HITACHI
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MATERIALITY BOOK 2021

Hitachi High-Tech Group's Materiality

Hitachi High-Tech Group has identified five themes of Materiality, which are important issues to address in order to solve social issues. Our Materiality topics are based on the SDGs, a set of international common rules and targets to be achieved in the 21st Century.

Under the 2021 Mid-Term Management Strategy, Hitachi High-Tech group sets specific action plans and targets to achieve these Materiality topics, and we will develop business activities.

Materiality 1
Contributing to a sustainable global environment

13 CLIMATE ACTION

3 GOOD HEALTH AND WELL-BEING

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Materiality 2
Contributing to healthy, safe, secure lives

4 QUALITY EDUCATION

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Materiality 3
Contributing to the sustained development of science and industry

Customers   Partners

Global sales capabilities

Business finding capabilities

Hitachi High-Tech Group

Technological capabilities

(measurement and analysis technology, automation and control technology, manufacturing capabilities)

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

17 PARTNERSHIPS FOR THE GOALS

Materiality 4
Establishing a sound management foundation

5 GENDER EQUALITY

8 DECENT WORK AND ECONOMIC GROWTH

Materiality 5
Developing and utilizing diverse human resources

Note: Of the 17 goals and 169 targets of the SDGs, we have selected those to which the activity goals of Materiality can contribute directly. We will also contribute indirectly to other goals.

Materiality and Activity Goals

Materiality		Activity Goals
1	Contributing to a sustainable global environment	1. Realize a decarbonized society 2. Realize a recycling-oriented society 3. Realize a society in harmony with nature
2	Contributing to healthy, safe, secure lives	1. Expand access to preventive medicine 2. Ensure the safety of water and food 3. Ensure the safety of social infrastructure
3	Contributing to the sustained development of science and industry	1. Development of science and technology 2. Achieving resilience at production sites
4	Establishing a sound management foundation	1. Realize sound governance 2. Ensure product safety 3. Realize a CSR-based supply chain
5	Developing and utilizing diverse human resources	1. Promote diversity management 2. Promote diverse cultivation of human resources 3. Ensure healthy, safe workplace environments

Process of Identifying Materiality

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Identifying Social Issues	**Evaluating the Importance of Social Issues**	**Preparing the Draft Materiality**	**Assessing the Validity of the Draft Materiality**	**Identifying Materiality**
Prepare a list of social issues taking into account the SDGs, ISO 26000[*1] and results of in-house surveys, etc.	Prioritize social issues identified in Step 1 from the perspective of societal demands and their importance to business.	Collate and prioritize the social issues and prepare a draft of materiality that the Hitachi High-Tech Group should address, incorporating a social issue orientation and a view to what is optimal for the Group.	To ensure objectivity of draft materiality, conduct an exchange of opinions with outside experts in assessing its validity.	Submit the draft materiality to the CSR Promotion Committee[*2], in which management participates, and identify Materiality.

[**Participants in the discussion sessions**]

The heads of each business group, planning and development divisions, and the general managers and managers of other relevant corporate divisions
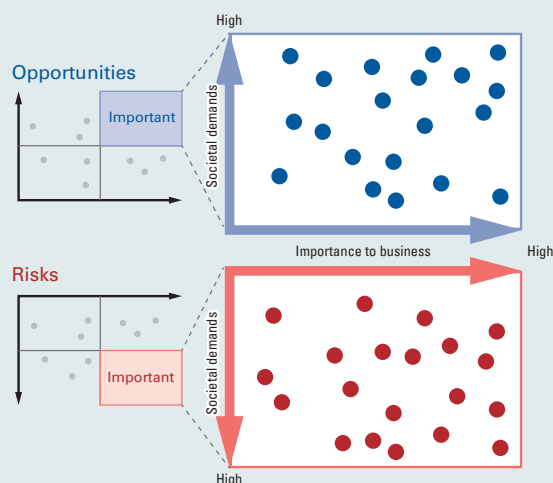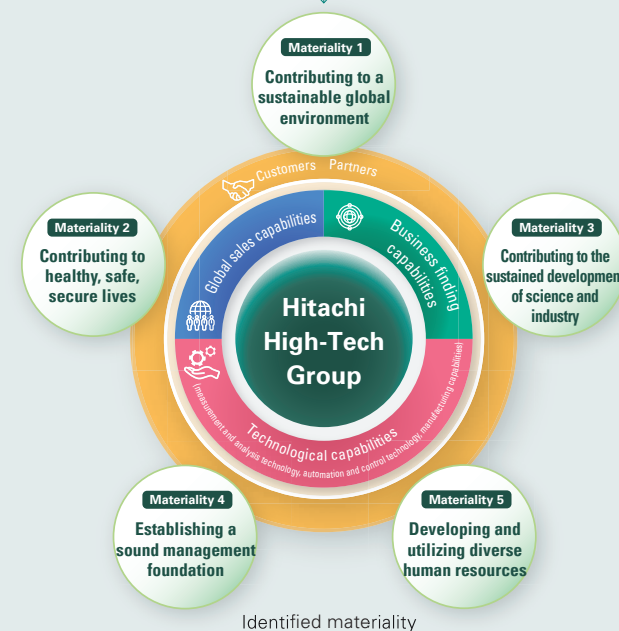

Discussion session

Examples of materiality evaluation maps organizing social issues made by groups in terms of opportunities and risks

[**Participants in the discussion sessions**]

The general managers and managers of the strategy divisions of each business group and relevant corporate divisions

The materiality evaluation maps created in Step 2 were discussed again, with social issues identified as particularly important in terms of opportunities and risks serving as the base for preparing the draft materiality.

