

Please visit our website for more details on our policies, promotion system, and activities.



- P95/Climate Change Strategies
- P99/Biodiversity Strategies
- P100/Toward Circular Economy
- P101/Response to Environmental Risks

Environment

Mission

Although we use fossil raw materials and fuels in our product manufacturing processes and emit greenhouse gases (GHG), we have many products and services that contribute to energy conservation, resource recycling and biodiversity. To this end, we regard addressing the environment as a crucial management issue in terms of both opportunity and risk, and under the supervision of the Board of Directors, we will make medium- to long-term efforts to enhance our corporate value.

Approach to Initiatives

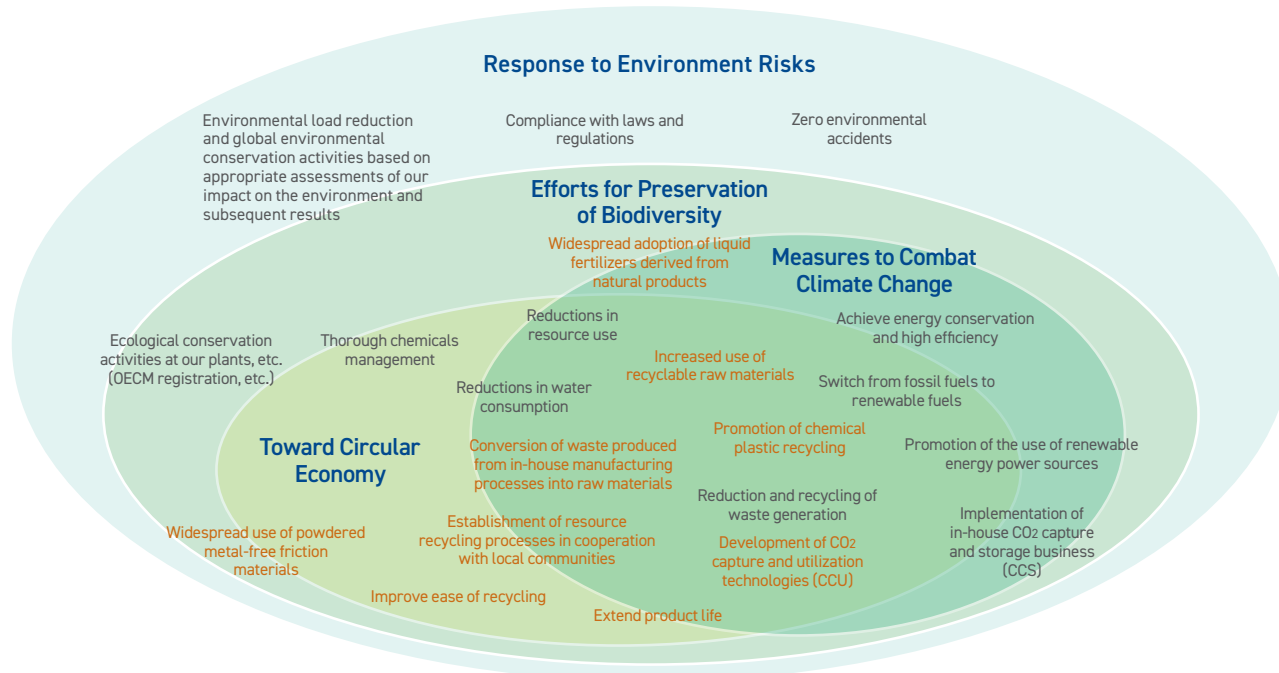
In June 2024, we established a new Environmental Policy [Web](#) as the Resonac Group, which outlines the key environmental issues that warrant addressing and action guidelines for solving these issues.

With regard to climate change, we endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in May 2019. As for biodiversity, we were registered in June 2024 as a TNFD Adopter of the disclosure recommendations published by TNFD* in September 2023. Accordingly, we are conducting information disclosure in alignment with the TCFD and TNFD and holding dialogue with stakeholders.

*TNFD (Taskforce on Nature-Related Financial Disclosures): A task force established in June 2021 to provide a framework for nature-related risk management and disclosure. In September 2023, as its final recommendations (v1.0), the TNFD released a framework for companies and financial institutions to identify, assess, manage, and disclose nature-related issues.

Overview of Resonac's environmental initiatives

The four pillars of our environmental initiatives are "Measures to Combat Climate Change," "Efforts for Preservation of Biodiversity," "Toward Circular Economy" and "Response to Environmental Risks." As each of these initiatives relate, "Efforts for Preservation of Biodiversity" and "Toward Circular Economy" must be addressed simultaneously in order to implement "Measures to Combat Climate Change," which is an urgent matter. We will view the entire environment as a social issue more than ever, and as such, we will take on the challenge of changing society through the power of chemistry. We will strengthen our efforts to manage risks and seize opportunities through "Response to Environmental Risks" spanning across all of our environmental initiatives.



*Orange: Business opportunities
 *Avoid trade-offs: For example, we will not adversely affect the ecosystem in order to install solar panels

Issues to Be Addressed

Short to medium term (2024-2026)

- Improved data preparation and accuracy through consolidation and portfolio changes
- Calculation of Scope 3 emissions/exploration of reduction measures on a global scale
- Re-verification of target levels (evidence-based target level verification)

Short to long term (2024-2030)

- Development of technologies for carbon neutrality and increase in reduction measures
- Promotion and disclosure of biodiversity initiatives based on TNFD recommendations
- Shift to businesses and corporate value that contribute to a circular economy
- Consistent response to and disclosure of environmental risks

Non-financial KPIs

- Reduction of greenhouse gas emissions**
2030: 30% reduction from the level of 2013 (Scope 1 and 2) (consolidated)
- Reduction of industrial waste sent to landfills**
2025: Reduction compared to 2024 (consolidated)
- Zero environmental accidents**
2025: Zero environmental accidents (consolidated)

[P85 / Non-financial KPI Results and Targets](#)

Governance

Role of the Board of Directors and monitoring system

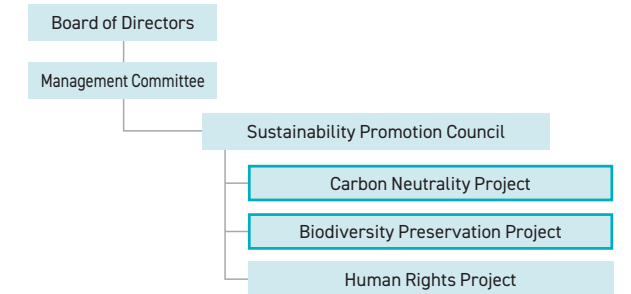
The CEO supervises the risks and business opportunities, targets, and specific initiatives associated with the environment including climate change, while the CSuO takes responsibility for promoting actions. These issues are deliberated at the Sustainability Promotion Council and the Management Committee. The progress of each initiative is regularly monitored, and remedial measures are discussed when needed.

The Board of Directors receives periodic reports of what the Sustainability Promotion Council and the Management Committee discussed, and on which points they made decisions and deliberates and supervises them from the perspective of maximizing corporate value. From 2022, we have aligned the evaluation indexes for inside directors and executive officers with the initiatives in the long-term vision and countermeasures against sustainability issues, including climate change, with the aim to strongly incentivize them to manage the Group from a long-term perspective and promote the sustainable growth of the Group. In March 2024, we revised our Corporate Governance Basic Policies to

clarify the role of the Board of Directors in addressing climate change and protecting biodiversity.

The Carbon Neutrality Project is led by the Sustainability Department and involves all CXOs and business units.

Monitoring system for environmental initiatives by the Board of Directors (as of June 30, 2024)



etc.

Risk Management

Process to assess, identify, and manage risks

The Group conducts climate change and biodiversity risk assessments for each business, assesses "transition risks" and "physical risks" arising from climate change, as well as dependency, impact, and risks related to nature. We then identify material risks for the Group and develop countermeasures against them. Material issues in identifying risks and developing countermeasures are reported to the Board of Directors. We will continue to conduct the risk assessments to update risks and countermeasures, along with monitoring the progress of the existing countermeasures.

