

# **Mid-term Business Plan TRANSFORM 2020**

**-Transform Operations to Achieve a Highly Profitable Structure-**

**NIHON KOHDEN CORPORATION**

May 11, 2017

*Fighting Disease with Electronics*



**I**

## **Review of the Previous Mid-term Business Plan, Strong Growth 2017**

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**II**

## **Business Environment**

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**III**

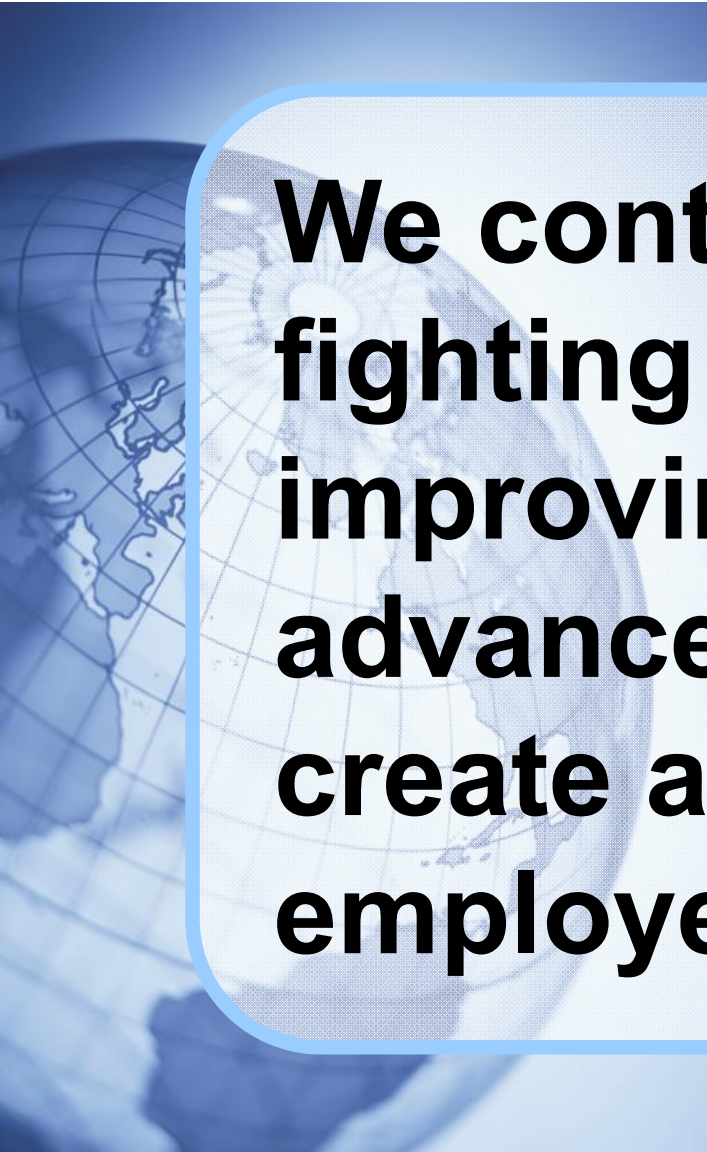
## **Mid-term Business Plan, TRANSFORM 2020**

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I

# Review of the Previous Mid-term Business Plan, Strong Growth 2017

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**We contribute to the world by fighting disease and improving health with advanced technology, and create a fulfilling life for our employees.**

# The Envisioned Corporate Status for 2020

## The CHANGE 2020 -The Global Leader of Medical Solutions-

Lead the world  
in the development  
of revolutionary  
breakthrough  
technology

- Promote healthier and longer life in the development of world-first revolutionary technologies
- Help hospitals assure safety and security of medical care



Achieve  
the highest level of  
quality  
in the world

We will achieve the highest level of quality in the world in order to sustain customer satisfaction well into the future, thereby earning a solid reputation as a reliable partner.



Attain  
the top share  
of applicable  
global markets

We will strive to attain the top market share for a wider range of our own products in both the domestic and international markets while aiming to achieve a top share for all of our own products in the domestic market.

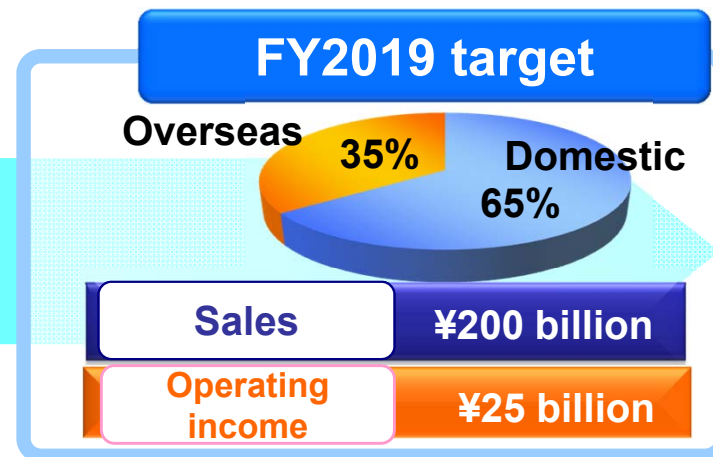


# Long-term Vision and Mid-term Business Plan

## Long-term vision (April 2010 to March 2020)

On Nihon Kohden's 60<sup>th</sup> anniversary, we drew up our long-term vision for 2020.

**The CHANGE 2020**  
-The Global Leader of Medical Solutions-



## Mid-term business plan

We have drawn up and implemented mid-term business plans by dividing the 10 years from 2010 to 2020 into 3 stages.



	FY2016 Original target	Revised during the period	FY2016 Revised target
Sales	¥170 billion		¥182 billion
Operating income	¥18 billion		¥20 billion
Operating income margin	10.6%		11.0%
ROE	13.0%		13.5%
Overseas sales ratio	28.5%		28.6%

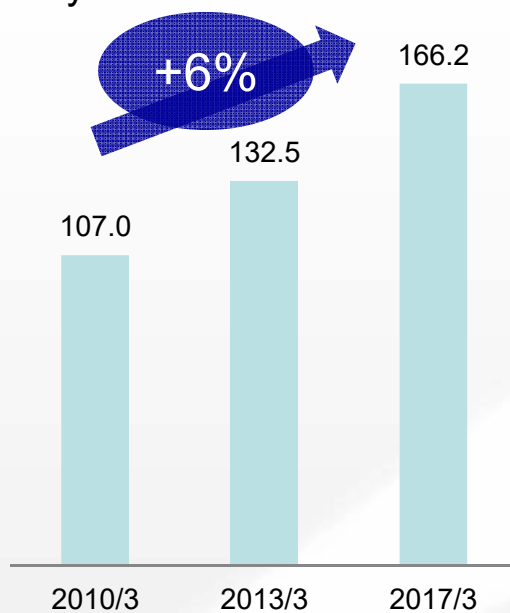
# Results over the Past Seven Years

- Strong growth in overseas markets
- Profitability declined due to upfront investment burden.

