

Environmental management

Environmental vision

INOAC respects the natural environment of our irreplaceable earth and contributes to realizing an affluent society that is comfortable to live in through technology harmonized with our environment and environment-friendly corporate activities.

Environmental policy

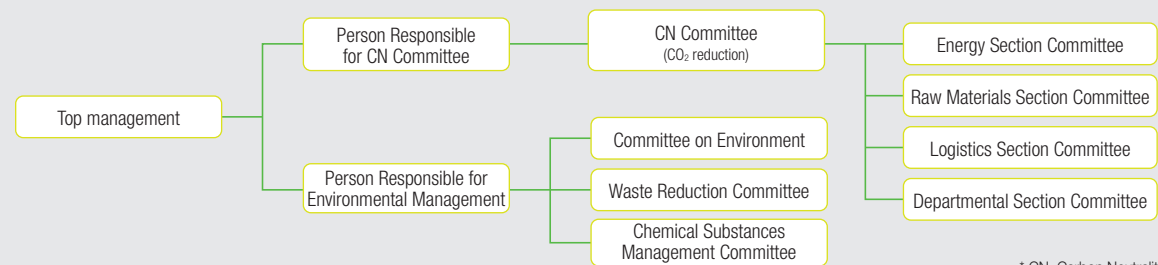
- (1) We observe environmental laws and regulations, thoroughly ensure compliance, and engage in business activities that society can trust.
- (2) We work to reduce CO₂ emissions such as by saving energy, to help achieve a carbon neutral society and prevent global warming.
- (3) We work on resource conservation, waste reduction and recycling to contribute to a recycling-oriented society.
- (4) We properly manage chemicals that could impact the environment and seek to preserve our environment by reducing risk.
- (5) We actively develop products with less environmental impact, contributing to the conservation of nature throughout the life cycles of the products.
- (6) We work to reduce our water usage through initiatives such as circular water usage to use water resources sustainably.
- (7) We engage in environmental management, educate employees about the environment, implement environmental audits, and continue to improve.
- (8) We contribute to establishing a sustainable society through local environmental preservation work as good corporate citizens.



Environmental management system

In order to engage in environmental activities in an organized fashion, the Person Responsible for Environmental Management implements integrated management related to the environment, under the direct control of top management. In addition, the company as a whole also engages in environmental activities under the direction of the Environment Committee. We have organized specific section committees to handle industrial waste and energy saving, and we coordinate environmental management through these committees while seeking further improvements in mitigating our environmental impact. As we strengthen the connection between environmental management and our main business in managing our objectives, we are also supporting the appropriate efforts where changes are taking place, such as newly built business locations, buildings, and production lines.

Environmental Preservation Promotion System



Internal environmental audits

We implement internal environmental audits to check the operational state of our environmental management system. The audit team consists of two to three employees who have completed the auditor training prescribed by the company. The team checks if the environmental management system is being properly operated, maintained, and improved. We create audit guidance and take steps such as revising checklists to emphasize efforts toward goal achievement and compliance in order to improve the quality of the audits.

External environmental examinations

The Japan Quality Assurance Organization (JQA), an external certification body, conducts examinations to check if our environmental management system is functioning properly in

accordance with ISO 14001:2015. No points requiring improvement were identified in the FY 2022 examination, and our certification was renewed. Also, as overall findings, some issues were raised in terms of environmental aspects, compliance obligations and evaluations, and processes such as internal audits. We are working to improve what was pointed out as the opportunities arise.

CN-related training sessions

As awareness-raising activities, the CN Administrative Office conducted training sessions for new employees and held webinars for employees in 2023. There were roughly 250 participants.

Environment

Initiatives of our CN Committee

Energy Section Committee

Mission

Scope 1 & 2 Japan: -50% in 2030 (vs. 2013: total overall emissions)
Overseas: Launched efforts in 2023 with -3% year-on-year

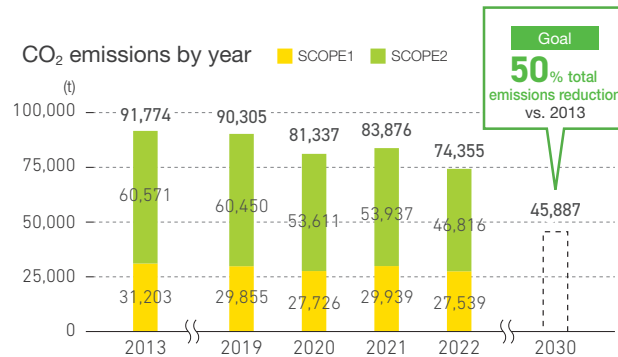
Action plan

- Activities to reduce scope 1 & 2 CO₂ emissions (case example 01 below)
- Promote introduction of eco-friendly parts and materials at INOAC Group companies (INOAC Housing & Construction Materials Co., Ltd.) (case example 02 below)
- Begin compiling data from overseas business units

01 CO₂ emissions by year in Japan (Head Office, associated & affiliated)

Emissions decreased 11% year-on-year in 2022. Around 30% of the reduction was from effects from horizontally rolling out energy saving standards, and 70% was effects from reduced production and both elimination and consolidation of production lines. The decrease was 19% compared to 2013.

