Industrial Products Business Unit
Business Strategy
Hitachi IR Day 2017
June 8, 2017

Masakazu Aoki
Executive Vice President and Executive Officer
CEO of Industrial Products Business Unit
Hitachi, Ltd.
Chairman of the board, Hitachi Industrial Equipment Systems Co., Ltd.
2. Business Strategy
3. Results
4. Conclusion
1-1. Business Overview

Establishing “strong product-led business” to meet a wide range of industrial needs

- Resources
  - Oil & Gas
    - O&G, mining, city gas

- Life / security
  - Pharmaceuticals, food, agriculture, urban

- Backbone industries
  - Backbone manufacturing industries, utilities

- Social infrastructure
  - Water & sewage, roads, ports & airports

Industrial Products BU / Hitachi Industrial Equipment Systems
- Integrated operations based on mutual cooperation -

Business fields
- Machinery
- Drive / automation
- Power substation / distribution

Products
- Compressors, marking, pumps, fans
- Motors / inverters, UPS, PCS, IoT controllers
- Transformers, power supply control

UPS: Uninterruptible Power Supply  PCS: Power Conditioning System

© Hitachi, Ltd. 2017. All rights reserved.
1-2. Positioning within the Hitachi Group(1)

Expanding industrial business through collaboration between products and front divisions

Providing digital solution based on strong products

Front

Power・Energy

Industry・Distribution・Water

Urban

Finance・Public・Healthcare

Platforms

Service & Platform BU

Providing value through products

Products

Industrial Product BU
Hitachi Industrial Equipment Systems
1-2. Positioning within the Hitachi Group(2)

Providing digital solutions based on strong products

- Analysis (AI)
- Data collection / accumulation
- Expertise in OT and IT
- Security
- Suggesting measures
- Feedback to frontline

Business administration

M2M communication devices
IoT controllers

Digital data

Products

- Air compressor
- Power source
- Marking device
- Marking system
- Low voltage drives
- Conveyor system
- High voltage drives
- Process line

Frontline system (plants)

Connecting equipment

Platform

Solutions (frontline)

Business administration system
1-3. Review of FY2016

Achievements

- Increase revenues and adjusted operating income by launching new products
- Launch of business for IoT-compatible products
  - Sales start of IoT controller
  - Launch of IoT cloud monitoring service for air compressors

Issues

- Strengthening and expanding global business
  - Accelerating growth strategies of recurring business
  - Strengthening business bases in North America and China

- Increase orders received by focusing on steady industries
  - Capture renewable energy market (Japan and India)
  - Responding to the demand of energy conservation / high efficiency (general industry)

<table>
<thead>
<tr>
<th>Mass-produced products</th>
<th>Build-to-order products</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2015 (Results)</td>
<td>FY2016 (Previous Forecast)</td>
</tr>
<tr>
<td>Revenues (billion yen)</td>
<td>372.3</td>
</tr>
<tr>
<td>EBIT ratio</td>
<td>2.1%</td>
</tr>
<tr>
<td>Adjusted operating income ratio</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

*1 As of June 1, 2016
*2 Recurring business: Business with after-sales and reliable replacement market, such as replacement parts market

EBIT: Earnings Before Interest and Taxes
Industrial Products Business Unit

Business Strategy

2. Business Strategy
3. Results
4. Conclusion
### 2-1. Target Market

<table>
<thead>
<tr>
<th>Business category</th>
<th>Market scale in FY2018*1</th>
<th>Key industries / areas</th>
<th>CAGR*2</th>
<th>Trends in target markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air compressors</td>
<td>Approx. 5.4 trillion yen</td>
<td>Global: Automotive, food, chemical</td>
<td>5%</td>
<td>Sustainable growth across general industry (automotive, food, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Growing maintenance / service market due to development of IoT</td>
</tr>
<tr>
<td>Marking system</td>
<td></td>
<td>Global: Food, pharmaceutical, electronic components</td>
<td>5%</td>
<td>Growing food and pharmaceutical markets (traceability)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Growing maintenance / service market due to development of IoT</td>
</tr>
<tr>
<td>Drive / Automation</td>
<td></td>
<td>Japan, Asia, and China: Automotive, machine tools, conveyance</td>
<td>4%</td>
<td>IoT paving the way for optimized production</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Continuing growth in demand for energy-saving / high-efficiency products</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Growing demand for power-saving / automation</td>
</tr>
<tr>
<td>Power substation / distribution</td>
<td></td>
<td>Japan and Asia: Public, etc.</td>
<td>3%</td>
<td>Growing demand for renewal of infrastructure</td>
</tr>
<tr>
<td>Pumps / fans</td>
<td></td>
<td>Japan: Public, building-related industry</td>
<td>1%</td>
<td>Leveling off of domestic public demand, healthy demand for general industry / buildings</td>
</tr>
<tr>
<td>Centrifugal compressors</td>
<td></td>
<td>Asia and EMEA: Oil &amp; Gas, medium- and small-motor-driven compressors</td>
<td>1%</td>
<td>Expected to be revitalized with the stabilization of the crude oil price</td>
</tr>
</tbody>
</table>

