

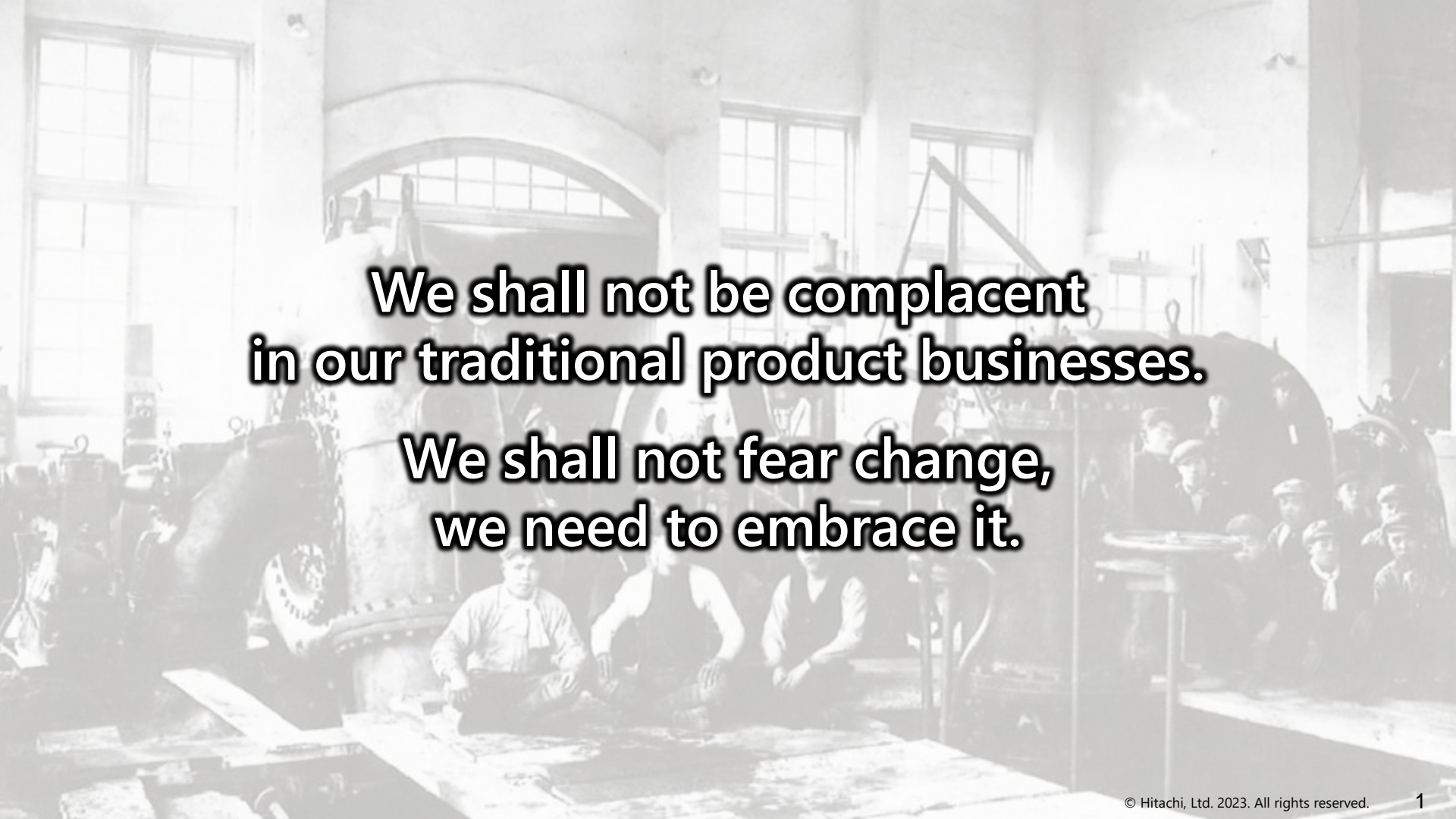
Hitachi Investor Day 2023

Connective Strategy

June 13, 2023

Masakazu Aoki

Executive Vice President and Executive Officer
General Manager of Connective Industries Division
Hitachi, Ltd.



**We shall not be complacent
in our traditional product businesses.**

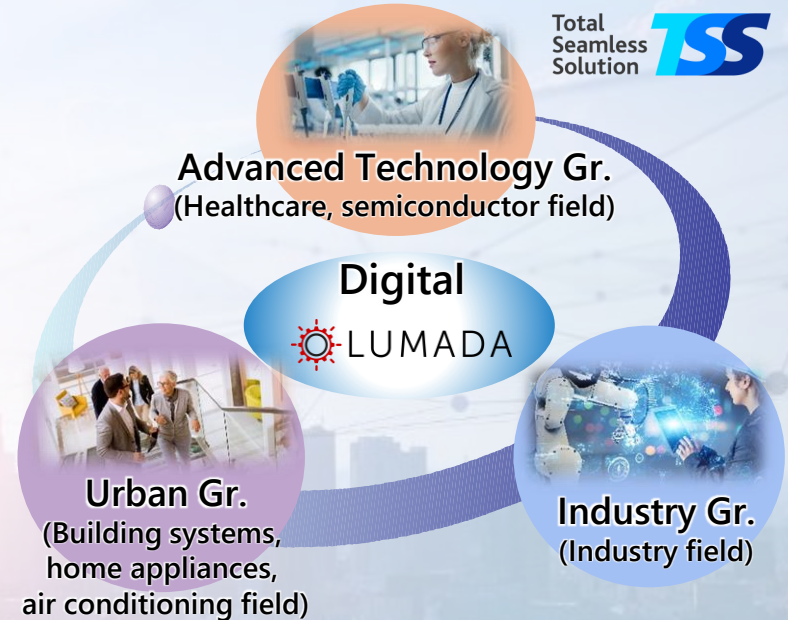
**We shall not fear change,
we need to embrace it.**

Connective Industries

Connecting
data, value, industry, and society.

Connective Industries brings together Hitachi's unrivaled products, connects knowledge and data, and generates sustainable value.

Solutions that seamlessly link "boundaries" between management and workplace, one company and another, people and industry, will transform industries and society.



1 | Basic Policy for Connective Strategy

2 | Evolution and expand of Total Seamless Solution (TSS) and strengthen recurring businesses

3 | Accelerate global growth

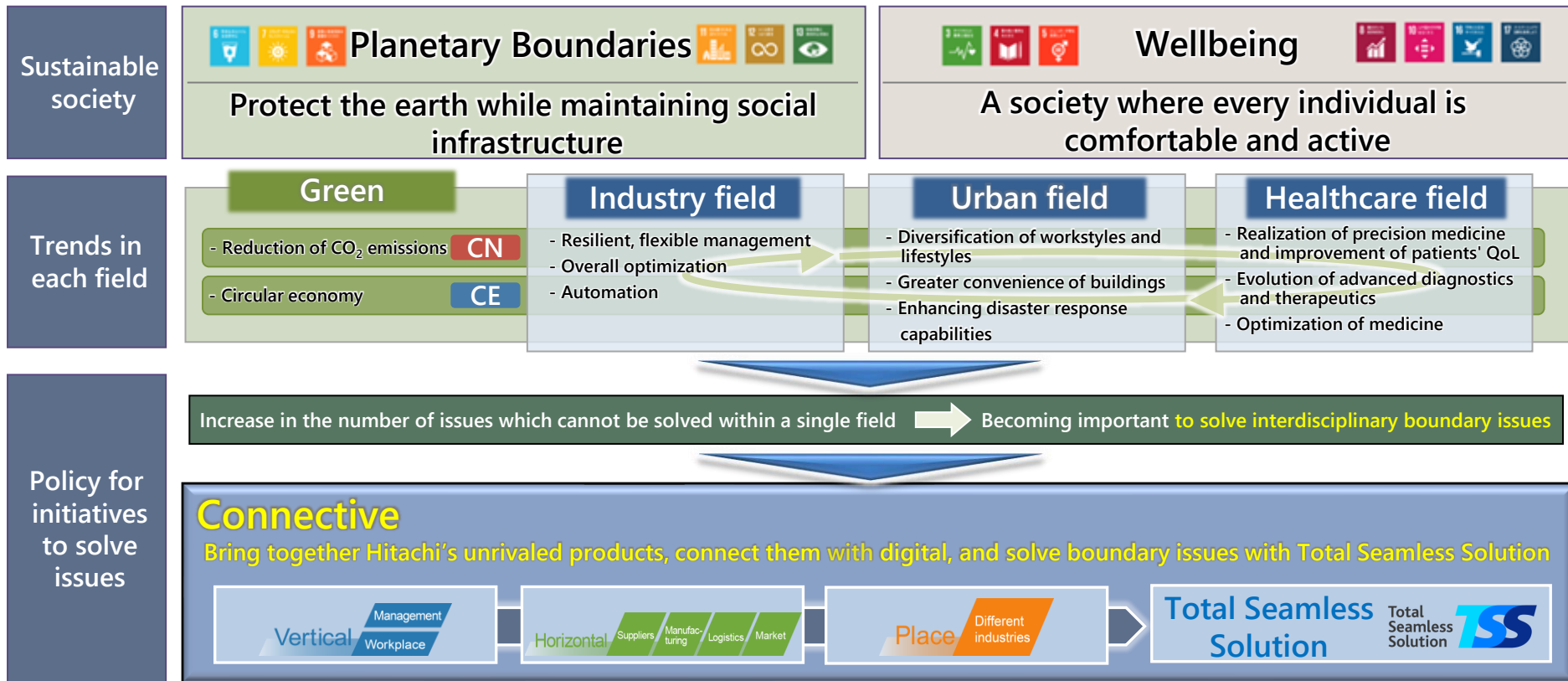
Contents

1. The Aim of the Connective Strategy
 2. Business Strategy of Connective
 3. Development for Global Growth
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1. The Aim of the Connective Strategy

