Environment

Environment

Environmental Management

Sysmex Eco-Vision 2033

“Sysmex Eco-Vision 2033” Formulated

In May 2023, Sysmex formulated “Sysmex Eco-Vision 2033.” We will collaboratively create innovative solutions that will advance the realization of a circular society by taking on the challenge of green innovation with stakeholders and utilizing Sysmex’s strengths. Furthermore, we have set targets for reducing our own greenhouse gas emissions to become carbon neutral by 2040. The targets also include reducing water consumption, waste, as well as for increasing the recycling rate.

Long-Term Environmental Vision

Long-Term Environmental Vision

Recognizing the relationship between the environment and health, we will collaboratively create innovative solutions that will advance the realization of a circular society.

We will transform the value chain into a resource-recycling one by utilizing our strengths to have both instruments and reagents.

We will develop and provide products, services, and solutions to reduce environmental impact.

We will collaborate with stakeholders and take on the challenge of green innovation. We will reduce product loss to zero and promote significant adoption of recycled and environmentally friendly materials.

We will promote CO_2 reduction to achieve carbon neutrality by 2040*. We will work on resource recycling and biodiversity preservation in a unique way, and significantly improve the efficiency of water use and expand the use of raw materials derived from non-animal sources.

We will encourage local environmental conservation activities and contribute to a recycling-oriented society as Sysmex Group.

*Applies to Scope 1 emissions, which are direct emissions of greenhouse gases from the consumption of fuel that the company owns or controls; and Scope 2 emissions, which are indirect emissions of greenhouse gases from the consumption of electricity and heat purchased by the company

Long-Term Environmental Objectives

Long-Term Environmental Objectives

climate change

We will reduce our own **greenhouse gas emissions (Scope 1,2)** by **55%*** by reducing energy consumption per capita and increasing the **ratio of renewable energy** to total energy consumption to over **90%**.

We will reduce our **supply chain greenhouse gas emissions (Scope 3)** by **35%*** by making our products more energy efficient and compact and by innovating our supply chain management.

water

We will reduce **water consumption** by **90 point* per reagent production volume** at our major reagent production sites through more efficient water use.
We will also work to reduce water consumption during instrument use.

resource circulation

We will achieve zero waste of unused in-house products.
We will also reduce **total waste per net sales** by **15%**.*

We will achieve **use rate of recycling and environmentally friendly materials for containers and packaging** by **100%**.
We will also reduce plastic consumption by revising product packaging and utilizing alternative raw materials.

biodiversity

We will expand our lineup of products made from non-animal-derived raw materials.

* The targets of fiscal 2033, taking fiscal 2022 as the base year

Declaration of Achieving Carbon Neutrality by 2040

Sysmex has set new “Carbon Neutral Targets” with the aim of achieving zero emissions of greenhouse gases in real terms from the offices of the entire Sysmex Group by 2040.※1 We will continue to promote optimization of our operations and energy-saving measures. At the same time, we will implement measures to reduce greenhouse gas emissions, including a gradual switching to renewable energy-sourced electricity at our business offices.※2

In addition, we will set targets for 2033 based on SBT (Science Based Targets),※3 and engage in activities to reduce greenhouse gas emissions from supply chains in addition to those from our business offices.

※1 Applies to direct greenhouse gas emissions due to use of fuel by the company (Scope 1) and indirect greenhouse gas emissions arising from the use of electricity and heat purchased by the company (Scope 2)

※2 Excluding small business locations such as properties rented for sales offices

※3 Targets for reduction of greenhouse gas emissions with a scientific evidence, consistent with levels set out in the Paris Agreement. We will set targets in fiscal 2023.

Information Disclosure Based on TCFD

In recent years, climate change has begun to pose a major risk to financial markets. In December 2015, the Financial Stability Board, an international organization tasked with fostering financial system stability, established the Task Force on Climate-related Financial Disclosures (TCFD). In June 2017, the TCFD issued final recommendations for companies to follow in disclosing the impact of climate-related risks and opportunities on their corporate finances.

In January 2021, Sysmex expressed its support for the TCFD recommendations. We carry out information disclosure based on the TCFD framework.

1. Governance

Sysmex understands that global environmental issues such as climate change require a high-priority response. We drew up Global Environmental Management Regulations to clarify the responsibilities and roles of each Group company. Under the oversight and management of the environmental management officer (a senior executive officer), appointed by the CEO, we engage in environmental management initiatives as a Group, centered on the Environmental Management Committee. The Committee supervises environmental activities within the Group, among them reducing CO_2 emissions, and discusses environmental issues including climate change. The Committee reports and makes proposals at Managing Board meetings. We have integrated environmental objectives into the Group Management Plan as sustainability targets, and report to the Managing Board meetings semiannually on the progress made.

2. Strategy

Adding to the 2-degree scenario implemented in 2020, Sysmex has upgraded the strategy to incorporate a 1.5-degree scenario※1 and re-evaluated the associated risks and opportunities. Regarding the financial impact of identified climate-related risks and opportunities on the business of the whole group※2, we have evaluated according to 3 grades based on the impact on operating profit in FY2033. For the 1.5-degree scenario, the impacts of market risk and reputational risk were evaluated as relatively high. For the 4-degree scenario※3, the impacts of physical risks such as natural disasters were seen as relatively high, and regarding opportunities, resource efficiency, products and services and resilience were analyzed as having relatively high impacts.

