KIOXIA

Sustainability Report 2024

Kioxia Holdings Corporation

Index

Sustainability Reporting Policy

We report on sustainability issues that are a priority for Kioxia Group* and our stakeholders.

In updating the Sustainability website of Kioxia Holdings Corporation, we have taken into consideration and incorporated issues that are material for both the Group and our stakeholders.

In FY2023 these were the following:

1. Top-level commitment from the executive officer in charge of sustainability to engage in sustainability activities on behalf of Kioxia Group.
    > Messages to Stakeholders
2. Reporting on sustainability material issues that have been identified
    > Sustainability Materiality
3. Group performance in the area of sustainability (FY2023)
    > Environment
    > Social
    > Governance

* Kioxia Group is a corporate group consisting of Kioxia Holdings Corporation and its subsidiaries, including Kioxia Corporation.

Organizations covered in this report

In principle, Kioxia Group is covered in this report, but individual entities are referenced in cases where the information provided does not apply to the whole Kioxia Group.
Note: "Kioxia Group in Japan" refers to Kioxia Holdings Corporation and its consolidated subsidiaries in Japan. "Kioxia Group overseas" refers to consolidated subsidiaries overseas. Organizations which were combined within recent years may not be covered.

Reporting period

This report focuses on the results of activities in FY2023 (April 1, 2023 to March 31, 2024).
It also includes some details of activities initiated prior to FY2023 as well as more recent ones.

Publication

Current issue: November 2024

Reference Guidelines

- GRI (Global Reporting Initiative)
  This report contains standard disclosures from the GRI Sustainability Reporting Standard.
- SASB (Sustainability Accounting Standards Board)
- United Nations Global Compact [COP (Communication of Progress) Advanced level]
- ISO 26000

Company Information

Company Outline

Name	Kioxia Holdings Corporation
Address	3-1-21, Shibaura, Minato-ku, Tokyo 108-0023, Japan
Establishment	March 1, 2019 Kioxia Holdings Corporation was established as the holding company for our corporate group by means of a share transfer from Toshiba Memory Corporation (now Kioxia Corporation.)
President and CEO	Nobuo Hayasaka
Business	Group strategy formulation and management oversight
Employees	Non-consolidated: approx. 120, Consolidated: approx. 15,200 (As of March 31, 2024)

KIOXIA Group History

1987	Invention of world's first NAND flash memory
1992	Yokkaichi Plant established
2007	World's first 3D flash memory technology announced
April 2017	Toshiba Memory Corporation established
December 2017	Toshiba Memory Iwate Corporation (currently KIOXIA Iwate Corporation) established
March 1, 2019	Toshiba Memory Holdings Corporation established
October 1, 2019	Changed company name to Kioxia Holdings Corporation
July 2020	Acquired LITE-ON Technology's SSD Business, Solid State Storage Technology Corporation
April 2021	KIOXIA Corporation absorbed Kioxia Advanced Package Corporation through an absorption-type merger
June 2022	Kioxia Corporation completed acquisition of Chubu Toshiba Engineering Corporation (currently Kioxia Engineering Corporation)
December 2024	Listed on the Prime Market of the Tokyo Stock Exchange

> Standards of Conduct/Policies

Sustainability Report 2024
Kioxia Holdings Corporation

Management

Directors

Representative Director	Nobuo Hayasaka
Director	Stacy J. Smith
Director	Yuji Sugimoto
Director	Masashi Suekane
Director	Hiroshi Suzuki
Director	Michael R. Splinter

Statutory Auditors

Statutory Auditor	Isao Morita
Statutory Auditor	Koichi Hatano
Statutory Auditor	Shunsuke Nakahama

Executive Officers

President and Chief Executive Officer	Nobuo Hayasaka
Executive Chairman	Stacy J. Smith
Executive Vice President and Executive Officer	Hiroo Oota
Executive Vice President and Executive Officer	Tomoharu Watanabe
Senior Managing Executive Officer (Chief Financial Officer)	Hideki Hanazawa
Managing Executive Officer (General Manager, Legal Affairs Division)	Takahiro Asakura
Managing Executive Officer (General Manager, Human Resources and Administration Division)	Kyota Okishiro
Managing Executive Officer (Chief Strategy Officer)	Junichiro Yaguchi
Executive Officer (Chief Information and Security Officer)	Toshiaki Kawabata

Global Network

Kioxia Group is the world leader in memory solutions, dedicated to the development, production and sale of flash memory and solid state drives (SSDs). Kioxia Group comprises Kioxia Holdings, its 21 subsidiaries (6 in Japan and 15 overseas) and 6 affiliated companies (4 in Japan and 2 overseas).

| Kioxia Holdings Corporation |
| Kioxia Corporation |
| Subsidiaries and Affiliates (Japan) | Subsidiaries and Affiliates (Overseas) |
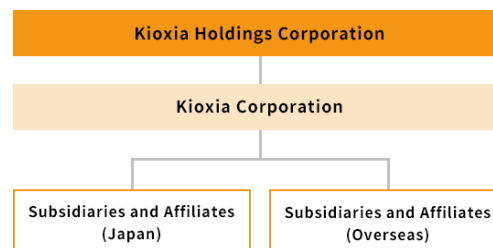
Kioxia Corporation

▶ **Kioxia Corporation** ⧉

Research, development, design, production and marketing of memory and SSD products

Subsidiaries and Affiliates (Japan)

▶ **Kioxia Iwate Corporation** ⧉

Production of flash memory products

▶ **Kioxia Systems Co., Ltd. (Japanese website)** ⧉

Design and development of memory products, and customer support

▶ **Kioxia Engineering Corporation (Japanese website)** ⧉

Engineering services related to semiconductor development, design and manufacturing Development and operation of semiconductor CIM systems

▶ **Kioxia Etoile Corporation** ⧉

Cleaning and employee health & wellness services, contract work related to farm production, and clerical & administrative work

▶ **Kioxia Energy Management Corporation** ⧉

Energy management business

Subsidiaries and Affiliates (Overseas)

▶ **Kioxia America Inc.** ⧉

Research, development and marketing of memory and SSD products

▶ **Kioxia Europe GmbH** ⧉

Sales and marketing of memory and SSD products

▶ **Kioxia Asia, Limited** ⧉

Sales and marketing of memory and SSD products

▶ **Kioxia Singapore Pte. Ltd.** ⧉

Sales and marketing of memory and SSD products

▶ **Kioxia Taiwan Corporation** ⧉

Sales and marketing of memory and SSD products

Kioxia Semiconductor Taiwan Corporation

Management of subcontracted production

▶ **Kioxia Korea Corporation** ⧉

Research and development of memory products, and marketing of memory and SSD products

▶ **Kioxia (China) Co., Ltd.** ⧉

Sales and marketing of memory and SSD products

Kioxia Israel Ltd.

Software development for SSD products

Kioxia Technology UK Ltd.

SSD Product Development

▶ **Solid State Storage Technology Corporation** ⧉

Design, development, manufacturing and marketing of SSD products

Mission & Vision

Mission

Uplifting the World with "Memory"

By evolving "memory," we create uplifting experiences and change the world.

Vision

With progressive memory technology at the core, we offer products, services, and systems that create choice and define the future.

The origin of the name "KIOXIA"

KIOXIA

KIOKU × AXIA

On October 1st 2019, we made a fresh start as KIOXIA Holdings Corporation. The name KIOXIA is a combination of the Japanese word *kioku* meaning "memory" and the Greek word *axia* meaning "value."

The concept of *kioku*, which underpins our mission and vision, goes beyond the notion of memory as mere data to more broadly encompass experiences, emotions and ideas.

Messages to Stakeholders

Message from the President and CEO

Uplifting the world with "memory," Kioxia Group continues to deliver value to society

Nobuo Hayasaka
President and CEO
Kioxia Holdings Corporation

Global issues such as climate change, finite natural resources, the spread of infectious diseases and various forms of social inequality are becoming more pressing. If we want to bequeath a sustainable world to future generations, we will need to find transformational solutions that address these and many other issues.

Advanced technologies are addressing some of these challenges today. Innovations in AI, IoT and Big Data are expected to play a key role as we move forward. Kioxia's memory solutions will play an indispensable role in our efforts to build a sustainable future.

Our business environment is becoming increasingly challenging. Climate change, the effects of which are becoming more severe, the need to promote respect for human rights and diversity and respond to the geopolitical risks arising from escalating international tensions, have all acquired greater significance.

In the midst of these societal changes, Kioxia Group is treating sustainability as a critical area of focus within our business strategy. Throughout the fiscal year 2023, we continued with our efforts to address our priority sustainability issues, and also made progress with the key performance indicators we set based around these. These KPIs are being integrated into our mid-term management plan alongside our financial metrics and business plans.

In particular, the transition to a decarbonized society is an urgent priority for the international community, and we are experiencing strong calls for decarbonization from our customers and other stakeholders. Aiming to achieve net-zero greenhouse gas emissions resulting from our business activities and purchased energy usage by the year 2050, we have joined forces with the GX League[1] and the Semiconductor Climate Change Consortium,[2] strengthening our collaboration with affiliated companies and organizations. We are also intensifying our focus on human rights due diligence and human capital management, recognizing these areas as critical to the ongoing growth and sustainability of our business, particularly as they continue to draw heightened attention from society at large.

Aligned with our mission of "uplifting the world with 'memory'", working with our partners I will lead our sustainability activities as we work to transform and enrich the lives of people everywhere and help build a more creative and inspiring world.

[1] A collaborative platform in Japan involving industry, government, and academia aimed at advancing green transformation and targeting the realization of a carbon-neutral society by 2050.
[2] An international corporate consortium established to advance climate change measures in the semiconductor value chain.

Message from the Executive Officer in Charge of Sustainability

We are boosting the sustainability of Kioxia Group operations in order to continue to be of value to society

Tomoharu Watanabe
Executive Officer in Charge of Sustainability
Executive Vice President
Kioxia Holdings Corporation

Kioxia Group provides semiconductor memory products that are essential for a wide range of electronic devices such as smartphones and servers that make life more convenient for people all over the world. Our technologies, innovations, and value-added products and services will continue to meet the constantly evolving needs of society and help ensure sustainability on a global scale.

There are, however, various challenges in society that need to be addressed, such as global warming and respect for human rights. In line with this, there is growing expectation and demand for companies to reduce their greenhouse gas emissions, as stipulated in the Paris Agreement and the UN's Sustainable Development Goals (SDGs). Collaboration with organizations like the Task Force on Climate-Related Financial Disclosures (TCFD), established by the Financial Stability Board and the Responsible Business Alliance (RBA), a coalition of companies promoting social responsibility in global supply chains, is also gaining prominence.

At Kioxia Group, we are actively pursuing sustainability initiatives in accordance with RBA guidelines, both within our own operations and throughout our supply chain. Furthermore, in the fiscal year 2023, with the aim of further strengthening sustainability management, we created groups at our main sites who are responsible for checking the progress of our sustainability initiatives, discussing and deciding on appropriate actions, and strengthening relevant activities.

Climate change is a significant concern in our semiconductor business, as it is across society at large. To respond to this, we have been proactively installing equipment that limits the emission of PFCs and other gases at our manufacturing bases. Furthermore, at our new manufacturing facilities, we have implemented highly efficient energy-saving production processes through the use of cutting-edge equipment and the introduction of AI and IoT technologies, aiming to reduce our environmental impact. Additionally, to promote the use of renewable energy, since FY2022 we have continued with the installation of rooftop solar power generation systems at our Kitakami and Yokkaichi plants. With a total generating capacity of about 7.5 megawatts,[1] these installations are among the largest of their kind at any semiconductor plant in Japan.[2] We plan to continue these installations at those plants from FY2024 onwards.

We comply with all relevant laws, regulations and social norms, and will continue to aspire to be a Kioxia Group that is trusted by all our stakeholders, proactively undertaking sustainability initiatives to create value for society through "memory."

[1] Total generation capacity increased by 208% compared to the previous year.
[2] Based on Kioxia Group's research (as of November 2023)

Kioxia Group's Sustainability Efforts

Sustainability Management

Major Sustainability Issues and Initiatives in the Value Chain

Stakeholder Engagement

Kioxia Group Initiatives in Support of the Achievement of SDGs

Kioxia Group's Contribution to Addressing Social Issues through its Business Activities

SDG-Related Topics

Sustainability Management

Based on our corporate mission of "uplifting the world with 'memory,'" the Kioxia Group pursues sustainability management aiming to enrich people's lives through our products and services and to broaden society's possibilities. Through communication and collaboration with a range of stakeholders including customers, suppliers, employees and their families, we aspire to gain an understanding of issues that affect them and build relationships with them founded on trust.

Sustainability Management Structure

To strengthen and advance company-wide sustainability management, we have created two conferencing bodies.

Kioxia Group's sustainability strategies, policies and targets are discussed and decided at Sustainability Strategy Meetings, which are chaired by the President & CEO. Members consist of executive officers, who regularly review progress and report any significant issues to the Board of Directors.

The Sustainability Committee, chaired by the Executive Officer in charge of Sustainability, comprises the heads of corporate divisions and Kioxia Corporation's business divisions. They discuss sustainability issues and indicators and check the progress of activities based on the strategies and policies formulated at the Sustainability Strategy Meetings.

In addition, where necessary we have set up appropriate task forces under the Sustainability Committee to debate key sustainability issues, to implement measures to address these, and manage progress.

These meeting bodies are managed by the Sustainability Division, which is dedicated to promoting the Kioxia Group's sustainability activities.

Kioxia Group's Sustainability Management Structure
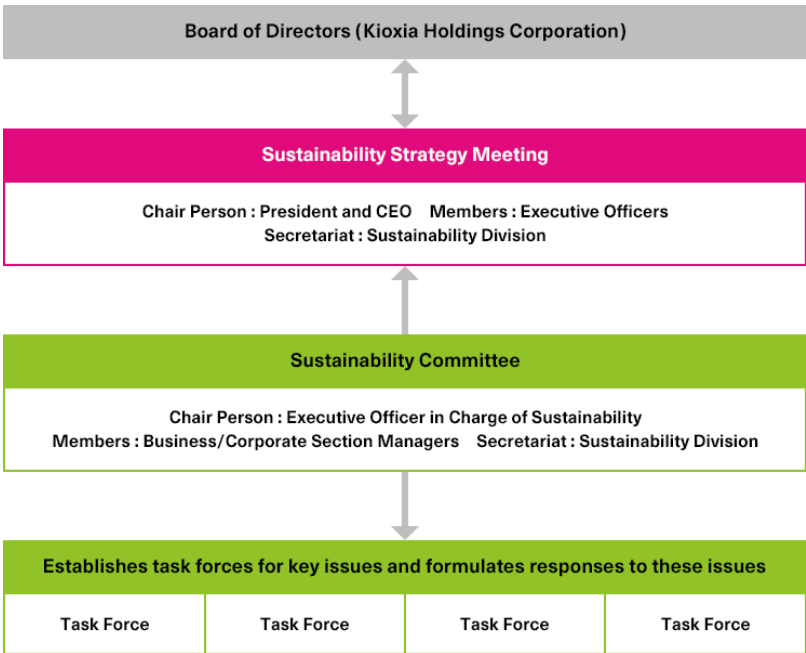
In FY2023, we continued discussions on KPIs[1] considered essential for addressing our sustainability issues (Sustainability Materiality), monitored the progress of the 30 KPIs, and in response to social demands, reset some of the targets. We have also incorporated these non-financial indicators into our medium-term management plan, which is integrated into our financial indicators and overall business plan.

[1] Key Performance Indicator

Third-party Sustainability Certification

Kioxia Group has acquired certification by the International Organization for Standardization (ISO) in the categories of Quality, Environment and Occupational Health and Safety Management Systems, and we work to retain these and obtain updated certifications on an ongoing basis.

Kioxia Holdings Corporation is also a member of the Responsible Business Alliance (RBA). We accordingly fulfil the responsibilities specified in the RBA Code of Conduct, undertaking our own CSR activities and requiring our suppliers to do the same. Kioxia Corporation's headquarters and manufacturing sites, Yokkaichi Plant, Kioxia Iwate Corporation and Solid State Storage Technology Corporation, conduct self-assessments based on the questionnaire published annually by the RBA to ensure that internal controls in the areas of workforce, health and safety, environment, ethics, and management systems are appropriate. In addition to this, our manufacturing sites voluntarily undergo third-party audits by the RBA once every two years to assess the soundness of their business activities.

In the RBA third-party audits, which were conducted between 2021 and 2023, all manufacturing sites (Yokkaichi Plant, Kioxia Iwate Corporation, Solid State Storage Technology Corporation) were found to have appropriate management controls in the audited areas of labor, health and safety, environment, ethics, and management systems, and were awarded Platinum, the highest status in the RBA certification program.

Through the acquisition of third-party assessments, we keep abreast of the latest sustainability requirements and work to address any relevant issues. These activities ensure that our sustainability efforts are properly evaluated, and that our customers and other stakeholders can feel secure in doing business with us.

Permeation of Sustainability Awareness within the Company

Raising Employee Awareness

To raise sustainability awareness across the entire Kioxia Group, the President & CEO and other senior executives communicate the importance of sustainability management policies and practices in corporate strategy meetings at the beginning of each half semester. In addition, education covering sustainability activities is provided for new graduates and those newly appointed to managerial positions, as well as during job-specific training and development for employees in sales, procurement and other functions.

Kioxia Group distributes the Kioxia Sustainability Handbook to all its employees; this explains the basic concepts of sustainability management.

In addition, the company newsletter issued to employees and their families covers a wide range of sustainability-related topics; everything from women's career advancement to the installation of solar panels.

KIOXIA Group Sustainability Handbook (Japanese / English)

In FY2023 we provided an e-learning program for our executives and employees to deepen their understanding of our sustainability management. We also conducted a questionnaire to help us improve the educational content.

Furthermore, in FY2023, the Kioxia Group established a new award system with the aim of stimulating sustainability activities among its employees. The awards are presented twice a year to those whose activities have achieved particularly outstanding results.

Through this program, we aim to increase opportunities for each and every employee to look at society from a broader perspective, to rethink their work in terms of social issues, and to consider solutions to these issues. We will continue our efforts to nurture human resources and foster a corporate culture in which employees keep social issues in mind while engaging in their work.

Sustainability Activities at Our Sites and Affiliates

In order for the Kioxia Group to promote sustainability management in a unified manner, it is necessary to create a system that promotes understanding and addressing of sustainability issues at our sites and affiliates. In FY2023, we established new secretariats to promote sustainability management at Kioxia Corporation's Yokkaichi Plant, Yokohama Technology Campus and Kioxia Iwate Corporation, the production and R&D sites of the Kioxia Group.

At the sustainability meetings held at each site and affiliated company, the progress of activities being carried out at the site to achieve the sustainability materiality KPIs the entire Group is working on is visualized and managed, as is their progress in reviewing working styles and building better relationships with local communities.

Now that the Kioxia Group's head office divisions, sites and affiliates have established a common framework for working together on sustainability, we will continue to strengthen our activities in this area as a united group.

Major Sustainability Issues and Initiatives in the Value Chain

As the structure of our various business segments differs and their value chains and stakeholders vary, Kioxia Group performs mapping and analyzes sustainability challenges and risks for each segment, doing our utmost to avoid and mitigate risks.

Value chain	Relevant stakeholders	Major sustainability issues	Kioxia Group's Approach
Mining of raw materials	Local communities	**<Sustainability issues concerning human rights and labor relations>** · Responsible Minerals Sourcing · Respect for human rights · Child labor, forced labor · Occupational health and safety **<Sustainability issues concerning environmental relations>** · Consideration for biodiversity · Sustainable resources	**A** Action on Responsible Minerals Sourcing
Manufacture of components and materials	Suppliers Local communities	**<Sustainability issues concerning human rights and labor relations>** · Respect for human rights · Occupational health and safety · Child labor, forced labor **<Sustainability issues concerning environmental relations>** · Proper management of chemical substances · Reducing greenhouse gas emissions · Sustainable use of water resources · Consideration for biodiversity **<Other sustainability issues>** · Anti-corruption	**B** Monitoring suppliers
R&D, Product planning, Product design	Employees	**<Sustainability issues concerning human rights and labor relations>** · Respect for human rights · Occupational health and safety · Labor management · Diversity promotion **<Other sustainability issues>** · Protection of intellectual property · Product safety · Information security management	**C** Promoting the career development of female employees
Product manufacture Contract manufacturing	Employees Resellers	**<Sustainability issues concerning human rights and labor relations>** · Respect for human rights · Occupational health and safety · Labor management · Diversity promotion **<Sustainability issues concerning environmental relations>** · Proper management of chemical substances · Efficient use of energy · Sustainable use of water resources · Reducing greenhouse gas emissions **<Other sustainability issues>** · Protection of intellectual property · Quality control · Information security management	**C** Promoting the career development of female employees **D** Reducing the environmental burden of manufacturing sites
Sales	Resellers Customers	**<Other sustainability issues>** · Antitrust and fair trade practices · Protection of customer and personal information · Export control · Advertising expressions · Providing information about product safety	
Distribution	Resellers	**<Sustainability issues concerning human rights and labor relations>** · Occupational health and safety **<Sustainability issues concerning environmental relations>** · Reducing greenhouse gas emissions	
Use	Customers	**<Sustainability issues concerning environmental relations>** · Reducing greenhouse gas emissions **<Other sustainability issues>** · Response to product accidents · Customer service and support	
Disposal	Customers	**<Sustainability issues concerning environmental relations>** · The products recycle · Reducing environmental impact when disposing products	

(Kioxia Group: R&D, Product planning, Product design → Product manufacture → Sales)

❯ A: Action on Responsible Minerals Sourcing

❯ B: Monitoring Suppliers

❯ C: Promoting the Career Development of Female Employees

❯ D: Reducing the Environmental Impact of Manufacturing Sites

Stakeholder Engagement

Kioxia Group's business activities involve relationships with diverse stakeholders, as outlined below.

Here we clarify our responsibilities to our major stakeholders, the relationships between Kioxia Group and each stakeholder, the points of dialogue, and examples of communication in FY2023.

Major Stakeholders

Stakeholders		Relationship with Kioxia Group
Customers		We sell a wide range of memory and SSD products around the world. These are mainly used in smartphones, laptop PCs, data centers, and data servers.
Shareholders/Investors		Shareholders ・ Toshiba Corporation (40.64%) ・ BCPE Pangea Cayman, L.P. (25.92%) ・ BCPE Pangea Cayman2, Ltd. (14.96%) ・ BCPE Pangea Cayman 1A, L.P. (9.37%) ・ BCPE Pangea Cayman 1B, L.P. (5.99%) ・ Hoya Corporation (3.13%) Total 100.00% * The above shows the voting shareholding ratios as of August 27, 2020. * The ratio of voting rights owned to the voting rights of all shareholders is rounded to two decimal places. However, the total number is rounded off to one decimal place.
Suppliers		We deal continuously with some 650 suppliers worldwide (as of March 31, 2024)
Employees		Approx. 120 in Kioxia Holdings Corporation, approx. 15,200 in consolidated companies (as of March 31, 2024)
Local Communities		In carrying out our business operations, we respect the cultures, history and customs of people in each country or region.
Governments/Public Bodies		We observe the laws and regulations of the respective countries and regions in which we do business.
NPOs/NGOs		We cooperate with NPOs and NGOs in areas such as the environment, human rights and our contribution to society, and always endeavor to engage in constructive dialogue with them.
Global Environment		We are tackling climate change and other environmental challenges so that the habitats of diverse life-forms, including our own descendants, can be maintained.

Customers

Key responsibilities	・ Providing safe, secure products and services that offer great value ・ Providing appropriate product information ・ Ensuring excellent customer relations and support
Major means of identifying stakeholders' views and requests	・ Routine sales activities ・ Call center contact (phone, email, etc.)
Stakeholder point of contact	Sales & Marketing Headquarters and each division, Kioxia Corporation

Communication Method and Case Study

Sharing and Reflecting on Customer Feedback

We receive comments and requests for products and services in our daily operations; these are shared among relevant personnel including top management and used to improve product quality and improve after sales services.

Shareholders/Investors

Key responsibilities	・Disclosing information in a timely and appropriate manner
Major means of identifying stakeholders' views and requests	・Press releases
Stakeholder point of contact	Legal Affairs Division, Corporate Strategy Division, Corporate Communication Division and IR Division, Kioxia Holdings Corporation

Suppliers

Key responsibilities	・Selecting suppliers fairly and engaging in fair trading practices ・Respecting human rights, promoting labor and environmental management in the supply chain
Major means of identifying stakeholders' views and requests	・Routine procurement activities ・CSR survey, audit, guidance ・Business Partner Hotline
Stakeholder point of contact	Procurement Division, Kioxia Corporation

Communication Method and Case Study

Requesting Suppliers to Undertake Sustainability Management

In the course of our daily procurement operations we ask our suppliers to undertake their own sustainability practices. We also conduct surveys of suppliers based on the RBA* Code of Conduct to confirm the status of their compliance.

*Responsible Business Alliance

▶ Sustainable Supply Chain

Employees

Key responsibilities	・Respecting human rights ・Maintaining appropriate employment and labor-management relations ・Conducting fair assessment, treatment, and development of human resources ・Respecting diversity ・Supporting diverse working styles ・Ensuring occupational health and safety
Major means of identifying stakeholders' views and requests	・Dialogue, information exchange meetings ・Labor-Management Congress ・Employee engagement survey ・Whistleblower System
Stakeholder point of contact	Human Resources & Administration Division and Legal Affairs Division, Kioxia Corporation

Communication Method and Case Study

Messages from Top Executives

In FY2023, the President and senior executives of Kioxia Holdings Corporation shared videos with employees outlining our management vision and strategies; they were shown via online conferences and via our intranet at the beginning of each half semester.

The aim was to maintain and improve employee motivation by directly sharing in a timely manner with all employees information about management decisions that affect the whole company. And senior executives also deliver e-mails to employees about any important management decision after that in a timely manner.

Promoting Employee-Management Dialogue

Kioxia Group fully respects internationally recognized human rights standards, including the International Bill of Human Rights (Universal Declaration of Human Rights and International Covenants on Human Rights) and the core labor standards specified by the International Labor Organization. We additionally adhere to the United Nations Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises, and we ensure that our employees enjoy fundamental labor rights. The labor agreement concluded with the Labor Union of Kioxia Corporation stipulates that the Labor Union has three basic rights—the right to association, the right to collective bargaining, and the right to act collectively.

At the Kioxia Labor-Management Congress held every six months, Kioxia Corporation discusses its business policies with representatives of the Association of Kioxia Unions in Japan. In addition, Kioxia and representatives of the Association of the Kioxia Union in Japan hold negotiations every spring. Kioxia pays higher than the legal minimum wage and ensures all employees are fairly treated.

Kioxia Group companies overseas hold discussions with their labor unions or employee representatives in accordance with the laws and regulations of the countries and regions in which they operate.

Employee Engagement Survey and Disclosure of Results

Kioxia Corporation regularly conducts employee engagement surveys in order to solicit feedback from employees, and to periodically monitor the level of employees' understanding of and adherence to the company's policies.

We share the survey results with employees, and the presidents of each our companies sends a message addressing and commenting on these; in this way we leverage the survey to create a more open corporate culture.

▶ Respect for Human Rights

▶ Talent Development

▶ Diversity Promotion

▶ Health and Safety

Local Communities

Key responsibilities	• Stimulating local economies • Respecting diverse customs and cultures • Helping to cultivate the scientists and engineers of the future • Engaging in social contribution activities in local communities • Preventing accidents and disasters at business sites
Major means of identifying stakeholders' views and requests	• Dialogue, information exchange meetings • Science classes, research grants • Factory visits • Holding summer festivals to promote communication with residents and to revitalize communities • Providing opportunities for community workshops to sell their products • Employee participation in community activities
Stakeholder point of contact	Administration division's of each business site and group companies

Communication Method and Case Study

Supporting Local Community Development

Kioxia Group sees it as our responsibility as a good corporate citizen and as a member of the local communities where we have a presence to leverage our business activities to help address issues faced by those communities. In particular we aim to engage in business activities that are rooted in those communities, such as promoting local employment and trade with local companies.

Kioxia Group offers internships to enable students to experience working and develop an interest in manufacturing.

Contributions to Society

As a good corporate citizen, Kioxia Group strives to build better relationships with the communities where we conduct our business. For example, we communicate with local communities about our efforts to protect the environment through initiatives such as factory visits and by holding classes at elementary schools. We do this so that a wide range of stakeholders, such as the communities around Yokkaichi Plant—including schools, students, customers, and other companies—can learn about Kioxia Group's environmental activities.

At the eco-charity bazaar that our Yokkaichi Plant has been hosting since 2007, we recycle unwanted household goods and donate all profits from the bazaar to the Yokkaichi City Greening Fund. In FY2023, we collected and donated 29,410 contact lens cases through an activity promoting corneal transplants.

▶ Supporting Local Community Development

Governments/Public Bodies

Key responsibilities	· Complying with laws and regulations, and paying taxes · Supporting government policies that address social issues
Major means of identifying stakeholders' views and requests	· Dialogue and proposals via economic associations and industry bodies
Stakeholder point of contact	Each Group Company and Corporate Strategy Division, Kioxia Corporation

Communication Method and Case Study

Job Creation and Tax Contribution

Kioxia Group is expanding its business around the world. The jobs we create help support local communities, especially production facilities that employ large numbers of local people.

By paying taxes in accordance with national laws and regulations, Group companies and their employees make an economic contribution to the countries and regions where they operate.

Participation in Industry Associations

Kioxia actively participates in the activities of industrial associations to help address various social issues.

Kioxia Holdings Corporation

· TCFD Consortium
· Responsible Business Alliance

Kioxia Corporation

· Keidanren (Japan Business Federation)
· Japan Electronics and Information Technology Industries Association

NPOs/NGOs

Key responsibilities	· Collaborating on and helping to solve global social issues · Collaborating on local community development
Major means of identifying stakeholders' views and requests	· Dialogue through collaboration
Stakeholder point of contact	Sustainability Division, Kioxia Corporation and Group Companies

Global Environment

Key responsibilities	· Mitigating climate change · Reducing waste discharge · Reducing the release of chemicals · Conserving biodiversity
Major means of identifying stakeholders' views and requests	—
Stakeholder point of contact	Environment Planning Promotion Group, Production Technology Promotion Division, Kioxia Corporation

▶ Yokkaichi Plant - Environmental Initiatives 🗗
▶ Kioxia Iwate Corporation - Environmental Initiatives 🗗

Kioxia Group Initiatives in Support of the Achievement of SDGs

The 2030 Agenda for Sustainable Development was unanimously adopted at the United Nations headquarters in New York in September 2015. The agenda calls for no one to be left behind and stipulates 17 Sustainable Development Goals (SDGs) as important guidelines aimed at driving the international community's realization of sustainable development and the elimination of poverty by 2030.

Contribution to the Solving of Social Issues through Our Business

Humanity is facing a variety of issues on a global scale including global environmental problems; climate change; the water crisis; an increasing population; shortages of energy, resources, and food caused by industrialization; and disparity of wealth. The 2030 Agenda for Sustainable Development was adopted at the United Nations Summit in September 2015. In order to address various social issues, companies are required to contribute to the development of a sustainable society by demonstrating creativity and innovation in order to create business opportunities from a long-term perspective.

In October 2019, the Kioxia Group changed its name and made a fresh start. The name "KIOXIA" reflects our strong determination to change the world by storing "memories" ("kioku" in Japanese) created by society and using them to create new "value" ("axia" in Greek). Our mission is to uplift the world with "memory."

The Kioxia Group, which provides the value of "memory" to society through products such as flash memory and solid state drives (SSDs), will continue to develop a sustainable society by contributing to the SDGs through its business.

Based on a full understanding of its mission and its role as a global company, the Kioxia Group contributes to achieving goals 9, 11, 12 and 13 of the SDGs through its main business. In addition to contributing via our existing business, we are investigating technology development in new business sectors with a focus on future social issues.
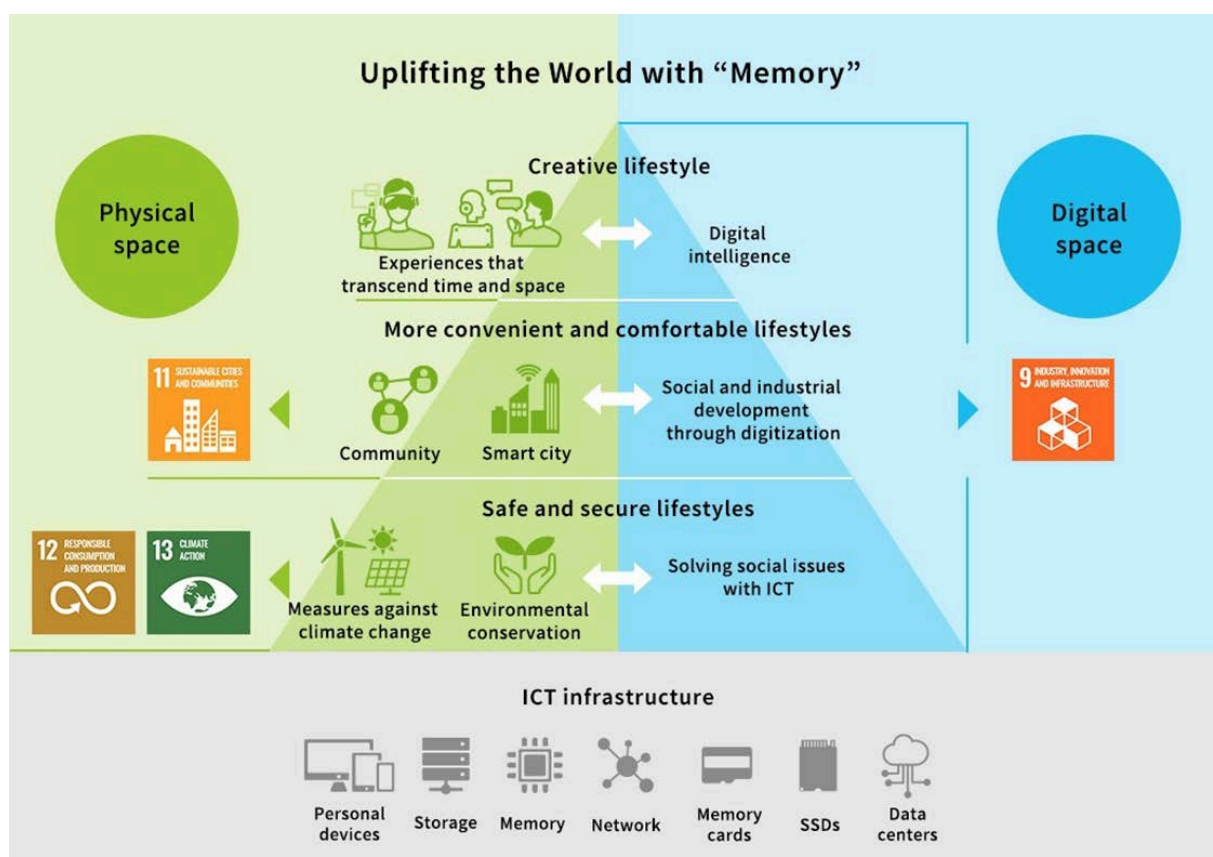
Kioxia Group Enriches People's Lives by Uplifting the World with "Memory"

The Kioxia Group wants to achieve a world where many people can experience an "uplifting" human culture. However, to do so, we must first create the lifestyle infrastructure that allows people to acquire a minimum level of food, clothing and shelter and to live peaceful lives. The groundwork for this safe and secure lifestyle infrastructure cannot be laid unless global environmental problems are solved. The Kioxia Group is helping to lay this groundwork by implementing measures against climate change and ensuring the effective use of resources in the course of its business activities. Furthermore, with our flash memory and SSD products, we are helping people achieve convenient and comfortable lifestyles where internet access is available anytime and anywhere. In addition, we believe that once such lifestyles have been achieved, we can provide people with more creative lifestyles through "memory."

The Kioxia Group has a history of leading the industry in the development of products such as NAND flash memory and 3D flash memory. Going forward, we will continue to change the world by remaining a leader in cutting-edge technology.

When we look at the environment surrounding us, in addition to the physical space in which people live, the advancement of technology has also provided digital space. As digital technology advances, it will lead to the realization of environmental conservation, smart cities, the ability to provide people with creative experiences that transcend time and space, and more. The Kioxia Group supplies storage products that serve as the foundation for a digital society, and we continue to pursue further research and development. In addition, we aim to contribute to future society by undertaking digital technology research and development through a process of 'backcasting' from the perspective of various envisaged future social issues in the physical environment.

Related Links

Introduction to the Kioxia Group's SDG Initiatives

> Kioxia Group's Contribution to Addressing Social Issues through its Business Activities	> SDG-Related Topics

> Research and Technology Development ⎁

Kioxia Group's Contribution to Addressing Social Issues through its Business Activities

Helping to Address Social Issues through our Business

The Kioxia Group's mission is to "Uplift the world with memory." By pushing the boundaries of "memory," we create uplifting experiences, add new value and change the world.

With progressive memory technology at our core, we offer products, services and systems that create choice and define the future. Based on this mission and vision, we aim to launch a new era of memory with cutting-edge technology and continue evolving as our world evolves.

Under this policy, we are undertaking activities that help achieve the UN's Sustainable Development Goals (SDGs) in the belief that our business operations themselves have a substantial impact on society.

> ❯ Kioxia Group Initiatives in Support of the Achievement of SDGs

SDGs which the Kioxia Group Helps Achieve through its Business Activities

The Kioxia Group's business activities can contribute to achievement of the SDGs in a wide variety of ways. The four SDGs that we are focusing on are Goal 9 (Industry, Innovation and Infrastructure), Goal 11 (Sustainable Cities and Communities), Goal 12 (Responsible Consumption and Production), and Goal 13 (Climate Action).

We are taking proactive measures to drive the achievement of the SDGs through our business activities, thereby advancing the development of a sustainable society.

Goal 9: Accelerating Innovation with Cutting-Edge Technology

Social Issues

Accompanying the globalization of recent years, technological advances in fields such as AI and IoT are expected to accelerate, with disruptive innovation in various fields bringing about changes in occupational structures and the way people live and work.

Additionally, these technological innovations promise to pave the way for solutions that help address various social issues (including global warming, energy consumption, the concentration of populations in large cities, food and water-related issues, and medical and health-related issues).