*1 Hitachi estimation
*2 CAGR(Compound Annual Growth Rate) from FY2016 to FY2018
### 2-2. Vision

Establishing “strong product-led businesses” to meet wide range of industrial needs

#### Basic policy

- Accelerate global growth strategy of recurring businesses
- Strengthen business to IoT market: Expand product and service businesses
- Resource concentration and strategic investment in growing businesses

#### Priority businesses

<table>
<thead>
<tr>
<th>Global</th>
<th>Positioning</th>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air compressors</td>
<td>Growth engines (promoting recurring businesses)</td>
<td>Accelerating global expansion</td>
</tr>
<tr>
<td>Marking system</td>
<td></td>
<td>Strengthening IoT compatibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expanding service businesses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IoT</th>
<th>Positioning</th>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive / automation</td>
<td>Switching to high value-added sectors</td>
<td>Strengthening product capabilities for the IoT market</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Catering to high-efficiency / high-torque demand</td>
</tr>
<tr>
<td>Power substation / distribution</td>
<td>Targeting Edge Computing</td>
<td>Strengthening IoT controller capabilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expanding M2M communication devices</td>
</tr>
<tr>
<td></td>
<td>Stable growth</td>
<td>Stepping up products for high-efficiency / energy-saving markets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stepping up products for the IoT market</td>
</tr>
</tbody>
</table>

Accelerating global expansion of priority businesses

© Hitachi, Ltd. 2017. All rights reserved.
2-3. Business Mix

Accelerating global expansion of priority businesses

Enhancement policy

- Accelerating growth by combining organic growth and alliances
- Expansion of priority businesses and focusing on priority regions (Americas and China)

Sales by business

- Share of priority businesses: 57%
- Share of priority businesses: 67%

FY2016

FY2018 (Forecast)

Sales by region

- Share of overseas revenue: 25%
- Share of overseas revenue: 32%

FY2016

FY2018 (Forecast)

Intensive investment in recurring business
(air compressors / marking system)
2-4. Growth Strategy for Priority Businesses

Features of recurring business (air compressors and marking system)
- Wide range of customers in various industrial fields
- Large after-sales market
- Low fluctuation of demand in response to economic environment
- Great chance of digital innovation

Target position
- To be a global top player in the recurring business (air compressors and marking system)

Air compressors
- Global market size*: 750 billion yen (2015)

<table>
<thead>
<tr>
<th>Year</th>
<th>Company A</th>
<th>Company B</th>
<th>Company C</th>
<th>Company D</th>
<th>Hitachi</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Marking system
- Global market size*: 350 billion yen (2015)

<table>
<thead>
<tr>
<th>Year</th>
<th>Company E</th>
<th>Company F</th>
<th>Company G</th>
<th>Hitachi</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strategy
- Expand business operation area
- Enhancing operation in Americas and China
- Expand business operation domain
- Expanding product range, from ink-jet marking devices to laser marking devices

Acquisition of customers, sales network and operating the industrial digital solution business based on products

* Hitachi Estimation
CIJ: Continuous Ink Jet printer

© Hitachi, Ltd. 2017. All rights reserved.
# 2-5. Air Compressor Business (1)

Expanding business by accelerating global growth strategy

- Entering the North American market through the acquisition of Sullair

## Overview of Sullair

<table>
<thead>
<tr>
<th>Established</th>
<th>1965</th>
<th>Head office</th>
<th>Chicago (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>$377 million (as of December 31, 2016)</td>
<td>Employees</td>
<td>Approx. 890</td>
</tr>
<tr>
<td>Manufacturing plants</td>
<td>Michigan City (USA), Shenzhen/Suzhou (China)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>FY2016(Results): 43.2 billion yen, FY2017(Forecast): 45.8 billion yen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>Approx. 200 companies in North America, approx. 50 companies in China</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Business activities

- **Stationary compressors**
- **Portable compressors**
- **Solutions (Remote monitoring)**
- **After-sales market**
2-5. Air Compressor Business (2)

