

On the Acquisition of Shares of Santoku Corporation

November 28, 2017

Magnetic Materials Company
Hitachi Metals, Ltd.

Supplying an extensive line-up of magnet products to the market

Electronics-related: 14%

Consumer electronics & mobile devices

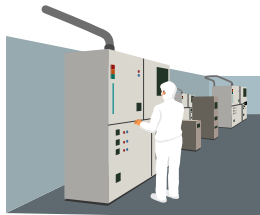
- ◆ Neodymium magnets
- ◆ Ferrite magnets
- ◆ Information system components



Industrial infrastructure-related: 21%

FA & industrial equipment

- ◆ Neodymium magnets
- ◆ Ferrite magnets
- ◆ Applied products



Magnetic Materials Segment

FY2016 results
Revenues
¥99.8 bn

Automotive-related: 65%

- ◆ Neodymium magnets
- ◆ Ferrite magnets

For HEV & EV



For EPS



Neodymium magnets

World's No. 1 brand

NEOMAX

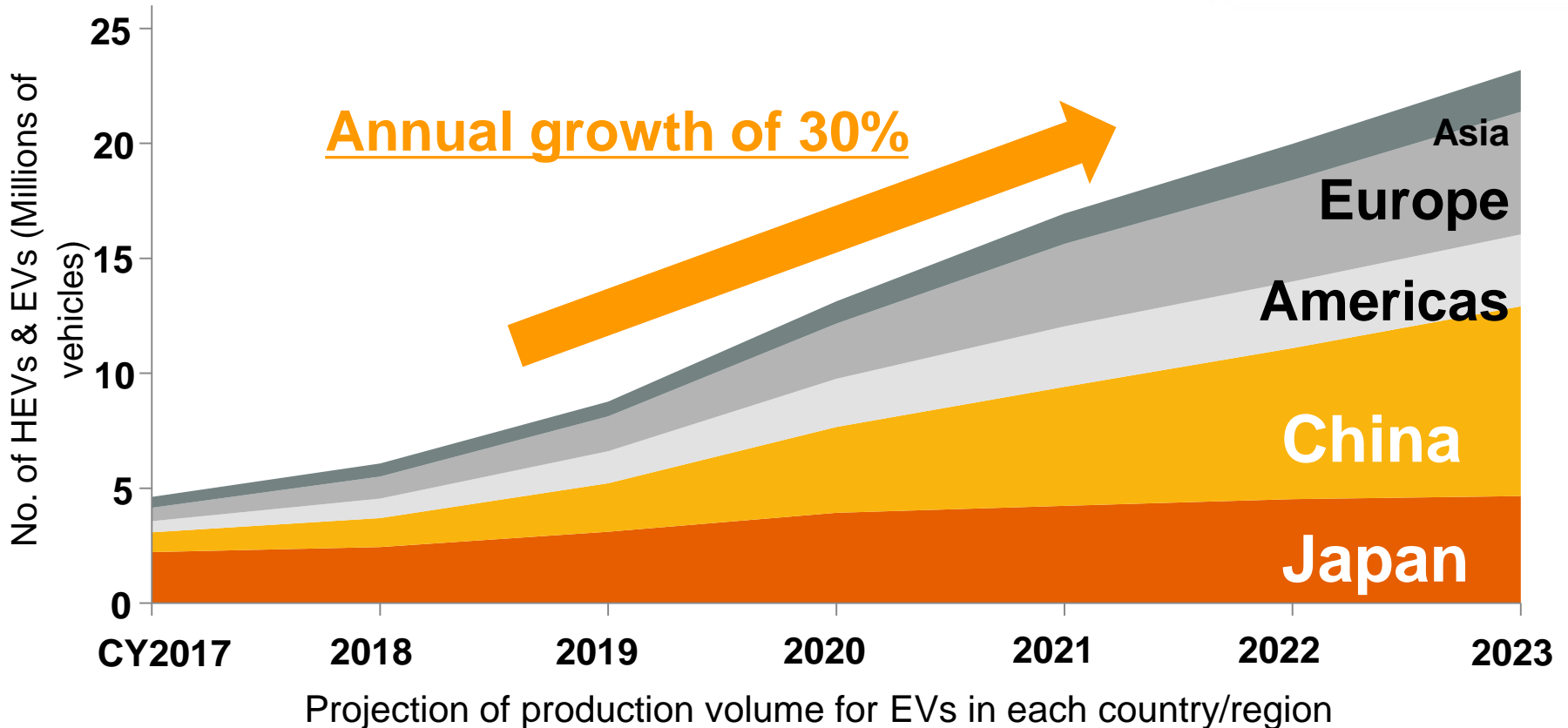
Ferrite magnets

A global supply system from five bases around the world

2. Market Environment: Expanding Demand for EV*

Automotive-related Market

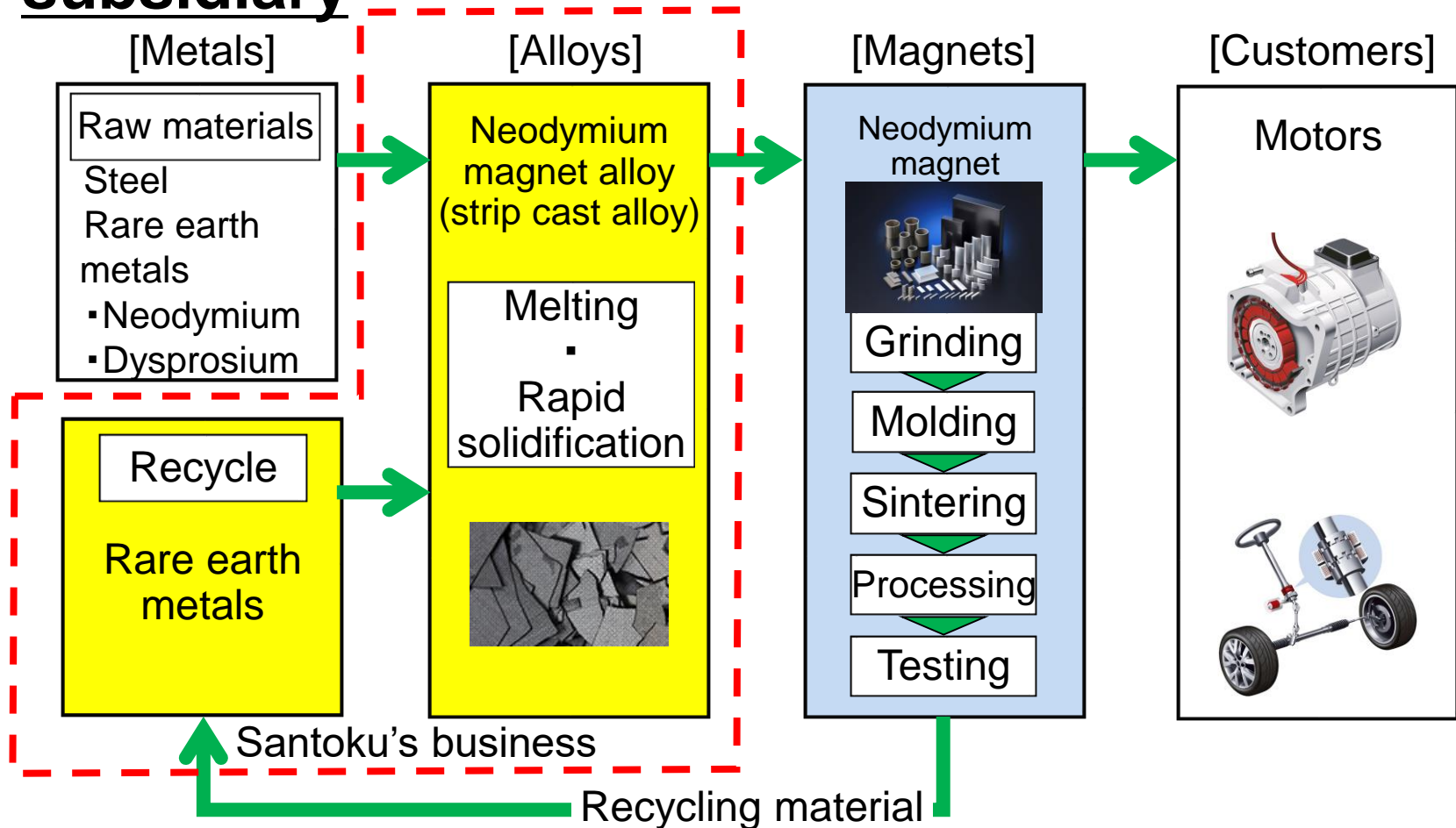
- ◆ The production volume of EVs is expected to expand rapidly in China and other countries around the world following the spread of EVs.
- ◆ Projected annual growth rate on a global basis is around 30% (2017–2023).