## Sales

1.6 times growth

7 years CAGR



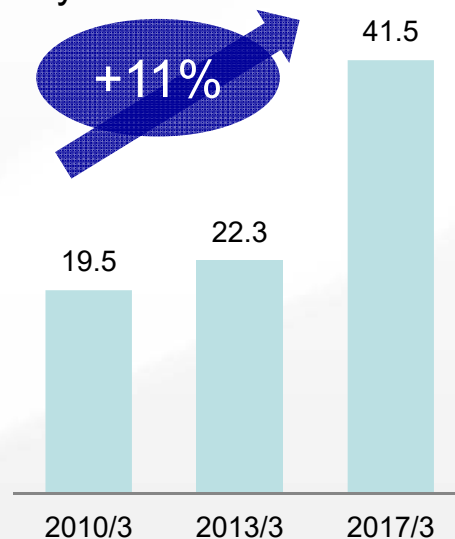
SPEED UP III

Strong Growth 2017

## Overseas sales

2.1 times growth

7 years CAGR



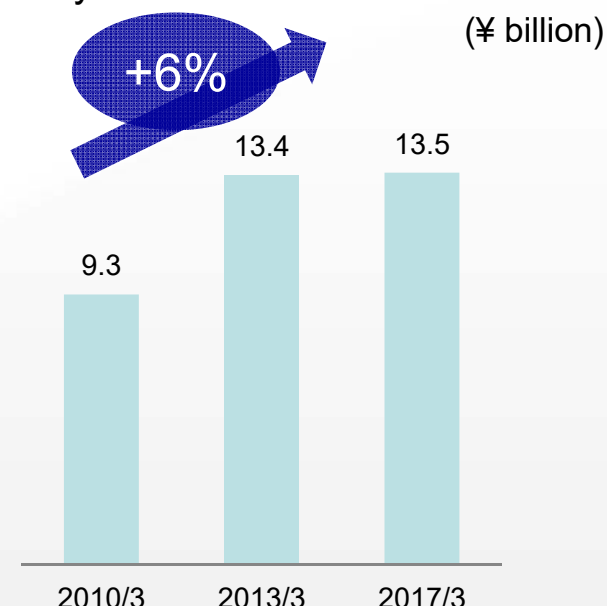
SPEED UP III

Strong Growth 2017

## Operating income

1.5 times growth

7 years CAGR



SPEED UP III

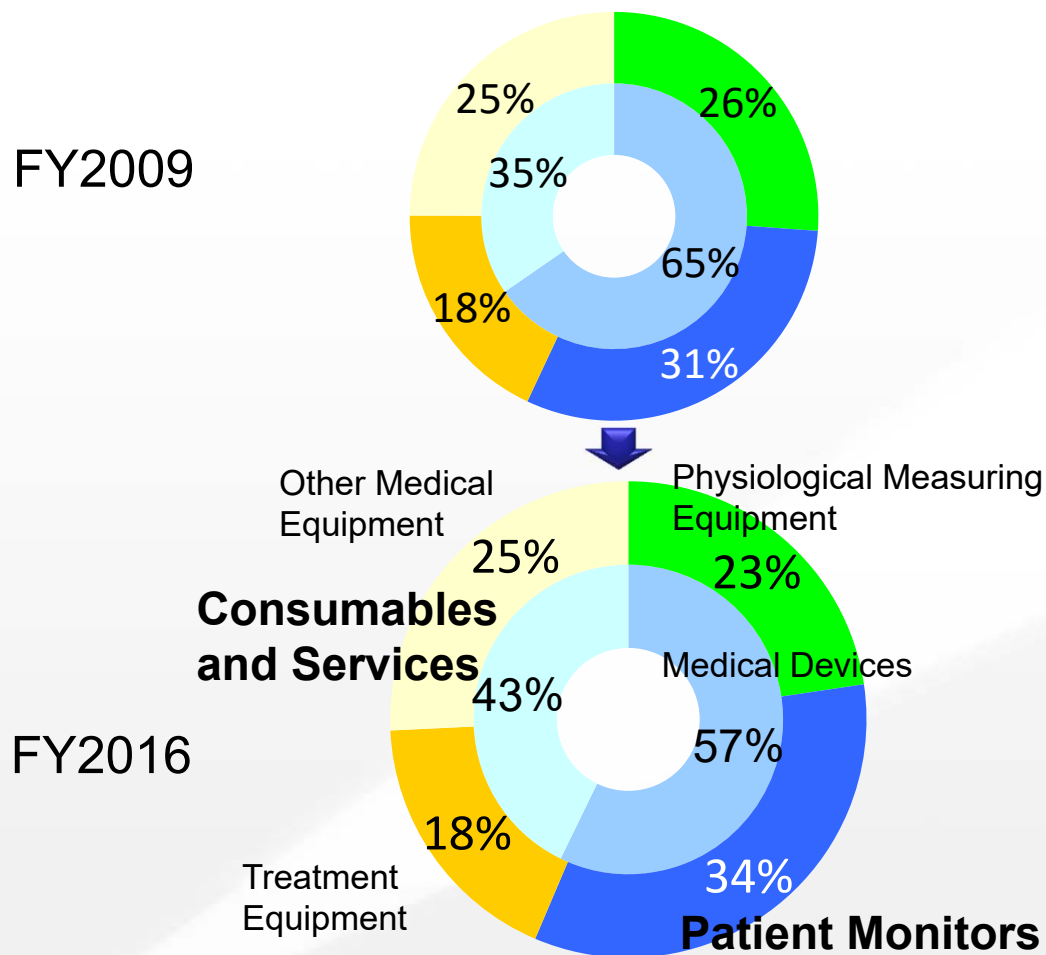
Strong Growth 2017



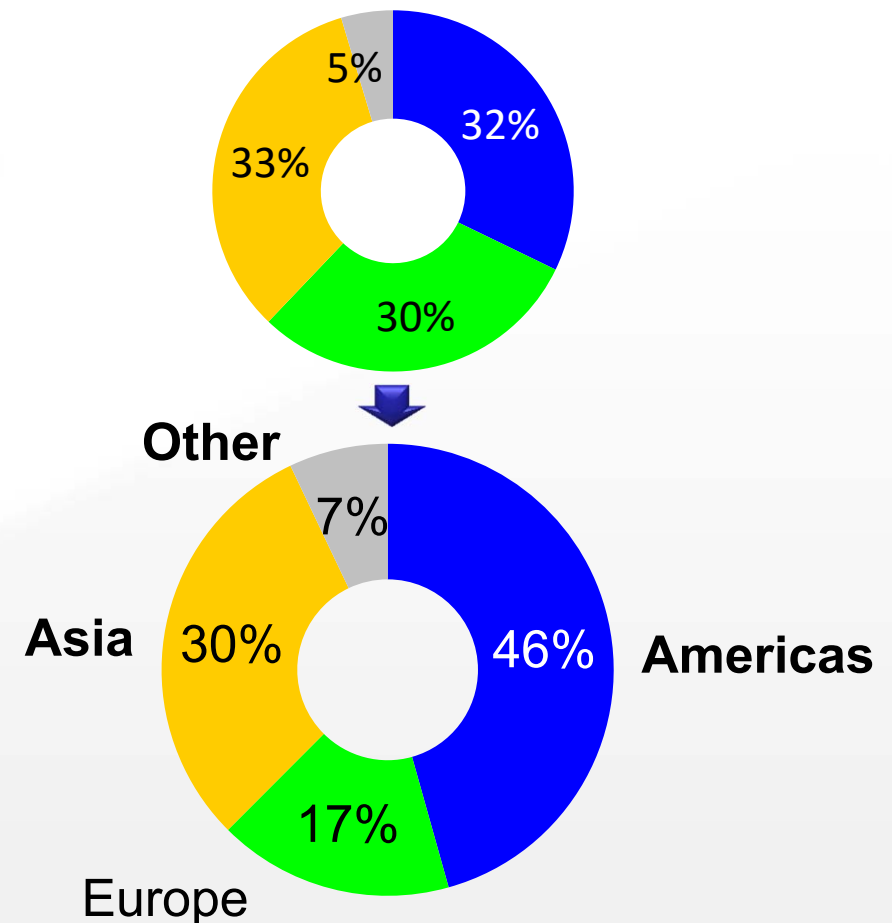
# Drivers of Sales Growth

- Patient Monitoring Business and Consumables & Services Business
- Business in the U.S. and emerging markets

Sales by Product Category



Breakdown of Overseas Sales by Region





# Results of Strong Growth 2017 (i)

## Achieve Strong Growth with Company-wide efforts

### Sustainable growth in Japan

- Strengthen **business development in each market**: the acute care hospital market, the small and mid-sized hospital market, and the clinic market



Hospital Sales Operations



GP\* Sales Operations

### Strong growth in international market

- Improve presence in **the U.S.** by reorganizing sales operations and strengthening ties with IDNs
- Achieve high growth in **emerging markets** by expanding sales networks and Shanghai Kohden's product line-up

## Further growth in core businesses

### Patient Monitoring Business

- Launch competitive products and technologies, and expand product line-up



### Consumables and Services Business

- Secure stable revenue by business expansion



\*GP: General Practitioner

# Results of Strong Growth 2017 (ii)

## Enhance operating base to ensure growth

### Strengthen international business structure

- Establish sales subsidiaries



- Appoint local management staff



### Establish R&D base

- Construct Advanced Technology Center



- Establish R&D offices in the U.S.



