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Hitachi Investor Day 2024

Connective Strategy

June 11, 2024

Jun Abe

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

Self Introduction

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

Jun Abe

- Joined Hitachi and engaged in database software development and the data storage business
- Jointly researched with the University of Tokyo on big data acceleration
- Engaged in OT data touchpoints in the control platform business and the industry and distribution business
- Led the management of Hitachi Vantara and the PMI of JR Automation and GlobalLogic
- Consistently involved in data handling and delivering value to customers since joining Hitachi

- Achieve new growth by transforming business groups with industrial products at their core with digital technology
- Strive for increasing the productivity of frontline workers by utilizing digital technologies, such as generative AI and the industrial Metaverse, in response to various social issues such as securing laborforce and skill inheritance

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1. Progress and Results of the 2024 Mid-term Management Plan

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Improvement of Profitability

- In FY2024, all Business Units and Business Unit-equivalent group companies are expected to achieve an Adj. EBITA ratio surpassing 10%, due to strengthening Lumada and recurring businesses.

	Building Systems BU	Hitachi Global Life Solutions	Hitachi High-Tech	Industrial Digital BU	Water & Environment BU	Industrial Products Business
FY2023 (Results)	10.5%	9.3%	11.0%	11.4%	10.3%	11.3%
FY2024 (Forecast)	11.3%	11.0%	12.1%	12.0%	11.3%	11.7%

Creation of Synergy between BUs

- Strengthening integrated operations

Expand Total Seamless Solution[*1] through Products x OT x IT

Lumada revenues: 877 Billion yen (FY2023) → 1,100 Billion yen (FY2024 Forecast) CAGR[*2] 28%

Risk Management

- Responses to the real estate recession in China

Secure profit by offsetting the decrease in orders for new elevator and escalator construction with the increase in renewal and maintenance services

Upfront Investment

- Preparation for the recovery of semiconductor manufacturing

Develop customer co-creation sites and invest capital in the semiconductor manufacturing field ahead of its rapid recovery and growth starting in or after the later half of FY2024

*1 "Total Seamless Solution" is a registered trademark of Hitachi, Ltd. in the U.S. and Japan.
*2 CAGR from FY2021 to FY2024

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2-1. Opportunities for Growth in Connective Industries

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Seize the rapidly growing market in the industry field driven by DX and GX

Target markets TAM	Factory 310 Billion USD	Laboratory 130 Billion USD	Building 390 Billion USD
Technologies	Line building Process control Utility supply (Water, Air, Power)	Measurement/ analysis/processing Automated cell culturing	Air-conditioning /cooling Particle therapy Indoor transportation (Elevators, Escalators, AGV)

Manufacturing field

High growth driven by generative AI
- Semiconductor manufacturing

High growth driven by electrification
- Battery manufacturing

Healthcare field

High growth driven by biotechnology
- Molecular diagnosis
- Biopharmaceutical manufacturing
- Precision medicine
- Minimally invasive therapy