※1 IEA 1.5DS Scenario, IPCC RCP2.6, etc. Scenarios assuming that increase in global average temperature will be kept below 1.5℃ compared to pre-industrial levels by taking strict measures against climate change

※2 The analysis was conducted not only for the Group but for the entire supply chain including upstream (raw materials, distribution, etc.) and downstream (use of products, etc.)

※3 IPCC-RCP8.5, etc. Scenarios assuming that increase in global average temperature will be kept below 4℃ compared to pre-industrial levels by maintaining present measures against climate change.

3. Risk Management

Within the risk management system for the Group overall, we conduct an exhaustive assessment of risks every year, which includes environment- and climate change-related risks, to identify those with a significant impact on the business of the Group. We have created a structure for devising measures for dealing with these risks.

In addition, the Environmental Management Committee reviews environment-related risks and opportunities, including those arising from climate change, twice a year, with the Committee and respective departments playing leading roles in taking necessary actions in response.

▶ Risk Management Structure

4. Metrics & Targets

Sysmex has issued a “Carbon Neutral Declaration” with the aim of achieving zero emissions of greenhouse gases in real terms from the Group’s business locations by 2040. Sysmex Eco-Vision 2033, the long-term environmental vision drawn up in May 2023, sets targets for reducing greenhouse gas emissions and increasing the percentage of renewable energy. To this end, we will continually make various efforts at every stage of the product lifecycle, from research and development through manufacturing and distribution to disposal.

Eco-Vision 2033

KPI		Target			
		Fiscal 2023	Fiscal 2024	Fiscal 2025	Fiscal 2033 (Eco-Vision)
Reduction of CO_2 emissions	Greenhouse gas emissions GHG Scope 1+2	Cut 30%	Cut 35%	Cut 40%	Cut 55%
	Greenhouse gas emissions GHG Scope 3	Cut 3%	Cut 5%	Cut 10%	Cut 35%
	Renewable energy rate	65%	70%	75%	90%

▶ Status of Sustainability Targets
▶ Environmental Data

Risks and Opportunities

Risks※1		Scenario	Impact period※2	Financial effect※3	Initiatives※1
Transition risks	• Product supply will become difficult as a result of the prohibition of certain substances and technologies due to regulatory changes.	1.5℃	Medium- to long-term	L	• RA/QA divisions have been established at each regional headquarters, and dedicated staff respond to the laws and regulations of each country.
	• Transition to materials and technologies with low environmental impact, including a reduction in the use of plastics, will add to R&D costs and CapEx.	1.5℃	Medium- to long-term	L	• Product and technology development is being pursued based on hospital laboratory requirements as well as market and industry trends.
	• Energy and raw material costs, as well as **global logistics** costs, will increase	1.5℃	Short- to long-term	H	• Energy saving measures and greater efficiency of equipment have been introduced. • We have introduced renewable energy. • **Reduced cross-border transportation and more efficient logistics through wider use of concentrated reagents which has better transport efficiency, as well as transfer of production**
	• Changes in customers’ environmental awareness will lead to criticism of the environmental impact of our products and reduce demand.	1.5℃	Medium- to long-term	H	• We have established a system that utilizes customer feedback for product development and quality improvement (VOC: Voice of the Customer). • **Development of environmentally-friendly products such as energy-saving and smaller-size products**
Physical risks	• Large natural disasters will make it difficult to provide a stable supply of products and services.	4℃	Short- to long-term	H	• We have formulated a business continuity plan (BCP) to disperse risks such as those associated with raw material supply, supply systems, transportation routes, and **securing safety stocks.**
	• Regional shortages of water due to drought will disrupt the stable supply of products.	4℃	Medium- to long-term	M	• We are reducing the risk by periodically monitoring water-related risks and establishing BCPs.

Opportunities		Scenario	Impact period※2	Financial effect※3	Initiatives※1
Resource Efficiency	• Optimization of use of transportation methods and operations using IoT. • Review of packaging and product design will lower raw materials costs and waste.	1.5℃	Short- to long-term	H	• **Digitization of global logistics processes** and promote CO_2 reduction through remote services. • We will save resources **and shift to plastic-free materials** by reviewing material and packaging options. • **Dry ice-free, ultra-low temperature transport**
Energy Source	• Reduction of energy costs through energy saving and shifting to low-carbon energy, which will improve social evaluation.	1.5℃	Medium- to long-term	L	• Energy saving measures and greater efficiency of equipment have been introduced. • We have introduced renewable energy.
Products and Services	• Changes in customers' environmental awareness will promote the purchasing of environmentally friendly products.	1.5℃	Medium- to long-term	M	• We continue to promote environmentally friendly product development **such as energy-saving and smaller-sized products**
	• There will be creation of new testing opportunities and expansion of demand due to long-term disease-trend changes.	4℃	Medium- to long-term	M	• We undertake new product development, such as products contributing to the eradication of malaria and other infectious diseases.
Market	• Our initiatives for climate change and disclosures will earn us a greater reputation and higher expectations in financial markets.	1.5℃	Short- to long-term	L	• We support the TCFD and disclose environmental data via the Sysmex Sustainability Data Book and other means.
Resilience	• A stable supply of products and services in the event of a natural disaster improves customer trust.	4℃	Medium- to long-term	M	• We implement a global supply system and backup system through multiple raw material procurement measures.

