

Sustainability: Addressing Three Important Social Issues

Advantest collaborates with our customers and suppliers to contribute to a safe, secure, comfortable, and sustainable future by solving social issues through our business and considering the environment and society as we conduct our business operations.

The Advantest Way

Sustainability through ESG Promotion means all employees share an awareness of the importance of our relationship with society and the environment. This is the basis for the sustainability activities of the Advantest Group.



Three Important Social Issues

Based on dialogue with stakeholders, we have selected three of the social issues emphasized by CSR evaluation organizations and international sustainability guidelines to drive our contribution to the SDGs (Sustainable Development Goals).

1. Climate Change Initiatives

In recent years, abnormal weather and environmental variability, thought to be caused by climate change, have become a prominent topic. Thus, responding to climate change is necessary to achieve a sustainable society.

2. Protection and Respect for Human Rights

Amidst growing international concern for human rights, it has become a social requirement to respect the human rights of all stakeholders involved in our business activities, including employees and business partners, and to ensure proper labor practices.

3. Supply Chain Collaboration

With the globalization of business, companies are required to take ownership of human rights, labor, and environmental impacts throughout the supply chain. In order to achieve responsible supply chain management, it is important to tackle social issues in collaboration with suppliers, based on fair, impartial and transparent business relationships.

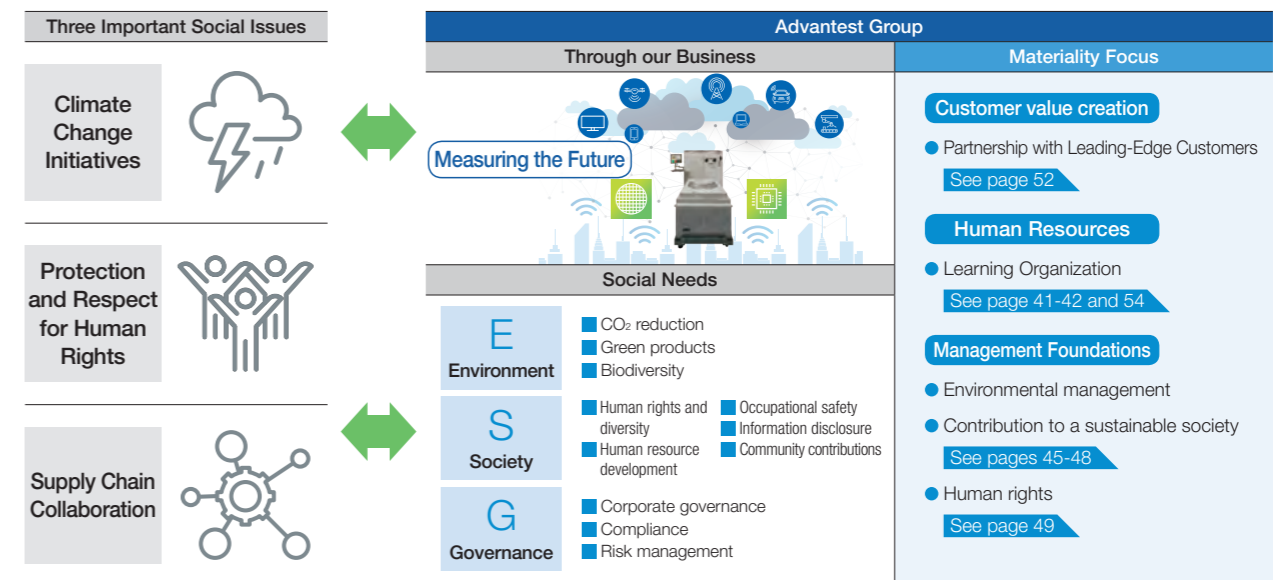


For details, see "Sustainability Data Book".

