Materials Mag!c

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

[Table of Contents]

April 28, 2017

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

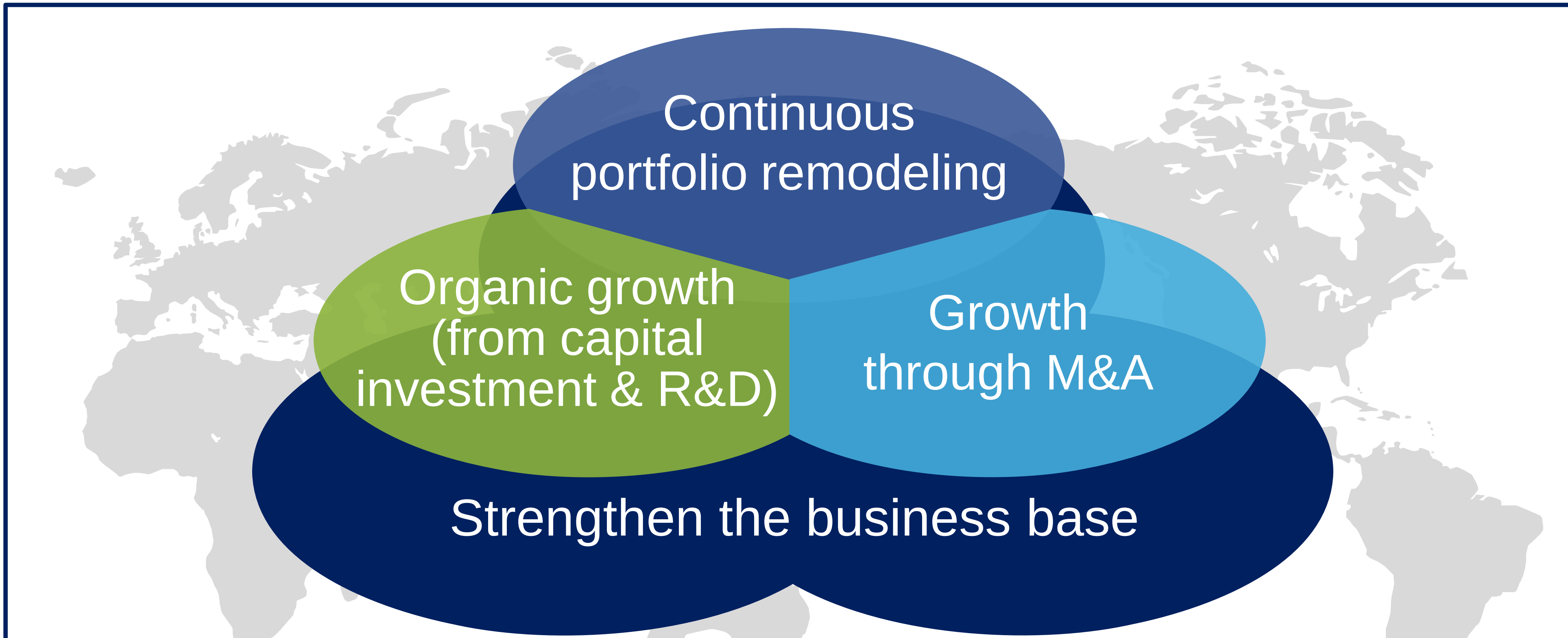
Achieving our goal of becoming the world's leading high-performance materials company

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.**

1-2. FY2018 Medium-term Management Plan: Vision

Our vision Expand the business globally while improving profitability



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

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Get off to a good start building a base for growth

Organic growth (from capital investment & R&D)	• Established Corporate Research Lab. (Constructed new building. Total investment: approx. ¥10 billion) (Opened in April 2017)
	• Enhanced open innovation. Collaborated with NIMS to establish Hitachi Metals Next-Generation Materials Development Center. (July 2016) Participated in IBM Research Consortium. (February 2017)
	• Began mass production of SLD-i^{TM}, a new type of cold-rolled tool steel, with a new melting facility. (April 2016)
	• Enhanced the solution sales system for tool steel in Asia and Japan. (June 2016, February 2017)
	• Capital expenditure to reinforce R&D for the Soft Magnetic Components Business. (March 2017)
	• Introduced innovative production lines for magnetic materials. Total investment: approx. ¥18 billion (Scheduled for operation in 1H FY2018)
	• Established Hitachi Metals San Huan Magnetic Materials (Nantong) Co., Ltd. (September 2016)
	• Increased production capacity of heat-resistant casting components for turbos. Total investment: approx. ¥7 billion (Began operation in October 2016)
	• Established Hitachi Metals Advanced Machining, Ltd. (April 2017)
	• Enhanced capacity at overseas plants for growth areas for the cable materials (rolling stocks, medical devices, automotive electronic components). (Began operation in 1H FY2016)

1-4. Overview of FY2016 Initiatives

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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.