※1 Bold font: Changes from evaluation in 2020
※2 Short-term: 1 year; Medium-term: ~3 years; Long-term: ~10 years
※3 H: high; M: middle; L: low

Environmental Initiatives to Realize a Sustainable Society

I'm of the opinion that environmental initiatives are sources of innovation for businesses. If each business starts to think more flexibly, firmly determined to change the approaches they have been taking, I expect new technologies to develop one after another, which will drastically alter the ways we do business or manage companies, eventually changing the shape of countries and the world as a whole. After all, we all live under the same sky. I will be delighted if we can help to shape a future where businesses network with each other beyond organizational boundaries and join hands in creating a sustainable society.

Takashi Ono, Environmental Management Officer

▶ Environmental Initiatives to Realize a Sustainable Society

Environmental Management System

Group Environmental Management System

▶ "1. Governance" of Information Disclosure Based on TCFD

Promoting the Acquisition of ISO 14001 Certification

Sysmex is working toward the acquisition of ISO 14001, the international standard for environmental management systems, by the Group's principal affiliated companies.

As of March 31, 2023, 19 Group companies had acquired ISO 14001 certification, and these companies account for approximately 70% of the net sales of the Group.

By centralizing the environmental activities of certain Group companies, we are working to ascertain the state of progress on activities and issues as well as reinforcing management activities, and three companies (Sysmex Corporation, Sysmex RA, and Sysmex Medica), accounting for nine locations, have obtained integrated certification. As a result, we are now able to systematically share information related to environmental management.

Status of ISO 14001 Certification

Region	Company
Japan	Sysmex Corporation, Sysmex Medica, Sysmex RA
Americas	Sysmex America, Sysmex Reagents America, Sysmex Brazil
EMEA※	Sysmex Europe, Sysmex Deutschland, Sysmex France, Sysmex Espana, Sysmex UK, Sysmex Belgium, Sysmex Nederland, Sysmex Hungaria
China	Sysmex Wuxi, Jinan Sysmex
AP	Sysmex Asia Pacific, Sysmex India, Sysmex Australia

※ EMEA: Europe, the Middle East, and Africa

TÜVRheinland® CERTIFIED
Management System
ISO 9001:2015
EN ISO 13485:2016
ISO 14001:2015
www.tuv.com
ID 0910589004

▶ For details, refer to ID 0910589004 on www.tuv.com/japan/en/
The applicable scope of activities and website vary according to the standard.

Conducting Environmental Auditing

In line with environmental management system requirements, we perform regular internal and external environmental audits at locations that have obtained ISO 14001 certification. In Fiscal 2022, no nonconformities were found in internal environmental audits at our domestic Group locations with integrated certification, and 1 case of nonconformity in an external environmental audit. We have taken appropriate measures to address the nonconformities.

Environmental Education

Conducting Environmental Education and Training

Sysmex conducts general education for all employees to foster an awareness of the impact of the Group's environmental activities and individual operations. We conduct specialized training to raise operational knowledge for individuals designated by their divisions as personnel responsible for environmental management system promotion. We also conduct specialized and emergency response training for each division, as necessary.

In fiscal 2022, we provided general environmental e-learning training for all employees at our business offices with integrated ISO certification, and for staff members in charge of environmental matters at our overseas offices. We also held seminars on laws and regulations for staff members in charge of business offices and those in the product lifecycle departments.

Environment

Resource Circulation in Product Life Cycle

Product Lifecycle and Initiatives at Each Stage

Sysmex undertakes a variety of initiatives at different stages of its business activities toward reducing environmental impact throughout product lifecycles. As one of the activities of the Environment Management Committee, we set up Group-wide working groups with different objectives, including “eco-friendly product design” and “reduction in CO_2 emissions in transportation”, to facilitate further activities.

Environmental Management Working Group

- Eco-friendly Reagent Design
- Energy-saving Design
- Business Offices (Including Overseas Factories)
- Supply Chain
- Reducing Environmental Burdens in the Healthcare Market, etc.

■ Key Initiatives

Develop products that help reduce environmental burden
- Power savings, reduced reagent consumption, etc.

Reduce the environmental burden of production activities
- Use of renewable energy
- Lower CO_2 emissions and water consumption through better production efficiency

Reduce CO_2 emissions from sales, service and support activities
- Utilize online methods (Remote training, webinars, etc.)

