



Environment

Environmental Management 60

Resource Circulation in Product Lifecycle 66

Reduction in Environmental Burden through Business Activities 71

Environment

Environmental Management

Systemx Eco-Vision 2033

“Systemx Eco-Vision 2033” Formulated

In May 2023, Systemx formulated “Systemx Eco-Vision 2033.” This is the long-term environmental vision that the Systemx Group strives to achieve by 2033, in which we will take on the challenges of green innovation together with our stakeholders and utilize Systemx’s unique strengths to co-create new common standard toward the realization of a circular society. Furthermore, Systemx 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 Systemx Group by 2040.* 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.

* 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)

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 CO₂ 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 Systemx 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

Accreditation of near-term target from SBTi

Systemex Corporation has been approved by the Science Based Targets initiative (SBTi), an international initiative working to overcome the environmental crisis on the basis of climate science, for the Group's FY2033 greenhouse gas reduction target.

As part of the "Systemex Eco-Vision 2033," Systemex has set reduction targets for its own GHG emissions (Scope 1 and 2) and its supply chain GHG emissions (Scope 3). Among these targets, the Company's target to reduce its Scope 1 and 2 emissions by 55% was found to be based on scientific evidence in line with a 1.5°C trajectory, while its target to reduce GHG emissions from use of sold products under Scope 3 by 35% was found to be well below the 2.0°C level. Furthermore, our newly established engagement goal was recognized as promoting 60% of our business partners in purchased goods and services, capital goods, and upstream and downstream transportation and distribution under Scope 3 to have a science-based GHG reduction targets within five years.

With the gap between the global GHG emissions reduction and the 1.5°C target of the Paris Agreement, it is expected that further changes in social demands are to come. Seizing the SBTi certification as an opportunity, Systemex will continue pursuing CO₂ emission reductions by changing energy procurement at business locations and how sales and services are performed while promoting resource recycling by adopting environmentally friendly materials for products. We will further promote its decarbonization efforts by implementing green innovation based on the ingenuity built by combining the wisdom of the entire Group.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

<https://sciencebasedtargets.org/>

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, Systemex expressed its support for the TCFD recommendations. We carry out information disclosure based on the TCFD framework.

1. Governance

Systemex has established the Internal Control Committee as a governing body responsible for overseeing sustainability-related risks and opportunities. At the same time, the Internal Control Office, an organization independent from the business divisions and directly supervised by the President, serves as the secretariat of the Committee. The Internal Control Committee deliberates and decides on response plans for each risk area, while the Environmental Management Committee meets regularly to promote plans for environmental issues under the management and supervision of the Environmental Management Officer (Takashi Ono, a Member of the Managing Board and Senior Executive Officer). Furthermore, the Internal Control Committee monitors the status of activities in accordance with the plan and reports to the Managing Board meetings.

► Risk Management Structure

2. Strategy

Adding to the 2-degree scenario implemented in 2020, Systemex has upgraded the strategy to incorporate a 1.5-degree scenario¹ 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 group², 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 scenario³, the impacts of physical risks such as natural disasters were seen as high, and regarding opportunities, resource efficiency, products and services and resilience were analyzed as having relatively high impacts.

*1 IEA NZE2050, IPCC RCP2.6, etc. Scenarios assuming that increase in global average temperature will be kept below 1.5°C 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°C compared to pre-industrial levels by maintaining present measures against climate change.

3. Risk Management

Within the risk management system for the overall Group, the Internal Control Committee conducts an annual assessment of all risks and opportunities, including environmental and climate change risks, to identify risks and opportunities that may significantly impact the Group's business, thereby establishing a structure for formulating measures to deal with such risks. To ensure that risks are extracted accurately, the committees and respective departments responsible for major risk areas, along with affiliated companies, identify these risks, and the level of importance is analyzed and evaluated in terms of their level of impact and likelihood of occurrence.

In addition, the Environmental Management Committee extracts environment-related risks and opportunities, including those related to climate change, twice a year, whereupon the Committee and respective departments take the lead in implementing the necessary actions.

4. Metrics & Targets

Systemex 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. Systemex 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.

▶ See Status of Sustainability Targets "Reducing Environmental Impact"

▶ 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°C	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°C	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°C	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°C	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°C	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°C	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°C	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°C	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°C	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°C	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°C	Short-to long-term	L	• We support the TCFD and disclose environmental data via the Systemex 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°C	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

Status 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, 2024, 20 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.

