
Hitachi Agrees to Acquire JR Automation a Robotic System Integrator in the US

Hitachi will be entering the high-growth robotic SI business in North America and accelerate the global development of its digital solution business, which connects the workplace and management, by acquiring a customer base, technology, and know-how in the Operational Technology (OT) domain

Masakazu Aoki

Executive Vice President and Executive Officer

Hitachi, Ltd.

Chairman of the Board

Hitachi Industrial Equipment Systems Co., Ltd.

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1-1. Outline of JR Automation

Hitachi to acquire a leading robotic SIer
for approx. 158.2 billion yen (US\$1,425 million)

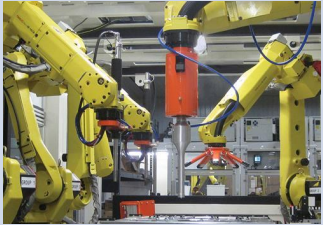



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Company name	JR Automation Technologies, LLC		
Sales	US\$ 603 million (approx. 67 billion yen) (consolidated: 2018)		
Head Office	Holland, MI (US)		
CEO	Bryan Jones		
Established	1980	Employees	Approx. 2,000
Main business	Robotic SI business (building production lines and logistics systems)		

1-2. Robotic Solution of JR Automation

Provide diverse robotic solutions in a wide range of industries

No.	Industry	Solution example <small>(Photos are not from actual project sites)</small>	
1	Automotive	<ul style="list-style-type: none">▪ Door panel interior assembly and welding line▪ Truck bed sheet metal welding line	
2	Aerospace	<ul style="list-style-type: none">▪ Assembly line including rivet connection	
3	E-Commerce (Logistics)	<ul style="list-style-type: none">▪ Palletizing* and picking system utilizing robots and rack equipment	
4	Medical device	<ul style="list-style-type: none">▪ Plastic IV** pack manufacturing equipment	

* Positioning and fixing units and containers on pallets at the end of a production line

** Intravenous drip

1-3. JR Automation's Strengths

JR Automation has achieved over 20% revenue growth in the last 3 years (CAGR)*, and successfully built up a strong customer base including top players in each industry

① Strong value proposition for various lines

Automotive

Conveyor system, welding, and assembly

Aerospace

Rivet connection

E-Commerce

Picking and palletizing

**Rich track records
and expertise**

② Implementation capability assuring high quality

Aerospace

High quality to meet the standard of industry requirements

Medical device

**Strong engineering
and line-building
capability**

③ Strong and loyal customer base

Build good relationship with promising customers

**Over 90% repeat
customer rate**

1-4. Business Opportunities for Growth

Robotic SI market expands with high growth rate,
JR Automation's target industries have huge opportunities

Global robot-based
automation market
CAGR (2018-2023)

