

# **Consolidated Full Year Projections for FY March 2017 and Mid-Term Policy**

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# **Consolidated Full Year Projections for FY March 2017**

# FY March 2017 Full Year / Dividend Projections

| (Yen billions)                |           | FY March 2016<br>Full Year Results            | FY March 2017<br>Full Year Projections         | YoY Change   |        |
|-------------------------------|-----------|---|--|--------------|--------|
|                               |           |   |  | Yen billions | %      |
| Net sales                     |           | 1,152.3                                       | 1,160.0  | 7.7          | 0.7%   |
| Operating income              |           | 93.4  | 74.0   | (19.4)       | -20.8% |
| Operating income margin       |           | 8.1%  | 6.4%   | -1.6 pt      | -      |
| Income before income taxes    |           | 91.8  | 73.0   | (18.8)       | -20.5% |
| Net income                    |           | 64.8  | 50.0   | (14.8)       | -22.8% |
| Earning per share (JPY)       |           | 514.23  | 396.00   | -            | -      |
| Dividends (JPY)               |           | 1st half : 60<br>2nd half : 60<br>Annual: 120 | 1st half : 60<br>2nd half : 60<br>Annual : 120 | -            | -      |
| Ex-rate                       | US\$(JPY) | 120.13  | 110.00   | -            |        |
|                               | EURO(JPY) | 132.67  | 125.00   | -            |        |
| Capital expenditure           |           | 160.7   | 200.0  | 39.3         | 24.5%  |
| Depreciation and amortization |           | 83.2  | 95.0   | 11.8         | 14.2%  |
| Research and development      |           | 84.9  | 90.0   | 5.1          | 6.0%   |

# Projections for FY March 2017 -Image of changes in sales

(Yen billions)

| Segment                          | FY March 2016<br>Full Year Results | FY March 2017<br>Full Year Projections<br>(YoY Change) |
|----------------------------------|------------------------------------|--|
| Passive Components               | 575.7                              | +3~+6%   |
| Magnetic Application<br>Products | 315.3                              | -11~-14%   |
| Film Application Products        | 2,22.4                             | +12~+15%   |
| Other                            | 38.8                               | -  |
| <b>Total</b>                     | <b>1,152.3</b>                     | <b>1,160.0</b>   |