1-1. To Build a Sustainable Society

Solving interdisciplinary boundary issues is important for building a sustainable society

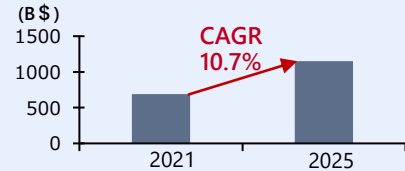


1-2. Trends in Key Markets and Growth Strategy

Develop businesses globally based on industry-leading competitive products and achieving expansion by capturing growth in each market

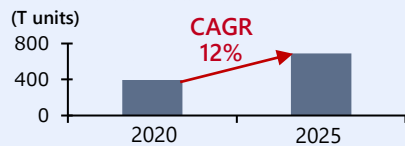
Industry field

Industrial IoT market



Source: Worldwide Internet of Things Forecast, 2022-2026

Industrial robot market

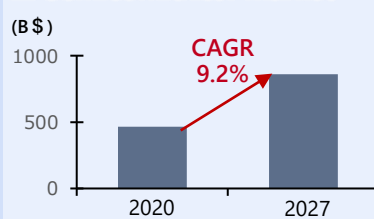


Source: Annual installations of industrial robots 2016-2021 and 2022-2025

Acceleration of investments in industrial DX and automation

- Business expansion with robotic SI and digital technologies
- Expanding recurring businesses by strengthening connected products

Semiconductor market



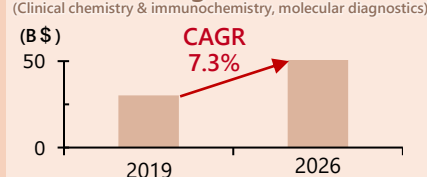
Source: TechnInsights Manufacturing Analysis Inc.

Although the semiconductor market has recently plateaued, it will continue to grow in the mid- to long- term.

- Deepening co-creation with customers leveraging sites near semiconductor customers
- Enhancing the development of advanced products

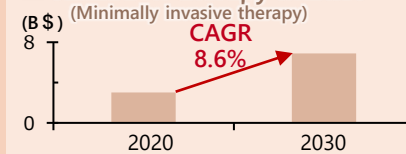
Healthcare field

In-vitro diagnostics market



Estimated by Hitachi

Radiation therapy market



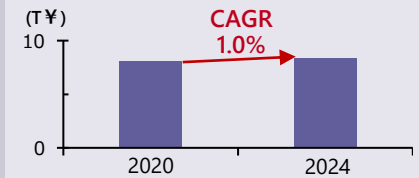
Estimated by Hitachi

Markets for diagnosis and therapy equipment in cutting-edge fields are growing steadily.

- Strengthening business with diagnostic, therapeutic, and digital technologies
- Enhancing the development of advanced products

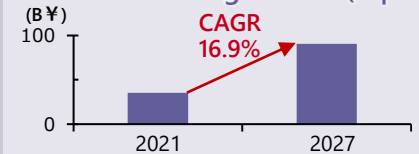
Urban field

Elevator and escalator market



Estimated by Hitachi

Smart building market (Japan)



Estimated by Hitachi

The escalator and elevator market has been steady. The smart building market will expand in the mid- to long-term.

- Expanding recurring businesses by strengthening connected products
- Strengthening the smart building solution business, including conversion to ZEB

1-3. Looking Back on Growth Strategy

Accelerate the expansion of Total Seamless Solution by acquiring assets for growth through combining M&A strategy

2024 Mid-term Management Plan

- Evolution and expansion of Total Seamless Solution
- Strengthening recurring business
- Accelerating global growth

- Acquisition of Flexware Innovation **Industry field**
- Acquisition of Telesis Technologies **Industry field**

Building the business base and spreading Total Seamless Solution

- Acquisition of Yungtay Engineering (Hitachi Yangtay Elevator) **Urban field**
- Conversion of Hitachi High-Tech into a wholly owned subsidiary **Healthcare field** **Industry field**
- Acquisition of JR Automation **Industry field**
- Acquisition of KEC and Kyoto Robotics(Hitachi Automation) **Industry field**

Structural reforms including withdrawal from unprofitable businesses, and strengthening product business in North America

- Acquisition of Sullair(Hitachi Global Air Power) **Industry field**

2021 Mid-term Management Plan

2018 Mid-term Management Plan

2024 Mid-term Management Plan Focus fields for investment

Industry field

- Strengthening the business foundation to accelerate global TSS deployment
- Technology development and production reinforcement of semiconductor manufacturing and measurement

Healthcare field

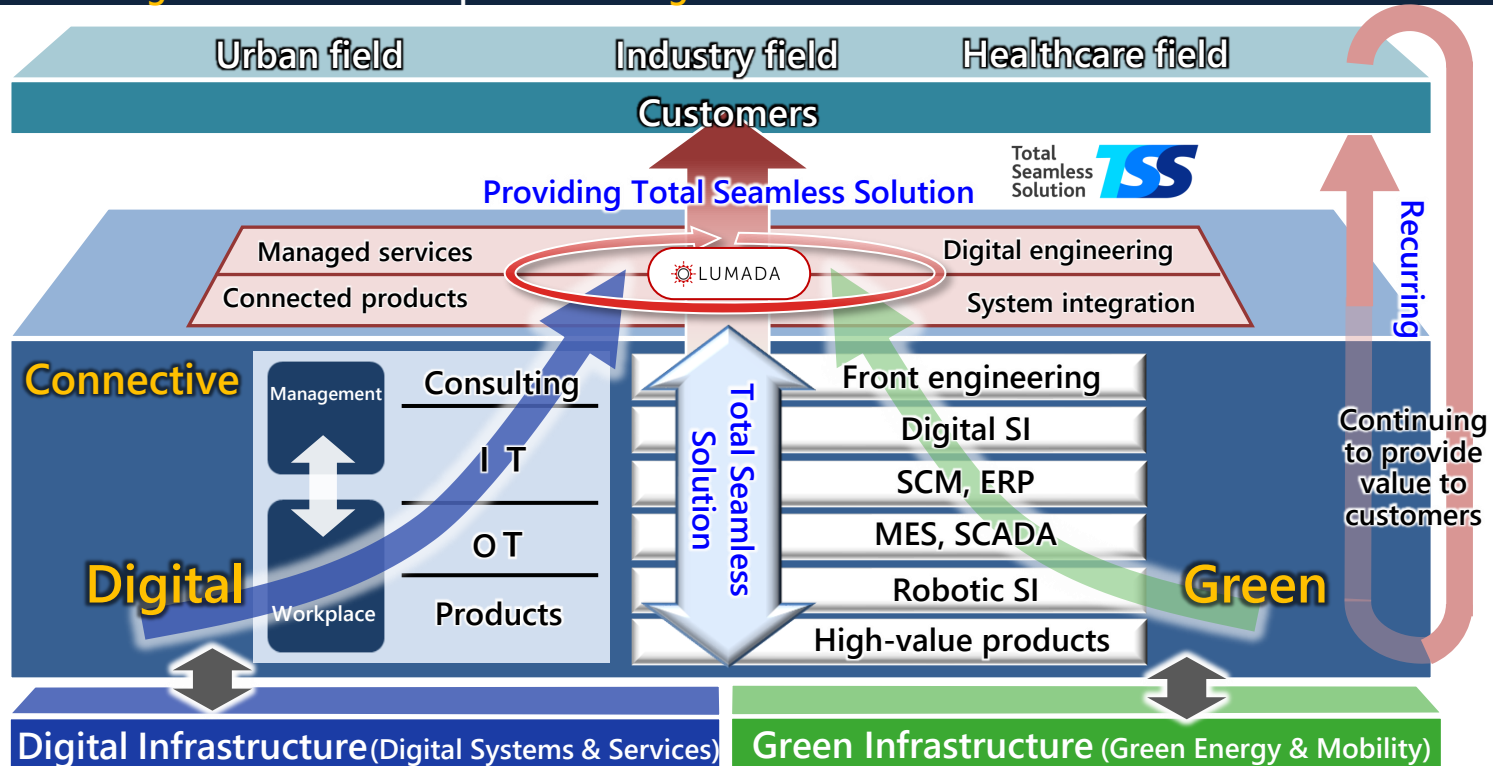
- Strengthen the development of next-generation measurement and analysis technologies
- Strengthen the solution development of diagnostic x therapeutic x digital

Urban field

- Strengthen development of elevators and escalators, and smart building solutions
- Advancement of connected products and services