### Reorganize domestic production operations

- Start operation of Tomioka Production Center

- Shift production of consumables to Tomioka 2<sup>nd</sup> plant

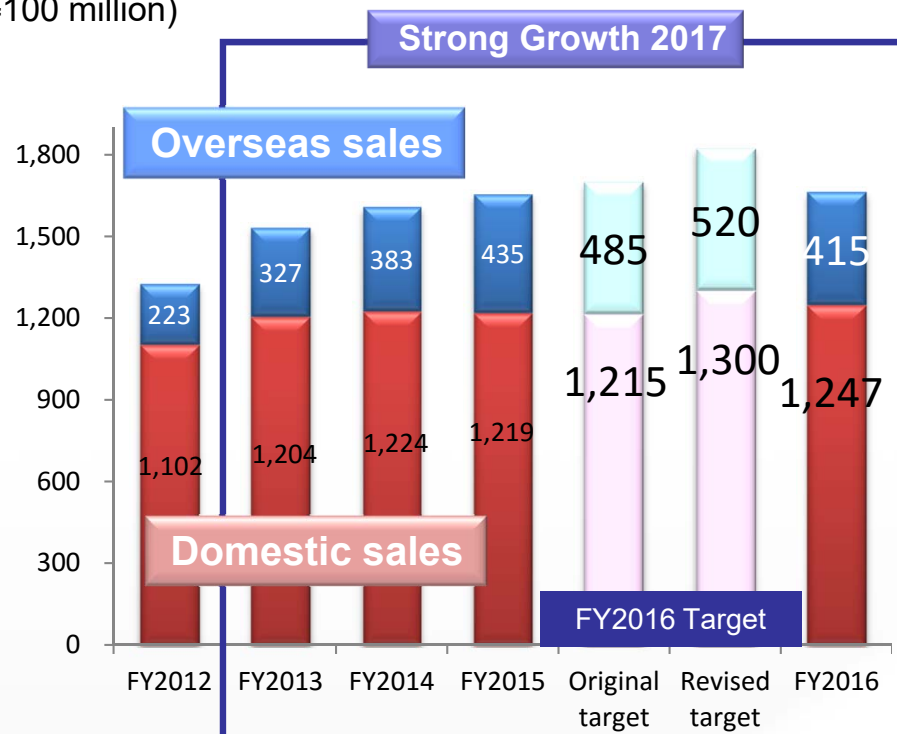


### Strengthen corporate governance

- Transition to a Company with Audit & Supervisory Committee
- Appoint 4 independent outside directors
- Establish a Nomination and Remuneration Committee

# Quantitative Evaluation of Strong Growth 2017- Sales

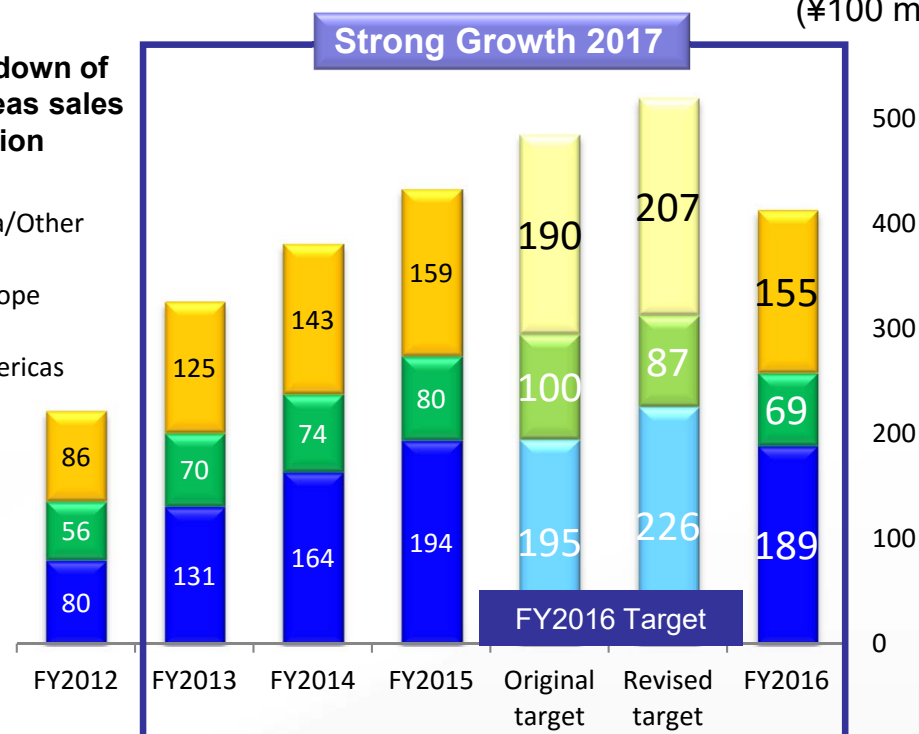
(¥100 million)



(¥100 million)

Breakdown of overseas sales by region

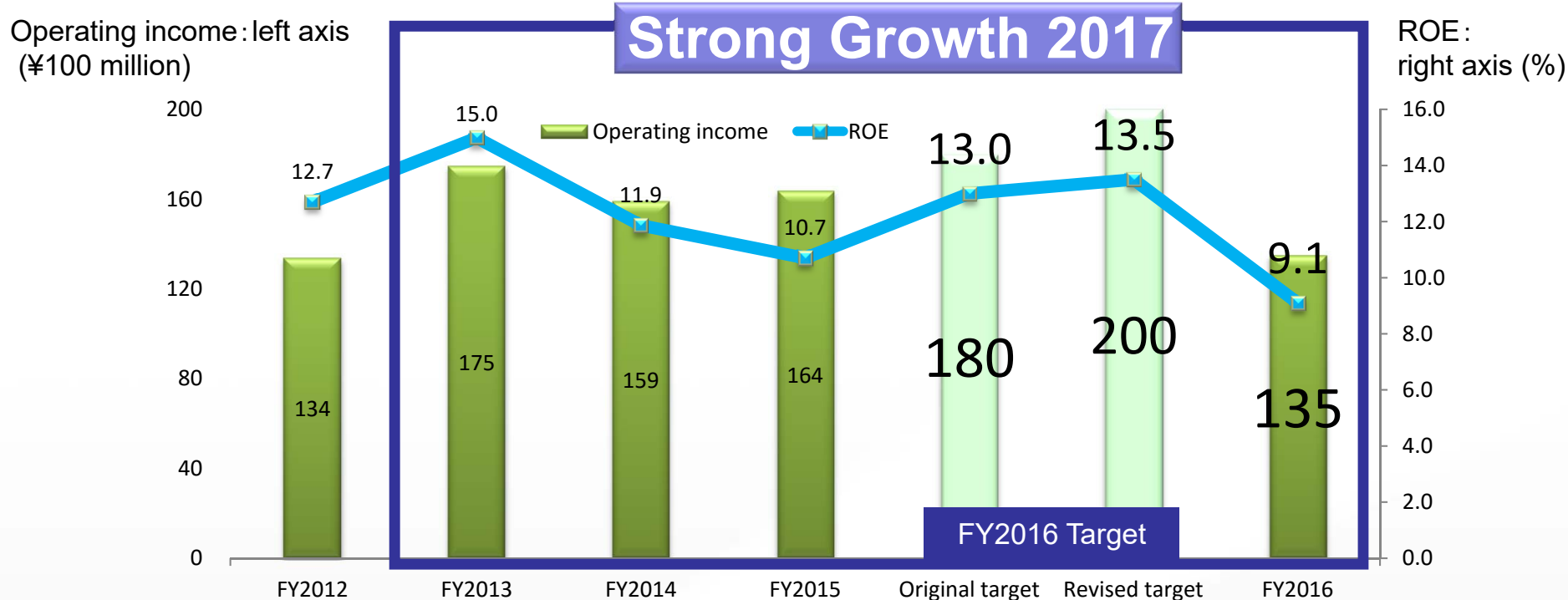
- Asia/Other
- Europe
- Americas



1US Dollar	83.0	99.8	109.6	120.1	90	118	109.2
1EURO	106.0	134.3	139.4	132.4	118	125	119.3

Reasons for missing revised targets	External environmental factors	The Company's factors
Japan	<ul style="list-style-type: none"> <li>Progress of healthcare reform</li> <li>Deterioration of management environment in acute care hospitals</li> </ul>	<ul style="list-style-type: none"> <li>Building sales operations and developing products in response to the market environment remained as an issue</li> </ul>
Overseas	<ul style="list-style-type: none"> <li>Negative currency translation impact due to yen appreciation</li> <li>Deterioration of market environment in some emerging markets</li> </ul>	<ul style="list-style-type: none"> <li>Rapid response to tenders with short delivery times in emerging markets remained as an issue</li> <li>Improving our presence in Western European markets remained as an issue</li> </ul>

# Quantitative Evaluation of Strong Growth 2017- Profit



	External environmental factors	The Company's factors
Reasons for missing revised targets	<ul style="list-style-type: none"> <li>Increase in retirement benefit expenses due to discount rate change</li> <li>Negative currency translation impact due to yen appreciation</li> </ul>	<ul style="list-style-type: none"> <li>Missed sales target</li> <li>Rise in cost of sales ratio due to unfavorable product mix</li> <li>Upfront investment burden                             <ul style="list-style-type: none"> <li>R&amp;D investment</li> <li>Strengthen overseas sales &amp; services network</li> </ul> </li> </ul>

# Issues Carried over to the New Mid-term Business Plan

**Strong Growth 2017 completed enhancement of operating base**



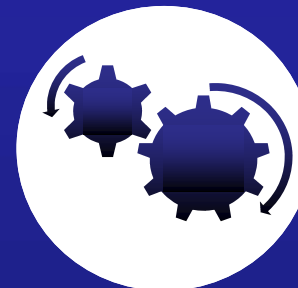
**Improvement of  
profitability**



**Globalization  
of management**



**Further growth of  
overseas  
business**



**Development of  
new businesses**

II

# Business Environment

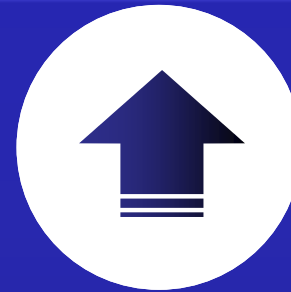
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# Business Environment