Integration into enterprise risk management

Given the importance of building an enterprise risk management system, the Group pursues integrated risk management using a common framework across the Group. Information on climate change, biodiversity and other risks with the potential to impact the Group's management is registered in an integrated manner into our risk management system via companywide risk identification activities (as part of risk assessment procedures). Key risks, which are deemed to have a particularly high frequency or degree of impact, are deliberated by a dedicated committee (Risk Management Committee). Important matters examined by the Sustainability Promotion Council and the Risk Management Committee are submitted to the Management Committee for deliberation and decision before being reported to the Board of Directors.

Environment

Climate Change Strategies (Disclosure in Line With the TCFD Recommendations)

Short-, medium- to long-term climate change-related risks and opportunities and responses to them

Amid the successful transition to a carbon-neutral society, the Group sees climate change as both a risk and opportunity. The Group will exercise its social responsibility as a company and build further competitive advantages to reduce GHG emissions across the value chain by providing products and services that contribute to decarbonization, achieving co-creation with partners, improving energy efficiency, and increasing usage of renewable energy. Given the above, the Group analyzes risks and opportunities to evaluate the impact of climate change on the Group businesses under the following two scenarios: (1) The average global temperature will increase by 4°C or more and (2) The average global temperature rise can be kept well below 2°C and continue efforts to limit it to 1.5°C based on the Paris Agreement, which were released by the Intergovernmental Panel on Climate Change (IPCC) or the International Energy Agency (IEA). Based on the analysis, we determine the necessary countermeasures. Business impact assessments were conducted in the Semiconductor and Electronic Materials segments in 2023, followed by the Mobility and Innovation Enabling Materials segments in 2024. Assessments are scheduled to be completed for all businesses by 2025. We will make

disclosures on this front starting with the segments for which impact assessments have been completed. Transition risks affecting the Group businesses include increased operating costs due to a rise in energy taxes including carbon pricing. We aim to reduce CO₂ emissions to about 3.24 million t-CO₂ by 2030, or a 30% reduction from 4.63 million t-CO₂ in 2013. Assuming that Scope 1 and 2 emissions in fiscal 2030 resulting from sales growth are estimated to be about 5 million t-CO₂, the carbon pricing is set at ¥10,000/t-CO₂ based on the IEA's 2°C scenario (SDS)* and others, and we need to offset the portion that falls short of reduction target through emission trading. In that case, if we fail to reduce emissions by 30%, the operating cost will increase by about ¥18 billion per year, implying that hitting the reduction target will lead to reducing operating costs. As a company that interrelates with society, we will continue to use other scenario analyses to contribute to realization of a carbon-neutral society in various ways, take measures against climate risks, and achieve a sustainable growth.

*2°C scenario (SDS): Sustainable development scenario

Assumptions for scenario analysis

- Estimated Duration: Until fiscal 2030
- Adopted scenarios: 4°C scenario: IPCC/RCP8.5, IEA/STEPS 1.5/2°C scenario: IPCC/RCP2.6, IEA/SDS (partly IEA/NZE)
- Timeline definition: Short-term = less than three years, medium-term = three to less than ten years, long-term = ten to thirty years
- Scenario analysis target: Existing businesses

Impact Assessment of Electronics Business Headquarters

Although we recognize the importance of taking on the challenge of achieving carbon neutrality, we were grasping at straws to see how we could visualize business opportunities and risks, and whether our current measures were able to sufficiently cover all opportunities and risks. The Electronics Business Headquarters conducted an in-depth analysis of the TCFD scenario, which I think produced three good points. First, we were able to quantitatively grasp the impact of opportunities and risks on our businesses. Second, we were able to reaffirm that our strategy sufficiently addresses opportunities and risks. And third, we now think even more about whether the strategy we formulated can be an effective measure against climate change, making it easier to link them and explain to members of the Electronics Business Headquarters. In cooperation with the Sustainability Department, we would like to continue our efforts to regularly scrutinize our strategies and measures based on TCFD scenario analysis.



Mayumi Hatakeda
Sustainability Partner,
General Manager,
Business Strategy Department,
Electronics Business Headquarters

Climate-related risks and opportunities and main response

Opportunity/ Risk category	Domain	Time frame	Impacts on the Company	Response measures	Impact*1	
					1.5/2°C	4°C
Risks	All businesses	Medium term	Increase in tax (cost) due to the introduction of carbon pricing (ICP)	<ul style="list-style-type: none"> ● Revision of GHG emission reduction targets for 2030 and establishment of the roadmap ● Set targets and implement reduction initiatives for each business ● Expand the introduction of renewable energy ● Raw materials/fuels conversion ● Participation in the GX League 	Large	Large
Risks		Short to medium term	Shift to renewable energy due to tighter regulations on GHG emissions / Increase in procurement costs	<ul style="list-style-type: none"> ● Introduction of solar power generation and utilization of hydroelectric power generation facilities 	Small	None
Opportunities and risks		Short to medium term	Government support under the policies for decarbonization initiatives of companies	<ul style="list-style-type: none"> ● Development of eight-inch SiC wafers for next-generation green power semiconductors (adopted as part of the NEDO Green Innovation Fund project) ● Development of a low-concentration CO₂ separation system employing an innovative separation agent (adopted as part of the NEDO Green Innovation Fund project) ● Reinforcement of the global semiconductor material supply chain (adopted under the Ministry of Economy, Trade and Industry subsidiary program for overseas market survey projects for building resilient supply chains in the Indo-Pacific area) 	—	—
Opportunities and risks		Short to medium term	Increases/decreases in sales due to changes in consumer behavior and awareness	<ul style="list-style-type: none"> ● Promotion of products, development of new products, and improvement of competitiveness in response to the needs of a decarbonized society ● Advancement of R&D based on long-term themes at the Stage for Co-creation 	—	—
Risks		Short term	Greater request for initiatives and disclosure related to decarbonization from customers	<ul style="list-style-type: none"> ● Establishment of life cycle assessment (LCA) and carbon footprint of products (CFP) calculation frameworks, tracking of CO₂ emissions, and formulation of reduction plans 	—	—
Opportunities and risks		Short to medium term	Re-evaluation by investors depending on how effectively the Group captures needs from society and customers to solve environmental issues	<ul style="list-style-type: none"> ● Adding value to our products/services (Resonac Pride products/services) to help solve the problems that society and customers face ● Attracting investments through proactive measures against climate change and promotion of a circular economy 	—	—
Transition opportunities and risks	Semiconductor and Electronic Materials	Short to medium term	Increase in procurement costs due to soaring prices of raw materials and switching materials	<ul style="list-style-type: none"> ● Diversification of raw material suppliers and resources ● Consideration of using recycled raw materials ● Shift to in-house production and local production for local consumption of raw materials with unstable supply ● Collaboration with upstream supply chains to reduce GHG emissions ● Set standards for BCP measures for when new raw materials are adopted ● Adoption of a formula system to respond to fluctuations in major raw material prices (changes in raw material prices are automatically reflected in product prices) 	Small	Small
		Risks	Short to medium term	Decrease in sales due to changes in consumer behavior and awareness	<ul style="list-style-type: none"> ● Reduce GHG emissions in manufacturing processes and information disclosure to customers ● Quantitatively and scientifically calculate the amount of GHG reduced by society through the utilization of our products and technologies (calculate avoided GHG emissions/CFP) ● Participate in working groups of the Semiconductor Climate Consortium (SCC) ● Explore environmentally friendly manufacturing processes ● Conduct customer satisfaction surveys ● Strengthen cooperation with sales departments to understand customers' environmental needs ● Strengthen systems for sales/marketing and new product development in anticipation of demand changes in our target markets ● Strengthen customer response management to immediately reflect customer requests in products and services 	Medium to large
	Opportunities	Short to medium term	Increase in sales due to growing demand for EVs/autonomous driving	<ul style="list-style-type: none"> ● Response to increased demand for SiC power semiconductors ● Develop materials that contribute to smaller and lighter parts 	Large	Medium
	Opportunities	Short to medium term	Increase in sales due to growing demand for low-power semiconductors and environmentally friendly products	<ul style="list-style-type: none"> ● Assess the environmental standard conformity of product designs ● Develop etching gas for semiconductors with low GWP ● Develop sealing materials that contribute to GHG-reducing processes ● Take measures to produce thinner adhesive film for memory applications ● Participate in working groups of the Semiconductor Climate Consortium (SCC) ● Packaging Solution Center in Silicon Valley, U.S. (scheduled to be established in 2025) ● Participate in the Texas Institute for Electronics (TIE), a consortium for advanced semiconductor 	Large	None
Physical Risks	All business domains	Short term	Suspended operation of manufacturing sites due to natural disasters caused by climate change, and decrease in profit caused by an increase in the equipment repair cost	<ul style="list-style-type: none"> ● Analysis of flood risks at manufacturing sites ● Regular risk identification and reduction activities, and enhancement of business continuity planning 	Small*2	Small*2