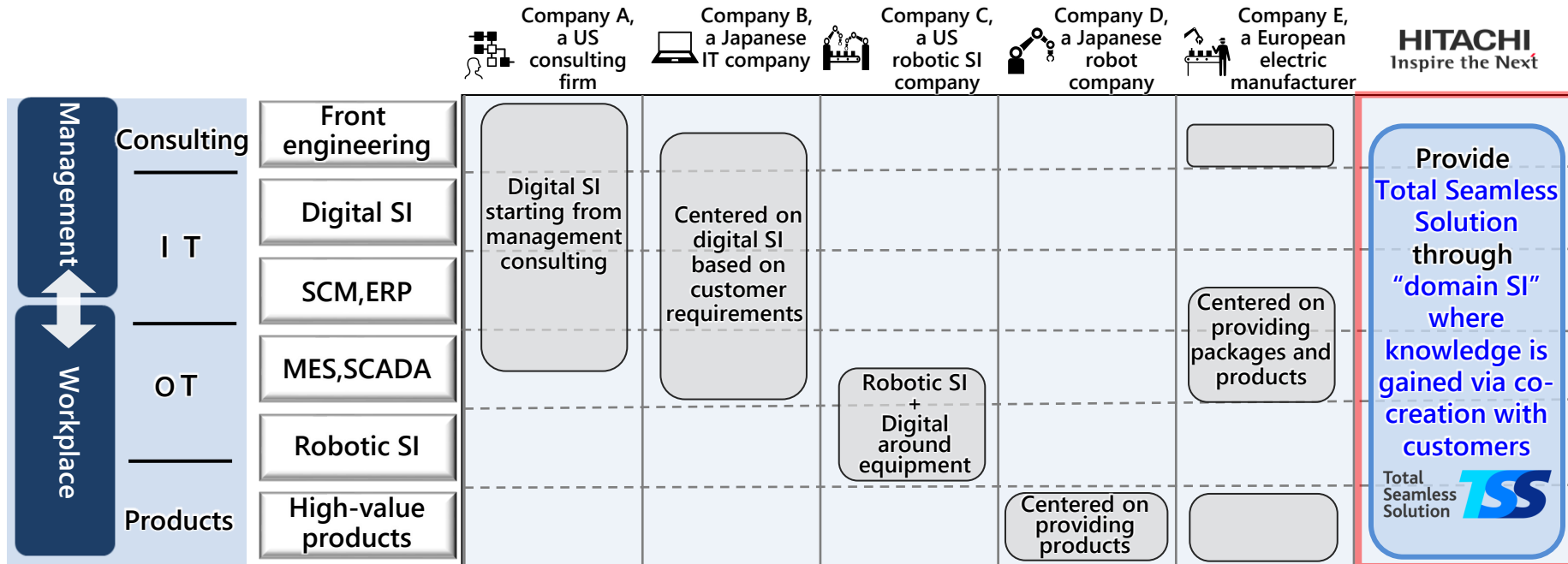
1-4. Basic Policy for Connective Strategy

- Provide **Total Seamless Solution** that connect **Products x OT x IT** to maximize customer value
- Evolve and expand **Total Seamless Solution** cultivated in the industry field to **urban and healthcare fields** using **Lumada framework** for co-creation with customers
- Strengthen recurring businesses and expand from **Digital into Green** with **Total Seamless Solution**



1-5. Differentiation Strategy by Total Seamless Solution

- In a rapidly growing complex social environment, it will become important to solve issues through **"domain SI"** where **knowledge is gained through co-creation with customers**
- Hitachi will connect workplace and management by **utilizing its unique technology and vast experiences in various industries at all layers**
- Strengthen differentiation from other companies by developing and evolving Total Seamless Solution that connects and creates differences



(Note) The above was plotted with a focus on the industry field. The trends are similar in the healthcare and urban fields.