List of ISO14001 Certified Locations

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



► 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 2021, neither internal nor external environmental audits at our domestic Group locations (for which certification has been integrated) revealed any cases of nonconformity. In fiscal 2023, there were zero cases of nonconformities in both internal environmental audits and external environmental audits at our domestic Group locations with integrated certification.

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.

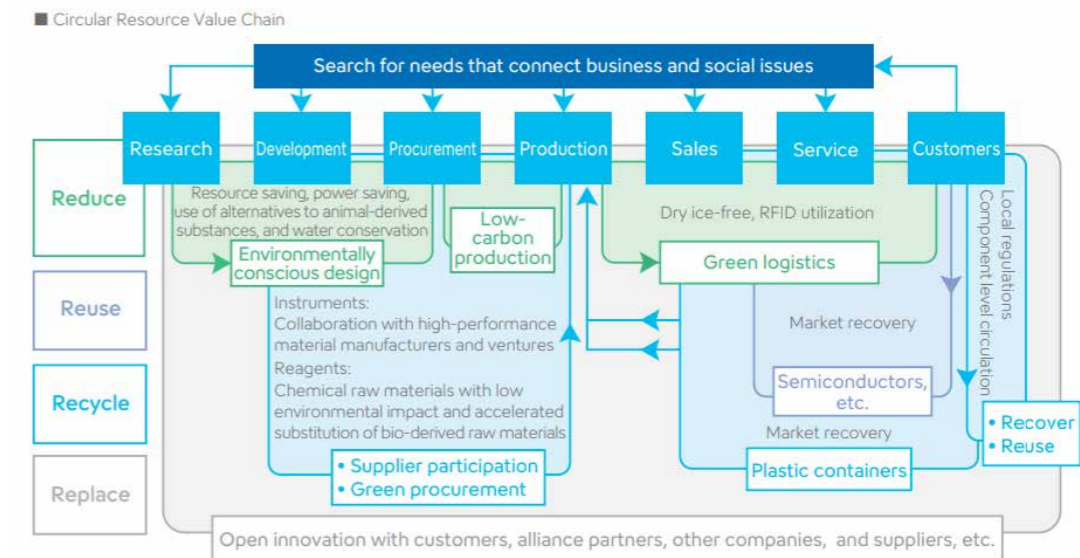
In fiscal 2023, we provided general environmental e-learning training for all employees at our business offices with integrated ISO certification. We also held seminars on laws and regulations for staff members in charge of business offices and those in the product lifecycle departments.

Environment

Resource Circulation in Product Lifecycle

Product Lifecycle and Initiatives at Each Stage

Sysmex undertakes a variety of initiatives at different stages of its business activities to reduce environmental impact throughout product lifecycles. From fiscal 2023, in addition to our activities to date, we are promoting activities to realize a resource circulation value chain based on our eco-social strategy, which has been outlined as one of our core strategies in the long-term management plan.



Environmentally Conscious Research and Development

Creating Smaller, Energy-Saving Products

Sysmex’s product lifecycle management regulation specifies environmental considerations at each stage of the lifecycle. Following this guideline, we develop products that help reduce energy use and waste for our customers, such as energy-efficient analyzers and concentrated reagents.

Compared to previous products with similar functions, the sample transportation system

modules for the hematology analyzer released in 2021 are smaller in width by 15% and use 40% less electricity. Our fully automated urine particle analyzer launched in 2022 is 30% smaller and uses 10% less of the required cleaning solution per measurement than conventional units. It also consumes 30% less electricity, realizing an eco-friendly design.

► Status of Sustainability Targets

Downsizing
height -24cm , depth -28cm
Footprint
30% reduction
Electricity consumption
30% reduction
Cleaning solution
10% reduction

* Comparison with previous instruments



Development of Non-Animal-Derived Products (Biodiversity Considerations)

To reduce the use of natural resources, Sysmex Corporation has established a method of producing animal-derived proteins that can be deployed for diagnostic agents. The technique uses silkworms or cultured cells. 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 ensure a stable supply and quality of the substances. We are also able to save energy and reduce carbon dioxide emissions, water consumption, and waste.

We use genetically modified proteins produced from silkworms as ingredients for a reagent for hemostasis tests launched in fiscal 2017. This reagent, which uses genetically modified proteins as ingredients, is the first in Japan to obtain manufacturing and marketing approval.