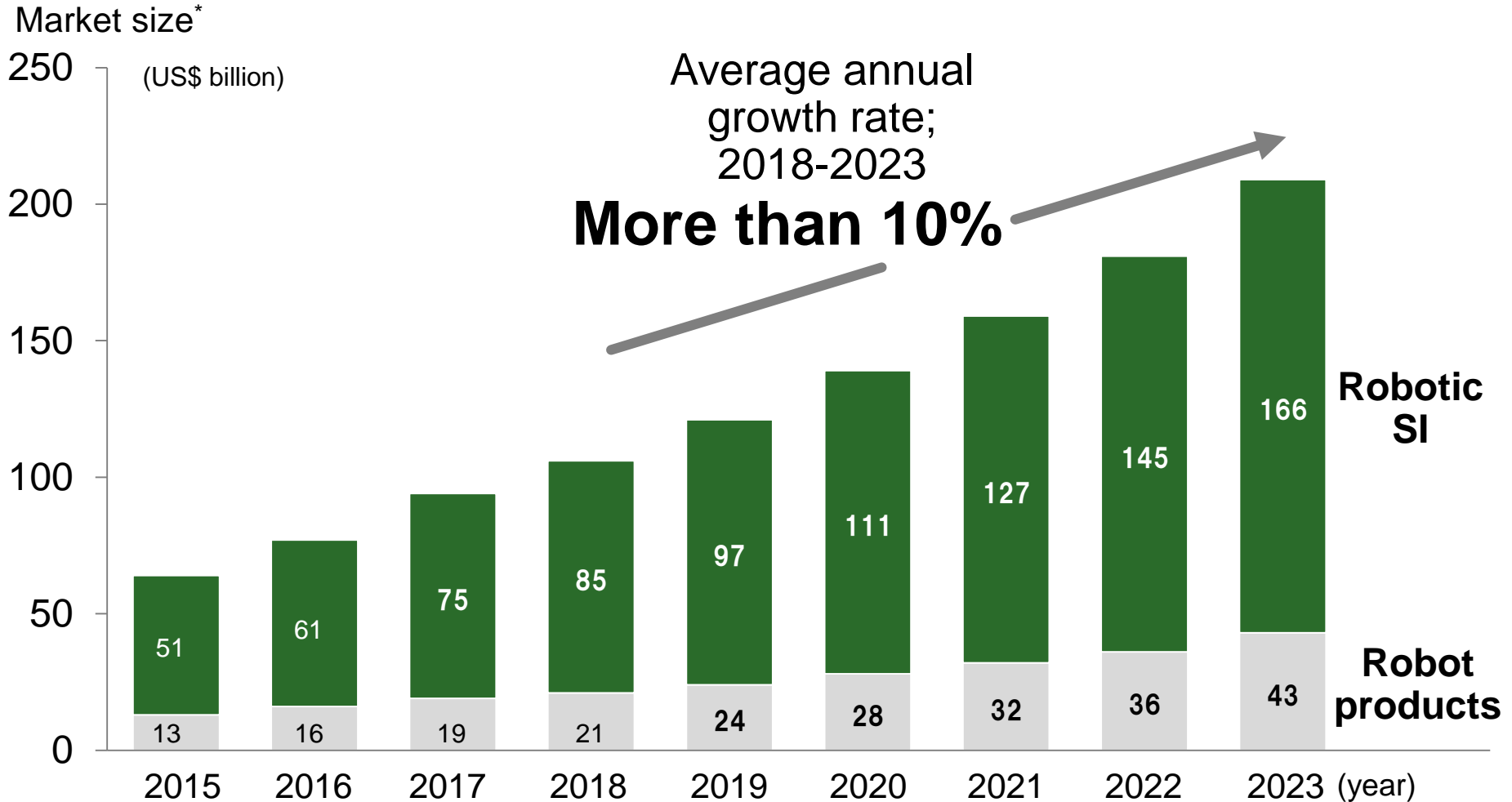
**More than
10%***

	Growth drivers	Business opportunities
Automotive	<ul style="list-style-type: none">➤ Shift to electric vehicles➤ Increasing labor costs	<ul style="list-style-type: none">➤ Strong demand for automation
Aerospace	<ul style="list-style-type: none">➤ Expanding aircraft market➤ Weight reduction with new material	<ul style="list-style-type: none">➤ Increasing the number of Tier1-3 suppliers
E-Commerce	<ul style="list-style-type: none">➤ High-frequency deliveries, increasing number of warehouses➤ Labor shortage	<ul style="list-style-type: none">➤ Automation of entire process (Picking, etc.)
Medical device	<ul style="list-style-type: none">➤ Medical device innovations	<ul style="list-style-type: none">➤ Compliance with strict FDA standards

*Source: Hitachi estimate based on IFR2017 report

1-5. Growth of Robotic SI Market

Robotic SI market continues to expand
by realizing complex automation system with a lot of robots