## Developed countries

- Medical demand is rising along with aging population
- Restrain the increase of medical expenses
  - Improve quality and efficiency of medical care
  - Regional healthcare network



## Emerging markets

- Healthcare infrastructure is developing together with economic growth
- Aging populations and increase of lifestyle diseases



## Technological Innovation

- Utilize IoT, big data and AI
- Medical wearable terminals
- Progress in regenerative medicine



## Competitive environment

- Entry of competitors from different industries
- Active M&A



# The Global Medical Device Market

- 5% CAGR
- U.S. and emerging markets drive growth

In 2016  
**\$336B** (¥37.0T)

**+\$97B** (¥10.6T)

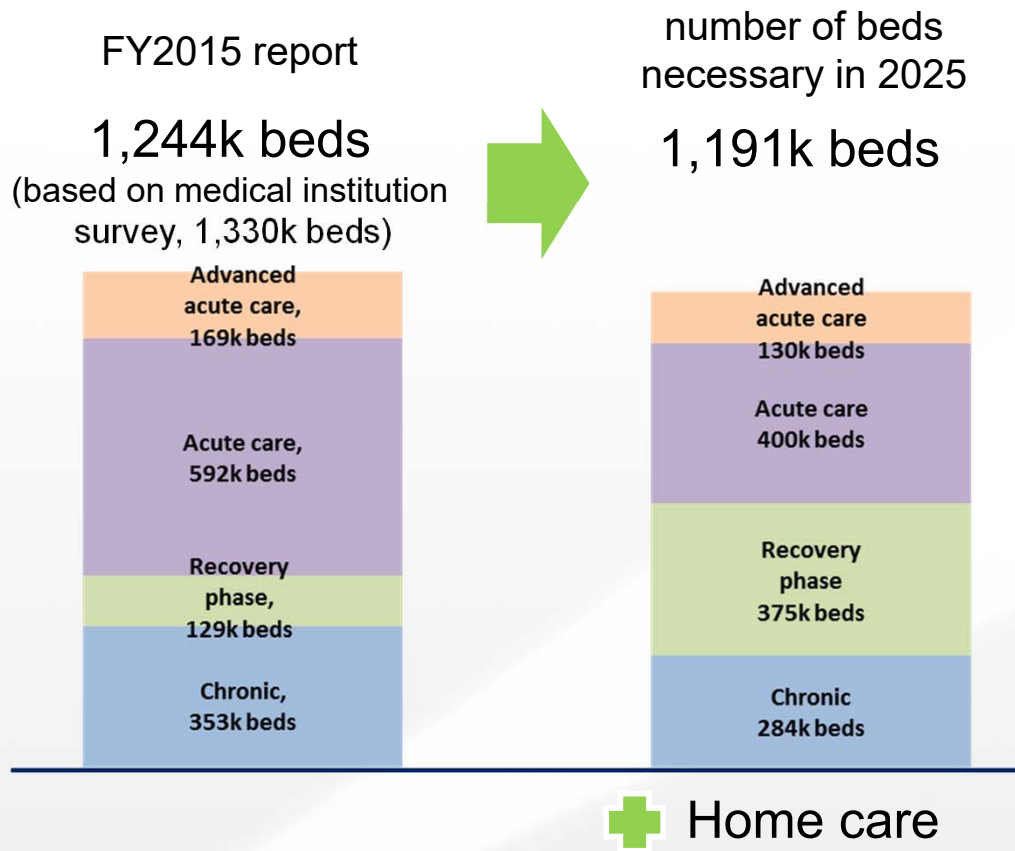
In 2021  
**\$433B** (¥47.6T)



# Japanese Market Environment

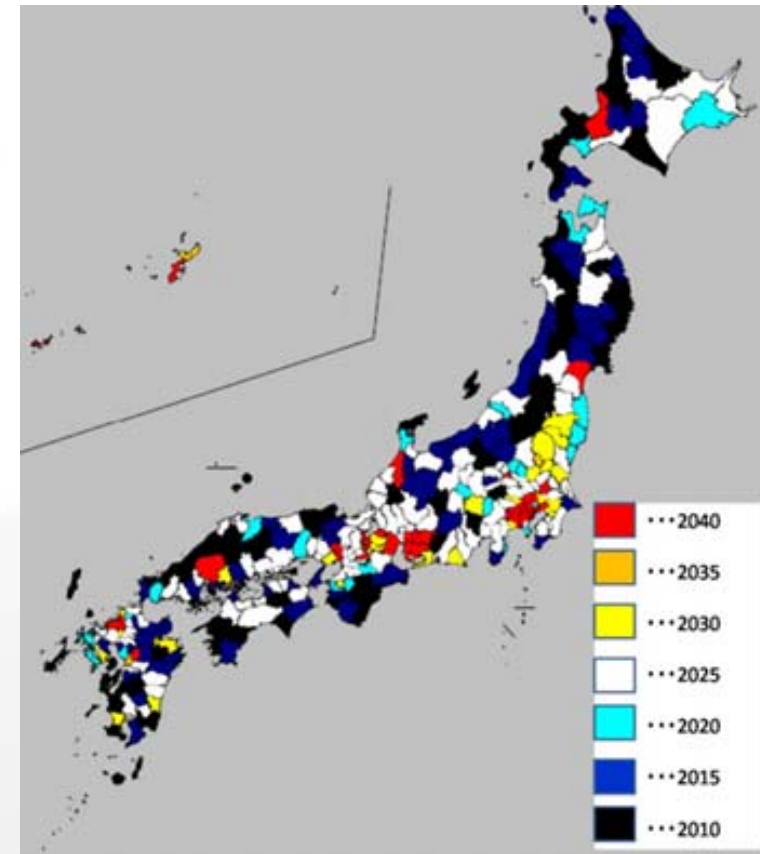
Each prefecture is restructuring its medical functions and promoting home care according to its regional health vision.

## Each prefecture drew up a regional health vision



Source: The Company created this graph in reference to the 1<sup>st</sup> Investigative Commission for a review of a healthcare plan held in May 2016 (reference material 4), and the 4<sup>th</sup> WG for regional health vision held in May 2017 (document 3).

## The date at which medical demand will peak varies from region to region.



Source: National Conference for Social Security System Reform (The 9<sup>th</sup> document 3-3) in April 2013