Materiality 1
Contributing to a sustainable global environment

Materiality 2
Contributing to healthy, safe, secure lives

Materiality 3
Contributing to the sustained development of science and industry

Materiality 4
Establishing a sound management foundation

Materiality 5
Developing and utilizing diverse human resources

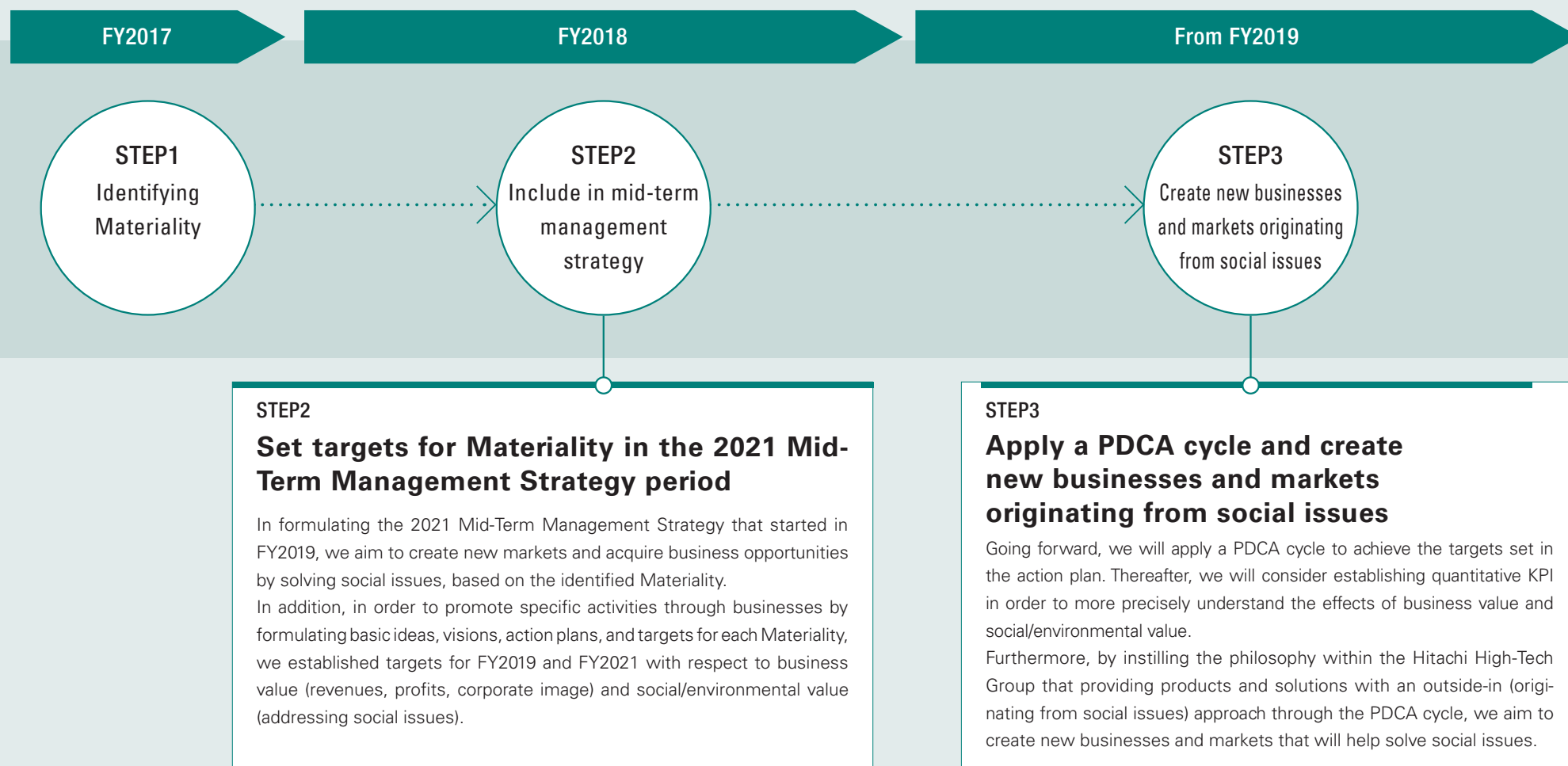Hitachi High-Tech Group

Identified materiality

*1 ISO 26000: An international standard regarding the social responsibilities of organizations, published by the International Standards Organization (ISO) in 2010.
*2 CSR Promotion Committee: The committee responsible for discussing the Hitachi High-Tech Group's CSR activities in general and deliberating CSR measures.

Significance of Identifying Materiality

In identifying Materiality, there is utmost consideration to resolving environmental issues from the perspective of the global environment being the foundation for a sound society and business. Hitachi High-Tech Group provides products and services that are crucial to an array of fields including the environment, biotechnology and healthcare, information and communications, and social infrastructure. By continuing to expand our business in these fields, we will contribute to society and our customers while laying a path for our own substantial growth. Initiatives in five areas of Materiality that we have identified are crucial for us to grow while continually enhancing our corporate value.

FY2017	FY2018	From FY2019

STEP1
Identifying Materiality

STEP2
Include in mid-term management strategy

STEP3
Create new businesses and markets originating from social issues

STEP2

Set targets for Materiality in the 2021 Mid-Term Management Strategy period

In formulating the 2021 Mid-Term Management Strategy that started in FY2019, we aim to create new markets and acquire business opportunities by solving social issues, based on the identified Materiality.
In addition, in order to promote specific activities through businesses by formulating basic ideas, visions, action plans, and targets for each Materiality, we established targets for FY2019 and FY2021 with respect to business value (revenues, profits, corporate image) and social/environmental value (addressing social issues).

STEP3

Apply a PDCA cycle and create new businesses and markets originating from social issues

Going forward, we will apply a PDCA cycle to achieve the targets set in the action plan. Thereafter, we will consider establishing quantitative KPI in order to more precisely understand the effects of business value and social/environmental value.
Furthermore, by instilling the philosophy within the Hitachi High-Tech Group that providing products and solutions with an outside-in (originating from social issues) approach through the PDCA cycle, we aim to create new businesses and markets that will help solve social issues.

Materiality 1

Contributing to a sustainable global environment

[Basic Ideas and Visions]

Corporate management in harmony with the global environment plays an important role in the sustainable development of society and companies. In addition to reducing resource and energy consumption as well as the environmental impact associated with business activities, the Hitachi High-Tech Group aims to achieve sustainable consumption and production through the provision of environmentally-conscious products and services as well as initiatives throughout the value chain.

1 Realize a decarbonized society

In order to reduce CO_2 emissions arising from energy consumption associated with business activities, we will systematically make environmental investments that have a significant impact on reducing CO_2 emissions and promote the proactive use of renewable energy. In providing products and services, we will also work to contribute through our business, such as selling LiB[1] production equipment that will help reduce CO_2 emissions.

Specific Actions

Draft and execute CO_2 emissions reduction plan
1. Environmental investments
2. Use renewable energy
3. Enhance electricity visualization monitoring function

2 Realize a recycling oriented society

We will make efforts to effectively use water resources, conserve resources, and reduce waste in business activities. Specifically, we will work to reduce the amount of water used by using the equipment cooling water in our factories more efficiently. In addition, we will introduce environmentally conscious design (eco-design) for our products and work to reduce the resources used to manufacture our products, and thereby reduce the amount of waste generated and recycle resources.