R&D → Procurement → Production → Distribution → Sales, Service and Support → Medical Institutions

Formulate Green Procurement Standards and promote green procurement
- Procurement of raw materials and parts that have a lower environmental burden
- Conducting CSR surveys (including survey items about environmental consideration)

CO_2 emissions associated with the shipment of products
- Shift transport from air to sea
- Promote reagent production transfer to factories overseas
- Increase use of concentrated reagents

Achieve lower environmental burden for medical institutions
- Reduce electricity used by products
- Decrease waste

Environmental Friendliness in Product Design

Development of Smaller, Power-saving Products

In our global regulations concerning product lifecycle management, Sysmex specifies efforts to protect the environment at each stage of the product lifecycle that it believes appropriate in terms of its business. Our goal is to help reduce the energy needed by our customers to use our products and to reduce waste from their use. Accordingly, we strive to develop products designed to save electricity and reduce reagent use.

Downsizing
height −24cm, depth −28cm

Footprint
30% reduction

Electricity consumption
30% reduction

Cleaning solution
10% reduction

* Comparison with previous instruments

Our fully automated urine particle analyzer launched in 2022 is 30% smaller and uses 10% less cleaning solution per measurement than conventional ones. Its electricity consumption is also 30% less, realizing an eco-friendly design.

▶ Status of Sustainability Targets

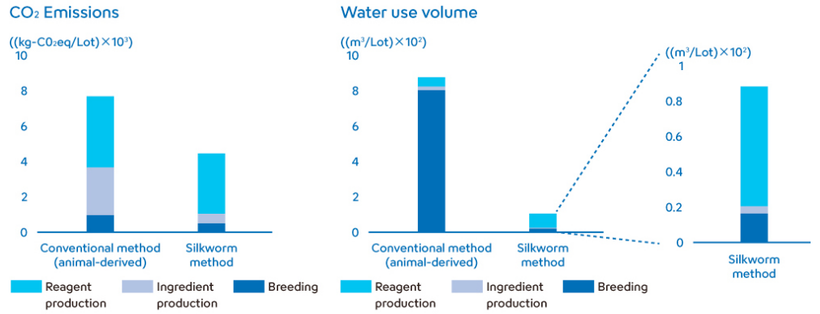
Biodiversity Considerations in the Production of Raw Materials

To reduce the use of natural resources, Sysmex Corporation has established a method to produce recombinant proteins using silkworms, for animal-derived proteins for use in diagnostic agents. In the past, producing these substances consumed a great deal of energy. However, as silkworms can be raised indoors and only need to be fed artificial food in containers, we can establish a stable supply and achieve energy savings and waste reduction.

We also use recombinant proteins produced from silkworms as ingredients for a reagent, launched in fiscal 2017, for hemostasis tests. This is the first reagent in Japan to obtain manufacturing and marketing approval using recombinant proteins as ingredients. We also offer protein production contracting services using this technology and provide ingredients to pharmaceutical companies, universities, research institutions, and other entities.

Production of ingredients using silkworms

Comparison of Reagent Production Using Silkworm Proteins to Conventional Methods (Reagents for Hemostasis Tests)



* Comparison of in-house product (through joint research with Tokyo City University)

Environmentally Conscious Procurement

Promoting Green Procurement

Sysmex has established Green Procurement Standards, which set out the Company’s fundamental stance on environmental considerations in procurement activities. We promote the procurement of raw materials and parts that have a low environmental impact. We are expanding our business with suppliers who act to protect the environment. We also conduct annual CSR surveys of our business partners to confirm that they have environmental management policies in place, as well as targets and plans for CO_2 reduction and energy conservation.

▶ Procurement Policy
▶ Green Procurement Standards
▶ Supply Chain Management

Chemical Substance Management of Products

Sysmex complies with the laws and regulations of individual countries and the EU, such as the RoHS Directive. At the same time, based on its Green Procurement Standards, Sysmex discloses actions it is taking regarding any regulated substances, or substances that are to be reduced (environmentally hazardous substances), contained in the parts, devices and materials constituting manufactured products and products for sale.

▶ Prohibited Substances (products)
▶ Substances Scheduled to be Prohibited (products)
▶ Controlled Substances (products)
▶ Prohibited Substances (materials for reagent)
▶ Reduced Substances (materials for reagent)

Environmental Considerations in Product Transportation

Efforts to Lower CO_2 Emissions in Domestic and Inter-regional Transportation of Products

Sysmex has switched its means of transportation from air to sea or rail (modal shift), improved container loading rates for more efficient transportation, and reduced transportation between regions by transferring the production of reagent products to local areas. In addition, we are working to reduce CO_2 emissions by recycling and lightening transportation and packing materials used for parts procurement and product transportation.

▶ Status of Sustainability Targets

Realization of Ultralow Temperature Transportation Without Dry Ice

Sysmex Corporation had used charter and other private delivery services to transport reagents for genetic testing, which requires strict quality and thermal control, thereby facing issues of transportation costs, distribution flexibility, and convenience. In addition, the dry ice needed for cold storage is made from CO_2 emitted in the oil refining process. We explored measures to improve this situation from an environmental perspective.

In fiscal 2021, we developed, together with Yamato Transport Co., Ltd., a dry ice-free transportation system for reagents for genetic testing in consolidated cargo at an ultralow temperature (-70° C). In fiscal 2022, we started using completely dry ice-free transportation for biochemical system-controlled substances in collaboration with Toho Pharmaceutical Co., Ltd.