2. Business Strategy of Connective

2-1. Intensive Actions in the Connective Strategy

- Three key actions taken based on the basic policy of the Connective strategy

1 Evolution and expansion of Total Seamless Solution (TSS)

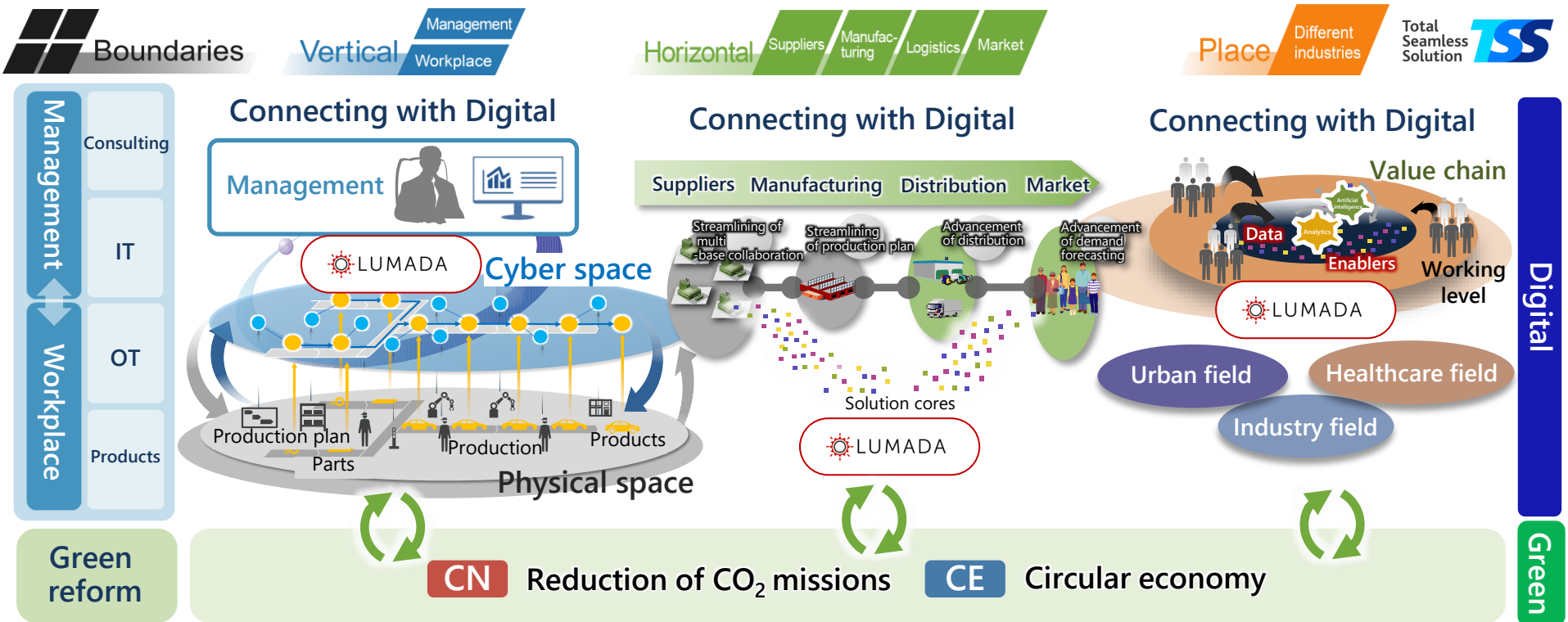
2 Strengthen recurring business

3 Development for Global Growth



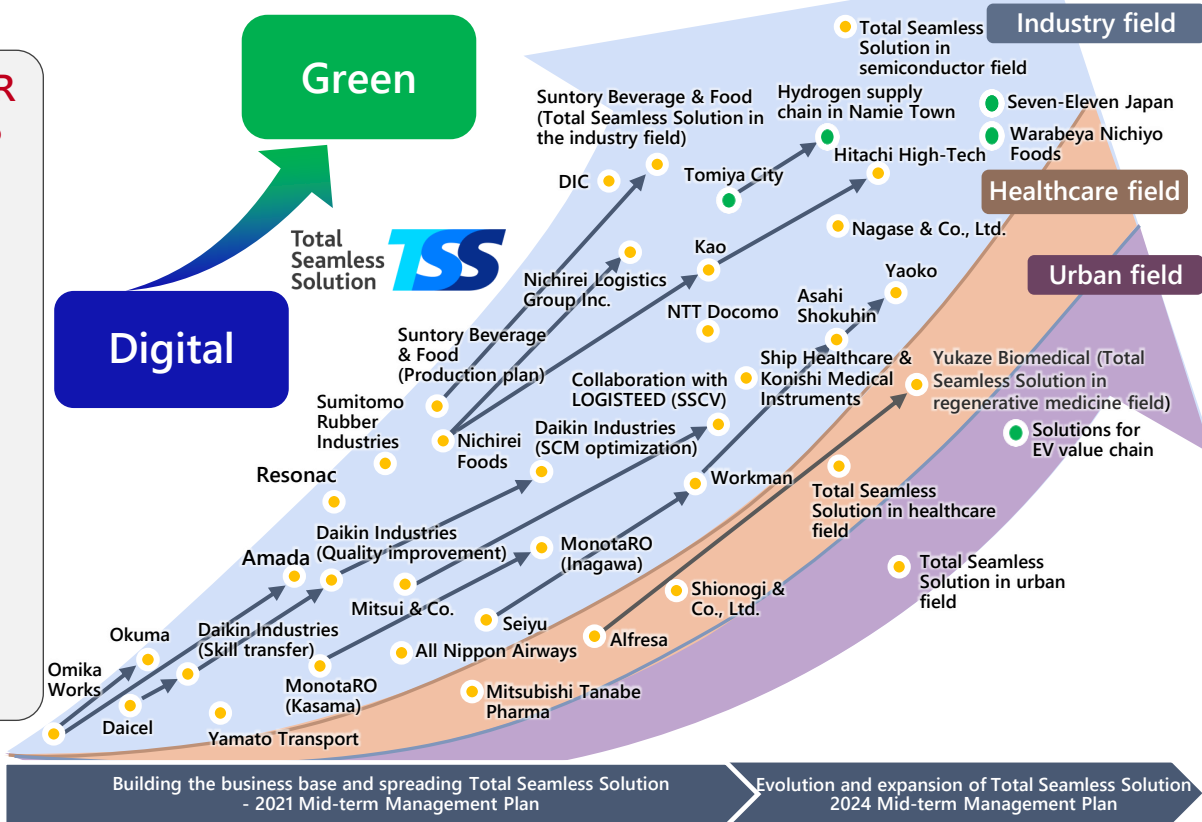
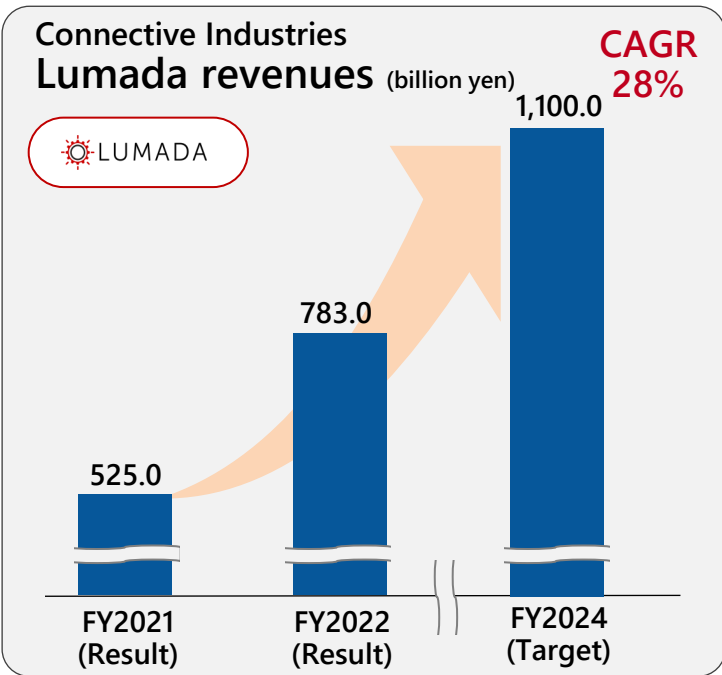
2-2-1. Total Seamless Solution Applied to Boundary Issues

- Capitalize on the strength of Products x OT x IT to solve boundary issues through co-creation with customers
- Solving vertical and horizontal boundary issues will also be important in green reform. Further, it will be even more important to provide "places", where different fields connect with each other



1 Evolution and expansion of TSS
2-2-2. Expansion of Total Seamless Solution with Lumada Framework for Co-Creation with Customers

Accelerate the development of **Total Seamless Solution**, which we have been expanding in the industry field, to a broader range of fields and further into the **green domain**



2-2-3. Examples of Specific Initiatives for Evolving Total Seamless Solution

Expand Total Seamless Solution that have been provided in the industrial field to other fields including green

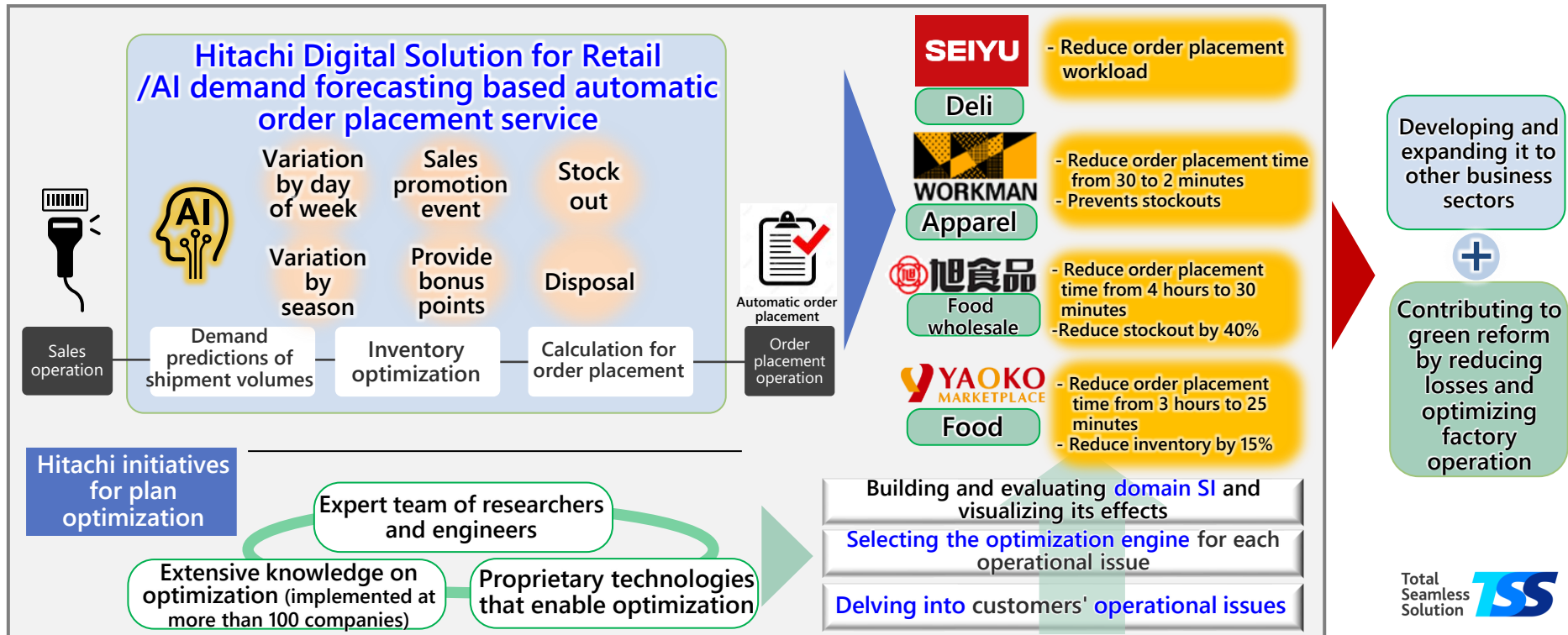


- | | | |
|---|--|---------|
| 1 | Development and Expansion of AI Demand Prediction Solutions that Connect Sales Workplaces with Markets | Digital |
| 2 | Reform and Evolution of Distribution and Delivery Operations Based on AI and Digital Technologies | Digital |
| 3 | Initiatives in the Healthcare Field | Digital |
| 4 | Making the Retailing Supply Chain Carbon Neutral | Green |
| 5 | Developing Solutions for Carbon Neutrality Centered on EVs | Green |
| 6 | Initiatives to Build a Hydrogen and Ammonia Supply Chain | Green |

2-2-4. Development and Expansion of AI Demand Prediction Solutions that Connect Sales Workplaces with Markets 1



- Optimizing order placement with AI demand prediction, thus preventing stockouts while reducing losses
- Enabling plan optimization for each operational issue by taking advantage of **extensive knowledge on expert teams, and proprietary technologies**



1 Digital Evolution and expansion of TSS

2-2-5. Reform and Evolution of Distribution and Delivery Operations

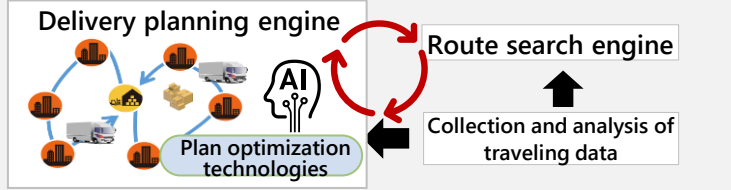
Based on AI and Digital Technologies 2



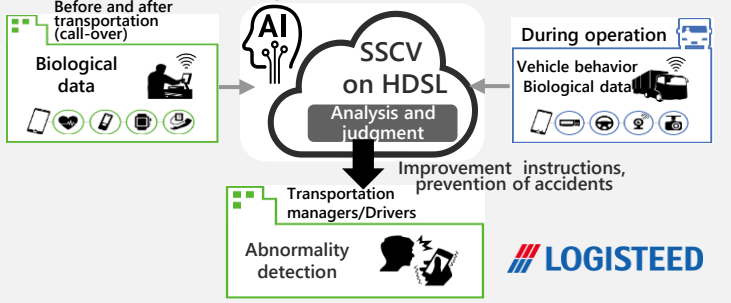
- By combining Hitachi's unique planning optimization technology and knowledge of logistics operations, Hitachi will reform logistics operations through delivery optimization and safe operation management. Provide platform of delivery sharing that connect "places" between companies
- Aim to contribute to green by expanding "places" between companies and improving logistical efficiency