*1: The financial impact of climate-related opportunities and risks is being calculated sequentially, and will thus be disclosed in stages. Impact indicates the scale of impact on the Group should we address the identified climate change opportunities and risks.
 Large: We expect regulations and policies to tackle climate change to continue impacting the Group going forward. As a result, we estimate the annual impact on our operating income to be ¥10.0 billion or higher.
 Medium: Moves to address climate change are already underway, and we expect this to continue impacting the Group going forward. As a result, we estimate the annual impact on our operating income to range from ¥3.0 billion to less than ¥10.0 billion.
 Small: There are moves to address climate change. As a result, we estimate the annual impact on our annual operating income to be less than ¥3.0 billion.
 *2: Physical risks were analyzed using hazard maps and AQUEDUCT at 36 major sites in Japan. In the event of a once-in-a-century disaster, it was discovered that 13 sites are exposed to risks. However, we set the impact as "small" because the annual impact taking into account the recurrence interval is small for both the 1.5/2°C and 4°C scenarios. Going forward, we will gradually move forward with the analysis of overseas sites and supply chains.

Environment

Indicators and Targets Related to Climate Change

GHG emissions reduction targets and results

We are pursuing carbon neutrality leading up to 2050, to accomplish the goal of becoming a company that contributes to a sustainable global society as put forth by our long-term vision. We have also set a milestone target of reducing Scope 1 and 2 GHG emissions by 30% (compared to 2013) by 2030. In 2023, Resonac Graphite Austria GmbH switched 100% of its electricity usage to electricity derived from wind power, and the entire Resonac Group purchased 115MWh of electricity derived from renewable energy. We reduced GHG emissions by 8.8% compared to 2013 by switching to non-fossil fuel energy sources such as solar power generation.

Going forward, we will accelerate our efforts to achieve our targets and further promote information disclosure. For Scope 3, we are gradually disclosing figures on our website for categories where calculations have been completed.

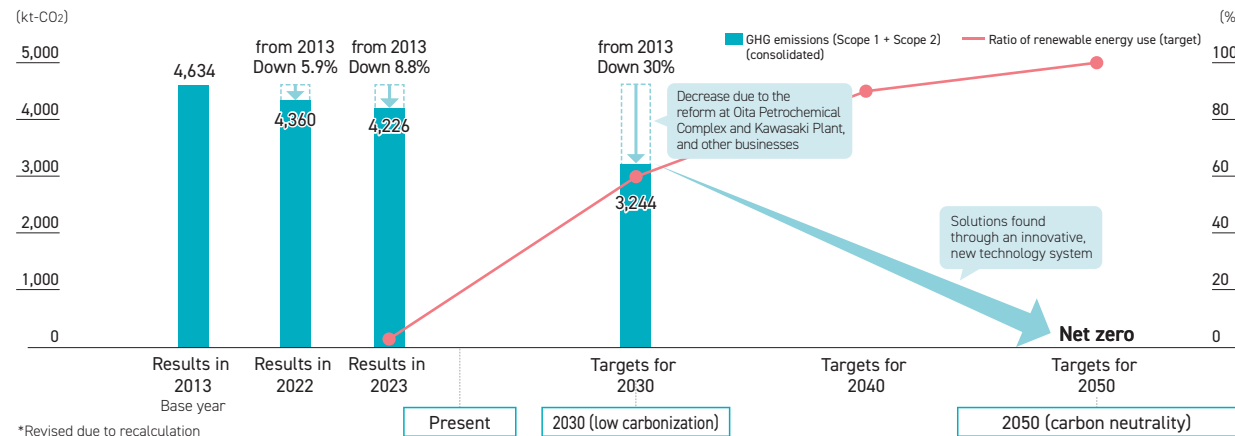
We will continue to improve the accuracy of these calculations while working to reduce our GHG emissions.

Roadmap to GHG emissions reduction

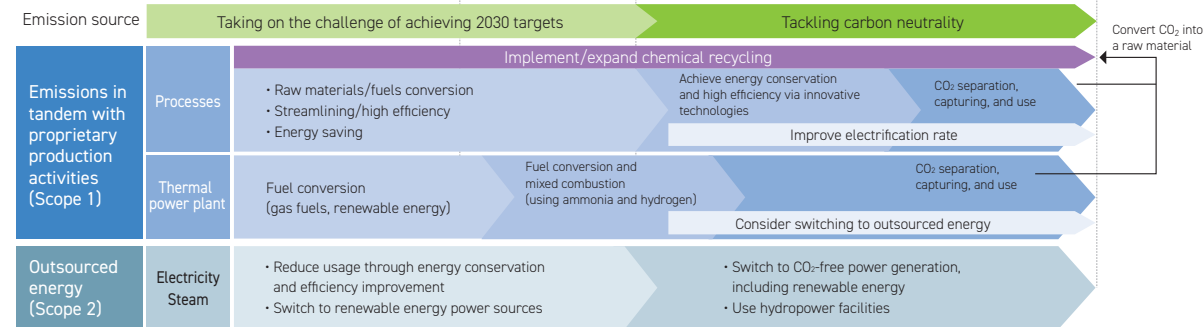
Toward carbon neutrality in 2050, we will streamline our businesses, increase efficiency, save energy, switch to gas fuels (high-efficiency co-generation system), and product manufacturing that utilizes our own hydroelectric power generation and renewable energy until 2030. From 2030 onward, we plan to actively promote fuel conversion and mixed combustion to ammonia and hydrogen, aiming toward 2050. To achieve these targets, we will set targets and formulate and implement reduction measures in each business unit. We will also implement company-wide measures led by the Carbon Neutrality Project, and set reduction targets based on scientific evidence. In addition, we have created a new roadmap for switching to renewable energy, with the goal of covering 100% of the electricity used in our businesses with renewable energy. In addition, we will achieve carbon neutrality through CO₂ separation and capture technologies and the use of recovered CO₂ as raw materials for chemical products.

Road to carbon neutrality

● Non-financial KPI Results and Targets Reduction of GHG Emissions : 30% reduction from the level of 2013 (Scope 1 and 2) (2030 target)



*Revised due to recalculation



*We consider starting the calculation and disclosure of Scope 3 emissions from upstream activities before setting a reduction target.

Examples of Initiatives Aimed at Achieving Carbon Neutrality

Exploration of CO₂ capture at Oita Petrochemical Complex and storage off the coast of Malaysia

Resonac and MITSUI & CO., LTD. ("Mitsui") signed a memorandum of understanding (MOU) regarding the joint study of CCS*1, in which Resonac and Mitsui will conduct a joint study on the capture of CO₂ emitted from the Oita Petrochemical Complex and underground storage off the coast of Malaysia. Mitsui has been jointly working on a CCS project in Malaysia with Malaysia's state-owned oil company and others. The signing of this MOU will allow the said project to be explored as a storage site. Through this project, we aim to build a value chain that includes CO₂ capture and storage (CCS) at CO₂ storage sites*2 and CO₂ transportation.