To quantify the environmental impact of the change in the production method, we conducted a lifecycle assessment jointly with Professor Norihiro Itsubo of Tokyo City University (currently of Waseda University). The assessment confirmed that the new process reduces carbon dioxide emissions by more than 50 percent compared with conventional methods.

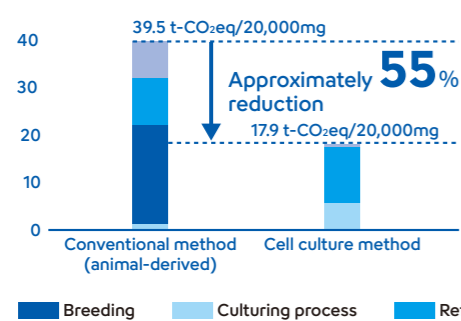


Production of ingredients using silkworms

Environmental Impact of Switching from Conventional Method to Cell Culture Method

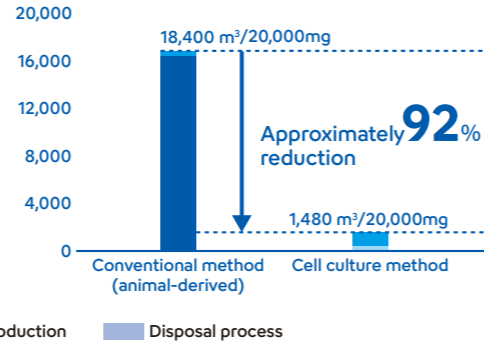
【CO₂ Emissions】

(t-CO₂eq/20,000mg)



【Water Resource Consumption】

(m³/20,000mg)



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 each supplier to confirm that they have environmental management policies in place, as well as targets and plans for CO₂ reduction and energy conservation.

At the 2023 procurement policy briefing, we introduced our Company's eco-social strategy and asked for the cooperation of our suppliers with regard to various environmental considerations such as reducing carbon dioxide emissions. We also awarded suppliers that showed improvement in terms of environmental consciousness. In addition, to achieve a reduction in Scope 3 emissions, we asked suppliers to submit SBT applications or to set engagement targets, which require targets to be set according to SBT and obtained SBTi approval. In addition to holding briefings for suppliers, we will work with the suppliers to achieve the targets.

- ▶ 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 classifies and manages the chemical substances (i.e., environmentally hazardous substances) contained in the parts, devices, and materials that make up the products manufactured and sold into those that contain prohibited and controlled substances.

- ▶ Containing Prohibited Substances (Products)
- ▶ Containing Substances Scheduled to be Prohibited (Products)
- ▶ Containing Controlled Substances (Products)
- ▶ Containing Prohibited Substances (Chemicals)
- ▶ Containing Substances Scheduled to be Prohibited (Chemicals)
- ▶ Containing Controlled Substances (Chemicals)

Environmental Consideration in Product Transportation, Sales, and Services

CO₂ Reduction Through Modal Shifts and Manufacturing Transfer

Sysmex has switched its means of transportation from air to sea or rail (entailing a 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 promoting the recycling of materials for transportation and packing used in parts procurement and product transportation, as well as lightening the load. Through these initiatives, we are reducing CO₂ emissions in domestic and inter-regional transportation of products.

CO₂ Reduction with Dry-Ice-Free and Consolidated Cargo Transportation

Sysmex Corporation previously used chartered planes and other private delivery services to transport reagents for genetic testing and biochemical system-controlled substances, as they required strict quality and thermal control. However, transportation costs, distribution flexibility, and convenience became issues. Additionally, the dry ice needed for cold storage also created a safety issue due to the risk of frostbite from ultralow temperatures and poisonous carbon gases.

In fiscal 2021, together with Yamato Transport Co., Ltd., we developed a consolidated cargo transportation system at an ultra-low temperature of -70° C for reagents for genetic testing that was dry-ice-free. Furthermore, in fiscal 2022, we realized completely dry-ice-free transportation for biochemical system-controlled substances in collaboration with Toho Pharmaceutical Co., Ltd. We are currently expanding this initiative to distributors across a large area and deliver to users at over 200 facilities. Through such initiatives, we have successfully reduced CO₂ emissions and improved safety.