We will continue working to popularize high-quality, eco-friendly cold chains.

Environmental Considerations for Distribution Packaging

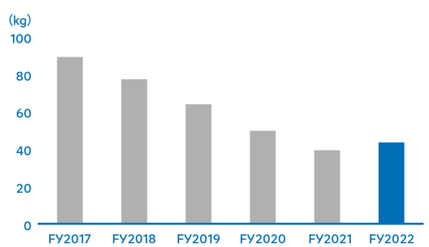
With growing exports of bio-diagnostic reagents from Japan, we began the reuse of cold storage materials necessary for transportation globally, and we are working toward reusing plastic cold storage materials to reduce waste. In fiscal 2022, we implemented such reuse in transportation between Japan, China, and Singapore, reducing waste by approximately six tons.

We are also working with our suppliers to promote a transition from cardboard to returnable boxes (plastic containers) for transporting materials, and 30% of packing materials were successfully switched to returnable boxes.

Saving Resources by Revising Packaging Materials

Sysmex is continuing to work on reducing packing materials to conserve natural resources. We have downsized our packaging boxes through optimization and steadily changed part cushioning materials from vinyl to bogus paper. We have also switched from bag-shaped cushioning materials to plastic film for packaging. Through these measures, in fiscal 2022, we were able to reduce the amount of petroleum-based cushioning materials by approximately 51% compared to fiscal 2017. In addition, Sysmex Deutschland uses recyclable materials for all its packaging.

Volume of Petroleum-Based Cushioning Materials Used (Monthly Average)



* Applicable to packaging maintenance parts and consumable goods

Initiatives at Group Companies: Collaboration with Distribution Partners Considering the Environment

In its selection criteria for distribution partners, Sysmex Europe includes a certified environment management system and use of green distribution. HITADO, a Sysmex Group company, selects distribution partners who proactively use renewable energy and electric vehicles, while Sysmex Malaysia uses reusable vacuum insulation boxes for product transportation requiring thermal management, reducing CO_2 emissions by saving electricity and generating less polystyrene box waste. In addition, Sysmex Turkey stores products in external warehouses with solar panels installed and undertakes other initiatives to reduce environmental impact in collaboration with its partners.

Company	Initiatives
Sysmex Reagents America	• Replace equipment disposal containers with ones that are six times larger and reduce the frequency of transportation • Replace ingredient transportation boxes with reusable containers
Sysmex Europe Other affiliates in the EMEA region	• Consider consolidation and combination of shipment/transportation to reduce the frequency of transportation • Use recyclable vegetable fiber for reagent containers • Consider the use of alternatives to polystyrene foam boxes for cold storage • Replace polystyrene foam cushioning materials with paper scrap • Replace plastic packing tapes with paper-based tapes • Reuse packages and cushioning materials • Use electric forklifts • Reduce the quantity of paper cartons by promoting the use of concentrated reagents • Use electric vehicles and expand the charging infrastructure
Sysmex Australia	• Utilize reusable insulated containers which enable management at the recommended cooling temperature when transporting products requiring thermal control

Environmental Considerations in Sales and Support Services Activities

Sysmex reduces CO_2 emissions associated with travelling by providing online systems for instrument maintenance, user training, and scientific seminars in each region of the world.

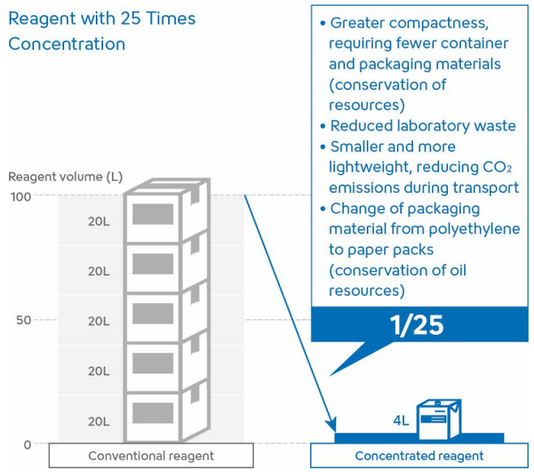
In 2019, we initiated a project for reforming support services worldwide, and have been working on increasing the online rate user training through e-learning and virtual training. In fiscal 2022, we provided 60% of user training online.

▶ Pursuit of Quality and Trust > Enhancing Customer Satisfaction

Environmentally Conscious Use and Disposal of Products

Use of Concentrated Reagents

For some analysis devices in the hematology field, reagents that are 25 times more concentrated than traditional reagents can be used. Such concentrated reagents not only contribute significantly to improving usability by reducing the frequency of reagent replacement in laboratories and saving warehouse space, but also enable us to reduce the amount of disposed containers and packing materials and CO_2 emissions during transportation. Sysmex has set a concentrated agent penetration rate as a sustainability target, working to reduce environmental impact.