Specific Actions

1. Reduce water consumption by using equipment cooling water more efficiently
2. Curb the volume of waste generated by using eco-design for our products

3 Realize a society in harmony with nature

In order to reduce the negative impact of business activities on natural capital, we will work to reduce the negative impact of chemical substance emissions, and aim to realize a future that enriches both people and nature. We will work on biodiversity conservation activities such as forest conservation activities that will increase the positive impact.

Specific Actions

1. Increase the positive impact such as CO_2 absorption by promoting forest conservation activities
2. Secure new activity bases for biodiversity conservation activities (Japan and overseas)

[Action Plan]

	FY2019 Results	Targets for FY2020		FY2020 Results	Targets for FY2021	
	Content of Initiative	Business Value	Social/Environmental Value	Content of Initiative	Business Value	Social/Environmental Value
1	• Switch to renewable energy • CO_2 emissions volume **36.2** thousand tons-CO_2	• Boost image as contributing to the environment • Increase efficiency and reduce costs of the production process • Strengthen competitiveness with products using eco-design	CO_2 emissions: **41.9** thousand tons-CO_2 [2](**2**% reduction compared to FY2019)	• Switch to renewable energy • CO_2 emissions volume **31.3** thousand tons-CO_2(**27**% reduction compared to FY2019)	• Boost image as contributing to the environment • Increase efficiency and reduce costs of the production process • Strengthen competitiveness with products using eco-design	CO_2 emissions: **40.9** thousand tons-CO_2 [2](**4**% reduction compared to FY2019)
2	• Water consumption: Unit consumption improvement **49**%[3] • Waste volume generated: Unit consumption improvement **24**%[3]		• Water consumption: Unit consumption improvement **44**%[3] • Waste volume generated: Unit consumption improvement **11**%[3]	• Water consumption: Unit consumption improvement **53**%[3] • Waste volume generated: Unit consumption improvement **29**%[3]		• Water consumption: Unit consumption improvement **45**%[3] • Waste volume generated: Unit consumption improvement **16**%[3]
3	• New activities studied at two sites in Japan • Promoted implementation plans at overseas sites (China and Germany)		• New activities in Japan: Start-up at one site, continued studying implementation at one site • In-depth survey and activity proposal for overseas priority survey areas (Germany and China)	• Implemented new activities at two sites in Japan • Implemented deep-dive reviews and activity proposals at overseas sites (China and Germany)		• New activities in Japan: Continued implementation at one site, start-up at one site • Implement activities in overseas priority survey areas (Germany and China) and examine expanding to other bases

*1 LiB: Lithium-ion Battery   *2 Wording has been standardized in accordance with the "Sustainability" section of the Hitachi High-Tech website.   *3 Base year: FY2010

[Action Targets] 1

Realize a decarbonized society
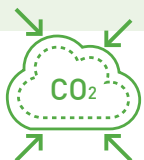
Promote carbon neutrality by switching to renewable energy and EVs for company vehicles and using offset credits

- The Hitachi High-Tech Group has set a goal of achieving a state of zero CO_2 emissions (carbon neutrality) by FY2030, an earlier target than that set by Japanese government, and is working to achieve a decarbonized society. We are engaging in continuing investment in environmental equipment to reduce electric power usage at our manufacturing sites and offices inside and outside Japan. We are also promoting the switch to decarbonized electric power (such as power from renewable energy sources, etc.) for electricity, which accounts for approximately 97% of the energy consumption involved in our business activities.business activities.

- Switch made at four sites in Japan, and supply of power begun (four out of nine manufacturing sites)
- Reviewing and switching at one site that had switched over in FY2019
- A new site completed in March 2021 is using renewable energy from the start of operations
- Based on the results to date and the outlook, we expect power supply to begin at seven of the nine manufacturing bases
- Renewable energy from hydroelectric power is used at seven sites outside Japan
- The Hitachi High-Tech head office, Hitachi High-Tech Fine Systems, Hitachi High-Tech Science Fuji Oyama Works, Hitachi High-Tech Kyushu, and Hitachi High-Tech Naka-Marine Site have achieved carbon neutrality through such activities as switching to renewable electricity, utilizing renewable energy value and offset credits, and switching to EV for company vehicles.

- As a result of these initiatives, FY2020 emissions were reduced from FY2019 by 4,930 t-CO_2. The Group's CO_2 emissions therefore came to 31,292 t-CO_2.
- We submitted responses to the CDP[1] climate change questionnaire and received an "A- (leadership level)[2]" evaluation in FY2020, one rank higher than the previous year.

*1 CDP: A UK-based independent non-profit organization. It receives requests from investors around the world, and investigates, evaluates, and discloses information relating to companies' effects on climate change, water security, and forests.
*2 "A-1 (leadership level)": Discloses specific actions that recognize it as a leading company.

Promoting widespread adoption of electric vehicles (EVs) by providing total solutions that include lithium-ion battery (LiB) research and development, manufacturing, and quality inspection processes

- We provide total solutions that improve safety, quality, yield, and productivity for manufacturers that develop and manufacture LiBs used as storage batteries for EVs and PHVs. We will contribute to the realization of a decarbonized society by contributing to the diffusion of EVs through the expected increase in demand for LiBs and the support of next-generation batteries.

[Action Targets] 2

Realize a recycling oriented society

Reduce waste generated in manufacturing, logistics, and so on, and reduce use of water due to changes in manufacturing processes

- We have continued to reduce the amount of wood waste disposed of by changing the specifications of the reusable shipping cartons used for physical distribution of parts and products with our overseas manufacturing sites.
- We adopted environmentally conscious design (eco-design) in the development of our own products, reducing the generation of waste during the manufacture of those products to lower levels than previous models.
- As a result of our activities, our reduction in water use per unit in FY2020 was improved by 53% over the base fiscal year and our waste generation per unit improved 29% over the base fiscal year. In addition, we introduced water-related risk assessment, and the sources of water intake and discharge were investigated in more detail than before.
- These initiatives were highly evaluated in the CDP water security questionnaire, leading to an evaluation of "A- (leadership level)," an improvement on the previous fiscal year.

Providing a solution to visualize the residual performance of LiBs to promote the expansion of end-of-life battery applications

- We have developed a "high-speed battery degradation diagnosis method" that instantly evaluates the performance degradation and remaining life of LiBs used as storage batteries for EVs and

PHVs, and have achieved significantly faster diagnosis compared to conventional methods. Visualizing the remaining performance of batteries will help drivers to use up their capacity to the end, reduce anxiety about EVs, and contribute to the dissemination of EVs. By accelerating the diagnosis, it is possible to lower power consumption during the process, which contributes to CO_2 reduction. We are also collaborating with recycling companies and fleet operators to explore business possibilities that will lead to the expansion of uses for used batteries, with the aim of achieving a circular economy.