Forex assumptions

US\$(JPY) 120.13  
EURO(JPY) 132.67

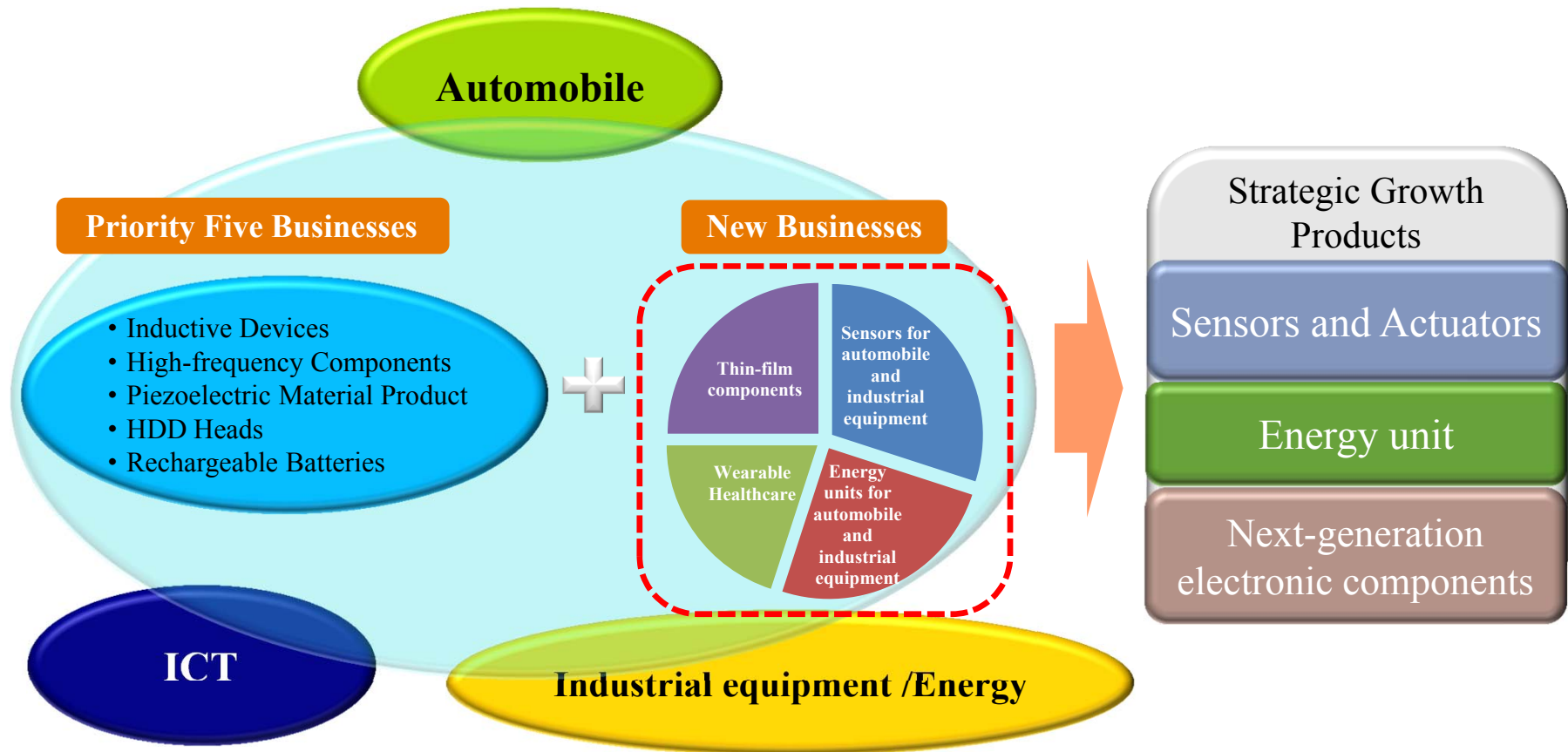
110.00  
125.00

# Points of FY March 2017

| Segment  | Outlook for Priority Businesses   |
|--|---|
| <b>Passive Components</b>                                    | <ul style="list-style-type: none"> <li>• Inductors: Share expansion of thin-film and multi-layered products in the ICT and automotive markets</li> <li>• High-frequency Components: Sales expansion for small, high-performance, discrete components and modules</li> <li>• Piezoelectric Material Products: Expansion of the OIS business (increased usage rate among smartphones in China)</li> </ul> |
| <b>Magnetic Application Products</b>                         | <ul style="list-style-type: none"> <li>• HDD heads:<br/>Contraction in HDD market volume with decline in PC demand and acceleration in switch to SSDs<br/>Approx. 444 million units in FY March 2016 ⇒ Approx. 400 million units (10% decrease) in FY March 2017</li> <li>• Sensors: Expansion in sensors for automotive market and contribution from Micronas</li> </ul>                               |
| <b>Film Application Products</b><br>(Rechargeable Batteries) | <ul style="list-style-type: none"> <li>• Rechargeable batteries: Continued expansion in demand for polymer batteries as a result of thinner profile mobile devices<br/>Expansion in new application demand</li> <li>• Continuation of investment for production expansion and rationalization in line with demand</li> </ul>  |

# Mid-Term Policy

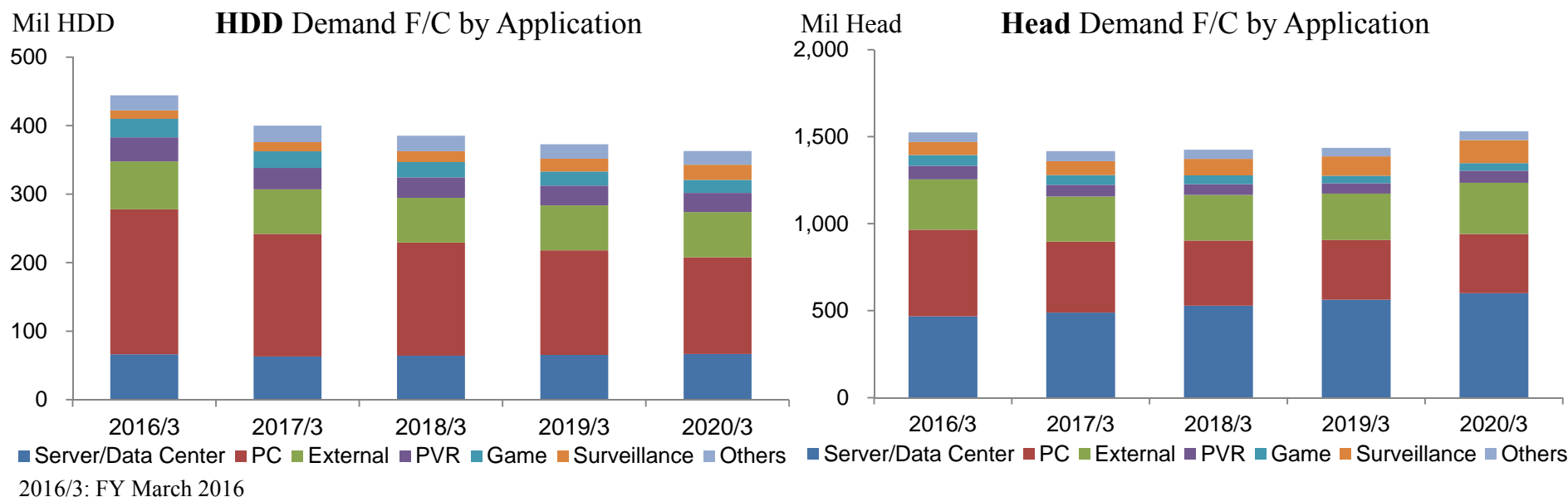
# Priority Markets, Priority Businesses and New Businesses



Performance briefing for FY March 2015  
(held in April in 2015)

# Regarding the Recording Devices Business (HDD Heads)

## ◆HDD market / HDD head demand trend (FY March 2016 – FY March 2020)



- **HDD market contraction** trend to continue (444 million units in FY March 2016 → 363 million units in FY March 2020)
- Contraction of PC market and accelerated switch to SSDs in PCs
- High-end HDDs for high-speed processing also increasingly switched to SSDs
- Steady HDD demand for near-line, external, and surveillance camera applications to continue

- Despite contraction of the HDD market, **HDD head demand to remain level**
- Demand for HDDs in PCs to continue contracting
- The number of heads per HDD to continue increasing, mainly in near-line HDD heads (FY March 2016: 3.43 heads → FY March 2020: 4.22 heads)

(TDK's estimation)



# Regarding the Recording Devices Business (HDD Heads)

## Rightsizing Internal Operations and Contributing to Rightsizing of the Industry

### (1) Internal right-sizing

- Front-end processing plants: Consolidated two plants → one plant
- Back-end processing plants: Restructure China operations and start production of passive components in the Philippines

### (2) Contribute to industry right-sizing

- Non-captive : Strengthen vertical collaboration in development and manufacturing that transcends conventional frameworks
- Captive : Horizontal labor division to avoid overlapping investment and cost increases  
Support development of advanced technologies that contribute to Time-To-Market

### (3) Provide products and services through advanced technology capabilities

- Realize thermal assist head (TAMR: front- and back-end processes), two-dimension MR (TDMR), micro dual stage actuator (DSA)
- Provide services leveraging back-end processing capability

