FY2019-2021 Mid-term Business Plan
"Challenge 25"

June 6th, 2019
YASKAWA ELECTRIC CORPORATION

© 2019 YASKAWA Electric Corporation
Review of Previous Mid-term Business Plan
"Dash 25"
Review of Previous Mid-term Business Plan “Dash 25” (1)

Company-wide financial indices for “Dash 25” were achieved

(M): Motion Control  
(R): Robotics  
(S): System Engineering

Net Sales (BJPY)  Operating income (BJPY)  Op. income ratio

ROE  12.8%  10.7%  18.3% (financial reporting basis)  17.1%

Payout ratio  23.6%  26.1%  26.8% (financial reporting basis)  33.4%

FY2015 (Actual)  FY2016 (Actual)  FY2017 (Actual)  FY2018 (Actual)

Note: FY2015/2016 reflect changes in segment classification introduced in FY2017

*1 Reference values resulting from change in date of financial closure (refer to P.23)

FY2018 (Goal)*2

*2 Goals established in April of FY2016
Review of Previous Mid-term Business Plan “Dash 25” (2)

"Dash 25" achievements and challenges

Maximize Results of "Realize 100"
- Expanded lineup of core products and its sales
- Strengthened sales capabilities by integrating sales functions
- Expanded local production, particularly in China and EU

Build Foundation for Realizing "Vision 2025"
- Started new solution concept i3-Mechatronics
- Established FAMS Co. for full-fledged automation of food production
- Established AI Cube Inc., subsidiary for AI solutions

Grow Clean Power as Core Business
- Growth of sales and improved profitability for wind power generation equipment
- Launched new products for PV equipment
- Mass production of EV components at Chinese JV
- Restructuring of the global Clean Power business structure

Establishing a competitive advantage for products and services in the automation domain

Creating businesses based on i3-Mechatronics concept

Building a stable profitability structure for Clean Power business

Develop measures for "Challenge 25"
New Mid-term Business Plan "Challenge 25"
~ Financial Targets and Basic Policies ~
Positioning of New Mid-term Business Plan "Challenge 25"

In “Challenge 25”, Yaskawa will take on a challenge for creating new business models to realize “Vision 2025”

Vision 2025

Realize 25

Realize “Vision 2025”

Challenge 25
Challenge for creating new values and markets

Dash 25
Establish profitable business structure

FY2016 - 2018
FY2019 - 2021
FY2022 - 2025

© 2019 YASKAWA Electric Corporation
Aim for operating income of 70.0 B.JPY and operating income ratio of 13.0% in FY2021, through setting “Operating Income" as the most important KGI for realizing Vision 2025

**FY2018 Actual**
- Net Sales: 474.6 B.JPY
- Op. Income: 49.8 B.JPY
- Op. Income ratio : 10.5%

**FY2019 Plan**
- Net Sales: 465.0 B.JPY
- Op. Income: 46.5 B.JPY
- Op. Income Ratio : 10.0%

**FY2021 Target**
- Net Sales: 540.0 B.JPY
- Op. Income: 70.0 B.JPY
- Op. Income Ratio : 13.0%

**Exchange rate**
- 1USD: FY2018 110JPY FY2021 110JPY
- 1EUR: FY2018 129JPY FY2021 125JPY
### Net Sales and Operating Income Targets by Segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>FY2018 Actual</th>
<th>FY2019 Plan*</th>
<th>FY2021 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motion Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Sales</td>
<td>205.4 B.JPY</td>
<td>207 B.JPY</td>
<td>240.0 B.JPY</td>
</tr>
<tr>
<td>Op. Income</td>
<td>33.9 B.JPY</td>
<td>30.6 B.JPY</td>
<td>43.4 B.JPY</td>
</tr>
<tr>
<td>Op. Income Ratio</td>
<td>16.5%</td>
<td>14.8%</td>
<td>18.1%</td>
</tr>
<tr>
<td><strong>Robotics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Sales</td>
<td>178.0 B.JPY</td>
<td>175.7 B.JPY</td>
<td>210.0 B.JPY</td>
</tr>
<tr>
<td>Op. Income</td>
<td>17.3 B.JPY</td>
<td>17.6 B.JPY</td>
<td>27.3 B.JPY</td>
</tr>
<tr>
<td>Op. Income Ratio</td>
<td>9.7%</td>
<td>10.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td><strong>System Engineering</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Sales</td>
<td>59.5 B.JPY</td>
<td>54.6 B.JPY</td>
<td>60.0 B.JPY</td>
</tr>
<tr>
<td>Op. Income</td>
<td>0.1 B.JPY</td>
<td>0.7 B.JPY</td>
<td>1.8 B.JPY</td>
</tr>
<tr>
<td>Op. Income Ratio</td>
<td>0.1%</td>
<td>1.2%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