[Action Targets] 3

Realize a society in harmony with nature

Forest conservation and other such activities carried out at each of our sites inside and outside Japan

- We have formulated a global concept of activities for biodiversity conservation. By repeating the process of observation, activity, measurement of changes before and after the activity, analysis and evaluation, and feedback to the next activity, we will work as a unified Group in the aim for " Striving to create a rich future for both humans and nature".
- We have been continuously implementing biodiversity conservation activities and afforestation activities with the aim of restoring ecosystems to their native state. These activities are underway in the Woodlands of Hitachi High-Tech Science, located in a natural area surrounding the R&D facility at the Hitachi High-Tech Science Fuji Oyama Works (Sunto-gun, Shizuoka Prefecture), and in the Hitachi High-Tech Yasato Forest, located on national forest lands that we have on loan in Ishioka City, Ibaraki Prefecture.
- In December, the Woodlands of Hitachi High-Tech Science received the top AAA (triple-A) rating in the Japan Habitat Evaluation and Certification Program (JHEP) renewal certification by the Ecosystem Conservation Society-Japan. This is in recognition of the efforts to conserve and restore biodiversity over the past five years since 2015, when it first obtained JHEP certification[3].

*3 JHEP certification system: A system that evaluates, ranks, and certifies the difference between the values of biodiversity in the "pre-business past" and the "post-business future" by comparing them. This is the only certification system in Japan that clearly states that a company is engaged in a busines that does not reduce (no net loss) or improves (net gain) the quantity and quality of natural resources compared with before it started operations there.

Scene of tree planting in the Woodlands of Hitachi High-Tech Science

Materiality 2

Contributing to healthy, safe, secure lives

[Basic Ideas and Visions]

"Healthy, safe and secure lives" is a common desire for all people. By further mastering the "Observation, Measurement, and Analysis" (measurement and analysis technology) that we have cultivated up until now, the Hitachi High-Tech Group will contribute to a future where people can continue to live healthy and fulfilling lives, centered on three fields of medicine, water/food, and social infrastructure.

1 Expand access to preventive medicine

By developing and providing testing systems that enable highly-efficient diagnoses, we will help to shorten testing times, increase the number of people who receive health checkups, and reduce testing fees. In addition, by developing and providing clinical analyzers and genetic analysis systems, we will respond to the higher needs for personalized medicine and contribute to the promotion of preventive medicine and to curbing medical expenditures.

Specific Actions

Provide devices and services to reduce the amount of specimens and reagents and speed up testing: Contribute to an increase in the number of people who receive health checkups

2 Ensure the safety of water and food

We will help prevent the accumulation of hazardous substances in water, food, the human body, and elsewhere by developing and providing testing systems specialized for specific markets. In addition, we will supply safe water and support people's safe lives by providing measurement systems for filtered water and drainage in water and sewage systems.

Specific Actions

Manufacturing and sales of equipment that detect hazardous substances to water, food and the human body

3 Ensure the safety of social infrastructure

By realizing non-destructive rapid diagnosis and predictive diagnosis for structures such as roadways, tunnels, railways, and airports, we will contribute to ensuring the safety of social infrastructure and support the safe lives of people.

Specific Actions

1. Manufacturing and sales of equipment that detect hazardous materials such as explosives and harmful gases, etc.
2. Sales of optical telecommunications components that serve as the foundation of communications infrastructure

[Action Plan]

		FY2019 Results	Targets for FY2020		FY2020 Results	Targets for FY2021	
		Content of Initiative	Business Value	Social/Environmental Value	Content of Initiative	Business Value	Social/Environmental Value
1		• We placed new testing equipment on the market in addition to next-generation large-scale immunoassay devices • Increased number of people who can be tested : Increase of approximately **45** million people over previous product	Number of analytical instruments sold (**5**% increase compared to FY2019)	Increase in number of people who can be tested due to higher test throughput capabilities: Approximately **69** million more people than former product	Contributed to increasing testing populations by launching test systems mainly for small and medium-sized hospitals and laboratories Similar sales volume compared to FY2019	Number of analytical instruments sold (**10**% increase compared to FY2019)	Increase in number of people who can be tested due to higher test throughput capabilities: Approximately **72** million more people than former product
2		Manufactured and sold detection equipment for hazardous substance detection	Number of detection devices sold (**15**% increase compared to FY2019)	Contributed to preventing accumulation of toxic substances in the water and in human bodies in the European region and other regions by means of toxic substance detection	Contributed to the prevention of the spread of deleterious substances by manufacturing and selling detection devices for harmful substances Similar sales volume compared to FY2019	Number of detection devices sold (Similar sales volume compared to FY2019)	Contributed to preventing accumulation of toxic substances in the water and in human bodies in the European region and other regions by means of toxic substance detection
3		Manufactured and sold devices to detect hazardous substances	Strengthen Analytical Systems Business	Contribute to ensuring the safety of airports, etc. by detecting hazardous materials	Contributed to the safety of critical social infrastructure through the manufacture and sale of devices that detect hazardous materials	Strengthen Analytical Systems Business	Contribute to ensuring the safety of airports, etc. by detecting hazardous materials
		Adoption of our optical communication materials for high-speed optical communication equipment, long-distance communication equipment, and communication equipment used in large-scale data centers	Revenues from the sales of components (**20**% increase compared to FY2019)	Contribute to the development of, and ensuring the safety of communications infrastructure	Helped to build a communications infrastructure in the event of a large-scale disaster and a cloud environment necessary for working from home There was no significant increase in sales compared to FY2019	Revenues from the sales of components (**40**% increase compared to FY2019)	Contribute to the development of, and ensuring the safety of communications infrastructure

[Action Targets] 1

Expand access to preventive medicine

Contribute to expansion in the number of people who can be tested by providing products and services that support the increased efficiency and speed of testing operations

- We are contributing to increased speed in testing at hospitals and testing organizations by placing new testing equipment on the market in addition to large-scale immunoassay devices we have continued to sell since 2016. In FY2020, we developed a medium-sized testing device that can be installed in small and medium-sized hospitals, further expanding the opportunities for people to undergo testing.
- Immunoanalyzers are capable of detecting antibodies and antigens of the novel coronavirus (COVID-19) and are contributing to the prevention of the spread of the COVID-19 pandemic.
- We are contributing to expansion of the number of people who can be tested by aiding in the improved efficiency of hospital operation by supplying multi-function devices for biochemical, immunological, and blood coagulation testing.
- We have established a research center within the Fujita Academy, and there we are promoting coordinated research that contributes to solutions for issues of technology, devices, and operational efficiency in the front lines of healthcare. Realizing heightened sophistication and efficiency of clinical laboratory tests, we are aiming to provide healthcare with safety and security based on high-quality test data as well as to reduce the burden of testing tasks on healthcare practitioners.