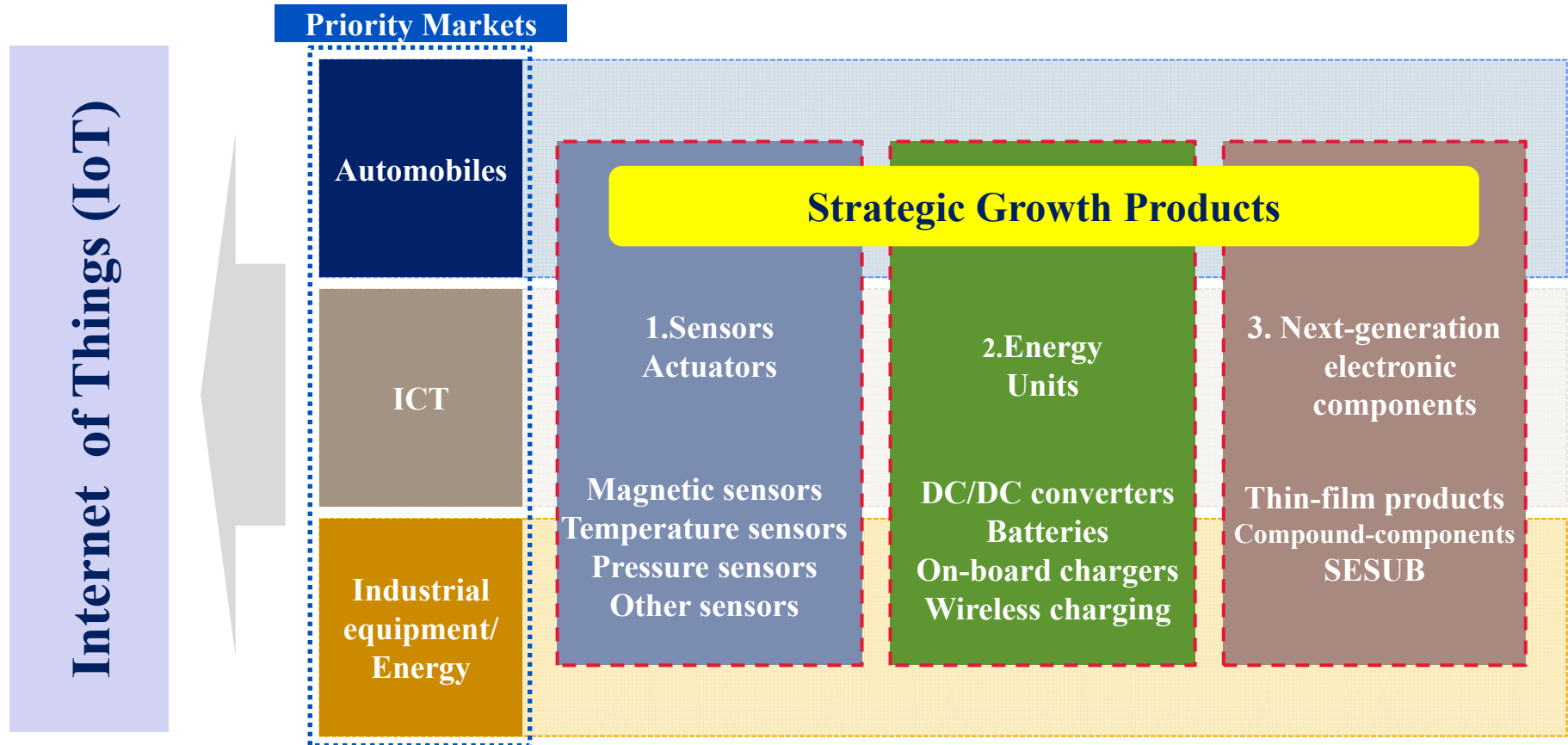


**Continue to be “an entity that is relied upon by market” even in a contracting market**

# TDK Growth Strategy (Strategic Growth Products for the IoT Market)

Accelerate expansion of strategic growth products by strengthening  
of the business collaboration with Qualcomm

→To land business opportunities in the IoT business through priority markets.



**Strengthened Business Collaboration with Qualcomm**

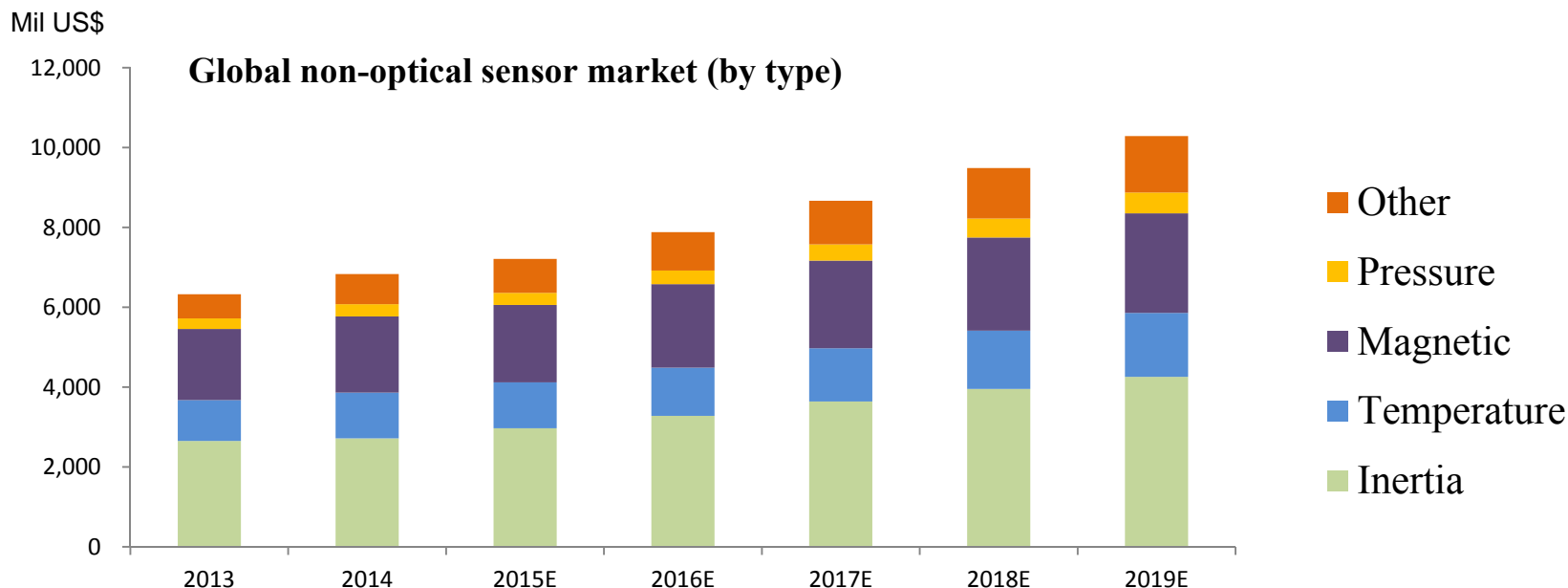
## Sensors / Actuators

**Market  
forecast**

**Non-optical sensor market :  
US\$6.8 billion in 2014  $\Rightarrow$  US\$10.6 billion in 2019**



**9.1% annual growth**



(TDK's estimation)