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

[Table of Contents]

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

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Changes in technological needs resulting from xEVs

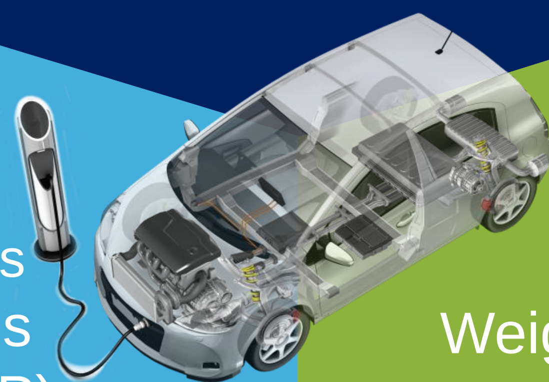
Improved efficiency

- 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)

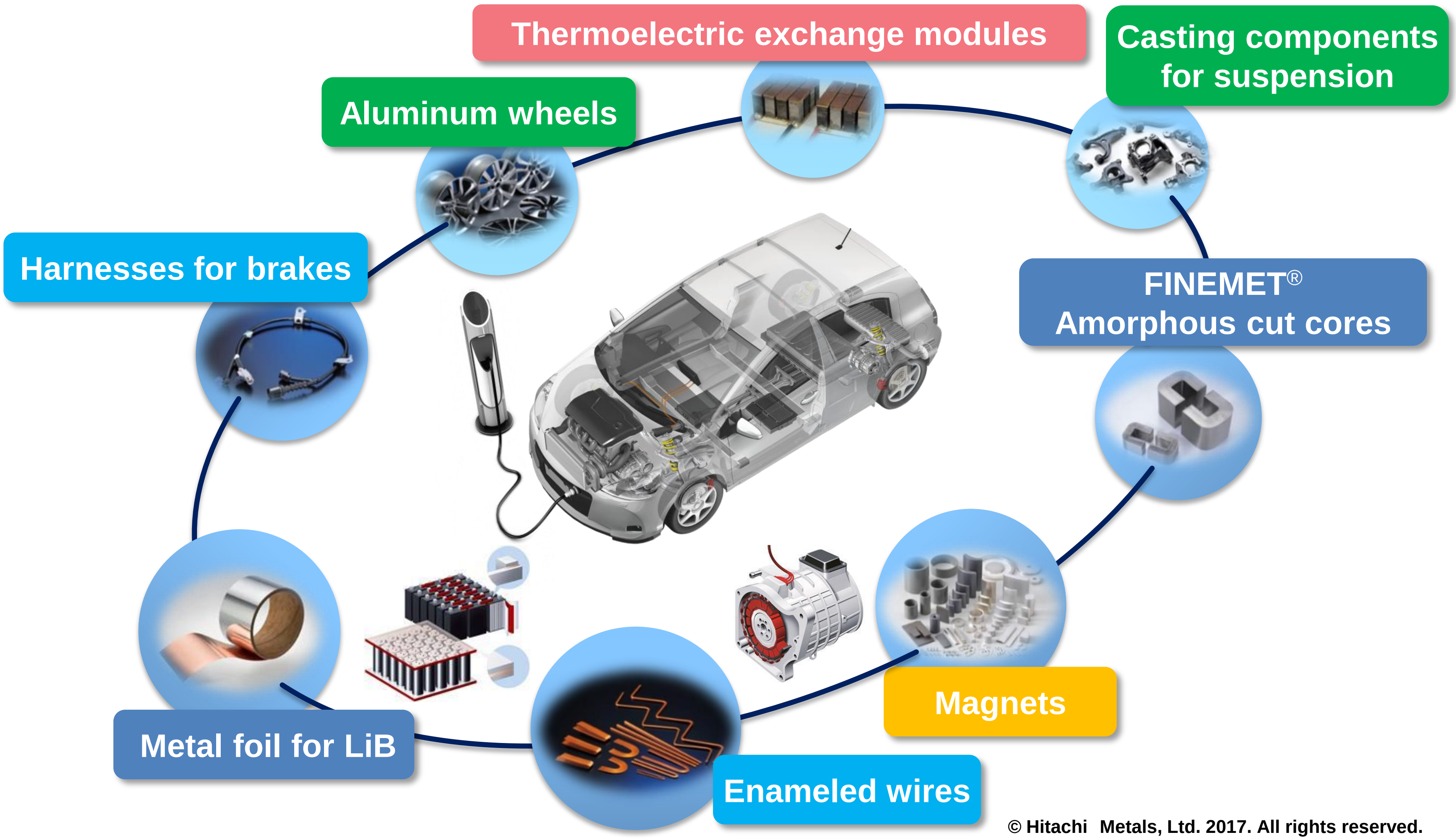


Resource-saving

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



2-4. Priority Issues of Business

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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)

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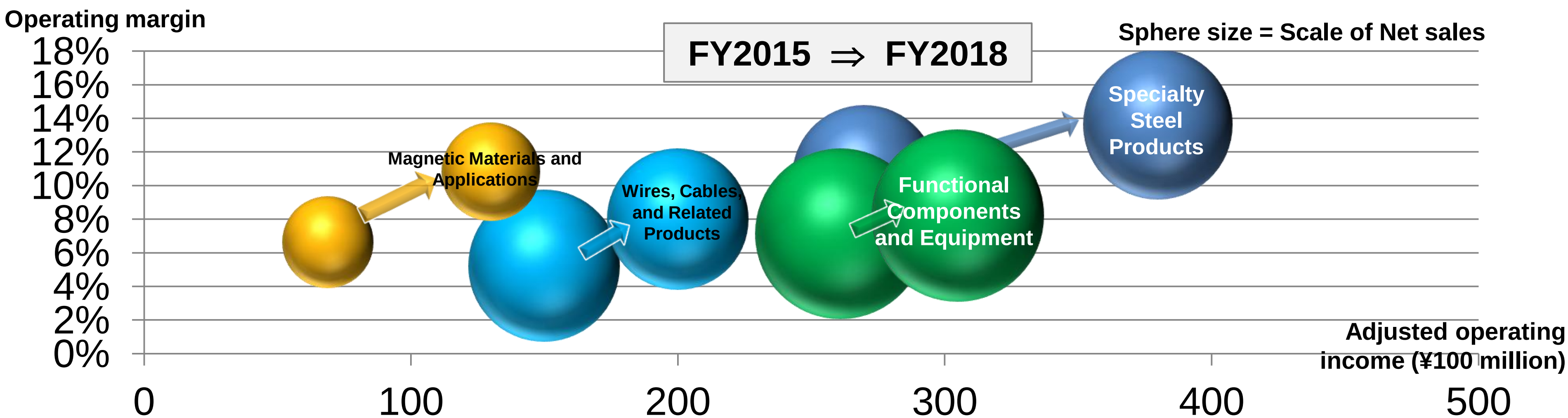
Expand business scale and domains while improving profitability



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

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(¥billions) Profit margin in brackets	FY2016 Business Performance US$1=¥108	FY2017 Forecast Assuming US$1 = ¥110	FY2018 Plan Assuming US$1 = ¥110
Revenues	910.5	950.0	1,000.0
Adjusted operating income	[7.2%] 66.0	[8.4%] 80.0	[10.0%] 100.0
EBIT	68.5	66.0	91.0
Income before income taxes	66.0	63.0	87.0
Net income*	50.6	45.0	61.0
ROA	4.9%	4.3%	More than 5%
ROE	9.4%	8.1%	More than 10%

- 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

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(¥billions)

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

2-8. Investment Cash Flow

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Make strategic investments aimed at expanding global business domains and strengthening the business base.