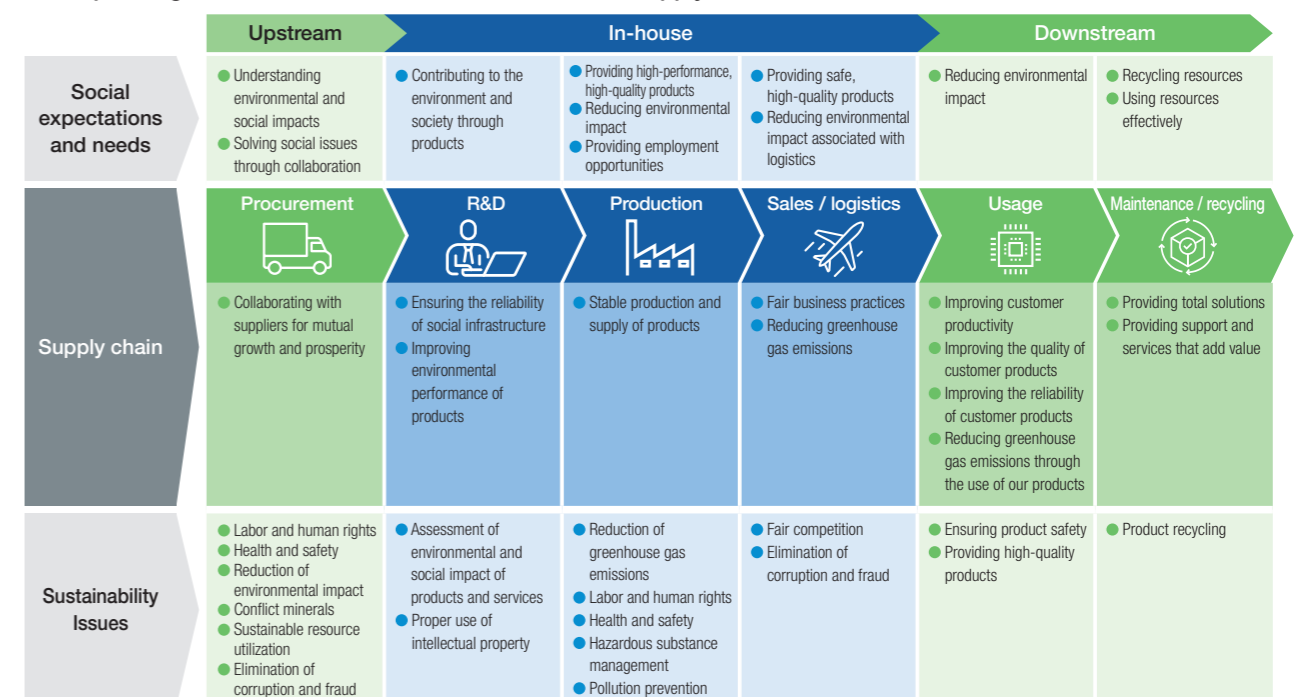


Sustainability Overview

In response to social needs and the importance of solving social issues through our business, Advantest focuses on the environment (E), society (S), and governance (G), aiming to develop together with society. In addition, understanding the importance of responding to climate change and taking initiatives to protect and respect human rights, we collaborate with everyone in our supply chain to achieve the vision of a safe, secure, comfortable, and sustainable future.



Responding to social issues in collaboration with our supply chain



Important Social Issue 1

Climate Change Initiatives

For details, see "Sustainability Data Book".



Advantest engages in environmental conservation activities such as the development of green (environmentally friendly) products, reduction of environmental impacts, and biodiversity conservation based on our environmental policy. In particular, regarding the prevention of global warming, we proactively promote the reduction of CO₂ emissions through our business activities and of greenhouse gases emissions through our supply chain. Going forward, we will set long-term goals and policies from the perspective of biodiversity and make even greater efforts to achieve a sustainable future for our common home.

Advantest Group Environmental Policy

- 1 **Promoting Environmental Management**
By maintaining our environmental management system, we promote global environmental conservation efforts that balance business activities and environmental efficiency.
- 2 **Reduction of Customers' Environmental Impact**
We promote energy conservation, improved recyclability, and the elimination of hazardous substances, giving consideration to the life cycle of our products from materials procurement to disposal of products.
- 3 **Business Process Innovation**
We continually improve our business processes to hone our environmental performance through environmentally friendly manufacturing.
- 4 **Environmental Protection and Sustainable Use of Resources**
By being alert to the environmental impact of our business activities, we strive to protect the environment through measures ranging from climate change prevention to the conservation of biodiversity, as well as sustainable use of resources such as energy and water.
- 5 **Compliance with Environmental Laws and Regulations / Pollution Prevention**
Upholding all environmental laws and regulations and voluntary standards, we protect nature and shield our neighbors from environmental pollution and health hazards caused by chemical substances, waste and other contaminants.

Revised April 1, 2017

Major Environmental Conservation Initiatives

- 1993 ● Advantest Global Environmental Conservation Committee established
- 1994 ● Published "Advantest Environmental Action Plan"
- 1998 ● Established Global Environment Office, and started full-scale environmental conservation activities
- 1998 ● Formulated "Advantest Environmental Policy"
● Obtained ISO14001 certification for the Gunma Factory
- 2001 ● Opened Japan's largest biotope at the Gunma R&D Center
● Obtained ISO14001 certification for all domestic facilities
- 2004 ● Conducted rainforest conservation activities in Borneo to commemorate the 50th anniversary of Advantest's founding (2004-2016)
- 2008 ● 40% reduction in power consumption achieved by our first green product, the T5503
- 2009 ● ISO14001 certification achieved by facilities in the United States, Germany, Singapore, China, South Korea, Taiwan, and Malaysia, completing our certification worldwide
- 2012 ● Achieved 100% renewable energy sourcing at US offices
- 2019 ● Achieved 100% renewable energy sourcing at German offices
- 2020 ● Started introducing renewable energy at R&D and production locations in Japan
● Announced support for TCFD recommendations and joined RE100

(1) Announced support for TCFD recommendations, planning to obtain SBT certification