## Sensors / Actuators

### Expansion strategy of magnetic sensor business

#### Expand module sensor system business

- Merge sensor assembly technologies
- Expand local business utilizing Chinese production bases

#### Maximize synergies with Micronas

- Hall and TMR-hybrid sensors for automotive market
- ASIC/ASSP technology development in TDK products

#### Expand business through initiatives to capture demand for consumer applications

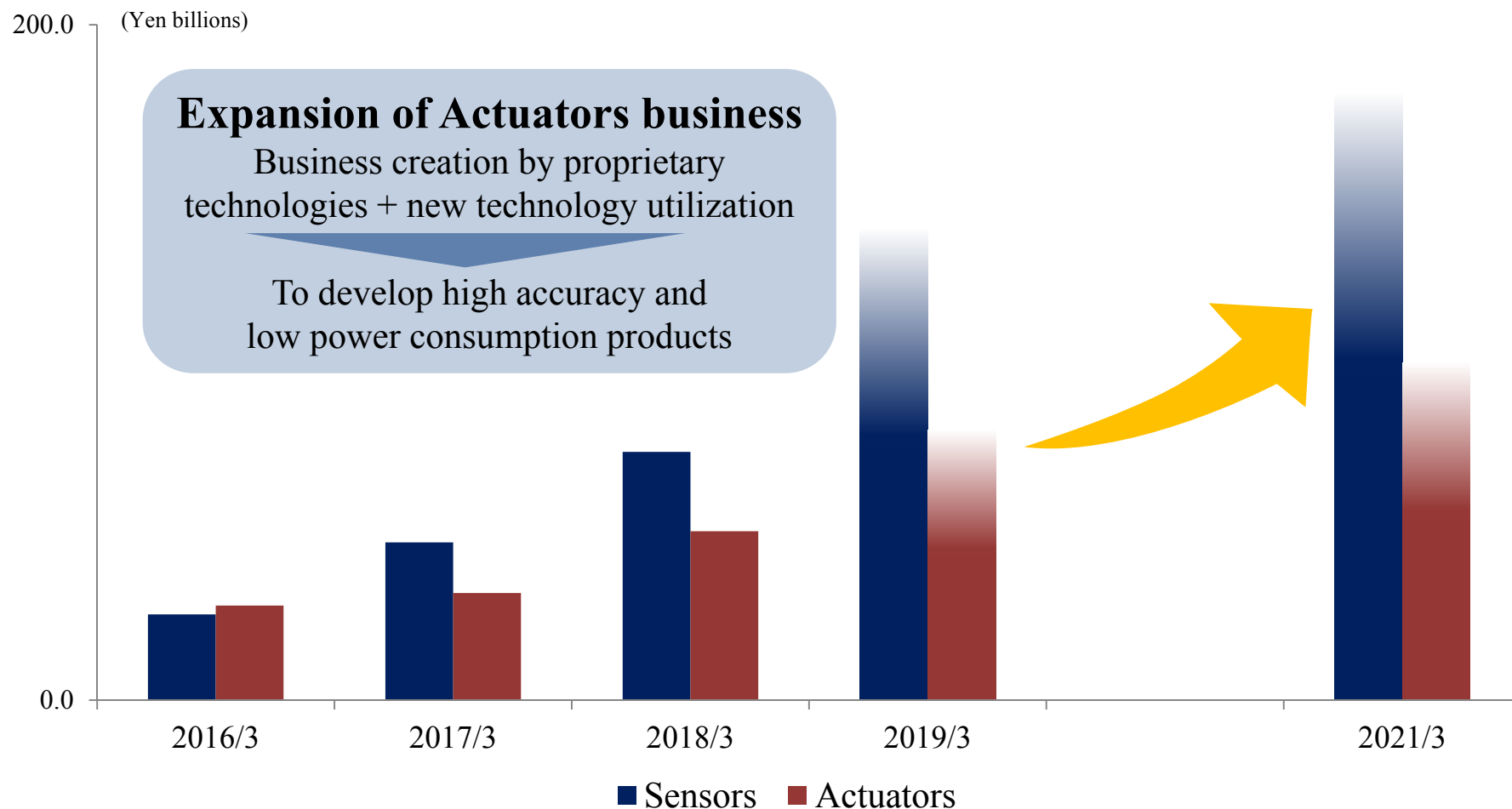
- Expand demand with high precision, energy saving characteristics

#### Expand automotive TMR sensor business

- Complete development of core product lineup (FY March 2017)
- Expand application and customer base

## Sensors / Actuators

### Expand Sensors and Actuators businesses (Sales)



2016/3: FY March 2016

## Energy units

### “From single products to systems”

Provide units that combine **hardware** and **software** with power transforming functions, energy storage functions, energy control functions

#### Power Conversion Function

- AC-DC & DC-DC convertors
- Invertors
- Chargers
- Two-way AD-DC and DC-DC converters (for regenerative energy applications)
- Wireless charging system

#### Electricity Storage Function

- Industrial lithium-ion batteries
- Automotive lithium-ion batteries
- Energy Storage System (ESS) lithium-ion batteries
- Electric Double Layer Capacitors (EDLCs)

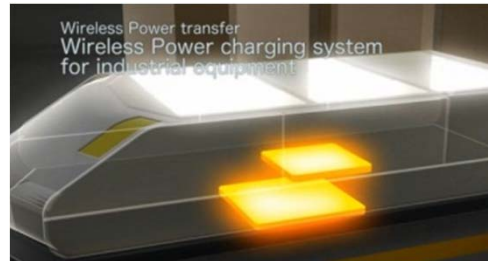
#### Energy Management System Function

- Battery Management Units (BMUs)
- Battery Management Systems (BMSs)
- Various sensors (Current sensors, Temperature sensors, etc.)

