
<td>◐</td>
<td>◐</td>
</tr>
<tr>
<td>Flexibility</td>
<td>◐</td>
<td>△</td>
</tr>
<tr>
<td>Recovery of conductivity after winding</td>
<td>◐</td>
<td>×</td>
</tr>
<tr>
<td>Weldability</td>
<td>◐</td>
<td>△</td>
</tr>
</tbody>
</table>

#### Contribution to high-performance motors
- 2% smaller size, lighter weight*¹
- Improved productivity
- High-efficiency
- Greater reliability*²

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#### Accelerate monozukuri by introducing innovative production lines

- Introduction of production facilities and mass production in Japan and Thailand (to be launched from FY2018)
- Start consideration of production in China

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**FY2025 magnet wires sales target: 1.5 times (vs FY2016)**

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*¹ 2% lighter weight copper wire (vs Hitachi Metals’ tough pitch copper)  
*² Due to the small oxygen amount in copper, HiFC® improves reliability of the welded section. 

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2-3. New Continuous Casting and Rolling Line

- Completion of new continuous casting and rolling line (April 2018)
  - Conductor production line using the latest IoT-based control technology
  - Significant improvement in energy efficiency and productivity
  - Full-scale HiFC® mass production through introduction of new process
### 2-4. Rolling Stock

#### Further business expansion mainly in China and Europe

- **China**
  - FY2017 achieved sales 1.5x FY2016. Continue expansion measures.
  - Expand share by launching New terminal new extra-high-voltage cables

- **Europe**
  - Expand harness business by proposing solutions and enhancing production capacity

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**Terminal for new extra-high-voltage cables**

**Wires and cables for rolling stock**

**Wires and cables for rolling stock (communication)**

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**FY2018 rolling stock areas sales target: ¥14.0 bn**
2-5. Medical Devices

- Launch mass production of catheter/cable complex products and increase sales

  - Mass production and capacity enhancement of new probe cable product

  - Mass production of new medical probe cables
  
  - Promote automated processing at China base (to be launched from 4Q FY2018)

FY2021 medical devices areas sales target: ¥11.0 bn
Continuous business expansion by implementing global growth strategy

Enhance production capacity in response to increase in applied models

Sales of automotive electronic component segment

EPB harness integrated with ABS

Various sensors

FY2018 sales target: 1.2x vs FY2016
*Excludes impact of foreign exchange

Expand mass production of semirigid wiring for EV

Our high accurate connecting parts enable automatic motor assembly.

FY2018 automotive electronic components area sales target: ¥35.0 bn
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3-1. Business Portfolio Based on Growth Strategy

Expand growth areas and achieve a high-profit structure

**FY2017**
- Core products
- 3 growth areas
- Revenues ¥230.5 bn
- Margin 6.5%

**FY2018**
- Core products
- 5 growth areas
- Revenues ¥240.0 bn
- Margin 7.1%

Revenues of growth areas
- ¥95.0 bn (FY2017) ⇒ ¥100.0 bn (FY2018)
3-2. Summary

Basic Policy of the Cable Materials Company

Change to a high-profit structure by expanding growth areas

Cable Materials Company
FY2018 Plan

Revenues: ¥240.0 bn
Adjusted operating income: ¥17.0 bn (7.1%)
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- Changes in economic conditions and regulations in the main markets where the Company operates, particularly Japan, the United States, Asia and Europe
- Sudden changes in technological trends
- Changes in the competitive advantage and the capabilities of the Company and its subsidiaries and affiliates to develop and commercialize new products and businesses
- 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