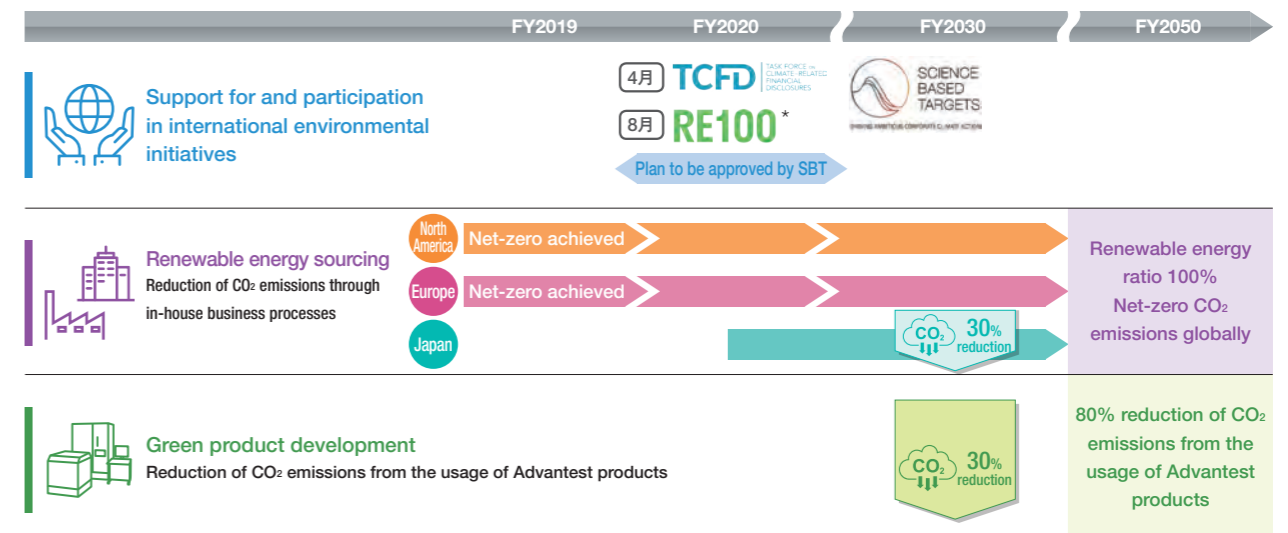


Advantest considers climate change response to be a key management issue. We are working to reduce CO₂ emissions not only in-house but across the entire scope of our business activities, including our value chain. In April 2020,

we disclosed relevant information in alignment with the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures). We are also preparing to obtain SBT* (Science Based Targets) certification.

* The SBT initiative is an international partnership that helps companies determine how much they must cut emissions to prevent the worst impacts of climate change, based on scientific evidence.

Climate Change Initiatives Roadmap Targeting 2050



* RE100 (Renewable Energy 100%) : A global initiatives bringing together the world's most influential businesses committed to 100% renewable electricity.

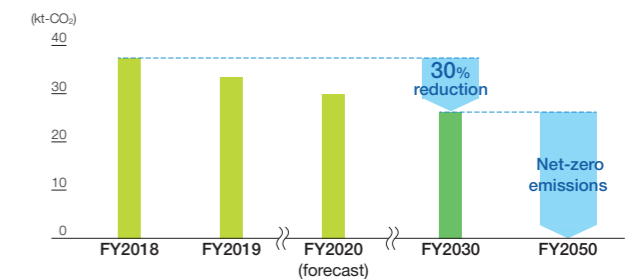
(2) Global utilization of renewable energy



In terms of mid- to long-term CO₂ emission reduction targets for business activities, we aim for a 30% reduction in FY2030 (compared to FY2018) and a goal of "net-zero CO₂ emissions" by 2050. In August 2020, we joined the international initiative RE100, which aims for business activities to use 100% renewable energy, and are promoting CO₂ reduction globally by introducing renewable energy. We have already achieved 100% renewable energy sourcing in the United States (2012) and Germany (2019), and in April 2020, we started introducing renewable energy at our Japanese R&D bases in Gunma and Saitama Prefectures. We plan to achieve RE100 at the Gunma Factory by 2030.

From 2030, we will aim to achieve the target of net-zero CO₂ emissions in 2050 by further accelerating the introduction of renewable energy sourcing in Japan and Asia as appropriate given conditions in each region.

CO₂ (Scope 1 + 2) Emissions Reduction Objectives



FY2030 30% Reduction Reduction objectives vs. FY2018 actual emissions

Measure	Reduction (t-CO ₂ / year)
Promotion of energy-saving measures (improved air conditioning efficiency, LED lighting, shortened production times, etc.)	2,100
Increase of renewable energy utilization ratio	9,700
Utilization of credits such as power certificates	500
Total reduction	12,300



For details, see "Sustainability Data Book".