Reference

❯ United Nations Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation ⧉

Kioxia Group's Contributions to a Solution

As a leader in flash memory and SSDs, the Kioxia Group has created various technologies that are the first of their kind in the world. With the expansion of AI and the spread of 5G high-speed wireless communications, the amount of data being generated, stored and used has increased exponentially. The Kioxia Group is focusing on developing state-of-the-art storage technology to respond to the rapidly increasing need for high-capacity, high-performance storage, and high-speed data processing systems. In addition to storage technology, we are also pursuing new areas of research and development, perceiving future social issues as business opportunities.

SDG-related Topics

❯ Technological Developments that Support Cutting-Edge Science

❯ Technological Developments that Support the Information and Communications Era

Goal 11: Contributing to the Development of Sustainable Cities

Social Issues

Currently, approximately 55% of the world's population resides in urban areas, and this figure is expected to reach nearly 70% by 2050[1] . Under these circumstances, there is a need to create resilient cities that have a low environmental impact and allow people to safely maintain a high quality of life. In addition, the concentration of populations in urban areas has led to the depopulation of surrounding rural areas and led to lifestyle differences between the two. Furthermore, there is a need to create cities that can counteract threats such as pandemics and respond to changes in the social environment.

Reference

[1] 68% of the world population projected to live in urban areas by 2050, says UN

Kioxia Group's Contributions to a Solution

By supplying flash memory and SSD products, we have contributed to the widespread use of internet-connected devices, the development of data centers, and access to high-quality telecommunications. This has enabled internet access that is available anytime and anywhere, changing the lifestyles of people all over the world.

Today, flash memory and SSDs have become indispensable products in people's lives. By developing various cutting-edge technologies to increase the capacity and performance of these, the Kioxia Group will help more people lead more convenient and comfortable lives.

Goal 12: Sustainable Consumption and Production

Social Issues

It is said that the world's population will reach 9.7 billion by 2050[2] and that we will need more resources to maintain our current lifestyles. Companies are required to efficiently manage natural resources, produce products with low environmental impact, and reduce waste and chemical substance emissions. Accordingly, companies are required to regularly disclose information about their sustainability efforts to stakeholders.

Reference

▶ United Nations Goal 12: Ensure sustainable consumption and production patterns

[2] World Population Prospects 2022: Summary of Results published by The United Nations

Kioxia Group's Contributions to a Solution

In order to use resources effectively, the Kioxia Group has set targets for the amount of water it intakes and waste it generates, striving to ensure efficient production.

Specifically, we obtain information on chemical substances used during production and contained in products to ensure greater use of those with minimal environmental impact. In addition, we are actively working to recycle chemical substances discharged after production, either at our workplaces or those of our subcontractors. Furthermore, wastewater discharged during manufacturing is recycled at dedicated facilities within each plant and reused. Our environmental activities are disclosed in our reports to the CDP, one of the world's largest environmental information evaluation organization, our Sustainability Report, and other reports.

▶ Environment
▶ Environmental Evaluation by External Parties

Goal 13: Addressing Climate Change

Social Issues

The global effects of climate change, such as abnormal weather and rising sea levels, are becoming more apparent. Climate change affects not only the weather, but a whole range of areas, including the supply of food and drinking water, ecosystems, and infrastructure.

Reference

▶ United Nations Goal 13: Take urgent action to combat climate change and its impacts

Kioxia Group's Contributions to a Solution

Kioxia Group is working to reduce the usage and emission of the greenhouse gases that cause climate change.

SDG-related Topics

▶ Making Every Bit of Data More Widely Available

▶ Leveling Up the World with Every Bit of Data

▶ Enriching New Ways of Life with Bits

SDG-related Topics

▶ High-Efficiency Manufacturing
▶ Waste Reduction and Recycling

SDG-related Topics

▶ Greenhouse Gas Net-Zero Emissions

▶ Efforts to Improve Product Energy Consumption Efficiency

Ripple Effect of 4 SDGs on 17 Related Goals

The Kioxia Group believes that all of the SDGs are interrelated and that its contribution to achieving these four goals will ripple out and help realize many related goals. To aid in the development of a sustainable society, the Kioxia Group will contribute to the achievement of the SDGs through its business activities.

Future-Facing Efforts

The Kioxia Group's mission is "uplifting the world with 'memory.'" Based on this mission, we are considering what kind of technological development and business opportunities might help create a sustainable society.

> SDG-related Topics: Helping to Create a Sustainable Society with Cutting-edge Technology

> Research and Technology Development

SDG-Related Topics

Kioxia Group Businesses that Contribute to Society

Here, we will introduce specific examples that show how Kioxia Group's businesses have contributed to addressing social issues and achieving some of the UN's Social Development Goals.

Making Every Bit of Data More Widely Available

Urban areas to which people are increasingly moving need to provide lifestyles that are safe and convenient and which allow them to maintain a high quality of life. To this end, the spread of flash memory and SSDs has helped provide people with internet access that is available anytime and anywhere. For example, the spread of the internet has made it possible for people to access a whole range of information on a smartphone even when they are outside; it also allows us to communicate with people all over the world from the home or office using a PC or tablet. In addition, recording technologies such as image authentication and dashboard cameras have improved safety and security.

By manufacturing flash memory and SSD with increased capacity and improved performance, the Kioxia Group is helping more people lead better lives.
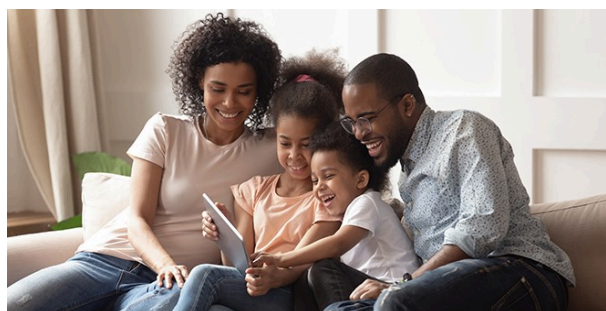
Leveling Up the World with Every Bit of Data

The worldwide concentration of populations in cities has led to the depopulation of surrounding rural areas and the emergence of lifestyle differences between the two. However, an environment offering internet access allows people to obtain the same information from anywhere using devices such as smartphones or tablets. The availability of internet access anytime and anywhere has led to an improved quality of life for people as well as increased opportunities for work and for children's education.

Enriching a New Ways of Life with Bits

The global COVID-19 pandemic forced us to make major changes to our lifestyles. When commercial activity and people's movement were being greatly restricted worldwide, online communication became a means to connect people and things, bringing about changes in behavior that have persisted even after the pandemic. An environment in which the internet is accessible anytime and anywhere also helps people to work remotely, and facilitates online classes and other alternatives that help realize a new way of life.

Technological Developments that Support Cutting-Edge Science

Kioxia Corporation has been building signal processing systems for use in the field of neuroscience, in collaboration with Massachusetts Institute of Technology (MIT)

Research into the human brain requires high-speed analysis of large volumes of data. Kioxia Corporation helps promote brain research with its high-speed, large-capacity SSDs that are utilized for such analysis and help accelerate the research cycle.

❯ Challenging to the Brain with Data Storage (Kioxia Corporation) ⧉

Technological Developments that Support the Information and Communications Era

To support the information and communications era, the Kioxia Group is pursuing cutting-edge research and development in fields such as self-driving vehicles, smart factories, robotics, and entertainment.

❯ Research and Development at Kioxia Group (Kioxia Corporation) ⧉
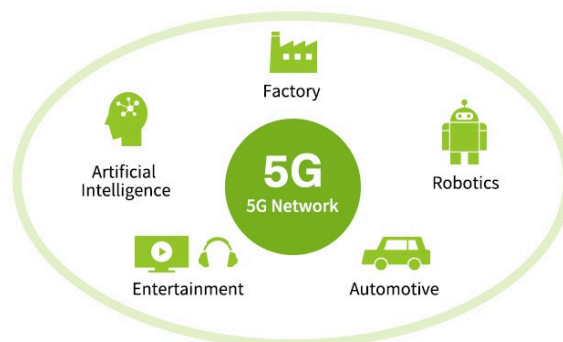
High-Efficiency Manufacturing

During the manufacturing of flash memory, including BiCS FLASH™, the Kioxia Group collects huge amounts of real-time data from manufacturing equipment and transportation systems, and analyzes these using AI technologies such as deep learning in order to shorten turnaround times. In this way, we can reduce the consumption of energy and materials, improving yield, and ensure a stable supply of high-quality products. The cutting-edge AI technologies supporting our smart factories have been developed not just through the use of Kioxia Group's proprietary technologies, but also through open innovation with our partners. The Kioxia Group will continue to utilize AI technologies to maintain and improve productivity, deploying smart factories that contribute to the development of a sustainable society.

❯ Smart Factory (Kioxia Corporation) ⧉

Yokkaichi Plant (Kioxia Corporation)

Kitakami Plant (Kioxia Iwate Corporation)

Transportation equipment inside the clean room

Waste Reduction and Recycling

Kioxia Group's plants have been expanded in order to meet increasing demand from the market. As a result, the amount of waste we generate is rising every year. However, we are striving to make effective use of resources with the aim of reducing environmental impact throughout our supply chain. As an example, we are actively working to reduce the use of chemicals and gases by recovering and recycling waste generated during manufacturing, improving manufacturing processes, and using packaging with a reduced environmental impact.

❯ Current Status of Environmental Impact and Environmental Targets and Outcomes

Greenhouse Gas Net-Zero Emissions

At Kioxia Group, we prioritize initiatives aimed at reducing greenhouse gas emissions, seeing this as one of our key management objectives. By FY2050, we aim to achieve net-zero in terms of our Scope1 greenhouse gas emissions (direct emissions from our business sites), and in terms of Scope2 emissions (those resulting from our use of purchased energy).

In order to achieve these goals, we will continue to install equipment that will eliminate the emission of perfluorocarbons (PFCs)—gases with high global warming potential—at all of our manufacturing facilities constructed since 2011. As for measures related to purchased energy, the Group is procuring and installing energy-efficient manufacturing equipment and power equipment. In FY2022, we commenced the introduction of solar power generation systems at our plants. We are also moving forward with the procurement of renewable energy certificates in Japan. We will continue our efforts to address climate change.

▶ **Climate Change**

▶ **Environmental Initiatives at Kioxia Corporation's Yokkaichi Plant** ⬜

▶ **Environmental Initiatives at Kioxia Iwate Corporation** ⬜

Efforts to Improve Product Energy Consumption Efficiency

As we believe that providing high capacity and energy-efficient flash memory and SSD products helps achieve a low-carbon society, we are making a range of efforts in this area.

For example, we are making efforts to improve the energy consumption efficiency per 1GB data processing of our products when they are in use. We are also working to reduce the amount of electricity and materials used during manufacturing.

▶ **How We Reduce the Impact of Our Products on the Environment**

Helping to Create a Sustainable Society with Cutting-edge Technology

Our mission is to uplift the world with "memory." This mission was established after discussion between our management and our employees about the kind of company we want to create in the future.

Based on this mission, we will continue to work together with our partners to help more people lead convenient and comfortable lives, address a variety of social and environmental challenges, and contribute to the development of a sustainable society. In order to achieve this, we will further increase the capacity, performance and efficiency of our flash memory and SSD products together.

Related Links

▶ **Creating Social Value**

We use our memory technology to innovate digital technology and help make people's lives safe, secure, convenient and comfortable, thereby creating value for society.

Sustainability Materiality:

Priority Areas for the Group's Medium- to Long-term Growth

Creating Social Value

Building a Creative World through Memory Technology
Contributing to Convenient and Comfortable Lifestyles
Creating Safe and Secure Societies and Environments

Foundation for Value Creation

Sustainability Materiality: Priority Areas for the Group's Medium- to Long-term Growth

Basic Philosophy

The Kioxia Group will continue to create value for society through our memory technology, based on our mission of "uplifting the world with 'memory.'" We will contribute to the development of a sustainable society by strengthening the foundations supporting the Group's medium- to long-term business activities, and by responding to the demands of our stakeholders as a member of global society.

Process of Setting Materiality

Environmental issues such as climate change, energy and resource shortages due to industrialization, widening disparities of wealth, and the threat of new infectious diseases are just some of the growing challenges facing society. On the other hand, the development of digital technology continues to make people's lives more convenient than ever. Technological innovation brought about by AI, IoT and the use of big data has changed social and industrial structures and is expected to rapidly generate needs that have not been seen before.
Taking these social changes into account, there are rising expectations of the role the Group should play in the sustainable development of society; we have therefore decided there is an urgent need to further enhance our sustainability management and clearly set out our policies.
We have established themes we see as particularly important for governing the sustainable development of the Group and of society, which we call Sustainability Materiality.

Overview of Sustainability Materiality

Sustainability Materiality comprises three domains.

Creating Social Value

The Kioxia Group will create social value in the medium- to long-term together with our partners by using memory technology to expand the possibilities of our current and future products and services based on our mission of "uplifting the world with 'memory.'"

Foundation of Value Creation

Our foundation of value creation is the driving force behind the Group's continual provision of value to society, and this is an important foundation we will continue to strengthen.

Requirements from Stakeholders

Our stakeholders require us to conduct business activities as a member of global society, and this is a social requirement which is particularly important to the Group.

Concepts of Sustainability Materiality

Uplifting the World with "Memory"

Creating Social Value
1. Building a creative world through memory technology
2. Contributing to convenient and comfortable lifestyles
3. Creating safe and secure societies and environments

The Kioxia Group will create social value in the medium- to long-term together with our partners by using memory technology to expand the possibilities of our current and future products and services based on our mission of "uplifting the world with 'memory.'"

Kioxia's Foundation of Value Creation
4. Human resources
5. Technology
6. Partnerships

Our foundation of value creation is the driving force behind the Group's continual provision of value to society, and this is an important foundation we will continue to strengthen.

Requirements from Stakeholders
7. Respect for human rights
8. Sustainable supply chains
9. Climate change
10. Environmental consideration
11. Health and safety

Our stakeholders require us to conduct business activities as a member of global society, and this is a social requirement which is particularly important to the Group.

Creating Social Value

Basic Philosophy

By using memory technology, we expand the possibilities of our current and future products and services and work with our partners to create value for society.
- We use memory technology to create digital innovations for a data-driven society, and contribute to solving social and environmental challenges.
- In addition to providing people with safety, security, convenience and comfort, we will help to build a more creative world.

This comprises the following three elements:

(1) Building a creative world through memory technology

Through memory technology we support value creation by working with partners to provide people with diverse experiences and creative means of expression and communication.

(2) Contributing to convenient and comfortable lifestyles

By enhancing flash memory with greater capacity, higher speed, lower power consumption and enhanced reliability, and by supplying more bits to more people, we will contribute to create a society in which more people can lead convenient and comfortable lives.

(3) Creating safe and secure societies and environments

Based on digital technology developments, we will contribute to solving social and environmental issues through providing storage to allow people to live safely and securely.

> Creating Social Value

Foundation for Value Creation

This comprises the following three elements:

▶ (4) Human resources

We will recruit and train highly specialized human resources to develop advanced technologies, and diverse human resources to meet expanding and diversifying market requirements.
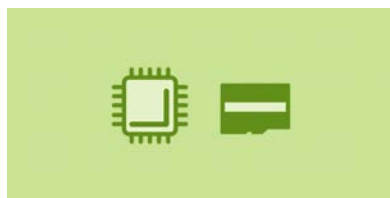
▶ (5) Technology

We will promote continuous technological investment and initiatives for future-oriented advanced development.

▶ (6) Partnerships

We will build partnerships with customers, suppliers and research institutions to create products and services that anticipate the needs of society.

> ▶ Foundation of Value Creation

Requirements from Stakeholders

This comprises the following five elements:

▶ (7) Respect for human rights

We will comply with international human rights principles and promote fair and sound business activities.
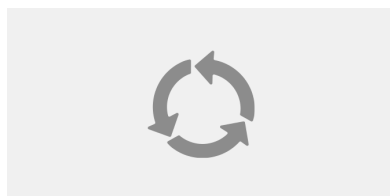
▶ (8) Sustainable supply chains

We will promote sustainable business activities by addressing human rights, labor, safety, environmental and other business risks, including those of our suppliers.

▶ (9) Climate change

We will contribute to a decarbonized society by reducing greenhouse gas emissions and promoting the use of renewable energy in our business activities.
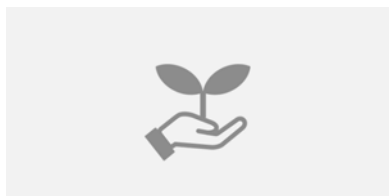
▶ (10) Environmental consideration

We will promote business activities in consideration of their environmental impact, focusing on areas such as waste reduction, chemical substance management and wastewater quality management, with the aim of enriching human life in harmony with the Earth.

▶ (11) Health and safety

We will strive to create safe and healthy workplaces, taking into account changes in society and behavioral patterns, with the aim of preventing occupational accidents, improving employees' health and increasing productivity through enhanced vitality.

Sustainability Materiality Identification Process

In the first half of 2021 we reviewed the CSR Materiality we set out in 2017 (respect for human rights, promotion of diversity, promotion of supply chain CSR, environmental management) from the perspective of trends in global society and requirements from stakeholders. Furthermore, we identified non-financial capital as a strength for the Kioxia Group over the medium- to long-term and extracted elements of Sustainability Materiality, taking into account the society we want to realize together with our partners and the societal impact of our products, services and technological developments. To do this we listened to the opinions of outside experts at meetings of the Sustainability Committee that became the focus of lively discussions at Sustainability Strategy Meetings. Looking ahead, we will set targets and build a framework around which we will further evolve our activities.

▶ Sustainability Management

Creating Social Value

Under its mission of "uplifting the world with 'memory,'" Kioxia Group has created a number of world-firsts as a leader in the areas of flash memory and SSDs, and with its partners has supported the advance of the digital society.

By increasing the capacity, performance and efficiency of our flash memory and SSD products, we will help make people's lives convenient and comfortable. We will also cooperate with our partners in finding solutions to increasingly diverse social and economic issues and contributing to the development of a sustainable society.

Through memory technology, we will help realize a world in which uplifting and diverse experiences, more forms of expression and easier communication are possible, and we will continue striving to build a more creative world.

Building a Creative World through Memory Technology

Using memory technology to contribute to the realization of a world in which people can lead fulfilling lives with uplifting experiences

Note: Image of the data-driven, digitalized society of the future

Through the provision of memory technology, we help create value by working with partners to provide people with various experiences and creative means of expression and communication.

In addition, KIOXIA's products, services and technologies help support the information society of the future.

In this feature, we introduce some of our innovations aimed at shaping the future.

Contributing to Convenient and Comfortable Lifestyles

Making data more widely available will help achieve improved lifestyles for even more people

By enhancing high-capacity, high-speed, low-power-consumption and high-reliability technologies, and making people's lifestyles smarter, we will help create a society in which more people can lead convenient and comfortable lives.

In this feature, we show how over the years we have grown together with the digital society.

Creating Safe and Secure Societies and Environments

Evolving New Memory Technology Solutions for Social Issues

We deliver memory and SSD products that contribute to resolving social and environmental issues and help people live safely and securely.

In this feature, we introduce examples of ways in which we are contributing to society and creating a safe and secure society and environment through our products and technology.

Building a Creative World through Memory Technology

Using memory technology to contribute to the realization of a world in which people can lead fulfilling lives with uplifting experiences

Note: Image of the data-driven, digitalized society of the future

Utilizing our memory technology,

we help create value by working with partners to provide people with diverse experiences

and creative means of expression and communication.

⌄ Memory Technology That Will Support the Information Society of the Future   ⌄ KIOXIA's Innovative and Cutting-Edge Technologies

Memory Technology That Will Support the Information Society of the Future

The volume of information generated and accumulated by society is increasing steadily, driven mainly by the spread of cloud computing, the advent of the IoT era, and the widespread use of AI technology.

Kioxia Group is engaged in various innovative activities aimed at creating a new future, guided by its vision: "With progressive memory technology at the core, we offer products, services, and systems that create choice and define the future."

	❯ **KIOXIA Insights** ⊡
KIOXIA Insights	KIOXIA Insights highlights a range of activities that align with our mission to "uplift the world with 'memory'". By evolving "memory," we create uplifting experiences and change the world.

KIOXIA's Innovative and Cutting-Edge Technologies

Kioxia Group and its partners utilize memory technology for a variety of research and development in cutting-edge fields, with the aim of creating innovative products that will open up new possibilities for people and society.
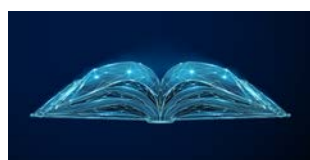
KIOXIA's Cutting-Edge Technology

Introducing latest technologies being researched and developed at KIOXIA and various use cases of flash memories.

❯ **Technology Topics (Kioxia Corporation)** ⊡

Kioxia Corporation has been building signal processing systems for neuroscience in collaboration with Massachusetts Institute of Technology (MIT).

Neuroscience research calls for faster analysis of large quantities of data. Kioxia Corporation is contributing to advances in neuroscience by accelerating data analysis in the research cycle by using high-speed, high-capacity SSDs.

❯ Challenging to the Brain with Data Storage (Kioxia Corporation) ⧉

Automatic Quiz-Generating AI

Kioxia Corporation has developed automatic quiz-generating AI in cooperation with QuizKnock (baton Co., Ltd.) by applying AI and machine learning technology cultivated through the analysis of over 2 billion data lines generated each day at Kioxia Corporation's semiconductor plants.

❯ Development of AI That Automatically Generates Quizzes (Kioxia Corporation) (Japanese only) ⧉

❯ Quiz-Generating AI Development Project - "In the Pipeline" Combining Memory and Technology in Pursuit of Future Horizons - ⧉

Contributing to Convenient and Comfortable Lifestyles

Making data more widely available will help achieve improved lifestyles for even more people.

By enhancing high-capacity, high-speed, low-power-consumption,
and high-reliability technologies, and making people's lifestyles smarter,
we will help create a society
in which more people can lead convenient and comfortable lives.

* The information on this page is current as of the date of the announcement.

Kioxia Group is responding in a sustainable manner to the evolution of a digital society and the increasing demand for data

KIOXIA's semiconductor memory technologies, typified by the NAND flash memory we invented in 1987, have supported the emergence of digital devices and the evolution of a digital society. As the amount of data generated increases exponentially with the use of AI, IoT and big data, new needs and issues are expected to arise. Always in touch with the times, we will continue to innovate and provide society with new products and services.

Kioxia Group will continue to evolve with society, based on our mission of "uplifting the world with 'memory.'"

KIOXIA's[1] growth
Uplifting the world with "memory"

- Exponential growth in data volumes
- Increasing digitalization of society
- Merging of physical and digital spaces

1987
- Invented NAND flash memory

1992
- Established Yokkaichi Plant

2001
- Commercialized client SSDs
- Introduced multi-level cell technology

2007
- Announced development of 3D flash memory technology

2019
- New start as KIOXIA
- Completed construction of Kitakami Plant Fab1

2022
- Completed construction of Yokkaichi Plant Fab7

1980s
- Launch of electronic devices such as laptop PCs
- Start of mobile telephone services

1990s
- Popularization of the internet

2000s
- Spread of electronic devices
- Emergence of information security issues

2010s
- Spread of IoT devices

2020s
- Acceleration of shift to smart cities
- New lifestyles

The Future

Expanding amount of data generated and used

*1 In 2017, the memory business of Toshiba Corporation was incorporated into a separate company, which commenced operations as Toshiba Memory Corporation. The company changed its name to Kioxia Corporation in 2019.

1980s

Social Trends

From the 1970s, semiconductor manufacturing boomed in Japan, and it became an essential element of the country's industrial sector.

In the 1980s came the first steps in the evolution of a digital society with the launch of new electronic devices such as laptop PCs and video game consoles, and the start of mobile telephone services in Japan.
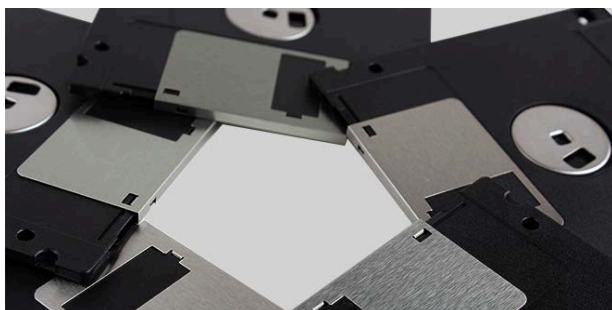
KIOXIA

1987: Invented NAND Flash Memory
KIOXIA invented NAND flash memory in 1987. Flash memory is an extremely small semiconductor storage device. Prior to the launch of NAND flash memory, magnetic tape and disks that required no power source were the mainstream storage devices. NAND flash memory offered the distinct advantages of short read/write speed and the potential for miniaturization.

1990s

Social Trends

In the early 1990s, personal computers had become ubiquitous and the internet started to become popular with the advent of the World Wide Web. The dial-up connections used to connect to the internet at the time were a far cry from the high-speed connections commonly used today.

Digital cameras then appeared. Playing a part in this technological innovation were memory cards that store image data.

KIOXIA

1991: Commercialized the world's first 4Mbit NAND flash memory (the world's first NAND flash memory commercialization)*

1992: Established Yokkaichi Plant
Yokkaichi Plant was established for the mass production of memory products that were state of the art at the time. Production of NAND flash memory started at Yokkaichi Plant in 1999.

Yokkaichi Plant at the time of its establishment (1992)

2000s

Social Trends

Digital devices such as mobile phones, portable music players and digital cameras became prevalent in the early 2000's, and advances were made in compression technology for audio and video data. Against this backdrop, there was growth in the demand for flash memory as a high-capacity, high-performance recording medium.

Mobile phones with integrated digital cameras emerged, and the start of third-generation (3G) telecommunication services enabled high-speed, high-capacity data transmission, paving the way for the use of email and internet access on mobile phones.

KIOXIA

2001: Commercialized 1Gbit MLC (160nm generation) NAND flash memory which was the first application in the world of multi-level cell technology to a NAND flash memory product*

2007: Announced Development of 3D Flash Memory Technology
At the time, the miniaturization technology used to increase flash memory capacity (the number of memory cells per plane) was reaching its physical limits.

In response, in 2007 KIOXIA announced the development of the world's first 3D flash memory technology in which multiple memory cells were stacked. To reduce manufacturing costs, an innovative technology known as BiCS FLASH™ was used whereby plate-shaped electrodes were stacked and through which vertical holes were punched for electrodes, thereby creating memory cells in all the layers at once.

2007: Announced industry's largest level of capacity 128GB SATA SSD*
Solid state drives (SSDs) began to replace hard disk drives (HDDs) in laptop PCs, leading to significantly higher performance, reduced weight and lower prices of these devices.

Sustainability Report 2024
Kioxia Holdings Corporation

2010s

Social Trends	KIOXIA

The use of flash memory in smartphones enabling portable devices to store large images and music became commonplace.

A range of electronic devices appeared, including wearable devices, smart speakers and VR headsets, and the volume of data traffic increased exponentially with the increasing popularity of the internet and cloud computing. Digital technology had become an essential part of daily life.

2016: Started mass production of 3D flash memory BiCS FLASH™

2017: Established Toshiba Memory Corporation (currently Kioxia Corporation)

2019: Established Toshiba Memory Holdings Corporation (subsequently Kioxia Holdings Corporation) on March 1

2019: Made a Fresh Start as KIOXIA
On October 1, 2019, Toshiba Memory changed its company name to KIOXIA in order to mark a new start.

2020 Onward

Social Trends	KIOXIA

The development of digital technology has changed people's lifestyles in a number of ways. These include more efficient economic activity through the use of data, and the enabling of communication via the Internet that transcends national and regional boundaries.

A growing array of new needs and issues is expected, ranging from ongoing growth in the amount of data people generate through the use of AI, IoT and big data in the fields of autonomous driving and telemedicine.

July 2020: Completed Acquisition of Solid State Storage Technology Corporation, a Subsidiary of Taiwan-based LITE-ON Technology Corporation

October 2022: Completed Fab7 at Yokkaichi Plant
Fab7 has the capability to produce sixth-generation, 162-layer flash memory and future advanced 3D flash memory.

June 2023: Commenced Operation of Two New R&D Facilities
The operation of new R&D facilities in Yokohama is strengthening our research and development capabilities and promoting further advancement in technological innovation.

Kioxia Group will continue using its memory technologies to provide new value,
allowing people to lead more convenient and comfortable lives in our digital society.

Related Links

> Technology Development History (Kioxia Corporation)
> History of Yokkaichi Plant (Kioxia Corporation)

Creating Safe and Secure Societies and Environments

Evolving new memory technology solutions for social issues

We deliver memory and SSD products
that contribute to resolving social and environmental issues
and help people live safely and securely.

⌄ Our Contribution to Climate Change Countermeasures   ⌄ Contributing to a Bright Future for a Motorized Society

⌄ Contributing to Information Security

Our Contribution to Climate Change Countermeasures

Social Issues: The Digital Society and the Global Environment

With the evolution of a digital society, flash memory and SSDs are now being used in every aspect of life, and demand for higher capacities and higher speeds continues to increase. As digital products and services become more widespread, it has become necessary to reduce electricity consumption and CO_2 emissions. Addressing this need has become a matter of urgency.

Contributing to the Environment through our Business Activities

At our Yokkaichi and Kitakami Plants, we are reducing our consumption of electricity and working to reduce the amount of chemicals and gas used during manufacturing by increasing productivity. We are also helping to reduce electricity consumption during the use of our products and services by making these more energy efficient.

KPIs: Improving the Energy Efficiency of our Products

Kioxia Group is striving to improve the energy efficiency of our products. Specifically, we have set the ambitious target of reducing the energy consumption per 1GB data processing in our memory and SSD products to 50% of FY2017 levels by FY2025.*

*   In 2017, the memory business of Toshiba Corporation was incorporated into a separate company, which commenced operations as Toshiba Memory Corporation. The company changed its name to Kioxia Corporation in 2019.

Energy consumption per 1GB data processing
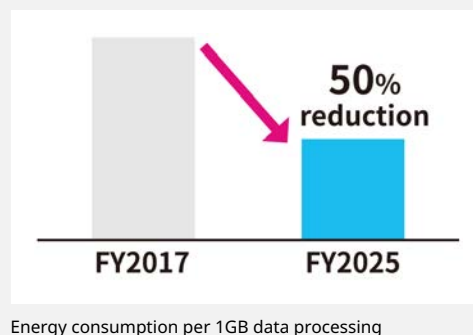
Contributing to a Bright Future for a Motorized Society

Social Issue: The Convenience and Safety of a Motorized Society

With the advances in 5G, IoT and AI technologies, connectivity has extended to automobiles, which now make use of a wide range of data. Demand for data storage in vehicles continues to expand with the increase in complexity and sophistication of automotive equipment. In-Vehicle Infotainment (IVI) systems that provide traffic information and entertainment while driving and Advanced Driver-Assistance Systems (ADAS) are just two examples.

Helping Ensure Improved Automobile Safety and Convenience through Automotive Memory Solutions

Kioxia Group will help improve automobile safety and convenience levels with high-performance, high-capacity automotive UFS and e-MMC memory products that meet the sophisticated demands of in-vehicle use, such as reliability under a wide range of environmental conditions.

> Automotive Applications (Kioxia Corporation)

> UFS & e-MMC for Automotive (Kioxia Corporation)

A microSD Memory Card with the Durability Required for Use in Dashboard Cameras

Kioxia Group is helping to improve drivers' convenience by providing products with sufficient durability for dashboard camera video recording.

As an example, EXCERIA HIGH ENDURANCE microSD memory cards featuring BiCS FLASH™ 3D flash memory technology have been specially designed for use in surveillance cameras and dashboard cameras.

Contributing to Information Security

Social Issue: Security in an Increasingly Sophisticated Information Society

While the advance of digital technology and popularization of the internet have made daily life and the conducting of business more convenient, they have also increased the prevalence of information security issues.

SSD Security and Encryption Options for Diverse Needs

Kioxia Group is addressing the need for the protection of personal and business data in our enterprise-, data center- and client SSDs. As an example, in the event of laptop theft, an encrypted SSD can prevent important data such as customer information from being compromised.

Note: Optional security feature compliant drives are not available in all countries due to export and local regulations.

> KIOXIA SSD Security and Encryption (Kioxia Corporation)

KIOXIA SSD × Sustainability - For a Sustainable and Green Future -

Introducing the collaboration between KIOXIA and NTT Communications on KIOXIA's SSD (Solid State Drive) products for a sustainable and green future.
KIOXIA is dedicated to handle ever-increasing data volumes by its data centers and the latest SSD / flash memory technologies and solutions for enterprise systems, while NTT Communications is committed to meet the demand for high-speed processing of complex workloads with its cutting-edge data center technologies and solutions.
In this video, you will learn about the initiatives by both companies to engage the "sustainability".
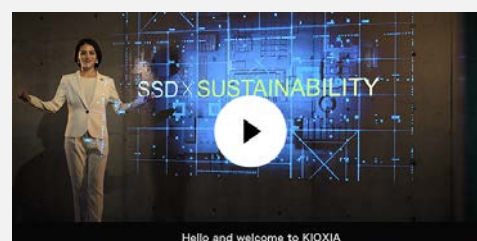
> Movie: KIOXIA SSD × Sustainability - For a Sustainable and Green Future – (4:22)

> KIOXIA SSD × Sustainability (Kioxia Corporation)

The Kioxia Group's contribution to the Solving of social issues through its business

Kioxia Group provides value of "memory" to society through products such as flash memory and solid state drives (SSDs). We will continue to contribute to the achievement of the SDGs through our business activities, with the aim of helping to create a more sustainable society.

> Kioxia Group Initiatives in Support of the Achievement of the SDGs

Foundation for Value Creation

Kioxia Group continues to strengthen the key foundations that support our ability to provide value to society. These are Human resources, Technology, and Partnerships.

⌄ Human Resources   ⌄ Technology   ⌄ Partnerships

Human Resources

Our human resources represent important capital that helps us meet the expanding and increasingly sophisticated and wide-ranging needs of the market in a timely way. We recruit and train high-caliber graduates and experienced people to work with advanced technologies, and are implementing processes that will enable diverse employees to make full use of their capabilities.

Recruitment Initiatives

We focus on recruiting diverse human resources capable of working on an expanding range of memory and SSD product applications and other increasingly sophisticated technologies, to help us meet the growing demand for these.

Number of New Graduate Recruits in Administrative and Technical Positions (Kioxia Corporation) [1]

FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
280	207	298	303	379	229

[1] Those who have completed undergraduate and postgraduate degrees, as of April 1 each fiscal year

> **▶ Talent Development**
>
> Kioxia Group is committed to nurturing and utilizing talent in order to enable our diverse employees to make full use of their individual abilities and play an active role in the workplace.

Recruiting Talent with Diverse Expertise

Kioxia Group recruits talented individuals with high levels of expertise and helps them make full use of their capabilities through measures such as increased mid-career recruitment and the deployment of human resource processes and systems that develop talent.

Number of Mid-Career Recruits (Kioxia Corporation)

FY2019	FY2020	FY2021	FY2022	FY2023
113	275	280	282	25

> **▶ Diversity Promotion**
>
> Kioxia Group promotes diversity to enable our employees, with their diverse range of personalities, to fully display their individual abilities.

Technology

We will steadfastly maintain our leadership position in the field of semiconductor memory technology, undertaking research and technology development.

Basic Approach to Research and Technology Development

As a technology leader in the field of memory, Kioxia Group is engaged in cutting-edge research and development, aiming to continuously expand our business portfolio.

We will address market requirements in both new and existing domains and create new business opportunities to steadfastly maintain our position as a technology leader.

Creating Leading Cutting-edge Technologies in the Field of Memory

Continuous Investment in Research and Development

We will continue to invest in future-oriented research and development focused on growth areas.

Recruitment and Development of High-Caliber Graduates and Experienced Engineers

We will recruit highly experienced personnel to handle the development of cutting-edge technologies, and create processes that enable diverse human resources to make full use of their capabilities.

Collaboration with Partners

We will generate synergies with research and development partners in various fields, aiming to create value for society together.

Recognition of our Business Environment

Increasingly sophisticated and diverse requirements due to the evolution of digital technologies

The need to acquire and upskill technicians in tandem with market expansion

Increasing challenges in technology development and intensifying competition in the field of semiconductor memory

▶ Research and Technology Development Policy (Kioxia Corporation)

Strengthening Research and Technology Development

Kioxia Group has been strengthening its research and development capabilities with the aim of creating memory technology that provides new value to society. In June 2023, Kioxia Corporation commenced the operation of two new R&D facilities — the Flagship Building at the Yokohama Technology Campus and the Shin-Koyasu Technology Front. Other Kioxia R&D functions in Kanagawa prefecture have been relocated to these new R&D hubs to improve the efficiency of our research and development, as well as to promote further advancement in technological innovation by stimulating collaboration across our various departments.

The addition of the new Flagship Building has allowed Kioxia to expand its capabilities in evaluating products, thereby enhancing overall product development and product quality.

The Shin-Koyasu Technology Front features a state-of-the-art clean room and cutting-edge research in a wide range of semiconductor areas, including new materials, processes and devices, is conducted there.

Kioxia Group will continue to strengthen its research and development capabilities in flash memory and SSDs. We are also committed to creating innovative technologies and products that go beyond existing memory functionality.

▶ **Kioxia Commences Operation of Two New R&D Facilities (Kioxia Corporation)** ⌧

Yokohama Technology Campus Flagship Building
Total floor area: Approx. 40,000 ㎡
Height: 6 stories
Start of operation: June 2023
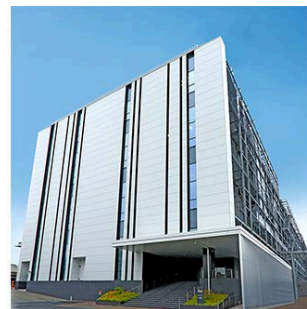
Shin-Koyasu Technology Front
Total floor area: Approx. 13,000 ㎡
Height: 4 stories
Start of operation: June 2023

Collaboration with R&D Partners

To conduct timely, cutting-edge research and development in diverse fields in a rapidly changing and competitive environment, it is necessary to have access at all times to the latest know-how in a number of fields. Through relationships with R&D partners in Japan and overseas (technology organizations, universities and research institutes), Kioxia Group is able to leverage a wide range of knowledge and ideas and use these to further evolve its products and technologies.

Moreover, in addition to collaborating with partners in research and development, Kioxia Group actively engages in personnel exchange through open innovation.