# Energy units



AGV(Auto Guided Vehicle)



Mobile Robot



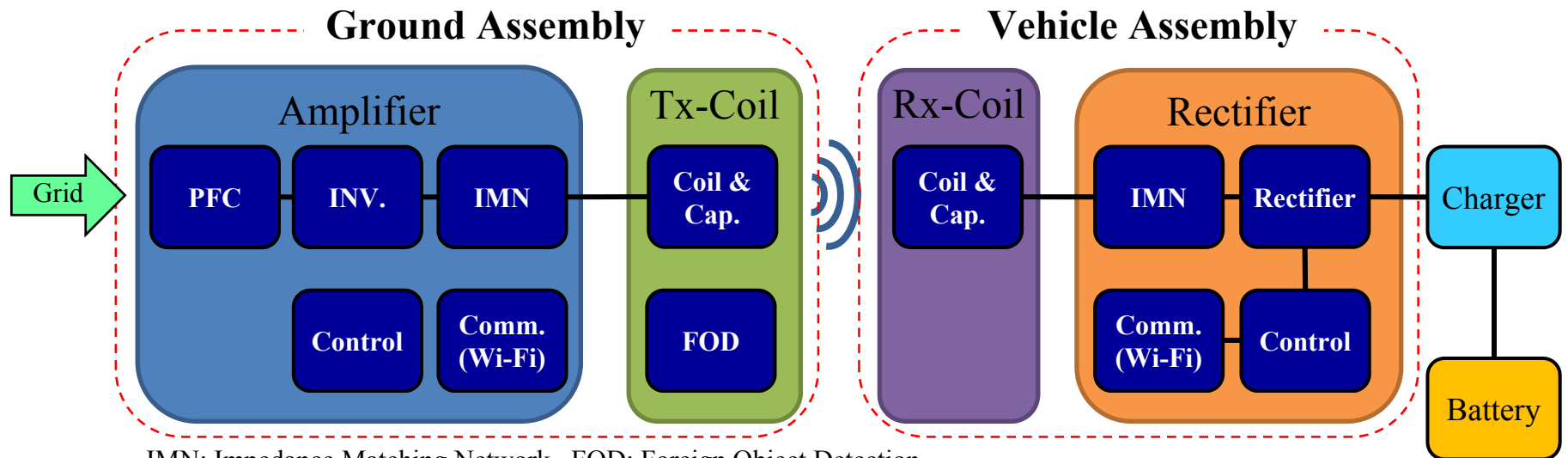
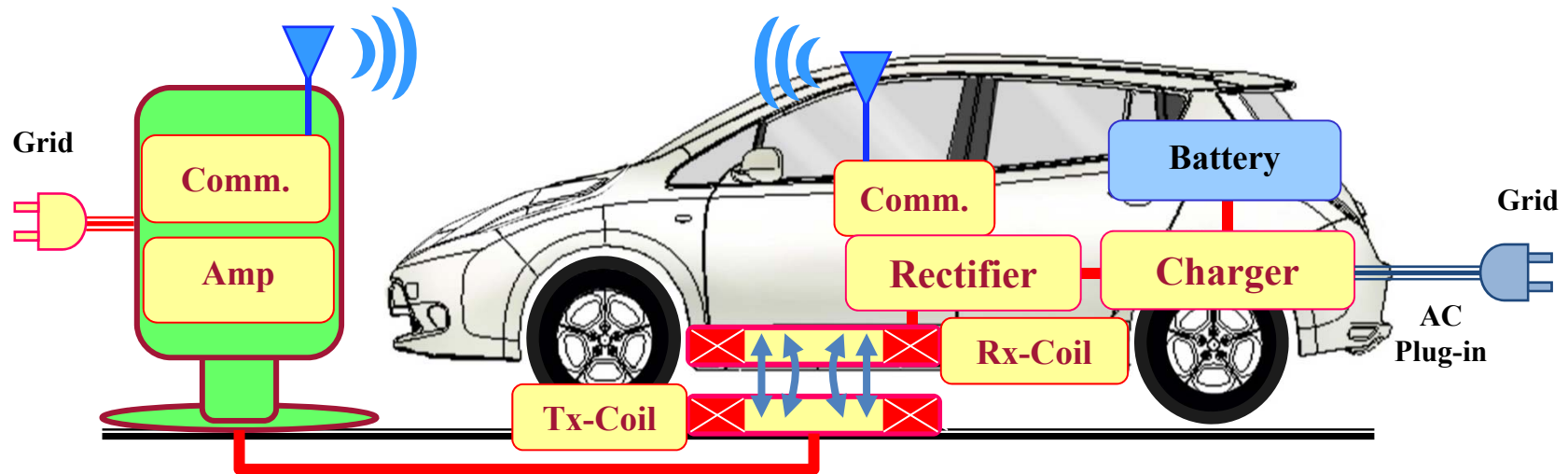
Hand of Robot