* Source: Hitachi estimate based on IFR2017 report

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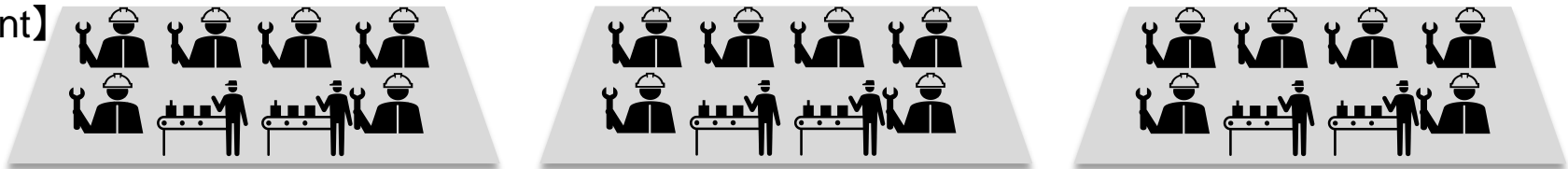
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2-1. Manufacturing Trends

On-going shift from machine operation by human to robot applied automation

Just replacing human operation with robots does not improve productivity

【Current】



Manufacturing process based on human operation

Intensified global competition

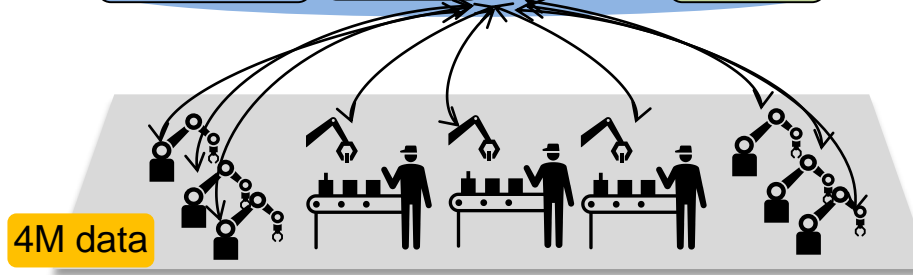
Increasing labor costs

Expansion of applying robots

Demand expansion of safety and quality

【Future】

【Optimization】 【AI】 【Predictive diagnosis】



Manufacturing process based on robot applied automation

The key of robot applied automation is line-building SI and end-to-end data SI

* 4M: huMan, Machine, Material, and Method

2-2. Manufacturing Evolution Hitachi Will Provide

Through optimizing manufacturing by robot applied automation, Hitachi to contribute to business value improvement for customers