In Japan, our operations are structured around the following three frameworks:

- Research grants: these support research at academic institutions in a wide range of fields, including semiconductors
- Joint research: addressing business issues through a deep understanding of technology
- Comprehensive collaboration: in addition to conducting research, the objective is to develop the next generation of researchers

Overseas, the Group is also forging links with a number of universities and research institutes.

Main Achievements in FY2023

In Japan, in the area of research grants we solicited proposals for research projects in fields such as information processing; AI-related technologies; big data; applications; security; semiconductor circuit design; devices; manufacturing and process simulation technologies; and carbon-neutral environmental technologies, for use in semiconductor manufacturing.

In the area of joint research, we continue to conduct activities in conjunction with academic institutions in Japan. We are also continuing to undertake a number of collaborative activities with the University of Electro-Communications and Waseda Research Institute for Science & Engineering. In addition, we have signed a joint research agreement with Nagoya University to conduct research in the field of mobility and smart factories, which has activated collaboration and the exchange of human resources overseen by a committee.

Overseas, we continue to conduct joint research with Massachusetts Institute of Technology Media Lab in the United States, among other institutions.

❯ Academic Collaboration (Kioxia Corporation) ⌧

Research and Technology Development Achievements

While constantly working to develop cutting-edge technologies, Kioxia Group has also been highly commended for presenting its research findings through a variety of channels, including major academic societies and research papers.

Main Achievements in FY2023

❯ Kioxia Joins Hewlett Packard Enterprise Servers on Space Launch Destined for the International Space Station ⧉

KIOXIA SSDs took flight with the launch of the NG-20 mission rocket, which is delivering an updated HPE Spaceborne Computer-2, based on HPE EdgeLine and ProLiant servers from Hewlett Packard Enterprise, to the International Space Station. KIOXIA SSDs will provide robust flash storage in the HPE Spaceborne Computer-2, allowing the conduct of scientific experiments aboard the Space Station.

❯ Kioxia Employees Earn Award for Science and Technology from Japan's Ministry of Education, Culture, Sports, Science and Technology ⧉

Kioxia Corporation employees receive the Award for Science and Technology from The Commendation for Science and Technology by the Ministry of Education, Culture, Sports, Science and Technology for their invention of high-density three-dimensional flash memory device and manufacturing method thereof, which greatly increases memory capacity and reduces manufacturing costs.

Initiatives Aimed at Creating Intellectual Property

❯ Kioxia Selected in 2024 Edition of Clarivate Top 100 Global Innovators ⧉

Kioxia Corporation has been named as one of the Clarivate Top 100 Global Innovators 2024, a recognition given to the most innovative global companies by Clarivate Plc. Following on the heels of last year's award, this is the third time Kioxia has received this prestigious award in recognition of its accomplishments in the field of intellectual property.

As a global leader in flash memory and SSD technologies, Kioxia Group is committed to cutting-edge research and development. As of March 2024, we held over 13,000 registered patents worldwide. Kioxia Group protects and utilizes its own intellectual property rights, while respecting the legitimate intellectual property rights of third parties.

The Group will continue to protect and utilize its own intellectual property rights and proactively implement initiatives to strengthen the competitiveness of its business.

Top 100 Global Innovator 2024

Clarivate™

Partnerships

We will build strong relationships with our customers and other partners, with the aim of growing together sustainably.

Co-Creation with Partners

Kioxia Group builds partnerships with customers, research institutes and suppliers to create products and services that anticipate the needs of society. We collaborate and generate synergy with these partners, aiming to create value for society.

Generating synergy through collaboration with partners to create value together for society

Build solid relationships with customers, R&D partners and suppliers
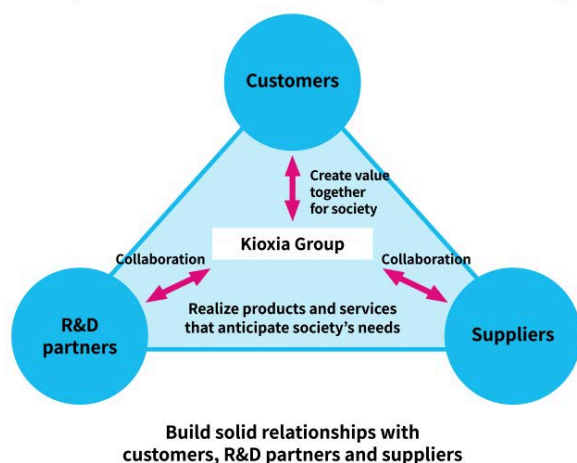
Customers

Kioxia Group has built global sales capabilities, technical support networks, and supply chain processes to anticipate the needs of our customers, who are providing new value to society around the world, and to respond to any of their issues swiftly.

R&D partners

Kioxia Group leverages a wide range of cutting-edge knowledge and ideas and collaborates with R&D partners in Japan and overseas with the aim of further evolving our products and services; the partners include technology organizations, universities and research institutes.

Suppliers

Kioxia Group will provide a steady supply of high-quality products through co-creation with suppliers and extend its competitive advantages by generating new manufacturing technologies and other innovations.

Main Achievements in FY2023

Customers

In FY2023, we continued to engage on a regular basis with our customers via quarterly business reviews and other means. Listening to customers' views and understanding their requirements helps us to establish how we can partner with them more effectively to support their business expansion. It also highlights for us how we can improve our products and services and enhance the sustainability of customers' own supply chains.

R&D Partners

‹ Collaboration with R&D Partners

Suppliers

Mutual Understanding with Suppliers
Kioxia Group provides its suppliers with opportunities to understand the Group's business strategies and to foster mutual understanding with the aim of growing together. For example, we regularly exchange opinions with equipment manufacturers on achieving energy savings and increasing productivity.

KIOXIA Innovation Lab opened in Yokohama Flagship Building

In October 2023, Kioxia Corporation opened the KIOXIA Innovation Lab in the Flagship Building within the Yokohama Technology Campus. Here, customers can test and evaluate new products, technologies, and software, including SSDs. Remote access is also available, allowing customers in distant locations to make use of the lab. Going forward, we will leverage the KIOXIA Innovation Lab to identify the interests and challenges of customers and researchers, and provide new products, services, and technologies.

Environment

Environmental Management

Environmental Protection System

Climate Change

How We Reduce the Impact of Our Products on the Environment

Current Status of Environmental Impact and Environmental Targets and Outcomes

Reducing Environmental Impact

Effective Use of Water Resources

Management of Chemical Substances in Our Products

Biodiversity Preservation

Environmental Evaluation by External Parties

Environmental Communication

Acquisition of Environmental Certification

Environmental Management

Kioxia Group has incorporated concern for environmental issues into our Standards of Conduct; we treat climate change and consideration for the environment as priority areas of focus in terms of ensuring the Group's medium- to long-term growth, and we refer to these priority areas as "Sustainability Materiality." We strive to enhance our corporate value and contribute to the realization of a sustainable society by ensuring that the environmental impact of our business activities is taken into consideration. We have set the goal of achieving by FY2050 net-zero Scope 1 greenhouse gas emissions (direct emissions from our business sites), and Scope 2 emissions (indirect emissions resulting from our use of purchased energy) across our global operations.

In addition to complying with relevant laws and regulations, we strive to develop products and services in consideration of their environmental impact and conserve biodiversity at our manufacturing sites. We take steps in line with international frameworks to reduce greenhouse gas emissions and mitigate any other environmental impact throughout our entire value chain.

Environmental Management Policy

Kioxia Group has formulated the Kioxia Group's Environmental Policy, our basic philosophy concerning the environment, and we have communicated this across the entire Group.

▶ Kioxia Group's Environmental Policy

▶ Kioxia Group Standards of Conduct 5. The Environment

Kioxia Group's Environmental Management Structure

Kioxia Group manages its business while considering the environment and striving to protect it at all of our sites.

Kioxia Corporation has set up an Environmental Planning and Promotion Group within the Production Technology Promotion Division; this is responsible for planning and proposing strategies that help the company address social issues and progress environmental initiatives within the Group. The Group also compiles environment-related data from workplaces and manufacturing sites within Kioxia Group. Once every half year, at Environmental Management Reviews (chaired by the officer responsible for the environment with attendees including Executive Officers), the level of achievement of our overall environmental initiatives is reviewed. The Board of Directors discusses key issues flagged in reports from the Sustainability Committee or arising in Sustainability Strategy Meetings.

Kioxia Group's Environmental Management Structure
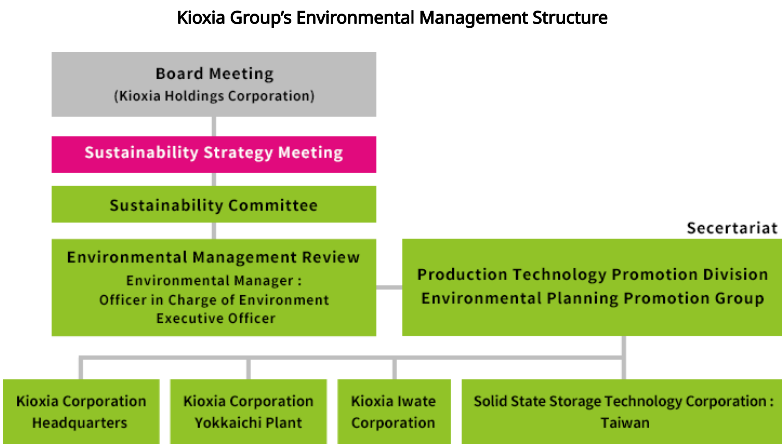
Environmental Management System

Kioxia Group has established a global environmental management system to promote environment-related activities. Kioxia Corporation, which includes the company's Head Office and Yokkaichi Plant, Kioxia Iwate Corporation, and Solid State Storage Technology Corporation (SSSTC), have obtained ISO 14001:2015 certification.

For more information on our ISO 14001 certification and other environmental certifications, please click the below link.

▶ Acquisition of Environmental Certification

Environmental Education and Awareness-Raising

Kioxia Group provides all executives and employees, including temporary workers, with annual training on environmental legislation, climate change, and social trends regarding consideration for the environment.

Each site also conducts bespoke activities to raise awareness of the environment among its employees. Initiatives include internal publications such as the "Energy-Saving Wall Newsletter" and the "ESG Sustainability Classroom," as well as participatory events such as the "Plastic Waste Reduction Ideathon" and "SDG-related Environmental Activities." We also conduct environmental training for our employees led by external instructors.

Since FY2023, our internal award system has been expanded to incorporate sustainability initiatives, including efforts to protect the environment, with awards given for particularly outstanding environmental achievements.

Environmental courses run by external instructors (at SSSTC)

Environmental Protection System

Environmental Protection Structure

To ensure efficient and sustained environmental preservation activities, each manufacturing site of Kioxia Group in Japan has established environmental preservation procedures overseen by a General Manager with clearly defined responsibilities and authority. An Environment Management Committee deliberates environmental preservation issues across the entire spectrum of environmental activities, including environmental management systems, policies and objectives. We have further established a Compliance Committee to supervise and ensure full compliance with all relevant environmental laws and ordinances.

Environmental Protection Structure (Using Kioxia Corporation's Yokkaichi Plant as an Example)

Responsible for Environmental Protection: General Manager

- Compliance Executive Committee
- Environment Management Committee
- Internal Environmental Auditor
- Deputy Responsible for Environmental Protection: Manager of Facilities Engineering & Operations Dept.
- Manager of Environmental Protection Group
- Energy Saving Committee
- Pollution Control Managers
- EMS* Secretariat
- Workplace Environment Officers Meeting
- Department Managers
- Departmental Environmental Meeting
- Section & Group Managers
- Resident-operational Companies

* EMS: Environmental Management System.

Measures to prevent pollution at environmental facilities

Kioxia Group has established "Environmental Structural Guidelines" for facilities such as wastewater treatment plants; these are aimed at preventing and reducing the risk of contamination caused by chemical leaks.

Examples

Waste gas scrubber
Structures and specifications aimed at ensuring stable processing

Overhead piping (no buried piping)
Reduces the risk of soil contamination
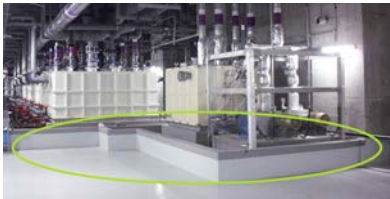
Drainage dike
Prevents wastewater from leaking underground or into public water areas.
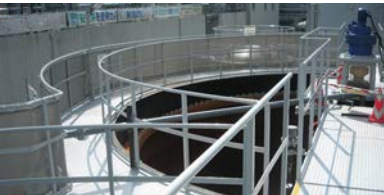
Wastewater treatment
Stable processing system that prevents discharge of wastewater

Double piping joints
Monitoring and prevention of liquid leakages

Six-sided inspections
Six-sided inspections quickly uncover abnormalities at an early stage

Status of water and air quality management

In each of our domestic manufacturing operations, we monitor water and air quality on a daily basis using voluntary standards that are more stringent than the prevailing legal requirements, in order to minimize the environmental impact of our business operations.

Around-the-clock automated monitoring is conducted in respect of legally regulated items such as NOx (nitrogen oxide), SOx (sulfur oxide), T-N (total nitrogen), T-P (total phosphorus), COD (chemical oxygen demand), SS (suspended solids), F (fluorine), and pH (power of hydrogen) levels.

To further strengthen our monitoring of water and air quality, we also voluntarily control items not subject to legal restrictions through sampling conducted at Analysis Centers located within our manufacturing plants. Kioxia Corporation's Yokkaichi Plant tests around 45,000 air and water samples per year, with Kioxia Iwate Corporation testing around 16,000. In FY2023, Kioxia Group was not subject to any government fines or penalties related to conservation of the environment in respect of issues such as water or air quality. Please refer to the environmental reports created by each manufacturing site for more detailed results.

▶ Environmental Initiatives at Kioxia Corporation's Yokkaichi Plant ⧉
▶ Environmental Initiatives at Kioxia Iwate Corporation ⧉

Environmental considerations in the construction of new buildings

Prior to constructing manufacturing facilities, Kioxia Group considers the impact of the construction on the surrounding environment, conducts an environmental assessment, and takes all necessary precautions. Additionally, after construction is completed, we monitor various parameters in the surrounding environment such as noise and wastewater levels, and conduct surveys of the ecosystem to ensure that the surrounding environment has not been adversely affected by the construction.

Environmental Facility Audit

Kioxia Group's audit teams conduct annual environmental audits of its manufacturing sites based on the following principles: the three "Zen (all)" approach (all aspects, all facilities, all staff), the three "Gen (actual)" approach (actual place, actual product, actual reality), and visual control approach (look, visualize, show).

The environmental facility audits conducted by in-house auditors target eight facilities, including wastewater treatment plants subject to legal regulations. The audits ensure compliance with all relevant laws and regulations as well as the measurement and management of regulated substances, and adherence to the "4S" approach (sorting, straightening up, sanitation, sweeping) at each facility. Preventive measures and improvements are implemented in order to address any identified issues. Additionally, through our internal training program, we develop experts focused on risk management and improve the quality of their audits.

Kioxia Group's Environmental Facility Audit System Diagram

Kioxia Group's Environmental Facility Audit

Basic Principles
3 "zen" (all) Approach / 3 "gen" (actual) Approach / Visual Control

Plant Audit

Drainage / Emission of Offensive Odors to the Air / Use and Storage of Chemical Substances / Effective Use, Recycling or Disposal of Waste / Noise Generation

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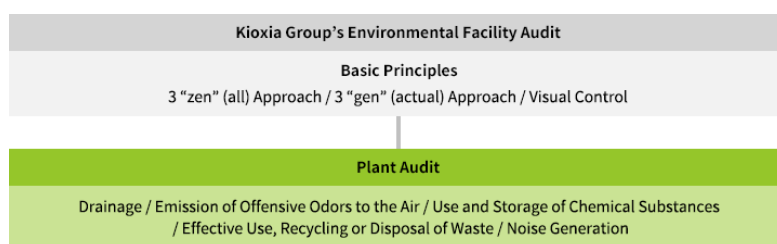
Cooperation with outside contractors

The Kioxia Group has established processes to manage and supervise outside contractors responsible for off-site waste processing and reuse, ensuring appropriate handling. Kioxia Corporation regularly monitors relevant sites, checking the operation of treatment facilities, the storage of goods, and business documentation. During monitoring in FY2023, we did not uncover any issues at these sites.

Climate Change

Initiatives to address climate change are a management priority for Kioxia Group as we seek to help achieve a decarbonized society. We refer to these priority areas as "sustainability materiality." We aim to reduce greenhouse gas emissions and energy consumption across our operations—both in terms of our business activities and product lifecycles—throughout our value chain.

Aiming to Achieve Net-zero Greenhouse Gas Emissions by 2050

In April 2023, Kioxia Group announced that by FY2050, the company aims to achieve net-zero Scope 1 greenhouse gas emissions (direct emissions from our business sites) and Scope 2 emissions (indirect emissions resulting from our use of purchased energy) across our global operations.

We have additionally set a target of procuring 100% of our energy from renewable sources by FY2040. Since January 2023, we have installed three solar power generation systems at our Kitakami and Yokkaichi plants, the largest of their kind at any semiconductor plant in Japan,[1] and the third generation system commenced its operation in July 2024. While we continue to expand the use of these systems, we are also moving forward with the procurement of non-fossil certificates[2] to boost our use of renewable energy.

Regarding direct emissions from our manufacturing sites, since 2011 we have installed abatement equipment in 100% of our targeted facilities, aiming to eliminate during our manufacturing processes the emission of PFCs[3] with high global warming potential.

In addition to these energy conservation initiatives, we will continue implementing measures to combat climate change in the course of our business activities.

[1] Based on our own research (as of November 2023)
[2] Certificates that allow the trading of the environmental value of renewable power sources that do not emit CO_2 during generation.
[3] CFC alternatives with high global warming potential used in semiconductor manufacturing. Those used by the Kioxia Group include CF_4, C_4F_8, CHF_3, SF_6, NF_3, CH_2F_2, CH_3F, CH_4, and N_2O.

Solar power generation system at Kioxia Iwate Corporation's Plant (Fab 1)

Solar power generation system at Kioxia Corporation's Yokkaichi Plant (Fab 5)

Disclosures Aligned to TCFD Recommendations

In June 2021, Kioxia Group announced our endorsement of the recommendations published by the Task Force on Climate-Related Financial Disclosures (TCFD).[4] We believe that accurately ascertaining the climate-related impact of our business, disclosing such information to stakeholders, and deepening mutual understanding are indispensable for achieving sustainable corporate growth, and we proactively disclose that information in accordance with the TCFD recommendations.

[4] A task force established by the Financial Stability Board which devises methods of disclosing climate-related financial information; an initiative to promote the disclosure of information related to climate-related risks and opportunities.

Governance and Risk Management

Kioxia Group undertakes various activities aimed at mitigating climate change under its sustainability management structure.

At Sustainability Strategy Meetings chaired by the President and CEO, executive officers discuss our strategies and policies and check the level of achievement, while consulting with the Board of Directors on key issues. The Sustainability Committee, chaired by the Executive Officer in Charge of Sustainability, discusses and formulates key themes, including climate change, and sets key performance indicators (KPIs) based on the strategies and policies formulated at the Sustainability Strategy Meetings.

We have also set up Environmental Taskforce under this conference body to tackle important sustainability issues across the organization; the task force reports on their areas of focus and progress to the Sustainability Committee. We are reviewing the impact of climate change by referencing the following items, based on the recommendations of the TCFD: scenario analysis, analysis of climate-related risks and opportunities, and strategies, metrics and targets.

For more information on how we promote sustainability, please refer to the below website.

▶ Sustainability Management

Strategy

Scenario Analysis

Kioxia Group analyzes the impact of climate change on our operations, considering its effects on our stakeholders, business activities, and our overall value chain. In addition to ongoing assessment using two scenarios stipulated by the International Energy Agency (IEA) and other organizations—the 2°C Scenario and 4°C Scenario[5]—in FY2023 we also began to consider the use of the IEA's 1.5°C Scenario. Under this scenario, we believe government action, regulatory strengthening and the preferences of customers and other stakeholders will have a significant impact. For example, we assume that there will be an increase in the costs associated with the implementation of measures to reduce greenhouse gas emissions at manufacturing sites, and higher research and development costs arising from the need to develop more energy-efficient products with increased capacity. Under the 4°C Scenario, we project the emergence of physical risks to our company bases.

[5] These are terms commonly applied to climate-related scenarios depicted by the IEA and other organizations. Each scenario includes specifications of the economic measures needed to suppress rising temperatures and the envisaged environmental damage in the event such increases in temperature occur.

Risks and Opportunities

Kioxia Group assesses the risks and opportunities in both the short and medium-to-long term, based on scenario analysis. The potential risks and opportunities envisaged as of 2030 are outlined in the table below.

We recognize the transition risks posed by the migration to a low-carbon economy, such as increased power supply costs resulting from the introduction of a carbon tax, and the cost of installing additional equipment to remove PFCs in line with increases in our manufacturing output. In addition, we recognize the potential for physical risks such as an increase in clean room air-conditioning costs resulting from a rise in outdoor temperatures.

In terms of potential opportunities arising from the transition to low-carbon economies, we envisage expanding business opportunities through the manufacture of more efficient products that consume less electricity, and by reducing our own power consumption during manufacturing through the implementation of energy conservation measures.

To clarify the potential effects of climate-related risks and opportunities on our business activities, our Environment Task Force, working under the Sustainability Committee, conducts detailed calculations of their financial impact. Given the expansion of our business and the demand from our stakeholders for us to respond to climate change, we believe that the financial impact of both risks and opportunities in our research and development, our transactions with customers, and the cost of our electricity will be significant, regardless of the scenario. However, we believe that the cost of installing PFCs abatement equipment and the associated renewable energy and energy-saving equipment will have a relatively small financial impact.

We will continue to address any risks related to climate change, seeing these more as opportunities.

External events	Risks		Opportunities	
	Type	Potential Financial Impact	Type	Potential Financial Impact
Introduction of carbon pricing (e.g., incorporating carbon taxes)	(Transition Risks) Policy and Legal	• Increased cost of power. • Increased cost of installing manufacturing equipment. • Increased construction costs.	—	—
Conversion to renewable energy	(Transition Risks) Technology	• Increased cost of deploying renewable energy supplies.	(Transition Opportunities) Energy Sources	• Enhanced reputation resulting from switch to the use of renewable energy.
Stricter promotion of energy saving measures during manufacturing	(Transition Risks) Technology	• Increased cost of installing energy-efficient manufacturing equipment.	(Transition Opportunities) Resource Efficiency	• Reduced electricity cost due to deployment of energy-efficient manufacturing equipment. • Improved productivity resulting from enhanced processes.
Improving environmental awareness of stakeholders	(Transition Risks) Markets	• Increased R&D costs of products with highly efficient energy consumption.	(Transition Opportunities) Products	• Expanded business opportunities resulting from the development of products with highly efficient energy consumption.
	(Transition Risks) Reputation	• Boycotts by local residents or consumers due to insufficient communication about our initiatives to protect the environment. • Impact on fundraising due to inadequate communication with stakeholders, including NGOs and financial institutions.	(Transition Opportunities) Markets	• Increased customer trust due to strengthened BCM[6] leading to stronger branding power and higher corporate value.

External events	Risks		Opportunities	
	Type	Potential Financial Impact	Type	Potential Financial Impact
Transition to manufacture of low carbon products	(Transition Risks) Reputation	• Impact on our business due to demands from customers to reduce GHG emissions and make greater use of renewable energy sources. • Increase in carbon credit procurement costs aimed at achieving net-zero carbon emissions.	(Transition Opportunities) Markets	• Positive impact on our business of responding to demands to reduce GHG emissions and making greater use of renewable energy sources. • Increased corporate value and fundraising capabilities resulting from strengthened ESG activities.
	(Transition Risks) Technology	• Increased cost of introducing PFCs abatement equipment in the new building.		
Upgrading electricity infrastructure	(Transition Risks) Technology	• Unstable power supply due to expansion of renewable energy usage.	(Transition Opportunities) Energy Sources	• Stabilization of power supplies and reduced electricity costs through early securing of renewable energy sources.
Extreme weather conditions	(Physical Risks) Acute	• Extreme weather conditions, resulting in suspension of operations, etc. • Supply chain disruption, resulting in suspension of operations, etc.	—	—
Water shortages	(Physical Risks) Chronic	• Operations halted due to decreased water source capacity or water shortages, etc.	—	—
Rising temperatures	(Physical Risks) Chronic	• Increased air-conditioning costs.	—	—

Toward Minimizing Risks and Maximizing Opportunities

- Introduction of renewable energy
- Promotion of energy-saving activities
- Efficient use of water resources
- Development of high-capacity products with highly efficient energy consumption
- Reinforcing BCM and supplier engagement
- Introduction of carbon credits
- Promoting biodiversity

[6] Business Continuity Management

Metrics and Targets

To help achieve net-zero greenhouse gas emissions by FY2050, Kioxia Group has established KPIs related to our energy consumption, our environmental impact, and the use of our products. We review the degree of achievement of these at Environmental Management Review meetings held every six months.

For example, with regard to Scope 2-related energy consumption, we are promoting energy-saving activities with the stated goal of reducing the volume of emissions by 1% each year compared to the previous fiscal year. For details, please refer to "Greenhouse Gas Emissions Across our Entire Value Chain" and "Our Efforts to Adapt to Climate Change" below.

Moreover, we have set the long-term goal of using 100% renewable energy by FY2040. Through the creation of an energy portfolio that incorporates energy conservation activities and the use of renewable energy certificates, we will work to secure the optimal and stable procurement of renewable energy in line with the expansion of our business. We will also work to install renewable power generation systems and carbon-neural city gas supplies in our factories.

Greenhouse Gas Emissions Across Entire Value Chain

Scope 1, 2 and 3 CO_2-equivalent greenhouse gas emissions from Kioxia Group's business operations in FY2023 are shown in the chart below. The figures in the table below cover emissions from Kioxia Corporation, including the company's Head Office, Yokohama Technology Campus and Yokkaichi Plant, Kioxia Iwate Corporation, and the Solid State Storage Technology Corporation (SSSTC).

(Dash cells (–) in the below list indicate "not applicable")

Scope 1 (Direct emissions)

CO_2 Emissions in FY2023 (t-CO_2)	Category Outlines
410,400	Direct emissions from in-house fuel use and our business processes

Scope 2 (Indirect emissions)

CO_2 Emissions in FY2023(t-CO_2)	Category Outlines
1,870,400	Indirect emissions from the production of electricity, heat and steam purchased by the company

Scope 3 (Other indirect emissions not covered by Scope 1 and 2)

Category	CO_2 Emissions in FY2023 (t-CO_2)	Category Outlines
1. Purchased goods and services	4,596,026	Emissions resulting from activities up to the processing of raw materials and the manufacture of parts, packaging, etc.
2. Capital goods	617,730	Emissions resulting from the construction and manufacture of our own capital goods
3. Fuel- and energy-related activities not included in Scope 1 or 2	340,479	Upstream emissions of purchased fuels/electricity, etc.
4. Upstream transport and delivery	6,343	Emissions arising from the transportation of products and waste in Japan (excluding overseas transportation and suppliers' transportation)
5. Waste generated in operations	26,472	Emissions from the treatment of waste
6. Business travel	1,414	Emissions arising from employees' business travel
7. Employee commuting	12,209	Emissions arising from employees' commuting
8. Leased assets (upstream)	—	—
9. Downstream transportation and delivery	—	—
10. Processing of sold products	—	—
11. Use of sold products	460,014	Emissions arising from the use of sold products
12. End-of-life treatment of sold products	—	—
13. Downstream leased assets	—	—
14. Franchises	—	—
15. Investments	—	—
Scope 3 (Total)	6,060,687	

Breakdown of Scope 1 direct emissions (FY2023)
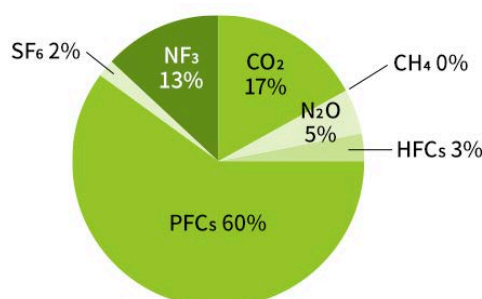
Achievements in the areas of energy consumption and greenhouse gas emissions

The graph below shows Kioxia Group's energy consumption and Scope 1 and 2 greenhouse gas emissions. In order to achieve our goal of 100% renewable energy usage by FY2040 and net zero greenhouse gas emissions by FY2050, we are introducing solar power generation systems and progressing with the purchase of renewable energy certificates in respect of some of the electricity we use, among other initiatives.

Since June 2024, we have been participating in the Catalyze program[7] as a supplier, helping the industry's transition to renewable energy.

[7] A collaboration between sponsoring companies and Schneider Electric, with the aim of accelerating the transition to the use of renewable energy by involving suppliers involved in the semiconductor industry. Suppliers providing products to sponsor companies can take advantage of benefits such as insights and information useful for the introduction of renewable energy by participating in this program. As of August 2024, the companies sponsoring the program include Applied Materials, ASM, Cisco, Edwards, Google, HP, and Intel. https://hub.zeigo.com/catalyze

Volume of Energy Used (MWh)

Electricity   Natural gas, LNG

Notes:
(1) The percentage of our total energy consumption accounted for by renewable energy in FY2023 was 0.3%.
(2) Subjects are Kioxia Corporation, Kioxia Iwate Corporation and SSSTC.

Scope 1 + Scope 2 Emissions (t-CO_2)

Scope 1   Scope 2
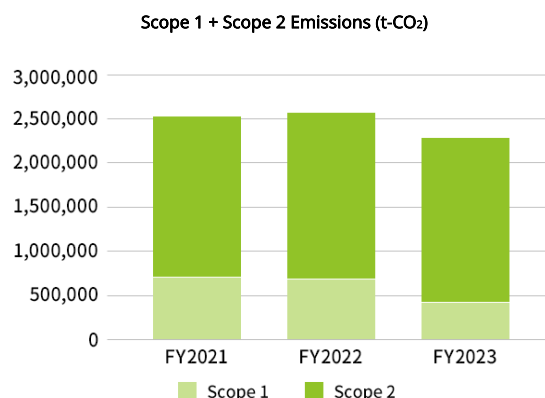
Note: Subjects are Kioxia Corporation, Kioxia Iwate Corporation and SSSTC.

Efforts to Adapt to Climate Change

Kioxia Group is progressing efforts to adapt to climate change throughout our value chain, taking into account the identified risks, opportunities and their impact.
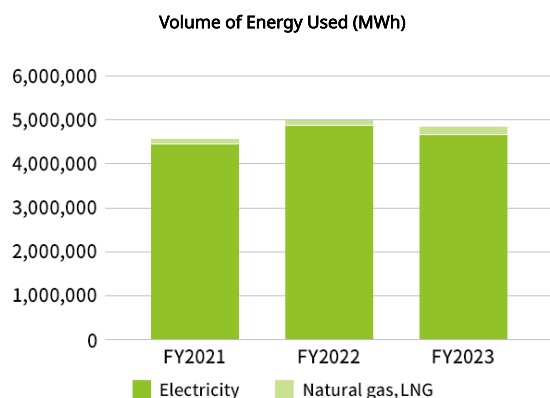
Product Development

In the data storage market, the need for low-power consumption-type products is growing extremely rapidly, and we expect to expand sales opportunities by further developing these products. We are working on the research and development of more energy-efficient processes and increased capacity through the development of advanced integrating technology. Specifically, we have set the challenging target of reducing the energy consumption of our memory and SSD products by 50% per unit of 1GB data from 2017 levels by FY2025.

To gauge the environmental impact of our products during manufacture and use, Kioxia Group has started implementing the Life Cycle Assessment method[8] of certain products. In FY2023, we conducted third-party verification for six products.

[8] A method for quantitatively assessing the environmental impact of a product or service throughout its life cycle (raw material extraction, manufacture, transportation, usage, and waste disposal or recycle) or at a specific stage in its life cycle.

Please see below for details.

▶ How We Reduce the Impact of Our Products on the Environment

Operation of Manufacturing Sites and Research Development Facilities

Kioxia Group has set the goal of achieving net-zero Scope 1 direct emissions and Scope 2 indirect emissions resulting from our use of purchased energy.

To help achieve the reduction of Scope 1 emissions, we have been proactive in the installation of abatement equipment to deal with PFCs – greenhouse gases with high global warming potential. Since FY2011, we have installed PFCs abatement equipment in 100% of the target facilities. We are striving to improve the efficiency of operations through the introduction of online monitoring via the Internet of Things (IoT) and to enhance the performance of abatement equipment in cooperation with our suppliers. The number of abatement equipment installations exceeded an average of 145 units per year from 2020 to 2023, and the cumulative abatement effect since FY2017 is 4.57 million t-CO_2.

We have also started using carbon-neutral city gas.

The contribution of PFCs abatement equipment to Scope 1 direct emissions reductions since FY2017 (t-CO_2)

- ■ Cumulative reduction in Scope 1 PFCs emissions resulting from the use of abatement equipment since FY2017
- ■ Actual Scope 1 emissions
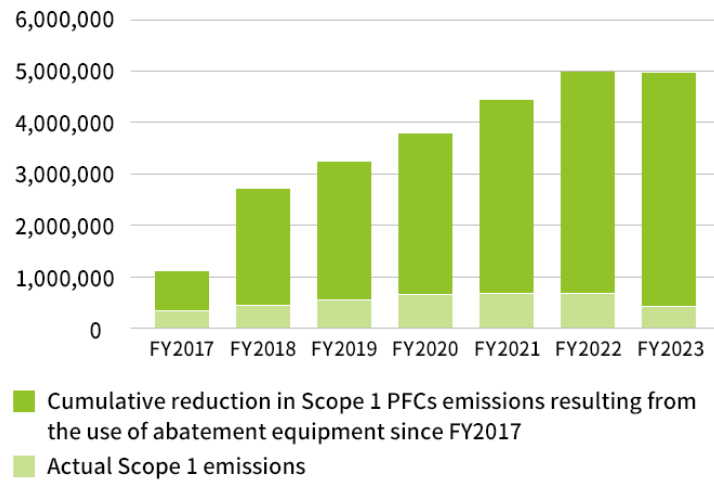
Note: Subjects are Kioxia Corporation, Kioxia Iwate Corporation and SSSTC (SSSTC results are in respect of the period from FY2021 onward).

The Flagship Building, a new research development building at the Yokohama Technology Campus completed in 2023, is the first building in the Group that has acquired ZEB-Ready certification.[9] The other newly constructed building, Shin-Koyasu Technology Front, features a clean room with an environmentally conscious design.

[9] ZEB stands for net-Zero Energy Building. "ZEB-Ready" is one of the grades assigned by Japan's Building Energy-efficiency Labeling System, certifying buildings that provide a comfortable indoor environment while reducing their primary energy consumption by 50% or more, excluding renewable energy.

Flagship Building at Yokohama Technology Campus

Shin-Koyasu Technology Front

We will continue to reduce the amount of Scope 2 indirect emissions resulting from our use of purchased energy by making more use of renewable energy sources.

In order to optimize the efficiency of our energy consumption, Kioxia Group's manufacturing sites have the stated goal of reducing Scope 2 energy consumption by 1% compared to the previous year's total, in line with the directives contained in the Act on Rationalizing Energy Use and Shifting to Non-fossil Energy (hereinafter, "the Energy-Saving Act") in Japan.

In FY2023 we achieved our goal of reducing energy use through various energy-saving activities, recording an actual reduction of 23,000 t-CO_2 emissions per year against a target of at least 19,000 t-CO_2. From FY2017 to FY2023 the result of our energy conservation programs was a cumulative reduction of approximately 150,000 t-CO_2 emissions.

To promote energy conservation and efficiency at each facility, we endeavor to improve and incorporate new technologies. These include smart factories and waste heat utilization as well as improvements in manufacturing and testing processes and temperature management of auxiliary equipment. We have established processes whereby we periodically address priority areas and assess the progress of improvements.

We have also started visualizing CO_2 levels across the whole company to improve the operational efficiency of manufacturing facilities and raise awareness of the need for energy conservation. At SSSTC, in 2023 we introduced a system that visualizes the sources and amounts of CO_2 emissions within each business location. The CO_2 emission data of Kioxia Corporation's Yokkaichi Plant is posted on the plant's intranet site.

Promoting Energy Conservation

At Kioxia Corporation's Yokkaichi Plant and Kioxia Iwate Corporation, our energy saving promotion team is leading efforts to improve the energy efficiency of their business operations. We have also set up subcommittees for each target facility and manufacturing process, who select key items and check the progress of these in collaboration with other departments. Since 2019, the combined number of items and projects monitored at both plants has exceeded 1,500, resulting in a cumulative CO_2 reduction of 120,000 t-CO_2.

As an example of initiatives implemented in 2023, Kioxia Corporation's Yokkaichi Plant changed part of the cleanroom's product transport system. Overhead Hoist Transporters (OHTs), which carry products in the cleanroom, traditionally require a continuous supply of power through power lines installed in ceiling tracks. However, the new battery-powered solution that was installed eliminates the need for a continuous power supply, except during charging, thereby reducing electricity consumption. In the area where this switch was made, CO_2 emissions were reduced by around 15 t-CO_2 annually.

Kioxia Iwate Corporation has also launched a new initiative for recovering waste heat from refrigeration units. The heat emitted during the operation of the refrigeration units is typically used to regulate the temperature of cooling water through heat exchange, but in winter, the external air temperature is low, and the cooling water temperature is kept relatively high. By forecasting outside air temperatures to calculate the required amount of heat, they were able to recover waste heat from the refrigeration units that could supply the necessary heat, while reducing electricity consumption by lowering the cooling water temperature in units not involved in heat recovery. In 2023, they reduced CO_2 emissions by 562 t-CO_2 .

Energy-saving measures for manufacturing equipment are also a key challenge. We are working with equipment suppliers to reduce power consumption, optimize equipment cooling, and shorten processing times.

Structured energy-saving activities have been carried out at SSSTC, with 10 key initiatives in 2023 reducing CO_2 emissions by 350 t-CO_2 .

Value Chains

As climate change continues in the form of global warming, damage caused by water-related natural disasters including typhoons and heavy rains is becoming more apparent every year. These events impact on the production of component manufacturers and on logistics, increasing the risk of disruption to our manufacturing processes and product supplies.