Acquiring Sullair’s customer and sales network

- Sullair’s sales network in North America
  - Distributors: Approx. 200 companies
  - End users: Approx. 4,000 companies

Synergy with Sullair

<table>
<thead>
<tr>
<th>Sullair’s strengths</th>
<th>Hitachi’s strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas</td>
<td>North America / China</td>
</tr>
<tr>
<td>Industries</td>
<td>Construction, mining, chemicals, food</td>
</tr>
<tr>
<td>Products/systems</td>
<td>Large stationary / portable compressors</td>
</tr>
</tbody>
</table>

Revenues by region (FY2016)

- Sullair
  - Americas
  - Asia
  - China
  - EMEA

- Hitachi
  - Japan

FY2018 Target revenues of Air compressor business: over 100 billion yen
2-5. Air Compressor Business (3)

Example of digital service provided by Sullair in North America

Remote monitoring

Compressed air supply business (As a service)

Example of Dow Chemical Midland plant

Sullair supplies dry compressed air to the entire plant as a turnkey contractor (620 m³/min)

Remote monitoring

Example of digital service provided by Sullair in North America

Sullair supplies dry compressed air to the entire plant as a turnkey contractor (620 m³/min)

Remote monitoring

Example of digital service provided by Sullair in North America

Sullair supplies dry compressed air to the entire plant as a turnkey contractor (620 m³/min)

Integration with Hitachi’s industrial digital solutions
Promote digitalization and sophistication of the business

Increasing the number of customers and creating competitive edge in the markets of North America and China
2-5. Air Compressor Business (4)

- Developing product-led industrial digital solution business in North America
- Digitization options for everything from onsite machinery and services to solutions

**Industrial digital solutions**

**IoT Platform**

**Sullair’s customers in North America: Approx. 4,000 companies**
Covering a wide range of industries and leading global companies

- Life sciences
- Food & beverages
- Electronic components
- Mobility
- Construction & mining
- Oil & Gas
- Retail

**Air compressors**

- Marking systems, etc.

Strengthening product range and providing related products and services
2-6. Marking System Business

Expanding business domain and accelerating global growth strategy

- Establishing total marking business (laser markers, testing equipment, etc.)

Enhancement policy:
- Expand business domain by transforming product portfolio
- Increasing overseas revenues: Creating new customers by launching new products, and marketing through Sullair’s sales network

Transforming product portfolio:
- Expanding products from ink-jet to laser systems

Launch new products:
- Twin nozzle devices
  - Twin nozzle print sample
- High-performance / environmental inks
  - Ink for eggs
- New laser markers
  - Testing equipment

Expanding overseas revenue:
- (Share of overseas revenue)
  - FY2016: 63%
  - FY2018 Forecast: 70%

- Top 30 specialist manufacturers
- Total Marking Business Provider (3 companies)
Creating value for customers by integrating OT & IT

Enhancement policy

- Providing products that enable simple integration of OT & IT
- Integrate OT and IT by open IoT controller

Drive (Amorphous Motor)

- Utilized amorphous alloy (core)
- World highest level of efficiency
- Thin and flat structure

IoT Controller

- Edge computing compatible
- Upper layer controller that realize IoT solution (Open, Real-time)

Tackling social and management issues

Collaborative creation of digital solutions with customers

Case study

Amorphous motor Integrated scroll air compressor

- Energy saving improvement
- Ultra miniaturization of 37%

Oil Free Scroll

Amorphous Motor

Cooling Fan

2-7. Stepping up IoT Market (1) Product
2-7. Stepping up IoT Market (2) Service

Expanding into maintenance services and operational support

M2M telecommunication compatible
Cloud remote monitoring service

Maintenance package service with cloud remote monitoring
October 2016, optional service

Utilize Hitachi private cloud
Secure connection from carrier network
Built with own connected equipment

Service to connect

Customer’s merit

Contribution to product life-cycle support

- Support from maintenance to renewal replacement

Service to connect

Proactive diagnosis
Preventive maintenance

Scheduled visit
Prompt action in case of failure

Enhancement of service menu contributes to operating flexibility and utilization of assets

Compressed air supply business (As a service)

- Payment in accordance with volume used -
  - Pay-per-use -

No initial investment
Contract based on air volume

October 2017
Apply to all air compressors

Connected equipment

Hitachi private cloud
Web Server
DB
Fire wall
Carrier Closed network
Internet

October 2017
Apply to all air compressors
Implementing structural reform and improving business efficiency

SG&A
- Mass production
  - Improve productivity per person, reduce fixed costs
- Build-to-order production
  - Reduce fixed cost, strengthen project management system