[Current]
Manufacturing
by people and machine

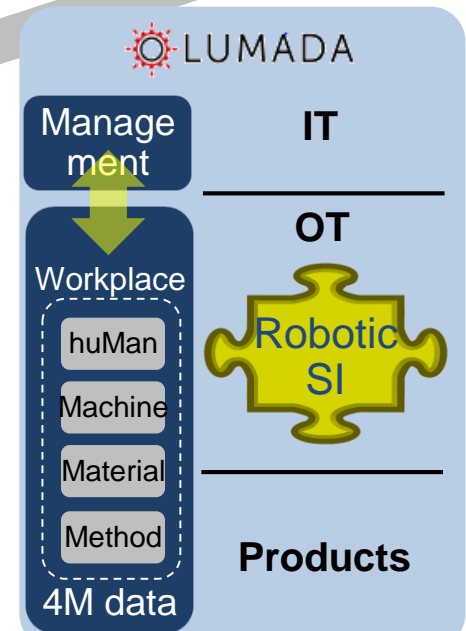


[Now-on]
Robot applied manufacturing



Line-building SI and end-to-end data SI
for robot applied automation

[Future]
Manufacturing linking
workplace and management

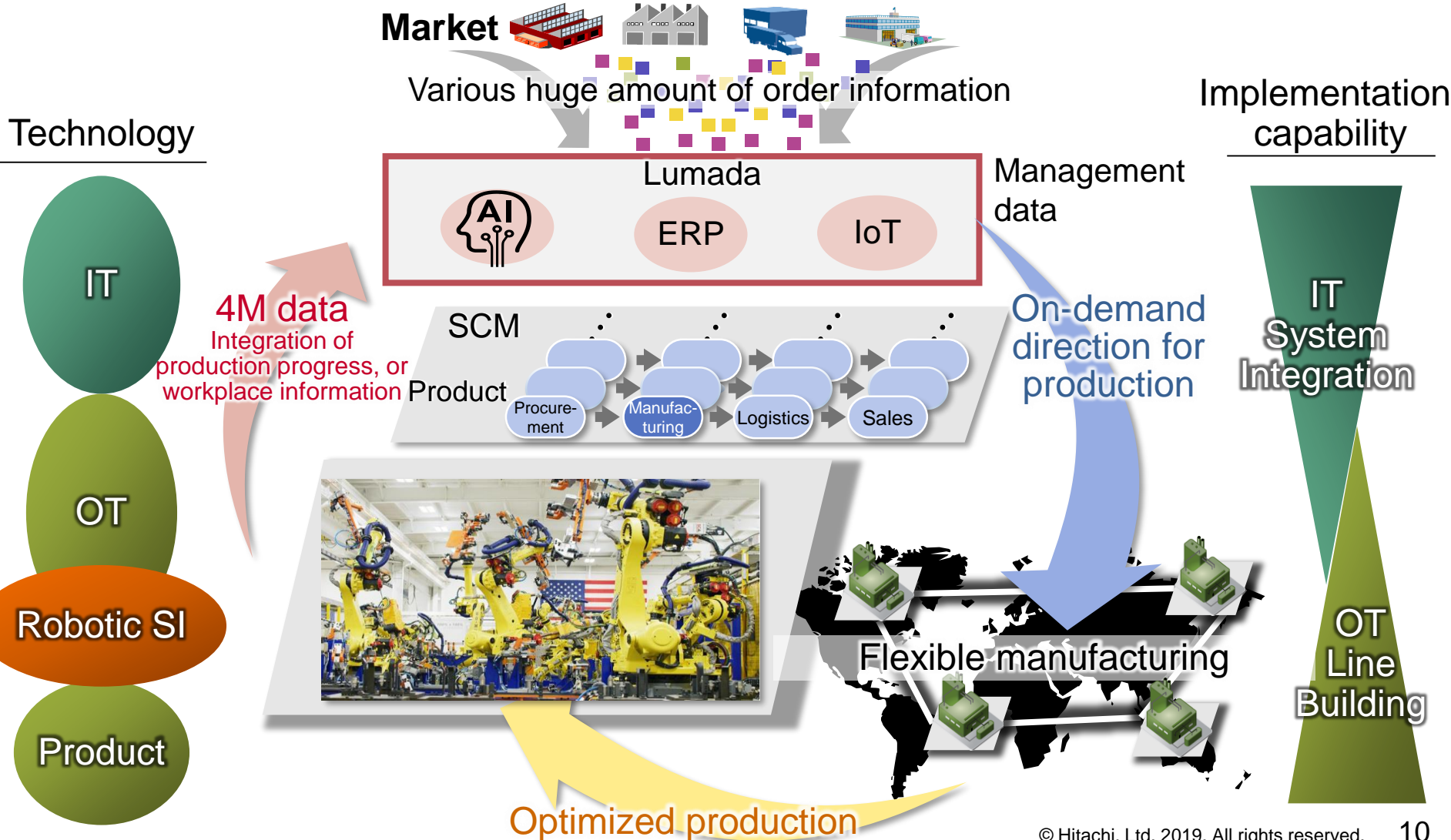


Seamless collaboration between
workplace and management,
optimization of management efficiency