Adopting renewable energies and reorganizing plants will be added to our activities targeting a 50% reduction in 2030.

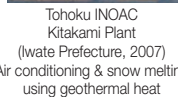


02 Promote implementation of eco-friendly parts and materials at INOAC Group companies

INOAC Group company INOAC Housing & Construction Materials Co., Ltd. produces many different parts and materials that contribute to energy saving. We are actively incorporating these parts and materials in our own new office buildings and plants.



Tohoku INOAC Kitakami Plant (Iwate Prefecture, 2007)
Air conditioning & snow melting using geothermal heat



Hokkaido INOAC (Hokkaido, 2013 & 2019)
Snow melting using geothermal heat



Tohoku INOAC Detached houses & housing complexes (Miyazaki Prefecture, 2015)
Air conditioning using geothermal heat



INOAC Head Office (Nagoya, 2017)
Air conditioning using geothermal heat



INOAC Tsukidate Plant (Miyazaki Prefecture, 2018 & 2021)
Air conditioning and ZEBs using geothermal heat

Raw Materials Section Committee

Mission

Set 2030 monitoring targets for scope 3 emissions (polyurethane, resin, rubber, and paint, which comprise a significant proportion of Category 1) and engage in activities to reduce CO₂

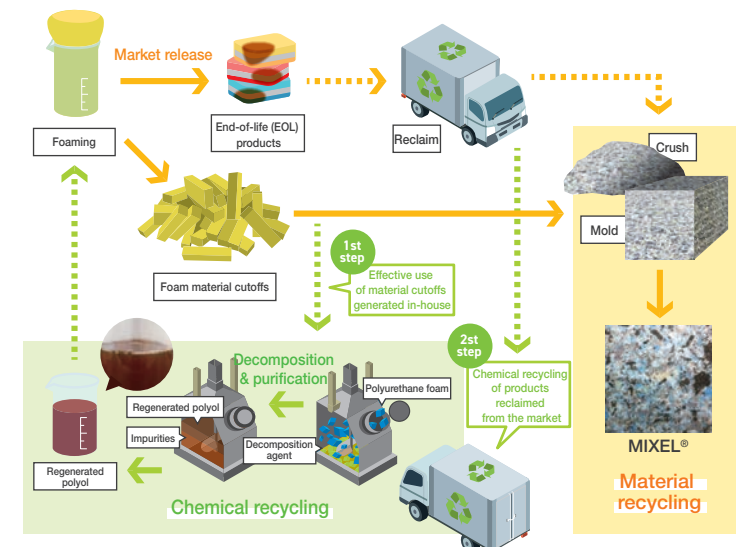
Action plan

- Reduce usage volume (waste reduction, weight reduction, thickness reduction)
- Shift to material and chemical recycling for materials (case example 03 below)
- Replace with eco-friendly materials (shift from rubber to resin and biomaterials)

03 Polyurethane foam recycling initiative

In addition to our conventional material recycling, we have also been working to develop chemical recycling technologies. Our aim is to reduce our usage volume of petroleum-based materials by recycling polyurethane foam as a raw material. First we want to make effective use of material cutoffs generated in-house, and then establish chemical recycling of products reclaimed from the market.