Stakeholder's Voice

Developing new products means understanding what customers want and creating high-quality products that satisfy customer needs. As a leading company in the hematology field, Sysmex is committed to high quality and high goals. Because of this, we will continue to be close to our customers and their patients and deliver products they can use with peace of mind. Environment-friendly medical instruments with high quality and usability provide added value that can satisfy the needs of medical institutions and society around the world. We will continue to work on product development that incorporates such sustainability perspectives.

Takahito Mihara, Manager in the System Engineering Division

▶ Click here for details:

Environment

Reduction in Environmental Burden through Business Activities

Initiatives to Reduce Greenhouse Gas Emissions

Efforts to Reduce Greenhouse Gas Emissions at Business Sites

Sysmex is working on energy conservation through the introduction of equipment such as highly efficient air conditioning systems, LED lighting, and motion sensors, as well as demand-control systems for measuring and monitoring the amount of electricity needed, to reduce direct and indirect greenhouse gas emissions from our business sites.

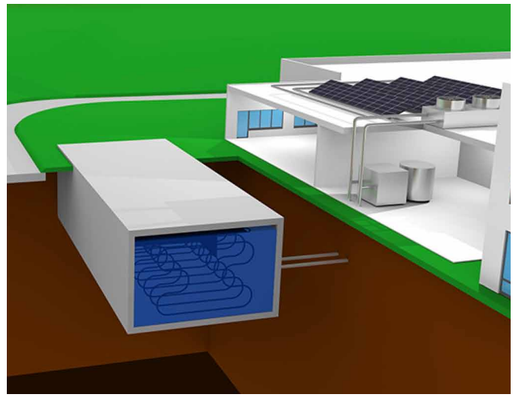
i-Square, an equipment production factory, switched all the electricity it uses to electricity derived from renewable energy sources as of fiscal 2022. From fiscal 2023, Sysmex will switch the electricity used by all its facilities, including domestic production factories and R&D centers, to renewable electricity.

Sysmex Europe's reagent production factories have introduced ice thermal storage air conditioning systems, ※1 in addition to the installation of solar panels, covering approximately 35% of energy requirements for reagent production. In addition, Sysmex business locations in EMEA ※2 and the Americas have been increasing their usage of electricity derived from renewable energy.

Sysmex America has formed a cross-departmental Green Team to promote environmental activities with a view to obtaining LEED certification ※3 for its head office. It has also installed charging ports for electric vehicles, improved LED lighting and installed solar panels as well as continuing to undertake various initiatives to acquire the certification.

※1 Thermal energy storage technology using ice
※2 Europe, the Middle East, and Africa
※3 LEED evaluates the environmental performance of a building from the viewpoints of environmental burden reduction and the health of its users. Evaluation items include the efficiency of water usage, optimization of energy use, conservation of resource materials, and building air quality.

Solar panels (i-Square)



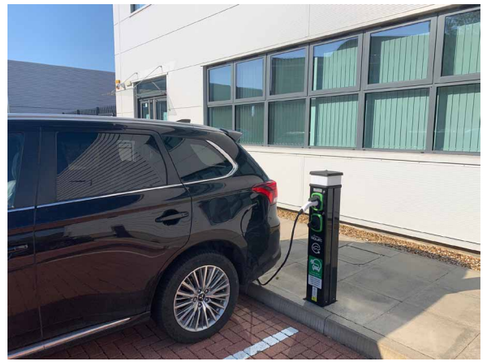
Air conditioning system using ice thermal storage (Sysmex Europe)

Major Initiatives at Each Business Site

Initiative	Company	Description
Increase the efficiency of equipment and facilities	Sysmex Corporation	Switch to highly efficient air conditioning and LED lighting Increase productivity through a production optimization initiative
	Sysmex RA	Introduce power-saving air conditioning equipment with timers
	Sysmex America	Use LEDs for all lighting
	Sysmex Europe	Use LEDs for lighting in major reagent filling rooms and introduce motion sensors
	Sysmex Asia Pacific	Use LEDs for lighting in factories and warehouses Introduce a control panel that puts the equipment to sleep to save energy when the air compressor is not in use
	Sysmex India	Use LEDs for lighting in factories
	Jinan Sysmex	Use natural gas boilers (switching from oil boilers)
	Sysmex Wuxi	Utilize the setting of air conditioning temperature limits (26° C in summer and 22° C in winter)
Introduce renewable energy	Sysmex Corporation	Install solar panels and save energy by bringing in natural light (i-Square)
	Sysmex America Sysmex Reagents America	Ensure that 50% of energy used is derived from renewable energy sources
	Sysmex Europe	Ensure that 100% of energy used is derived from renewable energy sources and install solar panels
Raise employee awareness	Sysmex Europe	Provide incentives for using trains for business trips, establish an inhouse website for car sharing, and provide bikes for commuting
	Sysmex Malaysia	Provide incentives to employees who use hybrid vehicles for commuting
	Sysmex India	Ensure that all personal vehicles used by employees to commute are PUC certified※
	Sysmex Brazil	Switch to biofuel for company vehicles

※PUC is an acronym for Pollution Under Control, which certifies that vehicle emissions are below pollution regulation standards. Indian law requires vehicle owners to take a PUC test every six months to obtain PUC certification (PUC certification is valid for one year for a new vehicle).