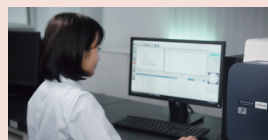Clinical test devices used at hospitals, testing organizations, and so on

[Action Targets] 2

Ensure the safety of water and food

Contribute to preventing the accumulation of toxic substances in the soil, the water, the human body, and so on by developing and providing analytical devices and testing equipment and systems to support administrative tasks

- Screening equipment compliant with the RoHS Directive*1 detects substances regulated by laws and regulations of various countries during product inspections and material acceptance inspections, thereby contributing to the prevention of the spread of substances that may cause health hazards. In addition, by providing solutions that comply with international standards through our activities for the eco-friendliness of electrical and electronic equipment and systems (IEC/TC 111), we support the development of sound global markets and contribute to the realization of innovations that solve social issues.

*1 A directive by the European Union (EU) for regulating the use of specified hazardous substances contained in electrical and electronic equipment.

- In FY2020, we released chemNEXT, a system that supports the cumbersome administration of chemical substances contained in products in response to requests from end-product manufacturers to suppliers for surveys of regulated substances and warranty certificates in accordance with environmental laws and regulations such as the RoHS Directive and REACH*2, which are amended annually. chemNEXT will improve the operational efficiency of suppliers and contribute to the prevention of the proliferation of substances that may cause health hazards by centrally managing the progress management, data storage and history of chemSHERPA*3 data from creation to submission on a cloud server, which is operated by JAMP (Joint Article Management Promotion-consortium).

*2 European chemicals management regulations impose the obligations of Registration, Evaluation, Authorisation and Restriction.
*3 A common scheme that can be used throughout the supply chain, created for the purpose of properly managing information on chemical substances contained in products throughout the supply chain and communicating it reliably and efficiently.

Testing equipment for detecting substances subject to the RoHS Directive

[Action Targets] 3

Ensure the safety of social infrastructure

Contribute to maintenance of safe social infrastructure by providing detection equipment with high hazardous substance detection performance

- We develop and provide detection equipment to detect hazardous materials as a security measure for critical infrastructure facilities, airports, event venues, and other sites. Going forward, we will realize further improved hazardous substance detection accuracy together with heightened analysis performance and develop detection equipment that meets the needs of society. In this way, we will contribute to the realization of a safer, more secure society.

Contribute to the development and heightened stability of telecommunications infrastructure through the sale of optical communications components for use in highspeed, long-distance transmission equipment

- The optical communications components sold by Hitachi High-Tech are used in the high-speed, long-distance transmission equipment that supports the foundations of next-generation telecommunications infrastructure, and in the telecommunications equipment used in large-scale data centers. In this way, we provide support to make people's lives comfortable by contributing to the construction of the cloud environment needed for working at home as well as providing a high-speed, high-definition video transmission environment and a communication infrastructure for use in the event of large-scale disasters.

Optical communications components utilized in the telecommunications equipment used in high-speed, long-distance transmission equipment and in large-scale data centers

7

Materiality 3

Contributing to the sustained development of science and industry

[Basic Ideas and Visions]

To develop science and industry, advanced technology that supports them is essential. The Hitachi High-Tech Group supports the improvement of R&D and production sites productivity, as well as higher product quality by fully utilizing and advancing our "measurement and analysis technology", "automation and control technology", "manufacturing capabilities", thereby contributing to the sustainable development of science and industry. In addition, we help develop the next generation by carrying out social contribution activities utilizing our products.

1 Development of science and technology

By developing and providing electron microscopes that enable high-precision observation and analysis, we will contribute to materials and device engineering and the advancement of testing and research of scientific theory. In addition, through science education support activities using tabletop electron microscopes, we will stimulate children's interest in science and technology through the activity and will contribute to resolution of social issues such as the loss of interest in science and the advancement of science and technology.

Specific Actions

Contribute to resolving the social issue of loss of interest in science, developing future scientists, and the advancement of science and technology

2 Achieving resilience at production sites*

Through core technologies related to observation, measurement, and analysis; digital technologies such as AI and IoT; and the analysis and utilization of data collected from each process, we will improve the efficiency of production sites and build a flexible and robust production system. We thus aim to contribute to the improvement of productivity and product quality of manufacturing companies.

Specific Actions

Provide solutions that utilize cutting-edge digital engineering technology: Achieve business process innovation at manufacturing companies

[Action Plan]

		FY2019 Results	Targets for FY2020		FY2020 Results	Targets for FY2021	
		Content of Initiative	Business Value	Social/Environmental Value	Content of Initiative	Business Value	Social/Environmental Value
1		Market launch of new product, a tabletop electron microscopes with augmented functionality Provided courses to approximately **15,000** people	Generate future customers by early building a brand image	Provide classes to **16,500** people Promote of research, development and manufacturing that will lead to the advancement of science and technology and medical technology	Continued sales of tabletop electron microscopes Provide classes to approximately **12,600** people Awarded for activities at schools where the equipment was loaned	Generate future customers by early building a brand image	Provide classes to **18,000** people Promote of research, development and manufacturing that will lead to the advancement of science and technology and medical technology
2		Provided digital engineering solutions utilizing 3D data and AR (augmented reality)	Revenues from provision of solutions (**12**% increase compared to FY2019)	Contribution to automation and productivity improvements at manufacturing companies	Provide solutions that contribute to the improvement, efficiency, and streamlining of operations at the design and manufacturing workplaces of manufacturing companies **12**% increase in revenues compared to FY2019	Revenues from provision of solutions (**20**% increase compared to FY2019)	Contribution to automation and productivity improvements at manufacturing companies

* The former action targets "2 High-efficiency production sites" and "3 Global development of production technology" have been integrated into the new action target "2 Achieving resilience at production sites" along with the review of the businesses in Action Plan 3.

[Action Targets] 1

Development of science and technology

Contribute to research, development, and advances in manufacturing technology in a wide range of fields

- We continue to manufacture and sell the TM4000II series of tabletop electron microscopes that realize even higher speed in elemental analysis together with other features. By enabling convenient operation and rapid analysis, we contribute to the evaluation of items developed in R&D efforts and to investigation and quality management in factories and other such front-line production settings. In FY2020, we conducted seminars and practical training on specific themes such as asbestos, biological systems, and quality control for electron microscope users remotely amid the coronavirus disaster. Such efforts contributed to solving their problems by providing technical information and proposing sample processing methods.
- Since 2018, we have provided the analysis center at Vietnam National University with a TM4000 Plus tabletop electron microscope on loan at no charge (for a five-year period from 2018). Although we were not able to conduct a seminar in FY2020 due to the coronavirus disaster, we will support the training of analytical engineers in Vietnam by planning local seminars, thereby contributing to the development of R&D and science and technology in the country.