**Exchange rate**
- 1 USD: 110 JPY
- 1 EUR: 129 JPY

*Figures reflect the impact of revision of segment classification from FY2019*
Core Indicator of “Financial Capital Strategy"

Pursue “Financial Capital Strategy” aimed at raising corporate value

<table>
<thead>
<tr>
<th>Financial indicators</th>
<th>FY2018 Actual</th>
<th>FY2019 Outlook</th>
<th>FY2021 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE*¹</td>
<td>17.1%</td>
<td>13.8%</td>
<td>15.0% or more</td>
</tr>
<tr>
<td>ROIC*²</td>
<td>17.2%</td>
<td>13.5%</td>
<td>15.0% or more</td>
</tr>
<tr>
<td>Dividend Payout ratio</td>
<td>33.4%</td>
<td>38.9%</td>
<td>30.0%+α</td>
</tr>
</tbody>
</table>

FY2019-2021 Investment Plan
- Cumulative investment (Including M&A investment): 100 B.JPY (6.6% of cumulative net sales)

*¹ ROE: Return on Equity = Net income attributable to owners of parent divided by shareholders' equity
*² ROIC: Return on Invested Capital = Net income attributable to owners of parent divided by invested capital
Basic Policies of "Challenge 25"

**Basic Policy 1**
Transform Business Model through i³-Mechatronics

**Basic Policy 2**
Maximize Profitability in the Growing “Robotics” Business Field

**Basic Policy 3**
Expand New Domains by Strengthening Resources through “Selection and Concentration”
Basic Policy 1. Transform Business Model through i³-Mechatronics

Contribute to solving customer’s management issues through evolution of production, sales and technology

Customers’ management issues

Establish Sales Structure to Realize i³-Mechatronics

- Analysis of customer issues
- Data linkage
- Data integration
- Real-time feedback
- Data analysis

Develop Technologies and Products to Realize i³-Mechatronics

Centralization of technology and product development functions that accurately meets customer needs

Strengthen Manufacturing Function to Demonstrate i³-Mechatronics

Development of next-generation factories that will transform manufacturing and business
Establish Sales Structure to Realize $i^3$-Mechatronics

Establishment of a sales scheme that enables transformation to “Component + Digital Data Solution” sales

Contribute to solving issues through implementing $i^3$-Mechatronics

Solutions that leverage external resources including collaboration with partner companies

Achieve real-time data collection, visualization, and analysis through "YASKAWA Cockpit"

“Component sales” using Mechatronics products

Customers’ factory management system

Customers’ production planning management system

Cloud Analytics
IoT/AI Analysis/utilization of big data
Modeling/ deep learning

Centralized data management tool at cell domain
YASKAWA Cockpit

Connected by data

Other products (Sensors, Equipment, etc.)

Understand customers’ management issues through communication between top managements
Develop Technologies and Products to Realize i³-Mechatronics

Increase product development speed by centralizing R&D functions to the YASKAWA Technology Center* (Tentative name)

**Centralization of functions**
- Robotics Technology
- Drive Technology
- Motor and Actuator Technology
- Controller Technology
- Reliability
- Production Technology
- IoT Technology

**Consecutive R&D Structure**
- Base Technologies
- Product Development
- Product design
- Quality control
- Mass Production Prototypes

Establishment of joint research area to promote industry-academia collaboration

**Open Innovation**

**Develop Technologies and Products to Meet Customer Needs in a Timely Manner**

*YASKAWA Technology Center (Tentative name): YASKAWA’s R&D base, which integrates the functions of technology & product development, and production technology development, from the development of base technologies to prototypes for mass production. (To be established in 2020)

*Completion image
Strengthen Manufacturing Function to Demonstrate i³-Mechatronics

Evolve i³-Mechatronics through implementation of the concept at the next-generation factory "YASKAWA Solution Factory*"

**YASKAWA Solution Factory**

- Production automation
- Visualization and utilization of data
- Digital data solutions

**High efficiency** | **High-quality** | **Non-stop**

**Productivity improvement**

Apply know-how gained from next-generation factory to product R&D

Propose specific solutions to improve customer’s productivity

Expand YASKAWA Solution Factory concept to global sites

---

*YASKAWA Solution Factory:
A new AC-servo drive manufacturing plant that uses YASKAWA’s automation technology and the latest ICT/AI technology to implement YASKAWA’s Smart Factory and i³-Mechatronics concept*
Promote business expansion in the rapidly growing “Robotics” market*1

Create presence in Chinese and Asian markets centered on “3C” *2 market

Promote initiatives with car manufacturers and parts manufacturers in “Automotive” market

Strengthen initiatives in the “Semiconductor” production equipment market

*1 "Robotics" Market: Automation areas including robots

*2 3C: Abbreviations for consumer and digital communications equipment (from acronyms of Computer, Communication and Consumer Electronics)
Basic Policy 3. Expand New Domains by Strengthening Resources through “Selection and Concentration”

Centralize resources to fields where strength of mechatronics technology can be leveraged, and accelerate expansion of new business domains.