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

Saving Resources by Reviewing Distribution Packaging

With growing exports of bio-diagnostic reagents from Japan, Sysmex Corporation began the reuse of plastic cold storage materials necessary for transportation globally, and we are working toward reducing waste. In fiscal 2023, we implemented such reuse in transportation between Japan, China, and Singapore, reducing waste by approximately eight tons. In addition, switching the wooden pallets used when transporting instruments to recyclable cardboard pallets made of less environmentally impactful materials enabled us to reduce packing material waste as well as CO₂ emissions due to the lightened load during transportation.

Saving Resources by Recycling Parts

Sysmex began a new initiative with regard to the maintenance parts of instruments that were no longer sold or supported and had previously been discarded. Parts that were no longer necessary were collected and separated by raw material, and by selling them as valuables, we have reduced waste. As a result of such zero waste efforts, we successfully reduced waste in fiscal 2023 by 34 tons*.

* Calculated by assuming all waste as plastic and using the industrial waste conversion factor set forth by the Ministry of the Environment

Saving Resources by Revising Packaging Materials

Sysmex is continuing to work on reforming packing materials to conserve natural resources. We have downsized our packaging boxes through size optimization and switched cushioning materials for parts from vinyl to paper. We are also promoting alternative product packaging that uses recycled and less environmentally impactful materials by switching to cardboard made from recycled used paper and reagent boxes that use FSC-certified materials.

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 the 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 CO₂ 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	<ul style="list-style-type: none"> • Replace ingredient transportation boxes with reusable containers • Work with business partners to change packaging for raw materials to recyclable containers
Sysmex Europe Other affiliates in the EMEA region	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Utilize reusable insulated containers which enable management at the recommended cooling temperature when transporting products requiring thermal control

Environmental Considerations in Services and Support Activities

Sysmex reduces CO₂ emissions associated with traveling by providing instrument maintenance, user training, and scientific seminars online in each region of the world.

In 2019, we initiated a project to reform support services worldwide and have been working on increasing the online rate of user training through e-learning and virtual training. In the newly opened training center, in fiscal 2023, we created an online studio to provide even more enriched user training.



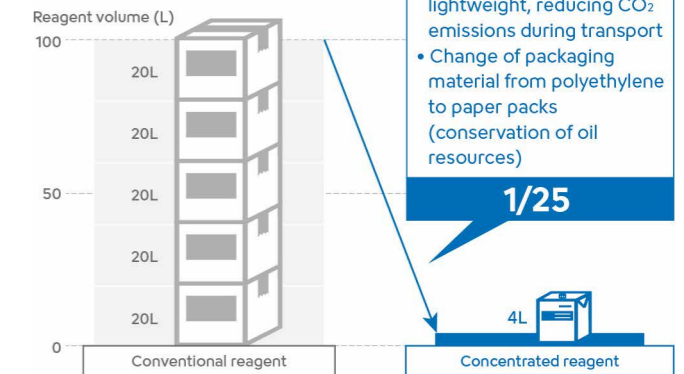
► Pursuit of Quality and Trust > Enhancing Customer Satisfaction

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 are used at Sysmex. Employing these concentrated reagents contributes significantly to improving usability by reducing the frequency of reagent replacement in laboratories and saving warehouse space. Additionally, concentrated reagents enable us to care for the environment by not only reducing the amount of disposed containers and packing materials but also reducing CO₂ emissions during transportation. Lastly, we have set a concentrated agent penetration rate as a sustainability target and will work on initiatives to reduce the environmental impact.

Reagent with 25 Times Concentration



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:

[Ensuring People's Health and Preserving the World's Environment for the Future through Sustainable Product Development](#)

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.

In fiscal 2023, all the electricity used by major domestic facilities, including domestic reagent production factories and R&D facilities, was switched to electricity derived from renewable energy sources. Sysmex RA, one of the Group's key factories, is expanding with a new facility set to operate in April 2025. This new factory has received Net Zero Energy Building (ZEB)¹ certification under the Building-Housing Energy-efficiency Labeling System (BELS²). The new factory is expected to become operational in April 2025.

Sysmex Europe's reagent production factory has introduced ice thermal storage air conditioning systems³, in addition to having solar panels installed, covering approximately 35% of energy requirements for reagent production. In addition, Sysmex business locations in EMEA⁴ 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 certification⁵ for its head office. It has also installed charging ports for electric vehicles, improved LED lighting, and installed solar panels, continuing to undertake various initiatives to acquire certification.