Resonac will be responsible for the separation, capture, liquefaction, and storage of CO₂ emitted from the Oita Petrochemical Complex, as well as the delivery of CO₂ to transportation companies, while Mitsui will be responsible for the ocean transport of liquefied CO₂ to Malaysia and the underground storage off the coast of Malaysia. We will examine the technological requirements and estimate the costs needed for each party to fulfil their role.

*1. Carbon dioxide (CO₂) Capture and Storage

*2. A CO₂ storage site off the coast of Malaysia that we have been jointly developing since June 2023 with Petronas CCS Solutions Sdn Bhd, the CCS subsidiary of Petrolim Nasional Berhad, Malaysia's state-owned oil company, and TotalEnergies Carbon Neutrality Ventures, the CCS subsidiary of TotalEnergies, a French integrated multi-energy company. Storage operations are scheduled to commence by around 2030.

Scope 3: Switch from gasoline to non-fossil fuel-powered company-owned vehicles

In addition to reducing emissions produced from our own business activities (Scope 1 and 2), we are also working to reduce GHG emissions throughout the entire supply chain, including Scope 3 emissions.

In 2023, we decided to switch all company vehicles (gas-powered cars) to eco-friendly cars. Over the next three years, we expect to complete the switch for 60% or more of the applicable vehicles in Japan.

From 2024, we will ramp up efforts to reduce the GHG emissions derived from the use of company vehicles, such as by considering the switch to fuel-cell vehicles (FCVs), and plan to work on shift to EVs/FCVs at our sites in Japan and overseas by 2030. We will also switch the forklifts used at our plants to electric vehicles and we will work to reduce our GHG emissions derived from fossil fuels.

Implementation of exchange meetings on carbon neutrality for young employees

At our Oita Petrochemical Complex, Kawasaki Plant, and Stage for Co-creation (Yokohama), we are conducting R&D on technologies that contribute to carbon neutrality (CN). As part of these efforts, we have been holding regular CN exchange meetings with young engineers in their twenties and thirties since 2023. These meetings aim to conduct CN study sessions and deepen their understanding of CN-related development activities and technologies at each location. In June 2024, we held a plant tour and poster discussion at the Oita Petrochemical Complex, where employees actively exchanged opinions on technologies for utilizing CO₂ and waste plastics, among other topics. We will continue to develop innovative technologies that contribute to CN by facilitating co-creation both inside and outside the Company through the CN exchange meetings with young employees.



Environment

Biodiversity Strategies (Information Disclosure in Line with the TNFD Recommendations)

We plan to make efforts to tackle climate change and achieve a circular economy through our business activities. At the same time, we will consider our dependence on nature and the impact this has, and carry out activities to reduce and manage our impact, and conserve nature. In our efforts, we will be conscious not only of our own business areas but also our value chain and we will promote ecosystem conservation and considerations for raw material suppliers.

Vision for the future (2030)

- Assess impact of Group's business activities on ecosystems and partner with various stakeholders to use natural resources in a sustainable way, while preserving, restoring, and improving them

Results in 2023

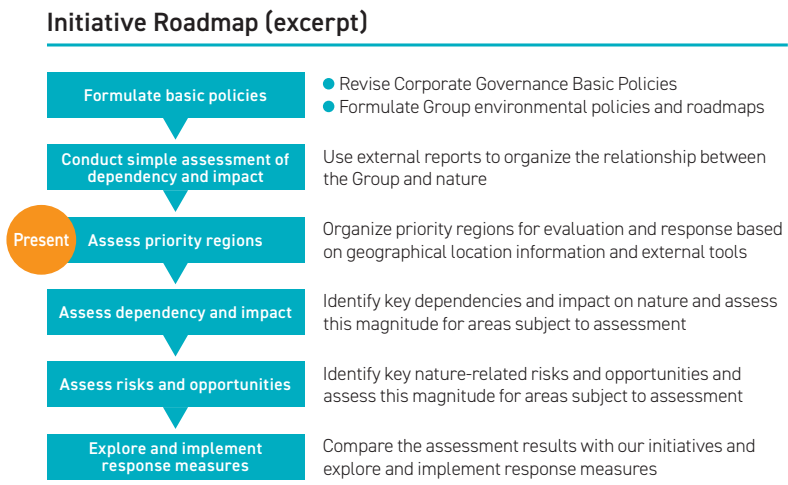
Roadmap development and impact assessment

- Developed a biodiversity preservation roadmap that is aligned with our sustainability strategy roadmap based on TNFD's disclosure recommendations and approach
- Conducted impact assessments at major plants

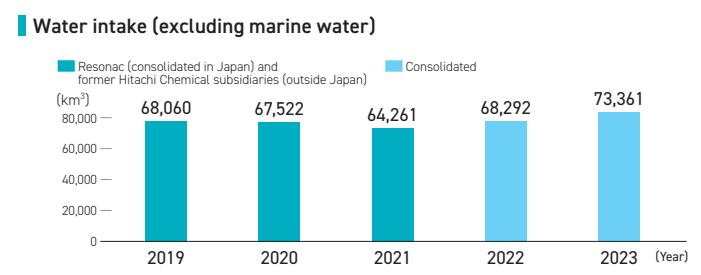
Plans for 2024

Implement an impact assessment based on the roadmap

- Conduct a detailed investigation based on past investigations and a detailed risk assessment at priority sites, and explore response measures
- Organize environmental data and apply it to core global indicators
- Collaboration with social contribution activities and apply for OEMC registration
- Register as a TNFD Adopter



Key items and results



Topics

Launched KROPICO, a Product that Contributes to Biodiversity

We have commenced a full-scale launch in Japan of KROPICO (*fertilizer registration number: 105862), a biostimulant material that promotes growth and alleviates stress in plants. It contains zero synthetic chemical substances, and is the first biostimulant in the world to contain several types of oligosaccharides with different functions. Using this product helps to achieve healthy crop growth and reduce the use of fertilizers and pesticides, thereby reducing CO₂ emissions related to crop production and lowering environmental pollution caused by excessive use.



Register as a TNFD Adopter

We endorsed the recommendations published by the Taskforce on Nature-related Financial Disclosures (TNFD) in September 2023, and registered as a TNFD Adopter and joined the TNFD Forum in June 2024. Going forward, we will promote initiatives based on the recognition that the continued protection of biodiversity is important for the natural resilience of ecosystems, while also exploring the identification and assessment of nature-related issues (dependencies, impact, risks and opportunities) in accordance with the TNFD recommendations, and disclose information on this front.

Toward Circular Economy

We work hard to recycle waste and use resources efficiently. To this end, our business and R&D divisions promote their activities by paying attention to the entire product life cycle from product design and development to disposal. Toward circular economy, we focus on the agendas on the right, while considering setting specific goals and KPIs going forward.

- Design and development:** Reduce consumption of minerals, fossil fuels and other resources; Use recyclable materials; Control waste generation; Improve recyclability; Extend product life; Quantify environmental impact of products through the life cycle assessment
- Manufacturing:** Minimize consumption of energy, water, and other resources throughout the product life cycle
- Value chain:** Pursue co-creation with diverse stakeholders such as suppliers, customers, government agencies, municipalities, and international bodies

Vision for the future (2030)

- We are implementing a number of co-creation initiatives with stakeholders in relevant supply chains to realize a circular economy through the power of chemistry (targets and KPIs currently under consideration). Improve traceability and visualization of recycling toward a circular economy

Results in 2023

Resources

- Reinforce global environment management systems

Increase product-related initiatives

- Boost up production capacity of lithium-ion battery conduction additives to contribute to extending battery lifespan and reduce CO₂ emissions
- Conduct a joint study for recycling businesses of used plastics and fibers

Plans for 2024

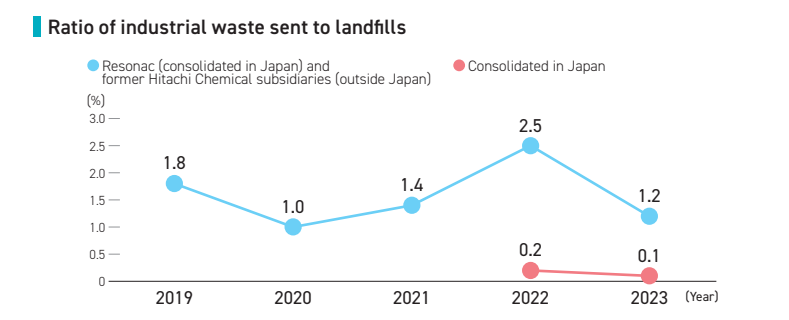
Resources

- Promote global environment management systems

Increase product-related initiatives

- Develop binders that contribute to higher input/output characteristics and longer life of lithium-ion batteries
- Provide environmentally friendly products with a view to customers' manufacturing processes, etc.