(3) Reduction of CO₂ Emissions Through Green Product Development

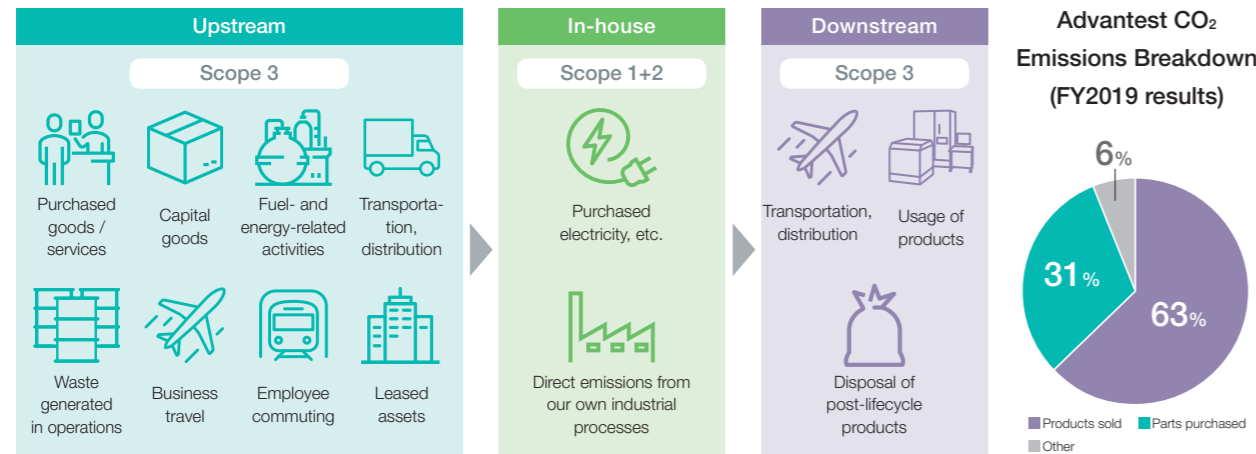


Greenhouse gases (GHG) emitted through the use of our products account for approximately 63% of total emissions from our value chain (parts procurement, manufacturing, in-use and disposal). Therefore, we are prioritizing the development of green (environmentally friendly) products.

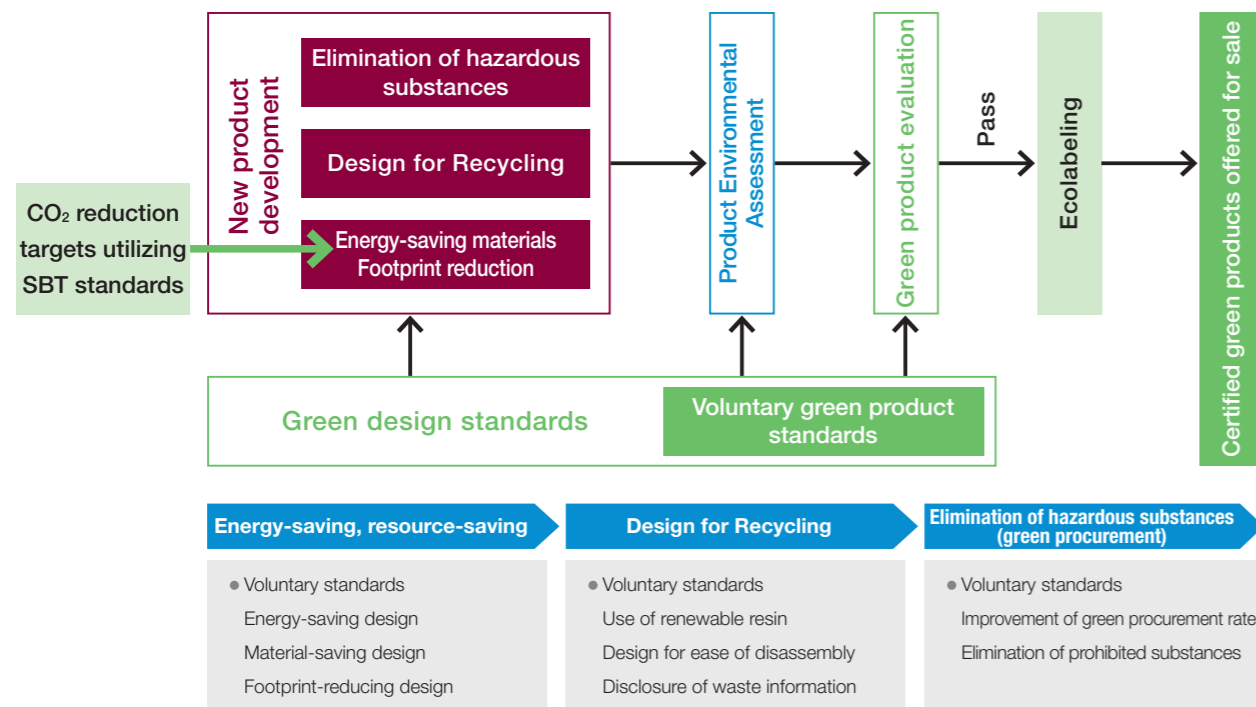
Hitherto, we have assumed a +2°C scenario for global warming, and have considered reducing CO₂ emissions 30% by 2030 and 51% by 2050. We have now reset our

targets to a 30% reduction by 2030 and an 80% reduction by 2050, based on the October 2019 revision of the SBT standards, which now call for a temperature rise of "well below" 2°C (in comparison to the pre-industrial era). To reduce after-market emissions from our products, which account for 63% of GHG (Scope3) emissions across our entire supply chain, the product development division is playing a central role in developing green products.

CO₂ Emissions in Advantest's Supply Chain



Advantest's Green Product Certification Process



TOPICS



Customers Demand Environmental Performance. New Goals Based on SBT Boost It.

Hirokatsu Nijima
Memory Test Business Unit
Section Manager



As Moore's Law implies, the semiconductor manufacturing process continually evolves, and the number of circuits integrated onto a single chip is increasing year by year.