*1 ZEB (Net Zero Energy Building): A building that aims to achieve a net zero annual volume of primary energy consumed and generated by installing highly efficient facilities systems to realize significant energy savings (energy conservation) while still maintaining the quality of the indoor environment and introducing renewable energy (energy creation)

*2 BELS (Building-Housing Energy-efficiency Labeling System): A system to label energy saving efforts of buildings in accordance with the Act on the Improvement of Energy Consumption Performance of Buildings (Buildings Energy Efficiency Act)

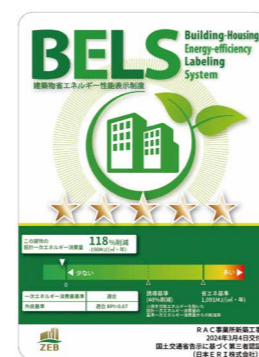
*3 Thermal energy storage technology using ice

*4 Europe, the Middle East, and Africa

*5 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.



Image of the New Factory Exterior (Sysmex RA)



Major Initiatives at Each Business Site

Initiative	Company	Description
Increase the efficiency of equipment and facilities	Sysmex Corporation	<ul style="list-style-type: none"> Switch to highly efficient air conditioning and LED lighting Increase productivity through a production optimization initiative
	Sysmex RA	<ul style="list-style-type: none"> Use LEDs for all lighting
	Sysmex America	<ul style="list-style-type: none"> Use LEDs for all lighting
	Sysmex Europe	<ul style="list-style-type: none"> Use LEDs for lighting in major reagent-filling rooms Introduce motion sensors
	Sysmex Asia Pacific	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Use LEDs for lighting in factories
	Jinan Sysmex	<ul style="list-style-type: none"> Use natural gas boilers (switching from oil boilers) Switch from gas boilers to air-source heat pumps for indoor heating during the winter and to heat purified and raw water
	Sysmex Wuxi	<ul style="list-style-type: none"> Save energy with restrictions to air conditioning temperature settings
Introduce renewable energy	Sysmex Corporation	<ul style="list-style-type: none"> Install solar panels Save energy by bringing in natural light (i-Square) and use electricity from renewable energy sources
	Sysmex America Sysmex Reagents America	<ul style="list-style-type: none"> Use electricity from renewable energy sources Switch to 100% carbon-neutral natural gas
	Sysmex Europe	<ul style="list-style-type: none"> Install solar panels Use electricity from renewable energy sources (all electricity)
	Sysmex UK	<ul style="list-style-type: none"> Install solar panels
	Jinan Sysmex	<ul style="list-style-type: none"> Install solar panels
Raise employee awareness	Sysmex Europe	<ul style="list-style-type: none"> Provide incentives for using trains for business trips, establish an in-house website for car sharing, and provide bikes for commuting
	Sysmex Malaysia	<ul style="list-style-type: none"> Provide incentives to employees who use hybrid vehicles for commuting
	Sysmex India	<ul style="list-style-type: none"> Ensure that all personal vehicles used by employees to commute are PUC certified*
	Sysmex Brazil	<ul style="list-style-type: none"> Switch to biofuel for company vehicles

* Acronym for "Pollution Under Control," which certifies that vehicle emissions are below pollution regulation standards.

Decreasing CO₂ Emissions from Company Vehicles

In order to control fuel consumption and reduce CO₂ emissions for the approximately 400 company vehicles in Japan, Sysmex Corporation has installed telematics in the form of drive recorders in each vehicle to enable visualization of driving quality, such as each car's eco-drive status and compliance with laws. 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 2023 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 those that have greater fuel efficiency. In fiscal 2023, approximately 50% of all our vehicles were replaced with hybrid vehicles.

Sysmex Brazil started switching fuel for its company vehicles to sugarcane-derived biofuel, while Sysmex UK proceeded with removing diesel vehicles, replacing all company vehicles with hybrid vehicles, and installing charging points at the company sites.



Charging point (Sysmex UK)



Eco-Driving Activity Contest Award Ceremony

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 it 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. These measures reduced product liquid loss, decreased water use, and lessened the environmental burden of waste liquid.