KPIs and results

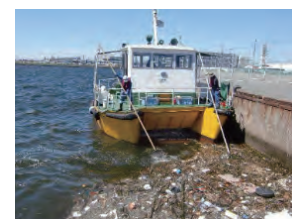


Initiatives for achieving zero emissions

By defining zero emissions as the state in which the ratio of industrial waste sent to landfills to total waste generated is 0.5% or less, we reduce the generation of waste and promote the effective use and recycling of resources. We also inspect our sub-contractors for intermediate treatment and final disposal of waste to confirm that they appropriately treat and dispose of our waste. In 2020, the government mandated companies that generate specially controlled industrial waste in the annual amount of 50 tons or more to use the electronic manifest for the reporting of their wastes. Since then, the Resonac Group's relevant sites have started producing reports using the electronic manifest.

Started demonstration experiments of marine plastic waste recycling with Kawasaki City

In cooperation with Kawasaki City, we started a demonstration experiment under "Kawasaki Plastic Chemical Recycling (KPCR)" operations at the Kawasaki Plant to recycle marine plastic waste collected from the ocean surface of Kawasaki Port, and turn it into carbon dioxide gas and raw materials for chemicals such as hydrogen and ammonia. Most marine plastic waste is currently incinerated instead of being recycled. Resonac and Kawasaki City are exploring ways to recycle marine plastic waste, which is a challenging task. We are aiming to solve this problem as a first step toward plastic recycling.



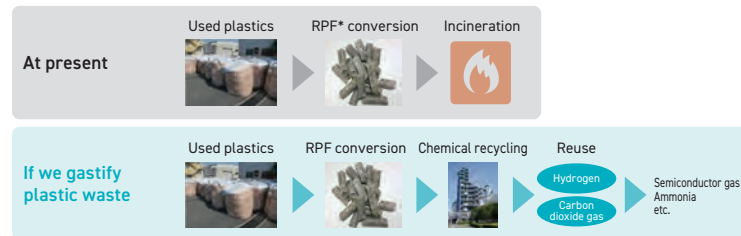
Environment

Topics

Turning Waste from Semiconductor Materials Manufacturing Processes into Raw Materials for Semiconductor Gases

—Reusing used plastic with chemical recycling technology

We have begun to consider recycling used plastic generated in the manufacturing process of semiconductor materials into hydrogen and carbon dioxide gas using our proprietary chemical recycling technology. Hydrogen is used in high-purity gases, etc. for semiconductor manufacturing as a raw material for ammonia. We conducted the first verification test at the end of January 2024 and confirmed that gasification can be achieved without any technical problems.



*Abbreviation of refuse derived paper and plastics densified fuel. RPF is solid fuel made mainly from used plastics and other industrial waste that are difficult to be used in material recycling.



Response to Environmental Risks

We appropriately assess the impact of our business on the environment and work to reduce our environmental load and implement measures for preserving the environment based on the findings of such assessments, while contributing to achieving a sustainable society. The Group CEO is the highest authority for environmental preservation activities and environmental risk measures. Information on the environment discussed at Management Committee and other meetings is shared at each business division and site through environment & safety managers appointed for business division and site. At each site, the head of the site and the environment & safety manager lead environmental preservation activities based on their environment and safety action plans.

Vision for the future (2030)
<ul style="list-style-type: none"> An integrated environment management system is in place on a global scale. The environment management status is visible on a global scale so that we can understand issues and take countermeasures against them promptly
Results in 2023
<ul style="list-style-type: none"> Establishment of a system to manage environmental risk events Establishment and global rollout of Group environmental safety management regulations Establishment of a global legal compliance system (use of checklists for environmental laws and regulations, training sessions for environmental laws and regulations, and environmental audits)
Plans for 2024
<ul style="list-style-type: none"> Establishment of guidelines for environmental risk assessments and roll them out globally Visualization of environmental risks at plants and consistent improvement of risk measures

Environmental measures in Kitakata City, Fukushima

At our Kitakata Plant in Fukushima, substances including fluorine attributable to our business in the past were detected in an amount exceeding the regulatory standards in the groundwater flowing beneath the premises. In response, we have implemented remediation measures in line with the Soil Contamination Countermeasures Act and the measures were completed in October 2023.

Niigata Minamata disease

Regarding the Niigata Minamata disease, the outbreak of which was officially confirmed in 1965, we acknowledge that former Showa Denko's wastewater polluted the Agano River, causing great inconvenience to victims and people living around the site. Resonac, in cooperation with the national and local governments, will continue to respond in good faith to the victims of the incident and work to solve the related problems in line with the laws and regulations that provide for compensation to be paid for the damage caused by the pollution.

Occupational Health and Safety

Mission

Safety qualifies us to remain in the manufacturing business. The Resonac Group will work as one to build a safety infrastructure and safety culture, and globally promote safety activities to eliminate occupational accidents.

We are working with our colleagues to build the foundations for improving corporate value, step by step, by putting the frontlines and people first in our safety and other manufacturing-related operations, technology, and quality assurance operations.



Naobumi Shimpo
CMEO/CGO

Strategy for Realizing the Long-Term Vision

Issues to be addressed (long term)	Recent issues and problem awareness	Non-financial KPIs
<ul style="list-style-type: none"> Targeting zero occupational accidents and accidents by training our personnel to have high safety awareness and skills 	<ul style="list-style-type: none"> Establishing Resonac's safety culture and infrastructure Clarifying the requirements for a zero-accident and zero-disaster workplace and building the means to achieve it 	<ul style="list-style-type: none"> Fostering a culture emphasizing safety Number of occupational accidents Lost time incident rate Number of equipment-related accidents

[P85 / Non-financial KPI Results and Targets](#)

	Vision for the future (2030)	Results in 2023	Plans for 2024
Fostering of a culture emphasizing safety	<ul style="list-style-type: none"> A mutual-enlightenment safety culture has been instilled based on leadership from the top 	<ul style="list-style-type: none"> Held exchange meetings and global activity presentations for learning about initiatives at other business sites Rolled out the Safety Communication Program (SCP*) Incorporated safety activities into evaluation system 	<ul style="list-style-type: none"> Incorporate safety performance in executive evaluations Implement safety declarations, bonuses for actions, and positive evaluations for performance Expand and enhance Safety Communication Program (SCP) activities
Establishment of safety infrastructure	<ul style="list-style-type: none"> Globally consistent risk-based safety management system is working effectively to prevent accidents and disasters 	<ul style="list-style-type: none"> Started operation of the environmental and safety management system integrating process safety Clarified the requirements for the safety data management system 	<ul style="list-style-type: none"> Develop global safety standards and safety guidelines Build an environmental and safety support system
Invigoration of safety activities	<ul style="list-style-type: none"> All employees maintain high safety sensitivity and skills and all sites actively carry out safety activities 	<ul style="list-style-type: none"> Started building safety model lines and creating guidelines for safety activities Conducted training sessions on our safety code of conduct and 10 safety principles 	<ul style="list-style-type: none"> Analyze accident-free and disaster-free sites and develop best practices Use safety model lines to create opportunities for improvement and learning Promote mutual enlightenment activities between manufacturing sites for raising safety awareness

Topics

SCP activities and regional exchange meetings

Having started SCP in 2023 in Japan, in 2024 we expanded it to the Greater China. To support this, we produced a video aimed at deepening the understanding of patrol officers and reviewed the contents of the training sessions. We also created a certification system for SCP instructors and improved the quality of patrols by training highly skilled instructors.

