First Year of VG2.0 Off to a Jump Start

Set to achieve record-high net sales and operating income

<table>
<thead>
<tr>
<th>FY2016 Actual</th>
<th>FY2007 Actual (Record sales)</th>
<th>FY2017 forecast</th>
<th>FY2014 Actual (Record operating profit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>331.0</td>
<td>339.2</td>
<td>388.0</td>
</tr>
<tr>
<td>Operating income</td>
<td>52.0 (15.7%)</td>
<td>71.5 (18.4%)</td>
<td>54.6 (16.5%)</td>
</tr>
</tbody>
</table>

Net sales: ¥bn
Operating income: %
Three Factors Underpinning Growth

- Growth Markets and Global Linkages
- Diverse Product Lines x Services x Solutions
- Sales Expertise Enhancement
“Select and concentrate” on four industrial sectors globally

- **Automotive**
  - Automotive components
  - Electronic/mechanical components for smartphones
  - Semiconductors/FPDs
  - Rechargeable batteries

- **Digital**
  - Food and beverages
  - Daily necessities
  - Drugs

- **Food and beverages**
  - Food and beverages
  - Daily necessities
  - Drugs

- **Social infrastructure**
  - Urban development
  - Water treatment
  - Traffic/Buildings
Growth Structure (2): Diverse Product Lines x Services x Solutions

- **Input**
- **Logic**
- **Output**
- **Robot**
- **Safety**

Software

※ ※ ※ ※ ※
Growth Structure (2): Diverse Product Lines x Services x Solutions

Motion Controller
Delta Tau Data Systems, Inc. (U.S.)
(acquired in 2015)

Industrial Robot
Adept Technology, Inc. (U.S.)
(acquired in 2015)

Industrial Camera
Sentech Co., Ltd. (Japan)
(acquired in 2017)

Industrial Code Reader
Microscan Systems, Inc. (U.S.)
(acquired in 2017)
Advanced control applications

- **LO** Vibration control
- **LO** “Soft” control
- **LO** High-speed synchronized control
- **LO** Packaging equip. control
- **LO** Winding control
- **LO** Servo press control
- **IL** Contouring control
- **IL** Model prediction control
- **ILR** Robot networking control
- Mobile traveling technology
- Multi-unit control technology
Growth Structure (3): Sales Expertise Enhancement

Single products (Product proposals)

Multiple products (Solution proposals)

Sales \( x \ n \)

PLCs

Visual sensors
Servo motors

Touch panels
PLCs

Control panel devices

Power sources

Safety devices
Sensors

Growth Structure (3): Sales Expertise Enhancement

Single products (Product proposals)

Multiple products (Solution proposals)

Sales \( x \ n \)

PLCs

Visual sensors
Servo motors

Touch panels
PLCs

Control panel devices

Power sources

Safety devices
Sensors
Manufacturing Innovation Concept Accelerates Growth

Evolution in control
Improving productivity through ultra-high-speed control and ultra-high-precision machine control

Innovative-Automation

Intelligent
Intelligence developed through ICT
Realizing manufacturing in which machines learn and evolve through maximum use of data

Interactive
New harmonization between humans and machines
Pursuing ultra-high flexibility through human-machine collaboration
Omron’s Uniqueness

“Real” manufacturing at an altitude of 1～10 m

Diverse control equipment for shop floors

Altitude
10,000m

Inter-sector

1,000m

Inter-company

100m

Businesses

Factories

10m

Shop floors

IoT-driven

IT

AI

Robotics

1m

Consumers

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Three “i”s: integrated (Evolution in Control)

**Digital**
- Reduction of 50% in thickness and double-high definition
- High-precision alignment
  - Panel bonding

**Automotive**
- Reduction of 50% in battery cost and proliferation of EVs
- High-speed, high-precision wire winding
  - Winding process for lithium batteries

**Food and beverages**
- Overcoming severe labor shortages
- High-speed picking
  - Robot conveyance of food products
Three “i”s: interactive

Creating shop floors where humans and machines work harmoniously
Three “i”s: intelligent

Shifting from IoT on shop floors to creation of the new “i-BELT” business model

Altitude

100 m
11 m
10 m
1 m

(1) Data collection

(2) Visualization and analysis

(3) Feedback to device control

Input devices and equipment

Output devices and equipment

Other companies’ input devices

Other companies’ output devices

AI controller

Data accumulation

Data analysis

Algorithm (control model)

Formatting

Control algorithm
Our Goals with “i-BELT”

Accelerating “innovative-Automation” through “i-BELT”!

innovative-Automation

Omron Engineering

Software

Control application

Input Logic Output

Hardware

Robot Safety

Customer Maintenance

Service

i-BELT
"i-BELT" applications

Beverage/pharma sectors: Learning optimal control of filler content

(1) Data collection

[Before filling]
- Residual quantity
- Tank temp.

[During filling]
- Filling pressure
- Conveyor speed

(2) Visualization and analysis

(3) Feedback to device control

Open/close nozzle

[After filling]
Determine filler content
Future Steps for “i-BELT”

Releasing “IoT Start Package,” which facilitates FA equipment data collection, in October 2017

- **October 2017**: Release of the IoT Start Package
- **By March 2018**: Expanding IoT Start Package functionality, Increasing number of connected equipment brands
- **From April 2018**: Full-fledged launch of “i-BELT”

Release of the IoT Start Package in October 2017, emphasizing an expansion in functionality and the addition of more connected equipment brands by March 2018, culminating in a full-fledged launch of “i-BELT” from April 2018.
Bring innovation to manufacturing by automation to enrich lives of people all over the world.