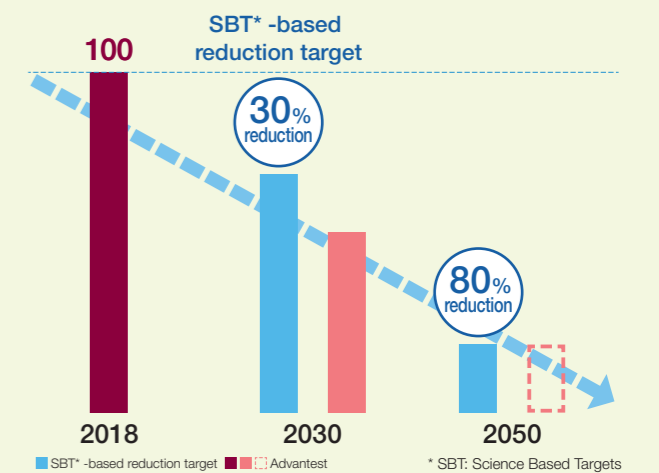
In addition, semiconductors are indispensable for the evolution of 5G and other information technologies, and the production volume of these devices is increasing. Great numbers of semiconductors are also being used in automobiles and medical equipment, where test-guaranteed reliability is even more essential. As a result, the number of tests conducted is increasing exponentially, and customers are seeking greater test efficiency (increasing test speed and parallel test capability) for each new generation of semiconductors.

CO₂ reduction and contribution to the SDGs are now essential aspects of business. Advantest believes that improving the performance of our testers to meet the technical requirements of our customers can also contribute to the reduction of CO₂ emissions. We use "power consumption per test" as our basic unit to evaluate power performance, and aim to increase test frequency without increasing power. We are working to reduce power consumption per test, and thus CO₂ emissions per test, by increasing the test frequency multiplied by pin count, or the test frequency multiplied by parallel measurement count, without increasing power consumption.

For example, if we quadruple the "test frequency x pin count" while less than doubling power consumption, we halve CO₂ emissions per test.

Hitherto, our technology and development roadmap referred mainly to customer trends and the now-defunct International Technology Roadmap for Semiconductors (ITRS). We are now introducing a new SBT-based CO₂ emissions reduction target, which informs our long-term technical targets for 2030. We are continuing to formulate our 2050 targets.

Average CO₂ emissions per test reduction targets



Important Social Issue 2

Protection and Respect for Human Rights

(1) Creating a Workplace where Human Rights are Respected



Advantest believes that human rights are an important factor to consider in the global expansion of our business. We support international human rights norms such as the Universal Declaration of Human Rights, and respect basic human rights in light of the laws and regulations of each country and region where we operate.

In addition, we have signed the United Nations Global Compact, a global initiative advocated by the United Nations, and support its 10 principles by promoting initiatives in the four fields of human rights, labor, the environment, and anti-corruption.

The Advantest Way includes a Code of Conduct that lays out our policy on human rights protection. It prohibits discrimination based on race, gender, age, nationality, religion, social origin, physical disability, illness, or sexual orientation. We have also formulated a human rights and discrimination manual and a harassment prevention guide to promote protection and respect for human rights, which guides us in developing the spirit of the United Nations Global Compact in our workplaces worldwide.



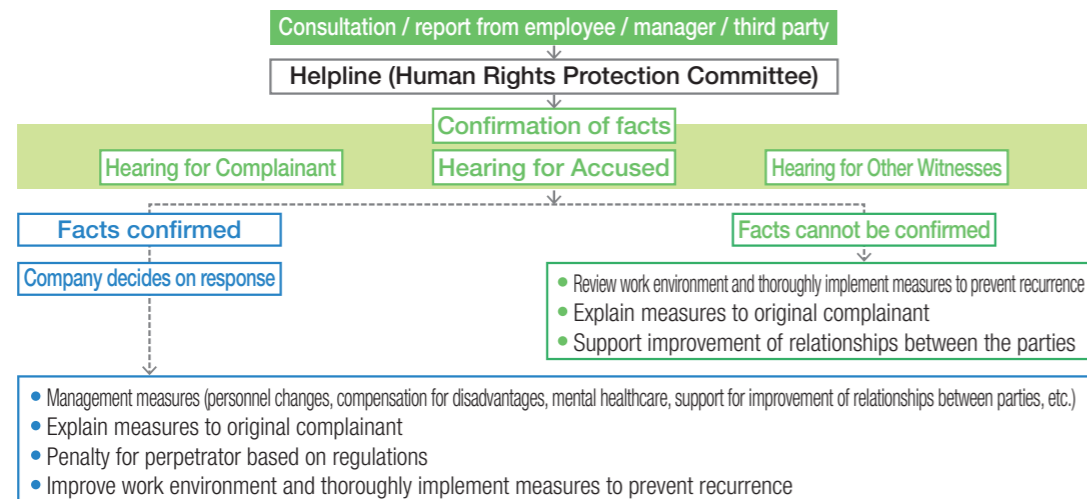
(2) Human Rights Issues Helpline



Advantest has set up a corporate ethics helpline for human rights problems or consultations that are difficult to solve in the workplace, enabling employees to report issues and consult directly with the Corporate Ethics Office. The Corporate Ethics Office plays a central role in handling reports and consultations, and keeps the names of individuals strictly confidential to avoid possible unfavorable treatment or retaliation. From fiscal 2019, we also set up a channel for reports to an external law firm to make helpline consultations and reports even easier. These helplines can also be used outside Japan.

In Japan, we have set up a Human Rights Protection Committee which works together with our labor union to resolve consultations on human rights issues. In fiscal 2019, we received two harassment-related consultations, both of which have been resolved. The Human Rights Protection Committee takes appropriate measures after giving due consideration to the privacy of the individuals involved, and seeks prompt solutions. In this way, we strive to create workplaces where all employees respect each others' human rights and can work with peace of mind.

Consultations and Reports Resolution Workflow



Occupational Health and Safety Management



For details, see "Sustainability Data Book".