(Source: Hitachi Metals' estimate based on various materials)

*Including term for hybrid electric vehicles (HEV) and plug-in hybrid electric vehicles (PHEV)

Carry out in-house production of alloys and in-house recycling by acquiring Santoku as a subsidiary



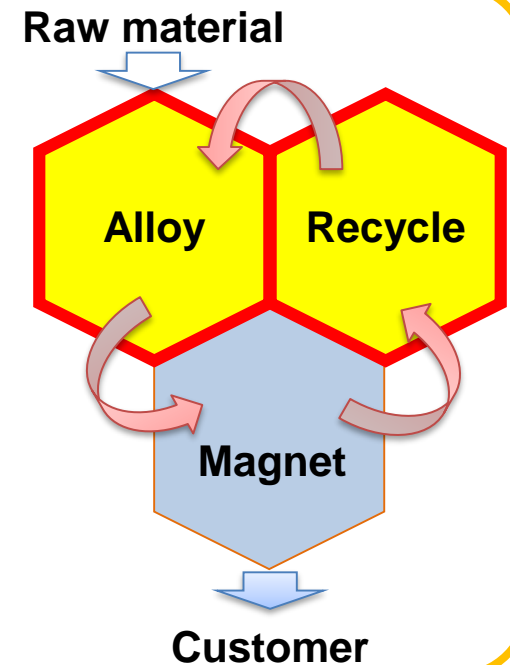
Achieve optimal material flows through in-house production

Conduct unified operation management of the manufacturing and recycling process for Neodymium magnets.

A raw materials procurement system that incorporates recycling

Unified management of quality, cost, and delivery through in-house production

Development of materials that maximize the potential of magnets



5. Outline of Santoku Corporation

Accumulated own know-how in the manufacturing processes of rare earth metals and alloys

First in the world to succeed in molten salt electrolysis of rare earths and mass production of rare earth rapid quenching alloys

Integrated production, from raw materials to high purity compounds and assorted alloys

Possesses a high level of expertise that includes microstructure control technology for alloys

Patent holder for strip casting process manufacturing technologies in neodymium magnet alloys

Name	Santoku Corporation
Location	Higashinada-ku, Kobe, Hyogo
Established	1949
Representative	Chikara Okada, President and Representative Director
Stated capital	1.5 billion yen
Sales	17.8 billion yen (Year to March 2017)
Business details	Manufacturing and sales of rare earth compounds, rare earth metals, magnet materials, and battery materials
Employees	296 (Non-consolidated; as of end of March 2017)

Bases

Baotou Santoku Battery Materials Co., Ltd.

Santoku

China Minmetals Santoku (Ganzhou) Rare Earth Material Co., Ltd.

6. Medium- to Long-term Vision

“Increase share in growth markets and expand business scale”

FY2025 sales goal: ¥200.0 billion
(FY2016 result: ¥99.8 billion ⇒ FY2018 plan: ¥120.0 billion)

Strengthen the Neodymium magnet business, which has a growing market

**Further enhancement
of production capacity**
(Goal: Double FY2016 levels)

- Expand innovative production line
- Hitachi Metals San Huan Magnetic Materials (Nantong) Co., Ltd.

**Curb use of heavy rare
earths**

- Heavy rare earth-saving (incl. non-use)
- Heavy rare earth diffusion

Stable production system
Optimization of material flows

- In-house manufacturing of magnet alloy
- Strengthen recycling process

This document contains forward-looking statements such as results forecasts and management plans 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 United States, 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 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 the 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