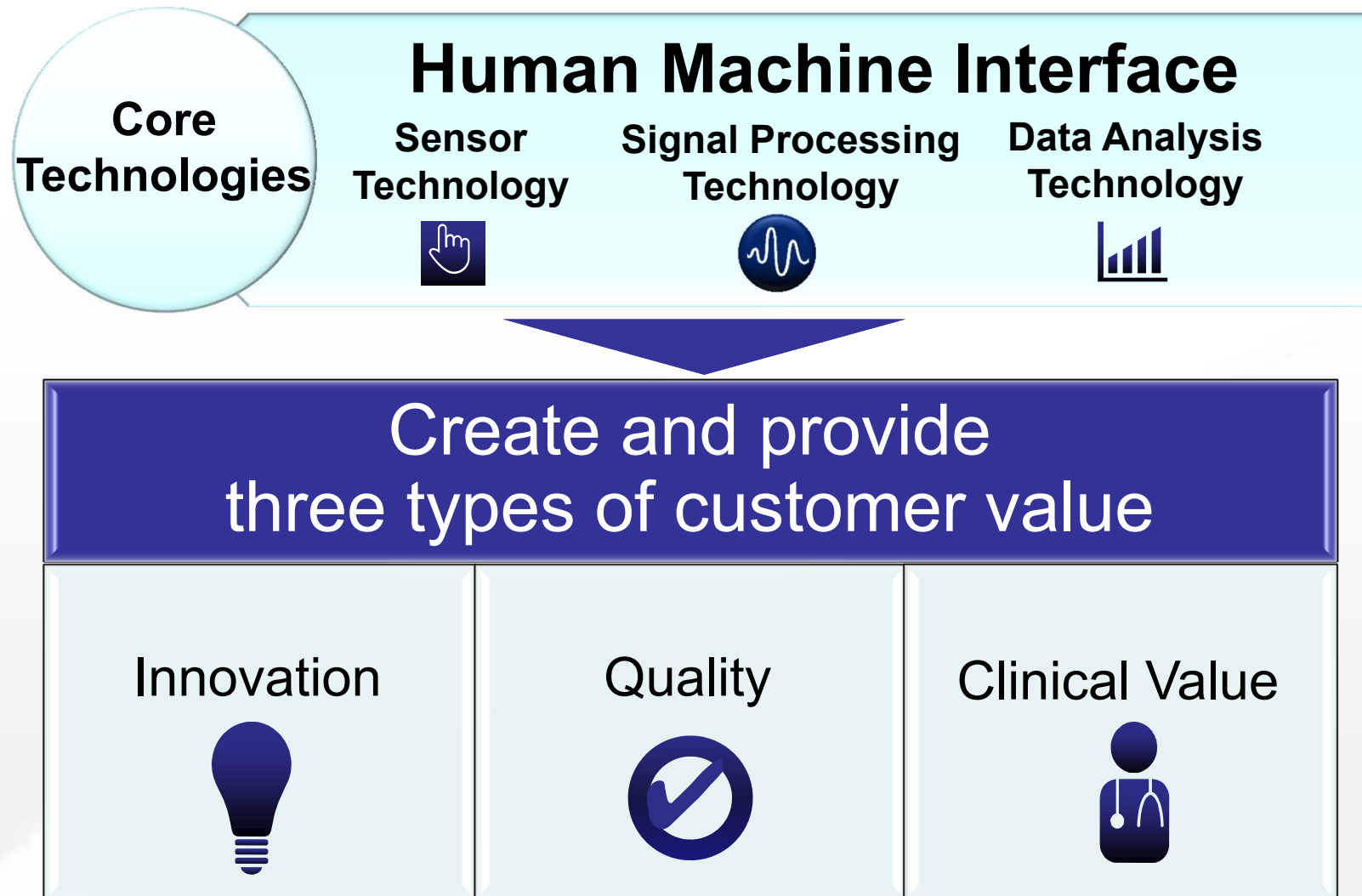
III

# Mid-term Business Plan, TRANSFORM 2020

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# Basic Policies of TRANSFORM 2020

Transform operations to achieve a highly profitable structure



# Basic Policies of TRANSFORM 2020

1

## Create high customer value

**Our  
Strength**

**Unique technologies such as  
sensor technology and  
data analysis technology**

Develop and sell  
in-house products with high  
customer value



- Increase the competitive advantage of consumables such as sensors
- Services that contribute to medical safety and efficiency



**Consumables and Services  
Sales Ratio Target 45%**

Establish a global sales  
and services network  
that draws on high  
levels of expertise

# Basic Policies of TRANSFORM 2020

2

## Improve productivity within the organization

### Tomioka Production Center

- Implement production reforms



- Establish a global supply chain appropriate for the Group

- Improve productivity
- Ensure the timely supply of products to countries around the world

### Advanced Technology Center

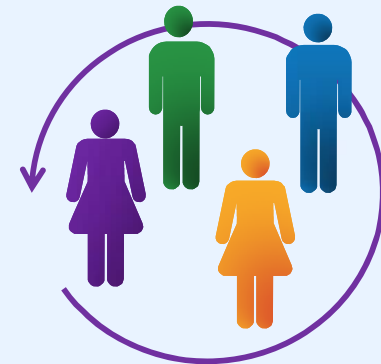
- Utilize the R&D and testing environment
- Strengthen the support from process management, quality management, and production technology



Improve development efficiency

### Entire Group

Reform operating procedures and utilize information technology



Improve the productivity of each employee

# Six Key Strategies

**Strengthen  
business  
expansion by  
region**

**Achieve  
further growth  
in core  
businesses**

**Develop new  
businesses**

**Strengthen technological development capabilities**

**Pursue the highest level of quality in the world**

**Consolidate corporate fundamentals**



# Strengthen Business Expansion by Region

**Nihon Kohden will reinforce our business expansion in Japan, developed countries, and emerging markets to achieve sustainable growth in Japan and strong growth internationally.**

## Japan

Establish the business foundation for future growth to meet medical needs in an aging society

## U.S.

Strengthen our business structure in the U.S. which is the world's largest market and a center of leading-edge medical care

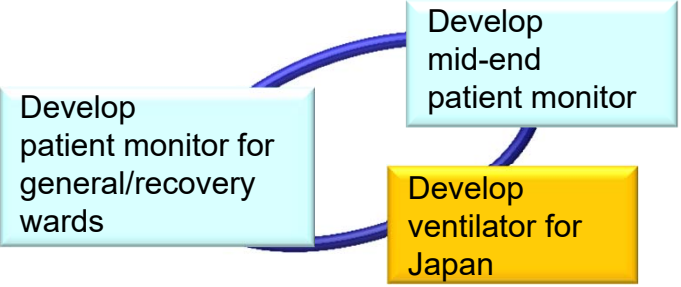
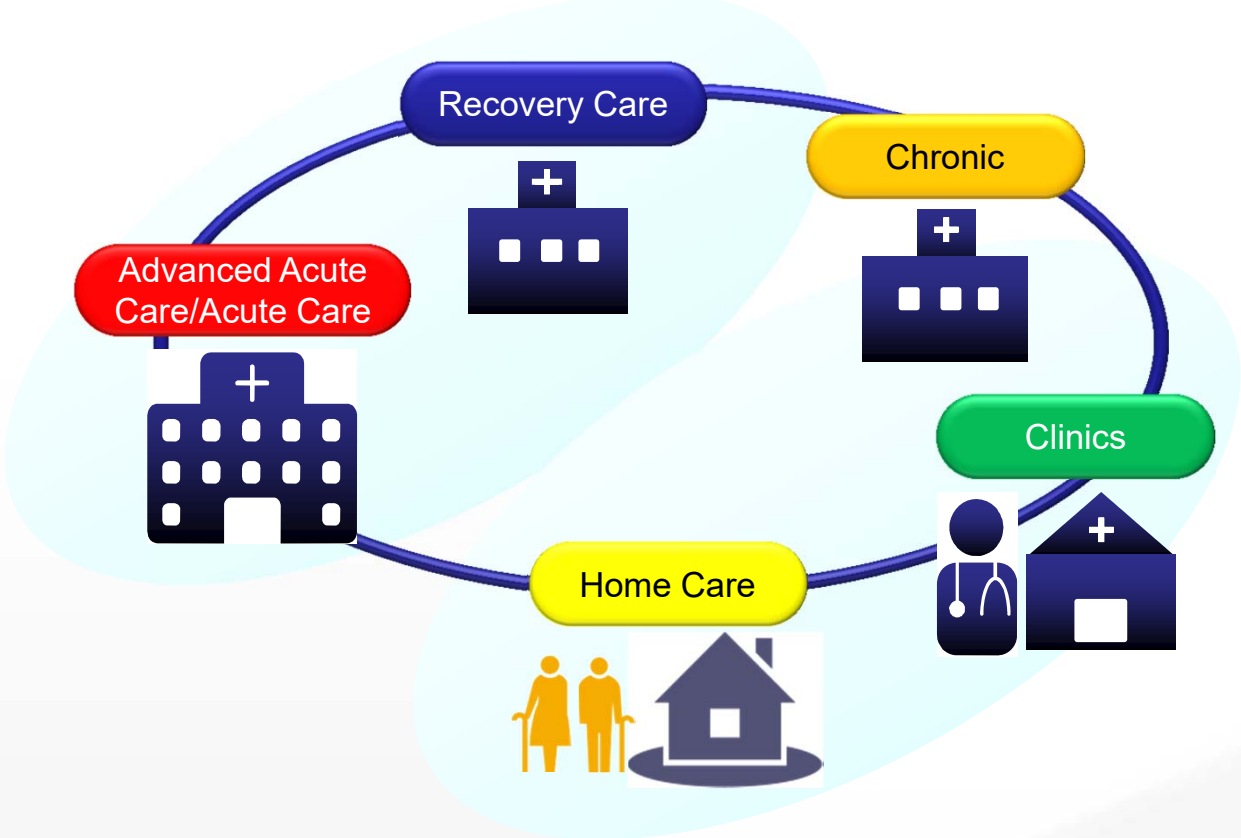
## Emerging Markets

Conduct strategic business expansion to meet medical needs in high growth emerging markets

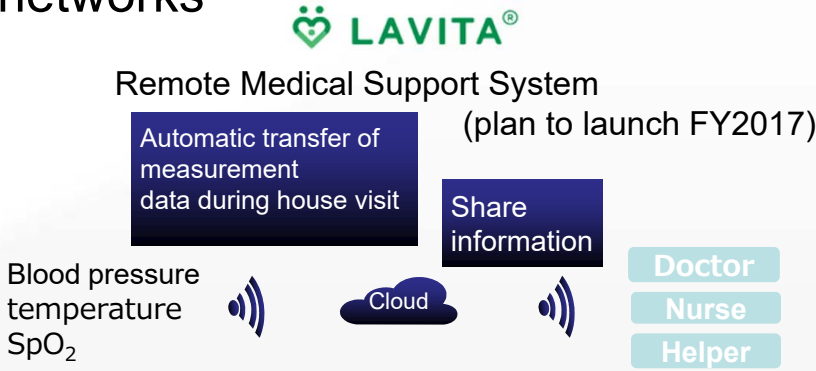
# Japan

Establish the business foundation for future growth to meet medical needs in an aging society