Decreasing CO_2 Emissions from Fleet


Charging point (Sysmex UK)

In order to control fuel consumption and reduce CO_2 emissions for the approximately 400 company vehicles in Japan, Sysmex Corporation has installed telematics in each of them to be able to visualize driving quality by assigning scores for distances traveled, fuel consumption, and driving behavior. It also conducts eco-driving training for all the employees to improve the environmental awareness of each driver. With these activities being evaluated highly, Sysmex received a certificate of excellence in the fiscal 2022 Eco-Driving Activity Contest sponsored by the Foundation for Promoting Personal Mobility and Ecological Transportation. It has also promoted the replacement of its company vehicles with more fuel-efficient ones. In fiscal 2022, approximately 30% of all our vehicles were replaced with hybrid vehicles.

Sysmex Brazil started switching fuel for its company vehicles to sugarcane-deprived biofuel from fiscal 2022, while Sysmex UK proceeded with the removal of diesel vehicles and the replacement of all company vehicles with hybrid vehicles, and added charging points at the company sites.

Using Water Resources Efficiently

Reducing Water Consumption

Sysmex uses water as a raw material in reagent production. Both tap water and groundwater are used. Recognizing that reducing water use is an important issue, Sysmex has set targets for decreasing water use in our Eco-Vision 2033, and is making efforts to improve the efficiency of water use at reagent production sites.

At the Ono Factory, a reagent production factory, cleaning used to be conducted with some liquid remaining in part of the piping of the production line after the production of reagents. However, we revised the production process and acquired the technology to commercialize the reagents without discarding remained liquid in the piping. At the Seishin Factory, we also changed the lot size, which contributed to an improvement of the yield. These measures reduced product liquid loss, decreased water use, and lessened the environmental burden of waste liquid. Sysmex Brazil reduced water consumption and costs by changing programs so that the cleaning system for purified water manufacturing equipment, which used to operate 24 hours a day, operates only on weekdays.

Major Initiatives at Business Activities

Company	Initiatives
Sysmex Corporation	・Reduce water consumption by improving the production efficiency at each factory ・Use water taken from wells as water for green belt irrigation and toilet flushing
Sysmex Asia Pacific	・Improve its ultrapure water plant to recycle RO water (purified water), utilizing times when the plant is not in operation ・Reduce water consumption by monitoring efficiency of purified water production equipment ・Reduce consumption of water for washing production facilities after the reagent production
Sysmex India	・Introduce a waste water processing system to purify water discharged during reagent production, and use the purified water to irrigate green areas around the factory ・Reduce water consumption per reagent production by improving the production efficiency ・Reduce consumption of water used to wash production facilities after reagent production
Sysmex Brazil	・Recycle water generated in the production process for use as domestic water
Sysmex Wuxi	・Set a target for reducing water consumption and assign an officer dedicated to environmental, health, and safety issues. Conduct periodic environmental, health, and safety inspections.

Water Risk Assessments

Sysmex assesses risks related to water stress. Through analysis using Aqueduct, an assessment tool provided by the World Resource Institute (WRI), we identified China, Brazil, and India, where we have reagent production sites, as countries with relatively high water stress. Although water risk is not yet evident at our production sites in these countries, we continually monitor their situation. In the meantime, we are taking measures against risks by optimizing water usage in our production processes and reducing supply risks by securing safety stocks.

Wastewater Management and Processing

Sysmex prioritizes the protection of water quality. We have created our own emission standards that we use to manage the wastewater from development centers and factories that use chemical substances, ensuring that waterways and groundwater are not affected.

Major Initiatives at Business Activities

Company	Initiative
Sysmex Corporation	• Introduce a system to set off an alarm in the event that BOD (Biochemical Oxygen Demand) standards are exceeded at the Ono Factory, a diagnostic reagent production plant, preventing waste fluid containing organic matter from spilling out
Sysmex RA	• Introduce waste fluid processing equipment, making infectious waste fluid harmless by heat sterilization, and discharge the harmless fluid directly into the sewage system
Sysmex America	• Introduce a wastewater processing system to remove boron-containing substances from waste fluid generated during reagent production
Sysmex Asia Pacific	• Introduce a wastewater processing system to purify waste fluid generated during reagent production before discharging it to the sewage system
Jinan Sysmex	• Commission third-party institutions to appropriately process recyclable waste such as waste drums and waste paper generated during the production process

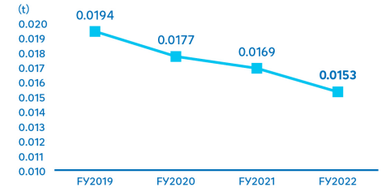
Global Kaizen Activities at Reagent Production Factories

Sysmex has initiated a “Kaizen Activity” project for all global reagent production facilities to promote Group-wide initiatives to reduce environmental impacts.