Kioxia Group has targeted all business units with the drafting of business continuity management (BCM) policies, and has established response protocols that take account of a variety of risks, including natural disasters.

Under our BCM policy, we strive to be fully conscious of the status of our materials and products even at times of no disruption, and ensure we have multiple suppliers. Furthermore, we are making efforts to ensure we are able to swiftly assess the situation in the event of an emergency, and to minimize any effects on the business at such times by means of a collaborative process designed to ensure the early recovery of services. Addressing climate change is also an important issue for our customers and suppliers, and we closely communicate with them on the related challenges and responses. We also participate in the CDP Supply Chain Program, collecting information regarding environmental impact from key suppliers.

We will continue to work with our partners across the entire value chain to expand the market for products that consider environmental impacts and help realize a decarbonized society.

Taking Part in External Initiatives Related to Climate Change

The Kioxia Group is helping to address climate change, gathering information and making recommendations to the government through participation in industry associations and other activities.

Following the announcement by Kioxia Holdings Corporation of its endorsement of the TCFD in 2021, we have been participating in the activities of the TCFD Consortium since 2022. In 2024, we also joined the Semiconductor Climate Consortium (SCC), established by the industry association Semiconductor Equipment and Materials International (SEMI). As a member of the semiconductor value chain, we are accelerating efforts to address climate change.

Kioxia Corporation is involved in the addressing of energy and global warming issues as a member of the Environmental Working Group of the Japan Electronics and Information Technology Industries Association (JEITA), a group representing the electronic device industry. As a supporting member of the Japan Climate Leaders' Partnership (JCLP), a corporate group that aims to achieve a decarbonized society, we have collaborated in measures aimed at achieving the targeted 1.5°C reduction stipulated in the Paris Agreement, as well as in discussions about proposals to be made to the government.

How We Reduce the Impact of Our Products on the Environment

The NAND flash memory and Solid State Drive (SSD) products that Kioxia Group supplies are integrated into a wide range of applications and used throughout the world. We are making efforts to reduce the environmental impact of our products during every stage of their lifecycle; this includes reducing CO_2 emissions per product capacity during manufacturing and providing efficient products that consume as little energy as possible when in use.

Given the recent spread of AI, the expansion of data centers, and the acceleration of technological innovation in autonomous driving, there is a growing need to increase the capacity and speed of NAND flash memory and SSD products. Kioxia Group's ongoing development of integration technology and the resulting increased memory capacity are allowing us to reduce the level of CO_2 emissions per product capacity during manufacturing. Specifically, this is being achieved by reducing the amount of electricity and materials per product capacity used during manufacturing, and improving the energy consumption efficiency of our products for processing 1GB data when they are in use.

On the other hand, the spread of AI is expected to increase demand for flash memory and SSDs with higher speeds and larger capacities. From an environmental perspective, there is concern that this will result in even more electricity being required to operate such devices. For this reason, we expect the need for highly energy consumption-efficient, large-capacity flash memory and high-throughput SSD products to expand to a number of new fields. Furthermore, in order to understand the environmental impact of our products throughout their lifecycles, Kioxia Group has begun evaluating CO_2 emissions for its products using the LCA (Life Cycle Assessment) method,[1] and in March 2024, we obtained third-party verification by the environmental risk assessment authority DNV. We plan to gradually expand the scope of this program in the future.

[1] A method for quantitatively assessing the environmental impact of a product or service throughout its life cycle (raw material extraction, manufacture, transportation, usage, and waste disposal or recycle) or at a specific stage in its life cycle.

In addition, our R&D department is undertaking the study of technologies that will allow the restoration of NAND performance, thus enabling the reuse of SSDs that have deteriorated after use.

In order to contribute to the realization of a low-carbon society, Kioxia Group will continue to promote as our priority the improvement of energy consumption efficiency and capacity expansion through technological development.

DNV verification document

How Kioxia Group's Products Help Protect the Environment
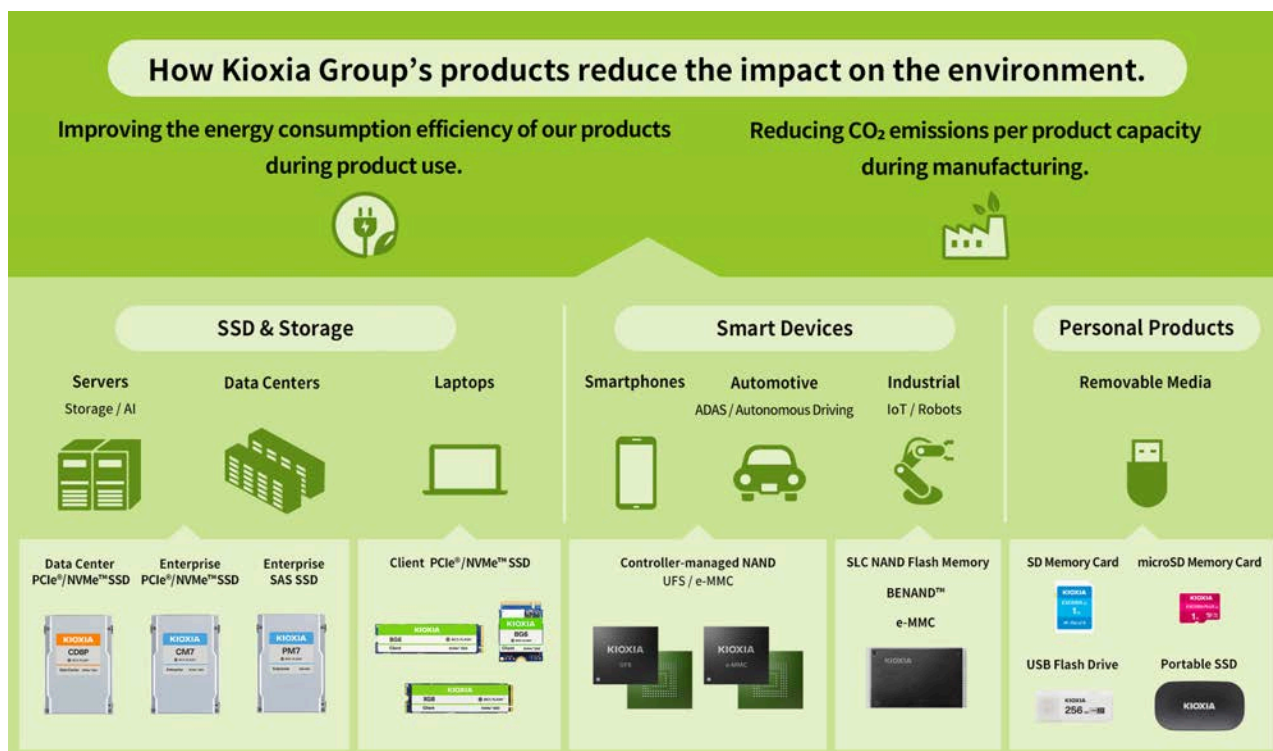
Targets for Improving the Energy Consumption Efficiency of Our Products

The Kioxia Group will utilize these advanced technologies to further improve the energy consumption efficiency of its products.

Specifically, we have set the challenging target of reducing by FY2025 the amount of energy consumption required by our products to process 1GB data by 50% compared to FY2017 levels.

In FY2023, we successfully achieved a reduction of around 31% in the energy consumption required to process 1GB data compared to FY2017 levels. We were able to do this by achieving higher speeds, by integrating advanced technologies in our NAND flash memory, and by designing our own optimal controllers.

Targets: Improving the Energy Consumption Efficiency of Our Products
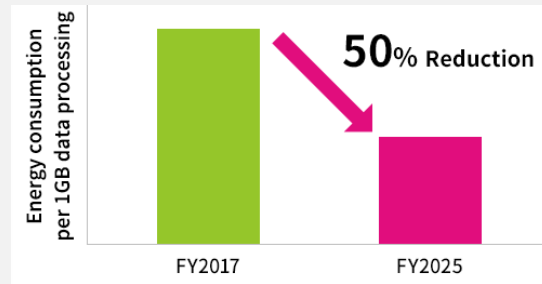
Case Studies: Improving Energy Consumption Efficiency during Product Use

UFS Ver. 4.0 Embedded Flash Memory

Kioxia Corporation has improved the performance of its UFS[2] 4.0-compatible embedded flash memory and commenced mass production. This product has been developed for applications such as high-end smartphones and other mobile devices, and can utilize high-speed 5G networks to achieve faster data downloads and reduce time lag, contributing to the development of high-performance mobile devices that enhance the user experience.

This product packages the company's 3D flash memory BiCS FLASH™ and a controller in a JEDEC-standard package, and offers three capacity types: 256GB, 512GB, and 1TB. Compared to the company's previous generation products[3] sequential write performance has improved by about 18%, random write performance by about 30%, and random read performance by about 13%.

Moreover, the energy consumption efficiency (J/GB) per 1GB data processed is approximately 17% improved for sequential reads and 15% improved for sequential writes compared to the company's previous generation product.

In addition, the package volume of the 512GB product is approximately 16% smaller than that of the previous generation product, contributing to a reduction in the quantity of materials used.

UFS 4.0 Embedded Flash Memory

▶ UFS 4.0 Embedded Flash Memory – Product Information (Kioxia Corporation) ⧉

[2] A category of embedded memory products built to JEDEC UFS-standard specifications. Its serial interface allows UFS to support full duplexing, which enables both concurrent reading and writing between the host processor and UFS device.
[3] Comparison between this product (512GB product model number THGJFLT2E46BATP) and the previous generation product (512GB product model number THGJFJT2T85BAT0).

* The advertised memory on each KIOXIA product is based on the on-board memory capacity, not the amount of memory available for data storage by the end user. Since a portion of the memory capacity is used for memory management and other functions, the usable capacity will be less than that advertised; please refer to the product specifications for details.
* Read and write speeds represent the fastest times recorded under test conditions at Kioxia Corporation; we are unable to guarantee the read or write speeds of individual devices in actual use; these may vary depending on the device used.
* Company names, product names and service names may be trademarks of third-party companies.

PCIe® 4.0, NVMe™ 1.4c Compact Client SSD KIOXIA BG6 Series

Kioxia Corporation has commercialized the KIOXIA BG6 Series, a small form factor NVMe™ SSD with a maximum capacity of 2,048GB, featuring a PCIe® Gen4x4 interface and 6th generation BiCS FLASH™.

The KIOXIA BG6 series, which is equipped with the company's sixth-generation "BiCS FLASH™" 3D flash memory, supports a high-speed interface speed of 64 GT/s (16 GT/s x4) with a PCIe® Gen4x4 lane configuration; the maximum sequential read and write performance of the 1,024GB model is approximately 70% higher than the company's previous generation client SSDs.[4]

Furthermore, the energy consumption efficiency of the 1,024GB model has improved by approximately 40% during sequential reads and 30% during sequential writes.

In addition, its adoption of technologies such as Host Memory Buffer (HMB)[5] provides a comfortable storage environment for ultra-mobile notebook PCs that require high-speed data processing.

Through the provision of this product, Kioxia Corporation will contribute to the development of high-performance, highly functional notebook PCs that support high-speed interfaces, while at the same time significantly improving energy consumption efficiency during its use.

Client SSD KIOXIA BG6 Series

▶ **Client SSD (Kioxia Corporation)** ⧉

[4] Compared to the KIOXIA BG5 series

[5] A technology that allows SSDs to use part of the host memory (DRAM). SSDs without DRAM can have the equivalent performance as SSDs with DRAM.

* Read and write speed may vary depending on various factors such as host devices, software (drivers, OS etc.), and read/write conditions.
* PCIe is a registered trademark of PCI-SIG.
* NVMe is a registered or unregistered trademark of NVM Express, Inc. in the United States and other countries.
* Other company names, product names and service names may be trademarks of third-party companies.

Sustainability Report 2024
Kioxia Holdings Corporation

Current Status of Environmental Impact and Environmental Targets and Outcomes

Current Status of Environmental Impact

Kioxia Group is expanding our production capacity in order to meet the growing demand for flash memory, an essential component of society's information infrastructure. At the same time, we are continuing with various initiatives to minimize our environmental impact.

The figures in the table below show the environmental impact in terms of material balance during production activities at Kioxia Corporation, including the Yokohama Technology Campus and Yokkaichi Plant, Kioxia Iwate Corporation, and the Solid State Storage Technology Corporation (SSSTC).

Input

	FY2021	FY2022	FY2023
Chemicals[1] (t)	63,539	63,241	53,927
- VOC[2] (t)	18,330	18,318	15,333
- PRTR[3] (t)	7,539	6,669	6,545
City water[4] (thousand m^3)	71	122	64
Industrial water[4] (thousand m^3)	24,417	25,153	24,673

Output

	FY2021	FY2022	FY2023
Greenhouse gas (Scope 1+2) (thousand t-CO_2)	2,542	2,580	2,281
- Scope 1	694	681	410
- Scope 2	1,848	1,899	1,870
Chemicals[1] (t)	625	535	424
- VOC[2] (t)	583	495	378
- PRTR[3] (t)	2	2	13
Waste (t)	105,737	101,604	85,765
- Recycled volume (t)	75,025	72,932	64,331
- Plastic products recycled volume (t)	2,545	2,430	2,027
Waste water (thousand m^3)	18,445	18,923	18,381
NOx (t)	26.6	32.5	35.8
SOx (t)	0	0	0

[1] Chemicals targeted for reduction

[2] Volatile organic compounds: causative agents that generate photochemical smog, such as IPA, butyl acetate and cyclohexanone.

[3] Pollutant release and transfer register: a system to ascertain, compile and disclose data on hazardous chemical substances (such as water-soluble zinc compounds, 2-aminoethanol, silver and its water-soluble compounds, etc.) discharged into the environment from any source or transported from work sites in waste. The figures shown refer only to our manufacturing and business sites in Japan.

[4] All fresh water

For details of the environmental impact of each manufacturing site and their efforts to reduce this, please refer to each site's environmental reports.

> **Kioxia Corporation's Yokkaichi Plant Environmental Initiatives** ◻

> **Kioxia Iwate Corporation Environmental Initiatives** ◻

Targets and Outcomes

Kioxia Group has established its own environmental goals and undertakes business activities that contribute to the realization of a sustainable society. The following table summarizes our environmental targets for FY2023 and their achievement status. We again achieved all our environmental targets in FY2023 thanks to the energy-saving activities we promoted across the organization and our efforts to reduce the amounts of used and discarded chemical substances at our flash memory manufacturing plants. Our employees also actively participated in a variety of social contribution and biodiversity conservation initiatives, primarily at our manufacturing plants.

We have set correlation numerical targets on a product capacity basis in respect of the environmental impact of our product manufacturing activities using FY2017 as a base year; we have also made strenuous efforts to reduce CO_2 and other greenhouse gas emissions. We will continue to pursue cross-organizational initiatives aimed at minimizing the environmental impact of our business activities.

The figures in the table below cover emissions from Kioxia Corporation, including the company's Head Office, Yokohama Technology Campus and Yokkaichi Plant and Kioxia Iwate Corporation.

Environmental targets and objectives		FY2023 Targets	FY2023 Results	FY2023 Achievement Status
Development of products the manufacture of which has a reduced environmental impact	Reducing the environmental impact of production processes through the miniaturization of devices	7 or more measures per year	7 measures	✓
Mitigation of global warming	CO_2 emissions from energy sources (Percentage change from FY2017 levels)	≦ 54.1%	49.9%	✓
	PFCs[5] emissions (Percentage change from FY2017 levels)	≦ 65.9%	48.7%	✓
Promoting efficient use of resources	Total amount of waste generated minus amount of valuable waste (Percentage change from FY2017 levels)	≦ 47.3%	43.0%	✓
	Total waste generated (Percentage change from FY2017 levels)	≦ 52.1%	45.0%	✓
	Water intake (Percentage change from FY2017 levels)	≦ 54.0%	51.3%	✓
Reduction of environmental risks	Emissions of chemical substances to air and water (Total amounts, percentage change from FY2017 levels)	≦ 25.3%	21.5%	✓
Biodiversity conservation	Biodiversity conservation	Periodic monitoring of indicator species	Periodic monitoring of indicator species	✓
Promotion of environmental communication	Social communication	Charity eco bazaars, collection of recyclable waste, donations, etc.	Held charity eco bazaars, collected recyclable garbage, made donations, etc.	✓
	Community communication	Local communication at manufacturing sites	Communicated with local residents (e.g., meetings with local residents' associations)	✓
Raising environmental awareness	Raising environmental awareness	Awareness-raising activities	Held awareness-raising programs (e.g., monthly environmental events)	✓

(✓: Achieved, ×: Not achieved)

[5] CFC alternatives used in the manufacture of semiconductors. PFCs gases have high global warming potential. The substances used by our group are CF_4, C_4F_8, CHF_3, SF_6, NF_3, CH_2F_2, CH_3F, CH_4, and N_2O.

Removing VOCs

Kioxia Group is committed to reducing emissions of chemical substances. In order to control the emission of volatile organic compounds (VOCs), we have installed abatement equipment in 100% of the targeted manufacturing facilities constructed since 2011.

We are also working to improve the efficiency of detoxification equipment. At Kioxia Group's newest manufacturing building, Yokkaichi Plant's Fab7, the reuse of waste heat generated during combustion detoxification has reduced the consumption of city gas used in the combustion process and enhanced the effectiveness of the detoxification process.

Effective Use of Resources

We are striving to promote the effective use of resources throughout our entire supply chain with the aim of reducing our environmental footprint. By collecting and recycling waste generated during manufacturing and improving manufacturing processes, we are proactively reducing our consumption of chemicals and gas.

Since 2022, we have also been running a cross-organizational project aimed at ensuring the effective use of resources and the reduction of waste.

For performance data related to our environmental initiatives, please see below.

▶ **Performance Data**

Reducing Environmental Impact

At Kioxia Group, we are committed to achieving both efficient manufacturing and minimizing the environmental impact of our complex semiconductor manufacturing processes. We recycle the substantial amounts of daily waste we produce, with a particular focus on maintaining a high recycling rate for plastic waste. Additionally, we continuously strive to reduce CO_2 emissions generated as a result of our use of packaging materials that consider environmental impacts for transporting wafers, products, and semi-finished goods.

Efforts to Reduce Resource Usage

We use nozzles to apply chemicals providing protective coatings on wafer surfaces. It is necessary to regularly clean the nozzles with organic solvents to prevent discharge failures caused by chemical solidification. At Kioxia Corporation's Yokkaichi Plant, the optimization of nozzle cleaning frequency has reduced the usage of organic solvents for cleaning by over 40% in some processes. Additionally, a review of the chemical usage and the order of processes during wafer cleaning has resulted in reduced water consumption and stabilized product quality. By increasing the recovery rate and reuse of chemicals, we have reduced their usage by 50% in some processes.

Extending Resource Lifespan through Manufacturing Equipment Maintenance

The maintenance of manufacturing equipment is crucial for ensuring a balance between a product's quality and its environmental impact.

Some of the equipment used in back-end processes at Kioxia Corporation's Yokkaichi Plant has been in use for a long time, making the improvement of maintenance efficiency a challenge. To address this, the plant's Reuse Workshop has been looking at ways to reuse parts. For consumable parts, the plant spent two years determining the types of wear that do not affect the operation of the equipment, revising the disposal criteria for these components, and doubling their usage period. Additionally, equipment and parts removed due to defects are disassembled, the faulty areas and causes are identified, and repairs carried out and the items re-used wherever possible. The quality of repairs and reuse is ensured through the careful use of data sourced from repair histories and inspections using in-house function checkers, contributing to improved maintenance efficiency. Since its inception in 2013, the workshop has been able to re-use approximately 50,000 parts as a result of these initiatives.

In the front-end process, also known as the circuit formation process, we focused on the surface degradation of the electrostatic chucks used to secure wafers to the equipment. Previously, these chucks were discarded after a certain number of uses, but since 2023, they have been reused as a result of enhanced maintenance processes.

When circuit patterns are etched onto wafers (a multi-stage process using gas and plasma), the required precision varies in accordance with the stage of processing, and this allows us to determine whether recycled electrodes can be used. Our focus on this enables us to extend the usable life of electrodes and reduce the use of new devices by approximately 20%.

Recycling and Reuse of Waste Generated during Manufacturing

At Kioxia Group's manufacturing sites in Japan, we are constantly making efforts to utilize resources more efficiently. With reuse and recycling as our top priorities, we sort materials on the premises by type and intended use after reprocessing.

Kioxia Group's Manufacturing Sites in Japan		Applications after Recycling
Sources of Emissions	Waste (excluding plastics)	
Abatement equipment	Sludge	Rare metal raw materials
Wastewater treatment	Sludge	Cement raw materials
Manufacturing processes (circuit formation, wafer cleaning, etc.)	Waste oil	Organic solvents
	Waste acids	Chemical raw materials, fertilizer raw materials
	Waste alkalis	Denitrification agents and combustion aids for boilers, chemical raw materials
Packaging materials for new manufacturing equipment, replaced consumables	Metals	Metal raw materials

During the aforementioned use of organic solvent for nozzle cleaning, not only is the entire amount of used solvent collected, but through a purification process carried out at a partner company, it is now possible to recycle most of it. The recycling rate of this organic solvent is 85%.
During the front-end process where circuits are formed on wafers during semiconductor manufacturing, circuit patterns are transferred using the same mechanisms used by cameras when exposing and developing film. All residual cleaning solvents are collected at our manufacturing sites in Japan, distilled and refined by an outside contractor, and then reused.
In addition, polyimide, used as a film deposition material for wafers, was originally disposed of after use. However, as a result of a reevaluation of its potential value following a change in its composition at Kioxia Corporation's Yokkaichi Plant, it is now distilled and purified, and used mainly as a raw material for paint. Efforts to generate recycled aluminum from aluminum laminate bags used as raw material packaging have been initiated at SSSTC (Solid State Storage Technology Corporation), and in the three months from February 2024, 153 kg of aluminum laminate bags were recycled.

Effective Utilization of Plastic Waste

Over 2,000 tons of plastic waste are generated annually at Kioxia Group's manufacturing sites in Japan. In collaboration with recycling companies, this waste is recycled into raw materials for plastic products and other uses. To improve the efficiency of recycling and transportation, thorough separation and collection are implemented, and the volume of plastic waste is reduced wherever possible. For instance, the volume of polystyrene waste is reduced by more than 95% through high-temperature melting.

As a result of these efforts, the recycling rate for plastic waste from domestic manufacturing facilities has consistently remained above 90% since 2018.

Additionally, since 2023 SSSTC has been reusing all of the trays used to transport memory products, improving the recycling rate of total waste by over 50%.

Recycling rate for plastic waste from domestic manufacturing facilities (%)

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
	91.8	91.6	97.7	96.9	96.8	95.7
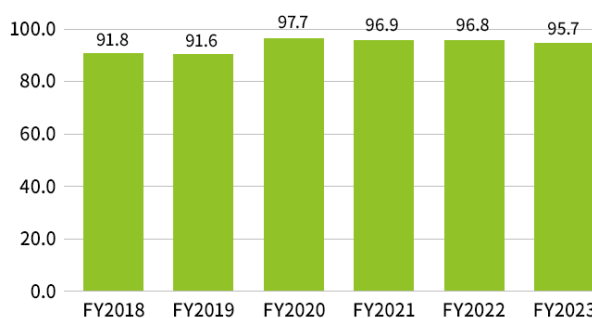
Kioxia Group's Manufacturing Sites in Japan		Outside Recycling Contractor	Applications after Recycling
Types of plastic product waste	**Materials sorted**		
• Packaging materials for raw materials • Wafer transportation cases • Memory product transportation trays • Cushioning materials for transporting and installing manufacturing equipment and products to/at the facilities • Protective films • Work gloves	• Polypropylene • Polyethylene • Polystyrene • Acrylonitrile Butadiene Styrene (ABS) • Polyethylene Terephthalate (PET) • Polycarbonate	• Processed as raw material for plastic products. • Processed as solid fuel. • Processed as auxiliary fuel.	• Raw materials for plastic products (e.g., home appliances, automotive parts, PET bottles, household items, etc.) • Solid fuel for boilers • Auxiliary fuel used during cement manufacturing, etc.

Example

The collected waste is gathered at the on-site recycling center.

Materials like polystyrene are melted in a melting machine at the recycling center, then cooled and formed into ingots.

The ingots become the raw material for polystyrene.

Use of Environmentally Conscious Packaging

Kioxia Group is expanding its use of environmentally conscious packaging. Memory chips and silicon wafers are transported between our sites and those of subcontractors or material suppliers during manufacturing and processing. To maintain the quality of these delicate components, we use durable plastic cases that provide effective protection during transportation and ensure cleanliness. Kioxia Group in Japan inspects and recycles these cases after use.

We have adopted the use of paper trays for some of our consumer SSD products. The EXCERIA PLUS G3 NVMe™, released in 2023, uses cardboard trays. By replacing conventional plastic trays with paper-based versions, we have reduced the use of plastic in our packaging materials by over 90%.[1] We also use pulp mold trays for EXCERIA PLUS Portable SSDs and cardboard trays for our EXCERIA with Heatsink product.

Additionally, over 95% of the printed cardboard used at Kioxia Corporation's Yokkaichi Plant contains plant-based ingredients in its ink,[2] reducing CO_2 emissions by approximately 2% per unit of printing.

[1] For each product, the weight of plastic in the packaging has been reduced by over 90% compared to that used for the EXCERIA PLUS G2 NVMe™.
[2] More than 10% of the ink solids comprise plant-based ingredients.

* NVMe is a registered or unregistered trademark of NVM Express, Inc. in the United States and other countries.

Effective Use of Water Resources

Approach to Water Resources

In line with the Kioxia Group's Environmental Policy, we continually strive to reduce the environmental impact of the wastewater produced during our manufacturing processes. We recycle the water we use in accordance with our own standards, which are stricter than current legal requirements, in order to conserve precious water resources and ensure business continuity.

Amid worldwide concern over water shortages, Kioxia Group has established the conservation of water resources and the ensuring of stable operations as business priorities. The balance between supply and demand, the amount of water that can be withdrawn, and the quality of water vary greatly between regions. Accordingly, Kioxia Group has identified water-related risks for each region, focusing not only on the short term but on the medium- to long-term as well, and we conduct environmental impact assessments from all angles to ensure appropriate use of water resources. In doing this, we also consider the impact of external environmental factors, such as drought and flooding, on our business operations, as well as the impact of our operations on local water levels.

Water Management Structure

At Kioxia Group, we prioritize all water-related initiatives and indices, seeing these as a key factor in the Group's sutainability management.

Sustainability strategies and policies, including those related to water, are formulated at Sustainability Strategy Meetings, chaired by the President and CEO, with the degree of target achievement confirmed in each case, before a final review by the Board of Directors.

Key performance indicators (KPIs) are discussed and determined by a Sustainability Committee chaired by the executive officer in charge of sustainability, based on sustainability strategies and policies formulated during Sustainability Strategy Meetings, including those related to water.

At Environmental Management Review Meetings, which involve discussions primarily between the officers and division managers responsible for environmental protection, the impact on our business, compliance with relevant laws and regulations, and achievement of our KPIs are all reviewed, with reference to social and legislative trends, and our medium-term environmental plan is evaluated in consideration of the risks and opportunities related to our usage of water.

Issues deliberated at these meetings include the installation of equipment to reduce water consumption during the construction of new plants, and the management of risk through business continuity management (BCM) activities. Assessments of water hazards such as overflowing rivers, large-scale typhoons and drought are also conducted as part of our BCM policy to reinforce our overall management of business risks and enable swift business continuity in the wake of any disaster. Furthermore, specialists investigate and monitor domestic and international regulations and trends to reduce the risks posed to constantly changing water environments.

Evaluating Water Risk

The balance between supply and demand, the amount of water that can be withdrawn, and the quality of water all vary greatly between regions. Kioxia Group has commissioned external experts to evaluate water-related risks at our domestic and international manufacturing sites from the perspective of current and future supply and demand; these are assessed using tools such as the World Resources Institute's WRI Aqueduct and the Water Risk Filter. We use these assessments to analyze risks such as water stress levels and seasonal variations in water supplies through the year 2040 in order to understand the potential impact on our business activities.

An assessment of our Group's manufacturing sites, including Kioxia Corporation's Yokkaichi Plant, Kioxia Iwate Corporation and Solid State Storage Technology Corporation (SSSTC), confirmed that they are not exposed to any water risk likely to have practical financial or strategic impact prior to the year 2040. This assessment was based on investigations into such areas as water supply and demand risks (driven by seasonal changes, the frequency of droughts, water storage capacity and water source protection levels), the risk of water-related disasters such as flooding or landslides, and regional vulnerability to water pollution that might endanger public health or ecosystems.

Water-related Targets and Results

Using FY2017 levels as the baseline, Kioxia Group has set targets for the reduction of our water intake per unit of storage capacity manufactured, and we manage these using a PDCA cycle.

For FY2023, we set the target of consuming 54.0% or less of FY2017 levels, and achieved this with an actual result of 51.3%.

Going forward, we will continue to pursue activities aimed at achieving water intake reduction targets by both reducing water consumption and by promoting recycling.

Enhanced Wastewater Monitoring

Manufacturing sites of Kioxia Group in Japan monitor wastewater using voluntary standards that are more stringent than the prevailing legal requirements, in order to minimize the impact of our business operations on the atmosphere and on rivers.

Around-the-clock, automated monitoring is conducted in respect of legally regulated factors, including chemical oxygen demand (COD), suspended solids (SS), fluorine (F), and hydrogen ion (pH) levels. Kioxia Group in Japan also voluntarily controls items not subject to legal restrictions through sampling conducted at Analysis Centers located within our manufacturing plants. Kioxia Corporation's Yokkaichi Plant tests around 37,000 samples of wastewater each year, with Kioxia Iwate Corporation testing around 15,000.

As during the previous fiscal year, Kioxia Group was not subject to any government fines or penalties related to wastewater in FY2023.

Wastewater BOD (Biochemical Oxygen Demand) concentration control values for river discharge
(Kioxia Corporation's Yokkaichi Plant)
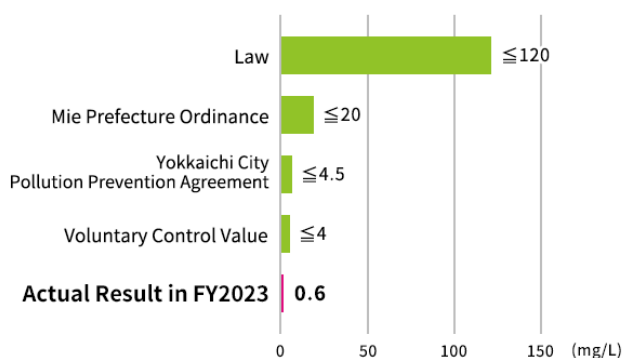
Water Recycling

In order to ensure more effective use of resources, Kioxia Group in Japan is devising initiatives aimed at controlling the amount of water we intake and discharge at our manufacturing plants. While large amounts of water are used in wafer cleaning and exhaust gas cleaning, water used in our manufacturing processes is recycled and reused not only within the production process but also in equipment such as waste gas scrubbers and cooling towers.

Water recycling initiatives at the manufacturing sites of Kioxia Group in Japan in FY2023 resulted in the collection and reuse of approximately 34 million ㎥ of water (equivalent to about 58% of our total intake), which has helped ensure the effective use of water resources.

Effective use of rainwater

SSSTC in Taiwan makes effective use of rainwater. At SSSTC, 525㎥ of rainwater was recovered in FY2023, equivalent to about 2% of the water it used during the same period. The collected rainwater is reused as cooling water for air conditioning equipment, etc.

Aiming for Appropriate Water Consumption

At Kioxia Group's manufacturing sites in Japan, procedures are in place to recover and recirculate unused ultra-pure water used for wafer cleaning. Additionally, the flow rate is adjusted in stages according to changes in water usage within the manufacturing process, maintaining consistent water quality and appropriate water volume.

Management of Chemical Substances in Our Products

How We Manage Chemical Substances in Our Products

As part of our efforts to help achieve a sustainable society, Kioxia Group endeavors to reduce the risks posed to people's health and to the environment by any chemical substances used in our products, in line with the Kioxia Group's Environmental Policy.

Environmental laws and regulations, including the EU RoHS Directive, the EU REACH Regulation, and the TSCA, are being tightened year by year in a number of countries and regions. Kioxia Group believes that in order to prevent the inclusion of these legally regulated chemical substances in our products, it's necessary to exclude them at the design and development stage, and to ensure they do not feature in any of the products, parts and materials we purchase. By complying with these regulations and our customer requests, we are doing our bit to reduce or eliminate the use of substances that may have a significant impact on people's health or the environment.

How We Manage and Control the Use of Chemical Substances in Our Products

The Kioxia Group is undertaking what we call "green procurement" throughout our entire supply chain; this involves procuring products, parts and materials that have a reduced environmental impact. Kioxia Corporation has established a Green Procurement Working Group comprising members of our Environmental, Quality Control and Procurement Divisions. This group has drawn up "Kioxia Group Procurement Guidelines;" these include specific requirements for suppliers, such as selection criteria for products, parts, and materials with low environmental impact, and standards governing the use of chemical substances; they also take into account the environmental laws and regulations of each country and region, and address the demands of our customers. These guidelines are shared with our suppliers and periodically updated.

Information regarding any chemical substances contained in our products is properly monitored through our green procurement processes.

Initiatives to Manage and Control the Use of Chemical Substances in Our Products

At Kioxia Group, environmental impact assessments are conducted from the design and development stage of each product covering the chemical substances present in our products, parts and materials; we make every effort to use chemicals during our manufacturing processes that have minimal impact on the environment.

Additionally, we are implementing measures to reduce the risk of environmental pollution caused by the use during manufacturing of chemical substances that are migratory (i.e., those with the ability to be transferred from one product to another if they come into contact).

Furthermore, to ensure appropriate oversight of chemical substances, we utilize monitoring tools and engage external consultants. We also participate in industry associations in order to closely observe environmental laws and regulatory trends regarding chemicals that may be banned in the future. We additionally conduct periodic evaluations of the presence of any substances whose use is prohibited or controlled.

We promote green procurement by classifying and managing chemical substances as follows.

Classification	Definition
Substances whose procurement is prohibited	A group of substances the Kioxia Group prohibits the use of in its products both in Japan and overseas. It includes substances specified as hazardous under the EU RoHS Directive.
Substances whose procurement is controlled	A group of substances whose inclusion in products is monitored by Kioxia Group. As these substances may be subject to legal controls in the future, we carefully monitor their use and concentration levels in our products.

Kioxia Group

Kioxia Group Suppliers — Collaborate to promote Green Procurement

Green Procurement
- Establishment and update of Kioxia Group Green Procurement Guidelines
- Raising awareness of the need for green procurement among suppliers and requesting they follow the guidelines

Design and Development
- Management of risks in design and development phase through adoption of Green Procurement procedures
- Conducting environmental assessment of our products during the design and development stages

Production
- Selection of environmentally friendly chemicals in the manufacturing process
- Management of chemical substance migration

Reducing the risks that chemicals used in our products pose to public health and to the environment

In addition to these efforts, Kioxia Corporation is working to reduce our environmental impact throughout the supply chain by providing training for our distributors covering environmental issues based on the Kioxia Group Green Procurement Guidelines and through collaboration with Kioxia Group suppliers.

Please refer to "Green Procurement" for more information on our green procurement efforts and "Current Status of Environmental Impact and Environmental Targets and Outcomes" for details of our performance related to the management of chemical substances during manufacturing.

▶ Green Procurement

▶ Current Status of Environmental Impact and Environmental Targets and Outcomes

Training on the Management of Chemical Substances in Our Products

Every year, all Kioxia Group executives and employees are provided with training on environmental laws and regulations and on our Green Procurement Guidelines.

Biodiversity Preservation

Kioxia Group engages in a range of biodiversity conservation activities in order to protect the rich ecosystems in the areas where we operate and to make a contribution to society.

Enriching the Work Environment

At Kioxia Corporation's Yokkaichi Plant, we are carrying out greening activities in order to increase environmental awareness among our workforce and to create a more attractive and relaxing environment. Since 2017, the company has been conducting a FloWA[1] project whereby employees plant flowers around the site and take care of them.

[1] The 'WA' in FloWA incorporates numerous meanings derived from the Japanese character 'wa,' and can denote a circle of friends, sharing, harmony, or laughter.

Employees replanting flower beds

Watching Over Forest Creatures

Kioxia Corporation's Yokkaichi Plant is participating in an owl protection project being undertaken by the Natural Study Group at Yokkaichi-Nishi High School and the MIRAI Lab at Kuwana High School. We provide equipment enabling owls in the area to be observed and protected in their natural habitat; this supports the project's aim of bequeathing the region's rich natural environment to future generations.

Solid State Storage Technology Corporation (SSSTC) in Taiwan supports the activities of the NGO Leopard Cat Association of Taiwan. The population of leopard cats, the only wildcat species in Taiwan, has been declining due to the development of roads and farms, an increase in traffic accidents, and other factors. The fact that the wildcats prey on farmed chickens is also a problem in areas where they co-exist with humans. Employees at SSSTC are helping to protect the lives of leopard cats and the livelihoods of poultry farmers by installing wire netting to prevent the wildcats from entering poultry farms, thereby enabling coexistence.

Baby owls inside the bird box, part of the owl protection project

SSSTC employees installing wire netting to support the community's coexistence with the leopard cat

Beach cleanup

Kioxia Corporation's Yokkaichi Plant participates in local beach cleanup activities organized by the local community development committee and the NPO Yokkaichi Sea Turtle Preservation Society with the aim of preserving the spawning environment of loggerhead turtles.[2] In 2023, a total of about 200 people—plant employees and their family members—participated in the cleanup activities to protect the environment where loggerhead turtles lay their eggs, and to deepen their understanding of the ecosystem and the importance of conservation activities.

SSSTC is engaged in greening efforts along the coast of Taiwan's Linkou district to conserve biodiversity and prevent coastal erosion. During cleanup activities conducted in March 2024, we collected 280 kg of waste matter.

[2] Loggerhead turtles are classified as an endangered species in the Ministry of the Environment's "Red List," indicating they are at high risk of extinction in the wild in the near future.

Employees and their family members pose after cleanup activities at a local beach

SSSTC employees planting trees along the coast of Linkou and cleaning up the area

Preserving Wetlands

SSSTC is working with the NPO Taiwan Environmental Information Association to promote wetland ecosystem conservation projects. Wetlands are habitats for many species of plants and animals, and their preservation is crucial for maintaining native species. In 2022, 18 employees participated in the extermination of invasive plants in the wetlands to protect the native flora and fauna.