Reforming delivery and transportation operations

Delivery optimization Automatic suggestion of the most efficient delivery plan and route with plan optimization technologies



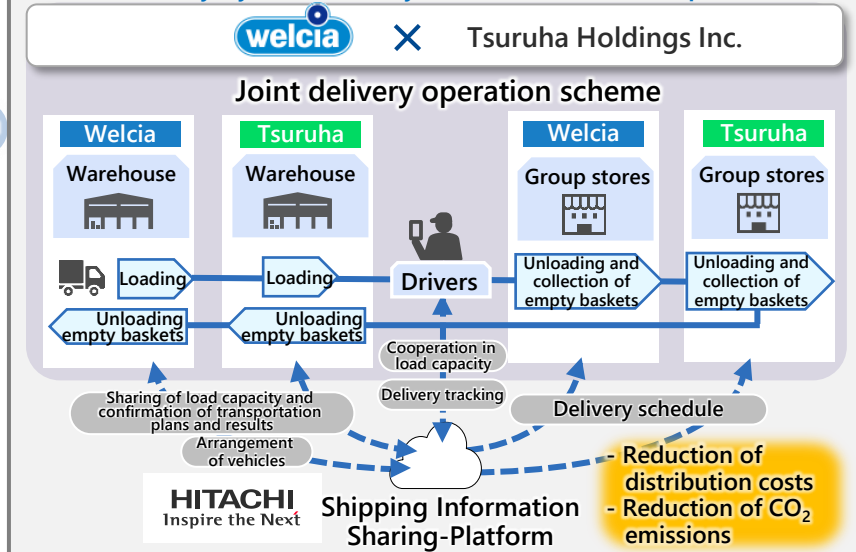
Safe operation management Data on drivers' physical conditions and traveling data are analyzed in collaboration with LOGISTEED to prevent accidents



Evolution into joint delivery that connects "places" between companies

Delivery sharing

- A platform that supports joint delivery beyond the boundaries between companies
- Joint delivery by Welcia Yakkyoku and Tsuruha Group



Expansion of "places" between companies

Contributing to green reform by improving distribution efficiency

2-2-6. Initiatives in the Healthcare Field 3

- Develop and deploy OT solutions through co-creation with customers, based on industry-leading products in diagnostics, therapy, and regenerative medicine
- Using IT to develop Total Seamless Solution across the entire value chain, improving patient QoL and reducing the burden of medical expenses

Diag-
nostics



**Clinical chemistry/
immunological test**

- Expand testing area through collaborative creation with customers and deepening technology

Roche Fujita Academy

- Reagent operation support and automation of the entire clinical examination with laboratory optimization solution

Molecular diagnostics

- Use genetic information for precision medicine

Investment in Invivoscribe, Inc. and Nabsys, Inc.



**Diagnostics x therapy
x digital technologies**

- Medical optimization by digitally connecting diagnostics and therapy

Prediction of high-risk patients

Prognostic prediction

Support for the selection of therapy

Integration of medical data AI and analytics

Joint research with the University of Utah

The-
rapy



Particle therapy

- Pursue minimally invasive therapy with real-time image gating
- Save space by combining with the upright patient positioning system

University of Wisconsin Health

- Advance therapy by combining therapeutic data with clinical experience of Gunma University
- Reduce downtime with remote maintenance

Joint research with Gunma University

**Value Chain
of regenerative medicine**

- Value Chain Traceability Service for Regenerative Medicine (including cell information tacking management)

alfresa

由風バイオメディカル

Pharma-
ceuticals
(Regenera-
tive
medicine)



Regenerative medicine

- Higher performance and capacity for cell culturing
- Increase the types of cells that can be cultured automatically

Co-creation with Rebirthel

- Automate and streamlining overall cell production with automated cell culture equipment, CPC, and MES
- Support service for cell production process development

Co-creation with Axceed

Product: Development of competitive products

OT: Products × operation support

IT: Optimization of diagnosis and therapy

Total Seamless Solution **TSS**

2-2-7. Making the Retailing Supply Chain Carbon Neutral 4

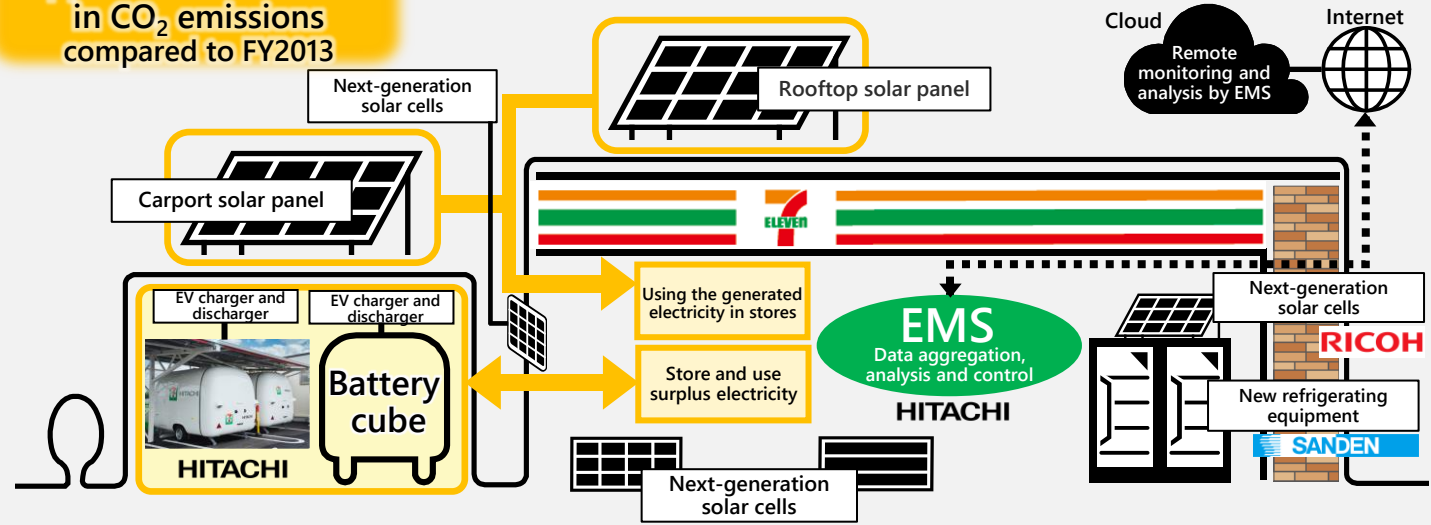
- Make stores and factories carbon-neutral by combining Hitachi's strengths in control technology and products, and using its engineering capabilities to connect them
- Expand CN to the entire retail supply chain through co-creation with various customers

Connective
X
Digital

Demonstration test of environmentally friendly Seven-Eleven store
(energy conservation, energy creation, and energy storage)



Approx. 70% reduction
in CO₂ emissions
compared to FY2013



Battery cube
(Battery system used to reuse EV batteries)

EMS
(Energy management system)

Engineering for optimizing
air-conditioning and
refrigeration equipment

Making a home meal replacement food factory for retailers carbon neutral



Seven-Eleven's vendor for home meal replacement foods



Implemented EMS to reduce CO₂ emissions from Shin-Iruma Plant

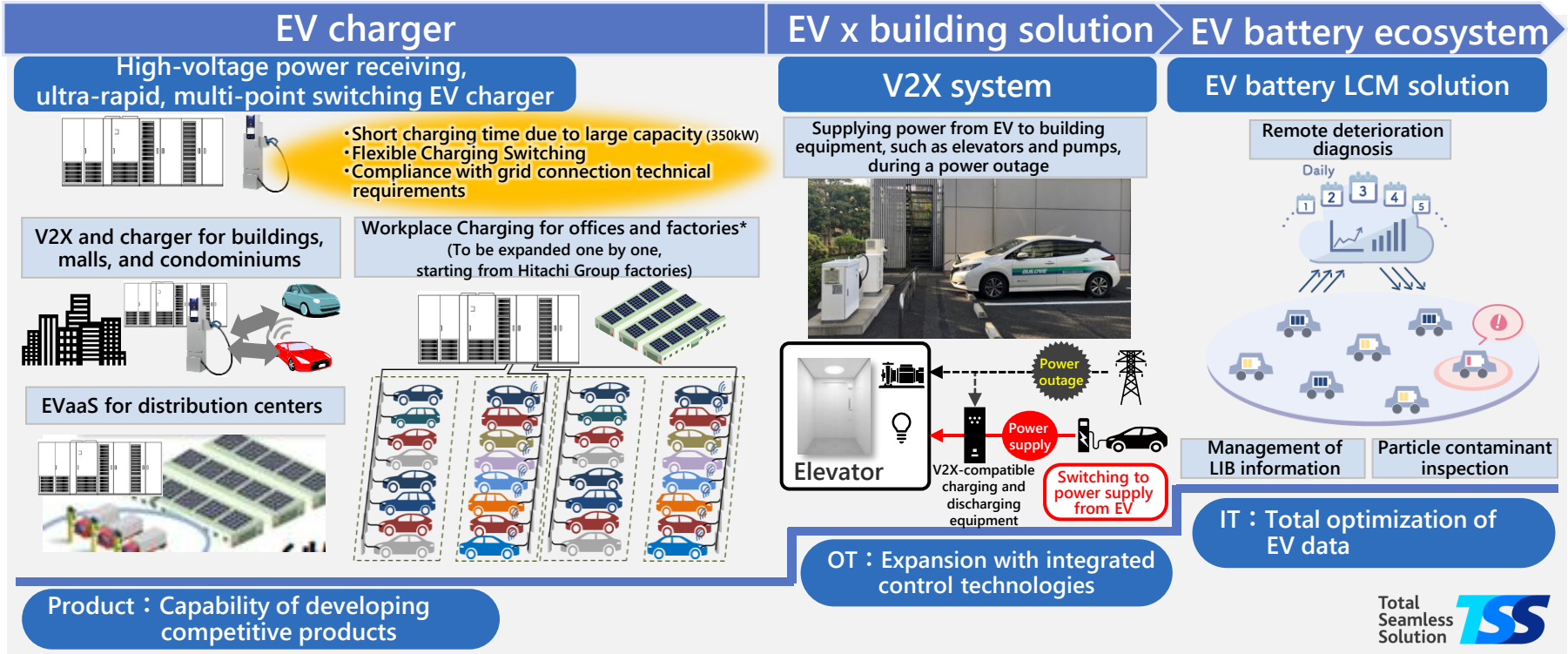
Expanding carbon neutrality to the entire retailing supply chain