Gross profit
- Mass production / Build-to-order production
  - Reduce direct material costs
  - Strengthen global procurement capabilities
  - Cost planning management at the time of development of new product

Cash creation
- Mass-production
  - Improving CCC through business process reform (inventory reduction, lead time reduction)
  - Creating synergy with Sullair
- Build-to-order production
  - Thorough management of project profit & loss (promoting cash flow monitoring)

CCC: Cash Conversion Cycle

Gross profit margin
- FY2015 (Results): 3.2
- FY2016 (Results): 5.8
- FY2017 (Forecast): 7.6

SG&A Ratio
- FY2015 (Results): (0.8)
- FY2016 (Results): (2.5)
- FY2017 (Forecast): (1.6)

CCC (Days)
- FY2016 (Results): 107.5
- FY2017 (Forecast): 97.2
- FY2018 (Forecast): 95.7
Industrial Products Business Unit

Business Strategy

2. Business Strategy
3. Results
4. Conclusion
3-1. Results and forecast

**Revenues (Unit: Billion yen)**

- FY2015 (Results): 372.3
  - Deteriorating conditions on resource markets: -20.9
  - Foreign exchange: -7.0

- FY2016 (Results): 344.4
  - Deteriorating conditions on resource markets: -16.1
  - Expanding energy-saving / upgrade operations globally: +11.8
  - Foreign exchange: -3.1

- FY2017 (Forecast): 360.0
  - Effects of acquisition of Sullair: +23.0
  - Expanding energy-saving / upgrade operations globally: +33.0

- FY2018 (Forecast): 420.0
  - Effects of acquisition of Sullair: +27.0

**Adjusted operating income (Unit: Billion yen)**

- FY2015 (Results): 7.7
  - Decrease of sales: -9.0
  - Decrease of loss costs: +3.8
  - Structural reform: +7.5

- FY2016 (Results): 15.7
  - Decrease of sales: -0.8
  - Structural reform: +0.7
  - Foreign exchange: -0.7

- FY2017 (Forecast): 19.5
  - Reduced costs: +4.2
  - Reduced costs: +4.6
  - Effects of acquisition of Sullair: +2.0

- FY2018 (Forecast): 34.0
  - Reduced costs: +6.0
  - Effects of acquisition of Sullair: +4.6
  - Expanding existing operations globally: +3.9
### 3-2. Performance transition

<table>
<thead>
<tr>
<th></th>
<th>FY2015 (Results)</th>
<th>FY2016 (Results)</th>
<th>FY2017 (Forecast)</th>
<th>FY2018 (Forecast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas revenue ratio</td>
<td>27%</td>
<td>25%</td>
<td>26%</td>
<td>32%</td>
</tr>
<tr>
<td>Revenues (billion yen)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted operating income/EBIT (billion yen)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### FY2015 (Results)

- **Mass production**
  - Revenues: 372.3 billion yen
  - Adjusted operating income: 174.0 billion yen
  - EBIT: 198.3 billion yen (2.1%)

- **Build-to-order production**
  - Revenues: 149.4 billion yen
  - Adjusted operating income: 5.0 billion yen (1.3%)
  - EBIT: 159.4 billion yen (1.3%)

#### FY2016 (Results)

- **Mass production**
  - Revenues: 344.4 billion yen
  - Adjusted operating income: 195.0 billion yen
  - EBIT: 157.0 billion yen (4.6%)

- **Build-to-order production**
  - Revenues: 149.4 billion yen
  - Adjusted operating income: 8.6 billion yen (2.5%)
  - EBIT: 150.8 billion yen (5.4%)

#### FY2017 (Forecast)

- **Mass production**
  - Revenues: 360.0 billion yen
  - Adjusted operating income: 225.0 billion yen
  - EBIT: 195.0 billion yen (5.4%)

- **Build-to-order production**
  - Revenues: 135.0 billion yen
  - Adjusted operating income: 17.0 billion yen (4.7%)
  - EBIT: 148.0 billion yen (4.7%)

#### FY2018 (Forecast)

- **Mass production**
  - Revenues: 420.0 billion yen
  - Adjusted operating income: 265.0 billion yen
  - EBIT: 230.0 billion yen (8.1%)

- **Build-to-order production**
  - Revenues: 155.0 billion yen
  - Adjusted operating income: 17.0 billion yen (4.7%)
  - EBIT: 170.0 billion yen (4.7%)

#### FY2018 (Target)

- **Mass production**
  - Revenues: 400.0 billion yen
  - Adjusted operating income: 230.0 billion yen
  - EBIT: 220.0 billion yen (8.0%)

