

FY2016 - 2018 Mid-term Business Plan “Dash 25”

April 20, 2016

YASKAWA ELECTRIC CORPORATION

Long-term Business Plan “Vision 2025”

Offer a new value to society through fusion of core technology advancement and open innovation

Our Goal

Respect Life

We aim to contribute to improving quality of life and building a sustainable society with technologies accumulated over the past century.

Empower Innovation

We venture in new technologies/ domains/targets to bring “Waku-Waku”^{*1} excitement to people.

Deliver Results

We promise to deliver assured results to stakeholders, while continuously enhancing business execution capabilities.

^{*1} “Waku-Waku”:
Onomatopoeia used in Japanese language to express someone's feeling of enthusiasm

Our Business Domains

Mechatronics

Achieve revolutionary industrial automation, through combination of world's leading edge technologies and open innovation.

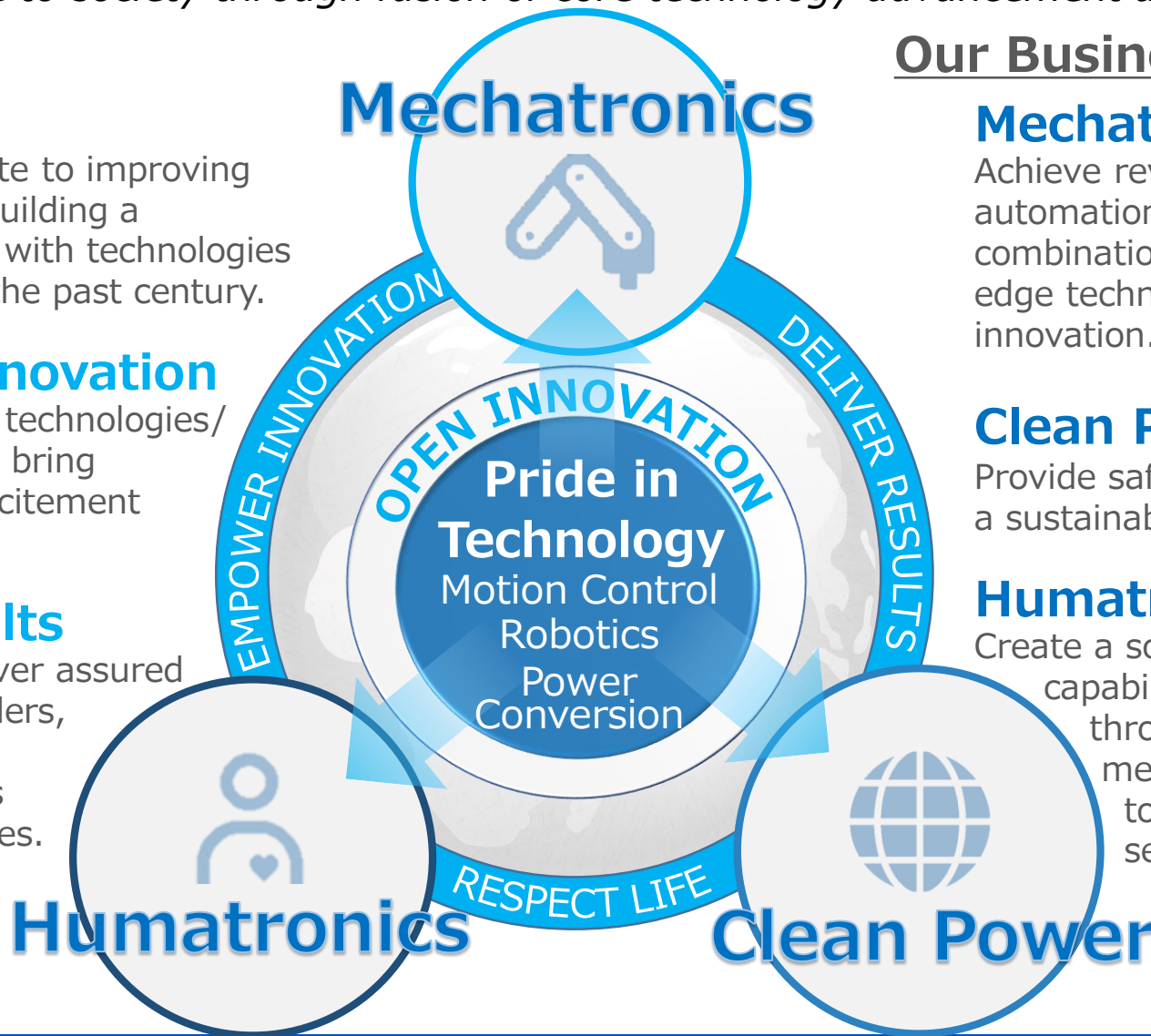
Clean Power

Provide safe and secure living in a sustainable society.