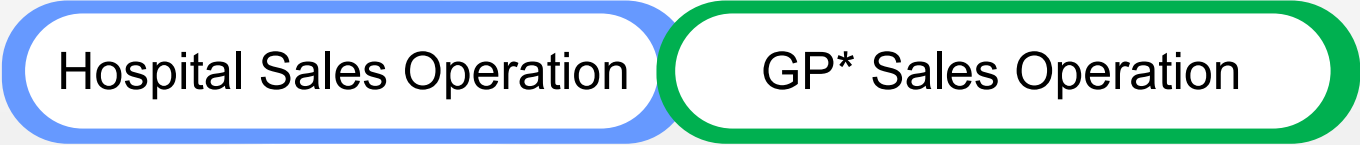
- ✓ Provide solutions that contribute to improving hospital management



- ✓ Expand product portfolio to meet the needs of regional medical care networks



- ✓ Enhance and reorganize sales and services operations



Sales Subsidiary system ▶ Transition to branch system

\*GP: General Practitioner

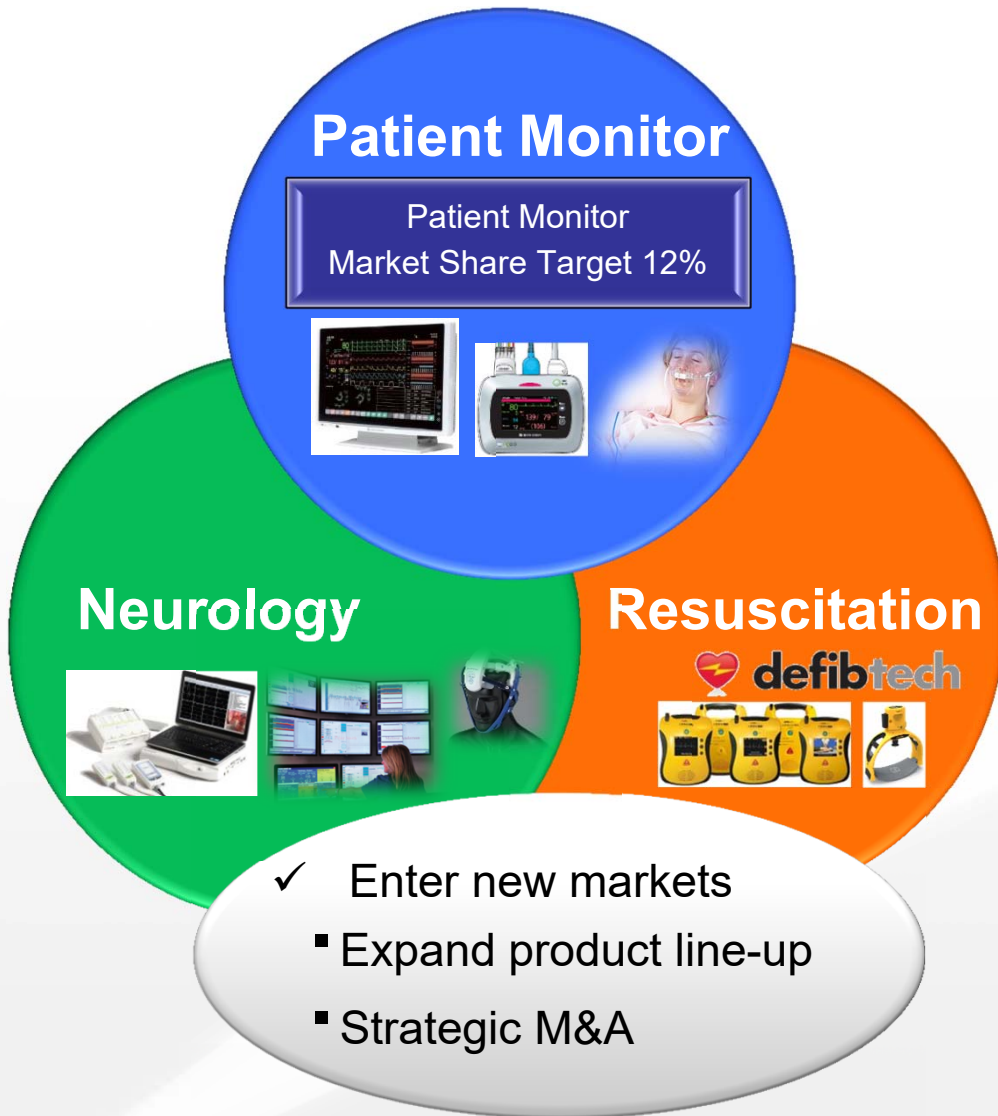


# U.S.

Strengthen our business structure in the U.S. which is the world's largest market and a center of leading-edge medical care

- ✓ Provide solutions that contribute to improving quality and efficiency of medical care

- ✓ Establish R&D, sales and services operations that enable rapid response to market needs and ensure high customer satisfaction





# Emerging Markets

Conduct strategic business expansion to meet medical needs in high growth emerging markets

- ✓ Enhance R&D and production operations in China

Expand line-up of affordable models for emerging markets



Nihon Kohden Middle East

Nihon Kohden Korea

Shanghai Kohden

Nihon Kohden India

NKS Bangkok

Nihon Kohden Malaysia

Nihon Kohden Singapore

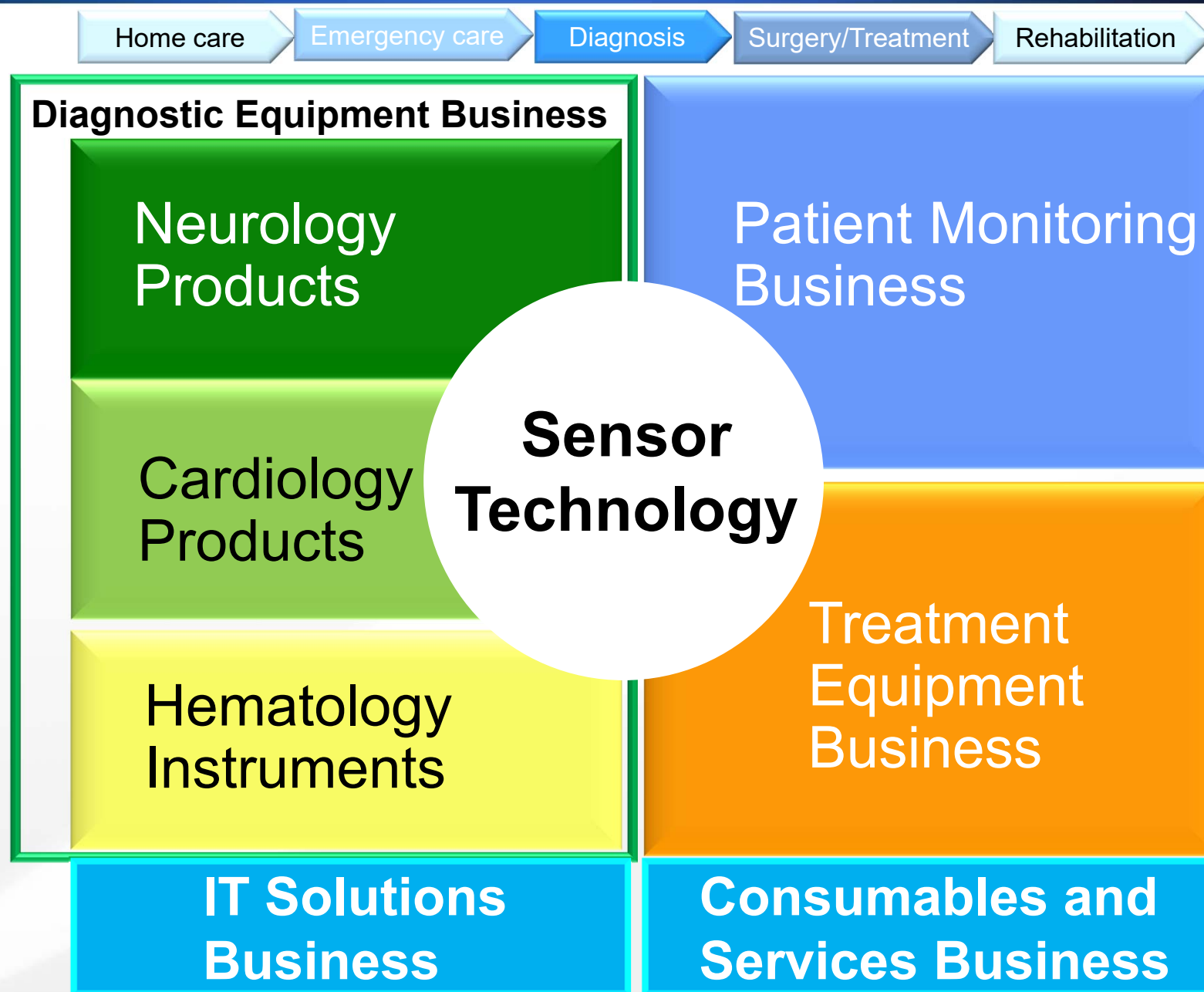
Nihon Kohden Mexico

Nihon Kohden Latin America

Nihon Kohden Do Brasil

- ✓ Promote local production and strengthen local services operations in India, Southeast Asia, and Latin America