The Advantest Group recognizes that health and safety management is one of the most important aspects of business activities. We actively and continuously conduct health and safety activities based on the Advantest Group Occupational Health and Safety Basic Policy.

In FY2019, we maintained the health and safety of our employees along the following two axes:

(1) Health Management Promotion

Having decided to introduce health management to maintain and improve the health of our employees, we declared our Health and Productivity Management (HPM) Policy in September 2019. Under this policy, the company, our health insurance union, and our labor union work together to encourage employees to get health checkups, improve the implementation rate of specific health guidance, and operate a health portal website. As a result, Advantest was certified as a "Health Management Excellent Corporation 2020 (Large Corporation Category)" under the Japanese Ministry of Economy, Trade and Industry's Health Management Excellent Corporation Certification System.



Health and Productivity Management (HPM) Policy

In order to realize Advantest's mission, we will strive to create a workplace where every employee can work in good health, both physically and mentally. We will contribute as a good corporate citizen to the creation of a sustainable future.

Initiatives to maintain and improve employee health	<ul style="list-style-type: none"> Health literacy improvement: 100% health checkup rate, prevention of serious illnesses, health guidance (exercise, diet, smoking cessation, etc.), etc. 	<ul style="list-style-type: none"> Health support reinforcement: Health portal website launched (health checkup data, useful health information, walking challenge, etc.)
Initiatives for corporate growth	<ul style="list-style-type: none"> Employee engagement reinforcement: Engagement survey, action plan implementation (communication training, etc.) 	<ul style="list-style-type: none"> Work-life balance enhancement: Overtime restriction, encouragement of paid leave, paternity leave promotion, etc.
Initiatives for the achievement of the SDGs	<ul style="list-style-type: none"> Initiatives to maintain and improve the health of employees' families: Family health checkup rate improvement, health guidance, etc. 	<ul style="list-style-type: none"> Creation of a motivational workplace: Smoking cessation in business establishments, improvement of work environment, etc.

(2) COVID-19 Safety Measures



From the end of February 2020, the Crisis Management Headquarters took the lead in taking all possible measures to prevent infection based on the policy response of the government in each country where we operate. In Japan, we started telework on a trial basis in September 2017 in response to expected commuting difficulties associated with the Olympics, Paralympics, pandemics, and natural disasters, and established rules so that telework could be implemented in any department. We have also globally introduced online meetings, and successfully transitioned our expenses accounting to a paperless system. Thus in April 2020, we were fully prepared to implement our telework system, and were able to smoothly shift to telework when the Japanese government declared a state of emergency over COVID-19.

As we got used to working from home, we relaxed some rules (such as prohibitions on taking materials to home or printing things out at home) to maintain employee productivity at as high a level as possible. This flexibility proves that our telework system could also be implemented in other situations such as natural disasters, which are now increasing in frequency.

<p><Some of Our Safety Measures></p> <ul style="list-style-type: none"> Promoted telework to help employees whose children were at home due to school and daycare closures, etc., or allowed them to work flexibly Helped expectant mothers to use the telework system Reduced the number of chairs in employee cafeterias by two-thirds and changed the layout so that people cannot eat facing each other 	<ul style="list-style-type: none"> Conducted thorough disinfection of shared spaces such as cafeterias, shops, and commuter buses Secured connectivity for employees working from home by introducing cloud-based remote access Notified employees of security precautions regarding telework and gave them appropriate training
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Important Social Issue 3

Collaboration with Our Supply Chain

Supply Chain Management

Basic Policy

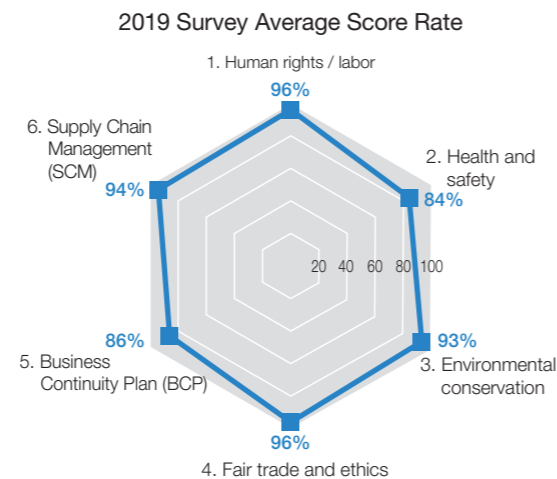
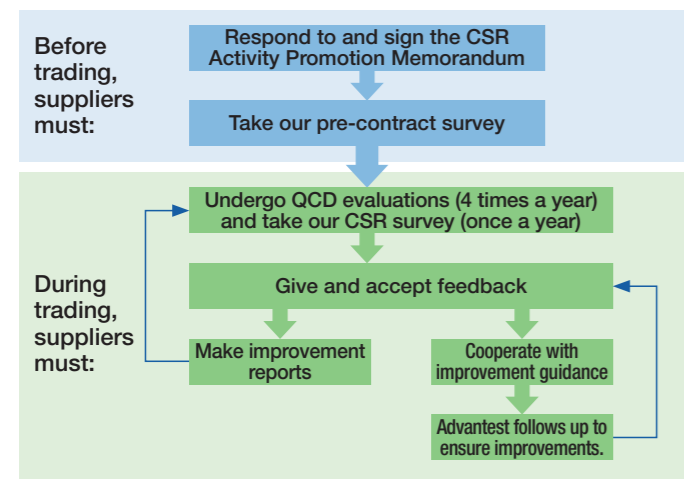
To fulfill our social responsibilities throughout our supply chain, Advantest publishes our Procurement Policy and Supply Chain CSR Promotion Guidebook on our website, and stipulates compliance with relevant laws and social norms as well as support for initiatives related to human rights, labor, and environmental conservation. In addition, we require suppliers to sign our "Basic Transaction Contract," which includes provisions related to ESG (Environment, Society, and Governance).