Polyurethane foam recycling efforts at INOAC



Environment

Initiatives of our CN Committee

Logistics Section Committee



Mission

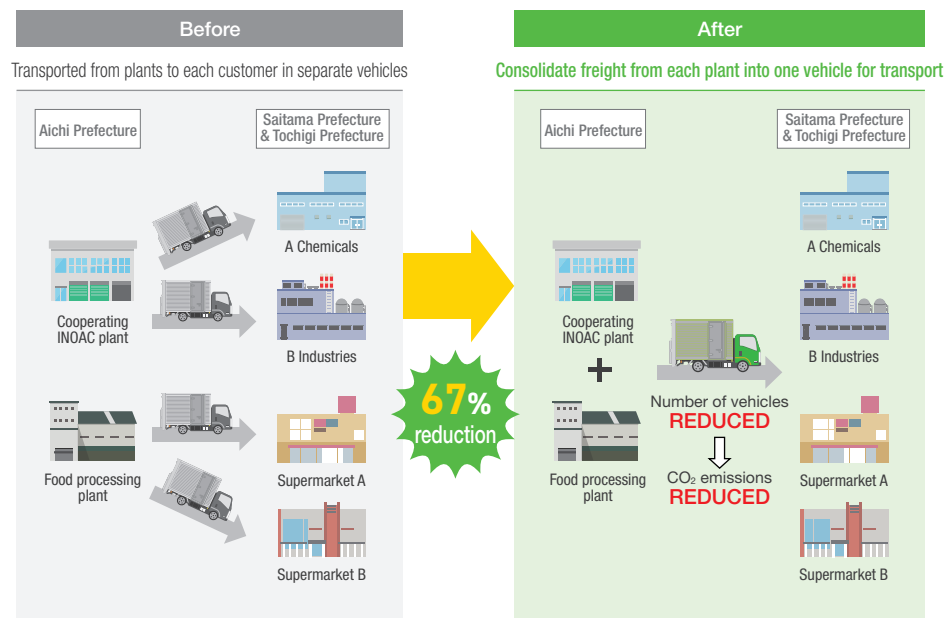
Targeting scope 3 (Category 4 upstream transportation and distribution). With 2023 as the base year, set monitoring targets for 2030 and work to reduce CO₂ emissions in logistics

Action plan

- Build systems to visualize CO₂ emissions in logistics
- Reduce CO₂ emissions in logistics (improve loading efficiency, consider modal shifts, join client milk runs, switch to low-emission vehicles) (case example 04 below)

04 More efficient loading in logistics

We consult with logistics companies to transport mixed loads with neighboring manufacturers in other industries. This has reduced CO₂ emissions by 67% while also successfully lowering logistics costs.



Departmental Section Committee



Mission

Plan and execute medium- to long-term strategies for major products with risks and opportunities from the transition to a low carbon society in mind

Action plan

- Expand the potential to achieve scenarios through closer coordination with other section committees, customers, and suppliers (case example 05 below)
- Calculate the carbon footprint of our main products, set target values, decide on items to reduce and execute those reductions (case example 06 below)

05 Request for supplier to engage in CO₂ reduction activities (coordinated with the Energy Section Committee)

In April 2023, we held an in-house CN exhibition. Suppliers were also allowed to attend, and they observed our CO₂ emissions reduction activities. Additionally, suppliers with high purchase amounts whose sales ratios with us are proportionally higher were selected for a kickoff that took place in July. First we requested that they research their CO₂ emissions and conceptualize topics for CO₂ reduction (energy-saving) items. We also asked that they set reduction targets at their own discretion. To support them, we are sharing our energy saving items and are also planning awards at the end of the fiscal year for companies engaging in outstanding activities.



06 Launch of CO₂ reduction activities per product type (Automotive Division)

Every year there is increasing demand for CO₂ reduction efforts from the automotive industry, which comprises a large proportion of our sales. To meet these demands, we launched CO₂ reduction activities per product type in 2023. Product leaders were chosen for eight main product types. The leaders gathered on a quarterly basis to share information on their progress.

管理帳票

＜目標＞
・下記帳票を使用して低減率の実進捗を管理。
・3ヶ月に1回進捗フォロー会を実施していく。

品名	単位	2023年1月	2023年2月	2023年3月	2023年4月	2023年5月	2023年6月	2023年7月	2023年8月	2023年9月	2023年10月	2023年11月	2023年12月	2024年1月	2024年2月	2024年3月	2024年4月	2024年5月	2024年6月	2024年7月	2024年8月	2024年9月	2024年10月	2024年11月	2024年12月
自動車	トン																								
部品	トン																								
その他	トン																								

INNOVATION AND GLOBALIZATION INOAC

Summary of major activities

● Summary of major activities in FY 2022

The results of our main environmental efforts in FY 2022 are shown in the table below.

To clearly express our reduction targets, we changed our targets from measured units to total volume starting this fiscal year. In terms of reducing CO₂ emissions that result from energy use, the CN Committee took the lead in production efficiency efforts to reach our targets. For industrial waste disposal, we moved forward with efforts to reduce our volume of industrial waste disposal including in recycling and disposal of items with salvageable value. As a result, our disposal volume decreased and we achieved our target. We began managing our water intake in 2022 and started managing related targets in 2023. Our water intake in 2022 was 5.4% less than the previous year. Our volume of released PRTR substances declined from the previous year by 3.2% due to progress in replacing these substances and other efforts, but this fell short of our targeted 5% decrease.