Major Initiatives at Each Business Office

Company	Initiatives
Sysmex Corporation	<ul style="list-style-type: none"> 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 at Technopark.
Sysmex Asia Pacific	<ul style="list-style-type: none"> 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 used to wash production facilities after reagent production
Sysmex India	<ul style="list-style-type: none"> Recycle water generated in the production process for use as irrigation water Install at the new factory a zero liquid discharge system* that aims to eliminate water discharge outside the factory site
Sysmex Brazil	<ul style="list-style-type: none"> Recycle water generated in the production process for use as domestic water Modify cleaning system for purified water production equipment that operates 24 hours a day to operate only on weekdays.
Sysmex Wuxi	<ul style="list-style-type: none"> Set a target for reducing water consumption, assign an officer dedicated to environmental, health, and safety issues, and conduct periodic environmental, health, and safety inspections.

* A strategic wastewater treatment solution used for the treatment of industrial wastewater that reduces water pollution risk and recycles and reuses water discharge



New Production Base in India

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 Each Business Office

Company	Initiative
Sysmex Corporation	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Introduce a wastewater processing system to remove boron-containing substances from waste fluid generated during reagent production
Sysmex Asia Pacific	<ul style="list-style-type: none"> Introduce a wastewater processing system to purify waste fluid generated during reagent production before discharging it to the sewage system
Jinan Sysmex	<ul style="list-style-type: none"> Commission third-party institutions to appropriately process recyclable waste, such as waste drums and waste paper generated during the production process

Involvement with Biodiversity

Interfacing with Nature and Protecting Biodiversity

Systemex 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 conduct a simple risk analysis. The results have suggested that our production process depends on water and impacts water quality and soil to a relatively large extent. Based on the results, we will identify our business risks and opportunities and take necessary actions.

Forest Conservation Activities

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

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



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

▶ Contributing to Biodiversity Preservation through the "Systemex Forest"

▶ The "Waldlokal" Project

Managing and Recycling Waste

Reducing Waste and Promoting a Stable Recycling Rate

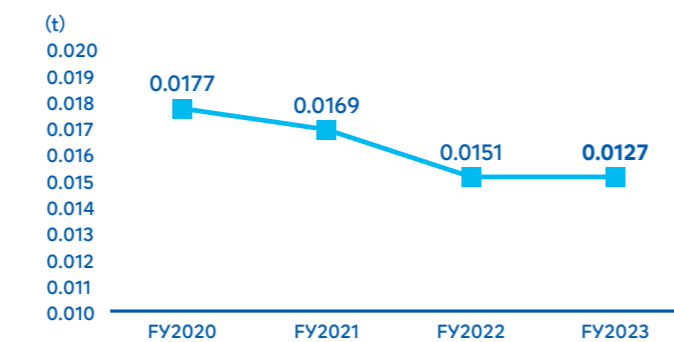
Systemex carries out initiatives to reduce waste and increase recycling rates. At our research and development base, Technopark, we introduced polystyrene foam melting machines and large shredders for confidential paper in fiscal 2023. With this equipment, we can convert all used polystyrene foam generated from the office into recycled plastic materials and sell them as valuable resources. We also process the shredded wastepaper from large shredders to be reused as toilet paper. By doing this, we can significantly reduce the volume of waste.

In its domestic reagent production factories, Systemex 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 2023, cardboard waste was reduced by approximately 15 tons from the previous fiscal year. Systemex aims to achieve zero cardboard waste by fiscal 2025.

At Kakogawa Factory, our domestic equipment production facility, food waste from its in-house canteen is reduced using a specialized garbage disposal system that converts food waste into organic fertilizer for farmers. The factory purchases agricultural produce grown by the farmers who use this fertilizer, contributing to the realization of a recycling-oriented society.

▶ Regarding the reduction of waste through the recycling of packing materials and parts, etc., please see "Environmental Consideration in Product Transportation, Sales, and Services."

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)

Promoting Digital Data

Systemex 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
Systemex America	• Switching the reagent waste processing method from landfill to energy-from-waste treatment (During the three years to 2025, 50 to 100 tons of waste is expected to be recycled.)
Systemex Medica	• Switched 100% of copier paper from plain paper to environmentally friendly paper
Systemex Asia Pacific	• Replace aluminum foil used for weighing drums with reusable materials • Recycle containers made from chemical ingredients that were previously discarded
Systemex Malaysia	• Recycle or donate to charities cardboard boxes and plastic materials
Systemex Jinan	• Replace sludge filter press equipment and conduct QC activities to lower the water content of the sludge and reduce emissions of harmful substances

▶ Status of Sustainability Targets

Managing Harmful Substances

Managing Chemical Substances

Systemex 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, "Systemex" refers to the Systemex Group as a whole. "Systemex Corporation" refers to the Company on a stand-alone basis.