Humatronics^{*2}

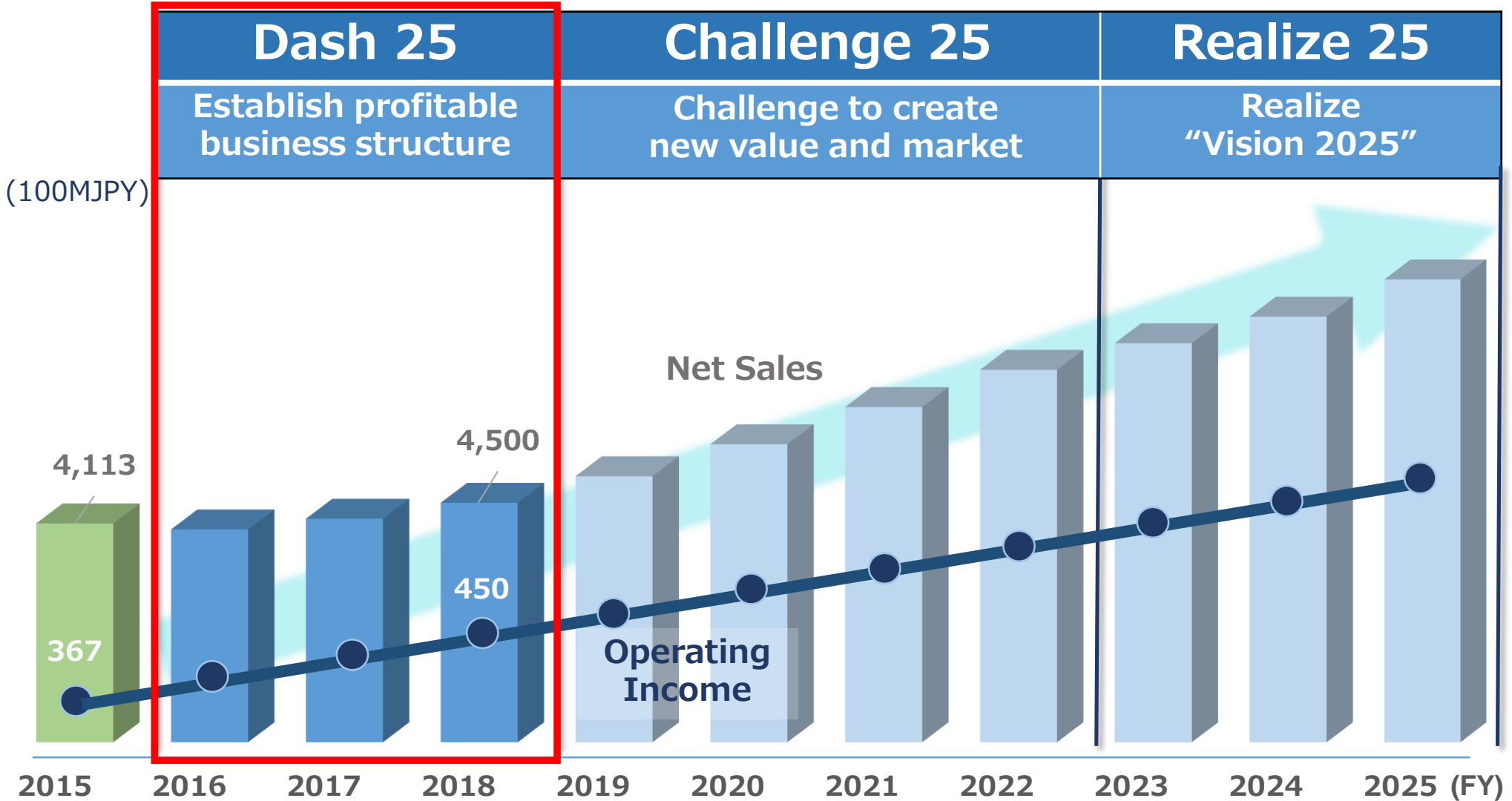
Create a society where people's capabilities are maximized, through the application of mechatronics technology to medical/welfare segment.