Service field

High growth driven by energy shortages
- Green buildings

High growth driven by resource depletion
- Circular economy

TAM : Total Addressable Market AGV : Automated Guided Vehicle

2-2. Basic Policy for Obtaining Opportunities for Growth

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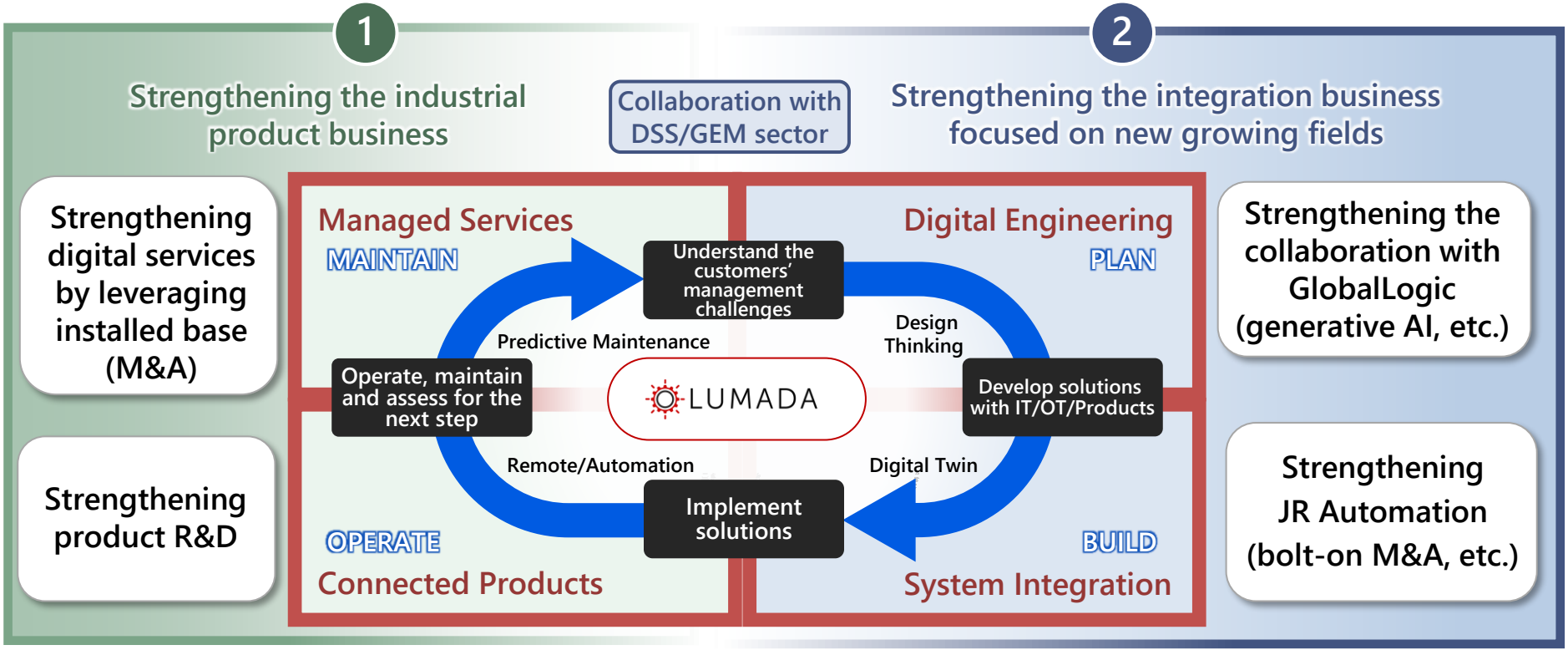
Expand Lumada business by strengthening "Industrial products + Integration for the target markets"



2-3. Expansion of Growth Investments

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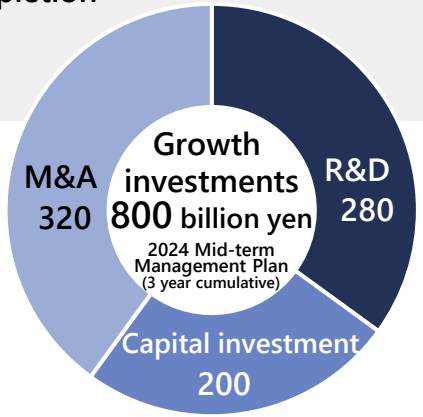
In FY2024, focus investments on high-growth fields to put us on a new growth trajectory

	Previous investments	Future major investments
M&A	● Robotic SI bolt-on (Flexware Innovation(MES/SCADA), MA micro automation (Robotic SI) ● Product enhancement (Telesis Technologies (marking), air compressor sales companies)	● Manufacturing field expanding by generative AI and electrification ● Healthcare field expanding by biotechnology ● Service field affected by power shortages and resource depletion
R&D	● Digital (Enhancement of CPS-related solutions in the FA and logistics fields) ● Wellbeing (Regenerative medicine, solutions for pharmaceutical product manufacturing, biotechnology, etc.) ● Green and recurring (Technology to improve efficiency, etc. for environmentally compatible products)	
Capital inves-tment	● Development of co-creation sites ● New production facility for semiconductor manufacturing equipment in Kasado area	

Manufacturing line in the medical field by MA micro automation GmbH

Render of the new production facility of Hitachi High-Tech in Kasado area



CPS : Cyber-Physical System

2-4. Expansion of Semiconductor Manufacturing Using Generative AI

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Provide solutions to improve productivity by using data from metrology, inspection and analysis equipment that are among the best class in the industry.