In 2023, we held regional exchange meetings in North and Central America, the Greater China, and the ASEAN region, where environmental and safety representatives from Resonac's headquarters and local plants gathered and talked. This initiative aims to foster a culture of mutual enlightenment based on learning from each other's safety activities. As well as getting to know each other, participants shared best practices and problems.



*SCP (Safety Communication Program): A mutual enlightenment activity where managers and supervisors carry out site patrols, flag unsafe behavior while praising good behavior, and resolve issues together.

Please visit our website for more details on our policies, promotion system, and activities.

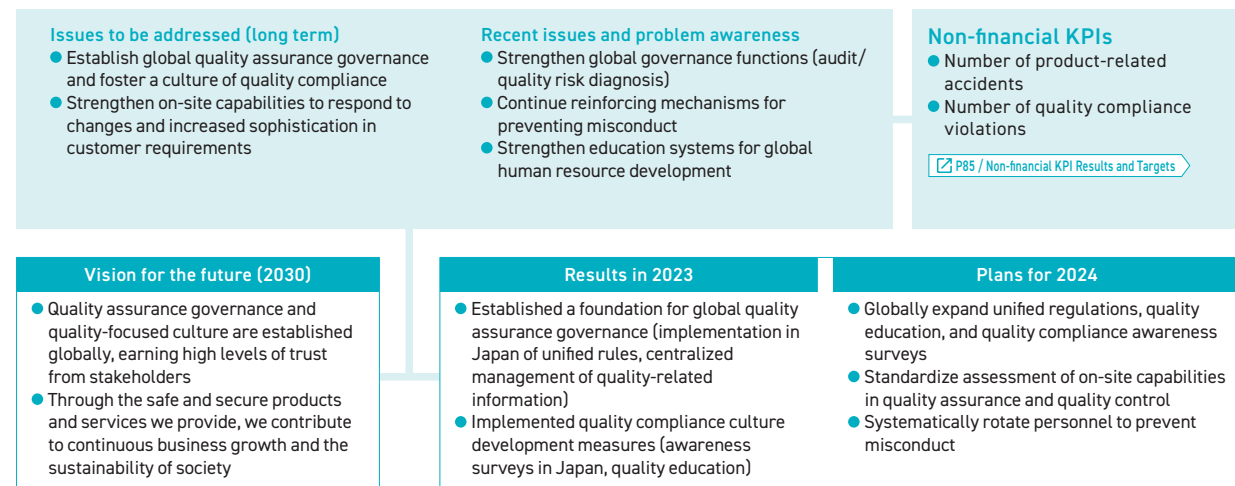


Quality Assurance

Mission

We supply products and services that are safe and provide peace of mind through our quality assurance activities based on relationships of trust with our various stakeholders including our customers and suppliers.

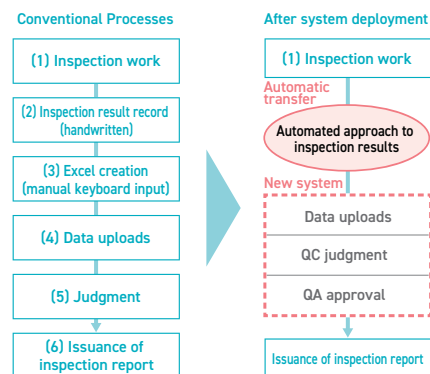
Strategy for Realizing the Long-Term Vision



Topics

Automated inspection system

To prevent quality compliance violations, Resonac is introducing a system that automatically issues shipment inspection reports based on inspection instructions, quality standards, inspection result information, and the results of their judgments. The system is being rolled out sequentially to each business site. Until now, depending on the inspection item, the measured inspection data was recorded on a handwritten document and then manually entered into the system. At one business site, an average of 40,000 pieces of data were being entered manually each month. This situation meant that transcription or data entry errors could arise, as could improper work. To improve this, inspection equipment was connected directly to the system, enabling inspection data to be automatically transferred. This minimizes human involvement in the judgments of inspection results and all other data, preventing human error and misconduct while saving labor.



Implementation of quality compliance awareness survey

In August 2023, we conducted a quality compliance awareness survey of over 13,300 all employees of the Resonac Group in Japan.

Through questions about the Company as a whole, employees' own workplaces, and individuals, the survey examined employees' attitudes to and psychological states about quality compliance. Questions included whether the climate, system, and resources were adequate for ensuring quality and attitudes to learning without hiding mistakes, communication, and open discussion, etc.

Although there were many positive responses noting the thorough status and culture of quality compliance at an individual or department level, the overall result was a call for improvements in enterprise-wide system development and resource allocation. With our two companies having merged and expanded in scale, we have identified the need to promote integrated Group measures, and will further strengthen these efforts.

Please visit our website for more details on our policies, promotion system, and activities.

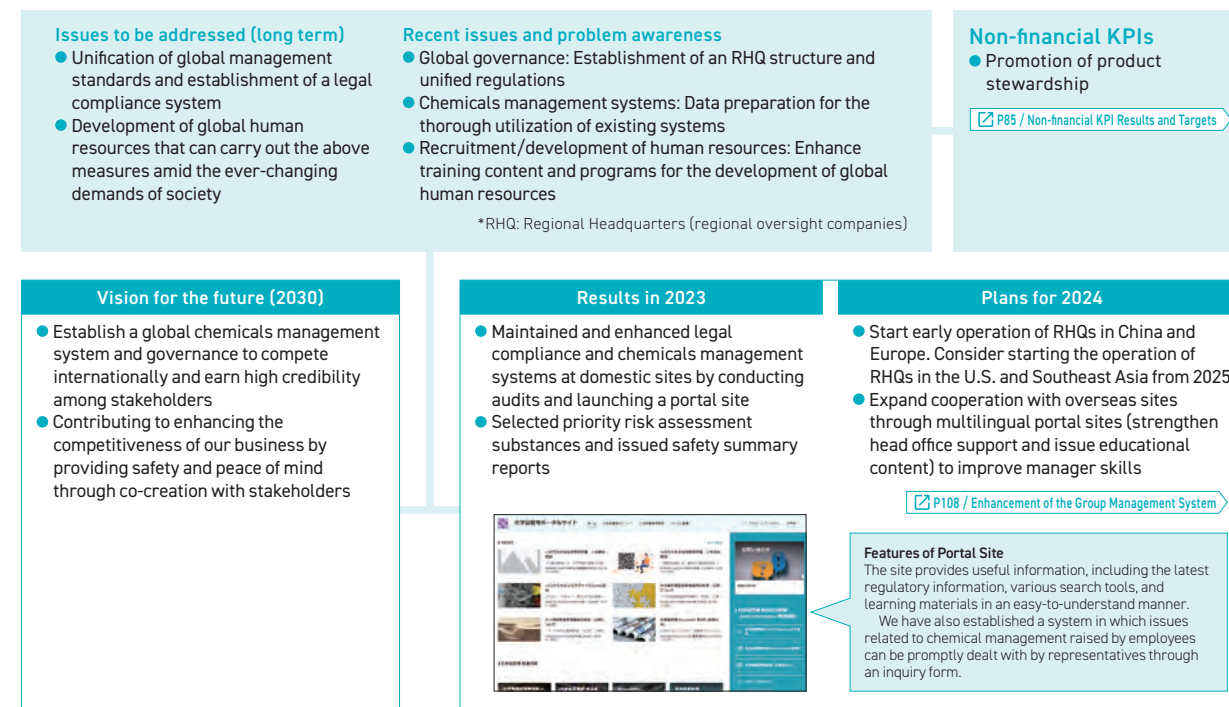


Chemicals Management

Mission

We are dedicated to ensuring chemicals management compliance and providing safety and peace of mind throughout the entire product lifecycle. We will strive to create new value through safety and contribute to the realization of a sustainable society and the enrichment of people's lives.

Strategy for Realizing the Long-Term Vision



Features of Portal Site
The site provides useful information, including the latest regulatory information, various search tools, and learning materials in an easy-to-understand manner. We have also established a system in which issues related to chemical management raised by employees can be promptly dealt with by representatives through an inquiry form.