^{*2} Humatronics: Term coined to denote a cross of Human and Mechatronics

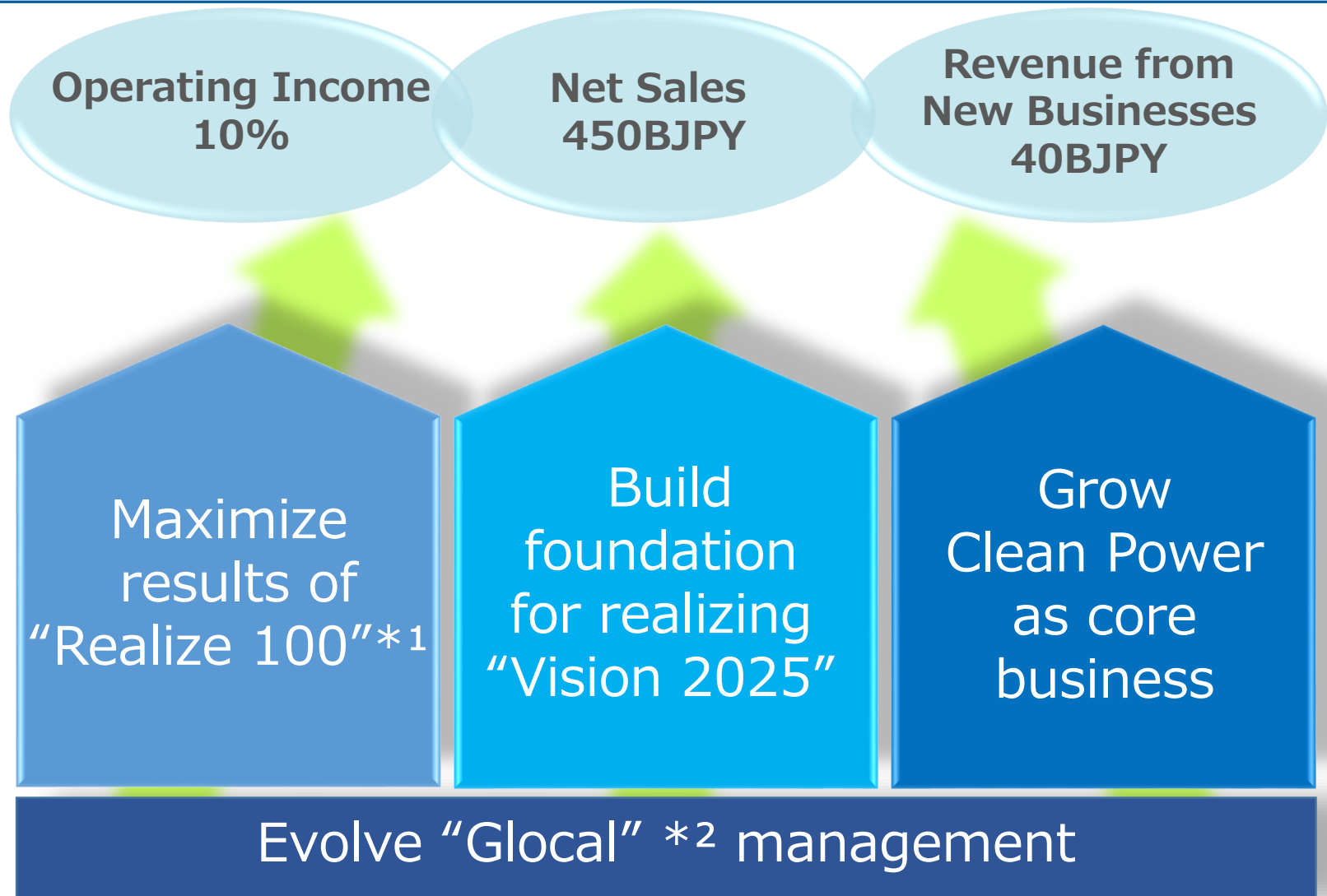


Positioning of Mid-term Business Plan “Dash 25”

Leading start to achieve YASKAWA’s “Vision 2025”



Overview of Mid-term Business Plan “Dash 25”



^{*1} Realize 100: Previous Mid-term business plan for FY2013-15

^{*2} Glocal management: Management style defined by both a global management mindset and best local support capabilities anywhere in the world


Net Sales and Operating Income Goals

Aim to achieve operating income ratio of 10% in FY2018

(100MJPY)	FY2015 Actual	FY2018 Plan
Net Sales	4,113	4,500
(From New Businesses)	203	400
Operating Income	367	450
Operating Income Ratio	8.9%	10.0%
Exchange rate	1USD = 121JPY 1EUR = 133JPY	1USD = 110JPY 1EUR = 125JPY

Net Sales Breakdown by Business Segment

(100MJPY)	FY2015 Actual	FY2018 Plan
Motion Control	1875	2100
Robotics	1541	1700
System Engineering	431	500
Other	266	200
Exchange rate	1USD = 121JPY 1EUR = 133JPY	1USD = 110JPY 1EUR = 125JPY