Total Seamless Solution **TSS**

2-2-8. Developing Solutions for Carbon Neutrality Centered on EVs 5

Connective
Digital
Green

- Develop **EV chargers** for buildings, malls, condominiums, offices, factories, and distribution centers based on a **wealth of power electronics technologies**
- Develop **V2X system** that enhances building resilience using **our extensive product knowledge and diverse customer base**, and an **EV battery LCM solution** that utilizes **diagnostic and analysis technology**. Deploy these solutions and systems throughout the EV value chain

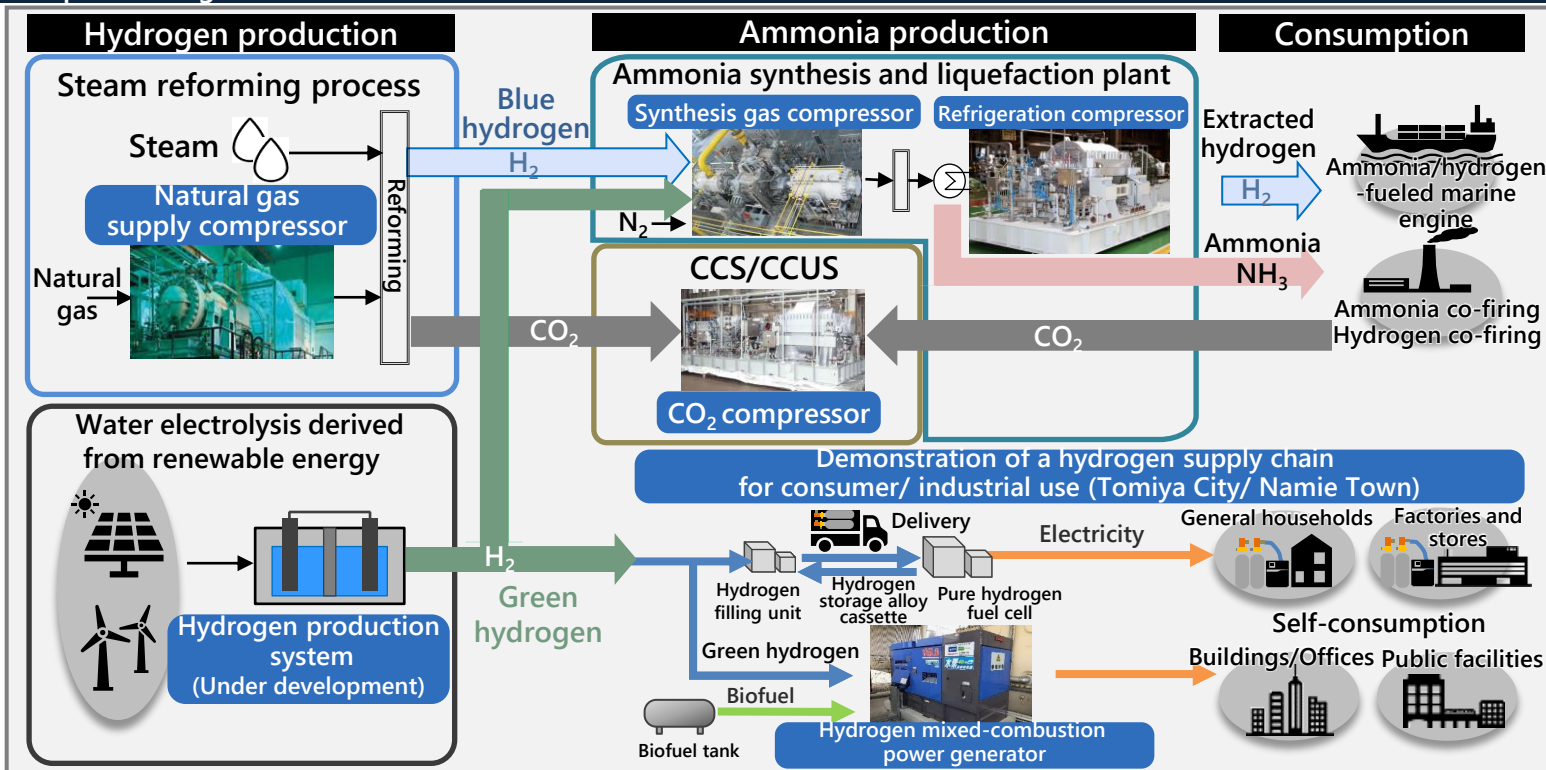


V2X: Vehicle to X EVaaS: EV-as-a-Service LCM: Life Cycle Management LIB: Lithium Ion Battery

* Workplace Charging: Chargers are installed in the office and factory. Employees charge their EVs during work hours and reduce CO₂ during commuting to work.

2-2-9. Initiatives to Build a Hydrogen and Ammonia Supply Chain 6

- Through extensive knowledge cultivated through diverse processing experiences and global implementations, develop and expand large-scale compressors for hydrogen/ammonia production and CCS/CCUS
- Lead the development of a CN and hydrogen society by creating solutions that build hydrogen supply chain, which is expected to grow in the future

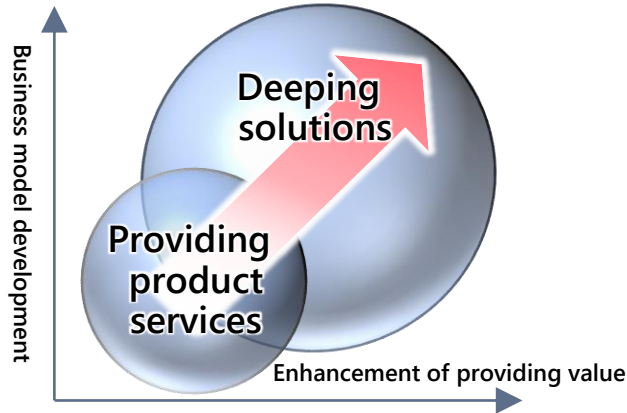


Enhancing key products and solutions

Realizing CN and hydrogen society through hydrogen and ammonia supply chain

2-3-1. Growth Strategy for Recurring Businesses

- Evolve and expand the recurring businesses through **horizontal deployment and sharing recurring business expertise between the businesses**
- Strengthen the Connective Industries business foundation by **providing sustainable value to the customers**



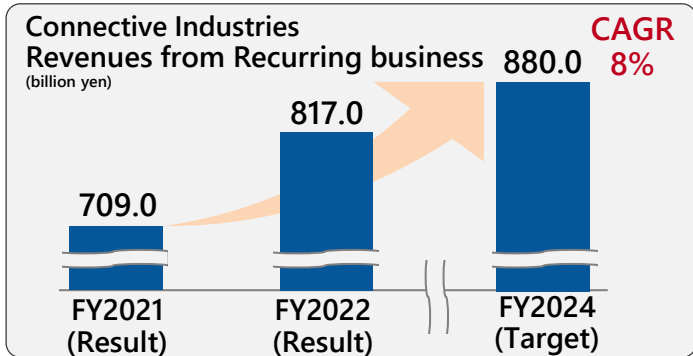
Service

Providing product services
Leading-edge after-sales services driven by data created by 900,000 units of connected products



Solution

Deepening solutions
Continue the development of solutions, and deepen the recurring business knowledge in order to meet new customer demands