SSSTC employees removing non-native plants

Supporting local culture and nature

The city of Kitakami in Iwate prefecture is running a *Sakura-mori* project whereby cherry blossom guardians are trained to take care of the cherry trees in Tenshochi Park,[3] a famous cherry blossom viewing spot in the city, with the aim of preserving the cherry blossom trees for the next 100 years. Kioxia Iwate Corporation participates in the Sakura-mori Workshop; in the 2023 event, around 30 employees and family members helped with the pruning and fertilizing of young cherry trees.

As part of its community contribution efforts, SSSTC promotes the "consumption of local produce" and provides vegetarian lunch boxes made with locally sourced ingredients to employees every other month.

[3] Tenshochi Park celebrated its 100th anniversary in 2021 and is famous for its cherry blossoms, having been selected as one of the "100 Best Cherry Blossom Spots in Japan."

Kioxia Iwate employees participating in fertilization activities

Local vegetables in the lunch box

Environmental Evaluation by External Parties

Introducing Kioxia Group's environmental awards and evaluation by external parties.

Employee of Kioxia Corporation's Yokkaichi Plant Awarded for Efforts to Promote Energy Conservation

In February 2024, an employee of Kioxia Corporation's Yokkaichi Plant received an award from Japan's Energy Conservation Center. The recipient was recognized for their proactive approach in implementing and managing measures related to energy conservation and operational efficiency. Aiming to contribute to the realization of a sustainable society, we will continue our company-wide efforts to promote energy conservation.

An award recipient

Kioxia Corporation Given Highest Rating in Japanese Environmental Evaluation System

In a business evaluation system targeting businesses that have submitted regular reports on the Energy Conservation Law for the fiscal year 2023, Kioxia Corporation was rated as an Excellent Energy-saving Business (S-class),[1] the highest of the four classes, for that year, following the company's similar achievement in FY2022.

[1] To qualify as S-class, companies must either reduce their average energy consumption intensity by more than 1% per year over a five-year period or achieve the industry-specific benchmark for the medium to long term.

Disclosure of Environmental Data to CDP

Kioxia Group applies for, and receives, certification from the CDP, the world's largest environmental information evaluation organization, every year.

CDP Climate Change

This evaluates the risks and opportunities posed to a company by climate change, and the concrete action it has taken to address these. In FY2023, we were rated "B" in the category of management of these risks.

CDP Water Security

This evaluates a company's efforts in the area of water stewardship. In FY2023, we were rated B- (management level).

The CDP is an international not-for-profit organization established in 2000 to tackle environmental issues, including climate change and water risks. It collects information from major companies around the world using questionnaires on the subject of management risks that climate change and other environmental issues pose to companies, and it rates them on an 8-point scale from A to D− (A is the highest grade) based on the responses received. In 2023, approximately 23,000 companies disclosed information through the CDP.

Environmental Communication

Kioxia Group actively participates in environmental activities that contribute to society. In addition to raising employees' awareness of the environment and their local community, we also promote the 3Rs (reduce, reuse, and recycle).

Kioxia Group will continue to foster awareness of the environment and a sense of unity among our employees and engage in environmental activities that support local communities.

Communicating about the Environment in Local Communities

The Kioxia Group conducts various environmental classes in areas where we operate in order to help realize a sustainable society and help local communities to thrive.

Children's Environmental Study Classes and Environmental Lecture

Kioxia Corporation's Yokkaichi Plant holds Children's Environmental Study Classes at neighboring elementary schools, after-school care centers, and at a museum in Yokkaichi devoted to raising public awareness of the risks of pollution and the need to protect the environment. In FY2023, approximately 70 elementary and junior-high school students participated in these classes, exchanging ideas on what they can do in their daily lives to help protect the environment. These provided an opportunity for the participants to learn about the impact of global warming and the importance of energy conservation.

We have also given lectures on the environment for university students and the general public. About 40 people attended a lecture held at Yokkaichi University in 2023; we deepened their understanding of global environmental issues by explaining the key Sustainable Development Goals Kioxia is focused on and outlining the activities we are undertaking to reduce the environmental impact of our operations.

Children's Environmental Study Classes

Internship Program Focusing on the Environment

Kioxia Corporation's Yokkaichi Plant offers an internship program covering the environment for local university students. In 2023, five students participated, gaining insights into the importance of environmental conservation work through lectures, tours of our environmental facilities and explanations of our measurement processes.

University Student Internship Program Focusing on the Environment

Communications with Local Communities

Kioxia Corporation's Yokkaichi Plant has been holding environmental liaison meetings with local neighborhood associations for over 20 years, providing them with reports on our environmental conservation efforts, including the results of environmental measurements taken at the plant. The plant also participates in local events such as the Yokkaichi City Environmental Fair and the Summer Environmental Panel Exhibition, offering opportunities for many residents to discuss and familiarize themselves with environmental issues.

Kioxia Iwate Corporation participates in Environmental Report Meetings with the Community,[1] organized by Kitakami City, where we present our environmental reports, offer tours of our environmental facilities, and exchange ideas with local residents.

[1] An initiative spearheaded by Iwate Prefecture and organized by Kitakami City, where participating companies introduce their environmental conservation activities and exchange ideas with local residents to foster communication about environmental conservation.

Key Contributions to Society: Collection of Recyclable Materials

The below sections 1, 6 and 9 are activities jointly conducted by Kioxia Corporation Yokkaichi Plant and Kioxia Iwate Corporation; sections 1 to 9 provide examples of activities at Kioxia Corporation's Yokkaichi Plant; section 10 covers activities at the Solid State Storage Technology Corporation (SSSTC) in Taiwan.

1. Collecting calendars and notebooks

2. Collecting plastic bottle caps

3. Collecting discarded postcards

4. Collecting used postage stamps

5. Collecting down (feather) products

6. Collecting disposable contact lens cases

7. Collecting aluminum cans

8. Collecting old books

9. Food drives

10. E-waste recycling

Acquisition of Environmental Certification

Kioxia Group has established a series of environmental management system and is undertaking a range of activities primarily at our manufacturing sites. Please see below for information regarding our acquisition of environmental certification.

Based on this system, Kioxia Group will continue to actively promote the development and provision of high-capacity, energy-efficient products that address the demand for exponentially increasing volumes of data. We will also continue to pioneer environmental conservation activities at our state-of-the-art factories, promoting consideration for the environment and communicating with local communities about this in ways that take local factors into consideration.

Acquisition of ISO 14001 Certification

Scope of certification	Certifying body	Issue date	Certification expiry date	Approval certificate No.
Kioxia Corporation's Head Office	Bureau Veritas Japan Co., Ltd.	February 26,2024	March 27,2027	JP024515(JAB) JP024516(UKAS)
Kioxia Corporation's Yokkaichi Plant				
Kioxia Energy Management Corporation				
Kioxia Iwate Corporation				
Solid State Storage Technology Corporation	DNV	June 26, 2022	June 26, 2025	1250-1998-AE-RGC-RvA

Acquisition of Sony Green Partner

MC Name/FC Name	Expiry Date	Factory Code
Kioxia Corporation's Yokkaichi Plant	December 31, 2027	FC007421
Kioxia Iwate Corporation	December 31, 2027	FC015073

Social

Respect for Human Rights

Talent Development

Diversity Promotion

Health and Safety

Sustainable Supply Chain

Quality Control

Supporting Local Community Development

Respect for Human Rights

Kioxia Group recognizes that corporate activities based on respect for human rights are a prerequisite for the sustainable development of companies and of society. In order to fulfill our responsibility to respect the human rights of all stakeholders involved in our business activities, including those in our supply chain, we have established respect for human rights as a priority area of focus in terms of ensuring the Group's medium- to long-term growth, and we refer to this priority area as Sustainability Materiality.

Policy Governing Respect for Human Rights

In 2021, based on our mission, vision and Standards of Conduct, we formulated the Kioxia Human Rights Policy as a way to clarify our corporate responsibility to respect human rights. This policy stipulates that we must respect the International Bill of Human Rights to the fullest extent, and that we will make every effort to respect human rights in accordance with international standards such as the United Nations Guiding Principles on Business and Human Rights. The Kioxia Human Rights Policy constitutes one of our most important set of regulations, and has been endorsed by the Board of Directors of Kioxia Holdings Corporation.

Kioxia Group is also committed to conducting business activities that are in line with the Responsible Business Alliance (RBA)[1] Code of Conduct. Examples include progressing our own sustainability initiatives and requesting our suppliers to respect human rights.

[1] Corporate alliance that promotes social responsibility within global supply chains.

Kioxia Human Rights Policy Governance

▶ Kioxia Human Rights Policy

▶ Sustainability Materiality

Procedures Regarding Respect for Human Rights

The Kioxia Group is implementing procedures whereby we minimize human rights risks in our business activities in order to fulfill our responsibility to respect human rights. We have assigned responsibility for raising employee awareness of human rights issues to staff within the Human Resources and Administration Division of Kioxia Corporation, with an Executive Officer in charge of human resources leading their efforts. This Executive Officer promotes Kioxia Human Rights Policy and oversees compliance with these.

In addition, the Diversity and Human Rights Due Diligence Task Force, which comprises staff from a variety of business areas, proposes activities in line with the United Nations Guiding Principles on Business and Human Rights. The staff members promote these by collaborating with relevant department and group companies.
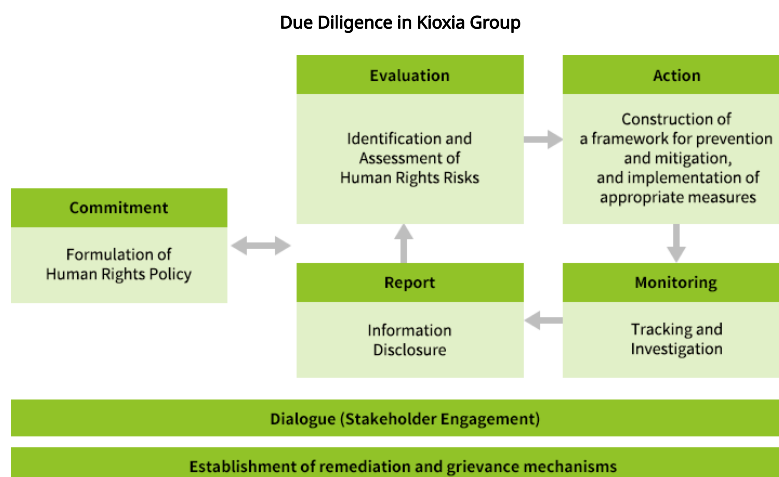
Additionally, these initiatives are reviewed by the Sustainability Committee as part of our sustainability management procedures, with any important issues being escalated to the Board of Directors after discussion at Sustainability Strategy Meetings.

Human Rights Due Diligence

In order to respect the human rights of those impacted by our business activities throughout our overall value chain, Kioxia Group conducts human rights due diligence in accordance with the United Nations Guiding Principles on Business and Human Rights. We are implementing an ongoing cycle of activities aimed at mitigating human rights risks.

These activities include
- identifying and assessing any human rights risks
- constructing a framework for the prevention and mitigation of these risks; implementing appropriate countermeasures
- tracking and investigating any identified situations
- disclosing relevant information.

Due Diligence in Kioxia Group

Evaluation	Action
Identification and Assessment of Human Rights Risks	Construction of a framework for prevention and mitigation, and implementation of appropriate measures

Commitment
Formulation of Human Rights Policy

Report	Monitoring
Information Disclosure	Tracking and Investigation

Dialogue (Stakeholder Engagement)

Establishment of remediation and grievance mechanisms

Identifying and Assessing Human Rights Risks

The Kioxia Group identifies and assesses any potential human rights abuses across its value chain. We also conduct self-assessment surveys, using the RBA Code of Conduct as a reference point for our sustainability activities. We also request our suppliers to strengthen their own measures to protect human rights in line with this Code of Conduct; this includes the implementation of sustainability surveys and responsible mineral sourcing.

With the cooperation of external experts, in FY2021 we conducted human rights risk assessments across Kioxia Group companies in Japan to evaluate the impact of potential and apparent risks that our business activities might pose to human rights. We subsequently identified 18 human rights risks that are specific to our industry and business model.

Potential Human Rights Risks in Kioxia Group

Labor and employment	• Forced labor (paying appropriate wage for labor, including in our supply chains) • Insufficient employment of persons with disabilities • Lack of consideration toward sexual minorities • Long working hours (including in our supply chains) • Abuse of human rights of foreign workers (including technical interns) • Harassment of workers
Occupational health and safety	• Infectious disease-related risks • Work related injuries or death • Response in cases of mental illness
Environment	• Negative impact on the living environment of nearby residents
Ethics	• Procurement of minerals where there is concern about human rights abuses, including the procurement of newly banned rare metals • Transactions with customers in countries where there is concern about human rights abuses • Lack of supplier education • Inadequate/dysfunctional grievance mechanisms (among our suppliers and for contract workers) • Impact of product failures on end users • Leakage of technologies to countries that abuse human rights or misuse of applications for purposes that infringe human rights • Response to product safety and other issues caused by data tampering • Advertising that raises concerns about human rights abuses

Prevention and Mitigation of Human Rights Risks

Prioritizing Initiatives

In FY2022, Kioxia Group in Japan determined the priority of initiatives aimed at addressing the aforementioned potential risks, taking into consideration the severity of their impact on human rights as well as the company's level of involvement and response.

In FY2023, in addition to increasing our focus on these initiatives within Kioxia Group in Japan, we conducted human rights risk assessments at our overseas locations.

Implementing Appropriate Measures

Kioxia Group has focused on minimizing the following human rights risks, utilizing our human rights due diligence procedures and the results of RBA audits at manufacturing sites.

Major Human Rights Measures at Kioxia Corporation (FY2023)

To promote understanding of people with disabilities and sexual minorities, we have:
- implemented e-learning for all employees aimed at preventing discrimination against people with disabilities and LGBTQ+ individuals.

To prevent harassment of employees, we have:
- conducted e-learning for all employees on the prevention of harassment, including sexual harassment and power harassment.
- publicized the role of the Harassment Consultation Desk across Group companies.
- provided education for employees involved in hiring processes at Kioxia Corporation aimed at preventing harassment during recruitment activities.

To support employees' mental health, we have:
- supplied mental health educational materials to overseas group companies where such education had not already been implemented.

To ensure wage levels are appropriate, we have:
- revised some of the content regarding disciplinary actions in Kioxia Corporation's work regulations.

In FY2022, we utilized the results of RBA audits and focused on
- support for foreign technical trainees
- strengthening measures to prevent the use of child labor
- promoting human rights initiatives within our supply chain through collaboration with procurement partners, temporary staffing agencies, contractors, and on-site service companies.[2]

Major Measures at Kioxia Corporation (FY2022)

▶ Sustainability Report, Year ended March 31, 2023 Respect for Human Rights (PDF: 29.9MB) 📄

[2] Companies handling cafeteria operation and security-related tasks at Kioxia Group's manufacturing sites in Japan.

▶ Major Sustainability Issues and Initiatives in the Value Chain

▶ Sustainable Supply Chain

Tracking and Investigation

Kioxia Group regularly monitors our business activities to ensure compliance with Kioxia Human Rights Policy and checks the progress and effectiveness of corrective actions. Additionally, where appropriate we reflect the outcome of dialogue with stakeholders, the status of our business operations, and the demands of society when formulating our human rights policies and initiatives.

Raising Awareness of the Need to Respect Human Rights and Related Training

Kioxia Group provides training on human rights and harassment issues to all employees once a year. By doing this, we seek to raise awareness of internationally recognized human rights issues, such as those concerning socially marginalized groups that often become the target of human right abuses. In FY2023, we conducted training to familiarize employees with the challenges faced by LGBTQ+ people. In addition, we have made the provision of our Harassment Consultation Service widely known across Group companies.

At Kioxia Corporation, we provide additional training for our staff on human rights and harassment issues during the employee onboarding process, part of our Basic Training program. In FY2023 Kioxia Corporation held a lecture on the prevention of harassment during the hiring process for employees involved in recruitment activities.

Establishment of Whistleblower System and Consulting Service

Kioxia Group has established contact points where employees and business partners can report and discuss possible violations of the laws and regulations of each country or region, the Kioxia Group Standards of Conduct, and other internal regulations.

Harassment Consultation Desk for Employees

Kioxia Group in Japan has established a Harassment Consultation Desk where employees can report issues related to power harassment, sexual harassment, and other types of harassment. We promote awareness of this service through the intranet and via training for all employees. In FY2023, the desk received 25 reports and consultations. When inappropriate situations are identified or suspected, and with the consent of the individuals who made the reports, we provide improvement instructions or warnings to the relevant departments. At Kioxia Group, it is strictly prohibited to subject anyone who reports harassment to any form of disadvantage or retaliation.

Business Partner Hotline

▶ Business Partner Hotline

Participation in External Initiatives

Kioxia Group is considering to establish more effective mechanisms to handle grievances related to human rights issues. In November 2022, Kioxia Corporation became a supporting member of the Japan Center for Engagement and Remedy on Business and Human Rights (JaCER), which aims to create a common grievance handling platform for the industry. By participating in this organization, We are staying abreast of industry trends and seeking to enhance our own grievance handling processes.

▶ Japan Center for Engagement and Remedy on Business and Human Rights (JaCER) ⧉

Talent Development

We encourage all of our employees to make use of their individual capabilities in order to develop and maximize the potential of our diverse human resources.

Talent Development Policy

People are the source of Kioxia Group's competitiveness. We believe that if each individual employee continuously challenges themselves and creates new value, it will help us realize our mission of "uplifting the world with memory." Accordingly we will continue to strengthen our educational offerings and adopt a systematic approach that allows each and every employee to take on new challenges.

Talent Development Structure

Kioxia Corporation has established a Human Resources Development Group in the Human Resources & General Affairs Department tasked with developing and utilizing human resources more effectively. Kioxia Corporation also has a Training and Development Committee, chaired by the President & CEO, which proposes initiatives for the improvement of in-house personnel training and development based on the results of relevant programs each year. This committee deliberates policies for the following fiscal year on the basis of its business plan. The outcome of discussions by the Training and Development Committee are reflected in new training and development initiatives.

Training Aimed at Developing Talent

Training Programs

Kioxia Group runs a variety of training programs aimed at establishing a common learning base for all employees; these include programs based on the requirements of specific career levels. Furthermore, we provide tools that support self-development, encouraging employees to voluntarily acquire fresh knowledge and skills.

Main Training Programs at Kioxia Group in Japan

Training Category	Outline
Basic Training and Development[1]	A program designed to familiarize employees with the Kioxia Group Standards of Conduct and values that form a shared basis for all members of the Kioxia Group, covering such areas as compliance and sustainability. The Kioxia Group Standards of Conduct are available in Japanese, English, traditional Chinese, simplified Chinese, and Korean.
Global Training and Development	A program that seeks to develop globally minded people who can not only perform their jobs within the scope of their own countries or regions, but also at a global level, by accepting cross-cultural differences and communicating with a wide range of stakeholders.
Training and Development Based on Levels of Responsibility	A program that seeks to improve the basic knowledge, skills and management capabilities of employees promoted to new positions (leaders, managers, etc.). This program also includes training aimed at continuously improving the leadership capabilities of managers, as well as education aimed at imparting at an early stage the knowledge and skills required to conduct business on a global basis.
Job-Specific Training and Development	This aims to equip employees with the knowledge and skills they require based on their job function and career status.
Managerial Training	A program for the select group of individuals who are candidates for managerial or leadership positions.
Self-Development Support	We offer about 190 e-learning courses to encourage employees to voluntarily acquire knowledge and skills; these include managerial skills (organization, strategy, marketing, goal management and personnel evaluation, sustainability and compliance, labor affairs, mental health, customer satisfaction, and sales, careers, business skills and cultural skills), computer skills, and languages.

[1] As one aspect of basic training and development at Kioxia Group, various compliance training sessions were conducted to promote understanding of the Kioxia Group Standards of Conduct. There was a 100% attendance rate among employees of Kioxia Group in Japan throughout FY2023.

Common Training Courses (FY2023, Kioxia Group in Japan)

	Selective / Mandatory[2]	Self-Development
No. of programs	13	162
Total no. of attendees	123,120	1,375
Total attendance time (hours)	153,153	1,322

[2] Covers basic education, level-specific education

Standardized Training at Kioxia Corporation

[3] Includes self-development outside working hours, such as language study

Technical Training

Kioxia Group proactively nurtures and trains its engineers. New employees of Kioxia Group in Japan are provided with basic training covering electrical engineering, electronics, semiconductors, information processing and storage system fundamentals, as well as manufacturing, statistics, AI, and machine learning; these are seen as essential steps to enhance employees' technical skills. Furthermore, specialized technical courses covering the skills needed for technology development are provided to engineers from their second year of employment onwards.

On-the-job training and a variety of education programs within each division are provided under a mentor in each workplace, with detailed instructions provided to each individual in accordance with their career status. In addition, we are striving to create a work environment that encourages each individual to shape their own career as an engineer, with the company facilitating the necessary learning.

Career Development Systems

Kioxia Group supports the career development of all its employees. The Career Design System at Kioxia Corporation, for example, provides each employee with an annual opportunity to discuss and share their views on their own long-term career development as well as on mid-term skill acquisition goals, how their skills can be improved, and how they can showcase them to their superiors. The Performance Management System at Kioxia Corporation gives employees a semi-annual opportunity to review and discuss with their superiors their job performance over the previous six months as well as their objectives for the following six months.

Assignment to Overseas Universities and Research Institutes

Kioxia Corporation has established overseas study programs, one of its initiatives to encourage employees to acquire greater expertise and become active globally. The program works with overseas universities, graduate schools and research institutes, including the Massachusetts Institute of Technology and the University of California, San Diego, etc. In FY 2023, three employees embarked on this program.

Career Development Leave System

In FY2023, Kioxia Corporation introduced a leave of absence system that allows employees to engage in independent career development and reskilling. The program enables them to improve their skills at universities, graduate schools and equivalent educational and research institutions in order to enhance their job-related expertise and management skills, via MBA courses or similar.

Employee Engagement Survey

In order for the Kioxia Group to enhance its competitiveness and flourish, it is essential to increase the engagement of each employee. Kioxia Group regularly conducts employee engagement surveys as a starting point from which to enhance employee engagement and revitalize the organization. The survey results are used in conjunction with opinions voiced separately by employees to identify any problem areas, and formulate and implement measures to resolve these. In FY2022, we conducted an anonymous worldwide survey targeting about 14,000 employees and received responses from 89% of them.

The results of these surveys[4] are shared with the President & CEO, Executive Officers and department heads and are utilized to help improve employee engagement. In FY2023, we provided feedback to employees on the results of the previous survey and implemented measures to address issues identified in the survey. One of these was the need to further improve communication between managers and employees; accordingly we posted messages from managers on our internal website regarding company policies and incorporating their own thoughts, etc.), and we conducted a follow-up employee survey to gauge their response to these.

We will continue to conduct these surveys in order to improve the workplace environment and foster an organizational culture that is rewarding and makes Kioxia Group an easy company to work in.

[4] Includes employees currently stationed at Kioxia Holdings Corporation
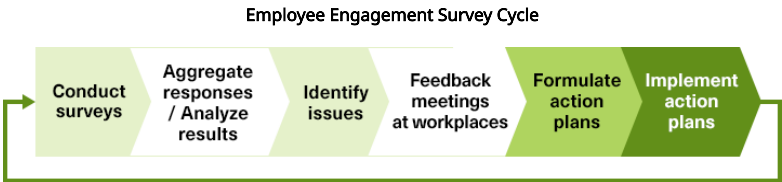
Employee Engagement Survey Cycle

Conduct surveys → Aggregate responses / Analyze results → Identify issues → Feedback meetings at workplaces → Formulate action plans → Implement action plans

Related Links

People from various backgrounds fulfill their potential and leverage their strengths at Kioxia Group.

> Careers

Diversity Promotion

Kioxia Group firmly believes that the maximization of the capabilities and strengths of individual employees is critical for innovation, corporate growth, and the creation of new value for society. Accordingly, the promotion of diversity is one of the Group's priorities.

Basic Approach to Diversity Promotion

In order to respond to changes in the global business environment and to the expanding, more sophisticated and diversifying needs of the market, it is essential to foster an environment and culture where all employees can excel and demonstrate their individuality and abilities, regardless of race, religion, gender, nationality, disability, age, or sexual orientation. Kioxia Group is committed to creating such an environment and culture.

We have designated the Executive Officer in charge of human resources at Kioxia Holdings Corporation as the executive responsible for promoting diversity. We have assigned overall responsibility for the promotion of diversity across the entire Group to Kioxia Corporation's Human Resources & Administration Division. Organization-wide strategies, policies and priority measures are formulated by the Taskforce for Diversity & Human Rights Due Diligence, part of the Sustainability Committee.

Diversity Promotion Structure

We have designated the Executive Officer in charge of human resources at Kioxia Holdings Corporation as the executive responsible for promoting diversity. We have assigned overall responsibility for the promotion of diversity across the entire Group to Kioxia Corporation's Human Resources & Administration Division. The Taskforce for Diversity & Human Rights Due Diligence, part of the Sustainability Committee, identifies relevant issues and formulates measures to address these.

Diversity Promotion Initiatives

In FY2023, we focused on cultivating a positive corporate culture, promoting employee career development, and expanding the employment of people with disabilities.

Promoting the Career Advancement of Female Employees

Kioxia Group sees the active participation of female employees as a key issue that needs to be addressed as part of our promotion of diversity. We believe that diverse perspectives spur innovation, and as a company that operates globally, we aspire to have more women actively participating in management. In this connection, Kioxia Corporation has set the following goals:

- Doubling the number of female managers in FY2025 compared to FY2019.
- Ensuring the proportion of new graduates who are female is at least 45% of those recruited for administrative positions, and at least 15% for technical positions.

These targets are also stipulated in our action plan outlining measures to support the Japanese government's Act on the Promotion of Women's Participation and Advancement in the Workplace, and we are stepping up our efforts to achieve these.

Specifically, all employees are provided with a handbook outlining how they can achieve a balance between work and family time; we also hold seminars and study sessions for managers and executives coaching them on ways to foster a corporate culture in which diverse human resources can play active roles. In addition, we conduct employee surveys and interviews with female managers to help us understand and address any relevant issues.

> Action Plan Based on the Act on the Advancement of Measures to Support Raising Next-Generation Children and the Act on Promotion of Women's Participation and Advancement in the Workplace [PDF]


Covers of the two handbooks, "Balancing Work and Nursing Care" and "Child Care Supporting Programs," handbooks showing how to achieve a balance between work and nursing care or childcare.

Interviews with Female Managers

In 2023, Kioxia Corporation conducted interviews with approximately 30 female managers in order to understand the factors hindering the success of female employees. Issues and the background to these identified during the interviews are being analyzed as we consider future measures to address them.

Achievements in the Training of Female Managers and Hiring of Female New Graduates at Kioxia Corporation

Number of Female Managers[1]

Number of Female Managers — **Compared to 2019**
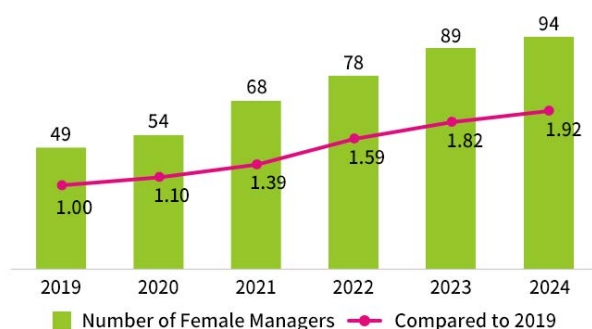
Percentage of New Graduate Recruits[2] Who Are Female[3]

	Administrative	Technical
2019	25.0%	7.2%
2020	25.0%	14.4%
2021	60.0%	11.5%
2022	53.3%	13.2%
2023	37.5%	8.7%
2024	30.4%	9.7%

[1] Employees of Kioxia Corporation as of end of March each year, including those stationed at Kioxia Holdings Corporation, compared with 2019, the base year for the mid-year target

[2] Those with both undergraduate and postgraduate degrees

[3] Status of Kioxia Corporation's hiring of regular employees with a college or graduate degree in each year; Kioxia Holdings Corporation does not hire new graduates.

Supporting future female engineers in STEM fields

Kioxia Group believes it is important to expand the active participation of women across society as a whole in STEM fields (Science, Technology, Engineering, and Mathematics) in order for female engineers to thrive.

Since 2018 Kioxia Corporation has supported an annual summer school program for girls in junior and senior high schools ("Natsugaku"), one of Japan's biggest events promoting science and engineering careers. For more information, please see the below link.

> **Participation and Career Counseling in Summer School for Girls in Junior and Senior High Schools**

LeadHERs, to support female employees

Kioxia America Inc. has established an internal organization, LeadHERs, to support the career development of its female employees; it provides mentoring programs and networking opportunities to help them achieve both professional and personal goals. LeadHERs also organizes charity events marking International Women's Day and other activities to promote the social advancement of women in the technology industry and in the community.

> **Supporting Women in the Community: Kioxia America Inc. LeadHERs**

Recruitment and Career Advancement of Non-Japanese Employees

The Kioxia Group operates globally and employs people of many different nationalities.

With offices in 10 countries and regions, the Kioxia Group has 1,776 employees working at our overseas locations (excluding those temporarily dispatched from Kioxia Group in Japan). Kioxia Group in Japan employs 155 non-Japanese people from 15 countries and regions.[4]

[4] As of March 31, 2024

Career Advancement for Seniors

In FY2019 Kioxia Corporation raised its retirement age from 60 to 65 with the aim of enabling our employees, regardless of their age, to continue to utilize the knowledge and experience they have spent many years cultivating. In FY2021, we abolished the system of mandatory retirement for managerial positions, whereby those in these positions had previously been relieved of their managerial duties upon reaching a certain age.

Employment and Career Advancement of People with Disabilities

As of March 2024, the percentage of employees with disabilities at Kioxia Group in Japan was 2.44%.

Along with initiatives to achieve the statutory minimum employment rates of those with disabilities, we will endeavor to achieve society's goal of "social inclusion" by encouraging interaction among all employees, creating a comfortable and rewarding workplace and thereby boosting our business value.

Kioxia Etoile Corporation

Since 2018, employees with disabilities at our Kioxia Etoile Corporation have been engaged in cleaning and administrative/light work. This includes providing workplace massages to relieve employee stress and cultivating plants that are donated to charitable organizations. In fiscal 2023, we conducted an inventory of operations at Kioxia Corporation in order to expand the range of job opportunities for those with disabilities and promote their active participation in our workplaces. Through daily management, frequent communication, and interviews with job coaches, we strive to understand the individual characteristics of each employee and create a comfortable workplace environment where they can thrive.

▶ Kioxia Etoile Corporation 🗗

Diversity Education

With the aim of fostering a culture that embraces diversity and enhances understanding, Kioxia Group conducted seminars and study sessions for executives and managers in FY2023 designed to encourage a change in their mindsets. In addition, we rolled out e-learning for all employees.

Steps Taken to Achieve a Diverse Workforce

Achievements in education aimed at fostering an inclusive culture within Kioxia Group

For executives

Implementation of study sessions aimed at promoting the active participation of women in the workplace (FY2022)
A third-party expert was invited to deliver a lecture for Kioxia Group's executives on "The Importance of Women's Career Advancement as a Management Strategy." After the lecture, a lively discussion took place on how women's career advancement could be further promoted across the Kioxia Group.

Workshop on workplace reforms aimed at improving executive performance and engagement (FY2023)
We held a workshop for Kioxia Group executives on the theme of "Work-style Reform that Improves Performance and Engagement," led by an external expert. After the lecture, there was a discussion about changes in working styles to reflect societal changes and improving employee engagement.

For executive officers and managers

Diversity seminar for executives and managers (FY2022)
An external executive was invited to deliver a lecture for executive officers and managers from Kioxia Holdings Corporation and Kioxia Corporation on the topic of "Women's Career Advancement and Its Impact on Management and Human Resource Strategies." Approximately 300 participants attended—more than 80% of the targeted number—and animated discussions took place.

For managers

Communication seminar targeting managers aimed at enhancing psychological safety for their team members (FY2022)
Kioxia Corporation held a seminar for managers on the topic of "Communication Ensuring Psychological Safety," which was attended by approximately 300 employees. An external expert explained that psychological safety is a prerequisite for creating an organization in which people with diverse identities can demonstrate their strengths and help generate innovation.

For all employees

E-learning on diversity promotion for all employees (FY2022 and FY2023)
Kioxia Group provides education on human rights topics to all employees. In fiscal 2021, the main topic was people with disabilities, and in fiscal 2022 and 2023, we focused on LGBTQ+ issues, aiming to deepen understanding of these across the company through e-learning.

Lecture for all employees, entitled "Thinking from the perspective of male parental leave, what is a team where diverse employees can work comfortably?" (FY2023)
A lecture was held for employees from Kioxia Holdings Corporation and Kioxia Corporation, delivered by an external expert, entitled "Thinking from the perspective of male parental leave, what is a team where diverse employees can work comfortably? Approximately 250 employees participated, and there was a lively question and answer session about key points in promoting male parental leave.

Promoting Work-Life Balance

Kioxia Group constantly strives to enhance the work-life balance of our employees. Each employee is encouraged to undertake different working styles and work in ways that help improve their productivity.

Consideration and Reduction of Working Hours

At Kioxia Group in Japan, we monitor working hours and encourage the taking of annual paid leave. For those who work long hours, we arrange interviews with occupational physicians.

In Kioxia Corporation in FY2023, the average annual total working hours per employee was 1,920 and the average annual total of non-scheduled working hours was 264.

At Kioxia Corporation, we are taking steps to cut down on the number hours our employees work. Following a trial and based on the results of surveys, in FY2022 we officially introduced a "work from home" system. This initiative is creating opportunities for employees to reflect on how they communicate in the workplace and on the time they spend in a variety of working styles; it is also encouraging changes in our workplace culture and work ethics, with the aim of improving efficiency and job satisfaction.

Procedures to encourage diverse working styles

Key processes and measures regulating working hours[5]

System / measure	Overview
Flexible Work System	Flextime system, Work from home system
Long Leave System	Employees can take a maximum of 25 days of accumulated leave for specific objectives such as self-development, community activities, nursing, marriage, bereavement, or spouse childbirth, for treatment of non-work-related injuries and illnesses, and other conditions, including infertility.
Annual paid vacation	To promote employee wellness, Kioxia Group encourages all employees to make full use of all their annual paid vacation allowance.
Making working hours more visible	Kioxia Group has deployed systems that provide increased transparency of hours worked by each employee.
Addressing long working hours at workplaces	We implement measures in various divisions and business sites to address the problem of long working hours, and publish case studies on our intranet site to spread good practice among departments.

[5] Available at Kioxia Holdings Corporation and Kioxia Corporation

Supporting Employees Balancing Work with Childcare and Nursing Care

Kioxia Group helps employees balance their work and personal lives. Kioxia Group in Japan has implemented various measures over and above our legal obligations, and we continue to make these more adaptable and flexible. Under our Hourly-Unit Annual Leave system, when taking leave in excess of one hour, employees can take it on a quarter-hourly basis instead of hourly.

Key Systems Supporting Employees' Work and Childcare[6]

Childbirth and Child-rearing

System	As required by law	Our provisions
Childcare leave	Period: Until the child is one year old, except when certain requirements are met. Number of times: maximum twice per child	Period: Until the end of the month in which the child turns three years old Number of times: maximum three times per child
Short-time shifts	Target: Employees raising children under the age of three	Target: Employees raising children who have not yet completed elementary school 1. No limit on the number of times employees can apply 2. Able to combine with Flexible Work System 3. Can be set in 15-minute units
Hourly leave system	No provision	Leave is available in one-hour units. If more than one hour is taken at any one time, however, employees may take leave in 15-minute units thereafter.

Family care

System	As required by law	Our provisions
Family care leave	Up to 93 days in total per person requiring nursing care. The leave can be taken separately up to 3 times.	Up to 365 days in total per person requiring nursing care. The leave can be taken separately up to three times.
Hourly leave system	No provision	Leave is available in one-hour units. If more than one hour is taken at any one time, however, employees may take leave in 15-minute units thereafter.

Returning to work

System	Our system
Allowance for raising the next generation	Is provided in respect of each eligible child (the parent of a child being taken care of by a spouse is also eligible for the allowance).
Babysitting voucher	When employees use a babysitter, a subsidy is available covering part or all of the fee (utilizing the government's company-led babysitter user support program)
Mutual understanding program	Offers the opportunity for employees to discuss future career plans and any necessary arrangements with their manager and HR personnel before taking leave of absence or after resuming work, thus helping to reduce any concerns employees who take such leave might have.
Re-employment (return to work) system	We have established scenarios under which those who had to resign for any of the following reasons can be re-employed: 1. In order to accompany a spouse who was transferred by his/her company to a different location (within 5 years) 2. In order to provide nursing care for those requiring it (within 3 years) 3. Childbirth, childcare, or raising children (within 3 years)

[6] System of Kioxia Holdings Corporation and Kioxia Corporation

Benefits

Cafeteria Plan

Cafeteria points provided through the Kioxia Health Insurance Association can be used to offset the cost of recreation facilities, fitness clubs, childcare and nursing care services, etc.

Corporate Pension Plan

To help support employees after their retirement, we offer a defined-benefit Corporate Pension Plan. This complements the state pension provided under Japan's welfare pension insurance scheme. We have also introduced a defined contribution pension scheme aimed at broadening employees' post-retirement options.

For performance data related to our diversity and human resource initiatives, please see the following Social data.

▶ Performance Data

Related Links

People from various backgrounds fulfill their potential and leverage their strengths at Kioxia Group.

› Careers

Health and Safety

For the Kioxia Group to achieve sustainable development in harmony with society, the physical and mental well-being of each employee serves as an important foundation for our business activities.

Kioxia Group has established health and safety as priority areas of focus in terms of ensuring the Group's medium- to long-term growth (what we call Sustainability Materiality), and we strive to create a safe and comfortable working environment for all employees and others involved in our business.

Health and Safety Policy

Kioxia Group's senior managers in Japan all pledge to ensure health and safety across our operations, a pledge that is shared with all employees. Kioxia Corporation established its Basic Policy for Safety and Health at the time of the company's foundation in 2017, and reviews the policy annually to ensure it continues to meet the needs of the times. Kioxia Group in Japan has subsequently formulated its own policy and is accordingly implementing a range of health and safety initiatives.