In its domestic reagent production factories, Sysmex promotes environmental initiatives in collaboration with its business partners and has successfully reduced the waste of packing materials for delivery by reusing cardboard and changing the practice of over-packaging. In fiscal 2022, cardboard waste was reduced by 30 tons from the previous fiscal year. Sysmex aims to achieve zero cardboard waste by fiscal 2025. In addition, it continuously works to save energy by repeatedly designing and prototyping “Karakuri” devices that utilize gravity, natural energy, and the principles of leverage, and solving issues at production sites. Since 2021, we have exhibited at the Karakuri Kaizen Kufu Exhibition and have received the Institute Special Prize and other awards.

Sysmex Reagents America replaced packages for ingredients with recyclable containers in collaboration with its business partners. Sysmex Asia Pacific successfully reduced waste and costs by recycling containers made from chemical ingredients that were previously discarded. We will continue to promote activities to reduce environmental burdens.

Amount of cardboard waste



* Target: Domestic reagent production factories
* Amount of cardboard waste:
  Amount of waste(ton)÷Number of in-house product boxes(thousand boxes)

Photo taken at the Karakuri Kaizen Exhibition

Involvement with Biodiversity

Interfacing with Nature and Protecting Biodiversity

Sysmex understands that it receives a host of benefits from the world’s living things as it conducts its business activities. We use a tool called ENCORE, which was developed by the United Nations and financial institutions, to analyze our interaction with nature, and the results suggested that our production process depends on water and impacts water quality and soil to a relatively large extent.

Each production facility strives to reduce its water risks by effectively using water resources and minimizing its impact on nature through measures such as environmental considerations in product design, appropriate management of waste, and forest conservation activities. Thus we make efforts to protect biodiversity.

Forest Conservation Activities

Sysmex Corporation regards the conservation of forests that contribute to water resource protection as an important social responsibility. Since 2013, Sysmex has been leasing part of the Kawai Kaiteki Forest in Ono in Hyogo Prefecture, where its reagent production factory is located. Named the “Sysmex Forest”, this is a place where we practice forest conservation through activities such as planting trees, weeding the undergrowth, and thinning the forest.

Tree planting by HITADO employees (1,300 trees planted)

In addition, HITADO, a Group company in Germany, has been participating since fiscal 2021 in a local forest conservation project called *Waldlokal*, providing support through voluntary tree planting by employees and through donations.

▶ Contributing to Biodiversity Preservation through the “Sysmex Forest”
▶ The “Waldlokal” Project

Managing and Recycling Waste

Reducing Waste and Promoting a Stable Recycling Rate

Sysmex carries out initiatives to reduce waste and increase recycling rates.

Each reagent factory engages in various initiatives, including reducing consumables used in production and reducing defective products to minimize the use of packaging material. At Kakogawa Factory, an equipment production facility, we review packaging and cushioning materials used to provide materials to production lines, reducing annual waste. In order to reduce food waste from its in-house canteen, Kakogawa Factory uses a specialized garbage disposal system to convert food waste to organic fertilizer for farmers. The factory purchases agricultural produce grown by the farmers who use this fertilizer, contributing to realizing a recycling-oriented society. At Technopark, we introduced polystyrene foam melting machines and large shredders for confidential paper in fiscal 2023, converting all the used polystyrene foam (PS) from the office into recycled plastic materials and selling them as a valuable resource, and processing waste from the shredders to be reused as toilet paper, thereby contributing to the reduction of waste.

Promoting Digital Data

Sysmex works to reduce its use of paper by utilizing personal computers, tablets, and smartphones to send and receive data. These efforts have reduced paper use and waste. Our manufacturing facilities are also working to switch to electronic production records and manuals, promoting our paperless initiative.

Major Initiatives at Each Business Office

Company	Initiative
Sysmex Corporation	• Reduce waste by introducing food waste processors in its in-house canteen
Sysmex Asia Pacific	• Replace aluminum foil used for weighing drums with reusable materials
Sysmex Malaysia	• Recycle or donate to charities cardboard boxes and plastic materials
Sysmex Canada	• Improve recyclable products
Sysmex Brazil	• Use chemical waste in clinker kilns instead of having sanitary landfills saturated (this contributes to the reuse of energy and improvement of recycling rate)

▶ Status of Sustainability Targets
▶ Environmental Consideration in Product Transportation

Managing Harmful Substances

Managing Chemical Substances

Sysmex uses chemical substances in its R&D and manufacturing processes. In addition to preventing losses or leaks, we strive to manage chemical substances appropriately to prevent damage to the health of our employees working onsite.

Managing and Processing Harmful Substances

As a precaution against the danger of infection by biological substances, we strictly control the locations in which such substances are stored and used. These substances are carefully segregated from general waste for proper disposal. For other harmful substances, we work to prevent aerial drift, dispersion, and groundwater permeation through countermeasures that address both facilities and management methods. In these ways, we endeavor to keep emissions below standard statutory levels.

Managing and Processing Atmospheric Emissions

In response to the Fluorocarbons Emission Control Law, a revised version of which went into effect in 2015, each Group company in Japan established a response manual, identifying and appropriately using fluorocarbon-containing equipment owned or managed by it, conducting inspections, and monitoring calculated leakages.

※ In this report, “Sysmex” refers to the Sysmex Group as a whole. “Sysmex Corporation” refers to the Company on a stand-alone basis.