Initiative		Targets in FY 2022	Achieved in FY 2022	Targets in FY 2023
Energy consumption reduction (in plants)	CO ₂ emissions (tons)	78,439 or less	74,355	73,354 or less
Waste reduction (in plants)	Treatment amount (tons)	10,098 or less	9,894	10,440 or less
PRTR substances reduction in release and transfer amounts	Amount emitted + amount transferred (tons)	315 or less	321	304 or less
Water intake reduction	Water intake (thousand m ³)	— [2,392 (2021 result)]	2,266	2,319 or less
Manage chemical substances	Revise green procurement rules	No target	Revise green procurement criteria (April 1, 2022)	Continue addressing the newness of this field
Environmental incidents	Major accidents, legal violations, number of complaints	No target	0	0

Environment data is collected to summarize major activities from all INOAC Group business locations in Japan.

Reducing our environmental footprint

● Activities to reduce waste

In waste reduction, the company-wide Waste Reduction Committee led efforts to improve our rate of product commercialization by reducing defects and increasing yield, and to reduce waste by reusing more material cutoffs. The committee is working on technology to recycle cross-linked polyethylene material cutoffs that we produce and is developing a cyclical system to repurpose material cutoffs that normally had been discarded as raw materials. Production lines are currently being prepared for mass production of recycled material. The committee is striving to commercialize recycled materials and reduce waste.

● Activities to reduce the use of environmentally hazardous substances

We use PRTR substances such as m-tolylene diisocyanate, a raw material for polyurethane foam, as well as xylene and toluene which coatings contain. To reduce the amounts of these chemical substances that we handle, release, and transfer, we made progress in reducing dichloromethane which is partially left over as foaming agent and in both improving and taking measures against defects in its coating process. We reduced emissions, but our measured units metric increased due to its relationship with order volume.

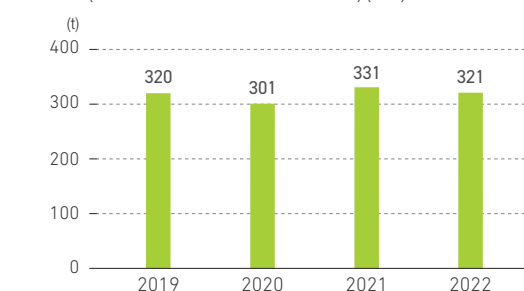
● Efforts to address water-related risks

Since we use large volumes of water for cooling our facilities and cleaning, we consider water to be a precious resource. Our previous activities for water-related risks involved efforts to address droughts, water-related disasters, water pollution, and water regulations. For water recycling, we recycle the water we use to clean equipment in our coating processes. As measures against water pollution, we prevent spills or runoffs of raw materials and also monitor ground and drainage water. To reduce water usage, we started conducting present state investigations in FY 2022, and we will begin engaging in actual activities in pursuit of reductions going forward.

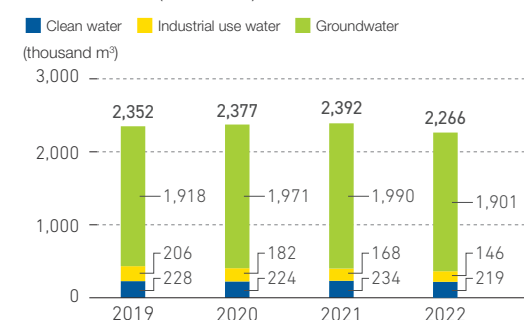
Waste treatment amount (tons)



PRTR (amount emitted + amount transferred) (tons)



Water intake (thousand m³)



Environmental risk & information management

► Observing environmental laws and regulations

At INOAC, we identify environmental laws and regulations that are relevant to our business activities and manage them on a daily basis. Through monitoring, measurement, and assessment at each plant, we prevent environmental pollution and otherwise conduct environmental risk management to ensure that we properly comply with laws and regulations related to noise and industrial waste treatment as part of our environmental management system. We will also strictly observe environmental preservation agreements with local governments, including thorough compliance with environmental laws and regulations, by conducting regular audits pertaining to environmental regulations.