	FY2015 Medium-term Plan Cumulative Results	FY2018 Medium-term Cumulative Plan	Change
Operating cash flow	¥323.9 billion	¥290.0 billion	-¥33.9 billion
Investment amount (including M&A)	¥313.5 billion	¥290.0 billion	-¥23.5 billion

	FY2015 Medium-term Plan Cumulative Results	FY2018 Medium-term Cumulative Plan	Change
Depreciation and amortization	¥116.6 billion	¥145.0 billion	+28.4 billion
R&D (excluding business of info systems)	¥46.9 billion	¥55.6 billion	+8.7 billion

■Dividends

	Interim Dividends	Year-end Dividends	Annual Dividends
FY2014	¥10	¥13	¥23
FY2015	¥13	¥13	¥26
FY2016	¥13	¥13 (Forecast)	¥26 (Forecast)
FY2017	¥13 (Forecast)	¥13 (Forecast)	¥26 (Forecast)

■ 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%)

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

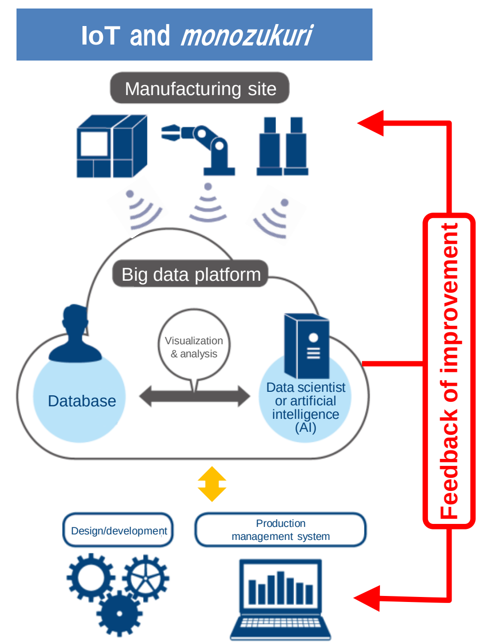
[Table of Contents]

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

Achieve innovative *Monozukuri* through IoT × **Achieve innovation in manufacturing technology in overall material flow**

Improve cash flow by rolling out company-wide activities

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

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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

Short-term

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)

Medium- to long-term

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

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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.

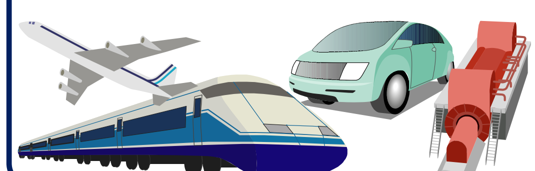
グローバル技術革新センター

GRIT

Global Research & Innovative Technology center

Create new businesses in growth markets

R&D costs: ¥12 billion



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Responses to xEV demand

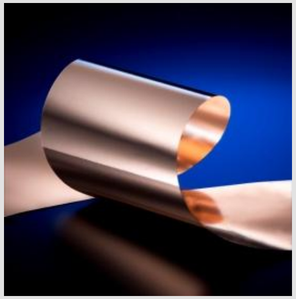
■Try new areas by generating synergies

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

→ **Deepening the xEV market**

Sales plan for the Specialty Steel Company

¥234.7 billion (FY2016 performance) ⇒ 280.0 billion (FY2018 budget)

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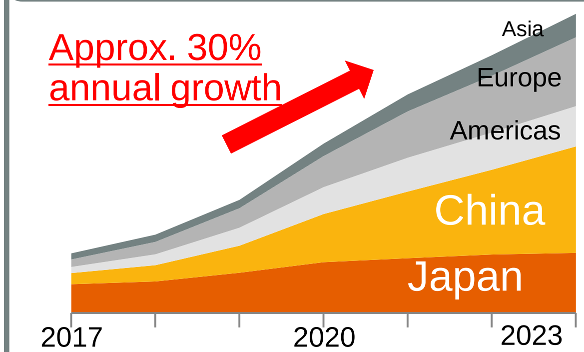
Address demand for xEV and expand the China business

■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)

xEV demand forecast



Source: Hitachi Metals' estimate based on various materials

■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

Inauguration ceremony (April 2017)

Sales plan for the Magnetic Materials Company

¥99.8 billion (FY2016 performance) ⇒ ¥120.0 billion (FY2018)

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Fortify the *monozukuri* base and increase order intake

■ HERCUNITE™ heat-resistant casting components

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

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)

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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

Rolling stocks		Consider business expansion including M&A
Medical devices		Maximize synergies with HTP-Meds by strengthening production systems, etc.
Automotive electronic components		Accelerate global growth by enhancing production systems at overseas locations

■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)

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

[Table of Contents]

Materials Mag!c

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