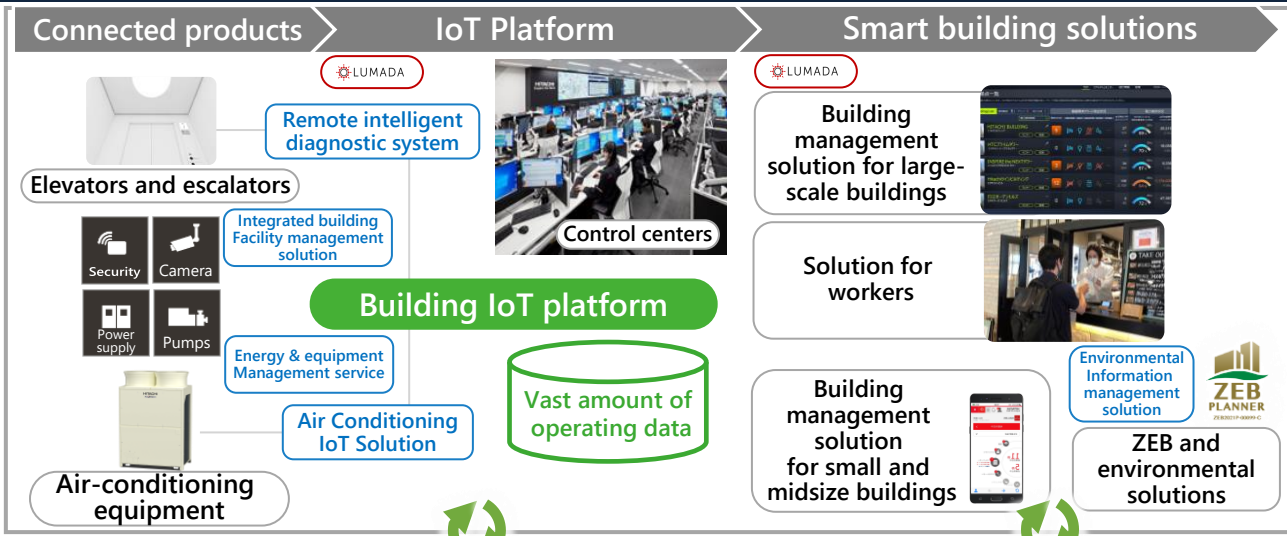


2 Strengthen recurring business

2-3-2. Evolving Recurring Services by Developing Smart Building Solutions

Connective
Digital
Green

- Integrate and strengthen advanced applications by gathering operational data and knowledge from the **leading products and IoT maintenance services in Japan**
- Evolve recurring services by **developing smart building solutions that cover the entire building**



Vast amount of data created from **900,000 units (FY2022)** of connected products

Evolve recurring services by developing smart building solutions

Integrate and strengthen advanced applications on the IoT platform

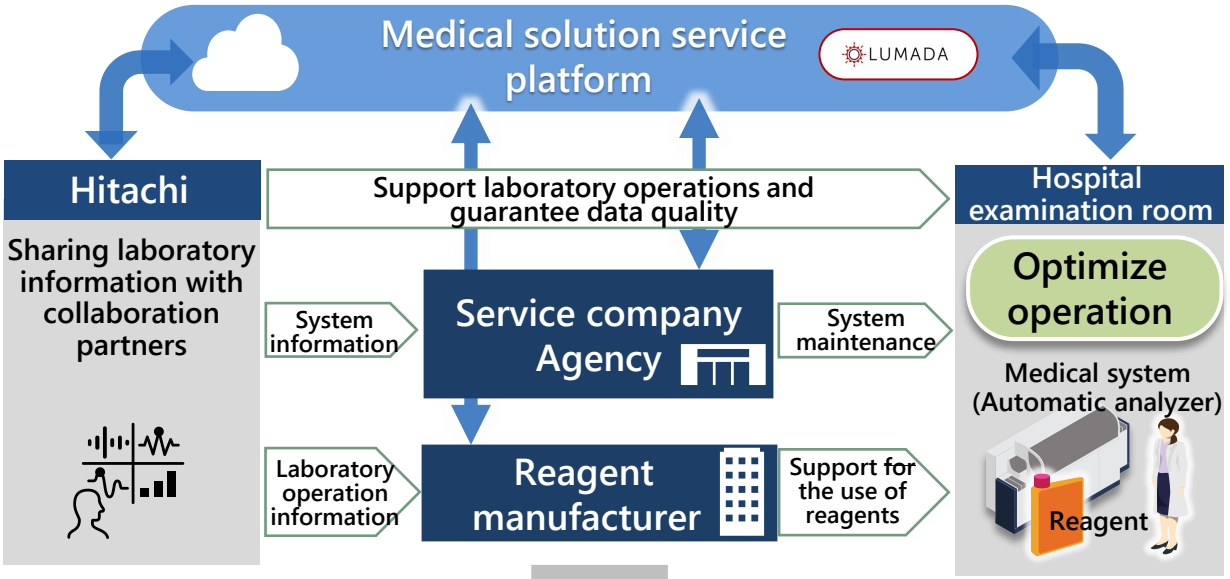
<p>Recurring service applications</p>	<p>Predictive maintenance</p> <p>Early signs of elevator breaks failure</p> <p>95% or more accurate</p>	<p>Automating failure cause analysis</p> <p>AI analysis, faulting device estimation, repair instructions</p> <p>Failure monitors Status sensors</p> <p>Daily failure reports (800,000 items) ...</p>	<p>Connected data analysis and recommendation service</p> <p>電気料金改善のお知らせ</p> <p>Energy-saving checkups</p> <p>Parts replacement recommendations</p>	<p>As a Service</p> <p>Asset management service</p> <p>Operation monitoring ...</p>
	<p>© Hitachi, Ltd. 2023. All rights reserved.</p>			

2-3-3. Co-creation of Recurring Businesses with Customers and Partners

- Optimize the hospital laboratory operation by creating "places" to share laboratory information from industry-leading products with customers/partners
- Create recurring businesses with advanced solutions, such as equipment predictive maintenance and remote support, and deploy them horizontally beyond the boundaries between customers and regions



Total Seamless Solution for "places" that combine medical examination equipment and digital technologies



Improve laboratory operation efficiency by providing support applications and remote data collection and delivery via the platform

Create recurring businesses with advanced solutions, such as equipment predictive maintenance and remote support

Horizontal deployment beyond the boundaries between customers and regions

Operations commenced in South Korea. To be expanded to other regions one by one.



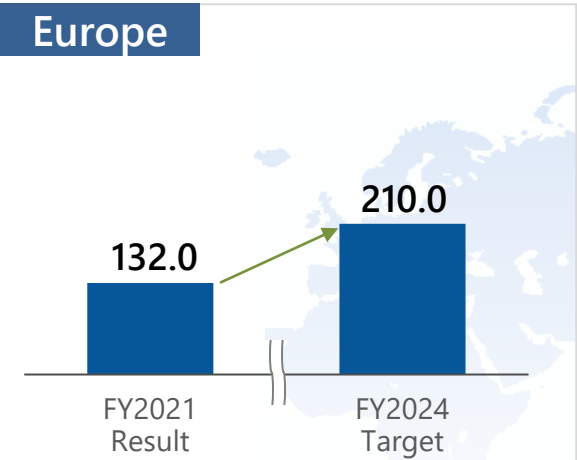
3. Development for Global Growth

3 Development for Global Growth

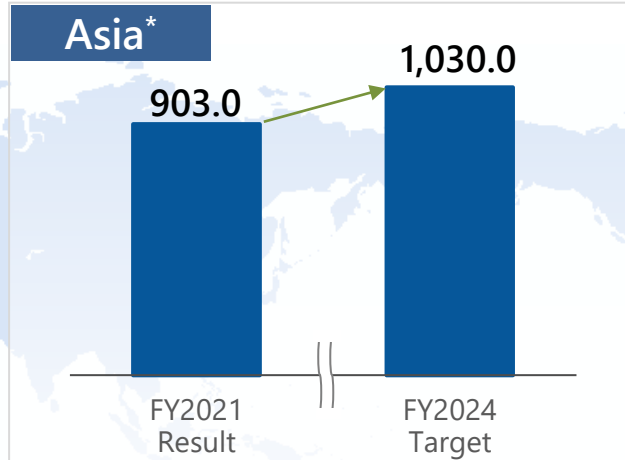
3-1. Growth of Global Businesses

- **Increasing the global revenue ratio** by focusing on key markets: 47% in FY2021 → 52% in FY2024
- **In North America**, aim for CAGR 15% increase by **strengthening key businesses, including investments**

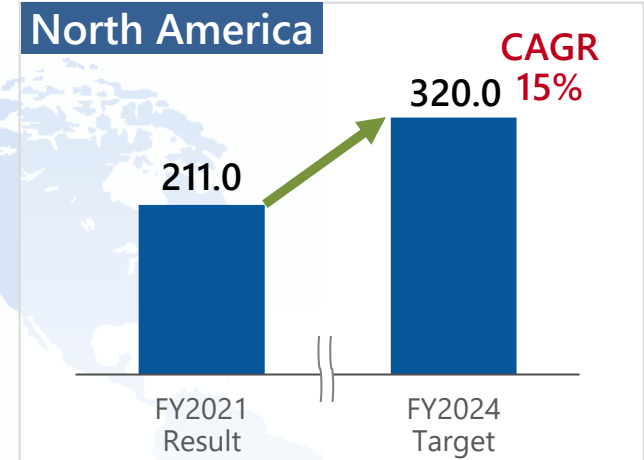
● Connective Industries Global Businesses



- Healthcare field**
 - Expanding the clinical chemistry/immunological test domain by strengthening the partnership with Roche
- Industry field**
 - Strengthening high-value products