Goals to Improve Capital Efficiency

Improve ROE through increased shareholder returns and profit

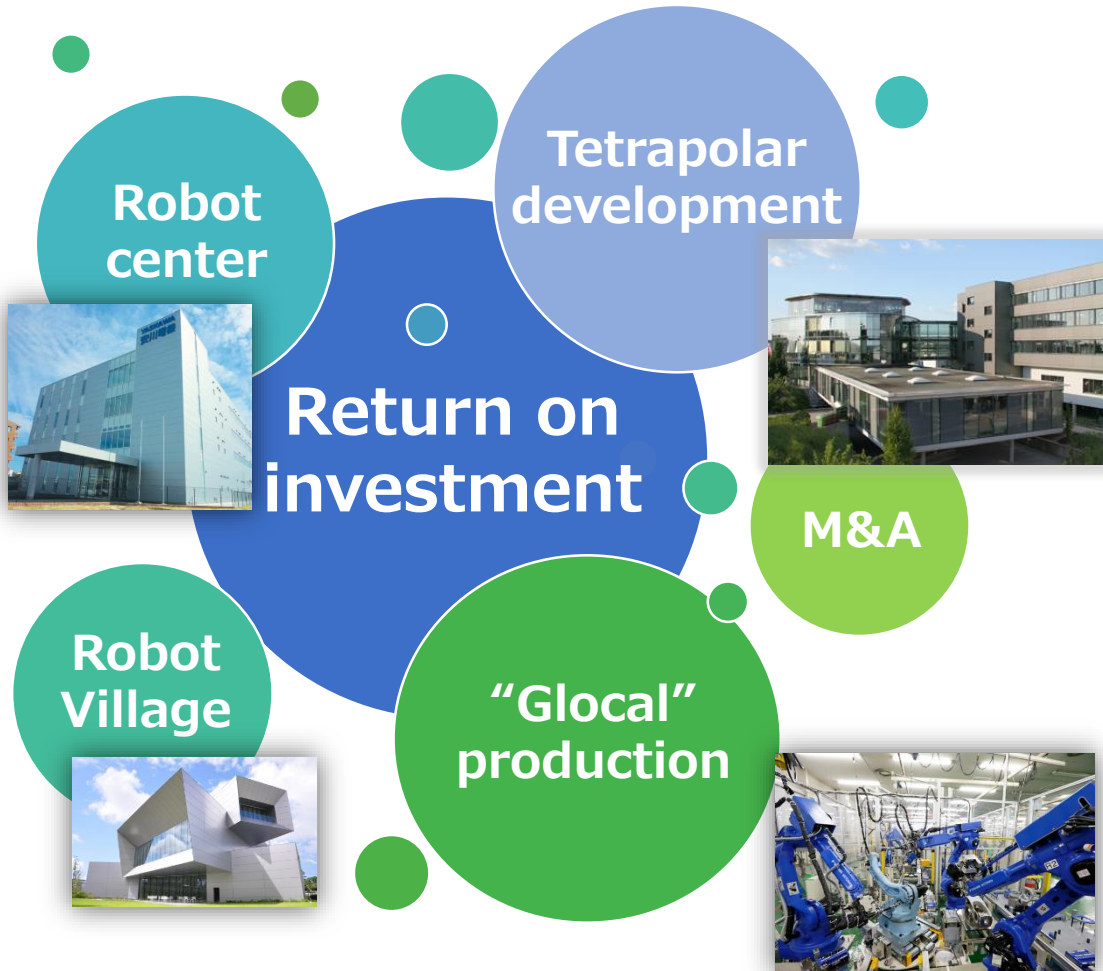
	FY2015 Actual	FY2018 Plan
ROE	12.8%	13% or more
Dividend Payout Ratio	23.6%	27%

◆ FY2016-18 Investment

Cumulative total : 80BJPY (6.3% of net sales)
of which, capital investment : 50BJPY
of which, M&A investment : 30BJPY

Main Policy (1) : Maximize Results of "Realize 100"

Establish highly profitable business structure by maximizing return on investments in "Realize 100" and release of new products



Development/Release of New Products



Line-up expansion of
 Σ -7 Series

Next drive series
"Zero Series"



New model robot &
controller

Creating Profits from Investments in “Realize 100” (R&D)

Fast expansion of product portfolio in individual market/region through “Glocal” development

- ◆ Outcomes from “Realize 100”
 - Tetrapolar development structure established in Motion control (servo and drive) division
 - Local development framework built in China and India, in addition to EUR/USA
 - Reinforced development resource through M&A (VIPA, Solectria, The Switch)

Initiatives for Dash 25

Efficient product development through optimal assignation of R&D function

- ◆ Shorten new product development time
- ◆ EUR/USA/CHN: Customized products, IND: Software
- ◆ Optimal HR reallocation to “Based technology development” in Japan

Global product development in new business fields

- ◆ Develop module package for wind power converter
- ◆ Launch of global string-type Photovoltaic (PV) inverter
- ◆ Develop and release of 690V drive

Creating Profits from Investments in “Realize 100” (Production)

Speed-up of customer response through promoting

a) Automation, b) Flexible production, and c) Optimal local production

◆ Outcomes from “Realize 100”

- Global production/procurement strengthened to increase profitability
- Increased production/local service capability, through Changzhou/Japan No.3 Robot factory operation
- Increased oversea production ratio through strengthened servo production at Shenyang

Initiatives for Dash 25

Promotion of
automation

◆ **Evolve in-house automated factory for next-generation products**

- Enhance efficiency through introduction of automated production line
- Establish automated in-house BTO* model line *BTO = Built to order

Flexible
production

◆ **Establish next-generation production system**

- Build a global supply chain management system and strengthen coordination of entire supply chain
- Promote in-house production of core parts to optimize global parts supply
- Flexible production with ICT technology and new automation equipment

Optimal local
production

◆ **Realize optimal production framework**

- Servo : Production at site of demand in EUR/USA
- Drive : Flexible production shift among JP, CHN, and ASEAN
- Robotics : Third production site (after Japan/China) under consideration

Creating Profits from Investments in “Realize 100” (Sales)

Formulate an optimized and strong sales system that will fit business strategies in accordance with region, market, customer

◆ Outcomes from “Realize 100”

- Increased further 13 Robot Centers (36 Centers in total globally)
- Established sales network in Europe and India through YASKAWA’s sales channel
- Expanded sales network from VIPA, Solectria, and The Switch
- Reinforced sales back office function in Japan