(1) CSR Procurement and Product Quality Improvement



In addition to conducting quarterly QCD* evaluations for suppliers, we also conduct an annual CSR questionnaire for the important suppliers who account for 80% of our transaction value. The questionnaire is adaptable to changing conditions, with the content being reviewed every year based on the Supply Chain CSR Promotion Guidebook and analysis of our priority issues and survey results through the previous year. We also create summaries of results for each supplier and work for mutual improvement through feedback.

* QCD: Quality, Cost, and Delivery



(2) Fair Transactions (CSR Procurement) Promotion Structure

Advantest has set up a department to guide the procurement division in promoting and managing fair transactions. Transaction status is audited by the audit department once a year, and generally unproblematic. We are careful not to deviate from sound business practices. In addition, an external organization conducts an internal control audit once a year, and confirmed that no problems occurred in FY2019. Furthermore, with the cooperation of our suppliers, we conduct CSR questionnaires and conflict minerals surveys, and provide feedback on the results to further enhance the fairness of our transactions.

TOPICS

Reinforcement of Advantest's Customer Support Capabilities



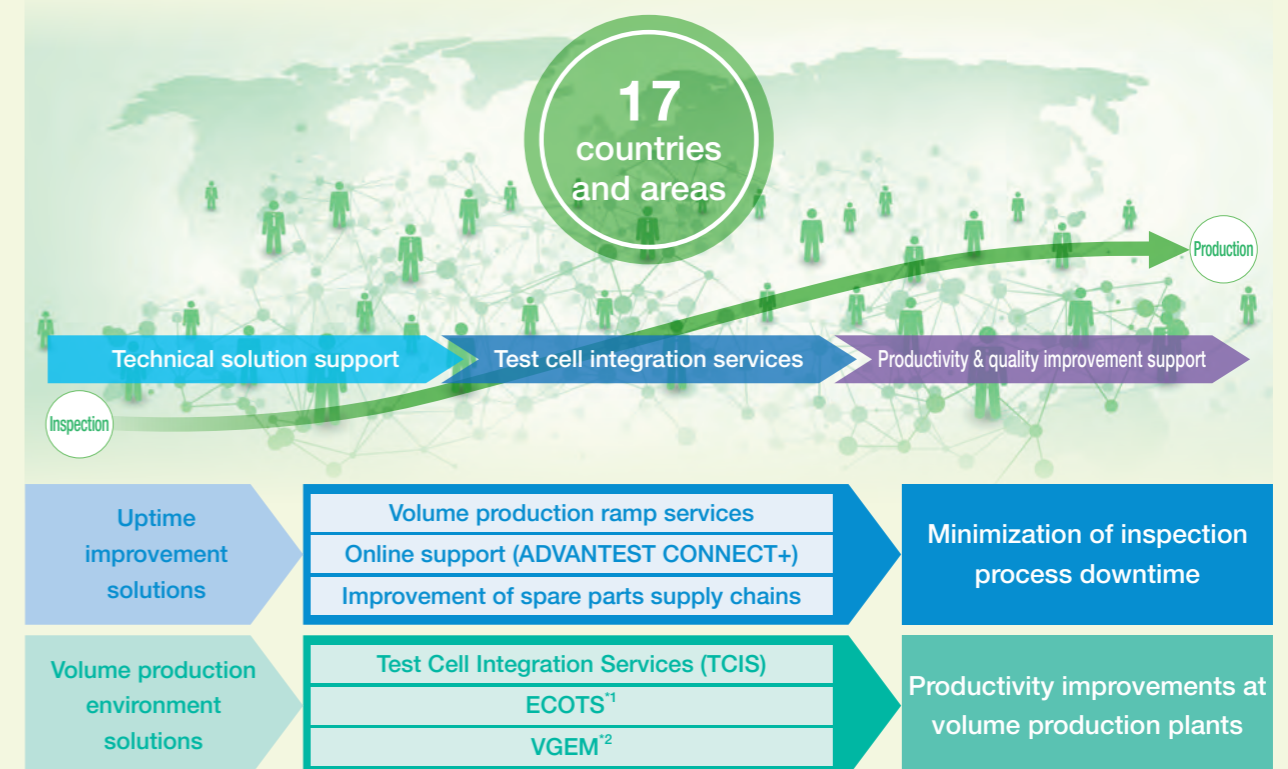
Advantest regards the ideal form of the materiality category of customer value creation as "Be a partner with leading-edge customers." The following two points are our priority strategies and themes for this category.

- Reinforce engagement with leading-edge customers
- Develop customer workflow solutions

As part of this, we introduce our field support activities that give top priority to customer value and are also environmentally friendly.