Each overseas group company implements employee health and safety initiatives in accordance with the laws and regulations of their respective countries and regions.

▶ Basic Policy for Safety and Health

Promotion of Occupational Health and Safety (OHS)

Kioxia Group in Japan deploys health and safety supervisors within the Administration Division of each group company to promote health and safety activities among employees. They report periodically on health and safety matters to the President of each group company. The Health and Safety Officer of the Human Resources and Administration Division of Kioxia Corporation summarizes these reports and shares the summaries with the President and CEO, and the Executive Officer in charge of Human Resources.

Organizational Structure for Health and Safety Management at Kioxia Group in Japan
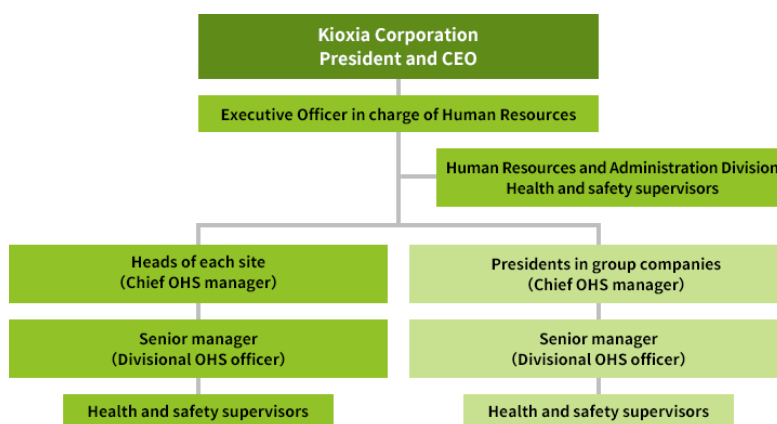
OHS Management System

Since January 2021, Kioxia Group has been pursuing the acquisition of occupational health and safety management systems certification (ISO 45001:2018) for its manufacturing and R&D sites. As it moves to comply with the requirements for this certification, Kioxia Group is making efforts to continuously reduce health and safety risks through risk assessment and compliance with relevant laws and regulations, and is making its health and safety management measures more visible.

Kioxia Group is also committed to ensuring health and safety are maintained throughout day-to-day activities, involving both group companies and their employees. Our efforts include the creation of small workplace groups which undertake a variety of activities on an ongoing basis; these encompass workplace improvement programs, education and training to increase risk awareness among employees, and monitoring to ensure that appropriate practices are being followed. We integrate these activities into our implementation of health and safety management based on ISO 45001 standards.

Acquisition of ISO 450001:2018 certification

Name of company	Certified body	Certificate expiry date	Approval certificate No.
Kioxia Corporation Kioxia Systems Corporation Kioxia Iwate Corporation Kioxia Engineering Corporation Kioxia Energy Management Corporation	JACO: Japan Audit and Certification Organization for Environment and Quality	March 28, 2025	WC18J0004
Solid State Storage Technology Corporation	DNV	November 23, 2027	183447-2015-ASA-RGC-RvA

Key Health and Safety Initiatives at Kioxia Group in Japan (FY2023)

Category	Details
Health and Safety	・ Planning and implementation of initiatives in accordance with our Basic Policy for Safety and Health ・ Health and safety awards ・ Business site health and safety committees, workplace health and safety meetings ・ Internal audits and external certifications ・ Periodical reports to the president of each group company ・ Implementation of Health and Safety Management Reviews[1]
Safety	・ Compliance with relevant laws and regulations ・ Risk assessment to identify sources of danger and steps that can be taken to mitigate those risks ・ Safety reviews when installing or modifying equipment ・ Operation of specialist internal safety committees ・ Sharing of information and holding discussions with labor unions and on-site subcontractors
Health	・ Thorough implementation of health measures in full compliance with relevant legislation ・ Promotion of measures to prevent health problems caused by passive smoking ・ Measures to combat brain, heart and lifestyle-related diseases ・ Measures to improve mental health ・ Health management for those posted overseas or on business trips ・ Promotion of activities to support workplace engagement[2] and workplace energization

[1] Periodical reports to the President and CEO of Kioxia Corporation about relevant activities underway at Kioxia Group in Japan
[2] Workplace engagement: encouraging a positive and fulfilling attitude toward work among employees.

Health and Safety Awareness Raising and Education

Kioxia Group in Japan endeavors to enhance our employees' understanding of the need for health and safety measures and for supportive behavior. On top of the training specified in the Industrial Safety and Health Act, we implement education programs for employees who are newly appointed to health and safety-related posts, as well as for mid-career employees in those positions. We also run practical training programs devised by individual operational sites.

Key Health and Safety Training Results at Kioxia Group in Japan (FY2023)

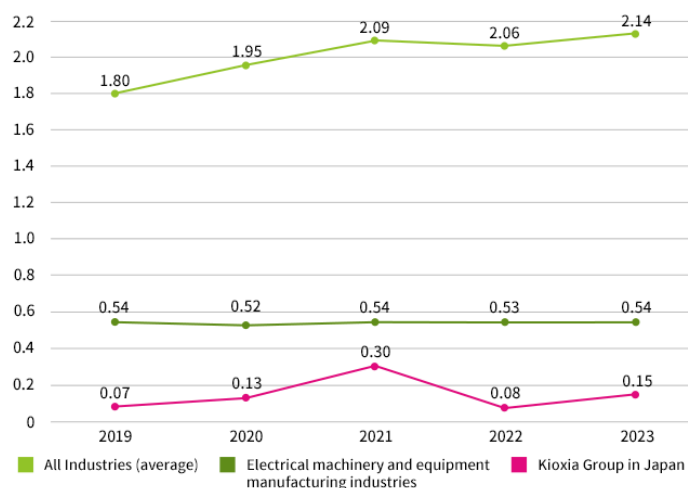| Type of Training	Ratio of participation：No. of Participants/ No. of Eligible Employees
Training related to job promotion (health and safety)	100% (272 / 272)
Mental health training	100% (17,108 / 17,108)
Post-recruitment training (health and safety, road safety, etc.)	100% (1,173 / 1,173)
Various types of training based on the Industrial Health and Safety Act (for workplace managers and health supervisors, covering the use of industrial robots and safety equipment, etc.)	100% (1,190 / 1,190)
Competence training (for health and safety promotion committee members, risk assessors, internal auditors, etc.)	100% (198 / 198)

Each work site also conducts its own training in addition to the activities listed here.

Workplace Accidents

Kioxia Group in Japan strives to minimize the number of workplace accidents and monitor any occurrences. We use the "frequency of injuries resulting in lost working days" as an indicator of the effect of these efforts. In 2023, the frequency rate was 0.15, which was below the average rate of 0.54 in the electrical machinery and equipment manufacturing industries.

Kioxia Group in Japan will continue to implement further measures to prevent workplace accidents. As a top priority, risk assessments are conducted for all workplaces and tasks, focusing on operations where there is a high risk of serious injury or illness, as well as on the handling of hazardous or harmful chemical substances. In addition, we systematically manage and reduce risk by reviewing work methods, identifying and eliminating specific risks, renovating facilities, and providing education and training to employees.

Frequency of Injuries Resulting in Lost Working Time at Kioxia Group in Japan[3]

	2019	2020	2021	2022	2023
All Industries (average)	1.80	1.95	2.09	2.06	2.14
Electrical machinery and equipment manufacturing industries	0.54	0.52	0.54	0.53	0.54
Kioxia Group in Japan	0.07	0.13	0.30	0.08	0.15

[3] Frequency = number of casualties due to work-related accidents / total actual working hours x 1 million. Figures for all industries and the electrical machinery and equipment manufacturing industries are collated from the results of the "Survey of Industrial Accidents" conducted each year by the Ministry of Health, Labor and Welfare.

Health Management

As the environment in which the Kioxia Group conducts business continues to change dramatically, we have been working on the implementation of health and safety measures for our employees, an investment which we see as essential for the future of our company and the development of society (health investment).

Kioxia Holdings Corporation issued its "Kioxia Group Health Management Declaration" in April 2023.

Kioxia Group Health Management Declaration

We firmly believe the health of our employees is essential in order to achieve our mission of "uplifting the world with 'memory,'" and consider this to be one of our most important areas of management focus. We will continue to promote health management aiming to improve the health of every employee in order to continue to create value for society through "memory" technology.

April 1, 2023
Nobuo Hayasaka, President and Chief Executive Officer,
Kioxia Holdings Corporation

Organizational Structure of Health Management

The President and CEO of Kioxia Holdings Corporation and Kioxia Corporation has ultimate responsibility for the promotion of health and safety management. In 2023, Kioxia Corporation reorganized its approach in this area, allowing each level and organization to fulfill their roles in promoting employee health though a top-down approach, as shown in the diagram below.[4]

With the Health and Safety Section of the company's Human Resources and Administrative Division as the secretariat, activities, measures and policies are discussed at regular meetings with the Health Support Center, which deploys industrial physicians and public health nurses at each of our sites. In addition, our management is committed to focusing on health-related issues, with the company, labor union, and health insurance union working together to promote healthy activities and lifestyles.

In the future, we will expand our health management initiatives to other group companies.

[4] Currently at Kioxia Corporation, the President and CEO also promotes health management at Kioxia Holdings Corporation.

Organizational Structure for Health Management at Kioxia Holdings Corporation and Kioxia Corporation
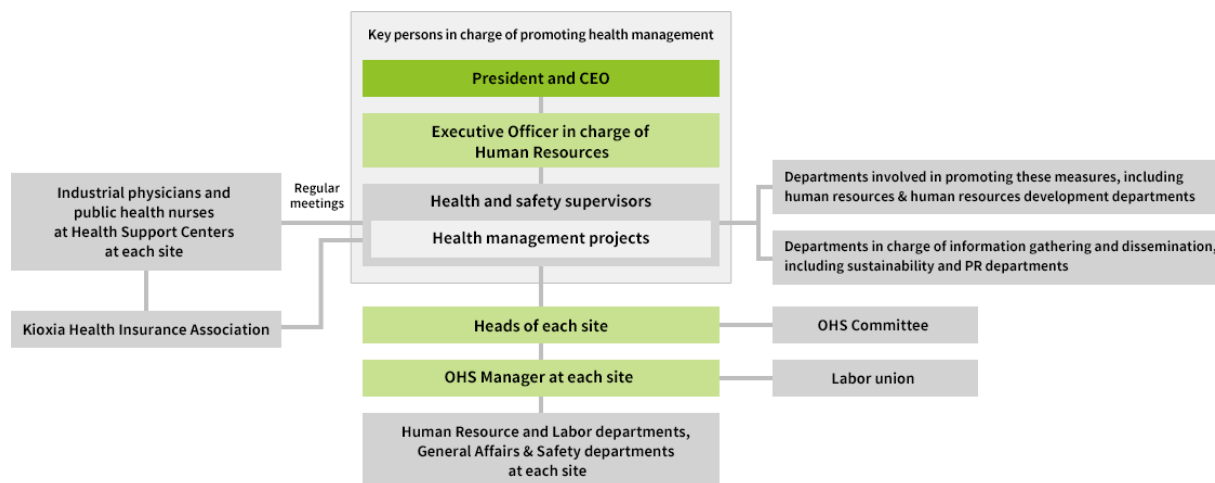
Health Management Strategy and Processes

The Kioxia Group has formulated its health management strategy and processes in order to clarify issues and areas related to health management, implement measures to address these issues, and continuously implement the PDCA cycle while verifying the effectiveness of each measure.

Recognizing the importance of workplace engagement in terms of promoting our employees' physical and mental health and improving their performance, we will continue to promote health-related measures for them.

To ensure that employees can work for many years in good health and spirits, we will strategically promote employee health and foster a culture of good health aimed at making it easier and more rewarding to work. By doing so, we aim to enhance our corporate value in a sustainable manner.

Health Management Strategy Map[5]
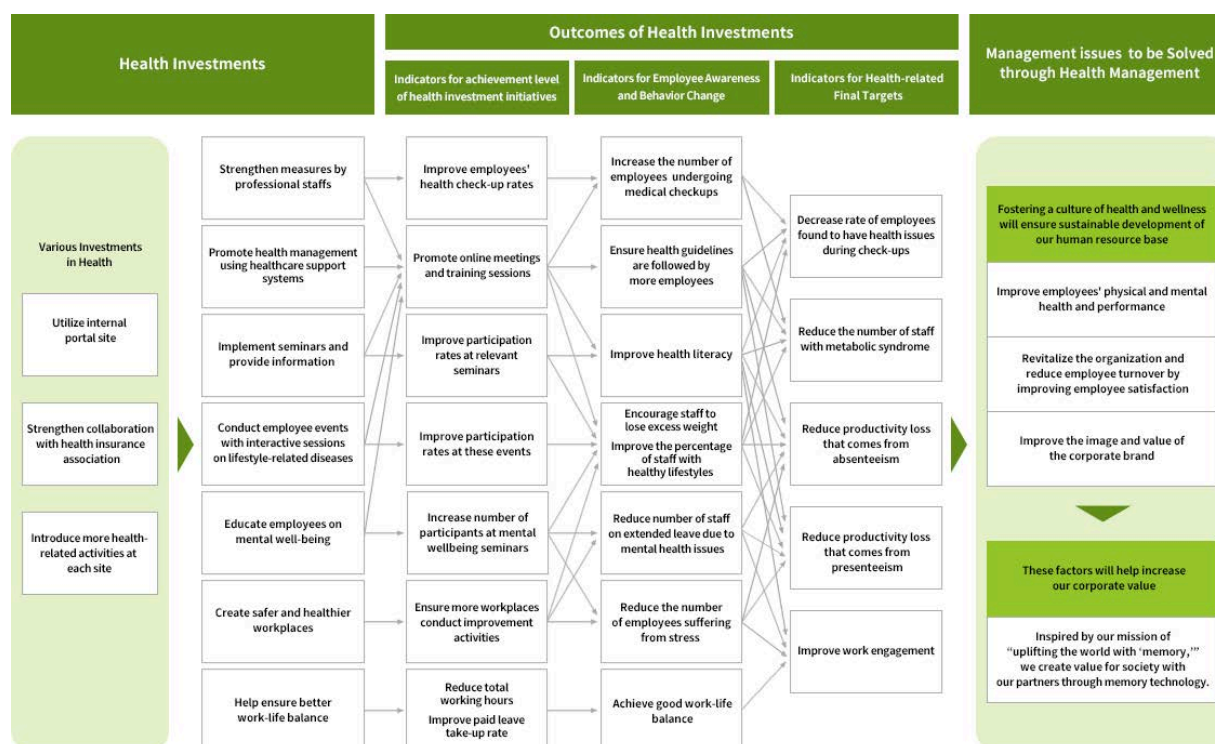
[5] This covers Kioxia Holdings Corporation and Kioxia Corporation. The below targets, initiatives and results are based on this strategy map.

Targets

To promote health management, we have set goals in three areas: (1) prevention of the onset and spread of lifestyle-related and other diseases, (2) prevention of stress-related diseases, and (3) creation of more lively workplaces.

(1) Improve lifestyles by enhancing health literacy.[6] Prevent the onset and spread of lifestyle-related diseases.
(2) Prevent stress-related conditions such as declines in mental well-being
(3) Achieve a good work-life balance. Create more lively workplaces through improved employee engagement

To achieve these goals, in July 2024 we set mid-term targets to be achieved by FY2028.

[6] The knowledge, willingness, and ability to obtain, understand, evaluate, and use health-related information.

Health and Productivity Management Initiatives

We pursue the following initiatives in order to create an environment where employees can work in good mental and physical health. Each business site also proactively implements its own measures.

- We have established processes whereby physicians are deployed to comment on the results of medical checkups covering lifestyle-related diseases such as high blood pressure and high blood sugar levels, allowing for consultations with medical personnel and intervention by physicians. In this way we aim to reduce the number of employees who leave the company as a result of absenteeism, extended leave or illness.
- We have set up a mental health consultation service and make its existence known to all employees. We also provide various training programs aimed at preventing stress-related illnesses.
- We are promoting collaborative health programs[7] with health insurance societies to improve employees' health literacy and to prevent or treat any instances of metabolic syndrome.

[7] These are aimed at preventing disease and promoting good health for employees and their families in conjunction with companies and insurers.

Example Initiatives

Kioxia Holdings Corporation and Kioxia Corporation conducted the following key initiatives in FY2023:

Health promotion event: a one-month campaign promoting the benefits of three daily meals and nutritional balance.

Period: October 16, 2023 – October 29, 2023
Number of participants: 5,839 (participation rate: 64.1%)

At Kioxia Corporation's Yokkaichi Plant, initiatives are being implemented to help employees adopt healthy eating habits; these incorporate eating three meals a day with a balance of nutritious ingredients, thereby helping to prevent lifestyle-related diseases. In October 2023, a so-called enhancement month, the cafeteria offered a menu rich in seasonal vegetables developed in collaboration with employees. Additionally, measurements of vascular age, blood pressure, and body composition were taken, and a quiz was organized to help employees determine their recommended daily vegetable intake (350g), aiming to improve their health literacy. These initiatives have been well received, and participation rates have increased with each event.

Participation rate for health promotion events (%)
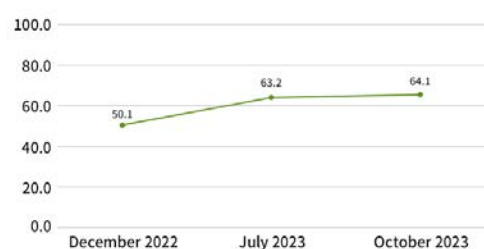
Meals developed collaboratively by employees and the cafeteria (left), employees at a health promotion event (right)

Walking event

Date: November 11, 2023
Number of participants: 554 (participants' satisfaction rate: 98.7%)

Kioxia Corporation's Yokkaichi Plant co-hosted an annual walking event in collaboration with the Kioxia Labor Union Yokkaichi Branch. Two courses, 2 kms and 5 kms in length, were set up in a nature-rich park in the neighborhood, allowing employees to walk at their own pace with family and teammates. After reaching the finish line, participants were provided with completion certificates and lunch. Additionally, the prize-drawing event featured the plant manager, the union chairman, and the chairperson of the Health Promotion Committee, who presented prizes and contributed to the lively atmosphere.

After the event, participants shared their feedback. Example comments included, "Without events like this, it's hard to feel motivated to walk! It was a great opportunity," and "It was a fulfilling day where I could enjoy time with my family and appreciate the park. I definitely want to participate next time."

Participants in the walking event (left), completion certificate (right)

Measures to address women's health issues

Initiatives and number of participants
- E-learning: 1,193 participants (participation rate 98.5%)
- Seminars: 131 participants
- Number of inquiries at the consultation desk: 47

Kioxia Holdings Corporation and Kioxia Corporation have implemented education and seminars covering a basic knowledge of cancers specific to women, the importance of health screenings, and the impact of female hormones on health. These are designed to encourage female employees of all ages to undergo health screenings and attend medical facilities.

Additionally, to facilitate easier consultations for female employees, a consultation desk has been established where they can seek health advice from female gynecologists and nurses.

E-learning and seminars on women's health

Changes in individual indicators

Indicator	Results			Target
	FY2021	FY2022	FY2023	FY2028
Employees who attended annual health check-ups	100%	100%	100%	100%
Percentage of employees where abnormal findings were uncovered during health check-ups	33.2%	31.1%	31.9%	Less than 30.0%
Percentage of employees who received thorough examinations after annual health check-ups	-	39.4%	79.2%	100%
Percentage of employees receiving health guidance	-	68.4%	100%	100%
Employees with metabolic syndrome (aged 40 and over)	20.6%	19.0%	20.2%	Less than 18.0%
Employees with appropriate body weight (BMI of between 18.5 and 25)	61.0%	61.7%	62.6%	66.0% or more
Percentage of employees with good fitness habits (at least 5,000 steps per day)	35.5%	36.7%	44.4%	55.0% or more
Percentage of employees achieving sufficient sleep	73.6%	75.2%	72.9%	80.0% or more
Smokers	23.2%	20.8%	21.6%	Less than 18.5%
Employees undergoing stress check examinations	96.8%	95.7%	97.2%	98.0% or more
Employees suffering from stress (based on company standards)[8]	4.8%	5.0%	4.4%	Less than 4.0%
Percentage of employees absent from work due to mental illness for one month or more	-	1.24%	1.29%	Less than 1.0%
Absenteeism[9]	-	10.6%	9.2%	Less than 7.0 %
Presenteeism[10]	-	85.7%	84.7%	86.0% or more
Work engagement[11]	-	-	2.45 points	2.52 points or more
Health literacy[12]	-	3.46 points	3.48 points	3.59 points or more
Job satisfaction[13]	-	2.23 points	2.29 points	Less than 2.20 points

[8] The percentage of employees identified as having high stress levels during stress checks (based on company-devised standards).

[9] The percentage of employees who took 8 or more days off due to illness or health-related issues.

[10] A self-assessment of work performance over the past four weeks, with 100% being the performance achievable when not experiencing illness or injury.

[11] Average scores based on respondents' level of agreement with the following two statements: "I feel energized when I am working" and "I take pride in my work" during stress checks. Responses were scored as follows: Strongly Agree: 4 points, Agree: 3 points, Disagree: 2 points, Strongly Disagree: 1 point.

[12] The average score using the Communicative and Critical Health Literacy scale.

[13] Average scores based on respondents' level of agreement with the statement "I am satisfied with my job" during stress checks. Responses were scored as follows: Strongly Agree: 1 point, Agree: 2 points, Disagree: 3 points, Strongly Disagree: 4 points.

Certification as a Corporation Excelling in Health and Productivity Management Corporation

In March 2024, we received certification as a "Corporation Excelling in Health and Productivity Management (Large Corporation Category)," an award by the Ministry of Economy, Trade and Industry and the Japan Health Conference, specifically recognizing our active implementation of health management practices.

For other health and safety performance statistics, please see the following Social data.

▶ Performance Data

Sustainable Supply Chain

Stakeholder interest in corporate social responsibility across supply chains is growing year by year. Kioxia Group is committed to ensuring fair business practices in its Standards of Conduct, and has designated sustainable supply chains as priority areas of focus in terms of ensuring the Group's medium- to long-term growth, and we call these Sustainability Materiality.

By collaborating with suppliers, we conduct business with due consideration of supply chain issues, such as the human rights of workers, occupational health and safety, and the environment, with the aim of reducing business risks and achieving sustainable procurement.

Kioxia Group's Supply Chain

Breakdown of Procurement Spend by Region (FY2023)

Overseas 51% Japan 49%
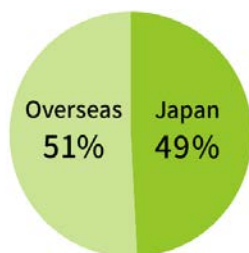
Kioxia Group procures a variety of raw materials and resources from suppliers in different countries and regions. In FY2023, we had relationships with approximately 650 suppliers, and overseas suppliers accounted for 50% of our total procurement.[1]

[1] The category of "overseas suppliers" includes procurement from the Japanese subsidiaries of foreign-owned companies

Kioxia Group Procurement Policy

Kioxia Group strives to manage our supply chains and promote sustainable procurement throughout these by complying with the procurement-related laws and regulations of each country or region and their social norms, as well as by building sound relationships with suppliers based on mutual understanding and trust.

We require our suppliers to comply with and implement the Kioxia Group Procurement Policy, and we call for responsible business practices throughout our supply chains.

In addition to the Kioxia Group Supply Chain Code of Conduct governing the promotion of responsible business, we have established Kioxia Group Green Procurement Guidelines covering the use of chemical substances, and the Kioxia Group Responsible Minerals Sourcing Policy which references mineral sourcing. We have informed all relevant suppliers of these policies and instructed them to take appropriate action in order to comply with them. These policies and guidelines are available in multiple languages, including Japanese and English.

> Kioxia Group Procurement Policy
> Kioxia Group Supply Chain Code of Conduct
> Kioxia Group Responsible Minerals Sourcing Policy
> Kioxia Group Standards of Conduct 2. Fair Business Operations

Structure for Supply Chain Management

Kioxia Group is committed to conducting appropriate transactions with its suppliers and to robust supply chain management. Kioxia Corporation has set up a dedicated planning organization within the Procurement Division at its Head Office. It coordinates with relevant sections within Kioxia, such as the Sustainability Division, environment related sections, the Human Resources and Administration Division and Group companies in order to address issues regarding human rights, labor, safety, the environment, and other business risks, including those of suppliers. Important issues are submitted to the Sustainability Committee for consideration as needed.

Participation in Industry Groups and Initiatives

Kioxia Holdings Corporation joined the Responsible Business Alliance (RBA) in 2021 in order to fulfill our social responsibilities across our global supply chains in such areas as labor practices, occupational health and safety, environmental protection, and ethics. As a regular member of the Alliance, we conduct business responsibly in accordance with the RBA Code of Conduct by implementing our own sustainability initiatives and requiring our suppliers to do the same.

> Responsible Business Alliance

In addition, Kioxia Group promotes the responsible procurement of minerals across the Group. Under the umbrella of the RBA, Kioxia Holdings Corporation participates in the Responsible Minerals Initiative (RMI) and Kioxia Corporation has joined the Responsible Mineral Procurement Study Group of the Japan Electronics and Information Technology Industries Association (JEITA).

Assessment and Monitoring of Suppliers

New Supplier Assessment

When commencing business with a new supplier, we make them aware of our policies governing sustainable procurement, as well as our Group's overall procurement policies and our Supply Chain Code of Conduct. Before conducting any business with them, we first confirm that the supplier's occupational health and safety measures, environmental and process management structures, legal compliance standards, and management standards, etc., meet the standards of Kioxia Group.

Supply Chain Monitoring

Prior to continuing business with an existing supplier, we use references such as the current scale of our business with them, and ask them to conduct a self-assessment survey using a format provided by the RBA (RBA-SAQ).[2] This enables us to confirm the status of the supplier's compliance with the RBA Code of Conduct and facilitates rigorous management of our supply chain. Interviews by our procurement managers are conducted with suppliers determined by the RBA-SAQ to be of high risk, and where necessary, we will request suppliers to implement corrective measures, such as undergoing an RBA third-party audit. In addition, we check the management status of suppliers' manufacturing sites by means of quality audits, requesting improvements and providing support for the implementation of these where necessary.

[2] Self-Assessment Questionnaire (SAQ) provided by the RBA: This contains questions about labor practices, occupational health and safety measures, the environment, ethics, and management systems. We use two types of SAQ: Corporate, which covers companies in their entirety; and Facility, which focuses on individual factories.

Supply Chain Monitoring Results (FY2023, Kioxia Group in Japan)

	No. of surveyed companies	No. of responses	Results of risk assessment (No. of cases)			Requests for corrective measures (No. of cases)
			Low risk	Medium risk	High risk	
RBA-SAQ[3] (Corporate)	54	54	48	6	0	0
RBA-SAQ[3] (Facilities)	49	110	110	5	0	0

[3] RBA-SAQ responses from RBA Online

Responsible Minerals Sourcing

Given Kioxia Group's role in the supply chain of its client companies listed on U.S. stock exchanges, following the enactment of Section 1502 of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act) in 2010, we ensured smelters in our own supply chain were investigated by our suppliers to confirm that proceeds from the sales of tin, tantalum, tungsten, and gold (commonly known as 3TG) from the Democratic Republic of the Congo or neighboring countries are not being used as a source of funds for anti-social forces.

Since March 2021 Kioxia Group has been promoting the responsible procurement of minerals from other countries and regions as well; our Kioxia Group Responsible Minerals Sourcing Policy stipulates that Kioxia Group will prohibit use as raw materials 3TG or cobalt obtained from other conflict-affected and high-risk areas (commonly known as CAHRAs) where inhumane acts such as human trafficking, slavery, forced labor, child labor, abuse, or war crimes are suspected.

▶ Kioxia Group Responsible Minerals Sourcing Policy

Structure of Kioxia Group's Minerals Sourcing Activities

Kioxia Corporation has established a Task Force for Procurement of Specific Materials consisting of members from relevant departments such as our Head Office Procurement, Sales, Technology, and IT Departments. The Task Force pursues procurement activities in accordance with the Kioxia Group Responsible Minerals Sourcing Policy, and raises issues to the Sustainability Committee for discussion as necessary.

Minerals Sourcing Survey

Kioxia Group investigates the use by mineral smelters in our supply chain of minerals they deliver to our company, such as 3TG and cobalt. We require that suppliers procure all materials from Responsible Minerals Assurance Process (RMAP) smelters certified by the RMI, and also request that suppliers identify applicable smelters in the supply chain if 3TG mineral procurement is conducted in the Democratic Republic of Congo, neighboring areas or other conflict or high-risk areas.

In FY2023, Kioxia Group in Japan requested the 67 suppliers that may have used 3TG minerals to conduct a smelter survey using the Conflict Minerals Reporting Template (CMRT) produced by the RMI. Following requests from our stakeholders, we added cobalt to the list of minerals surveyed, and conducted smelter surveys at 30 suppliers using the RMI Extended Minerals Reporting Template (EMRT) in FY2023.

Minerals Procurement Monitoring Results (FY2023, Kioxia Group in Japan)

	Survey date	No. of surveyed companies	Survey results (percentage of responses)				Suspension of business, etc.
			No. of responses	No. of conformant[4]	Survey continued	Failure of corrective measures	
CMRT surveys (3TG)	End of March 2024	67 (percentage of responding companies: 100%)	141	141 (100%)	0 (0%)	0 (1%)	0
EMRT surveys (cobalt)	End of April 2024	30 (percentage of responding companies: 100%)	41	40 (98%)	0 (0%)	1 (2%)	0

[4] Request for due diligence by suppliers that procured minerals from smelters that are not RMAP-compliant

Green Procurement

The Kioxia Group's Environmental Policy outlines our environmental contribution to the realization of a sustainable society.

Kioxia Corporation has established a Green Procurement Working Group under the auspices of our Environment, Quality Control, and Procurement divisions, to work on green procurement, with the aim of contributing to the realization of a sustainable society. The company has also formulated Green Procurement Guidelines, which outline our management standards and contain specific requirements for suppliers regarding the selection of materials with a low environmental impact and the use of chemical substances. We periodically update the guidelines to reflect issues such as changes in the laws and regulations of individual countries or regions, or in response to customer requests.

We also conduct a thorough assessment of the environmental impact of chemical substances from the design and development stage, and use materials with a low environmental impact as part of our efforts to reduce our own environmental footprint.

Through these initiatives, we will continue to collaborate with our suppliers on issues affecting environmental conservation, aiming to contribute to the realization of a better global environment.

Sustainable Procurement Training for Employees

To ensure compliance with our procurement processes, Kioxia Group in Japan provides basic training to all executives and staff covering the country's Subcontract Act and related laws. In addition, the Procurement Department provides specialized training on compliance with relevant laws, regulations and rules to employees.

In addition, with the aim of realizing a sustainable supply chain, the Procurement, Sales, and Technology departments regularly conduct training on global social issues in the supply chain such as human rights and labor, the RBA Code of Conduct, and the sustainable procurement activities of the Group.

How We Address Supply Chain Risk

Kioxia Group requires suppliers to make improvements and take appropriate measures if they are found to have violated our procurement policies or Supply Chain Code of Conduct, if sustainability-related risks are identified in the operations of a supplier or supply chain, or if there is a new law or regulation or social requirement necessitating a response.

While we will offer corrective guidance and support in such cases, we will suspend business with them in cases where corrective measures are judged to be difficult to implement.

In FY2023, there were no cases where business with a supplier was suspended due to risks related to sustainability.

Securing Supplies in Accordance with Business Continuity Management Procedures

Kioxia Group strives to engage multiple suppliers and works closely with them in order to avoid interruptions to business in the event of emergencies such as natural disasters, accidents, pandemics or geopolitical risks. Under our business continuity management (BCM) regulations,[5] Kioxia Corporation and Kioxia Group's affiliated companies[6] ensure they are fully aware of the status of their supply chains during normal times, allowing them to swiftly grasp the impact in the event of an emergency. We have also established a framework for cooperation aimed at achieving the early recovery of services. Additionally, we will strive to develop our business continuity planning through BCP assessments at major suppliers.

[5] Comprehensive and integrated management of business continuity, including the formulation of countermeasures, their implementation, operation and review, and continuous improvements aimed at minimizing the impact on the organization, without the need for a suspension of business operations in the event of an emergency, or recovering in a short period of time if business is suspended.
[6] 20 domestic and international affiliates of the Kioxia Group (as of March 2024)

▶ **Risk Management through Business Continuity Management (BCM)**

Quality Control

Kioxia Group considers that one of our most important mission is to provide our customers with safe and reliable products; accordingly we are always striving to manage and improve product quality. In addition, we ensure our products are safe to use and secure, and disclose information regarding product quality to our customers.

Kioxia Group Comprehensive Quality Assurance

Kioxia Corporation aims to benefit society by providing high-quality, safe, and functionally advanced products and services that meet customer expectations, while complying with all relevant laws and regulations.

Quality Control Policy

Kioxia Corporation has set out our fundamental approach to quality control within our Quality Control Policy.

▶ Quality Control Policy

▶ Quality Guidelines (Kioxia Corporation) ⧉

Standards of Conduct during Quality Assurance

1. We engage in quality assurance from our customers' point of view.
2. We observe relevant laws and contracts and respect the rights of customers and third parties.
3. We deploy quality control systems aimed at achieving 100% quality.
4. We ensure that all of our departments and employees follow our quality control policies.
5. We aim for constant improvement by investigating the root causes of process failures and conduct through risk analysis in order to prevent any re-occurrence.
6. We collect, analyze and appropriately disclose information with the aim of preventing quality issues.

Standards of Conduct regarding Product Safety and Product Security

1. We observe both Japanese and overseas laws and regulations governing product safety and product security.
2. We collect, and proactively disclose, a wide range of information about any product issues that arise.
3. We immediately report any product issues to the authorities concerned in accordance with relevant laws and regulations.
4. We promptly inform customers when the need to recall and repair products arises.
5. We educate our customers and provide alerts and warnings in order to help them use our products in a safe manner.
6. If an accident should occur, we carry out a thorough analysis of the causes and take necessary measures to prevent it from recurring. We also strive to prevent accidents by predicting risk at the design stage.
7. We strive to eliminate vulnerabilities from products prior to shipment.
8. We collect a wide range of information on product vulnerabilities in order to reduce risk.
9. We implement product security measures on a broad scale in cooperation with the relevant organizations.

Promoting Quality Control

Kioxia Corporation has established a quality management system throughout its entire product process from planning and development to sales and customer service. Chaired by our President and CEO, who is also the Chief Quality Executive Officer, Quality Assurance Meeting is held twice a year during which the Executive Officer in charge of quality, vice presidents of relevant departments, technology executives, general managers, and senior managers discuss and decide on key quality policy issues. The participants also evaluate the appropriateness and validity of quality management and risk containment measures. We communicate decisions made during these meetings to business divisions and ensure that these are actioned.

Quality Control Processes & Responsibilities at Kioxia Corporation
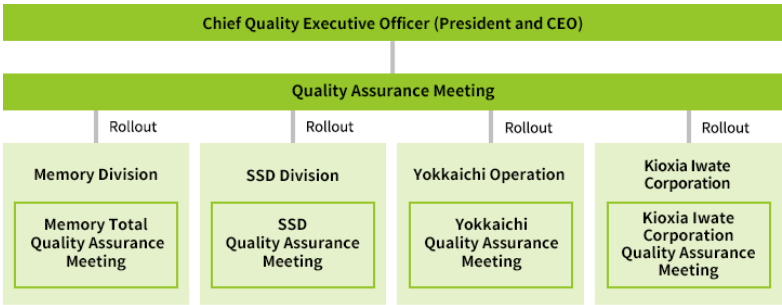
Formulating Responses to Product Issues at Kioxia Corporation

Information on issues involving our products in the market is collated by the President and CEO of Kioxia Corporation, who is also the Chief Quality Executive Officer, or the Executive Officer in charge of Quality, through what we call the CPL[1] Incident Response Desk. Any issues are referred to our Quality & Safety Risk Committee who will decide on any action that may be required.

No serious quality incidents occurred in FY2023.

[1] CPL is an abbreviation combining CL (contractual liability) and PL (product liability).

Product Issue Response Processes & Responsibilities at Kioxia Corporation

▶ Response to Security Incidents Related to Products

Quality Management System (QMS)

Kioxia Group manufacturing sites and related facilities have obtained ISO9001 certification, the international standard for quality management systems. We are implementing continuous improvements throughout the Group in accordance with the seven QMS principles on which ISO9001 is based in order to enhance the effectiveness of these systems. Kioxia Corporation has also acquired IATF16949 certification, the international standard for quality management systems specific to the automotive industry.

▶ ISO/IATF Certification Information (Kioxia Corporation)

Improving Design Quality

In order to improve product quality at the design stage, Kioxia Corporation conducts product design reviews and quality reliability assessments by means of certification testing. We also conduct what we call Failure Mode and Effects Analysis (FMEA) on our design activities in order to prevent defects from reaching upstream. The aim of this activity is to enhance quality by anticipating the risks and effects of failures or defects, known as failure modes, targeting product design and processes in the early stages of development. We strive to improve the reliability and safety of our products and services by implementing practical training to broaden the base of FMEA activities.

Improving Manufacturing Quality

Furthermore, at Kioxia Corporation, FMEA is used to identify the risk of quality issues and determine those which need to be managed as a priority; the capacity of each manufacturing process is analyzed and improvements are implemented on areas found to have low process capabilities. A method known as Statistical Process Control is deployed during efforts to stabilize or improve manufacturing quality.

Disclosure of Information on Quality

Kioxia Corporation discloses information regarding product quality on its website.

▶ Reliability Information (Kioxia Corporation)

- Quality Guidelines
- Reliability Handbook
- Handling Precautions and Requests
- List of Abbreviations

Quality Education

Kioxia Corporation has created its own in-house curriculum and conducts education and training for engineers in order to improve our design and manufacturing quality. Basic training is conducted throughout the year, including an introduction to quality assurance, contract liability and product liability (including the Product Liability Act), statistical quality control, and quality management systems, along with special training on topics such as QC7 tools,[2] FMEA/DRBFM,[3] failure studies, and why-why analysis.

[2] QC7 tools constitute a method of analysis that combines seven techniques in quality control: Pareto charts, characteristic factor diagrams, histograms, graphs, check sheets, scatter plots, and control charts.