Pendant  
for CNC

# Energy units

## WPT System - Overview & Functions

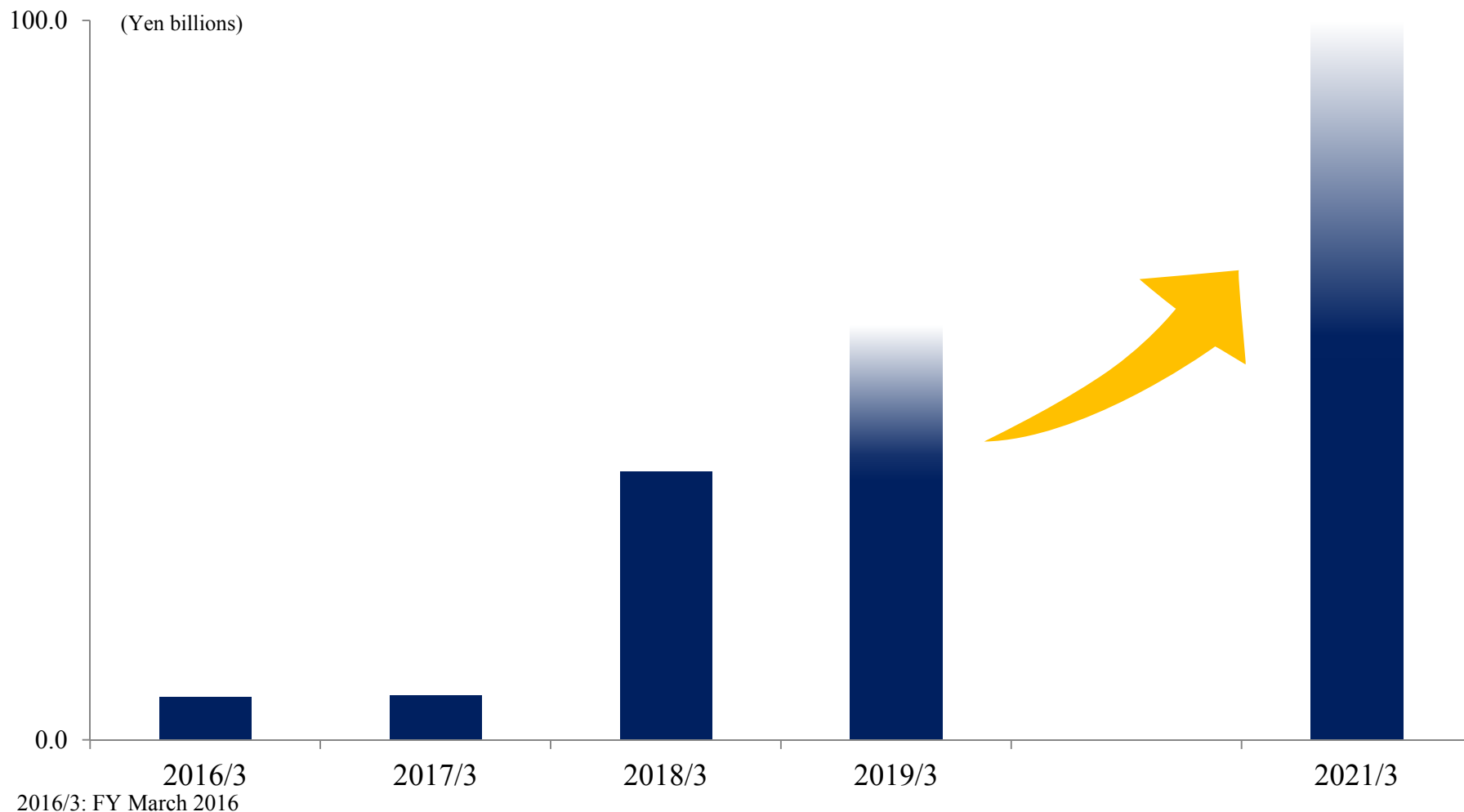


IMN: Impedance Matching Network, FOD: Foreign Object Detection



## Energy units

### Expand Energy units business (Sales)



## Next-generation electronic components

**Combine SESUB technology, thin-film technology, and materials technology to provide high value-added products that meet customers' diversifying needs going forward**

**SESUB  
technology**

**Thin-film  
technology**

**Material  
technology**

### Next-generation electronic components

- SESUB
- Compound products
- Thin-film high frequency filters
- Thin-film capacitors  
(sheet, discrete)
- MEMS
- Low profile inductors, etc.

# Next-generation electronic components

Expand product lineup by introducing advanced technologies  
Develop further thinner SESUB packages with embedded passive components

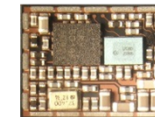
## SESUB

### Power Systems

μDC/DC converter  
Envelope tracker  
L-ion battery chargers

### Communication Systems

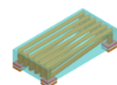
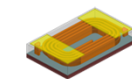
BLE modules  
WiFi modules  
PA/RF modules



## Thin-film devices

Power System  
Communication System  
Sensor Systems  
Noise Systems  
CPUs

Thin-film capacitors  
Low-profile inductors  
High-frequency filters  
Thin-film common mode filters  
MEMS microphone  
Embedded capacitors



Full-scale expansion of SESUB business making maximum use of joint venture with Advanced Semiconductor Engineering Co., Ltd.

## Next-generation electronic components

### Transfer of Renesas Semiconductor Manufacturing's Tsuruoka factory

#### Background

- Establishment of thin-film passive components production base in Akita district
- Securing of the manufacturing and technical capabilities for thin-film product
- Securing of production space for future demand expansion of thin-film product