Initiatives for Dash 25

- ◆ Link up with relevant and strong SIers and other partners in individual region to expand sales channel
- ◆ Development of sales back office function
⇒ To strengthen and raise the level of sales team and distributors
- ◆ Shift to application/solution based proposition
- ◆ Access machine builders through YASKAWA’s sales channel
- ◆ Maximize synergy with VIPA, Solectria, and The Switch
⇒ Expand achievements in The Americas and Europe to other regions
- ◆ Strengthen service business by utilizing cloud data

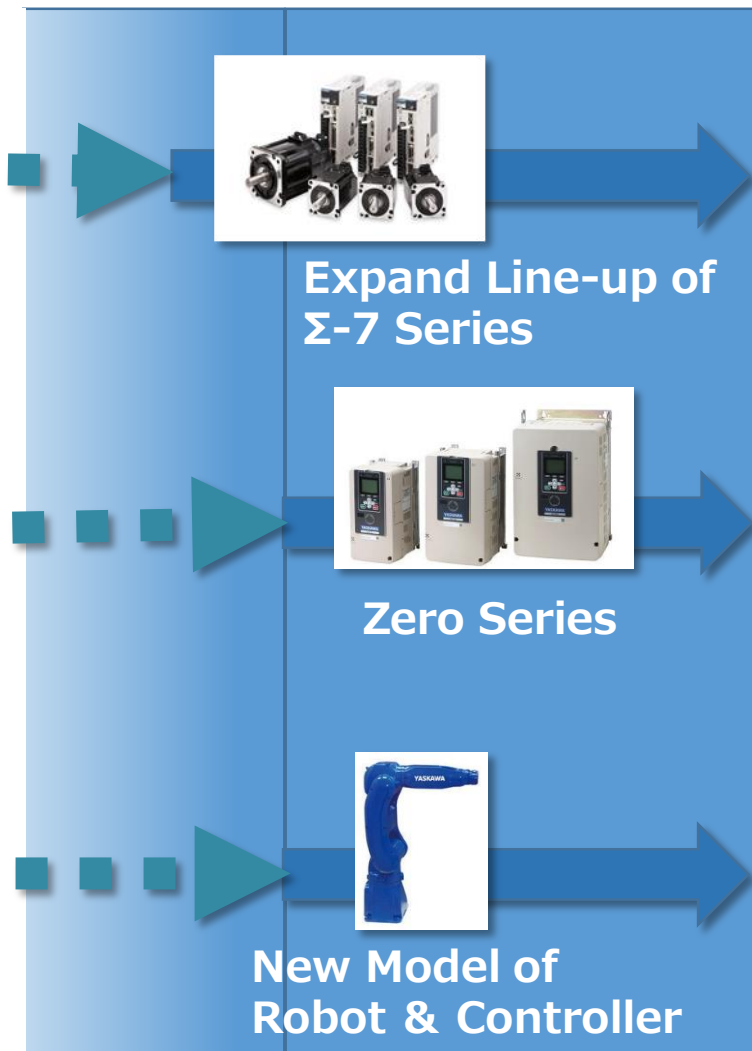
Expand Sales and Improve Profitability by Releasing New Products

Realize 100

Dash 25

Features

Measures to expand sales



High functionality/
High accuracy
Easy-to-use

Products with
enhanced functions
in individual
application

High performance/
Downsizing
Easy-to-use

【Servo & Controller】

Business expansion and promotion of Σ -7 Series through differentiated functions and solution orientated proposals