# Achieve Further Growth in Core Businesses



# i ) Patient Monitoring Business

- ✓ Provide monitoring solutions that contribute to improving the quality and efficiency of medical care and patient safety
- ✓ Establish a global R&D structure for responding to the needs of each market
- ✓ Enhance network systems to support large-scale monitoring by utilizing wireless technology

## Future Product Development (Plan)

Provide remote monitoring system

NKANYWHERE

Patient data & medical DB



Home monitoring



In Hospital

[General/Recovery ward]

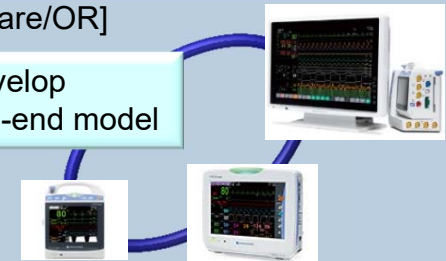
Develop patient monitor for general/recovery ward



Launch transmitter with iNIBP technology  
April 2017(Japan)

[ER/Acute Care/OR]

Develop mid-end model



Solutions that contribute to the efficiency of medical care and patient safety

Enhance clinical information system

Enhance availability of wireless LAN technology

Develop new parameters

PrimeGaia



Develop & launch multigas module

## ii ) Diagnostic Equipment Business

### Neurology products

Expand our market share in the neuro monitoring market by providing neurology products which combine information technology and patient monitoring technology



### Cardiology products

- ✓ Expand the integrated product line-up by utilizing our unique technologies such as synthesized 18-lead ECG\*

Nihon Kohden products



- ✓ Strengthen the price competitiveness of affordable models

Shanghai Kohden products



\*Synthesized 18-lead ECG is a measurement method to derive 6-lead ECG, right-side leads V3R–V5R and posterior leads V7–V9, from the standard 12-lead ECG.



## ii ) Diagnostic Equipment Business

### Hematology Instruments

- ✓ Expand line-up of products for point of care testing such as hematology analyzers, clinical chemistry analyzers and reagents
- ✓ Accelerate global business expansion by strengthening our cost competitiveness through enhancing local manufacturing capability

#### Hematology analyzer



#### Clinical chemistry analyzer

- Production of hematology analyzers and clinical chemistry analyzers started in Shanghai Kohden in 2016.
- Production of CRP reagents and HbA1c reagents in India is planned to start in 2017.



# iii) Treatment Equipment Business

- ✓ Establish leadership position in the defibrillator and AED markets  
Develop unique technologies and solutions that contribute to improving the care cycle in the resuscitation field



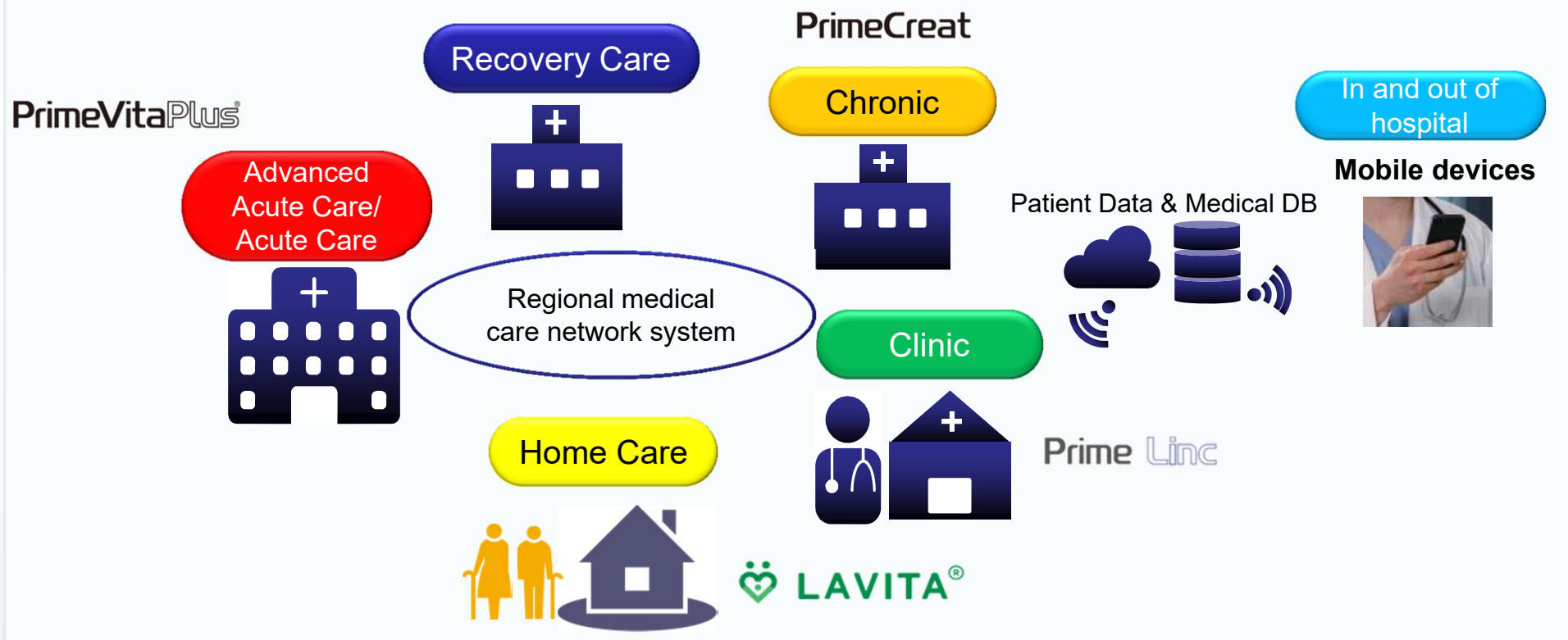
- ✓ Create ventilators and anesthesia machines business and promote global expansion at the earliest opportunity

Develop cutting-edge ventilators and anesthesia machines by utilizing unique technologies

		Launch Target
Ventilator for Japan	Under development at Advanced Technology Center	FY2018
Ventilator for emerging markets	Under development at the U.S. R&D office, OrangeMed	FY2019
Anesthesia Machine	Joint development with Acoma	FY2018

# iv) IT Solutions Business

- ✓ Expand our system product line-up to become the basis of regional medical care networks by utilizing cloud technologies



# v) Consumables and Services Business

- ✓ Promote market penetration of our unique sensor technologies globally

<p><b>NIBP*Module</b></p>  <p>*NIBP : Non invasive blood pressure</p>	<p><b>SpO<sub>2</sub> sensor</b></p> 	<p><b>CO<sub>2</sub> sensor</b></p>  <p>Launch adapter for CO<sub>2</sub> monitoring during endoscopic examination/surgery (May 2017 Japan)</p>
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- ✓ Strengthen production and supply capability with respect to consumables in order to achieve cost reductions and meet increasing demands

Promote automated production of SpO<sub>2</sub>/ CO<sub>2</sub> sensors and AED disposable pads



- ✓ Provide value-added services by utilizing Internet of Things technologies

Offer remote monitoring services **MDLinkage** (医療機器連携プログラム)

**In Hospital**



# Develop New Businesses

Nihon Kohden will develop new businesses to meet new market needs in accordance with changes in the market environment and the progress of technological innovation, with the aim of creating future core businesses.

- ✓ Create new customer value and new businesses by utilizing technological resources such as sensor technology, signal processing technology, and data analysis technology



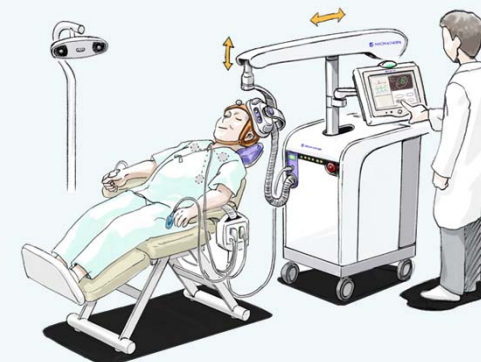
... Develop new parameters



\*estimated Continuous Cardiac Output. Non-invasive continuous cardiac output monitoring. It estimates CO using ECG and SpO<sub>2</sub>.