[3] DRBFM (Design Review Based on Failure Mode) is a method of preventing quality defects that prioritizes design changes and modifications when conducting risk analyses.

Supporting Local Community Development

Basic Approach

Kioxia Group sees it as our responsibility as a good corporate citizen to not just leverage our business activities to address social issues, but to coexist in harmony with local communities. We aim to help realize a better society by leveraging our technology, products, services and expertise as well as the abilities of our employees; we engage in dialogue with local communities, governments and other public bodies, NPOs/NGOs, and academic organizations, to address community issues. We focus in particular on energizing local communities in the areas where we conduct business, and on fostering human resources in the fields of science and engineering.

Structure

At Kioxia Group, the Administration Division of each of our group companies and operational sites oversees community engagement activities. We partner with local communities where we operate and engage in activities that are rooted in these areas. We also encourage employee participation in social activities.

Leave System Facilitating Volunteer Activities

Kioxia Corporation has introduced a long-term leave system to make it easier for employees take part in community activities. They can use up to 25 days of accumulated leave for such purposes.

Main Activities (FY2023)

Fostering the Scientists and Engineers of the Future

Kioxia Group leverages its technological strengths to focus on making a contribution to local communities in the field of science. Kioxia Group sponsors opportunities for young people—the leaders of the future—to develop an interest in science, technology and manufacturing, as we believe it is important to support those aspiring to become outstanding scientists or engineers. In FY2023, we conducted the below community science lectures and workshops in various locations in Japan.

Yokkaichi Science Seminar for Children

In August 2023, Kioxia Corporation took part in the Yokkaichi Science Seminar for Children at the Yokkaichi City Cultural Center, held with the aim of raising children's interest in science.

In a seminar titled "Science Experience – Yokkaichi, a City of *Monozukuri*" (the art, science and craft of making things), the company delivered a presentation titled "The Secrets of Flash Memory" for roughly 120 children. We explained how semiconductor memory works and ran a few quizzes on the subject of human memory. The children answered the questions enthusiastically and they particularly enjoyed the virtual reality simulation of a cleanroom in a manufacturing facility. Many of them seemed genuinely curious, twisting their bodies while wearing virtual reality goggles.

Yokkaichi Science Seminar for Children

Sponsorship of Iwate Programming Education for Elementary School Students

Kioxia Iwate Corporation sponsors the Iwate Programming Education Project for elementary school students, an initiative devised by the Ministry of Education, Culture, Sports, Science and Technology.

In August 2023, its employees supported the operation of a programming workshop for elementary school students held in Kitakami City, Iwate Prefecture. Participating employees expressed their surprise at the children's abilities and remarked how widely they felt programming skills are now becoming ingrained in children even at a young age. The company will continue to support this initiative, believing that the free-thinking and creativity unique to elementary school students will contribute to the future development of manufacturing and various other fields.

Awards Ceremony of Programming Contest Iwate

Outreach Classes at Yokkaichi Municipal Junior High School

Since FY2008, Kioxia Corporation has been collaborating with Yokkaichi City to provide outreach classes as a part of students' career guidance. In addition to the general issue of children losing interest in science, there is an increasing need for schools to equip students with the necessary foundational skills to prepare them for future social and professional independence. To help address these issues, Kioxia Corporation's employees give lectures at junior high schools with the aim of cultivating an interest in science among students.

In FY2023, classes were held at Chubu Junior High School for approximately 90 students under the theme of "Working at a company." Students wore virtual reality goggles and took a virtual tour of a clean room, learning about semiconductor manufacturing processes and the type of work conducted at manufacturing plants. Students also had the opportunity to hold wafers[1] and printed circuit boards in their hands and to try on clean room suits. To encourage students to think about their own future careers, a workshop on the theme of "Preservation of the Natural Environment and the Use of Science and Technology" was held using waste reduction as an example of one of the environmental issues that the company's engineers are tackling in practice.

[1] A wafer is a disk of silicon crystals that serves as the base material for semiconductor chips.

Junior high school students experiencing working in cleanroom suits

Participation and Career Counseling for Science and Engineering Pathways in the Summer School for Girls in Junior and Senior High School

As part of our efforts to promote women's active participation in the workplace, since 2018 Kioxia Corporation has supported the Summer School for Girls in Junior and Senior High Schools,[2] one of Japan's largest events promoting science and engineering careers.

In 2023, we participated in a "Career Consultation" event. Building on the concept of "The World is Filled with Memory," we gave a presentation explaining how flash memory works and the many ways it is used in our daily lives. Our female engineers also spoke about their own careers.

Approximately 60 female junior and senior high school students asked questions about career development, the criteria for choosing a company, and other topics related to education and careers. The company's female engineers shared their excitement and the attraction of working on the front lines of semiconductor manufacturing, based on their own experiences, while also offering advice about the students' future careers.

We will continue to actively provide career counseling to junior and senior high school students who are considering to pursue a career in science-related fields.

[2] Summer School for Girls in Junior and Senior High Schools is an event that aims to motivate girls to pursue science and engineering careers. It was sponsored by the Natsugaku ("summer school") Executive Committee (in 2018), the National Women's Education Center (in 2018, 2019), and since 2019 has been sponsored by the NPO STEM Career Path Project for Girls.

Engineers providing career counselling to junior and senior high school girls

Company Donations Aimed at Fostering the Advancement of Women in STEM Fields

To increase the number of female engineers and researchers majoring in STEM fields (Science, Technology, Engineering, Mathematics), it is crucial to create opportunities for female students to explore these areas and to provide them with information that helps them consider their career paths after higher education.

In the fiscal year 2023, Kioxia Holdings Corporation made donations to support various STEM events for female students and researchers, organized by institutions such as the Institute for Solid State Physics at the University of Tokyo. These include an initiative to encourage middle and high school girls to pursue STEM careers, a networking and career development event for female physics undergraduates and graduate students, and conference programs designed to support female researchers and graduate students in the field of materials science. Approximately 400 participants attended these events, and there was valuable interaction among the attendees.

Educational Collaboration between Iwate University, among others, and Kioxia Iwate Corporation

Kioxia Iwate Corporation has been pursuing educational collaboration with Iwate University since 2019. In 2023, the program was expanded to include Akita University, Yamagata University, and technical colleges and high schools in Iwate Prefecture, where semiconductor-related lectures were given to approximately 540 participants. The company gave lectures covering the history of the semiconductor industry as well as miniaturization technologies for logic devices and three-dimensional memory technologies, both drivers of semiconductor technology.[3] The students asked many questions and lively discussions took place.

To foster mutual development between industry and academia, we will continue to create opportunities to showcase the appeal of the semiconductor industry and help develop the next generation of talent.

[3] Advanced processes and production technologies that are the driving force of next-generation devices and manufacturing technologies.

Lecture on Semiconductors at Iwate University

Collaboration with Graduate Schools and Other Educational Institutions

Kioxia Group hosts classes at graduate schools and other institutions in Japan to help foster the development of young scientists and engineers.

Since FY2019, Kioxia Corporation has had a comprehensive collaboration agreement with the University of Electro-Communications under which engineers are fostered through personnel exchange, and we engage in various joint research activities. This initiative aims to promote semiconductor memory development and semiconductor manufacturing technologies. In FY2023, one of our engineers conducted a lecture titled "Information Media System (Data Mining)" for approximately 100 master's and PhD students at the University's Graduate School of Informatics and Engineering.

We also held a lecture titled "Semiconductor Memories Supporting Society – Evolution of Nonvolatile Memories" at Nagoya University, and at Osaka University we offered a course for master's and doctoral students, as well as working professionals, on the development of 3D flash memory and challenges for the future. Additionally, we dispatched lecturers to seminars and lectures hosted by the Semiconductor Committee of the Japan Electronics and Information Technology Industries Association (JEITA). In FY2023, we held 148 lectures at universities and graduate schools nationwide, which were attended by approximately 2,000 participants. The Kioxia Group in Japan aims to continuously nurture talented engineers through collaboration with educational institutions. In so doing, we aim to develop engineering as an academic discipline, and boost the semiconductor industry.

Creating Opportunities for Academic Interaction

Since FY2020, Kioxia Corporation has participated in the "AI and Advanced Programming Consortium (AIC)" series of events at Keio University Global Research Institute.

At an event titled "AIC Discussion Forum – Lifestyle in the Age of AI" which was hosted in FY2023, group discussions and panel discussions were held under the theme of how AI has changed our lives and how we will live in a future where AI abilities surpass those of humans. Students from a wide range of academic levels, from undergraduate to doctoral programs, participated in the forum. They discussed topics including the latest technologies such as generative AI, the evolving regulations in various countries, and the kinds of decisions humans will need to make in a society shaped by AI. The forum provided an opportunity for companies and universities to collaborate and explore how AI can be applied to address future challenges.

Other CSR Activities to Help Address Social Issues

Kioxia Group conducts community contribution activities in accordance with the needs of the local communities where it operates its business and the challenges they face.

Supporting children through Christmas charity events: Kioxia Europe GmbH

Kioxia Europe has long supported the efforts of the NPO Diakonie to help people in Germany who are living in poverty or facing social hardship.

As part of this collaboration, in December 2023, the company organized a Christmas charity event for underprivileged children in Düsseldorf. Twenty employees hosted a small Christmas party in the company cafeteria and invited 20 children who are in the care of Diakonie homes as a result of disadvantaged family situations, as well as the staff who support the children on a daily basis. Hot chocolate and cookies were served by the employees, Christmas carols were sung together, and at the end of the party, each child was given a gift of their choice.

Christmas charity events at Kioxia Europe

Supporting Women in the Community: Kioxia America Inc. LeadHERs

In 2018 Kioxia America established an employee resource group called LeadHERs whose goal is the education, enrichment and empowerment of women. LeadHERs also supports corporate community engagement events in partnership with Kioxia America's Community Relations team.

In 2023, LeadHERs partnered with WISEPlace, a nonprofit dedicated to ending homelessness for unaccompanied women in Orange County, California. The women residing in the shelter are supported through the provision of a safe home, counseling, employment assistance and other initiatives. LeadHERs organized an activity to renovate the area around the shelter. Funds were raised to purchase plants and materials, old landscaping was removed, new plants were installed and planters were painted.

On International Women's Day, LeadHERs raised funds and used them to purchase useful and fun items for gift bags. The gift bags were given to the women in the WISEPlace shelter to help them celebrate together.

Renovation activities around the shelter (Kioxia America)

Charity event held on Family Day: Solid State Storage Technology Corporation (SSSTC)

In May 2023, SSSTC in Taiwan held a Family Day with a charity event at the Pushin Ranch in Taoyuan City.

The event was co-sponsored by the company, the Children are Us Foundation and PWSA Taiwan; the latter two organizations support children with disabilities and people with incurable diseases. 800 employees of the company and 400 of their family members participated on the day. In addition, the company invited 24 elementary school students living in remote districts and facing educational disadvantages; they performed a beautiful song, which was the highlight of the event. SSSTC's donation to this elementary school is being used to improve the pupils' educational environment.

Employees purchased food and crafts handmade by these NPOs at welfare facilities, some of which provide support for people with disabilities.

The charity concert (SSSTC)

For other community engagement activities of Kioxia Corporation's Yokkaichi Plant and Kioxia Iwate Corporation.

▶ Kioxia Corporation's Yokkaichi Plant CSR and Cooperation with the Local Community ⧉

▶ Kioxia Iwate Corporation CSR and Cooperation with the Local Community (Japanese) ⧉

Governance

Corporate Governance

Risk and Compliance

Information Security

Corporate Governance

Kioxia Group is reinforcing our governance processes in order to increase our corporate value.

Corporate Governance Policy and Structure (as of March 2024)

Kioxia Holdings Corporation is a company with Board of Statutory Auditors. We have developed a group governance structure in which the performance by directors of their duties is audited by our statutory auditors. We have appointed three statutory auditors.

The core of the Kioxia Group governance is our Board of Directors, consisting of six persons, including the President and CEO. Furthermore, to clarify the separation of the supervisory functions and executive functions of management, the latter is carried out by executive officers assigned by the Board of Directors and by departments that assist directors.

As Kioxia Holdings Corporation's Chief Executive Officer, the President and CEO is responsible to shareholders when making decisions on important company matters. The President and CEO also steers Kioxia Group's business by broadly and optimally managing the resources of Kioxia Holdings Corporation and its group companies and maximizing their synergies.

Kioxia Group's Corporate Governance Process & Responsibilities (as of March 2024)
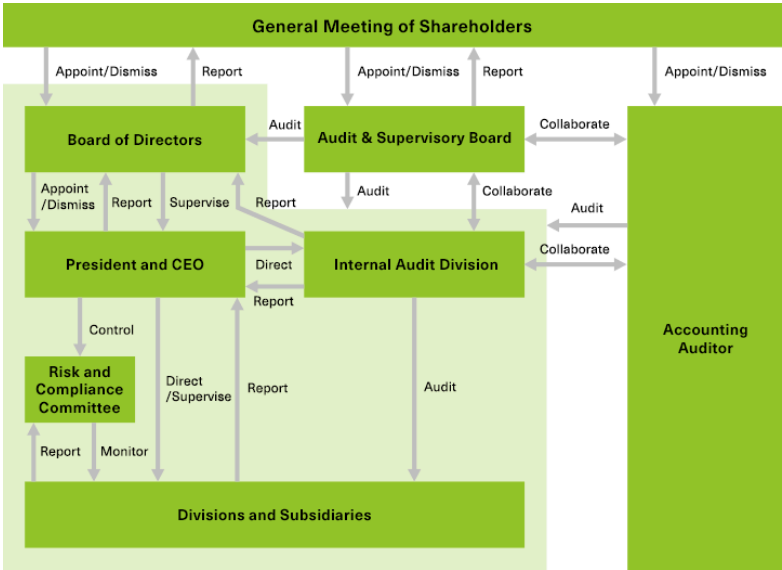
Risk and Compliance

Kioxia Group enforces global compliance with relevant laws and regulations, social and ethical norms, and internal rules, and carries out risk- and compliance-related activities.

Risk and Compliance Policy and Structure

At Kioxia Group, we strive to ensure thorough compliance with all relevant laws and regulations based on the Kioxia Group Standards of Conduct, in order to ensure fair and open competition.

At Kioxia Holdings Corporation, the President and CEO is assigned lead responsibility for ensuring risk compliance; the Officer in charge of Human Resources & Administration, the Officer in charge of Legal Affairs and the Officers designated by the President and CEO (hereinafter referred to as the "Designated Officers") have joint second-level responsibility. Kioxia Holdings Corporation has established a process whereby our Risk and Compliance Committee has complete authority and responsibility with regard to all risk and compliance-related issues across the entire Group. Our statutory auditors attend meetings of this Committee as "observers."

Prior to formulating priority measures and implementing these, and in line with our Risk and Compliance Management Regulations, Kioxia Group collects, analyzes and assesses all relevant risk-related information regarding compliance risks, including business risks and risks associated with disasters, accounting fraud, information security, and product quality. Furthermore, we have constructed a framework that allows swift and organization-wide response to risks across the entire Group when required.

We classify risks into a number of categories, including compliance-related risks, finance/accounting-related risks, and business risks, and have established committees for each category to enable agile management of these. The Risk and Compliance Committee, which meets half-yearly, determines risks that may cause a crisis, or "crisis risks,"[1] and reviews all matters related to Group-wide risks and compliance activities. Furthermore, the Committee formulates, implements and supports risk and compliance management measures (priority measures), monitors the activities of each committee, and reports on these to the Board of Directors, which reviews them as appropriate.

When a crisis risk or an event that may develop into one occurs, the risk parties must report the situation to the staff of Risk and Compliance Committee at Kioxia Holdings Corporation immediately. The Officer Responsible for Risk Compliance then issues instructions regarding the handling of the risk in consultation with the heads of each organization directly under the President and other appropriate parties, and implements measures to address the situation and prevent recurrences.

[1] Crisis risk is serious and immediate risk that cannot be addressed through usual decision-making channels and is of a severity that has the potential to significantly endanger the value of the company.

Kioxia Group's Risk and Compliance Committee Structure

> Kioxia Group Standards of Conduct

Internal Audit

Kioxia Group has established an Internal Audit Division under the direct control of the President and CEO at Kioxia Holdings Corporation with the aim of strengthening internal controls. In line with the Internal Audit Policy, the Internal Audit Division formulates and executes audits of each division and group company and reports the results to him. During these audits, the Internal Audit Division conducts investigations to check business processes and trails, and when issues are discovered, the division monitors the progress and results of corrective measures until these are completed. The issues are shared within the Group and utilized to help prevent their occurrence in other divisions. Through these internal audits, we regularly evaluate the status of compliance with relevant laws, regulations and internal rules, as well as the effectiveness of risk management activities, in order to make improve them.
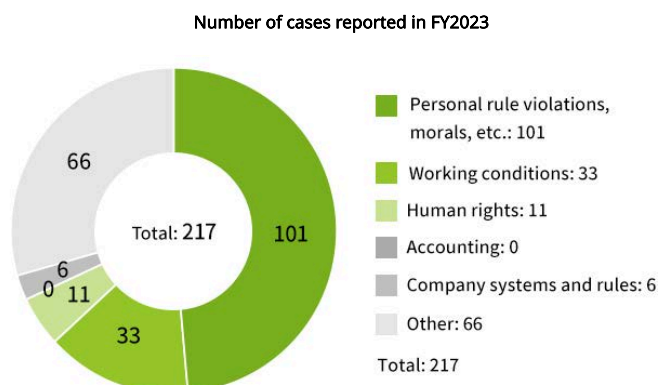
Whistleblower System

Whistleblower "Risk Hotline" for Employees

In order to create an open work environment and reduce risk, in addition to encouraging day-to-day communication within each workplace, Kioxia Group operates a whistleblower system. All employees are informed about this system through internal websites, emails and other means. The system is designed to protect the anonymity of whistleblowers and ensure that they are not treated disadvantageously. The number of reports received and consultations undertaken through the whistleblower system in FY2023 was 217.

Of the reports received, those referencing inappropriate situations or concerns about inappropriate situations were reported to the relevant division so that instructions for improvement could be provided or alerts issued. In cases involving consultations and questions about the duties of the informants themselves, we gave advice on how to deal with each situation.

For reports other than those that were anonymously submitted, in principle we explained the status of our responses to the informants. Except in cases where prior consent is obtained from the employees concerned, the names or contact details of informants are never disclosed. Additionally, since June 2022, Kioxia Group in Japan has started accepting reports from employees within one year of their retirement.

Number of cases reported in FY2023

- Personal rule violations, morals, etc.: 101
- Working conditions: 33
- Human rights: 11
- Accounting: 0
- Company systems and rules: 6
- Other: 66
- Total: 217

Business Partner Hotline

Kioxia Corporation has established a Business Partner Hotline to enable business partners such as suppliers to report to us any violations or suspected violations of laws and regulations, Kioxia Group Standards of Conduct, the Kioxia Group Procurement Policy, business agreements, corporate ethics, or other applicable rules, standards and norms established by Kioxia Group in connection with procurement and other business transactions, and to help us rectify these.

We investigate and establish the facts and in principle notify the results of our investigation to the whistleblower. The personal details of the person who made the allegation are not disclosed to anyone outside the Business Partner Hotline Secretariat without their consent. Moreover, we ensure there is no unfair treatment of the whistleblower or their company arising from their allegation.

The number of reports received and consultations undertaken through the Business Partner Hotline in FY2023 was four. Of the reports and consultations we received, we confirmed the facts of the cases in which the company may have been involved. We then provided explanations and confirmation of the facts to the informants.

❯ Business Partner Hotline (PDF: 136KB) 📄

Establishment of the Kioxia Group Standards of Conduct and Risk Compliance Training

Kioxia Group has established and disseminated the Kioxia Group Standards of Conduct in multiple languages as an ethical standard to be observed by all directors and employees. The Standards of Conduct constitutes one of the most important rules and regulations of the company, and has been adopted by a resolution of the Board of Directors of Kioxia Holdings Corporation. All directors and employees receive introductory training covering this Standards of Conduct as part of their new employee training, and pledge to comply with its content. To raise awareness of potential risk and compliance issues, all directors and employees receive Risk Compliance Training based on the Kioxia Group Standards of Conduct and we make sure that they are thoroughly familiar with its content.

Topics Covered at Kioxia Group's Risk Compliance Training in Japan during FY2023

- Kioxia Group Standards of Conduct
- Accounting compliance, including internal control systems
- Business risks, including bribery and antitrust laws
- Prevention of insider trading
- Export controls
- Spending and procurement management
- Compliance with subcontracting law, appropriate outsourcing contracts
- Electrical Appliance and Material Safety Law
- Technology ethics
- Product security
- Proper handling of information, including information security and personal information protection
- Intellectual property rights
- Sustainability management in general; also covers environmental and human rights
- Mental health
- Brand guidelines

Anti-Corruption Efforts

Kioxia Group categorizes risks related to compliance as priority risk management issues that have the potential to severely impact our business; we strive to prevent such risks and to respond swiftly in the event of an occurrence. The basic policies governing behavior are defined in the "Kioxia Group Standards of Conduct: 1. Sound Business Management and 2. Fair Business Operations." Initiatives include the establishment of internal rules and operational frameworks aimed at ensuring compliance with anti-trust laws and regulations and with those related to the prevention of bribery or insider trading, or potential third-party risks such as those related to political donations and funding.

Compliance with Anti-Trust Laws and Anti-Bribery Measures

In the light of recent global regulatory trends, Kioxia Group has been making rigorous efforts to prevent cartelization and bribery. In FY2023, we conducted voluntary audits at our major group companies that have adopted a compliance program and issued two related sets of guidelines regarding compliance with anti-trust laws and anti-bribery with foreign public officials. These audits have allowed us to establish the levels of compliance at those companies[2] and provide them with thorough compliance training.

Kioxia Group promotes rigorous compliance with business-related laws and regulations by providing training, making effective use of relevant databases, and performing periodic self-audits. We implement improvements aimed at mitigating any risks found by internal audits in order to continue to enhance our compliance structure.

As part of our anti-bribery initiatives, we perform due diligence on our outsourcing partners and other business partners that may have relationships with public officials, in order to identify potential bribery risks and any other risks before commencing business with them. In addition to incorporating provisions that prohibit bribery in our contracts with the aforementioned parties, we also notify them about our anti-bribery policy, among other activities.

Furthermore, Kioxia Group is taking steps to raise compliance awareness among our staff based on our own Standards of Conduct. We conducted e-learning on Business risk for directors and employees during December 2023 and January 2024 at major domestic group companies and from December 2023 to March 2024 at major overseas group companies. These sessions were aimed at raising the level of our business-related legal risk management capabilities.

[2] Six domestic and 14 overseas affiliates of the Kioxia Group (as of March 2024)

Prevention of Insider Trading

To prevent insider trading and ensure proper management of all information, Kioxia Holdings Corporation and Kioxia Corporation have formulated "Insider Trading Prevention Regulations" and developed processes and regulations designed to manage the flow of potentially market-sensitive information. In FY2023, e-learning designed to prevent insider trading was conducted for all employees of Kioxia Group in Japan between January and March 2024. This initiative aimed to ensure that the contents and objectives of the "Insider Trading Prevention Regulations" were thoroughly understood.

Political Contributions

As part of its contribution to society, and when deemed to be necessary, Kioxia Corporation makes transparent donations to political parties, in order to encourage the adoption of policies that will support our business and aid the healthy development of parliamentary democracy. Where we make donations to political parties, procedures in accordance with internal rules are followed and, in the case of donations made in Japan, we ensure we are compliant with Japan's Political Funds Control Law.

Donations and Provision of Funds

While Kioxia Corporation forbids the incurring of inappropriate expenses, we do stipulate that appropriate donations may be made to relevant organizations. We therefore donate to a number of different organizations, taking into consideration factors such as the contribution they make to society, the causes they support, and the community aspects of their activities.

Continued Severing of Relationships with Antisocial Groups

Kioxia Group in Japan has implemented various measures to ensure that all links with antisocial groups are severed. In particular, we have developed and implemented "Basic Public Relations Management Rules" and appointed public relations management officers in each department. When conducting transactions with a new customer, the public relations management officers of that department confirm that the customer has no relations with any antisocial groups. If during those background checks the need arises for further investigation, our Human Resources and Administration Division will verify whether there is any evidence of a relationship between the customer and any antisocial groups. We also periodically conduct surveys on customers that we already have business relations with. Transaction contracts normally include a clause regarding the exclusion of organized crime syndicates, which enables a contract to be cancelled without notice when a business partner is identified as being part of an antisocial group.

We also continuously ensure that employees understand the importance of excluding antisocial groups from the business activities they conduct.

Ensuring Appropriate Tax Reporting

The basic policy of the Kioxia Group is to fulfill our obligations to pay all due taxes through business activities conducted based on the principles of fairness, integrity, and transparency. Kioxia Group's tax policy stipulates that the Group must
(a) comply with the guidelines of the Organization for Economic Cooperation and Development (OECD) and with the applicable laws and regulations of each country and region;
(b) support the tax administration of local communities by recording sales, profits and paying taxes in accordance with the purpose and reality of our business activities;
(c) develop our business while ensuring tax transparency; and
(d) appropriately manage and reduce any tax risks.
These activities are carried out in accordance with the following:

1. Tax Governance (Structure)

The Chief Financial Officer of Kioxia Holdings Corporation has official responsibility for ensuring that our Group complies with all relevant tax regulations and reports to the Board of Directors on its compliance with these, on its implementation of relevant initiatives, and on any other key issues. The Kioxia Holdings Group Tax Office periodically arranges internal training on tax policies in order to cultivate human resources who are familiar with the tax system of each country and region; it also identifies any potential tax issues, collects information, and shares knowledge. Group companies are required to report on any potential tax risks or other tax issues to the Chief Financial Officer.

Kioxia Group's Tax Governance
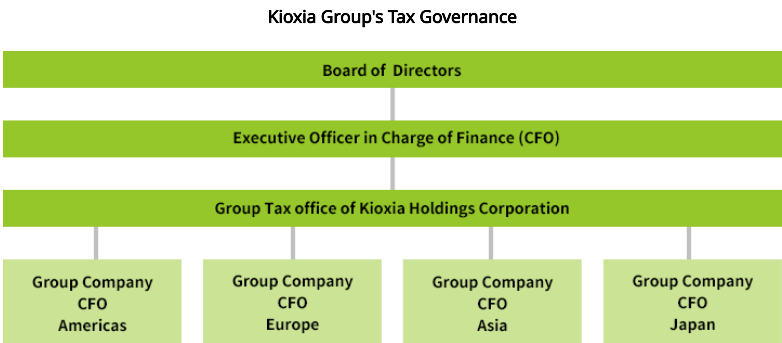
2. Compliance

We comply with the OECD Transfer Pricing Guidelines and with the laws and regulations of each country and region, and undertakes proper tax reporting and payment.

3. Tax Risk Management

We recognize the possibility of tax risks arising in situations where laws and regulations differ or are interpreted differently in different countries and regions. When a potentially significant risk is identified, we strive to minimize it by means of thorough scrutiny and analysis, by obtaining advice from tax specialists, by making prior referral to tax authorities or by means of advance pricing agreements.

4. Transfer Pricing

Transfer prices between Group companies are decided in accordance with the arm's length principle. The functions and risks of all Group companies are analyzed and periodically monitored to ensure profits are allocated on the basis of the contributions of each company.

5. Tax Incentives and Tax Havens

Tax deductions and incentives in each country and region are utilized in a manner that accords with our business objectives, and we strive to pay all appropriate levels of tax. Business activities are conducted in accordance with appropriate tax structures in line with our business objectives; we do not deliberately conduct transactions or other activities in low tax countries or tax havens.

In addition, we strive to eliminate double taxation by utilizing the prevailing relief systems and tax treaties in each country and region. Situations where the tax position is uncertain are documented in accordance with proper accounting standards.

6. Ensuring tax transparency

Kioxia Group supports the reform of international taxation proposed by the OECD and the G20. Furthermore, in accordance with the process by which information is exchanged between tax authorities in regions where Group companies are situated, we submit country by country reports and master files according to regulations in each country or region. We strive to ensure tax transparency by providing the information required for tax reporting and payment in a timely and appropriate manner.

7. Relationships with Tax Authorities

We seek to maintain good relationships based on mutual trust with the tax authorities overseeing each country and region. We respond to requests from tax authorities with honest and accurate representations of the facts.

8. Kioxia Group Corporate Tax Payments by Region

We pay taxes in accordance with the actual business situation in each country and region.

Kioxia Group Corporate Tax Payments by Region (millions of yen, FY2023)

Europe 154 (2.50%)
Americas・Asia 1,137 (18.4%)
Japan 4,876 (79.1%)
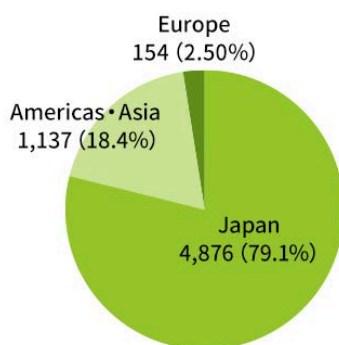
Risk Management through Business Continuity Management (BCM)[3]

Kioxia Group identifies, analyzes and assesses business risks and ensures appropriate levels of risk management across all areas of our business in order to prevent interruptions to our operations in times of emergency, such as natural disasters, accidents, pandemics, or other geopolitical risks. The Group has devised business continuity management regulations in accordance with our BCM Policy, and implemented measures to ensure the safety of employees and their families and ensure disaster readiness at our business sites and factories. We conduct practical training and prepare for emergencies so that we can continue or quickly resume delivering products and services in the event of damage or loss.

In response to various changes in the social environment, we are further reinforcing our supply chain management and strengthening ties between other committees, including the Information Security Committee and Quality Conference, in order to ensure business continuity planning that spans companies throughout the entire Kioxia Group.

In FY2023, we prepared contingency action plans and conducted drills in countries and regions where any interruption to our operations would have a significant impact on our business.

[3] Business Continuity Management refers to the comprehensive and integrated management of business continuity during an emergency, including the formulation of countermeasures to minimize the impact of the emergency on the organization without suspending business (or restoring it in a short period of time even if business is suspended), and continuous improvement through its implementation, operation, and review.

Information Security

Kioxia Group treats information as a critical asset and is committed to eliminating and reducing information security risks in our business activities in order to protect and utilize this valuable resource.

Information Security Management

Information Security Management Policy

The utilization of data and cloud services and the use of AI have increased in line with digital transformation, and we are also seeing more diverse working styles, such as a rise in telecommuting. With cyber-attacks becoming increasingly sophisticated and potentially able to cause more serious damage to companies' businesses, cyber security measures have become more important each year.

Information security is a key management issue for the Kioxia Group, and we recognize the sensitivity and value of all information handled during the course of our business activities, including personal information, customer and business partner information, management information, and technical and production information. Our basic policy is to manage such information in a confidential manner in order to protect it and prevent inappropriate disclosures, leaks or improper use.

▶ Kioxia Group Standards of Conduct 2. Fair Business Operations

▶ Privacy Policy

Structure of Information Security Management

Kioxia Group has assigned its Executive of Information Security as the Chief Information Security Officer (CISO), whose responsibility is to oversee and ensure compliance with our Information Security Management Policy across the Group. We have also assigned responsibility for managing and implementing our information security measures to the General Manager of our Cyber Security Center. Information security management processes incorporating the protection of personal information have been implemented at each business site and organization at all Group companies. The Information Security Committee deliberates matters that are deemed key to ensuring information security throughout the Group.

In addition, the implementation status of relevant measures and specific issues arising in any of our Group companies are reported to our executive officers on a regular basis in order to standardize and improve the level of information security throughout the Kioxia Group.

Kioxia Group's Information Security Management Structure
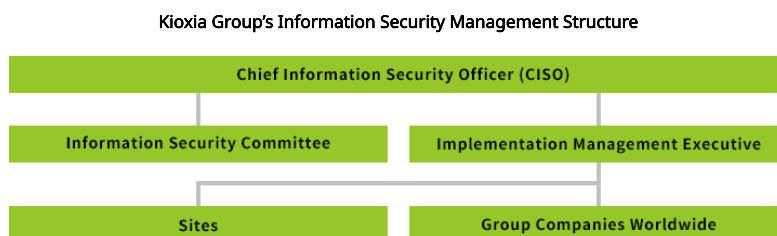
Information Security Measures

In FY2023, Kioxia Group implemented information security measures that included the reinforcement of networks and internal system monitoring from four perspectives.

Implementation of Information Security Measures

Category	Description
(1) Organizational measures: establishing organizational structure and rules	• Periodic reviews of information security-related in-house regulations • Development and maintenance of information security management structure • Performance of audits
(2) Human resource and legal measures: ensuring adherence to rules	• In-house regulation of information protection duties and disciplinary measures in the case of any breach of rules of employment • Provision of periodic employee education and training • Contractor information security evaluation and conclusion of confidentiality agreements
(3) Physical measures: supporting implementation of rules from physical aspects	• Control of the carry-in/carry-out of devices holding information • Facility access control, room/building entry control • Control of access to highly sensitive information
(4) Technical measures: supporting implementation of technology-related rules	• Encryption of hard disks and measures to combat malware • Assessment of the vulnerability of devices such as servers that are accessible to the public and enhancement of relevant protective measures • Implementation of a system to detect unauthorized external access or data breaches

Education, Inspection and Audit of Information Security Management

All Kioxia Group's divisions and organizations conduct annual self-inspections and self-audits of their compliance with information security policies and internal rules; they identify any issues and seek to address these in an effort to improve the level of information security within each of them.

Kioxia Group conducts annual training for all officers and employees and communicates relevant messages regarding information security from the management to all employees in order to ensure strict compliance with all in-house regulations.

Responding to Incidents such as Leakage of Confidential Information

In the event an information security incident such as a leakage of confidential information occurs, Kioxia Group responds promptly in accordance with its information security incident reporting processes.

When we become aware of the occurrence or potential occurrence of an incident involving a serious leakage of confidential information that may entail a violation of any laws or ordinances, we strive to respond promptly based on our risk and compliance management processes.

Kioxia Group's Information Security Incident Reporting Process
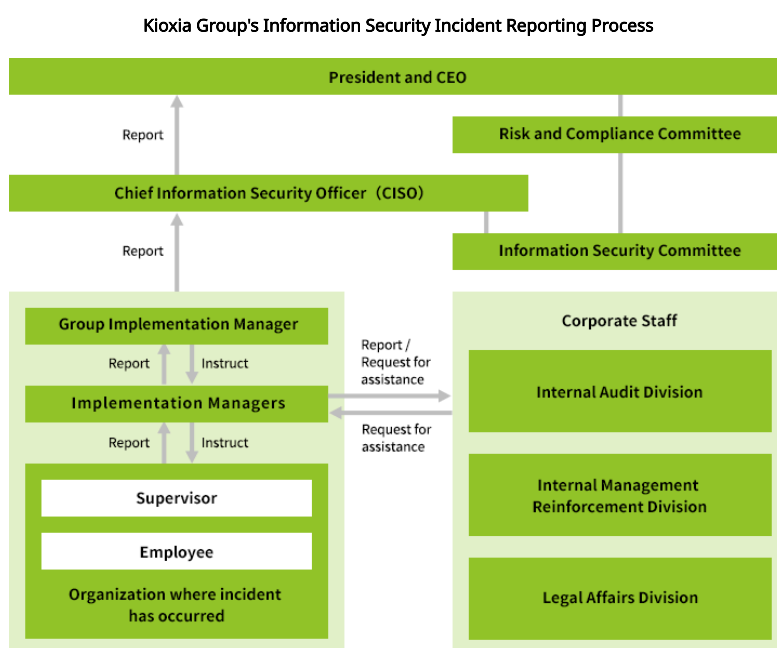
Status of Incidents such as Leakage of Confidential Information

In FY2023, there were no incidents of sensitive information held by Kioxia Group companies being leaked, nor were there any complaints from relevant external individuals or regulatory bodies concerning personal information. We will continue to work to prevent information security incidents and ensure we are fully prepared for any situation that might arise.

Product Security Management

Product Security Management Policy

Kioxia Group responds promptly to any cyber-security risks emerging in society at large, and to requests from customers and other stakeholders related to product security.

Kioxia Group defines "Product Security" as the prevention of any malicious information leaks, falsification, or unforeseeable faults in the products and services we sell or provide to our customers. Our basic policy is to establish a product security management framework that ensures the provision of safe and secure products and aims to minimize any cyber-security risks associated with them.

We have drawn up this basic product security policy and we ensure all employees and officers of the Group are fully aware of it.

> Kioxia Group Standards of Conduct 3. Quality and Publications

> Kioxia Group Standards of Conduct 7. Risk Management

Structure of Product Security Management

The Kioxia Group has appointed a Chief Information Security Officer at Kioxia Corporation whose responsibilities include ensuring compliance with our Product Security Policy across the Group. In each business division we have formulated product security processes that are strongly integrated with our quality management system. We have also established a special support service we call the Product Security Incident Response Team (PSIRT)[1] which enables us to respond promptly to inquiries and to address any security vulnerabilities in our products. In addition, we have established processes governing the operation of the Computer Security Incident Response Team (CSIRT),[2] which responds to incidents and inquiries about information assets.

[1] A team that responds to product security issues.
[2] A team that addresses information security issues.

Kioxia Group's Product Security Management Structure
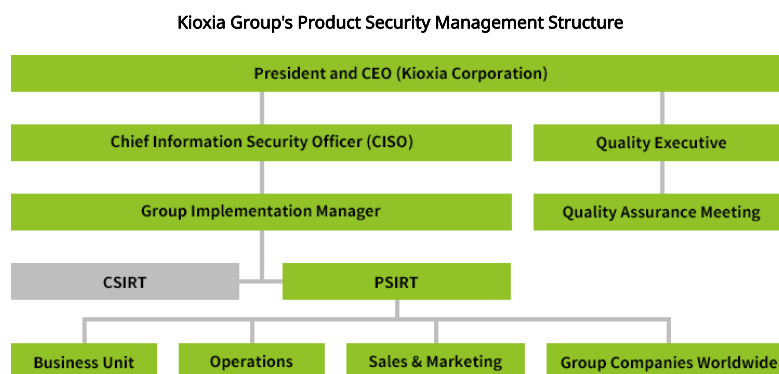
Product Security Measures

In addition to the aforementioned organizational, process and legal measures, the following internal rules and regulations have been established to implement security measures for our products.