【Drive】

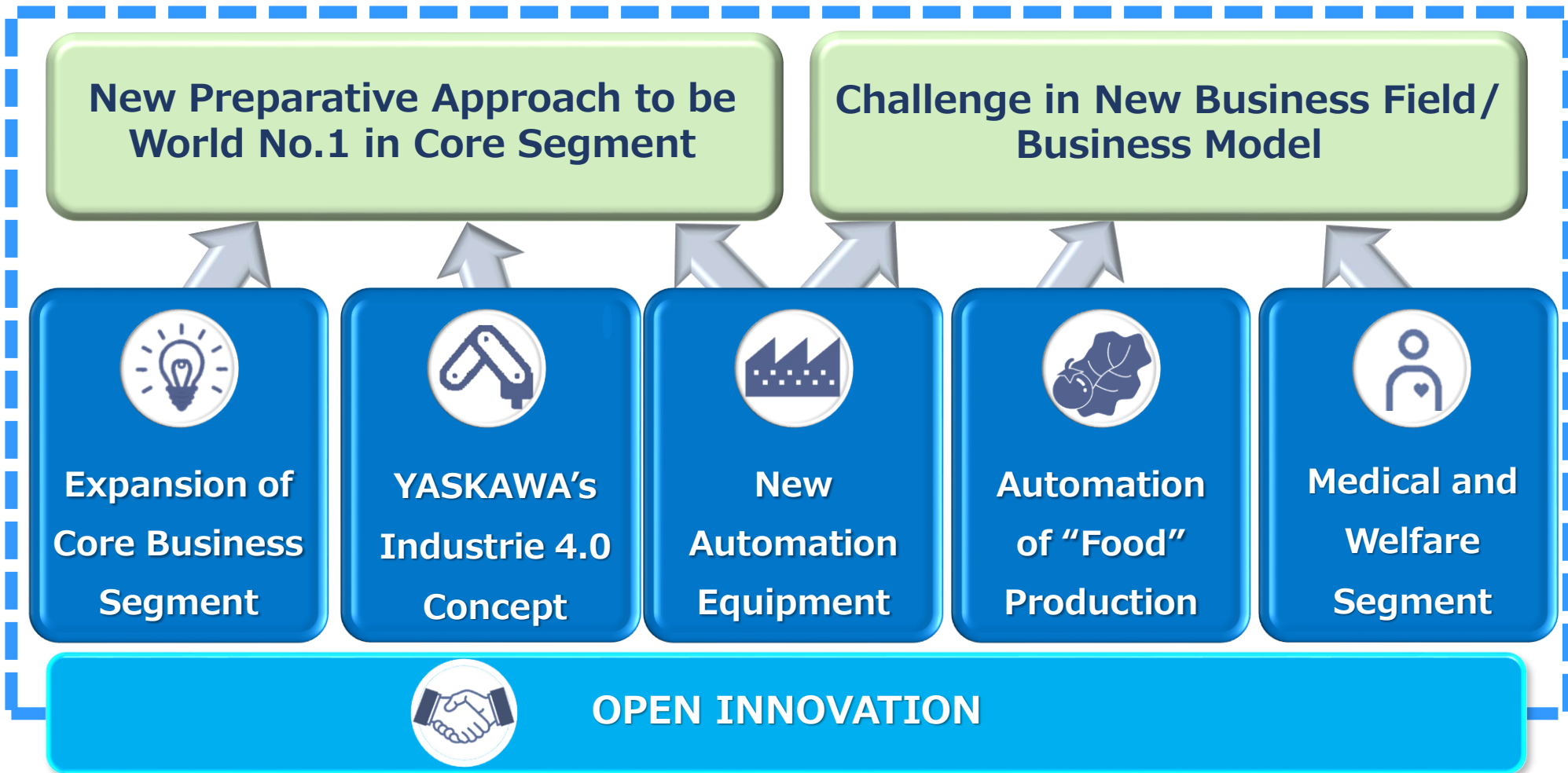
Launch of new products with added value to individual application in target segment

【Robotics】

Raise customer satisfaction level through release of strengthened robot series and increase revenue/profitability

Main Policy (2): Build Foundation for Realizing “Vision 2025”

Conduct new preparative approach in core business fields, as well as challenging in new business field/ business model



Expansion of Core Business Segment

Servo



Drive



Robot



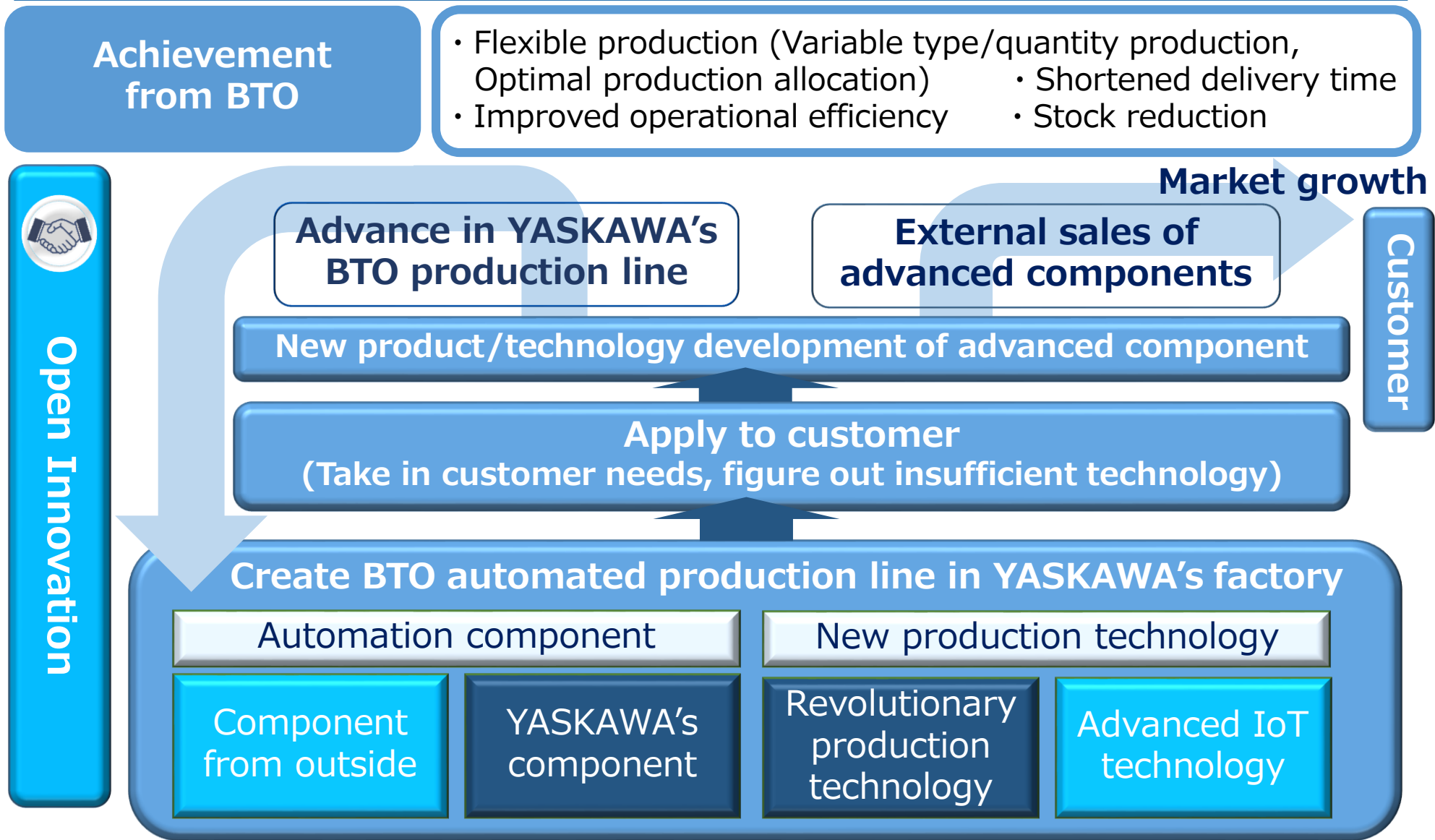
Component Enhancement + IoT/Cloud Service