- **Build-to-order production**
  - Revenues: 170.0 billion yen
  - Adjusted operating income: 17.0 billion yen (4.7%)
  - EBIT: 163.0 billion yen (7.2%)
Industrial Products Business Unit

Business Strategy

2. Business Strategy
3. Results
4. Conclusion
4. Conclusion

Toward FY2018

- Accelerate global growth strategy of recurring businesses
- Strengthen business to IoT market:
  Expand product and service businesses
- Resource concentration and strategic investment in growing business
Cautionary Statement

Certain statements found in this document may constitute “forward-looking statements” as defined in the U.S. Private Securities Litigation Reform Act of 1995. Such “forward-looking statements” reflect management’s current views with respect to certain future events and financial performance and include any statement that does not directly relate to any historical or current fact. Words such as “anticipate,” “believe,” “expect,” “estimate,” “forecast,” “intend,” “plan,” “project” and similar expressions which indicate future events and trends may identify “forward-looking statements.” Such statements are based on currently available information and are subject to various risks and uncertainties that could cause actual results to differ materially from those projected or implied in the “forward-looking statements” and from historical trends. Certain “forward-looking statements” are based upon current assumptions of future events which may not prove to be accurate. Undue reliance should not be placed on “forward-looking statements,” as such statements speak only as of the date of this document.

Factors that could cause actual results to differ materially from those projected or implied in any “forward-looking statement” and from historical trends include, but are not limited to:

- economic conditions, including consumer spending and plant and equipment investment in Hitachi’s major markets, particularly Japan, Asia, the United States and Europe, as well as levels of demand in the major industrial sectors Hitachi serves;
- exchange rate fluctuations of the yen against other currencies in which Hitachi makes significant sales or in which Hitachi’s assets and liabilities are denominated, particularly against the U.S. dollar and the euro;
- uncertainty as to Hitachi’s ability to access, or access on favorable terms, liquidity or long-term financing;
- uncertainty as to general market price levels for equity securities, declines in which may require Hitachi to write down equity securities that it holds;
- fluctuations in the price of raw materials including, without limitation, petroleum and other materials, such as copper, steel, aluminum, synthetic resins, rare metals and rare-earth minerals, or shortages of materials, parts and components;
- the possibility of cost fluctuations during the lifetime of, or cancellation of, long-term contracts for which Hitachi uses the percentage-of-completion method to recognize revenue from sales;
- credit conditions of Hitachi’s customers and suppliers;
- fluctuations in product demand and industry capacity;
- uncertainty as to Hitachi’s ability to implement measures to reduce the potential negative impact of fluctuations in product demand, exchange rates and/or price of raw materials or shortages of materials, parts and components;
- uncertainty as to Hitachi’s ability to continue to develop and market products that incorporate new technologies on a timely and cost-effective basis and to achieve market acceptance for such products;
- increased commoditization of and intensifying price competition for products;
- uncertainty as to Hitachi’s ability to achieve the anticipated benefits of its strategy to strengthen its Social Innovation Business;
- uncertainty as to the success of acquisitions of other companies, joint ventures and strategic alliances and the possibility of incurring related expenses;
- uncertainty as to the success of restructuring efforts to improve management efficiency by divesting or otherwise exiting underperforming businesses and to strengthen competitiveness;
- the potential for significant losses on Hitachi’s investments in equity-method associates and joint ventures;
- general socioeconomic and political conditions and the regulatory and trade environment of countries where Hitachi conducts business, particularly Japan, Asia, the United States and Europe, including, without limitation, direct or indirect restrictions by other nations on imports and differences in commercial and business customs including, without limitation, contract terms and conditions and labor relations;
- uncertainty as to the success of cost structure overhaul;
- uncertainty as to Hitachi’s ability to attract and retain skilled personnel;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property rights;
- uncertainty as to the outcome of litigation, regulatory investigations and other legal proceedings of which the Company, its subsidiaries or its equity-method associates and joint ventures have become or may become parties;
- the possibility of incurring expenses resulting from any defects in products or services of Hitachi;
- the possibility of disruption of Hitachi’s operations by natural disasters such as earthquakes and tsunamis, the spread of infectious diseases, and geopolitical and social instability such as terrorism and conflict;
- uncertainty as to Hitachi’s ability to maintain the integrity of its information systems, as well as Hitachi’s ability to protect its confidential information or that of its customers; and
- uncertainty as to the accuracy of key assumptions Hitachi uses to evaluate its employee benefit-related costs.

The factors listed above are not all-inclusive and are in addition to other factors contained in other materials published by Hitachi.