Category	Description
(1) Legal and regulatory compliance	• Investigating and addressing security regulations and laws relevant to our products
(2) Secure development: establishing processes to ensure we provide secure products	• Consistent maintenance and enhancement of security measures throughout product lifecycles • Maintenance and enhancement of security measures in product supply chains
(3) Incident system development: dealing with product vulnerabilities, inquiries, etc.	• Establishment of PSIRT • Addressing security requirements and responding to inquiries from stakeholders

Response to Product-related Security Incidents

In the event of a security incident caused by a cyber-attack, for example one targeting product vulnerabilities, Kioxia Group will strive to respond promptly, with PSIRT and the Group implementation manager assessing the situation based on our product security management processes and on our formulated responses to product incidents.

❯ Formulating Responses to Product Issues at Kioxia Corporation

Status of any Product Vulnerabilities and Our Responses

There were no serious incidents associated with vulnerabilities in any of our products in FY2023. We will continue to strive to prevent the risk of product vulnerabilities, and we will ensure swift detection and a prompt response to any that are found.

Performance
Data

Environmental data

Social data

Governance data

Performance data (Environment)

Scope:
Kioxia Corporation (Headquarters, Yokohama Technology Campus, Yokkaichi Plant),
Kioxia Iwate Corporation
Solid State Storage Technology Corporation (*excluded)

Due to changes in emissions unit values, calculation targets and methods, the data in this report may differ in part from the Sustainability Report for the fiscal year ending March 31, 2023.

Index	Unit	FY2021	FY2022	FY2023	Remarks
Climate Change					
Green House Gas Emissions: Direct Emissions (Scope 1)	t-CO_2	694,000	680,600	410,400	"Green House Gas Emissions: Direct Emissions" is the summary of CO_2 equivalent value of CF_4, $C4F_8$, CHF_3, SF_6, NF_3, CH_2F_2, CH_3F, CH_4, and N_2O.
Green House Gas Emissions: Indirect Emissions (Scope 2)	t-CO_2	1,848,000	1,899,400	1,870,400	
Green House Gas Emissions: Direct and Indirect Emissions (Scope 1+2)	t-CO_2	2,542,000	2,580,000	2,280,800	[Scope 1] Direct emissions from in-house fuel use and our business processes.
Green House Gas Emissions: Other Indirect Emissions (Scope 3)	t-CO_2	7,020,017	7,547,125	6,060,687	Greenhouse gases are converted to CO_2 by multiplying greenhouse gas emissions from each site by global warming potentials. Global warming potentials are based on the fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).
1. Purchased goods and services	t-CO_2	4,796,560	5,170,414	4,596,026	
2. Capital goods	t-CO_2	1,259,310	1,450,366	617,730	[Scope 2] Indirect emissions from the production of electricity, heat and steam purchased by the company (market basis).
3. Fuel- and energy-related activities not included in Scope 1or 2	t-CO_2	322,621	348,378	340,479	CO_2 emissions from energy consumption are calculated by multiplying the quantity of electrical power, heat and fuel (including fuel for motor vehicles, etc.) by the CO_2 conversion rate. CO_2 conversion rates are based on the rate published each year by contracted power companies.
4. Upstream transport and delivery	t-CO_2	9,056	8,113	6,343	
5. Waste generated in operations	t-CO_2	20,353	35,283	26,472	
6. Business travel	t-CO_2	107	1,421	1,414	[Scope 3] Other indirect emissions not covered by Scope 1 and 2.
7. Employee commuting	t-CO_2	13,410	11,983	12,209	Kioxia uses the Emissions Unit Values for Accounting of Greenhouse Gas Emissions, etc. by Organizations Throughout the Supply Chain published by the Ministry of the Environment and the Ministry of Economy, Trade and Industry (Japan) for CO_2 Calculation.
8. Leased assets (upstream)	t-CO_2	—	—	—	1. Purchased goods and services: CO_2 emissions are calculated by multiplying the monetary values of goods and services purchased by emissions unit values of each items.
9. Downstream transportation and delivery	t-CO_2	—	—	—	2. Capital goods: CO_2 emissions are calculated by multiplying the Cost of construction and manufacturing by emission unit values by price of capital goods.
10. Processing of sold products	t-CO_2	—	—	—	3. Fuel- and energy-related activities (not included in Scope 1 or Scope 2): CO_2 emissions are calculated by multiplying the amount of electric power and heat usage by emissions unit value emission per usage of electricity and heat.
11. Use of sold products	t-CO_2	598,600	521,167	460,014	4. Upstream transportation and distribution: CO_2 emissions are calculated by multiplying amount of ton-kilometers transported by emissions unit value of applicable vehicle and average loading rate.
12. End-of-life treatment of sold products	t-CO_2	—	—	—	5. Waste generated in operations: CO_2 emissions are calculated by multiplying the amount of waste disposal by emissions unit value of waste type/processing method.
13. Downstream leased assets	t-CO_2	—	—	—	6. Business travel: CO_2 emissions are calculated by multiplying the number of employees by emissions unit value per employee by business trip type.
14. Franchises	t-CO_2	—	—	—	7. Employee commuting: CO_2 emissions are calculated by multiplying the amount of expenditure for transportation fares by emission unit value per travel expense paid.
15. Investments	t-CO_2	—	—	—	11. Use of sold products: CO_2 emissions are calculated by multiplying the assumed lifetime power consumption of products sold in the fiscal year of reporting by an emissions unit value. The hours of operation per year, standby time per year, and years of product use are calculated based on data obtained by various surveys.
Energy consumption in operation	MWh	4,600,700	4,971,856	4,676,500	Purchased or obtained electricity, gases, fuels and heat.
Non-renewable energy	MWh	4,599,700	4,966,300	4,664,300	Renewable energy is the purchased electricity generated by renewable energy power plants or Non-fossil certificates.
Renewable energy	MWh	1,000	5,556	12,200	
Renewable energy ratio	%	0.02	0.10	0.30	
CO_2 emissions from energy use per gigabyte (vs. FY2017)*	%	—	44.3	49.9	CO_2 emissions from energy use in manufacturing process. Ratio per product capacity (annual) versus FY2017.
Contribution of PFCs abatement equipment to Scope 1 emission levels accumulated figure from FY2017	t-CO_2	3,805,779	4,418,023	4,576,596	
Reduction of energy consumption by products per 1GB data processing (vs. FY2017)	%	19	27	31	
Environmental Consideration					
Wastes generated	t	105,737	101,604	85,765	Total weight of industrial and general wastes generated.
Recycled wastes	t	75,025	72,932	64,331	Weight of wastes generated that was collected and reused, including valuables.
Recycled plastic wastes*	t	2,545	2,430	2,027	Weight of wasted plastic products that are collected and recycled as resources.
Hazardous chemical substances*	t	13,375	12,841	9,849	"Weight of specially controlled industrial waste" under Japan's "Act on Waste Management and Public Cleansing"(Waste Disposal and Cleaning Act).
Recycled hazardous chemical substances*	t	12,233	11,194	8,792	Weight of hazardous wastes generated that was collected and reused.
Waste per gigabyte (vs. FY2017)*	%	—	40.4	43.0	Ratio per product capacity (annual) during manufacturing versus FY2017.
Waste per gigabyte including valuables (vs. FY2017)*	%	—	42.8	45.0	Ratio per product capacity (annual) during manufacturing versus FY2017.
Water intake	km³	24,488	25,275	24,737	Excludes conserved water. Total City water (fresh water) and Industrial water.
City water	km³	71	122	64	
Industrial water	km³	24,417	25,153	24,673	
Recycled water	km³	30,232	33,196	34,782	
Waste water	km³	18,445	18,923	18,381	
Public drainage (rivers)	km³	13,405	12,390	11,181	
Public drainage (ocean area)	km³	2,827	3,850	4,433	
Public drainage	km³	2,213	2,683	2,767	
Water intake per gigabyte (vs. FY2017)*	%	—	42.1	51.3	Ratio per product capacity (annual) during manufacturing versus FY2017.
Release of chemical substances	t	625	535	424	
Release of chemical substances per gigabyte (vs. FY2017)*	%	—	21.4	21.5	Ratio per product capacity (annual) during manufacturing versus FY2017.
Release of volatile organic compounds (VOC)	t	583	495	378	Volatile organic compounds. Causative agents of photochemical oxidants that cause photochemical smog, such as IPA, butyl acetate, and cyclohexanone.
Pollutant release (PRTR)*	t	2	2	13	Amount of hazardous chemical substances (water-soluble compounds of zinc, 2-aminoethanol, silver and its water-soluble compounds, etc.) released and transferred from workplaces (in Japan) under Pollutant Release and Transfer Register (Japan).
Release of NOx	t	26.6	32.5	35.8	
Release of SOx	t	0	0	0	
Environmental incidents (Regulatory violation)	number	0	0	0	

Performance data (Social)

· "Kioxia Group in Japan" covers Kioxia Holdings Corporation and its consolidated subsidiaries in Japan. "Kioxia Corporation" includes employees seconded to Kioxia Holdings Corporation.
· Due to changes in the data aggregation system, the classification of some items has been revised, and some data may differ between the Sustainability Report, Year ended March 31, 2023 and this report.

Index	Scope		Unit	FY2021	FY2022	FY2023	Remarks
Diversity							
Number of employees	Kioxia Group	total	person	14,199	15,231	15,249	As of end of March, each fiscal year.
	Kioxia Group in Japan	total	person	12,056	13,137	13,361	
		(temporary employees)	person	200	279	211	
		male	person	10,924	11,823	11,977	
		female	person	1,132	1,314	1,384	
	Kioxia Corporation	total	person	10,257	10,697	10,720	
		(temporary employees)	person	177	147	82	
		male	person	9,306	9,667	9,656	
		female	person	951	1,030	1,064	
Number of employees by region	Japan		person	12,064	13,137	13,361	As of end of March, each fiscal year.
	Asia (except Japan)		person	1,437	1,448	1,322	
	other		person	698	646	566	
Number of employees by age groups	Kioxia Group in Japan	ages below 30	person	2,250	2,754	3,065	As of end of March, each fiscal year.
		ages 30-39	person	2,101	2,110	2,015	
		ages 40-49	person	3,840	3,796	3,466	
		ages 50-59	person	3,462	3,920	4,124	
		ages over 60	person	403	557	691	
	Kioxia Corporation	ages below 30	person	1,673	2,000	2,193	
		ages 30-39	person	1,898	1,798	1,704	
		ages 40-49	person	3,374	3,217	2,892	
		ages 50-59	person	2,969	3,241	3,391	
		ages over 60	person	343	441	540	
Average Length of service	Kioxia Group in Japan	total	year	—	—	16.7	As of end of March, each fiscal year. The results for FY2022 are for regular employees, and the results for FY2023 are for all employees, including temporary employees.
		male		—	—	17.3	
		female		—	—	11.4	
	Kioxia Corporation	total	year	—	17.2	17.5	
		male		—	17.7	18.0	
		female		—	12.2	13.0	
Ratio of female employees	Kioxia Group		%	14.1	14.0	14.0	As of end of March, each fiscal year.
	Kioxia Group in Japan			9.4	10.0	10.4	
	Kioxia Corporation			9.3	9.6	9.9	
Number of Female Managers (from FY2019)	Kioxia Group in Japan	total	person	—	—	2,245	Female Managers as of end of March, each fiscal year. (based on FY2019).
		male		—	—	2,147	
		female		—	—	98	
	Kioxia Corporation	total	person (times)	—	—	1,976	
		male		—	—	1,882	
		female		78(1.59)	89(1.82)	94(1.92)	
Female ratio in managers	Kioxia Group in Japan		%	—	4.3	4.4	As of end of March, each fiscal year.
	Kioxia Corporation		%	—	4.5	4.8	
Female ratio in directors	Kioxia Group in Japan		%	0	4.5	3.8	As of end of March, each fiscal year.
	Kioxia Corporation		%	0	0	0	
Wage gap between male and female	Kioxia Corporation	total employees	%	—	77.8	79.7	As of end of March, each fiscal year.
		regular employees	%	—	77.7	79.4	
		(temporary employees)	%	—	90.3	116.8	
Number of new graduates recruits: new graduates (ratio)	Kioxia Group in Japan	total employees	person	369	368	454	Regular employees with a college or graduate degree in each year.
		male	person (%)	315(85.4)	309(84.0)	403(88.8)	
		female	person (%)	54(14.6)	59(16.0)	51(11.2)	
	Kioxia Corporation	total	person	298	303	379	
		administrative: male	person (%)	8(40.0)	7(46.7)	15(62.5)	
		administrative :female	person (%)	12(60.0)	8(53.3)	9(37.5)	
		technical: male	person (%)	246(88.5)	250(86.8)	324(91.3)	
		technical: female	person (%)	32(11.5)	38(13.2)	31(8.7)	
Number of mid-career recruits (ratio)	Kioxia Group in Japan	total	person	363	419	54	Regular employees in each year.
		male	person (%)	314(86.5)	360(85.9)	41(75.9)	
		female	person (%)	49(13.5)	59(14.1)	13(24.1)	
	Kioxia Corporation	total	person	280	282	25	
		male	person (%)	236(84.3)	241(85.5)	16(64.0)	
		female	person (%)	44(15.7)	41(14.5)	9(36.0)	
Percentage of recruits (people with disabilities)	Kioxia Group in Japan		%	1.63	2.37	2.44	As of end of March, each fiscal year.
Turnover rate	Kioxia Corporation	total	%	1.80	2.21	5.16	Resignation of a regular employee for personal reasons.
		male	%	1.70	2.03	5.14	
		female	%	2.70	3.95	5.38	
Total working hours per employees	Kioxia Corporation		hour	—	2,070	1,920	
Total non-scheduled working hours per employees			hour	—	390	264	Since the scheduled working hours at Kioxia Corporation are 7 hours and 45 minutes, hours in excess of these hours are counted as non-scheduled working hours.
Number of paid leave days take	Kioxia Corporation		day	18.1	18.4	20.3	
Percentage of paid annual leave take	Kioxia Corporation		%	75.7	77.1	84.9	
Percentage of childcare leave take	Kioxia Corporation	male	person	—	30	44	Number of male employees who took childcare leave etc. / Number of male employees whose spouses gave birth (regular employees) in each fiscal year.
Number of family care leave take	Kioxia Group in Japan	male	person	—	—	6	
		female		—	—	0	
	Kioxia Corporation	male	person	—	—	4	
		female		—	—	0	
Labor union membership ratio	Kioxia Corporation		%	81.6	81.3	80.6	Percentage of regular employees (as of the end of March, fiscal year). Of the aforementioned employees, those who are managers and supervisors under the Labor Standards Law and those who are stipulated as non-union members in the collective labor agreement are not union members.
Talent Development							
Number of employees who takes selective or mandatory training program	Kioxia Group in Japan		person	98,239	115,070	123,120	
Total hours of selective or mandatory training program			hour	118,435	137,075	153,153	
Number of employees who takes self-development training program			person	1,934	1,346	1,375	
Total hours of self-development training program			hour	1,396	1,422	1,322	
Ratio of participants of employee engagement survey	Kioxia Group		%	92	89	—	

Health and Safety						
Lost time accident	Kioxia Group in Japan	number	10	3	5	
Days lost by accident		day	545	12	231	
Frequency rate: Frequency of injuries per 1,000,000 working hours		point	0.30	0.08	0.15	
Severity rate: Number of lost days by accident per 1,000 working hours		point	0.02	0.00	0.01	
Number of death by accident		number	0	0	0	
Percentage of annual health check-ups taken	Kioxia Corporation	%	100	100	100	
Percentage of employee where abnormal findings were uncovered during health check-ups		%	33.2	31.1	31.9	
Percentage of employee who received thorough examinations after annual health check-ups		%	—	39.4	79.2	
Percentage of employee receiving health guidance		%	—	68.4	100.0	
Percentage of employee with metabolic syndrome (aged 40 and over)		%	20.6	19.0	20.2	
Employees with appropriate body weight (BMI of between 18.5 and 25)		%	61.0	61.7	62.6	
Percentage of employees with good fitness habits (at least 5,000 steps per day)		%	35.5	36.7	44.4	
Percentage of employees achieving sufficient sleep		%	73.6	75.2	72.9	
Smokers		%	23.2	20.8	21.6	
Employees undergoing stress check examinations		%	96.8	95.7	97.2	
Employees suffering from stress (based on company standards)		%	4.8	5.0	4.4	The percentage of employees identified as having high stress levels during stress checks (based on company-devised standards).
Percentage of employees absent from work due to mental illness for one month or more		%	—	1.24	1.29	
Absenteeism		%	—	10.6	9.2	The percentage of employees who took 8 or more days off due to illness or health-related issues.
Presenteeism		%	—	85.7	84.7	A self-assessment of work performance over the past four weeks, with 100% being the performance achievable when not experiencing illness or injury.
Work engagement		point	—	—	2.45	Average scores based on respondents' level of agreement with the following two statements: "I feel energized when I am working" and "I take pride in my work" during stress checks. Responses were scored as follows: Strongly Agree: 4 points, Agree: 3 points, Disagree: 2 points, Strongly Disagree: 1 point.
Health literacy		point	—	3.46	3.48	The average score using the Communicative and Critical Health Literacy scale.
Job satisfaction		point	—	2.23	2.29	Average scores based on respondents' level of agreement with the statement "I am satisfied with my job" during stress checks. Responses were scored as follows: Strongly Agree: 1 point, Agree: 2 points, Disagree: 3 points, Strongly Disagree: 4 points.
Respect for human right						
Percentage of human right training program (basic) taken	Kioxia Group in Japan	%	100	100	100	
Sustainable supply chain						
Number of RBA assessment taken in our facilities (coverage ratio)	Kioxia Group	facility (%)	3(100)	3(100)	3(100)	
Quality Control						
Number of serious quality incidents	Kioxia Corporation	number	0	0	0	

Performance data (Governance)

"Kioxia Group in Japan" covers Kioxia Holdings Corporation and its consolidated subsidiaries in Japan.
"Kioxia Corporation" includes employees seconded to Kioxia Holdings Corporation.

Index	Scope	Unit	FY2021	FY2022	FY2023
Risk/Compliance					
Percentage of compliance training program (basic course) taken	Kioxia Group in Japan	%	100	100	100
Number of reports received through the "Risk Hotline" for employees	Kioxia Group	number	158	239	217
Number of reports received through the "Business Partner Hotline"	Kioxia Corporation	number	1	0	4
Information security					
Number of serious leakage incidents of confidential information	Kioxia Group	number	0	0	0
Number of serious incidents associated with product vulnerabilities	Kioxia Group	number	0	0	0

GRI Content Index

This report is prepared in reference to the Global Reporting Initiative (GRI) Sustainability Reporting Standards.

GRI 2: General Disclosures 2021

1. The organization and its reporting practices

Content Index	Disclosure	Location
2-1	Organizational details	> Company Information
2-2	Entities included in the organization's sustainability reporting	> Global Network
2-3	Reporting period, frequency and contact point	> Sustainability Reporting Policy > Contact Us
2-4	Restatements of information	-
2-5	External assurance	> Third-party Verification > Performance Data

2. Activities and workers

Content Index	Disclosure	Location
2-6	Activities, value chain, and other business relationships	> Company Information > Major Sustainability Issues and Initiatives in the Value Chain > Stakeholder Engagement > Sustainable Supply Chain
2-7	Employees	> Company Information > Diversity Promotion > Performance Data
2-8	Workers who are not employees	> Performance Data

3. Governance

Content Index	Disclosure	Location
2-9	Governance structure and composition	› Sustainability Management › Corporate Governance
2-10	Nomination and selection of the highest governance body	-
2-11	Chair of the highest governance body	› Corporate Governance
2-12	Role of the highest governance body in overseeing the management of impacts	› Sustainability Management › Corporate Governance › Risk and Compliance › Environmental Management › Respect for Human Rights
2-13	Delegation of responsibility for managing impacts	› Risk and Compliance › Environmental Management › Respect for Human Rights › Sustainable Supply Chain
2-14	Role of the highest governance body in sustainability reporting	› Corporate Governance › Sustainability Management › Environmental Management
2-15	Conflicts of interest	› Kioxia Group Standards of Conduct
2-16	Communication of critical concerns	› Risk and Compliance › Environmental Management › Climate Change › Respect for Human Rights › Sustainable Supply Chain
2-17	Collective knowledge of the highest governance body	› Sustainability Management › Corporate Governance
2-18	Evaluation of the performance of the highest governance body	-
2-19	Remuneration policies	-
2-20	Process to determine remuneration	-
2-21	Annual total compensation ratio	-

4. Strategy, policies and practices

Content Index	Disclosure	Location
2-22	Statement on sustainable development strategy	> Messages from the Management > Messages to Stakeholders
2-23	Policy commitments	> Mission & Vision > Standards of Conduct / Policies > Kioxia Group Initiatives in Support the Achievement of SDGs > Environment > Social > Governance
2-24	Embedding policy commitments	> Sustainability Management > Environment > Respect for Human Rights > Health and Safety > Sustainable Supply Chain > Quality Control > Supporting Local Community Development > Corporate Governance > Risk and Compliance > Information Security
2-25	Processes to remediate negative impacts	> Major Sustainability Issues and Initiatives in the Value Chain > Environment > Respect for Human Rights > Health and Safety > Sustainable Supply Chain > Quality Control > Risk and Compliance
2-26	Mechanisms for seeking advice and raising concerns	> Risk and Compliance > Respect for Human Rights
2-27	Compliance with laws and regulations	> Risk and Compliance > Environment > Quality Control > Performance Data
2-28	Membership associations	> Sustainability Management > Climate Change > Respect for Human Rights > Sustainable Supply Chain

5. Stakeholder engagement

Content Index	Disclosure	Location
2-29	Approach to stakeholder engagement	> Stakeholder Engagement
2-30	Collective bargaining agreements	> Stakeholder Engagement > Performance Data

GRI 3: Material Topics 2021

Content Index	Disclosure	Location
3-1	Process to determine material topics	› Messages to Stakeholders › Sustainability Materiality
3-2	List of material topics	› Sustainability Materiality
3-3	Management of material topics	› Sustainability Management › Environmental Management › Climate Change › Respect for Human Rights › Health and Safety › Sustainable Supply Chain › Risk and Compliance

Economic

GRI 201: Economic Performance 2016

Content Index	Disclosure	Location
201-1	Direct economic value generated and distributed	› Supporting Local Community Development
201-2	Financial implications and other risks and opportunities due to climate change	› Climate Change
201-3	Defined benefit plan obligations and other retirement plans	› Diversity Promotion
201-4	Financial assistance received from government	-

GRI 202: Market Presence 2016

Content Index	Disclosure	Location
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	-
202-2	Proportion of senior management hired from the local community	-

GRI 203: Indirect Economic Impacts 2016

Content Index	Disclosure	Location
203-1	Infrastructure investments and services supported	› Supporting Local Community Development
203-2	Significant indirect economic impacts	-

GRI 204: Procurement Practices 2016

Content Index	Disclosure	Location
204-1	Proportion of spending on local suppliers	› Sustainable Supply Chain

GRI 205: Anti-corruption 2016

Content Index	Disclosure	Location
205-1	Operations assessed for risks related to corruption	› Risk and Compliance
205-2	Communication and training about anti-corruption policies and procedures	› Risk and Compliance
205-3	Confirmed incidents of corruption and actions taken	› Risk and Compliance

GRI 206: Anti-competitive Behavior 2016

Content Index	Disclosure	Location
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	> Risk and Compliance

GRI 207: Tax 2019

Content Index	Disclosure	Location
207-1	Approach to tax	> Risk and Compliance
207-2	Tax governance, control, and risk management	> Risk and Compliance
207-3	Stakeholder engagement and management of concerns related to tax	> Risk and Compliance
207-4	Country-by-country reporting	> Risk and Compliance

Environmental

GRI 301: Materials 2016

Content Index	Disclosure	Location
301-1	Materials used by weight or volume	-
301-2	Recycled input materials used	> Effective Use of Water Resources > Current Status of Environmental Impact and Environmental Targets and Outcomes > Reducing Environmental Impact
301-3	Reclaimed products and their packaging materials	> Current Status of Environmental Impact and Environmental Targets and Outcomes > Reducing Environmental Impact

GRI 302: Energy 2016

Content Index	Disclosure	Location
302-1	Energy consumption within the organization	> Climate Change > Performance Data
302-2	Energy consumption outside of the organization	> Climate Change > Performance Data
302-3	Energy intensity	> Climate Change > Performance Data
302-4	Reduction of energy consumption	> Climate Change > Performance Data
302-5	Reductions in energy requirements of products and services	> How We Reduce the Impact of Our Products on the Environment

GRI 303: Water and Effluents 2018

Content Index	Disclosure	Location
303-1	Interactions with water as a shared resource	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Effective Use of Water Resources
303-2	Management of water discharge-related impacts	› Effective Use of Water Resources
303-3	Water withdrawal	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Effective Use of Water Resources › Performance Data
303-4	Water discharge	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Biodiversity Preservation › Performance Data
303-5	Water consumption	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Effective Use of Water Resources › Performance Data

GRI 304: Biodiversity 2016

Content Index	Disclosure	Location
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	› Biodiversity Preservation
304-2	Significant impacts of activities, products, and services on biodiversity	-
304-3	Habitats protected or restored	› Biodiversity Preservation
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	-

GRI 305: Emissions 2016

Content Index	Disclosure	Location
305-1	Direct (Scope 1) GHG emissions	› Climate Change › Performance Data
305-2	Energy indirect (Scope 2) GHG emissions	› Climate Change › Performance Data
305-3	Other indirect (Scope 3) GHG emissions	› Climate Change › Performance Data
305-4	GHG emissions intensity	› Climate Change › Performance Data
305-5	Reduction of GHG emissions	› Climate Change › Performance Data
305-6	Emissions of ozone-depleting substances (ODS)	-
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Performance Data

GRI 306: Waste 2020

Content Index	Disclosure	Location
306-1	Waste generation and significant waste-related impacts	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Reducing Environmental Impact › Performance Data
306-2	Management of significant waste-related impacts	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Reducing Environmental Impact › Performance Data
306-3	Waste generated	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Reducing Environmental Impact › Performance Data
306-4	Waste diverted from disposal	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Reducing Environmental Impact › Performance Data
306-5	Waste directed to disposal	› Current Status of Environmental Impact and Environmental Targets and Outcomes › Reducing Environmental Impact › Performance Data

GRI 308: Supplier Environmental Assessment 2016

Content Index	Disclosure	Location
308-1	New suppliers that were screened using environmental criteria	› Sustainable Supply Chain
308-2	Negative environmental impacts in the supply chain and actions taken	› Sustainable Supply Chain

Social

GRI 401: Employment 2016

Content Index	Disclosure	Location
401-1	New employee hires and employee turnover	› Diversity Promotion › Performance Data
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	-
401-3	Parental leave	› Diversity Promotion › Performance Data

GRI 402: Labor/Management Relations 2016

Content Index	Disclosure	Location
402-1	Minimum notice periods regarding operational changes	-

GRI 403: Occupational Health and Safety 2016

Content Index	Disclosure	Location
403-1	Occupational health and safety management system	› Health and Safety
403-2	Hazard identification, risk assessment, and incident investigation	› Health and Safety
403-3	Occupational health services	› Health and Safety
403-4	Worker participation, consultation, and communication on occupational health and safety	› Health and Safety
403-5	Worker training on occupational health and safety	› Health and Safety
403-6	Promotion of worker health	› Health and Safety
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	› Health and Safety
403-8	Workers covered by an occupational health and safety management system	› Health and Safety
403-9	Work-related injuries	› Health and Safety › Performance Data
403-10	Work-related ill health	› Health and Safety › Performance Data

GRI 404: Training and Education 2016

Content Index	Disclosure	Location
404-1	Average hours of training per year per employee	› Talent Development
404-2	Programs for upgrading employee skills and transition assistance programs	› Talent Development
404-3	Percentage of employees receiving regular performance and career development reviews	› Talent Development

GRI 405: Diversity and Equal Opportunity 2016

Content Index	Disclosure	Location
405-1	Diversity of governance bodies and employees	› Management › Diversity Promotion › Performance Data
405-2	Ratio of basic salary and remuneration of women to men	› Performance Data

GRI 406: Non-discrimination 2016

Content Index	Disclosure	Location
406-1	Incidents of discrimination and corrective actions taken	› Risk and Compliance › Respect for Human Rights

GRI 407: Freedom of Association and Collective Bargaining 2016

Content Index	Disclosure	Location
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	› Stakeholder Engagement › Sustainable Supply Chain

GRI 408: Child Labor 2016

Content Index	Disclosure	Location
408-1	Operations and suppliers at significant risk for incidents of child labor	❯ Respect for Human Rights ❯ Sustainable Supply Chain

GRI 409: Forced or Compulsory Labor 2016

Content Index	Disclosure	Location
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	❯ Respect for Human Rights ❯ Sustainable Supply Chain

GRI 410: Security Practices 2016

Content Index	Disclosure	Location
410-1	Security personnel trained in human rights policies or procedures	❯ Respect for Human Rights

GRI 411: Rights of Indigenous Peoples 2016

Content Index	Disclosure	Location
411-1	Incidents of violations involving rights of indigenous peoples	N/A

GRI 413: Local Communities 2016

Content Index	Disclosure	Location
413-1	Operations with local community engagement, impact assessments, and development programs	❯ Supporting Local Community Development ❯ Biodiversity Preservation
413-2	Operations with significant actual and potential negative impacts on local communities	N/A

GRI 414: Supplier Social Assessment 2016

Content Index	Disclosure	Location
414-1	New suppliers that were screened using social criteria	❯ Sustainable Supply Chain
414-2	Negative social impacts in the supply chain and actions taken	❯ Sustainable Supply Chain

GRI 415: Public Policy 2016

Content Index	Disclosure	Location
415-1	Political contributions	❯ Risk and Compliance

GRI 416: Customer Health and Safety 2016

Content Index	Disclosure	Location
416-1	Assessment of the health and safety impacts of product and service categories	❯ Quality Control
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	❯ Quality Control

GRI 417: Marketing and Labeling 2016

Content Index	Disclosure	Location
417-1	Requirements for product and service information and labeling	› Quality Control › How We Reduce the Impact of Our Products on the Environment
417-2	Incidents of non-compliance concerning product and service information and labeling	-
417-3	Incidents of non-compliance concerning marketing communications	-

GRI 418: Customer Privacy 2016

Content Index	Disclosure	Location
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	› Information Security

SASB Content Index

Greenhouse Gas Emissions

Accounting Metric	(1) Gross global Scope1 emissions and (2) amount of total emissions from perfluorinated compounds
Code	TC-SC-110a.1
Kioxia Metric/Qualitative Disclosure	(1) Scope 1 (Direct emissions): 410,400t-CO_2 (2) 320,600t-CO_2
Location	❯ Greenhouse Gas Emissions Across Entire Value Chain

Accounting Metric	Discussion of long-term and short-term strategy or plan to manage Scope1 emissions, emissions reduction targets, and an analysis of performance against those targets
Code	TC-SC-110a.2
Kioxia Metric/Qualitative Disclosure	In April 2023, Kioxia Group announced that by FY2050, the Group aims to achieve net-zero Scope1 greenhouse gas emissions (direct emissions from our business sites) and Scope2 emissions (indirect emissions from our use of purchased energy) across our global operations. Regarding direct emissions from our manufacturing sites, since 2011 we have installed abatement equipment in 100% of our targeted facilities, aiming to eliminate during our manufacturing processes the emission of PFCs with high global warming potential. In addition, we are working with suppliers of abatement equipment to improve the performance of abatement equipment. The number of detoxification equipment installed from 2020 to 2023 will exceed 145 units per year on average, and the cumulative effect of detoxification since FY2017 will be 4.57 million t-CO_2. Furthermore, we have improved the efficiency of operations through the introduction of online monitoring via the Internet of Things (IoT) and have started using carbon-neutral city gas. We have additionally set a target of procuring 100% of our energy from renewable sources by FY2040. Since January 2023, we have installed three solar power generation systems at our Kitakami and Yokkaichi plants, the largest of their kind at any semiconductor plant in Japan (based on our own research, as of November 2023), and the third generation system commenced its operation in July 2024. While we continue to expand the use of these systems, we are also moving forward with the procurement of non-fossil certificates to boost our use of renewable energy.
Location	❯ Climate Change

Energy Management in Manufacturing

Accounting Metric	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable
Code	TC-SC-130a.1
Kioxia Metric/Qualitative Disclosure	(1) 4,676,500MWh (2) 96.5% (3) 0.3%
Location	❯ Achievements in the areas of energy consumption and greenhouse gas emissions

Water Management

Accounting Metric	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress
Code	TC-SC-140a.1

Kioxia Metric/Qualitative Disclosure	(1) Total water withdrawn: 24,737 thousand ㎥
	   (city water: 64 thousand ㎥ and industrial water: 24,673 thousand ㎥)
	(2) Total water consumed: 6,356 thousand ㎥
	   Percentage of each in regions with High or Extremely High Baseline Water Stress: 0%
	
	Kioxia Group has commissioned external experts to evaluate water-related risks from the perspective of current and future water supply and demand risks; these are assessed using tools such as the World Resources Institute's WRI Aqueduct and the Water Risk Filter. We use these assessments to analyze risks such as water stress levels and seasonal variations in water supplies through the year 2040 in order to understand the potential impact on our business activities.
	
	The outcome of the assessment of our Group's manufacturing plants was confirmation that they are not exposed to any water risk likely to have practical financial or strategic impact prior to the year 2040. This assessment was based on investigations into such areas as water supply and demand risks (driven by seasonal changes, the frequency of droughts, water storage capacity and water source protection levels), the risk of water-related disasters such as flooding or landslides, and regional vulnerability to water pollution that might endanger public health or ecosystems.

Location	❯ Current Status of Environmental Impact

Waste Management

Accounting Metric	Amount of hazardous waste from manufacturing, percentage recycled
Code	TC-SC-150a.1
Kioxia Metric/Qualitative Disclosure	(1) Wastes generated amount: 9,849t (2) Recycled rate: 89% The above hazardous wastes are aggregated as "specially-controlled industrial wastes" under the Waste Management and Public Cleansing Act in Japan.
Location	❯ Current Status of Environmental Impact

Employee Health & Safety

Accounting Metric	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards
Code	TC-SC-320a.1
Kioxia Metric/Qualitative Disclosure	Since January 2021, Kioxia Group has been pursuing the acquisition of occupational health and safety management systems certification (ISO 45001:2018) for its manufacturing and R&D sites. As it moves to comply with the requirements for this certification, Kioxia Group is making efforts to continuously reduce health and safety risks through risk assessment and compliance with relevant laws and regulations, and is making its health and safety management measures more visible.
Location	❯ OHS Management System

Accounting Metric	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations
Code	TC-SC-320a.2
Kioxia Metric/Qualitative Disclosure	-
Location	-

Recruiting & Managing a Global & Skilled Workforce

Accounting Metric	Percentage of employees that are (1) foreign nationals and (2) located offshore
Code	TC-SC-330a.1
Kioxia Metric/Qualitative Disclosure	The Kioxia Group operates globally and employs people of many different nationalities. With offices in 10 countries and regions, the Kioxia Group has 1,776 employees working at our overseas locations (excluding those temporarily dispatched from Kioxia Group in Japan). Kioxia Group in Japan employs 155 non-Japanese people from 15 countries and regions (As of March 31, 2024).
Location	❯ Diversity Promotion

Accounting Metric	Percentage of employee engagement
Code	TC-SI-330a.2
Kioxia Metric/Qualitative Disclosure	Kioxia Group regularly conducts employee engagement surveys as a starting point from which to enhance employee engagement and revitalize the organization. The survey results are used in conjunction with opinions voiced separately by employees to identify any problem areas, and formulate and implement measures to resolve these. In FY2022, we conducted an anonymous worldwide survey targeting about 14,000 employees and received responses from 89% of them. The results of these surveys are shared with the President & CEO, Executive Officers and department heads and are utilized to help improve employee engagement. In FY2023, we provided feedback to employees on the results of the previous survey and implemented measures to address issues identified in the survey.
Location	❯ Employee Engagement Survey

Product Lifecycle Management

Accounting Metric	Percentage of products by revenue that contain IEC 62474 declarable substances
Code	TC-SC-410a.1
Kioxia Metric/Qualitative Disclosure	-
Location	-

Accounting Metric	Processor energy efficiency at a system-level for: (1) servers, (2) desktops, and (3) laptops
Code	TC-SC-410a.2
Kioxia Metric/Qualitative Disclosure	-
Location	-

Materials Sourcing

Accounting Metric	Description of the management of risks associated with the use of critical materials
Code	TC-SC-440a.1
Kioxia Metric/Qualitative Disclosure	Kioxia Group has been promoting the responsible minerals sourcing based on the Kioxia Group Responsible Minerals Procurement Policy. Our policy stipulates that Kioxia Group will prohibit use as raw materials of tin, tantalum, tungsten, gold and cobalt obtained from the Democratic Republic of the Congo or neighboring countries and other conflict-afflicted and high-risk areas (commonly known as CAHRAs) where inhumane acts such as human trafficking, slavery, forced labor, child labor, abuse, or war crimes are suspected.
Location	❯ Responsible Minerals Sourcing

Intellectual Property Protection & Competitive Behavior

Accounting Metric	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations
Code	TC-SC-520a.1
Kioxia Metric/Qualitative Disclosure	-
Location	-

Third-party Verification

Updated in February 2025

In order to improve the reliability of this report, Kioxia Group requested the Japan Audit & Certification Organization for Environment & Quality to provide third-party verification of its greenhouse gas emissions information. The following are FY2023 results, which were verified in FY2024.

1. Scope of the verification: Greenhouse gas emissions generated in five sites of Kioxia Corporation and its subsidiaries (Scope1, 2 and 3)

2. Period:
   FY2023 (April 1, 2023 to March 31, 2024)

3. Verified greenhouse gas emissions:
   Scope1: 410,400t-CO_2
   Scope2: 1,870,400t-CO_2
   Scope3:
   Category 1: 4,596,026t-CO_2
   Category 2: 617,730t-CO_2
   Category 3: 340,479t-CO_2
   Category 4: 6,343t-CO_2
   Category 5: 26,472t-CO_2
   Category 6: 1,414t-CO_2
   Category 7: 12,209t-CO_2
   Category 11: 460,014t-CO_2

▶ Independent verification report by Japan Audit Certification Organization for Environment and Quality (PDF : 156KB)

KIOXIA

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