TM4000 II series of tabletop electron microscopes sees active use in a broad range of fields

Global implementation of high-quality science education support activities

- In Japan, we are cooperating with a variety of learning events, including educational outreach at elementary and junior high schools, loans of tabletop electron microscopes to Super Science High Schools (SSH) designated by the Ministry of Education, Culture, Sports, Science and Technology, displays at science museums and special exhibitions, and so on. The activities of some of the schools using the loaned equipment have been successful, receiving awards at numerous conferences and competitions.
- We are also continuing to conduct educational outreach at each Group company, and have started counting the number of participants

globally from FY2020. In FY2020, such classes were conducted remotely due to the coronavirus pandemic but were provided to approximately 12,600 students in the Asian area, mainly in Japan, and to approximately 33,000 students globally.
- We have started collaborating with YouTubers and have released special web content with videos of scientific experiments using the device. We also focused on disseminating information through social networking services, such as distributing new videos and other topics on Facebook, with the goal of offering more appealing content for young people and students.

Scenes from educational outreach

[Action Targets] 2

Achieving resilience at production sites

Contribute to heightened work efficiency in design operations and the front lines of skilled manufacturing through digital engineering solutions

- By offering solutions that actively utilize 3D data and other design data makes it possible to prepare written work instructions on the shop floor more efficiently. In this and other such ways, we are contributing to streamlining, greater efficiency, and improved operations for manufacturers in the design and production workplace. In FY2020, the system was introduced to manufacturers to reduce the number of design man-hours, contributing to the establishment of an efficient and flexible system for manufacturing as a whole.
- Solutions that make active use of AR[*1] provide ways to combine physical information and digital information so that work instructions can be simplified. This is realizing increased speed of operation and reduced costs for the production lines at automotive, electrical and precision machinery, and other manufacturers. We will continue to expand into new fields using the latest technology.

*1 AR: Augmented reality

Support R&D operation in a wide-range field through the contract technology services in R&D evaluation

- Having concluded a general agency contract with JAPAN TESTING LABORATORIES, Inc., (JTL) we provide contract technology services that evaluate the reliability of products in the research and development stage by measurement, testing, and analysis utilizing JTL's high-performance evaluation equipment and advanced evaluation technology. In FY2020, we provided a remote image data sharing service in response to the coronavirus disaster, and further improved efficiency by sharing the results of the evaluation online with contractors.

Contribute to cost reduction and improvement of business and product quality of individual companies through visualization of the supply chain

- We have partnered with TRIGO Group, one of the world's most advanced quality providers headquartered in France, to implement 3PQS (3rd Party Quality Service: outsourced inspection, quality consultation, supplier management, review, and audit). By visualizing the entire supply chain, we can pinpoint waste in each process, and as a result, contribute to reducing the loss of time, logistics, and resources, as well as improve the operations and quality of each supplier. In FY2020, we conducted a trial at our Naka area. Going forward, we will consider developing our business to include ESG[*2] evaluation services for individual companies in the supply chain, which is becoming a prerequisite for continuing business transactions.

*2 ESG is an acronym for Environment, Social, and Governance, and is considered important in strengthening the management foundation that supports long-term growth.

Contribute to cost reduction and productivity improvement in semiconductor manufacturing by providing integrated solutions

- The semiconductor field, which supports today's digital society, is expected to continue to grow with the advancement of AI, IoT, and 5G technologies. Within the semiconductor manufacturing process, we manufacture equipment that covers the processing, inspection, and analysis processes. By providing integrated solutions that combine these and data utilization technologies, we are working to help semiconductor manufacturers shorten development time, reduce costs, and improve productivity.

Materiality 4

Establishing a sound management foundation

[Basic Ideas and Visions]

Establishing a sound management foundation is essential for the sustainable growth of a company. In order to increase corporate value over the long-term, Hitachi High-Tech Group will strive to improve the effectiveness of corporate governance and aim to be a company that is trusted and needed by society.

[Action Targets]

1 Realize sound governance

We will strive to improve the effectiveness of corporate governance by bolstering the effectiveness of the Board of Directors and strengthening and enhancing internal controls. In addition, we will endeavor to achieve sustainable growth and increase society's trust in us by implementing initiatives such as compliance risk prevention measures and conducting education, and fostering a corporate culture that is open and compliant with laws.

Specific Actions

Improve corporate governance by increasing the effectiveness of Group companies' Board of Directors and reviewing the Group's overall system of rules

2 Ensure product safety

Providing customers with safety and peace of mind is a corporate social responsibility. By providing products that comply with laws and regulations and by working to eliminate product accidents, the Group aims to provide highly-safe products and thereby enhance competitiveness and increase the level of trust from society.

Specific Actions

Firmly instill a safety-first mentality through activities to further enhance product safety
1. Implement S>>Q>D>C*1
2. Pick out and remove product safety accident risks and product-related legal violation risks

3 Realize a CSR-based supply chain

By encouraging business operations with a strong awareness of corporate social responsibility, not only for the Group, but also for our partners and the entire supply chain, we aim to reduce environmental and human rights risks in the supply chain.

Specific Actions

1. Hold briefings for business partners (2 times/year)
2. Self-evaluations of new business partner using checklists

[Action Plan]

	FY2019 Results	Targets for FY2020		FY2020 Results	Targets for FY2021	
	Content of Initiative	Business Value	Social/Environmental Value	Content of Initiative	Business Value	Social/Environmental Value
1	• Strengthened governance of Group companies • Implemented continuous compliance education for all employees	Enhance corporate governance by Evaluating the effectiveness of the Board of Directors	Contribute to the maintenance of a healthy and orderly society by ensuring fair trading based on the laws, regulations and business practices of each country	• Change in organizational structure to a company with an Audit & Supervisory Board*2 • A unified decision-making framework and compliance measures for the Hitachi Group and their penetration into Hitachi High-Tech Group companies*2	Establish a new governance framework across the Hitachi High-Tech Group*2	Contribute to the maintenance of a healthy and orderly society by ensuring fair trading based on the laws, regulations and business practices of each country
2	• Improved visualization of risks in product life cycles by active use of checklists • Held lectures relating to product safety • **No** serious product safety accidents	Strengthen competitiveness by enhancing product quality	Eliminate product safety accidents through activities to improve required quality and prevent accidents	• Reduce the risk of product safety accidents by improving check items • Held lectures relating to product safety • **No** serious product safety accidents	Strengthen competitiveness by enhancing product quality	Eliminate product safety accidents through activities to improve required quality and prevent accidents
3	• Held briefings on CSR and related matters for partners in Japan • **No** CSR-related accident • Conducted CSR audits of manufacturing sites of partners in China and elsewhere in Asia	• **No** CSR-related accident • Reduce impact for procurement/production/sales, avoid human rights risks	Protect human rights in the supply chain	• Hold briefings for domestic partners on CSR-related and other topics • **No** CSR-related accident	• **No** CSR-related accident • Reduce impact for procurement/production/sales, avoid human rights risks	Protect human rights in the supply chain

*1 S: Safety, Q: Quality, D: Delivery, C: Cost   *2 Activities have been changed to reflect the fact that the company became a wholly owned subsidiary of Hitachi, Ltd. in May 2020.