Major environment-related laws and regulations pertaining to our business

Air	Air Pollution Control Act, Automobile NOx PM Law, Act on Special Measures against Dioxins
Water quality & soil	Water Pollution Prevention Act, Purification Tank Act, Sewerage Act, Soil Contamination Countermeasures Act
Noise, vibration & odor	Noise Regulation Act, Vibration Regulation Act, Offensive Odor Control Act
Chemical substances	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof, Poisonous and Deleterious Substances Control Act
Resource conservation & recycling	Act on the Rational Use of Energy, Act on the Promotion of Sorted Collection and Recycling of Containers and Packaging, Act on Rational Use and Appropriate Management of Fluorocarbons, Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes, Waste Management and Public Cleansing Act
Disaster prevention	Fire Service Act, High Pressure Gas Safety Act
General & others	Factory Location Act, Act on Improvement of Pollution Prevention Systems in Specified Factories, Radio Act

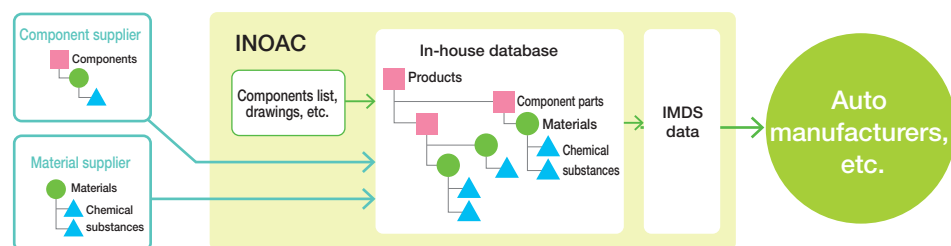
* Legal orders such as local government ordinances are omitted

* Some of the above are abbreviated

► Promoting IMDS, chemSHERPA and more

INOAC registers information on chemicals and reports it to our customers through IMDS¹, particularly in the automotive field which is our main field of business. We have a management system to obtain the necessary information via our supply chain and to register the information into IMDS.

Information collection through IMDS in INOAC—reporting process and chemical management system



We also collect information and report it to our clients using the chemSHERPA² format, which is widely used in the industrial world, especially the electrical machinery industry.

¹ IMDS (International Material Data System): A database for transmitting and obtaining information on materials and chemicals over the Internet for the automotive industry, which was originally developed to comply with the EU ELV Directive

² chemSHERPA: A unified format to transmit information on chemicals contained in products in the supply chain, which the Ministry of Economy, Trade and Industry took the initiative in developing

► Creating an in-house database

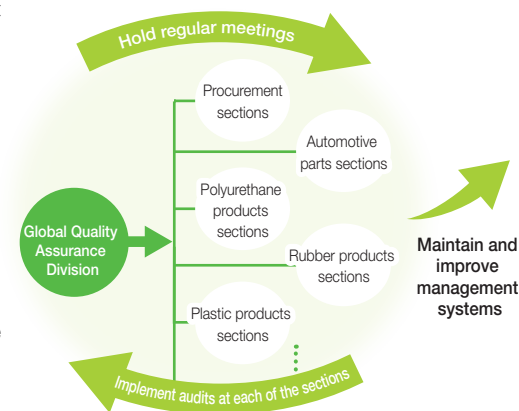
The Automotive Division and Foam Products Division are creating an in-house database through which information on chemical substances contained in parts and materials purchased from clients is identified based on information about chemical substances, and centrally managed. This has allowed us to be certain of our compliance with laws and regulations on chemical substances and client requirements which increase each year, while also helping to improve the efficiency and the reporting accuracy of information we register in IMDS and when examining the chemical substances contained in our products.

► Establishment and implementation of green procurement criteria

We ascertain what chemical substances are regulated by laws, regulations, and by our clients, based on which we create our green procurement criteria—a list of those chemical substances that we should work to reduce. We present these criteria to clients and use them to obtain information on chemical substances contained in raw materials to be purchased. We are also consistently monitoring the latest regulatory developments, based on which we revise these criteria once each year.

► Communication about chemical substance management

The Global Quality Assurance Division is a company-wide organization for environmental stewardship, which organizes and leads internal coordination meetings for the chemical substance management sections of each department once every two months. They review the green procurement criteria, check the management system and establish or change its operating rules, and exchange opinions concerning the latest trends in chemical regulations, such as the REACH regulation and RoHS Directive. They also periodically audit the management system in each department. We strive to maintain and improve chemical substance management systems that are appropriate and reliable.



► Training for emergencies

We identify accidents and emergencies according to the characteristics of each business facility, and periodically conduct training to prevent and stop the spread of environmental pollution resulting from earthquakes, fires and leakage of oils and raw materials. In 2022, disaster prevention training was conducted at the Anjo Plant (in Aichi Prefecture) on March 25, and raw material spill prevention training was conducted in manufacturing sections on October 19. These trainings were smaller in scale due to the pandemic. In other facilities, training for emergencies and urgent circumstances is conducted on a preparatory basis.