- ◆ “Robotics Solution” that can realize customers automation needs
- ◆ Total-solution proposals for customer’s equipment/machine

- ◆ Release of 690V Series to capture target market
- ◆ New development team to promote preceding elemental technologies

- ◆ Expansion of robot application through “Collaborative Robot” concept
- ◆ New initiatives for robot system business

Realizing YASKAWA's Industrie 4.0 Concept



New Automation Equipment

Realize next-generation production equipment with new flexible automation system, consisting of components compatible to BTO

Big data analysis (Intelligence server)

External cloud system

- ◆ Use of AI
- ◆ Teaching-less

Integration of automation component and ICT for a "Visible" and "Network Connected" interactive equipment

Manufacturing record

Production plan

Manufacturing Management System

Open Innovation

Vision Sensor

Contact-less Power Supply/Transmission

Component/Function to support automation

3D Multi-Carrier Module

In-house optimized component

Automation of "Food" production

Destabilization of agricultural production / Decrease in working population due to aging population and lower birth rates
⇒ Business challenge in Food Production Industry to secure "raw materials" and "employees"

Approach the "Food" industry with YASKAWA's unique automation solution technology

AGRI-CULTURE Automation

FOOD Automation

Primary Industry

Secondary Industry

Expansion of elemental technology

- ◆ Cultivation control technology
- ◆ Automated harvest

Plant factory (Automation)



Cultivation plant

Wash/
Sterilize

From upper
stream →

Processing/
Preparation

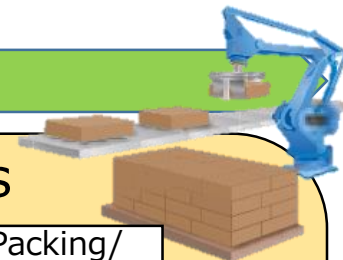
Loading/
Layout

Packing/
Shipping

Food production process

Collaborative production line with Human and Robot

From lower
← stream



Medical and Welfare Segment

CoCoRoE Product Portfolio

Lower Limb
Training
Equip.



Ankle
Assist
Equip.



Upper Limb
Training
Equip.



Transfer
Assist
Equip.



Walking
Assist Equip.
"ReWalk"



Biomedical Robot



Sales Strategy

Release of products by clarifying the business model in Medical/Welfare fields, mainly for Rehab/Nursing centers in Japan & Asia, with a view to establishing the CoCoRoE brand

- ◆ Automation of experiments:
⇒ Startup of commissioned experiment business
- ◆ Preparation of anticancer drug:
⇒ Buildup of clinical testing data
- ◆ Automation of cell culture process

Utilization of Open Innovation



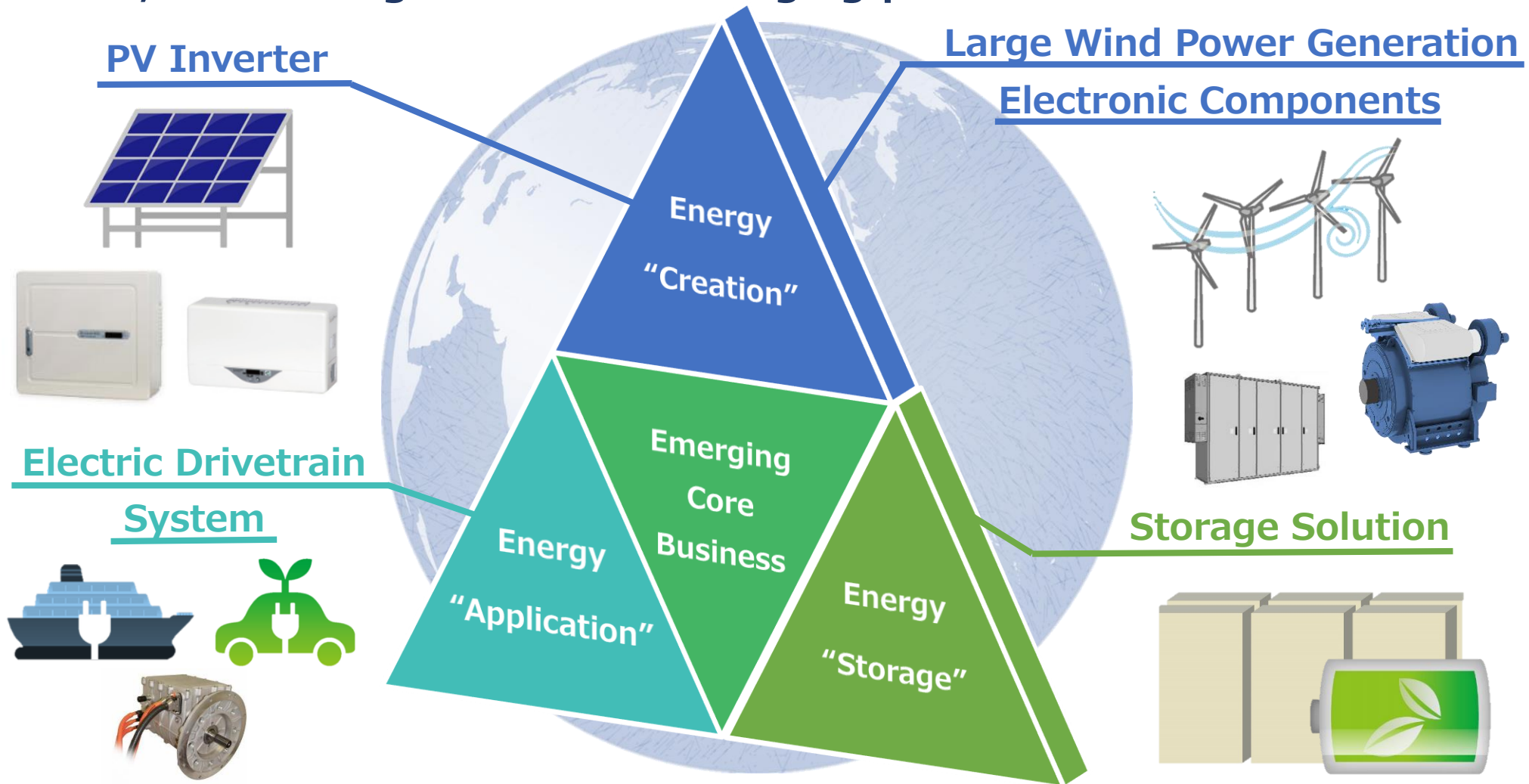
- Expand product portfolio of components for Humatronics Device
- Acquire low-cost production and sales know-how through alliances
- Accelerate commercialization by alliance with Government/Academia



Next Product
Development

Main Policy (3) : Grow Clean Power into Core Business

Global development of Energy "Creation" and "Application" business fields, to be recognized as an emerging pillar of YASKAWA's business



Global Development of Energy “Creation” and “Application”

PV Inverter

- ◆ Japan: Release of new product to increase share in industrial market & Increase revenue with GaN* PV inverter in residential market
- ◆ The Americas: Solectria’s string-type PV inverter to raise competitiveness and increase profitability
- ◆ Emerging Countries: Expand sales in South America and Asia with sales network from core business

YASKAWA
SOLECTRIA SOLAR

**Maximize Synergy
with Solectria**

*GaN: Gallium nitride

Large Wind Power Generation

- ◆ Joint development of new converter with The Switch to gain new big accounts in Europe/China/Japan
- ◆ Establish business with wind turbine companies that self-manufacture converter
- ◆ Expansion of business field through alliance
- ◆ Create global mass-production system

THE SWITCH
A YASKAWA COMPANY

**Maximize Synergy
with The Switch**

Electric Storage Converter

- ◆ Develop converter for electric storage use in Japan, in order to expand application fields in PV inverter business
 - Residential application: Hybrid PV system
 - Industrial application: Expand product capacity range & Global expansion

Electric Drivetrain System

- ◆ Enter Chinese Market of electric component business for EV system with high growth potential
- ◆ Enter Japanese high-end market, using experience from Chinese market
- ◆ Develop to other application

Evolve “Glocal” Management

Reinforcement of organizational and individual capabilities globally

Organizational Capabilities

Global HQ Function

- Promote optimization of corporate-wide operation
- Strengthen strategic HQ function
- Corporate venture system (creation of new business)

Area Management

- The Americas/Europe: Establish operating structure that cross over business segments
- Japan/China: Establish sales platform that cross over business segments

Business Management

- Transfer part of center function to local, especially in the field of new business

Glocal Management

Individual Capabilities

Strategic Global HR

- Strengthen strategic global HR function

Attractive Work Environment

- Installation of new HR system in order to realize work-life balance for all employees

Diversity Promotion

- Formulation of corporate culture that can leverage female employee's strengths

Disclaimer

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