[Action Targets] 1

Realize sound governance

Strengthen governance and compliance for the Group as a whole

- In FY2020, we changed our activities in response to becoming a wholly owned subsidiary of Hitachi, Ltd. in May 2020, and worked to strengthen our governance as a member of the Hitachi Group.
- In line with the Hitachi Group's unified policy, we changed our organizational structure to a company with an Audit & Supervisory Board in July 2020. In addition, we introduced a decision-making framework (internal policies, etc.) that complies with Hitachi Group standards, and worked to disseminate it to our Group companies, thereby improving our governance system as a member of the Hitachi Group.
- We have implemented continuous compliance education at all levels, from newly hired employees to management personnel. In addition to furthering their understanding of the Hitachi High-Tech Group's conceptual approach to compliance, its compliance structure, its internal reporting system, and so on. We also conducted individual training programs in response to requests from Group companies to foster compliance awareness throughout the Group.
- Hitachi High-Tech Group has taken steps to enhance the company's self-purification function by establishing internal reporting (whistleblowing) hotlines with the aim of detecting statutory and ethical violations at the earliest stage and addressing them. The hotlines can be used by regular employees, temporary agency workers, casual workers, and fixed-term employees in Japan and overseas. In FY2020, in response to the revised Whistleblower Protection Act, we further strengthened our efforts by requiring those involved in the whistleblowing hotlines to pledge in writing that they will not treat whistleblowers disadvantageously and will not leak relevant information inside or outside the company.

[Action Targets] 2

Ensure product safety

Visualize the risks in each part of the product life cycle

- We seek to enhance product quality and reduce product safety risks by conducting checks of the design, development, and quality assurance divisions during new product development based on the checklist for increasing the comprehensiveness of our risk assessments. In this way, we take steps to increase the visualization of risks in each part of the product life cycle. In FY2020, even amid the coronavirus disaster, audits and improvement activities continued remotely with the use of video conferencing systems. In addition, we endeavored to improve check items to prevent accidents from occurring.
- There were zero serious product safety accidents in FY2020.

Lectures on product safety held

- We hold lecture sessions on product safety with outside instructors twice each year to raise the skill level of engineers in our design, quality assurance, and other product technology divisions. In FY2020, we used video conferencing systems to implement sessions remotely at each site.

[Action Targets] 3

Realize a CSR-based supply chain

Reduce environmental and human right risks in entire supply chain by collaborating with our partners (suppliers) using online tools

- We regularly communicate with our partners to encourage understanding of efforts for CSR and to reduce environmental and human right risks. In FY2020, we held three briefings in total as planned during online tools due to the coronavirus disaster, covering topics including overall CSR. The events were also archived so that partners who could not attend the event could view it.

A scene from an online briefing

- We promote to prevent CSR-related accidents from occurring among our partners, and to ensure that parts and materials procured from our partners comply with environmental regulations such as revised RoHS Directive and REACH Regulation. In FY2020, we made progress in responding to the revision of the Toxic Substances Control Act (TSCA)* in the United States. Furthermore, in FY2020, there were no CSR-related accidents.

* TSCA: A regulation administered by the U.S. Environmental Protection Agency (EPA). It aims to prevent the risks posed by harmful chemicals to human health and the environment.

- With the aim of reducing CO_2 emissions in the supply chain, we manage and share data on Scope 2 CO_2 emissions (indirect emissions associated with the use of electricity and heat supplied by power companies and so forth) by individual partners in collaboration with our partners. By visualizing the environmental impact of the supply chain, we are able to deepen understanding among our partners.

Materiality 5

SDG 5 GENDER EQUALITY | **SDG 8 DECENT WORK AND ECONOMIC GROWTH**

Developing and utilizing diverse human resources

[Basic Ideas and Visions]

It will be crucial to continuously provide creative and innovative values to customers and society in order to succeed against competitions in the global market while realizing sustainable growth. Hitachi High-Tech Group recognizes human resources responsible for providing value as one of the most invaluable management resources, and aims to foster reform-minded human resources who are able to create continuous innovation.

[Action Targets]

1 Promote diversity management

We enhance productivity and organizational strength by promoting reforms in working styles and increasing operational efficiency. In addition, by promoting female workplace participation and development and utilization of diverse human resources, we will secure and train talented human resources who have flexible ideas and advanced technical abilities and skills.

Specific Actions

Create an organization where diverse human resources can actively participate and thrive, thereby leading to innovation
1. Further reforms in working styles
2. Reform actions and mindset encouraging female workplace participation
3. Train and utilize diverse human resources

2 Promote diverse cultivation of human resources

We will aim to train human resources to compete in the global market by expanding diverse education and training systems and continuing to carry out education and training.

Specific Actions

Continue to carry out diverse education and training to develop human resources
1. Develop global human resources
2. Maintain and improve the education system in order to develop human resources

3 Ensure healthy, safe workplace environments

We strive to ensure a healthy, safe and comfortable working environment by working on occupational safety and health with the highest priority on workplace safety and maintaining and promoting the health of each employee.