Field operation capability accumulated with people

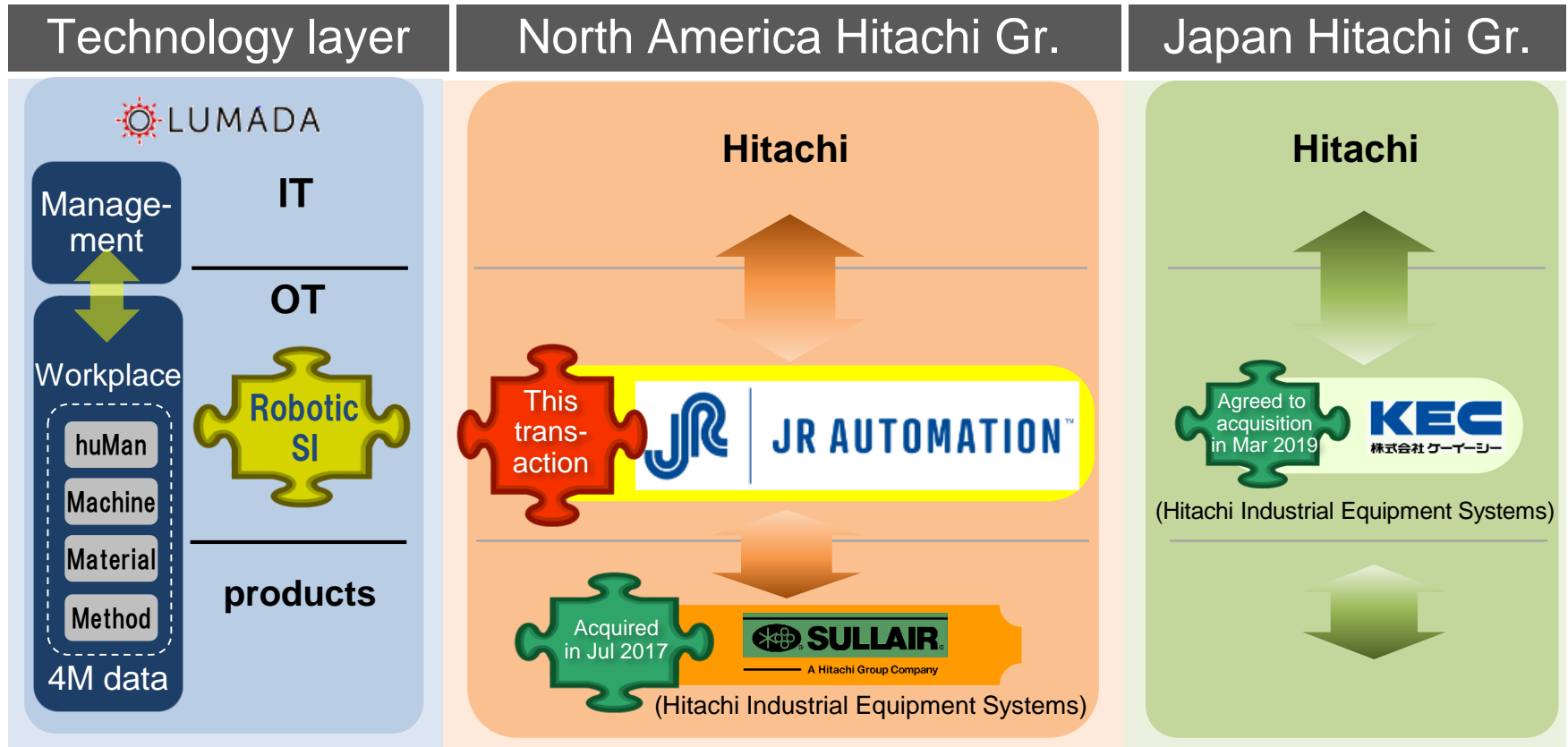
2-3. Realize Business Environment Linking Workplace and Management

Advanced value chain for various market by integrating Hitachi's AI technology(IT) and robotic SI(OT)



2-4. Expansion of Robotic SI Business through Acquisitions

Hitachi will acquire the two companies in the US and Japan, and take advantage of acquired customer base and expertise in order to expand robotic SI business globally



JR Automation and Hitachi Group mutually leverage each customer base and resource

