

# Magnetic Materials Company



**Ryouji Akada**  
President of the Magnetic Materials Company

## Basic policy of Medium-Term Management Plan

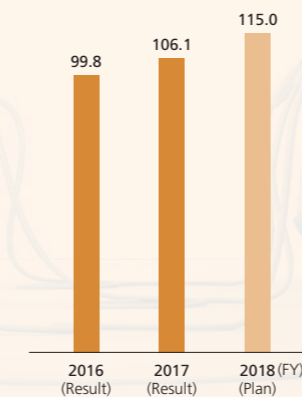
### Innovate *monozukuri* to pave the way for growth

- Strengthen global production system
- Build innovative production lines

## Progress vis-à-vis numerical targets

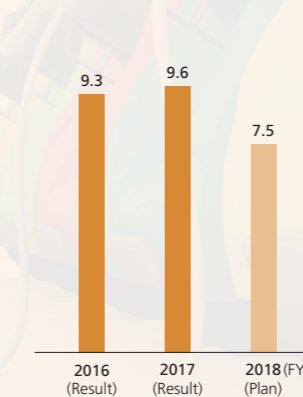
### Revenues

(Billions of yen)



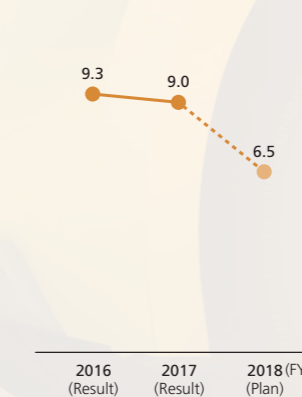
### Adjusted operating income

(Billions of yen)



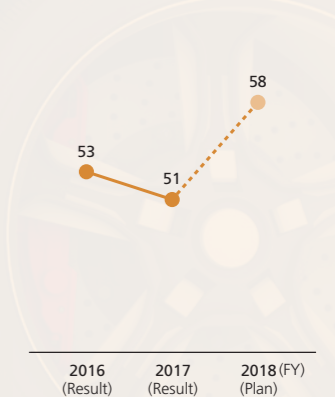
### Adjusted operating margin

(%)



### Overseas sales ratio

(%)



## Business progress relative to Medium-Term Management Plan

### Market environment

Demand for neodymium magnets and other high-performance magnets is expected to increase significantly on global growth in EV demand and the automation of production equipment. The Magnetic Materials Company is building a structure to address this demand as per the Medium-Term Management Plan.

### Strengthening global production system

To strengthen our global production system, we established Hitachi Metals San Huan Magnetic Materials (Nantong) Co., Ltd. in April 2017. This put in place a structure for a neodymium magnet business in China, from raw materials procurement to manufacturing and sales, and mass production commenced from 2018.

### Building innovative production lines

In Japan, we have introduced new, innovative production lines in the Kumagaya district for neodymium magnets and ferrite magnets. Thoroughly automated and using the Internet of Things, these lines pursue enhanced quality and maximum productivity.

### Strengthening the business base

We made Santoku Corporation a subsidiary in April 2018 to establish an integrated production system from raw materials to finished magnet products. We are strengthening our business base by maximizing synergy effects through initiatives including reducing procurement costs for raw materials,

concentrating alloy manufacturing and recycling to increase production volumes, and creating an integrated development structure to accelerate product sophistication.

### “Mother plant” in the Kumagaya district

We are integrating our Magnetic Materials Research Laboratory with the Kumagaya Works to create a “mother plant.” This is accelerating technological development that meets customer needs.

### Building innovative production lines

Carry out *monozukuri* innovations: Innovative production lines

Improve quality and maximize productivity through thorough automation and use of IoT

#### Neodymium magnets

- Adopt a new heavy rare earth diffusion process
- Production line specializing in mass production
- Further line expansion planned



NEOMAX<sup>®</sup> neodymium magnets



Mass production in 2H FY2018

#### Ferrite magnets

- Enhance production lines to address small and thin shapes
- Quality and trend management using IoT technology
- Further line expansion planned



NMF<sup>™</sup> ferrite magnets



Mass production in April 2018

### Medium- to long-term vision

The Magnetic Materials Company is expanding the scope of its business to increase its share in growth markets, with the aim of ¥200 billion in revenues by fiscal 2025. We recognize that this will require a greater than 150% increase in production capacity by fiscal 2025 relative to fiscal 2015. In addition to increasing productivity and production capacity, going forward, we plan to handle raw materials processing internally and accelerate the evolution of heavy rare earth-

saving technologies, and to drive the market by focusing on high-performance neodymium magnets. By fiscal 2025, we also expect the automotive-related portion of sales to grow to 70%, and the overseas portion of sales to reach 55% on the growth of the Chinese, European, and American markets.

### Strengthening the business base

Synergies from the acquisition of Santoku Corporation as a subsidiary

<b>Procurement</b>	Reduction of procurement cost by consolidating procurement of raw materials
<b>Process management</b>	Reduction of work-in-progress due to reduced lead time through unified management
<b>Production</b>	Increased production volume due to concentration of alloy manufacturing/recycling Reduction of processing cost due to enhancement of recycling process
<b>Technology</b>	Acceleration of product sophistication due to an integrated development system

Strengthen business platform by handling the raw materials processing internally

### Medium- to Long-Term Vision

Increase share in growth markets to expand business scale

FY2025 revenues target: ¥200.0 billion

(FY2016 result: ¥99.8 billion ⇒ FY2018 plan: ¥115.0 billion)

Lead the market with the top performance neodymium magnets

Increase in productivity and production capacity  
(Target: More than 150% vs. FY2015)

In-house raw materials processing

Evolution of heavy rare earth-saving technologies