Topics

Received the JIPS Award for the Third Consecutive Year

We have received the 2023 JIPS* Award for the third consecutive year. Continuing from the previous year, we selected priority substances, conducted risk assessments, and published 20 safety summary reports. The systematic increase in the number of our safety summary report registrations has been highly regarded.



*The JIPS award is presented by the Japan Chemical Industry Association (JCIA) to member companies that have conducted superior initiatives in disclosing their safety summary reports as part of the autonomous/self-motivated initiatives in chemicals management.

Formulation of Green Procurement Guidelines

In our material procurement activities, we have established the Green Procurement Guidelines to promote the procurement of goods and services with reduced environmental impact (i.e. green procurement). [Web](#) The guidelines select and classify the chemical substances prohibited from being included in procured products and those that require control (containment controlled substances) into two management categories (Level 1: Prohibited Substances, Level 2: Controlled Substances), and clearly outline the survey and measuring methods and reporting standards for contained substances. These guidelines accompany the items related to "3. Activities that we request our business partners to endorse and implement" of the "Resonac Group Sustainable Procurement Guidelines." We will continue to update them so that we can share our views on voluntarily controlled chemical substances with our suppliers and take action together.

Please visit our website for more details on our policies, promotion system, and activities.

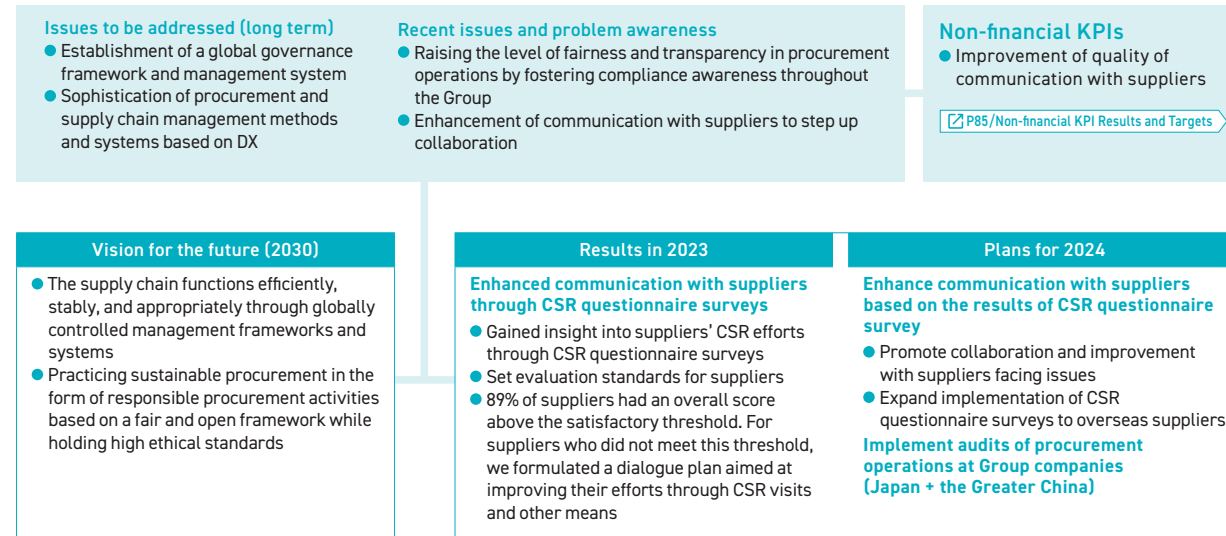


Sustainable Procurement

Mission

In order to realize a sustainable society with consideration for the environment and society, we aim to conduct fair, impartial, and stable procurement activities in a responsible manner through long-term relationships of trust with our suppliers.

Strategy for Realizing the Long-Term Vision

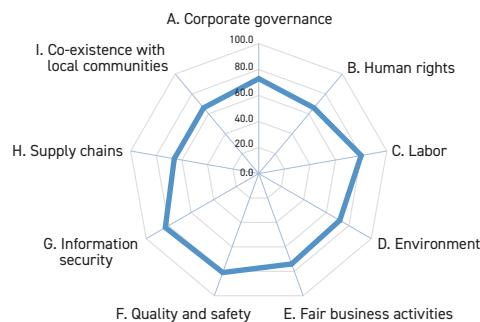


Topics

CSR Questionnaire Surveys and CSR Visits

In the Resonac Sustainable Procurement Guidelines, [Web](#) all new suppliers are asked to complete a CSR questionnaire survey when we start doing business with them, and important existing suppliers are asked to complete a CSR questionnaire survey once every three years. We also conduct "CSR visits" to around 40 companies every year to confirm the status of CSR activities and introduce good examples.

In addition to assessing the suppliers' risks, these are important activities that enable us to build close and fair cooperative relationships with suppliers.



Results of CSR questionnaires for our suppliers conducted in 2023 (average score percentage by item)

Addressing the 2024 Logistics Issue in Japan

With regulations capping overtime hours for truck drivers coming into force in April 2024, there are concerns about a shortage of transportation capacity. In June 2023, a chemicals working group was established in the Physical Internet Realization Council, comprising ministries and agencies related to the Ministry of Economy, Trade and Industry, chemical-related companies, and logistics companies in order to tackle the "2024 logistics issue." Resonac is also participating in this chemicals working group. We have formulated a concrete action plan to realize sustainable logistics (stability, safety, carbon neutrality, and efficiency), and are carrying out initiatives, including the reform, standardization, and digitalization of logistics business practices.

Please visit our website for more details on our policies, promotion system, and activities.



Respect for Human Rights

Mission

Respecting human rights and creating an environment with high psychological safety are prerequisites for employees to work autonomously and creatively. In order to realize a society in which everyone is respected equally, we will cooperate with all stakeholders, including suppliers, and conduct business activities in consideration of human rights on a global scale.

Strategy for Realizing the Long-Term Vision

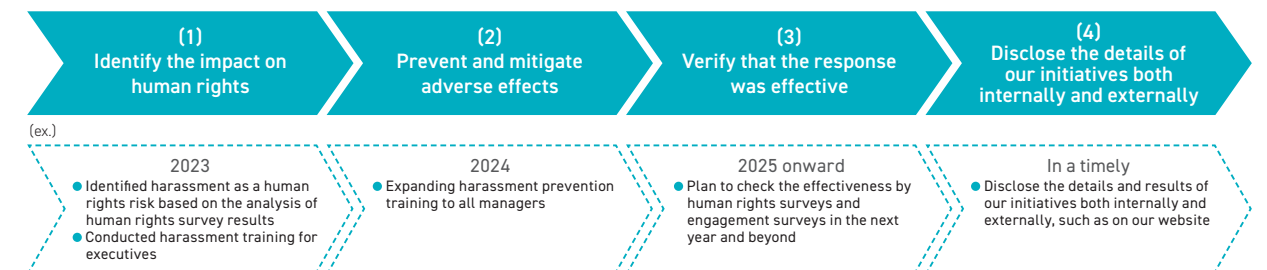


Human Rights Awareness Survey 2023

Resonac formulated the Group human rights policy in 2021 and conducted training and awareness-raising activities, then conducted the first human rights awareness survey for employees in 2023 globally. As a result, it was found that awareness of human rights initiatives and positive sentiment among employees tended to be high in general. However, the issues listed on the right were identified as human rights issues. With regards to harassment, we will expand the scope of training to all managers in 2024.

- There is room for further instilling the human rights policy and the need to respect human rights among employees.
- Although awareness of our whistleblower system is increasing, there is room for improvement in eliminating concerns about anonymity and the disadvantageous treatment of whistleblowers [P107/Compliance](#)
- Identify potential and existing harassment risks as human rights issues

Human Rights Due Diligence Process for Harassment



Human Rights Due Diligence in the Supply Chain

In order to identify human rights issues outside the Group, we believe it is necessary to consider the entire value chain—from raw material procurement, product design and development to production, sales, collection and disposal. We will remain aware of the unique context of a chemical company, including environmental risks and occupational safety, and will prioritize our responses based on their impact on stakeholders and the severity of the impact.