- Urban field**
 - Elevators and escalators: maintain a firm grip on the top market share in China and strengthen the recurring business with a focus on maintenance services and modernization
- Industry field**
 - Semiconductors: Deepening co-creation at sites near customers



- Industry field**
 - Manufacturing: Accelerating the development of Total Seamless Solution with product/robotic SI and digital technologies
 - Semiconductors: Deepening co-creation at sites near customers
- Healthcare field**
 - Strengthening diagnostic, therapeutic, and digital technologies

Figures: revenue Unit: billion yen * Except for Japan

3-2. Development for Global Growth

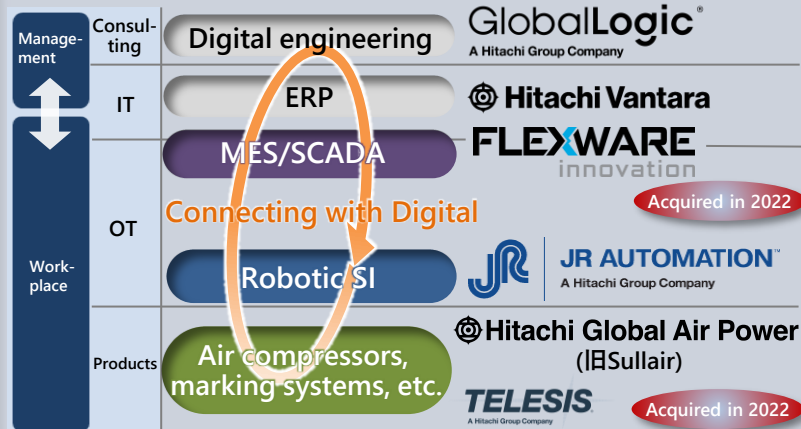


- Accelerate the development of Total Seamless Solution through M&A activities in manufacturing and deepening co-creation with customers in semiconductor space.
- Strengthen diagnostic, therapeutic and digital technologies centering on the development of the molecular diagnostics business and particle therapy systems in healthcare

Industry field (manufacturing)

Accelerate the development of Total Seamless Solution in North America by strengthening the integration of product/robotic SI and digital technologies, a business which the foundation was built through M&A

Accelerating the development of Total Seamless Solution



Industrial field (semiconductors)

Deepening co-creation with customers by utilizing bases near global customers, strengthening semiconductor manufacturing and measurement equipment with digital

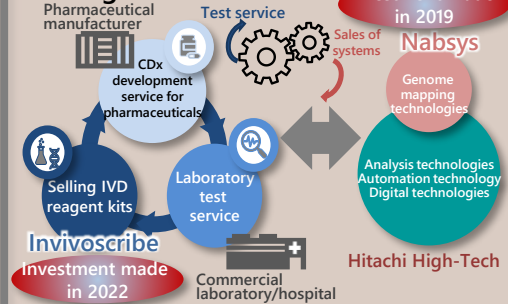
Creating solutions to solve customer issues



Healthcare field

Focusing on North America, strengthening diagnosis, treatment, and digital for the molecular diagnostics business and particle beam therapy systems.

Initiatives in the molecular diagnostics business



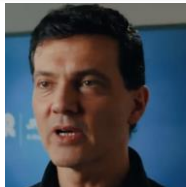
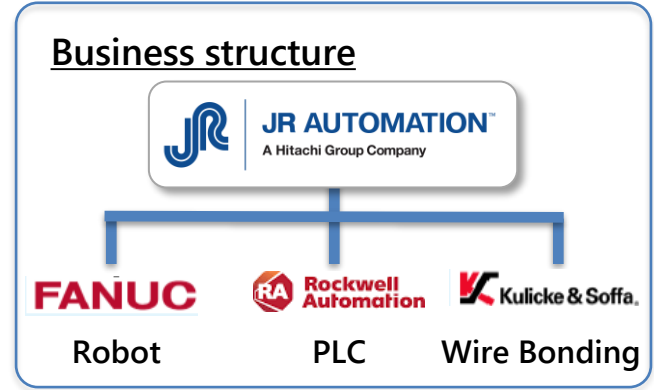
Developing particle therapy

Global development through co-creation with top KOLs



3-3. Co-creation of EV Battery Mass Production Line in North America

- For Lion Electric, a major EV manufacturer in North America that manufactures EV school buses, JR Automation, which **possesses advanced robotic SI technologies**, developed EV battery prototyping and full production lines and headed the project as the main contractor
- Launched** a safe, highly efficient, and high-performance **production line on time** through collaboration with both companies



“There was no time for this project to maintain traditional way of making automotive products. We had to get the product right, the process right, the suppliers right at the first try. With such a constraint, we worked together with JR Automation, which were able to integrate, and learn and work together and hit the timeline.” - DIEGO CASTRO

Battery Plant General Manager, Lion Electric



4. Conclusion

Connective Industries

Connecting
data, value, industry, and society.

Total
Seamless
Solution **TSS**

- Evolution and expansion of Total Seamless Solution using Lumada framework for co-creation with customers
- Strengthen recurring business
- Accelerate global growth

Become a sustainable value creator by co-creation with customers

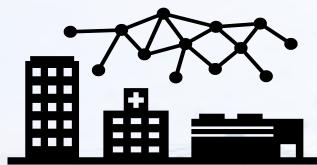
A woman with her back to the camera, wearing a bright yellow jacket, stands on a green hillside. In the background, there are several white wind turbines. To the right, a dense city skyline with various skyscrapers is visible. The entire scene is overlaid with a blue network of glowing nodes and connecting lines, symbolizing technology and innovation. The sky is a clear, vibrant blue.

Hitachi Social Innovation is
POWERING GOOD

Connective Industries

Connecting
data, value, industry and society.

Total
Seamless
Solution **TSS**



Revenue **2.9 Trillion yen**
Adjusted EBITA ratio **10.5%**



Overseas Revenue Ratio
50%



North American Revenue
259.0 Billion yen



Digital talent
5,600



Lumada Revenue
783.0 Billion yen



Recurring Business Revenue
817.0 Billion yen



Number of Products'
Connections
900,000 units

Boost issue-solving capabilities and generate new value through integrated management of strong products and digital solution in the sector

Connective Industries

Masakazu Aoki
Executive Vice President and Executive Officer



Urban Gr.

Building Systems BU



Shinya Mitsudomi
CEO

Hitachi Global Life Solutions



Hideki Osumi
President



Jia Yuhui,
China Head,
Building Systems BU
and
President, Hitachi
Elevator (China)



Sia Tuck Seng Victor,
Asia Head and CMO,
Building Systems BU

Advanced Technology Gr.

Healthcare, Measurement & Analysis Systems Business

Hitachi High-Tech



Takashi Iizumi
President



Craig Kerkove,
President & CEO,
Hitachi High-Tech
America



Dawn Brooks
Managing
Director, Hitachi
High-Tech
Analytical Science

Industry Gr.

Industrial Digital BU



Kazunobu Morita
CEO

Water & Environment BU



Hideshi Nakatsu
CEO

Industrial Products Business

Hitachi Industrial Products



Keizo Kobayashi
President and Director

Hitachi Industrial Equipment Systems



Yasuhiro Takeuchi
President and Director



JR Automation
CEO
Craig Ulrich



Hitachi Global Air Power
President & CEO
John Randall

Providing solutions in many fields through Strong Product x Digital



		Urban Gr. (Building systems, home appliances, air conditioning field)	Advanced Technology Gr. (Healthcare, semiconductor field)	Industry Gr. (Industry field)
Management control system	IT	AI	Analytics	Cloud
		Big data processing	Security	
	OT	ERP		
Workplace system	IT	People flow analysis	Energy optimization	Facility management
		Disease progression prediction	Therapy planning	Prediction of therapy effects
	OT	Prognostic prediction		
Products	IT	Control centers	Quality control	Cultivation optimization
		Remote monitoring and maintenance services	Predictive maintenance	Remote maintenance
	OT	Various forms of management supporting GMP		
Products	IT	Building IoT platforms		
	OT	Next-generation utilities		
Products	IT	Robotic SI		
	OT	Remote monitoring service		
Products	IT	Air compressor	Process compressor	Transformer
		Marking system	Automated guided robot	Industrial PC
	OT			

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 report.

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, 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;
- 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;
- credit conditions of Hitachi’s customers and suppliers;
- 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 Hitachi’s ability to respond to tightening of regulations to prevent climate change
- 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;
- uncertainty as to Hitachi’s ability to attract and retain skilled personnel;
- 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;
- exacerbation of social and economic impacts of the spread of COVID-19;
- 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;
- estimates, fluctuations in cost and cancellation of long-term projects for which Hitachi uses the percentage-of-completion method to recognize revenue from sales;
- increased commoditization of and intensifying price competition for products;
- fluctuations in demand of products, etc. and industry capacity;
- uncertainty as to Hitachi’s ability to implement measures to reduce the potential negative impact of fluctuations in demand of products, etc., exchange rates and/or price of raw materials or shortages of materials, parts and components;
- uncertainty as to the success of cost structure overhaul;
- 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;
- 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;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property; 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 elsewhere in this report and in other materials published by Hitachi.