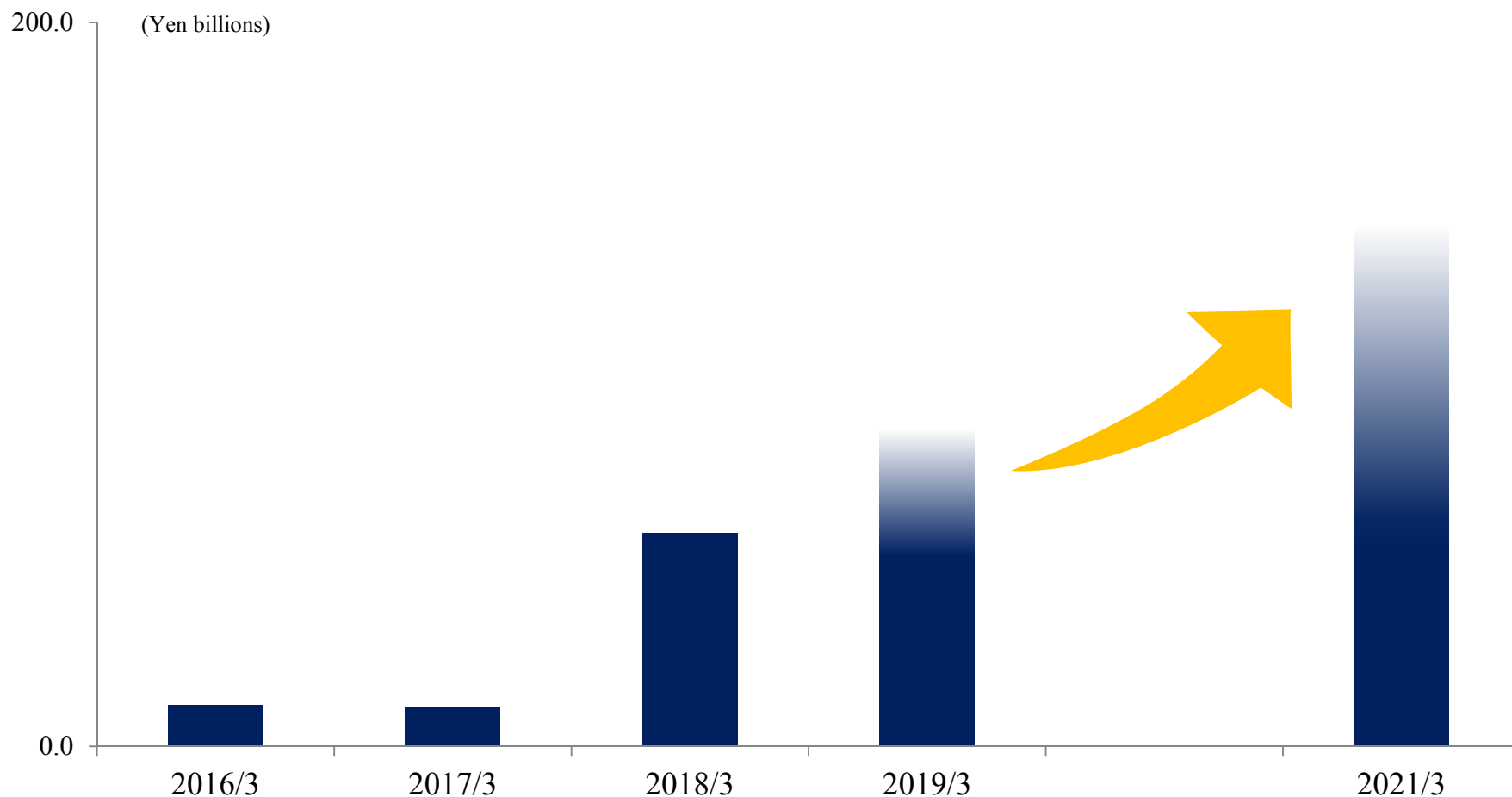
#### Tsuruoka Factory



※ Renesas Semiconductor  
Manufacturing Co., Ltd.