- **Energy Saving**
  - Energy saving devices
  - High efficiency motors
  - Expand application field

- **Food & Agri**
  - Vegetable production system
  - HMR* Factory Automation
  - Full-scale launch of business

- **Clean Power**
  - Wind power
  - Solar power
  - Electric vehicle (EV)
  - Enhance profitability

- **Humatronics**
  - Rehabilitation equipment
  - Biomedical
  - Construct business model

---

*HMR: Home Meal Replacement*
Expansion of Energy Saving Application through New Value Proposals

Expand scope of energy saving applications through high added-value proposals through combining high-performance AC drives and high-efficiency motors.

- Improvement of machine performance through application-specific functions
- High added-value through combined proposal of AC drives and high-efficiency motors

Drive function field
- Oil & gas
- Elevator
- Crane
- Pump

Energy saving function field
- Air conditioning fan
- Compressor
- Water treatment
Full-scale launch of Food & Agri business

Strengthen automation solutions for food production process

Challenges of Food Manufacturing Industry

- Safety and health
- Stable procurement of raw materials
- Securement of labor productivity

Promote commercialization of automated solutions through collaboration with key partners

Automatic vegetable production system

Robots with flexibility

Realize “predictive maintenance" and “traceability" through i³-Mechatronics
Strengthen Profitability of Clean Power Business

Strengthen profitability by focusing on competitive fields and specific regions

- Focus on business in China
  - Stable profitability of joint ventures with leading partners

- Focus on business in the U.S.
  - Expand market share of PV inverters through new products

- Focus on business in Europe
  - Increase revenue through securing orders from leading wind turbine manufacturer

Wind power generation

Solar power generation

EV

Improvement of profitability by restructuring business structure
Building Business Models for Humatronics Equipment

**Develop business model by expanding demonstration of Humatronics equipment**

**Rehabilitation Equipment**
Deepen robot rehabilitation market by strengthening sales schemes and expanding product lineup

- **AR² for upper limb rehabilitation system**
  - Strengthen sales activities with sales partners (leasing business, etc.)
  - Enhance product capabilities by promoting clinical evaluation

- **Ankle assist device AAD**

- **Forearm rehabilitation device PR² (Under clinical evaluation)**

**Biomedical Robot**
Establish trustee business of genome analytics by accelerating industry-academia-government collaboration

- **Life sciences research robot LabDroid**
  - Commercialize trustee business for pre-processing of cancer genome diagnostics
  - Strengthen trustee business of genome analysis for drug discovery research
New Mid-term Business Plan "Challenge 25"
~ Enhancement of business foundation ~
Improve Management Efficiency through Digital and Quality Management

Realization of digital management
Establish management style that predicts the future and take pre-emptive steps

Utilization of digital data
Digital Board
Simulation using data analysis and AI
Real-time data visualization

Centralized global database

Global business process standardization/automation
(Higher work efficiency, reduction of tasks, shift to high-value-added tasks)

Implement quality management
Improve quality of operation and strengthen job operating capabilities (Genba-ryoku) through implementation of TQM*

*TQM: Total Quality Management

© 2019 YASKAWA Electric Corporation
Creating **social value** through

Business Activity

Corporate Activity

Dialogue & Co-creation

**Environment**
- Environmental contribution through “Green products” and “Green Process” (CCE100*)
  - **Green products:** Improve energy consumption by spreading the use of products
  - **Green Process:** Reduce effects on the environment throughout Yaskawa (e.g. 100% use of renewable energy at Japan HQ)

**Society**
- Coexistence with glocal communities
- Support development of next-generation engineers by utilizing YASKAWA Innovation Center
- Guaranteeing product safety and quality
- Reform personnel system with emphasis on employee job satisfaction
- Empower highly diverse Human Resources
- Build a sustainable supply chain

**Governance**
- Establish a “defensive” governance system through measures against company compliance and internal control
- Strengthen initiatives for an "offensive" governance system using Corporate Governance Code

---

*CCE100: Contribution to Cool Earth 100; while reducing CO₂ emission, Yaskawa aims to reduce 100 times more CO₂ through its products.*
The Company changed its accounting period in fiscal 2017 from March 20 to the last day of February. The results of fiscal 2017 are shown as <reference>. The <reference> figures are based on an assumption that the accounting period remained unchanged (from March 21, 2017 to March 20, 2018).

The information within this document is made as of the date of writing. Any forward-looking statements are made according to the assumptions of management and are subject to change as a result of risks and uncertainties. YASKAWA Electric Corporation undertakes no obligation to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise.