

# Medium-Term Management Plan 2023 (PTC Group)

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# I N D E X


**01** **Business Overview**

**02** **Medium-Term Management  
Plan 2023 and Long-Term  
Business Plan**

# 01

# Business Overview

# 01 Business Overview - Products and Manufacturing Bases

SBU	Product	Main product	Manufacturing base		
Gearmotor (GM)	Medium-size gear reducer Inverter	Cyclo BBB	<ul style="list-style-type: none"> <li>• Japan (Nagoya)</li> <li>• China (Tianjin, Shanghai)</li> <li>• Vietnam</li> <li>• Germany / USA</li> </ul>		
	Small-size gear reducer	Altax Hyponic			
MCD	Gear reducer for precise control	IB series F series	<ul style="list-style-type: none"> <li>• Japan (Nagoya)</li> <li>• China (Shanghai)</li> <li>• Germany</li> </ul>		
Gear box (GB)	General-purpose medium/large-size gear reducer	Paramax Hansen P4	<ul style="list-style-type: none"> <li>• Japan (Okayama, Osaka)</li> <li>• China (Tangshan)</li> <li>• Brazil</li> <li>• Belgium</li> </ul>		
	Special large-size gear reducer	Hedcon Planetary gear reducer High speed gear			
Electric Device Control	High-efficiency motor Inverter	Lafert Invertek	<ul style="list-style-type: none"> <li>• Italy</li> <li>• Slovenia</li> <li>• China</li> <li>• UK</li> </ul>		

# 02

## Medium-Term Management Plan 2023 and Long-Term Business Assumptions

# 02 Medium-Term Management Plan 2023

## ■ MTMP 2023 (Mechatronics segment)

(100 million yen)

	<b>FY2020</b>	<b>FY2021</b>	<b>FY2023</b>
	<b>Actual results</b>	<b>Plan</b>	<b>Plan</b>
<b>Sales revenue</b>	<b>1,334</b>	<b>1,630</b>	<b>1,760</b>
<b>Operating profit</b>	<b>31</b>	<b>75</b>	<b>100</b>
<b>Operating margin</b>	<b>2.3%</b>	<b>4.6%</b>	<b>5.7%</b>

### <FY2021>

- The market has recently returned from the decline caused by the COVID-19 pandemic; orders have recovered rapidly both in and outside Japan.

### <FY2022-2023>

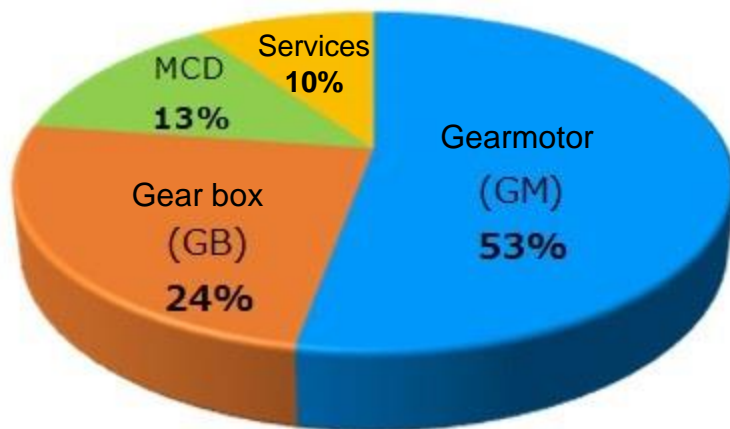
- We will capture new demand including automation, labor saving, and electric motorization, which will activate capital investment, in order to accelerate the growth in the fields of Electric Device Control and MCD.
- We will expand the share in a broad range of business sectors, positioning the Logistics, Robotics, Foods, and Environment/Energy as the focused segments.
- We will enhance the capabilities of proposing solutions to end users as the installation-based business in addition to our original business.
- We will increase our topline and improve profitability.

## 02 Sales Revenue by Model

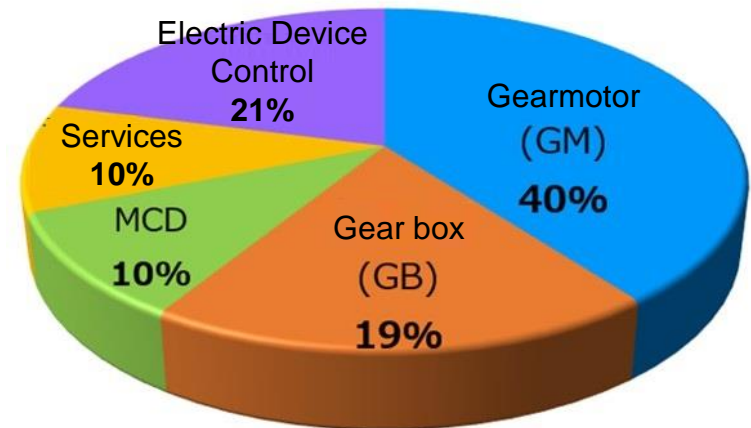
### Sales Revenue by Model

(Former machinery component segment, Global)

FY2017 Actual results



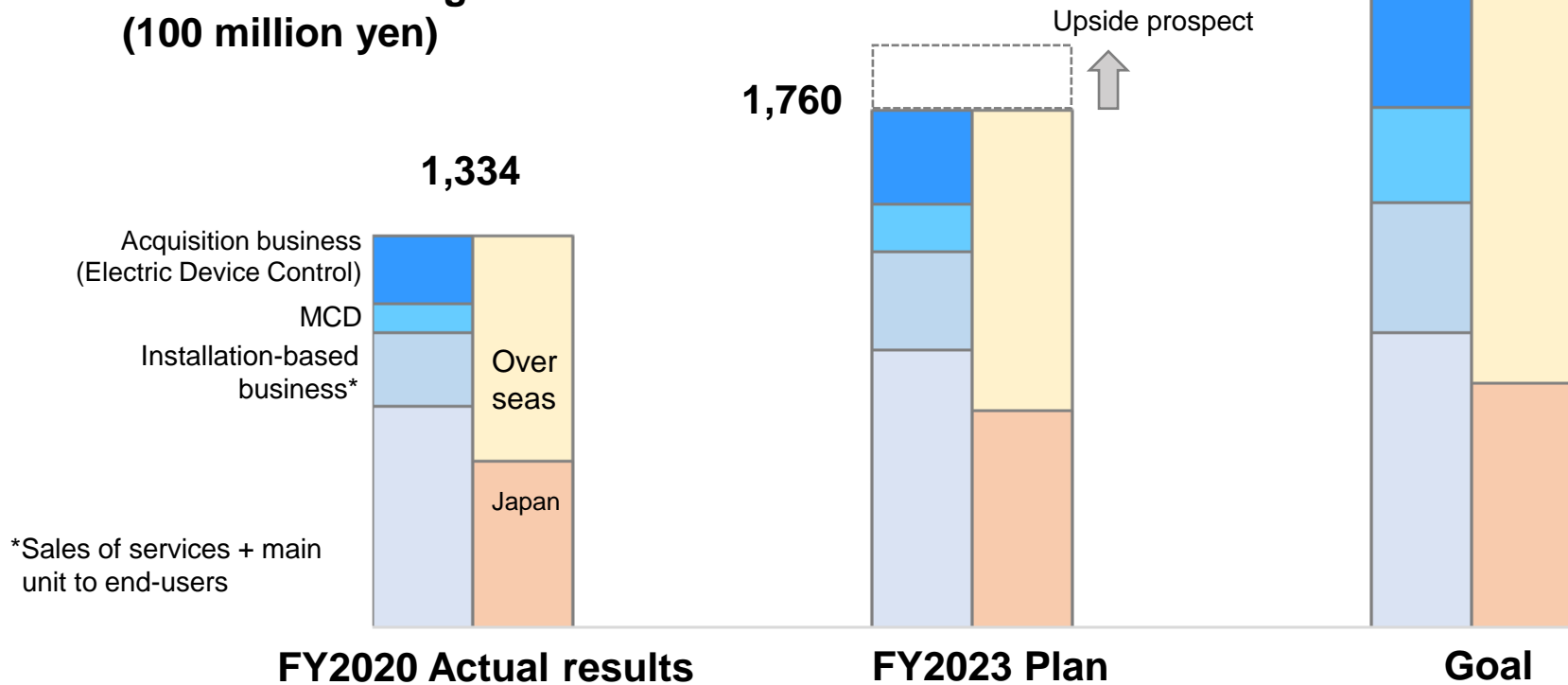
FY2021 Plan



Electric Device Control was added to the portfolio by acquisition

# 02 Perspective for Business Growth

## Sales revenue of Mechatronics Segment (100 million yen)



Acquisition business (Electric Device Control): growing by incorporating customers' demands for high efficiency, automation, and support for electric motorization

MCD business: expanding by increasing the market share in the growing market
















Installation-based business: expanding by proposing solutions from customers' points of view



# 02 Market Outlook by Region

## ■ Outlook by region (GM/GB/MCD)

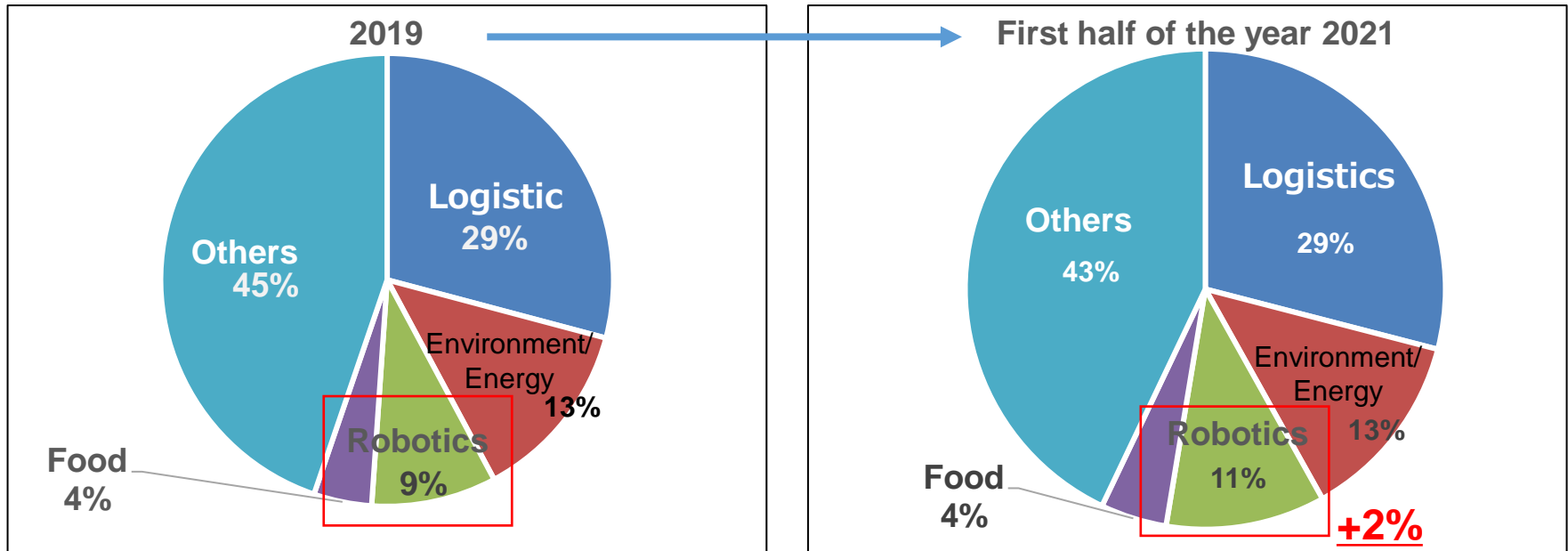
\*Demand forecast is estimated based on the 2021 Report by Interact Analysis (2021)

	Japan	North and South Americas	Europe	China	Asia
Most recent outlook	<ul style="list-style-type: none"> <li>• Growth in Logistic/Semiconductor or (E-commerce; equipment replacement/automation for automobile electrification)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased investment in infrastructure (including mine-related business)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased investment in automation/automobile electrification</li> </ul>	<ul style="list-style-type: none"> <li>• Increased demands for EV-related robots</li> </ul>	<ul style="list-style-type: none"> <li>• Recovered overall (Demand for products for medical use will decline because of excessive supply)</li> </ul>
	<ul style="list-style-type: none"> <li>• Increased investment in labor saving technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Growth in Logistic/Food</li> </ul>	<ul style="list-style-type: none"> <li>• Investment in Environment (High efficiency, energy-saving)</li> </ul>	<ul style="list-style-type: none"> <li>• Need to watch trends in real estate/electric power-related businesses (Government policy)</li> </ul>	<ul style="list-style-type: none"> <li>• Shift from coal to other resources with the aim of decarbonization Shift to (iron ore, etc.)</li> </ul>
*Demand forecast (CAGR 20→25)	GM :104% GB :102% MCD :108%	GM :105% GB :104% MCD :106%	GM :105% GB :104% MCD :107%	GM :108% GB :104% MCD :111%	GM :106% GB :104% MCD :104%
Market share (Our estimated values)	55%	North America: 11% Central/South America: 8%	3%	5%	15%
Most recent trends of segments	Logistic 	Logistic 	Environment 	Robotics 	Food 
	Robotics 	Food 	Machine tools 	Logistic 	Agriculture 
	Automobile 	Mines 	Food 	Energy 	Mines 

## 02

## Sales Amount by Segment in Japan

## Comparison of sales amount (monthly average) between FY2019 and the first half of FY2021



- Four important segments (Logistic, Robotics, Food, and Environment/Energy) account for about 60% of total sales.
- We are focusing particularly on Robotics whose proportion related to total sales increased by 2%+ compared to 2019.
- Generally, percentages of the four important segments have not changed largely.

# 02 Enhancement of Acquisition Business (Electric Control)

## Overview

Lafert Group (Italy, acquired in May 2018)

- ◆ Development, production, and sales of industrial motors



High-efficiency/general induction motor



High-efficiency magnet motor



Servo motor

- Has strengths in good customer relationships and capabilities of customizing services
- A broad range of applications (air conditioners, pumps, textile machinery, etc.)

Invertek Drives Ltd. (UK, acquired in November 2019)

- ◆ Development, production, and sales of inverters



- For air conditioners, pumps, automation, etc.
- Has strengths in applications for energy saving and responsiveness to short delivery times

## Aim of acquisition

Expansion of business range to Electric Control field

- To obtain technologies and production bases of motors/inverters
- To expand business in Europe that takes the lead in environmental protection
- To develop gear reducer bundles/integrated gear reducers  
-> Entering the target market

Logistics transportation (material handling)



Electric motorization



Energy/Environment



Robot, positioning



# 02 Enhancement of Acquisition Business (Electric Control)

## Pursuit of synergies through PMI (Post-merger Integration)

### Development of new products

- Development of modules for AMR



Gear + Motor + Driver



- Motor + Inverter bundle



Combination sales of high-efficiency motors and VFD (inverter)

-> Realization of energy-saving/short adjustment time

### Cross-selling

- Sales expansion through existing PTC sales channels



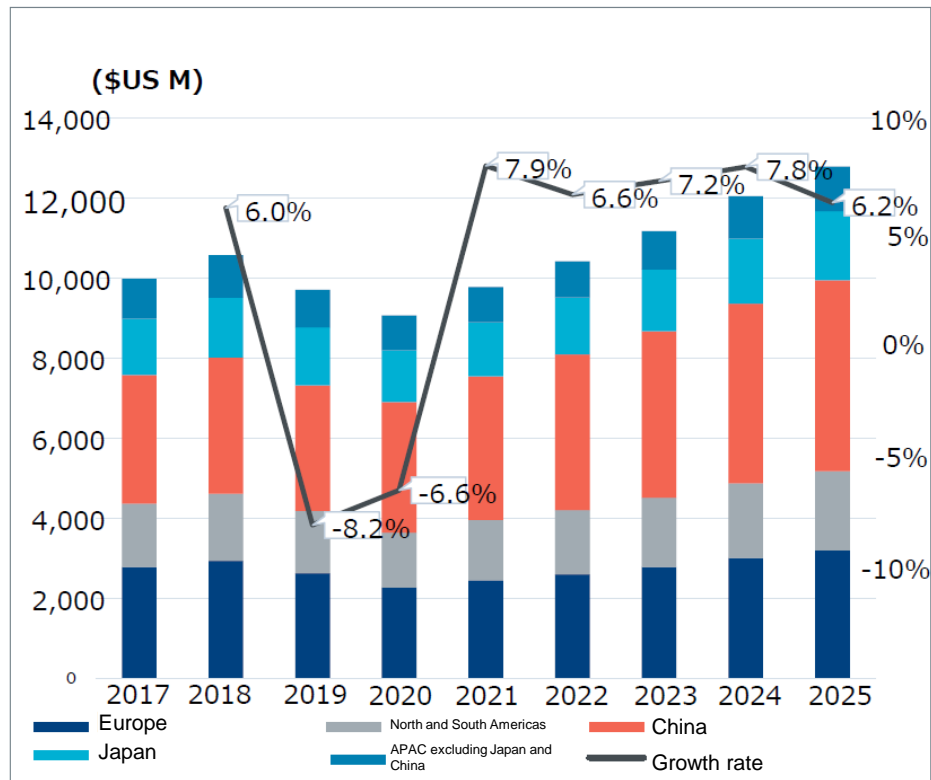
(Online training of inverters for customers)

### Supporting environment/sustainability

- High-efficiency motor  
Incorporating Lafert's high-efficiency technologies into PTC gearmotors
- Electric motorization  
Responding to replacement demands of hydraulic/pneumatic drive systems with motors

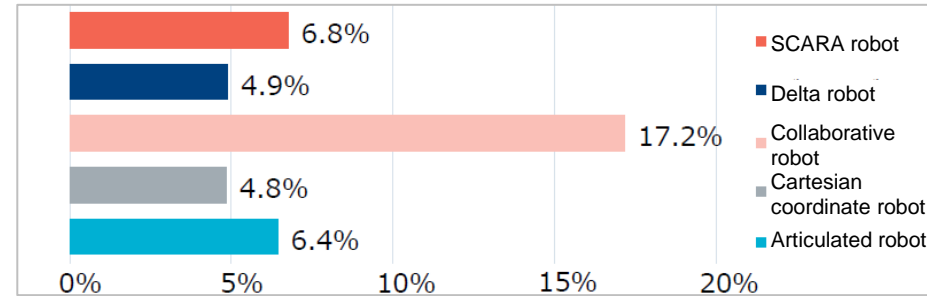
# 02 Enhancement of MCD Business

## Global market/Growth rate of industrial robots



Further requests for automation/labor-saving in manufacturing industry  
 => Market growth of 6 - 7% annually since 2021

## Growth rate of small-size industrial robots by application (2020 - 2025)



Outlook of small-size robot market  
 => Small-size robot for lightweight task (20kg load capacity)  
 Large increase in collaborative robots, services, and handling applications



Collaborative robot

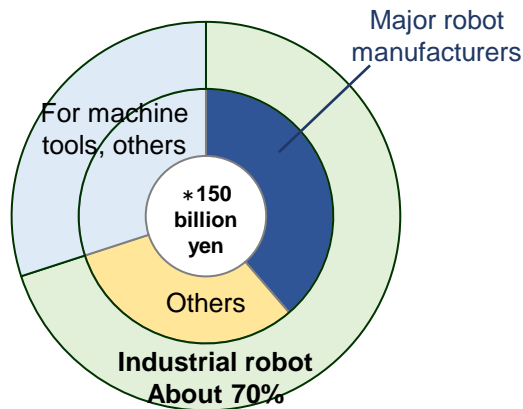


Small-size handling robot

(Industrial robot data: Confidential. © 2021 Interact Analysis. All Rights Reserved)

# 02 Enhancement of MCD Business

## ■ Zero-backlash gear reducer market



## ■ Improvement of production capacities in current MTMP



**Factory 4 in Vietnam (started operation in 2019)**

## [Business enhancement policies in current MTMP]

- To focus continuously on industrial robot market that is growing through needs for automation and labor-saving
- To increase market share in major robot manufacturers (Especially medium/small-size models)
- To strengthen cooperation with customers
- To develop components for next-generation robots
- To enhance basic technologies



**DA series**  
Flat, small size



**ECY series**  
Small-size robot



**PTC Factory 2 in Nagoya (started operation in 2020)**

- **Investment to date**
  - New factories (Nagoya, Vietnam)
  - Investment for improvement of production capacities (equipment)
- **Future plans**
  - Production equipment (capacity expansion)
  - Investment for automation (productivity improvement)
  - S/C investment (risk dispersion)

\*Market size and breakdown are estimated by our company

# 02 Installed-base Business

PTC



[Current distribution channels]

- OEM
- Distributers
- Manufacturers of assembled products

End users



Installed-based business (solutions proposal from customers' viewpoints)



- [Food safety]
- Rustless GM (Stainless steel GM)



IE4/IE5 class magnet motor



Inverter mounted-type magnet motor



- [Energy saving]
- High-efficiency motor
  - Inverter



- [Replacement of competitive products]
- Overhaul
  - Upgrade
  - Repair of gearbox from other companies
  - Precise diagnosis



# 02 Heading towards Developing Medium-term Management Plan for Next Period

## Mission

**“Contribute to solving social and customer problems by drive optimization”**

**With customers and partners as residents of the earth**

Role for PTC to play

**“Drive Optimization”**

Customer’s point of view

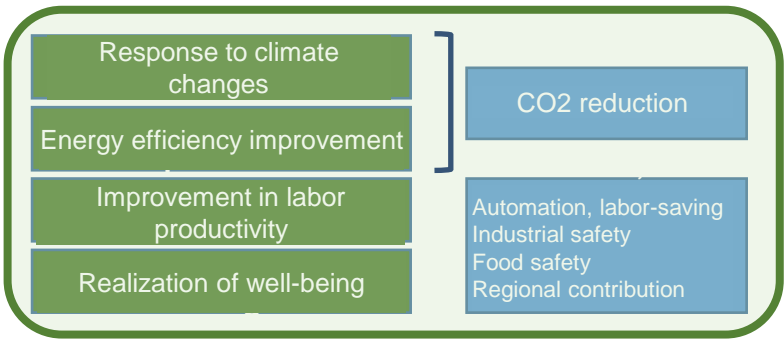
Technical and production capabilities responsive to changes

PTC’s business purpose

**“Contribute to solving social and customer problems”**

Responsibility: global environment, well-being

Opportunities: pillars of growth strategy



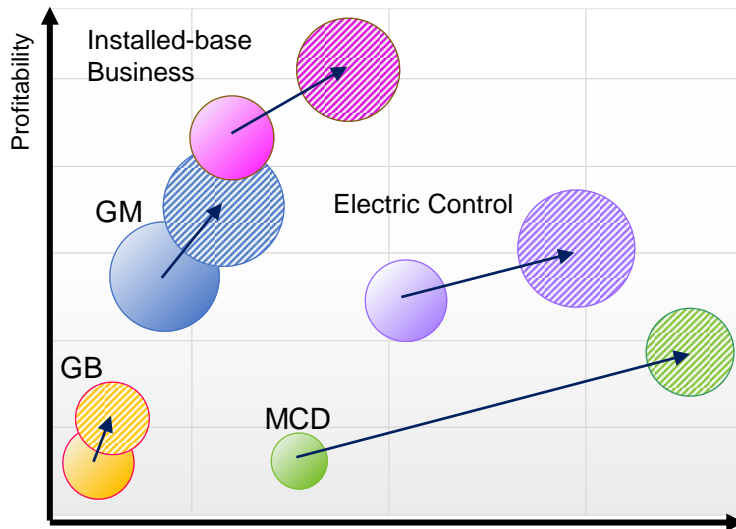


## 02

## Role of Business and Perspective on Future Investment

### ■ Role of business and perspective on future investment

Business	Role of business	Business challenges and investment policy
Electric Control	Growth	High efficiency, automation, support for electric motorization, pursuit of synergies with PTC, and increased production system
MCD	Growth	Increase of market share and improvement of profitability (enhanced precision capability, support for production increase, new product development)
Installed-base Business	High profitability	Improvement of capabilities of proposing solutions from customers' viewpoints
GM	High profitability	Factory transformation of each GM factory (enhanced precision capability, automation, IoT compatibility) Supply chain transformation (including support for BCP, response to customs procedures, etc.)
GB	Stable revenue	Stabilization of revenue of each GB factory



### ■ Growth of sales and profitability by business

- Increase from MTMP of this period (19 -> 22) to MTMP of next period (23 -> 26)
- Size of bubbles indicates size of sales revenue

Priority investment for growing businesses and solving social problems



All forward-looking statements regarding the company's future performance are based on information currently available to Sumitomo Heavy Industries and determined subjectively. Future performance is not guaranteed and all information related to future performance contained herein is subject to changes in business environments.