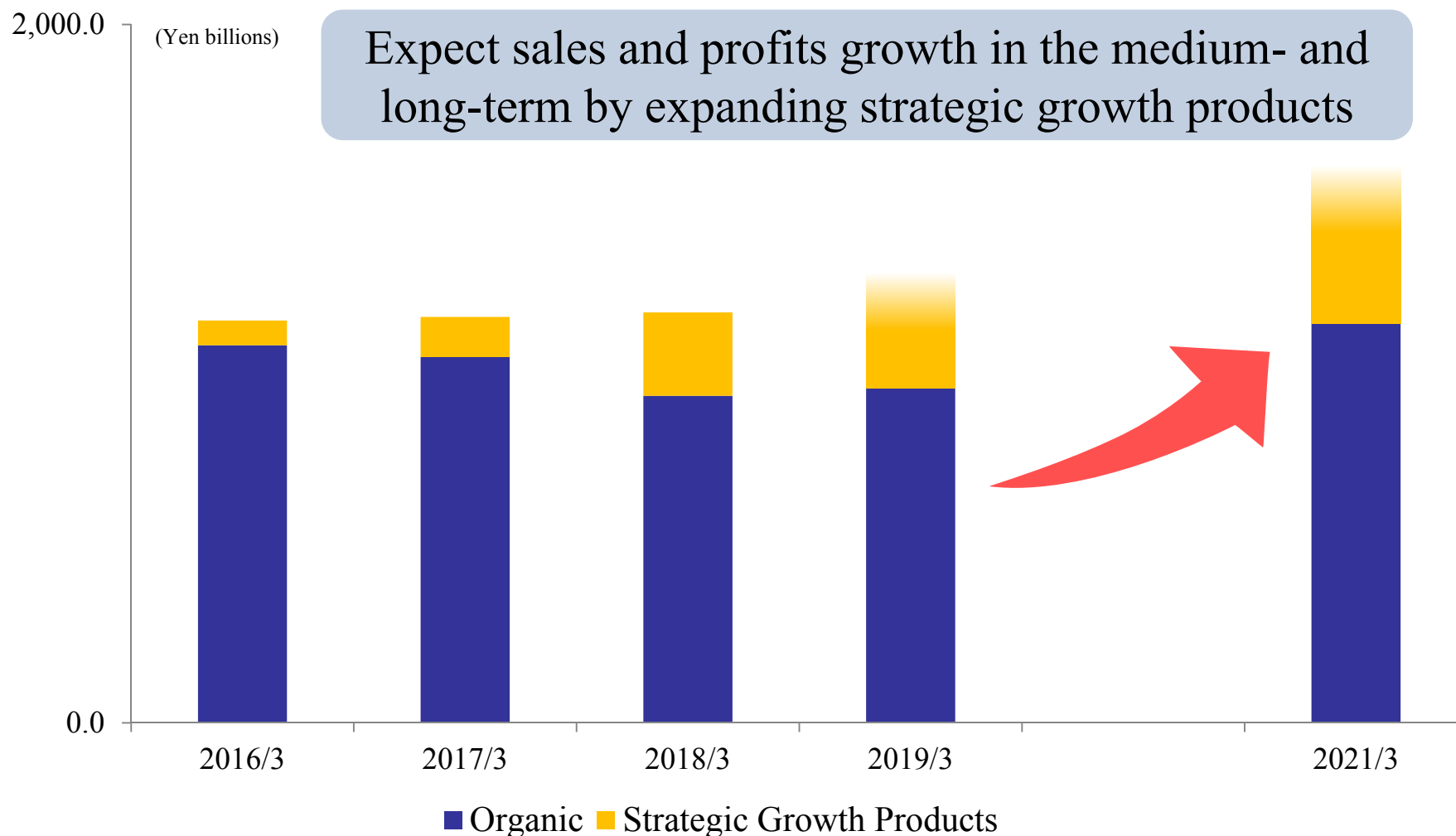
# Next-generation electronic components

## Expand Next-generation electronic components business (Sales)



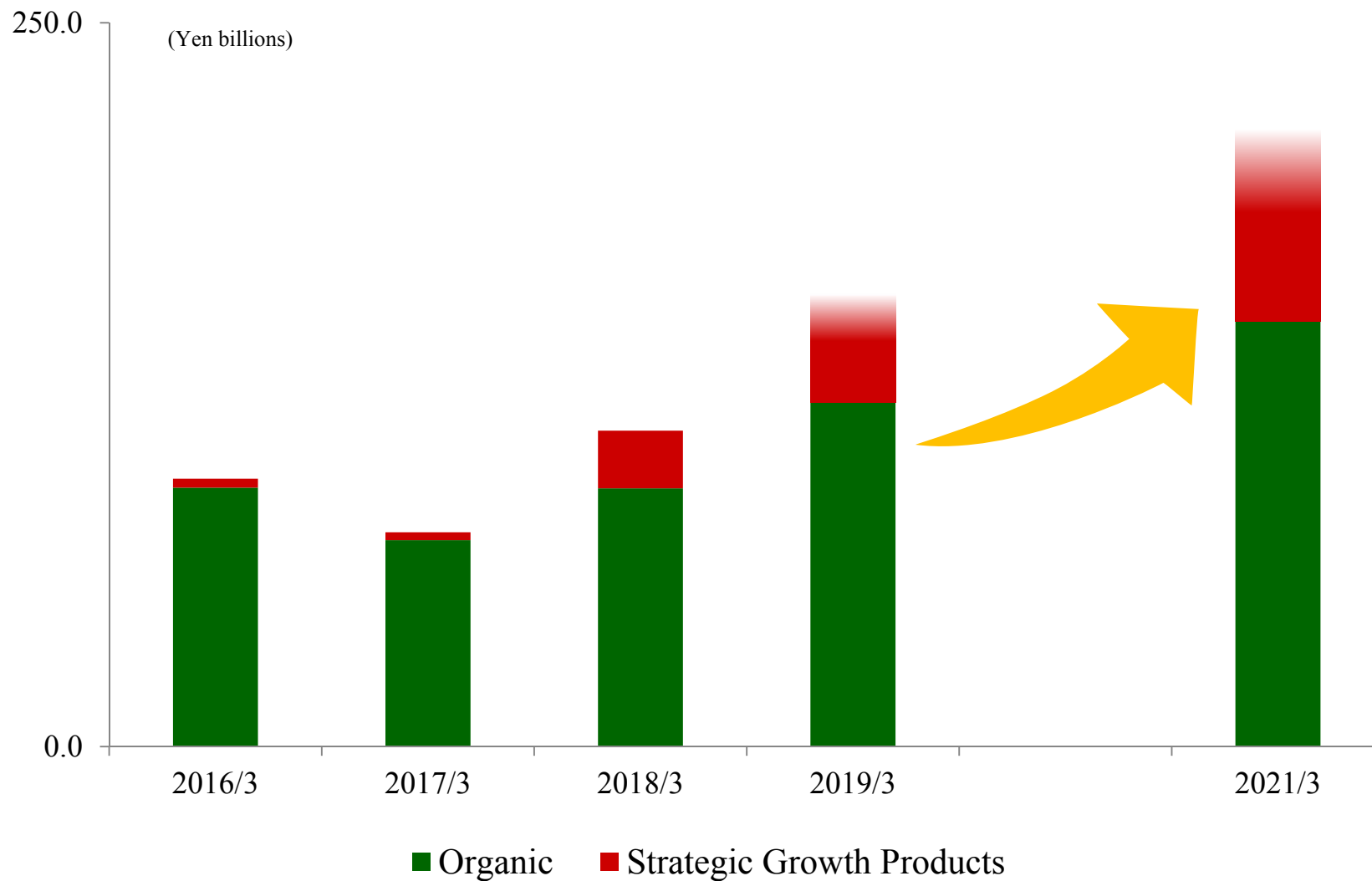
2016/3: FY March 2016

# Consolidated sales projections



2016/3: FY March 2016

# Consolidated operating income projections



2016/3: FY March 2016

# Management Target in Mid-Term

## Growth Investment

- Investment in new products, new businesses, and M&A
- Increase production capacity of existing businesses

## Return to Shareholders

- Stabilize or increase dividends through EPS growth
- Target a 30% dividend payout ratio

|                                    | <b>FY March 2015<br/>Results</b> | <b>FY March 2018<br/>Target</b> |
|------------------------------------|----------------------------------|---------------------------------|
| <b>Operating Income<br/>Margin</b> | 6.7%                             | Over 10%                        |
| <b>ROE</b>                         | 7.2%                             | Over 10%                        |



# Growth Investment

**Total investment over the Medium-Term Plan  
(FY March 2016 – FY March 2018)**

## Capital Expenditure

- Accelerate expansion of strategic growth products
- Accelerate expansion of existing priority businesses

**350~400 billion yen**



**430~480 billion yen**

## R&D Investment

- Strengthen overseas R&D bases
- Accelerate “Monozukuri” innovation

**About 230 billion yen**



**About 250 billion yen**

**Medium-Term Management Plan (Original)**

**Latest forecast**

## Cautionary Statements with Respect to Forward-Looking Statements

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Text data including Q&A of performance briefing will be uploaded on following site  
[http://www.global.tdk.com/ir/ir\\_events/conference/2016/4q\\_1.htm](http://www.global.tdk.com/ir/ir_events/conference/2016/4q_1.htm)