Semiconductor market*1 600 Billion USD (2021) ↗ 1,000 Billion USD (2030)

Target region North America, Asia

LUMADA

Process, metrology, inspection & analysis equipment

×

Customer data

×

Digital

- CD-SEM*2
- Etch system
- Optical inspection system
- Analysis system

Collaboration sites located near customers (3 global sites)

Integrated data platform (seamless integration & linking of the product data)

GlobalLogic A Hitachi Group Company Optimization of data platform

- Visualization of conditions & predictive maintenance
  Target: Tool down time reduction by 80% than before
  (Data collection～analysis～countermeasures)
- Integrated data viewer & automatic cross-section measurement
  Target : Development time reduction by 50% than before
  (Investigation～etch～analysis～evaluation results)

Global share 1st to 3rd place (Hitachi source)

*1 McKinsey, Exploring new regions: The greenfield opportunity in semiconductors
*2 Critical Dimension-Scanning Electron Microscope

2-5. Expansion of Battery Manufacturing Driven by Electrification

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Improve efficiency of mass production through robotic SI and digital technologies based on strong inspection and analysis equipment

Battery market* 85 Billion USD (2022) ↗ 400 Billion USD (2030)

Target region North America, Japan

LUMADA

Manufacturing & inspection Equipment

Contaminant inspection system (Hitachi advanced solution)
Electronic microscopes Cross-section processing equipment
Roll presses Clean environments and extra-low dew-point control

×

Robotic SI

Automated line building MES

×

Digital

Battery lifecycle management

GlobalLogic A Hitachi Group Company Solution development partner

- Early launch of mass-production processes
- Reduction of production costs
- Establishment of a recycling-oriented value chain

MES: Manufacturing Execution System

* McKinsey, Battery 2030: Resilient, sustainable, and circular

2-6. Example of Robotic SI for Battery Module Mass Production Lines in North America

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MOXION × JR AUTOMATION® A Hitachi Group Company

JR Automation built battery module mass-production lines through co-creation with Moxion Power, US.

2-7. Expansion of Biopharmaceutical Manufacturing Driven by Biotechnology

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Early start-up of manufacturing processes by utilizing proven cultivation products, industry domain knowledge and digital technologies

Biopharmaceutical market* 265 Billion USD (2019) ↗ 570 Billion USD (2027) Target region North America, Japan

LUMADA

Cultivation products

Cultivation tank (one of the best track records in Japan)
Automated cell culture equipment Cell processing facility
GlobalLogic (A Hitachi Group Company) Advancement of fermentation simulators

×

Domain knowledge to address regulation

Know-how and expertise in the biopharmaceutical industry

×

Digital

MES/LIMS (one of the best track records in Japan)
Platform of value chain traceability service for regenerative medicine
Biomarker search service (AI-based) Mission-critical information system

- Shorten the time needed for drug development and clinical trials
- Reduction of production costs

Example users: Daiichi-Sankyo, Sumitomo Pharma (Innovation today, healthier tomorrows), SHIONOGI, alfresa, 由風BIOメディカル (Yukaze BIO Medical)

LIMS: Laboratory Information Management System VC: Value Chain PF: Platform
* Based on EvaluatePharma's "World Preview 2020", Mitsubishi UFJ Research and Consulting Co., Ltd. and some Hitachi research

2-8. Expansion of Molecular Diagnostics, Precision Medicine and Minimally Invasive Therapy Driven by Biotechnology

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Advance cancer treatment using digital technologies based on strong diagnostics and therapy equipment.

Cutting-edge medical market *1: 50 Billion USD 2023 → 90 Billion USD 2030

Target region: Europe, North America, Japan, Asia

LUMADA

Diagnostics
- Clinical chemistry and immunochemistry analyzer
- DNA sequencers
- Molecular diagnostic

×

Therapy
- Particle therapy systems (33 sites*2 delivered to the world's top medical institutions)
- X-ray therapy systems

×

Digital

Advancing examination/diagnostic procedures through co-creation with partners in genetic testing for cancer genes and evolving AI-based diagnostic procedures

- Promotion of customized medicine
- Control of healthcare costs

Example co-creation partners	invivoscribe	Nabsys	sysmex	藤田医科大学	東北大学病院	京都大学 KYOTO UNIVERSITY
Details	Blood cancer testing service business	Genome mapping business	Development of a genetic testing system	(Fujita Health University) Advancement of clinical examination	(Tohoku University Hospital) Examination reporting support service	X-ray therapy systems

Global share 1st to 3rd place (Hitachi source)

*1 Estimated by Hitachi from data from cutting-edge fields, specifically the in-vitro diagnostics market(clinical chemistry and immunochemistry, molecular diagnostics) and the radiation therapy market (minimally invasive therapy)
*2 Including under construction sites

2-9. Expansion of Services Driven by Energy Shortages and Resource Depletion

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Digitally transform services leveraging the extensive installed base of products and domain knowledge.