Specific Actions

Establish an accident-free workplace
1. Eradicate accident risk through risk assessments
2. Enhance mental healthcare
3. Further promote health management

[Action Plan]

		FY2019 Results	Targets for FY2020		FY2020 Results	Targets for FY2021	
		Content of Initiative	Business Value	Social/Environmental Value	Content of Initiative	Business Value	Social/Environmental Value
1		• Percentage of women managers: **4.9**% • Number of women directors: **1** • Hires of recent graduates: Percentage of women **26**%, percentage of foreign nationalities **5**%	Create innovation by diverse human resources • Ratio of women in managerial positions: **5**% • Female board members: **1** • New graduate recruits (Ratio of women: **30**%, Ratio of overseas: **5**%)	Offer comfortable working environment to people with time or location restrictions due to childcare, family nursing care, etc.	Create innovation by diverse human resources • Ratio of women in managerial positions: **4.9**% • Female board members: **0** • New graduate recruits (Ratio of women: **24**%, Ratio of overseas: **14**%)	Create innovation by diverse human resources • No more than **20** hours per person per month of overtime work • At least **20** days per person per year of paid leave taken • Ratio of women in managerial positions: **5**% • Female board members: **2** • New graduate recruits (Ratio of women: **30**%, Ratio of overseas: **5**%)	Offer comfortable working environment to people with time or location restrictions due to childcare, family nursing care, etc.
2		Percentage of employees who had overseas experience within seven years after joining the company: **51**%	Early development of global human resources: **50**% of employees have overseas experience within 7 years of joining the company	Employees contribute to mutual understanding of cultures by working in different regions	Percentage of employees who had overseas experience within seven years after joining the company: **63**%	Early development of global human resources: **50**% of employees have overseas experience within 7 years of joining the company	Employees contribute to mutual understanding of cultures by working in different regions
3		Promoted health and safety activities and health promotion policies and measures for employees • Accidents resulting in loss of work-time: **2** cases • Stress check implementation was **100**%	Ensure business continuity: • **No** accident that require time off work • **100**% stress check implementation • Mental illness ratio (**2**% improvement compared to FY2019)	Contribute to maintaining a healthy society as a member of society by having employees who are both physically and mentally healthy	• Accidents resulting in loss of work-time: **3** cases • **89**% stress check implementation • Mental illness ratio **10**% improvement compared to FY2019	Ensure business continuity: • **No** accident that require time off work • **100**% stress check implementation • Mental illness ratio (**5**% improvement compared to FY2019)	Contribute to maintaining a healthy society as a member of society by having employees who are both physically and mentally healthy

[Action Targets] 1

Promote diversity management

Taking steps to create innovation by going further with work style reform, developing and utilizing diverse human resources, and so on

- We took steps to foster a workplace climate and improve arrangements to enable all our employees to individually recognize each other's diversity and fully bring their own strengths to bear.

- Implement training and education on diversity for board members and managers
- Strengthen measures such as various training programs and meetings for female managers to promote the activities of female employees and raise their awareness
- Focus on the happiness of every employee, promote "Active 20-20"* activities to reform the way we work, aiming to realize a Company where employees can work with vitality and enthusiasm
- Implement initiatives to improve work-life balance, including the launch of the All-out Childcare Support Project, which aims to achieve 100% male childcare leave, and the release of Handbook on Management and Support for the Balance of Work and Caregiving (only Japanese)
- Promote acceptance of diverse values through LGBT e-learning and unconscious bias e-learning
- Promote employment of people with disabilities, the elderly, and foreign nationals, and create a comfortable working environment

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* Active 20-20: Initiatives that aim to realize the Company growth by leveraging the diversity of individuals to allow each person to demonstrate his or her talents and actively participate

- The Ministry of Economy, Trade and Industry (METI) has selected Hitachi High-Tech for its New Diversity Management Selection 100, a list of enterprises that have linked their diversity promotion efforts to business results.
- We won the highest rating in "Eruboshi" certification by the Minister of Health, Labor, and Welfare.
- We received the top-ranking Gold Award in the PRIDE index that rates initiatives for LGBT and other aspects of sexual materiality.

FY2020 results for Hitachi High-Tech
- Ratio of women in managerial positions: 4.9%
- Female board members: 0
- New graduate recruits: ratio of women 24%, ratio of foreign nationals 14%

[Action Targets] 2

Promote diverse cultivation of human resources

Promotion of self-directed and global human resource development by implementing diverse education and training

- We organize and systematically implement educational programs based on supporting the growth of self-directed human resources who learn, think, and act on their own as well as supporting the activities of diverse human resources. The following activities were carried out in FY2020.

- Strengthen diversity management and line management skills by developing and launching a training program for managers to support individual growth and success
- Expand the ease of access to training by fully shifting to online training management
- We engaged in continuing challenges at National Skills Competition Japan held annually as well as at national Abilympics and WorldSkills Competition, and won numerous medals and awards.

National Skills Competition Japan winners

- We are implementing a program to assign young employees overseas to foster the early development of human resources capable of handling business with a global perspective. In FY2020, such dispatches were postponed due to the coronavirus disaster, but we held a debriefing session for the trainees who returned from overseas. In addition, one person from Hitachi High-Tech RUS LLC who had been accepted in Japan completed the dispatch period in FY2020 and returned to work there and applying the results of the training received.
- In FY2020, the percentage of employees who had overseas experience within seven years after joining the company was 63%.

[Action Targets] 3

Ensure healthy, safe workplace environments

Aiming to provide a safe, healthy working environment through systematic health and safety activities and health promotion policies and measures for each individual employee

- In 2020, due to the coronavirus disaster, it became difficult to conduct the annual on-site safety checkups except for some business sites, so we implemented self-checking measures.
- To rebuild a culture of safety, we conduct specialized safety training by job level to encourage top management, line managers, and safety personnel to recognize their respective roles and responsibilities.
- In FY2020, there were three accidents (falls) resulting in loss of work-time. In addition to measures to prevent recurrence in the future by analyzing root causes, we are continuing to upgrade our measures for thoroughgoing safety management.
- In FY2020, as part of our initiatives to manage the health of employees working from home, we conducted a survey on remote working and promoted awareness and implemented various online health consultation systems.
- Regular stress checks of all employees were carried out so that employees could determine their own stress level and do something about it. This is linked with our efforts to upgrade mental health care for employees and strengthen their selfcare. In FY2020, there was a decrease in the number of employees taking leave due to mental health issues.
- Hitachi High-Tech measures to grasp and address issues in the maintenance and promotion of employee health have been highly rated. We have been recognized as an organization "engaging in strategic health and productivity management program efforts for maintaining their employees' health from a management perspective." We were certified as a Health & Productivity Management Outstanding Organization in 2021 (large enterprise category) in our fourth consecutive year of recognition under the Health and Productivity Management Organization Recognition Program. Within the Hitachi High-Tech Group, Hitachi High-Tech Nexus, Hitachi High-Tech Fielding, and Hitachi High-Tech Fine Systems received certification for the first time. Hitachi High-Tech Manufacturing & Service and Hitachi High-Tech Science received certifications for the second year in a row, bringing the total number of certified Group companies to six. Hitachi High-Tech Kyushu has also been certified in the small and medium-sized enterprise category.