Sales synergy

① Cross-selling

Realize cross-selling by mutually leveraging a customer base, solutions and products

② Expand JR Automation's after market business

Strengthen after service utilizing Hitachi's platform and AI technology

③ Expand JR Automation's SI in E-Commerce

Enhance robotic SI by Hitachi's control technology and Lumada

Cost synergy

④ Establish efficient operation

Leverage Hitachi's management and resources for efficient operation

⑤ Realize joint procurement

Reduce procurement costs by joint activity of Hitachi Gr. and JR Automation

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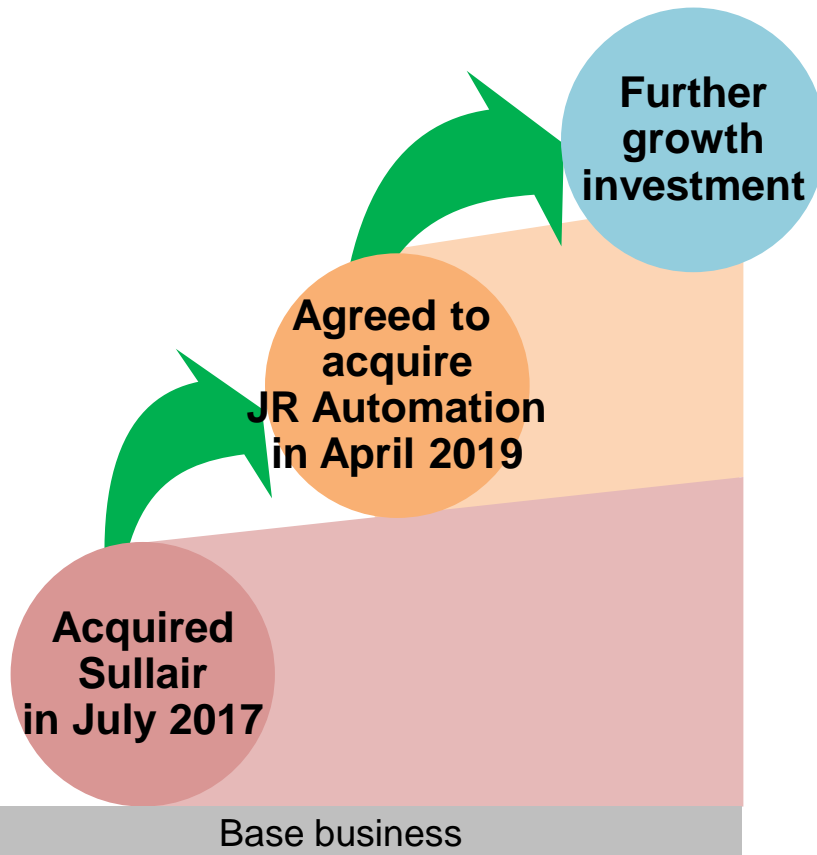
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3-1. Accelerate North America Business Growth in Hitachi Industry Sector

Strengthen North America business by M&A

Realize more than 130B yen
North America business in Industry Sector

Consider investment
for further growth



Key points for growth investment

- ① Realize business environment linking workplace and management
- ② Expand recurring business (after service, etc.)
- ③ Strengthen products with IoT capability

Agreed to acquire JR Automation as our global growth strategy

1

Strengthen North American business base of Hitachi Industry Sector through the acquisition of JR Automation after Sullair acquisition

2

Achieve growth opportunity in the robotic SI market with high growth rate (CAGR: over 10%)
⇒ Industry Sector's North American Sales target is more than 130 billion yen