LUMADA

Extensive installed base

Air compressors (200,000 units) Marking (100,000 units)
Power electronics, drives (6,450,000 units) Elevators and escalators (1,000,000 units)
Commercial air conditioners (2,000,000 units)

×

Domain knowledge

Product-related technological capabilities/business know-how/expertise

×

Digital / Green

Predictive maintenance Energy-saving checkups
Part replacement recommendations
Asset management as a service 5R*1

GlobalLogic A Hitachi Group Company
- Improvement of platform
- Adoption of IoT technologies through embedded software

- Lower maintenance and energy cost
- Development of circular economy

Example Green Products

Environmentally friendly transformer (Top share in Japan*2)
- Amorphous alloy is used as core to reduce energy loss
- Soybean oil is used as insulating oil to contribute to the reduction of CO2 emissions


Amorphous transformer

Global share 1st to 3rd place (Hitachi source)

*1 5R：Remanufacturing, Reuse, Rebuild, Recycle, Repair
*2 Market of transformers for highly efficient power distribution (including amorphous transformers)/Source: Hitachi

2-10. Example of Smart and Green Building

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NEW VALUE, REAL VALUE — N.R.E. Group
NOMURA REAL ESTATE DEVELOPMENT

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Building IoT solution was applied as the building OS for S Tower of “BLUE FRONT SHIBAURA,” enabling efficient building operations and energy saving

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3. Reinforcement of Management Base

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Strengthen the product by expanding R&D investments

- Products aiming for top 3 global market share
  - ・Compressors, power electronics, drives, commercial air conditioners
- Products aiming to be top in their niche market
  - ・Measurement/analysis, particle therapy, cell culturing

Improve asset efficiency

- Improve efficiency and decarbonize manufacturing plants through DX and GX
  - ・CO2 Emissions reduction*: Over 70% (FY2024 Forecast)
- Utilize assets of equity method affiliates and consolidated subsidiaries
  - ・Expand digital services by leveraging JV's customer footprint in air conditioning, elevators and escalators in China, overseas home appliances, etc.
- Simplify balance sheets

Expand product operation and maintenance services

- Horizontal expansion of recurring business
  - ・Applying proven digital operation and maintenance services for elevators and air conditioners to industrial products
- M&A
  - ・Overseas OT integration/after service

Improve profitability by increasing business efficiency

- Improve pricing
- Strengthen the supply chain
  - ・Resilience and Greening
- Utilize generative AI
  - ・Improve software development and customer support productivity

* Scope1,2 (Reduction rate of emissions from our works and offices), base year is FY2010

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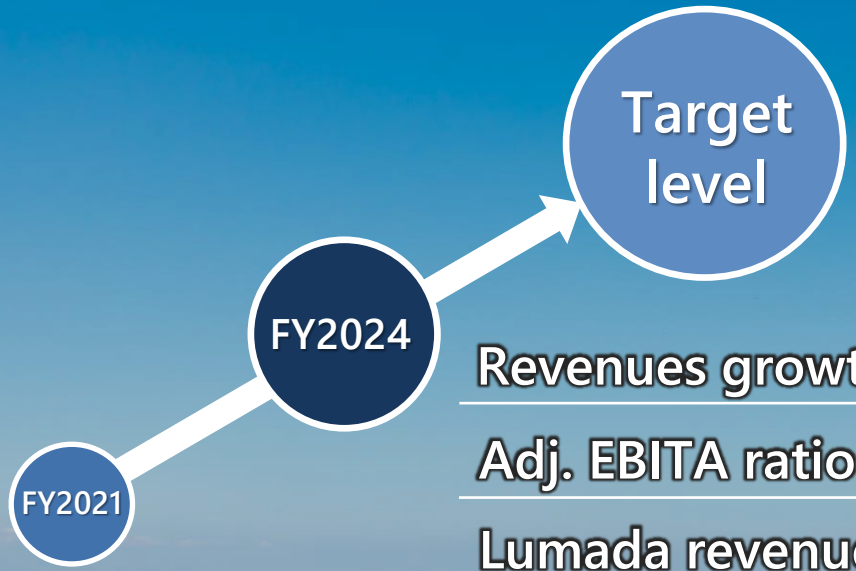
Embark on a new growth trajectory by capturing the high growth market in industrial fields brought about by DX and GX