- ✓ Create new businesses that meet new medical needs in an aging society

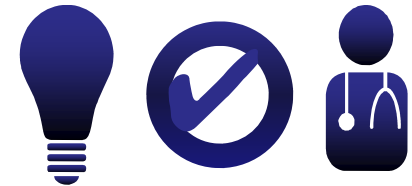
- Aim to develop **Japan's first non-invasive repetitive magnetic stimulation treatment equipment** for patients with Parkinson's disease
- Complete clinical trial registration in January 2017





# Strengthen Technological Development Capabilities

Nihon Kohden will further reinforce its technological development capabilities which are the basis for developing revolutionary breakthrough technologies, achieving the highest level of quality, and delivering high clinical value.



- ✓ Further reinforce core technologies which are the source of our competitive advantage

Sensor technology



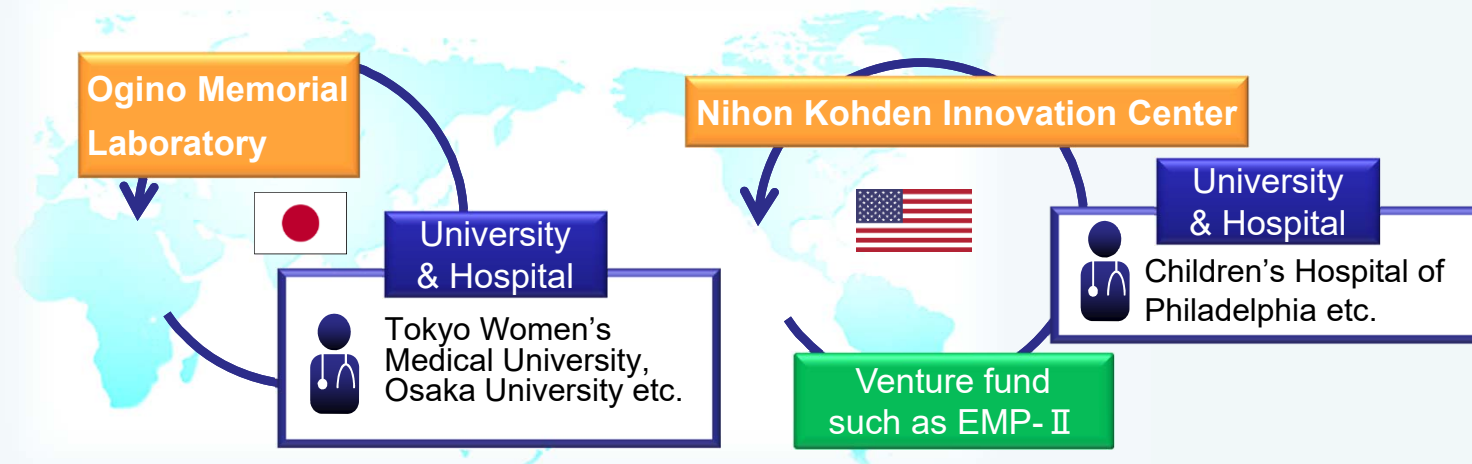
Signal processing technology



Data analysis technology

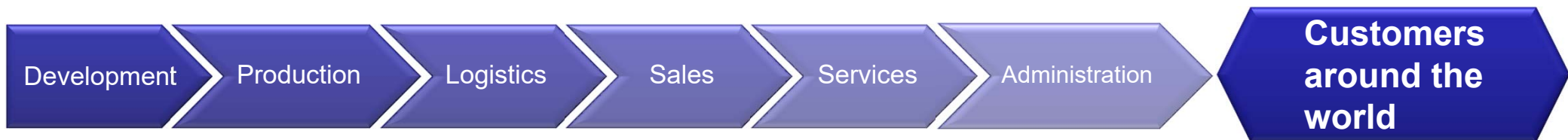


- ✓ Introduce revolutionary technologies more rapidly through collaboration with industry-government-academia partnerships



# Pursue the Highest Level of Quality in the World

Nihon Kohden will ensure the top quality in every activity of every division across the entire Nihon Kohden Group to ensure the satisfaction of customers around the world.



Establish a global quality management system

Respond to regulations in each country and enhance postmarket surveillance

No.1 customer satisfaction for **10 consecutive years**

10 years

MD Buyline





# Consolidate Corporate Fundamentals

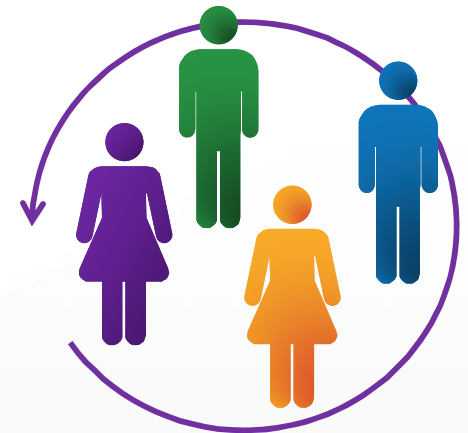
- ✓ Establish a global business management structure
- ✓ Promote CSR activities



\*PAD: Public Access Defibrillation

# Human Resource Development and Corporate Culture Reform

- ✓ Introduce a new personnel system and human resource development programs
- ✓ Foster human resources who act autonomously
- ✓ Cultivate an open and energetic corporate culture



# Targets for FY2019 ending March 2020 (consolidated)

Sales	¥190.0 billion		
Domestic sales	¥135.0 billion		
Overseas sales	¥55.0 billion	Breakdown of overseas sales by region	
Operating income (Operating income margin)	¥20.0 billion (10.5%)		
Income attributable to owners of parent	¥13.7 billion		
ROE	12.0%		
		Americas	¥27.3 billion
		Europe	¥8.2 billion
		Asia	¥16.5 billion
		Other	¥3.0 billion

Exchange rate assumptions: ¥110 to the U.S. dollar, ¥115 to the euro

# Investment plan for growth

FY2017 - FY2019 (three years)

Capital investments	about ¥16.0 billion
R&D investments	about ¥23.0 billion

# Basic Policy on Distribution of Profits and Dividends

Investments  
for Growth

Continue investments necessary for future business expansion

R&D  
investments

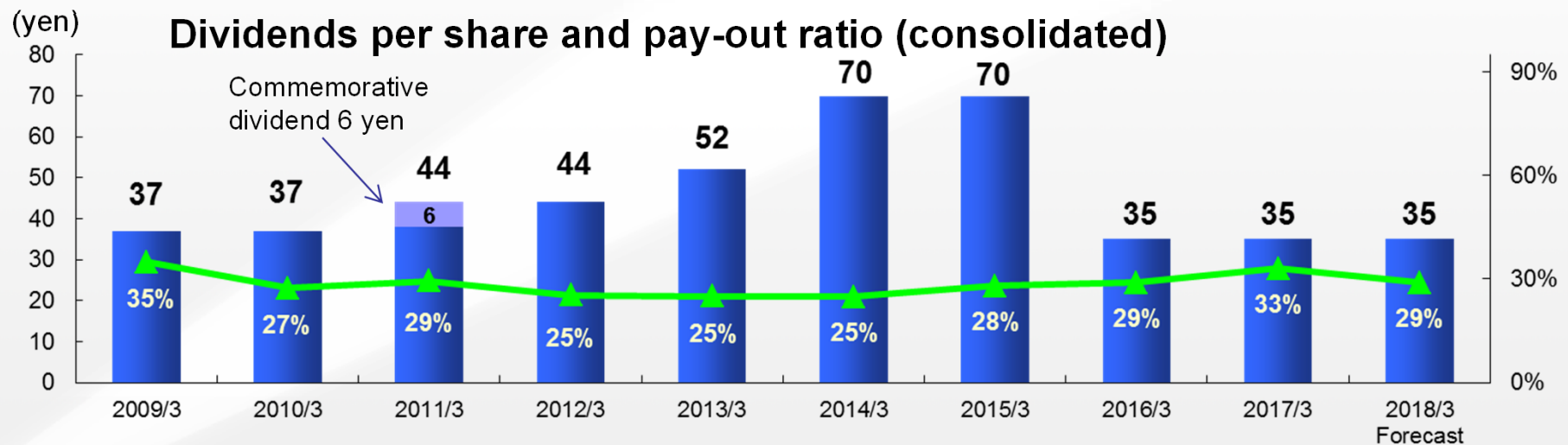
Capital  
investments

M&A and  
alliance

Human  
resource  
development

Shareholder  
Return

- ✓ Maintain stable and continuous dividend payments
- ✓ A target consolidated dividend payout ratio of 30% or more
- ✓ Cash dividends are the basis of shareholder return, and share buybacks are considered in a flexible manner.



\*Effective April 1, 2015, each share of common stock was split into two shares. Dividends per share from FY2008 to FY2014 were actual payment amounts.

## Disclaimer:

The contents of this document are based on the Company's best judgments at the time it was prepared and do not constitute a guarantee or promise that the Company will achieve its numerical targets or implement the measures described therein.