Advantest is committed to providing support that contributes to the efficiency of our customers' businesses and continuously supports their growth. In order to maximize equipment utilization rates, we carry out a wide range of activities such as quick repairs, test cell integration services for factory automation, and AI-driven efficiency improvements. Our technical solution support, test cell integration services, and productivity and quality improvement support all help us to further deepen our engagement with our customers and contribute to building foundations for technological innovation at energy-saving semiconductor fabs.

Field Support Activities



* 1: ECOTS: Easy and Convenient Operation Tools (an interface that allows users to build semiconductor test environments quickly and easily)
 * 2: VGEM: Virtual GEM (an interface solution that integrates customer automation systems with our test systems)

Human Resources Initiatives



For details, see
“Sustainability Data Book”.



Advantest considers employees a vital corporate resource. We support their diverse lifestyles and individual growth, and strive to help them grow together with the company. In September 2000, we established our Basic Philosophy of Human Resources, and continue to work on fairness and employee engagement, while actively supporting human resources development. We also support the 10 principles of the United Nations Global Compact, the Universal Declaration of Human Rights, and the Guiding Principles for Business and Human Rights, and aim to be an organization that emphasizes diversity while giving due consideration to the principles of human rights and labor.



Basic Philosophy of Human Resources

Advantest considers that employees are irreplaceable management resources (human capital), and has formulated the following philosophy as a basis for our measures related to human resources.

1. Focus on results

By encouraging people to take on challenges, we promote a personnel system in which employees who have overcome difficulties and achieved innovative results are evaluated and rewarded appropriately.

2. Fairness and engagement

We perpetually strive to make all our measures and systems objectively fair, with the goal of obtaining maximum employee engagement and achieving optimal results.

3. Active support for human resources development

We work tirelessly to improve ourselves, and actively support employees who wish to acquire advanced specialized knowledge and broaden their education.

(1) Diversity Management

The active participation of each and every employee is indispensable for the sustainable growth of the company. Advantest has set “Inclusion and Diversity” as one of its core values, and is actively working to form a corporate culture that fosters an environment where everyone can work comfortably, and where each Advantest employee can maximize their individual potential, abilities, and motivation. In recognition of these efforts, in 2019 Advantest Europe GmbH (AEG) was selected as one of the 100 greatest places to work in Germany by the international Great Place To Work® Institute.



(2) Global Hiring for a Global Workforce

Advantest emphasizes a global perspective in our system for hiring, training, and allocating human resources, aiming to give excellent employees fair access to opportunities regardless of nationality and promoting employees across national borders. Through exchanges, we are enhancing the development of global human resources and the globalization of our organization.

10 out of 24 executive officers of the Advantest Group are foreign nationals (as of March 2020), and the Advantest Corporation (Japan) employs people from nine different countries.



(3) Workplaces That Foster Innovation

Advantest believes it is important for employees to share their know-how and skills, and we aim to create work environments where people can converse freely. In fiscal 2019, we significantly renovated our in-house gathering areas such as the cafes and cafeterias at our R&D centers and factories in Japan. In planning the renovations, we visited the offices of overseas subsidiaries to exchange opinions, and as a result set up not only refreshment lounges but also casual meeting spaces and active spaces where employees can stretch. Bright open spaces with natural lighting are widely used to foster innovation, improve communication, and promote physical and spiritual refreshment.



TOPICS

Learning Organization ① Advantest Engineering Friday

Advantest regards the ideal form of the materiality category of human resources as “Learning Organization.” The following two points are our priority strategies and themes for this category.

- 1 Provision and promotion of learning opportunities and skill development opportunities for employees
- 2 Encouragement and promotion of teamwork across departments and regions

In fiscal 2019, we held workshops on The Advantest Way globally to create conditions for better communication with all stakeholders and more effective coworking. Among other human resources initiatives, Advantest Engineering Friday (AEF) was inaugurated in October



2019 as a venue for the software division to continuously share their thoughts and opinions. Young people and veterans meet regularly on Friday afternoons for mutual study, creating their own community in parallel with our organization. AEF is also actively used as a venue to support awareness through one-on-one dialogue, and several small subcommittees have been created. It is accelerating the learning cycle of each participant, and improving our organizational flexibility.



Learning Organization ② Online AI Courses

In February 2020, we built a trial environment for employees to take MOOCs (Massive Open Online Courses) on topics related to AI. Through Coursera, 42 students took deep learning and machine learning courses offered by well-known universities and organizations such as Stanford University, and 37 of them received diplomas. Programming skills and English proficiency were also required to solve

problems, so students worked together to help each other, which has helped to improve our engineers' abilities. In the future, we will not only encourage more new employees and other employees to take these courses, but will also build environments that help them to use what they have learned in their work.



Software technology and development methods are literally changing day by day. What really brought that home to me was when I attended an external seminar and heard that “Japanese software development is 10 years behind.” It is now common knowledge that thanks to the advance of IT technology, information can be exchanged instantly, and yesterday's state-of-the-art technology will be replaced by something else today. On the other hand, how long does it take us to provide new software to our customers? ... I couldn't stand to think about it!

Around that time, a chat with a manager led to the creation of Advantest Engineering Friday (AEF). AEF is an organizational effort to support ongoing employee growth. It is difficult to educate people, so we



Michihiro Seino
T2000 Business Unit
Section Manager

created an environment where people can educate themselves. Sessions can be held on multiple themes, and participants are free to join any session. They can also communicate across departments. The aim is for them to be able to talk to someone when they come up with something, find companions to try it out with, and share their anxieties and thoughts freely.