Revenues growth (CAGR)	7～9%
Adj. EBITA ratio	13～15%
Lumada revenue ratio	45%

Revenues growth (CAGR)	5%
Adj. EBITA ratio	11.5%
Lumada revenue ratio	35%


Hitachi Social Innovation is
POWERING GOOD

Appendix 1 Global Management Structure

Dawn Brooks
Managing Director, Hitachi High-Tech Analytical Science

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

Jun Abe
Sector Head, Connective Industries

Dave DeGraaf
CEO
JR Automation

John Randall
President & CEO
Hitachi Global Air Power

Darshan A Shah
President
Hitachi Hi-Rel Power Electronics

Takashi Saito
CMO

Mami Sakurazawa
CLBO

Craig Kerkove
President & CEO
Hitachi High-Tech America

Business Units / Group companies

Building Systems BU	Hitachi Global Life Solutions	Hitachi High-Tech	Industrial Digital BU	Water & Environment BU	Hitachi Industrial Products	Hitachi Industrial Equipment Systems
						
CEO	President	President	CEO	CEO	President	President
Noriharu Amiya	Hideki Osumi	Takashi Iizumi	Kazunobu Morita	Hideshi Nakatsu	Keizo Kobayashi	Yasuhiro Takeuchi

CMO: Chief Marketing Officer CLBO: Chief Lumada Business Officer

Appendix 2 Business Activities of the Connective Industries Sector (1)

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Urban Gr.

Building Systems BU

Provide smart building solutions and green x digital solutions based on connected building equipment such as elevators and escalators


Elevator


Control center


Building IoT solution

Hitachi Global Life Solutions, Inc.

Sale and provide engineering and maintenance services for home appliances, air conditioning equipment and other equipment and devices; and provide products and solutions utilizing digital technologies


Air conditioning and solutions business


Regenerative Medicine Innovation Center

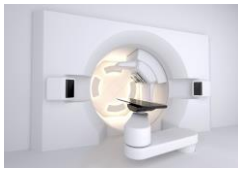

Home appliances

Advanced Technology Gr.

Hitachi High-Tech Corporation

Provide solutions that resolve customers' issues by utilizing technological capabilities based on measurement and analysis and together with global sales in fields such as healthcare, semiconductors, and social and industrial infrastructure


Integrated clinical chemistry and immunoassay analyzer


Particle therapy system


High-precision electron beam metrology system


Wafer defect inspection system


Electron microscope


Analytical system

Appendix 2 Business Activities of the Connective Industries Sector (2)

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Industry Gr.

Industrial Digital BU

Provide digital solutions and robotic SI integrating IT and OT in the industry and distribution fields

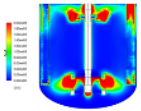
Manufacturing solution

Robotic SI

Water & Environment BU

Provide a wide range of utility solutions, from social infrastructure facilities for water supply, sewerage, etc. to air conditioning and industrial plant facilities

Culture tank



Culture simulator

Clean environment / ultra low dew point control

Hitachi Industrial Products, Ltd.

Provide highly dependable large industrial products globally in the industrial and social infrastructure fields

Centrifugal compressor

UPS

Electric drive system

Hitachi Industrial Equipment Systems Co., Ltd.

Provide a broad line-up of connected and connecting products supporting industrial and social infrastructure coupled with total support throughout the product life cycle

Air compressor

Marking system

Distribution transformer

UPS: Uninterruptible Power Supply

Cautionary Statement

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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 response 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.

* This document has been translated from the Japanese original for reference purposes only. In the event of any discrepancy between this translated document and the Japanese original, the original shall prevail.