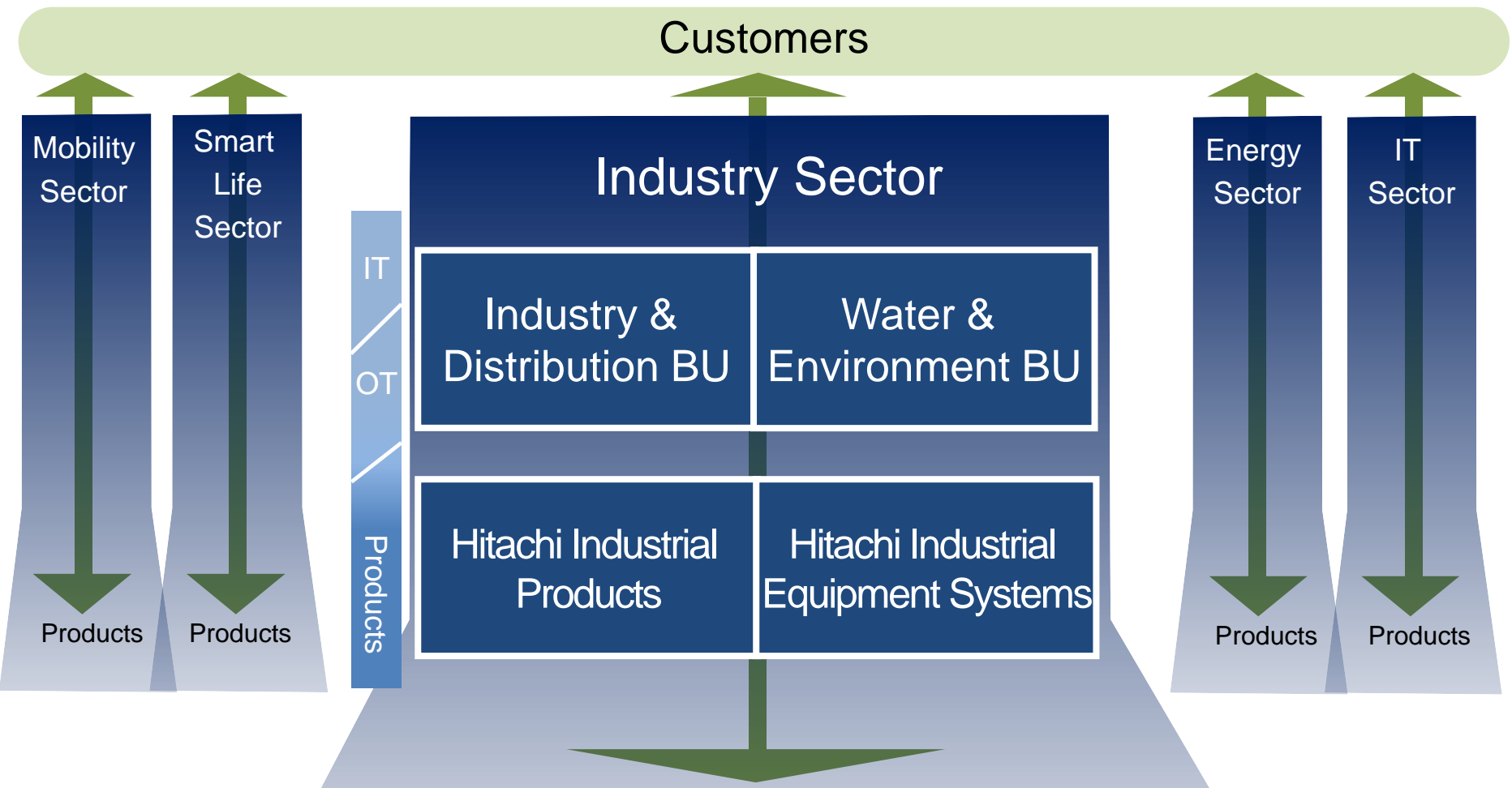
3

Provide new value for customers' management and entire business by seamlessly linking workplace and management

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Appendix.

- About Industry Sector of Hitachi



Vision: Best Solution Partner for industrial customers
Leverage strengths in Products, OT, and IT in the rollout of Lumada Solutions

Appendix2. Industry Sector's Business Areas and Acquired Area