Please visit our website for more details on our policies, promotion system, and activities.



Compliance

Mission

Thorough implementation of soft-law-based compliance going beyond legal and regulatory compliance is the key principle for business continuity. We will gain the trust of international society and people involved in our business activities through thorough compliance.

Strategy for Realizing the Long-Term Vision

Issues to be addressed

- Foster a sense of ownership for a wide range of compliance areas among the management team and employees
- Further entrench and implement the Code of Conduct among employees
- Autonomous operation of Global Compliance Standards (GCS)
- Accelerate our response to whistleblower reports and foster trust from users

Non-financial KPIs

- Incultation of Our Code of Conduct
- Penetration of Global Compliance Standards (GCS)
- Increase in number of whistleblowing reports

[P85/Non-financial KPI Targets and Results](#)

Vision for the future (2030)

- Each organization in the group acts autonomously toward compliance

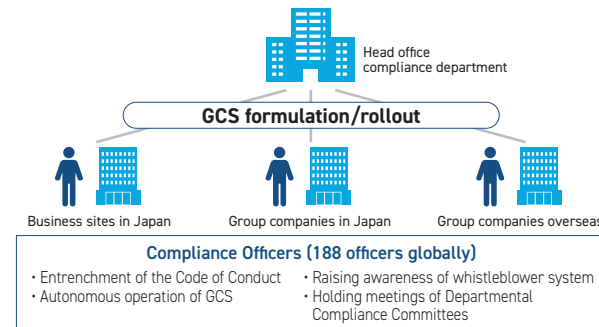
Results in 2023

- In Corporate Ethics Month, implemented e-learning and workplace discussion regarding our Code of Conduct
- Introduced GCS and related regulations to each organization, overseas bases, and major Group companies in Japan and abroad
- Assigned compliance officers to overseas bases and major Group companies in Japan and abroad, and began holding quarterly meetings of the Group Compliance Committee and Departmental Compliance Committees
- Increased in number of reports as the whistleblowing system penetrated more deeply

Plans for 2024

- Start sharing information with the management team and the entire company regarding compliance matters of the Company (response after whistleblowing and various incidents, efforts to prevent recurrence, etc.)
- Translate "Our Code of Conduct" into 14 languages to promote understanding in native languages of employees
- Start compliance self-audits in each organization
- Accelerate coordination and response with related departments, having thoroughly ensured the anonymity of whistleblowers
- Share compliance matters and stimulate discussion aimed at preventing recurrence in quarterly meetings of the Compliance Committee

Assignment of compliance managers



Actual compliance matters are wide-ranging, from manufacturing related matters such as quality and products, to sales relate matters such as Competition Law and preventing corruption, to workplace issues such as harassment. We are fostering common understanding of compliance, promoting coordination between departments to reduce occurrence of issues to zero, and making opportunities for information sharing and discussion on each level.

Number of whistleblowing reports

Breakdown of whistleblower reports in 2023	Number of reports
Sexual harassment, power harassment, etc.	30
Compliance violations	10
Labor relations and other matters	57
Total	97



Topics

Compliance with Competition Law

In regard to compliance with competition laws in each country, we appropriately control cartel risk in our daily operations by implementing "Rules for Interactions with Competitors." Every year we hold a "Competition Law Compliance Hearing" in which we conduct a voluntary audit of our law-compliant business, and report the results to the CSuO and CRO. With regard to the former Hitachi Chemical cartel problem which received judgment in 2016, we submitted a

report to the DOJ (U.S. Department of Justice) about the Company's measures to prevent recurrence during the probation period from 2017 to 2021 under the U.S. plea agreement, and we received a notice of completion from the Probation Office in June 2021.

Please visit our website for more details on our policies, promotion system, and activities.



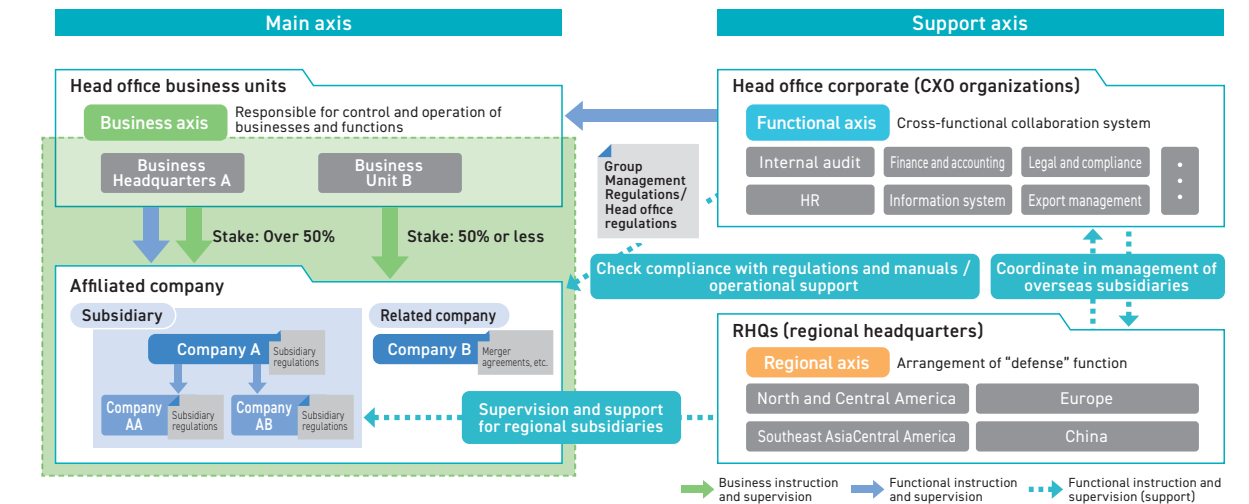
Enhancement of the Group Management System – (RHQ [Regional Headquarters] Functional Design Initiatives)

Basic Approach to Group Management

We have established the "Rules on Group Management" as a basic policy for the management of affiliated companies, which is to be followed for maintaining control over the entire Group. Under this policy, CXO organizations have established regulations and manuals that define the rules and business operations related to each function. While business units are responsible for the control and the operation of affiliated companies under their supervision, we have also established a system that enables CXO organizations to check compliance with regulations and manuals and support operations in a cross-functional manner. As part of these efforts, we established regional headquarters (RHQ) functions in North and Central America, Europe, Southeast Asia, and China, and positioned

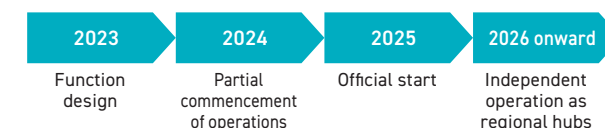
them as the cornerstone of overseas subsidiary management. Through activities conducted by RHQs in cooperation with the head office, we will strengthen global governance by understanding the laws, regulations, and business practices of each country and region, and grasping and responding to them in a timely and comprehensive manner. At the same time, we are working to grasp the operational status of affiliated companies, establish a system for early risk detection, define the roles of directors and auditors of affiliated companies, and share information with the Internal Audit Department, among other measures. Through these efforts, we aim to stabilize the Group's management foundation.

Framework for managing affiliate companies



Roadmap for designing RHQ functions

In 2023, we built the common understanding between the CXO organizations and RHQs, adjusted the number of required personnel, and formulated a framework for recouping RHQ costs in preparation for the operation of RHQ functions in 2024 onward. After examining these measures, we started operation in January 2024, focusing on functions related to "defense." In 2024, some of the high-priority functions will be put into operation in the three regions other than China. We will then work to monitor the operation status of these RHQs and establish a management system for activity records. We aim to officially launch the four-region structure in 2025, and to have the RHQs function operate independently as regional hubs in 2026 and beyond.



Topics

Global Kickoff Meeting 2024

We hold "Global Kickoff Meeting" every year. In 2024, a total of 191 executives from the head office and representatives of major group companies from 15 countries world-wide attended the meeting to deepen their understanding of the current priority issues faced by the entire Group.

Additionally, interactive sessions among the participants fostered lively discussions and networking, enhancing the sense of unity among the Group.

